>YP\_002345096.1 Holliday junction resolvase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLKILGIDPGSRNCGYAIIEADKGKNILIEAGLIKIKPSTLQYQITELCEGLDLIFKNHSFDEVAIEDI

FFAYNPKTVLKLAQFRGALSLKILQIHGDFAEYTPLQVKKAVTGKAKATKEQVAFMVKRLLGLSKDIKPL

DITDAIAVALTHAANLRVRV

>YP\_002345095.1 flagellar hook protein FlgE [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRSLWSGVSGLQAHQVAMDVEGNNISNVNTTGFKYSRADFGTMFSQTVKIATAPTDGRGGSNPLQIGLG

VSVSSTTRIHSQGSVQTTDKNTDVAINGDGFFMVSDDGGLTNYLTRSGDFKLDAYGNFVNNAGFVVQGWN

INWDDQTIDSSRTPQNIFIDPGMHIPAAKSTEVAIKANLNSGLNIGTSSRNLYALDSVHGWNTKTQRAED

ENDTGTTQFYTTSKNSVEVTEKGVDAGSLFNAKGQGLNLRDGQGIWVSYADATYSTNKVGVNAFDPNLQQ

NQTAAFWGTANQKVNLDITLNGVRIQNADIQSIDDAIAYINTFTAPTDTRDGTGVKAVKNKDGSGIDFVN

DNADGTTDNMKNINLVVANTNTAGELWNAVWNNNNQTFTFNNNGNGQAGTPTINKNGSSLWTATNITFTP

QPPQAATNVQLTGGLNAQIITAHKYIYSSNPVDIGPMYNPDGGPAFQPGANATTRPTEPGSAAYWDAVNG

GLLNTNVRTFRTTEDLRELLQRDARYGVDYDGSGTFAAADINQNIKVVVTADGHFAISNANEQSTVPPNA

INGVGNATTTDPKNMSFNITAYSNKQGTVSTNDAFTAIFKAFDGPLVIGNQIKESEQLKLSAFSAGLEIY

DSLGSKHTLEVQFVKQSTTQDGGNEWQMIIRVPEPAEINTTGEGPNNIIVGTARFNNDGSLASYTPRTIN

FSPNNGAAPNQQIKLSFGTSGSNDGLVSSNSASTLTGQATDGYTSGNLKPDAIRVDDKGNILGEFTNGKT

FAVAKIAMASVANNSGLEEIGGNLFKVTANSGNIVVGEAGTGGRGEMKTSALEMSNVDLSRSLTELIIIQ

RGYQANSKTISTSDQMLQTLIQLKQ

>YP\_002345093.1 O-acetylhomoserine (thiol)-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLAN

VEGGAFGIPVASGMAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEKV

IDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSKYVSGQ

GTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAWL

LLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDYE

HARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQA

IES

>YP\_002345092.1 homoserine O-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPLIIPENIPAYELLKEHAFIMGLRRAKHQDIRPQEILIVNLMPKKIETENQILSLLANSPLQVNITLLA

TTSYVGKNTPFTHLEKFYKGLEEVKKHKFDGAIVTGAPVEQMDFEKVAYWEELLEIFDFLKQNVTSSMYI

CWGAMAALKYFYGVDKISLDKKIFGVYKHDKVSPDLLLTNLDEKVLMPHSRHSSMDEEQILALQKQGKLK

ILLRNKKIGSALLRDEKNIFILGHLEYFKETLHQEYVRDNFIQKAKNYYDKKGNIKYNWRSNANTIFANW

LNYDVYQSTPFVL

>YP\_002345091.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKSIAIIGGSIAGLSAALFFASAKNEELDFDITVFDEGKADLKAAAIYNVPFFPKGAKADEIYTHIKAQ

IASMLEVKYIDSKVVSISGEKGDFTVNDEQGLGIKADYIIVATGANKSDIKELEDFVIPHELMPKPNKFC

FKHHGRQIIKEGIYAAGLASGVTTMVACAMGSANEAACAILSDIKGAVSVYHDTPTTRV

>YP\_002345090.1 7-cyano-7-deazaguanine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRYGEKEIKEFDVENMEIWPNDAKNDYIIKITLPEFMCCCPRSGYPDFATIYLEYMPDKFVVELKAIKLY

INTFMYRNVSHEASINEIYNTLKDKLKPKWIKVVGDFNPRGNVHTVIECRSDMVVPK

>YP\_002345087.1 outer membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKKFLSIIAGIALFSSSAFAEEKSGFFIGADAAYVQTKVQGNLKHNQTGAVFNGDLSSSIPILGLKAGY

RFNDLHRLYLAYNYSDEFSDIIRTPKLKIESDFSTHKFLMGYDFTPKIFERVRAVAGGYLGYAKTNLDLK

TSLLSLSQKFDGFVYGVKIGAIFELGASNEIEAGFKVEKIEYNTRDFYQKAIGSNLYDPRQTNYGLYLGY

TYKF

>YP\_002345086.1 hypothetical protein Cj1720 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKELLEIKKEMEPVIHEANVKLNVLAREVIVRKKEYEIYGPMVDRVYLDNAIYVKVMSSGRDVKTDNVT

IKNGFYMVFVAPEKESTKDIKNKLKVAYEGLDNKFIATLIRSCQRFKEIINKTQATLAKASKMNVVVKTN

LGEASAALKFNITIEYTKENQKLTRENSKSAGSFRDTKTYINLVVEKNTDSQICEKLLDDVEKYFIGGG

>YP\_002345085.1 2-isopropylmalate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKDNKIIIFDTTLRDGEQALGSSLGINQKLQIALALENLGVDVIEAGFPVSSQGDFKAVQKIASKVKNST

ICALSRALDKDIDMAYEALKVAKHFRIHTFIATSTLHMQDKLKKDFDEILSMAKRAIIRARSYTDDVEFS

CEDAGRTPIDNLCFMVENAIKAGAKTINIPDTVGYTLPSEFANIIKILFNKVPNIDKAIISVHCHNDLGM

ATGNSLSAILQGARQIECTINGLGERAGNCALEEVVMAIKTRKDYLKGFYTDIKCENIFKTSKLVSAITN

ESIPSHKAIVGSNAFSHSSGIHQDGVLKNRQTYEIISPSAIGIHENRMLMTARSGRAMIKTCLENLGYDE

NTYNLDDVYERFLRLADKKGQVYDYDLEALMFLSYESEEENEFVLEKLSVISGNIPTACVCMRIKEELKT

EACTGNGPVEAVFNCIARITNLKPALKAYSINAKSSGVDAQGQVDVDLEFKGRKFHGKGLSTDVIEASAQ

AFVSAYNAIYRSLKVEERKMA

>YP\_002345084.1 3-isopropylmalate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTYKVAVLAGDGIGPLVMKEALKILTFIAQKYNFSFEFNEAKIGGASIDAYGVALSDETLKLCEQSDAI

LFGSVGGPKWDNLPIDQRPERASLLPLRKHFNLFANLRPCKIYESLTHASPLKNEIIQKGVDILCVRELT

GGIYFGKQDLGKESAYDTEIYTKKEIERIARIAFESARIRKKKVHLIDKANVLASSILWREVVANVAKDY

QDINLEYMYVDNAAMQIVKNPSIFDVMLCSNLFGDILSDELAAINGSLGLLSSASLNDKGFGLYEPAGGS

APDIAHLNIANPIAQILSAALMLKYSFKEEQAAQDIENAISLALAQGKMTKDLNAKSYLNTDEMGDCILE

ILKENDNG

>YP\_002345083.1 3-isopropylmalate dehydratase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTMAKTLYEKVFDAHVVYEGKNELPILYIDRHLIHEVTSPQAFSGLKMAKRRMARADLTLATIDHDVSTK

SMDLNACSDMAKEQITTLMQNTKEFGVRLLGLGDKNQGIVHIVGPELGFTLPGVTLVCGDSHTATHGAFG

ALAFGIGTSEVEHVMATQTLKQAKLKTMKIECKGQFQKGVYTKDLILYLIAQYGTAKGTGYAIEFCGELI

RNLSMEARMTLCNMAIEFGAKVGMIAPDEITFEYIKGKEFAPKGEEFQKYCEYWKSLRSDEGAKYDASIT

LDVSKIKPQISYGTNPSQVIGIDEKIPKISDFKNQSEQKSLLDALYYVNLEQDQVIEGVKIDIVFIGSCT

NGRLEDLKIAADILKGRKIHKNVKALIVPGSMQVRKEAENLGLDKIFIEAGCEWRYAGCSMCLGMNDDKA

NSGQRVASTSNRNFVGRQGKGSITHLMSPASAAACAIEGVICDNRKYLGV

>YP\_002345082.1 3-isopropylmalate dehydratase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKFIIHKGIACPLEYANIDTDQIIPKQFLLAVSKQGFGKHLFHDLRYLDDKESVLNMDFNLNKKEYQNS

SILVSFENFGSGSSREHAPWALVDYGIRAIIAPSFADIFKNNALGNGLLTIELAKDEVLEIVDELKKSQD

KNIEISLLEKRVFFKDKIFSFDLDDFHRICLLEGLDNIALTLKHEAQIKAYEKNSKSFLV

>YP\_002345081.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNTIIQKAVNKDLNSILEITKDALNAMKTMNFHQWDENYPNEIVFQEDIQAQELYVFKENDEILGFICI

NEKFKPEFYKQVIFNKNYDDKAFYLHRLAVKQNAKGKGVAQKLLNFCENFALENHKASLRADTHSKNFPM

NSLFKKLDFNFCGNFDIPNYQDPFLAYEKILNQKAF

>YP\_002345080.1 hypothetical protein Cj1714 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTMLDIFEIIFITTVVIIGFGGIVFVVTKEKK

>YP\_002345079.1 dual-specificity RNA methyltransferase RlmN [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKELVNILDFLPEELGEKIKPMFRVKQIYQWIYQKYANNFSDMSSLPKDLRLELARNFHFSPVKCVKNEQ

SKDGSIKYLFELIDGLRVESVLLPMKEEKIDAEGKRISHARYTICVSSQVGCKSGCSFCLTAKGGLKRNL

SAGEIVGQILWIKKQNNIPYERRVNIVYMGMGEPLDNLKNVSKAVKILAQNEGLAISPRRQTISTSGLAK

QIKELGQMNLGVLLAISLHAVNDELRTELMPINKAYNIAAIMDAVREFPIDQRKRVMFEYLLIDGINDKL

EHAKELVKLLNGIKAKVNLILFNPHEGSLYKRPSLENAIKFQDLLSNKGVTCTIRESKGLDISAACGQLK

ERAKEQ

>YP\_002345078.1 hypothetical protein Cj1712 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIICAGGNENFSFAKAIGIGLVESAFHLSQLCFKEKPSKLIFIGTCGLYDKGEILEIYRSSHAFNVEFSK

ISHAFYTPAKYEICLEKENVSRETIKINSSNYICQNSKAAKEFSKLGFFAENMEAFSVLSVAKNLNIDAE

CILCATNFCNENAHEDFIKNHQKAKENLEEYLKKYHYI

>YP\_002345077.1 rRNA small subunit methyltransferase A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKAKKQYGQNFLIDKSVLAKIIQAIPKEMNNIIEIGPGLGDLTQELLKISQVKAYEIDNDLIPILKKKF

QKELECGKFNLIHQDASEAFNPSLDEKPYFLVANLPYYVASHIILKALEDKNCLGLIVMAQREMAEKFCA

KEGNSEFSSLGVLSAMICERKILFDVDPQCFNPPPKVMSAVMSLIKTKDFDELCEIENFKNFLKDCFKAP

RKQLLGNLKTYKAKVLEVLSTLGLKENIRPHEICVDLYLKIYDKLKDEYGRKQRDK

>YP\_002345076.1 metallo-beta-lactamase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNMDENKEINKNEQNPNSNSKNNKRYKYKNRRKKLADSLQNENDTPKIDQNSNKENSENSENKTEKKKKK

NRNLPSKLTGNEDWQIALAECIEANRISHENRLHPLKYNNSSEHKIRITPLGGLGEIGGNISVFETNKDA

IIVDIGMSFPDGTMHGVDIIIPDFDYVRKIKDKIRGIVITHAHEDHIGAVPYFFKEFQFPIYATPLALGM

ISNKFEEHGLKAERKWFRPVEKRRVYEIGEFDIEWIHITHSIIDASALAIKTKAGTIIHTGDFKIDQTPI

DGYPTDLGRLAHYGEEGVLCLLSDSTNSYKEGYTKSESSVGPTFDQIFARTKGRVIMSTFSSNIHRVYQA

ITYGLKYGRKVCVIGRSMERNLYTTMELGYIKLDRKIFIDADEVSKYKDNEVLIVTTGSQGETMSALYRM

ATDEHKFIKIKPTDQVIISAKAIPGNEASVSAVLDYLLKAGAKVAYQEFSEIHVSGHASIEEQKLMLTLT

KPKFFLPVHGEYNHITKHKETAMKCGIPERNIYLMSDGDQVELCQKYVKRIKTVKTGKVFVDNQINKQIA

DDVVIDRQKLADSGIVVIIAQIDKATKTLINKPRVFSYGLVADKHDHAFSKDMAEVLGQFFINVKDEVLN

DPRFLENQIRQVLRKHIFRKIKKYPTIVPTIFVM

>YP\_002345075.1 pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRINKFISHNTRYSRREADELIKQGLVKINNKIALLSDEVKFDDKVFVKGKRVQKRTQFSVIIYHKQKGE

IVSKKDDRGRKTIYDTLPRQFSTWLSVGRLDYASEGLLLLTDSPVIADALMHSDLEREYYLKVKGTVSKQ

VIEAMQNGLEIKNEKKGAHAKTKITSMSFAPFIDFEIFGSSGGYTKLRVVINEGKNRELRRFFGHFDLEV

MDLKRVAFGALDLGMLKAGKHRYLENGEYEKLRDFLKFNEIRY

>YP\_002345074.1 30S ribosomal protein S10 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MERIRLKLKAYDHRVLDRTVAAIVEAVKRTGADIRGPIPMPTKIKRYTVLKSPHINKDSREQFEIRIHAR

MLDIVAATPDTVDSLTKLDLAPEVSVEVRAMGK

>YP\_002345073.1 50S ribosomal protein L3 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEYIVEKIGMSRTITNPSIAVTLLRVVNAKVCEVEGGKALVAYPKGKASNKCVAGQQKKYNLSAEYNRFA

TLEVANTEAGDLDETPLNEAKILKVSFNTKGRGYSGVMKRHNFAGGPASHGSRFHRRHGSIGNREWPGRV

QPGMKMAGHYGNTKVTIKNEVVSYDAENKILVVKGAVPGYNGAMGKIRIAK

>YP\_002345072.1 50S ribosomal protein L4 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKVVVLNDKLEKAGELDLPSKYAEVNPHNLYLYVKSYLASLRANTAHTKGRSDVSGGGKKPWRQKGRGG

ARAGSTRTNVWVGGAVAFGPTNERNYFQKVNKKQKRLALERALADKAAKGVLFTADSLAIESGKTKDANA

VIKKLGVKDALIVKDLLDEKTLLAYRNLANCYVVDVTEVNAYLVSVFNAVIMEKSVLESITKEG

>YP\_002345071.1 50S ribosomal protein L23 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MADITDIKTILYTEKSLNLQEQGVVVIQTSPKMTKTGLKAVLKEYFGVTPKSINSLRMDGKIKRFRGRLG

QRNNYKKFYVKLPEGVSLENTEA

>YP\_002345070.1 50S ribosomal protein L2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAIKTYKPYTPSRRYITGLSSEDITAKPSVRSLLVKLPAHAGRNSYGRITSRHKEAGAKKLYRIIDFKRR

KFGIEGKVEAIEYDPYRNCRIALIAYKDGEKRYILQPRGLSVGDIVAAAESGLDIKPGNAMKLKNIPVGT

IVHNVELKPGKGGQMIRSAGAYAQLMGKEEKYVILRLASGEMRQVLAECMASIGEVGNEEWANVTIGKAG

RNRHRGIRPQTRGSAMNPVDHPHGGGEGKKNSGRHPVTPWGKPTKGAKTRRKKASDKLIISRRKGK

>YP\_002345069.1 30S ribosomal protein S19 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARSLKKGPFVDDHVMKKVIAAKKANDNKPIKTWSRRSTITPDMIGLTFNVHNGKSFIPVYITENHIGYK

LGEFAPTRTFKGHKGSVQKKIGK

>YP\_002345068.1 50S ribosomal protein L22 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKALIKFIRLSPTKARLIAREVQGMNAELAMASLKFMPNKGAKYIANAISSAVANGGFEANEVIVKSCR

VDAAAVLKRFRPRARGSASRIRKPTSHILVEVAKAEVKSEEKKTVAKKTTTTKAPAKKTTSTKKATVKKE

S

>YP\_002345067.1 30S ribosomal protein S3 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGQKVNPIGLRLGINRNWESRWFPTKANLVENIGEDYKIRAFLKRKLYYAGISQILVERTAKKLRVTVVA

ARPGIIIGKKGSDVDNLRKELQDLIGKDVNINIKEERKAGASAQLAAESVATQLEKRIAFRRAMKKVIQG

AQKAGAKGIKVSVSGRLGGAEMARTEWYLEGRVPLHTLRAKIDYGFAEARTTYGNIGVKVWIFKGEVLHK

GMQPEKTEESAPAKKPRRTRRGK

>YP\_002345066.1 50S ribosomal protein L16 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLMPKRTKYRKMMKGRNRGYANRGTEFTFGEFALKATEAGRINSRQIEAARIALTRFVKRQGKTWIRVFP

DKPLTKKPLETRMGKGKGAVEEWVMNIKPGRIIYEMAGVSEEMAREALTLAMHKLPFKTKFVTRESQNEI

Y

>YP\_002345065.1 50S ribosomal protein L29 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYTEIKDKTAAELATMLKEKKVLLFTLKQKLKTMQLTNPKEISQVKKDIARINTAINALR

>YP\_002345064.1 30S ribosomal protein S17 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAFKREIQGVVVKIAGEKTASVLVERKVVHPRYRKIVKRFKKYLIHDERNEVKVGDTVVAVECRPLSKRK

SFRLKSVLATGVE

>YP\_002345063.1 50S ribosomal protein L14 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIQSFTRLAVADNSGAKELMCIKVLGGSKRRYATVGDVIVASVKKALPNGKVKKGQVVKAVIVRTKKEIH

RDNGSLIRFDENAAVILDNKREPIGTRIFGPVGREVRYGGFMKIVSLAPEVL

>YP\_002345062.1 50S ribosomal protein L24 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAVKLKIKKGDSVKVITGDDKGKTGKVLAVYPKTLKVVVEGCKIAKKAIKPSEKNPNGGFINKEMPMDIS

NVAKVQE

>YP\_002345061.1 50S ribosomal protein L5 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRLKEKYNQSIKPALVKEFDIKNPMLIPVIEKVVISVGAGELAKDQKVLQNVADTISLIAGQKAVITKA

KKSVAGFKVREGFPVGVMVTLRKENMYAFLDKLISIALPRVKDFRGLSRDGFDGRGNYNFGLDEQLMFPE

VEYDKILRTHGMNISIVTTAQNDKQAQKLLELIGVPFTKGK

>YP\_002345060.1 30S ribosomal protein S14 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKSMIAKAARKPKFKVRAYTRCQICGRPHSVYRDFGICRVCLRKMGNEGLIPGLKKASW

>YP\_002345059.1 30S ribosomal protein S8 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINDIISDSLTRIRNAGMRKLETTKLLHSKVVEALVGIFQAKGYIESFNVIEEDKKKFINVVLKYDEKGK

SVINELKRISKPGRRVYKGKDEIKRFKNGYGTIVVSTSHGVLANDEAYKAGVGGEILCTIW

>YP\_002345058.1 50S ribosomal protein L6 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRIGKQPIAIPAGVEVKLEGNLLKFKKGNLAKELDTKANVNVEIKDNNILFSPKGEDRQSRAYWGTYRA

LAYNIVVGLTQGFSKTLEINGVGYKAALKGKVLELSLGFSHPINYDIPEGIEIVVDKNTIAVKGSDKQVV

GQVAAQIREFRPPEPYKGKGVKYSDERIIRKAGKTSKK

>YP\_002345057.1 50S ribosomal protein L18 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRANVLKRKLTLRIKRKKRIRAKISGCENFPRISVFKSNRTLYIQAIDDVKAVTLAAVDGRKLGVKANKE

GAKKIAAEFAKTLKVKKIEQAVFDRNGYVYHGVIAALAESLRENGIRL

>YP\_002345056.1 30S ribosomal protein S5 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKYNREEFEEVIVDIGRVTKVVKGGRRFRFTALVIVGNRKGLVGVGYGKAKEVPDAIRKAVDDAFKNIV

EVKTKGSTIAHDVEVKYNASRILLKPASEGTGVIAGGSTRPIVELAGIKDILTKSLGSNNSANVVRATIK

ALTMLKG

>YP\_002345055.1 50S ribosomal protein L15 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLTKAAGSTHKTKRIGRGQGSGMGKTATKGGKGQTARKGYNEKRGFEGGQQPLQRRLPKVGFTSKIQKP

YVINVEKITAVKELSEITFESIKSVHKISKSVNKIKLIGASAKDLVSKIKDENISVTGSK

>YP\_002345054.1 protein translocase subunit SecY [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNRALTNKILITLAFLFAYRVLAYVPVPGVNADVIAEFFNNNQNNALGLFNVFSGGAAERFSIISLGIMP

YITASIIMELLAATFPNIGKMKKERDSMQKYMQIIRYATIVITLVQSIGVAIGLQSLHGRGGAGAIMVED

LNMFIALCAISMLAGTMLLMWLGEQITQRGIGNGISLIIFAGIVSGIPRAISGTVGQINSGEMNFLTAFA

IFALILITIGVIIYIELGERRIPISYSRKVVMQNQNKRIMNYIPIKLNLSGVIPPIFASAILMFPTTILQ

TSTNPYLQAINDFLNPNGYLFHVLTFLFVIFFAYFYASIVFNAKDIAENLKKQGGFIPGIRPGEGTSSYL

NEVASRLTLSGSIYLGLVATLPWVLVKFMGVPFHFGGTSVLIVVQVALDTMRKIEAQIYMSKYQTLSAVG

L

>YP\_002345053.1 efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNDKTYKFHPNDTKMDKKIIQITEKSGFKAAVFSMAAMTMLGSVVISSALPAINRHFEELLTQSGATLAS

SFTLAHLDILVRLVLTIPAIFVVILSPFAGILMDKFGKLKFILPAMVVWTLSGISGFFLNDIYAILTSRA

IFGMATAFIMTGASALLGDYYSRGGFNRRENALSLQGFFCAVGGAVFISIAGFVSSYSWRYPFLVYGLGI

LITLMAIIYLFEPRKFKFYNHTKIETKTNYWQFFPIYFIGFFIMVVYYISPTQLPYYIEEHLGLDPKYIG

ISMSVSALCYGFFSLSYRYIIKFLSIKTIYVLTLFIVSCSFLLLFLVDSFFTVLIALALLGMGGGIMLVN

NTAYLFSICPENARSRAYGILASCIFLGQFLSPIISQPIVRQMGLVDAFLIWSIVIFIVCIVFLFLKQKP

RIN

>YP\_002345052.1 DNA topoisomerase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKNLIIVESPAKAKTIGNFLGKDYEVIASKGHIRDLPKSSFGIKIEDDEFIPEYRITSDHSALVKELKS

KAKDAKEVYLATDEDREGEAIAYHIAKAIGKDENTLPRIVFHEITKSAIENALKNPRKLNMHSVNAQQTR

RLLDRIVGYKLSPLLGQKIQRGLSAGRVQSAALKIIVDREKEIRAFVPLEYFSIDMIFQKDLDAELVEFD

KAKIEKLTITNKDRAKLILEACKNEVYSISDIESKERKIAPPPPFMTSTLQQSASNRLGFNPKKTMMIAQ

KLYEGVNTHEGVMGVITYMRTDSLNLAKEAVENARKFIQANFGKDYLPSKANVYTTKTKGAQEAHEAIRP

TNLSFTPEIAAKFLDKDELKLYTLIYNRFLACQMSPAISQTQNVFVKNDRVVFKISGRKILFDGYYKVYG

DMDKDKILPNFKIGQNLKVQNLEMNSHFTEPPSRYSEAGLVKKLESLGIGRPSTYAPTISILTSRDYVTI

DKKQLIPSDVAFNVTEVLEKNFSDIVDSKFTSNLENTLDEIAEDKADWQETLKEFYYPFMRKIEEGKTKI

ASQKTVTKLGESCPDCGGELAIRKGRFGEFVACLNFPKCKYSRNLKSESKNESENTAAKAKANGTGITCP

SCQKGEIVERFSKRGKFYGCSAYPKCNFISKYKPSEEKCEECGETLVIKELKKGTFLECLKCKIKKEMKD

>YP\_002345051.1 biotin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIMLCAISNIASGNCSEDCKYCTQSAHVKTDIQKYRRKELSQIVLEAKMAKKNEALGFCLVTAGLGLDD

EKLEYVCEAAKAVQKEVPNLLLIACNGMASVEQLKELKKAGIFSYNHNLESSKEFFPQICTTHTWESRFQ

TNLNAKEAGLMLCCGGIYGMGESEEDRLSFRKSLQELQPFSTPINFFIANENLKLQVPRLSADEALKIVR

DTKEALPQSVVMVAGGREVVLRERQYEIFQAGAGAIVIGDYLTTKGEEPSQDIIKLKEMGFTFASECH

>YP\_002345050.1 transmembrane transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHQSVIDTQALIDLKILIVIALCLLFSPHIAKILRLPLSATEIILGAIIAHFGFIGKSENFALLANVGFY

YLMFIAGMEVNLRAFFNMDKEIAKKSFFYIFLLYALSSFIVWIFGLSLVFVIIIPVMSVGLLSLLFKDFG

KECYWLNIAMIVATLAEVISIVLLTIAGAFLREGTGIIDVAQSILYLNIFLGLCLLGFKMLGVLFWWYPQ

LKVVLMPWEDKNEKDIRFCMAIFILIIVAMVITKLEIVLGSFIAGSFIATFFDHKKDLEHKLSTFGHGFL

IPIFFIHIGSTFDLKMILDYKIVLQAFLLMFVMVGLRILCASVFLKRIGFKNMILFGLSHSMPLTLLIAT

ATLGYSGKVIDEKLYSALILTALFEAIIVMSMIKFLSNSKK

>YP\_002345049.1 citrate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNSVTITDNRNGKSYEFPIYDGTTGPSVVDMSSFYKQTGMFSYDEGLTSTATCKSKITYIDGENGILMH

RGYPIEWLAENKLYLDVVHLLLYKELPDATRLEAFRYEMKKRSFIHEGMHRLFDSFPDNAHPMAVLQGAV

SSLSAFYPDHLNMNVKEEYMEMAARIVAKIPTIVATAYRYKHGFPMAYPNLDRGFTENFLYMLRTYPYDH

VELKPIEVKALDTVFMLHADHEQNASTSTVRAVGSTHAHPYACIAAGIGALWGHAHGGANEGVIRMLEQI

GSVDRVDEFIKRAKDKNDPFRLMGFGHRVYKNFDPRAKVLKKLRDQLIDELGIDTNLIKVATRIEEIALS

DDYFVQRGLYPNVDFHSGLILKALGIPNEMFATLFVIGRTPGWIAQWIEQKEQESLKIVRPRQLYLGETS

KI

>YP\_002345048.1 3'(2'),5'-bisphosphate nucleotidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNLDKFLEIAINASNQASKAILEERKNFKTWEKEDKSPLTSADLASNKILNDILGSTDIKILSEEKLLS

KEECEELKTFWLIDPLDGTSGFLKGSDEFCVMISLVHDNRPVLSLIQNPSKGDIFYAHAKTKVYKNDKPL

QIDQQEYEKNKYKALLSVNHLSKEDEDFAKEHQLEAINIGSGLKFCAILEARAGVYKRFEKLNIWDIVAG

DFLINQNGGFMGDFSKKYILYNPLSYKSNPFICVSSRNFLQDFL

>YP\_002345047.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKMRYCFILFLSLVLSSNLLANNFSQKKVIKIEKSADSFEVIDLNQNVANPNLNQQKALFDSSTLIEKKS

QITKDKDIDFAIVLTSRKNFGYFLDGFRVSDKEFSTLFAKNLIQSLKLNWVNSAANGIYQSPKTLSYFSP

KDAKLINVSPFLTQEKDKAKMYAKFTDYVVVVNLQDFYVNITNYFITTSKEGVANVNFKIISTSNGKILV

AKNAELNLTLKDQDAKQNYQDIINQMPKMLADVIKNQIFHLKLLN

>YP\_002345046.1 hypothetical protein Cj1679 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDKIHYYYFNANYEKCLNLSEQFLKESPKFALEFATLSSYKLSLFQKALYYAQELFSLNPTSFNGLMLA

KSYIENLRLDEALNLLQTLLTRKDDLEDELKLELAFIYKLSNKLEESEQIFKELLSKDMYNLNLWKNYAE

IYFKHDFTKALNAHEHLCHFMQDLIDKLQKGIIAEQTNLNLVKLEDRLHSKTKENLTISKIEDFLTHQIL

PQKAYLLFKLFRISDSLELFQSLQEANQHHAQFWQNYAKVLEFNSNYQEAYHAYKKCLSLDSHATYQFDL

AYLLMRMGVDDNFEEGKKYYESRLFYAHNETFSTYHYNESLKAFNKFGVDAFKNKEVLVFCEQGFGDTIM

YARCLEKLCKIASKVLFAPQSAMYEMFKNQIKFLNQNDDIFKNVKVLKNLPTNFDYAIPICSLPFFIDIK

LDEILRLKTPILPQKKPHNQRKKLGIFYATPNAENSDLLRNVKFEFLFDVLKDLDYEIISFQMQLKEELP

KVIEDRSKLIKNWNDTLNYLYDIDCMLSIDSAIAHLSLAMDIPTIVLLHPRFDWRWGKFENPKSYFWPKA

KCFIIKEQEETKRNLQKLIKDILN

>YP\_002345045.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNITLTKIPIGEGKEPCLNSKKIVLSLATISFLASCANAKLNSEIKTYDEVNKNVKTRSASVYSPQAKI

NTTINSLHNQQVTITGNGTSNSLTIGSSGTLGSIGNTGKIIYAHANGSNTLTLANLTNNRTINGKIGIEN

NGNFTGTIAVNTFENTGQINGQIYMGIWGNNSGTLNIDKFDNSGTIIDNNKGVFEGKNTNIQTFNNSGFI

SANKGVDIGNIGTIKNFNNNGTIQGSEVGVAINTKIDTFTNNGFINSPGSGQWNNGIWISSNATIEKLVN

NGTIKGGHSAIMVTSQHIKTVENTGIIHAEGEWGSSILLEYGGFIEHIINTGTISNNNVGIGSAYGVFGT

LTIKDGGMVYGKYSAIGVGRSQTLGDLYIDGRSNNGTVSGIYSEEHGILLENNSRTQKIELKNGGIIKGN

IDGIRLINSASLSGEMILSGEGSRVEGGRGVGILNRSGKIEGSIKVEDGATVTATSNRAIANSGSGSITG

GITVSGKNTKLEGNIINTGNASIGSDIKIEGGAKVEGGLVNQGNGSISGSVQVSGGSSIDSITNEGNGAI

SGSITVYKDSKLDSITNTSTSSTGISGSITNNSDNKLEISNSGNIGGKIESTGSADMVISNSNGGTISGG

ISSSGSGSTSISNSQGSTINNGITVSGSAQVEISNQGSVGKDENGNTVTNNGSGSVGIKDWLVSTDKNTG

KLNTVVIGGSRAFNVKVENITVDQSNVDLEELNDINNIISGVNQNNIGNIGTNGSGEISLSFDPITGKLT

TDFNLNASISGATFRSLISTTSRRSTFIDNVMGNSMQSFALASSSKSQSIAMSEKGNLYADASDYIKSDL

NNGSYGSNKEHSLFILPYTSSQNVELSLNEESKGHTKGTIIGYSTLKDSGIYGVYAGYEDTKMGSTYFDI

NNRTYYAGLKYFNTLFTTEKGQEVYIKAQGKAALIKNDLTEKIGNNEAKAEPNSYAYGVNTALGMNFISN

KDIFSPEIGLAYEGGYTEAFSMKDTIGQATVKGGERTYANYLNLFSTKTSLTWFRDWLPNLKTSVELGAK

FNINPKVEAEARFGNIKVSDEFDLPRVQKFVSTSFIVPVNEAFYFSLNYNGMFDKDGNTHTGFAQFNYLW

>YP\_002345044.1 UDP-N-acetylenolpyruvoylglucosamine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIIDFKKYSSVRIGNEFEVLVLDQICDFDGFLIGGANNLLVSPKPKNIGILGDGFNFIQILDRNKDFIHL

RIGCKTKSSKMYRFAKENNLKGFEYLSKIPGTLGGLLKMNAGLKGECISQNLIKIATSQGEILRANINFD

YRFCPLNTHFFWAEFKLNFGFDTLKDEALKNARSNQPSGASFGSIFKNPKNDFAGRLIEAVGLKGFSKGD

AMLSDKHANFLINKKNASFEDAFFLIELARKKVFEEFGTNLENEVIII

>YP\_002345043.1 flagellar biosynthesis protein FliQ [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDESTLVALGVQTFKITLLLSLPMLLAGLIAGLVISIFQATTQINEMTLSFVPKIILVVVILIFLMPWMT

TTMIDFTENILNQIPTFIK

>YP\_002345042.1 hypothetical protein Cj1674 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKITIAHSPDADDIFMYMAIKFGWIGNDFAYENTALDIQTLNEFALKNEFDATAISFGLYPLIASEYAL

LRTAVSFGEGYGPKLIKKKDTHLKRNFKVALSGANTTNALIFRMKYPEARIIYKNFLDIENAVLSGEVDA

GVLIHESILNFDQSLYVEAELWDIWLEFAKENLPLPLGGMALRRSLPLSDAIKIERDLTNAVKIADANRK

ILAPMLMERKLIRVDEEKLDTYLNLYANKNSISMNQTQLLAVDTLFKLGYDYKFYDKIIHVNDFLIPSEY

EEARNS

>YP\_002345041.1 recombinase A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDDNKRKSLDAALKSLDKTFGKGTILRLGDKEVEQIDSIGTGSVGLDLALGIGGVPKGRIIEIYGPESSG

KTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDLI

VVDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTT

GGNALKFYASVRLDVRKVATLKQNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVK

LDIVDKSGAWFSYKDKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMISGSEDDEGEE

>YP\_002345040.1 enolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLVIEDVRAYEVLDSRGNPTVKAEVTLSDGSVGAAIVPSGASTGSKEALELRDNDERFGGKGVLKAVANV

NETIADEILGLDAFNQTQLDDTLRELDGTNNYSNLGANATLGVSMATARAAAAALGMPLYRYLGGANASI

LPVPMCNIINGGAHANNNVDFQEFMIMPFGFTSFKEALRSVCEIYAILKKELANSGHSTALGDEGGFAPN

LANNTEPIDLLMTCIKKAGYENRVKIALDVASTEFFKDGKYHMEGKAFSSEALIERYVELCAKYPICSIE

DGLAENDFEGWIKLTEKLGNKIQLVGDDLFVTNEDILREGIIKKMANAVLIKPNQIGTITQTMRTVRLAQ

RNNYKCVMSHRSGESEDAFIADFAVALNTGQIKTGALARGERTAKYNRLLEIEFESDEYLGEKL

>YP\_002345039.1 hypothetical protein Cj1671c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFWAFLVVIGAIYFGNMFFGQYSLDTLLSLENTKEELNKKIILLKEQNAKAQKDYFELKGLYPNEN

>YP\_002345038.1 glycoprotein CpgA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTRILAIFFIFTSLLYADENPFKTDQNITLVAPPEFQKEEVKFNSSARILKSITFNYINLDGSEDKIDL

DVNKSIDWHDTYTISRFKSPDPSKVLDVSVTIPEKNSSKQESNSTANVEIPLQVAKIYDFISYAVYKNKI

KLNTSDEMITDFSVGNPSKIVIDFRSKMISPTKNIRLSNSIFKRIDFGSHKGYYRLVIYLDGTYNYNIQK

DATGYMINLL

>YP\_002345037.1 ATP-dependent DNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRFVFLICCACLVFANEILLLSKFDKQDFNSKDFNAYLMSEKLDGVRGIWDGKYLKTRQNYKIKTPDFFT

KNFPPFAIDGELWIARNKFDEISALIRSGDSNLTLWKEVTYNIFDVPNACEEFQISTCTLKNRLAVLEEY

LQKYPSAYIKIISQIPVENQNNLNQFYESIIKNQGEGIVIRKNLSPYEKGRSKNATKLKPYDDAECELVG

FRKGKGKFENQVGALLCKMPNGQIIKIGSGLKDEDRKNPPKIGSIVTYKFNGLTKNSLPRFPVFLRIRDE

NP

>YP\_002345036.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLGLVLAVLVALNVSAFADLIVINKKDLVPVSASEMQNKYFQESIKSTLTEPLFKKATFYEADIVAKV

DPRTYNSTQAIIQKEYSDKSNYVYYKQVLILTSDGKRARLSTLSCEIASFDKKGYLCGGTADHNYSIK

>YP\_002345034.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKTILTILFLLTLTQAKEIQIYESPTCGCCDLWADYMKAKGYEVSVHKTNDFLKIKEKMGIKDEYQSCH

TGVIEGYAIEGHVPESAIAWLLENKPKDVIGISAPGMPQGSPGMEQGYSEKYPVILMKKDGSYELYGYFI

GDKKL

>YP\_002345033.1 lipoprotein thiredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGIFRIQAYFFALIIALFFVACDSGENFKALNSDKTYNFAYNGFEKSLKLNDKAQNFALVFFTKDCGVCK

EQIPILQNLAKNYDFNIFVVLGDANDANDAKAWADEKGLSNLAMFYEKRAAKYLSSAIGEIYGVPVLSFF

KEGKMDEKFIGLTPYSILEKEIKKVKS

>YP\_002345032.1 thiredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKSLLILSILFLLNACSFENSKDTGKVGEKSAEISAKDTLGKAVKLADDNTSLKVLVFFQNGCPSCLKE

LPSLDEFIQNHPNKISVYAINSIDNANVVKVLAEQFDFKNVKVLKDDLKITNDRYAVFATPTTIIIKDGM

IKDRILGEKPWEFFESKLISLL

>YP\_002345031.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKKELIKINNLNKEFGKVKALNNINLSVYEGEWLAIMGPSGSGKSTLLNILSLMDTPSSGEYILDNENL

EQMDEEQKITLRREKIGLVFQQFHLIPYLNALENVMLSQYYHSSVDEEDAKMVLEKVGLSHRLTHLPSQL

SGGEQQRVCIARALINNPELLLADEPTGNLDEANEQIVLQTLQKLKNEGKTIVLITHNPDLAKFADRTLI

LQHGVLK

>YP\_002345030.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVDKFFLNELFKSISFSYQRLFIIVLSVFIGALTCSAFLNIYFDIDIKLSKELKAYGANVMISPKQDENF

ISNTEYEKIKENLKARALTPFLYDFLNLGSTSGVVLGTDFRALKITKPFLEVKEGSFSLNDFDENSAFLG

VNLAKQLGLKAGNELQIYNPNNGKSIKLTIKGILSSNDEFDSIVLAPLSVVQNLSDRAGINYANAVVYGN

FDEVKAKTQAISNEFIDAKPISSVSLSEGLVLGKIKALMFLIILVVLIIVTTSVNTTLSSIIFSRKKEIA

LRLALGAKKSEIFKLFASECFIVSFFASLIGAFCGIFLANVFGYLIFNSSIDFRFIAVFIALIISLIFAF

LAAFFPIKRALKINVCENLKGE

>YP\_002345029.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMLAKMIFNSIFKNKIQKFLAFLTCFLATLLLSTMLNITLSIGDEVTKQLKSYGSNILVLPKGSSLSIEI

GNELYEPLKNKNYLEEKNLYMIKDIYWRNNITALAPFLEGKITIENSQQKALIYGAYFQKAIKIKDDDDF

ITGIKSLYPYLAVQGEWAKDDSNEIMLGEDFAKNNKLKLGDTIKFIGENNQSKEAKIVGILLHANPKMSN

KIIAPLNLAQDLLNKQGLYSSTEVRAFTIPESALSEKVRRMGEEKLDQLEYDKWYCSAYVGSIASQISDG

LPGADAKALNAISDAQSLVVKKIQSLMGITCIICLIVASIAISSLMSSEIHRRKKEIGLLKVLGANTFQI

YLIFASENLIVALFAALLGFIFGTALSQIISLSIFGYFIDIAFVALPLSFIFAGLIALLGCLLPIKNITQ

LSAAGVLYGR

>YP\_002345028.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSIYFVHFLISVLPLSILMAFITPNKKYIFKSFFVVFLGFLFGYFAFFIAAQFLKTENLIFNFDFVFIGL

LLVSFIFYFWKKIEILNFILLGILSFCTALHYYFLSQDFPIFTSSLIDSEGISSLGFIALALLVCILIFF

FLKWQKNFNQKTSFMLFLLLILIESDKALANILLTLMRNSIIETHAFLVSFVGKSNYFGVFGIYVYLIFI

TFLAFLSLKIRKKNISKKQILDINYRKNEAKTSLINRYFSSVFISCVVSFCIVLYFFMVSSKPLTIDEPK

EILPDKNGKFIFDIALLRDNKLHRFAYISAEGKVIRFFLINKREDKDSPVAVFDACMICGDMGYIKKDGQ

LICISCNVRIFLPSVGKSGGCNPIPLKYEYDGNKITIDVKDVIAGSNYFSQIKEIEVQDPVSKTKVINTQ

APFSYSYKGVTYYFSNQNNYEEFKKDPTKYVEENEAQFLIQRRNDVG

>YP\_002345027.1 hypothetical protein Cj1659 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKKVLSVVAAAAVISTNLFAGEVPIGDPKELNGMEIAAVYLQPIEMEPRGIDLAASLADIHLEADIHAL

KNNPNGFPEGFWMPYLTIAYELKNTDTGAIKRGTLMPMVADDGPHYGANIAMEKDKKGGFGVGNYELTFY

ISNPEKQGFGRHVDEETGVGKWFEPFKVDYKFKYTGTPK

>YP\_002345026.1 iron permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIFKIIFLIISIFLSSSAFARVDDYINEANLIKDMLKQSIETYKKGDNLGAKKLSEDAYFQHFENMEGS

IGRNIGRKAITMERKFVNLRRMYKDEAPLTQINALIDSLYYDLDEVAPILQNGYRLKAEASDINYDKAKA

EKSSLEANAKREADAEALIAQMMGVDKKDLAQSSLTTQAPIPINNDTSKLTDDNASTDLQAAAAMDVRLQ

FILDNISTKFSQAANAFKEKNYQTSKDFLNDALFSDYRNTKVEILVNKFTKAGNDQKIQQAIRTLIRQIN

DAKIDEKGLRDGLDNIEEQIFDVFLQIPNSELSSLQISGFNDETKGKDYAKVSNDIKLALDEILKNYDGF

SASIVDDLQGIYLDIFEASGMENKIGAVDSGLKLKIESLFSKSVALIKASTDKKELEATFNDLEQLIASS

VDKIQDSTPYSLFIWALGIILREGLEALIIVVAIVSYLVQSGNKNRLNIAYSALFTGVILSFVTAFGVSW

LFKENAGQSRELIEGITMLIAVLLLFYVGFWLLSNAQNKKWTSFIKQGAIDAISNNSAKTLWITVFLAVY

REGAETVLFYQALLFDAKTSTDFGAVFGGLGLGILILIVLYFLLKAGAIRIPVKQFFYITSYIIFYMVFV

FTGKGIAELIEGKVIIPSLIPMNFEPILWLGIYPYYETLIPQFIVLIMLIIGILITKQISKKGVKS

>YP\_002345025.1 hypothetical protein Cj1656c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVSDVSMGNVNLMTAVNTSVLKKSMDTNEALMNELIEGMEGVSQASAPQASSSSGLDIYA

>YP\_002345024.1 Na(+)/H(+) antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQMIKKMVLSETFPGILLIFFTFLALLCKNSSLSVIYTDFFHANFTVGFDHFQISKSLDLWINDGLIAIF

FLCIGLELKYEILRGQLKNIRAVSLPIFGALGGMITPALIFIAINYSHDFAMKGWAIPTATDIAFAVGIL

MLLGNKIPTSLKLFLLSLAIFDDLGAIVIIALFYTDQLSALAIIICLFCIFALLLLNYYHITHLSLYVLV

GVVLWIAMLKSGVHATLAGVIISLFIPLDTKNKKPYLHEVLKDLNPWVVYFILPLFAFANAGIDIRDMHL

GSVFSPVSLGIILGLFLGKQLGVFTFCFIAIKLKLAKLPENIKYGKFYGICILTGIGFTMSLFIDGLAYK

NSDIFEYADKLAILVASFLSAIVGFIYLKIVK

>YP\_002345023.1 Na(+)/H(+) antiporter NhaA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNIVHKLKTLVLNEAFGGVLLIVCTLLALLVQNGSFSEHYREFLNLKVGFSVGEFELNKPFLLWINDGL

ISIFFFAIGLELKKEFLHGDFKNPKNIVLPFMAALGGILIPAMLFALVNIGDAYTLKGWAIPTATDTAFA

LAILMMCGKHIPSSLKIFLLSLAIFDDVGAILIIAIFYTTKLSIAAFVIAGLAILVMLILNLLGITRKSF

YFICSVILWISVLKSGVHATLAGIVTAFFIPMQTKNGEAFLEEIYESLKFWIAFIILPLFAFANAGVNLS

NIDIGAIFSGVSIGIFLGLFVGKQVGVFLFSYLAIRFKFAALPQGSNLKQLYGVCILTGIGFTMSLFIDG

LAYEVSDIFNYADNLAILIASFCSGIWGFIYLKFFTTRS

>YP\_002345022.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRHIFFIITIIFFISGCSFYQNLNYRPSYNTNKEARLKVIANEWKKTPYVLGGTSKKGADCSGFTQSALA

QLNIRIPRTTKTQLGSGRKVSKSKLQTGDLVFFKTGRGPNGMHVGIYMSKGKFIHLSTKDGVKEVELNSS

YWKARYIGARRY

>YP\_002345021.1 glutamate racemase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDTIIKFCLEALDFFEQFQIDMLIIAC

NTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIATKATIKSEEYQKRLLSQGYTNINAL

ATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLLGRSLSKYFGDKTKLIHSGDAIVEF

LKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>YP\_002345020.1 methionine aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIELKKPDEIEKLRIANQIVAKTLNFLENEIKIGMSLKQIDKMAEDYILSLGAKPSFKGLYGFPGAICTS

LNQVCIHGIPDDKIIKEGDILGLDVGSLIDGYYGDAARTIAIGEVSPADKALISCAKDALYHAIDIIRDG

MRFKELSAALGEFIHVRGFVPLRGYCGHGIGRKPHGEPEILNYLEKGASAKSGPKIKNGMVFCIEPMICQ

KDGTPKHYNGKWDAGSIDGLNAAHYEHCVAVINGRAEILSMI

>YP\_002345019.1 hypothetical protein Cj1650 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSDLDIFKKHLGEIQGVNEFKANQICSQINDANDFIGALQVLDMSLKKIEKSILERIDENSDDMQKRTL

DATASQLIQNCSFMGTALFGNIFNVYVGKKLFEFEIANPLLILQTSNYEGVLAYIQDKRDEIKIILSELS

TAITMGETMDNAGIYNSTMDFKNLFK

>YP\_002345018.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKQLFCILTFIFMLCGCSLRHETINKNENIILKDEGIDSNIFFKKTGKILKIRNANAPLYLNSRAIVYI

DNGFSNKYAHYFWGDLPSNLYSFLILSKFEQSNIFTTLLSSTSSLSADYSLESRINSFEQILNNNENYAQ

ISISVNFINLENNQIIAHKIFNTKEKIEKKDIRSTYNAFQKALNKIGNEIVFWVNSNLS

>YP\_002345017.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENRANYFFVGLFVFGVFFASLGFILWLGGYSKEESFKYYEIHTQESVAGLGIKAPVRLLGVEVGSVEEI

SIYNQDELGVNIRIKVKNNTPIKEDTFATLQLQGITGLKFIQLQGGSKNSKDLVSMQGKLPVIPFKESFL

ATIDRQSEHIFSLVKTADDKSKELLSEKNLKNLEILLQNLAELSANLNANSKNLSLNLSNASLKIGKMAD

NISLSAQNFNSSLKNIKESTMILKNFIKKADEKLNTYDDIKASLMQNLELFKRVLIESNILIENLQNSPA

DLIFKETKPKLGPGEK

>YP\_002345016.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVIKAQNIITKFGEKIVHDGVSFEIKKNEIFGILGGSGSGKSVLLKQMLMLEHFDDGEYEILGYKLKNIN

EEDALALRKKWGVVFQFAALFSFFNVYENIAIPLKEYTHLDENSIQELVLMKLKMVGLNESVLKQFPSEL

SGGMQKRVAIARALALDSKLLFLDEPTSGLDPHSSREFDDLVLELKKSFDLNIILVTHDKESMKNLLDRF

IILENKKVGFCGTYEELRLQNERLFKRFME

>YP\_002345015.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTNFKFQNNTLFIFGIWDKTSIYKLKIKDFLALIQSKEVIFDFKDLKAIDTAGVRFFLALENDLKNKNI

KITKEGLNSRFQTLFELCEKNYQRLGKTKKSHQNFSEYFIDLGKLSLELLKILRKFINFTGAFFTSLFLC

LKNPKNFRFIAFLYHIENSAFKALPIVILTALLVGVVLAYQAAYQLAQFGANIFIVDLMGISATRELAPL

IAAIVIAGRSASSYTAQIGVMKITDEIAAMNTMGFRSFEFIVIPRVMALVVAMPLIVAISDAISIIGGMM

VAKLNLDISFAEFLRRFREAVDIKHIFIGLAKAPIFGFLIGLIACFRGFEVKNTTQSIGIYTTKSVVNAI

FWVIAFDALFSVILTSTGI

>YP\_002345014.1 transketolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNIQILQEQANTLRFLSADMVQKANSGHPGAPLGLADILSVLSYHLKHNPKNPTWLNRDRLVFSGGHASA

LLYSFLHLSGYDLSLEDLKNFRQLHSKTPGHPEISTLGVEIATGPLGQGVANAVGFAMAAKKAQNLLGSD

LIDHKIYCLCGDGDLQEGISYEACSLAGLHKLDNFILIYDSNNISIEGDVGLAFNENVKMRFEAQGFEVL

SINGHDYEEINKALEQAKKSTKPCLIIAKTTIAKGAGELEGSHKSHGAPLGEEVIKKAKEQAGFDPNISF

HIPQASKIRFESAVELGDLEEAKWKDKLEKSAKKELLERLLNPDFNKIAYPDFKGKDLATRDSNGEILNV

LAKNLEGFLGGSADLGPSNKTELHSMGDFVEGKNIHFGIREHAMAAINNAFARYGIFLPFSATFFIFSEY

LKPAARIAALMKIKHFFIFTHDSIGVGEDGPTHQPIEQLSTFRAMPNFLTFRPADGVENVKAWQIALNAD

IPSAFVLSRQKLKALNEPVFGDVKNGAYLLKESKEAKFTLLASGSEVWLCLESANELEKQGFACNVVSMP

CFELFEKQDKAYQERLLKGEVIGVEAAHSNELYKFCHKVYGIESFGESGKDKDVFERFGFSVSKLVNFIL

SK

>YP\_002345013.1 geranyltranstransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLKELFIHHLEKNLPKVESFHPFFNEALALMLKAGGKHFRAQLLLSVVQSNKPELLNQALDVALALEFI

HTYSLIHDDLPAMDNADFRRGIPTLHKSYDETTAILVGDALNTEAFLVLSHAHLKDEIKIKLIKTLAFNA

GLNGMVIGQAIDCFFEDKRLSLNELEFLHTHKTARLIAAALKMGCEICELNNEESNQIYKLGLKLGLIFQ

INDDIIDVTTSQEQSGKPTNNDIHKNSFVNLLGLEQAIKTKENLLSECEQDLEKLNEKLAQMIQNLIIQY

L

>YP\_002345012.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILIICMLFTLSFGIERPKFEDFLAGYERNKASMLNYEGMPAFALSENLLAVLKQPNAKLNKYVKYDP

FLNLYLVRTDFSLIPTPMGDEEKLTRNDWVGIWDPNKPYIGHIKYLAQNIDEKDQLDFNSKIGLLGTPCC

EMMGIALNNSSFIGNRYLKHFMKYNDVYWGDIGVDFVVRENKIYVNNVRKNPQFLINDQVISVDGLPAND

LRKLNEKILFADRGSTLYFQVLRDNMDLNISTEVFAKDLSKFNLPDSKPKPKITNFTSNLGLTVNASLVV

TKIDPKSKVSNAGFMVGDKILRVNNIILNNFKELQNILSAGNDFSILIERKSTKLPLSNFNNELGGNANS

GGDGKFQFFIRLTK

>YP\_002345011.1 nucleoid-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFENMDFSKMGELLNQVQEKAKNIELELANREFSAKSGAGLVKVSANGKGEIIDVSIDDSLLEDKESLQI

LLISAINDVLAMVAQNRSSMANDVLGGFGGMKL

>YP\_002345010.1 UDP-N-acetylmuramoyl-L-alanyl-D-glutamate--2,6-diaminopimelate ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLKLENSFITDNTLECEKECFFLQTTQNAKFHAQALEKGAKIIDVNECKKLLKIDEKIQIIGITGTNGK

TTTAAAIYSILLDLGYKCGLCGTRGAFINDEQIDEKSLTTSPILKTLEYLQIATQKKCDFFIMEVSSHAL

VQNRIEGLNFAAKIFTNITQDHLDFHGTFENYKEAKELFFTDESLKFINKDALAIKFNVRNAFTYGIENP

ALYQIKAYSLEEGISTIVTNKNQTFHIDSPLLGLFNLYNLLVASACVNELVKPDLKDLEKAISGFGGVCG

RVEQVAKGVIVDFAHTPDGIEKVLDTLKNKKLIVVFGAGGDRDKTKRPLMGKIVEHFAKIAIITSDNPRS

EEPKTIMEEILSGFTKKEKVLMIEDRKEAIKKALELKENDDLVVILGKGDETTQEIKGIKYPFSDKVVVN

EILKNQG

>YP\_002345009.1 hypothetical protein Cj1640 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNYKKLGIEHFYKKDFKTAKMYFSMAYEKRKNKRLLNFICLCDLALKSPKEASLLFDFYIEHYKISSID

KDLEEILSTIEFKKQENKQENEFEDGHALNYQDFLKSEEELGFQKSFENIINSTKLVIDNRDDFLDFLEK

LLDNGYKDMTLNYIENVMPHFWANDRFIKLQEKLMGFKSEIKT

>YP\_002345008.1 NifU protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMPFSDEELINPVKASLEKSLPMLERDGGGLEFLGIKNGIVYVHLIGACKGCASSGTTLKYGLERQLKID

IHPEITIINLNGGADEFAKL

>YP\_002345007.1 DNA primase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITKESIENLSQRLNIVDIIENYIEVKKQGSSFVCICPFHADKNPSMHINPIKGFYHCFACKAGGDAFKF

VMDYEKLSFADAVEKVASLSNFTLSYTKEKQENKKELKSILPSLNAYFKDNLKHHKEVLTYLYQRALNDK

DIAKFELGFAGASEDSIRLLQNQKIPLEDAMSVGALKKDENNEFYASFIWRITFPIYDHKDLLVGFGGRT

LNPNVPAKYVNSPQNILFDKSRIFYAFNIAKENIAKKKEIIVCEGYMDAIAFHKAGFNNAVAVLGTALTE

HHLPLIRRYDAKVILCFDNDEAGLKAATRSAFLLSTNKIDGKVAILQGGKDPAELVAKNESTKLHNILDE

GIELGEFYIRRLISTHSIISALDKQKALETIQKFTFNLEPLVANSYTSLVSNLLKVDEKFIVLSQNSKKT

IQTPLISQNKYNFPKEKIHIAELELIAFLKQHPDICNDFKQISDSVCFKHKILLDKILEKKGYEDSDIRE

FESKNIRKNLNYSEFLLGICKVNLAFLNNVKIKNSTLALKKQLFTLIDKNLNLLIKNLNTAELNNFLKEY

LSFLKYEKNEEILQQSFRNLNGIFGNKNFTAYDLGFSIQNNDEPF

>YP\_002345006.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFFFVEYRDPLVGLIILTILVFVVAVANYIWKIFANKDEEQKLEKFIKKFEMDNAHKELLRNSSLSFGN

LSFLAEIFTKSGEFEKATQIYLIALEKCKDKQEREFIFLSLAKVYFKAGFLERAKEVLLQALKLRPRNIQ

ALKLLKIVYLKLRSYKENLELLECLFELNEDVQKERDFIKALELCTFNITDEEKKKKLLEFKIEDNPMLG

RLVFEKYHMFLGQNFFDICDLLYRENEAFNLENQDFLEFFYALGKISKHDDTHQFVFKNSNFKMLKILKD

NSFNAGLEFSYRCSECKNVMPLFFYHCPVCYEFNTCKIIYEVKNNETH

>YP\_002345005.1 ribonuclease H [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKHIEIYTDGSCLNNPGFGGWAYILRYKEYQKEGFGAEANTTNNRMELMAIIESLKALKEPCEISLFTDS

NLMVQSINEWLEGWIKKDFKGKKNIDLWKEYIKVAKSHKIKAFWVKAHNGHLENERCDTLAREAALKIAR

ENDEKH

>YP\_002345004.1 ribonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAVLDLVVGEYLFHKFAKDAEGDLSKL

RAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALEAIIGAIHLEAGFEFAKTIALRLIE

KNFPQIDAKILIKDYKTKLQEITQGKIGQTPQYETVRAFGPDHLKQFEIALMLDGKELARAIAGSKKEAQ

QMAAKIALEKLGAL

>YP\_002345003.1 chorismate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTFGTRLKFTSFGESHGVAVGCIIDGMPAGVKFDEEFLQNELDKRKGGSKFATPRKESDKAQVLSGVFE

GYTTGHPIAIVVFNENAHSKDYDNLKDLFRPAHADFTYFYKYGIRDHRGGGRSSARESVARVAGGAVAAM

LLREFDICVQSGVFGVGTFVSNLKEEEFDFEFAKKSEIFCLDPKLESDFKNEILNARNSKDSVGAAVFTK

VSGMLIGLGEVLYDKLDSKLAHALMGINAVKAVEIGEGINASKMRGSCNNDALKDGKFLSNHSGGILGGI

SNGENLILKTYFKPTPSIFAKQESIDKFGNNLKFELKGRHDPCVGVRGSVVASAMVRLVLADCLLLNASA

NLNNLKNAYGLK

>YP\_002345002.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKALALFSGGLDSMLAMKLITAQGIEVKALNINIGFGSTSDKSEIMKKRAAMVGADFEMIDVRNSYLQEV

LFNPQYGYGKHFNPCIDCHAFMFKTALAMLKEENASFIITGEVLGQRPMSQRSDAMAKVKKLALDEEDLI

LRPMCAKNLPLTKPEREGWVDREKLEGIIGRSRKRQLELAAKFGLEDFESPGGGCLLTLDSFAKKIRDFI

EFDKDMQVNDAQLLKYGRHLRLPNGAKMIIGRNELENTLLKGLKTPKYEAIEIGDLIGAYSLVDEKISEK

DLELALKIALTYTKHEVGKSYELKFKNQAYTSIAFENKADINQFFIS

>YP\_002345001.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKIILVLSILSSFAFANSCANYEQELKKCNSLKNSHERKMCRLGLFAKCKKG

>YP\_002345000.1 hypothetical protein Cj1631c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIDTSASLTHSLTNNVDKKELSVLKKEDQDKIPVQDLSSLNSDGVKVVFENKQGELIALNLSDENYSSL

QKNFGSYMNYVARNDGSIRLNGEVNQFVSNWFESVKDNFGSLNSNLNNKQQSVKLNFNTSTLQQSMQNLG

FKTSDEKISDDANIEEKLNFFIDKDVNKDGKVDDSDVKEPSMREILSDIKEASGGGANAMKTIDPQKINK

KDDKENNIKEKEDEDLLQKAQEKGLSALSADEQAKLEASNPEEFEKLKQKSLQELSQNLSKDFQNKIENQ

EAQIVDKRV

>YP\_002344999.1 TonB transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTLFLNHKYQASYITFIVFIPLLFVIFHSNDFFKMEIKNEDSFSLAIKQFTQTNPTNETKPTESIIEPI

KPKPQPKVIKKTPEKMQKKIKKTPPHPIPNKTPIAPTQEVKTFAKTTDTNVKPKITQLTQGKDNHPVLKE

IQKAIQQAQFYPRQAKKMRMQGTVKVEFLWKENKTLADLKIIEISGYDLLDKSALESIRKASLNFPHYNG

DLRITLPIIYDFKTLRG

>YP\_002344998.1 ExbD/TolR family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKLPKNEGLNIVPFIDIMLVLLAIVLSISTFIAHGKIQISLPSSENATNISNNEKKLLITIDEKNTFYL

NDKLADLNEVQNAIFSLDKKTIVELKSDKNAKFESFVKIIDFLKAKEHENFQILTEKNK

>YP\_002344997.1 ExbB/TolQ family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFLKDYIDLIIFLILGIMAFIAFWCVVERMLFFRKINFKNYENQEQFDDAISENLTTIYIIYSNAPYIG

LLGTVIGIMVTFYEMGLAGNIDVKSIVVGLSLALKATALGLLVAIPALMAYNALLRKVSLLSNAYKANKN

A

>YP\_002344996.1 hypothetical protein Cj1627c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTIDLNHNFTSFVLLDEVDFNFSELKSILEDKFNIKIADENFTKEGVIFSYENMLVTLNLINNPIPNHEV

EYYANFNFMWKDALEQTKKHKAHLLIAVLSQDQSKLEQAKMFTKIAALCLDNKHALGFYTGAVVLEPSFY

IENAKMLDDNRLPVYNWIYVSVYPSENGVNAYTYGLRNFDKLELEVCDLNIEEKELFFCIYDIVLHILTY

DINLKDKDILKFEDGKEIKFIKSQGISVENESLKIIF

>YP\_002344995.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKAKLTLLALLGTTVLLAKDMVVPASELPNNAKEFISKNFKTAQIGLVKKDIDSYDVILNDGTEIDFMIN

GEWKEVDGKYKALPHTILPNVMKKVSATQPNAQILEVDKEINGYKFKFNNNMEVYTDMQGNILGQKLD

>YP\_002344994.1 amino acid transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>YP\_002344993.1 L-serine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNLSIFKIGVGPSSSHTLGPMLAGNLFCKKVAKKLDEIDRVEVTLYGSLSLTGKGHLSDKAVIWGLNGL

EAKNLSAAIQDEVNKNAIENAQIDFCGEKKLSFNYEKDLIFSKDFLPLHENGMKIKAYDCKGGLVDEETY

YSVGGGFVLTAAELEKKGKNSNQNKKKKLDIELNNAKEALELCDKRDWDLAELSYRYELQFHTKEEICAY

CLEIWEVMQEVYYNGTHPNEDYLPGKLHLKRRAKGLKERVAMTADPMGIIDFISLYAIAIAEENASGAKV

VTAPTNGACAVIPAVMLYLKNHTIGFSDEKVIEFLLTAMLIGSFYKKNASISGAEAGCQAEIGSASSMAA

AAMATVLGANAFKACNAAEMAMEHHLGLTCDPVAGLVQIPCIERNAFGAIKAISAARMAMTRKSTPMVSL

DEVIETMYETGKDMNYKYKETSLGGLATNLKTVC

>YP\_002344992.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAFMNFSGFFYARNDLRLFKIEKKNELKSFFYKDYTLSSYKDDLNLNNEIFFYQSLKEGLFKENDEILVS

NLGKKIILFRNFTQNCDNFNETKLKQILLLFFLLLASVFFASLAMINEFGAIDLLFLTICLLLLVMGVIN

LGLLFKQIRILKSFSKEEMKEFLSQRMKKYTKV

>YP\_002344991.1 riboflavin-specific deaminase/reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNFKIQGRQMKEFYMNLALNEAWKYQFLTYPNPAVGCVILDKNEKILAIKAHEKAGLAHAELNAIAHAF

KSLRPEISLPKEANALHEFICKNHQGVFKDSIAFVTLEPCSHQGKTPPCAKLFSELGFKKIFISVKDENK

IASGGAEFLKKQGIEVEFDILKEEGKKLLKPFLKWQKGQFKLFKLALSMNGSPFGKIVSNELSRTYAHEI

RAVIDLLVVGGETIRKDCPILDARLCKAKAPNLCILSRQNIDNFDKNIPLFKVPNRQIYTQIPSEAKFLM

YEGGENFLKIFKDEIDMFLIFQSSSLNDEKNVTIPLNFKPLYRNFLGSDTYGIYEL

>YP\_002344990.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLAFFKGLGVGFLCLLLFVAGVVFNVEFLGKKDSNHDLYFSRNIEVSNTLKPDILYANINFWANENLSSK

ITLDNSEKAEITNTFNQILERSKKENFCSGGSFSLEPNFSYKDGIQTPKGQRFDANLECEFKENQLADFN

KLLNDINSIIAKNNFISVSTPAIQTKFSKDTLNNNKENLYKELLKTSYEYEKTYSLDLNKTCVLKNLQVN

ANTNIAPRMLNAKSDNIELSSPIISKKEQILNAKALFICK

>YP\_002344989.1 A/G-specific adenine glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKKELEKLQENLLLWYEKNGRKTLPWRNLQSQNCDESLKHIDRAYGVYISEIMLQQTQVKSVLERFYFP

FLQKFPTLESLANANEDELLKAWQGLGYYTRARNLKKAALECVDKFGAKLPKDVEDLKKLSGIGAYTAGA

IACFGYDQKVSFVDGNIRRVLSRLFALENPSMKELEKRAKELLNLNHAFDHNQALLDIGALVCVGKNAKC

RICPLYDFCQGKFHTELYPRAKKILYESLNLNLFLFEFNKKFAIQKSQDKLYKGMYNFPFFKEGEYKLSK

DMGFVGEFKHSYTKYKLNIKVYHQILNNENKNYEFKTLKELESTALSALSLKALKLIKL

>YP\_002344988.1 alpha-ketoglutarate permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQELTRTKKIRSIIAASSGNLVEWFDFYIYAFTATYFAHTFSTSDNPVIQQINAFGVFAAGFFMRPIGSW

LFGSLADKVGRKKSMVISVVLMALGSFMIAALPSKDTVGDLAIILLLIARLIQGLSVGGEYGIAATYLSE

LATEGKRGFYSSFQYVTLIGGQLLAVASISIMFLFFSIDDMKDYAWRILFVIGGILALGSLFVRKMMNES

ATKLHQHEDRGTLKALCKSWKPFLMVLGVTSGGSLAFYTITTYTKTFMENTGMDKMLVNNLFLGALFILM

IIQPLFGYIGDKIGHKRSLIVFCILALVGIYPIFSLIANNAQNNPSLTFMLVVLLFVILSFYTSVAGIFK

AKLFPEHVRALGTGLGYAISNAVFGGSAPWVALQFKNAGIENGFFIYIAIFTIIMLIATLCLPKKSELN

>YP\_002344987.1 radical SAM domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLHILINFINFGKMFTLGNIMKFKKIYIELSDICGLKCDFCPSQKGIRGVMSEEKFQNLAYEISNKAELF

TFHLLGDPLLLPNLENYLKIAKDEAMKLEITTSGFYLNSKNQALLLGYENIHQINISLMSFLSQSKISLE

QYFKPILELCKKHLEQKSLSFINLRLWNLDANFKAPKSNLKIYEFLAKEFEAKIDANLSKNRLQRHILLH

QNKLFKWPNLKDEPLYKKGKCHALKEQIGILSDGSLVPCCLDTKADINLGNVFENNFDKLFRSPRIKMMK

KAFEEDKRIEKLCQTCEFFKARLGD

>YP\_002344986.1 hemin uptake system substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILIIMSLFLIALNAKERLVVLDPASIETLFMLKAEDQIVGIATLQHSNIYPKDQTSKLTSVGTFSNP

SLEKIVALKPSLVILSSYSLNLEEGLKNFGIKSINLKAERLEDITKNITTLGQITKKEKEAELLKQEFNQ

KFKKLSDKPLNKSAIYLYSSNPLMAFNDNSLIADILRLIGIKNLSPQSQISRPVISAEYILKQNPDILIL

GINAKNNLLDTNALLKNTKAVKTGSIYFNKDTPILLRLSPKIIDRIQEFKTKLENNNF

>YP\_002344985.1 hemin uptake ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKIHNLSFAYHQKDLLKNIHLELKNQAFIGILGPNGSGKSTLLKLILKNLSPNKGVISLFNTNIKDFSL

KEFAKICGFVPQKSELNTPLKVIDVLLMSKYPNLKHAFSSYSKEDILEIKEFAKDLRLENFLERSILSLS

GGEFQRMLLARALLKKPKILFLDEPTSALDLNYAIELLNLCEKLVKEKNIAVVAILHDLNLASIFCDKIL

FLKEGEIKYFGTSKELFTQEILKEIYDLNCEIIYKNSKPYILALKEKK

>YP\_002344984.1 hemin uptake ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNLNTHSKILVIIGLLVAYIIASFTALCLGDENLNPKELFSYIFSQDEILRQIIIDGRLPRIIMAILIG

MLLASSGAITQNVFSNPIADPYIIGIASAATFGAVLAYLLKLNDYYYGILGFVCSAFFALGVFKISSKAS

IATLLIIGIAASSFLGAFTSFFTYLIGEDSFKIVAWLMGNIGNASWFRVGILILPLIFCLFYFYAHKNEL

NILLSGDDEARNLGVNAQKLKINLLIVSSLAVSFAVAFSGLIGFVGLIIPHTIRLLLKNYNNALVIPLCT

AFGGLFLLICDTLARTLLAPVQIPIGILTAFFGAPIFLYLALSARRFL

>YP\_002344983.1 hemin uptake system outer membrane receptor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHPNKKAFKLSLFALLLITNLNAQESNKAINLQKVVVSTTGFEQDADSNLRNVISIEGKDLQNKGYVSLE

QALERISSISFVNFGLGRNIDMRGQGNKSNIAVKVMIDGHAINVLDNSHGVTPLDSINLDNVERIEIIPG

GGSVLYGSGTRGGVINIITKKQKSDAFAINLKSSAYDHGGLGGNLGINGAKQINENLAFSFDIQSFNLDG

YQEGYNEKGYFINTKTYIDINDNSDLTLGYNYFKSKNTSSGYLTKAQAQSDPTQKGKSDNITQINRPEIS

LDYHYYFDDIWEFNLEAFWQNQKINYLKDVSTMSYMNMSLPVYQNGSGFEDTLTGISLKNKLNYANNSYF

IFGYEFANHDAKRKSLVYYSVPSVINYHRMTTLIDMTKQSHSIFALDSHNFNEFFTLSGGARYEFSSYNT

DRSYRNEMSMNGRPPSPTIIDSTTLFDTNKNANNFAFEITPNFKYSDTGKLYIKYERGFVSPSPAQFVNK

DKNSQKYYSANLNPEIFDTFELGIDDFWWDFYGFNLTLFYTLSKDEISYLGNPHSTSGSWWKYYNIDQTR

RLGVELSLSQNFLDDDLIFRESLTYLDAKISKGVNDGMRIPYVSKIKATAGLEYAWNKNFSNFIDLTYFS

RAKDGGTIDENTGKMSKNSWIRDYFLTDIGMKYNYKKLQILAGIRNLFDKRYYTYQDSINDQYLVGNGRN

YYVEFKYAF

>YP\_002344982.1 pyridoxamine 5'-phosphate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFESIISHMNDHHKSNLVDLCKKFGGIEQVQDVFLKSVDFNGLDLVYNDKENLRVEFPKKADENTIKDA

IISLCMSAKSEQNFSGVEKELNEFMLSFNSVALATLNANGEVVCSYAPFVSTQWGNYIYISEVSEHFNNI

KVNPNNIEIMFLEDESKAVSVILRKRLRYRVNASFLERGERFDQIYDEFEKQTGGEGGIKTIRKMLDFHL

VKLEFKKGRFVKGFGQAYDIENGNVAHVGASGNPHKFLHKH

>YP\_002344981.1 peptide chain release factor 1 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLASKLDPFFKRFEELNSLLSSSDILNDISKMTTLSKEQKNLEPIVLKAKEYLKTLDNIEENKALLNDPE

LGELAKEELKTLEELKPKLEEEIKILLLPKDPNDERNIFLEIRAGTGGDEASLFVGDLVKAYARYAENRG

YKLEIVSSSEGSVGGFKEIIMLVKGTGAYSRLKYEGGTHRVQRVPQTESQGRVHTSAITVAVMPEVDDIE

IEINPNDLKVDVMRSSGHGGQSVNTTDSAVRITHIPTGIVVVNQDGKSQHKNKESAMKVLKARLYEMQES

ERLAKESEARKSQVGSGDRSERIRTYNFPQNRISDHRINLTLYRLDAIMQDGLFDEIIEPLITHHQAQAL

QEQNL

>YP\_002344980.1 30S ribosomal protein S20 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MANHKSAEKRARQTIKKTERNRFYRTRLKNITKAVREAAANGNKNAANEALKVANKSIHAMVSRGFIKKQ

TASRRVSRLALLVNKIA

>YP\_002344979.1 phosphatidylglycerophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKLFLTFFYSGSVKKASGTFGTIAALIPAFFILKYLGINTLFLLSILIFVASIRVIDDYEKKTGIHDDK

HIVIDEVAGVFLACAIAASVENSIVNFILAFVLFRLFDITKPSIIGKIDKKVKGGLGVMLDDMLAGLFAG

LLSAVIYGFLLKFNLVFWDINLKDLF

>YP\_002344978.1 sulfate adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSARKNKNIIIDQNEFGILSLIKEGLLGTCTHLMNEKEVNEIIKSGKFKGESFPYPLSFAPKNAEEALN

DIKSGDRIDLMLDEKVVGHIDFKSQFKNNKNFSDIFSPNTCSLEDMGTTCISGKIEIYNSQIEKIKENFQ

QIKNNLNAQKITAIVSSFDPLHRAHERMFRWTIDKADLVVIFLVESFDVNGFEFELKEAYLKKFIQNYLP

PDRIFIFPLKNINIFHAHLNPGLESIIAKSLGCTKLVVGQNHTGLGMFYDDNQPKTILDDFSKDYGIEVI

VLPEFVFCDQCRMIVSTRSCPHGCHHHLHYNSQSLKDLLRAGIIPPAIFIRKEVSSVILTSLFPNRLKNM

QKIYNELFPTDGILEYKNDEEFYQKLLEIHQMSYMV

>YP\_002344977.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVLIIENEIYLAQSISIKLSDAGYSCEIINSFDEYNGEKYYDIILLSTNTNNFLKAVGQFKHSIIILLI

SYISTDTVSNPLKLGASDYIQKPFMIEELIRKIKHYQDFRKLSILNKAYQSYIKSRLETIKIPEYNYKKL

KLPLILKSNKQSSADAFVFNYANECDITLSFIDLTSTNSVEKVMKLPTENNLLFLSNFQALKAAEKEKLL

DFIQNKNVILHTNSNTDDLKINCINLNDNEKNINSNEILTIDEYVKYVIINYQNIFPDTDLSKKLGISRK

SLWEKRKKYEISKKK

>YP\_002344976.1 bifunctional 2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase/2-C-methyl-D-erythritol 2,4-cyclodiphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEMSLIMLAAGNSTRFNTKVKKQFLRLGNDPLWLYATKNLSSFYPFKKIVVTSSNITYMKKFTKNYEFI

EGGDTRAESLKKALELIDSEFVMVSDVARVLVSKNLFDRLIENLDKADCITPALKVADTTLFDNEALQRE

KIKLIQTPQISKTKLLKKALDQNLEFTDDSTAIAAMGGKIWFVEGEENARKLTFKEDLKKLDLPTPSFEI

FTGNGFDVHEFGENRPLLLAGVQIHPTMGLKAHSDGDVLAHSLTDAILGAAGLGDIGELYPDTDMKFKNA

NSMELLKQAYDKVREIGFELINIDICVMAQSPKLKDFKQAMQSNIAHTLDLDEFRINVKATTTEKLGFIG

RKEGMAVLSSVNLKYFDWTRL

>YP\_002344975.1 ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEQILEKLKTVKYPGFEKDIVSFNFVKDIKIQDDGVFIDIEIVSANPEVANEIRKNTIEALSSLALKNI

ELNIITPKIPEEKSNSRSGKNIAPQVKNFIMVSSGKGGVGKSTTTVNLAISMAKMGKRVGILDADIYGPN

IPRMLGETKTQPEVVGQRLKPILTHGVYMMSMGVLIEEGQGLMWRGAMIMKAIEQLLADVIWPELDVLFL

DMPPGTGDAQITSAQSIPIAAGVCVSTPQTVSLDDSKRALDMFNKLHIPIAGVIENMSGFLCPDNGKEYD

IFGKGTAEDMAKAYKSEVLAQIPIEMIVREGGDEGKPVSFYHPESVSSKRYLMAAEKIWSFIEKINNEGG

ADNSAIQPVMNGKSACSH

>YP\_002344974.1 2,3,4,5-tetrahydropyridine-2,6-carboxylate N-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINTKEDFLLLIKQIEQKSGYKKPKAFGIARLDRGQLNKNKILQASFALINYEQNFGSAAIMLEAFMQRG

VEIDFNASEFVQTLKLEDIDFALSCFKPFLEEDGHQNIDLLKIIKDKFKDDEFSFVCLFEDKEPLSVESI

YLKLYLLSTKKVPLRSINLNGAFGLLSNVAWSDDKPIELEYLRANEMRLKMSNQYPKIDFVDKFPRFLAH

IIPEDNTRILESSKVRMGASLAAGTTIMPGASYVNFNAGTTGACMVEGRISSSAIVGEGSDVGGGASILG

VLSGTSGNAISVGKACLLGANSVTGIPLGDNCIVDAGIAVLEGTKFLLKDAEELAKLNPYFNFDKEIYKG

LELKGLNGLHFRQDSISGAMIVALNKKAVKLNEALH

>YP\_002344973.1 bifunctional phosphoribosyl-AMP cyclohydrolase/phosphoribosyl-ATP pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNFKELNEKIAWQKVDNLLPVIIQDAKTCEVLMLGFMNNEALEKSLESGKVVFFSRTKQRLWMKGEESG

NFLNIIDLSLDCDNDTLLILANPVGPTCHTGDISCFEKISKNADFVFLARLEKLINARKNADENTSYTAK

LFKSGTKRIAQKVGEEGVETALAATVKDKEELICEAADLMYHLSVLLADANLSFSDVISKLKERHKA

>YP\_002344972.1 imidazole glycerol phosphate synthase subunit HisF [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTKRIIACLDVKDGRVVKGTQFKNHKDMGDIIELARYYSQNGIDELVFYDIAASARKERISREWVSEVA

KNINISFCVAGGIKSEEDAAELLANGADKISINSPALNDPSLITRLAKSFGVQCVVVGIDSFKDENGNLK

VFQYTGDEKTSKHSGKSTLEWVKKVQDLGAGEIVLNMMNQDGVKNGYDLEQLEAVYKICKVPLIASGGAG

KMEHFLEAFKLGIDGALAASVFHQKLIDIKELKIYLKNQGLSIRI

>YP\_002344971.1 hypothetical protein Cj1602 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSSKLSYKELTLEILKQSDRPLSVNEIWQKALEQGLDKKLSSIGQTPIATLGARIYVDIKELQHNSLFIK

ASQKPTTFWLKERENELLKLDNKNEITNEKQEKNKFHERDLHPLLVKFLYENLDFNLNCKTIYHEQSKKG

KGGEDKWNYPDIVGVYFPYDDYEKETITLLENIKQNSYKLFSFELKIALNFSNLKECYFQAVSNSSWANE

GYLVVLQEIDSEVLSELRRLNQSFGIGVIKLEKDISNSQILISAKEKELDIQTLNMLINKNPNFKEFIDD

INKQIKVGKEAKIQANFDEIKSDEEMEKYLKEKCILEK

>YP\_002344970.1 1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)methylideneamino] imidazole-4-carboxamide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTQIIPALDLIDGEVVRLVKGDYEQKKVYKYNPLKKFKEYEKAGAKELHLVDLTGAKDPSKRQFALIEKL

AKEVSVNLQVGGGIRSKEEVKALLDCGVKRVVIGSMAIKDATLCLEILKEFGSEAIVLALDTILKEDYVV

AVNAWQEASDKKLMEVLDFYSNKGLKHILCTDISKDGTMQGVNVRLYKLIHEIFPNICIQASGGVASLKD

LENLKGICSGVIVGKALLDGVFSVEEGIRCLAN

>YP\_002344969.1 imidazole glycerol phosphate synthase subunit HisH [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIIDTACANLASLKFCLDRLGFNATISRDLKELESADKLFLPGVGTAKEAMKNLEQFNLIDFIQNTK

KPLLGICLGMQILGNFSEELNQETLKLIDFTTQKFKAKEGFTFPHMGWNEVYSSHALFKGLEGAYFYFVH

SYCVGLGKYTIADCEYSQKFSASVMKDNFYGVQFHPERSSEAGEILISNFIKDIG

>YP\_002344968.1 bifunctional imidazole glycerol-phosphate dehydratase/histidinol phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQKILFIDRDGTLIEEPKSDFQIDTLEKLRFEKDAIPTLLKLKKFGFKFVMVSNQDGLGTPSFPKENFE

IAHEKMLDILKSCGIEFQDIFICPHFENENCACRKPKTAMLEEYIKHELYDKEQSFVIGDRESDMILASN

LGVRGLKYGELSWKEIENEILSSFRSASYQRTTKETDIKVKVCLNGGKVSIKTGIDFFDHMLEQIAVHGG

IGLEISCKGDLEIDEHHSVEDVALALGACIKKALGDKIGIARYGFALPMDECLASCAMDFCNRPHLVYKA

KFKKSHLGALSTEMIEHFFYSLSYAMGVSLHLKVKGKNDHHKAEGLFKAFAKALKMAVKIESENLASSKG

VI

>YP\_002344967.1 histidinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQILVYDNLDEKQKEEALKRPAISAKDEISKIVSSIIKEVQEKGDKALIEQALKFDKAEISKIKITQEEI

TQASNRLDKDLQEAILVAYENIKKFHEAQIPHEIALETTKGVKCEVLTRPIEKVGLYIPGGLAPLFSTVL

MLAIPAKIAGCEKIVLASPAKINDAVLFCAKLCGVDEIYQMGGAGAIAALTYGTQSVLKVDKIFGPGNAF

VTEAKRQVSSDINGAAIDMQAGPSEVLVIADDLANEKFVASDLLSQAEHGADSQVILVCLSQDFAKKASD

EVQSQLELLPRKELASKSIANSRIIIAKDLNQALEISNLYAPEHLIIQTQNPRELLKGVKHAGSVFLGAY

SPESMGDYASGTNHVLPTYGLTKTHSSLGLADFSKRMTVQELSKEGFLALGKSVEILAQNEHLDAHKNAV

TFRLESLK

>YP\_002344966.1 ATP phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQENTRLRIAIQKSGRLSKESIELLSECGVKMHIHEQSLIAFSTNLPIDILRVRDDDIPGLIFDGVVDLG

IIGENVLEENELERQSLGENPSYKLLKKLDFGYCRLSLALPQENKFQNLKDFEGLRIATSYPQLLKRFMK

ENGINYKNCTLTGSVEVAPRANLADAICDLVSSGATLQANNLKEVKVIYESRACLIQKENALSKEKQALV

DKIMLRVAGVMQARESKYIMLHAPKEKLDKIQALLPGVERPTILPLAHDEKNVALHMVSKENLFWETMEA

LKEEGASSILVLPIEKMLK

>YP\_002344965.1 50S ribosomal protein L17 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRHKHGYRKLGRTSSHRAALLKNLTIALVNSGKIETTLPKAKELRGYVERLITRARLGDFNAHRAVFASL

QDKNATNKLVTEIAPKFKDRNGGYTRIIKTRIRRGDAAEMAFIEFVA

>YP\_002344964.1 DNA-directed RNA polymerase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNITTSAYTPTEFTIENISDTVAKISAWPFEIGYGITLAHPLRRLLYTSTIGYAPTAIHIDGVAHEFDS

MRGMLEDVALFIINLKKLRFKIKGDSNKEIVEFSFKGSKEIYGKDLNNDQVEVVNKDAYLATINEDAELK

FTLIVEKGIGYVPSEEIKELINDPKFIALDAFFTPVREATYDIEKVLFEDNPDYEKVVLTVTTDGQITPN

EAFQNALEAMYKQLSVFDKITNVRSVIKNQATSNELENTKLLQNITDLNLSARSYNCLEKAGVVYIGELA

LMSVSELAGLKNLGKKSLDEIKNIMESIGFPVGTSKLSDNKEILKNKIAELKAQNEG

>YP\_002344963.1 30S ribosomal protein S4 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARYRGPVEKLERRFGVSLALKGERRLAGKSALDKRPYAPGQHGARKGKISEYGLQLREKQKAKFMYGVS

EKQFRRLFAEAARREGNTGVLLIQLLEQRLDNIVYRMGFATTRRFARQLVTHGHVLVNGKRVDIPSFRVE

AGAKIEIIEKSKNNPQITRAIELTAQTGIVAWVDVEKDKRFGIFTRKPEREEVVIPVEERFIVELYSK

>YP\_002344962.1 30S ribosomal protein S11 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKRKIVKKKVVKKNIAKGIVYISATFNNTMVTVTDEMGNAIAWSSAGGLGFKGSKKSTPYAAQQAVEDA

LNKAKEHGIKEVGIKVQGPGSGRETAVKSVGAMEGIKVTFLKDITPLAHNGCRPPKRRRV

>YP\_002344961.1 30S ribosomal protein S13 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARIAGVDLPKKKRIEYGLTYIYGIGLFTSRKILDKVGISYDKRVHELSEDEAAAIRKEIQENYMVEGDL

RKQVAMDIKALMDLGSFRGLRHRKGLPVRGQKTKTNARTRKGKRKTVGAKS

>YP\_002344960.1 50S ribosomal protein L36 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVRPSVKKMCDKCKVVRRKGVVRIICENPKHKQRQG

>YP\_002344959.1 translation initiation factor IF-1 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKDDVIEIDGTVLEALPNANFKVELDNKHVILCHIAGKMRMHYIRIMPGDKVKVELTPYSLDKGRITFR

YK

>YP\_002344958.1 hypothetical protein Cj1589 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNFITTLLKTNLYFLEEKTTSKNSNQTHIISLKQSDDEFLNLLFSFLVPQSDEDKNFIEKTRTKIKRNE

HNIVLIKNPNFNALIDTGFLDTIDTLKEKLHIHKTDFKDITHIILTHAHPDHIGALMSEENLFPKAQILI

DKKKYDFWIKSDRQEIKNTLLKLKNIEFIDHSKDLIFQNSGIKAIPAYGHTPGQNAIIIDDKIVFWGDLL

HLYDIQIPKPKIAIKFDIDQNEAIQTREKLLKEFKERKLKVIGTHVPFIKPKFLD

>YP\_002344957.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKSKFGTKEIKILGLSSLGGTLEFYDFIIFVFFAEYIANVFFPKDMSEFWALLNTYGAFAAGYLARPLG

GIVMAHFGDKFGRKNMFMLSILLMVLPTFVLAFIPGYETLGFLAPVLLILIRIFQGIAIGGELPGAWVFV

REYCQEKQKAFFLSCLNSAMALGILLGSIVFLIINAFFSIEEIAAYAWRIAFFVGGIFGIISIYLRRFLQ

ETPVFKQMKKESSLSSFPLKDLFKEKDIVKNLFSSMMMTWVLTGCVIVLVLLMPKFMPSILNLSGVEGSY

LQILGILGIALGGAFMGYLVDKFGLFKICIFFSLTFVFFSFLYFYALYELKNLVLVCILYSIICFLGGIN

VFAPILMSEVFRAKIRFSGISFSYNISYAISGGITPQLVFWLNTLASKNENPFLYGMSIYMIFLALLAIC

AVFIVKDKIKF

>YP\_002344956.1 multidrug ABC transporter permease/ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPFIMELLKQNKLKLISFLLFSFITSAVGVLTLVFINDYLLKNAQNIPIFYFIVLLLIFFISSTIVELGL

SIFGQNFIFKMQRRVVKQILDTPLLRVAKVGKARILASLGSDVRNISFGLLRLPDFLQSSILILCTSVYL

CYLSPQIFALCVVWIMVIFITNNFLMMKVYQYFRKARENDDALQNNYQNILDGHKELLINRDRAKLYYED

EFENNARLKKKNSTLGNLFNNLSNNWTNVTLLALVGVEFYLALKFEWASVADATTIALSILFLRTPLVSM

IGSFPTLLLAKIALDKIAKLELDDYIEGFKKTHYISEWKKISFRNTQFAYEENFHLNPVNIELKKGELVF

LIGKNGSGKSTFCMLLTGLFKPSKGGIYVDDTLIDDKNLDEYRSLISAVFSDFHLFTKTLNKENFASEEK

IAFWLEFLELKNKTSVKDNELTLTKLSTGQKKRLAMLIALLEERDILVLDEWAADQDPVFRRFFYKKLLP

LLKEQGKTIFAITHDDAYFDSADRIFLAQNGEISELKGENIKELAKNLVEKFD

>YP\_002344955.1 single domain hemoglobin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKEQIQIIKDCVPILQKNGEDLTNEFYKIMFNDYPEVKPMFNMEKQISGEQPKALAMAILMAAKNIENL

ENMRSFVDKVAITHVNLGVKEEHYPIVGACLLKAIKNLLNPDEATLKAWEVAYGKIAKFYIDIEKKLYDK

>YP\_002344954.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MANFKAFYKEAKYIFKDRIFNDYARCYAYGIDASCYFYIPKIVIIAKNEDEIKQIIQLANTYKTPITFRA

AGTSLSGQSSCDGVLVVIKFAFKKIKINKDANEITLGCGVVGIHANESLAFLKKKIGPDPATINSALIGG

IINNNSSGMCCGTKDNSYKTLRSIRVILANGSMLDTSDALSVARFKDENKKLINELREIKEEINANKELK

DLIIKKFKIKNTTGYSLNAFVDYDDEIDILAHLLIGSEGTLGFVSEVKLAVLDDLEFKACALLFFDNINN

AANTIKEFAKVDFVSSAEIMDYASLKAASTYDELRDILADIKEGNTCVLIQSEHSNELKLDENINKIKEI

SKLAYKSYFSKNKAEYDLWWKIRKALLPIAASLRKAGSTVITEDVCFNIEDLADGIKSIQELFYKYGFGD

NGIIFGHALAGNIHFIITPDLNNKLEFDNFSNLVKEMSNIVASYGGSIKAEHGTGRMVAPFVEVEWGKQA

YLINKKIKSIFDKDSLFNPDVIISDDKDIYKKNIKQVSWIDEKLNTCMECGFCERFCPSNEYTITPRQRI

AILREIKRLESLNDDESKAKLKDIKKYYNHLVDSSCAACGVCSFSCPLGINFADFSLKYRKNNIGFISKI

LGNLAYKNHEKTLKIAKFSLSIANKFDNLSLDNKLEKASNFLSIIPRTRAYLPKVNDYELKSHKRVCNVV

YFTSCLNKSFKPNEKMHDKRSLQEVFESLCKKANIGIIYAPNDLCCGKAYENFQDIQDKNIQKINDFLSN

IDSPIVLDHSACSAKLISDHSKYEIYDLSEYLLKFIAPKLRIDKINENVGLYIMCAARKLGLNENIIKLT

KLCTNGKVLIDNDTYCCGFAGYKGFFKPQLNISATKGFKKFYAKTNIKRGFSTSSTCEIGLSDATGISWQ

HIAYLLDECSEAI

>YP\_002344953.1 peptide ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLRWFVLLFLLFLNLEAKIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKS

WDISKDGLVYDIFLRDDVLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLF

KPYPAFLDALSIGMLPKHLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLI

IKHIFDPSIASAELKNGKIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALN

YAVDKESIVKNLLHDYAFVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEF

EIWAMSNDPLRVSLAGILQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQD

SALNDEGWNFGHYHDKKVDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGI

KTRTLGHHGVGFTWNVYEWSK

>YP\_002344952.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKRLVFSIFIAFFSTFLCFVLLHFSKGSIAYANGVNSQSKEFVQRIEQNLGLDKPLLEQYKIWLFKALK

GDLGVSFLSGESVLKLIKERIFNTFILGFSALMLLFLLSVFLALLGYYYKESFIDKIITFLAFNFFALPP

FVLALLFVLIFGIFWKILPVMGSSDIGFEDDFLNRLEHLILPVLVLVLSHLALFLRIARNFINESFSQIF

IQNLYARALREKDIYFLVLKYSLSPIVAYFGGSALSFMMGTYVVESVFAYKGLGSLLFKSIIFKDYPIVL

ALIFFSVLLAAFFTFLSDIVARILNPRLRRLDFV

>YP\_002344951.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILFKFLIILAPLIFLFLCALFAPFLALFDILSTHLENLHQAPNFTYILGTDFLGRDLFSRLLFALRNSL

IIGVGGSLLSIIFALCYLFLARCFFYVFCMRILEFFLALPAFLLMMFFQSMITSDVFLMIFLIALIHWCF

IARIIESELKRLENLDFYKANIVLGRTKFRAFFKDLIPALKTLIFTLFIFNIVHAIATEATLSFFGLGLG

FEIPTLGTLLSESSKAVFIGAWWMILFPLLSLLLLFLPLLWLGNFLQKIWGIRS

>YP\_002344950.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVRNLNISSKNNLLLKDINLDIKTGKTLMILGQSGVGKSLLGKALVRLLDSNFTISFDELSFHNSCIFN

FNKEELRNFRSKVALVLQDAELSLYPYLDIGNLCHLVLKTHTKLKQKERKDYAFSYFQKLGFENLDRLWH

SYANELSLGMARRVSLALALLNQPQILICDEITASLDKENASKIISILKELKNTTALVCITHDLNLVNSL

ADEILMLEKNSSNLYSLNEFLRYYNA

>YP\_002344949.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKVCNLSKFYELKKHWYLKKERHIIFDNVNFSLNENDNLIILGKSGAGKSTLARILCFLEDPSEGEVWY

ENLNLHKLDKNKQRLLRKQIQYCFQDQKMALNPYKKIKNLIQDGLENFNLQKNDDLILEFFDFFSLKKQI

LEQKSYELSGGEATRVGLIRALVLNPKLLILDEITSAFDIKTSKEILTFLYDYQQKNNISYIFITHQSDL

FYKFNHKKLKL

>YP\_002344948.1 NADH-quinone oxidoreductase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSHIDASHPYFGIFLMLVLASVIFFGLVFLASKIGNNFAAKNRKKLGLGIYECGPIPVKQANKINSQFFI

IALIFILLDIEVVFLFPWALIFKDLGWFGFLEVFVFIVLLGVGFLYAYKKGAFAWQSIK

>YP\_002344947.1 NADH-quinone oxidoreductase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAEHQVNYASGLPVVLTSVDKLVQWGRSNSLWALSYGLACCAIEMMAAGGSRYDFDRFGTIFRASPRHSE

VMIIAGTLCKKHAEFTRRLYDQMPDPKWVISMGSCANTGGMFNTYSTVQGVDRIIPVDIYVPGCAPRPES

FQFALMILQKKIRKEKASRKIAPKRLI

>YP\_002344946.1 NADH-quinone oxidoreductase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRKYSDKKNAQTQNYYKDRFYHAPHTVKSDVNESVFKEDFEVLKTQVEILNSFVELDFWVIEIKKEDNV

KTLQMLKTLGYLSFTEASAIDFIADKNGFEVFYQLLNLEKKLRVRIKTFVGVKERLQSVAHVFKGANWSE

REIYDMFGIFIINHPNLKRILMPDDWFGHPLLKTYPLKGDEFARWYEIDKIFGKEYREVVGEEQRDSGFA

DDKDTLNFARLYHEVPKGGQKKEISFKQEYQEDEGVAFVKKVKRDEAKILEKRR

>YP\_002344945.1 NADH-quinone oxidoreductase subunit D [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIPSKLKPYYENIAFEQEDSKMIINLGPQHPSAHGNLRLILELDGEQVVKARPCIGYMHRGMEKMAENM

IYQEFIPTTDRMDYIAASANNYAYCAAVEKLCGLEIPRRAAVIRMILLELNRITSHLLWLATHALDIGAM

SVFLYCFREREYVLDLIEKYCGARLTHSSMRIGGVMLDLPENYLEEMLAFCDKFPNDLKDYEDLLDDNRI

WRLRTENVGVVTKEQALNWGCTGVMLRGSGIKYDIRKEEPYLLYNEVEFGVPYATQGDSYARYKVYMQEF

RESLKILRQCAMLYKDTSPEILATHPEYVSASKEQILTQNYSLMQHFVLITQGLKPPKGEVYVPTESPKG

ELGFFIHSDGTGRPYRLKARTPSYWHCAFFEEMLVGTYLADVVAIMGNVNIVLGEIDR

>YP\_002344944.1 hypothetical protein Cj1575c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRRVDLRKSKELFEDLAQIIKEAKQGEVLVVLFEIGDFSPVEKSFSFVKEQGCELLNSLKFNQVDWTIVI

KKERV

>YP\_002344943.1 hypothetical protein Cj1574c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIYDNALCFLDMPSLKNKNLCEKIGVNSINISCLEDKNLKAKFYKCEIASLSFVLALLCKLSDEGQFCDL

DEGYLSAESCFGEEEAGEVLAFLKEVKYLIIDKNIHSYKDSENIKYFLNFLSVKYGLKILDSDEEECDFK

KAKLNTLKELDNYDGLVLFRANLQDKNLHCSKQFLQIAKCKDQSEVEILAKDFSFKTKLCLDENLQGTIA

FLNYENNGFDFTPIRIKEAK

>YP\_002344942.1 NADH-quinone oxidoreductase subunit G [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTVKINGIDCAFEEGEYILNIARRNDIFIPAICYLSGCSPTLACRMCMVEADGKKVYSCNTKAKEGMVVE

SDLQNLWDERNEIMQAYCINHPLECGVCDKSGECELQNFTHKSRVNVQKHWIKDTHKPHKHWGMINYDPA

LCIVCERCITVCKDKIGESALKTVPRGGDSVDNSFKESMGKDAYAIWTKFQKSLIGPANGDTLDCSFCGE

CTSVCPTGALIGSKFQYTSNIWELKRIPASNPHSSDCELMYYDIKQSGISNQKEKIYRVSNDFAFASLNK

AARFAFDTQNEADKDEKAFKELVELFEKNEIKNIKFNSFITNEEALILQNLKKKFNLSLINEEALKFKEF

LQEFIANSGEFYSANTQDITKSDFLVVAGMLLRYDAPTLSYKINNALVMNKGSGLYFHPMEDMGIAKYSK

NFIPHIHKNGDEEQILYFLLQKFSQDEGIKTHLAEFFVSENKEIEESINEEVVEQVIEKDEEGNEIQKEV

KKVVPKKVKKIIEVQRSVFAKNLGIDEDKLEDLLLKKANFTLVAGSDFYFHKNAKKLAKLLALIQNTTPF

KVFLNPTHTNTLGVAMICDLDNNTQEGKTLGYNEKGDFSFSYEEHANLASASLNQQEGTFLNYDKRVVPT

NAALEFKGYFLNDLANALGFDEEYTINYTKRLPINKGFSPIDFDHLDNFYTNAGDCKRGYELNLECFKQV

AKKEFISPNFENLSLKEDEILLYSANPSYQFGRFSNRASAINEVIFLGVSENLAKEKNLKDKDLVKLKIK

DKELSLSVRVDKDIKNGAFLPYFDEKLDTLSFFDERFVVANLEKLGANHE

>YP\_002344941.1 NADH-quinone oxidoreductase subunit H [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDFAFFALETLIKCIIIIAIFASLAGLATYAERKVLAYFQRRIGPDMVGPFGLIQLVADMIKLFTKEDI

IPSNSQKFIFAIAPLISAICAFVSLAAIPMLPEFTLFGRVIQPIVADINVALLFVIGTSGLCFYAVFLGG

LASNNKWSILGAARGLVSIISYESVGALALIAIIMLVGSFSLVDINNYQSDGFFSWLIFKQPLAFVLFII

ALFIETNRTPLCLTENDAEIVAGYGTEYSGLRWGMFFIGEYTSMIAGAILVTLLFLGGFNSFWIIPGWIM

MIVKSSFIFFWYFWARAAFPQLRPDQVMKMCYLILIPLAVLNLLITALTVLL

>YP\_002344940.1 NADH-quinone oxidoreductase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNYYLVDEKRKTPVSTWEKISQALRRSVKLELFVGLFVMMRELLKRNNSATIKYPFEKVKLDNRYRAVH

RLMRFIESENERCIGCGLCEKICISNCIRMETSLDENGRKKVENYSINLGRCIYCGFCAEVCPELAIVHG

TEYENAAEQRSYFGYKQDFLTPIDKLKNQVEFEGAGSLRKDANLWVKKTPNYYDVMIERALENQNTQEQG

ENK

>YP\_002344939.1 NADH-quinone oxidoreductase subunit J [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIENLAFVFFSVVVLGFFGIAVLSKNMLYSLSALAGGMVFLSGFYFLLDAEFLGVIQIIVYSGAVLGLYS

FAMMFFDASKEFKEQLKAKKSFFTLVVLSTILLLAMLIGFKYQNISTDLPLNDPALFDFNKQLALAIFSK

YLLAFEFIAILLLIALVCAIVLTHKELTKEKQ

>YP\_002344938.1 NADH-quinone oxidoreductase I subunit K [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIEKYFFVAILMFVIGLVGILKRQNLIMLFISSEILLNSANLALVAASKMHNDLNGQVFALFIMGVAACE

VAVGVALCVLWYRRKGTLELKSLKEVEA

>YP\_002344937.1 NADH-quinone oxidoreductase subunit L [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNLALISLFSPFVAFLFASCFALSEKKQFVGIICSLLVALSAFCSLYLLFCNEAFNVSLFEWFAGVNFG

FDIDAISLTMMSVVGIVATCVHFYSIFYMAHDEGFNKFFAYLGLFVFSMLFLVMSDNFLGLFVGWEGVGL

CSWLLIGFWYKNDTYSFAANEAFIMNRIADLGMLLGIFWLYLQAGTLKYDEVFSMAQSLDHNALILIATC

LFIGAMGKSAQFPFHTWLADAMAGPTPVSALIHAATMVTAGVYLVIRASTLYDLVPEVSYIIALLGAFVA

IFAASMALVVRDLKRIIAYSTLSQLGYMFVAAGLGAYGIALFHLATHAFFKSLLFLGAGNVMHAMNDKLD

IKKMGGLFKPLKITAILMCIGSLALAGIYPFAGFFSKDLILGYSFISFHHGIFLVLLIAAFLTAFYSFRL

LMLVFFTPARHDEHPHEASKIALLAMSPLMVLAIIAGFFEHSFFEYLSTKLVFIDAQNQIVMICASVAAI

LGAILAIFAYKNSWFKESIEENKIHKLLSNDYFIPQFYHQFIVSKYESLCAILKHCDLYIFDRIVEKIAL

YSQNISQKMIMPNSLNLMLRFLVAAFVILLILVWMV

>YP\_002344936.1 NADH-quinone oxidoreductase I subunit M [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNYLIFFPLISAFVVLLLNRGGVKVFSVVVSFMILALNLDIFADFLQGVSFDYNLSFKILKFFSFHVGV

DSIALVLILLSSLMIFLSFLFLKLEQKALISCIFFLEFAIMGLFSAKDGLLFYVFWEFSLLPLLYIMGVY

GKDFRAGVKFFIYAFAGSILMLVALIYQAYLNYQLLNIFTFDLEIWKNNASAVNFTEQLLLFGAFFIAFA

IKAPLFPLHTWAPKVYANSPILVSVMLVVFKMAPFGFLLFCLPLFPDASVYFMPLIVALCIVSIVYNALI

AYRAENIKELIAYSSISHLGVMILGIFSLNALGISGAVFYMFAHGIVTGALFLMVELLYQRYHTYDISFY

HSLAKKAPLFSIFFMLILLASVSLPLTVSFVGEFLILLGIAKINLFYALLAGLVIILGAIYMFAVFRKIF

FMQKQSFIEGFSLLFREIVALVCIVVMIFGLGLMPNILLKPIQKDVDNLIKTMNIRAVEQNTLDFLSKIG

EANVK

>YP\_002344935.1 NADH-quinone oxidoreductase I subunit N [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNNFLNLELLNISLSYPFLFLITTAIVLLLCSGFWKFHRSFYIGISSLSLIVSAFLILNNANAQGLEAK

AFLATLNNDIVSFYASLVILCFSFLYLLMQKEENQGEFYALFLFMIASLLLMVSSSNLVLIFIGLESSSL

ALYTLIAMRGSDNAISSAIKYFSVAAVGAGFFVMAVAFIYLKTGTLDLSANLALKNEFQKDPMLLGAGVM

IFVLCAIKLSLAPFHFWLKDVYYAAHTNLVAFISVVPKVAMLVVVIRLFDFLNNTGFEYIIIVLAIFSML

IGAFAALSQNNIKKMFAYSSVVHSSLVLVACIPLLKEQNFDGILLAIFGYWTLFAFANYAVFMILSNYEN

NSYESLNGLLVKKPLIAFCLSISVLSLAGIPPFGVFWGKFMILNTAILNGYWYLALFVALSSVIMLYAYL

KILIHALFMKNDRVHNIKFSFIQNFILAFCVCVSTFVILLML

>YP\_002344934.1 paralysed flagellum protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRILFLILLSFLNAFAFELVLNTGRENNQAFAVLHASNDLEFTCQKFITEAKVHFECDIVGMVDNKLKDQ

SFSAFDLKFIQEAQKIKMIILPKIQARMFDTSQNIYIDKELSSSSSHKSKAFTFIFTPELAPIKDYDGLD

FNINFPHESLPYVGALDLNSDPVVIPQSADINTYLRIKKEYDKANYNQVVIDAQNAINRYRGSIFTSEFI

LYKLRAQNKLYTQDPSMRDQQILEKMIDDAKNWTRTFTSDKNFSEVLHIMLRTYIALAQRADVEYTMSIL

DNEQPNNYFTQLSKLDYADYIYNLNEKEKAVNIYENTYFNTKNLDLAARAAMSLAKNLLSNEQVNKAIEY

INTILKANPEYFGKDIPRSLELAKLFNQKGQFDISASIYEDAFAKMSKLDPSYEETLKDLALVLSHANRS

SDAKKYLDLYMDDYLDGKYLDEIKKASDEVFFALGDNNASFLHQRYTDLMKQYANKDENIANKALDEDVA

LYYKEGNFSAILAYKDLIESKKIPNATQFLEKAAINDLKNAIKADNCINAANIFMRFSAYDIGQKIENKK

QMLACLIRTSNVEQALDYIDKNYNEDSIFYGLQKASILFDNKQYPQVIKISKDIANSRILKSDDENFKAY

YLQFLSLLRLNDYNQAIKILQILESFPMNFSMVEAYDALLSYANDHNMQTTILTYAPKAIDYQNFKGINL

FSPNLEFIYLDALTKINKNEESLAVLTDLLKLKLSDEDRARALYIQALTYERMQNIQAEKESLKQCLEIK

SASNWQNLCKSKNQILNQ

>YP\_002344933.1 methyl-accepting chemotaxis signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKITKIKRKIMNSIKIKLSLIANLIAIFALIVLGIVSFYFTKTSLYESTLKNQTDLLKVTQSTVEDFRS

TNQSFTRALEKDIANLPYQSLITEENIINNVGPILKYYRHSINALNVYLGLNNGKVLLSQKSNDAKMPEL

RDDLDIKTKDWYQEALKTNDIFVTPAYLDTVLKQYVITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTP

GNTFLFDQKNKIFAATNKELLNPSIDHSPVLNAYKLNGDNNFFSYKLNNEERLGACTKVFAYTACITESA

DIINKPIYKAAFIQAIVVIIVVVFSVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSND

EFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQ

ARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQ

SLTTSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAA

RAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTK

DNVEIANESAIISSTVSDIANNILEDVKKKRF

>YP\_002344932.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYTIKKVEKETKISAHTLRFWAKKGLFPFVQKDENSVKYFSKSDIEWVKWIEWLRISGMPIEQVKHYIK

LCSLGIKTAKERQEMLKQTKKKLQNQIKTLKESEKVLSKKIKIYEEMLANEVDGFNPESKDYQPCDKLHK

FKG

>YP\_002344927.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYHSLCPIETTLNLIGNKWKILIIRDLLQGTKRFGELRKSISFTKNQNISQNVLTQNLRELEEAKLIK

RKVYAEVPPKVEYSLTSLGNSLESILKSLENWGNSYKNIV

>YP\_002344926.1 hypothetical protein Cj1555c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIAILCASGKVGKEISKEALKRNLEPVCFVRNSSKMNEFLPQAKIVQRDLFELDSKDLIDFDIIIDAFG

EWENLSLHKKHIECLSVILQGSKAKLFVVGGAGSLYMDENHTTRLMDMPDFPKEYLDIAKASAEVLEFLR

NEKGFKWVYVSPSAIFSPDLPKSNHYKIIGEKFEVNANNESKISYSDYASAMIDIVLNSCYENTRIGVIS

L

>YP\_002344925.1 type I restriction enzyme M protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKKEIKLEDALWKSADKLRKNIDAAEYKHIVLGLIFLRYISDSFMQKYEELLKEQDDGADPEDADEYL

ADNIFFVPEKSRYNYIRDNAKNPKIGKMLDEAMDEIEKHNDTLKGVLPKVYAKDNLDSKCLGELIDLIGN

IAFDTGKSTDVLGHVFEYFLGEFALAEGKQGGQFYTPKCVVELLVTMLEPYKGRVFDPCCGSGGMFVQSE

EFVKSHQGRLDDISIYGQESNQTTYKLAKMNLAIRKIESSQVIWNNEGSFLNDAHKDLKADFIIANPPFN

DSDWSGELLENDGRWKYGVPPASNANYAWIQHFLYHLSPNGGVAGFVLAKGALTSNTTNEAAIRKALIED

DLIDCIVNLPAKLFLNTGIPASLWFIRRQKLPKTVKKTLFIDARDLGTRINRRNKTLNKDDINQIANIYK

AWKNGTDYEDIKGFCKSVSIDEIRELSYVLTPGRYVGLADSDDEFDFDTRFNELLAKLKSQIKTEQELSE

IILKNLEKIK

>YP\_002344924.1 hypothetical protein Cj1552c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIRTVMDFKFVLRLLEANQFENEVVEYKKNNKDFIVLGKNISALSNTAALLGIDKAYIIFGIEDGTLNIV

GTNFKPKQEKKGNEELESWLHKVLKPNIEFKIHEITEKEIRLVVFEIEATKISPIKFEEKAYIRIGSNRK

ELDKYPEKEKKLWQVLSGFSFENEIAKSNLNIQDIYDLLDYSKCFDMLDISYDNYSSDEYIIEKLIEHGL

VKNLNDSFAITNLGAILFAKDLTKFKGLNRKRIRFIRYQGKNKIHTLEELEGRKGYAIGFQGLISYIMQY

VPKNEVIENAIRKDTTLYPEIAIRELVANAIIHQDFTINGRNPMIEMYSDRIEITNNGKSLIDIKRLIDM

PSKSRNDKLANLMRIMGICEERGSGVDKVIDSVEAYQLPAPDFINNEDYFQAILFSHMPLEDMTKQDRIR

ATYQHCCLKWASREAMTNASLRARFKIGDKQHSKASKIISDTLEAGLIKQQDPENKSTKHVKYVPFFV

>YP\_002344923.1 type I restriction enzyme S protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNWKKCKLGDIAEITMGQSPKSEFYNFDNIGMPFLQGNRTFGRKYPYFDTYCTEYKKIAKKGEILFSVR

APVGDINFANNDICIGRGLCSMNAKNGENEFLYYLLHNLRSVIINNESGSVFGSVNKNDLQTIEILLPLL

EEQRQIATILSSIDDKIELLHEQNKTLEELAQTLFLNWFKDREFNSTISDFISMQNGFAFKSKDFIDYGN

NGVIKIKNISNGIVDIVNTDKISQNTINEVNNKFNINSGDILFAMTGAEIGKMGIVPSTNKKLWLNQRVG

MVKERFLGARFLAYIHLTSEFGYDYVINSATGSAQENISATDIENCPFVKLTSEEIVSYSKQLNDFFEKI

IFNLGEIQTLENMRDILIPKLLNGEIKITN

>YP\_002344922.1 ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKYKFVKFQVKNFRSLLDITLNIDNNNINTICGENNIGKTNFLRALNLFFNHNNGVEYNQNEDRPYHIQ

KGSTGGRKTELIGYFTKNNVTHILKVEFHKDKIVYILNGKMVEWKVARDIVESFKLLFIEASNVNMPSVI

SAILENDALLALDNKRKKQSEPLRTLKLFIEQSKKAIEDIEKDINIYLKQMLDFDNTLKDKEIKIRFAEF

EKLRDVVKTMTSVTLDDGNDHLMDHKGSGAQRIVLLSLMQYITDKITTDIIWAIDEPEAFLQPKLQKKIM

EIFKNIVREKKQPIIMTTHSQYFVDFNNLVNTHLFKLTKEEKIYARKKGRVFQEINTKPIYIGTAFEKLS

VIKKHLGIETNDNWDIMPYNILVEGEEDKKYLQMLIEILNLSMPNIIHSGGATKIAGFLEYFNNQCSYTS

FKPYFICIFDNDEEGRKQYNKISKDNLYPNIKLDAKKLKRYGESIQENNRDIWEIEDFMPIKIIVDAVNI

ILKYKQYNTITNSQISDRKKLAFKNMSILDYLEKCIADRNEEKERFILNTESRKKEICQNAFRAREKYTK

NDLEDYHVDFMNELIDSFNKVDLIKKDN

>YP\_002344921.1 type I restriction enzyme R protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKAKTSEFDLEQFVISSLLEHGWCYEKPVRATDEVLLETSLVNALCRLNPQLDLSKANEIYKELKSKNH

LSLLDSNENFHYKLVNGVNINTTKDGESRADIINLIDFNNASNNEFIATNQLSITEAKENKIPDVVLYIN

GIPLVLMELKSPSDENATINSAYNQINTYKQTIPSIFTYNAFCVISDGYFARAGSISADFSRFMAWKSSD

GINYAPNKSLEIKTLIDGMLNPKTLLDIICNFIVFEKEQIRDLNGILSIKTTKKIACYHQYYAVNKAISR

TITASSKDGDKKGGVVWHTQGSGKSLSMVFYSAKAIKALNNPTILLITDRNDLDDQLFGTFASCANLLRQ

EPKQANDKEHLKELLRVASGGVVFTTIQKFSPENDNVFECLSLRDNIIVIADEAHRTQYGFDAKVVEEKS

KSGDVLGQKIVYGFAKYLRDALPNATYIGFTGTPIESHDINTPAVFGNYIDIYDISRAVEDGATVSIYYE

SRLAKIELSEEGKRLVNELDEKLENQDSQKAKATKLEALVGSTSRLKQIAKDIVKHFETRSSKLGGKGMI

VSISRSVAIKLYDEIIKIRPSWHSDELSSGAIKVVMTSSSSDGVEFSKHHTSKIQKQFLANRMRNIDDEL

KLVIVVDMWLTGFDVPSLHTLYIDKPMKGHNLMQAIARVNRVYKDKPSGLVVDYLGIASDLKKALSFYSE

SGGKGDIITTQEDAVKVMIEKLEIVEQMLPNDYEKYFELDTGAKLEYILDVEEHILSNEDGKNRFIKEFA

ALDKAYTIAMPHEKALSIKNKIAFMYAIKARFLKFAKENENENLLNQALIKQVVDKAIVSSKVVDIFDAS

GIKKPDISILSDEFLLEVKNMKRKNLAFEMLKKILNDEIKAREKLSLTKAKKLAQMLSDAIKKYNNKLIS

SSEALDELINMSKSIVSMEDEAKKLGLKDYEYAFYSALACNDEYEKILGNEKLLALVSEILQIIKNNVSI

DWMIKENVRARLRVAVKRVLNKYGYPPDMQQLAIDGVLAQAEILAKELANE

>YP\_002344920.1 NADP-dependent alcohol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQYKILENNRIASKGYAMLSKDAKFTPFEFSRHAIGDNDILIKILYAGICHSDIHTARSEWGEATYPCVP

GHEIAGEVIAVGKNVSKFKVGDYAGVGCMVNSCGECDACKRSQEQFCENGKTIFTYNSCDVFHGNENTYG

GYSNNIVVSEKFAVCVPKDAPMEKVAPLLCAGITTYSPLKFSNIKEGSSVAVAGFGGLGMMAVKYAVKMG

AKVSVFARNENKKADALAMGVSSFYTSCDKNAVKERFDLIISTIPTPYNPAIYLDLLKFGGEMAIVGLPP

HEVAPSISVITFVHKAGKKVYGSLIGGIAETQEMLDFSLKHGIYPETELITPQEIDKAYENLTSGKAKFR

YVIDMTKE

>YP\_002344919.1 lipocalin family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLELIGELSLQNYMGEWLEIARKPAFFQKSCLNSKAKYELKYKNGIPYVEIENFCSKKNEISSIKGKAKI

VSNRQLAVRFNIFMNLFNKVNYEIIFVDSEYKVAIVGSPDKKYLWILARNIIDEKNIKELLNIAKQRGFD

ISDVVFDKY

>YP\_002344918.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKENSPCNFEECGFNYTLALINGKYKMSILYCLFRYEIVRYNELKRFLSSISFKTLTNTLRELENDGLI

IRKEYAQIPPKVEYSLSKRGQSLIPILQAMSKWGKKDKKGKKCLN

>YP\_002344917.1 MdaB protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNILLLNGAKEFGNSKGQLNLTLHNHALEILKTLGYEVDQTHIDQGYDPKEEIQKFIKADAVIYQMPAW

WMGEPWIVKKYIDEVFGLGAGVLFKNDGRTHENPSKNYGKGGLDHGKKYMFSLTWNAPLEAFNDKNEFFE

GKGVDMVYWHLHKAHEFIGMKALPTFMCNDVVKNPQVEKYLNEYELHLKKIF

>YP\_002344916.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTRTKYLYILLVIAMFLWGSSWPTSKILANYTDTSIITFWRFFFVVLGSFFVLNFLKIPLKIEKTALKWV

LIAGVLNGLYAFVFFIAIKHGLAGKGGVLVTTMIPIFSYLIFMIAIFFQKNKKSTHKITKSEILGLFLGL

LSGFCLLNLGSLEDLFGKFNILFLTCSFIWALMAVFNHKAKGAHPLAINFYINLISILMFSWILFDVKSY

EIFHFEFKFWISMFVVAFLSTIIGTSIYYYGIHILGSVKANSFVLITPASALICSYFILDEVPNALTLLG

CALAIGAIYFINIYGKKA

>YP\_002344915.1 allophanate hydrolase subunit 2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSIKIIEASINSSLQDFGRKKFAKFGIARSGAMDEDALRMANILLGNKQDEAGIELCLKGGKYEFLDENY

FVLSGAEFEAKLDNQKIKTCKVYQANKGDILELDLAKIGFRGYLCVAGGFEVKSFLNSKSSDAKMGAGVF

EGRALQKDDILNTHNTFIPFNLEARECENPLFKSPKEPIIRVILGTNEDAFTQKGIETFLNTTYKVGLKS

DRMAIYAESSESIEHKNSADIISDPAVFGSIQVPKSGIPIILMAGRQSTGGYTKIATVIENDLSLLAQAK

LGSSFKFQSISMQEALELYKQREMKFKAMDQKINLDFENLI

>YP\_002344914.1 allophanate hydrolase subunit 1 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFSVHFSGSKALLLRFEQEISPQINAYVLSTEQRIQKALKEGEIYGIDELVSAYASLLIYFNPCVLSLNS

LLDFLEKIKKDIKLAEQNSSLCIEVPLCYDEEFGLDLEFVCKHNQISKEELISLHTKPYYLVFMLGFMAG

FPYLGGLDERLFTPRLSSPRAKIEAGSVGIADKQTGVYPISSPGGWQIIARTPLEFFDKEDEKNPTLLKA

GMFLKFKAISKDEFFDIQEQVAKKVYQKEIYEYKNH

>YP\_002344913.1 LamB/YcsF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKVDLNSDLGESFGAYKMGMDEEILKFVSSVNVACGFHAGDPCVMDETLNLAKQNGVCIGAHPSYPDLL

GFGRRNMQISFEEAKNYALYQLGALFGFAKAKGMKIQHFKAHGALYNMAAIDENLALALCEAVASFDENI

IFLGLSNSAMNEAAKKKGLRYANEVFADRAYNDDGTLVSRKLEGALIHDENLAIKRVIKMIKESKVTSIN

GKEIDLKADSICVHGDNAKALEFVKKIKENLKKEQIQICALENFI

>YP\_002344912.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIISLALALALSASAAELKMATTTSTDNTGLLDALKPLYEKESGNTLKWVAVGTGAALKMGEDCNADV

LFVHSPKAEKEFMKKGFGVDRTPVMYNDFIIIADKSLASKFKGKNLKESLELIKNEKLTFISRGDKSGTD

NKEKSLWKNLGGVPEKQSWYQQSGQGMLASIKIAEEKKGVILTDRGTYIKYEANEKGKPNLVIVNEGDDS

LKNFYSVIATNPKHCKNVNYTEASKFIKWVTSDKTLNFIADFKLLNKPLFVIDAKTRKD

>YP\_002344911.1 anion-uptake ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKLLILKRIFLDYIFDGFKQALFLLFNADESVISAIKTTLLSSSISIVLALLIGFPLGFILGFFEFKLK

RFIKLIVDTSLSFPTVAVGLILYALISSRGPLGEFGLLFTIKALILGQFILALPIVIALFSNLIENMNKK

HFLLIKSFHLSPLKLVLTMIYELRFALISVVALAYGRIVAEVGVAMIVGGNIKYDTRTITTAISLETNKG

EFASGIALALVLILIAFCLNFITHKLKRT

>YP\_002344910.1 anion uptake ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIEISNLFFNYQNKEVLKIKNLKLDTSKISILMGANGSGKSTFLRILKFLEGDFSKNISYFGNFKPNNKQ

KREIYLLFPEPILLNRSVRANFLFTLKTYGIKEDIEERIKESLMFLNLDESLLSKHPNELSSGQSQKIAF

AIALSVRAKYYLLDEPSAFLDKNTTLLFKKTILKMHENFNTGFLIASHDKHFLDSLAQKKLYLHSGEILE

FENTNVFELENQGVKFCNFIDFSNCKKYKDFKKPPSKIAIDPYKISFFNSKNIPKNNYDFILEKCYIIAL

RSRKSDVFIRVSCMDKILEFALEKQEFLRFDLKLYEELSLYFYEDAICFLN

>YP\_002344909.1 acetyl-CoA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNQNNQELFKPSKEFSRNARIKNLCEYYDLCDEAKEDFEGFWKRQAFEKIEWFSPFSRVLNEDKAPFYK

WFEGGTLNVSYQCLDRHMKTRRNKAALIFEGEMGDYEVYTYRRLLHETCKAANLLKKFGVKKGDRVVIYM

PMIPETAIVMLACARIGAIHSVVFGGFSPEALRDRIIDAGAKLVVTADGAFRRGKPYMLKPAVDKALSEG

CESVEKVLIVIRNNEPIEYIKGRDYVYNELVKNESYKCEPEIMDSEDLLFLLYTSGSTGKPKGVMHASAG

YILWAQMTMEWVFDIKDYDNYWCSADVGWITGHTYVVYGPLACGATTIMHEGTPTYPNSGRWWRMIEEYQ

ISKFYTSPTAIRMLHADAPNEPRKYDLSTLEVLGTVGEPINPSAWKWFYDEIGGTKSPIVDTWWQTETGG

HMITPLPGATPLKPGCATLPLPGIFAEVIDEEGNKKDEGEDGLLCITKPWPSMIRGIWGNDERYIESYFS

QAKKDGKAVYFSGDGAFYDKNGYITITGRTDDVVNVAGHRIGTAEIESAIAKHPSVAESAVVSILDTIKG

ESLFAFVVLSPASSCDLGGAIETLKELNDILRVEIGPIAKIEKILYTPGLPKTRSGKIMRRILRTIARGE

EIKQDISTLEDSKVVETIVKLAKAEFE

>YP\_002344908.1 UTP-glucose-1-phosphate uridylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLQTCIFPAAGYGTRFLPATKTLPKEMLPILTKPLIHYGVDEALEAGMENMGFVTGRGKRALEDYFDISY

ELEHQISGTKKEYLLDEIRSLINRCTFTFTRQNQMKGLGDAVLKGRPLVGDEAFGVILADDLCVNEEGLN

VMAQMVKIYEKYRCTIIAVMEVPKEQVSNYGVISGNFVEENLIMVNSMIEKPSPDEAPSNLAIIGRYILT

PDIFGILENTKAGKNGEIQLTDALLTQATNGMVLAYKFQGKRFDCGSVEGFVEATNYFYEKSKC

>YP\_002344907.1 glucose-6-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNNTLFFKQSEIHTISSYANRINDEVKSGDIGYYHLIDTSLNLIDESLQFIQDKEYVKNIVLVGMGGSS

CGVKALRDMLFNEKSNQRELFILDNTSSHSFNKTLEKIKLEESLFLIISKTGSTIEVVSLFKLLIEHFKL

DMQELKKYFVFITDKDSKLHQEGENLGIKCFFIPANVGGRFSILSAVGIVPLCFCGYNAKALLEGAKACF

EDFFTHKKDEILQKAYHYCTHKNANINVLFSYSDAFKGFNEWYIQLIAESLGKKQGYKRIGLTPIALIGA

RDQHSFLQLIMDGPKNKTVTFLKIKDAQKAPIIPDIHFKFLDSLSNKVNLHELLNAQCDATMHALIAENL

SVDVIELEKLDAWHAGYLMYYYELFTSTCGVMLGINTYDQPGVEVGKLILKNILNS

>YP\_002344906.1 bacterioferritin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSVTKQLLQMQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEMAELFDSCAERVLQLGEKAITCQK

VLMENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLWMIG

ATLQGACKM

>YP\_002344905.1 hypothetical protein Cj1533c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVLNFFYENHPKFEVSYERKNQISKPNIIIKGPRFCGKKTLIFNFLSQFKASEILFLDLYDTRFEKQSL

ERLADFLNENLQIKILCLYNLDFIPNLEKINIPIILSTNIKDLNVNGFEELELDYFDFEEFISVSKKNLP

INNLVGLFLQSGRSKFGEKNILLRQSFTLLELEILKYLALNLGQQISISKIFIELKKRLKTSKDSVYQAI

KKLENTYVIYTLKHDEKKLQKIYFKDFGLRNNLCISKDFSHLFENLVLSELFKFKEEFFYNKYFNFYSQI

SKIAYISSPTLDIDLIKLRAKKILPKALELGIFHVIFITLSSEDNFFEQGVKFEVISFDKFSLGF

>YP\_002344904.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKPIIIFFSLFLIPLFADDLKSGFGEEYYKLDIDQKRQIFFIKMNEMFDQSFKKIEQERAFIEAFFKDAY

KTGFRTSNQINLEKLITIKNKYRIENLYDFAEYKKRIQKIPKSMGIAQALVESATGTSRFAREANNLFGE

WTWGEKGLIPDLRHPDKKHKIKIFDSLQDSVDSYVLNLNRHFAYEKFRDARAKFESEGKEITGLEAIKTL

DSYSERKGYYINLITKIIKRYNLEKYDTNSNNT

>YP\_002344903.1 diaminopimelate epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFYKYCASGNDFVITNADRKEDRSALAKELCNRYEGIGADGFIVILPHEKYDFEWEFYNNDGSRAAMCG

NGSRAAAHFAHHINKINPNMSFLTGAGIIKAKVNQDKVEVSLGKIKSVQNTFEELGKTWQLCNTGVPHLV

HFCQNLDEFDTMLCQKMRQKYNANVNFVKILDENHLKVRTYERGVEDETLACGTGMGACFYLAFLNKKVQ

NKVKITPKSGEEVGFAYKNEELFFEGKVKYCFEANYNFF

>YP\_002344902.1 dephospho-CoA kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKIDRKI

LGEIVFNNKEAKKILENFTHPKIRAKILEQMQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPKELS

LKRIMQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNM

>YP\_002344901.1 phosphoribosylformylglycinamidine cyclo-ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKISYEDAGVSIDNGNTFVEAIKPLVKETFNDNVVGGIGSFAGAFRMPSGFKKPVILGATDGVGTKLRLA

IDAKKYDTIGQDLVAMCVNDLICNFATPLFFLDYYATAKLEVEVAKAVVSGIAKGCKMANCALIGGETAE

MPGMYAKDDFDLAGFAVGMAEEDEIDRSKFVKNGDILLALSSSGLHSNGYSLARKVLFESLKLKFDDKIE

GKNLIDILLEPTRIYVRDFLTLKPYISALAHITGGGLVENLPRVLPRGMGATIRKHHLKTPEIFYTIGQA

VEESEMYRSFNMGVGLVMVVDPSNVSKILENSDAFIIGEICINEGIVLE

>YP\_002344900.1 CRISPR-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARILAFDIGISSIGWAFSENDELKDCGVRIFTKVENPKTGESLALPRRLARSARKRLARRKARLNHLKH

LIANEFKLNYEDYQSFDESLAKAYKGSLISPYELRFRALNELLSKQDFARVILHIAKRRGYDDIKNSDDK

EKGAILKAIKQNEEKLANYQSVGEYLYKEYFQKFKENSKEFTNVRNKKESYERCIAQSFLKDELKLIFKK

QREFGFSFSKKFEEEVLSVAFYKRALKDFSHLVGNCSFFTDEKRAPKNSPLAFMFVALTRIINLLNNLKN

TEGILYTKDDLNALLNEVLKNGTLTYKQTKKLLGLSDDYEFKGEKGTYFIEFKKYKEFIKALGEHNLSQD

DLNEIAKDITLIKDEIKLKKALAKYDLNQNQIDSLSKLEFKDHLNISFKALKLVTPLMLEGKKYDEACNE

LNLKVAINEDKKDFLPAFNETYYKDEVTNPVVLRAIKEYRKVLNALLKKYGKVHKINIELAREVGKNHSQ

RAKIEKEQNENYKAKKDAELECEKLGLKINSKNILKLRLFKEQKEFCAYSGEKIKISDLQDEKMLEIDHI

YPYSRSFDDSYMNKVLVFTKQNQEKLNQTPFEAFGNDSAKWQKIEVLAKNLPTKKQKRILDKNYKDKEQK

NFKDRNLNDTRYIARLVLNYTKDYLDFLPLSDDENTKLNDTQKGSKVHVEAKSGMLTSALRHTWGFSAKD

RNNHLHHAIDAVIIAYANNSIVKAFSDFKKEQESNSAELYAKKISELDYKNKRKFFEPFSGFRQKVLDKI

DEIFVSKPERKKPSGALHEETFRKEEEFYQSYGGKEGVLKALELGKIRKVNGKIVKNGDMFRVDIFKHKK

TNKFYAVPIYTMDFALKVLPNKAVARSKKGEIKDWILMDENYEFCFSLYKDSLILIQTKDMQEPEFVYYN

AFTSSTVSLIVSKHDNKFETLSKNQKILFKNANEKEVIAKSIGIQNLKVFEKYIVSALGEVTKAEFRQRE

DFKK

>YP\_002344899.1 CRISPR-associated endonuclease Cas1 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSYDEAFKTLLISSNAKLNLELNHLVIKQDENIAKLFLKDINIIVLESLQISISSALFNAFAKYKIILLT

CDETHSINGVFTPFLGHFQSAKIAKEQMNVSAQKKAILWQKIIKNKILNQAFILKKHNKIEQSNELINLA

KKVSLNDSKNIEAVAAALYFKTLFGTSFSRDELCFENSALNYGYAIIRACIIRAVCISGLLPWLGIKHDN

IYNSFALCDDLIEVFRASVDDCVLKLKGESEFLSKDDKRALIGNLQSKINFDGQNYPLNRAINHYVANFK

NALLYEDELKIVKFDD

>YP\_002344898.1 CRISPR-associated endoribonuclease Cas2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIEDKFMRVLLMFDVPTKSKKEQKLASKFRNNLIKLGYFMLQFSVYMRICKGLSSAKSSIENVKKILPPY

GNVRALIITEKQFDKMELLLGGIVFNEKVNNETNLTLFDIDSHGEFKYKNSNNEEIQINKKQEKYHQQNL

FEF

>YP\_002344897.1 molybdopterin biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLMSYEESLKILHSHIKTYEKIEKIALTECLGRILAQDIKAPKNQPEFPTSAMDGYAIKFEDQDKPLKIL

GLTPAGTMPQFSVQNGTCVKTFTGSLMSEGSDTLVPVENIRIENNTLFIEKKVPQAFAVRAVGENYKKDE

ILLKKGTRLNYSEIALLAELGFFHISVFIKPIVGVLSSGSEIKDLGEALENPAQIRSSNHIAIANLAKNL

NCDTRVFPLLKDDEKATFSTLESALQSCDILVTTGGVSMGDFDFLKKAIKEYEIIIDKADIKPGRHIKIA

KANEKFIIALPGFPYSAMVMFNLYTREILNSWLLQPKDYICKAFLQGSYKKKTPYLEFVACNIEFKNGRI

LANLEGKKEGSSAIINNLNNKAALMVVPKECEMLENESLVDIIFMP

>YP\_002344896.1 molybdopterin converting factor subunit 2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKHFTLYQGSLDIPKIYSQWYEFSKDKNCGALLTFCGIVREEGGIEALSFDIYESLLKKWFDEWQKRVDF

DGISLLFAHSIGDVAIHESSYFAGILSKQRKLGLKLLNEFVEDFKASAPIWKYDVINKERIYAKERSTKL

CGAGLLKG

>YP\_002344895.1 molybdopterin converting factor subunit 1 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKVEFLGPINKENLELEVKNLKELKEILQKDESLKEWLELCAVSLNDEIIFNENTKLKDGDKIALLPPV

CGG

>YP\_002344894.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNRRNFLKFNALTLASMGVAYANPMHDMHSMHKNHSINHDLDTSFINFAPKNLKLLDPKQFPQGEILKAL

PLLKNESKEKNIFRATLEIKENHIELIKGKKTLFYTYNGLVPAPKIEVFEGDKLEILVKNKLKEATTIHW

HGVPVPPDQDGSPHDPILAGEERIYRFEIPQDSAGTYWYHPHPHYTASKQVFMGLAGAFVIKAKKDALSH

LKEKDLMISDLRLDENAQIPNNNLNDWLNGREGEFVLINGQFKPKIKLATNERIRIYNATAARYLNLRIQ

GAKFILVGTDGGLIEKAIYKEELFLSPASRVEVLIDAPKDGNFKLESAYYDRDKMMVKEESNTLFLANIN

LKKEKLELPKNLKIFKPLEEPKEFKEIIMSEDHMQMHGMMGKSENELKIALASMFLINGKSYDLKRIDLS

SKLGVVEDWIVINKSHMDHPFHIHGTQFELISSKLNGKVQKAEFRAFRDTINVRPNEELRLKMKQDFKGL

RMYHCHILEHEDLGMMGNLEVKE

>YP\_002344893.1 carboxynorspermidine/carboxyspermidine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFYEKIQTPAYILEEDKLRKNCELLASVGEKSGAKVLLALKGFAFSGAMKIVGEYLKGCTCSGLWEAKFA

KEYMDKEIHTYSPAFKEDEIGEIASLSHHIVFNSLAQFHKFQAKTQKNSLGLRCNVEFSLAPKELYNPCG

RYSRLGIRAKDFENVDLSTIEGLHFHALCEESAGALEAVLKVFEEKFGKWIGQMKWVNFGGGHHITKKGY

DVEKLIALCKNFSDKYGVQVYLEPGEAVGWQTGNLVASVVDIIENEKQIAILDTSSEAHMPDTIIMPYTS

EVLNARILATRENEKISDLKESEFSYLLTGNTCLAGDVMGEYAFDKKLKIGDKIVFLDQIHYTIVKNTTF

NGIRLPNLMLLNAKNELQMIREFSYKDYSLRN

>YP\_002344892.1 hypothetical protein Cj1514c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGALMDLEKLRLARSLYYQCLGELFVFSFSEERLSKLQEYLKTMQECLFDENLKSNFDILLKHLDDENSI

QAFFKEYDLLFLSLKNSIPTTFSYIEEGFENSNPLLCVRQILVKSKIRRNEKFFKESEDSVGFCLLLMSE

FLRQNEDDLAKELFEKVINKSIDEFLGDVFMNKNANLYKEIASIASAFMEFERLCFEVEKPAKINSKKVQ

NDLSRSEFLRREANKQRRTREKSQGIS

>YP\_002344891.1 hypothetical protein Cj1513c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNRREFLKKSAFALGAAGVLGSTTLALAKDEERKDLVKGKSKKKEVLFQRSANWENYYIKAE

>YP\_002344890.1 formate dehydrogenase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSSVGENIKLTRRSFLKMAALSSLATPLLARSETLREASADELKEAYEGSKKVKTVCTACSVGCGIIAEV

QNGVWVRQEIAQDHPVSSGGHCCKGSDMIDMVRSHVRLKYPMKKENGEWKRISYEQALSEIGEKLAAYRK

ENPESVMFLGSAKLNNEQAYYIRKFAAFFGTNNVDHQARIUHSATVAGVANTFGYGAMTNHLGDIQRSKC

IIIIGANPAVNHPVGFRHFLKAKEKGAKLIVVDPRFTKSAAKADIYARIRPGTDIAFMYGMLKIIFDEGL

EDTKYLDERVFGIDKIREEAAKWTVEEVENVTGISKELLVQITHEVAKNKPTTLIWAMGLTQHTVGTSNT

RLAPIVQMVLGNIGKFGGGVNILRGHDNVQGASDMACLSENLPGYYPLNEATWRYYAKIWGVDYEWLLGN

FVSKDWMHKTGLSLARWWAAALNGKDGNDAIDNAGTPLKALVVMGNGITSTAQQVKVKEGLEALELLVLA

DPFVNEAGIIAERKDGIYLLPAATQFETSGSVTATNRSGQWRFKVVDPLYESMEDQEILFELAKKLGFYE

DFTKTLRDEKGEIVWPENATREIAKAVRSIGLNGWSPERLKKHTLYWDKFDEVTLEGKDEVAGEYYGLPW

PCWSDKHPGSPVLYNTDIEVAKGGMGFRNNFGLEYEGESLLAKNAPLNSPIDTGYPQITKDNIEKVLGIT

LSAQEKEKMGSTWSYDDSNIIATKCIEKGIVPYGNAKARAVVWTFKDKIPLHREPLHSPRNDLVQKYPSF

EDQKALYRVDTKFVSVQQAKDYSKEFPLNLVTARLVNLNGAGMENRASMYLTRLTPEMFCEINPELAKEQ

DIKAGDMIWVHSPEGTKIHVRVKVNPGVAKDMIFLPFHFTGVMQGVDLTHNFPEGTKPYASGESANTVTN

YGYDIMCQIPETKGGLCRISKDGK

>YP\_002344889.1 formate dehydrogenase iron-sulfur subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKVNFANLEKERLKFFCDNERCIDCNGCAVACDEAHELPIHIRRRRVITLNEGIQGKEVSTSISCMHCD

DAPCSIVCPVDCFYIRADGIVLHDKEICIGCGYCLYACPFGAPQFPKDSVFGNKGIMDKCTMCAGGPEAT

NSEKERELYGQNRIAEGKVPVCAAMCSTKALLVGESSKIEEIYHNRLMNRNYGIPNPSESLEWKIAYTGK

ERL

>YP\_002344888.1 formate dehydrogenase cytochrome B subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKVFVTLLLSVVSLFAYGSERMGQDTQIWDFHRITNIPNYDTFGKLWTTLQGEYIATIALIAVIAVLSA

FALHYMVIGPKQFSHDGKKIYAFTLFERLFHFIAAISWVILVPTGFVMMFGEVFGGGVFVRVCKNLHAFA

TILFIISIIPMFLCWIKRMLPASYDIRWMMIVGGYLSKIKRPVPAGKFNFGQKSWYYIAVFGGFLMIITG

GFMYFLDFNSTAIQGLFGLTQIELLRISAIVHNFLGIVCAVFFGVHIYMAVFAIKGSIHSMISGYKEEEE

VYILHSYWYKELSNKKQIEPSFSYDPNVKI

>YP\_002344887.1 formate dehydrogenase accessory protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDPLFTTQILKYKGDESFTCNDTLVREIKLEIFINDEKVGALMATPVDEQALAIGYLMSENIIAKVSDIE

SIETKDDGMSVHIKAKIDKENLAKLNAEGVVISGCGRAHTANIDPEAIEASKISSDAKFSKDEILKQMST

FYTQCELYEKTGCVHTAKLFVDEKTFFIGEDIAQHNTIDKALGKACLAGVDLSQCFLMVSGRLSSEMVAK

AVMHKIPVLVSRTAPTCLGVMIARKFDLTLCGFARENKINIYSGEFRIHG

>YP\_002344886.1 regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKNQEKEIISYMRELLNSNEKLDCGTAFKIAKKFNINIEKIGQLADENHMRIDNCELGQFGHLDFEKAK

IEVLKKIEPSLDEKRRIFCKDARDIAKEGCGLKSMRSALKTYKVDVKYCQLGCFKEKKGKQFIVRTKTWI

ENADGDLLFGRGKTELLELIGQTGSLLHASKLMGINYKKAWMHLQTLQKNSQEILVSTRQGRSKESGTKL

TPRAMELMENYSILQKDIEEYANKRFKELFLKGKK

>YP\_002344885.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKSLNIGLKLIFSVAAVVVIGLVILISLITKQVSQNITKNTEDILASITKEYATQTQGIFGEMIALNKS

ISGTLTEMFRSTSKEDLDIDNITNIITNTFDNSAYSNFTYLYLIDPPEYFKEESKFFNTQSGKFVMLYAD

EEKDNKGGIKAIQASDEIANLQVVQDILKKAKYGENKVYIGRPIKMNLEGQDFDAVNVAIPIFDRKNQVV

GVIGMTLDFSDIATYLLDPKGQKYDGELRVLLNSDGFMAIHPNKNLVLKNLKDINPNKGAQETYKAISEG

KNGVFNYIASDGDDSYAAINSFKVQDSSWAVLVTAPKYSVFKPLKKLQLIILGASFIFIFVVLGVVYYCV

RKIVASRLPVILSSLESFFRFLNHEKIEPKAIEIRANDELGAMGRIINENIEKIQISLEQDQNAVDESVQ

TAREIEKGNLTARITKNPINPQLVELKDVLNRMLDVLQSKIGSNMNEINRVFDSYKALDFSTEVFNAKGE

VEITTNILGKEIKKMLLASSNFAKDLANQSEELKNSMQKLADGSNAQASSLEQSAAAVEEINSSMQNVSG

KTVEVASQADDIKNIVNVIKDIAEQTNLLALNAAIEAARAGEHGRGFAVVADEVRQLAERTGKSLSEIEA

NINILVQSVNEVAESVKEQTAGITQINDAIAQLETVTKENVEVANVTNNITNEVNQIAAAILEDVNKKRF

>YP\_002344884.1 two-component response regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIDCRNLSCPQPIVETKNALEKLQENEILEIVLNSIISKNNVVKFLNSLNLNPVVDENAQEFCIKVQKK

NFDSSEVNIHDYNVLFLKTDKVGEGELGQNLLVGFLSTLKNLDHAPSKILCVNESVLINVDENHKAHLAM

KELENLGIEIISCGACLEFFNKSKELKIGNIGNAYEILNELFGKAKIITL

>YP\_002344883.1 selenide,water dikinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKTPALLSDIGNNEDASVYQISPDLALVQTLDFITPIVDSAYHFGAIAAANALSDVFAMGAEVINALNI

VGFDTCNHDLNILKELLEGANDKVKECNALVVGGHTIESTELFFGLSVTGKVHPSKFIANNTSKIGDCII

LTKPLGTGILSTALKAQMLNQKHLDIMLKNMIELNYKASQIALKFHPSAMSDVTGFGLLGHLKEMLNKNI

SFEIFESELPFLDGVKEYFNMGLIPAGAYKNLEFIKELTPDLNEEKLLLCDPQTSGGLLISISEKDSLEC

LKKLEDENIQAKIIAKVVNKQENDIIIS

>YP\_002344882.1 proline dehydrogenase/delta-1-pyrroline-5-carboxylate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIQKALALAEELQGQIEANISNSEKEFHAKMQKLLNNPKNKVMLIELLDRSFRCKDKNASFELIEYTLSK

YGIADFFSTFEKFLLFSFLNFGKFAPNLSVPFFVKHLREDTKAMVLDANPSVLEPHIKKRKEQDKITLNV

NLIGEEVLGEAESKYRMQKYEEALKSSYITYISIKITTIFSQINIIDFNYSKEEVVKRLDYLYALALEEE

KKQGVSKFINLDMEEFRDLELTVAAFMESVAKFDIKAGIVLQAYIPDSYKYLKKLFAFSKERVLKGMKSI

KIRFVKGANMESEETIASQRGWELPTFYKKIDTDSNYNKMLDFILEGDNYKYINIGIASHNIFEIAYAYT

RISEVGALDSFTFEMLEGMSLQCSYELSKMHDLILYTPVCDEAHFNNAIAYLVRRLDENTSEDNFMRYFF

NLKVGDKNWNIQKELFLKSLEGIKTLDNTTHRKQDRNKESNIISSYEGKKFSNESDTDFILAQNRVWAKE

IKTKYENLKDYDVYPVIGELDFKAENLNVLEVKDKIEDRVIGKAYLAGEKEIKQALEVAKNSKFTQKSHD

EIYQILAKSAKLMRERRGDLIGLAALEVGKTFLEIDPEVSEAIDFIEFYPHSLEELKKQNPKVTFTPKGI

GVTIAPWNFPIGISVGTIAAPLAAGNVVIYKPSSLSTLTGYMLCKCFWDSGIPKDALIFLPSKGSDISKY

LLIDEAIKFSILTGGEDTAYAMLKANPTLLLSAETGGKNATIVSKFADRDSAIKNIIHSAFSNSGQKCSA

TSLLVLEEEVYHDEEFKKTLVDAASSMAVGNPFEFKNKLGTLADKPSSKVQKALDELQPYEEWALKPKFL

EDNPYLMTPGIKYGTKKGDFTHMNELFVPILSVMKAKDLKEAIDIVNSTGYGLTAGFESLDEREWEYFHT

HIEAGNIYINKPTTGAIVLRQPFGGIKKSAIGLGRKVGIYNYITQFLEIKQEDFDDHLIEDKFSKKLAQI

DLKEAQDFINNLIKMSQSYAYHYKNEFSVSKDYVNIRGEDNLFSYTKIKNMVLRLCGNESLKDVLGVVLG

ANIANIDLSISYDEQDVSMIERIVQSIGAKVLFLKENKENFIKSIKEYERVRYLAKPDVNDEIYKEAAKL

AKIIIREKPLLNGRFELLNYFNEKALSISFHRYGNLGIRAIS

>YP\_002344881.1 sodium/proline symporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKERLMEVVQINTPIAVMFVVYALLMLYIGFYFYKQNKNSEDYFLGGRTMGPVISALSAGASDMSGWLL

MGLPGALYVSGFIDSYIAIGLTIGASLNWIFVAKRLRIYTSVIANSLTIPDYFETRFDDDKHILRIVCAV

VILIFFTFYVSSGLVSGAKLFESTFGIRYDYALTTGTIIIVAYTFLGGYKAVCWTDMIQGLLMMMALIIV

PLVMLYHLGGFGEAMNIVREIKPQALSMGEGVGIVSIISALAWGLGYFGQPHILVRFMSIRSTKDIPMAT

FIGIAWMAVCLLSACMIGILGIAYVHKFELSLQDPEKIFIVMSQLLFNPWIAGILLSAILAAIMSTASSQ

LLVSSSTIAEDFYKKIFREDAPSHIVLNLGKLGVLLVAVIAFLISTDKNSSVLSIVSYAWAGFGASFGSV

MLFSLFWSRMTRVGAILGMITGAATVVLWKNFANSGLYEIVPGFLVASVVIIIASLFTNVRSGTKAAYEK

MLKEF

>YP\_002344880.1 hypothetical protein Cj1501 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKITYSLNLQGEACPYPAIATLDVLPKLKSGEILEVLCDCPQSINSIPQDAKNRGFKVLEIDQSGPTLRF

LIQKP

>YP\_002344879.1 inner membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNSFKQKYLINFWDNSRSMIALGILSAVYFGIFGGVWAVTGEMTRWGGEFLELLGMNLDGYSYYQKQNLN

GTPLTRTDGIMLIGMFIGCLVAALLANKVKFRLPASNIRIFQAIVGGILSGYGARLAFGCNLANFFTGLP

YFSLHTWLFTVFMVLGIYLGVKICNTSFFKPKAKLERVNKENLPLNKQSLRTKLYFNLGILLFIAFLVWV

FYLVFTNGNISTQNKQSLLALALIFGFVFGFVISRGQICFTSCFRDLFLFGRDNAIKGALIGMIIASLIA

FAFILQGHTSKLIELSPAVAVGAFLFGFGIVFAGGCECGWTYRAFEGQSHFIIVGIANIIGTMILALSYN

FLPKAFKEGIKINLLTEFGNLNGFFINLILFILMFVFVVFYKKHFFKNQLKG

>YP\_002344878.1 adenylosuccinate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKADIIVGIQWGDEGKGKVVDKLCENYDFVCRSAGGHNAGHTIWVNGVRYALHLMPSGVLHPRCINIIG

NGVVVSPEVLIAEMAQFENLKGRLYISDRAHLNLKHHSLIDIAKEKLKGKNAIGTTGKGIGPSYADKINR

TGHRVGELLEPQRLCEALIKDFEANKTFFEMLEIEIPSAEELLADLKRFNEILTPYITDTTRMLWKALDE

DKRVLLEGAQGSMLDIDHGTYPYVTSSSTISAGTLTGLGLNPKEAGNIIGIVKAYATRVGNGAFPTEDKG

EDGEKIAQIGKEIGVSTGRKRRCGWFDAVAVRYTARLNGLDALSLMKLDVLDGFEKIKICRAYEYKGMEI

DYIPSDLENVQPIYEEMDGWDKVFGIKDYDLLPENAKKYIARLEELAGVKVKYISTSPERDDTIIL

>YP\_002344877.1 hypothetical protein Cj1497c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSKYNSVVKVRKQQLDKAESNLNQAKQRQLEHEKAYELSRQECESLGVLPKSGSIAELRSNLSMAQVGR

EALARAKEKVELSKKEMNHYQFLYQKAHLDYEKMKVLEAEEIKQKQKELAKAEEKFLDEIAISRFFKGEK

DD

>YP\_002344876.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKKFILLVFISSVVFGAEQDCEQYFEARKAQIELQTREFDEARQSLEAYKASFEALQKERLENLEKKEA

EVNATLAKIEELKLENARLVEEQQKILNSINDKTQGRVKEIYSQMKDAAIADVLSQMDAEDASKIMLSLE

SRKISGVLSKMDPKKASELTLLLKNLDNNASN

>YP\_002344875.1 hypothetical protein Cj1495c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRIKLPHIPYIANKMMLDIANSSFVEIKDQLEKLKVCIIEVLEKDILNERKLDERVKELLEQQEDEMELM

QVDRKNMFWLVKKKLAPEFNVILDSEDRHNHLAHQILEELVENDYINFIVSENRVKNLIFSSIESYLKIY

EKLEDEVYEKISNYKTKPIPGSEEYDLIFEKLYQEELRKKGMF

>YP\_002344874.1 carbamoyl phosphate synthase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKAYIYLENDIFLSAKAFGKSGTFFGELVFNTSLTGYQEIISDPSYAGQFIVFSMPEIGIVGTNENDNES

KEIFASGVLMRELSSSFSNFRAKESLQDYLEKHGKIGIYELDTRYLVKMIRNNGNLRAVISTEISNKEDL

KIALEKSAKIDEVNFVKEVSTKKNYSHKQGVWNASFQKFNDAKRSEKKVAVIDYGVKTNILNELVEVGFE

VEVYPYNVKADELITLYKKGEIQGVFLSNGPGEPRILKQEIAEIKKLAEAKIPMLGICLGHQLLSNAFGY

ETYKMKFGQHGANHPVINLDTKTVEITAQNHNYNVPEELAQVAHITHRNLFGDNVEGVRYKDYPIISVQH

HPESSSGPHESKYIFKEFMNLM

>YP\_002344873.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSIDFLAIISVAFLSSFGHCYSMCGGFNLLFINLNSKSNNLFLLTFIYNLFRIFAYIVLGIIFGTFGNIL

AINAKVQSLSFFILGIFMMILGFALIFRGNMLSFIENNVFFDSFVKKIIKKSKNFKGLKSAIFLGFSNGF

VPCGLVYFFIANAMSKQNIFEGILVMMIFGISTLPAMLFFSKISQFFSDFLKNLFNYLSYGVIVCYGINL

AYIGFKAFQ

>YP\_002344872.1 two-component sensor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKDFFKDQFFKALEKNTIFSRADVQGNLIFVSDKLCQISGYSKKELIGKKHSIFKHPDVEECYIEELLKK

LSYKKPYQVIFKNIDKLGKTFYLETLLIPILDKNNELIEIVAFSHDVSNSFKLNEELALNHAKLRELSIN

LENTVKNHQQEFIQLGKKFEKKMQIALEKNEKDIKIAYEEILKSSLEQMISDIAHQWRQPLNELGIAMFQ

MKQNLKDEKGFAEIYSQSKDMIKNMSETIDVFRTLFNKGVEQCVFIKETLNKALEIAFETIEKNHVNINI

VSKSDYEVLAYENGLIRVFLNLILNSIEAFKNKKRKIITINFSKFGKNYLKITIKDNAGGIDKENLDKIF

QPYFTTKHPSQGIGVGLYISRQIIESFQGKIKVKNGKDGACFEIFLKLKERVE

>YP\_002344871.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQECKELIILVVEDEVKARESMINILSERFSKVIGAQNGDEGLKKFKKFKPDLVITDIAMPIMDGLDMA

REIKEISDDVPIVVLSAYSEKERLLRSIDIGIDKYLIKPVDIEELFKVLDYLIGEKIEANMLVKISEEYQ

FNKTKRTLIYSGGEIVLTKKELAFISLLLKQPGALVLHEDIKKNVWIGEHVSDTAVRTFIKRVRDKVGED

FIKNVPSLGYKININK

>YP\_002344870.1 cbb3-type cytochrome c oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHPGNVLNYDYTVARYFMFATILFGIVGMAIGTLIAFQMAYPNLNYLAGEYATFSRLRPLHTSGVIFGFM

LSGIWATWYYIGQRVLKVSMAESRFLMAVGKLHFWLYMLTMVLAVISLFMGVTTSKEYAELEWPLDILVV

LVWVLWGVSIFGLIGIRREKTLYISLWYYIATFLGIAMLYLFNNMEVPTYFVTGMGKWWHSVSMYAGTND

ALVQWWYGHNAVAFVFTVGIIAQIYYFLPKESGQPIFSYKLSLFAFWGLMFVYLWAGGHHLIYSTVPDWM

QTMGSVFSVVLILPSWGSAINILLTMKGEWSQLRESPLIKFMILASTFYMFSTLEGPILSIKSVNALAHF

TDWIPGHVHDGTLGWVGFMTMAALYHMTPRVFKRELYSKSLMEAQFWIQTTGIVLYFASMWIAGITQGMM

WRATDEYGNLLYSFIDTVVAIVPYYWIRAIGGLLYLIGFFMFTYNIYKTIACGRVLDKEPKSASPMAA

>YP\_002344869.1 cbb3-type cytochrome c oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFSWLEKNPFFFAVAVFVVIAYAGIVEVLPNFAENARPIEGKKPYTVLQLAGRAVYIKDSCNACHSQLIR

PFKSETDRYGMYSVSGEFAYDRPFLWGSKRTGPDLARVGNYRTADWHENHMWDPTSVVPDSIMPSYKHMF

KNNADIETAYAEALTVKKVFNVPYDAENGTKLGSWEDAQAEVKAEAQAIVDQMKNQEVKDAFAKGEIKEI

VALIAYLNSLK

>YP\_002344868.1 cbb3-type cytochrome C oxidase subunit IV [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEHLSIVFDVIKNLITFDLATVQKHEWEIFQGYGFFALVMFLSIVLYAYWYHLYRTEKKGERNYENYANL

ALKDDIDDSVLESKRSA

>YP\_002344867.1 cbb3-type cytochrome C oxidase subunit III [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQWLNLEDNVNLLSLIGAILIILITLVIVGRMFKQMKEKKGESELSEHSWDGIGEYKNAVPTGWAVVFFL

TIVWAIWYFLWGYPLNSFSSIGQYNEEVATHNTKFEEKFKNLSPEDKIAMGQNIFLVQCSACHGITGDGI

NGKAQNLNIWGSEEGIINVIKHGSKGMNFPGGEMLGAADLGVAEEDIPAIAAYVAKDLSAIKKTANENLV

AKGKEAYATCAACHGEDGKGQDGMFPDLTKYGSAAFVVDVLHSGKAGFIGTMPSFPTLNDIQKEAVGEYV

ISLSRGE

>YP\_002344866.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMENNNRCVFSLSGVTGMLIATVLLLVILAVLTIWGLKAQQEVMQKPYSLKDVQSVKMFGSKEQDHRSIK

EAQ

>YP\_002344865.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKALEYLIVIGLVAAAAITAWSVLTVNHLHIG

>YP\_002344864.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILQDGFFLAIFFFVLLPSRVFALDAVLFNENILSQKVSNEINLIGKELYQKSNIFIGVMVGDKTEIE

TLLNKQKELPQSYILLLLSKNSHKVDIVGSKGALALIDKEAVLSPYPGTGSILPILATNKGDIYNAAILN

GYADIVDRVAKSLGLQLEHSIGNANRDTINILRILIYGFICFALLYYAQRRIKRKKNVRN

>YP\_002344863.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLETKKSFWPYGILLSLLAIIIACIVTIFIASHHPVYEDDFYFDSYQNVENNYNQIQKQQVNFDKFFKVN

FQNDKITFIGKRKIPSYEVDQNSYVANFKISALQNINSNDLKVQVLLTRPFTKNFDQKLEGQVKNGILSI

ALPKLDKGRWELKLKFYANQETVGFFSYELNAQ

>YP\_002344862.1 hypothetical protein Cj1482c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLRIFSSSRQIREYYNQKKQQNALLDSAIHIGEFLDKVCLSNFHKASSYESLLLMQEACLKSKDLEKKL

GISVEFFAFLKNNEYLFSFFKELSLEKKSIEDLKNNDYYATYNEHLEILDEVYKNYLALLEKNSFYDDLS

LPKNYTLNKDFLDEYEAIVYDLQGFLSKFEENLLSEISQIKEVVLSFKTSKFNLEYLLKLDFLKIFDLKI

NTHYEINLSKQEILKEEIFKTKNSKMKLKSFELRALQCAFVMDEISHFVRKGLKPENIAVITPDESFCEF

LRLFDKDNMLNFASGISIKESLFYQKFQALYESASSASFVYKNQEDYFEDTQMIFDYHNTLLHSLKLDFI

EFKKYFDEKCDFEYFEKLLALFLENEKQELMYLIRKELYFIKDLLKNQSLTLKELIHLFFMQISQLSLSD

VGGGKVTVMGLLESRGLCFDGVILVDFNEEFIPKRSVNELFLNNEVRKKAGLISYDRRENLQRFYYESLM

KNALEVSICFVENEEKSKSRFLDELDFDFFYETHIHQKAYLNALKLDYEGIKPNLTPIKAPILKHNPFEF

PLSFSRFNLLENQKRTYYYRYILNLAEPRVLSEESKAKNQGNFIHKMLEIYYKNYANNDFDIKVFANLLD

KEYQKYNISELDLEVFKLKFMQFAKNEKEHFSKGFYVVHTELELNNILKLGTDSIKLKGTIDRIDSSKEG

NLIIDYKSGKVPSNSYQLAFYQALYDENASVGFYDLNSMQILHQKAKSLDELRERLKDLVLMSKEEIEFE

NEQDEYCPYKLIYKKELK

>YP\_002344861.1 helicase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQFEPFLALEASAGSGKTFALSVRFVALILKGARINEILALTFTKKAANEMQKRIIETFLNLEKENKTS

ECNELCKLLGKDKEELISLRDAKKEEFLRTELKISTFDAFFGKILRVFALNLGLSSDFTMSEERLDVREI

FLKLLKKDELKDLAYYINLVDEKENFFNELEKFYENAYFQNRPKILNPTKAYINKAYSELRSYCLGLTHV

KNYKNLCDNFKSEVLDLSVFMQSSFMTKFESTKYLQDLESTNLHFSAKRMEFINALNTYAIELENYKIAN

LMNLLNHYSEAKNIFHKDKNTLNFQDVSKKVYELITSEFKDMIYFRLDGFISHLLIDEFQDTSVIQYQIL

RPLIAELVSGEGVKKNRTFFYVGDKKQSIYRFRKGKKELFDLLKQEFSQIKSDNLNTNYRSKELLVDFVN

ETFKEKIKDYKEQFALESKKGGFVRIVESKEQKVKNQAQEIKEKTLETLFEQINFLRSKNISYDDICILC

WKNSDADMVLDFLREQNIPAFTQSNVLLENKASVRLVLEYAKYCIFGDEFYLVFLKELLGFEPRKITLDF

SKNAMENVLFLIKELKLDLNDIALIQFIEYAKTKENFLKLLFEPCALKIVSEQNMGISIMSVHKSKGLEF

DHVILLDSLSKNNSNNEDIMLEYDINQGWQLHIKDKIRELTKEPIYTLFKENITRANYEDDINKLYVAFT

RAKESLIIIKRNEESVNGNYPSYFKGGFLNIHSQERGFLESKEQILSVKKESIQTLQKFEKITLQEIQSE

ERLDSKELYFGNAFHFFMQNLKLPKGENFQILTQRCKSKFRHFLDESDFEKLFKRIEILLKNIQFQNLIG

DGKLLKEQALSFNGEIKQLDLLALKDEEAFIIDYKTGLAMQDKHKEQVGTYKIAISEILQKDKVRAFIVY

CLENEIQILEI

>YP\_002344860.1 50S ribosomal protein L13 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKITKPNEVKREWIVLDAEGKRFGRLLTEVATILRGKNKPCFTPNVDCGDYVIIINASKAVFTGANKAE

DKLYHRHSGYFGSVKSEKFGDLLEKNPAKLYKLAVRGMLPKTNLGRAMLKKLKIYAGSEHPHTAQIAKEG

K

>YP\_002344859.1 30S ribosomal protein S9 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MATTYATGKRKTAIAKVWVKPGSGKISVNGVDLNTWLGGHEAIKLKVVQPLLVTKQETSMDIKATTLGGG

YSAQAEALRHGISRALAAMDADFRALLKPKGLLTRDSRTVERKKYGRRKARRSPQFSKR

>YP\_002344858.1 outer membrane fibronectin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLCLGLASVLFGADNNVKFEITPTLNYNYFEGNLDMDNRYAPGIRLGYHFDDFWLDQLEFGLEHYS

DVKYTNTNKTTDITRTYLSAIKGIDVGEKFYFYGLAGGGYEDFSNAAYDNKSGGFGHYGAGVKFRLSDSL

ALRLETRDQINFNHANHNWVSTLGISFGFGGKKEKAVEEVADTRATPQAKCPVEPREGALLDENGCEKTI

SLEGHFGFDKTTINPTFQEKIKEIAKVLDENERYDTILEGHTDNIGSRAYNQKLSERRAKSVANELEKYG

VEKSRIKTVGYGQDNPRSSNDTKEGRADNRRVDAKFILR

>YP\_002344857.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKTILFDLDGTLIDSTDAILNSFQGAFKALGLTSKNNEEIKNLIGYPLEQMFRMLYPDKVNLSKEFVLA

YREIYAQIYLEQTTLLPKAKEALELGSEIADLGIVTTKGGKFTPILLDYLGVKKFFKTLITLEDVTNPKP

SSEPIILALKGLNKTQENAYMIGDTILDIQAAISANITPLALTCGYGNENELKAHSMVFLNAYEAVNYIA

RLN

>YP\_002344856.1 pyruvate-flavodoxin oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGKIMKTMDGNEAAAYAAYAFTEVAGIYPITPSSPMADYTDMWAAAGKKNLFGVPVKIVEMQSEAGAAGS

VHGSLQAGALTTTYTASQGLLLKIPNMYKIAGQLLPCVIHVAARSLAAQALSIFGDHQDIYAARQIGFAM

LCSHSVQETMDLAGVAHLAAIKGRVPFLHFFDGFRTSHEIQKVEVMDYAHFDRLLDREALLEFRNNALNP

ENPKTRGTAQNDDIYFQTREVSNRFYDALPDVVNEYMQEISKITGREYKPFTYYGHKEPECVIVAMGSVT

QALEEVVDYLNAKGEKVGILKVYLYRPFSLKYFFDVMPKSVKKIAVLDRTKEPGSLGEPLYLDVKSAFYG

RENAPVIVGGRYGLSSKDVDPAQMIAVFENLKLDNPKDGFTVGIIDDVTHTSLSTGEKISLGDESTIECL

FYGLGADGTVGANKNSIKIIGDKTDFYAQAYFAYDSKKSGGYTRSHLRFSKKPIRSTYLVSTPHFIACSV

AAYLEIYDVLAGIRKGGTFLLNSIWNAEETIRQLPDAVKKTLAEKEVNFYIINATKLARDIGLGNRTNTI

MQSAFFKLAKIIPYEDAQKYMKELAYKSYSKKGDAIVEMNYKAIDVGADGLVKVEVDPNWKNLELKEKEQ

TNAYKGTEFVEKIVKPMNAAKGDDLPVSAFLGYEDGSFEHGTTEYEKRGVGVMVPRWIEANCIQCNQCAS

VCPHAVIRPFLINDEEMANAPRGVKDHALEAKGTKGEKLSFKIQVSPLDCTGCELCVHECPTKEKSLVMV

PLQEEMDFGEQENADYLFKEITYKDDILNKETTKGAQFAQPLFEFHGACPGCGETPYITLITRLFGERMI

VANATGCSSIYGGSAPSTPYRKSVKNGHGPAWGNSLFEDNAEFGLGMKIATENTRHRIEHIMNESMQEVP

NALSALFKDWIANKDNGAMSVEIKDKMIPILEQNKNIKAVQDILELKQYLSKKSHWIFGGDGWAYDIGYG

GLDHVLASGENVNILVLDTEVYSNTGGQSSKSSRTGAVAQFAAAGKPIQKKDLGQIAMTYGYIFVAQVNS

TANYTHLIKAITAAEAYDGPSLVICYSPCIAHGIKGGLGYSGEQGELATKCGYWPLYTFDPRLEEQGKNP

LTLTGKEPDWDLYEQFLMNEVRYNSLKKANPEHAAELFERNKKDAQRRYRQLKRIAMADYSNEVES

>YP\_002344855.1 hypothetical protein Cj1475c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCFSTLFAQDNFEEYFKLIDKENRINFNTLQNPFVNPTFEKLRHIKITAIMLDKVKIYDRWYKKGDMIDD

AIIYEINTKEIKFQYDNLEIAIQINKNDKINININ

>YP\_002344854.1 type II protein secretion system protein D [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIRLILILINILFCHYLYALDCQKRLFDISINEKLSIQESLDELAKYCSFSIIVKDKIAKEKLETLQNSV

NIHQMSLDEIFNFFIKEHDLSYDFDGKILRISGINTKIFKISYITSIREGQSITKASVDAKPRQSEYSGS

FDDAEDNMIKSMEKFDFWQNIEKEIIVLLKNSHEDYEAKTPIINPNAGLIIVTGTNSQLKSVKNYLQKLE

NRLKKQVIIDVSILAVSLNESHSSGINWQNFNIGLNSQVNNENSFIQFQNGQGFVKNLGLRANLNFDSII

NFLSQNGKTSVLSNPKLMALNNQQAIISVGDTINYQVKESSKGTENGTTVSESYNNYSIFVGILLNILPE

ISDDGKIMLRINPSLSDFKYPEDNKRQKEPRTIAPDTIQKKLSSVVQVENNQTLILGGLISHDKSNEKNS

INFLSKIPILGSLFKGEVLNSKATEIVFIITPSIVDSVNAPSLKDLGFKHYE

>YP\_002344853.1 ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKIIPFREEIFHQINQILESQKAFIFLWGKSGSGKSVLLQRLAKKYNVDFINENFKDQSFLKEKIEFLI

SQGQSLIILDEVGMYDYAMLESIRIYSDSISFVLSSHKKLNILKKEHFKSRLSACFKLKNISLLELDDYI

KLKFGMNFSNKCLKFLQKISQGNLRYIDKTLKSFYEINSFFDKNKSQEYILKLSALENGLLR

>YP\_002344852.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQERIKELELRYKYFLLKKYLKYLLLIILISVIAFCFFVLMQKYNKQKNIYLQAIEHKKHLEQKILQAQI

LQEKNKISREKLYKELEEVKAVQENTHISKIEIDSKILNISDLKKSFYQNPSYEKALNLAKKYFDIKAYQ

KTIFWALKANELDKQKQDSWLIFAQAKRALGEEKEAQSALDAYINYYGLMELDGK

>YP\_002344851.1 type II protein secretion system protein E [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MESRMDKIFQAYIDNEISLDEICTKFNITSWDFFNKLANFCNLHFVDLDEDNDFIYEGIPFSLLLKFKFL

LIKNNDGFMIIRSKPCSLELLEQVKTFMICEKIDTAIADELKIAKILNQIRIQEEIKRLSIKLRLEWQEN

HKRDDQSCISQIFDFLLHEILSFHASDIHIEARNNDALIRFRVDGILREFAIFEKDIYEALVFHVKFLAC

LNLAESRKTQDGSFELDFENERYDFRVSCLPLIYGESVVIRILKHDKEILDLYKLNLGNKNLEILKKILH

RPNGMILLTGPTGSGKSTTLYACLNELKSIEKKIISAEDPIEYKIPLVQQILLNSKVGVEFNSVLRAILR

QDPDIIMIGEIRDEESLDIALKASLTGHLLLSTLHTNDALSTIDRLLDMQAKSYLIASALSLVIAQRLVR

KLCPWCKQKSKKHYIEFEGEFFEPKGCERCHHSGFFGRELIAECLEINEDLACAIRENQDKTILMELAKK

YGFQTMFEQGLKKAKEGLTSIDELLRVVR

>YP\_002344850.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGFEHLNTIYYFILFFVALFAGFIDSIVGGGGLITLPALIACGIPAHLSLATNKLQSVFGSFTATLTYFK

STTLPRLAWGVFFTALGAAIGSYSVLFVKDEQLKLIILIFLTLTFLYTALRPNLGKHESEPKIKNIKIFH

LICGLTLGFYDGFLGPGTGSFWIFACVMLLGFNMRKASINTKILNFTSNIIALAIFLWQYELLWAVGLLM

GVGQVLGAYLGSKLVLKTNGKFIKTLFLIVVGATIIKVAWDYFS

>YP\_002344849.1 hypothetical protein Cj1467 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNFIHLKAKLDFLANQKNTNHSLFETPDPLQIAKIHNDEFIALICALFAYGNAKNIVNFLKKLDFSLLN

LQEKQIKKELKNLKYRFQNEKDIQEIFITLSRLKNEISLYELFYQAYQERENTTDAILAFMQKIKTLNSY

SSYGYDFFFGKIWQNTPTSPLKRYNMYLRWMVRKDELDLGLFTKIHTKDLLIPLDTHAHKISLTLGLLKR

KIYDYKSVLELTQNLKKLDANDPIKYDFALYRLGQSKEIDKFKE

>YP\_002344848.1 flagellar hook-associated protein FlgK [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGIFGTLYTGVTGLKASEVQIATTGNNISNANATFYTRQRVVQTTNGYITTGGVQVGTGTAVESIVRLHD

EYSYYKLKGASTQLEYTKYMASTLQEIAQRFPDLQNTGILQDLENYNKAWNDFASNPNENATKIALVKAS

QTLTESVNNTFATLDKIQKKVNDDIKNTVDEINRIGEEIATINKQIYGQEALPTEHANELRDRRDELELT

LSKLVSAVASKNEINQDNRLDTTITDPGHQYNLSIEGFSIVDGINFHPLKLDYDDKNKSYSIYYETPDEK

VRDLTAKISGGQLGAQLDLRGRNYSKSEGKYEDGIIQGYMDSLDTFAKTMINETNNLYASSAKSSVTSDY

LSGLKGDIPLVNYDRTIQPGSFDIVIYDDKGDKKLTKTITIDVNTTMNDIMRQINANTDDNDNKNSNDDV

DDHINASFSYDAKTGDGLFQINAKSGFKVAIEDKGTNFAGAFSIGGFFSGTDASDMKVKDSILNDPSTVR

ASSNGVDSGNDMANKIIQLQYKKVNFYNEDGTIDNLTMEEYYRKLTGKIASDGENNNVVNSSNETLYNSV

YSEYQSKSGVNTNEELAALIQYQSSYGAAAKIVSTVDQMLDTLLGLKS

>YP\_002344847.1 hypothetical protein Cj1465 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKQRLDEVNAILAKLIALTEEDIENIKVAKHESVTPSVEEKNKLIAEFITAKKQLDVALVELNNSSTKG

LSELLDDEDKQKLDLLKKNLQNLHSKNKEYAKFVLIVKDFLDGLVNKMFDINDGTNNAYGDKKTNPESIF

KINV

>YP\_002344846.1 flagellar biosynthesis protein FlgM [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINPIQQSYVANTALNTNRIDKETKTNDTQKTENDKASKIAEQIKNGTYKIDTKATAAAIADSLI

>YP\_002344845.1 flagellar biosynthesis protein FlgJ [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVDNFLNTYSMNSALLDRAAKARSLESSIKINDNDIVTKSKEDKALKEQTNAFEAFFLKQVLDVSLKSQ

NSLFGKDASDEIYSSMYNDTMSKALSGGMGFSKLLYDFLKERG

>YP\_002344844.1 flagellar basal body P-ring protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRVLTIFLLFMTSIFAVQIKDVANTVGVRDNQLIGYGLVVGLNGSGDGTSSKFTLQSISNLLQGMNIKVD

PNDIKSKNTAAVMVTAKLPAFAKSGDKLDITVSSMGDAKSLQGGTLLLTALRGIDGEIYAIAQGSISTGG

LTPRPGGTGSHSTAATVMGGANVEREIPQNFSQNNDLTLSLKVADFKTANNIERVLNTVFGEEVAKAIDS

RTVKLKKPEDLSNVDFMARVLEQDIAYKPQSKVIIDERTGTVIAGVDVEVEPVLITHKDITIKIDPNNNT

VANQNEIDMKDGGFVDPSSNTLRINNAKSTVANIARMLNKLGATPNDIIAIMENLKRAGAINADLEII

>YP\_002344843.1 DNA methylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNDEFISVKDFFNHNEKRKKFLQKQEIKPPKEKTKKTKETKLYTNIESGKYKGKKLLLPSLTTTRSTKSI

VKSCVFNVIREDLRSKIFIEAFGGSALIAAEALSNYALKAYAIELDIKAYKIALENAKNIDPNLEVIHAN

TFEILPKLIENSKNEIILYLDPPFDIREGFSDIYEKIYHFLENLDLKTLNLIIFEYHSTIKTPEKIQNFQ

KVKEKKFGSTSLSFYSS

>YP\_002344842.1 hypothetical protein Cj1460 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKISLECKDLIIEKTLELFLKDHLVMKKNCDFIISDEKIHTAKPLFIISKNSPFLSIPFSKETLFESLNE

FDNALKAAALQLALEQKRLLEEKIDAIALEFKKDYENKIDLAIKDLKNKLVKALNDE

>YP\_002344841.1 hypothetical protein Cj1459 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLELRIFRFDKTKDYEAYYKPYIYDNYENFASFYDLLLQVQNDDIYFDFDKDEDTYIVVNKQIIPLFT

PLEKIAKEFDFNLCIEPLSTKRAIKDLIIDKNDFLDKYKYLEKFGDEEDKKLYAKYDYLYYATEILDYLP

EYMGDGVFYLASKMIEKYPEKKIEILKTLADKEKGIFYHLESKNEILETTIKNLQNEILNLGLFDKNILH

FDLPKTNAFDNEIKELKEIKHNFKDFNIAFYGFNACDTLKSKLKAKFISYENSIKNNGFSLLNLNPTLSY

KIAADIVLDAYDSGADFMVVKEEKDFYLFDTCAKKLMQTSKRDFEDFYILSRFEFLALIEGIQAPSLKNH

TLKVSLI

>YP\_002344840.1 thiamine monophosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKEDFIIKAFLNKKNGDDGAIIDDWCFSKDLFFENVHFKREWFSLEQIATKAMLVNISDAISMNAVPKY

ALLGLALPKNLSENEIKALQKGFLKTARKFNIKIIGGDTISNDKIDISLTIISKINDKAVFRKGLKKGHL

LAYTGKLGRSLKGLEILQNGGTLKPNHVFIKPKLRASFFYEIAPLISCAMDISDGLSKDLSRLLALNKCG

ISWFKKLDDYALYSGEEYEILFAFDEKERQNIEIIAKKHGVKLNIFGKAVKGKYEFRGREHHF

>YP\_002344839.1 tRNA pseudouridine synthase D [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLEEENTIFKPLYSLKHSPINAYFSKNSDDFVVRERPLYEFSGKGEHLILHINKKDLTTNEALKILSEA

SGVKIRDFGYAGLKDKQGSTFQYLSMPKKFESFLSNFSHPKLKILEIFTHENKLRIGHLKGNSFFIRLKK

VLPSDALKLEQALMNLDKQGFANYFGYQRFGKFGDNYKEGLEILRGKKMKNVKMKEFLISAFQSELFNRY

LSKRVELSHFANDFSEKELIQIYKISKEEAKELKKQEQFFKLLKGEVLGHYPFGKCFLCEDLSAELGRFK

ARDISAMGLLIGAKAYETGEGLALNLENEIFKDTLEFKAKMQGSRRFMWGYLEELKWRYDEEKAHFCIEF

FLQKGSYATVVLEEILHKNLFE

>YP\_002344838.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILTSALALGAMTLIVDCGDGDLVELKNNGNDQAMFDLGNQEIMKKYPNYKLYDYTSVRTISDINNPE

GKIKEMKRDLEIDKTPYSNYVFLLNPNDKKTIKL

>YP\_002344837.1 peptide chain release factor 2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDNYEFSELLKTLKNKVGNIASIIKPENIQTRLKEIEELENSPSFWSDVKQAGIIGKEKTKITNLLKNYE

NAFNALNDASELFDLANSENDTETLEALFNDAPKLEDTITSLEISMLLSGENDGKNAIVSIHPGAGGTES

NDWASILYRMYLRFCEREGFKVETLDFQEGEEAGLKDVSFLVKGENAYGYLKAENGIHRLVRTSPFDSAG

RRHTSFSSVMVSPELDDDIEIEIEEKDIRIDYYRASGAGGQHVNKTESAVRITHFPTGIVVQCQNDRSQH

KNKATAFKMLKSRLYELELMKQQDSANTGEKSEIGWGHQIRSYVLFPYQQVKDNRSGEAFSQVDNILDGD

IKKMIEGVLIALKAE

>YP\_002344836.1 ribosomal protein S12 methylthiotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKLYLMSLGCNKNLVDSEIMLGHLSAYELCDEPSKADVLIVNTCGFIDSAKKESINAILDLHEQRKKDS

LLVVTGCLMQRYREELMKELPEVDLFTGVGDYERIDEMILKKTNLFSNSTYLQSENSKRIITGSNSHAFI

KIAEGCNQKCSFCAIPSFKGKLKSREISSIIAELKDLVARGYKDFSFIAQDTSSYLFDKGEKDGLIRLID

EVEKIKGIRAARILYLYPTSASEALIKRIIASEIFINYFDMPLQHISDNMLKIMKRGANSTRLKEMLNLM

KSAPNSFLRTGFIVGHPGESEADFEELCEFVKDFGFDRISVFAYSKEEDTAAFDMEQVPFKVINKRLKII

EKIVDEVIEKSFEKEVGQKRLVVCTGKSSEGEFFIAAKDLRWDREIDGEILINESECGNLEMGQIYECEI

LQNLDKKLLAKALRKVDAN

>YP\_002344835.1 tRNA(Ile)-lysidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIKDEILSLLKRGKNLLAFSYGSDSSVLFYLLMQEKIDFDLVMINYKTRKNSDLEELKAKELALKFHKK

IFIKHAPKFQSNFEKKARDFRYDFFEKICLEQGYDHLILAHHLNDQFEWFLMQLSRGAGLAEILGMQECE

KRSNYTLLRPLLFISKDEISSFLKEKDIFYFHDESNENEKYFRNYIRKNFSNAFVSEFHQGLKRSFSYLD

EDRKKLYDFENIKEIQGLLICPKNESLIARAVKMKGLLLSTAQRKELLKGDCVLGGKIALAYKNEQAIVF

EYETCQKLPKNFKEECRIAKIPRLLRAYLYNHKIDISSLSF

>YP\_002344834.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDILKLAIKDFLSLKFLKFALIPLIFSLILMLFLGVLGFSALLDYFNSLFSVGEDSFWAWFYALHFVQIL

ITIISFLFSGFIVVFASVFLALFITSFLTPFIAKEINQKYYHYDNTNEVSTLKTIFEIFKIFIKFIGILL

LCTLALFLPFINIFVYYLAFYYLFHKLLMIDVTSTILDKESFKNFHSDFSPLEFKFSTLCFYLLSSVPLL

GLFLQVFFVIFLTHLSYQRILKLKAKA

>YP\_002344833.1 dUTPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTNIEILENMLKLQQKLNDETNGLNWENGYTKEGKLISWRRCIYMECAELIDSFTWKHWKNISSLTNWEN

VRIEIVDIWHFILSLLLEEYRDKNNKDFKAIATEVNAVSVFQDFCKEEEYPNEGDIYGILNDIELIIHKC

SGFGFNLGELLSTYFTLAIKCGLNLEILYKTYIGKNVLNIFRQNNGYKDGSYKKTWNGKEDNEVLAQILE

QELDFDTIYKKLEECYKKA

>YP\_002344832.1 ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIDASKNQSFSMDYTTKSGKHLALSMYDNQSVSYANNEEGKTLNLKRQYGFSFTFEGSKLTQNDLDEIK

NAMKEVEPMIKDFLANSKVGELKPKEIIESAMQMANVLPTPNDENHQNAIMNNFTNKLSDLLKQNQTDDK

DINASMLEDSKKLLDEVLEQMKKQLEKQQEKAKENQDKTDDSLNLYA

>YP\_002344831.1 hypothetical protein Cj1449c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDERILEFIKNEQLLSWAMIDEKGVYTASAFYAFDEKNLAFIIASHEDTKHIRLASENSSIALNIAKESK

IAFLKGVQAKAEFKMASKEQMKIYFSKFPFAKFDKSAKIYALELFWLKFTNNALGLSKKLEFYKK

>YP\_002344830.1 capsule polysaccharide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNVIYALFFRELKTRFGKNRYLGYIWVVGEPMSIVLLVTIIGTIVREYHHQVMPEGISIFMFLISGIMP

FFMFRSIVTQLMNGTQANLALFAYKPVKPIHVFIARTLLEFCIYFVIFIIILFFAGWFFRLDVFPVHLLG

VLFCIFLLICSAFALGICFAIIWHFVEPLRTLLAYFSIVFYWTSGIIFPTWLTPRPLLDIFYYNPLLHIF

ELLRFNFFENYPLQDEYSYFYAIFWILLVLFIGLFIYYYNRQALTAVKKE

>YP\_002344829.1 capsule polysaccharide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKLINLTKSYPLFSGGRHYVFKNFTFEFPENCSIGLMGYNGAGKSTLMRLLSGAELPDSGKIITNKKLS

WPLGLNGAFQGSLTARDNAKFVARVYGYKGKELQEKVKFVEDFAELGKFFDEPMKTYSSGMSARIAFGLS

MAFDFDYYLIDEAGAVGDPAFREKSVKLYRERLSKSKVIMVSHNVAEIKEWCDKIIYMKNGQITVYDDVD

EGIAVYQGKV

>YP\_002344828.1 capsule polysaccharide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEENKTLLEKIKDLSIFDSFKIVWFIMIFVVIYYTLIAAPRYVSTMILDVRSTSGESAQTSGILSLLSST

STASEDLNYLKGYIESSDMLKILDEKIKLKNLYQEQHIDLPFKIWDSSSIESYLKYYQARVKVHTDETTK

LLKVEVEGFTPKSAHLIAQAIMQESEKFINEISHKAAREQMAFAENEVQKYKERYQKAQNDLIAFQNKYG

VFDPLKQAETKASLVAQIEANLAQKEAKLLTLQSYMNDAAPEVVALKAEIEAIKKQLLREKSKISANNSS

QKLNDLAAKFQDLTIEATFAQKAYEAALKAYESARIEALRKIKQLVIIQSPDIPESAKYPERIYDILTAF

IVLSLIFGIVKFIKMIIEEHKY

>YP\_002344827.1 capsule polysaccharide ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILILLFSCILCFGAVDVSQIISAEDQGSATTSIDQNLSSNYDIANKENNLTKIHQILVFGAHLFNGN

FKNYNQRVYNPDYKIAVGDQISLKIWGAVEFSQVLVVDSQGNIFIPKVGAVNLLGVKNSALVSVIKARVN

KIYKSNVFVYADMNAYQNVSVFVTGNVNAPGLYQGLSSDSVIQYLDKAGGINLEYGSFRDIQILRNNSVI

KNIDLYDFLLKGQMDLFPFRSGDVILVGNVQNYAFVNGDVQRPFRFELSNDIKTLADLARVSGAKPIVTN

AIVKSYGEDHKLDVSAYNKMQFSKVLLRTGDEVEFHPEYVSENITISVNGEHNGLKTLVVGKGTTLEDIS

KLIKANPQSNMQALQVFRKSVARTQKELINAQLKELETLALTSGSVTAQGAAIRAQQAKTILEFIQRAKQ

VEPKGQIVIDNPKSYNSVILEDGDTINVPSKNNLIIVQGEVSLPGAFVYDKGKDLRYYINLAGGYGERAD

TSKVLVIRSNGKAEKYHSGIDMKRGDSVLVLPKVDSENLQIFSMLTQILYQIAIATNVVLNL

>YP\_002344826.1 D-arabinose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTLEIAKEVFEKEAQAILDLATNLDENFNQAVNLMLNTKGRCIVSGMGKSGHIGAKIAATLASTGTPSF

FIHPGEALHGDLGMLTSEDVLIAISNSGETEEILKIIPAIKKREIPLIVMCGKKNSTLVKQGDIFLNIAV

EKEACPLQLAPMSSTTATLVMGDALAAALMKVRNFKPDDFALFHPGGSLGRKLLTKVKDLMVSSNLPIVH

PDTEFNDLVDVMTSGKLGLCVVLENEKLVGIITDGDLRRALKASDKPRFDFKAKEIMSINPKVVDADAMA

SEAEGIMLKHKIKEIIVGKEEKVVGIIQLYAIGNV

>YP\_002344825.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPLLSVIIPFGLSKERPYIEERVLQKAKFFQSDENIEFIFVEGYSSKDHELKNFIQANHHIYLKDMDQKA

FSQGRCRNLGASYAHSNVLLFLDVDCYISLDNFEKILKLIQIKNISQNINALIVLPVVYLNKEANEKLKQ

YDDKFWDILIQEDLFTAKNTWVKFFAPSSTSSIVINKHQFLRLGGNDENFIGHGYEDFDLFARILKACVS

FEKMPTNLSYDARNWNFFNFKGFRSWFSLLGYEACFYGIYIYHFYHIEPNQNAYMQNKDKNHQLFYKHLK

NIKKHDLKPLQVFKAKGEKVLMLFKDQNYDFKDISVYVGEIIYKNISDFFIAKELKYELLLDFLQQEKIT

KIFLDASIKLQFNGIDYCDIFYFQKGILPHSWFFAKKLDLGYKQDLNLSEQKLYQVKEYFLTLKEDEKKV

ILDFLSQNNDDKYDLYKMLYYLINELYSFEHDGIFYQIIIDKEKMLIAQKHDKSFYPLRSFVYKPYLHEL

KSIRPFSFLMKILGLEYLGAMISHTKFYRLARKLFFNPKGFFEDFNYKIMKGKI

>YP\_002344824.1 UDP-glucose 6-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIVIVGIGYVGLANAILFSKNNENEVVLLDIDENKIQSINNHKSPIKDKLIEKFFVQNISKLHATSNIK

EAYFNADFAVIATPTDYDEQLNFFDTRSIENVLKDIKNINSKINVIIKSTVPIGYTKTIKQKFNMSNIVF

SPEFLREGSALYDSLYPSRIIIGDKSVLGKTIGDLFLKNIEKKNVDIFYMDSDEAESVKLFSNTYLAMRV

GFFNEVDSYARKHNLNSADIIKGISADDRIGKYYNNPSFGYGGYCLPKDTKQLLANFYNIPNSLIKAIVE

TNEIRKKFITQLILEKKPNILGIYRLIMKQNSDNFRNSVIIDIIKYLQEYNSNIELIIYEPLVKEKKFLN

IKVENDFNVFGAKVDLIIANRFDDKLKEIKDKVFSADVFYTDI

>YP\_002344823.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTVGVVIPIYNVEKYLRECLDSVVNQTYKNLQVVLVNDGSTDENSLNIAKEYTLKDERFILFDKENGGQ

STARNVGIEFFSKEYDFKNITQELKENSLVEFKLDNEDNPYNIYKIYKSSNFFKNKDELLNFKAPDIDYI

IFLDSDDYWELNCIEECVPKMDGVEVVWFDSCSIFEEGFKKQWSSLLKLYDLHEGVIKSKVWLEYSINKK

IYNFYFTWSGMIDFIYLKNIKLKFIDYIIHQDHHFGMLLFAKCKYIYIFPSSMHTYRIRSNSTINLSDSE

LQIHIPRYMQSIYDSFNINIKEAKEYYSSMSMFYVLKNCFNDKILMENRYNAYLLEKAFFKFICERCLRI

FLLKRDPCCIKIQIKKILKQYKNYRYVHLTNFYGAFIYFKIFKINIIKKYIRYLFFR

>YP\_002344822.1 UDP-galactopyranose mutase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYDYLIVGSGLFGSIFAYEATEKGYTCLVVEQREHIGGNCYTENIKNINVHKYGAHIFRTSDQNIWDYMN

QFCEFNHFINSPIAIYKDEIYNLPFNMNTFSKLWGIKTPNEARKIIEMQKQIIQHPPKNLEEQAISLVGT

DVYEKLIKGYTEKQWGRSCKDLPASIIRRLPVRYIYDNNYFNDPYQGIPKGGYTAIFDKMLKKSKVILNT

DFLKYKDKFKNKAKKIVFTGCIDAYYDYRYGALEYRSLKFEHKILNLDNFQGVAVVNYTDKEIPYTRIIE

HKHFEFGNTDTTVISEEYPLEWIKGIEPYYPINDEKNQALYEKYKQLAKHESNVYFGGRLGEYRYYDMQD

VVRSALLFCKNELKNKQG

>YP\_002344821.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISD

KKSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYILESNKGKYSKITPID

FLYNQIISFKTHPNIFNFQSINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINEAF

YMLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLDFL

KRFSQDFRKILKDKELDENLFGDGDMKIIYSIVENPENYYFLYMGYCNDMFGKLYFGASERIKWQLSYRI

GKLLIDLKNPVQILKFPFKLFLEIKQFKFEQKIYKTTIKFYPNLQLPPLEEYSDYEQALKTKKHLSYILG

KSFINNPILFIFKIKKIYKQYKKDISSSKKNIKELSDYDFLLNRHKQIFDYTPDFKCPVTFNEKLIYRIL

YDRSCIYSFLADKIKMRFYVASALSDNHEYSWDKIDILNEKSILFNNIDDLQDKIFETNKCKYLPKIYGI

YKNIYDINFNELPNSFVLKTNHDCGGYVIVENKQEFLRDTVVFSNAMKKLKKHLEWNYYSVFREWHYKDI

EPRVFAEELLLGENKKPADTYKFHIFDKENLSNNFIQVTTDRFDNYQRAMFDLSWNLAPFNFMYDNKNVT

MIPKKPNLLDSMINISLILAKPFDYVRVDLYQFDKKIYIGELTFTHGAAGEKVIPKEWDKKLGDLWRLKR

LDNASK

>YP\_002344820.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQANKNIQKLTPYLSIPHKIWNSSQSNILKLDWNEATIPPSPYVIESIKKFLVNGNLNWYPNTKNLYLLD

KIAEYTKQINSSFVELFEGSDSAHECIIDVFLDKCDKIGIVSPTYDNFRSRANGVGIETISFTLDDNFNL

DFDSLEYFIHEKRIKLLYLCNPNNPTGKSYNIQKIKSLIINNPNVMFIIDEAYYEFTSQSVCDLVEQCNN

LIITRTFSKAFALASFRIGYIISHPENIESINKLRNPKSVPMLSQIAANAALEDLQYMRDYVDEVSCARM

EFVKFLNTLTTGGGGIFNDSVANFVLIQNENISLFVGFLEKEGIFIRNYSHLISKNCRISIGTRNQMSYV

AEKIQEFAKKQGGFHLV

>YP\_002344819.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIKLNDYEKNITQKIKDLKNASGSHSPSIFTMAEQIPELNIKIDSCFLSNPYATALFLRYLKEELIDGQ

KLRSVLEFYPSQNSIIAKTVADFIGIDPKNVFIGNGAIEIIQAVMHNFVGKKIIVNIPTFSSYYEFAKSE

TNVVYYQLSKEDNYNLNIEHYLNFVKNENPDSVVLINPNNPDGGYINYEKLRYILSELKYVKNIIIDESF

IHFAYENKDYNGINIEYLFKEFHNTIIIKSMSKDFGVAGIRIGYAIMSEDKIRGLLKNGYLWNSSGLSEY

FLRLYVRKNFFDEYDKVRREYIQETQTFFRKLSGIKQFKVYPSMANFALVELLDGSSSTDFVAKMLIKYG

IYMRTCNDKIGLEGEFIRIASRTLEENDMVLKSICDVFKE

>YP\_002344818.1 phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKEILALFDFCETLTNFQTLDRYLPLAGSKNINYTQSKNLARRERFQRENLPYPRYEWLIDLDVDLAEE

IAQEFVYTDVMANLNQNVMDRLFWHQDEGHTIVIVSGGLTIYIKEFARIYNIENIVAVDLEIYKNKLTGN

IDGIHTMQERKLYKLAQKFNLKQFDLKNSYAYSDCVSDIPLLSLVGNPNVIECGKDLQWARILGFNILLK

Y

>YP\_002344817.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISD

KKSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYIFAYGKTEYVNVLRNS

CEDIYNYKVNWNKDIRIFLGSDGINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFIN

EAFYMLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKL

DFLKRFSQDFRKILKDKELDENLFGNINMQRINKIIENPVIYYYFSRGARARLQNQLVYRLGKVVVEAKS

FNKIIKLPFLMLKICLEHNFEHKVYRSIVQFRPDLKLLPLECYLDYHEALVIKEHLSYKFGKLILLSFKG

WYKGKIFILPFMLKKRYKEYKNKMI

>YP\_002344816.1 hypothetical protein Cj1433c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQRFKKWFLSIIKNFKQHEKIKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNT

KIDLNNTKIDLNNTKIELSQLKKEHYKVLDFHLRKITPQAFLEIVEIHLAESCNLNCFGCNHFSQIAEKE

FPDIEIFKKDMQRLSEISKGIVGTFRLMGGEPLLNPNCIQFFDITRYFFPKSAIWLVTNGILLDKQNEDF

WNSCQRNKMQIRPTKYPIKINWDLIKDKCDQYDIPLIFFNNGELEKTSWKFSLDPSGNCDNYHSFTNCSM

ANHCVQFKDGKLFTCTFPAHVQHFNKKYGNHFEVCEFDFIDIYKAKDYQEILFFLSKPIPFCRYCKVSQW

AEIGKWRSSNKTKHEYLI

>YP\_002344815.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKKILLITPELEYTGALNSFKRICEVLLNNKYAVDIWTYNEGPYISEFDKLGVYVEVISEDDIDSKWVH

ERISKYSLVIANTIVVYKCVELIQNLTPVVWYIREAENLPDFFWKPERKLALEKAKKLYVVSEYAKDFII

HNYNKNVEVLHNYVDDVFYEKHDDFLKQIKSDKLKFLALGTIEKRKGYDVLLQAFIDLPVDIRDQCELHF

AGRFWEGAKDFFPKILSLAKKFPNIFYHGELRDRKKIHSLIFQCNVMVVPSRDESCSLVALEGAMMSKPL

ILTENIGAKYILDENSGWLVKTGSVDSLKNAFIQAYKNKNKLDAMGANSRNNYLQTSTYEIYEKNILKMV

RDEICKNQYLYRINQENYVLFSFDIFDTLISRNIAKPSAVFLIMKQKMRNMDFPLNLVKNFDRIRVEVEQ

YYYRNVCKNKYEDTNFDEIYNLLQQNFSLSFQQKEELMKLEINTEKETLYPIKKNIELVEELIKNEKRVV

LISDMYFSSSIIRTFLNKFSPIFNNIPIYMSSEFRLKKNSGNLFKAILNLEKVDPKKWIHCGDNWVGDYL

KPSNLEISTNFYINQLLPYEEFALNRNSLDMDLQKIIGISKKIRLENTLTNLQEIGVSFGAPMLLPYVQW

ILNIALKNSIRCLYFIARDGYVLQKMTDMLIQAKKINIKTKYLYGSRESWREPFRNKDKLKIQLIDEYLD

QEIDKQEIFAFVECCGTGETLDYIVKRIESNQQFKNMFFGSLYLYRSKLNKTKTQSLFMLPLNENYTYGI

ELFVRSLQGQVLGYDKKDGRVIPVFDFLEGEALQKFRYDEYIDGVMLFMEYIVKTDNYEKIFDNMNVTIL

YLNYLSNNYIDKKFIEIMGNVPFILNGVKDRVGIFAPRLNNKITLDQKNSFFNWSVLRSCKDIRVKYNMD

NDCYFGLIGAVDIIKSHLSYKLGKVILLNIKNPLKWIKLIVLIPILIFSHHEQKKIYLTEKKINIDLSFY

KDYNEAIMVRNFFSYQLGELILKTSRKWNVLAIVILPYKIAQLYRKKFKKG

>YP\_002344814.1 capsular polysaccharide heptosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDNSKPLIIAGRDDGFGERMRALLNALYISKKFGFKFGFVWRDINNIQNLLDGKVLIPWANLPTREYLFD

QDFIKSYYRQDIEFAYETPVLWSLYRQSIKNILKKPYEKEWGWYSTQGDLSEYFTDVDEGEYRTELVSCW

KQIDFSSHVKKIFEKAHSKFLDIGKFVAIHIRTGEVIHDEFYRNILYHCRYKIFPYPFALEIALKEIKKG

HRVIFFGDDLNLIQNLKEYCSFNKQAQENIFSIDDIIAFEQLDNGYDRLLFELVLMSKSEYIFGSGTTGF

SRCASWIENKIFINIFDHLSLIEQYEIILKYIDIENIDDLYRSCNYFFLFLLSEQLNLNFDIKLRYLSKS

LRYDSGSLNSEVFYINLLLQNEKFKEADDRLEQVICKNKKKFFDLLLGYGQNPTFPYDIYMNYYFKDFDQ

YSNIFYVACRIFSEFNIPESRVNTYYPNFHPIIFDQFKMFIFKDLPKSDQEIGAVKKIRNHLAYKLGVAA

IKNSKSLWGYIRMPYVLSYIRDMHKESQNKMDKKSISLEYYSDYESALKEKEGFVYKLGQIIIKAHKNWH

KGGYIMLWFEVKKLKKEFKKGK

>YP\_002344813.1 dTDP-4-dehydrorhamnose 3,5-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAIEFDIQESKILKGVYIITPNKFRDLRGEIWTAFTDEYLSKLVPDGIKFKHDKFINSHFNVLRGIHGDV

KTYKLVTCVYGEVHQVVVDCRKDSPTYLKWEKFIISYKNQQLILLPPNMGNSHYVSSKEAVYYYKLAYEG

EYMDAPDQFTYAWNDERIGIDWPTNTPILSDRDILATKNKG

>YP\_002344812.1 hypothetical protein Cj1429c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKLLKELNNNIKLSNQLSYQILMSNIISNLDIDKKDKEILLLLLQARDRNYIRINNNEQCYQNIINYLN

LIRPLELPLCDLLRIGGNGDGGYVMYNGGGDMSDINAKALSLGVSDSSPWDLEMAQRGFKVIEYDASIEK

CPYDHENIVFHKKFIGNVNNENTITLVQALKDNNLDENKPNILQCDIENCEWDMLENIDISILNKYFSQV

IFEFHGCNPEEQDGVEKRISLLKKLNEYFVPMHTHFHNHGKIFYSQGLFFSTTLEVSYLRKNLINLDIMK

YRDVAGGFKNLDFPWISNPEIPIRFRGY

>YP\_002344811.1 GDP-L-fucose synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQTNSKIYIAGHKGTAGTALVENLQKRGFNNLVLKTRQELDLVNQQAVAKFFKEEKPEYVFLTAVLPCGA

ANVAQRADFIYENLMIQNNVIHNSFLNNVKKLVFFGSGYMYPENAKNPLKEEYLFQGDLEYGAYSFGAAK

IAGAIMCESYNIQYGTNFITLVLNNLYGTKANFDFGKSRVLPALLRKFHLAKLLSEGNITQILQDLKMNN

FEEAKEYLHNFGISKKSVEIWGTGKVRREFIHSDDLADVAIYTMQNIDFKDLIKDRKSKNTHINIGTGID

YSIKEVALMVKNIVGFSGELVFNTSRPDSTMDRLMDCSKIHSLGWKHKIELKDGIKMMYEWYKTQN

>YP\_002344810.1 sugar-nucleotide epimerase/dehydratease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKVLITGGAGYIGSVLTPILLEKGYEVCVIDNLMFDQISLLSCFHNKNFTFINGDAMDENLIRQEVAK

ADIIIPLAALVGAPLCKRNPKLAKMINYEAVKMISDFASPSQIFIYPNTNSGYGIGEKDAMCTEESPLRP

ISEYGIDKVHAEQYLLDKGNCVTFRLATVFGISPRMRLDLLVNDFTYRAYRDKFIVLFEEHFRRNYIHVR

DVVKGFIHGIENYDKMKGQAYNMGLSSANLTKRQLAETIKKYIPDFYIHSANIGEDPDKRDYLVSNTKLE

ATGWKPDNTLEDGIKELLRAFKMMKVNRFANFN

>YP\_002344809.1 methyltransferase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKEQLEVLKEALNGLIYQIDNHQQARKPIADVERIISELQVLNHWNKQENVYNALHLIQGAIADPQGLG

RLNLLLDNARIPKQYYDIFYKMLYVDKYGGGDGYRPVCIDCGGHAGLITDIILHCGGQSYIFEPNIYLNY

FLRKKYENNINVKLFQKAVSDRNYETDFIMFGNRILSQGNRIVESVQDSQTEKTYKVQVIDLCEFIENEI

LTQHKRIYFLKLDIEGMEFEIMKKIIEKKIYKKIDYIACETHEYMFDDSEKKIGELKQLINKCNIQNILL

DWI

>YP\_002344808.1 D-glycero-D-manno-heptose 7-phosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTIRTQTPLRLGLAGGGTDINLYCDKYTGYVLNATISLYIHCTLIKREDGKIIFDSPDTNSYCEYESKE

FLGNDGKLDIFKSIYNRIVKDFTKKPLSFSLHTYSDVPSGSGLGGSSTLVVGVIKAFAEWLNLPLGEYEI

AKLAYEIEREDLGIVGGAQDQYAATFGGFNFMEFYNNKRVIVNPLRIKNWIASELEARTVLYFTNITREA

KDIEEHKKGKLGDEKSLEAMHAIKQDAIKMKEALFRADFGTLAQILGKSWRSKKIISEIVSNDELERIYK

LAIDNGAYSGKTSGAGAGGFMFFFVDPTKKYNLIKALRKEQGYVQDFSFTKEGVKSWRI

>YP\_002344807.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENLNSYIKGHFADSILVKEQILKDENLITLIKNASLEVIKAYKNGNKTLLAGNGGSAADAQHIAGEFVS

RFYFDRPGIASIALTTDTSILTAIGNDYGYENLFARQVQAQGVKGDVFIGISTSGNSKNILKALEFCKQK

EIISIGLSGASGGAMNELCDYCIKVPSTCTPRIQEAHILIGHIICAIVEEELFGKGFSCKQ

>YP\_002344806.1 D-glycero-D-manno-heptose 1-phosphate guanosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQAIILCGGLGTRLKSIIKDIPKPMAPINDKPFLEFIFEYLKKQGIKEVILAVSYKYEVIKEYFKDEFLG

IKIKYSIEKEPLGTGGAIKETLKFVKNEAYVLNGDTFFDIDLSKLKLNESKICLALKQMNDFDRYGTVNV

DEQDLVISFEEKVFKKQGLINGGIYLLTKDIFNDFALQEKFSFEEFLQENYKKLKARACIFDDYFIDIGV

PEDYYHFLINN

>YP\_002344805.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFVGFFLHTSGEKAMERFLKEVGVVLIGAFGYEDGKRY

ISIFNFLISEACACNDLKFAIGILDVNCQKYDKFCFLLQNKPVLILLRDPIDSLKSFINVRHQKNGFNEI

LKIDINNTDFDKINDRIVYVHESNGCFNPDTNQKFPSLESIKALSDTNHWMLMYNIRRNKTIEFFRFNKI

IYIDMMDIVGDKTLFTLEKLSKILNFSSPDKNNKIFYQQLYSPLTVLLPCIIKVNNKVKIFVSNRFSVKN

IQIMENCIDITDKFKEIFHENLIIFCSKDHFDSLINNQTLYNVVLEYINKFLISLKKRINVEKNKEVKVD

DVLDYFKKNISVAKSYKDILDEELVYIKQHRPDIVASWKYYQEFERMCKELDENNQNPSLSFSNQ

>YP\_002344804.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFMWFFSHGAGAFTLGQFFYHLFKINILDYFCGGDGDI

RYYKFYNKLLELKDKRNIITINDIDPSWYGNQHKRDKLFSSFQKITPILFQIRDPIELIKHAYGRKWGNN

LAKTKEFDLSYQFNDIITEVEVYNYNLPNTLEGQRPQSFLWKSLIECFDKFNDCFYLDISKIRGEETIHT

LNYLSNKFNLKQIKINDKEFVTKSYFKGNLYFLLPLTLYLNKEDLNTNIPNKKINKNNSLIININFFQND

NNLFNLYSELSILDMDSSVGFYIDKQDYNKLKNDSIFYKQVIDYLRNFAYELKNRIQIEEDLMLKVEDVL

RHLYNNKNARVSAKNILDEELVYIKQHRPDIVASWKYYQEFEKMCKELDGDI

>YP\_002344803.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQGDFTKVAKHYHNRPAYSPFLLEKLVACINDKNKNLKDLNIVEVGAGTGKLTKMLGEMFGCQISAVEP

NDNMREEGQKFTQNLSNISWHKGSGEETCMSNNQADWVIMASSFHWTDPKKSLPEFNRILTGGGYFTAIW

NPRHIVEGSVFDEIEKEIKHIVPDLARVSSGTQNVKKWEEILVSTGDFIDCFFMECDYKEFWDKERYLGA

WHSVNDIQAQAGEKRWKEILEMIEAKISHMQSIEIPYKIRAWTARKA

>YP\_002344802.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKLVEQVWDYTKHAKFYSYRPNYAPKTIDMLISLVGKKDIKVADIGAGTGNLSIMLLERGCKVVSVEPN

DAMREIGIERTKDQKIDWVRATGLNSTLQNSEFDWVTFGSSFNVMDRNEALEEAHRLLKSEGYFSCMWNH

RDLNDPVQKIAEDTIVEFVPNYTRGTRREDQRPIIESRKDLFDNIVYIEEDFYFHQSIENYINAWKSVKN

PYWDLETDEGNELFNKISNKISQRLPKEFSIKYTTRCWSAKKI

>YP\_002344801.1 hypothetical protein Cj1418c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAELKFKTKAQNLKNLQTKLKKAKVLPLVLTSLEELISNEDKVLQDIQTLKANRLIIRSSSLSEDSMKNS

NAGAFLSLANIKADSKDELLKALYEVANSMPSKSDEILVQPMLENITLCGVGFSVDKDNFSPYFCLQYDE

NGSNSSITDGSSKSAKTYYHYRNYLEFKDIRLQKIIELIKELEVLYDCHFLDVEFAFAIQDDKEELFCLQ

VRPLVMHEKNNLFHSLPKEALYRFYKRFESLKESRSRVLGDKAIFGVMPDWNPAEIIGLRPKRLAFSLYK

EIITDNIWAYQRDNYGYRDLRSHPLIHSFLGIPYVDVRLSFNSFIPKKLDENIAQKLVNFYLDKLNKNHE

LHDKIEFNIVYSCYDFNSSKKLEELLNHGFNENEIKRLEFSLLELTNKIINPRSGFYLKDIQKAYKLKER

YDGIINSNFSLIDKIYWLIEECKRYGTLPFAGVARAAFVAMQLLNSLVEIDFITKEEKDDFLNSLNTVSK

NLSKQTNHLNFHNKDQFLKDFGHLRAGTYNILSPRYDEDFELYFDADQKDSKVYLQDKAFVFSKEKTRAL

NALLKEHGLEINACEFFDFLKQAIEGRELVKFEFTRLLSKAIVYIEELGKYYDIEKEDLAHLDIKSILNL

YSSLYSINPKEQFIEEINRNKKEYELTQAIKLPSLLCNADEIFSFYNHSIIPNFITQKSITAFTAKENDK

DLEGKIVLIYAADPGYDYLFTKNIAGLITCYGGANSHMAIRASELGMPAVIGVGEENFEKYLKAKKINIE

CESEQIFCL

>YP\_002344800.1 amidotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFIGITQRLICNDSYHEKRECLALDWGKLFNKDLFKNFTPLPLSYEIDFSYYKHLIKAVILSGGNDLSFY

SPNVLSKKRDLYEKQVIEICLEEKIPLLGICRGAQMIAHYFNSHISPCENHIGKHEVFFSKEKFISNSFH

NFAIEKLGEDLVELCLAKDNTIEAFKHKYENIFGIMWHIERENGLNNIQILKEWFSLIKE

>YP\_002344799.1 sugar nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNAIILAAGFGSRLMPLTKDQPKCMVEYKNKKIIDYEIEALKSAGINEIAVVGGYLNDVLKNYLNKYDIE

HFFINSKYDKTNMVHTFFCAKDFMLKCIEEKQDLIISYADIVYFQDCVQKLINAKEELAIVVDKSWCKLW

SKRFANPLEDAETLKMTNGYIIELGKKANAYDEIEAQYIGLFKFSYQFLSEVIAFYEMLDRDILYDNKNF

ENMYMTSFLQALIEKYNNAKAVEIDGNWCEIDFMSDLEVQIEK

>YP\_002344798.1 adenylylsulfate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNNPYIIWLTGLAGSGKTTIGQALYEKLKLKYKNLIYLDGDELREILGHYAYDRQGRIDMALKRAKFAK

FLNDQGMMVIVTTISMFNEIYDYNRKQLKNYYEIYIECDMHELIQRDQKGLYTKALNKEIDNVVGVDIEF

DKPEADLVINNSCRNNLEEKVELIIKKLAL

>YP\_002344797.1 capsule polysaccharide modification protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYYSISKKLIANVRNFYTISLYKKNLKIKKDDLFFGWGRKKSGLKAMNLAKKYKAKFILLEDGFIRSLN

LGVENSPSFSMVKDDIGIYYDATMPSKLENLLNTCEFKDEEIKQAKKAIELIKKYKISKYNNNLDIPDNY

FQKDEKRVLIITQTANDASLEFGLAKDFKTLDMIKDAIKENPKSTIYIKIHPDVLSGKKQSDLDLNSLPK

ECILITENFNPIALLEFFDKVYTKTSGMGFEALMQECECICYGMPFYAGWGLTKDKLECKRRMQKRSLEE

VFYAAYILYAEYFNPYLNQKSNIFDTIQTLAKYKDIEKVNSNKLFMLGFTLWKRHFIKPFFKAKDNEIIF

LNSLKSLARYKLKENDKFFIWGKRIDYNALKTTLIKKAQDENLLHFTPKISLVEDGFIRSISLGSDLTRP

FSLIVDDKGLYIDPNKASKLEELLQNEIFDENMLNRAKNIIKILLENRFSKYNGLKHEDLKINAKIGQKI

ILIPAQVEDDASMILGGFGLSTLDLLKEVRAKNQDAYIIFKPHPDVLSGNRVGLKDETLILEFCDEIVKD

CSIDSAIKIADEIHTITSTSGFDALLRAKKVFTYGMPFYAGWGLTKDKYRCERRIRKLSLEELVAGALII

YPRYINPKTKTLCEIEVCLDIMLNLQKAYFSKKYIKLAIDFKTFMLRKIRRFYEFLAKK

>YP\_002344796.1 capsule polysaccharide modification protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRFSTKIKKEFSGKNVLLLQGPVGNFFHHLAVKMRKNQTKVFKLNFNGGDFFFYPSGTRCKCDEKDLENF

YRDFFQNKKIDAILMYNDCRIIHAKAIKVAKELGIEIWIFEEGYLRPYCITLEKDGVNANSSLPRDKNFY

LSQNIFTKESIKEIPGGFKFMAFDAFLYWLFAFILAPFFNNKLHHRTLYPFEFLFWFRSLYRKYLYKITE

KKLNEKIYNLEKKYFLAILQVYSDTQIKYHYKKSIEHFIEETILSFANHARAKSYLVFKHHPMDRGYKNY

FKLINDLSRKYHVEGRVLYVHDTHLPVLLRKALGCITINSTVGLSAILEGCPTKVCGNAFYNFEGLSYPK

KLQFFWREAHAYKPNPVLVCNFKKYLLQTNQFNGNFYKNFFLDK

>YP\_002344795.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDREVFYIAGYDPKSYRFYYDLFKKNLKDYSHAFNIKADLSKIEKNEQFPFFQISCEGVQTKYHFLTWND

IVKKNWSENYKDALADCYSFFRIYTITGLFIKFGKESIYQLITGYYPFFYVLFSLLFSLVLAFGSFAFLQ

NYMHFSLAIIIGCFLGFLLNHFLFKLGKKLAVFWIARICAFCATWQDKKTGTMQERIKLFANTIVDKLKQ

NENKQDYELVLVAHSVGTIVCIEVLECILRQNLDLSLLHKLKILTLGECIPLVSYQKKADEFRKKLEFVS

RFDLKWYDYTSIIDGACFPQVDFFRTSGVNAKFTPPFLSAKFHTLYEKHEYKKIKRDKNKAHFLYLYSIS

VKGDYDFFSFIIMPKFLEEKVKI

>YP\_002344794.1 cytochrome P450 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSECPFFPKPYKNKASTLLTFLLKRRSWLDGLYERSYKMQTGYVKMPNFDLYVINDTKEVKRMMVDEVRE

FPKSAFLHELLSPLLGESIFTTNGEVWKKQRELLRPSFEMTRINKVFNLMSEAVADMMDRFSKYPNHAVI

EVDEAMTFITADVIFRTIMSSKLDEEKGKKILNAFVTFQEQSVHTAMRRMFRFPKWLSYVLGDCKRAKAG

DVIRQVLSDIIKPRYDMADNAEFEDILGSLLLVVDADTNKRFSFEEILDQVAMLFLAGHETTASSLTWTL

YLLSLYPKEQEKAYEEITQVLQGGVIEISHLRQFKYLTNIFKESLRLYPPVGFFAREAKKDTQVRDKLIK

KGSGVVIAPWLIHRHEEFWTNPHGFNPSRFEGEYKKDAYLPFGVGERICIGQGFAMQEAILILANILKTY

KLELEEGFVPDVVGRLTVRSANGMRIKFSKRKL

>YP\_002344793.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRVRTKIRANFRRRVKRTLKGSLKEKLAGTILLCAIVPLAVLGYLFIVIIGIFFNTARARQGVRALDHF

VNASLFNGYAWESVSSHAWRERNRKKWARIVIKITDFFQKDHCKRANKREQPVVDFILSRNLDKQTIGK

>YP\_002344792.1 holo-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRVGCDIIAISRIEKIHSRHGKNFLDKFLNPKEQILIKNPATLAGLWAAKEAASKALGVGICELCSFFDI

EISKDEKNAPKLKYSQKITKDFNITQTSLSISHDNGFAIAIVAVV

>YP\_002344791.1 flagellar basal body-associated protein FliL [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDEELENEETKKKKGGSLVIIIVILLFVLLLSIMGVIAWLISSSSSDESEVKEAPKEEAKADKPKVSAPA

QRGSDFANIGPMYPLDPFTLNLLSDSGSRYVKCTIELEQNSELLKPELDKKVPVIRDIIIRTLTAKTFEE

VSTQKGKERLKDELVGKINEILTDGFIKNVYFTDFVVS

>YP\_002344790.1 phospho-sugar mutase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLKEKMLDVIFREYDIRGLYDKELNEKSVKAIGFCLGQTMLNRGCKNVSVGYDARYSANELFNYLVSGL

NKAGIKIYDIGLVPTPLGYFSLYEGLKFDANVMITGSHNPKDYNGFKITINKESFFGVELKEFSKEVYKH

LDDDIEENLEVEKYDILNLYVKFMCEQFSFLKDFNYKFGVDCTNGAAGVVIKPLIKALNLKAHVMFAEPD

GQFPNHAPDPTEEENLSAIREFLNQNQDYSLAFAFDGDADRMVALSKTHVFCGDELCYLFAKDIPNPRIL

GEVKCSKNLFDEVAKFGTIFMGKTGHSNIKKMMKEKDIDLAAEVSGHIFFKHRYFGYDDGIYAFLRALEL

VYKGFDLESMIKALPKLYTTPEIKIPVNEEEKFKLVEEFQKEIEKGALKGVKSLCEIDGARIDFGDGWAL

LRASNTSPYLITRFEATSLERAKELESMVFTLFNDIKARFKN

>YP\_002344789.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILILLTLCAFAFGASECDRKIDRINKEISFSKAHNDTARTLSLELALKQVQNDCAKDPMFYDKKLEA

KKLKEQEVEKIEKELDALKEQKDYMSKAEYKAKKEALKEQKEKIKK

>YP\_002344788.1 fibosomal silencing factor RsfS [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQERIDLIVKILDEKKAENIKTIDMSEQEYFVKYVIIAATLGERHALSLIDELKTRLKAKGEEFLNIDSS

EEWSVIDLGDILIHLLTPEHRGIYNIEELLENLKKGRV

>YP\_002344787.1 nicotinate-nucleotide adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIALFGGSFDPPHNGHNSVVLEALEKLDIDKLIIMPTYINPFKQSFSADEKQRFLWVKKLWGHLPKVEI

CDFEIRQKRPVPSIESVKYLYKLYNPSKFYLLIGADHLEKLHLWHDFEKLNSLVEFVIANRNDIGIPKNF

KDLKTNKKIASSFIRDTLNTNEVCEEIKDEVKKYYEKLQKN

>YP\_002344786.1 glyceraldehyde 3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAVKVAINGFGRIGRCVARIILERNDIELVAINDTTDIELTKYLFKYDTVHGEFKGSVDSEGDDLVVNGK

KIKVFKSRNVKDLDFAKHGAQIVLECTGAHLTMAKCQEFIDMGVQKVIMSAPAKDDTPTYVLGVNSELYK

GESIISNASCTTNCLGPVCRVLQDNFGIEKGLMTTIHAYTNGQSIIDAKAKDKRRSRAAAQNIIPTSTGA

AKAMKLVMPELNGKLHGQSMRVPVIDVSSVDLTAQLSRKVSKDEINEAFRKAAATNLKGILMVDDDERVS

SDFITCSYGAIVASDLTQVIADDFIKVIAWYDNEWGYSSRLVDMAVYIANKA

>YP\_002344785.1 phosphoglycerate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDIISIKDIDLAKKKVFIRCDFNVPQDDFLNITDDRRIRSAIPTIRYCLDNGCSVILASHLGRPKEISS

KYSLEPVAKRLARLLDKEIVMAKDVIGEDAKTKAMNLKAGEILLLENLRFEKGETKNDENLAKELASMVQ

VYINDAFGVCHRAHSSVEAITKFFDEKHKGAGFLLQKEIDFASNLIKHPARPFVAVVGGSKVSGKLQALT

NLLPKVDKLIIGGGMAFTFLKALGYDIGNSLLEEELLEEANKILTKGKNLGVKIYLPVDVVAAPACSQDV

PMKFVPAQEIPNGWMGLDIGPASVRLFKEVISDAQTIWWNGPMGVFEIDKFSKGSIKMSHYISEGHATSV

VGGGDTADVVARAGDADEMTFISTGGGASLELIEGKELPGVKALRSKENE

>YP\_002344784.1 triosephosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFAANLKCNHTRASFKIYAKILNKTMGVKCDDIIVFPPSIAFLENENNFIQGAQNFYPCVNGAFTGELG

KEHLDEFGIKCVLIGHSERRALGDEEFIKAKFDFAKEHGYKIVFCIGENLDTKNSGKTLEFLKKQLEIID

LNYEKLIIAYEPIYSIGTGVSAQSTDIAKVLEFLASLTKVPLLYGGSVNENNIKEILSVNHCGGVLIGSA

ALKVENFIKLIKG

>YP\_002344783.1 enoyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIMKGKKGLIVGVANNKSIAYGIAKACFDQGAELAFTFLNDALKKRVEPIAQEFNSNFVYELDVNNNEHL

DSIAEKIKKDLGEIDFVVHAVAFAPKEALENSFLETSKEAFDIAMQTSVYSLLSLTRAVLPILKDKGSIL

TLSYLGGVKYVPHYNVMGVAKAALESSVRYLARDLGVKGIRVNAISAGPIKTLAASGIGDFRMILKYNEI

NSPLKRNVSIEDVGNSAMYLLSDLANGVTGEIHYVDAGYNIMGMGDVEKNEEGQTVLCWDNQKG

>YP\_002344782.1 Ni/Fe-hydrogenase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKLSNEELKNILEDRIKKLENSTLKEDKVINEESVKILARHLSLGNEIPALAQRFFQIAPKTKLVWLHL

CECTGCSESLLRSELPSFDELIFDFFSLEYHETLMAANGTKAEELLEYVLEEDFILAVEGGVAAIDTFFL

TIGAQGESGYEILEKLAAKAKAIFAVGTCSSYGGIQAAYPNPSKTCGISEVLSQKVVNIPGCPPSDINII

ATLSFFALFGVLPELDEQNRPVWAYGKCLHDMCERKAKFESGIFAEHFDDEAAKNGACLFKIGCKGPYTY

NNCPKVKFNAKTSWPVAAGHGCIACSEKNFWDEFGNYEKPMANIFSYAKLCNEELKQEFFLEEQIKILEQ

IDFEFESNIKLILQNIAKNKLGALLVENYKKSFEKNYAFIEQNFDENPMPSKDFWKYLEISFILVKGAFL

KDKNDFLIVAKNYAFKHASPYDFKLNMNAEKPKLDVSKSFRMTLIYLCGGLDFEGVAYSILKAFEDNIAK

ISSLKAS

>YP\_002344781.1 ferrous iron transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIKIALVGQPNVGKSLLINALCKANMKVGNFSGVTIEKASAKTFYKNYEFEVIDLPGTYSLDGYSEEE

KITRHFLNQNDYDVIVNVLDATNLERNLILSAELLSLNKKMLLALNMCDEAKKEGIELDTSILSQEFQSQ

VVEISAKTKENLELLLQKIIILFESKFIPRSQFYTPLCEKSPEKEDLLYFINELSKKIITHKKEERNLTK

KIDALLIHKFFGLPIFLFLMWLLFQLTFSLGQIPMDYIESGFNTLGEFVKNNISNTFIASALADGIIAGV

GAVILFLPNIMILFLGIALLETTGYMSRVAFLLDGILHKFGLHGKSFIPLITGFGCSVPAFMATRTLKNK

RDRLLTLFVINFMSCGARLPVYVLFIGAFFPSEKAGNYLFGIYILGAILGLCAAKFLRMTAFRGLDEPFV

MEMPKYRMPNWHLVWFMVYNKAKMYLKKAGTFILLASLLIWFASNFPKSEENLNDFNAQERAIEQSYLGQ

FGKGIEPIFQPLELDWKLSVSLISGLAAKEVMISTMGVLYSLGKDVDETNNDLKGIIAKNIPIPSAVAFI

LFVMIYNPCFAATIVFSKESGKLKYTLFLFLFTCTSAYIVAFIGLHIAKILLN

>YP\_002344780.1 ferrous iron transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLNELKDGQKAIIVNLNAHKELKNRLLSFGFIKNKNLKKIHSSLKNATIMVELDTSCVILRSDEAKTIE

VNLI

>YP\_002344779.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTGISVFDHRLLADSWSTQEMRAIFCEQNRIQKWLDVEAALAKAQAKLKIIPKKAADEIAKKAHYKFMDM

DFIFAEFKKTKHPLVPTVRGLEKACDNNLGEYVHFRVTTQDIIDTGLVLQFKEAMTLVKSELKAIAKALA

KLAKTHKNTAMMGRTLALQALPITFGHKVAIWLSELDRHFERILELEKRLYVGSIVGAVGTKASLSDECN

EVEKLTLENLGLEVPNISWQSTRDRFIELGFVLGNINATFNKIAHQLLILSHNEIDEVAEPFGKGQVGSS

TMPHKRNPAVSENAVTVSNAFKANLAILSDIERHEHERDGQVWKMEWKLLPEMFLMLSVVLANMKFALSD

LEVKKDKMLKNLDTLKGFVLAERVMFALSDHYGKQHAHEIVYENAMLGIEQQKTFKEVLLADTRVSQVLK

EKDIDALLDATSYVGYAPKLVDEFLAKIKNSAILK

>YP\_002344776.1 endoribonuclease L-PSP [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNYPKAIGPYSAYREVNGLLFISGQLPINPASGEIESSDIKEQTKQSLKNIGAILEENGISYDKVIKTT

CFLADINDFVAFNEIYAEFFKAPYPARSAFAVKDLPKKAKVEIEIIAQKG

>YP\_002344775.1 hypothetical protein Cj1387c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDEGQKQQFIKLTYFLGEVLGEQYEIVFHVITEDGAYIAAIANSHISGRSLDSPLTAFASELMQNKKYLE

KDFLCDYKALVGKSKLIRGSTFFIKNHDKLVGILCINHDTSIMRDLICKMIDLEKIGDMGDILGNISFSQ

NDSSIETLSHSIEDILVQSVDSSYLNSDYQLSITQKEEIAEKLYEKGIFNIKGAVPIVAKFLKISEPSVY

RYLKKFKK

>YP\_002344774.1 ankyrin repeat-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTTLSLEEEKRFEELCKMAFNFARNNECENLKIMIEAGLNVNLKTHKGDSLLMLAAYNNSYESAKMLLEK

GAKVDEKNDRGQTPLAGVCFKGYLPMCELLVKYGANIDENNGLGMTPYTFAIMFGRKDVAEFLLKKSKNN

FLKKISLKILKFIKKF

>YP\_002344773.1 catalase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLTNDFGNIIADNQNSLSAGAKGPLLMQDYLLLEKLAHQNRERIPERTVHAKGSGAYGEIKITADLSA

YTKAKIFQKGEVTPLFLRFSTVAGEAGAADAERDVRGFAIKFYTKEGNWDLVGNNTPTFFIRDAYKFPDF

IHTQKRDPRTHLRSNNAAWDFWSLCPESLHQVTILMSDRGIPASYRHMHGFGSHTYSFINDKNERFWVKF

HFKTQQGIKNLTNQEAAELIAKDRESHQRDLYNAIENKDFPKWKVQVQILAEKDIEKLGFNPFDLTKIWP

HSFVPLMDIGEMILNKNPQNYFNEVEQAAFSPSNIVPGIGFSPDKMLQARIFSYPDAQRYRIGTNYHLLP

VNRAKSEVNTYNVAGAMNFDSYKNDAAYYEPNSYDNSPKEDKSYLEPDLVLEGVAQRYAPLDNDFYTQPR

ALFNLMNDDQKTQLFHNIAASMEGVDEKIITRALKHFEKISPDYAKGIKKALEK

>YP\_002344772.1 hypothetical protein Cj1384c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSVLVIGADEITPIRAVLHDLGAKKIEHWDARNENRVNRKPIPCDTECIVMLTSFLNHNTMKKIKNEAKK

RKIPLVCAKRSVSCVYCEYCKIFNLNKEFSCYKG

>YP\_002344771.1 hypothetical protein Cj1383c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLFGFDDKQEFIPQIYRYLNNQELMLTFLTQYNASVDSALKIPLLYAKNTKSLKMIFGNFLHNIMHVSFG

KIQNINIKLNTYAFYFQKRKSLIFNTKISKNVDLLRLLRIYLYGICFDAQILFSSYVYDKVSFQNNGKNI

DQDGDLIIIDKKFAILPLCKEINTHNLEIENEIYELLNLIKENNFEKFYIVCPRNKNFTHFIEIKHFLCD

LNKTMLKLVPYKISNQIIRRK

>YP\_002344770.1 flavodoxin FldA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSVAVIYGSAMGNTEGAANTIASKLGISDVFNISDIDAAKMNSYDKLICGTSTWGSGDLQDDWDGFDFSG

LSLGGKTVAVFGMGDSESYSDTFCGGMGKLAQNLKDAGANLVGEVSTDGYTFEASDAVVDGKFVGLALDN

DNQEDQTESRIDAWVEQIKPYFA

>YP\_002344769.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKFALILSFFIALFMSACTNATFTQSFIQTSNEGIFIRSQKQQSFKISFQNPSQLQTTLDRDLALKLKN

LGLKEVKENADYEILINLVDMKKHSYAQKITTSARFFYDFDPLESDGEWMVENYYTMQVNLQINSKNHNS

QKTSLLARTAYLGNKERCQLSLENKIINQIVSFFYF

>YP\_002344768.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLSLILVCSASLFAASNSEISDFYSKSIKAQFPNATVSVSNRQKVGNTGFESVIVSVELNGQKQENIL

FTKDSLITPDLIDLKTGISYAQEYEMKKFQEARENFTKNAKAVAQKETMVIALGDKNKPAIYVFSDPECP

YCREHLAQIDDELKNYQVNYILTPVHGKSAFEKSALIYKEAKKAKNDKEKIAILNKYYDANIKNYPKVSD

AELKEVFSLYEKYRSLGLSATPTIIK

>YP\_002344767.1 selenocysteine-specific elongation factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSVIIGTAGHIDHGKTSLIKALNGFEGDSLKEEQERQITINLSFSNLKLKDKNISFIDVPGHKDLVKTM

VSGAFGFSVCLFVVDINEGLKEQSLEHLEILKILDIKNIILVLSKCDLCENIEQKSVEILEELKNLDYPI

LKVFHTSIKNNQGIEELKNYLYTIENKENDEELIFHYYIDRVFSLKGIGTVVTGSLNEGSITLNEKIICL

DTQKELIVKNIQNHDTNLEQIKACNRVALSLNCDYKELKKGYLLSKKGYFKAFKECDALVKAKNLQNSKM

IFCVGSRQIECKINILKKLENDEFFVHFSFDKNVFLSFDEAFILLQNNRVIGGGKVLNPLSEPLKKEQKN

KFLMFLKNKDFKAAFSFLKDAHKYGFGLLSSYQRFKLSHQKALKLAKELNQVFVDEKNLNVYHLQSLEEI

KNFIKFILEKNPYAMLSAHSLALRITWASENFCELGLKEMSNLLDFQNGIYFKKGIDFEKLQEKNNNQMY

EILKKQGIKPEAPYNLYDFLELDRKSGDNILKKLTQKGLVVRLSHNLFIEKQALEKLMQECLNLLKNQSL

DVQSMKEYFNLSRKYAIAYLEYLDKFPQVSKEAEKRFLTNI

>YP\_002344766.1 L-seryl-tRNA(Sec) selenium transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKFRTFPQINTLIEDESLKSYPFYIKAFFCKKVVAKLKENFFQDEISKDKLLLEIKKEIKTFYRKDLQS

VINASGVVIHTNLGRSVIHEELYEACKDIICNYSNVEFDLENGKRGSRYALVLEKLKMLFECEDALVVNN

NAAAVFLVLNSLCYDKEVISSRGELVEIGGSFRVPEVIKAAGVKLCEVGTSNKTHLKDYEQAINENTALI

LKTHKSNFALMGFHSEVNIKDLHELAKEKELLSYYDLGSGWCENLNEKLIKNEPKIRKLVQECDILSFSG

DKLFGSVQAGIILGKKELIEKLKQNQLLRMLRVDKLTLSFLNESLKAYLQKDYEKIITLKLLNDDLSFIE

KKALRVQKELKFQTQLKKSKSLVGGGSMPDKSLDTYILTFQGDALKLQTRFRKENIIGRIENDEFVLDFR

TIRENELQKLILTINQMENL

>YP\_002344765.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQDFVYIKNDVLIPLPDAIEILDQANDKEALICNDKNQKAQIYAPEINFYLKNSQDEILEQSKNVLTLYE

ARASVYDLGLDLEQSKEVQNRLIVADGDAQTVEFLKEHEFKVIALSSAEILAVFGSVGELCAVVKNQGEE

VEIDFDFLLFKAEDLSVVRKDFTRQSGCYNLLNFENLEVLFEFLQSKSPKYHYKTYISYNASVCQYHERR

SEHCAKCAEICPTVAILKDDENKHLEFSQVDCLGCGGCISVCPSGSLDYAPMPRESFFTLCEFYKDKKIL

IIPKKMSLENLNLALPKDVLPFMIEGEKWLSSMHFLTLLQNSGANLVFYTDFVSRGSNEAIVLLNTFFER

KFQKKAIFVAKDEKELQNVLKEQEFIQDLKYDFHNNTLTTRENFAKRMQEMIKNEDFGSMESGEWLRYGK

VEINPNTCTLCLSCVGACNVGALIADKQENALKFNASLCTTCGYCELSCAEKDTLKLFRSGMEFRASYFE

YQTMAKDELFACIECGKEFATKKAVEKIANLMKPKFGNDENKIKTLYCCADCKAKVMIKAMIN

>YP\_002344764.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILFLFCSFFLAFAKPSLEIPKLSKQAKQNFILENVKFNYNGTIYKIFIAKNKNENSNYKYKIIYLLD

GNAFFPLFLNLFNTPVKENLLIIGIGYDNNLAFDTQKRTKDYTPTTNLNKQGGGSKEFRNFLITQLIPYI

NKMYPIDFSHQILFGHSFGGLFAIDTLLYDSKIFSHYFIISPSLWWDNSEFLPNIIKLQTCPKIYIGLGS

LETNSSIIKGVAKLNAQKLSEKISKETNCKTHFKLFKNETHGSVISKAMLWMKKLLDLN

>YP\_002344763.1 multidrug efflux transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNNVLPLSFIVGTRFFGLFIVLPVLSLYALKLEGANEFLVGLLVGVYALTQMILQMPFGILSDKIGRKK

TMLIGLIIFIIGSLICSFAENIYTMLLGRMLQGAGAIGAVATAMISDFITEENRGKAMAVMGSFIGLSFA

ASMVISPLMSAKWGLSSLFDLSAALSLLCIILLYTVVPKENKITHENEKTPFFHLIKQKNLALMNLTNFM

QKMLMSIAFLSIPIILVKHLGFASDKLWIVYSASMVAGFIAMGFAGSLGEKKGLAKQILLLGIVFFILSY

LFFAFSNSIDFFIIAVVIFFIGFNLHEPIMQSCASKFCKVHEKGAALGLFNAFGYGGSFIGGIIGGIFLH

LDTLNLLAIILVILALIWLVALFFLKNPADFKNLYLPLETPLNFSTFGENLGVVDIYKNSKNLVVKFDSK

LTSKEELEGKL

>YP\_002344762.1 Non-canonical purine NTP pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIILATSNKHKVLELKEILKDFEIYAFDEVLMPFEIEENGKTFKENALIKARAVFNALDEKQKKDFIAL

SDDSGICVDVLEGNPGIYSARFSGKGDDKSNRDKLVNEMIKKGFKQSKAYYVAAIAMVGLMGEFSTHGTM

HGKVIDTEKGENGFGYDSLFIPKGFDKTLAQLSVDEKNNISHRFKALELAKIILKILNKG

>YP\_002344761.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFAKLLKFFISRPKSTFFGTLFICLFLSFFAFKLSVDASAESLLLEDDADLKTFREISKHYKSDNFLLLA

FKPYDEKPFSNENLAKLKKLHEELEKAPLVERVFSIINAPLLQSSQNTDLKELLKNIPNIESQDINRTKA

QNEILNSPFYKNNIISKDGKVTGLIIYLKPDTVYNNLIEKRDLATDEKEKDQIRLAIKEHQDKQKVITKQ

SLDTIKSIVRNYEKNKDTLYLGGVSMIADDMIAYIKSDLVLYGVSLVFLLGLALYYFFRSWRFVFLPLFI

CFISLSAASGVFALLNFQITVISSNYVALVLIITLSVVVHLITHFIESTQNHPKAKVERIVLETLLAKAN

PSLYAIVTTMIGFFSLILSNIEPIIKLGIMMSIGIGLALIFSYLFLASILVLLKPKNYHKKEFKFNLLAF

CAKTALDPKKRRMIYEISVLAIILALIGISKLRVENSFVNYFKDGSEIKKGLLVIDKNLGGTLPLEVIIR

FPNNKNDQNASDTLDSFESEFENLATQETYWFDSKKTRIAKKVHEFLENKEFVGSVLSLNSLLTLGKNIN

DGKELDDFALAFLNENLPAKFKQDLLSPFVSIENNELRFSMRIVDSDPNLRRNEFLIDLKKQLNELVKND

GVEVQITGIMVLYNNMLQSLFSSQFDTLIFVILAIFILFIIVFRDLKFSVAAILVNVIPLSVVFALMGLL

GIPLDMMSITIAAIAIGIGVDDAIHYIYRFREEIKNKSLEEAIMISHLSIGSALYYTTISIVLGFSVMMS

SNFIPTIYFGILTVFVMILLLSGSLFLLPSFLITIYSKKTKFPNQHKEHILKQ

>YP\_002344760.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLILTLFFNAFALQLDEISSTMQKNIDASLKLLQDNKEDKKQAANGIFKLFDSIIDYKLMAKLSLS

KNYSKLTPKEQEKFTTAFETSLKKSFTDKLSLYKDQVLKVKNGELKNEKRYFLTTSMVVDGEEKNIIFKF

YNDNNNWLIYDVDVLGVSIVQTYRSQFGDILANQGFDALLQKLESIVIE

>YP\_002344759.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRIKFISFILIFFTIFAFAKEQNLDDFEQEYQNYQVNDPLSGYNKAMTSFNVALYDYGLRPVLKGYNAIT

PEFIRLGARNFFDNLLAPLRFVSNVLQFKFEEAGEEFKRFTANTIMGFGGLMDVASKMGLKKHPADLGTV

LAHWGVGSGFHIVLPILGPSNLRDTLTLPATWYASFTAYIDPTWASIAISAYGFGNELSFRLDEIDEIYH

NTPNLYPFLRDAYEQRRNELSK

>YP\_002344758.1 nucleotide phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFYSYEEFKEDVKILAKEIKEDFNPDALLAIARGGMSLGHSLAVALKTRQLFALNSIHYDNTKKLDTIE

IFNIPDLSKHKKILLIDDIVDSGESLAEIKKVLLEKFPHIELKITTIFYKKTALLEPDFKVKEATEWVDF

YWDINLD

>YP\_002344757.1 permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSFFKLKENNTSFKTEVIAGLTTFLAMVYIIPVNSSIVGNTGMPIEALITATALITIVASAFNAFFANTP

VAMSVGMGLNAYFTFAVCLGQNIAWQSALGAVFISSIIFLILSFTHFRLWVIRNIPKDLRLAICAGIGCF

IAFLGLSQMGVIMHNKDTLVSIGNFKSPHVLFGIFTLALIIFFWAIKLRGAFILGVLASSIIAWIFHLDN

ASFPVQIFSWPNFSMENGLGAIFLQLDIKSALNITMIPIILTFFITQLFDSIGTITGVGERGKIFDDPKN

GEKKLSKTLMADATGSALGAMTGTSTVTAFVESTTGVESGGRTGLTALVVAICFAFTLFLLPLFKAIPAN

AIYPVLVMVGILMFMEVKNIDFKDSAIAVASFFTIIMMPFTYSITTGFAFGFLSYLLVRIFKREWDKINL

GIIVLSLLSLGNFLLMALQ

>YP\_002344756.1 hypothetical protein Cj1368 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLITKLENEERLNQEEANALWDLDLFTLGKYAHKKRTKLHGKKVYFNINRHINPTNICADTCKFCAFS

AHRKNPNPYLMTHEEIMKIVDETVKRETKEVHIVSAHNKDTTWQWYLEIFKMIKEKYPNLHVKAMTAAEI

DFLHRRFKMSYEEVIEKMLEYGVDSMPGGGAEIFDEEVRKKICHGKVSSENWLKIHKLWHEKSKQSNATM

LFGHIEERHHRIDHMLRLRDLQDQTGGFNAFIPLVWQRDKSFIQTDKIMDSEEILKTIAISRLVLDNIKN

IKAYWATMTLNLAMVAQEFGANDLDGTIEKESIQSAGGAKSAKGTSLKTFIDMIKTSNLIPVERDSLYNE

LKTY

>YP\_002344755.1 nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNKELEIFKKNLSSYTQSCRKFFLKQGAFSLYHSKNMDNFIKKAYDIVLKDYFDDFSPPSDNIPFCVLA

SKAYANNSLCFNESISLIFVYKDIKAFHLKPMIKAFIEILNDAHLQIDSVILEFNGLYNASNELKTSIIQ

TRFICGSRILFKGIKIKFESIIKENKNDFAKLLLENFKEFDIPFIKQEFNILKDFGGLNHLRSLESLLVL

FKTSPKNYALNFIDEKKLSELRLAGDFLLSLKSAMNLLSAKDEDEFLLINVHDLSELMYKKAKKHFGANE

LLVQKALQSMHTIGFYTHFLAKQIQDGLNHTLKQEYKFKTLVEVLEYLLKLEDKHVIFDLNLVFALGRLK

YGKKDIEKALILFEKIFYKRHSFCVLKLLLDSGILKDLCKPFWTVRFLSDEEGNYSFDEQVFLMLSEFEK

YEDELEILQKLKTDEKMILKLVILLSAIESENEISLAGIYRAYCSKFDLKNEILEWGLKIFKNNNALKDL

VEKEDIYNPIVVSSLVSKLENLENLELLYTLTWLKAKALNYNAFYFRVLDKLLENAKQGFEDENLLEESA

RRVKKELTLKRSKIFLEQDEILQDKIIHIKSNLFIIKNTFEDIVMISKLAKENDFKFWFSNETNLSLQIV

APLHFNIAIILSSLTNLNLIFMNFFELFDDKIYLRFEYDNIISDEQKLKLCELLNSNLSGFNLKKIKKPI

IKKDELKLDLNYSKMYAKLGLNTKDQQGLMAYLMNVFNELELVLCAAKIQTIRQRTRNIFIFQKNEKLEH

SEQKLVNLLISE

>YP\_002344754.1 glucosamine--fructose-6-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCGIVGYIGNNEKKQIILNGLKELEYRGYDSAGMAVMQEGELSFFKAVGKLENLANKCTDFESQGYGFAI

GHTRWATHGKPTEINAHPHLGQYSCVIHNGIIENYKEIKDKLEKEGVSFLSQTDTEVIVQLFEFYARNLG

VFEAWQKTIKELRGAFATLLVTKKDPNHVYFAKNAAPLIIGKNANKEWYFSSGDAPLIGSCDEVMYLEDL

SLGYASKDELVVYENDILKSLCFSKLSGDKAYAKKDGFRFFMEKEIYEQSRVMSEVLMGRIQGDEVVFDE

LNNEDLSQVDEITLCACGTSYHAAMASAYLFERIAKVKAKVEIASEFRYREAIIKKDSLFIVISQSGETA

DTLEALKIAKEQGAKTFAICNVDNSNIVRLAHLSLLTRAGIEKGVASTKAFATQVLTLWMLAIFMAQKRN

LNVSAEIKALLHTPNCVSVKQALHEKIHRLSKRYLDGHGFFFIGRDVFYPLALEGALKLKELSYLHAEGY

PAGEMKHGPIALADSKLYTIALMPKHMLYEKTKSNVEELIARDSTVLSISPLEFDLSDDFIKTNEQDHYM

CEFFEMMVITQLLAMEISIRLGNDVDMPRNLAKSVTVE

>YP\_002344753.1 serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFFCLTLVCKLFALSEFELHHIDKVHKLGYSGDTIIIGVADDAFNQDHISLKDKILKSTYPTDTAGKQ

LIPDLKKSTHGSHVAGIAVGAKIGDSKPYGVAYGAKFYGAGVFPNGSYTQIPDIYNFFKDVSIINNSWGI

NFYPYFNLKASNSGLVDCTQTNQGTSYNICNTPLEYVMKADKVANDMMRLSKDKGVLNVFAAGNEGILSP

ALHAILPSYDESLRAWLAVGALDANEITLESDGTLIIKSQGLADFSNGFKGATNFSLVAAGVNINNVDSS

TNDKFTKKSGTSMAAPMVSGTAALVKQNFPFLDGKQIADILLSTANKNYKAPKFTVKQVTDGTNQPKFLI

VYISQDPPGIEDEIKRDLKQLYNGIQVQVNGQWIDYSDYIWDNRDSAQSQKLNTSTISSINGVVRVEKEE

LFGQGILDAQKALKGLSILDANRLSDQDVLKYEQEPNTAYYTINTAGYDAEFSNDISQRKWDESTHLSSA

INKPTHLANLNIGLSKEGEGILIISGQNTYEGATLIKQGELKLKGKVKNNAYVEQKAILSGNGIVGQNLN

NKGIVRPGNEDLNDLTVQGTYTQEGVDSKLQLDFGNYKNSKLIAKTYDIKSGNLEYIPLPKYYILNKPVK

INLGDLEKSLSSFNHVLIQNTYALNFDFVLSDDLVSINKTLIKPNLKPNAYEIPNTSLGNALRQLRSRAD

LSQTYQEFFASLDNGIDVKTKLNRIEGSGYLSTFSNHNQSNLMQNNMLFTLHPLNINNFAQNNNILLAST

YLPRIFSNEEYFWHLTPSYKYYKDKDFSGQKTGANISLGENFSSGFLAYALSLSSAKFNFNNGSDLKSYN

MDLLLNYNHDLDFIKILSGLGIGVGFNTLNRFVVEQPIEGKYKTLQTSAQLGVTKDIILGQDFIFNPLMY

FTHSFFYQEDFKENKSPFAKNYESLKHHSINANLGFNLAKNIEQDDYQASFSTFVIFEKRIYGRTLENKA

SFVDFPIAFIQKYKLKDNILSQGFNSEFLYKNNVFWQFMLMNRFSHNAYELHLMSSVGKRF

>YP\_002344752.1 fumarate hydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEYRVEHDTMGEVKVPNDKYWGAQTERSFENFKIGCEKMPKVLIYAFANLKKSLALVNNKLGKLDDAKKN

AIVQACDEIIAGKFDDNFPLAIWQTGSGTQSNMNMNEVIANRATEIMGGDFRKEKLVHPNDHVNMSQSSN

DTFPTAMSIVAVEQVEKKLIPALDELIATFEKKVKEFDGIIKIGRTHLQDATPLTLAQEFSGYLSMLLHS

KEQIIASLPTLRELAIGGTAVGTGLNAHPELSQKVSEELTQLIGTKFISSPNKFHALTSHDAINFTHGAM

KGLAANLMKIANDIRWLASGPRCGLGELIIPENEPGSSIMPGKVNPTQCEAVTMVAVQVMGNDVAIGFAA

SQGNFELNVFKPVIIYNFLQSLDLLADSMHSFNIHCAVGIEPNRAKIDHNLHNSLMLVTALNPHIGYENA

AKVAKNAHKKGISLKESTMELGLVSEEDFNKFVDPTKMIGPKA

>YP\_002344751.1 acid membrane antigen A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNGKFFLISFILVILFLLLYLFKGFLLVIIIASLMAVATSNINAKFLNLTKGHKFLASILTTTCMVLLF

FAPFVYAMIELAKALKNFDINLVTQTLDYVKNYQFTLPESFNFLEPKIKEFLASIDLNSISKQILSYASS

FTKSGAKFLIDMVLICVFYFFANLYGTELVIYLKSIIPIDKKELDDVLSEVGNVMAVVLYSMVIVAIFQG

ALFGLITIFYGYDGILMGVIFAVSSLIPAIGGALIYMPVSLYEFASNNLNSALVIFIYSVIVISFIADTL

IKPLIIKWINKKLVKTPTKINELLIFLAMIAGISTFGFWGIILGPAILTFFVSTLRMYVILKDKNLI

>YP\_002344750.1 Holliday junction DNA helicase RuvB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDRIVEIEKYSFDETYETSLRPSNFDGYIGQESIKKNLNVFIAAAKKRNECLDHILFSGPAGLGKTTLAN

IISYEMSANIKTTAAPMIEKSGDLAAILTNLSEGDILFIDEIHRLSPAIEEVLYPAMEDYRLDIIIGSGP

AAQTIKIDLPKFTLIGATTRAGMLSNPLRDRFGMQFRLEFYKDSELALILQKAALKLNKTCEEKAALEIA

KRSRSTPRIALRLLKRVRDFADVNDEEIITEKRANEALNSLGVNELGFDAMDLRYLELLTAAKQKPIGLA

SIAAALSEDENTIEDVIEPYLLANGYIERTAKGRIASAKSYSALKLNYEKTLFEE

>YP\_002344749.1 hypothetical protein Cj1361c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEFTLNFNDYGLKMGILTKLELDYEIDDIEKFLQFFRTMCDRFEPLIIKLGSDSVRYKEAIKELETLAH

NTAWAARRLNLEEVTDFCVFCEEMMAQANRFNGPASDEFTDWMLLMSDQFEKYCRSYENDDSVLAVFNPL

IVNVPNIISK

>YP\_002344747.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQTSPDMFINRELSWLRFNSRVLDQCSKNLPLLEKLKFIAIYCTNLDEFYMIRVAGLKQLFSAGVNASSS

DEMTPLQQLKAIRKYLHQEKELLERYFNEITSELEKENLFIKHYENLDENLKQKCDEYFFSNIFPVIVPI

AVDATHPFPHLNNLSFSLAVKICDKAHPELVKFGMIRIPRVLPRFYEVSANIYVPIESIVHQHAEEIFPG

YKLLASAAFRVTRNADMVIEEEEADDFMMILEQGLKLRRKGAFVRLQIQKDADEQIVEFLNTHMKIFHKD

VYEYSILLNLPSLWQIAGNKTFTHLLSPLYTPKTLPPFDENLSIFDAVEKEDILIIQPFESFDPVYKFIK

EASKDPEVISIRMTLYRVEKNSNIVQALIDAASDGKQVTVMVELKARFDEENNLHWAKALENAGAHVIYG

ITGFKVHAKVSQVIRKQGDKLKFYMHLSTGNYNASSAKIYTDVSYFTSKAEFARDTTSFFHILSGFSKNR

RLQTLSMSPNQIKEKVLEMIRIETSKKNEGVIVAKMNSLVDSDIIQALYEASMEGVQIDLIIRGICCLKP

DEEYSKNIRVRSIIGKYLEHARVFYFKHSEPNYFISSADWMPRNLERRLELMTPIYDERSKAKLAQFLRL

QLSDNVLAYELKNNGEYEKIPSSEKIIDSQQTLEEYVSKIYKTLKKDTDQSRATHLASKLFKEN

>YP\_002344746.1 cytochrome c nitrite reductase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIILRRKILKKTSNLFTIFLVLLFVFFAVGFYTFYNAKGTSYLSNASESCNNCHIMNEVYNEYMAGPHSQ

KVKGEPRATCVDCHLPHNFVAKWIAKAQSGLGHAYAFTFKLDELPTNLSATEKSRKMVQENCIRCHADFA

QTAINATTNPHADKSLNCASCHKDVGHKHGI

>YP\_002344745.1 cytochrome c nitrite reductase cytochrome c552 subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKNILRLGIVVLVLLIAGVLWLNNDINQKKEDEANKNAIAANADFSLLSDDDPNFEKWGKVFPEQLKMY

LTVEKEEPKATEFGGNLAYSKLIRFPQLTILWAGYPFSLDFNEERGHFWVQVDQMKTARNNKDFLNAHGL

AAFKGQPAACMNCHSGWTPWLIKNVAKGDFTAFNSTNYWTMIKNIPAVDGIVENSPEHAGPHGGKRMGVT

CADCHNPNDMSLRLTRPAAINALVSRGYEKDPVQGVKATREEMRTLVCSQCHVEYYFKPTGEKVKVMGET

IVDDSSKKWWNGTQKNYDEYEFWRDGNKVKEIETDGIVLTFPWSEWKKGQPFRIEMLDDYYDKVRGVFGA

DFTHKLTGAQIIKIQHPESELYSGGVHAANGVSCVDCHMPYVREGAKKVTQHNITSPLRDINSACKSCHK

QSEDYLKAQVLDIQNSVAHDQRTAEYAIVSLIMDTKKLRDELGNMEKFQSDGKADAKKISEELKEVLELH

RKAQMRADFVNAENSTGFHNPREASRMLLQAVDMARMGQTKLVEIAAANGIKDFKTSNLGFEDIQKFNPG

ELYYKVDVNNHKAGERYYADEKDVNGNPPKELLEHDKELAPYNYQVIDKK

>YP\_002344744.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINKNKLFRQVHIYLSLFFLPCALLFALTGIAYIFGINQDVGLKVEQYQLSKVIESGKEREALIEYLKTN

GLKVPSNTNIIKSKDKGITIGGTHYSANITQNSTNEYNITLKTRSLLGDMIMLHKDKGAWYFSVLSVGFG

ITLFMLYISGLMITLFANKKDRSKQFAVLGVGVVVTLLLAYLSL

>YP\_002344743.1 enterochelin uptake substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKSLVFAFFAFFLSLILTACNSNSNENNASSTTKTNTATVKVLPISMSDEGDSFLVKDSLGENKIPKNP

SKVVILDLGILDTFDALKLNDKVVGVPAKNLPKYLQQFKNKPSVGGVQQVDFEAINALKPDLIIISGRQS

KFYDKLKEIAPTLFVGLDNANFLSSFENNVLSVAKLYGLEKEALEKISDIKNEIEKAKSIVDEDKKALII

LTNSNKISAFGPQSRFGIIHDVLGINAVDENIKVGTHGKSINSEFILEKNPDYIFVVDRNVILGNKERAQ

GILDNALVAKTKAAQNKKIIYLDPEYWYLASGNGLESLKTMILEIKNAVK

>YP\_002344742.1 enterochelin uptake ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKLKNITKFYDNKVIISDLSLDFHKGKITSIIGANGAGKSTLLALASRLIKPSSGEIYIDGMNLKNYKE

QILAQKISILKQQNNINLRLKVEELVAFGRFPHSQGRLNTNDKIKINEALEYMELSNLRNEFLDTLSGGQ

KQRAFIAMIIAQDTEFIMFDEPLNNLDMKHSVQIMQLMKNLVKDFNKSIAVVLHDINFASIYSDEIIALK

DGKLLKQGSKDEIINQENLKQIYDMDIPVSQINGKKICIYF

>YP\_002344741.1 enterochelin uptake permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKKMLILSFLTLNMIGIFIFVGLNGFDEYALKSRFLQIAAIIIVAICIAVSTVIFQTLCNNKILTPAII

GLDSLYMLLQSALIFSFGAANLSVYKNDINFLITLVCMVVFSLGLYKILFSSDRSIYLIMLLGLVFGTLF

STLSSFFEVLIDPDEFMVIQGRMFASFDNIAFDVLILAYIISFLSFIWIFRYMKFLDPLNLGKDLAINLG

INYQKISKQLMIIIAILTSISTALVGPITFLGLLVVNITYELFKTAKHSILLSACILISILALLGGVFFV

SRVFDYNATISVVINFLGGIYFIYLVLKGNKL

>YP\_002344740.1 enterochelin uptake permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFFKHILSLKVLIALLLFFGMISLFIGVISINVKDILNLNSTQLEIITLTRIPRLIAILLTGMSLSICGL

IMQQLTQNKFVSPTTAGTMDCAKFGILISLIFFTGASFFTQAIIASIFALLGSFIFIQILRKIKLKDVIF

VPLIGLMFGGIISAITTFFAYALNYIQNIQGWLQGSMANVMQGNYELLYISLPLFILAYFLAHKITIVGM

GEDIALNLGISYNGILFLGLMIVSIITSLVIVSVGIIPFLGLIIPNLVALYLGDNLRKNLIYIALCGALF

LLVCDIISRLVIFPFEMPLSITTGVLGSLIFIFLLLKRKVYA

>YP\_002344739.1 phospholipase A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKIALFLSLCVFIWASDLQQALEYEKQGDYKKAMEIYKKLALKNSSVLISQEQNNSSQATQTQNSITIK

KEEKQDFSRLALANYLGENESFNPLGISSYKMNYFLPFAYSFNSLGVNNNKSEAKFQLSVKKRLFENLLG

LDEKYYIAYTQTSWWQIYEHSSPFRETNYQPEFFIDLPLYLKDYEFFNNLRVGILHESNGKGDENLQSRS

WNRIYVSTAILYNKFLFVPRLWYRIPENKKDDDNPAILHYMGNFDVNLAYLGDDYFINLMLRNNLKFHNN

KGAIQVDLGYDIFNNGIYWYLQYFNGYGESLIDYNKHLQRLSTGFLISY

>YP\_002344738.1 molybdopterin-guanine dinucleotide biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQLNELNCVILCGGKSSRMGQDKSKLILKNQNLTQFQVDKFSKIFKNVYVSAKEDKFENHFSLIKDSLEF

EVYSPMLALYSILSNFKNEFVFVLSVDSPKVGENELLKMLPFLEQNYKIIIAKTPLHKHPLCGFYHSSLA

QTCKNFLEKNEQKIGLLFSEIKTKFVEFEDEDAFLNLNFYEEYEKFKSKLK

>YP\_002344737.1 fibronectin/fibrinogen-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYTELLQLQTFFSRFKKIDFIKRINDNILELSFDRERFIFDLTRAMSAIYTAKFNAKNYNAPFDFMLKK

YFSNAFIKEVKVLEGNRILCFSVKANKAYKSYESKIYFEFTGKNTNVILTDEKDLIIEALRHIDKSYRVV

KPNVILESLKPYKMDENFEEIKDFADYFSRKFTSIYESKIKQIKNLKLAQVDKKIQNLQELFSSLDEENS

LLLKALEYRKRADVLFANLSVLKDYEREFKLDDFEGKELEFKLEFNPKQSANLYYKNAKKLEQKAKNLNI

QRQNLKEKLDFTLSLKELLLQAKSEIELEILLPKKNSKKNQDHKQEDLVANFYFNEFKICVGKNEKGNEF

LLKNAKKDDLWLHVRDIPSAHTLIVSNKQKISLDVIEFAARLCVSFSKLKKGSYWVDYTLKNFVKVQQKA

FVNYTNFKSINITKD

>YP\_002344736.1 hypothetical protein Cj1348c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPVSPLGNINYINQNMAYPATQASNELAKEGFAATLNMAEFNEKEKTLNKLEKVNETHEIKEEIKEKAEQ

EEKKKKHNQEAKTSDDEKNEEDESKDPNFKDAQSIHRLDISI

>YP\_002344735.1 phosphatidate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNTTRIISALVMIGAIIIIALIDQFFINFIVFAVLLYLSFSEAKKLFALENISIIPLAIAFILGSLSHK

ALLFGILVLLLVVGYLVYKKASLKPALIYIYPSLPILALWQVYLDQGMFALFWLIIIVAACDSGAYFIGK

LMGKTPFSPTSPNKTLEGVIGGLICASVIGTILGVFVYSFWLSLLCSFFVAIFAVIGDLLESYFKREAGV

KDSGDLIPGHGGVLDRIDAVIIAAFVMVALL

>YP\_002344734.1 1-deoxy-D-xylulose 5-phosphate reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILFGSTGSIGVNALKLAALKNIPISALACGDNIALLNEQIARFKPKFVSIKDSKNKHLVKHDRVFIGQE

GLEQILTECQDKLLLNAIVGFAGLKSTLKAKELGKNIALANKESLVVAGSFLKGAKFLPVDSEHAALKFL

LEGKKNIAKLYITASGGAFYRYKIKDLNQVSVKDALKHPNWNMGAKITIDSATMANKLFEIIEAYHLYDF

KEIDALIEPRSLVHAMCEFKNGASTAYFSKADMKLAISDAIFEKQDTPILEAVDFSKMPALKFHPISTKK

YPIFKLKNTFLKEPNLGVIINAANEVGVYNFLENKSGFLDIAKCIFKALDHFGVPKISSIEEVFEYDFKT

REYLRS

>YP\_002344733.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFFLTILFFITSIFALELDFSVGENGKSLDDNNTVLIFGGIQGDEPGGFHAASLLLSDYNITKGKIIVA

PNLAFDSIIKRSRGNNGDLNRKFASISPKDPDYKTVQRIKELILLPEVSMVINLHDGWGFYKPTYIDAMQ

NPKRWGNSSVIDTSEINASKYPDLENIATQTVNSVNSSLADPKHAYHLKNTKTQELGDTEMLKALTYFVI

SNHKAAFANEASKNLPVNLRAYYHLLAIENYLKTAGIEFSRDFELTPQGVDKAINKELEVKLFDDRILLS

LKNPRKVINYVPFPVNKELNYNTSNELTAVIAEGNSFYIQYGNRFQTRLYPEYLEFSDAFNEVTFQVDGN

ETTVPFGTKVKVKENFLIPKIANVRVNIIGFDHSKDESGILVHKKNMQTQYSLDMAGKIYRAEFYELRGA

NLQQLLEANINSKLIKNAKNLDLNTLKMARSKDKFLGSILVEFE

>YP\_002344732.1 tRNA N6-adenosine threonylcarbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>YP\_002344731.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAFTILELVFVIVILGILAAIALPKMSSSKDEAEVSKSLNNLKTLINDISIYTLKNDHLSSIKTMSNV

SGVENVDLSNFNGIKEVNFRVGDDKECLKLVFINKADFILMGISSNEASKNAIINAANQSHEDLENIDFT

SSSSNKACVILSKNENFKNLASKTYLLIGGM

>YP\_002344730.1 hypothetical protein Cj1342c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIVSKAYEIDSCDDVELGIKRESKLEFKLWYDDEKTPEALVFVVQGMGDDISSIQYVGDYMVRQFNTAVV

GVNYHCIGNRPQTGSSFFMDDIDKLILKASCEAADIKLPYDVDKIQDYKAMSEIFHFVNNQIVEGKQKGN

FTPNYFLNLHVSLQPTKNEYQNFGIMQAQDLLNVALYLKKHAPFDTMGGGIPIIMIGGSHGGYLAHLAAK

IAPWLVDGVLDNSAYAKFLWRVVGFGKEIDFMQYSEFATFDFFHHIKTHCSTKTFWTSNSSSPRFFSPAR

RKIRNLLEEDHLLKQSKCLKTCFISYHSLYDEYVSLKEKTMFYEELEKLGFDVTLHSITKESQVDGKFIK

NLNHGMGIPVKLLIKKELPLMLEKIKQNSKKDYKEKCISYPCEDLLYQFSEKDDKMSLKIDKI

>YP\_002344729.1 hypothetical protein Cj1341c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTILEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELCSGKIYLVDIEEERVDIQL

LILFDMKDMFEYLSLYEMFVNNVYYKKFYEDVWHKADELCEKNIKVVIRNLNSSLCIGFECYSHLLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENKTSLNMLSCATHPSLVHFLDNKSVVLRDDPLYQRFNLNDFGYIDTGTHVSHFSYT

LALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRIKLE

YLFACNEQKAKFYNATEGGARINFTEELSFKECCEKLLTKEKPQFELPKSLTKNRSDKLLVKFKEKIQKD

QDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDGILKAVMYERGLKIS

LVYKENIIDNASFISAYIKAYHEWLLYFMEKLEQRINIIIDSFKELP

>YP\_002344728.1 motility protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLLEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELKVYKVVLFDCVAKDLEIQI

AMIFDQQSILEYLSLYEMFISSHYYLKYYETSILSLNELCIKSASVAIRNADITCFLPLLTHGQFLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENLKQSIIALECATHPNIVRSLNAENCMIVLRNKALYQRFNLNDFGYIDTGTHVSHF

SYTLALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRI

KLEYLFACNEQKAKFYNATEGGARINFTEELSFKECCEKFLTKEKPQFELPKSLTKNRSDKLLVKFKEKI

QKDQDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDETLRGAFAYRGK

MIADVLKLHIQDKTHFITAYIKAYHEWLLYFIEKLEQKYKSLSKV

>YP\_002344727.1 flagellin A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGFRINTNVAALNAKANADLNSKSLDASLSRLSSGLRINSAADDASGMAIADSLRSQANTLGQAISNGND

ALGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTVKATIGATQSSKIGLTRFETGGRISTSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALADEINKNADKTGVRATFTVETRGIAAVRAGATSDTFAINGVKIGKVDYKDGDANGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGQIDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TAITNLDQIRADIGSVQNQVTSTINNITVTQVNVKAAESQIRDVDFAAESANYSKANILAQSGSYAMAQA

NSVQQNVLRLLQ

>YP\_002344726.1 flagellin B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGFRINTNIGALNAHANSVVNARELDKSLSRLSSGLRINSAADDASGMAIADSLRSQAATLGQAINNGND

AIGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTIKATIGATQSSKIGLTRFETGGRISSSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALAEEINKSADKTGVRATFTVETRGIAAVRAGTTSDTFAINGVTIGQVAYEDGDGNGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGRFDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TATTNLDQIRADIGSVQNQLQVTINNITVTQVNVKAAESTIRDVDFAAESANFSKYNILAQSGSYAMSQA

NAVQQNVLKLLQ

>YP\_002344725.1 protein PseE [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MREENNFNKNLKALSGFEYNNLRKKLEDLKELREFTFTQGKDNLDINIIKKRNLKKMYQDPIKELEKNLE

YFKDFTRYPVLFFYGFGNGILYKILLQNQALKRIIIFEKELELIFLALNFIDFSKDLSLGRLIILHHDDI

NLPKMDKVFRLIGDLFYRSYNLHIANDFYEHYKEDILKLNKLNMQIIKNHNLMHGNDPKDALQGIEQFVY

NLPSMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGIKPDYV

CMLERDEIVAECFNNDFKDFDKDIIFLVASLVHKKTISYLKKNKRKYILIIKGQPFARCLGLDDYGYINA

GMSVSHMAYELAENLGHNNIILIGQDLAYAKDGQTHSQGFIHANLHNGDYERDLDRFSTTAYGGNGKVQS

SEIWTLFRQIFENFIAFSKSKTYNCTEGGARIESAIEKPFKELCEDLLKNKKDKKFKKLQVLNTKEQVKL

GLKIYQKIKKNMNLSLNFKKECKKVQKQIHNLTHGKNKLSLEQINQNIDKIKEKLSNKKYLFLQEILGPT

LHHEQSILTPLYLKDIKDESDKQNKLFAWVYAHEALIENIIELLEVQDKRLKIAILPLLDFLEKKKAL

>YP\_002344724.1 hypothetical protein Cj1335 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGGYNENLLYQDP

IKELQTMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQNA

RLMVLENDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAENFKNIILRNGNDPK

DALQGIEQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPI

LAKHGIKPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNLVITQKVLAFPYYIN

LKDFSYAAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYESQMYEHILTEAYGG

NGKVETHSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFEKLE

PLSLNKQNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLAIRKIDEFKNKLENI

KQMQDLYEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNILP

LEEKLKERKLDKWMERVRR

>YP\_002344723.1 hypothetical protein Cj1334 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MREELFLKNTQALFEVDEFLACTLRSLKYLTFALIQDENGINFKKDDIFLYENPNKELLENLTLFKTEYN

KYPVLFFYGFGNGMFYKTLCKNKQHKHIIIFEDNLEILTLAFHLFDFSEELKKEQLILFYTPNINTAQLT

TLFTYEIIQKSVKIFNLFIHNDFYQQFYSTQIQNINTQLIEMIRFIVLNKGNDPHDSLVGIKHTLDNLPK

MLNHGIFQEFLKERRAKVENAIIVSTGPSLIKQLPLLKKYANKATIFCADSSYPILAKHGIKPDYVCMLE

RDDIVSKCFDNDFGDFNKGILFILASVVHKEVLDFLEKDQRAYMLVHRPLNFAASLKLDEYGYLGVGHSV

SNMIYELAGALRFENIIFIGQDLAYGEDGSSHPKEHIHGSQGEEIRGEKYTLAYGGKGKVRTQLTWNLFR

QAFEKDIFWAKEKLNITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFDFPKFLDKKLAKEKLEKT

KKYLQKSILESKEFIKKTQTQLQKLRYTLEKNDKNFQTLEKIKNDLLNLFKEFKKLKLFNELCQAIYFHN

ECEILKFEVLNTNKQKENLIDFLKIQHNWFIQGLGYLDTQNKTIEKSLENWNFDDIIKK

>YP\_002344722.1 protein PseD [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGLMMTFTPTQKELFNKNIEALSNLFLKESLKEIKSSKFELILGKDNLDINLKDTSDNTFLYENVIDELN

SMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQSARLMIL

QTSSLDIELFSNFCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLVQDFKDSILSHGNDPLDALQG

IEQFVYNLPQMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHN

IKPDYVLSLERIPLTSEFFNNDFGEFDKDILFVLKSYVHPHTTKYLQKNNRNFMLVSTYASFINYLKLDD

FGYFNMGFSVANMNFLLAIHLKHKNIVLIGQDLAYAKDGLSHTKDYSNLDKHEGHFQRDKNKYTTQAYGD

NGKVESSFVWTLFRHNFEQDVANAKKNYYITTYNCTEGGARIEGTIEKPFLWACENLLHKDLNKPFEKLE

PLSLNKQNEFLLKAYYKVYQSIKHCRDFSNKFIKSYDKIKNSFMSLQNSQENETLIKEIIKDIDKIKTQI

DELYNTQKDLMQILGPLLTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIK

NILPLEEKLKERKLDKWMERVRR

>YP\_002344721.1 flagellin modification protein A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLENKIIFVAGACGRIGKALCEKILLSKGIPILADINKECLNKLQENLETNFKTKLLSLELDITKQESLQ

TALQKSQERYGKIDAFVNSSYPFGKDWGKTPYYELKYEQICESLNLHLAGFMLAAQEFVKFFKQQGYGNI

INLSSIMGVYAPKFENYEGTSMQSSLEYSVIKAGINHMSSWLAKELFNQNIRVNTLASGGILDNQNELFL

KAYRKCCASKGMLDADDICGTLVFLLSDESKFITGQTLVVDDGWGL

>YP\_002344720.1 CMP-N,N'-diacetyllegionaminic acid synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAEILCTICARGGSKGVKNKNIRKINKLEMIAYSIIQAQNSKLFKHIVISTDSDEIASVAQKYGAEVFFK

REAHLANDRTAKLPVMRDALLRSEEHFKTCFETLIDLDASAPLRSSLDIKKAYESFVENDNSNLITAVPA

RRNPYFNLVEIQNNKVVKSKEGNFTTRQSAPKCYDMNASIYIFKRDYLLENDSVFGKNTGLFVMDESTAF

DIDSELDFKIVEFLISLKNLSPKDF

>YP\_002344719.1 isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVLIIGFGSIGKKHFLALKNLNHEVSLLSLSAKKEEFKNTPIYRSLKECDLNEFDLFIIANITTEHFNT

LKTLDELVKDKTILVEKPLFEKSQNFTSSKNHIYVAYLQRFNPVIVALKRLLKGEKIYFASLVCNSYLPH

WRALDYRQNYSAKKELGGGVLLDLSHEIDLAFFLFKDLELIYSQNAKISELDITSDDFAFLALKNSQEAK

IHIELDYFAKFNKREIIIHTLEKSFKADLINNKIEIYHKNQSQKILNFENDTIKTLQNLHHAVFEKDKEL

CDLKQALKVLELCDEVRKKNG

>YP\_002344718.1 sugar-phosphate nucleotide transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDINKLKLTPDSSIKEALKIVGQERVRLGIIVDKKDKFLGVISDSNIRKALISGKTLKDSIKDIYTKNPI

TIKENTSKEQLLKISAKTDIYDFPVLDEKGQILSIKSISSLLKANPNSIIIMAGGLGSRLKELTKDTPKP

MLKVGKKPILESIIQRLKNQNFENFIFCVNYKKQIIEDYFQKGQKFGVKISYIKERKKLGTAGALSLIKQ

EFKESFIVMNADILTELDFNALLKAHKKSKALMSVCVREFEQQIPYGVITQKQGFIENIEEKPTQKFLVS

AGIYVLENEILNLIAKNEYLDMPELIKLVLQKGKVNTYIINDYWIDIGRPDEFLKANEDFK

>YP\_002344717.1 GDP/UDP-N,N'-diacetylbacillosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKRKICIVSATRAEWYLLRNLCHEIQNDKDLSLQIIATGAHLSPEFGLTYKEIEKEFKITKKIPILLAN

DDKISLCKSMSLAFSAFSDAFEDLKPDMVVILGDRYEMLSVASVCLLMHIPLVHLCGGELTLGAIDDSIR

HSISKMSHLHFVSHEIYKKRLLQLGEEEKRVFNIGSLASTIIKNMNFLNKKDLEKALEMKLDKELYLITY

HPLTLNVKNTQKEIKTLLKKLDTLKNASLIFTKANADENGLLINEILQNYCQKNSHKAKLFDNLGSQKYL

SLMKIAKAMIGNSSSGISESPFFKTPCINIGDRQKGRLRTQNIIDSEINDLDQAFEKLESKEFKQNLKNF

KNPYDNGKNPNKIIKTCLKNVNLDTILHKNFIDL

>YP\_002344716.1 N,N'-diacetyllegionaminic acid synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKTLIIAEAGVNHNGDLNLAKKLIEIAADSGADFVKFQSFKAKNCISTKAKKAPYQLKTTANDESQLQM

VQKLELDLKAHKELILHAKKCNIAFLSTPFDLESVDLLNELGLKIFKIPSGEITNLPYLKKIAKLNKKII

LSTGMANLGEIEEALNVLCKNGAKRQNITLLHCTTEYPAPFNEVNLKAMQSLKDAFKLDVGYSDHTRGIH

ISLAAVALGACVIEKHFTLDKNMSGPDHKASLEPQELKMLCTQIRQIQKAMGDGIKKASKSEQKNINIVR

KSLVAKKDIKKGEIFSEGNLTTKRPANGISAMRYEEFLGKIATKNYKEDELIRE

>YP\_002344715.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNSLEAYTMKYNENGYGLLFPDGHVVRFYERILKYKLNKINGNLLDFGCGNGVHSAYFQSKGFKTFGID

IVPSLKEIWEQNISGGGYCKIIEPNSSIKGLFDENMDIIFANQSLYYIPLKELKQNILEFYELLNTGGIL

FATMMSKKNYYFSHSQKEEKNGLSKVEINGRLNETSFIHFIDKAEDLENLFQPFETLFLGDYDPINFYNF

EGSAHHYIYIGIKK

>YP\_002344714.1 hypothetical protein Cj1324 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIYCDHCVMPNTRPGINFTKDKEGKNICSACINHKNKENIDYKARFKELEVLCDKYRRMNGKFEYDCAIA

VSGGKDSHFQVHIMKEKLGMNPILFSVEDNFTMTEAGKKNLKNLSETFGCHIISLKPDIKTQKKVMLKTF

EKYGKPTWFIDRLIYSYPFAMALKFNTPLLVYGENVSYEYGGSDTEETPSAKEIFLNGVASDLNINEFID

DEIKEENLQLFFNPNKDKLDKLNPIYLSYFVKWNSYSNYIFAKSRGFTDLEGEWDRTMCAENFDQVDSIG

YILHAWMKYPKFGHACASDYAARFVRYGLLSRKEAIELVQKRDHKLDNKCVEDFCNFIGISKTTFWKIVE

KHYNMDLFYKNDFGEFKLKNKLQ

>YP\_002344710.1 PLP-dependent aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKKEISFIKSLFNKENIALHEPCFIGNEKKYLLECIDSGFVSSVGEFVTRFEEALKEKTKARFVIATNT

GTAALHIALLANGIDENCEVITQSISFVATANAIAYTGAKPVFLDIDENTLSLSPKALEHFLENQTYQKD

NLSYNKTTHKLIKACVIMHTFGLSAHIKAIKELCEKYHILLIEDAAEALGSTYENKALGTFGKCGILSFN

GNKIITGGCGGAILSDDENLAKLARHLSTTAKIPHPYEYDHDRIAYNYRLCNINAAILFAGLENLELFLE

NKRELAKIYKDFFKNHDKCKFIDEKSNEKSNFWLNTLLFKNENLRNIFLEECLKNNIFVRPVWKSLPSLK

AFQNCQSNELMNTKKLEKRLINLPSSVRIANKKE

>YP\_002344709.1 NAD-dependent 4,6-dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNILVTGADGFIGSHLCESLVKKGFKVRALSQYNSFNFWGHLEKSPFLKDMEVISGDLRDSFFCEKITK

NIDAIFHLGALIAIPYSYTAPQSYVDTNVNGTLNMLEAAKKNEISHFIHTSTSEVYGTAFYVPIDEKHPL

QPQSPYSASKIAADMMALSYYNSFNLNVNIARPFNTYGPRQSARAIIPTIITQILSGAKEIKLGDLSPKR

DLNFVLDTCEGFISLLNLKHFGEVYNIGSGVEYSMQEVLDLIQKILDSKVKIIQDEQRLRPKNSEVFRLC

CDANKLKKATNWQSKISLEEGLRQSIEYFKENLENYKSELYNV

>YP\_002344708.1 hypothetical protein Cj1318 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGGYNENLLYQDP

IKELQTMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQNA

RLMVLENDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAENFKNIILRNGNDPK

DALQGIEQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPI

LAKHGIKPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNLVITQKVLAFPYYIN

LKDFSYAAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYESQMYEHILTEAYGG

NGKVETHSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFEKLE

PLSLNKQNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLAIRKIDEFKNKLENI

KQMQDLYEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNILP

LEEKLKERKLDKWMERVRR

>YP\_002344707.1 pseudaminic acid synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIGNFNTDKKVFIIAELSANHAGSLEMALKSIKAAKKAGADAIKIQTYTPDSLTLNSDKEDFIIKGGLW

DKRKLYELYESAKTPYEWHSQIFETAQNEGILCFSSPFAKEDVEFLKRFDPIAYKIASFEANDENFVRLI

AKEKKPTIVSTGIATEEELFKICEIFKEEKNPDLVFLKCTSTYPTAIEDMNLKGIVSLKEKFNVEVGLSD

HSFGFLAPVMAVALGARVIEKHFMLDKSIESEDSKFSLDFDEFKAMVDAVRQAESALGDGKLDLDEKVLK

NRVFARSLYASKDIKKGEMFSEENVKSVRPSFGLHPKFYQELLGKKASKDIKFGDALKQGDFQ

>YP\_002344706.1 pseudaminic acid biosynthesis protein PseA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFCKKCVMPDTKPDLHFDEEGVCDACRSQEAKNQNINWQEREKEFFELIKKYKKHPVYDCVIGVSGGKD

STFQVVKMLELGLNPLCVCFEPSVPTKIGRKNLDNLNHLGVDLIHIKRDPKVYQKLAREAFIRTGDNEWQ

NHLGIFTSVPRIAVNFGVPLIIWGESPQIEYGGPASSKNKNILGREWLEEFGGLLGNRASDMLGVNGITE

KDLFLYTYPSDEELQRVGVTGLFLGYYFKWDYKKILEISKKYGFLTLDHPVETTYENFENLDCYSNHVHD

YLKYCKYGFGRATDNACLDIRLGYISREEGVRLAQKYDGKPPKKAIKKYLEFSGFSEEEFQKIVDSFTNK

KIFKRDENGKFIRDYDGSLVRKDECVLK

>YP\_002344705.1 imidazole glycerol phosphate synthase subunit HisH [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIALIDYKAGNLNSVAKAFEKIGAINFIAKNPKDLQKADKLLLPGVGSFKEAMKNLKELGFIEALKEQVL

VQKKPILGICLGMQLFLERGYEGGVCEGLGFIEGEVVKFEEDLNLKIPHMGWNELEILKQVPLYQGIDNK

SDFYFVHSFYVKCKDEFVSAKAQYGHKFVASLQKDHIFATQFHPEKSQNLGLKLLENFARL

>YP\_002344704.1 imidazole glycerol phosphate synthase subunit HisF [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKTRIIPCVLLKNSQLVKSIEFKDFRTIGHLTSTMRIYNARNVDELIILDIDASKSGEIDFESIEDLAK

ECFMPLTIGGGIKTLEDIQKILNLGADKISINSKALEDMDFISKAGNRFGSQCIVCSIDVKRKGDQFCVY

DRGNLLEKSPLELALEYEKKGAGELLLTSVDFEGKAKGYDLELLKIFQNKLKIPLIINGGLSKPSDGVEA

LNLGADALAGAYIFHFSKYTPKDVKEELARQGFAVRLL

>YP\_002344703.1 N-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKLKNFAELNSQEIKLIFKWRNHPDISQFMKTKHIDFEEHLRFIRNLHQDSNKKYFLVFQDEQIIGVID

FVNITTKSCEFGLYAIPDLKGVGQVLMNEIKKYAFEILKVDTLKAYVFKDNHKALKLYQQNHFTIYDEDK

DFYYVCLKQSHCKALPS

>YP\_002344702.1 UDP-2,4-diacetamido-2,4,6-trideoxy-beta-L-altropyranose hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVLFRSDSSSQIGFGHIKRDLVLAKQYSDVSFACLPLEGSLIDEIPYPVYELSSESIYELINLIKEEKF

ELLIIDHYGISVDDEKLIKLETGVKILSFDDEIKPHHCDILLNVNAYAKASDYEGLVPFKCEVRCGFSYA

LIREEFYQEAKENREKKYDFFICMGGTDIKNLSLQIASELPKTKIISIATSSSNPNLKKLQKFAKLHNNI

RLFIDHENIAKLMNESNKLIISASSLVNEALLLKANFKAICYVKNQESTATWLAKKGYEVEYKY

>YP\_002344701.1 pseudaminic acid cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLCIIPARGGSKRIPRKNIIDFLGKPLISYSIENALNSGIFDEVVLSSDDEEIIEVALKYGAKAPFVR

DKNLSDDYASSTAVVQNAIEILQSQNQIYDHVCCLYATAPLLNKDILKQAYEKFIQNQSKFLFAATEFEY

PIQRAFYLNENNQVYMFDEKHYKSRSQDLTKAYHDAGAFYFGTSKAWLEEDFIFKPHSSVFVLPRNLVCD

IDTIQDLEFAKILYKVNHESAF

>YP\_002344700.1 hypothetical protein Cj1310c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLINQTFEIDSCDDVELGIKRTSKLEYRISYDDEKDIKAIVFIVGGFGANANISFLDFDREYIAKNFDVV

VVHVFYHCFCARQSIDQKYNPKLIPNQDDLERVNGILKNINLGHLSVNKDNFEQIIPLIEQKVNKMKQAG

LVDESQKIELSCDFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGVCLPFLACILGREMNQGEFYFEGSGYRLYCFVYKYWNRNMNSSYYFGDENYLIRAVLN

SNHLQIQSNLNKNTIFVSYHSIQDMGAPVQNKIELYKCYQELGYDATLHLIKDENDIDGRFVKSLEHGLR

MTDRALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFVFKDLEDKFELEMIN

>YP\_002344699.1 hypothetical protein Cj1309c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTAYLHIGTTNTGNQEKQGFLMQNEEKLLQKAYIYPKSLRVANRHWALVDMVLELVQKEDILKKESVLSH

ITNERLLRAIENFKSESALHKDKKFIFSAEGIVWDFSTKKHVEILEKIMRELGFTQIYIIVYFRDTLGYL

NSHCSQDHKNNMGYYSADFAPQDHPRKYIFDYEWICKTHAEVFGEENLIVRLLREDYVGGTLLKDFVYHL

GLEWDESFVLKQTKNESFNLLGMELMSRLNQKDLKQDNLNSLLFMARRKFEGSKEKRLKFAVQKDIAKAY

VDYFASSLEWVKNKYFPHKNSLFTPVNWEEYEQNYTLTHMLSKDWDDVADFIAQIIVSKNEIISSLKEQL

ELARKD

>YP\_002344698.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEIKQFFINIERTDINESMENLVSEDFIDSIDIMALVAEIEKFYKKPLKAEFITPENFESFENIKKMLE

TAMKD

>YP\_002344697.1 amino acid activating protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTTHIYDFLEKSLIKFSEKTAFVEPFVKERKEITYKDFDLFSKKLASEILKTLGNDNPTQAPVLIILPKG

IDCLISFFGVALSGNFYTLLDEKSPKERVEKVIEVLKPKLFITSKDLNFNLDLPTLYTQDFESFNIDESL

IKHAKEKHIDTNLLYVFFTSGSTGIPKGVSIAHKSVIDYTFWVCETFKFDENEILANQAPFYFDNSILDI

FSSVKSGATLHLLPNHLFAFPNKILECLEKEKVSTIFWVPSVLIYFANTEALNNFSLNALKKMLFCGEIM

PNKQLNIWRKHLPNALFANLYGPTEITDVCSFYIINRTFKDEELLPIGKACKNTELLVFDENMNFISPKQ

IGVKGELFVRGTSLSLGYYNDKEKTKQAFIQNPLHDNYLDLLYKTGDIVSYNEFGELLCYGRADNQIKYM

GHRIELGEIESVINSHVNIKNSACIFKEDIICFYESEEEINFKDFLKDKLPSYMIPKNFIKLDKFKLNQN

GKIDRKVLKELV

>YP\_002344696.1 hypothetical protein Cj1306c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLINQSFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSTLADFTKDDLKLIEKVLRKYNIPCDQLANNTVVSHCEYLSEIMTELKMLN

RLPYDFEERLSATFIPSRGEYQNFGIMAAIDHINALKDLVKRFPKLADLPKIYGGGSYGGYLALLIAKIA

PWYVDGVIDNSGSAVPPLNYIIGRELEFKSKDTNGDMYMQGDHFFVSCFLKTHWTRKENSPYFFNNENYF

IRTLLNKDHLILQSQKNKNIIYVSYHSKEDPLTPANFKELTMQILKILGYDVSLNLIDENKIDGKFIKNL

DHGCGIPDKALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFTFKDVENQLKLIIN

>YP\_002344695.1 hypothetical protein Cj1305c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLINQTFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSAYKYFQEEDIENIKNLLNQFHFSYGEINNDNALFLANSLVKHVENLKMQN

KLDHNFKLNFTSTFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGSALPPLNYILGREMEHSYGDYYEDFPHNRIIFFLKTHWTRKENSPYFFNNENYFIRTL

LNKDHLILQSQKNKNIIYVSYHSDKDPLTPANFKQQTMQILKILGYDVSLNLIDENKIDGKFIKNLDHGC

GIPDKALFRKELPLMLEKLQKRKSFMQENSISYPCGNKVFIFKDVGDKFELVIKD

>YP\_002344694.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKTEFLEELKEAMHRDEDLNEDMLLDDIDEWDSLAFVSVMVLYKNLFTLKITAEDLKNCQKVSDLINLA

KLD

>YP\_002344693.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTRFDKAKISGICVSVPEHKICIDDELESVFSNDIKTLKRMKKVIGLNTRYICDENTCVSDLGKHAANT

LLQGLNIDKNSLDALIVVTQSPDFFMPSTACYLHQLLNLSSKTVAFDLGQACAGYLYGLFVAHSLIQSGL

GKILLICGDTLSKFIHPKNMNLAPIFGDGVSATLIEKTDFNEAFFELGSDGKYFDKLIIPKGAMRIPKAD

IFNDDSLMQTEEFRQLENLYMDGANIFNMALECEPKSFKEILEFSKVDEKDIAFHLFHQSNAYLVDCIKE

ELKLNDDKVPNFIMEKYANLSACSLPTLLCELDTPKEFKASLSAFGAGLSWGSAVLNFKDLYTKNILIYT

KEK

>YP\_002344692.1 HAD-superfamily hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLFSPHLKRNELIKFAKELDFSKSQDLLINVHRNHAFEGVQSIIAPFLHFANLRAEFNFSSYDDSLSFD

NFKEASLELLWLDLTRYKNNVQNFIEERLLELRKISQNPILVLSLGEFKTDKKILNCEIFNIEKLIKEYF

DEEDILDLAKEELTGSKLNNKALIFLAQILGLSLIPALVKPALKALVLDLDNTLYQGILGEEGIDNLNLS

PLHKTLQEKIKTFKKQGFLLALASKNEEKDAKKLFEIRKDFILQWDDFDARMINWEPKGENILKIAKKFN

INTNAMLFIDDNIAELENTKITGVKTLLCDENILYKIKLFPNLLKLSNTKEDQIRAKDIAANALREELKS

LSDEEYFQNLEISLNFSKNDLQNIPRISELLGKTNQFIANYTRLNQEKVAQHMQKELIVSVSMSDKLSDS

GIIAIFVFSCKEGNLFIDDLCISCRALGRKLETRMFFKAFELALHFFDLKNNNARLYYQKGERNMPFLSF

LEQISKEFEKNSALIPFQNLNFKGLIIHEN

>YP\_002344691.1 hypothetical protein Cj1301 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNTTLNLPLHHIGVACKNLEKERECFFKLGFYKESEFIDEKQGVRGEFIIPCNEAFPQYRFELLQNLND

KGPLDSYLKNNTKMYHLAYESKNIAQDLILLEQQGGICIVPIMQASYFAKLCFIMMPNRLLIELVELK

>YP\_002344690.1 SAM domain-containing methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKENIEKLFQAIAQKNPIHSKYLKKIEFSQEDEEEFDKLISYYIQDGISIKEQCDCYLLILNDTLEETKF

FIENGAYRYSSFDEVKDKVYFNESYMKQYMIGLALSSFVWIAHIKVRKYFSQYLQNFTPKTTYFEIGPGH

GEYFARAVKSGKFSAFYGLDISPTSCELTQKMVKQQVGGLITKCDFLCQDFFTYDFDKKADLIVIGEVLE

HVEKPLEFLKRSKELLSDGGEIFATIPINAPAIDHIYLFSHPDEVKDLIEKSGLKFKAYECFMANDYSLE

KALKFKNAITMAVVLNA

>YP\_002344689.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKQFYEILENILETKVDENTNLSMENCKNWTSLAHIDIIMSLEEEFEIKFNKEDLSLLKSQSALLEKIQ

TLKAEK

>YP\_002344688.1 N-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYLLEFENKKYSTYDFIETFYKLGLQKGDTLCVHTELFNFGFPLLSRNEFLQTILDCFFEVIGKEGTLI

MPTFTYSFCKNEVYDKINSKTKMGALNEYFRKQTGVKRTNDPIFSFAIKGAKEELFLKDTTSCFGENCVY

EVLTKENGKYMTFGGQGHTLTHYAEEQFNVFYRYHKIFSGILIDENNISYNKTISYYVRKLDISSEPNLI

NIINIVNNTKNFKKNNFAGDHINIYNAKEYIEILWKKLDINQTILIENYDTIY

>YP\_002344685.1 hypothetical protein Cj1295 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKLDFRSQDFSQTGKAMYELACELFPIPRSITGQGFRDSLEILNKTLGGGILKFHSIKSGTKVFDWIVP

DEWNVKEAYIITPKGEKICDFKKHNLHLLNYSEAIDQEIELEELQDHLYSIEEMPDAIPYVTSYYKRRWG

FCLTHNERKKLKKGKYKVYIDAKHDENGVLDYADFILPSTQNSKDEILISTYLCHPSMANNELSGPVVSI

FLAKWLLGLKERRYNYRFVIIPETIGSIVYLSKHLECLKKHVKAGFVLSCLGDDHTYSLIHTVKENTLSD

KVALHTLKNKENFKAFSFLDRGSDERQYNAPLVNLGIVGVCRTRYGDYDGYHNSKDDLNFISEKGLMGGL

QSMQEMILNLEINAVYENTIVCEPNLGKRGLYHTLSTTNDIPLACNFLAYCDGENDIIDIANILNMQAYE

FKELLEKIKFYGLVK

>YP\_002344684.1 UDP-4-amino-4,6-dideoxy-N-acetyl-beta-L-altrosamine transaminase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>YP\_002344683.1 UDP-N-acetylglucosamine 4,6-dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNKKNILITGGTGSFGKTYTKVLLENYKPNKIIIYSRDELKQFEMASVFNAPCMRYFIGDVRDKERLSA

AMRDVDFVIHAAAMKHVPIAEYNPMECIKTNIHGAQNVIDACFENGVKKCIALSTDKACNPVNLYGATKL

ASDKLFVAANNIAGNKQTRFGVTRYGNVVGSRGSVVPFFKKLISEGAKELPITDTRMTRFWISLEDGVKF

VLSNFERMHGGEIFIPKIPSMKITDLAHALAPNLSHKIIGIRAGEKLHEIMISSDDSHLTYEFENYYAIS

PSIKFVDKDNDFSINALGEKGQKVKDGFSYSSDNNPLWASEKELLEIINHTEGF

>YP\_002344682.1 deoxycytidine triphosphate deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGLKADNWIRKMALEHKMIEPFCEANIGKGVVSYGLSSYGYDIRVGREFKIFTNVNSTVVDPKNFVEENV

VDFEGDVCIVPANSFALARTIEYFKMPDNVLAICLGKSTYARCGIIVNVTPFEPGFEGHITIEISNTTPL

PAKIYANEGIAQVLFLQGDEKCDTTYKDKKGKYQAQTGITLPRILK

>YP\_002344681.1 biotin carboxyl carrier protein of acetyl-CoA carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKEEIKELVNLFAEANISKIKIKEQDGFEIELERDMCCDVPAPVCPPVPAPQPINVSVVNEAQPSQSVK

SNKPSINSPMVGTFYQAPSPGAAPFVKVGSTVKKGDTIAIIEAMKIMNEIEAEFDCRIAEILVADGQPVE

FGMPLFAVEKL

>YP\_002344680.1 biotin carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEIKSILIANRGEIALRALRTIKEMGKKAICVYSEADKDALYLKYADASICIGKARSSESYLNIPAIIAA

AEIAEADAIFPGYGFLSENQNFVEICAKHNIKFIGPSVEAMNLMSDKSKAKQVMQRAGVPVIPGSDGALA

GAEAAKKLAKEIGYPVILKAAAGGGGRGMRVVENEKDLEKAYWSAESEAMTAFGDGTMYMEKYIQNPRHI

EVQVIGDSFGNVIHVGERDCSMQRRHQKLIEESPAILLDEKTRTRLHETAIKAAKAIGYEGAGTFEFLVD

KNLDFYFIEMNTRLQVEHCVSEMVSGIDIIEQMIKVAEGYALPSQESIKLNGHSIECRITAEDSKTFLPS

PGKITKYIPPAGRNVRMESHCYQDYSVPAYYDSMIGKLVVWAEDRNKAIAKMKVALDELLISGIKTTKDF

HLSMMENPDFINNNYDTNYLARH

>YP\_002344679.1 hypothetical protein Cj1289 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILLSFAFFASLASANTINAIAVVVDKEPITTYDIDQTMKALKIDRNKALGVLINEKMEISQMKQLGI

VVNDLELDDAINKMLAQNKTTLNAFKANLKSKNQSYEQFRTNFKKDLEKRKLYEKIASMAKTDFSDDGAK

KFFEQNKDKFTFYTQINANIYLSNNPQTLENIKNTKKTILKPQNASLNTSNADPRLLGLLSQIPVGSFSP

VLNGKNGYELYEVKSKDGTQTPEYEQVKNEVLNAYVSEQRQNFIQDYFDKLRSKINIEYLR

>YP\_002344678.1 glutamate--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHEKLTTRFAPSPTGYLHIGGLRTALYNYLYARKNGGNFLLRIEDTDLKRNSKEATKAIIEAFKWCGLEH

DGEVTYQSERFDLYKEYVKKLLDEGKAYYCYMSKEELEELRAKQEAAKERPRYDGRYREFTGTPPQGIEP

VVRIKAPQSGEIVFEDGVKGEVRFKAEDIMDDFIIARSDGTPTYNFTVVIDDALMGVSDVIRGDDHLSNT

PKQIVLYEALGFKIPKFFHVAMIHGEDGKKLSKRHGATDVMEYKEMGILPQALLNFLVRLGWSHGDDEVF

SLEDLKKLFDPYHINKSASCYNAKKLEWLNAHYIKTLPFEEINRQLKDLGFDLSVYEKAGFLLDLLRERA

KTLHDIINGAKSIVNAPQNYDENAVQKFVNKNNLELLQAFANTLKDQKTGKDFEDFTNDFLEKKEAKLKD

LAQPIRIALTGSAVSPSIFEVLEFLGVDECKKRIDNFLKVRGK

>YP\_002344677.1 malate oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLKEEALKYHLGGKIDIVPSKPMATSYDLSLAYSPGVAEPCLEIAKDNELAYTYTNKANLVAIVSDGSA

VLGLGNIGAQASKPVMEGKACLFKKFANVNAYDIEINVHSIEEIVNFCKALAPTVGGINLEDIAAPKCFE

IEAALQDLGIPVMHDDQHGTAIISTAGLMNAMEISGKKFKDIKVVVSGAGAAGIASAKMYRNLGVENIIL

VDSKGVISKDRNDLTPQKLEFAVDSKEKTLKEVLKGADVFLGLSAPKILDDEMVLSMAKDPVIFALANPI

PEVMPEDVARLRKDAIVGTGRSDYPNQINNVLGFPFIFRGALDVRASKITENMKVAAAKALADLAKLPVS

DAVKKAYNLSTLEFGRDYVIPKPFDERVKAAVSTAVAAAAVKDGVAKVKNFDEKAYFESLK

>YP\_002344676.1 uracil phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNIHCINHPLIEHKLGILRAKETKPFQFRMLIDEISSFLLFEASKDFSLKEIEISTPIQKTTVKKLDEK

IMICPILRAALGMLESVFKMIPDASVGFLGFVRNEETLKADFYFQKLPKDAKKRTAIVIDPMFATGGTAI

DACNFLKSQGVKKIKFISILAAPQGLKKFSQMHDDVEVFVACIDEGLNEKGYIIPGLGDAGDRVFNTL

>YP\_002344675.1 hypothetical protein Cj1285c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFGKIDYINLLPLHIYLKKYPLPNGYKASMEYKKGVPSKLNKDLFYRRIDAAIISSIESARKKYKNLDL

GICANKRVLSVLVEKNTSNAKDPSSATSNALAKVLKQDGKVIIGDKALKLYLKDPSKYIDLCAKWHEKTG

LPFVFARFSCVQKKALYKQILKKFPKTKIKIPYYILQNYAKTRDLDIKDVRYYLDEVIYHKISTKEKTAL

KRFVKACKALNLA

>YP\_002344674.1 K+ uptake protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLNYGIIGLGKFGSVVADELIAGGHTVIVADKDEEALKSIQNPPSYAYILDSTNISALKEAGFHDVEV

VIVSIGENVEKSILTLMALKDIGVKNIIAKATSNIHGQILSKLGATKVIYPEKESAKRLVKEFLTKDADY

EVFDLSANTIRAIKINIDEKLAGNSLKHVAQNMKVISYKKLNSDWEILPDLETTTVYSGDVVILLGTVKE

LREFEH

>YP\_002344673.1 K+ uptake protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQFGLDRRTFKILLAGYIIIALFGALLLHSSWAHTTPIDFLDAFFTSTSAVSMTGLVVKNTAVDFTLAG

QIIILALVQIGGLGYMGIGLFVYILIRKKVGFSARNLLKESLFYPSMDGLFKFFKKVLLFIFTIELIGAI

LLTMRFALEMNFKKALWFGIFHSISAFNNSGFTIFEHGFIAYKHDIAINLIITSLIIIGGLGYFVLVELY

FFQRKKLQNLSLHTKMVVVASIFLIFSSTLIIFAFEYSNPQTIGHFSFFDKILSSYFIAINYRTAGFNTL

DMGHLHDASLFFGSLFMVIGGAPGGTAGGMKVTTVMVLLLYAYWSIRDGRVRIFGHEIPRETISKAFIIA

VGSAVYIVIAVILLSLLESKFDFIALLFETSSAFATVGISVGNGGTLSLCALFSDPSKVIIIIMMLSGRI

GVFAFLLSVFKQDKAIHLKFPEGKVNL

>YP\_002344672.1 rod shape-determining protein RodA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFRLDRRILTHFDYIQPILFLPIILISFFLIFEANPFLAEKQFVYACVGLFAFMVFFFFPIRKFIWIIPV

AYWINIFLLLSVDIFGVEKLGAKRWLEIPFTHFTIQPSEIFKPSFILMLAYLIYQNPPPKNGYKLKQFIK

LSFYIILPFLLIAKEPDLGSAMVLLLVGFGVLFIMGVHYKIWLSIVIAISVSSPIIYTHLLKPYQKQRIH

DFISEKPSYQVAQSMIAIGNGGLTGKSQDEATQTHFKFLPISTSDFIFAYMIERFGFIGGLTLIIFYILL

IFHLLSLNYKLKDDYFARVAINCVALFIFIYAAVNISMTIGFAPVVGIPLPFFSYGGSSFTIFMIFFGIL

QHLITFRYFWTDIKAK

>YP\_002344671.1 pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQTFLVDENSRLDVFLAKKLNQSRNQVALLIEKDCVQVNDKIQDKNSFKLKNGDIISIASLKLCNEIKPQ

FEVDFDIDVLYEDEDLLVLNKPSNLVVHGASSVKNATLVDWLIEKKYTLSNLGGEIRAGLVHRLDKDTSG

AILIAKNNFTHQKLSEQLADKSMGRIYLALIDLPLKEDKIIVEKFLMRSPSNAIKKIAIDKENKFSKNAK

SAFINVVKTENLTLMAAKLFTGRTHQIRAHLASLNRYILGDSLYGYKGKYDCRIMLHAYFLYFIHPKTKE

QIFVKAPLMEDFKNIMFEQINLGENDEKISLEFLLEFFNSFA

>YP\_002344670.1 fibronectin domain-containing lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKRFRLSFYLSFLTLLLSACSVSQMNSLASSKEPAVNESLPKVESLKSLSDMSNIAFEWEPLYNENIKG

FYLYRSSDENPDFKLVGTIKDKFQTHYVDTKLEPGTKYRYMMKSFNEQGQISEDGKVIEVSTAPRLEAVP

FVQAVTNLPNRIKLIWRPHPDFRVDSYIIERTKGDDKEFKKIAEVKNRLNAEYIDSDLKPNENSSYRIIA

VSFNGIKSGSSQVVSSTSKALPPQVEHLSASTDGSSKIILTWDAPTYEDFSYYKVYSTSSSFLPFSVLAK

TDKNSYEDIVEGAGKSKYYKVTMVDKDGLESPMPKDGVEGKTLGNPLAPSIILAQSTSEGINLEWSDNDT

RAVEYEVRRYGGEQNAVFKGIKEKRLKDVKALPGVEYSYEVIAIDSAGLRSEPSSKVKAAQ

>YP\_002344669.1 tRNA (guanine-N(7)-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPNFKSKKIKEINLPYSKDDVEFLWLAKNDNVSLIYTKVQEESFFLQIKKAQNGFVIKGDKHTKPSKIGY

LQKALKIFKEGFCEDIINEAFGLKNNALIEKTPFIVDNFDELLSRLQGKIYIEIGFGSGRHLLYQAKENP

NVLILGVEIYNPALTQVAKLAKAQNVNNILLIQSDARLLLSVLKSKSVEKIFLHFPVPWDKKPHRRVIGK

DFCKECARVLVQNGRFELRTDSFEYFNFTLEQFLTFPAPKFSLRKNENLEISSKYEDRWKKQEKNIYDLW

VWNFNQECKNYELNEFNLSSVEFSKEDLKKIEQNFKNITIKKDDFFLHFESIYKQDENLLLKVAFGAFNK

PEHCYLHLDKTIDFAFKEPFKIQENIKAINELKEILKVQFKI

>YP\_002344668.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPNLIQANKLTLGYDELVIKEASFAFKDDDFVFITGKSGSGKSTLLKSFYGDLEPISGKLEVCGSLMNKI

GNLELLKLRQRIGIIFQDYKLVQEYSVEKNVMLPLMIKGYSKKVCHDQATKLLKHVNLTFKADKLPNQLS

GGEQQRVAMARALAHNPKLLLCDEPTGNLDEYSSDIIWTLLKSARELLGTCVIVVTHRIPSNLRVDYRRF

NIENGKMNEIF

>YP\_002344667.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFFKTHLSLILPLLFMMFAFEFILITNATLKHYEELVNKDYNIIVVSKTELDQNVVKTKVPFFAGLESL

DPKDLIDRLKNDVSEKNLKVLKDSLPKFYTLKLNSLPDQNELNSIKNQLLNIVGVSKVETFSKTHDKIYS

LLILMKFVFWLFLFIIILLAFVLFLKQMRIWLYEHTDRIEIMCLFGAPFWFRSFMLYKVVVVDCFIAFVI

LLAFFTQIFDLSIIQESLKAVDIIFPPINFILHLTLIFLATLFICLLCVNTVMFKVKR

>YP\_002344666.1 peptidase M23 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKNILIFFCFFLFVDISLANAINEKTKSLEENKRIQEQLNKKLEDLASDILNGEKSLKDLSLQIESLNS

QTSKLEASAKAQNQELNTLTSQNEDLLKSKSNMEGKLISLMAKDFAYDLPIPQGYIESEESFMAFEILGS

LNKVLNEEIFKISKDYEGVSRLIDDKQAQIKKINESLKDYNAQLAKLQSLKQKQISEINKQKTDRAIYAK

KLDDLQAQQEELRKTLNQLKIINDKEDANSNKNDTKIVKNNQKIRQLGSSYQGSSVKRYTGKKTIAPLDS

FTVKQKFGNYVDPVYNLKIFNENVVLRSNKSDAVVKNVLDGKIVFAKDTSMLARVVIVEHDNGIHTIYAH

LDKIAPNIKVGKNIKKGAVVGRIKNDLTFEVTQKNFHINPLELISLN

>YP\_002344665.1 uridylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQERKRVLVKFSGEALAGENGFGIENSILKFIASEIKELIKNQIEVGIVIGGGNIIRGVSAAKGGLIKRT

SGDHMGMLATVINAIAIQEALESSGLEVRVQSAIQMEAFCETYIMRRAQRHLEKGRVVVFAAGTGNPYFT

TDTTAILRAVEIDADMVIKATKVNGVYDKDPKQFDDAVFLNTLSYDEAMQDNIKVMDDTAIALAKDNKLP

IVVCNMFEEGNLLKIIQGDTSLCSTVKNN

>YP\_002344664.1 DNA-directed RNA polymerase subunit omega [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKRIEEVAAKALEKMGNDRYRLSLVVAKRAEQLANGATPLVDFDKNKNKLADIALYEIAENKITLEGLV

ETNR

>YP\_002344663.1 guanosine-3',5'-bis(diphosphate) 3'-pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKPIDEELLLEQLIDNVKNCKDLEAAKALLFEICGHDAILEKAVDYCIFCHEGQFRKSGEPYAVHPILVA

TLVGFLSENKSNILAALLHDVIEDTNCTEEELREQFGSEVLKLVLGLTKIIEIREDNLISSKSKKSLTKS

ALTFRNMLLASIEDVGVLIVKLCDRLHNMLTLDILREDKQKRISEETLVVYAPIAHRLGISSIKNYLEDL

SFKYLMPDEYKLIDNYINSNNQEMQLGLNEFISKIELLFLSNGFRQGSFEIQKRIKHSYSIYLKMQRKGI

GIEEVLDLLGVRILVEKVSDCYLALGILHTHFNPLVSRFKDYIALPKQNGYQTIHTTLFDAKSIIEAQIR

TFDMHKIAEFGIAAHWKYKEDGSVVAPRLDWLTDISMQSINNLENAEDYNAIELYEYAKDSLYVEDVAVY

SPKGEIFTLPRGATVLDFAYEVHTKVGLHAKSAYVNRIKVPLLTELKNGDIVRVVTSNDKFYRCSWIDSV

KTGKAKASIREFCKQKIREINLASSINMLSFIFGVDKNRIETWIEKENLVRRIRQVATDSAYLKDIVNGL

KKYAKKSYWFDKYEIKEQKIGNFTLYCNHKIANVDFDFCCHPKRGDAVLAFVKGGNAIVHHKLCDRADKM

IDNNQDMVFIKWDSNIPKSYKLIFSLENKKGVLAEFLAFLAKMQINLLTINLSSDLNSAVDYFEITMEIP

DNINPDSVKDRLKSRCKILDFTSLNDAYKES

>YP\_002344662.1 tyrosine--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDIKKILAEVKRGCAELIDEERIENLIKNYYEKGENFFIKAGFDPTAPDLHLGHSVVLTKMAFLQKHGAI

VQFLIGDFTGQIGDPSGKSATRKKLDKEQVLINAKTYKTQVFKVLDKEKTQIKFNSTWLNELGAAGIVEL

TSTFSVARMLERDDFTKRFKEQSPISICEFLYPLLQGYDSVALKSDIEMGGTDQKFNLLMGRQLQRVYNI

GKEQAVIMMPLLEGLDGVNKMSKSLNNYIGVTEKANDMYAKILSISDELMFRYYELLSQKSLEEIAQIKK

DIEQGNLHPKKAKENLALEITERFHSKEEANNAKSEFDRIHSQNALPSDMAEFEIQGKIWLAKALVECGL

ESSTSAARRSISANAVSVNSQKVSDEQMYLEQGEYILQIGKRKFAKLKVKE

>YP\_002344661.1 2-nitropropane dioxygenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLQPLQIGKHTIKYPIFQGGMGLGISWDRLASAVSLNGGLGIISSVGTGYYEERKYASKELNAKPYGSE

NFYSRKGLQALINNARKVCGDAPLGCNILCASNDYARIARDACEVGFNVIVSGAGLPTNLPEFTADFPDV

ALVPIISSAKALKIICKRWQSRYNRLPDAVVLEGPKSGGHQGFTYEQCLDPNYQLEKLIAPVVEEAKNWG

SFPVIAAGGIWDKKDIENAISLGASGVQMGTRFIGTFECDASEEFKSVLLASKEEDIELIKSPVGYPARG

VRTNLLNLVDKRMGPKINCISNCVAPCGRGKEATKVGYCIADRLFDAWSGKKETGLFFTGANGYRLDKLI

SVKELMEKLVNGE

>YP\_002344660.1 N-acetylmuramoyl-L-alanine amidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKIFVFLVFVFTTLFGVYENELANFDKNFIGSKSEVQVKFHHQLKSLYIQSVINEDEKTKIEILKRLII

SSNTLNLDDKSYANELKESGISETSINALRKAVIKDIKVQNISQDTEKSTFEPIKTVQKNEKKSSNEQIK

NTEKTNSKTSQAPKSSIVSKAKSDDKIYVLKSSKTNQGVEFELNADLDKDQLKSFALDEKGNYRFISDFD

GVLEGGKKEFKFDDYRLVISQFNPKTIRIVVYAKEKIPIDISFKEEKIIFSKETTSQKKTEQVSKISEKK

QDQKTEIKTKVLETKKQDKKTNNEKENQEPLYVLDVDKISNAVVLNLSDDLDEKEIAVFDTKDQKFRYVV

SFKGVLEGNRKSFTFGQNVITVTQYNPKTVRVVLSAPKEFKLLKELDNNNLTLGFYIQTTNQNANKKATQ

SSSKTLNTNYKSGKLVVIDAGHGGKDSGALSDKKGSLKEKDIVLSTALKLGNELKKRGYKVLYTRSSDKF

INLRDRTKYANDKRADLFISIHANAAPNATKAKSSEGVETFFLSPARSERSKKAAEKENQGDFEEINYFS

KQSILNFLNREKIVASNKLAIDVQKNILTQTRKKYKIVDGGVREAPFWVLVGAQMPAILIEIGYITHPNE

GKRIANKAFQDLLVKGIADGVESYFYNNR

>YP\_002344659.1 bifunctional tRNA (mnm(5)s(2)U34)-methyltransferase/FAD-dependent cmnm(5)s(2)U34 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAKLIFKDNTPFSLDFDDFYFNFKDGLNESKFVYTHSFEWKNQENFIIAESGFGIGLNFFLTLKRFLE

TTPSKRPKKLFYISVEAFYIEKEQLREIYQKLEFYEEFKELLEQFLKFYPKAKEGIYRFYFEDCFLDLVF

EDIAVLKELDFKADVWYLDGFSPNKNSQMFDENLIFEVARLSKKNTQICTFSSASFLQKNLKKYGFRVEK

TKGFRKREMIKAYLENELEFKDKEAYFSRTFSSLKNKKVAIIGAGISSAVLAYELSLRGFEIDIFEKHLE

LGKGASGNESGILSSLILKPKVNLGEFSELSFIEASRFYRQILDLEFKGVVEFAHNDLMQERFDTQRENV

LFKISKNQAFLEEGGVIFPKKLVKNLFEKSKACIYFNHEFQAYKFENGCFSLKFKNDVVKSDYAVLIYAM

GADAKDFVFYDEMKLSKVRGQVTHLKPFLDTPFPLSSKAYICPVKDDLQVIGASYDRLNASLESKEEDDK

QNIENIADFMDKNTKLEIIGSKVGFRSYSSDRFMIVGNAYDEAFYKEEYKALLWTKNKEQKPAKMSCNLY

FNFAHGSRGFSTSVLAARYLCALINNEPLCLEKKYIHAIHPARFLIRKLKKGL

>YP\_002344658.1 Ni/Fe-hydrogenase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIDYHQIESRLSALEKLPSLKDNDSITKALEKSGFSRRDFMKWAGAMTAFLALPASFTPMVAKAAELADR

LPVVWLHMAECTGCSESLLRSDTPTIDSLIFDYISLEYHETVMAAAGWQAEENLESAIQKHKNKYILMVE

GGIPMGDTEHFLTIGAHGKTGYELSKMASENALAIFAIGTCSSFGGIQAARPNPSNAQPLSKVTSKTVIN

VPGCPPSEKNIVGNVLHYLLFGELPALDVYNRPKWAYGLRIHDLCERRGHFDAGEFVHAFGDEGAKQGFC

LYKVGCKGPYTFNNCSRERFNQHTSWPIQAGHGCIGCSEPNFWDTMGPFEEPMASRKFDTVFGLGADSVS

DKIGIGVLTLTGVAIAAHAVISSMQKDKE

>YP\_002344657.1 Ni/Fe-hydrogenase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQKIIVDPITRIEGHLRVEVVVDDNNVVKEAYAGSTLWRGIETIVKGRDPRDAGFMTQRICGVCTFSHY

KAGIVAVENALGITPPLNALLTRTLMNAALFLHDHIVHFYQLHGLDWADVVSALSADVKKASDEAFKYTS

NPYATGADKLLEVQQRLKTFVDKGNLGPFANAYYGHPTYRLSPEQNLIVLSHYLECLRIQRIIAQCMAIF

GAKNPHPQSLTVGGVTCVMDLLDPARMGEYMVKFQEVQDFVNRAYYPDLVMAGKAYAHEASVLNDIGVNN

LYTFKEFQIGRDEWLFESGIIKNGDLSKVYEVEEDKITEEATHSWYADNEPLHPYDGKTNPNYTGLVDGE

SVDHHGNNVHSKVFDTKGKYSWIKAPRYEGNPMQVGPLANVVVNYAKGNQNVVPVVDEFLKETGLPLNAV

FSTLGRTAARCIEAKIVANNALKAFNNLVENLKVDQSTCAPYVIDNSKEYKGRYMGHVPRGTLSHWCRIK

NGVIENWQAVVPSTWNASPKDANGVGGSYEQCLIGLKIADVKQPLEIIRKIHSYDPCIACAVHVMDTKGN

NLSEYKVNVNL

>YP\_002344656.1 Ni/Fe-hydrogenase B-type cytochrome subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNKEEKLQRKAEYEFSIGLRLTHWVRAIAIVILIGTGYYLSYVFQSPISNGEPVNFMQAKYRLVHQAVG

FVLIACIIFKVYLFFCDKVSAKERRSVWDIFNIKLWIEQVKFYIFLGKHPHLKGVYNPLQFVTYFFFYLV

ILGIILTGLILYTHTYHEGLGGLLYHILRPLEAAMGGLADVRTYHRILMWVIMIFVPVHIYMAIFNAVKG

KDGAMDAIISGYKFVKEEQH

>YP\_002344655.1 hydrogenase maturation protease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFLVLGIGNIMFADEGLGVHLCKQLEKNYKFTHSEFTLDFVDGGTLALQLSYIIARYDRLIVLDCIEAQ

GASIGDVFFFPYDAMPNKISWSGSAHEIEMLQTLQYMELAGDLPKTHILACVPKRIEAMSFKLSDELIQG

AKIMEKTLLDFLSKEGFAYEKIADFSLQELADISYKNY

>YP\_002344654.1 recombination protein RecR [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKGLEKFNELVESFANLPTIGKKTAIRLAYHLCINNQIDGMKLAHNIENAIRFIKPCEQCGALSENELC

EICSDKERNKNILCIVESPKDILTLEESQSYNGLYFVLDELNEEKLEKLKQIILKLNISELIFALTHSIN

SDATIFFIEDKFKGLNLTFSKIAQGIPSGVNLENVDLISLNKAMNFRTKI

>YP\_002344653.1 two-component sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKNYSIHTKLIILFVVTFFLVCVLFIVLLKIEGNTYNEEESLKQENLIKNLLISYENTSGVEIGAYLGN

SGFNAIQNPNLVKAIRNNGQSLFKAGGELCTLSSLKYHSNLYFDVQCKDFDGLYEENTSDRVYNLLLIGF

FSFSLLVVFMYFSVLKSLEPLKKLRRQVAEVANGEQPDFLDYQEDEVGKIAFEFQKAFKKNQELIQSRQL

FLRTIMHELKTPIGKGRIISEMIKEDRQKERLIAIFLRMDSLINEFAKIENLFSKNYNLHFKPSRFSTIL

EEAKEHLMIDDFNKVVKVDIRYDALINVDMEIFSVILKNLIDNALKYSNNGTCELFCCKECFTIKNPGKP

LAEPIEHYLEAFTREKHNQVKGMGLGLYIVSEVCKLHNFDLIYFYDDGKHCFKIFFGDKEK

>YP\_002344652.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINVLMIEDDPDFAQLLSEYLAQFNIKITNFENPKSALNVGIQGYDCLILDLTLPGIDGLEVCREIRQKS

NIPIIISSARGDLSDKVVGLQIGADDYLPKPYDPKEMYARIMSLIRRTKRVEHTNNENINSAFKIDERRH

EITYEDKVLTLTPAEFEILEYLIQQHGYSVSREQLVSRCKNLKDKDSKSLDVIIGRLRVKIGDSSKSPKH

IFSVRGIGYKLIG

>YP\_002344651.1 chaperone protein DnaJ [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEISYYEILEITQNADKETIKKAYRKMALKYHPDRNQGDKEAEDKFKLVNEAYEVLSNDEKRAIYDRYGK

DALKGGGFGSSSSGFGGFEDLGDIFSSFFGEGFGSSRRRKSSNDEKIPSDFIVNLKLSFKEAVFGCKKNI

DFTYKCSCKTCNGTGAKDGKLQTCPKCQGRGQVGVSQGFITFAQTCPDCQGIGEKASEKCSDCKGLGYNE

SKDSVELNIPEGVDTGMKLRVNAKGNILKNGTRGDMYVKIIAAEDDTFIRDDDDIYIEFPVFFTQAILGE

SIKVPTIRGEATLNLPKGAKDGQRFVLEKEGVKDVHSSRMGNQIVQISIKFPTSLNDEQKELLEKLSESF

GIKDGMHQEQKGLFEKITNWFKS

>YP\_002344650.1 major outer membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLVKLSLVAALAAGAFSAANATPLEEAIKDVDVSGVLRYRYDTGNFDKNFVNNSNLNNSKQDHKYRAQV

NFSAAIADNFKAFVQFDYNAADGGYGANGIKNDQKGLFVRQLYLTYTNEDVATSVIAGKQQLNLIWTDNA

IDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGADLLEHSNISTTSNQAPFKVDSVGNLYGAAAVGSY

DLAGGQFNPQLWLAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKTHANGNLFALKGS

IEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNET

VRVGADFVYGGTKTEAANHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQA

LYKF

>YP\_002344649.1 phosphotyrosine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILFICLGNICRSPMAEFIMKDLVKKANLEKEFFINSAGTSGEHDGEGMHYGTKNKLAQLNIEHKNFT

SKKLTQKLCDESDFLITMDNSNFKNVLKNFTNTQNKVLKITDFSPSLNYDEVPDPWYSGNFDETYKILSL

ACKNLLVFLSK

>YP\_002344648.1 efflux pump protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENFNRTLLVCWFGVFTTSMGLSQIAPILPFYIKELGHVDTSEIAFYSGLAFGITPLFMAVFSPLWAFLG

AKYGYKNMLLRASFGMSVLTLWLSFAHSALEVVFVRGLTGIISGFTSAAVVFIAVIAPKEKVAYALGTLS

TASISGSLLGPLFGGFVAEFFSISAVFDVVAFLIACSFVTIYFFIHGRKIQKEAKKNTQKVKENKTLIIV

LFITTFVIQFGTFGVMPILSIYVEQIHQGGNLALWAGIVVAASGISNLFFAPKLGKIADKIGPSKIIFGA

LIFCGICFYLQAVASNVYTLIFVRLLIGVGLGGLLPCVNALLKKSVSAKNLSVIFGFNQTCQFLGNFCGA

FGGGLMASHFSVEFVFTFVCLIFIINAFIFLAFEKKYIFSNQGL

>YP\_002344647.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEMILFVLVMILLVLLFVVLFRQYKSPKIEEKSTQSFSDIMQLKSIGELSVFQVFSKEIVTKKDSAFNGI

WKNLLGWSLSERQIALIFEFEITFLYDLRDKNFDILPLGDDAYKIIMPECRYKHSIIDMKFYDEKNAKFL

PFLLPDSINSTGISFSESDKNKLIKEAKDEVKDLSLNLIQNLESKIHKSAKDTLEAIAKGFGAKRVEFEF

KDNTQKLDVS

>YP\_002344646.1 isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPFVNIRITKENGEPTTEQKQELIAGVTDLLAKVLNKNKSSTVVIIDEIDTDNYGLGGKSITQARKEKS

>YP\_002344645.1 hypothetical protein Cj1254 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEFLTHPFEPFFDKDSKILILGSFPSIKSRQDGFYYQHPRNRFWPILETLFNAKLENITEQQAFLRKKH

IALWDVLQSCKIKNSDDKTISYAKANDLNLILSQTKIQAIFTTGQSAYRFFVKFHPRLEAIALPSTSPAN

LNFSFEQLLQNYEIIKKFTK

>YP\_002344644.1 polynucleotide phosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQYSIEINKNTEIFDIDKVAKQAAGAVLMRQGKSVVLATVAREEKQVEEDFLPLTVQYIEKAYAAGKIPG

GYVKRETKPSDAETLTARIIDRSLRPLFPKGYAYPTQIVVMVLSADPKVDLQVMSLNAASVALYLSDIPM

KAPVCGVRIGKIDGNFILNPNNEELQNSTLDLYVAGVKDELLMIEMRALPDQKENEIFIEAPYADVLTQT

TSQNMNELSEDEILEALNLAQKAILNGSNAYEEAFSKHKKNSQIELKNEIEHPEILAFIENNFQKQIKEA

INQMAKSERASELNKIAKEILNLEITKDWSEESVLNTLAKVKRKLIREQILNEGKRADGRSLNEVRPISI

ETNILPNAHGSCLFTRGQTQALVVATLGGENDSQMIDLLTEKNPISERFMVNYNFPGFSVGEASPIKAPG

RRELGHGNLAKRALYPSVDENYPYVIRLVSEILESNGSSSMATVCGGSLALKAAGVPSLKLVAGVAMGLI

FEDNKYAVLTDIMGLEDHDGDMDFKVAGSKDGVTALQMDIKLGGIDQEILKQALYQAKEGRIHILNIMEE

AAKEIIVNEEVLPKLELFSVDPSKIVDIIGQAGKTIKEIVEKFGVSIDLDREKGEVKIAGSQNEQIKAAK

DYIINITSSQKGTKKGPKDKDISGFELGQEFQGIVKKIAPFGAFVELKNGVDGLLHSSKIKHLNLSENQS

LKVKISEIKNGKISVDLCE

>YP\_002344643.1 hypothetical protein Cj1252 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWRKFSLLLGTSIALNAAQVDIYALDAKKEGDILTANNDVIIFSDFYFITANKAIYNEKTGDVELFGDVN

ILRGQNERSHSDYAKINLNSNQADFSNFFFSNNNLEVWFQSKTSHLNDKVFESKVSAVSSCNVEDPDWEI

RFSKGWLNRETNFVHLYNARLYVKNTPVFYLPYFGFSADTHRQSGLLIPKIVLKSSEGLYYEQPIYIATQ

ENWDLELDPQIRTNRGFGLYSTLRFLDSPYSTGELNFGAFRENSSYFHDENLKNQTHYGIELKYSRDDLI

KSLLSDNFQEGLWIDATYLNDVDYLNLGSRDYRDLNSLVTSKINYFLADENNFYGAYARYYIDTSKLSNN

TTLQEYPSFQYHRFLNNLFDERLRYSFDASFHNFYRPAGSYANELNLDLPISYHNAFFGDFLHFTFTERF

YASFVNYSNDPERNHEHYFRNTHDFNLYTDLSKAYENFFHTLNLGVNYILPGAKSGKITQDYLEEYDKEN

EHTSLYTVQYFYNNEGQKKLKHRISLDYLNKQNEFYELENLLTYYFNENINLNSEVLYSYEQSRFTNVIS

QIEVNTNSKFNWMFSHAYQNDEYGKYSFIGTRANYIATPNYNLFGGIWFDTQRAHANMWELGYTYQRKCW

NYSLMYRERIDPQLTSGGITAKNQSGVYFIFNFYPLGGVKYDFSLAESENKI

>YP\_002344642.1 hypothetical protein Cj1251 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKENLQDRLERENLKIASFGKRVLAFLIDDMVISLIVFIIFYDRLIQAKDLFETTQIVGNFYLGFILLHF

SYQAIFTYLYGASLGKILCKIIILDENLLDKPNLIQSCIRSAVRQVSAMAFMLGFAWALSNDLRKAWEDY

LARTIVVDVA

>YP\_002344641.1 phosphoribosylamine--glycine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIMILGSGAREYSIALALRRVDKNLEFYFAPGNGATESLGTNLNLKDPVVLATYAKEKGFDLCIVGSES

FLAEGVVDIFKQQGLAIFGPSKAAAMLETSKSFMKSFLKKYRIKTAKFLNTNDIEKAKNFIYSLTPPIVV

KADGLCAGKGVIIAKTHEEAIEETAKMLSGESFGDAGKLVVIEEFLDGYELSIFAVCDGNDFVLLPAAQD

HKKLLDNDQGPNTGGMGAYAPSSLANESLLRKVQKDIILPTLAGMKKEGAEFCGVLFIGAMIVGNKPYVL

EFNVRFGDPECEVLMPLIEDPLELILAATQRRLRHSKIKIKKEFAVGVVCASENYPYKSSPKSEITVNNI

PENSHISYAGVSLEDGKLMADGGRVLVCVGTGKSIEEAQKNAYKLCDNVNFKGKQYRKDIAHQVLK

>YP\_002344640.1 hypothetical protein Cj1249 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHGKIAIYMDSTGRGTVTNSANTFFDFNRQIWNDKKSMPSVGMLVEFRTLSSEKKAEDGKLVQTSKTITG

IKPSKFQEFKEGDFITEHDFWKTDNDDELEDLQNSRRSAYITELYRTTDFDTIEKIPLSFTIPQAIQKYF

AHEILSVETLQANLQDEKEIPCILDYLILKRFLFKAYDTLIFMDNSIDQTQFSALKSIMMHLENSYKQMM

ADQKPNITKIFNETFLSLQCHYQALVATIDTRKNRLASLEAQMKTLQSEINLKSNATDADPEKLKARQER

LAKLQKEAEYYRTTLKRLDAIREDFYKKNYNIFENAFKLSREKLFKKIVTGLNLCATIMDVKIWHLSLKS

SGVKNSYFTMSNIENSFCSLSFAEHYLSRLNKSALNPFDQKLLVYIQKITKEQRKKFLVVTSDLDLLCKL

KIENFSQNPYYLVKYAPKKVNYQSLMRDNTFDIVYIDEKHVWENVADIILQGKHFDKSGKTKFKLI

>YP\_002344639.1 GMP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKADILVLDFGSQYTQLIARRLREQGVYAEILPFNVSLADIKAKEPKGIILSGGPASVYATDAYFCDKG

IFDLNLPVLGICYGMQLMAHHYKATVAPAGHKEYGKANIEIKKDNALFKNLPKKQTVWMSHSDKVENLPQ

GFEVLATSENSPFCVFGNEDKKFFALQFHPEVQHSEFGKNILKNFAKYACNCESIWNMGSFAKTQAEKIR

EEVGNDKVLCAVSGGVDSSVVAALLASAIKEQIIVVFVDNGLLRSGEKEQVEFMFKNTLGIDLISIDASE

IFLSRLVNVTDPEQKRKIIGNTFIEVFEEEAKKHKDVKYLAQGTLYTDIIESSVVGASKTIKSHHNVGGL

PEKMNLKLIEPLKEIFKDEVRALGLELGLSKEVVYRHPFPGPGLAIRIMGEVNRASLELLRKADVILLEE

LKSTGWYDKTWQAFCVLLNVKSVGVMGDNRTYDNAVCIRVVDASDGMTATFSHLPYEILENISRRIINEV

EGINRVVYDISSKPPATIEWE

>YP\_002344638.1 hypothetical protein Cj1247c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGKRNNIKMTKNASAVINELMDKPHYKPLKTLFFCKDFLSSFPLAKQRLIAKIYVKNHILNIITLHPAAY

QELNHDDSKIYIKFLIKAYGQKYPLSGFVDIKDIKIFSQKYTYAANKNKNDEKLSKNSYLELSKGEFKNC

FKDKKLFKKFEDLRELIKKGSNLD

>YP\_002344637.1 excinuclease ABC subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKENLENELKTLPNSTGVYQYFNQEGKLLYVGKAKNLKNRVRSYFAFTPNLHANPRNSLRIQKMIEETV

HLEFIATNSEADALILENSFIKQLHPKYNILLRDDKTYPYIYVDFEEEFPRFEITRKLVKKSKIKYFGPF

FKGARELLDALYLYYPLKQKASCKSPCIFYQISRCLAPCDKLISREKYLEILDEAIHALLNPSVLLKNLE

KQMLVLAQNENYEEAAKVRDQIAMIKDLEVKVEIDIAKLEDFEVFALAFKNSVLSTLRFVVQNGKIISAN

SKITPIKNDIQWDQNEIYKQLILENFSMDIPLLANVIYVYEEFEDRVLLEEILSQRFDKKISIKIPKIGE

KRRICDLAFQNALLNIEKEQKNHDFTIQKELKSYFELENLPNDIEIFDNSHLQGVANVGAMVTYRINSWD

KSKYRKFHLKHKNDYDQMREVLTRRALDFDKIPPPDLWLIDGGKALLDLAKEIIVSSGVNVDILAISKEK

IDAKAHRAKGGAKDKIHSLKGEFSLSINDKKLQFLQKLRDEAHRFAISFHQNTKKKQDLKSSKLANLGLS

SGVMQKLLAYYGNFESIYKADFKDLTMLVGRKAAQKIKEN

>YP\_002344636.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILAGIIFIFNLILAYLSIDISKLDSVTEQLKIGMFSSIFVLSLTLFIFAFRQNRNINKIYQKIFCMQND

FLNFQKKIDVDSALDLLKEKFETTSQNLTKISHEKDRYLHLLEENLYQLINISNAMRCLNEGYNKEINSL

ILNALNSQKDQIRLELNEALEHHKSIIGTSHGKVLQFEASVAIVNNDELENFLLANLLSYFGIESTCFKN

LSFDVNDFHLIFIKDKIFNKNVKKNYDFIVMGRHKNTHYEYFLTLPFEKKDLENILQNKLDKVCTLKFKT

PYQNNVLLFKQNDFDATLFFNIIEKQCDKNICINSFSQLKQELSKETYRLILLDYELIKFDLEQMRNLLS

AYKKQHPQSHIIFFSKEKVRDFDCVSEVLSDVSRNDLITLLRKYLPKA

>YP\_002344635.1 radical SAM domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILFGPVSSRRFGRSLGIDLSPSKKQCNFDCVYCELDPKKAQEKQDEIISIDKIISEVKAMLEKNVEFD

FLTLTANGEPSLYPYLNELILSLRSIAKDKKLLILSNGTAVLDEDKFNALLKLDVVKFSLDSAVAKTFYR

IDRALKNIDLEKMIEKMADFRARFNGDLIMEILVVKDLNDNEEEFEALNQALKKIMPLRVDLSTIDRPPA

YAVKKVSEEKLLELSKLIDSTPVLLAKRHYEGEKLSFNEEELLKMLHLRSQSEIDIEVKFDEQSKTLLNQ

LIKEKKVKILDLAGVKFYKV

>YP\_002344634.1 uroporphyrinogen decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFIDACFKKPTPYTPIWMMRQAGRYLPEYMEVRKQAGDFLSLCKDYKKASEVSLQPIDILDVDAAIIFS

DILVVPLEMGMNLRFEKGEGPVFGNPISTLEDLEKLDDQNAHKKLNYVYDALKLTREKLSQNKALIGFCG

SPWTIATYMIEGSGSKNYAKCKKMLYQNPELLHKILNKLTQVLKLYLEEQIKAGANAIQIFDSWASALEY

DKFFEFSFNYMLEISNFIKSKYPNIPVILFPKGISGYLDRIDGNFDVFGVDWSTPLDLARDKLSHKYTLQ

GNMEPCRLYDKNAIKEGVEKILKTMQNKAHIFNLGHGILPDIPVENAKYFIKLVQESSAK

>YP\_002344633.1 hypothetical protein Cj1242 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVVDNTQKTSNAIFSTTTKVKEKNTSADEFQATLNEVKNKEEKEDKKTNSSKFTNEDIDLGAVREDFRSY

AWQKMREDQYKKNEETLLNKLFTTIDAGNATNNTKA

>YP\_002344632.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNYKKALFALALSAFCMGVTEFVMAGVLVDVEAYFSVDAKTAGYLTTLYAIGVVIGAPLITIPLSRFHR

HTQLLINLGIFALANFIIFFSQNFYLTAFARFIAGTQHGVFFVIATLAVSAITPDDKKSSALAIMVTGLT

VALVTGVPLGTFIGHYFGFKFIFLLIFIITSLAFFGVWHMMPKNLHPSPTNLKNLIPAFSHQNLLKTYTI

TICSCGAQFVLYTYLQKILVEISGFKVQDTAYILLLYGICAICGNLWGGKIVDKKGAIFSLRLILSIQVL

VFLSVFLTMHSKILIIFSVALIGFFAFSTIPALKMLSITKAKRHTYKVIDSTVSVNEAAFNVGIALASFL

GGIVLARLGIEFNALFSALFVSPALIFALLFAKDKLNYKKFQRKSFTKV

>YP\_002344631.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIILLLGLSLASLGALSFDELIYKDEVKPSFDCSKIKYDGKSDDELMICNKIGVRNEFDNKKLALVDN

IYSSLYQNISKKADKKMKKDFKAISKKMLKERKICIKNMQNTKAGENPLLSLLNASDCMQEAYIKVLLEL

MQRAKKDTKTKEVLEQIFKNKVDKYENLLTQSLNTNKDLQDFIDSLAKEDLIDSRAKFKL

>YP\_002344630.1 4-hydroxythreonine-4-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYEFNF

IKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKAWED

AGLKYKGHTDALRDFFKKNAIMMLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKKMGL

LGFNPHAGDYGVIGGEEEKIMEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPYPLV

ADTAFTKTGLKNCNRLVAMYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINTKSY

FEAAKFAINLHSKA

>YP\_002344629.1 pyridoxine 5'-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLLGVNIDHIAVLRQARMVNDPDLLEAAFIVARHGDQITLHVREDRRHAQDFDLENIIKFCKSPVNLECA

LNDEILNLALKLKPHRVTLVPEKREELTTEGGLCLNHAKLKQSIEKLQNANIEVSLFINPSLEDIEKSKI

LKAQFIELHTGHYANLHNALFSNISHTAFALKELDQDKKTLQAQFEKELQNLELCAKKGLELGLKVAAGH

GLNYKNVKPVVKIKEICELNIGQSIVARSVFTGLQNAILEMKELIKR

>YP\_002344628.1 phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLGIDLGSNTLRAVQMDEKLNKLKEYEFVIGAAKNLNQSGEISKEAIQRLKNTLSILAKEQDLSKARAVA

TAAFRKASNTNEIFAHLKKEFGIDFKLIDAKSEAKISVLGMQSGLRRLKIWGEFAYCDLGGASCELSFGK

SFKSFDFGIISFYEKNYHSYYKSCISYKKLIKKYPKFIINIKDKKLKIHFLIANPYLKHLAFRAFDEVAM

IKKELRSLGAKTVVLNSGVPTTLSALKQNISYEKYEATKVNGKKLCHKDFLNYAIKLFHMEEKKAIKEVG

TMRKNYLSAGCLLFYALFDKHKLLVIDEGLREGVCLASMKNIKF

>YP\_002344627.1 hypothetical protein Cj1236 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFSDFFHAWLHESYYKNAVSIGKNGDFFTAVSVGNLFGTLLAKHFLNLIDEKILKPPLELVEIGANEGY

LSRDFLAALLELRPEIFSQISFFIIEPHEKLRTLQKKTLEGVEFTHKNSLKECHFKNAFFFCNELFDSFT

CELIDHDKMAFVENFKLIFKNMDENLITKCKALNLTKGELSLELENFFKDLNQTCERFIFAGFDYGTLNP

QSFSLRIYQKHEVFSPFEVSLKDFFGKSDLTYNVNFTHLQKLIKEYDFKPLAFKKQSLAFMDFGFEDLLE

YAKNKNIKTYESFLSQAKILFFNFDEKFHFFEFQKN

>YP\_002344626.1 peptidase M23 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKALWILLSLTLWLFGAQNLELIKGQALFLELDKKDFLSLKNNDKNIPTFAHPKNQEKILAIFSLPYKNP

PQNTKLIAFYKDKKEEIFIKTLEGNYKSEKLQIENKKIFPPKTIQERITKELKEANAIYSSYTPKALFNG

AFNIPLNSFITSDFGKARTFNEKVASYHSGTDFRATTGTPIYAANSGVVKIAKDRYFAGNSVVIDHGFGI

YSQYYHLSKIDVKIGQKIKKGELIGLSGATGRVSGPHLHFGILAGGKQVDPLDFVSKFNAIFQ

>YP\_002344625.1 glycine--tRNA ligase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSELLIEIGTEELPAIPLLKELANIEKKWNNVLEEYRLVSDFKFYYTPRRLVFFHENFADKQEDSFAEFI

GAPKNVAYKDGVLTPAGQSFLQKARISENELSFKEIKGKEVLYHQKAIKGLQSQEILGEMVEKFLKSLSF

GKSMRWGANSFEFIRAIRSIACILNDELVNFQSYGVKSTKKTFIHRSVSYDLQDFNNAKEYFELLEKNYI

ILDPIKRKEKILEQFKLIESQKNIQIGEDEELLAEVVAITEYPNALLGSFEEEFLEIPSEVIITSMRENQ

RYFAVFNDKGLSNHFIVVSNAVCKDYSKIIHGNERVLRARLSDAMFFYQNDLQNGLKPEKLAKMTYLEGL

GTMQDKSLREIKIAEILCQMLHNDKIENISTALKYAKADLATQMVYEFTDLQGIMGSYYAQKMGLDYQIC

LAIKEQYLPNSEQAPLPSTEFSSIVALANKLDTLIGLFSIGKIPSGTKDPYALRRAANGIIKIALNLNKE

FDIQILLEKLSNHYKSFDMQILKDFIFERLYTFYTVNASFVKAVLSSQNTDLIHINQSVNALIKLSKKDN

FNENFATFKRLANIATKNPHKVDESLFVQEAESKLYKAFQEKTKANSLQEKLENLFALKPFIDEFFNQVM

INAEDEKLKNNRQALVYEIYAEFLKIADLKELSL

>YP\_002344624.1 HAD-superfamily hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINVFFDMDGTLIDSANAISCAVNEIRQDLNLAPLSREIIMQTINTPNIDWAKELYNIENFHHSSFKEGY

EKYFVKHYEQSVVLFEGVKELLEFLKSKNCFLAIATNAPQSSLSNILKKHDIIPYFDKILGVSLGIEPKP

HPMMLELLKSEAPYKTSVFIGDSQKDKECAKNANLPYFHAKWYQKNLKENEFSNASELKGFLQKYL

>YP\_002344623.1 hypothetical protein Cj1232 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKNEEKALRVKYLRNLEKFFNGAISALKKEDFDKTKFEERMLKNAKFFEKNPAVNLNSTYAKNLEFFVN

ACLDFSKEKSELLNLANALDKQKKQGEKKEKHKNYLKDYE

>YP\_002344622.1 glutathione-regulated potassium-efflux system protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDNFLEIFLITVAIAIVLNVIFKKFEIPTIIGYIAAGEIISEIYHLSGKGEITHIAEFGIVFLMFTIGLE

FSFKHLMAMKQEVFLNGSLQMLTCGFVFMLLAIGILGLGDKSATIVGFALALSSTAVVLKILNDNGDINE

QYGRKALGILLFQDIAVIPLLLLVDIFSSNNQNIEKLLFTSLISALILITLLFFIGKYLVDRIFRLIIHT

SSQEIFISTVLFMVIGASFLANYFGFSYSLGAFIAGALIAETKYKHKIEADLIPFRDLLLGLFFITVGMQ

IQLDVVAQNWFLIIVLTLLVMALKFGIVFGFLFLYTKKRVALKTAFAIAQIGEFALAIFSLLQAKNMLDI

KTSQILIVVSILTMIITPFILNNIRKITNVVEDIALNTNAVQNIDSNIKLKNHLVVFGYGRLGQEVVQKI

KNTGVPYLVLESDLNLVELGVSRGENVVFANAAQEETLKIANIEECAVAIITVTNEAKLEILCQVLANYP

KPIDTIIHVNGTLKKMLFSSIDENIRIIRSEKVIARNLVQEALECRIHKNT

>YP\_002344621.1 heat shock transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEQHYDEPVYLISVVAKVLSIHPQTLRQYEREGLIEPSRTDGKIRLYSQRDIDRIKLILRLTRDMGINLA

GVDVILKLKNQLHEFENLIDELRLELSKQQDKEAASKAVVKHKNSFDLIFYEKK

>YP\_002344620.1 curved-DNA binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNSLYETLGVSKNASADEIKKAYRRLARKYHPDINKEKGAEEKFKEINAAYEILSDEKKRAQYDQYGDSM

FGGQSFHDFSRNTGGVNLDDILKDLFGGGFGGRSRGGFNGFSSKGFSSGFGGFGGFEEEILDSNLELHIP

FEKAVKGGEHSFNFQGETIKFKIPHGIKEGEKLRIRSKGKQSRNGARGDLIIIVKIEESPIYTREDDDLY

QKVDISLKTALFGGKINIKTLKEGKEEAIINITPNSKNNQKIRLKGYGVQNRKSDIYGDMYLILNVVLPN

LDTLDEKFIELLKEKLP

>YP\_002344619.1 serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLSLSLASALFAASINFNESTATANRVNPAAGNAVLSYHDSIKDAKKSVVNISTSKTITRANRPSP

LDDFFNDPYFKQFFDFDFSQRKGKNDKEVVSSLGSGVIISKDGYIVTNNHVVDDADTITVNLPGSDIEYK

AKLIGKDPKTDLAVIKIEANNLSAITFTNSDDLMEGDVVFALGNPFGVGFSVTSGIISALNKDNIGLNQY

ENFIQTDASINPGNSGGALVDSRGYLVGINSAILSRGGGNNGIGFAIPSNMVKDIAKKLIEKGKIDRGFL

GVTILALQGDTKKAYKNQEGALITDVQKGSSADEAGLKRGDLVTKVNDKVIKSPIDLKNYIGTLEIGQKI

SLSYERDGENKQASFILKGEKENPKGVQSDLIDGLSLRNLDPRLKDRLQIPKDVNGVLVDSVKEKSKGKN

SGFQEGDIIIGVGQSEIKNLKDLEQALKQVNKKEFTKVWVYRNGFATLLVLK

>YP\_002344618.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTNILMIEDDLELAEITAEYLEKFDMKVDIAHEPYIGLSKLALKEYQLIILDLSLPGLDGLEVCEEIRKK

YDTPIIVSSARHDITDKVNALELGADDYLPKPYNPKELQARIKSHLRRISNTKSAIAKSVKDLVYDQYKH

IITMKGQELTLTNAEFDILSYLIKKEGGVVSREELVYNCSSISEDSSNKSIDVIISRIRQKMGDDPKTPK

YIHSIRGIGYKLTQ

>YP\_002344617.1 two-component sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKSSIFYTITFIFIFAGVSVILGFLWLIEYDQQNYTRELNTKYSLIANARLLNFAGVISEKEFEEQTKN

YNKMDEITEAKQIRKILFRGDVLARVEVNNGLIEIISYNRQVYLNIIYDGKVYLYKDQDYQTYRYFIIKA

IAVAVICILVLLYIYIFKKLKPLKRLKKQIDKFAQGKLGDIEDVSTGVDEISQVSEAFYQAIVQIRKLNQ

SRQFFLRNIMHELKTPITKGLLTLEMIEDNKYKERLNGVFTRLEILINEFAAIEQITSGAAFINRKKYNI

LDVLDEAKEIAMRDDSNIRIFMEESFFVNVDFKLFTTAIKNMIDNGIKHSEDGFVQIDIIDDYICFKNRG

PELNNTLEYYTQAFTQGSKQKSSFGLGLYIVNTILETHGMKLDYLYEDGVNLFYFRNLKSVIVKE

>YP\_002344616.1 hypothetical protein Cj1225 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRNVKTYSFRMPLELKERLDNLSKNLSKPKSTIVKEAIEAYLNEVEDFSFAVNALEELKDGDYQKASKK

IDKIVKNLKQTK

>YP\_002344615.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLPKWDNSYSVHNAKIDEQHKKLFKLAAKVEVVSDRSVSKNEVKELLAEFFNYMKDHFNDEEKYMQLIGY

PNLEEHRKIHKEIIQTMINLIKDIKSTNDLKEKLYIVAKKWLLEHILYEDMKVEKWRSSSLSTDDGGDVS

FEAAEDEDNEHPQFYLYTCNCPGKIHDVPYSIHQKIELQGRKFTCKTCKQAIKFYKKYS

>YP\_002344614.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAAKILLLEDDLSLSEIIEEFLNDEGYEVFLCDNAQEALDMAYERYFDLWILDVKVPLGDGFSLLKELRK

SGKQTPAIFMTSLNTTNDLKQGFDAGCDDYIKKPFELAELSIRVKALLKRAFSHKNEDFEDLGDGFRFEF

TTQILYHNNKALTLPSKEIKLLSLLLKNKNNFLSTERIFEELWDYDEEPSELSLRAYVKNLRKILGKEKI

INQRGRGYCYG

>YP\_002344613.1 two-component sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKVIRQILLIYLTTTGIFLTIFFALWYQKLYEELVVLKGATLRENHRNIVISILNSRFTPIDISAKNI

AQSTALKFAIFDAKKIVFSNIDFDLRKAKIELKGRGICDNKVFFLASMSADHYFLRHASNEEVNTNDGLQ

ILIQGEDVGKDLFWIRTKVFSFAIMAFCILGLISYILVKIALKPLEDKISTLNRFIKDSTHELNTPLSVI

LMSIEQLEHQNLGDNTKFTRIKLAAKSLSQVYSDLVFYNFPNTLETEKQKFDLRILLEERLEYFKVFFEQ

KKITLKLDLNQANIFAPKSQISKLIDNLISNAIKYNKKGGVISIILKANFLSIADTGCGISKSNLNHIFD

RYTRFNTDQGGFGIGLSLVKKVCDDNDIKIICESVENQGSVFKLNW

>YP\_002344612.1 chaperone GroEL [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKEIIFSDEARNKLYEGVKKLNDAVKVTMGPRGRNVLIQKSFGAPSITKDGVSVAKEVELKDSLENMGA

SLVREVASKTADQAGDGTTTATVLAHAIFKEGLRNITAGANPIEVKRGMDKACEAIVAELKKLSREVKDK

KEIAQVATISANSDEKIGNLIADAMEKVGKDGVITVEEAKSINDELNVVEGMQFDRGYLSPYFITNAEKM

TVELSSPYILLFDKKITNLKDLLPVLEQIQKTGKPLLIIAEDIEGEALATLVVNKLRGVLNISAVKAPGF

GDRRKAMLEDIAILTGGEVISEELGRTLESATIQDLGQASSVIIDKDNTTIVNGAGEKANIDARVNQIKA

QIAETTSDYDREKLQERLAKLSGGVAVIKVGAATETEMKEKKDRVDDALSATKAAVEEGIVIGGGAALIK

AKAKIKLDLQGDEAIGAAIVERALRAPLRQIAENAGFDAGVVVNSVENAKDENTGFDAAKGEYVNMLESG

IIDPVKVERVALLNAVSVASMLLTTEATISEIKEDKPTMPDMSGMGGMGGMGGMM

>YP\_002344611.1 co-chaperonin GroES [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFQPLGKRVLVKRVEETKTTASGIIIPDNAKEKPLMGEVVAVSKEITDIANGDKIVFAKYGGTEIKLDN

NEYLVLNLDDILGILK

>YP\_002344610.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFYGIVAFVVVLLIALYTILFTSFGNNIVANIAQKKIKENAGLDVNITRFNLRFSSLELQANIANMA

DCNLQGALSPFKLGFDLDYLISLNQNYAKNLGLNLNQNLSFGGKIQGKASDFTLDGKGYLLGSNVLLNAR

MYNYSPIALNLDAQNLKIEEILHLLSYPSYAKGFLNAQAKISAQNLKPDGNIIIKLDTSYINYEAIKKDF

SLDLPLNSNPKAEILANVKEDKIYAVSKIYNDYLNLQTQKTLYDMSKNILSTDFNLNIPSLAKLEKLTKT

RLNGSLGVIGETSVVNNALSSLNAQVIGLGGEVKASLKNNKIFADINEASLEKLLALAGYGALVSGNLNA

KLLNADLDFSNFDLEAKINNAKINTNELKKLAKIELPNTIFSFDAKANAKNSNIAYNALLASNLLNIKKL

QGTYNLKNSELNTDLNAFIDDLSQFSAIAGQKLQGKADLTAKAHIIGTQIQNLNANANLADGVIKADSNG

KKLDLNIDKLDLSKLFVIAGMPNYASGIVNAKVNLDNIDFSNLNGKANLEAKGILNAATLSKILNKNFPN

NTSYDLNTKINFKNNIAQFDSVLNSSLADLTKLQGSFDISKMLLNSDFNLKINDFSKLGFLLDRKLKGKA

EFNGKVGFDKNLNFVVNSPNLFEGKLQSTLKDNLLLADLNGVDLSSLAQGLDFMDVYQGKADVKANYNLL

SEEGEVNLDMKEGKLKPNLITNALKILTLKDITNDVYRTANAKALIKKENIKFDLNMQADRSYILVQSGA

LNSKSGALNLPFDIKFDRANFKGSITGTTENPKVNLNAGSVLNSIKNVVGGGMSDGAKSTGDKVDKAVNK

LLNKIF

>YP\_002344609.1 riboflavin synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNGLIREIAKVQSYQNNTLSLKAKYCPNLGDSIAVNGACLSVTKLYEGGFEVELSRESRTHIVIENLKD

KVHIEPALRYGDRIDGHLMQGHIDFIGTLEKIQKDENGVDFYISLPKEAMKFMAEKGSIGVDGVSLTINE

ILKNGIRLTIIPITFKETLFKDYQVGRKINIESDLLARYIYAQLQGKNKGLSWEEVERISYLY

>YP\_002344608.1 laccase domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGRSRKNFLSLLENDKVGIFCAFDKDYNVFRAKIHNENLFSHLGFKDIEKCVFMDQIHSHKVIIYDENLK

NLSCDGLISKEKNIALCVLSADCLPLILYHESGIIAALHSGRKGSFENILKECVDQITMQNSHLDKNKFH

LFILPGICAKNYEIDGEILEFAKKEFKEFVQDDKLDLKALVKFQAQNLGIENIKDCGICSFDDESFFSYR

RDKTTKRFVSVVYLKD

>YP\_002344607.1 hypothetical protein Cj1216c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYERKDLRVLKIIQKAREFGDGDLLNEALVKQLIDADFCEINEKEKEELATLLHSLINAKDKALLSN

>YP\_002344606.1 peptidase M23 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLLLLFIFVVQSFAALSVEELTWDNGDTLLKFLQRNSIPMSLYYGLDREDQELASDIAYKIKYQVLKD

ENNNIEQVLIPISDDLQIHIYKDKDGQYTLAFTPVSYQKEDRILHLTIKSSAYQDVYEESGSSTLARAMV

RAFRGSINFRNIQKGDEVTLYYEQKRRMGKLWGDINIKMAMVEINKSAREVFSYNDIFYDRDGKELESFL

LTKPVNYTRISSPFTTARYHPILKRYRAHLGIDYAAPTGTPVKSAGKGVVTFIGTKGGYGNVIQIKHDSG

YMTLYAHLSRFAKIKNGQKVNQGQVIAYVGSTGMSTGPHLHFGVYLNNKAINPASVVKIAKSELSGKAKE

NFKHIIAGYEQVVKEALASNQPNPPKEEDFENYIEF

>YP\_002344605.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKTIVCFLALNLSLFAVGFDLKPIKSELVKVDDIYGYIKDSDDIKLYSSGVVVQHFSNSQSIIARASVI

DKKNGLAKLEFSVFSALKQDALPLPNVLPKVGDEVVLNFLYDRGLVIAPDEQTYNELVREFPQIYFTHID

IFGAQLIRTATLSPKRSDFRQFCDDNAVGILVVALENHAEVVDCQDFNKLYEVPISKPTSVQVPFYSRIG

GYKSNFFDFNSQEIGNYYRYYDALINLPKVQ

>YP\_002344604.1 glycolate oxidase subunit D [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKEFEQYFKRFLGEENAYFDEIHKRAYSYDATKKHYLPDGVLFPRNEEDIARILKFCNENNIIVIPRGS

GSGFTGGALAVNGGVVLAFEKHMNKILEIDLENLVAVVQPGVINIHLQKEVAKYGLFYPPDPASMEYSSL

GGNVSENAGGMRAAKYGITKDYVMALRAVLPSGEIIRAGKRTIKDVAGYNLAGILIASEGSLAVLSELTL

KLIPLPKFKKTAFAIFPSVKSAMNAVYKSLASGVSPVSMEFLDNLSIRAVESKFNKGLPIEAGAILIADV

DGNVKEAIDEDLRNLEHYFLEAGASEFKIAKDEQETADIWFARRNCSQSIAMYGTLKLNEDITVPRSKLP

TLLEGIDEISKKYGFKIPCFGHTGDGNVHTNVMVPDKNDKEQVKKGYEAVEEIFKLTVKLGGTLSGEHGI

GLSKAPFMNLAFSEAEMNLMRNIKKAFDPNNILNPFKMGL

>YP\_002344603.1 ribonuclease BN [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNFFTILLNLRDKEILNYAAALSFYTVLSLIPILFVCFSVFTQISSFKAYYEKAKQVIFAFLIPTQQDV

VATYIDTFLKNSVNLGIVGLIAMAFTSLAFFSGYDFVINRITKNEPKGLWQSISSYWTLLTLVPLGLGLS

FYISGFIQQTLDDYKIGFNFFEILPFVIIWGLFFISYSSSVHKGTLKSLALVSFGAGTIWYIGKNLFVYY

VVYNKTYASVYGSFSTILFFFIWIYISWIIYLFGLKLYYFLNHNHNEGNKIRKNTKKS

>YP\_002344602.1 competence family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLWNSFSYSFKEFHYLFFSVVVIFIFNILLEYNNFLNFKNQKHYLIDNALLTHQYIKYNKKNKKYWVLK

LQTENFTFYTTSFKDLNLSKNQFLSLRIITHNINFKDYLSKSFYAPSYDFEKLKEKEYNPIISYFLNQHT

NEKIKEFYGALFFALPISLELRNDVNYYGIAHLIAISGYHIGLLFSLIFFILAPIYSFFQKRYFPYRNLR

LDLSILIFALLLAYACLIGFVPSFVRSLIMAFWVFYLLCKNIKIINFVTLFCSILLCISLYPRLLFSIGF

LFSILGVFYIFLYMHHFANKFNNLINIILLNIWTFFAMVLPVLYFFPLISYQQILGIILSGIFVIFYPLV

LFLHLINYGDLLNFILDEFFKFKIYGTNIHIPFWIFISYLIASLISVRFKYLAFLCIFANFIPFIMIVI

>YP\_002344601.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQDMIDTLIKYGYIVLFFYSLGGGMVGILAAGVLSSQGKMDLSFCIALAFIANTIGSTLLFILGKYYKKD

IMPYFKKHRRKIALAMIKTKQHGIILLVTQKFIYGLKTFIPIAAGMAKYNFIKFFIINTLASLAWAIVLG

FTAYTFGYVIEAIFDKLSLYPYAAPLFLLFLAGIIWLYLSKFSKK

>YP\_002344600.1 ribonuclease Y [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIESLIALIAAIVGLGIGYLVAKKINDAKYEIFVEQAKAKAKAIEYEAELILKDAKNSILNAELEVKKKY

EEKTHKFQKDFNQKFDDLSKKEQKLQQEEEKLKEDKEYLCKSQKHIQNLQSDVDKLKNKYQEKLDDVLKI

LEHSTGLTQNEAKEIILKKVEENSREQIAHIVRKYEEEAKNEAKRKANFIIAQATSRFAGEFAAERLINV

INIKNDELKGRIIGKEGRNVKTLEMVLGVDIIIDDTPGAIIVSCFNLYRRAIATKVIELLVEDGRIQPAR

IEEIHEKVCKEFDSAILEEGETIVMDLGLNKIHPEIVKLIGKLKYRASYGQNALAHSLEVAHLAGIIAAE

CGGDENLARRAGILHDIGKALTHDFEGSHVDLGAELCKRYKEHPVVINAIYAHHGHEEATSIESAAVCAA

DTLSAARPGARREVLEAFLKRVSELEDIAKSKEGIKNAYAINAGREIRVIANAQLVNDDESVLLAKEIAA

EIQEKMQYPGEIKVNVIRELRAVEYAK

>YP\_002344599.1 5-formyltetrahydrofolate cyclo-ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKTDFRALQKIRLFKHSKLNFKQDYKIFKECLKIIKLFKAKNILIFIPLHYEPNLIKFRHILNKNYKLF

VPFMQDKSLKIVKLRLPFIKKRFGVLEPIDSFFKAKIDLAIVPVIGVDKNLKRIGHGQGFYDRFFENLNY

KPHIIFIQSIDALSQNNLTQKHDISGKLYINPYKKYYKKERKNDRITYRTYSRYSRTRYRIFSCKKNQ

>YP\_002344598.1 lipoprotein thiredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKKILLLVAISCLFVACSNDKEKQQNDVNLSTEASINQSDDMNFKLNLIDGGSISVKKENAVLNFNDE

DKVTLFVFFTTWCTPCIAEIPHLNKLQEKYNNDFNIVGVLLEDKSNDEIQKFIEQHKISYKVANGENNYL

LAKALGGVNGIPTMFLYNKHSKLINQYLGLIPEEMLEIDIQKAIL

>YP\_002344597.1 signal recognition particle protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNFFKKGLAKTLENIVGVKGENKKITKDLLEEILLEADVSYEIVEEIIYYLPPQNEVKKEDLKRVMGSY

FLYEKKETNQEKPFVELILGVNGAGKTTSIAKLAYLYKNQNQKVILGACDTFRAGAIEQLKLWAQKVDVD

IVLTAQGHDPSAVTFDTISKAKAKDFDRVIIDTAGRLQNQKNLAHELEKIVRISNKALEGAPHRKILVLD

GTQGNAGILQAKAFNELVKLDGVIITKLDGTAKGGALFSIARELELPIFYVGVGEQMTDLQEFNASAYLD

TLLDPIFE

>YP\_002344596.1 DNA repair protein RadA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKNKALFECQACGNQQSKWLGKCPDCGAWDSFVELKAEQIKVLKELAQVSMKTSEAVCIEDVELEHFTR

YSTDDNELDLVLGGGLVEGSLVLIGGSPGVGKSTLLLKIASNLAKQGKKVLYVSGEESKAQIKLRADRLE

ANTPNLFLLTELCLENILEELHKKDYSILIVDSIQTLYSNKITSAAGSITQVREITFELMRVSKAYNIST

FIIGHITKEGAIAGPRVLEHMVDVVLYFEGDATKEIRLLRGFKNRFGGTNEVGIFEMTAKGLISAKDLAN

RFFTRGKAISGSALGVVMEGSRALVLEVQALVCESSYPKRSATGYEKNRLDMLLALLERKLEIPLGHYDV

FVNISGGVKVSETAADLAVVAAIISSFKNRPLSKDSIFIGELSLNGEIREVFSLDTRLKEAKMQKFKNAI

VPSKPLEDIGLKCFVAKELSQVLEWM

>YP\_002344595.1 ATP synthase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKDLFLFSSLLDASHTFSYFFHIGLVALIAVIVAMMATRSMQLVPRGMQNLGEAFLEGVLSMGRDTMGSE

KGARKYLPLVATLGIIVFFSNIIGIIPGFHAPTASLNLTLSLAIIVFVYYHFEGIRAQGFVKYFAHFMGP

IKLLAPLMFPIEIVSHLSRVVSLSFRLFGNIKGDDLFLMVILALVPYIAPLPAYVLLTFMAFLQAFIFMI

LTYVYLAGATVVEEGH

>YP\_002344594.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIYILEFFKGASLALMLFGALFFFFKYNSFFYLCLGIIPGLLLSLIFVLLIENHKLKNENKLR

>YP\_002344593.1 methylenetetrahydrofolate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCSFSFEVFPPRKDENIKNLHAILDDLGQLSPNFISVTFGAGGSINSQNTLEVASLIQEEYQIPSIVHLP

CIHSSKEKITQILQKCKEKNLNQILALRGDICENLKKSKDFSYASDLISFIKKQEYFEIYAACYPEKHNE

SKNFIEDIHHLKTKVNAGTDKLITQLFYDNEDFYTFKQNCALADIDIPIYAGIMPITNKRQVLKISQLCG

AKIPPKFVKILEKYENNTLALEDAGIAYACDQIVDLITSGVDGIHLYTMNKSKAAIKIYEAVKHLLKEEL

HA

>YP\_002344592.1 5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNSIISYPRIGANRELKFAIEKYFKNQSSKEELLKSAKDLRIRHWQEIQKAGIDFIPSNDFSLYDNVLD

AAVLFNIVHTKYKNLNLDALDEYFAQSRGYQGENGDVTALAMKKWFNTNYHYLVPECDNADIIALTGDKI

FKEYLEAKELGIESKPVLIGIFTLFKLIAFKDEKTQKLAKEKLLNAYIELFDKLNELKVTWLELDEPYLV

YDLSKEDIALFEEFYQELLNHKKDLKILLQSYFGDLRDIYPKLLESKFDALGLDFIEGKQSLALVQQYGF

AKDKILFGGLINGKNIYANDYAKSLKLIKELQKYTQNIILNTSCSLLHVPYSTEFESKLDSSYLKLFAFA

KEKLQELKDLKEILNSSEENPLFRANQELFKNIPERLDEKVKARLKALKKEDFTRTPSFKERALIQKEFL

KLPLLPTTTIGSFPQSADVRSNRLAFKQEKISAQNYTEFNQQKIKECIQIQEEIGLDVLVHGEFERNDMV

EYFGENLKGFLFTQNGWVQSYGTRCVKPPVIWGDVSRTKPITLAWSKFAQSLSQKIVKGMLTGPVTILNW

SFPREDISLKESTEQIALAIRDEVLDLENAGIKIIQIDEAALREKLPLRKSDWHSEYLDWAIPAFNLVHS

GVKAKTQIHTHMCYSEFSDILKEIDAMDADVISFEASRSNLSLLDTLKAIRFKTEVGPGVYDIHSPRVPS

VEELSLTIEKILNKLPKEQIWINPDCGLKTRAYEEVITSLKNLVTATQKIREQL

>YP\_002344591.1 NLPA family lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKGEKMTLFTKAFCVATLFTGFAWANEELKVGSSITPHADILRFIKSALQKQGYDLKIYEFNDGVIPNV

MVENGELDANYFQHEPYLKEFNQRQGTHLVKVASIHIEPMAVYSKKHKEFHPKEGQSISIPNNPTNESRA

LRIVVSKGLIEVKDNELITPLDITKNPKKLKFVELKDAQLTRSLDDVDYSLINSNFAILAGLNPVKDGLY

TESKYSEYGNIIAVKEGNENLPKIKALVKALQSNEVKKFIEEKYQGALIPTF

>YP\_002344590.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLPILDLQAYEKDKSTFLKNLREIASKIGFFYLINTSIDKNLNEKLFKLGKEFFNLSRSSKELISMVHS

PQFRGYTSEGFEYTAGSKDYREQLDIGTERDALNWNLNSPLWQRLEGPNLWPSEIPELKKTFLTWHKQTK

KACLKLLKAFAQALDLPNNAFDKLYGENSYEHCKIIHYPKSSKNITQGVGSHKDGGLITFVFQEKQSGFE

AFIDGKWLSIPPLENSVVVNIGEFLELATNGYLKATIHRVNLSPKERFSIAYFLGVQLDKDIPIFKLNPE

LAKESKGVDTDPKNPLLRNVASNYFKRMIRSHPDVASIYHSDLIEKFSFA

>YP\_002344589.1 S-ribosylhomocysteine lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPLLDSFKVDHTKMPAPAVRLAKVMKTPKGDDISVFDLRFCIPNKDIMSEKGTHTLEHLFAGFMRDHLNS

NSVEIIDISPMGCRTGFYMSLIGTPDEKSIAKAWEAAMKDVLSVSDQSKIPELNIYQCGTCAMHSLDEAK

QIAQKVLNLGISIINNKELKLENA

>YP\_002344588.1 aspartyl/glutamyl-tRNA amidotransferase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFEVVIGLEVHAQLNTKTKIFCSCATSFGEAPNTNVCPTCLALPGALPVLNEEAVKKAIAFGKAVNATIN

KKSVFNRKNYFYPDLPKAYQISQFDIPIVEKGELFINVKGENKRIGITRAHLEEDAGKNIHESNFSKVDL

NRAGTPLLEIVSEPELRSSDEAVAYLKKLHSIIRFLDISDANMQEGSFRCDANVSIRPKGDTKLYTRVEI

KNLNSFRFIQKAIEYEVKRQSEAWEDGTYEQEVVQETRLFDTTNLVTRSMRGKEEAAEYRYFPDPDLLPV

LLKDEFLDIKIPELPDEKKVRFIDKLGIKESDAEVLISSLEMSRFFESLISQNLNPKLCVNWLNTELMGL

LKGELTIENSPVDAQKLGVLIKRIEDGTISAKAAKDVLAFVFENTSVEIDEAIEKLGLKQVSDDSAIEAV

IEQILNANADKVAEYKSGKDKLFGFFVGQTMKEGKGAFNPAKVNEILKTKLG

>YP\_002344587.1 glycerol-3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRIAVIGAGKWGSALHLALKENHNCFISSLHQRDLEDFVSIKEALECEYLVFALSSQGMRAWLKENFIN

KGQKILIASKGIEDQSCQFLDEIFLDFVPKENFCVLSGPSFAAEVMQKLPTALMISGINQELCKKFASFF

PDFIKTYIDNDVRGAEICGAYKNVLAIASGISDGLKLGNNARAALISRGLIEMHRFGKFFGTKEETFLGL

SGAGDLFLTATSVLSRNYRVGLKLAQNQKLDSILAELNEVAEGVKTAYAIEKLAKMKGIYTPIVNEVVAI

FKGKSVQEATQNLLKQND

>YP\_002344586.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIIKNAKIYGDSLQDIEIKEGKITNIDSNLQGEEILDAKGMTLLPSFVDLCVSLKNDKFSLANLELLENE

CLKGGISSIVLRDCMDFDEESFALFLQNLAQRKMQIFSSVRVKDANGKLKNLATLLNKGACALELDSSLD

ANTLKVSSQYAFMKDSPIFVRCYDKDFDDNGVMNDCEMSFELGLIGMSKIAETSQIAKMKELAKFYKNKV

IFDLLSLKDSLVLLDEKDLKLVSIHHLIKDDSACEDFNTAAKLMPPLRSKEDVLALREVLKEGKISFLTS

LHSAKSISLKDLAFDEAAFGIHSVCEFISLCYTFLIKEGFLNWQELCRFTSKNPSEFLGLNSGVIEVGKE

ANLVLFDENEEIFAPKSSLYSEDKLFGKIKMHIIKGKNILEK

>YP\_002344585.1 phosphate permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKDNLIAFVIFIISTIAFVIWGFGYISQHQLILFILASIFGIFMAFNIGGNDVANSFGTSVGAKTVTIK

QALIIAAVFELSGAIFAGAEVTKTIRSGIVIFPNSLDPMLFVIIMLAALLSSGVWIFIATKKGLPVSTTH

SIVGGIVGASIMMGLLKFDGIQTLSMVKWSEILRIAISWIASPLLGGIVAYIIYSYIDKKILKPSEKLND

DLKNIKKERKKFKEEYFLNLKTKSQEEQIKELSAIALDEEEQENNFYRNKMKEFKDQEKDIDIYSILKTH

MPIIACIAAAIISAMFLFKGLNNVSTLDILQNFWIIGIIGTISYVVTFAIVKIVKKTELNKTTDRIFSWF

QIFTASSFAFSHGANDIANAIGPFAAILDVLKNGTINATSPVPFAALAMFGVALVVGLWFLGKEVITTVG

SKLATIRPTTGFSAELGASIVILLATQFGIPVSSTHILIGAILGIGVYNKNANWIMMKPIGLAWIITLPA

AGIMAALVFLGFKLSLGI

>YP\_002344584.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRGIFYIIALFSLLNGDELTEALAKNNNQNSWEHFDYKNTKEAPKIQEENVDFKSTFDSLLSKTLENNNG

IDKTDGNLDFQNENAQVKNLSSLYEGENNSLLFQKELFVAQDNYNYSGGLINRYEKDDFLFGVNGFIDKQ

KEQKDTKSFGTEFGYSKFIKAYSNYYIPNEAEKKLQLGMSFVIPTYTAFAFDISKDNDKTNYQVSYSPYS

VFSLNLLRRDYSARETVDDTVVQVGFSFNFNESFLKQFRKKDNTLEEVNRYDFLQRTH

>YP\_002344583.1 C4-dicarboxylate transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

METLSQTLAERKPPLYKRIIKSLGFWVIIGIITGIVLGYTDKELAIASKPGVDYFIGALKVLIGPIIFVT

LVLGIISLESLKKVGSIGAKAVIYFEVVSTLALAIGIFMANVMQPGHGMNLDPSQLDTKSVQKYISQTTE

VSASSEIMHILKDAMPTDIITPFTEGKTIQVLVIAIITALIISLMRIEDKQAIQRVFEVVQNFVFKILQI

IMYFSPIAAFSAMAVLIAQYGIGSLINLAYLLLVMLISCLVFIFGILGLICYFAKVNIFKFMRFISREVL

IVFATSSSESALAPLMRKLEKAGLSKATVGLVLPTGYSFNLDCTNIYLAMSLIFLAQAFNVNLSLAHEIS

ILIVLMIASKGAVGVTGSGFIVLGSTLAALGNMEISEANATLAQVLPVAAIGVLLGVDKFMSEMRAVGNL

CGNSVAALIVAIWDKQIDWEKFRYAMDNPEKFHNAGMN

>YP\_002344582.1 PAS domain-containing signal-transduction sensor protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEIVLSENALITSKTDLKGNIIYANNDFLKYAGYKVDELLYKSHNIVRHEDMPRTVFKCLWDYIQKGDE

IFAFVKNKAKDGNFYWVFANVSASFDTNGNIINYYSVRRAPNRKSLSIIEEVYKILLEKEQKSGINAGVS

ALMDIVSSYKMTYNELIFNLQENN

>YP\_002344581.1 bipartate energy taxis response protein CetA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKNGLLLTIFLSVIGVLGVIFIHIFVGAIIFVLIAVLMIYLLRQHKDEQIMIDKLLVLCRELKEGNFDN

RIIYVKTKSKKLAEIADNLNNTIDGLEAYLREINTSISCSQKGEFYRKALPEGLKGIFAHNIEFINKALA

NIEVTARSTFKNALSRTLMDLSLGNQNKDMSQISSSLNQDISMMKNVYDTVDAISHTATENGSEVDSLQS

AMGSLMDVVNSSKETVQTFVANSQNITSVVEVIRDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVRK

LAERTQRSTSEISIAIQTMQQDFVNIQSGSEQVFNIVSESEERINKFSQAFKRLEENSSALGVNFGSFAK

RLILSVVKIDHILYKSNIYLNLNGAQNFNLESVDPISNLCQDERAQGVINELSSETELNLAKEFIKDNAK

KAIEESSQDYIDQKAYDAIVNDIKSLEQRSAEILAKLKI

>YP\_002344580.1 bipartate energy taxis response protein CetB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSREIFLQEDSLITSKTDLKGKIVYANDDFLKYAGYTMGEVLNKPHNIVRHEEMPKTVFKYLWDYMKEGK

EIFAYVKNKTKDNNYYWVFANVTPSIDVNNNIIGYYSVRRMPNKSAISTIESLYSDLLRAEQQQGLNKGV

EMLKNFCKDADKTYNELIFSLQEAK

>YP\_002344579.1 tRNA uridine 5-carboxymethylaminomethyl modification protein GidA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDVIVIGGGHAGVEASAAAARMGKKTLLLTTLIEQIGAASCNPAIGGLAKGHLVKELDAMGGLMGEITD

EAGIQFRILNESKGVAVQGSRAQIDMDKYRIIARNKLLKLPNLEISQEQASVLIVENDEVKGVKTNLENI

YFAKKVILTTGTFLNGLIHVGENKLQAGRVGELASVNLGNYLQTLGLKMGRLKTGTCPRVDAKSIDFSVL

EIQDGDVNPKAFSFRSRNFNPTQLPCYIARTNTTTHEIIKNNFYRAPLFTGQIEGVGPRYCPSIEDKINR

FSDKESHHLFIEPQTIDATEYYINGFSTSLPYEVQTQMLRSVEGFENAKITRFGYAIEYDYIEPTELKHT

LELKKIKNLYCAGQINGTTGYEEAAAQGFMAGINASLSIDMKEPLILRRDEAYIGVLIDDLVVKGTKEPY

RMFTSRAEFRLLLREENAILRLGKYGYDLGLLSEQDFTYIQNIANNLQKGLEFLLSKEFTPNNQNNAFLE

SLGEDKISSIVNLQKIVARASFDIEKLKKLDPIFETMDHYSLREILNEAKYYHYISMQKAQVEKMKNLSE

LKIPENFDFKSVSGLSNEVVEKLNHHKPPTIFAASQISGITPAALDILQIYIKMQKKKA

>YP\_002344578.1 arsenical pump membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLAFFIFLSTLVLLFWRPWNLPIWVFSSLGAFFVFIFQLVDFKDACFVFSLVWDSSLTLVGLIILSFSLE

ALGFFDFIASKILYFSREKNQEKIYISTKKMMLFLLIFVFFLSAFFANDGAILIITPIIIALFSTLKDCK

NHAFILSSFLLSLSFLCDASSNALVISNLTNIITANYFKIEFLEFAKNMFLPNFFVLLSTIVTVFVLYVR

VLPKRLEFKLIKKEQISLKLFFLCIVFLFLFVISFFIGEIFDIKISFFALLWAGIFWLIVLKIQGKKSIK

ILFEAPYGVLLFSFGLYMVVFALHKIGVSEILVKSYAFLMQDKSGIFGVALISAFGSSVFNNLPMVLIGD

LALKEYFENFSFDSLMIYAHLLGVNIGPKLTPIGSLATLLWLGVLARKGINISFWQYCKFGFLITLPVLV

FSLFALIV

>YP\_002344577.1 ubiquinol-cytochrome C reductase iron-sulfur subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MATSESRRSFMGFAFGSVAAVGGVFSLVAMKKTWDPLPSVKAAGFTTVDLSGMQDGELRTIEWRKKPIFI

LKKDASMPKDEKRDVVVDNAAYTVVIGLCTHLGCIPAYQPSEQLFKCACHGGEFDTSGKNVFGPPPKPLE

IPPFKIDGTKLVLGEEGPEYKKMIAEA

>YP\_002344576.1 ubiquinol-cytochrome C reductase cytochrome B subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAQIRKANGLVDWLDQRLAVHKLLDVLMVKYWIPKQINFLWAMGVILTTLFAVLFVTGLLLVMYYKPDTA

LAFDSVNKTIMQEVDYGWLWRHMHGVAASVVFLIIYIHMLTGIYYGSYKKGREMIWVSGMLLFVVFSAEA

FSGYMLPWGQMSYWAAQVITNLFGGIPFIGPELVIWIRGDYAVSDPTLTRFFMLHVCLLPIVIIAIIAFH

FYSLRIPHVNNEISEELDFDLEAEKYMAGDTKGSKVIPFWPGFLSKDFMYISFFMIFFFYLVCFKFEFAM

DPINFDPANALKTPAHIYPEWYFLWSYEVLRGFFFDIAGIKAFDIGLAAFGIAQVIFFLLPWLDRSDVVK

PAHERPLFFIWFWILLIDLIVLTVYGKLPPTGVNAWVGFYASIVFLLLLIVVLPVITIMERKGAKQ

>YP\_002344575.1 ubiquinol-cytochrome C reductase cytochrome C subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MREIKIFLVVVVFTALVYWGVEPYAHSVMKPHVAPANFDFAVEDTTFAKGIVEAKELALKDAQASGDAKR

IESANKELEKAKEELSKVETLWVDVAKIDFAKGDAKKGKEFFENNCFACHGVKEDGIAANITDSSMGVIP

PDLSAAGAIFDEKFLAALIMHPALALKVDHKFGDAFIMTAYNKDTSGESEEATNANIANVIAYLKDVSVK

FEANEDATIKKDVEAKYAKMENSAQKAALMEKDIKFAKDKATFIEACGRCHDMKYDSFFTPSNQNDLKTY

LGSVPPDLSMMIRSRGEQYLHDFINNTQKLLPGTAMPRVGLTEAAQAKVVSYIDQVGDSKKEERKTTGIY

VMIFFVILSIFAIGWKRSVWSKLH

>YP\_002344574.1 cyclopropane-fatty-acyl-phospholipid synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEKTLIKSILKKWDYGDFRVVFWDKEEFFIGNKPAKFSLIFKEKIPFLELFGDTSLVFARHYMQAKLDI

EGDYDEMAKVLYYFSNQQFFKTKKDVLSKITQKQESKNIKSHYDIGNDFYKLWLDDTMSYSCAYFKEPNN

TLYEAQINKIEHTLKKLDLKEGEKLLDIGCGWGWLSIMAAQKYGVKVVGITISEEQCKKAKERVKELGLE

DKIEIRLQNYQDLEFENYFDKVVSVGMFEHVGKENLGLYFMKVKQVLKPGGSMLLHSILAMFEGKTNAWI

DKYIFPGGYLPSLREVVSAMSEWDFHLLLAESLRMHYAKTLDLWDENFNKVLDKVREKYDEEFIRMWDLY

LRSCASAFRVGSVDLFQFLITKEINNNLSLTKDYIYK

>YP\_002344573.1 30S ribosomal protein S2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVSMRDLLECGVHFGHQTRRWNPKMKKFIFGERKGIYVIDLQKTLRYFRYTYNIVRDAAAEGKTILFVGT

KKQAGGAIKEYAEKCGMPYVNHRWLGGMMTNFGTIRQSIRKLEVIEKMEEDGSIKLLTKKEALMLTRKKE

KLLAYLGGIRYMKTQPDMIFVIDTVKEKIAVQEANRLRIPVVAPLDTNCDPDLVTYPIPGNDDAIRSVQL

FCQEMAEAINEGKALREQDGEALVNEEKEITDEEKKEVLDEAMSEEDFGEEQE

>YP\_002344572.1 elongation factor Ts [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTEITAAMVKELRESTGAGMMDCKNALSETNGDFDKAVQLLREKGLGKAAKKADRLAAEGLVSVKVSDDF

TSATVSEINSETDFVAKNDQFIALTKDTTAHIQSNSLQSVEELHSSTINGVKFEEYLKSQIATIGENLVV

RRFATLKAGANGVVNGYIHTNGRVGVVIAAACDSAEVASKSRDLLRQICMHIAAMRPSYLSYEDLDMTFV

ENEYKALVAELEKENEERRRLKDPNKPEHKIPQFASRKQLSDAILKEAEEKIKEELKAQGKPEKIWDNII

PGKMNSFIADNSQLDSKLTLMGQFYVMDDKKTVEQVIAEKEKEFGGKIKIVEFICFEVGEGLEKKTEDFA

AEVAAQL

>YP\_002344571.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MELLRAENLSHSFDYPLFEGLNLTLNTKDCIAIQGSSGCGKSTLLHILSSLLIPKKGEVFFKGSNLYQMD

ENERLKIRRYDFGIIFQTHYLFKGFSALENIELASVLSGQDLDEKILKRLGINTLLHQKIGKLSGGQQQR

VSIARVLCKKPKIIFADEATGNLDFDNAKNVIELLISYVKENDAALFFVTHDSKLASFCDKTYTINANGI

C

>YP\_002344570.1 flagellar biosynthesis protein FliR [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFVNYLGDKNVVTFMLLLARMGGLIVFFPFFSHNSIPMVIKSTIVLFLTMYLYPLARLESLHLDSFFVL

QLISEVIFGMIAGLMLQIIFAIIMMAGEQIAFTMGFTMASILDPSSGTSMPITSQILNLLALMFFLAFDG

HHLMLLFLSHSLGYISLGGFYPHENLMHYLNMGMFNIFIIGFTMSFPILGISLLADVIFGLLMKTMPQFN

LLVIGYPIKIALGFVVLIAILLVMMQYFKNLILELFTHMQTLFFF

>YP\_002344569.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILLLNENPVVSRLVSLSAKKMSYDFEELNAYSENLGNYDVIVVDSDTPAPLKILKEKCDRLIFLAPRN

QNVEDIDAQILQKPFLPTDFLNLLNNKDANKHTSIDLPMLSNDENPYADISLDLDNLNLDDLPDENSLDI

NSEGMEDLSFDDDAQDDNANKTLETQNLEHETIKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEP

SLDELDDKNDEDLEIKEDDKNEEIEKQELLDDSKTNTLEMQEELSESQDDNSNKTLETQNLEHDNLEQET

IKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEPSLDELDDKNDEDLEDNKELQANISDFDDLPEV

EEQEKEMDFDDLPEDAEFLGQAKYNEESEENLEEFAPVVEEDIQDEIDDFASNLSTQDQIKEELAQLDEL

DYGIDSDNSSKVLEDFKDEPILDDKELGTNEEEVVVPNLNISDFDTLKESDIQEALGEEILEKNEEPIVS

DVTKDDNSEEIVNELSQSIAGAITSSIKDDTLKAALKGMNMNININISFKED

>YP\_002344568.1 guanylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLQGFVLLISGPSGAGKSTLLKKLFDEFEDELYFSISSTTRKPREGEKNGIHYHFISHEEFQKGIDSDH

FLEWARVHENFYGTSLKHTQNALDNGKIVVFDIDVQGFKIARKKMADKIVSVFITTKNKDELKKRLIKRN

TDTIIQLEKRLQNASDEMKELSEYDYLIINDELKQSYEALRAILIAHKFRTKGQNLGQIQNIWNEGE

>YP\_002344567.1 Sec-independent protein translocase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGGWSSPSHWLIILLIVVLLFGAKKIPELAKGLGKGIKTFKDEMNNDDEVAKNTQKIEENKNTTNNTNAD

ASIDETKKA

>YP\_002344566.1 arginine--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSIIFNEIKKILECDFALENPKDKNLAHFATPLAFSLAKELKKSPMLIASDLASKFQNHDCFESVEAVN

GYLNFRISKTFLNELANQALTNPNDFTKGEKKQESFLLEYVSANPTGPLHIGHARGAVFGDTLTRLARHL

GYKFNTEYYVNDAGNQIYLLGLSILLSVKESILHENVEYPEQYYKGEYIVDLAKEAFEKFGKEFFSEENI

PSLADWAKDKMLVLIKQNLEQAKIKIDSYVSERSYYDALNATLESLKEHKGIYEQEGKIWLASSQKGDEK

DRVIIREDGRGTYLAADIVYHKDKMSRGYGKCINIWGADHHGYIPRMKAAMEFLGFDSNNLEIILAQMVS

LLKDGEPYKMSKRAGNFILMSDVVDEIGSDALRYIFLSKKCDTHLEFDISDLQKEDSSNPVYYINYAHAR

IHQVFAKAGKKIDDVMKADLQSLNQDGVNLLFEALNLKAVLNDAFEARALQKIPDYLKNLAANFHKFYNE

NKVVGSANENDLLKLFSLVALSIKTAFSLMGIEAKNKMEH

>YP\_002344565.1 multidrug resistance protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYIFIIVLSALLDIVANLLLKKSDGFKHKIWGLAAIVNAILAFFLLSFSLKYVPLSIAYSTWGAIGIIGT

CLGGWILYKEKLNKIGILGIIIVIIAVFLLNY

>YP\_002344564.1 multidrug resistance protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNIAKKELFVAWFFLIAAIVFEVLGTSFLKMENQILGYIFMALFIAFSYFFMGKAIKKIQVGIAYAVWEL

LGIILILLVSFIVFKESLTLTQILGIVLSIVGIIMINIGEVKE

>YP\_002344563.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGRAFEYRRASKEARWDKMSKLFPKLAKAIQVAAKEGGTDPDMNPKLRSAIATAKANNMPKDNIDAAIKR

ASGKDSADIKNIHYEGKAAHGALVIVECMSDNPTRTVANVKAIFSKNGGEVLQNGSLGFMFTRKAVFHLE

KFAGDLEELELDLIDAGLEELEQNEEELVISGDYTAFGELSSAIEAKGLVLKKAGLEYIPNNPVSFSEEQ

LSDIEKLLDKLEDDDDVQAVYTNID

>YP\_002344562.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKTIDTSKVNEYKFALIETEKGTMKLKLFGDEAPQTVCNFATLANEGFYKDLNFHRVIPNFVIQGGCPH

GNGIGGPGYEIICECDDQEHKHERGTLSMAHAGRDTGGSQFFICHSPQAHLDGVHTVFGQIDPKDEESLE

VLDSIRQGDKILDIKICDKI

>YP\_002344561.1 outer membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTRFSLILSACLLSSSLFAKNTDDEITKLQKQLAQIQAELAQIRKEREAQVKQNEAVKAELADLNDRAD

ETEFQAALSKVKFGLEFSTAVSNTNYKVSGQDYSANNKWMNELHLNMNADINDKTKFYGRLSMAKNWSQM

GWSGTPYDLDAGRNTRSSGPVLYVDRAYLDYYITPEWIATVGRQPGTDGPGSNLRNNALRQSTYPALAIN

ALGDAAVITYKPESLQDHKVAIRAAYGKTYQWDEESGKVRDWMSDQKDADANLYYAAVEGELPIEGMGDN

LIIFNVAHMTDFALPIPGSMLLGDDDEVVNLGNLTLANIHFENYKAFGTNFNWFASLGYSNGSNNEINPL

LSTALQSKGYGNGKFNEKDGYAVHVGGRYDFTKALKVGYEFFWGSRYWYTMSRPSINDPLNIRMTRGTAH

DFYVIYQLDRYQFLRLSYTNIQNIWGNRGLPFGGAKKDKARADNIMLMYNVKF

>YP\_002344560.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKILFASLLPIIALADCASLMAKYEAPEPESKTMKQVERWINKKVSDPADAAVLKECMIARAADNPNQV

SVAGK

>YP\_002344559.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEIISFIVETASAWGYLGIIILMTLESCFIPFPSEVVMIPAGYLAHKGELDITLCILSGTLGSVLGALI

NYYICFFWGKNFVLKWGKYFGINEAKFAKFEEFFNKHGEFSTFTCRLLPGIRQYISMPAGLVKMKLINFI

LFTALGSAIWVAILVFLGYYIGQNEELIKTYLTQILIIIIVFVILASLIYIKIKKPFKKA

>YP\_002344558.1 L-lactate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKIGIVGLGYVGAASAYSIVIQGICSELYLYDIKQDLALAHARDLEDMSAIHFSYTKIFHVPNLENLAS

CDIIILAFRKESLKELPSRLVELKNNILELKDIVLTLKNANFKGKYIVATNPNDTITYYTQVLSQLPKNH

VFGSGTNLDSSRLKKLLAKDLNINSKDIFACMIGEHGDSQFAALSNASVLGQNLLDFYKQKLGKDLDIQE

LEKAVISEGYFIYERKGRTEFGIGTSCANLAKAILEDRKSLYPVSVVFDDIAFSMPAIIGKDGIEKVFEL

KFNEKEKIKLENSKQQIKNAIQSVKDKI

>YP\_002344557.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKPDIQRLTNFLIIYTKTLLGAGTYTARVAKCVGRIAEVYGYEININFFFHHITLNVVDMDDNSIQRTY

VIPNHHAHVNFKLIFDLSALSWAIYDHKYDLEKAKVVFGQISQQKKHSYLLNLLFVSMANSAFCRLFGGD

FGAGNLVFFATFVGLLLRYILTKAKIDLRIQYILCSFISSWFVFFGLDMGYTNTSDVALGSSILYLIPGV

FFINSVIDILKDHILMGLSRIISVAILICCIALGIYMTLSISDFGILR

>YP\_002344556.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIEFILRDMFFAAVAGFGFAYACNPPLKTLILSALLAAIAHGLRFTLVEYFHFQTLAIATFVASFCIGCL

GIVLAKIIKTPAEIIAFPALIPMIPGIYAYKAILYLISFIRSDDLKAKSEFLVQFFDYFFTTVSVTLALA

IGVSVTLLIFFEQSFMMTRHAKKH

>YP\_002344555.1 hypothetical protein Cj1164c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLCPVCNVDLVMSDRSGVEIDYCPKCRGVWLDRGELDKIIERSVPNTANFNQAPRQESRYNDSAYHQHND

YYKKKKKESWLGELFDF

>YP\_002344554.1 cation transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYKFLSHEPLANKSCHHNHEEHSHEHHHSHADARSVDKKILKISLLMTFSMMLVQFIYSILSNSLALLSD

TLHMFSDVFALALSFLAIIAVEKWQDHQKTFGYFRLEVLVAFINALTIILSALFIIYEAIEKFINPKEID

AKTMIIVAILGFLVNGINALMMFKGANLENVNMKSAFLHMMSDLLGSLAVIIGGIVVYFSDIVYIDTILA

IVLSILLLRWAIILLKQSANVLLESSPVDIEKVRQVLLLNPSVDEVVDLHITQITNKMLVASMHLKVRVC

NLKEFEKLSQDLSHKLLHEFEIGHITIQPIRSENEI

>YP\_002344553.1 heavy-metal-associated domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFKVKNVNCMNCVNLIKNSLEDEFGNIEVDLEQKILSLNLEENQVSNFTKEFQDLGFEIVERL

>YP\_002344552.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEELRIKIGKMTCVNCSNAIERACKKIDGVKDASVSYVNSSGVFLLEDQKKRKDIIAKIKNLGFEILEDE

QSLNAYKAKKHLELRKNLLLSIVLSVIIMYFEMFVKSSFSQNIQMALSFFGIFYCGRDFFSHAFLGFKSK

NLDMNTLVALGTLSAFVYSFLVYLQIFKEEDLYFSGAMMIISFVLLGKYLESKAKFKAQDYQRILENIDT

KKTKILLEDESIKEISSSFVKSGDVLLVKEGESIVADGVVLLGSAELDMSFLNGEFLPVLKKEGDEVQAG

AVVLNGALRIKANKKAMDSTLEQIKNLVFEAGSIKSPLANLADQISKYFVGGIIFFAFLVFVFWVLKADL

NTAFLHSCAVLLISCPCALGLATPIALVVASANAAKNFILIKNPAALEKLALVKYAFFDKTGTLTKENLS

IFKHNLSKDDFDKLCQIESLSSHPIAKALHKDHFFDLKGEGRVIVGSGIKYKEDNDNYLVGNAQFLHENE

IDTKESDIFFDTFKEYVRVYFAKNKKCLGGVLLSNALKDGAKELVLNLKKQNLKTFILSGDHVKNVEKIA

KELQIDEFHAQLKSEEKLQIIQKFKKTLFVGDGINDAAALSAASVSMSFSKANELAKKTGDFILIKDDLS

AIFKCFKLAKKTRGIIKLNLFWAFIYNVLCIPIAAGFIPFISLSPHIAALAMCFSSITVVLNSLRLKRI

>YP\_002344551.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQQKCFCISKMIRFSKIIILLTVVSLAGIVVFGNVTDYNSNFQFVSHVMSMDTKPDLFR

>YP\_002344550.1 hypothetical protein Cj1159c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAITSPVIYHIGYIAIILFETFIALTALKKVLMICLKLEI

>YP\_002344549.1 hypothetical protein Cj1158c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKARNLDAQSFHNAKIFWDYFFNLCILWFFAFQVVVAEWFGMWMSKVWKGLPDTIRLVTYMFLALIFIS

LKNDD

>YP\_002344548.1 DNA polymerase III subunits gamma and tau [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLQALAIKYRPKTFDELIGQKTVSVSLKYALNHNRLAHAYLFSGLRGSGKTSSARIFSRALVCEQGPSDT

PCGTCKHCLAALEGKHIDIIEMDAASNRGLEDIQALIEQTKYTPSMARFKIFIIDEVHMLTPQAANALLK

TLEEPPSYVKFILATTDPLKLPATVLSRTQHFRFKQIPQSEILNHLKEILLKENVKFEEEALKFIARSGN

GSLRDTLTLLDQAIIFCQNEISISKITDMLGFLDPQKIKAFYQAILTKDKEKVFVYLEELQDYEASSVID

EMLFYLKESFFAKSTEFSTLIYERFFRILSKAKNMLCDDDGFTLCVMAFMMMEASHLKEIDAQIQEIKQE

NTTNIISRITPSPIIPHLEKKTEKNAYEILLDSIYDRDFDLAECFKQSTNFISFENNTLNINSNAQGQNR

DTLNKGFKLIQELFKAKFGENAKINVQKALTIDENKLQSLTQELPNNENKNIDIQSSINMLKEGAKKFDP

QEDLKEALKDCFGEPSIEN

>YP\_002344547.1 transcription termination factor Rho [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKEKKQHQRTHVPVEGYKIEELKLLDLENLVKIANECEIENPREFRRQELIFEILKAQTKKGGFILFTG

ILEISSEGYGFLRGMDSNLSDSVNDAYVSNSQIKKFALRVGDIVTGQVREPKDQEKYYALLKIEAINYLP

LQEAKERPLFDNLTPIFPTEKIKLEYDAMKLTGRVLDLFTPIGKGQRGLIVAPPRTGKTELMKELATAIA

KNHPEMHLIVLLVDERPEEVTDMQRCVKGEVFSSTFDLPAYNHVRVAELVIEKAKRMVETGKDVIILLDS

ITRLARAYNTATPSSGKVLSGGVDANALHKPKRFFGAARNIENGGSLTIVATALIDTGSRMDDVIFEEFK

GTGNSEIVLDRNIADRRIYPAINIIKSGTRKEELLQGVANLQKIWAIRSAISQMDDVEALKFLYSKMLKT

KDNVELLSIMNE

>YP\_002344546.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIMKCEHCKLDYKQAQMIEYKGKFFCCKGCESVWEILHESGLDEFYEKLGNQTLSPVNFQNEMKNYDEFI

TKTKEGFSEIYLMIHGIECAACVWLNEKILTKQEGILELDINHLNHKARIVFDEQSISLVQILRLIESIG

YKASAYDASKASKKADLLKREFYSKLVVAIACVMNIMWIAVAKYAGFFSGMDKDTKDILNFAEFILCSPV

LFYTGSHFYKSAFKTLKMHSLNMDVLVISGASLAYVYSLWAMFFRVGEVYFDSVAMIICFVFIGKYLEMF

SKKRALDTIDGLNDFLQNEVLVFNGKEFVSKEVQKVCLGDRILLKTGDKILIDGICKSGEMSVDTSSLNG

ENTPKLIQKEDEIFSACIVLDGSVEYEATKFYKDSKLSQIIQLLELASSKKAKLESLVNSLLAYFSRTVL

LIAFICFAFWFFYKEESFEISLVNAIAVLIIACPCALALATPVSNLVALGRALKKHILFKSSSVIEDLSK

CDCVVFDKTGILTKIELELKEVFLDKALDLNELYNFVKLSKHPISQNIVLYLKQKGAKDLNLDFKKHSSI

QAKGLSAELNEGLLLGGSSKFLQEKGIVAKEFDNTHFIFAKEGKILAFFEFDSVLREGAKELIAYLKKEK

KELMILSGDHQKAVEKIAKKLEIQNYQASCLPEDKMKTIENLSKNYKVLFVGDGVNDALALKYASVSMTL

REGSDLAIESSDVLLLKNDLLSLKKAIKLSKNTFKIIKQNLAFSLFYNACTIPLAFLGMINPLFAAISMS

FSSIIVVLNALRIKE

>YP\_002344545.1 cbb3-type cytochrome oxidase maturation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNSIIMMMIGVSILAFFIILATLLWGIKNKQFDDDYKFTTLNDDEDSLRDAIELERRKKEALDKKRLS

>YP\_002344544.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLLVVSALACLGVSAFAADGATLFKKCAVCHGANADKVYLNKVPALKTLSSAERLQYMKEYSEGKRNA

YGQGAIMKLNLKGLTEEDFKAIEAHIETLK

>YP\_002344543.1 D-glycero-alpha-D-manno-heptose-1,7-bisphosphate 7-phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFIFFLKKLYYNVFMKTKALFLDRDGVINIDKKYVYKIEDFEFCDGIFELCRYFLARNYLLFIATNQSGI

ARGYYKESDFFKLCDYMLKEFAKQDIKIDKIYHCPHLEGCECRKPKAGMLLKAKDEFDLDMKNSIFIGDN

LSDMQAGLNADIGTLILVNEEKKEGDFFRQFKNLKEILNFFKEKDI

>YP\_002344542.1 ADP-glyceromanno-heptose 6-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIAITGGAGFIGSQLALNLQEKHEILIIDKMRSSATFENGNLQSFGHFKNLLEFDGELFAGDINDEKVL

KKIEDFKPEIIFHQAAISDTTVFDQTKVLQTNLNTFKDFIELSIDLNAKLIYASSASVYGDAKSPQTVGK

DEEPKNPYAFSKLMMDKLAKKYYDKAHLVGLRYFNVYGKGEFYKNKTASMVLQFGHQILAGKNPRLFEGS

DQIYRDFTYIKDVISANLIALDSKCGVYNVGSGKARTFQDIVDILQKELKTDLPCEYIPNPYVKSYQFHT

EAKLDQTWNYQPKFSLEEGIKDYLGEIKRLFEKEVNA

>YP\_002344541.1 bifunctional D-beta-D-heptose 7-phosphate kinase/D-beta-D-heptose 1-phosphate adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEFLSQQKPKILIIGDFMVDNYTWCDCSRISPEAPVLIAKTLKEDKRLGGAANVYANLKSLGADVFALG

VVGDDESGKFLQENLKGEFLIQKGRKTPFKNRIMAHNQQVLRLDEEDISEILLENELIALFDEKIKDFKA

VVLSDYAKGVLTPKVCKAVIEKAKVLNIPVLVDPKGSDFNKYSGATLLTPNKKEALEALKFENLEGENLE

KGIKKLKEDFSLRYSIITLSEAGIALFDEGLKIAPAKALEVYDVTGAGDSVIAVLAFCLANEIEIFKACE

LANEAAAVVVSKIGSVSVSFDEIKSFKRVDFEKKIKSKEELLVLLKQNNKKIVFTNGCFDIVHFGHIKYL

DKAKRLGDVLIVGLNSDASVKRLKGESRPVNSEFQRACMLAAFYFVDFVVIFDEDTPLELISFLKPDILV

KGADYKDKLVVGADIVSRVELIDFEEGFSTSKIIEKIKDKK

>YP\_002344540.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINLVEKEWQEHQKIVQASEILKGQIAKVGELLCECLKKGGKILICGNGGSAADAQHFAAELSGRYKKER

KALAGIALTTDTSALSAIGNDYGFEFVFSRQVEALGNEKDVLIGISTSGKSPNVLEALKKAKELNMLCLG

LSGKGGGMMNKLCDHNLVVPSDDTARIQEMHILIIHTLCQIIDESF

>YP\_002344539.1 heptosyltransferase II [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIFIHLPTWLGDTVMASPALYTIKEHFKDAQFILYGSFVSTALFKEFPNSKIIIENKLSRYKQALSLRK

ELGKIDLSFAFRSAFSSKIILHILKTKQRYFFDKNKYKEEHQVLKYLYFIENSLSIKAHFKDLKLPFKLK

FQNPLILRNGKKILGLNPGASFGSAKRWDASYFAKVALNFSQSHDILIFGAGKAEQELCNEIYQILKEQN

IKVKNLCNKTTIKTLCQNIAFCDLFITNDSGPMHLSAVYKVKTVAIFGPTKFTQTSPWQNENAKLVHLDL

ACMPCMQKTCPLKHHKCMKDLKPEKVIEQAKNLLKNSHL

>YP\_002344538.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPQLSIIIPLFNSCNFISRALQSCINQTLKDIEILIIDDKSKDNSLNMVLEFAKKDPRIKIFQNEENLGT

FASRNLGVLHSSSDFIMFLDSDDFLTLDACKIALKEMKKGFDLLCFDAFVHRVKTKQFYRFKQDEFFNQK

EFLEFLSKQRHFCWSVWAKCFRKDIILKSFEKIKIDERLSYGEDVLFCYVYFMFCEKIAVFKTCIYHYEF

NPNGRYENKNKEILWQNYQDKKKSNELVKKLCLNFKNNDFHKKLFEVLEKEEFDLQRRVDEARN

>YP\_002344537.1 hypothetical protein Cj1145c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQEISSFWYTPRGYKGIGLMELLSIKSFIDNGYKFILYTYNLDDKIFKKLDELFDDFELKDANEIVSFK

NYFRDDRGSGVAAFSDYFRYNLLYLKKKGGVWVDLDMICLNYIDLNEEYIFTQEVDEDNKKSRITTSFLK

FSRYSDFGKNLIQEAEKIINKRKKISWGVIGPWFLADHVKKCGLENFVWDYKRTCQIPWCNVKIFLDNTS

IDISQPFLHLFSEMWRLNNMEKNTFHQMGVYGQLLKKHEIEKLYNQINTCLKTSMLDNIASFLTKFFIKK

L

>YP\_002344536.1 bifunctional beta-1,4-N-acetylgalactosaminyltransferase/CMP-Neu5Ac synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLFYKIIAFLRLLKIDKKLKFDNEYFLNLNKKIYDEKHKGFFDFDPNSKDTKSPLNPWAFIRVKNEATT

LRVSLESMLPAIQRGVIGYNDCTDGSEEIILEFCKQYPSFIPVKYPHEVQIENPQSEENKLHSYYNYVAS

FIPQDEWLIKIDVDHYYDAKKLYKSFYMASKNTAVRFPRINFLILDKIVIQNIGECGFIDGGDQLLIQKC

NSVFIERMVSKQSQWIDPEKTVKELYSEQQIIPKHIKILQAELLQWHFPALKYHRNDYQKHLDALTLEDF

KKIHYRHRKIKKINYTMLDEKVIREILDKFKLSGKKMTLAIIPARAGSKGIKNKNLALLHDRPLLYYTIN

AAKNSKYVDKIVLSSDGDDILEYGQTQGVDVLKRPKELALDDTTSDKVVLHTLSFYKDYENIVLLQPTSP

LRTNVHIDEAFLKFKNENSNALISVVECDNKILKAFIDDNGNLKGICDNKYPFMPRQKLPKTYMSNGAIY

IVKSNLFLNNPTFLQEKTSCYIMDEKASLDIDTTEDLKRVNNISFL

>YP\_002344535.1 UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIVFVSGTRADFSKIKSLMMKVENSNEFELFIFVTGMHMSKKFGSTYMEIEKCGFKNIYKYINHDKYY

QMDKALSSTIDGFSKFIHEIEPDLIVVHGDRVEPLAAAIVGSLNNILVAHIEGGELSGTIDESLRHAISK

LAHIHLVNDEIAKKRLIQMGEDEKSIFIIGSPDLELLNNTISLDEAKKYYDIKFKNYAIAIFHPITTEIN

SLYKQSEEFVNALIKSEKNYIVIYPNNDLGFELILQNYERLKNNERFKIFPSLRFEYFISLLKNANFIIG

NSSCIIKEALYLNINGILVGSRQDGRTDINKTIRVNAEEKDILEAILNTSKCTNITNKRLEILNSSEQFY

RLLKNNILFTINKQKIFMDKK

>YP\_002344534.1 sialic acid synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIKIDKLTISQKNPLIIPEIGINHNGSLEIAKLMVDAAKRAGAKIIKHQTHIVEDEMSQEAKNVIPGNA

NISIYEIMEQCALNYKDELALKEYVEKQGLVYLSTPFSRAAANRLEDMGVSAYKIGSGECNNYPLIKHIA

QFKKPMIISTGMNSIESIKPTVKILRDYEIPFVLLHTTNLYPTPSHLVRLQAMLELYKEFNCLYGLSDHT

TNNLACIGAIALGASVLERHFTDTMDRKGPDIVCSMDESTLKDLINQTQEMVLLRGDNNKNPLKEEQVTI

DFAFASVVSIKDIKKGEILSMDNIWVKRPSKGGISAKDFEAILGKRAKKDIKNNIQLTWDDFE

>YP\_002344533.1 alpha-2,3 sialyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSMNINALVCGNGPSLKNIDYKRLPKQFDVFRCNQFYFEDRYFVGKDVKYVFFNPFVFFEQYYTSKKLIQ

NEEYNIENIVCSTINLEYIDGFQFVDNFELYFSDAFLGHEIIKKLKDFFAYIKYNEIYNRQRITSGVYMC

ATAVALGYKSIYISGIDFYQDTNNLYAFDNNKKNLLNKCTGFKNQKFKFINHSMACDLQALDYLMKRYDV

NIYSLNSDEYFKLAPDIGSDFVLSKKPKKYINDILIPDKYAQERYYGKKSRLKENLHYKLIKDLIRLPSD

IKHYLKEKYANKNR

>YP\_002344532.1 beta-1,3 galactosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQISIILPTYNVEKYIARALESCINQTFKDIEIIVVDDCGNDKSIDIAKEYASKDDRIKIIHNEENLKL

LRARYEGAKVATSPYIMFLDSDDYLELNACEECIKILDMGGGGKIDLLCFEAFITNAKKSIKKLNIKQGK

YNNKEFTMQILKTKNPFWTMWAKIIKKDIYLKAFNMLNLKKEIKINMAEDALLYYPLTILSNEIFYLTQP

LYTQHVNSNSITNNINSLEANIQEHKIVLNVLKSIKNKKTPLYFLIIYLLKIQLLKYEQNFNKRNINLIY

YKINILYQKYQFKWKKFLYNLIP

>YP\_002344531.1 glycosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYKLKNKTQTIKENSLIEFNIEGNNPYEIYTVYKSYKAFNNEQDLTNFTYPIIDYII

FLDSDDYWELNCIEECVPRMDGVDVVWFDSIEYHDIEKSYFKHHSRLKDINIKKECRINPIEWLKLLRQN

KIKDFAFAWSGIIDFDYIKDKKMKFKDAIFAEDHLFGILLFSQAKNIYVYPKVFYYYRIRANSLTNQDKK

ITKDNILPYFKDIFIAFEENATLAKEYFKYVSWVETSLELVRFVENYHDKKISSLLKDTILYFYIKNAFK

IKKFDKDPLCIKEKLQLLKPYKISKIRYKVMKFLISLRN

>YP\_002344530.1 glycosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIQQNNSLIYNTLTKKLSSFIPIKSTRRKLRNHIQYKLEHPKVTNYLSNNYINPFLEGKIPHFDFEKKH

YFKNDKIIWQFWYQGKNQASPMIQQCFNSVQSQMKDDYTIIILDKDNIKDYLDFPPFVIEKLENNFFGEK

TITFFSDLLRVCLLATYGGIWCDASIFLSSKIPSELCDKDFFTFERSKIKPSKEKLKKFIKSGYFSYGYF

NWNDDFKVKMLSSFMIAKTNNTFIQTLKDILMNYWKNEQSSENHYYFILHIIFELLKEHGFVNDIYKNMS

DIECHLLQFSAKEKFNSTLWEEIQKQSFLHKLTHFKSIKKDSMIDKIILQS

>YP\_002344529.1 glycosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYETQYIEKENELNVFKIIGDNPQNIYKIYKYKNALASDKLEISKIDYIIFLDSDNY

WELNCIEECVVRMQNVDVLWFDHACIYDDGIEDKGQKTRMNVFNFTQECTITPRDYAKQAIKVGSRDISF

SWGGMIDFSFLKQLKLKFINKIINEDIHFGMVLFASADSIYILPKRLYLCRLRANSISNHDKKVTKANVS

EYFKDLYEFFGENAKEAKNYLKAASRMITALELIEFFKDQKNENSQAIKEAFLPFYVKKALMIKKFKKDP

LNLKEKLPIIKPFIQTKIPYDLWKIWQKIKGILDKINFAK

>YP\_002344528.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLKQISAIIIVKNAKQTLLECLNSLKDFDEIILLNNESSDNTLNIANEFKKDFANLHIYHSAFIGFGAL

KNLALSYAKNDWILSIDADEVLENECIKELKNLELQEDNIIALSRKNLYKGEWIKACGWWPDYVWRIFNK

NFTRFNDNLVHESLVLPSNAKKIYLKNGLRHYAFRDISHLIDKMQYYSSLWAKQNIHKKSGVLKANLRAF

WTFFRNYFLKNGFLYGYKGFIISVCNALGTFFKYMKLYELQKQKPKTCALIITTYNQKERLKLVLDSVKN

LAFLPNEVLIADDGSKEDTARLIEEYQKDFPCPLKHIWQEDEGFRAAKSRNNAIKASKSEYIILIDGDMI

LEKDFVKNHLEFAKRKVILQGSRVILNKNESEEILKNNNYSLAFNKKGFKNQRSIFLAKCVYKFSKLTKK

FFKKSQLVKGSKTCNMSFYKSDFEAIEGFNEKFIGWGREDSEFVARFLFNDGVFKRLKFNALAYHIYHEE

NSKNMLEINHQIYLETIKNEKTTWR

>YP\_002344527.1 lipid A biosynthesis lauroyl acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNSDRIYLSLYYILKFFVTFMPECILHFLALIVARIAFYLNKKHRKIINTNLQICFPQYTQKERDKLSL

KIYENFAQFGIDCLQNQNTTKEKILNKVNFINENFLIDALALNRPIIFTTAHYGNWEILSLAYAAKYGAI

SIVGKKLKSEIMYEILSQSRTQFDIELIDKKGGIRQMLSALKKGRTLGILTDQDCVENESVRLKFFNKEV

NYQMGASLIAQRSNALIIPVYAYKEDGKFCIEFFKVKDSQNASLEELTLYQAQSCEEMIKKRPWEYFFFH

RRFASYNKEIYKDAK

>YP\_002344526.1 heptosyltransferase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIAIVRLSALGDIIQSAVVLQFIKNFKKDIEIHWFVDEKFEGILKNHPLINKLYALPLKDKKILKSLKI

LLKARKNNYNAVIDLQGLIKSAIVSRILSRNNFGFDKNSLKESFAHNFYNQKLELDYNENVFVRYLSLTS

FMLNTDFNVKNLAFKQDIFSVDENLKQLLNNKLKLDKNEKNILIHVGSSVENKIYPKTKLAILCKLLINE

FQQTKIWLAWGNVKEYEFAKEVLNLSGIDETHIELAPKFNLEELMAFTKMMNLIIGNDSGPTHLAFALNK

ASITIFGATPSYRNAFQTHINKIIDAGKKIQNAKHIDKSDFCITRIEEEDIFKLAKGLLNEK

>YP\_002344525.1 hypothetical protein Cj1132c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKNEGYICVFDCESVPDVELIRKTLGFEGSDLEVSLKALQWQKEQSGSEFLPLPYHKIISICAVLSDNF

GKFIKVNKIDGQNEKEMIENFFNFIENYEPKLVSFNGKNFDMPVLVLRALKYNLKAATYLDTQSDKWNNY

KTRFSELKHCDLLESLGSNGRGIKLDTLCSMVGLPGKYDVHGDEVMKLFYENKLEKIHEYCESDVLNTYM

LFLKYELIKANVDEEDYVGFLSYMRDFLCAKKSDRSYTEVFAKACESEISKVRS

>YP\_002344524.1 UDP-GlcNAc/Glc 4-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILISGGAGYIGSHTLRQFLKTDHEICVLDNLSKGSKIAIEDLQKTRAFKFFEQDLSDFQGVKALFERE

KFDAIVHFAASIEVFESMQNPLKYYMNNTVNTTNLIETCLQTGVNKFIFSSTAATYGEPQTPVVSETSPL

APINPYGRSKLMSEEVLRDASMANPEFKHCILRYFNVAGACMDYTLGQRYPKATLLIKVAAECAAGKRDK

LFIFGDDYDTKDGTCIRDFIHVDDISSAHLAALDYLKENESNVFNVGYGHGFSVKEVIEAMKKVSGVDFK

VELAPRRAGDPSVLISDASKIRNLTSWQPKYDDLELICKSAFDWEKQC

>YP\_002344523.1 protein glycosylation K [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>YP\_002344522.1 GalNAc-alpha-(1-\_4)-GalNAc-alpha-(1-\_3)-diNAcBac-PP-undecaprenol alpha-1,4-N-acetyl-D-galactosaminyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKISFIIATLNSGGAERALVTLANALCKEHEVSIIKFHAGESFYKLENEVKVTSLEQFRFDTLYHKIAS

RFKKFFALRKALKESKSDVFISFLDTTNIACIAAKIGLKTPLIISEHSNEAYLKPKIWRFLRRVSYPFCD

ALSVLGSSDKVYYERFVKRVKLLLNPCHFSDEISFDSSFEKENLVLFIGRLDHNKNPVMFLKAIAHLDKN

LQENYKFVIAGDGQLRQELEYKVKSLGIKVDFLGRVENVKALYEKAKVLCLCSFVEGLPTVLIESLYFEV

CRISSSYYNGAKDLIKDNHDGLLVGCDDEIALAKKLELVLNDENFRKELVNNAKQRCKDFEISHIKEEWL

KLIAEVKNA

>YP\_002344521.1 GalNAc(5)-diNAcBac-PP-undecaprenol beta-1,3-glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPKLSVIVPTFNRQVLLEKAIKSIQNQDFKDLEIIVSDDNSSDDTKSVVQNLQKDDDRIKYFLNQNYKQG

PNGNKNNGLDQASGEFVTFLDDDDELLSGALSTLMQKANEGYAHVFGNCLIEKEGNLSKEFSGKGLEKDS

EISKKDFLMAKFSGEFFSVFKKSLLENKRFNEEFYGNEATLWVNLYKEKSFYIHKAFRIYRIFRQDSVTL

GASKNAYRVYLGYLELAKILENELRMSKDKDYKKTCASYYKMAAYYAKLAKNYKALYKCLFKSLSIKINA

PALILLILSIIPNNMIEKLSKIRVALCKN

>YP\_002344520.1 N-acetylgalactosamine-N,N'-diacetylbacillosaminyl-diphospho-undecaprenol 4-alpha-N-acetylgalactosaminyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKLGIFIYSLGSGGAERVVATLLPILSLKFEVHLILMNDKISYEIPECQIHFLECSKPSENPILKFLKL

PFLALKYKKLCRNLGIDTEFVFLNRPNYIALMARMFGNKTRLVINECTTPSVMYMKNNFNSLVNKFLISL

LYPKADLILPNSKGNLEDLVQNFSISPKKCEILYNAIDLENIGQKALEDIALKDKFILSVGRLDKGKNHA

LLIRAYARLKTDLKLVILGEGVLKDELLALIKELNLEEKVLLLGFDNNPYKYMAKCEFFAFASVFEGFSN

VLIESLACSCAVVCTDHKSGARELFGDDEFGLLVEVDNENSMFQGLKTMLEDDKLRKAYKNKAKTRAKAF

DKVKIARDALKYLLG

>YP\_002344519.1 undecaprenyl-diphosphooligosaccharide--protein glycotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKKEYLKNPYLVLFAMIVLAYVFSVFCRFYWVWWASEFNEYFFNNQLMIISNDGYAFAEGARDMIAGFH

QPNDLSYYGSSLSTLTYWLYKITPFSFESIILYMSTFLSSLVVIPIILLANEYKRPLMGFVAALLASVAN

SYYNRTMSGYYDTDMLVIVLPMFILFFMVRMILKKDFFSLIALPLFIGIYLWWYPSSYTLNVALIGLFLI

YTLIFHRKEKIFYIAVILSSLTLSNIAWFYQSAIIVILFALFALEQKRLNFMIIGILGSATLIFLILSGG

VDPILYQLKFYIFRSDESANLTQGFMYFNVNQTIQEVENVDFSEFMRRISGSEIVFLFSLFGFVWLLRKH

KSMIMALPILVLGFLALKGGLRFTIYSVPVMALGFGFLLSEFKAILVKKYSQLTSNVCIVFATILTLAPV

FIHIYNYKAPTVFSQNEASLLNQLKNIANREDYVVTWWDYGYPVRYYSDVKTLVDGGKHLGKDNFFPSFS

LSKDEQAAANMARLSVEYTEKSFYAPQNDILKSDILQAMMKDYNQSNVDLFLASLSKPDFKIDTPKTRDI

YLYMPARMSLIFSTVASFSFINLDTGVLDKPFTFSTAYPLDVKNGEIYLSNGVVLSDDFRSFKIGDNVVS

VNSIVEINSIKQGEYKITPIDDKAQFYIFYLKDSAIPYAQFILMDKTMFNSAYVQMFFLGNYDKNLFDLV

INSRDAKVFKLKI

>YP\_002344518.1 N,N'-diacetylbacillosaminyl-diphospho-undecaprenol alpha-1,3-N-acetylgalactosaminyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRIGFLSHAGASIYHFRMPIIKALKDRKDEVFVIVPQDEYTQKLRDLGLKVIVYEFSRASLNPFVVLKNF

FYLAKVLKNLNLDFIQSAAHKSNTFGILAAKWAKIPYRFALVEGLGSFYIDQGFKANLVRFVINSLYKLS

FKFAHQFIFVNESNAEFMRNLGLKENKICVIKSVGINLKKFFPIYVESEKKELFWKNLNIDKKPIVLMIA

RALWHKGVKEFYESATMLKDKANFVLVGGRDENPSCASLEFLNSGAVHYLGARSDIVELLQNCDIFVLPS

YKEGFPVSVLEAKACGKAIVVSDCEGCVEAISNAYDGLWAKTKNAKDLSEKISLLLEDEKLRLNLAKNAA

QDALQYDENIIAQRYLKLYDRVIKNV

>YP\_002344517.1 undecaprenyl phosphate N,N'-diacetylbacillosamine 1-phosphate transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYEKVFKRIFDFILALVLLVLFSPVILITALLLKITQGSVIFTQNRPGLDEKIFKIYKFKTMSDERDEKG

ELLSDELRLKAFGKIVRSLSLDELLQLFNVLKGDMSFVGPRPLLVEYLPLYNKEQKLRHKVRPGITGWAQ

VNGRNAISWQKKFELDVYYVKNISFLLDLKIMFLTALKVLKRSGVSKEGHVTTEKFNGKN

>YP\_002344516.1 UDP-N-acetylbacillosamine N-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARTEKIYIYGASGHGLVCEDVAKNMGYKECIFLDDFKGMKFESTLPKYDFFIAIGNNEIRKKIYQKISE

NGFKIVNLIHKSALISPSAIVEENAGILIMPYVVINAKAKIEKGVILNTSSVIEHECVIGEFSHVSVGAK

CAGNVKIGKNCFLGINSCVLPNLSLADDSILGGGATLVKNQDEKGVFVGVPAKRM

>YP\_002344515.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVFLWEYLQKGCKLHFNNNLVVHYIVNPSPLGWIVINLLTICLICYIFPLKNSLKHKKLFSLKANVNS

KNSRIIKYTGIAAFLGGLIGIWYNFEGFYQLLFFFELENENLKTLWSLQVSVSSVITGMLLLLIYVINLA

MVCENGIYIVSKFNLFYMYFIKREDLEIVKIEKMKFLNQVEVCFVIKTKNKILLKCFESIYKKEDLEKLK

NWYENKL

>YP\_002344514.1 UDP-N-acetylbacillosamine transaminase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>YP\_002344513.1 UDP-N-acetyl-alpha-D-glucosamine C6 dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFYKSKRLAFFLTSDIVLILLSVYLAFSLRFSGDIPSIFYHGMMVSAIILLVLKLSFLFVFRIYKVAWR

FFSLNEARKIFIALLLAEFCFFLIFYFFSDFFNPFPRSAIVIDFVLSYMFIGTLRISKRMLVDFKPSRMK

EEETPCIVVGATSKALHLLKGAKEGSLGLFPVGVVDARKELIGTYCDKFIVEEKEKIKSYVEQGVKTAII

ALRLEQEELKKLFEELVAYGICDVKIFSFTRNEARDISIEDLLARKPKDLDDSAVAAFLKDKVVLVSGAG

GTIGSELCKQCIKFGAKHLIMVDHSEYNLYKINDDLNLYKEKITPILLSILDKQSLDEVLKTYKPELILH

AAAYKHVPLCEQNPHSAVINNILGTKILCDSAKENKVAKFVMISTDKAVRPTNIMGCTKRVCELYTLSMS

DENFEVACVRFGNVLGSSGSVIPKFKAQIANNEPLTLTHPDIVRYFMLVAEAVQLVLQAGAIAKGGELFV

LDMGKPVKIIDLAKKMLLLSNRNDLEIKITGLRKGEKLYEELLIDENDAKTQYESIFVAKNEKVDLDWLN

KEIENLQICEDISEALLKIVPEFKHNKEGV

>YP\_002344512.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYIKDIQRFEDNRYRARAYMSYILTRNLPNKLPDIHLETIKTALDKIAHEVVVFDALYILDISGMQIENA

ISLNKAHEIGQGEDRSTRSYFYRAVKLRRCVLSDPYPSVLNNELCVTASMPIYDDKNNLLFVVCIDIKLE

DILKIIQAGKFEFVFTQFSRLVYFCFALVLFVITCFLFQKGFFSLFDNQAIGIEHMFESTIAITLALAIF

DLAKTLIEQEVLGRTKKEEGGIQKTMVRFLGSIIIALAIEALMLVFKLAIGDLSQMIYAIYLIGGVSLLL

LGLSVYLFTVKYKNNNI

>YP\_002344511.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLLVVDDSSTMRRIIKNTLTRLGHDDVLEAEHGVEAWDLLTKNEDVKVLITDWNMPEMNGLELVKKVRA

EKKYEDMPIIMVTTEGGKAEVITALKAGVNNYIVKPFTPQVLKEKLEDVLGTGSGEGAAE

>YP\_002344510.1 50S ribosomal protein L11 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKKYYELFFIVEEQYKNLFLDFAFDLGIEAIEEKDNGVYIRSHESLEEFSWALEIFAQKLTTTFNLNHK

IISNLSLVEKENKDWIQEYKKGIKPILVDNVYIHTTWQEEKKNCINIKINPALAFGSGHHESTYSCVKFL

QKFSKSKLRALDLGCGSGILGIIMAKFGCNVEICDTDELAIDSSLENARLNGVDFHKAWCGSIDKANGLY

NLIVANIIADVILILEKDIKNHLEDNAILILSGILDKYSTRIKEKFQDLELIDEMQINEWCSFVYKNNKK

G

>YP\_002344509.1 ATP-dependent zinc metalloprotease FtsH [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNNTQNNKGNPQGNNFFNKNPIFIFAIFAIIMIIIFKGFFDGNGSFGGALNGNEVNKNVPYSELKKLIE

SGQINQVSIGQTTIKAISSSHNTVYTAKKVNDPELVSLLDSKNIAYGAYSETNWFTDILFSWVLPVFIFF

GIWMFLASRMQKNMGSSILGIGSSKKLVNSEKPKVKFSDVAGVEEAKEEVKEIVDFLKYPERYIKLGAKI

PKGLLLVGPPGTGKTLLAKAVAGEADVPFFSVSGSSFIEMFVGVGASRVRDLFENAKKEAPAIVFIDEID

AIGKSRAASGMMGGNDEREQTLNQLLAEMDGFGTESSPVIVLAATNRPEVLDAALLRPGRFDRQVLVDKP

DFKGRCDILKVHMKDVKISPKVKVEDIARLTAGLAGADLANIINEAALLAGRDSKKYVEQNDLVEAVERA

IAGLEKKSRRINEKEKKIVTYHECGHALIAETTKGAKRVSKVSVIPRGLAALGYTLNTPEENKFLMQKHE

LIAEVDVLLGGRAAEEVFIGEISTGASNDLERATDIIKAMISMYGMSEIAGLMVLEKQRNTFLSGGQTIK

DYSEKMAESLDDYVKKTLDERYKDVKDTLNTYKGAIETMVAALYEEETIEGNKVREIIKEFEDQNSLPTR

LQELEEVKTEVKVEE

>YP\_002344508.1 phosphatidylserine decarboxylase-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKDFIAKDGYLSLIILSLVFIFMWIFYSFSILLLALIVICIFLFRTPKRELVCSDEKAIFAPIDGRVTKI

ENIHHKDLGECVEITIKNALYDAGNFNTPFAMSIIDIRLRHGLFLCSELKSAKMMNERAFILAKVKENKT

IALRIYAGSFDRKLKLDNISHDLKAGDRMGFLINGSISLLLPKDTRIHIGLNDEIKAGSLLGYFA

>YP\_002344507.1 CDP-diacylglycerol--serine O-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNRPQLIYILPNLFTAASAFLGVISIIASIHGNYYTALIYIILSLICDGLDGRVARLTNSTSKFGVEFD

SLADLVAFGVAPAVLFYMAIGYDFGKLGSLITAFFVVFGAIRLARFNVTTGTYEPSVFIGLPIPTAAVVS

AIWTYAFISYDFLKPYGVVFLVLQAILGLLMVSNIRYPSFKKLDFNRSSVLKVLIILIIIFSFLYLYPLE

SLVILASLYVLYGIIRVLYTIIVSKFKTRNQE

>YP\_002344506.1 hypothetical protein Cj1113 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKEFFQELQDILYEKNITIKFHSFQNFYEDFKSHKFIFNHEHQSIFKKNTSQQITLFHPTRIRRPKFLN

STHALAKIIHSVAHIEFNAINLALDASYRFKNLPLQFYYDWLEVADEEIKHFKLLNSALEELGYKYGDFP

VHDNLESALEATKDSLSFRMGIVHRGLEAKGLDANPFVVQKLQSSNHSIKNLLMEYLEIILNDEIKHVKK

GDTWWKFANQNKYNFIELCKTFKQFSLAGKKLNIQARIKAGFTQEECEVIEKFYS

>YP\_002344505.1 methionine sulfoxide reductase B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKELNEEEKKVILNKGTEAPFSGKYNDFYEKGIYQCKQCGASLYKSEDKFKSGCGWPSFDDEIKGAIKRI

PDKDGIRTEIVCANCNGHLGHVFEGEGFSAKNVRHCVNSISLEFVKTKD

>YP\_002344504.1 MarC family integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGSELYLMFFAAITLLAILNPFGNLTQFLAMSDGLPLMLRKKLFRTILYTAFTIVLVFLLSGPLFMNYIF

RVSLDDLRVSGGLVLIIMAIKNLLFSTKIATKDFSSYQDMDDKEILRQSLIPMAFPMLVGPGTLASVIVI

AEDGGLDVALGGVMIAFIFMFILFHFAATIEKIVGKLILHVFSRIAQVFIVAMGFKMIIVGLKDIFNL

>YP\_002344503.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFGAKKNNTKIIEQLEKKCNGLGDILRSIGNTMAVIEFTTDGVILEANQNFLTTMKYSLSEIKGKHHSMF

CLPEVVNSSAYSDFWKDLRDGKARSGLFRRIAKGGIDVYLEANYLPISDNNGYVYKIIKFANDITQRHYE

MLDLRNTIAAANRSMAIIEFKPDGTIITANENFLRAMDFNIDEIKGKHHSMFCDSNYRHSKDYVQFWEDL

REGKFQSGKYIRYGRNNKKVYLEASYNPVKNDDGKIYKVIKFATDISEQVKKDQEKLRLISELAEKNDNL

TQDGDRVIENTVSNVQNIADMMSQSSNLVSSLNQQSDEIKSIIQTISDIADQTNLLALNAAIEAARAGEH

GRGFAVVADEVRNLAERTGHSVNEITTTINSIRNVTSQVVESIKSGLEDVNQSVELAKEARECMEKIRES

SAEVAKAMS

>YP\_002344502.1 leucyl/phenylalanyl-tRNA--protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSSNLYSKLLNAPKNAPVFLSQNLEADFIVKAYTFGLFPWTSKPVTWWCPDPRCILIPNQIHIQKNMKK

FINLYQIKLDYDFLKLITLCRDTRSQSWIDDEFITTYYKLFTQGYAHSLELYENNELIGGIYGLILGKVF

FGESMVSIKKNASKVAMIKLCDLLKPYDFIIDCQVYNQHLEFMGAHNISRKEFLNILKEKCNQESGFKNF

KDLIT

>YP\_002344501.1 ATP-dependent Clp protease ATP-binding subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYQENLQKYLDNAKNLSLINHHEFVTCEHVLFALLKLSTDFKDIFEEFSDGDLELLETELKNYISQNNQ

VIKQEIEPTISVVLDEILLSSKNKNNEIKIIDFLEKLIQDSRSYSSYLLKKHNINLNKIQELQNHENIQN

LNNHTSDLTLLAQNGKIDPLIGRKFELERMMQILSRRKKNNPILVGEAGVGKTAIVEGLALAIAEKKVPK

NLQNAKIFSLDMASILAGTKYRGDFEKRIKEILSELEKIPNAILFIDEIHTIVGAGSTGESHTDFSNLLK

PALSNGTLKCIGATTFMEYKNTFDKNKPLSRRFAKINVDEPSQEESLQILKGLKNKYEEFHHIKLNDEIL

QYAVIWGKKFFNDKFLPDSAIDLIDELGASFALNPRAKKNANLKDLENVLAKMTHHHKMFEFDQNKALMN

LKTNLKAKIFGQDEVIDSLVSSLKQSFAGFKNSNTPRGVFLFTGSSGVGKTELCKALAEFLGLNLERFDM

SEYAEKHAISKLIGSPAGYIGFEEGGLLSNAIRKNPFSLVLFDEIEKAHPDLSNTFLQIFDNAELTDNSG

LKVDFKNTIIIMTSNLGLKESNELGFLSKNEEKSNRAIKDFFAPEFINRIDKILHFNDLNDAILVKIIEK

ELDEISKNLNNIKLSVDDKAKIYLAKKAYNKEFGVRLLKRIISEEIGEKISDEILFGKLKKGGIAKIKLG

KNEKLEFIF

>YP\_002344500.1 ATP-dependent Clp protease adaptor protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPKTQTLEQTKLSEPKMYKVILLNDDVTTMDFVIEILMNIFHQNLEKASQTMLEIHHNGSGICGIYTQEI

ALSKQKKVMDAAKLANFPLQAKVEEE

>YP\_002344499.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKISALFLISLAFFLNACSKEEEIQNDFMFEEYHKGDKIVLNSVNGGSKTLIRTDKGFVVEGEEGKVLM

FDFFGTFCTPCKEEALDLSKLWKNNSSKFIIIGLTHFEDVSDETVKKFAGDYGAYYFLSNGSSNDRIIAQ

ILKDIDYQNMEQLPFKVVLKNGIYQKISDYWNNNTPTNFYLGKIPTELMQEDLNKIYKGK

>YP\_002344498.1 SsrA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIARNKKALFDYSIIERFEAGIVLKGSEVVALRAGRANLKDSFVRIIKNEIFLLNSHISLLHTTHSFY

KHEERGARKLLMHRKQIDKLLGKVSIEGYTIVALDLYFNTKNKVKATLALAKGKNLHDKRETLKKKQADL

EARAAMKNYK

>YP\_002344497.1 4-diphosphocytidyl-2-C-methyl-D-erythritol kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKAYAKANIFLKLTGFDSRKYHLLESRFILLKDVFDELELVDKESDSKKEFEIISNFKCENNIIQKAYLL

LSRRYNNELKELFSKKSLKLTKNIPVCAGLGGGSSDCASFLLLINETLNLKLNLQELINLSIQLGSDIAF

FLSGFHSANVSSCGEIIEEFEDDIPNLKWTFPQISCQTKAVYDEFDRGIFDFQKNNNQAQIYKKLSTKEL

LQNFKNKELNDLFTPCATLYPKMKSYLQEDFFLSGSGSSVFKVDR

>YP\_002344496.1 carbon storage regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLILSRKENESIIIGEGIEIKVVQTGKGYAKIGIEAPKSLMILRKELVQQVKDENLHSVVQNDIKLDDLS

KKLIK

>YP\_002344495.1 tRNA pseudouridine synthase B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKIFAAFKPRGLSSNAFLSTLKKKYKNKKAGYSGTLDPFAKGVLIVAFGQYTKLFRFLKKTPKTYKATL

WLGVYSLSLDDQNIKEIKNIKEFDLPNLQQIIDQMQGIISYTPPQFSAKRINGTRAYELAKKGIEVNLKP

CQMEVFDCKILSYNHPFLNIEITVSEGAYIRSYCELFARKLGINATLSSLERIKEGKFVYNNEKSLNVLK

YINLKPNFIKDLNKLENGAKIFVEELEFHDKGDYYIETEKYFSIINIKENTVKYLLNKVEKC

>YP\_002344494.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLFEDLNDSQKQAVSHIDGAMLILAGAGSGKTKTITTRLAYLIGEVGIPSHNTLTLTFTNKAASVMRHR

ALNFLQGNHNPLLCTFHKFGLLFLKLHFERLERKNSFIVIDTDDTKKIIKDLIHDKNKDNVYDIIQYISY

CKNEGKRVSNVFEDLNLLKEHNFEKYQNEYKFANYYRAYEEYLLKQNFVDFDDLLLLSNLILENDINFAK

EQSLLYNYITVDEYQDTNTLQYKILKNLCCMHENITVVGDDDQSIYSWRGAKIENILNFQNDFKNVKLVK

LEQNYRSVGTILQAANNLISHNEQRLGKTLICTKDTGENIKILKNENEKDEGLYIAQEVKKLLNSGVEAK

EIAILFRVNALSRAIEEAFMKKQISYKLLSGMRFYERLEIKDLISYLRLILNPSDDLSFKRIINRPKRSI

GEKALKNLEEYAKKRQISLFDALCESDGGVGILTTKKAQNEANIFIQNIHTLKSYDNAKKVFDNIEELFK

IKDYFSEQDDGDERIRNLDEFYANLREKLKEDPEASLEDLLSEISLLSDQDNLDEECVCLMSIHASKGLE

FDYVFIIGFDEGFFPLNSEENLEEERRLAYVAITRAKKFLTISVANSRFYHGSRANINPSRFLEESKLIN

EKSKNQNIQKTSFCKGDLVKHKIFGIGRVVEANKSGKEEKLNINFGGIMRVIMASFVEKAV

>YP\_002344493.1 hypothetical protein Cj1100 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLETILKNENFIHTMQKHCYEVISHLIEENIEFSIVANTNFIDFNPELPKELDIKQNPYALFALGGYTFE

SIQLNKDFIQFHAGFGNDDFDSFVKVDLGAITQIQVENSILFVNFSLYKREDSKNLQKSKNIFLNNPKNK

DIFKK

>YP\_002344492.1 peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEWDLSALFHDKEALQNFTQDQIQQSLNFKKNYENKLYTLNANEFLQALKDYENLNQALGKIMTYAYLL

FAKNTQNGSFYAQYEEECKKIEENLLFFELEFCELAPEKSREFTTFCKDYDFYLSNLLQNKRYNLSKNEE

RIMLYLSNTGANAFSRLFDESMSALKIPFEGKKLSEEEILSKMYDENRKIRKKAAKKFSKVLQKNSRLLS

FIINMIKTERKNISLLRGYENAEISRHISNQISQKSVDSLIASAQKHFNLVSQFYKRKKQILGYDELKDY

DRYAPIGKEASFDFKTSKNIVLEAFQAFSPQFYDIAKNAFDQGWIDVYPQENKQGGAFSHSATSDAHPFV

LLNHTNKRRDLFTLAHELGHTIHQKLSYNVSYLNQNTPLTTAETASVFAEMLVFDFIKDKLKKEELLSLY

ANKIEDIFATFYRQINFTCFERRLHAQENELSTEEINKIWMEESQKMFQDSVKLTKNYASWWSYIPHFIH

SPFYCYAYAYAQLLVLALYGLYKSKKCENFKELYIKMLSLGGSVSPKELVGMFGFDIEDENFWEIGIKEI

QKLINEFMELQSC

>YP\_002344491.1 aspartate carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRHLITTKDFNKVEIMELFKEASDFLDEKPRTFLEGKSITTIFFENSTRTLSSFESAARRLGARVLRLDV

SRSSSSKGETLYDTAANLDAMSPNAIVVRHANSGVPLILAKHMHCPVVNGGDGKHAHPTQALLDLFTIYN

HFQGNVEGKKICIVGDIKNSRVAASNIELLSRFNLDITLVAPPHFMPNTHLKKHYKLDENIIANSDIIMS

LRTQTERHNKTVYASLKDYANDFCIQKSLVKDKKLILLHPGPVNRNIDISDEMMSNERTLVLKQVKNGVA

IRMAVLKKLILENEG

>YP\_002344490.1 serine/threonine transporter SstT [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFSKIIQSYAKGNLIVQICIGIALGILIGISSKEISEIANLLGILFTSALKAIAPMLVFILILTSICTKD

FSQSGAKIKNIIILYIVGTFFASACAVLANFFFPVKLVLDGVQTATNSSPTHMSDIFKDLLFKIVDNPIN

ALSSGNYLGILTWAIAGGIALKHCSNEAKQVFIDINEGVLKIVKFVVKLAPFGIFGLVANSVAQTGAQGL

LSYVKLLILLVATMLFVTFVINALIVFFYTRKNPFPLIFICLRHSAFFAFFTRSSAANIPVNMALCAKLG

IDKEFYGISIPLGATINMAGAAVTIAILSLTAANTVGIEISLLQAFLLSIIATFAACGASGVAGGSLLLI

PLACSLFNIDYDIAMKVVAIGFIIGVIQDSVETALNSSTDVLFTAICSKNELNYNIK

>YP\_002344489.1 S-adenosylmethionine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYLFTSEVVSAGHPDKCADIIADTIVDILLKNDKNSRVASEVFVAGNKVVIGGEVKSNHKLSKADYDNLV

KDVLKNIGYDGAGHFSKEQCLHPDEVDVMVFLNEQSPDINQGVDQEDGETGAGDQGIMFGFASCEAEEYM

PAAISYARMLCDRVYAYAKANPHELGVDIKTQVTIDYGTKANFENCKPQSIHTIVVSAPCVESMKIEDLR

SLVMKLILDSNLPKELFDPNKTRILINPTGKYVNHSSLHDSGLTGRKLIVDSFGGYSPIGGGAQSSKDYT

KVDRSGLYAGRWLAKNIVAAGLAKKCIVQLSYAIGVAKPTSVSVDCMGTNTSVNDDVLSDFVMQNFSLTP

NWIRDKFHLDKPSKETFLYADVAARGQVGQKDYPWEKLDALEQFKKLL

>YP\_002344488.1 apolipoprotein N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLKLNFLPYFSFIPKKLNTNSIIFKIIKVFFIAILLSNSIYLSFFENIFTQTISPFLAIWGLVLLLKSK

TSKQYFWIGFFVGILWFWWIGLSSIYFNLNYLVPIIPIIIGFIYGLLFRLCYLLKFDFLRLCGIFCISFI

HPLGFDWFNWGIFTVYGFFDPSYRGIICIFLIAYFIYEGYISRYYKIAIVLILFFSGFQYNEKQAQTLNL

NYKLINTNISQDQKFLQENLKSNSDILIQDILQAINEKKELVILPETAFAFDLKNTKYELMLKELSYKIT

IITGAFHVEKEHTYNSTYIFKKGNVYILNKHFLVPFGEEIPFFKDLTKKYFLKNIEEFSKGPIQSKYKLD

NQIITNAICYEATKEQNYQNSQIIIALSNNAWFNNSSEYKLQQLLMKFYASKYGVSVYHATNGKENIVIL

PKKLLSKDWKNLSKEIFNDKK

>YP\_002344487.1 protein translocase subunit YajC [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAENSILTSLLPLVVLFAIFYFLVIRPQQKQAKAHKQMLESLQKGDKIITNGGLICEVVKPEEDFIKVKL

NEDNVTAKISREFIAKKIDA

>YP\_002344486.1 protein translocase subunit SecD [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNSKINYRLIIFIAVFIFGVAFSLPSFLQSERGAKINLGLDLQGGLYMLLGVDNEEAVKSKIKSIASSL

SYSFNKENILNDGLNTHDDILEFTLLDNADIAKVENLLKEIKGINIQSENMHYKISFTSKEVKNIENFAL

LQAVETIRNRLDQFGLAEPTVAKQGDDKILVELAGIKTKEDELRAKERITKAAHLQLMEVDDSKMGQAST

MSDAEAASYGLILVPDSRNPNLKYTLKSIPILDGSMLTDARVGLSDKSNYPVINFTLNAEGSKKFADYTG

ANVGKRLAIVLDNKVYSAPSINERIGGGSGQISGAFTQEEARDVAVALRSGALLAPVKLLEQRSIGPSLG

ADSIKMSMIALIGASVFIVVFMMMYYGVAGIFANIAMLVNVLVVVAVMAMFGATLTLPGMAGLVLTVGMA

VDANVIINERIRELLRDGVNIRVSIEQGYKNAMSAIIDSNITSLVTSVALYAYGTGAVKGFAVTLGIGIV

VSMITAILGTHGMFDYFMQRIEKNNNTRFWFGYRRR

>YP\_002344485.1 protein translocase subunit SecF [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQFFSEKKIYDFMRMRFAAISLSFILFFGSIYLLWDRGLQYGIDFSGGTLVQLKYENAAPITQIREILEN

QGTFQNLSVTEFGSNEEVTIRFLGSNDNVSNDIGEHISTLLKDTGKFEVRRADVVGPKVGDELRNKGLMA

IAVSLIAILIYIALRFEWRFALAAIISEIHDVVITLGAISLFKIDVNLDTLAAVLTVLGYSLNDTIIIFD

RIREGIKTSKKTELAPIINESVSATLSRTVLTSGLTLATVVILYFFGGEMIQGFSLALIVGIIAGTLSSI

FVASPTLLWFKFSVLEFRNKEIEKAKRKQDKERNRAMYEKGTV

>YP\_002344484.1 leucine--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYEASLIEKKWQKIWDENEYFEPKDDLNLPKKYILSMFPYPSGRIHMGHVRNYTIGDALARYYRKIGFN

VLHPIGFDSFGMPAENAAIKHKIHPKSWTYENIAYMKKELFSLGFSFSKKRMLATSDPLYTKFEQEFFIK

MFEKGLIYTKEANVNWCEQDQTVLANEQVEDGKCWRCGHEVVQKKMPGYYVKITAYAEELLKDLEELKDK

WPNQVLTMQENWIGKSEGLEFSLNLDEESKQKTKESSLEVFTTRADTIYGVSYIALAPEHKIVQNLLSQN

LLNQDVLNKIKVIQNQSPRERQSSEKEGYFLGIYAIHPLSGEKIPLWVANFVLADYGSGAVMAVPAHDER

DFEFATKYNLAIKQVIQTQENLPYMQKLGKLINSQEFDNLDCNEARLKIISQFEAKNIGKRVVNFKIRDW

GVSRQRYWGAPIPMIKCQSCGIVPQKLENLPITLPEDVQITGEGNPLDKHPTWKNCICPKCGKEAQKESD

TLDTFFESSWYFARFASDEKTWQEKALDEKSVKYWMSVDQYIGGIEHAILHLLYARFFQKALRDLGYLTQ

NEPFDRLLTQGMVLKDGAKMSKSKGNVVDPDEIIEKYGADTARLFILFAAPPAKELEWNDDAVEGAYRFI

CKLYDRAQNVKKGELVELKQENLNKEEKYARLKVYEALKKSFEVYHQSFAFNTLIAACMEALNALALCKN

EALEQEAFYIILNILEPIIPHVCFELSEELFKCKNFKKLELKEEVFVKDTLNLAVSINGKKRAEFEISSS

ASKEEILAFAKENTAKWLEGKSIVKEIYVEGKLVNLVIK

>YP\_002344483.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILIFCIGLFLGACGYIPTSKIANNIFDEKVYVNVELSQQDPKNSIYVADTLKEMVISKLGRKLALKH

EADDVINVKMNNLEFIPLAYDKNGYVISYKAKLNLDFNVVFKDGSSQAFSTSGSYNFEISPNSIISDSAR

YEAIRAASSEAFDEFISVIAIKGQKRDSKY

>YP\_002344482.1 hypothetical protein Cj1089c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIPNTNEIAKQTLIALKERKLKPTPENYTEIFEELSLKYGITSSNKAKLDKYKTLLLPIYQQELNSKTIR

SLEELISFLISVLNRQSGKQFSEFFDFLYTISKTLQISKDKKIRDLAKVTSIRISKTMDSESIYLLTKKW

KELERNYDENDLEEQARKYGISKYDDYDSVIKKLLVKLEERSYEHFSELLCLGLNPSLVEDLKIQGFIQN

LTQKPFVIGEENFKNELMEFINHRIMVDNMYVQKNLNFFNDNLKKIYELLVLLNKSNEKNMDFINTLKPD

ENGEVKLSFEDLKLKFKQLGEKITSLNNQIEFTQSLEEREAWSVLKELDKMDENFNKYKVNYSLALFSIV

NYRFIMEKYGMGSLNEIFVRFKKILKDSCSEFDELWMIDEKSYLIVSPGKSKDEITQLVNTNLKTIENFR

FIYKQDIITPKIHVAYLDKQSKPSINILDELIKQIAAVNEQHNES

>YP\_002344481.1 bifunctional folylpolyglutamate synthase/dihydrofolate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQRLMNNIMKVENFLAQKSINYDKIDRFLMFRMYEKYKKYFKNIPIIQLIGTNGKGSTGRYLTQLLENLN

YKIGHYTSPHIFSFNERFYLDGKIANDEELEQAHIRLEEIFKQDLQKLSYFEYATFLAMILFQKCDFIVL

EAGVGGEYDATSIFERRMSIFTRIGFDHIQILGNSLEDIARTKLKVMAPIALISDEQEQNVLNLAKKIAF

LKKANLQVSSLNPFLKEKFEIYCKKFVLPYFLKHNLKLALKACEILTSQEKTLEALKKLQELNLQGRCQE

ISPNFFVDVGHNPMAAKAMLDKFQGEKINLIYNAYLDKDIFQILNTLKPIIDTIQIYKYKSAERKLADDE

IYSIASKLGMQCKEFVKLEENKKNLVFGSFMLVENFLKEWCGKK

>YP\_002344480.1 peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKNKFTITITDINGSRHFYLNQIIKKIVFYIIAFIVLFLVFSGFYIKYLDSKLSDISEKREELLKKSKE

LELSNSQMQKSIEEKTQQYAAIEDKIASFEEALGLEAENNLTISARLDNLQLTNEQQLGILGQIPNGWPI

ENKGITGNFGWREHPLLKRREFHPGIDLRAEIGTPIYAPASGVVEFSGYSDNGYGYNVILLHNFGFKTVF

AHMMRKEVVKAGQFVNKGQLIGYSGNTGLSTGPHLHYEVRFINKTLEPLYFLNLQRKNMNDFFNQERRVP

WQSLIKAVSAQHPALAQKQQ

>YP\_002344479.1 hypothetical protein Cj1086c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAIFNKGGISPTSSSSSETTVISSGARIEGKFYFASMLHVDGELSGIIHSESIVVIGKNGNLKGELQADK

IVVNGCFEGQLEANSLEILAGGVVNGDISTQKISIENGGRFNGTSKIKEDTIKLIENNNEE

>YP\_002344478.1 transcription-repair coupling factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQASFYEYLQNPKICELFLCKDEKQADLLAQVSRFKGLKTFVLPDFRAQFGDDLRAFSKELFDLCKILNA

YHKEEEKKILISPLNTVLKKLPSKKHLQNYHIDKKQNFDLKCFEDEISRLGYEFVDIVQDKGEISIRADI

IDIFCINEENPIRILLFGEEIESIRYFDLQSQKSIPNELEHFEICPFLKYFDKENYEIFKDKLEDFQSDA

LIHDINSLGFWCIDDFFDYLELDFLACEKFDINEYEKDISFVNAKILPQAKKFKELQSSYNKDFFEFHKN

KKITLLAKNEALFKALELEDTQNIHFVKSDLRLNLISPEELIISLNQKEKQKTRKKASLIIDELKNGDYI

VHEDYGVGKFLGLEMIVISGAKKEFVAIEYQNSDKLLLPVENLYLIDKYLGVSGSIPSLDKLGKTSFIKL

KEKLKTKLLAIASEIVIMAAKRSLVQAKKITVDLNRQTDFIASAGFIYTSDQDKACHEILQDFQSGKVMD

RLLSGDVGFGKTEVAMNAIYPVVKSGFCAFLFAPTTLLSHQHYKTLKKRFDPFDIKVFKLDRFTSSAEKK

QVLQNLKENKACVVVGTHALLSVECENLALVIIDEEHKFGVKQKEKLKEITQNSHILSMSATPIPRSLNQ

ALSSIKSYSVLQTPPEDRMDVRTFVKENDDALLKEAIARELRRGGQIFYIHNHIASIEQCKKHLLELFST

LRILILHSKIDAKMQEEEMLKFENKEYDLLLSTSIVESGIDLPNANTIIVEKSDRFGMADLHQLRGRVGR

SDKQGYCYFLIEDKNAITKDALKRLVSLESNSFLGAGSILAYHDLEIRGGGNLLGVDQSGHIEQIGYSLY

LKMLEDELNALSKNEVDQKENKLDLKLNVNAFLNSELISEDRLRLELYRRLSKCEQVHEVYEIESEIEDR

FGKLDIYTKQFLSLITIKILALNKFKSISNYEQNIQFTALNDEKELIKAKSKDDDDILEAILTHLRKA

>YP\_002344477.1 ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDWNKTYAAIYRARKDYLKPIFEIDPIALKDLVGMESQKKALYENTLNFIQDKGANHALLWGSKGTGKSS

LIKAIFNEFKEQGLRLVELNKEDLFALADIIDEIRLENFKFILFCDDFSFEKGDDSYKFLKPLLEGSIEK

APNNVIIYASSNRRHLLSESITDNLDTQITHTELHLSDAAEERLSLSDRFGLWLSFYQGNLEEYLKMIDF

YFKDYSCDKELLHAKAKEFATLRASRSGRTAKQFYLAFKENFK

>YP\_002344476.1 endonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTGAQIFTKLLNLDLNYHDFDWLENQGLSEFELLISVVLTQNTNWKNVLKALENLKKENIASLEQINTLS

NLELATLIKPSGFYNTKAKRLKGLVESIINTYENLENFKTNVSRKWLLNIKGLGFESVDGILNYLCKREI

LVVDSYSLRLAFHLGYEFENYEELREFFQSGIESEQENLCKILGRKCELYELYQIFHALIVAFAKQSFKG

QKLSPKGEEWIKILKEDL

>YP\_002344475.1 phosphomethylpyrimidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKAKGSELIPVLTIAGSDCSGGAGIQADLKTFSAHNLFGMSVVLSVVAENTARVISVHDIPTQSVDEQML

AVFEDIVPKATKIGMIGSCELMSCVAKNLSEFKPQNIVIDPVMFAKNGYALMPQENCDFFKQTIVKFADI

LTPNIPEAEFLCGFKIANEEQMIKAAKHLCSLGAKAVLLKGGHSEINANDVFYDGKEIYILKGERIETKN

THGTGCTLSSAIASNLAKGKDLFHAVSEAKEYVRNAIYYSLNLGKGCGPTNHFFKFLDEK

>YP\_002344474.1 thiamin-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNKLDLSLYLVATKGSKSEECFLNTLENAIKGGVSIIQLREKELNAREFYKLGLKVQKLCKSYKIPFLI

NDRVDIALALDADGVHLGQEDLEAKLARKLLGDEKIIGLSLKKLEQLEFIQGVNYLGCGAIKATPTKESS

LLSLELLSQICDKSPIGVVAIGGIDKEALVELKGINLSGVAVVRAIMDAKDAFLAAKELKRKIYENLSLK

>YP\_002344473.1 uroporphyrinogen-III synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIYLLNETPFEGVENLILNEIVFYDFSVDLSLYDALICTSKNALKALQHAKITLNFKLNLYAVGQSTAQ

YAKNLGFKKIKIPSKAYGKDLFLEFKEELKMQKCLYLRAKNIVSTLNLDLKNVGVDLDEMIVYENVFKKG

DKKLIHPAIFIFTSPLSVENFLKFYSLKEEDKVVVIGQSTAKKLLNFKNLYICENQSLLNCVKLAKTLV

>YP\_002344472.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAYVLIWTIFLILLISLWMSLTLNISSYTPKIIQDSYYYLQAQILSHNATQFSKYFLYQAKQENKECL

DNIYFNYTKALIKIKYFYPIAQCVNFKFSNFNPDANLSKDGVIIAHISIALNRDKNVNDEILLTKSIIIY

PKENFWNLKN

>YP\_002344471.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKAFTLFELIISLILFTFITSLLSKPLMDFYHLNFTALHTNNLITQAHLNLLKIEKLIQNCINITFSQN

TLKCLLKDELISLKDNKLYLINSALILENNHTLYSPHSDFKTQLQNRKDLYNDNEHISYAYKINKIEKIS

ILENGISANFTGSFIPLQAQLVIKLQNEELIYEIKPKFNEQLNQQGLISKNISSFNLQNNKLKICLKRQT

KHCLEKRILL

>YP\_002344470.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAFILIESISAITIISLIFIGIFYYYIQLYKNYENLNIFERLYKLQEELYEKPIFKTIILQTSALKPI

VLQEQFVNDGIFQFQKLYFQDQNYSVYFKE

>YP\_002344469.1 pyrroline-5-carboxylate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLYILANGSMATALAYGLKDDYEICIVGRSIEKLQALAKEGFKTLLYKDFNIEGKDVILAFKPYALENIA

QMLKGQARILISVLANVDFEKLQTIKAQNYVRIIPNTAAKYKASTTPYILKNSHFENEILDILKTFGSAY

KLDNEIQMNAAMAISGCAPAFLALIAESIANAGVYEGLSKELSLNLTRSLFKSSNALLEHEHPAIIKENI

CSPGGVTIKGIKILEQKGIRGSFFEAINASSAK

>YP\_002344468.1 flagellar assembly protein FliW [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLAVKCPILGFEETKNMEFSTIDEVFVRLKSLDGKDFSFVLINPYLIRPDYEFDIPTYYQELLSLTPES

NMKIFNIVAIAKSIEESTVNFLAPVVINLDNNTMVQVILDTVNYPDFFQADQIANYIKK

>YP\_002344467.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKGIFLLVFLSVFFSACSTKNDEGLYNLSASEWYKQIIKDLQDKDLEKADDHYNGMASEHVADPLLETT

LIILAQAHMDEEEYKLAEFYLDEYNKKFGNSRNADYIRYLKIKAKFDAFAVPNRNQALMLESQKEIDTFL

KDYPYTEYEPLVQTMLTKFNLAVFYLNSTIENLYQRIGHDESAQIYKQRLQESEFYQQSIIKPELPWYRS

IFERF

>YP\_002344466.1 ATP-dependent protease La [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIEEIQNYPANLPVLVEDELFLYPFMITPIFINDSSNMKALDLAIKNDSMLFVAPSKLENGRNFDEIYN

CGVIGTIMRKVPLPDGRVKILFQGYAKGKIIEQISNKPLEAKIELIKEDFLEGTKKEALLEVLKEKVKNL

ANISHYFSPDLLRTIEEGFDASRICDLILNTVRIKKQVAYEFFVLTDLEQKLVKLIDLIAQEIEANKIQK

EIKNKVHSRIDKVNKEYFLKEQLRQIQKELGSDTQKEDEVREYQKRLELKKKFMHEDAYKEIKKQIEKFE

RIHQDNSEASMIQTYIETALDIPFEKISKKKLDIKEVSKQLNHDHYALNKPKERIEEYFAVRELLEKRKI

AEKDGAKVILCLYGPPGVGKTSLANSVSKALKRELIRIALGGLEDVNELRGHRRTYIGAMPGRITQGLIE

AKQINPVIVLDEIDKLNRSFRGDPSAVLLEILDPEQNSKFRDYYLNFNIDLSKVIFIATANDISNIPAPL

RDRMEFIELSSYTPSEKFHIMKKYLIPDELKKHGLKSNELSIDDETIELIISDYTRESGVRNLRRKVAEL

CRKSAKKLLLENIKKVIINTKNLNEFLDKKVFEIEKNNGENQVGQVNGLAWTSVGGDVLKVEAVKIKGKG

ELTLTGSLGDVMKESARIAFSMIKVLIDEGKIKIPKKIIIDPKVNVYDSYNIHIHVPDGATPKDGPSAGI

TISTAIASIFSDKKVKADVAMTGEIDLKGKVLPIGGLKEKLIAAYKADIKTALIPRKNYERDLKDIPSEV

RDNMEIIAVDTFSDVLEYTLV

>YP\_002344465.1 30S ribosomal protein S18 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAEKRKYSRKYCKYTEAKVEFIDYKDTAMLKHALSERFKIMPRRLTGTSKKYQEMVEVAIKRARHVALIP

YIVDRKEVINNPFEGL

>YP\_002344464.1 single-stranded DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNKVVLVGNLTRDIEMRYAQSGSAIGASAIAVTRRFTANGEKREETCFIDISFYGRTAEVANQYLTKGS

KVLIEGRLRFEQWSDQNGQNRSKHSIQVENMEMLGNSNAPQQGGNFGNNSFSNNNYSGNYENQSYDPYMS

ENQNFNKAKANPAPQRNQSPQHEEKLKEIDIDAYDSDDTNLPF

>YP\_002344463.1 30S ribosomal protein S6 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKHYEVLFILKPTLTEEEVNTKLEFVKEVLTKNSAEIETVVPMGTRKLAYKIKKYERGTYFVIYFKAPTN

LIAELERVLRITEEVIRFLIVKYENKKEIAAWEKLSHGIKQSKKEIKPLDAPEIQ

>YP\_002344462.1 hypothetical protein Cj1069 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKKFSYPIPNFTDRRKSIIFWRYLRFQARKILYFPQVRLLEKTLNKEKNKHLKDFFSQRPYACYNATRR

FCDKSFKANERVKTLIYDVDKGLACFKFLPEEQIIFSFDEDFELFLGYNYNVCEEGFWAFSLKFKKYTIL

QCNFCFTLENNLLLSCIQGHKYKDFNILEINKILTKKCHGLRPVALLIECSKMLCEILKLQATLGVHEKN

QIRSQKGKEKGYFVDYQKIWLENGGELIKINKHKYYKLHHSQKNLEEIPSQKRSMYKKRFAMLEEIKTNL

DKTLSIQD

>YP\_002344461.1 zinc metalloprotease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRSLLLLIVILILGIKFYSIEFLATVLVISFLIFFHELGHFLAARSLGVKVEVFSIGFGKSLIEREFKGT

NYRLSTLPLGGYVKLKGQDDMRPGFENLDKDSYSILSPLKKIYILFAGPFFNLILAFFLYIIIGNLGLNK

LAPQIGNIAPNSAAQEIGLQKNDTILEINGIRIQTFDEISKHLSLDPLKILINREGKNLEFILTPKIGQG

YNDFGQIVEKPQLGVSPNGTSTLVKHQGLESFKYAAQESFQASTLIIKGIVKLISGEVEAKNLGGIITMT

EITSKAAQNSFTLLLFITALISINLGILNLLPIPMLDGGHILFNLYEMIFRRKVPQRTFEYLSYTGMAIL

LSLMLFATYNDISRIIGE

>YP\_002344460.1 CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLPNILAIFRMVLAPLLFFLLIHKFENIHQSWINYFAALTFSLAALSDFFDGYIARTWKQTTKLGGILD

PLADKMLVLAAFLGLLLTGKANEWVIYIILVREFFITGFRVVMISENLNVNASFAGKLKTAFQMTAIGFL

IMEWIGGEILLYIALILTLYSGFEYIYTYIKAQKKGEK

>YP\_002344459.1 nitroreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKELEIFSTRYSCRNFKNEKLKKEDLNSILEIARLSPSSLGLEPWKFIVVQDEKRKEELSKICNQQKHV

KDCAALIIIISRLDFLDYFEEKLRKRDMSETEMQKRLDTYMPFLKSLNQEQKISYAREQAHIALASILYS

ANALNIASCTIGGFDKEKLDSYLSLDIQKERSSLVVALGYCNDKKNPQKNRFSFDEVVKFI

>YP\_002344458.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEIKLKEDLEKIYPLIKQLRNNLSLKDFLDKIQLATQTQHYKLFAYENEGSYKAACGVMPFNVLYHNHC

LYICDFVVDEALRGKGIGQAFLKKIQIWAKDQGYEELELSSSFFRTQAHEFYIQKMGFEKSGFVFKKNIK

L

>YP\_002344457.1 CinA-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKHLLYLIGDELTINEKFKNYIYRTYEEKFKEINEIRIQNKTDKDLPFLLENLLNQYDFITLFTSPLHYA

TVAKILATLNDDNLILKDDTLVPDKAEFSKNSFVCNFSNSKINVVKINPSEKLPDLLGHIKLNFAYFCIF

GMDDESAILLLQTLTKSYEISIKSTKFLDNLVLIKATCANFGKLDGFLNSVKNLFGQKVFLGKDPIHFIS

SKLLEKKLKISFAESCTGGLCASTLTKISGVSEIFEGSIVSYSNRIKHEWLGISESVLENNGEYSERCVY

FMLKGIFKTANPDFALAISGVVGEKDEGKIKSGTIYIGAMFRDGTFIQETLYLDGDREFMQEQAVLATFC

LLLKLKPEIFEI

>YP\_002344456.1 isoleucine--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDYKETLLLPSTTFAMRANLAELEPQRFKKWFEQNYAYEKMKENRKNAKKSFTLHDGPPYANGHIHIGHA

LNKILKETIIKTHYFKGESVRFTPGWDCHGLPIEQQVEVKLGEKKKSLSKKEIREFCRQHASEFVDIQRE

EFKDLGIIADWDKPYLTMKFEFEAAIYRTLCEIAKKGLLCERSKPVFWSWAAKSALAEAEVEYQDKEDYS

IFVAFDLDVKACEKLGVSKASAVIWTTTPWTLVANQAIALNPNENYVITKEGLIFASALLKSMVEKGLTS

GEIQKELNAKEFEKLEAINPLNGRKSVLIMGEHVLMDGGSGLVHTAPGHGEDDYYACLKYGIEVLMPVDD

SGCYDETLRAKGLLPSHLLEEFIGLHIFKANEKILELLGEKLLHSSKFIHSYPFCWRTHKPVIYRATKQW

FILMDEPKLQGKTLRECAKEQLLKTTFYPQSGVKRIGSMVENRPDWCISRQRDWGTPIAFFRDKNTKEVI

FDDELFDFVAAIFEKHGADAWWEFEIKDLIPTNSKYKAENLEKVYDILDVWFDSGSTFNAVLNSGLYDAG

EKRASMYLEGSDQHRGWFQSSLLVGTAINESAPYESILTHGFTTDEKGQKMSKSKGNVIASEYVAKTYGV

EILRLWILLSDYSSDLKISDNILKQVGEQYRKIRNTIRFLLANTNDLKDLEVKEFSFIDKWILSRATKVF

KASKEAFFAYEFAKGFSLLLNFLSADLSGIYLDISKDRLYCDSENAQRRKSAQVAMALMAKELLNLLAPN

LSYSVDEALEHANVLIKGDAKDVFDLSLTQDFDYDFGIDDTFLMSAREKFFEQIDILKKDKIIKSTLELN

LNISFNKFPNEELADWFMVSQISNENEEILAEFEVENEKFKITKASLCKCPRCWKLQSKNEETPCLRCEE

VLKGVQC

>YP\_002344455.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLENPIPNSIIITTIAVVLAFSALAVFLIKKTKENK

>YP\_002344454.1 aspartyl/glutamyl-tRNA amidotransferase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITLKEALKYSKEELENLKKELNEKAKKEKKLGAYIEQFLDKDLSVSGEGVPVAIKDNISVKGWELTSAS

KILQGYIAPYDASAIVNLKANGFSPFGRCNMDEFAMGSSTASSCYGKTLNPLNFERVPGGSSGGSAAAVA

GGLALASLGSDTGGSVRQPAAFCGCVGFKPSYGRVSRYGLASYSSSLDQIGVLTQNVEDAAILYDAIAGY

DKMDSTSANIEFIKTVPNLNANKKLKIAVIENYVNDADSEVKNALLKTIDMLKANGHEIVYKNLLDSKFD

IAAYYIIATAEASANLSRYDGVRYGKRSENIQNLKEMYVNTRSEGFGEEVKRRILLGTFVLSSGYYDAYY

IKAQKARAFIKAKYEEILQDCDLIFMPVTPTTAFKFDTQKSPMQTYLEDVYTISVNLAGLGGISVPVAKD

KEGLNISAQLICKAYDEQTLLDGALSLEQMIKN

>YP\_002344453.1 inosine 5'-monophosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISAAMDTVTEHRAAIMMARLGGLGVIH

KNMDIASQVREVKRVKKSESGVIIDPIFVSPKASVAEALEIMAEYRISGVPVVDEDKKLIGILTNRDLRF

ESDFSNLVENVMTKMPLITAPKGCTLDDAEKIFSTNKVEKLPIVDEQGRLEGLITIKDLKKRKEYPDANK

DNFGRLRVGAAIGVGQMDRVDALVEAGVDVVVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAA

KALCEAGVDAVKVGIGPGSICTTRIVSGVGVPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVG

ASSVMIGSLLAGTDESPGELFTYQGRQYKSYRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYV

GSIRSVVHQLLGGLRSSMGYVGAKDIEDFQKRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>YP\_002344452.1 hypothetical protein Cj1057c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSFEENLKHANESLEKLNNQELALDESVKIYKEGLESIKKARLELEKAKLEVEQIDE

>YP\_002344451.1 carbon-nitrogen hydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKIAALQFPTLALSESRLDYYLKASKDNGANLVVLGEYVINSFFTELLHMPKNMIKEQSEAKKESLIKL

AKKYELEIIAPYVSVEAKSYKKLCLKVTPNGVKSYEQQILMPYEHWNEEKFFSNKTPSELKIFTFNYEKL

KCALLFGFETHFDIFWQQIMAKKIDLVIVPSACTFESKQRWEELLKTRAFLNSTSILRVNRIGKTKDEWN

FYGDTLFINAFGEIESKLGSEEEMLIIEPKKSDEARKLWGFDKILKNF

>YP\_002344450.1 sulfatase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKILLQIFIFSVLFIATFAINRILMQNSFIPTGLISDKNEIFLMYLLGVFHDIRFLSAAFLPFLLCGFL

SLIFSNIKINNKLVIYSKNFYFIFSSVYIIVLSCLCIGFSYVKYYYYEIYKTKFDIFMFTLKDDNTKTIL

SIIYHDYPILKILALMLIFGVFVFFLNLKILNLKLKPVNLRLFPLIALNLILIIVYVIALRGPFKHVAIN

VQNYSFSEYSVVNDTMLNPIMAFSWALKQYKEEAALKVITPLKAQELKEKLFDYLHQSPINLKAEKNHPS

VFVNLMESFGLNLADFTNTEHNFLGSLDKHFKQDFLFKRFLSSSNGTIPSFANLFFVSPFSNISTSKFQK

TYLDLTPIAVYKKAGYKVIFVSAGNGSWQNIKNYLSILGVDEIIDENILMKEYNGAKDSENGYGIADEFL

YKKVYDLLQKNPHKTLIIALTISNHPPYKIPQNDLPKLQNIPQTLLNMLPYEKDKQDNIIKAYTYANNEF

GKFLDKVKQSPFKNSVIIAATGDHRVREMSMDLNSQKAFAYSVPFYLYIPKDLQDNIYYDKDRVGSHKDI

FPTLYALSLNNVKYLSVGGRNMLARPSDEKLEFGINDAVWIDKKGIYSGGKGYYFESNDTLKDMNKAFNL

DGYTKDFDKFYRELNLYQLAERLGISK

>YP\_002344449.1 UDP-N-acetylmuramate--L-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMQNIHFIGIGGIGISALARFLREKGFKISGSDLKESKITKELEKEGVKVSIPHHKDNILNKDLVIYSAA

IKEENPEFKYAKELGIKCLSRKEALPLILEDKRVFAVAGAHGKSTTSSILASLLDDASVIIGAILKEFGS

NMIYKESQNLVFEADESDSSFLNSNPYLAIVTNAEAEHLDHYGNEVSKLHHAYTQFLDVAKIRVINAEDE

FLKNYKNESIKLYPSKDIKNCTMCIENFKPFTSFELKDLGEFKVFGMGYHLALDASLAILAALNFLDIET

IRTRLKNYQGIKKRFDILHADENLVLIDDYGHHPTEIKATLSAAQEYVKLGGYKKITAIFEPHRYTRLAT

NLKEFAKAFEGVDELVILPVYAAGEEPIELDLKAVFPKALFVEDIKREGKFLVASKGQVFEEGLIIGFGA

GDISNKLRQKNE

>YP\_002344448.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRVFLYFLIILILALITFALREKLGKKTKPFFGILLVIFIVLAVFFEFENTQKSHLRTDIIVAFNQNKN

ILCKDINVSKAYFNYEFGTGSFISKDNNQSFNSLIIDIKDCRLNDE

>YP\_002344447.1 endonuclease MutS2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMNDTKEELISKLDLNSYLEEFKALFARDKEIFLQGDSNLHFKRIHELCEVEFPTMPELSNLDKALVHLS

KQGILHLDEIFEFVKIFRYFEKLKKIKLGTNLGSWLQKIEFVSGALELCLNFDEKGELKESLDERLVNLN

AALRLKNESIIAEFKKFCYTKALMPYLIDTQIHLINNLEALLVRGGFNHAIKAKIIGRSSGGGFYIVPLS

VENLQNDIEKIKNQKEEIYYEYAKNFSAFLAKNLPFLKFINTAFDLFDHYSARVLLAKKRDFEFVLCDQS

TDLVLKNFAHPALKNPKSVSLEFKKQVLIITGVNAGGKSMLLKSMLSAAFLAKHLLPMHIKASESKIGTF

KEFDAIIEDPQNVKNDISTFAGRMLHFSRLFSKKNLLLGIDEIELGTDFEEAACLYSVLISKLIANNLKI

IITTHHKRLAMLLAKNEQVELIAALYDEELSRPKYEFLKGTIGKSYAFETALRYQIPPNLVSEAKKLYGE

DKENLEELVGKNINLELELKAKLENVEKKEQKVDEILLSLKEQKEKNEQEFRTSLRNLEFKFHKAIEEAK

KTIQLKDIKDKQRSLNKTNELKKEIILPSMEQNEELRVGDFVKYEKIKGKIISISKNDAMVESDGIKLRV

PLKLLKKSTPTPKISPKTSISVAKPTNLSVSLDLHGLRSDEAISRLDKFISDALLAGFDEVLVYHGIGTG

KLAFAVREFLKTHKSVKGFNDAPINQGGFGAKVVRL

>YP\_002344446.1 restriction modification enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITKDNLKQVLENLGFKNKNENYVKTINNYTLLIDYKNQSINYPKEIKIHDKTTSNFSHPENFVVFECVH

RLLEKGYKAEYLELEPKWNLGRDKKGGKADILVKDNENNPYLIIECKTTDSKNSEFIKEWNRMQEDGGQL

FSYFQQEKGVKYLCLYTSDFSDKLEYKNYIIQAYDNEEYLKEKELQNSYKKSNNNIELFKTWKESYELQY

FKQGIFEENVNAYKILEITPTFDNLKELKEEGKYHEFAKILRKHNISGKENAFDKLVNIFLCKIYDETFN

KNNLKFGYFGVMADTYANMQDRLMWLYKEAMKEFLGEKITFVSNEDIEKDFKQLKIKTLKEVMQNYIKEL

KFYSNNDFAFLEVHNKELFLKNALVLKEIVELFANYKLTQNSTNQFLGNLFELFLQKGMKQDEGQFFTPI

QICEFIMYSLPLQEMLSKSSKALRVIDYACGAGHFLNTYANELKRYLTEDELKEHYKNIYGIEKEYRLSK

VSKVSSAMYGQNEINILYADALASFELANTNNLEGEKAKPQIESNSFDLLIANPPYSVKGFLETLSDKSK

NTYKLFNDDINIETNNSIECFFCERANQILNDNAKAAIILPSSILNKDSIYKNTREILFQNFDFIAIVEL

GNQTFGATGTNTIILFLRKKETFKQENHLISQDYSLIKERIEAENLKDNENFYQNYLSAYCDFRKFDKEL

YSNFLNGNLDSKLAELEAFKDYRNAFRQTSDYKKLKESKIYKESKDKQDLEDKAFLAYTQAIEKDKLLYF

CLSLNQEVLIIKSPSDIKEQKKFLGYEWSNRKGDEGLKELHEPYLSPLFERGNPQNETKLNTLICKAFLK

TLSDIPKDLQGYASKARLIDMMDFEKVEFNKAISLNVKSRDELNPFKNSKYELVRLGEVCDLNKIRNQAS

ATEIEKMNLNSGNVKLLPSSKNYEWWTDEKTAGQFINEGEVITLGVARYANIKKHKGKFVSANNHILSVK

DKSKIIFDFLYILLEICGQKLYKQGQQYPQFDTNIFYSFKIPLPPLEIQKQIVAECEKIEEQHNTLSLSI

KEYQKLIKAMLQKSGIIEDNQEYELNSILENLQKLESKLDFNLLLSLIEEQISHSEVLVEETQSKERKQD

FNAFKNFSKTIQELLQTLSTPPKDGWKRISLKNEQYMELNPSKKEISKLDENMLVSFIEMASVSDKGYIQ

SKIDRSLNEVRKGYTYFIENDILIAKITPCMENGKCAIAKNLTNNIGFGSTEFHIFRAKTGLDSSFLFYN

LNQQNIREKAALAMTGASGHKRVPISFYENLTIPLPPLEIQEKIVQNIELVEQQIDLLNLKLEFLEKEKE

KILQKYLFS

>YP\_002344445.1 NAD-dependent protein deacetylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNIMILSGAGLSAPSGLKTFRDNDGLWEEYDVMEVCSATGFRKNPKKVLDFYDARRAQLQNVKPNHAHE

KIAQLKEKWGKNLFVITQNVDDLLERAGCKDVVHLHGFLPELRCLKCEGIFNIGYEKFTDKQCPKCKSKD

LRHNIVMFEEQAPAYATLYSLLHQTSLFISIGTSGAVLPVGQYASMCEKSILNIYEKDVNLERYFDKIYI

EDIISAIDKIALDIENFMKDGNV

>YP\_002344444.1 LysE family transporter protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDSFLSGVFLGFGVSVPFGPVNILILTYALKAFKNSIAVGLGAFSMDMLYLFLLQFGLLNFLDNVIFMR

FLAIFGFCFLTYMAYLMLRKKKESLNLEHKEFKESLLKSYIKGAFLNGSNPFVIGFWLSAASVVLSSDHA

YLMTLGLVVAILFWVSALAFVVARYSHVFSAKVVFIINIISAIIIEYFALNLLYKTFLG

>YP\_002344443.1 succinyl-diaminopimelate desuccinylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNAKEFLIELLKFKSVTPNDDGALNFIAMELSDFEAFFIEKEGIKNLLLTKKFKDEGEHLAFGGHVDVVP

AGEGWSNNAFAPVEKEGFIYARGAQDMKSGVAAFVDAAKNADFKGARLSLILTSDEEGEAIYGTKAVLEW

MQERDMLPDYAVVAEPTCVKKIGDSIKIGRRGSINGKLLIRGKQGHVAYPEKCINPVHDFAPVLKLLAGF

DLDPGSAEFSPSKIVITDIRGGMGVCNVTPNDLKLMFNVRNSPDTSLEDVKSYVEKICHGLNYELELKQS

SEAFLTNIDNKIVQKMNESVQKITHEVPELNTKGGTSDARYFAKYGVKVVEFGVCNDRIHAIDERVSIEE

FEKLCLVFKDLIENF

>YP\_002344442.1 thiamine biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIINGQKLELKELKFMDFIKEKGFKIELIALELNGEIVPKSEFENLILKENDKAEIVSFVGGG

>YP\_002344441.1 thiamine biosynthesis protein ThiF [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRVKFNGKELDTDFKTSLEFFENISKNENDVWIINGFATKENIALNENDELFCIEKNTLPPKDALDAMM

RARHTPKLHDKLKNGRVAVCGLGGLGSHIAINLARSGVGYLKLIDFDVIEPSNLNRQAYRVSDLGKFKTE

ALKEQISEINPYISVEICTLKIDEDNLESLFKDIDIVCEAFDSAIAKAMIAQNFHRFYKDGILICASGLA

GYGDSNSIQTRKIAKNFYVCGDLVNGAKLGNGLMAPRVNICAGHQSNLVLELLANKE

>YP\_002344440.1 thiazole synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQENLKNDKLKIGKYEFDSRFILGSGKYSLELIKSAIEEAKAQIITLALRRANTGEIANILDYIPKNITL

LPNTSGARNADEALRIARLSRELGCGELIKIEVISDSRYLLPDNYETIKACELLAKEGFTPLPYMHADLY

AARAMRDAGAAAIMPLAAPIGSNKGLCAKEFIQILLNEIDLPIIVDAGIGSPSQACEAMQMGVSAVMVNT

AIAEAKDIALMARAFSLAVNAGRVAFLAGVASVSEAKASSPLTGFLRD

>YP\_002344439.1 thiamine biosynthesis protein ThiH [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQDYMQHLPHMQEIKSEILNKVLTQVQSYDESQFSAKDVKNALNQTHLSIEHLKALLSSAAEDFIEELAF

KSAKVKQKYFGNSISLFTPLYLSNYCNSKCVYCGFQKGNKIARAKLNEAEIHEEMQAIAKSGLEEILMLT

GEGREFASVEYIANACKIAREYFKVVGVEIYPMNEDEYKILHEKGCDYVTVFQETYNPLKYSKIHLAGEK

RIFPYRFNAQERALKAGMRGVAFAALLGIDDFRKDALATALHAHFLQQAYSHAEISISVPRLRPIINNAK

IHPKDVSEKRLLQVLCAYRLFLPFAGITISSRERIGFRDEVIKLGATKMSAGVSVGIGEHKGEKKGDEQF

EISDDRSVDEILAMLKRSNLQAVMSDSIYVG

>YP\_002344438.1 thiamine-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWDKKIIAISDRKCVEIDFLKQIEKLAKAKVDAIVLREKDLSEFEYYDLAKEVLSICAKQKVTCFLHFFD

RECLKLGHRYFHAPLSLLRKEPKLTKYFHILGTSVHSKEELLEAMSYKVNYAFVGHIFESSCKMGLEPKG

IDFLKSLLEFSQIPLYAIGGINAQNIENFKDINVVGVCMREILMKEKDLKKYLLECRQNLR

>YP\_002344437.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKILSLPEDLKQLKGVNYKKIKSCTFAKYTQTDTSHSTFVNVGSHLLTFVRKGYKILHTASKDYKINSY

ETLFLKAGSYTLSNVGLSKGVYEAYLFFFDNAFLIELIYKYKDFFKLDQKFQNYEIFWVKNDKILQGILE

SFSPHFEENTQILDPIVSLKFEEIFLHLLLNKNIYFISFLSGILKEFRLDLSQLFEYCGREFLSVNEMSN

FAKLDLATFSKEFKKCFGQSPKKWLDEKRLQKAKILLKFSKKNINEIANECAFSSVAWFIERFKEKYEQT

PKQYQKTKNLYFLSKN

>YP\_002344436.1 ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYVLSLALLGSLLGASELKYQEFDGFKSPESIFVDKNYVYVSNVGEKLEPLAKDNDGFISKLDKNGKV

LEYKFLTHLNAPKGMMEIGKTLYVVDIDVLRGFDLKTKKEIFNLPIKGAIFLNDIEKLDDNTLLVSDTGT

GLILKVDLKTKQYDELLKLDLAKFGGPNGLYLDRKKHKLFIAGYHPDGVSGGVVMAYDLNTKELSIIKNE

KESYDGIVPYKDGLLVSSWGNNLNGYIYNLDNVKSVKLELPLMKGPADIFIEGNILWIPKMVEGKIFKVE

LNK

>YP\_002344435.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MASFKKIFWINVTIVIIVAFNLRAPITAVGPIIDIIKDKYYLNSTVAGILTSLPLIAFGSISFIVGYFSP

IRAIVFGIFLIFLGEIIRSYFGVYGLFLGMLAMGCGIAIANVLLPSFIKEKFPKKMASIMGIYSLVLSIS

SIMGIALAIPLLSVFDLAGAMFFWAIFSFVALVVYYPQAKNGRFFRIKKKTHKKINLFTNLTTWKITLFM

GFQSFLAYSLFFWYVQIVVEKGFDKEFSTSMVLFAQLVAAPVSLFGPLLLGKLRQNLHTFYIAGLCSMYV

IAFGMLFIFDSKISIIISAFIMGFPWGGVFGIALLFIAQKSSNAQIAARLSALAQGFGYLIAAQGQWIIG

FLHDKFENFSFAILMLVFVGILVNIFGYLSYKSQIIK

>YP\_002344434.1 UDP-N-acetylglucosamine--N-acetylmuramyl-(pentapeptide) pyrophosphoryl-undecaprenol N-acetylglucosamine transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTIALTGGGTGGHLAIVRCLLESAIKKNIECVYIGSQNGQDKAWFENEVRFKEKFFLSSKGVVNQSKFDK

ISSLLHTLKLSKDCREIFKKYHIQAVFSVGGYSAAPASFAALFSHLPLFIHEQNSKSGSLNMLLKPFATK

FFSAFEKEISPYPVADKFFDNARIRKELKNIIFLGGSQGAQFINELALNLAPKLQEQNIKIIHQCGKNDF

EKCKKHYQSLNIQADIFDFSLNLEEKMKNADLAISRAGASTLFELCANTLPTIFIPYPYAAKNHQYFNAK

FLQDQALCQIFMQNSINLDEFFKSILKLNLENISTRLQNITQKNGADMLIQKALFDNLTFIR

>YP\_002344433.1 cell division/peptidoglycan biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVADKRLFYLSCILITIGIVFSYSLTAFTVLFLDYSEFHFFIRQLFFGISGILIMFFISRLDPDKALSKK

IILAILIVSFIFIIILPFLPSVLATASGGAKRWIRLGPLSISPVEFFKIGLIYFLAWSYTRRIDDSKKAI

RHEALILLPYCILASIVIGYIYITQNDLGQSVISFFLILALAFFAGASKRLFAFGTLIIMMIGIMVIFSN

QRRIQRIASWWGNIQDAFLPMLPDWLANALRVSSNSEPYQISHSLNAIAHGGMFGEGLGLGTFKLGFLSE

VHTDFVLSGITEEIGLLGLGVICYIYLWMILRIFRIAGRCEAKQDFIFCSGIALLLLFSFFMNAFGIISL

TPLKGVAVPLLSYGGSSMWAICIGIGYVLMISKKVKL

>YP\_002344432.1 acetyl-CoA carboxylase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNQIHKILIANRAEIAVRVIRACRDLHIKSVAVFTEPDRECLHVKIADEAYRIGTDAIRGYLDVARIVEI

AKACGADAIHPGYGFLSENYEFAKACEDAGIIFIGPKSEVIHKMGNKNIARKLMAKNGIPIVPGTEKLNS

YSMEEIKIFAEKIGYPVILKASGGGGGRGIRVVHKEQDLENAFESCKREALTYFNNDEVFMEKYVVNPRH

IEFQILGDNYGNIIHLCERDCSIQRRHQKVIEIAPCPGISDNLRKTMGVTAVAAAKAVGYTNAGTIEFLL

DDYNRFYFMEMNTRIQVEHPITEEITGIDLIVRQIRIAAGEILDLEQSDIKPRGFAIEARITAENVWKNF

IPSPGKIGEYYPALGPSVRVDSHIYKDYTVPPYYDSMLAKLIIKATSYDLAVNKLERALKEFVIDDIRTT

IPFLIAITKTREFRRGYLDTSFIETHMQELLEKTEDRHQENKEEVIAAIAATLKKIRESRE

>YP\_002344431.1 hypothetical protein Cj1036c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFLDSLKSIKKEMQANTNTSKLAKKSSKSGASVKNLEKLAKDIREKNQETNIDKEMQEIFLKQEKLQDE

FSEFIKNADIKKI

>YP\_002344430.1 arginyl-tRNA--protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEIGFCTLEDQCPYLKDKRSRIEYKYIENCPKEINNELIKRGWRRFGRYFSRPICKDCDECLSLRILVN

EYNFSRSERRVVNKNINTKVILRTPNLSNEHLFLYDKYHRFMEEKKNWKRYDLSFKQYYNLYVDGFMNFG

YELAFYIEDKLVCVDLIDILEDGISSIYCFYDPDFSYFSLGKFSLLNEIQIAKKMNLDYIYLGYFVKKCQ

SLSYKADYTPNEILKGTKELFENEVLWEK

>YP\_002344429.1 DnaJ-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIVQTLETINVNTDDISVFQYFKDLITKNFTKVIGRKNKIFSFFEENEIPQRRYFLKVLDQKYRKSTNE

GIENLQDAHFKTFRLIFEQNNMLKPMLFIKIDFVAGRILMKLSSNEKLFITYIRNYFQDHNIEYNEMTNI

LILEYKNENTLELFEAFADESEHLKYCVNFEVDREEYKKFRQNIHNKENMKWKFNALAKLFSNYFNTLEC

TPQNDLSEIRQKYLILVKLYHPDFHQGKSAIEKAYAREQFEKIQIAYDNLKALYKNNT

>YP\_002344428.1 multidrug efflux system membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKLAINRPITVLMFFLALMIFGLISAFSMSVNLFPNVSIPLIKITSKINGDLNFVESKVTKEIENALSE

IDGVKTITSAAYDNFSVSVVEFKLGKNLEVAANDVRDKIGTLSLPSKPEIEKISSDSGSAISLFLYSKDK

LQLMREINDKIKPFLQRVEGVGKIEAKGFLEPQIRIELKPNQLRKYNLNALDVANIIKSQNFKQALGELN

NNQDNYIIKGYFEATNLEELSNLRIKTGVFLSDIANISSLYEDEKQSALYEGKEGVLLELGKITNYNTLE

MIKNVKNALPILEKQIPKDISINMLYDKSLNIHKHLSQVIFDMVLGIFLTLVIVFLFLRNLSTTLIACIA

IPTSIISTFFIIDLLGYDLNRLTFIALTLSIGIFIDDAIVVIENIAKKLKTYPPLQAAFLGINEIGFSVL

SISIVLLCVFIPISYMNSISGLFFNALGISVASGIVISFLVSVFLIPSIGARFLNPKENKFYEKTEAFFE

KIEQKYENLLYKILQNKVKFILATLVFIGLSFALATRIGLDFLPMEDDSEIQVLLESKKDLSLEAMKEKS

LNLLEKIKNDSNVKYAFLLVGYDDAKDATKAKIYVKLKNLDERNLRQSAIVSLYRQKFQDESLKIKILEL

PKIEGAGIDDPVQFLILGDDLNTLKEAASQAKEILGTNARIVDISDNANATKDEVALHINKEKAKLLDVN

PQYIAGVLGYSFSQLSVGSMDRGNSKDDIILSFAPEFKKDIEALKRISIKNNQGINLELSSVVDFIYSKD

LKTINRYNKNRSVKITAGVNDLSLGAVQKLLLDNMDKILNNNPSLSYAFSGFINLLGETVQGFAMAVALA

FVLIYLVLAALYESFILPLIIMITMPLAFGGASIGLFITGHNFSLFVLIAIILLFGMVGKNAILLVDVAN

KKCHEGLDPDKALLIAGKSRLRAILMTTFAMIFAMLPLALSRGAGYEANSPMAIAIIFGLISSTLLTLLV

VPALFKFCFKLDSKLRKIYEREKLN

>YP\_002344427.1 mutlidrug efflux system membrane fusion protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILFLLLVFNCAFGEEIYASFNVEASKQSKLALESIGLVQKIPVEIGQKVSKGELLLALDQESEKIAL

QNAQNSYQLALVEYENTKSRMQKIKAVENVIDKQSYEDMKAKFDAANLNLNKAKINIAYYKNIMAKKELR

APYDAIIANKFIQVGEGVGGVAQPLIEIFSYPQSKLILSFDEKYKDKVRLGDDFFYKIDQNGTELKGKIN

LIYPSIEVKTRKIYAEVQTTNLTPGLFGEGRIITKD

>YP\_002344426.1 multidrug efflux system outer membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFEKYLKSAIFLALYPLAMLASNLHEFIALSQNNESYLIKQMQSEQANLDKEQAFRNYLPSLSLNSAYVA

NNKDRFIIDPQESLFAKVSLNFLLFDGGAREANLRALESREKLSLLDKEQNKNYLALNAITLYFNTLSLE

KILLANQQKVSFLKSTFERLQKFYDAGLSPKDELESIKAKYHLSLLELSQNELKLANIQKEIKILSDTDF

KVQGNAFLENPQQEKSQNYEVMIAKEQINLAKESVNLAKAEYFPKFYIQDNFNFYKNNYNPKVPAPFANL

ADQFLEKYSQGNQFILGMEWKIFDFNARAKEVEKERLNVQIANANARFSERKNKEELNYLDKSLKVLQEQ

ILALNLSLNAANLAFESVDKKYQAGLVSYVEYLQALEVKFKAQSDLELAKNEFEITKANYYFNAGIDLNS

KVKE

>YP\_002344425.1 elongation factor EF-4 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSVKNIRNFSIIAHIDHGKSTLADRIISECGAISDRQMSSQVMDTMDIEKERGITIKAQSVRLNYKFNNE

NFVLNLIDTPGHVDFSYEVSRSLASCEGALLVVDASQGVEAQTIANVYIALENNLEIIPVINKIDLPNAD

VEKVKHEIEHIIGIDCKDAICVSAKTGVGIKELIETIITKIPAPKTDDEAPTKALIYDSWFDNYLGALAL

VRIYEGSIAKNDEVLVMSTDKKHIVQDLFYPHPLSPIKTQSLQSGEVGVVVLGLKTVGDVQVGDTITLVK

NKAKEAIGGFEKAKAFVFAGLYPIETDKFEDLRDALDKLKLNDSSITYEPETSLALGFGFRVGFLGLLHM

EVIKERLEREFNLDLIATAPTVTYEIYQTDGELIKIQNPSELPPVNKIDHIKEPYVKATIITPSEFLGNL

ITLLNRKRGVQVKMDYITPERVLLEYDVPLNEIVMDFYDKLKSLTKGYASFDYEPIEFRVGDLVKLDIKV

AGENVDALSIIVPNEKAQSKGRELVSAMKEIVPRQLFEVAIQASIGNKIIARETVKSMGKNVTAKCYGGD

ITRKRKLLEKQKEGKKRMKAIGKVNLPQEAFLSVLKID

>YP\_002344424.1 outer membrane lipoprotein MapA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKKFLIFIVPILFLSACATKQDTFAQVNQISKNSQCSSCESPGGFEAKIKGLLYISDVGIQCCANKRTL

DTGIALKKVYLHRFYDLKEGQKVLNAKGKKLFVDVNFNAVFYTYLKQELEARGIVVLDNNDQNSPYVSKI

DLEFISYGATQDAIGLHSKLVGVLQVSDINKNKKFTIRTKQDVQGFDDLKETTFYTHLLIKQMANKAASL

ISEL

>YP\_002344423.1 purine/pyrimidine phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRCINCGAFALLCFCELCELELSEFSLNVRKLDNNFKVYSFYKYHEIQHLLHSKHYFYGYFVYKMLAKLS

FAKFKDFFDPRMTINVIALDDKVEDMLYSHSAILARYLKTKFVKPVFNVLKAQNSVKYSGKSLEFRQKHK

RNYKLLKTIHEPVILVDDIVTTGSSLLEAKKVLEENKISVLFALVLADAKV

>YP\_002344422.1 DNA gyrase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENIFSKDSDIELVDIENSIKSSYLDYSMSVIIGRALPDARDGLKPVHRRILYAMQNDEAKSRTDFVKSA

RIVGAVIGRYHPHGDTAVYDALVRMAQDFSMRYPSITGQGNFGSIDGDSAAAMRYTEAKMSKLSHELLKD

IDKDTVDFVPNYDGSESEPDVLPSRVPNLLLNGSSGIAVGMATNIPPHSLNELIDGLLYLLDNKDASLEE

IMQFIKGPDFPTGGIIYGKKGIIEAYRTGRGRVKVRAKTHIEKKTNKDVIVIDELPYQTNKARLIEQIAE

LVKERQIEGISEVRDESNKEGIRVVIELKREAMSEIVLNNLFKSTTMESTFGVIMLAIHNKEPKIFSLLE

LLNLFLTHRKTVIIRRTIFELQKARARAHILEGLKIALDNIDEVIALIKNSSDNNTARDSLVAKFGLSEL

QANAILDMKLGRLTGLEREKIENELAELMKEIARLEEILKSETLLENLIRDELKEIRSKFDVPRITQIED

DYDDIDIEDLIPNENMVVTITHRGYIKRVPSKQYEKQKRGGKGKLAVTTYDDDFIESFFTANTHDTLMFV

TDRGQLYWLKVYKIPEGSRTAKGKAVVNLINLQAEEKIMAIIPTTDFDESKSLCFFTKNGIVKRTNLSEY

QNIRSVGVRAINLDENDELVTAIIVQRDEDEIFATGGEENLENQEIENLDDENLENEESVSTQGKMLFAV

TKKGMCIKFPLAKVREIGRVSRGVTAIKFKEKNDELVGAVVIENDEQEILSISAKGIGKRTNAGEYRLQS

RGGKGVICMKLTEKTKDLISVVIVDETMDLMALTSSGKMIRVDMQSIRKAGRNTSGVIVVNVENDEVVSI

AKCPKEENDEDELSDENFGLDLQ

>YP\_002344421.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIYFMLAIAGIFAGCVPSANSATKNSSANSTAPSQDVIVQKVDKDDVRDIIREEKMLAPDASETELSF

TAVGEGIAPMNTVSTAQALALAKRAAITDAYRQLASKLYGVKVNGKDTVKDAMLRSSTITAQVNGLIKNA

SIIDENFNQGLYRVNLELKIDADKWKELFAY

>YP\_002344420.1 hypothetical protein Cj1025c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MERIVCLLIFLSFKLFAQDEFIFWAELSSKNFILFHQNQNLSLAMTQSENVEEQWVCEISYSDQDLKVLP

RTSLGLIDDNMPKTIKFNFLNSHKDELSDCFIGARISVKDIVNTDLLRAQSETYVKILPLRFTVEFGEQN

AIIYYLKKK

>YP\_002344419.1 sigma-54 associated transcriptional activator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLVIVEDDINMRKSLEIALAEYEEFNIKSYKSATEALKKIDDNTDLIITDINMPGIDGIEFVKACENKY

DFIIMTGNATLSRAIEAVRLGVKDFLTKPFDVDTLVEAIKRAKIIREKTADKKSKKNEKKEENKDFFSTS

PNLEKTLNLSQKAAKTDASVMFFGESGVGKEVFSRYIHTHSKRSNKPFIAINMAAIPANLIESELFGFEK

GAFTDANATKIGLFEMANEGTLFLDEIGEMPYEIQAKLLRALQEKEITRLGSTKSIKIDVRIISATNANL

DEKIKNGEFRSDLYYRLNTVPINIPPLRERKEEILGIAQKVLEDTCKEYDFKEKQLSQEAKNALLEYDFP

GNIRELISVVQRACILSENDEISSEDLFLEARSIKKDVKNLEKELICEVLLSVDYDKDQASQILGMDIKI

LNEKIKKYQIKDK

>YP\_002344418.1 aspartate-semialdehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKQKIAIVGATGAVGEELLNVLDELDFPVESILPLASAKSVGSEVEFKGKAYKVKELTENVFKENPID

IAFFSAGGSVSEKYAKFAVESGAVVIDNTSHFRMEKDVPLVVPECNPEDIKDWKKTGIIANPNCSTIQMV

QVLKPLNDAFNLKRVDVSTYQAASGAGKEGMQELVEAMQSFFAFKLDEFEPQTFPYTLALNLIPQIDVFM

DNDYTKEELKMVNETQKILHKNLEVSATCVRVPVLRSHSEAITMHFEKEIDVKKAKEILKKAPSVIVIDD

PKNKKYPMPLMTSDTNETYVGRIRADVYDKKILHLWCVADQIRVGAATNAVRIAQKWLELKNK

>YP\_002344417.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEKIFESLLVRSRIVTILPVIFGLIGAFVLFFIASYDVLKVIFYTYNYFFDAGSNVDLHEDVVALIIGA

VDLYLMALVLFIFSFGVYELFISEIEEFKQTKQSKVLEVHSLDQLKDKLAKVIIMVLVVNFFQRVLQMKF

ATPVDMAFLAGSILALCVGLYFLHKGGH

>YP\_002344416.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLIGMILNHFVFAAPLDEVFKDIEVSGTVRYRYDIKKEKKYNKKTHRYQNKTQTEITIK

>YP\_002344415.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIARWLFISSIFVVALFGINLKSFFTYTFDANKQYDMEKAKALYFQNKCNTCHGDNAEKSVIGSRILKDM

SPEDIKGALIGYTLDSSSSTTASQMAFYARNLSHEDIDNIIAYIKGGNFALDLQVKDLLEEEPAQKTKHN

IFLK

>YP\_002344414.1 branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLTLTLSVLTMVNCLYAKDINIGVVLPLTGTVAAYGQDVFNGIELANKLQPKLSNGDVIKLITIDTKG

DKLETSNGVNRLIATDKVLGIIGEATTPNTIQAISIAEEKKIPLIAPVASGDKLLDKKKYASRVCFKDSF

QGDKFATYVSKDLGLKNAVIIIDQSNVYSLGLARAFENSFKNNGGKIIKKLVINSGDKDFRAVVSQLKSL

NPDFVYMPIYHPEAALIARQARQIGFDKLLVAGDGVNNQTFIDLGGSAVNGVIFTDSFDYNSPSTQLGKD

FVAAYEKVKGTKELPAFSAMGADAYFVMLNAMNACVDNLSSECINSKIHQTKDFQAVGGVISIDESGNAI

RSVVIKEIQNQKQNYKTIINP

>YP\_002344413.1 branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKSLILASILSLSLSAAEVKIGVVLPLSGATAAYGQSALEGIKLANSMQSALSNGDKVSLAIIDTKGDK

LESSSGANRLVSQDKVIGLIGEMVTANTLQVMRVAEDNKIPLIAPAATGDRLLDKKIYSSRVCFMDSFQG

SSLAKYVFSKLNYKSAVIVVDQSTDYSLGLAKAFEKQYKSNGGQILRILRVNSGDKDFRAIVAQVKSLNP

EFIFLPLYYSEASLFARQSKLAGLNIPMGSADGVADQTFISLAGDASEGYIFTDSFDANNPTTKLSKEFI

SVYEKAKGTKEVPNFSAMGADAYFVMLNAMNACVENLTSKCVNEKIHQTKNYQGVSGVISIDQTGNATRS

VVVKEIKNQKQNYKDIINP

>YP\_002344412.1 branched-chain amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDSTLFLQQLVNGLSLGSMYALIAVGYTMVYGVLRLINFAHGDIMMVGAYAALFCMTNLNVPFLGALSLA

MIFAACVGIATDRIAYKPLRQAPRISLLITAIGISFFLQNLFNMLFTSTPRTFTPPSYFEESVNFGGVIT

TYGSLMVPALTFVILIAVLWILYKSKYGIAIRALAFDIQTVNLMGIDANRIIAIVFALGSALAAVGGVFW

AANYYSVEPTMGTLIGLKAFAAAVLGGIGSVVGAVLGGLIIGFTEVVVVAFFPDLSGFKDAFAFIFLVFI

LLFRPTGILGINFEKSRF

>YP\_002344411.1 branched-chain amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMVRIKVSHLIFLIASIIFIFISPYIFGDYGLNIVNQIAIFIILAVSYNLINGVTGQFSLEPNGFVAIGA

YAAALVLLSADAKNDQFFLDGPSSFILAIHSNSFILALIVAGICSSLLALILAFAVFRVRGDYLAIVTLG

FGIIIKIAAINFPSITNGSRGLVDIPQFSTIYWTGGIAIVAVILILNIVYSKYGRAMKAIRDDEDAASAM

GINTFWIKTLAFSTSAFLEGVGGGLLACLLTTVSPTQFDFLLTFQLLIIIVLGGLGSTTGAIIGAILVIG

GSEWLRFLDELNIKIDSLNLDIQSTPGLRMVVFSIVLILVMLFARKGIMGYYELSDVIRGIKKRFKRSKK

>YP\_002344410.1 branched-chain amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILELKQISKSFGSVKAINETSFKINEGEIFALIGPNGAGKTTLFNIITGNYKPSSGSVEFLGERIDHLK

PHKIVHLGIARTFQNIRLFSSMNVLENVLIGFNKQMKYNIFEAFLHLGRFGKIEQVFKEKAYAILEELGI

AEFAYEKATSLSYGQQRKVEIARAMATQPRLLLLDEPAAGMNSSESDELAGLIFKLRKDYKISVLLIEHD

MKFVNKLCDRVLVLDYGKTIFEGKLCDAVNHKEVIAAYLGDFDANS

>YP\_002344409.1 branched-chain amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIVKDLHVYYGLIEAVKGIDFKVETGHIVSLIGSNGAGKTSTLNALLNSVKRTGEVNFLGYDTKRHLTH

TLVQKGIALVPEGRRVFINLSVEENLKIGAFNNAENYEHLREQMYKLFPRLASKKHALAGTLSGGEAQML

AISRALMSEPKLLMLDEPSLGLAPKIVGEVFDIIVRLKEEGITILLVEQNAYSALKISDYAYVLENGRIV

MENEAKNLIGDDEIRKKYLGL

>YP\_002344408.1 cytochrome C biogenesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNIIKSIGDLRVSVVLFLLFALFCALATFIESAYGTPTAWAMVYDTFWFEYIQLLLGINLLCGMFRYKM

FGLKKLPLMIFHISFLFILVGSAMTRYAGFEGILPIREHTQNSLIESSKTSLRISAIKDGERYSAVNDRY

IGNLPFANSFKLKLNLGDDQAVLKYKDLILNAHYTYKENNNSDPLLVLMLSQKGSQGVDVKFEKGEVKNI

EGVNFAFMNDNVKAPFVKIDENLTLSSSENLHFLSMLDGQNLDLKIGEKANAKERRLYEINDISFVVKAA

SLHAQEALEGSNRPQDESFWLWFKSAWLEVGRTMLISTFGEPQNWKNSLLLHFKDFALSNENKNLELTGS

NALKLELSYKNESKEFYIFEYNKPIMIELADQKFFISWALSYEQLPFDIYLRDFVLDRYPGSMSPASYAS

EITVKNNNENFDYRIFMNNVLDYDGYRFYQSSYDQDEKGTVLSVNKDPGKIPTYIGYFLLCLGMFMNFLN

PHSRFRTLARLINKDTLKHTSVIIFILLLSFGSEKTFAQDLNSTLPVVNTNHAKALATLIVQKSADGRMV

PFDTLSREILEKIHQSDSYKGQNSNAVMLSMLVDVDKWQLEPFILMPQNQAVRDAIANILEIPSAKYIAY

KDFFDENNRYKLQKYVENANRKNPNARGVFDKEIIKLDERANVVNLVFSGELFKFIPVQNNPNNVWLAPF

SAVTTLKGDEGHIVLALIQNYFSAVENAFKDGNWIRADEGLKFIKEYQEKIGYKVMPSKTKVEMEIFSNK

AEIFVKLAPVYLIAGFLLLILVFSKMVVPNLKISFIFKVVYVLNVLAFVIHTVGLGLRAYLSGHAPWSNG

YESMVYIAWALSLSGIFFSRKSPIALSLTSILSGVVLMVAHLSEMNPQITNLVPVLNSYWLSIHVSVITA

SYGFLGLCALLGIFTLFLMCFLKKDGKYNLNILRNITEATRINEMAMIFGLCLLTVGNFLGAIWANESWG

RYWSWDSKETWALVSILVYAAILHLRMIPKYCNQFVFALWSMFAYWVIIMTYFGVNYFLTGLHSYAAGEA

AQIPNYVYWGFALMVVLAFFARRKRNFVGKL

>YP\_002344407.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVIFCAALALLLFLGVIAYLITSDGKKTIKKQKTSQKQHVAEKTKKFDTDLDKMIIAASDVKLTDIELKE

LAKLYVQTHKLGSKTSKELDEAAKKKLEFVSALAANINASAQTVSYLNKELKKIYGSYKKEIDAYEHMGL

AKRKIKEDK

>YP\_002344406.1 CorA-like Mg2+ transporter protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLELHENLKKILQAKNLETFYSEIYGQKIFVYVGLNLETWLFNDEKIYKLQDGEFKLSSIEEFSNFIKSI

LEDFKVQNTHFQNLLEHKEGIILKGGFVKNFYKKSFVLRQKINKNLKQINLLSEAFNLLLSEQAQYKKHL

KILNLSISILSKNTKEHLARIDTLYTLTNAIKNEKMNKSIYLLSILSSIFLPLNLIVGFFGMNTNNLFFK

DSPYGTLYIFSLICCILIVGFIFYYSKKTKEFDLDEGKKAKKQTK

>YP\_002344405.1 queuine tRNA-ribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFKLKHKDGMARVCEITTAHSTFLTPVFMPVGTVGAVKSLDANDMKNELDAKIILANTYHMYLRPTSKV

VKDFGGLHGFTKFDRSFLTDSGGFQAFSLSKNSKHFNEGIEFKSHIDGSRHLFTPKSVLDTQYDFNSDIM

MILDDLVALPATKERVKISVDRTILWAKEAITYHKNMQNKGIGIGQNIFGIIQGGTDYEERKRCALSLNE

MPFDGLAIGGLSVGEENALMYETVQNLNPYLDENRPRYLMGVGTPEDLVENVERGVDMFDCVMPTRNARN

GTFFTSFGKFNIKKAEFINDHEVIDSTCSCYTCRNFSRGYLNHLFKAKELTFFRLASLHNLHYYLELARK

MREAILNNSFTQFKRNFYHLRGK

>YP\_002344404.1 hypothetical protein Cj1009c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNILIIIDGILAKHFLERLCFEKGLGYFFTVVCQNSEKNNLNISSEYIDLHYFDPTSTARLENIMSKDF

KQAFIYMQDEFETKKSYEALRSLNPNLEIEIMDFWGLSVNDTHANLADARMTLSRRFMDFLPDIALTAQY

IGLGVGEIMEVKIPAGSIFAYRHISSIQQKRWRIVLIYRNSKIYFVKPSFVLEPNDSILIVGDPVVLQSI

FHNIRGKAGQFPMPFGSNVFALIDMKNMNQNMQERVLDTTLKLTQKSNAKRFFIHVINPKLGVMYEKLKK

LSEDKEGVFFDYFNTDFKQISMWLQNNDIGLVVTDIKNFEKEKQAFFDLKIPIMKVGEASFDELKEAIIL

SADESELENNANVITDLSKQLDFGVILYYYNPNSQNTTDMEEYFRSLSKLYDKNIQIINKNDENPLLNLQ

YREDLLQFVSFQKELLNRDFARNLSTNLNRHYYKMRQNYQLFIPVE

>YP\_002344403.1 3-dehydroquinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQVEVKLKENAYKVYIDELEELEFDSKVFILSNPKISGLHLKTLLSKIKAKEIFIATVKDGEEYKNLSTM

EEILNQMFNSKLDRKSVLISFGGGVISDMGGFAASIYQRGIDFINIPTTLLACVDAAVGGKTGVNNNFGK

NLIGTFYQPKAVYCESFFLKTLSSRELAAGMAEFIKMAAMFDYSILDFIEKIDEKSFLNATCENEIFTQI

IAKSIELKSRVVEQDEKESRLRMLLNYGHTFAHVIENFTDYKLYLHGEAVAIGMVMANQLALNLGLLDKM

QSQRIKDILLKFGLPISYKINNVDEFYEAFFMDKKSSNKKINFVLASPLGKGLIKGDISKEDIIATLREF

Q

>YP\_002344402.1 mechanosensitive ion channel family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIIILTFFVVFAFGDVNRTIINNINEKINTLNTVISASIWNIRYENFIKYQDINDELIILNLNLKKTS

DIHQQEELKRKIANLEEQLNLLKEYKDLNFAQSLSAPDNIETLSKLTNPLAIIGAFSHIKKLKGEKEEYI

FKFNDFKNLVDKIREKNSELKELVELKPSVENIEALKASDKKLEEFEQALNFASVSYSVYEKKIDEELSR

VSAEIKVQSLRAVNILVAIVIVIAIAFMLKFIAKKYIKDSERYYTATKIINFININIIFLILLFAYIENI

TYLVTILGFASAGLAIAMKDMFMSMLGWCVIIFGGSFRVGDRVKVFQNDTTYIGDIIDISFLRITLYEEL

TLETYNKNRRSGRIIFIPNNYVFTNLLANYTHHGMKTVLDGIDISVTFDSNLDKAQEIVENIVTRHAKGY

TELARKNIARLQHEYSIKNPKVEPRFFMFFEHWGMRISAWYMTNAYAALVLRSTISKEIIKEFNKHKDIK

IAYPSQNLYLGNLNQNHFEQHHENMYFHARNKD

>YP\_002344401.1 MiaB-like tRNA modifying enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEKVFFKTFGCRTNIYDTELLKSYVKDYEIINDENKAQIIVVNSCTVTNGADSGIKSYVNTMQKKGIKV

ILTGCGAVSKGKELLDKKQVFGVLGASNKDKINEFLGAKTSFYELGNLNFIDKDIVCEYENHTKAFVKIQ

EGCDFACSYCIIPSVRGKSRSVDEKALLKQVEILGANGYSEIVLTGTNIGSYGLKNGTTLGKLLQKMGQI

LGIKRIRLGSLEPAQLDESFLEILDEAWLERHLHIALQHTSEKMLRIMRRRSHTDNDLKLFNTIASKGYA

LGTDFIVAHPGESEELWQEALRNFKEFPLTHIHAFIFSPRNNTHSATMKDVINGTLAKERLNTLKSIVEK

NNYEFRKKNQVSLEVLVENQKDGFFEGYDQFFNKIKIKSDKDIAKEWIVISEYEVQEKSNFTNLKG

>YP\_002344400.1 membrane bound ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNKKIILASFMVLCMLLGILYFKNEPKYIDENLYQSLLSQNLIQKAVIDKDEIWLKAEGENYVIIKDGI

DIKTLLSKVPVEVKKDNTLWVFFVLLIFIIALFISLGYFARKKELAKYPISNKNQNHTQAQNSNINLESS

HIKPVISNITFNDVAGVDEVKMELSELVDFLQNPKKYKEFGVKMPKGVLMVGPPGVGKTLIAKAVAGEAG

VPFFYQSGSSFVEIYVGMGAKRVRELFSKAKMMAPSIVFIDEIDAVGKARGEMSNVERDSTLNQLLTQMD

GFEDNSGVIVIAATNKIELMDPALLRSGRFDRRIFLSLPDFKDRLKILEIYMKDKNNNINLNKIAKASVG

FSGAGLETLVNEAAINALRRNSALVEESDFYAVLNKVLLGKKKILSFNNEEKKIQATYQAAKALSAYYFD

IGFEKITLIEDRFKEYEHNIRSKSELINRIKVYLAGSRAMRLIYNESYTNSQDDFLKIKELLDYMLSFDM

LKESNLSEQKKEMDEFLNSMKDKILKLSELLLEKEKIEYDDVKDIMQV

>YP\_002344399.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKFLNIITILSLSLNADIIISADNLPNVSKEFLQHNFKAPIGIVQKDKNSYEVYLSDGTELEFDIDGA

WKEIENKAFPFDLDFLPQNLANIIKNEFPNTKAREIERKINHYKIKLDNDIKILIDFNGTILYKEFDD

>YP\_002344398.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTIFLIFLNILCYFLISYDYYNILGLNILFFNGAYWQLLSSMFLHGNLTHLILNMIVLFQFGRMLETYL

GALCFIFIYFIGGLLCSLLSVFYVYFDFKYFGENINVIGASGAICVLMGFYAVIDKNSTKGLIVAILLMS

FVPLLMGVNVAWYGHIFGFMCGYILAKIKEVK

>YP\_002344397.1 phosphoglycerate/bisphosphoglycerate mutase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIYIIRHAKASKSEDIDDFERKLTKSGKEDLKKLFKNLASHEIHPDLVLSSPAVRTAKTAKKIAKFYN

FDKNRICFDERLYLCNVENLLKILQDIDDEFNEVFLVGHNPSLMELGELLSSLCLASFPTSSILCLEFDI

KEFKNLKKHSGKLVFFEHVRKLKEEKDLGF

>YP\_002344396.1 RNA polymerase sigma factor RpoD [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNAKTQEAELEELFQENAKDYITYEKLVKYLTKQPSASTTKKVQALMKKHKVQLFSAAEIAQMKNIEDAK

RLQEEKQKLQDTSLENEFDLANENDLLEWSRSDSPVRMYLREMGQIALLNKDEEIEISKKIELGEDIIID

AFCSVPYLIDFILDYKEPLINRERRVKELFKSFDDEEKSDDKLDELDIDEDEENETELESDEENTKKNSK

KEDERTLKVIEKFKALEKAKKDWLKTSKDKESGDELLDKLSIAFKKNILKEKLMDLGPTSKLISEIVKSM

ETALKSDEEFDKELKRLEYRLPMFSDELKKRHADILKDITKLSKEEITERALETTMVSTYMEIKKLFQTK

EASEKSFDLEKSRLKEILEQIKRGKKISDEAKGRMAKSNLRLVVSIAKRYTNRGLPFLDLIQEGNIGLMK

AVDKFEYKRGYKFSTYATWWIRQAISRAIADQARTIRIPIHMIETINQINKIIREHLQKDGKEPDVSVIA

KEVGLSVDKVKQVIKITKEPISLEAPIGNEDDGKFGDFVEDRNSLSPMDHILKDDLKEQIDEVLDQLNDR

EKAVIRMRFGLMDDESDRTLEEIGKELNVTRERVRQIESSAIKKLKHPKVGRKLKNYIEGWK

>YP\_002344395.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKDIEIFLDLLNTQSPTHTANNFSITQPNVSIVIKNLENKFDGILFERLGKKLLPTPKALELGKNWLK

IIQAYYQSLEKLNDESMLLGEIKIASTQSISEHFLAPILFDFKAEFKNIEIRSQTQNSKECLNLLKNGNI

EFAIIEAELDPALVEYENLEINFWQDDELIVATSDKKLNEKEFYIDELLEQKWILREVGSGLRDKFLNEI

GASSKKLNIFLELDRMAAIKELVLQKKAISIFSKKSIEKELKNSTLYEIKLKNIDLKRKFYTLKRKNYNF

NRALEKFEKIFKS

>YP\_002344394.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTSFLAHSVAIVRSNFKGLLFTACIVIFAMYLSSVQSIKDTTHLAATAFAIIIGVLLSPWFFKYQHHFQ

AGVHFSAKKLLRLGIVLYGFNITLTELLSVGLKGFLLSAIVIFFVFIIALFVGTKIFKLDKETSMLVGAG

SAICGAAAVLALESSLKSDPFKGILAVGTVVIFGLVFMFLYPIAFSLNLFPFFDQNAMGVFMGATLHEVA

NVAGAAEMAKDMAGFEQGASNVAVIIKMMRVILLVPFLLIVTYFFAKNQHSSSGKTAKSITIPYFAFAFL

GMIVLNTYLASKESILGIATSDIISLGKTLCTLCIVFAMAALGLQIDFKKFLKSGSRVFGLAFVLGLVLI

FGGYFLTLAFKGILW

>YP\_002344393.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILVSVLSSCLLASALSAVSFKEDSLKISFEGYKTKDMIGTKGEFKNVEYKFSKNIKDLASYLKGAKA

TIKPSNAFMGEGNDIITNNITKVFFPALLGDTDIKVVFQDVIAGENKGVISAKITMDKKSTIVPLTYTIK

DNKFEAKGQLDLHTFKNGSKALKALSDVAAGHGGISWPLVDISFNADLAE

>YP\_002344392.1 rRNA small subunit methyltransferase G [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFKDYDFLQNYDLKNFEEKVKIYKELLSKFNRIHNLTHLKNIDENIFDSIKILDFYDFSKAKNIADIGS

GAGFPVVFLAFLLQSNFHLFEPNPKKAAFLRTLKIECELPNLHIYKEKVQEYKNTFKADIITSRALMDVK

PLLEICKNLKDENTVFILWKGSEIYQELENIKDYEIFENNLRRYCILK

>YP\_002344391.1 GTP cyclohydrolase II [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEIKISEIANLPSKWGNFQMQSFKENDKEHLCIFKNTPKDTLNLRIHSECLTGDALGSLKCDCGEQLEFS

LKYIEKNGGMVIYLRQEGRGIGLFNKVNAYALQDKGFDTIKANHQLGFKADERTYEIVEFILKHYEISKV

NLLTNNPEKLDSIKEKIITRIPILIEPNRFNVEYLNIKQTQMGHLK

>YP\_002344390.1 delta-aminolevulinic acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKRFRRLRLNENLRSMVRENSLSVNDLIYPLFVVNGTGIKKEISSMPDVFQMSLDEILKECQNVVNLGI

KAIILFGVLENEKKDSCGSDALDDEGLVARSIREIKKNFPDLFIISDLCFCEYTDHGHCGIIDPKIKSVD

NDATLEISAKQALVHARAGVDMIAPSGMMDGVITTLRKALDKEGFENLPIMAYSTKFASSYYGPFRDVAE

SAPSYGDRKSYQMDFANGKEALEESLEDEAQGADILMVKPALAYLDVVKEISLHSNLPLCIYNVSGEYAM

LKAAKNAGVIDYEKVLYETIIAFKRAGAKLIITYHAKELAKMLKGEK

>YP\_002344389.1 ornithine carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAMIFEKNSTRTRMAFELAITELGGKALFLSSN

DLQLSRGEPVKDTARVIGAMVDFVMMRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWNK

MQNGIAKVAFIGDSNNMCNSWLITAAILGFEISIAMPKNYKISPEIWEFAMKQALISGAKISLGYDKFEA

LKDKDVVITDTWVSMGEENEKERKIKEFEGFMIDEKAMSVANKDAILLHCLPAYRGYEVSEEIFEKHADV

IFEEARNRLYVVKALLCFLDNQRGRE

>YP\_002344388.1 hypothetical protein Cj0993c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKELEKYSTCLKRIDEFSQNLGIKKKDRTIFKMKQSENENEKCLVLENGSFDSPEPWFVIDENDEIHTLL

SLQSLKNILESLKQSQKENFELRLEKAIYQQIPVDFNDVWTVAMDEIKQKAQNGTMEVSIDLEKLISKIK

QEHPNLFVDMQAMIERVNQNERL

>YP\_002344387.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRDYKAFVKYSKAGPRYTSYPTAVEFNANFKYEEYIEILKKQDRSLSLYFHLPFCRSACYFCGCNVIYTA

KEESKERYLTYIFKELDILSTILDTKREVVQMHFGGGTPTFFSAKQLQSLILKIRSVFGNFSKDAEISCE

IDPRFLNEEQAIVLTQNGFNRISFGVQDFDEKVQKEIHRIQSFELTQNALNLVRNKGIKSVNMDLIYGLP

YQNLQSFTQTLEKVMLLNPDRLAIFNYAHVPWLKKNMRKFDENTLPSPDVKLEILEFCEKFLSKNGYKMI

GMDHFAKENDELFKALENGTLHRNFQGYTTKGGADLVGVGLTSIGEGQRHYAQNFKDMSSYEAALDRGVL

PFERGVILSDDDELRKAVIMELMANFKLDIKSIEKEFSIDFKEYFKEDLKALEEYKDFVNFDENFIKVNE

TGVLLIRNIAMCFDAYMKNISEDKKVFSKTV

>YP\_002344386.1 oxidoreductase ferredoxin-type electron transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFSQISDACVKCGKCIPVCTIHEENRDEITSPRGFLDLLTAYKEGSLELDKEAKKVFESCFLCTNCVEV

CPSKLRVDNAIEEVRYDIAKKFGIAWYKKLIFFFLRRRKILDLVAKLGYVFQSCAFKIQNENENTGMKAR

FSMPFVKKGRLLTSFNKKSFLNSNPKFINNDGEKTIGFFVGCLANYFYIDTANAVLKITKELKINVDLMK

EQVCCGAPQFFTGDFKSVEVLAKKNIEYFEKKLEKLDAIIVPEATCSAMLKIDYEHFFIMQNDLDWAKRA

KCVSSKIYMASEYFYKFTSLEEILKTKNKFNYSITYHDPCHARKMQGVFKEPRELLKTNYHFVEMSNSNT

CCGFGGVSMQTDYYDRALSVGLKKAQMIDESKASVVSAECSACRMQISNALEQNSSKVVFASPLELIAKA

L

>YP\_002344385.1 hypothetical protein Cj0990c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMMKIVFKGKSSEYEIQRSCFCVDAFVIKDKIEERDGVDFITSNVDLLEFSDDSFTFEEIVKHFNICDTE

DMIIVEDFDMKSNKDNQNQEDDIEHNILKSEKIIHENTKQTSMQFKNLKFFSRIFKNENFLSDFKESKQE

VVTIKKHEKLEIFKNLSQEDQEISFVKIEILNYDSNEDSLSFNLDIFPSGMSYKYGILKGSMHIILQGKT

SSTMLFPFLKSMIYKNKSENSSEKIFTLMINQKKHYKLIANLS

>YP\_002344384.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFLAFIFLIIIFLFVVFIIVTRYEKKIKLLNQNIQNMKEDIADLKETTQKNRSLIEKNRSNIENIIK

>YP\_002344383.1 hypothetical protein Cj0988c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKIPYFSFLKLDFEIYHLNTSKNFYGFFILYFSFFIFKLIYKFSKSNKKIYKKIIKLKKIIKDNKYLIF

LCYILINI

>YP\_002344380.1 hippurate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLIPEILDLQGEFEKIRHQIHENPELGFDELCTAKLVAQKLKEFGYEVYEEIGKTGVVGVLKKGNSDKK

IGLRADMDALPLQECTNLPYKSKKENVMHACGHDGHTTSLLLAAKYLASQNFNGALNLYFQPAEEGLGGA

KAMIEDGLFEKFDSDYVFGWHNMPFGSDKKFYLKKGAMMASSDSYSIEVIGRGGHGSAPEKAKDPIYAAS

LLIVALQSIVSRNVDPQNSAVVSIGAFNAGHAFNIIPDIATIKMSVRALDNETRKLTEEKIYKICKGIAQ

ANDIEIKINKNVVAPVTMNNDEAVDFASEVAKELFGEKNCEFNHRPLMASEDFGFFCEMKKCAYAFLENE

NDIYLHNSSYVFNDKLLARAASYYAKLALKYLK

>YP\_002344379.1 hypothetical protein Cj0984 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILFSPSESKNENCVKNPINENSFIFKELFPYRMEALKHYEEFIKNASLQNLQELFGIKNENEIDKFKH

DLKQAPTQEAILLYTGVSYEYLNFKALDKKSQAYILENTLIFSNLFGIVRANDTLPFYKFKQGAKIGNFA

IEKFYKEHFSKALDEYLENEEILDLRAGFYDKFYTPKKKFYTYKFVKNGKVISHFAKAYRGILLSISAKN

QVKNNKELLANLPSNLKLKEIQIKGLKEEIVLEILD

>YP\_002344378.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKGIFLSIGIAVLFSACGNSIDEKTVKKYENQLNQTVKQEIASLSQDSGIKIEFSDFKCNADGDFIACL

SPNFKTLTKDNNDEYQELFQAKNIKIRSNEIYKGKANASISIKEYYNDLFKNQKSIQSNLVFEDFKLGEK

VVSDINASLFQQDPKISSFINKLSSDSYTLSFDNSINKQENNYLDNLDIKFYNAKLNFNTNLNINLKEDL

LNYLDSKGIKFNTQTLVMDKQAINELLNIANYEQASDFSNTIQKYIILNNFKIDSTLKTEGVFSSYIATA

KENLQTLKAQSQNEEQALIFDKALAILNNITQNDDYKLNLDLKFKNIPVSDYSTQGIDSIEKLSINNQDA

TEALKIILPFIMFSMLMGGASF

>YP\_002344377.1 amino acid transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILLSVLTAFVAVVLAACGGNSDSKTLNSLDKIKQNGVVRIGVFGDKPPFGYVDEKGNNQGYDIALAK

RIAKELFGDENKVQFVLVEAANRVEFLKSNKVDIILANFTQTPQRAEQVDFCSPYMKVALGVAVPKDSNI

TSVEDLKDKTLLLNKGTTADAYFTQNYPNIKTLKYDQNTETFAALMDKRGDALSHDNTLLFAWVKDHPDF

KMGIKELGNKDVIAPAVKKGDKELKEFIDNLIIKLGQEQFFHKAYDETLKAHFGDDVKADDVVIEGGKI

>YP\_002344376.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKKYKNIIYASLGGILEFYDFVLFAFFLDIFAKVFFPQNDAFWMQINAYIAFGAAYLARPFGSIVMAHF

ADRYGRKNIFYISMLLMVLPSFALAFLPSYESIGIFATLILFTIRILQGLAVGTEVSGAWIYVSEFVKGR

QIPLALGFISATLTIGLLLGNIATLGIRSYFTPEEVQSYAWRIPFIIGGFFGILALFLRNKLSETPEFIK

VQNEKKILSFPLFEALKTHKMSMLVCFLMTMVLTSGVATLMILPKYFESLLAMSKTSALWVQNFAILAVI

FGALFQGFLASKWGSYKICSIFSIAFIIFGMLFGFYDENFLFYFLLACFAQGIITFAPVFMTQIFKSELK

FSGLSFAYNISYAILGFLTPFIVNAFYKEYLGIYLAIVGSCSLLCVFLLKRVFARSKIKELSIVF

>YP\_002344375.1 peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNVIENFKQLCKIPHCSYETEQMKEFLSSYAKDKGFKVSVDKAGNIHAIKGKPKICLQSHYDMVCMGDA

PNLEVYEENGFLRAKNSSLGADNGIGIAIMMSAMAEFENLECLFTNDEEVGLMGVNLLEHTLESKMLLNL

DHESDDEIMIGCAGGVDIEASLSFNTLRKKGKIYELCAQNFKGGHSGINIIRNEKSSIKEMAKFIQENEG

EIISFEGGERINSIPKHAKALVHFKDEVKSNNWIKCEFKEENEFEICDQSKKLLSLINSFTHGVRAYDEN

LDIVQTSINLATLRMQDNQIKFALFARSNILDGLKQVEFETLEFFKAFDFKIRSFNFYPPWEGKPNALSD

MVFKALKKVSPNAKVSAIHAGLECGIIEKKQELLCASIGPNIHNPHSTDEHCEIASVEKISKVVFEVLKD

NA

>YP\_002344374.1 nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRINYKKIFNLRKLLSDPKKLFSVLIFTLVVVFIQNYIAQNSSFEGKVVRIIDGDTIEVNHENKLARIRF

FGIDAPELKQSFGKQSKEALSRILSGKQVEIIYKNKDTYGRIVAIVKLNDVDINRFLVSKGYAWADTYYS

NAYTKEQENAKKNHLGLWKESNPIEPYKWRKHNKF

>YP\_002344373.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYTLMVLLVLGISGCFVNERGISNRFYDDCKEYYDGSGTYHKDCPKNWVDIKMTP

>YP\_002344372.1 hypothetical protein Cj0977 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKDNFEEYAQLEEYASAEDISRVRAELLTCPELNTSLAGTIIEIDKNYAKSILITTSEMVADDQGLIF

DAFIFAAANYVAQASINKEFSVIIGSKCFFYAPLKLGDVLELEAHALFDETSKKRDVKVVGHVKEVKMFE

GTIQVVSTDEHIFKLKRPPLNTVKPTENQEQGAKINNPEAVAAALMASVGGK

>YP\_002344371.1 tRNA (mo5U34)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRIKMQENLLEKQFLNHPLYAKIQELKALNLACNFSLGDSVNLSTNSQAKDEILAIAKELKPWRKGPFK

IDDLFIDTEWQSFIKFNILKPFMNEISQKCVADIGCNNGYYMFKMLEFNPAKLIGFDPSIKYRLQFELIN

ALAKTPIKYELLGVEDLPSYSLKFDVIFCLGVIYHRSDPIKMLKDLKAGLNKNGVVFLDTMYIEDEREIA

LVPNKTYSKIPNIYFVPSISALKNWCERAGFKEFEVLATKKTDENEQRKTEWIDSFSLENFLDPKDKNLT

IEGYEAPKRVYIRIKI

>YP\_002344370.1 outer-membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEQSPYKEDANSKNYNNTLKVKDGVIIIDHSNTSDDNNSKTINTKKNTQKNQPNLSNDNTLKTKTPNSN

TPSLKNTSKEESIHKVSFSFHITNKNINFKDLGLDEQVLQEALNDYKKESISVQDLQDIANIISYYVQVS

GYPAATAYIPQQELKDQIQINITLGVLGKYVVQNNSSVRDYAIESKLPNHKGEIITTKLVEDAVYKVNEM

YGIQTLASLKAGDNPGETDVVIETTPSDSFVSVLFYGDNYGIKESGRYRDGASMSFNNIAHQGDSLNAYL

QRSDEAQTNYSISYTTFLGNLKITPSYSKRNYALGGAYKNANFIGTSENLGIDLKYPLWITTYNSFYLTS

SYYHKKLSNSRLNIMTIDKSSDTISFSIEGVYNGISNDSFSYSANVSYGNVKDGGTTILGMSSKTDGDGF

GKFAKLNVNLNNAYFFNDTFTHLFSLNYQQVVNGATLDSSETISLGDPYGVRAYNNGDGEGDNAVVASFG

LRMATPLKDFYITPFYNIGYSWYENDSKLYRASETNYMDAYGLQLLYNKTGNFYVKLDLARALKKYKLDD

DYSSKAYVSFGKYF

>YP\_002344369.1 hypothetical protein Cj0974 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKMIKIQKVKSLLDLVKKLKNKQSLKIKNQTNTKENLNKTHYLTI

>YP\_002344367.1 hypothetical protein Cj0972 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKGQENAQKTYDTAVNAYNEAVKACNTALSGITGNNGDKVIAGLKQAIDKVSSDLQQATIALQIATAST

NSSLENSNKTLASASINGTSHLTVNENIVQTISQYPL

>YP\_002344366.1 hypothetical protein Cj0971 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSIRSNKGLTGPGGDPTDTIGYKETSDLIAKDNISNEVLNSIFNDLKFNSSVDISDLSKFYKDGKILTAD

ELTSINQSMDFITALYGQTQDSNNATFANALKEVLGNSYGDLGKANQVIIKTKEILSQNS

>YP\_002344365.1 hypothetical protein Cj0970 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEFTKDGKLSAFKGNPKTISPVIKSNAGNVINLETITVGERVAMAGNQVSNMKYGGTDYGKFIFTNKKE

QSNTVYLNVYSNDTFVIRGPASNTIKKKTL

>YP\_002344364.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKFCFKLSIVTFLSINAFAATQANTTDNRNFNIPEHYFNDNELYDKTNSTYKKLQGINYYAKSSKQYIN

NITLIYNNPKPNITNINDLNFKHYLLTPDMREDEVLSFKARHGVNTAGHSIKTVRVLPFLITAKTDHADA

SYNKLILEQGELSSVFYLKPKDTHIKNPSNSKSNQRMNFLMSSTFTHYGNASYNQTILQKDAHISMGVEN

TYDLALNGAPYLIGAIATYGDSTNNSLNIEAGSSVEFFTSLPKKDKNGNNTFDERITHLVGGLAYQGNVK

NNKIFIKDANMIIHGPSKAYASLAAAHISAGYIDSGTDKNFQASKNLLDIDGFNLDMYMNHDKQPLAYNS

VLFADFWGGKTEQGQALDNTINLKDIKNLKKDKNNENIFAQALFNFYAGASNNGEANYNTLNIELKHPLE

IANNFLGYNQHSFYGGFATKGANHNTINIKNDLTTTDLSQSYKDALNIVAARTLEGSADYNKVYINNSMS

TLPVYIYTAKKNILNNQDFYPSSANNNEVVIKDFASFRNLTVLTEAKEASYNTINYNNVQSITDVSNIDK

GSKIIIRALDKANHNTIDIKNYSSNAADNAYLIMAYNEAAYNKIIINDTLFGVASDKREGILSIIAGLSN

NAHDNTLIINNLNLDEYKNNNSIFIAPSAITGLSEAKSYNNTLYIGGNLNIFKNTFIDILAGALVHYEDN

YSASNAAAPSDISLSKNNRLILNTKVEARIINNFEHYYLIVSNKINTTPLLKSYDAPINISS

>YP\_002344363.1 acyl-CoA thioester hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKMRVYYEDTDAGGVVYHSNYLKFCERARSEIFFNKKVDIFDASKGHFLLAKANCNFLKPAKLGDMIEIK

TKILEVKNASVEILQEIYKDEILLFKMELTLAFIKNEKPARMDMQLKKLFEELF

>YP\_002344362.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLIFFLSCFLLNAKEQKLVDVKPVENFYPKLSVQECNTNCLFDLLESRLYLSFLSEFADQNDQFLS

NVYAKLLNSITDFEKNVQKITSVKLAIIIPEKTIKSYSNTIINSSIAYLLRQRAEIKVKVFLTGTEDNDK

IRAALDAAQAQGYQYAIAGFTLKGANELKNYSGNMKIFIPTIHKNNIQISNQNIIFGSIDYDAQIATLLS

KSNANIAIFSDGSALSSNLNSRILAQNNNARIYTIEGEKLDFSRLLRSQGGVNNASIFFNTPLIKTALAS

SQLRIYNIHPYVLLSTQINYNPTFLSLTQQGDRENFIIANSINNHDDNLVYLNEIFNQSIDYNWIAYATS

IGVDYFYTEFLNKKSESLFDEKIKNSQVDYKVRLMQGKQASFEELK

>YP\_002344361.1 hypothetical protein Cj0963 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIRSLYYLKAMGFNFVDTHTNHFEQVQNFQELKQLVSSCTLCQFSKTRKFSLMEPKIKNAKLLILDVFGQ

KSENESGILLNSKKGEKLKHYIYQILGLCDEDFYFSYLFKCFCNGKFDDFSLQSCLPFFWNELKLIQPAF

LLCLGEYTFKSLGFKDYHILKGEVFAYKNFFIMPSYDLDFIEKNPSYEKNFIQDLKKIKGFL

>YP\_002344360.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEFKIIDLRQEDLDILQEMIIEFAKYEDMLDFLQCTKEKLEHSLLKNKFARAFLLKENEKTIGYMIYFY

TFSSFWGSGGIYLEDIYIREDFRKKGYGKAVFKFLGEICKKENLKRLDWVCLNDNILGINFYESLNAKHL

KQWRNYRLSGENLEKLCDL

>YP\_002344359.1 50S ribosomal protein L34 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRTYQPHGTPRKRTHGFRVRMKTKNGRKVINARRAKGRKRLAV

>YP\_002344358.1 ribonuclease P protein component [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNFDKFSTNEEFSSVYKVGKKWHCEGVIIFYLNSYEKKIAVVASKKVGKAVVRNRSKRILRALFAKFER

YLQDGKYIFVAKNEITELSFSRLEKNLKWGLKKLECFK

>YP\_002344357.1 membrane protein insertion efficiency factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MICLKILRFYQKFLSPLKPAACRYYPSCSEYALWQFQKKNFFLAFFSTFFRILRCNPFFKGGFDYPRVSK

NFYPINLCFKPIFLAEKQLCFLYIPYKNKSFYLIKIIFKRTNQ

>YP\_002344356.1 membrane protein insertase YidC [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNSNNIFQQKRILLAVVISFLFFVIYDYFFIPKQPLKIEQNITQKNQQNTSINNTPNIQNATTNTPSAA

LVSQDSVISKVQSKHFEAQIDSFGRISAFYLKDRKYQNEKGEFINLVSKENSPYPLEMRFSDPSINSEAF

KIPYVANASNLFVDENGSQVLKLTQNLSGLKIEKDITFYPKGNYEIEVKLSKNANYFISPGYRPNIAVDS

YTVHGALVMDNKETIETYKDGDVEKDESANNVVMTSAFDRYYATFFYNFDKPLNVAISKDANQNPIVFAY

SDNEFKAGGYIGSKEHVILRSIDPRLEAVVEYGWFTFIAKPMFEFLNFLHQYIGNWGWAIVVMTLIVRII

LFPLTYKSMISMNKLKDLAPKMKDIRERYKGDPQKMNMHMMELYKKHGANPMSGCLPILLQIPIFFAIYR

VLLNAIELKAAPWAFWIHDLSVMDPYFILPILMGATMFLQQLITPMTIQDPMQAKIMKFLPVIFTFFFIT

FPAGLTLYWFVNNLCSLVQQWVINKIFAKEHHKKTSGA

>YP\_002344355.1 hypothetical protein Cj0957c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIEAIDLQSALTEASRSLECSVMDLEYEIIQHPRKGFFGFGRKKAIIEAKAKKRILKKNPKKEFTSSKN

HKPETHEPKQENKIEIKNEKNKSQKEKYTVKSDEIFDSFHRESKGVRNTQDILDEIRIQLVKLLESSQFK

IELSELRMYDEDCVLIRLDGEDAALMIGKEAHRYKAISYLLHNWINLKYNLLVRLEIAQFLENQIQGMQL

YLQSVIEKIKIHGRGQTKPLDGVLIKIALEQLRAEFPDKYVGIKQNNDQRFVVINDFFKKDE

>YP\_002344354.1 tRNA modification GTPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDTIAAIATAHGVGSISIVRLSGERALEFALKLSHKTKLTPRHATFTKLFNQNNEIIDEAIMIYFKAPY

SFTGEDIVEFQTHGGFSVSEVLLEELVSLGARLALAGEFSKRACLNGKMTPLKALNIQDLILSKSALAAK

IIARNMQGNLGELLEKIRTDLVKTLAFVETSIDYADDDLPSDLLEQISTMCEENSKILKEIYTLSQSKKG

LIEGFKIAIVGKPNVGKSSLLNALLSYERAIVSDIAGTTRDTIEENFKLGTHLLRIIDTAGIRESKDVIE

QIGVALSKKSLEDADIILAVFDASRVQDKEDEKIFDLLANTDKKIFWILNKSDLENVFKNTQNKNFIKLS

AQKDITLLKEELQNYLNSFDSEGIMVSSLDLINACKISSEAIFRAKGLLEESSLEFFAFELNLAINELAR

FTKDFQRDEILDEMFGNFCLGK

>YP\_002344353.1 phosphoribosylformylglycinamidine synthase II [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKETIKAHKISDEEYAQILEILGREPNLLELGVISAMWSEHCSYKSSKKYLNGFPTKAPWVIQGPGENA

GVIDIGQGMAAVFKVESHNHPSFIEPFAGAATGVGGILRDVFTMGARVVAGLNSLKFGDIHDEKCGKHQK

YLVKGVVNGISHYGNCMGVPTIGGECAFDECFNGNILVNAFALGVCKSEDIFYAKAEGVGNPVIYVGSKT

GRDGLGGAVMASDSFNEESKSLRPTVQIGDPFSEKLLMEACLELFKTDYIVGIQDMGAAGLTSSSFEMAG

RSGSGMKLYLDKTPMRESGMTPYELMLSESQERMLICAKKGYEDKVIEIFKKWDLDAVVMGEVTNTGKME

LFWHDELVGLIPIEPLSEKAPILSRPTSEPKYLSEIKNYKFELKSSVQELFIQMLQNENINNKAFIYDQF

DSSVQTNTIKADGRLGASVIRIKENGASVAMAIECNSRLNYVNSKIGAALAVASAGRKVACTGAKPLAIS

DCLNYGNPQNPEVMWQFAQGCEGIKEACKELNTPVVSGNVSLYNETEGVSIYPSPTIVSVGVLEDANKTL

KASFEKENLSVYLLGESLGEFSGSMVMKIQDKKVSGSLKELDYKAELALWDLLYKANQNSLLECANSVGI

GGIAMTLAKMFAISSVGANLTSDFDDEKMIFDESASRAIIGLSKENEEAFLNLAKEFGVKAYKLGVSTSQ

KHFKLDSIELSKAELDKLYFESFKEQIQ

>YP\_002344352.1 DnaJ-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLVLIILVVLVFYWYYKTWGKQDFLNSATRGAKGFAKGFARGVMEERMDEFKRRMNYYVIALLAKIAKS

DGRVSENEAEMIKDLLDANAKDEKERAFLKASFNEHKENLSDAFYVAKDFLKEVPLPKNERFNVLRVLVF

MALIDADFNAKKREILEQIAKAFDIAKSELDAFIASLSNLKSTKKELSLDEAFAILELPNNADLNAVKKQ

YRNLAKKYHPDILNANNVSEEELKIGVEKFQKINEAYEKVKKHLER

>YP\_002344351.1 bifunctional phosphoribosylaminoimidazolecarboxamide formyltransferase/IMP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRALLSVSDKEGIVEFGKELENLGFEILSTGGTFKLLKENGIKVIEVSDFTKSPELFEGRVKTLHPKIHG

GILHKRSDENHIKQAKENEILGIDLVCVNLYPFKKTTIMSDDFDEIIENIDIGGPAMIRSAAKNYKDVMV

LCDPLDYEKVIETLKKGQNDENFRLNLMIKAYEHTANYDAYIANYMNERFNGGFGASKFIVGQKVFDTKY

GENPHQKGALYEFDAFFSANFKALKGEASFNNLTDINAALNLASSFDKAPAIAIVKHGNPCGFAIKENLV

QSYIHALKCDSVSAYGGVVAINGTLDEALANKINEIYVEVIIAANVDEKALAVFEGKKRIKIFTQESPFL

IRSFDKYDFKHIDGGFVYQNSDEVGEDELKNAKLMSQREASKEELKDLEIAMKIAAFTKSNNVVYVKNGA

MVAIGMGMTSRIDAAKAAIAKAKEMGLDLQGCVLASEAFFPFRDSIDEASKVGVKAIVEPGGSIRDDEVV

KAADEYGMALYFTGVRHFLH

>YP\_002344348.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKMLQIALAATFFAGCASTSLTSSTSKGNNELVQNQLFKIEKIIVNGKTFDPKNAEESPNISFENNKFY

GYSGCNRFFGSYQTKADTLQIEGDRVASTQMLCHPMDVMDFENSFLSNFKGTFKISNENGKLVLSNDEMK

IFFK

>YP\_002344347.1 peptidyl-arginine deiminase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKSIPEWSEQEYLMLSLPHEKSDWNPYLEEILQSYKEFVKVVSEFQKVLLIAPKQSDFENFKDIKNVEF

FKCDTNDTWIRDFGAIDIVENGRLKALDFTFNAWGNKFQSELDNAVNSKLFKEKFKEELKKVDFILEGGS

IDFNGEGVMLTSSHCLLNENRNSHLNKTQIDTKLKEIFGLKQIIWLENGFIKGDDTDHHIDTLARFIDKN

TIAHCICEDEEDEHYLPLQKMKEELKKTGFDLLELPIPKPLYYEERRLGATYANFVFINNALIVPFYKDK

NDEIIAKRLSKALPNHKIIGVDARVFLRQNGSLHCSCQNRFKGLR

>YP\_002344346.1 cation efflux family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLQKKATLVASLCAIVLALVKFIVGLTSGSVAVLSSAIDSLMDFAISAFNFLALKKSSQKANENYNFGF

SKIEALMGLLEGVFIVGVGIFIFYESILKIYYKEEIKDLNSSIYVMIFALIMTFFLVLFLNYVAKKTKSL

IIESDALHYKTDCLTNACTLGALVLIYFTNLHIIDAIFGIVISLYTAFSAFKIIKKALAFLMDEALPKEQ

VDKICTLISNNPEIISYHELKTRKTPSCNYLSVHLVFCPIISLLNAHKISDEIEEGVRKMFENEKWDIQI

HLDPYDDAEQERQRQ

>YP\_002344345.1 carbon-nitrogen hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIALIQQKFHLNKEQTIKKTCEFIEEASKQGAELVCLGELHQSEYFCQSENVDFFDYANDYEKDVKFWA

NIARKNQIVLIASLFEKRSAGLYHNTAVVFEKDGSIAGKYRKMHIPDDPCFYEKFYFTPGDLGFEPINTS

LGKLGVLICWDQWYPEAARIMALKGAEILIYPTAIGWFDKDKDEEKQRQLNAWLGVQKGHAIANGLYVVA

INRVGFEKDVSGVEEGIRFWGNSFVFGPQGEELCLLDSQNECVKIIEIDKKRSENVRRWWPFLRDRRIEY

FTDLTKRFID

>YP\_002344344.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSCLYFTFIVLFLTACSTKNLTSLHRENLEQKNENQHYVKLEYEQNVNILPQFAYDINFDAKRYKKYFF

NPWHDSFKNYKGQNIFWSFPLYLNSKNTYYFFNKQIIPLSWFKNAINNANIQEFGKLNQKALIIQNTIIK

NLPTQRAILKNPFFENEGIPFDYASDGILNTGAPVLISHFSKDKRYAFVLGEAGFGFVESKNLEFFSNDR

AKIYENLNFITPLKEKFAIYSEDGKFLFESRIGAIYPYYKEDKNYFYGKIGSKKYKISKKDVSKFPLQFN

DKNLKNQLSQVLNLPYGWGGYNFERDCSLLTRDIFSAFGLYLPRNSAAQKNSFNHFDISTLSNSQKKDFL

NRFGKAYLSLLYLPGHIMLYAGQITDNNIAIHNIWGLRKDATQRLLISSSVITSLEIGKNEILEDNLLLS

RLKEISFINLNEQEKEQIKSYLENIQNK

>YP\_002344343.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDKLEKILAYDNVFLSGGAGVGKSFLTNELIKSYRKQKKLAIALGSSALSAFNIGGVTLHSFFCLGYCD

DMMKLSVLDRNQKQKEKLTKLKELLKTIELIIIDEISMVSANVFEMIGFRLKNSQFNGKILVVGDFFQLP

PVIKEKKETLFNHSYYAFSSFFWQDLNFKNIKLSQPKRTQNMEFYNHLSLIRQGFLDEKILSFFESLRID

YKELENLEDDYTLLCGINKKVNNINQEKLSKLETPLVCFKAQVKKEDKRIKDEELDSWIRSLNILEELNI

KIGARIIFCVNNWDKNYYNGEQGIIEDILYEEEKIYISIIKNNGMKILLEPYTFFMEELEQSGKDFVVNI

LASVTQFPIKLAYAITIHKSQGMSIEKLVCDIDHIFENGQLYVALSRATNPNTLKIYSTKKINFGFYFAN

ILKIDSNVIEFYKKHNFLDLEIQEQII

>YP\_002344342.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLSVFLVLSLNAQNLEIDKIRTDLYSKSGANVLKKVEISLEFDGNNLKENENKLIDAVNTVISGFF

YEDIFTEIGKNNFKKTLEKFLDKKYKIKLDDIYIISLSGVEKFDLEEFKRFLESTEAKEKGMGSEVKKAL

ENLEVPKTQVPSVEKIPTPSVPNLEVKQVEQLFKDPDEENKNDNGEINIDNLNTPKMTPDIEEKIKRDLI

ANPPQIFKENNASKPYHLPQTGYDIKLDENSTQN

>YP\_002344341.1 outer-membrane lipoprotein carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKTFLIFFIFIGQLFALDLNFNTFSSNFTQIVKSKNSTLSYSGHFILSKDQAYWSYDTPSKKEIYINKN

QVTIVEHDLEQVIFSHLDNIPNLNEIFKKASLIDKDKLVAKYDNINYTIKLNQEQIQSISYKDEFENDVI

INLNNQIKNPKINSDVFKAKIPQNYDIVR

>YP\_002344340.1 protein translocase subunit SecA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFLNALKAVFGTKNDREVKKYFKRVAQINALEGNYQNLSDDELKAEFAKFKEQILSGEKNENDVLNDVFA

IVRETGKRTLNMRHFDVQLIGGMVLHDGKIAEMKTGEGKTLVATLPVVLNAMSGKGVHVVTVNDYLAKRD

AEQMSAIYNFLGFSVGVVLSSQNSDIEHKQAYDCDITYGTNNEFGFDYLRDNMKFSKAEKVQREHNFVIV

DEVDSILIDEARTPLIISGPTNRTLDGYIKANEVAKQMQKGEAVLPPAKPEGDFVVDEKNRNILITEAGI

AKAEKLFGVENLYSLDNAILAHQLDQALKAHNLFEKDVHYVLRNNEVIIVDEFTGRLSEGRRFSEGLHQA

LEAKENVKIQEESQTLADITFQNYFRMYNKLAGMTGTAQTEATEFSQIYSLDVISIPTNIPIKRQDKDDL

IYKTQNEKFKAVIEEIKKANAKGQPVLVGTASIERSEVFHNMLVKEKIPHHVLNAKNHEQEALIIQDAGK

KGAVTIATNMAGRGVDIKIDDEIRALGGLYIIGTERHESRRIDNQLRGRAGRQGDPGISRFYLSLEDNLL

RIFGGDRIKSIMDRLGIEEGESIESRIVTRAVENAQKKVESLHFESRKHLLEYDDVANEQRKTIYRYRNE

LLDENYDIRAKISQNIAEYSANVMNDYMLDESGSNVNFENLKAKILYECSTQISEKDFENLSVIEMQDKL

SQILENSYNEKMLRLEIKELRNIERILYLQVLDNAWREHLYQMDILKTGIGLRGYNQKDPLVEYKKESYN

LFLELVNRIKFDSIKLLFSVQFNQEEAQNLENKANEENEKLLQSSVEMGASEDNLGEAEFKKVPRNAPCP

CGSGKKFKECHGKSGPKQGILA

>YP\_002344339.1 permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKSVLKYLLFKYLRFDKEQPFINLSMLLAFLGVCVGLCVLLVAMAIMNGFDKEFEKRFFVMNYPITILP

KFYAPVNDEFIDELRKTFPNLLFSPYLSTQVVVKGDNRFEGGVLFGVNFNDEKKINEVVAKALKDENLSG

FDILVGSALTDEFGLHKNDKLSLIFSNLNPSGFSLVPQTKRFDVKARFTSGLAFYDKAYMYTDVDALKKV

LGIPKNPNYDGIHVYSDNAFKDVEKIKSYLKDDYAVVGWWEQNKNFFSALELEKRALFIVLMLIILVASL

NIVSSLLMIVMNRRSEIALLLALGASKNEVKKSFFALGMLIGGGGMIVGVVLAFFALWLLGNFDIVTLPV

DVYGTSKLPLDLSLMDFSLTIVGALIIIALSSFYPAKKATQINILDTLRNE

>YP\_002344338.1 glutamine transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLFTQKNKNFKPLKPLSKSKIITNLILLILFLILFCYCSFSISAYHFDFSAIATYKEKFLQGFLNTLII

SFFSLLLSIILGGVFCAFSLSSIVFLRFLSTFYIELVRGTPLLVQVLLIYYIIANNLGLDNRYVAGVIIL

SCFSAAYLAEIFRAGILSISISQLESARALGLKEMQVFAYVIFPQALKNILAPLSGQFANLIKDSSLLSV

IAVNELTQSAQEINSYTFATLEAYVILAITYLVLTLPISIFSRYLERKCQK

>YP\_002344337.1 hypothetical protein Cj0939c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIIGHKLLKNLDFSFIESVEEVKDNKVYCIVYDEKLISYLSQNDFEFAILVQNKDEIFLANALGAKFLL

CNDKKLAKFASKVAEFYVFDSRVLMIVDKLENFKKFYKLKIDGIILKDNIDNFPKN

>YP\_002344336.1 2-acylglycerophosphoethanolamine acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKKSFLKIYGLIPFLLIAFINAFVDLGHKIIIQNTIYKAYEGSEQLFLNAIVNALILLPFILMLSPSGF

LADKYPKNIVMKISAIFNVILTLIICICYYSGAFWMAFIFTFIMGAQAAIYSPSKYGFIKELVGKDFLAM

GNGVINAVSIVAILAGMALFSLSFESLYSSMYNQTDEILKEVAPLGIVLILFSCIEVFFAWRLPKLKQTN

KDLVFNKKDYIRGKLLINNLKLVFKNKTIWLCIIGISFFWAISQLYLVSFPVFAKNELFIENTFYVQISL

AFSGIGVILGSLVAGKFSKNYIELGFIPLGALGMFLMAFLMPYFISLLSYSFLFFFFGFCGALFIIPLNT

LIQFHAKENELGQILAGNNFFQNIAMLGFLLLATLFVKFEINVIYLFYFIALVTFIGSFYILLKLPFSLV

RILLSIAFLQRYRLLVEGFENIPEKGGALLLGNHISFIDWAVVQMAIPRKIYFVMERSIYSKWYIKIFLD

KFGIIPVSSTGSKTSLELIAKHIKEGNLVCLFPEGTLSRHGQLNEFKAGFELACECLSEDDGKIIPFYIR

GLWGSAFSRSDEEFSARNRTLNKRKIAIAFGKAMPLHSKKDEVKAKVFELSFMAWKSQCEAMHTIARAWI

DTAKKNLNQIAIIDTLAGDISYRKMLTLSLFLNFFIKRKSKELNINLQRGSYAPKEEAIGILLPASFASS

LTNLSVLIAEKIAVNLNFTAGEKALKAAIKNAQISQIYTSKTFLEKLANKGINLNFDTNIHLIYFEDIVE

DFKMQKTKIFSMMLAVSIIPSFILKSIFTPSKNNLAIAAILFSSGSEGSPKGVMLNNRNILSNIAQISDV

LCTRNNDVILSSLPPFHAFGLTVTTFLPLLEGIKSITFSDPTDALGVAKAVAKNNVTIMCGTSTFLGIYA

RNKKLDALMFESLRIVVSGAEKLKNEVRTTFEMKFKKSIFEGYGATETTPVASVNLPNHFDVDYWLIHRA

NKEGSVGMPLPGTAVRIVDPNNYENLKTNEDGLILIGGHQVMVGYLNDKEKTDEVVKEIDGIRWYNTGDK

GHLDEDGFLYIVDRYSRFAKIGGEMISLGAIEEEIAKFIDTEVVKFCATSLEDEKKEEQIVLLIECNNEI

FEGVCEAIKNSNIPTLFKPRYYFQIEKIPLLGSGKVDLKKVKELAKNLAI

>YP\_002344335.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFVFIPLFTIFILLAGGYFAKRIGVLKQKQARTFLDFAIIFALPCLIFDKAYHLNFDFSLIIFIFIGLFS

CILAAFFAILIGKVFHFSKVTLVSMFLLSCFGNTIFVGMPIVAGIFNDPQFSAEVIFYDALATTLPISLF

GPFILSLGNGEKVSLLANVKKILSFPPFLALLFGFLCKLITLPEFIFSPIRLFGASATPVALFAIGLGLG

FMAIKTSYKPTIVVIFAKMILAPLFFVFCLKIFNLELKDSTIVAIIESAAPTMTLAGAMVMKAKLDSNLA

VSAVAFGVLFAFVSMPILIWTLL

>YP\_002344334.1 ATP synthase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVLFLLLACTAVAFAAETNAPVEQEAINVWIKAFSVLAAGLGLGVAALGGAIGMGNTAAATIAGTARN

PGLGPKLMTTMFIALAMIEAQVIYALVIALIALYANPFIVLQ

>YP\_002344333.1 sodium:amino-acid symporter family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSSKFSKIGFILAVAGSAVGLGNAWKFPTLVGQSGGSAFILLYIILTLGVGFVIFLAELSIGKISEKDPV

NAYEKLAPSNKKAWSYVGFTMVGAILIVSFYTLVIGWIVKYVFLSITGNLPMDLEVSKAQFGFFISEDFL

SQFICFTLVFLCVFYIVSKGVKNGIEKLNVWMMPSLFILLILMLVYAISKDGFIMAVKFLFVPDFSKINT

SNVLEALGLAFFSLSLGVGTIITYSASLPDKTNFITSTLNIIFINLLVGLLMGLVVFTFIFEFGYNPNQQ

GPGLVFISLATLFEKIGVIGCIFGAAFFISLIFAGITSAVSMIEPFTFYLINTFGMSRKKALILIGIVVY

ILGMLCILSSLKSTQFGFFGMSFFDLLDSVSSKVIMPLGGILAAIFVGFVMKKEALKILFKPYMRGIFFE

LWYVFLRFISPLAVVIVMIAAFLK

>YP\_002344332.1 sodium:amino-acid symporter family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRTYFSKIGFVLTVAGGAVGLGNAWKFPTLSAENGGFVFVLLYLFFTLTIGFSIFLAEVAMGRLSKSDLA

NAYSNLAIKYGNRWRYGGVFMLGGIFVLSFYLVIMGWVLKYTVVSLYYLPKTLDEAASNFQNLITTNLTS

SVFFFTLSFFLTLLIVSKGLIKGIEKLNVVIMPSLFLMLVFMLFYCMGFKQGFANAFSYLFYPDFLHFKF

SSIAEALGLAFFTLCLGIGCIVTYSSALDKKTNFIKSSVYIVLINLLISFIMGLIVFTFIFEFGADPHTQ

GVGIVFISLMSLFNQLGALGYIFAFCFFLALFFAGITSAVSMIEPLTFYMINNYQISRVKALFLIGLFVF

VFGICCILSLNLNFFSMFSFFGKDFFTLLDKLTSNFLLPLGAIVCSIFVGFFMNKKQIYKIFSKFISRKI

FLIWLFFIRFISPIAIILVMCYQIFV

>YP\_002344331.1 pyruvate carboxylase B subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKFIDVMDTSFRDGFQSVYGARVLMDDFFPAVEAAKEAGITHFEFGGGARFQSLYFYLNEDAFTMMDR

FRAIVGKDANLQTLARGVNTVTLDTGSSELIDLHAKLFAKHGTTTIRNFDALNDINNLKFSGECIAKHGL

KHEIAITLMDLPPNCKGAHDVPFYEKILKEILAAEIPFHSICFKDASGTSNPNKIYETIKMARKILPQDM

HIRLHTHETAGVSIACYLAALEAGVDGIDLAAAPVSGGTSQPDILTMMHALKGKDYDLGGLEEEKILKYE

EVLKDCLKEYFLPPEATMVNPLIPFSPMPGGALTANTQMMRDNNILDKFPQVIHAMREVVEKGGFGTSVT

PVSQFYFQQAFNNVMFGSWKKIAEGYGKMVLGYFGKTPVAPDANIIELASKQLNLEPTTELAINIADKDE

SKSIAYTKTLLEKEGIETSEENIFVAAACKEKGIAFLKGEAKVNIRKLASMPKPMSADENKFTVAVNGNK

YHVEVSYGFDKDVNVKSVKKVEENKNIISSNSTSSVDAENEVLAGISGNVFKIYVNEGEEVKSGQAIMVL

EAMKMEIEVNAPKDGIILELCIKIGDTVNEGEVLAIYKN

>YP\_002344330.1 phosphoenolpyruvate carboxykinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFDKLGLDNIKEIFHNLSYDELNAHEKANNEGLSTDNDTFCVDTGIFTGRSPKDKYFVKQDPSSKYIA

WGKVNQPITKELFDKLLTKAKQELSGKKIYVQDVFCGASLQSRKAVRFVTEIAWQAHFVKNMFIRPSQEE

LENFKADFIVYNACKCINEDYKQDGLNSEVFVIFNVEENIAVIGGTWYGGEMKKGIFSMMNYWLPLENKL

SMHCSANVGEKDDVALFFGLSGTGKTTLSTDPKRRLIGDDEHGWDDEGVFNFEGGCYAKTINLDPEHEPE

IYGAIKRNALLENVVLRADKSVDYADASKTENTRVSYPIEHIENHEPSLKAGHPKNIIFLSADAFGILPP

VSKLSKEQAMYYFLSGYTAKVAGTERGITEPQATFSACFGEPFMPLHPTVYARLLGEKIEKHEVNVYLVN

TGWSGGSYGVGKRMSIKATRACINAILDGSITKCEFENFEVFDLAIPKALEGVESVLLNPINTWLDKNAY

IATRDKLAHMFIQNFKRYEDVKEGIEFSKFGPKI

>YP\_002344329.1 argininosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNEMWSGRFSGASDELLKEFNASLNVDKTLFNEDIQGSIAHATMLESCGILKKEELDAIIKGLEQVRSE

IEQGKFIFDIKDEDIHMAVEKRLSEIIGSEIGGRLHTARSRNDQVATDFKLFVKKSHIELIKLLKELIQT

MLEHAKVHKKTIMPSFTHLQHAQPVSFSFYILAYAFMLMRDIKRLQNSLELADFSPLGSCACAGTSYAIN

RELSAKILGFKDIMPNAMDGVSDRDFALDLLYDIAVIFTHTSRLCEEMILFSSSEFSFITISDSFSTGSS

IMPQKKNPDVCELIRGKTGRVYGNLISLLTIMKALPLAYNKDMQEDKEGIFDSVKTAKDSLIILNAMLKE

IQINKENMLNACKKGHLLATDLADYLVREKNIPFRKAHFIVGNVVAQAEAQGIDISEIKDLSKIDPVFDE

KAMELLNFEFSLNSKQSEGSSSIASVEKQIQILEGFIQNL

>YP\_002344328.1 ribosome-binding ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLSVGIVGLPNVGKSTTFNALTKAQNAQSANYPFCTIEPNKAMVEVPDLRLNELAKIVKPERIMHSLIE

FVDIAGLVKGASKGEGLGNKFLSNIRETEVILHIVRCFDEENITHVEGGVDPLRDVEIINTELILADIEQ

LSKKIEKLTKEAKANQKGAKESLELANSLLDHLNKGLAASSYPEKESEIYQALIKELRLLSAKEVIYGAN

VDENGISEDNDYVKALKEYAKKNDHEVIKLCAKIEEELVGLSDEESHEFLSSLGVNESGLDQIIRTAFAK

LGLISYFTAGVVEVRSWTIKKGWKAPKAASVIHNDFEKGFIKAEVISYEDYIQYKGENGAKEAGKLRLEG

KDYIVLDGDVMHFKFNV

>YP\_002344327.1 cytosol aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFELNDKKLDAIKADFELVFIQDKNLKIFNKEKDFFKLNNYKGEGALLDLNNKKLYLELKSLAYEDIRL

SLCTAYKTLEKLNIKSVKLPSIIGDCVVRSFASLVEGVLFGAYKFDKYKSEKKTSTLEKFIISNEELNGK

KFNKDEAKIGLERGEILANATNFTKNIVNEIPEIYTPLKMAEDAQNLAKENKNIICKIYDEKFLAKEKMN

AFLAVNHASVHPPRLIHLSYKAKNAKKRVVFVGKGLTYDSGGLSLKPADFMLTMKADKSGAAAAMGIIKA

VAELALDLEVHCILGATENMIGGNAYKPDDVLISREGVSIEVRNTDAEGRLVLADCLSFAQDLKPDLLID

MATLTGACVVGLGEFTSAIMGNNEELQNDFYLSSKKSGEYTTILHFNPHLRELIKSNIADVSNTASSRYG

GAITAGLFLDKFIRKEYKDKWLHLDIAGPAYTEKSWGYSSFGAGGAGVRMCVNYLIQILRKAK

>YP\_002344326.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEEFLKNLLYQYKDLAYIIIFLWCILEGELALILAGIFAHQGHVNLGFVIFIAGLGGFVGDQIYFYIGRY

NKCYIQKKLKTQRRKFAVAHLLLQRFGWPIIFIQRYMYGFRTIIPMSIGITRYSAKKFAIINLFSAWVWA

SITILLAWYFGEQIWKMVTWAEEHWYYAAIIIIAFLSLLLFGFKQMEKAILKDKRKKS

>YP\_002344325.1 adenine phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKLTQEEQKYLLDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFI

FASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKVELHKDAFKNIQNARVLLVDDLIATGGTAIA

SYELIQKAGAKCVEACFLINLKDLNGANKLEKLTSVYSVLEI

>YP\_002344324.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFTNWLVLTILICATIYLIVMLFYYKTLLNKEKTSKDFIKNNLDDTEIVIRKLQIQLQRSLGNIDILTEE

LNKIKADLTSLRTRNSQYRLENDKLRQRIKELEAKIEALL

>YP\_002344323.1 ribose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLREKIYIASDHAGFELKEKICVFLKEKNIIFNDLGTNTCASCDYPDYAHLLAEKINKRSFGILICGSGI

GISIAANRHKNIRCALCHESLSAELARRHNDANVLALGGRLIGVELAIDIIEKFIQTPFEEGRHMQRIQK

IEVKI

>YP\_002344322.1 MCP protein-glutamate methylesterase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLILIGSSTGGPNQLKFLLKDIDVKNTCVVIAQHMSASFIPSFVGQFNKEAFSEVCLLNDKEILSNKIY

ICPKNTILSGNLNIVAAWQDVASSFKPSVDLLFHSAVSLAKTNKILAIILTGMGDDGAKGLFELYKTGVR

CLCENEADSVVYGMPKRAKDMNPHLKPMSLKEIKKEIVNFIDQD

>YP\_002344321.1 MCP protein methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKKITPSELELNEFIKIINEMSGIDLTDKKNILALKLNKFLEGTNTKNFSEFLGKLKSNRQLKQETLDF

VTIGETYFLRELAQLKEIIYYAKSLEKRVNILSAPCSSGEEVYSLALLAAQNFIKDMYILGVDINSSVIE

KAKLGKYQGRTLQRLSESEKRRFFLESEDKFYTINKNELCTCKFELCNVFEEKFSRLGKFDIIASRNMII

YFDHESKLKLMERFHRILNDKGRLYVGNADLIPETIYFKKIFSPRGVYYEKV

>YP\_002344320.1 amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIELKNVNKYYGTHHVLKNINLSVKEGEKLVIIGPSGSGKSTTIRCMNGLEEVSSGEVVVNNLVLNHKNK

IEICRKYCAMVFQHFNLYPHMTVLQNLTLAPMKLQKKSKKEAEETAFKYLKVVGLLDKANVYPATLSGGQ

QQRVAIARSLCTKKPYILFDEPTSALDPETIQEVLDVMKEISHQSNTTMVVVTHEMGFAKEVADRIIFME

DGAIVEENIPSEFFSNPKTERARLFLGKILKN

>YP\_002344319.1 bifunctional adhesin/ABC transporter aspartate/glutamate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVFRKSLLKLAVFALGACVAFSNANAAEGKLESIKSKGQLIVGVKNDVPHYALLDQATGEIKGFEVDVAK

LLAKSILGDDKKIKLVAVNAKTRGPLLDNGSVDAVIATFTITPERKRIYNFSEPYYQDAIGLLVLKEKKY

KSLADMKGANIGVAQAATTKKAIGEAAKKIGIDVKFSEFPDYPSIKAALDAKRVDAFSVDKSILLGYVDD

KSEILPDSFEPQSYGIVTKKDDPAFAKYVDDFVKEHKNEIDALAKKWGL

>YP\_002344318.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNESVGFVEHLRQILTSWGLYDENSISPFAVWKFLDALDNKDAFINGFIYTLEVSILALLIATIFGTIGG

VMATSRFKIIRAYTRIYVELFQNVPLVIQIFFLFYALPVLGIRLDIFTIGVLGVGAYHGAYVSEVVRSGI

LAVPRGQFEASASQGFTYIQQMRYIIVPQTIRIILPPMTNQMVNLIKNTSVLLIVGGAELMHSADSYAAD

YGNYAPAYIFAAVLYFIICYPLAYFAKAYENKLKKAHLTR

>YP\_002344317.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENVFNAQNIEFLMQGLFLTLKIALATCIISIVFGTFLAITKNYGDRLSKFLAACYIDIFRNTPLLLWML

AACFVLPVFFGQFPQAFWGTIGFSLYTSSVMAEIIRGGLNSIPKGQFEAAYSQGFGKFFTLFYIILPQTF

RKIIPALLSQIVTTVKDTAYLAGLGIAELTYNSKTILAKLTSFEEILAMIGVVAGIYFIICFSLSMLVRY

YAKKTAYIS

>YP\_002344316.1 ribose-phosphate pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRGYKIFSGSANVEFARQVSKYLSLPLSDAGVKRFSDGEISVQIDESVRGKDVFIIQSTCAPTNDNLMEL

LILTDALRRSSANSITAIIPYFGYARQDRKANPRVPITAKLVANLIQAAGIDRVATIDLHAGQIQGFFDI

PVDNLYGSIVFNDYIKAKHFKNAIIGSPDIGGVARARSVAKHLGLDIVIVDKRREKANESEVMNIIGDVK

DKEVILVDDIIDTAGTIVKAAEALKEKGAKSVMACCTHAVLSGKAYERIASGVLDELVVTDTIPLKEQLP

NIKVLSVTPVFAEVIRRVYHNESVNSLFI

>YP\_002344315.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTQLSTKILWLFVAALGAICFGYLALQNGESVSAIYLVVAAVCIYMIGYRFYGSFVAYKVLELDKNRATP

ALVENDGRDFVPTNKAVLFGHHFAAIAGAGPLVGPILAAQMGYLPSMLWILVGGVLAGAVHDFVVLFIST

RRKGRSLGEMIKDEMGKFTGGVAMVAIFGIMLIIIAILAMVVVKALAESPWGLFTIAMTIPIAIFMGIYM

RFIRPGRVGEASIIGFVLLILAIHYGSVIAADPYWAKIFTLEAPTLAIVMMAYGFIASVLPVWFLLAPRD

YLSTFLKIGVIVVMAVAIVLVAPDLQMPKANTQYFDGTGPVFAGGVFPFLFITIACGAISGFHALISSGT

TPKMLENETHTLAVGYGSMLAESAVAIMALICACILHPGLYFAINSSSALIGTDVVNVAQTISSWGFSIT

PEEITTLTTNIGEYTILSRTGGAPTFAIGVALILHELFGGVDLMAFWYHFAILFEALFILTAVDAGTRAC

RFMVQDILGNVYKPLGDIHNYPAGLLATALSVAGWGYFLYQGAIDPKGGIYTLWPLFGVSNQMLAGMALL

LATTILVKMGKARYTWVTLVPAVFVLVATLYGGIQKIMPYEEGNKIANAVSHVAAVSIQSQKIKDLEFKL

NNTKDEKEISTIRKEISIATQNKVGNLLNAILCVFFMIATLLVIISCIGICLGKIKIPLKETKYIKIDEF

QKI

>YP\_002344314.1 hypothetical protein Cj0916c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFKKFKYYYEKAERFFHPLVGLSSYDKYLEHMKQKHPGKIPKTRGEFFKECLDKKYNSGGLNKC

>YP\_002344313.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRDMGEPKLKIVAMPSDTNPAGNIFGGWILSQIDLAGAIAARELSPERVVTISMDKVVFKEPVFIGDIIS

CYSKVVNVGNTSISVEVEVTAQRVDSQGCTSCINVTSALVTYVSVTRDGKKNPISEELKRIHGFLNA

>YP\_002344312.1 invasion antigen CiaB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNFKEIAKLVRKYKERNNALYEFLDKEDVGEYFRSLISLSELKQDKTTMLAILRRLIDLKEENLVQEWK

KNNFKEDKIIELKHKFYEEVRKFYEKEHQNLINEIKEKKLLNNFYQSLIQGVHNIGLIMNIFEISWTKEI

IEKNNKILSTQFPNLDDAMEFLRKNHLYQKTPEGEICERSYGVLVRIGNLWKFVPYARFFENEILKLEFA

FENMIDQLKIFASSEEEKAYIEYFEKLKLAFCEKDEDRVIKAWQEAEFAWMKVKSPLQVGHPLEYYEDNY

THAVALEWDIRIEDENDFDVLKFGNEIKESFEHVYKNIGLEDCELEKEVLSNIEKTQLYICTPMIFYGAE

LKGLFSAQVVPNDEFVSSKAGKKIFAFINFVYENAKTKPFMKISSEVFDKEFLDFGRNILFYQEKIWKRV

YEVSTIGHEFGHIFFIANDTEKTMNQSGFFKNIEEYKATTGGLINFFYHEQDDLIMPVFHELIKRAIGLI

SWQRVDEVRPYYTEGLIHLSLLFESEVLIFENNNLKINFDLGYYEKFKELTLKNYHELAKHYALRLDAKE

FLSRFCEIEDNIFLPIMPKCKEFVKFYYDLYEKIGNEIDNSGEFERYKKK

>YP\_002344311.1 DNA-binding protein HU [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKADFISLVAQTAGLTKKDATTATDAVISTITDVLAKGDSISFIGFGTFSTQERAAREARVPSTGKTIK

VPATRVAKFKVGKNLKEAVAKASGKKKK

>YP\_002344310.1 cysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVHEKVSELIGNTPIIHLKKFGINVFAKCEFLNPSHSIKDRAAFEMIKDALDSKKINQDTTIVEATSGN

TGISLAMICADLGLKFIAVMPESMSLERRKMITLFGARLELTPANLGMKGAVDKANEILLNTPNSFMVSQ

FENISNKNAHRKNTALEILRDLDNELDIFVAGFGTGGTISGVGEILKEKLEKVHIVGVEPLNSPLLSKGE

AGSHKIQGIGANFIPAILNKEVIDEVITVSNEDAINTAKELAKSGLMVGISSGANVFAASMLAKKFPDKR

ILTMLNDTAERYLSTDLFA

>YP\_002344309.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKNIILFIVIVAIILGVIFFIKNHQNSYDFILKSDLKEETTLKDFKGDKLIIYFGYTYCPDVCPATLSL

VGKALKQINNPKAHLLFISLDPNRDNNLSNTNEWLRYFYPKADALIAKDEKTLQKITKQYNVQYQKIDLN

DSFMGYSIAHSNMLYLIDEKGHFYKEINDLNPQEILRELRIFLNSQ

>YP\_002344308.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKIIFILAFAFVIAILYIIFDFYVIKDSQKITKTDFSTPLTCDLNVKDCTYSFNNKKVLISLNPKPLQS

LDVTNLKIVNLGNYNNLGIKIYGLNMYMGEIKPKIHRLNSTDYESKIVLAACVLDTMRFRVEFMDNNKPI

GFYFDFELKK

>YP\_002344307.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILLLGALFAVNLWAVNDIEVKNAFVKQTPPHAQNSAIFLTIFNNTNKDIALISAKSDISEVSELHTH

IHKDGKMMMQKIPEIIIKAHSSTELKSGGYHIMLLKLKKPIIKDTKVNLDLKFNNHKTIELKNIDSKEF

>YP\_002344306.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIRNFFIGMSFLGILFLAFYTLYDKKKESIFSLNTCQPLTCDLNLQDCVFSFNKKNIEVSAYPKPIKIFN

KTTIKIKNFPHYSNLKIKIYSLNSYIGDIIPKFNIVNGDILINFIGRSITDDSRFRVEFLNNNAPTGFFF

DFDVTMQKNFQTGNTH

>YP\_002344305.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKRLALLIALSSLMLHASDLVKIYLNQGLDAVGVAIEKELTQKDFWLSEIGDKNISLGYYDDNVAIVLT

NKTDKILRVYSYEDGKIRKDFEQKEIITGLMGDKKIEGDLKTPVGFYELGRKFNPGDPYYGPFAFATTYP

NLLDKVQGKTGGGIWIHGYPLDGSRLDEFKTRGCIALFNNNLEKFAKVVQDKKVFVMTEEKEKIRAKKDQ

IASLLADLFTWKLAWTNSDTNAYLSFYDEQEFKRFDKMKFEQFASMKKSIFSRKEDKKIKFSDINISPYP

NLENETMYRISFYEDYYTKNYRFRGDKILYVKIDSKGKMKILAEQ

>YP\_002344304.1 alanine racemase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLIKIDQKAYEYNLRHIAKKIGSFQRLICVFKDNAYGHGAKLLAPLAKNLGVSFVAVKSEEEAREIEEF

FENILILSHRPHGNENSRFIYALNDISQVKNYKQDIKIHLKIDTGMHRNGICVENLEHAINLIQGSDLKL

TGMFTHFASADEMDGSFFVQKENFQKAKKIVKKYFSNLLFHSYNSAALFRGKIPEDEYCRVGLVQFGYGD

SNLKRVLSLYAHRLSQRILQKGQSIGYGGIFTAAKDMEVATYDLGYADGLFRYNGRGELVLGNGKAMLGK

MSMDSFSCENSGEEICVFKDADIWADFFHTINYEILVKLNPNIQRVLV

>YP\_002344303.1 tRNA (cytidine(34)-2'-O)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNIVLVHPRIPQNTGSIGRMCFNAGFKLHIVKPIVFDISQKAVRRAGLDYWDKLEPIIWENLEEFLNEN

MIYKNRFFFATTKSQKAYFDAEFQKNDFLFFGSESYGLPMELMQLNWENAITIPMKSYGRSLNLATSVGI

ISYEALRQNFRNFAS

>YP\_002344302.1 amino acid transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLDIMLDFANKASDIIANKIVPNTDIIMVVLLIVCGLYYSFLTRFVQFRMLSSVFKILTEKNEGHAKEH

ISPFQALMISTASRVGIGNIAGISLALATGGAGALFWMWVMAFFGGASAFAESTLAQVYKSKDDTGGFKG

GPAYYIKKALGSHFFGAFFAFILIITYAYGFNGLQSQTMTSSFKVYYDMFNPNAAVDFASSSWPMIIGIV

LTIFGAWMFFSHHTKIGKISSLIVPFMALAYVLLAVIAVLMNFDKIPSVIHMILQSAFDFKAIFGGFAGS

ALVIGIKRGLFSNEAGMGSAPNAAAAALTSHPAKQGVIQAFSVLIDVVVCTSSGFLVLFSMAYLGLGENK

IDGGMPLVQEAMREYYGSFGIHFITIAIVLFAITSLIGNYYYAQANVKYLTNSKFVMNLFRITAVAMIFI

GSQMNLKLAWNLADLTMAFMATTNIISLLLLGGIVNKVLKDFNTQQKSGIDPKFNASKLGIKNAECWD

>YP\_002344301.1 glutamine transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIEVKNLQKKYGELEVLKNINTTISKGDVIAIIGPSGGGKSTFLRCINRLELADSGEILINKQNILDKEI

DINKIRQKVSMVFQHFNLFANKNVMENLCLTPIKTGILSQEEAIKKAKLLLAKVGLADKENIMPHKLSGG

QKQRIAIARSLMMNPDVILFDEPTSALDPEMIGEVLSIMKDVAKEGLTMLVVTHEMGFARNVANRIFFMD

KGKIAVDASPKEVFENPSNERLREFLNKVLNH

>YP\_002344300.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNQKNIRIFVFFVIIILWGYFSFPIEILKIQDPSGVASYGYTENAKAYLKSYLITLLLTACAVIIGVIIG

FSLAILRFSKFKTLNFIIDEYIDIIRGTPVILQLMIFAFVIFTFIDNLYAAILALGLNSSAYIAEIVRSG

INSVDKGQMEAARAMGLDYKTSMKEIILPQATKNILPALANEFISLFKETSVVGFISVIDITMQSQSLQA

VLYNPKPIIFTGLVYYVSVKIFSYFAKKLELRMNKND

>YP\_002344299.1 hypothetical protein Cj0900c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEFPKNKVVFMEILDFILIVIFVFLMIVLVIGFNHQMMQKNKEREERFKKYKKGEQNE

>YP\_002344298.1 4-methyl-5(beta-hydroxyethyl)-thiazole monophosphate synthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKVLIPLAQGFEEAEFIGIADVLKRAKELNPDLEVVIASLNSELLVKGANSISIKADCSIEDVDIENL

DAIALAGGFEGMMNLKNSNVILNIIKQLHSKNKIVAAICASPIVLNEAGVLEGEFACYPSCEVGLNGNRV

NKAVVVNKNVITSAGPATAILFGLELAKKLCGDEIYQKLYEGMLLPLTK

>YP\_002344297.1 histidine triad (HIT) family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEKTIFELIVEGKLPCNKVLESDDFLAFHDIAPKAPIHILIIPKKYFKDFQEFDPELMAKMTSFIQELA

VLLGVDKSGYRLVTNCGKNSGQEVFHLHFHMLGGFELPKEKTKKENPQALF

>YP\_002344296.1 phenylalanine--tRNA ligase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNFIEQIQKCENLNDLEAIRISVLGKKGILTEGFTKLKELEDEAKKEFAAKLNAQKEIFNEAYLAKFKD

LENLALEERMKQDALNFNYFDESITTGALHPVMSTMDKIIEYFIALNFSIEKGPLIEDDFHNFEALNLPK

SHPARDMQDTFYFDDKRLLRTQTSPVQIRTMLAQKPPIRMIAPGAVFRRDFDITHTPMFHQVEGLVVEEG

QKVSFANLKSVLEDFLRYMFGDVKVRFRPSFFPFTEPSAEVDISCVFCKGKGCRVCKHTGWLEVLGCGIV

DPNVYNFVGYENVSGYAFGLGVERFAMLLHQIPDLRSLFEGDLRLLEQFR

>YP\_002344295.1 phenylalanine--tRNA ligase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIITKSWLNDWLELEEISSDKIAKTLNSIGIEVDRVGALKAPDKVVVGYVKEKIKHENSDKLSICQVDIG

SETLQIVCGAANVDAGQFVAVATKGAIMSNGMEIKEAKLRGVDSCGMLCSSLELGFEKINEGIMLLDESI

GKLELGRPLNTYEIFNDELIEVELTPNRGDCLSIYGIARDLAAALNLNLKEPKPFKESENVLGIGRILRL

AAEKELNGLYNYRAIGLKEEIQTNLLLSLRLAQIEGLGKNSIENLLNYATHSTGVLFNAYDLSSFSEKDE

EFTINLSKQVHGETKVSYKDKLLSFSGIFQNNESRCKDDSKIIIIEANYTDPLVIADAKIYHKDQDEKML

YRSFRGSEPKLNLGMDFLLGIFEQIPNLVIYSSSQQILTDKELPIIPISIEGISDIIGQNVDKDEVLKIL

KKLGFELILSGEGLINVKAPLHRPDIKNLSDICEEVVRIIGIDNIASKGLEFIEKNRLNSAYKNYIEFLN

LRKRAVASGYFESLHYVLDNGEELKRLGFDSVKLKLINPITAELNTLRTTLLNHLLNAASLNAKNSKKII

KLFELGAVFNVNNQELNRIAFIHSGLKEEAKISNKAKPESVQFYDFLLDIKNIIGDFKLKSSKYNILSPY

EQADIYLSDIKVGFIGRLHLKIENERDLPKTYICELDLDLIRQDFKIAKPYSKFPAITRDLSVLIPKGFE

YNQIKNCIEELNLEILENFRLVDIYSDENLKEFYSITISFSFRDINKTLEDNQVNECMDKILNTLKNLGL

DLR

>YP\_002344294.1 3-phosphoshikimate 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIYKLQTPVNAILENIAADKSISHRFAIFSLLTQEENKAQNYLLAQDTLNTLEIIKNLGAKIEQKDSCV

KIIPPKEILSPNCILDCGNSGTAMRLMIGFLAGISGFFVLSGDKYLNNRPMRRISKPLTQIGARIYGRNE

ANLAPLCIEGQKLKAFNFKSEISSAQVKTAMILSAFRADNVCTFSEISLSRNHSENMLKAMKAPIRVSND

GLSLEINPLKKPLKAQNIIIPNDPSSAFYFVLAAIILPKSQIILKNILLNPTRIEAYKILQKMGAKLEMT

ITQNDFETIGEIRVESSKLNGIEVKDNIAWLIDEAPALAIAFALAKGKSSLINAKELRVKESDRIAVMVE

NLKLCGVEARELDDGFEIEGGCELKSSKIKSYGDHRIAMSFAILGLLCGIEIDDSDCIKTSFPNFIEILS

NLGARIDY

>YP\_002344293.1 4-hydroxy-3-methylbut-2-enyl diphosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIIELAKNYGFCFGVKRAIKKAEQIKDAATIGPLIHNNEEISRLQKNFNVKTLENIQALSNEKKAIIRTH

GITKQDLEELRKKDIEIFDATCPFVTKPQQICEQMSKEGYEVVIFGDENHPEVKGVKSYVSTKAYVVLDK

KELQNIKLPNKIAVVSQTTKKPEHFMEIVNFLILKTKEVRVFNTICDATFKNQDAIKELSLKSDVMVVVG

GKNSANTKQLFLIAKTNCEDSYLIETEEELKKEWFLDKKHCGISAGASTPDWIIQKVIAKIENFRIN

>YP\_002344292.1 30S ribosomal protein S1 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEVNKKVQDGVDDYLEEEDFGQLLEAFDKSREEATTEGVIVEIKNDEVYVDIGKKSEGILALSEIQGDN

SKLLFNVGDSIKVAVMGSRGGRSLLSHKKALRKEKVIEFIKNYQENQDDIFTVKVVGKNKGGLIVVDEND

VEFFLPKSQYGFKETNNIIGKTFKVKIIKIDKDEQSIIVSRKKTLDDERRKRKELINNVAQQEDLIEGIV

KKITTYGMFVDVGGVDGLVHYSEISYKGPVNPGTLYKEGDKVPVKVIKYDKERKHLSLSIKAALPDPWSE

IKDTLDIGDTIKVIVSNIEPYGAFVDLGNDIEGFLHISEISWDKNIKNPKDYINKGQEIDVEVIEINPNE

RRLRVSLRNLLSRPFDEFMKSYKIADVVEGEITSVTSFGAFVKLGGIEGLLHNEDASWDRNDKCKDKFSQ

GDKIKVKIIKIDEENQKISLSTKELSSSPVQEYAKIHKVGDIVKGAIRDIKDFGVFVELSKNVDALIHKE

DISTSMLENLKIGDDIEAAIVFIDEKKNRIRLSVKNLVRIKEREVLNEINNDDKVTLGDIIKDQLA

>YP\_002344291.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYITISILSILLLILLAVVFTLLWQFKANVNFIPQFAKDTNTQPSIQTQNQDLSWQEELAKWPTRDFT

PAAEKFTLYFDADTSELKEKNKYYQLIVGKYDIYSMFCLRQTLNSFNVKYFLLKSGHSPEIFLDTGNEKL

IDDIIKELKKYKINTEVKEIWL

>YP\_002344290.1 D-3-phosphoglycerate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKKIIVCDAILDKGVDILRKAEDIELIEAAKFPKDELMQMLSDIEVAITRSSTDVDVNFLNHAKKLKAL

VRAGVGVDNVDIPECSKRGVIVMNVPTANTIAAVELTMAHLLTSARSFVNAHNFLKIERKWEREKWYGIE

LMNKTLGVIGFGNIGSRVAIRAKAFGMKILAYDPYISASKITDLDMEQAKNLDEILEKSDFITIHTPKTK

ETNGMIGKQEIAKMKDGIRLINCARGGLYTEEALYEGLKSGKIAWLGIDVFDKEPATNHPLLDFENISVT

SHLGANTLESQDNIAREACEQALSAARGVAYPNALNLPIKTEDLPPFVAPYIELVSKMAFLAVQIDKNPI

KSIKLEAEGIIGEYANSMLTFAAVGALGGILGEKINYVNAEFVAKEKGVELSCETLPNSGYNNKLSVKII

TENSNISVSGTVFNENEQRIVGLNGFKTDFKPKGKMIIFKNKDIPGVIAKISSVLAAKNINIADFRLGRD

GFGYALAVVLIDEKVQKEVLDELKQLEACVFVQYVEI

>YP\_002344289.1 sensory transduction transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKFKILIIEDDIDLNELLVLKLKSSGYEVISLADFFGVEDLLDNEQIDLLIVDRNLPSGDSLEKIQDLR

EQGYKEAVIFLTAKALHQDLLEGFESGCDDYVCKPFDFNELLLRIKAILKRHKKEEEKLSFGDFILDLVS

YEFFYKNQKLEISNLDYELLKCFFENPNTLLTRQFLSESVWKDDTTSDKTINIALTRLRNKFPKLKDHII

SVRGIGYKLC

>YP\_002344288.1 sensory trasnduction histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKTKNIFIVFFVVLALIFGFIFYTFTNSYLNFLLIKQYEQKIKSLDDVLKFSLLEHLNDANIKDFAKDT

RADFIILNNDMKISSVKNPDFFSNLKEGEILNFNSKKILTKSFIYKGYKYIIIVYPRFLDLELFWTKMAI

GFGVCLLFVFILMLLLGRRIEKNFNKILDFLDSIGDHKVVILEKGIFKEFNLLNEKLLKTKDKILKNTQK

NKKQSDKITLKNTQLASVISAISHELKNPLSVIDLSLEMLKDEKLEDKKLKKELLEKISRQSVKLNALTH

KLNFVFNLNSEALQMQEFDLFSLCEKITKNPGFERVALQGKSTKVKADEFLIEQVIINLLSNALKYSQKK

VILTARDQKIIVQDFGKGIEEDKIKLITKKFYKIDVKSDNSFGLGLFLVKKILNIHKSYLEISSTLGYGS

SFSFKLSQG

>YP\_002344287.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MALIDLIEASKKFGDKIVLNEVNFSANEGEKIAIIGKNGEGKSTFLKTLLGALPLDSGRIIRQNGKSIAM

LSQTVDFNANLSVKEAIKQELVEIYNTLEEYEILHKKLEEDPSNKDYLQKIDTLMTLIDSKDAWSIESKI

IRVLKEFSLLEYENRIISTLSGGEIRRVGLCILLLKNPDILLLDEPTNHLDVYMTSFLEELLKNSKMCVI

FISHDRYFIDAIAHKCVEVEQGKLSIFKGGYANYLEKKTQILQSLAKSHETLLKQLKSEEEWLRRGVKAR

LKRNEGRKERIFKMREEAKKNPGAIKRLKLEISRAALNFNGEKTINRKKMLFELKNISKNINNKNLFKDF

STRILQGERIAIVGRNGCGKSTLLKILLGQIKQDSGEIKRGELKIGYFDQARSLVNSDKSLLEIFCPNGG

DRVEVRGKNMHVYGYLKNFLFPKEFLDKSVALLSGGEKNRVALALLFAKEYDVLILDEPTNDLDIATINI

LEEYLLSFEGAILLVSHDRYFVDKIATKLYAFEGNGYINILHTLYTEYLENEKEIEELDNFALELQTQEQ

NNNQKEKSSKKLSYKENEILKNHPEKIDFLEQKIAKLNQDLSDPNVYQEIGINKLYQELEVMQKELEILE

NEYFLVLEKSENL

>YP\_002344286.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRITNKLNFTNSVNNSMGGQSALYQISQQLASGLKIQNSYEDASTYIDNTRLEYEIKTLEQVKESTSRAQ

EMTQNSMKALQDMVKLLEDFKVKVTQAASDSNSQTSREAIAKELERIKESIVQLANTSVNGQYLFAGSQV

ANKPFDSNGNYYGDKNNINVVTGAGTESPYNIPGWDLFFKADGDYKKQISTNVSFTDNRWDLNKDPDKTK

YLTGDSKWQQLIGQSYVKDNSLDADKDFEYDDSKLDFPPTTLYVQGTRPDGTSFKSAVLVKPEDTLEDVM

ENIGALYGNTPNNKVVEVSMNDSGQIQITDLKQGNNKLDFHAVAFTPQADDKTELNNIIQAAQDEGITME

DVTNRVMTAALGNPNNGDITNLNNPVTIQINGQNFEIDLKQTDFIKSKMTDTDGNAANGADYDNVYFEKN

GNTVYGNVSQVIKGSNAYATDSTKLSEVMAGDSLNGTTLNLKVNSKGGNSYDVTINLQTSTVSYPDPNNP

GQTISFPIMHTNPATGNSGVVTGSNDITYGQINDIIGMFAADKIPTTTIQANNGQINNADYTQIQQLMKD

SQATVDVSMDYKGRISVTDKLSSGTNIEISLSDSQSGQFPAPPFTTTSTVQNGPNFSFSANNSLTIDEPN

VDIIKDLDSMIDAVLKGNMRADSESENPRNTGMQGALERLDHLADHVSKLNTTMGAYHNTIEGVNTRTSF

LSVNVQSIKSNVIDVDYGEAMMNLMQVQLAYQASLKASTTISQLSLLNYM

>YP\_002344285.1 DNA translocase FtsK [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLAPGMGEWVYKANLFLFGEFAYYYPFFLFILNYVYYKRNYKLANFTRRELFGIGFAFFSSLLLFAVFYP

NSGYILELAYAIFSTILGHTGSGIFALLLLLFSLVLLFPKFAKEILKIELDFTYLLKVEQAFKSLLMRVF

GGENEKEDVGKSEPIVPKLNILQDSIYGNLQINKKGETNNLEQIIKDSNINASKNSITTAKENFEKLKNQ

ILDETIEIDKQSLKESRSFVHEHSQQVRNFAQKASKMSISLDEDFNFISEEEVDMIPERFLKPKKLEDIK

QIDTNKNLDEPSYKRKNIEIPVSNQEVKPKIFTKELELRENLIKKEKLEQEYKAYQNEILENKVKQEIKK

LEEYDAINSSDIIEGNKYSFNSPKTIKTETEESDKINENKNLDKADNIFEFAPIVEELNHPYIEPTPIKN

INEIVIEEKNTLDFIQNTETKIDNEKTNDQEIKLQKAVLAKEIAINQALLREIEQGEIEKPKDFTLPPLD

FLANPKEHKQEINESEIDKKIYNLLEKLRRFKIGGDVISTYVGPVVTTFEFRPSADVKVSRILNLQDDLT

MALMAKSIRIQAPIPGKDVVGIEVPNDEIQTIYLREILQSEVFKNAKSPLTIALGKDIVGNAFVTDLKKL

PHLLIAGTTGSGKSVGINSMLLSLLYRNSPKTLRLMMIDPKMLEFSIYNDIPHLLTPVITDPKKAVNALS

NMVAEMERRYRLMADAKTKNIENYNEKMKELGGEKLPFIVVIIDELADLMMTAGKDVEFYIGRLAQMARA

SGIHLIVATQRPSVDVVTGLIKANLPSRISYKVGQKIDSKVILDAMGAESLLGRGDCLFTPPGTSSIVRL

HAPFASEFEIEKIVDFLKDQQSVEYDESFLKDQQSVGVTTNESFDGEADELYEEAKRVILEDGKTSISYL

QRRLKIGYNRSANIIEQLTQNGILSEPDAKGQREIL

>YP\_002344284.1 30S ribosomal protein S15 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MALDSAKKAEIVAKFAKKPGDTGSTEVQVALLTARIAELTEHLKIYKKDFSSRLGLLKLVGQRKRLLSYL

KRKDYNSYSKLITELNLRDK

>YP\_002344283.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLFTKASEYALLSLIYISQKETPQDVDSLALELDIPKSFLAKILQTLAKDGLLKSFKGAKGGFVLIKEPS

QYTIKEIVNSAEKKDISVFECSGGTCPNNKEENCTLMPMLVNLQNKVDEFLDSITLEDIMKNNGKK

>YP\_002344282.1 flagellar biosynthesis protein FlhA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKNKIVDLVFPFLGPLIAPVLKAKSLTIVGFLVCILAIIIVPLPSPILDFFLALSIALSVLIILISIYI

PKPTDLTTFPTLILIITLFRLSLNIATTRMILSEGQNGPEAVSEIIAAFGEFVVGGNMVIGVIVFCILVL

INFMVVTKGSTRVSEVQARFTLDAMPGKQMAIDADLNAGLIDEQTARARRQEVIAEANFYGAMDGSSKFI

KGDAVAGIIITIINIIGGFLIGSFQHDMALSDAASTYTILTIGDGLVSQIPGLITSTATAIIITRASKDE

ENFAEGTLTQLLSEYRTLLIVGFVLFIFALVPGLPTLSLGFMALVFLSLGYLTKQVKEGKIDITTVKKSK

PSAAAASQSGAGGTTAAPAKKSEEEILKEEEHKINDILKVEILELELGYGLIKLAENELTERIRSMRRSI

AESLGFLMPKIRIRDNLRLKPNEYSFKLKGVSIASAEIYPDKYLAMDSGFITEEIEGIATKEPAFNSDAL

WIDANLKDEATLNGYIVIDPASVISTHMSELIKAHASELLTRQEVQNLLDKVKNDYPIIVEGALGVAPVS

LIQKILKDLLKHHIPIKDMLTILESVSDIAEVSKSFDMIIEHVRASLARMITNMYLDDKGNLDIFILDSA

SSAVLMENVQFRDGSYHLPLSVAQTGTLVDTLRAEVAAVANGRIKPFILCVEPQLRKFIADICYNFSINI

VVLSFAEIAENTNFNTEGIIRIEL

>YP\_002344281.1 hypothetical protein Cj0881c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIYHLSHTDLDGYACQFIVNFYFKSVKFYNSNYGKEINENFNSIIGDIEKDENFGKAIILITDLNLNLN

QCEEFEKICKEKNTKIFLLDHHQSGEECAQKYSWYLLDSKRCATKIVYDFFSKICTPVLELSKFVDVVNA

VDIWLSEDENFELGKVFLGLIANAKEINRVMFKESQIDYMFFLLDKAWKFIGKENANILLDNATHFIKKD

YFARKNDDTLSNLISYFVVEKLSELKENFSIEYEGHKGILTSNIGNTSVIGNDFLVKNPDYDFFIDVSSR

KTLSFRANGKIDVSLMAKNLVGGGGHKNASGGLFATFKDGANYNYIKAQIIDLIKSKELKKENNESKQ

>YP\_002344280.1 hypothetical protein Cj0880c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNQNNNKTLKNELEDLQYELSIVLEAMLLYAGVKREKLENAIEAYIDNIDNVLENSNKEGVDEILEVVEF

LKNKYKDFFQ

>YP\_002344279.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKCILIFFSLYSLSFANIYEKLNDFAYEKKPNKDFKIQEVKLVQFSQENKDCLELLIEASQVRILNSYN

SCQKLSKDESFQKFLNEDFLKLYKNNGYLINENLQNLKNTMQDIMIYYKLRYSFSKDVKDMSKNKNLDIL

NIDEKDGGTLLYKINNQACVGIELTRHDSRMAMKIYGIENLDKECKLFIQSPSFKDLSYTKKDFKWYYLE

>YP\_002344278.1 hypothetical protein Cj0878 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLSIQEKKDLDNCVFQNLGRQDTFTLSVVFKNFYLKIKAFILNNTT

>YP\_002344277.1 hypothetical protein Cj0877c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQDFIIAKKLYFCFKYISSILNINEYYFKV

>YP\_002344273.1 hypothetical protein Cj0872 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNFFCKFVLALVFYSSFALANNSFITLNPSLPSSENSVIEAFSYKCIHCYNHHKFGTLEKLREAFPNLH

FKLYPVSLMNGEFSKEMNELFTFAQYKDEQNGKDASYSDSLSHKLADVYFVSYFLNKQRNFSNLDEFYDI

GLKAMNVNKNEVLNFLNTPKAKEILSEFQRANDIAKTYGTPAFVVNGKYQINPSAINSMQDLEDLVKKLS

NMK

>YP\_002344272.1 protein-disulfide oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSCIKMKDKCRNFSLSKWQDTRKPWLILIIVTIGLTCIAHFLFQEYLFMKPCEQCVYIRFDMLVMAIGGM

IALINPANNIIKIFSYSLAFYGIWLGLEHCLTLNHIHEVVHSENPFAGVDGCREIPIYPFNLPLYKWASS

WFLPTGECGMDTPVVPENAYNHLNAFQKFFIGTPPDFENGLYSNGWYLIPSLKFMNMAICCLIAFLCCFV

VLFAMFIAYVLDKNKPNAKIFALVIVALVLVLKFIGESKNPNQNIASLNQVVLRYS

>YP\_002344271.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFPVKLARSIVVCAFLAGISASALSEGKEYVILKNPIANADNYSVGLKAMNVSKADFENFLKTPEAAEL

LKSYEIANPISQNYGTPAFVVNGKYQIVPSAINSPEALIEITKELSKQK

>YP\_002344270.1 DNA recombinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYPLDCEENFEKSFLFWLAKYVKFKLNSLSNKELKNPQALAEVNFALTKGVKNIDELDALAKKARNAGL

SGVNTYFNPLKKVFEYLNFYKLYSLKQIDEELIVEVLASITGALSDASKKNYRIAVINFFDFLDKQNEED

EKAHIFDINLKNWAGIAGSKGVKLPEFMSKEELKKFLDAIENADFKNNTIRNKLIIKIIIFTGIRVSEAI

NIKMGDISEENDLYIIRIRAKGNKYRVVMIKKELIYDLLKNVSINYISKDALLFVNKKGTPLTQSYVSRI

VEQLLFRAGIRKQKNGAHMLRHTFATLLYKKQKDLVLVQEALGHASLNTSRIYTHFDNDKLKLAAQVAKE

LSDS

>YP\_002344269.1 para-aminobenzoate synthase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLENYAVFGKYFYHDLKHTLKAFNHKESKKCFKFIEKYKNDFYILMLTDYELYRYFQDKNFTSKKAYLS

VFAFKKRKKFQKEDIDEEKFIPEFINFLDQDNYKENFIKVKEAISKGRVYQINLTQNFKFHSKMDSFELF

KLLLSRQDTEFKAFIKDETREILSFSPELFFKTKKRKIFTKPMKGTIKRDKDPIKDEENKIFLQNDTKNL

SENVMICDLLRNDLSKIITKKSLKTKLFEIQSHPTLHQMTSRAQGKLKKNISLHQIFKALFPCGSITGAP

KLESIKFIEELEQRDRGIYCGTIGLIHKNKNKFSVAIRTLEKQDEIYTYSTGSGLVWDSKFKDEFEELKL

KSAILNPCDFHLFETMYFKNSQILFLKEHLLRLINSALKFNFNTHKLFKDFYNILNQKSSYKKYQNFTLF

KLDEKIFHKKHSLFYNFPLPFKNPHKEGILKLILYKDGRYEFQQSALKQNSNDILLLSDDKINSKSDNLY

HKSSLRTFYNQHSYKWQQNLCYDIAFFNEKDELCEGSRTNLILEKNSQFYTPQIQSGMLNGVYRNFLINL

GLIKEKALFKQDLFEAENIYCINSVRGLKKVKLQ

>YP\_002344268.1 para-aminobenzoate synthase glutamine amidotransferase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILFIDNYDSFSYTIIYYLKELSFECKVIKNDGFKKAKELEKFDFTHLIISPGPHSPKESKLSLKAIK

YFKKNKKILGICLGHQCIAEIFGGRVSKMQNPMHGKISKLYFKKDPIFKGIKKEIEICLYHSLHISSMPE

KCKILAHNSENIIMAIKHKKYPIYGLQFHPEAVLTQKGKKILKNFMKL

>YP\_002344267.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGVFLVLLGGIFWAISGVLAEYLFKNNYSVDWVCFYRLLSTGLILIFLSFKAQKILVFTNLKESLSICMF

GFFGLLLTQFGYFKAIYYTDAGTATMIQYCAPLIIMLYLCFKNKKFPKLIEIFALILIIFALFLLATKGD

IEAVVLNYWGIFWAVIGAFGVAFYSLSAREVILKYGLFWIMGWASLFASFVFLLILQFDKGLIHYAFNLK

AFFSMGGIVFIGTIGAFCLYLKGVEYIGALRASMIASIEPVAAALMSFLFLKTRYSLLDIFAFVLIILSV

ILNAKKTKVS

>YP\_002344266.1 hypothetical protein Cj0859c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQINNSLNSLSQYVKVNSNEENQNSKNQEQNALAQDPAVEVNISKEAKEKSNTSNQNNSQAPAQALNAQN

NTQQDSSSNSEDKLTELTQKLAEIQAKIVELTAKMSKANEDQIKSIESQIATLNAQASTIQAQIQELQSQ

QA

>YP\_002344265.1 UDP-N-acetylglucosamine 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTYLEIEGTNHLSGNVTISGAKNAALPLIVSSILAKNEVKINNVPNVADIKTLISLLENLGAKVNFQNNS

ALLNTNTLNQTIAKYDIVRKMRASILTLGPLLARFGHCEVSLPGGCAIGQRPIDLHLLALEKMGANIQIK

QGYVVASGNLKGNEILFDKITVTGSENIIMAAALAKGKTKLLNVAKEPEVVQLCEVLKDAGLEIKGIGTD

ELEIYGSDGELLEFKEFSVIPDRIEAGTYLCAGAITNSKITLDKVNATHLSAVLAKLHQMGFETLITEDS

ITLLPAKEIKPVEIMTSEYPGFPTDMQAQFMALALKANGTSIIDERLFENRFMHVSELLRMGADIKLNGH

IATIVGGKELNAADVMATDLRASSALILAALAAKGTSKVHRIYHLDRGYENLEEKFKDLGAKITRLEE

>YP\_002344264.1 molybdopterin biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNIFETLKDLENQISCLDESELISLEKAKDRILAKDLYARKNLPSFDNAALDGYAFNYTDINEALEIKG

TIFAGDKNFYTVAKNECYKIMTGAKMPKNADTILMLEDECIEENKLIIKKVPKQYNAYRYKGEELKKGEI

LLQKGTKLNDKHIALLASQGLYKIEVIRKIRIGIFSSGNELKEPWQECDEESIYNANALPLLTMLQNASY

LGIIKDDFKSTKEALENTNFDLLITSGGASVGEADFMEKALDELGFTPLFKGLKARPARPTKLYRKGENF

VLILPGNPMAAYLSCFIFAKKIINLLSGNLDNPLTFYGKMGMDLKLKSGRNNLILGNLEKGIFTPFNENK

FGSGMILPLIKSEFLLISEENTGELKKGDEITLLKI

>YP\_002344263.1 signal peptidase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEILKKLYKFSQSWTGTVVIVLLVIFFFIQAFVIPSGSMKNTLLVGDFLFVKKFSYGIPTPHIPWLEIPV

LPDFNKDGHLIKAQGPQRGDIVVFRNPRNEKEHFVKRCVGTGGDRIVYANKTLYVRMHEGDEFMKEHYPN

DLVTLGGQIYVKEPYKQKGIHYDPKKDIESDILRFLSIGDFAMSPAYIKELGNHIGFSGGNAYVFDVPEN

EYFMMGDNRDYSYDSRFWGSVPYRLIVGKPWFVYFSWDKDKNVRWERIGRFVDTLENDEQYIHDHDDEDK

LS

>YP\_002344262.1 bifunctional 5,10-methylene-tetrahydrofolate dehydrogenase/ 5,10-methylene-tetrahydrofolate cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLLDGKALSAKIKEELKEKNQFLKSKGIESCLAVILVGDNPASQTYVKSKAKACEECGIKSLVYHLNEN

ITQNELLALINTLNHDDSVHGILVQLPLPDHICKDLILESIISSKDVDGFHPINVGYLNLGLESGFLPCT

PLGVMKLLKAYEIDLEGKDAVIIGASNIVGRPMATMLLNAGATVSVCHIKTKDLSLYTRQADLIIVAAGC

VNLLRSDMVKEGVIVVDVGINRLESGKIVGDVDFEEVSKKSSYITPVPGGVGPMTIAMLLENTVKSAKNR

LN

>YP\_002344261.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIVLMFFLFSISLFGADFITLKEYSKMLYENPRGISCKECHGADGSEQILGYYMKNGIKTAYKVPSIQN

LSFENFKNSLNQSKDAKSIMPNYSLTNDEIVTLYNYIKQFSKEEK

>YP\_002344260.1 glutamate-1-semialdehyde aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTNKKAFKETCKFIAGGVNSPVRAFANVQSEPKFISHGKGAYIFDIDGNSYIDYVQSWGPLLFGHCDKDI

QKACQKALHKGSSFGAPTLLETELAKLVLSDFPHLEKIRFVSSGTEATMSAIRLARGFTKKDKILKFEGC

YHGHSDSLLVSAGSGAATFNSPSSLGVLEDVAKHTLVAKYNDINSVKELFEKNKDIACVIIEPIAGNMGL

VPAKQDFLEELAKICKNNQTLLIFDEVMSGYRASYLGSYGINHIQADIITFGKVIGGGLPAAAFASRAEI

MDILSPLGGVYQAGTLSGNPLAMAAGIASLTKAKKKTKLYDKLGKLAKKLTQGMKKLADEKGLPLQACHV

GSMFGYFFTKDPVSNYQDALKSDLALFSKFHKNMLENGIYLAPSQFETGFICSKMDDKIIDTTLEAVRES

FKRI

>YP\_002344259.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNILKEEKNHLENSNSKRQKIIRKTLEAADGLSLGISMVVAVFIGVGIGYLLKKFTPYPWLFWLGVFWG

ISAAILNVYKAYKVQVKSYEEFKERDELIKEKIQKEKNK

>YP\_002344258.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEHKKALFCIFAIIHLFFWIIFSSLNHFKLDTFLSYEIAFFSVLLIIFASYLNYKKVIIKKSKNYEKDFN

FISSLFIKKKQNLSKIIHFKVLKDDLKPNVKEKIHFFAMFFTLFKLMAYVILVAGFLFLHRQDKLDIFAY

ICGISSLLVCVFIFILYIKKYESKKNY

>YP\_002344257.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSPKKIIKSMTALFAGMAFLFAGNALIVSSIGVILKENGESSLAVGVVSSCFFVGALIGTISTHKIISRI

GHIRSFGLFGAIFGISAMLHTVSENLIFWAVLRFFIGICYYGLLMVIESWLNEKSKNAIRSRILGFYEIV

FYLAFGIGVLIIALNLSKHSVFILSATLILLSSLPLNLIKIKEPVLPASSPISIPKIFDIAPLAIVTSFI

AGMLINGFFSMASLFILLQGFDTKAVSYFIFCGVLGGFIAQTIIGTISDKLGRKFAIITCASIGFITMLI

FIFFKLHLYMQYFLGITLGIGIFCLYALALARANDVLVSKNKGVELGRGVLFCYSLGSLFGPLILGFLMQ

YFEIKGFIWFYIVSLAFLILFAINKPNILNKKFKKKPGNMVIFDD

>YP\_002344256.1 hypothetical protein Cj0849c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINTQLASQIANTQKNDLKVDNSASKDKTNLKDNPKEALAQALKQNLGLSKDASSEEILAKFVQNETGTK

LKELVNKLLDQINAQKNPDSPVLKQGKNLNLAPNFANELKILSTELAKSDTFTQVLDRLNQILKPASEIK

NNNLAPLFKNSGVFLEAKLKDALNEELLPKSFHSLLSTIKGLSSEKLSVQIAQLANTNLSPKDTLKELKN

IINSSKNENKQILNQSSFKALLNLSSKLENFKNYISKNPSHAQEKITPIANKILKELNSIKNDFFKALNK

PENLMIKDPNILKQTATAFEKLENTLKNILGNQASKIQDKENILENLLSNKENMKEEKLNHNTKNQDEEK

HIKASKEDENLDSGIKTHEEDTQDTKNDIQNNETENKPDNDIKNSTPNQEKIKDEKQEKSKENIKENPKF

YETKTENKTSINTNTNTSNPNTNNTQNLNNTQNIQSNNNQTMQNIFKNQEFIKQNIVKNLAFNVENLDLE

QVQDLSKNLSNLSRRLNESLKELEPYTQNAKLNQAELKNLEHKLNLSIKDLAQIKPKTEQDIAESLHHDV

KSTLLQISNLAKNEGNEAVYNQANRLLAQIEINQLMSLANDSINTYLPFSWDDLNDSKIMFRRGKKDKFF

AQIKLEFAKLGDLEILISLNNEKYIDINIMAENIEFRKTIYENAHELKRNINKAGLLSANFFVGDIIRSK

FDTRNMKNLDLEMGMDKKV

>YP\_002344255.1 hypothetical protein Cj0848c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKIKRSIKKAVALGYQKEKNSAPKVLASGKGESAAKIISLAKEHGVPIKEDEDLIEILSKLDLGDEIPP

NMYKAVAEVFAFIYQMANKTPKN

>YP\_002344254.1 phosphatidylserine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSFSKESSRLFGFVAGIKFPKMIQKVINENYVKYFNINMSEFKAPCEYESLNALFTRTLQIPRKFEEGFI

SPSDGKILECGSTFLANEEHFAFSIKGHAYSVEELLKDSFEKDELKNGLDYVNIYLSPKDYHRYHSPCDM

QILSATYTSGVLYSVNEKHLERISNLYVKNERVSLKCQNEKGIFWLVFVGAQNVGKMRFNFDASIQTNAK

ISHNFTRKYENLNFKKGEELGNFELGSTIVLISQKGLLTFNLKVGQGIKFGEKIAD

>YP\_002344253.1 metallophosphoesterase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFLIFSFIVLLIFGLANVYIYKRLIKKITLFKYFYKIFSFIFIVLFLAQAVFLIFRRDEYLSDTWYEIL

AMFYAPTYCLFFMTLAWDFVKLILALMGKRDKTYNLILRLIFELSLIVLSVFLIYASINNALKTPEVKSV

DVEIPNLKKDLKIVMLTDIHLGKNLHENFLDKLITKVNLQSPDMVVIVGDLIDTNPKDLKNYISKLNDFN

STYGTFYALGNHEYYHGINEVLDLLRKHTNMKILVNQNLDLGFIDIAGLGDLAGLDRGLYAPDLARIKVD

LNTSKASILLTHQPKTALLYDLSDFDLVLSGHTHGGQIFPFMFLVKLQQGFVHGLYDLGEKTKLYVSSGA

GFWGPSLRVFAPSEIVILNLKGKK

>YP\_002344252.1 glutamate--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYRFAPSPTGDMHIGNLRAAIFNYICARQKNMDFILRIEDTDKARNIAGKEEEIKEILNLFSISWQHYYI

QSENLKFHRQMALKLVSEKKAFACFCTEEELEAKKELAKKQGKAYRYDGTCEKLADIDVLECEKPFVIRL

KKPTHTMKFTDFIKGELSFEPENIDSFVIMRTDKTPTYNFACAVDDMLENVTCIIRGEDHVSNTPKQEHI

RASLGYNKAMTYAHLPIILNEEGVKMSKREAHSSVKWLLESGILPSAIANYLIMLGNKTPCEIFTLEEAI

KWFDISKVSKAPARFDLKKLLQINREHIKMIKDDELNKILDLNKDLAQLAKFYTQETSTIKELKEKMQAI

FNAKDFGEFETEYKILKELLKDIELFENYEDFKNELLNKSNLKGKKFFMPLRIILTGNIHGPELSDLYPY

IKNFIHELARI

>YP\_002344251.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVIDSFIISIFQVLQIVINIYTWIIIITALLSWVNPDPYNPIVQILYKLSYPAYALVRKIPTRIGNIDLA

PLIIVLALQFLGIFLGNILRSIL

>YP\_002344250.1 transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKKILVFLFIFSSLNATQYSIEKLKKEENSLAKDYYIYRLLEKNKISKKDAQDLNSHIFRYIGKIKSEL

EKIIPLKPYINPKYAKCYTYTANTILDANLTCQSVRLNSLVFIASLNSKDRTTLAQTFKNQRPDLTNLLL

AFNTSDPMSYIVQKEDINGFFKLYNYSKKYDLDLNTGLVNKLPNHIGFKDFAQNIIIKKENPKFRYSMLE

INPENVSEDSAFYLGVNALTYDKTELAYDFFKKAAQSFKSQSNKDNAIFWMWLIKNNEEDLKTLSQSSSL

NIYSLYAKELTNTPFPKIESLNPSKKKNNFNMQDPFAWQKINKQIRDANASQLDVLAKEFDTQETLPIYA

YILERKNNFKKHYFIMPYYDNIKDYNKTRQALILAIARQESRFIPTAISVSYALGMMQFMPFLANHIGEK

ELKIPNFDQDFMFKPEIAYYFGNYHLNYLESRLKSPLFVAYAYNGGIGFTNRMLARNDMFKTGKFEPFLS

MELVPYQESRIYGKKVLANYIVYRHLLNDSIKISDIFENLIQNKANDLNKS

>YP\_002344249.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIYSVILGAFLLGACSLKDQAIVDTNLKSQTLMFTQKYKITQDKINAIITMSYLNPILDKTSKDDVLAL

SFTPNTLKIQNLEVFINNKKANIEKLDDEYLKYIIQNNYTDYFKASLPSVKEETRLVAKICLDHLPCFEL

NFQKYPKSLYYRSEDVDTQYN

>YP\_002344248.1 molybdopterin-guanine dinucleotide biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQLIIAFSGPSNSGKTTLITKIADNFLQQNLKVLIIKHDPADKAQFDFNGKDSFKFFQSGAEVMVLSPT

RTTFFSHENRDILKALKLSPDFDICLVEGLKTLDLPRISVFCKEIDESYFIFSNAIASYEKISHPYLTWL

DLNDIQAICQYILKNAKNLQGEL

>YP\_002344247.1 fructose-1,6-bisphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>YP\_002344246.1 hypothetical protein Cj0839c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEVRDEFEQDMDKKKEILLSCQNSKNLNSCYNCDEIFNCQTRKNYVDAVYNSMSKGKTEGGFDF

>YP\_002344245.1 methionine--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRYITTPIYYVNDVPHLGHAYTTIIADTLARFYRLQGHETRFLTGTDEHGQKIEEAAKLRNSTPQEYADK

ISFEFKKLWDEFEITYDIYARTTDTRHIEFIKAMFLKMWQKGDIYKDEYEGHYCISCESFFTQSQLINDC

SCPDCGKQTRILKEESYFFKLSKYQDKILQWYEEKDPILPKNKKNELINFVQNGLKDLSITRTSFDWGIK

LPQEINDDKHIIYVWLDALFIYVSSLDFQNKGENAKFWPAHVHLVGKDILRFHAIYWPAFLMSVDLPLPK

FIGAHGWWTKEGEKMSKSKGNVVKPKEVVDAYGSEAFRYFLLREVPFGNDGDFSENMLINRINAELSNEF

GNLLNRIIGMSTKYSQGNISKEGVLKFYNAELNQAKEHLNLAVEFLENLQCNRYLEELFKALSVANLAIS

KYEPWSLIKENKHEQANALVALCANILAKTSLLLSPTLPKSSQKVALALNFEISSANYTKMILDNELLDF

KANPCEALFPKVEKALLKQEIKEEPKKEESPKIKIDDFAKIEIKVAKVLDCQNIEGSEKLLKFQLELDDK

EIRQVLSGIAKYYKASDLIGKQVCVISNLKKAKIFGHESDGMILSAKSGDKLVLIAPEQLVQNGSLVG

>YP\_002344244.1 hypothetical protein Cj0837c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQISNLGELLNATLIHEGSVLSVEGFAINLNELKTGFAFFNNDKKEIAQAVKKGAYAIITENDITIEDKE

IFYFRVENLERALVRFLRFFCEDKECEFLLFKSYELSLCKAFYFNILKGNIFADFEKLIKAKKGEIFCYC

EENYLNKLCTYSHSLKDANFTLLSRSSFFFTTLICENLYFKNLNLPFFYANSFAKIISFLKEKSQKIIFD

FNKIDDFKIYFIDDKFEITPFGSSSQAFIVSNNQNTFEFWKEKFKNIKDFKIASKNSLFCDFSYNQLSDL

RKLKNFKYCLILENYDIFEQEFENKENQTPSLF

>YP\_002344243.1 methylated-DNA--protein-cysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKVYYKMPLCYLSLHSDGKFLTRVDFCDNKRSEKNCSLLDLAKYELDLYFTHKLRKFSIPVLIQGTDFE

SKVYKALMEIPYGKIATYKDIAEKINHPKAFRAVGNANSKNQIPIFIPCHRVIASNGIGGYNGGLEIKRF

LLENEGVNLK

>YP\_002344242.1 bifunctional aconitate hydratase 2/2-methylisocitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSFMQEYNKLVEERAALGIPPLPLNANQTRELCKLLENENNEELANLLENRVNPGVDDAALVKCEFLDSI

LKGKISAPNIDKKRALRMLGTMLGGYNVKVLIDALKDENIAKDAAEVLKNIIFVHDNFHTIAELSKNNPH

AKEVLQSWANADWFNKKEKLPQVIKCIVFKVAGETNTDDLSPAGDAFTRSDIPLHANAMLKVRQTGSLEK

IKELKKSGREVVYVGDVVGTGSSRKSAINSIQWHLGKEIEGVPNKHSGGIIMGSTIAPIFFNTAQDSGAL

PIICDVTNLEMGDEFEIHPYEGKIIKNGSTIAEFTLSPNTLLDEVRAGGRIPLIIGRGLCTKAREFLGME

SENIFTKPEQPKSSSGGYTLAQKMLGRACGVEGVRPGMYIEPITLTVGSQDTTGPMTRDEIKELASLGFN

ADFVMQSFCHTAAYPKVSDSNLHKTLPNFMTSRGGVSLKPGDGVIHSWLNRFVLPDTVGTGGDSHTRFPI

GISFPAGSGLVAFAAVTGSMPLNVPESVLVRFSGELQAGVTLRDLVNAIPYYAIKQGQLTVEKKNKKNIF

AGKILEIEGLPNLKVEQAFELSDASAERSAAACSVDLSIESVSEYIKSNISLIEAMIEVGYENKATLARR

AEKMREWLKNPTLLRADKDAKYAYIIDINLNNIKEPILACPNDPDDVATLSEILADDKRPKNIDEVFVGS

CMTNIGHYRALGEILKDKGILKTRLWVVPPTKMDKAQLINEGYYSIFGAAGARIEVPGCSLCMGNQARVN

DGAVVFSTSTRNFDNRMGMGAKVYLGSAELAAVCAILGKIPSKEEYLQIVSEKLSNEHKANIYRYLNFNE

IENFKLEN

>YP\_002344241.1 ankyrin repeat-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLLFTSFCCFASLMASDAINCDNIKNNKTLLNESSNLDYLNIASSCKESLKNQDFTKKLYAISNEIRGS

NSSCNGVAYLPKLQQFDFLLLKIAIDPIAYQKTLDTPENLEKKYDILKSYFRYWAYQSIGNFRLYKAFWQ

EYNNAIEPLEKYFESNFNFDKGSNIYYTSNALNEFLNWAVGETKIYKDISPLAKIMSNKNYSVSYIQDFI

FSNNPSQDDLTIALQAALLNQREKEILELLIRFGARIDEGYESAIFYALESYENTNFLIQNGANVNQANA

FGKTPLFYAIEFNRLDIIKLLLDNGANVNQKYINNNEKLALSANIGSNTPYFITFCALEHTSKNVLMHAA

AYGNVEILKLLISKGANFNAVDDLGFNALDFALSAGKKENADYLKSLGLKANENLFYGGSLE

>YP\_002344240.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTAFITGASSGFGRACVEAFIQEGYKAIALARRKERLEELKNAYKDKIYTLCIDVRNQKEIFEAIENLP

KEFQEIDVLFNNAGLALGVDEFDKLNLEDINTMVDTNIKGFLYVAKAIIPILRKQKNAYIFNLGSVAGRN

PYFGGNVYCGTKAFVGQFSLALRNDLRGSNIKVTNIAPGLCKTEFSEVRFKGDIQKADAVYENTQFISAN

DIAKVVMSIINLPSHINVNEIELMPVTQTWNGFYIERDE

>YP\_002344239.1 Na+/H+ antiporter family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKFLVSLFLPLVAFANSSEAAANANLFGAFTLIPPLVAIALAFITKDVILSLFTGVLSGTFLLSLSTNI

FKAQHLTFVNYYNTTVESFSKIISYILGSTSDPVNAGIILQILCIGGLVALITKMGGAKAVALKFAKRAK

SAVSAQVNTWFLGLLIFFDDYANLLIVGPIMRPLADKFKISREKFAFIIDSTAAPVAGIAVISTWIGLEV

SLIKTAYEHIGISNISAFGIFVETIPYRFYNIFMLFFVVMTAIMGREFGSMYKAEVRARTTGQIAPLPKS

GTLDTTELEDQFLAPKEGIKIRAFDAIVPIFTLIILAILGFYFNGLSTLEGEELAKASTNPLSFETFRAA

FGNADSSVVLFQAALFAAIVAIFIGVRRKIFNLKEAVETWIYGWKTMIFTIVLLLFAWSLSSIVKDLGTS

LFITSLLADKLPEFILPATIFAFASAISFAIGTSYGTMGILMPLAVPLAHEIAKINGMDANAMHHYMVIN

ISCVLTGAIFGNHCSPISDNVILSSMSAKCDHMEHVRTQIPYALFICGISLIAGYIPVSLGLSVWFVLPL

NFILIALLLRLIGKKVP

>YP\_002344238.1 tRNA/tmRNA (uracil-C(5))-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLENFGNFLTLDEKHSFIKKYFKEFYTKDFKLFASKDKHYRTRAELSFYHENDTLFYAMFDPKSKKKYI

IEYLDFADEKICAFMPRLLEYLRQDNKLKEKLFGVEFLTTKQELSITLLYHKNIEDIKSNLENLSNILHI

NLIARSKGKKLIFKTENLRQTLNIQDRKIFYEFNNDCFIQPNTAINEKMITWVCEILNTQKRMDLLELYC

GYGNFTLALAPFFFKILATEISKSNINFALKNCELNNTTNIHFARLSSEELSLAIKKEREFFRLKDIRLD

DFNFSHVLVDPPRAGLDKSVIDLIKKYGNIIYISCNPMTLKENLKELSLTHRVEEFALFDQFVNTPHLEC

GVFLSKV

>YP\_002344237.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEEFYPYTLTIHLLCAILFIGYLFVDVFVLGVVKKKNPNFDKSLFSATGVKIMPFVVLLLFLSGGALAGF

HFKPLNLLFAVKIILAFGILSLVVFSLFCHFILKKKNPLGVFIHPFVFVLCIAIVILAKLMNYFFIPC

>YP\_002344236.1 CoA-binding domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEKETISYIINTSKNIVIFALSPDKTKASYRVAEFLQRKNYKIFPIYPKEEFILNEKVYRNLDQIEEKI

DTLILFRKGEVALEILPKLVEKNIKNLWLQLDISNETAKEECKKLDINFIQNRCIMLEYPHFKTKEK

>YP\_002344235.1 threonine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLELNKIYKAKQQISGFVNKTPFIYSSFLSDICQSEIYLKNENLQITGAYKIRGAYNKIANLSTEQKQHG

VIAASAGNHAQGVAISAKKFSIKAVIVMPESTPLLKVSATKALGAEVILRGDNFDEAYAFATSYAKENNL

SFIHPFEDEFVMAGQGTLMLEMLDEISDLDMIIAPVGGGGLISGISSTAKQINPNIKIIGVGAKGAPAMY

ESFHAKKIKNAKSVRTIADGIAVRDANPINFNIILECVDDFIQVDDEEIANAVLFLLEKHKIIVEGAGAA

SVAALLHQKINTQNHKKIGVVLSGGNIDAQMLNIIIEKGLFKSYRKMQIYVTLVDKPGALLHLTDSLKIA

NANIVKIDYDRFSTKLDYGDAMISITLETKGKEHQEEIRKILTQKAFNFYESF

>YP\_002344234.1 tRNA pseudouridine synthase A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKIKIIFSYDGSAFLGSATQPHKKGVQDALSGALSHLGIFSPLLMASRTDKGVHASYAVASVECGDYFT

NLEYLQKQLNKFSHPFIHIKKIEKVKDDFEVRFDVKSREYRYIFSHASYSPFMASYVHFYPKFDLGKANE

LLGFFVGKKDLKFFCKSGGDNKTTLREIFIARAYAYKDFSIFHFKANGFLRGQIRLSVASVLKVLEGKMS

EKELKEQIEAKKQYNHFLAPPNGLYLSRICY

>YP\_002344233.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLSLRYVLNQFLSTNLSIFFVLFAIVSMVFFIQLAKLTSSIEISFLDLLKLYGFMLPRILIFTLPISFF

ISLTLALFRLSKENESIVLFTLGFSPMILAKFFLKIASLISAFMLVVALVMIPIVFELQDNFVNYKSTQV

KFNYKTGEFGQKFLDWMIFIEKQDSDKYENIIMYRPKHKADDKEQLIIAKEAHVQRKDDSFAFSLNQGKM

YNFEQGQSIFSGEFDTLVVNTQFNTDNLQTKKFYEYWNDLNENLQRAREFVIYTTIALFPLASTLFALCF

GLVTYRYEKGYVYLGMFGVIAIYFGLLSSFSQPPILACLGIFSLSLFVSAYCFKKMILSRY

>YP\_002344232.1 processing peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFFIIILGACLGSFCTSLASRIIEKKLFFISRSFCFSCDTKLKYYEIIPIFSYIFLKAKCQTCKCHLSI

SLLINEILGAILLILVYSLSQNFYDFLFLSLFLFNLFLLSLIDIKLKAVPQILLWSAFLFAFFYAFRESE

ILHFLIFKEFSGGFLLNAFSFGGFVFLLKSLVFFLMNFQKKDEILENLGDADIIIMSCIGGILGFEYGFL

VLFIASILTLPFFIFFRIKAIKEQELAMIPFLNIAFVAVLFYKNLGLF

>YP\_002344231.1 UDP diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNELKHLAVVMDGNRRWARAKGFLAKLGYSQGVKTMQKLMEVCMEENISNLSLFAFSTENWKRPKDEIDF

IFELLDRCLDEALEKFEKNNVRLRAIGDLSRLEDKVREKITLVEEKTKHCDALCVNLAISYGARDEIIRA

AKRVIEKKLELNEENLTQNLDLPLDVDLMLRVGNAKRLSNFLLWQCSYAEIYFSETLFPSLTKREFKRII

KEFRNRERTFGK

>YP\_002344230.1 hypothetical protein Cj0823 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSMINSTLPIQMKVLAKSGYGHYTLLLNHKKIQTKSMIELEIGAEYLAELYMQNGGVIQFKHLSKRPNFK

PFEEGLALIIAILEDKISYKKFIIQNLLDCKDIERYQILKEMLFASFENIYHIPFNFENKSCLFQMRKRA

KYLEIYLYFSVFGALKILIDSQGISVFTPFAKVQKFLNEHLDFNVSQENKIEPLFVFKRLFDFKG

>YP\_002344229.1 bifunctional phosphopantothenoylcysteine decarboxylase/phosphopantothenate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTILLAISGSIAFYKSYELISLFKKEGFRVKVLLSNGLLKFASKMSFEALVDEVLCEENESWQNSNNHI

AFSKDVDLVLFTPASVNSINKLAFGIADNLFIQTLIAANKPLIIAPAANTNMFHHFSTQNSLKILKENKA

LIIEPICKVLACKDEGVGALAEVKDIFNITKRELLKEKFWCNKSVVITGGGTRERIDDVRCVSNFSSGKM

AKAIADAFYFLGARVKLLSSVEFDTPYELCKFESSKDLKELLDKNLSHDFLIMTAAVSDFIPQSVKGKIK

KNEHLQGLNLHLSLNEDLLKTCKFQGKKIGFKMEFDSQNALENAKKSLKDKQLDMVCLNIIDQKNYFGSD

QNELYFITLNNENKSTLQSKEKLAFELVKWCEKL

>YP\_002344228.1 bifunctional N-acetylglucosamine-1-phosphate uridyltransferase/glucosamine-1-phosphate acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTSILILAAGLGTRIKSQKPKVLQELCQKSMILHILKKAFALSDDVSVVLSHQKERVEKEILEYFPKTQ

ILEQDLQNYPGTAGALSGFEPKNERVLILCGDMPLVEQTSLEALLGNNAKLNLAVFKARDPKSYGRVVIK

NDSVEKIVEFKDANTQEKEINTCNAGVYVIDSRLLKELLPLIDNNNAAKEYYLTDIVKLAKEKDVMIKAV

FVDEDEFMGINDKFELSIAENFMQKKIKKYWMQQGVIFHLPQSTFIGADVEFVGECEVYENVRIEGKSKI

INSIIKSSSVIENSIVENSDVGPLAHLRPNCELKNTHIGNFVECKNAKLNTVKAGHLSYLGDCEIDSGTN

IGCGTITCNYDGVKKHKTIIGKNVFVGSDTQFIAPVKIEDEVIIAAGSTVSINVEKGALFINRAGHKMIK

DYYYKKFQK

>YP\_002344227.1 flagellar biosynthesis protein FliP [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILLFLLLSMSLFAAEATIPTVNLSLSAPNTPNQLVTTLNIVIVLTILALAPSIVFVMTSFLRLIVVF

SFLRQAMGTQSMPPNTILVTLALILTFFIMEPVATKSYNEGIKPYLAEKIGYEEAFIKGAKPFKDFMLKN

TREKDLALFYRIRNLPNPKTIDDVPLTVLVPAFMISELKTAFEIGFLIYLPFLVIDMVVSSVLMAMGMMM

LPPTMISLPFKLLIFVLVDGWNLLVQRLVESFVT

>YP\_002344226.1 hypothetical protein Cj0819 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEFIFTLILDFTFYSIKTLEKVFLGRTALVILFVVFIALFCVKGLFLYILLALELFLLLYLFLGILFLR

FYKS

>YP\_002344225.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVAFFLLFLFLSCTVLNAAREYCKYAYQEDRAIPLILNYGIRLGVVGAGVANAPAPGGSTYNSKIDMM

AARCH

>YP\_002344224.1 glutamine-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIILIFISFFALNLSAKDLVVGMELGYPPFEMSDKTGKASGISVDFLEAFAKKNGYKLVVKNIAWDGL

IPALKTAKIDLIMSSMTITDKRKKVVDFSIPYAKANLAILTPLNSDITNIKDLDKKGKVLALKRGSTGHL

YAVKNLKNATINLFDKENAAILEVIQGKADGFFYDQLTIYRTWQKHQDTTRAILAPFQENPEFWGIAVRK

GDEALKDKLDNFIDESRKNGFLDFLGNKYLKDIKEVFKQNNITFFL

>YP\_002344220.1 3-deoxy-manno-octulosonate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIIIPARLKSSRFHEKILCDIGGVPMFVATARRVSSVDEVCIALDDEKVLSIAKEYGLNAVLTSKDHESG

TDRINEACKKLALKDDEIIINVQADEPFIECENLLKFKEFASFCLDKKAFMASCYKKITQEEAMDPNLVK

VLCDKEGYALYFSRAKIPYERENYEESFKGHLGIYAYSVKALREFCSLSSSALERAEKLEQLRAIENGKK

IKMLEISTTSMGIDTKEDYERALKIYLEK

>YP\_002344219.1 threonine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLVESRNVNNVSSFKEALINPNAPEGGLYSPLNLPIFEGEKYANLSYKDFALKLIESFGFGEEELFKKA

LKSYESFDDKNTPISLQKISEKTYINELWHGPTRAFKDMALQPFGVLLSEFSKDKNILIICATSGDTGPA

TLKSFENAKNVKVACMYPKGGTSGVQELQMRALDKDNLKVFAIDEDFDAAQRTLKELLFSKDFQNEIKAL

NYELCAANSVNFGRILFQIIYHYYASLKLFNEFLEEVQIIVPSGNFGNALGAFYAKKMGAKISKIKIASN

ANNILSEFFNQGVYDLREKSLKKTISPAMDILISSNIERLLFAKFKDKRTKELMNLLKNERYFKLEKEEL

QSLQEDFEADFCTDEECMQFIKQSKILIDPHTATCFKMLDPLKPSIITSTAEWTKFTPSMIKALYDRDSK

NEKEDLKFIAKEFNVQVKDEILALFDLKNSDEKVFEARNIKKEILDWMQK

>YP\_002344218.1 tetraacyldisaccharide 4'-kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEEKNYELWLDNYFFKPNFWQKCLAFILLPLSVLYAFFAILNTFFRKKIVFKKPVISVGNLSFGGNGKT

PLCKAIAREFDGVFIVLRGYKRKSKGLFVVKNQNEILCTLTQSGDEAMEYAFEENIKGVIVSEDRVKGIE

KAFELGAKIVVLDDAFSKFHIKKFDILLESKIKPYFNFTLPSGAYRLPKFYEKRADFIALEGRDFVRYSF

VKENPKAVLVTAIAKPFRLYEHFIKARACYFFKDHYEFKKEELENLLKKHNCDTLMLTFKDFVKVKDFGF

KCQIIELNIELKDSLREKIKTYIKEFEQ

>YP\_002344217.1 NH(3)-dependent NAD(+) synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDWQKITEKMCDFIQEKVKNSQSQGVVLGLSGGIDSALVATLCKRALKENVFALLMPTQISNKANLEDAL

RLCADLNLEYKIIEIQSILDAFIKQSENTTLVSLGNFAARIRMSLLYDYSALKNSLVIGTSNKSELLLGY

GTIYGDLACAFNPIGSLYKSEIYALAKYLNLHENFIKKAPSADLWENQSDEADLGFSYTKIDEGLKALET

NDEKLLRTLDPSLIAMLKNRMQKNAFKGKMPEILEI

>YP\_002344216.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIIKQACGVYETNCYILFTPKGEFIIDPGTDALLFIKKHVKNPLAILNTHGHYDHIWDNAKVKKEYNIP

IYIHKNDAFMLHDDFNQGYDSSDADFLVDNEDILNICGVDFKFHFLPGHTPGCTMIEIVGKNIMFSGDFL

FYRSIGRWDFPYSDANLMKQSLEKVMTYKEDFKLLPGHGQETTLKEEQVHLPSWLRYF

>YP\_002344215.1 hypothetical protein Cj0808c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MELDQILLYAFIFLNLFALFGLFLGNKKKNQFNDKKFYKICPCKKMAENGSLSTICIYSAVGGFFYSVLS

IGFVGFGNWTLNFIFLLALLSVFLGWKLKLD

>YP\_002344214.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTEFQGKTLVISGGTRGIGKAIVYEFAKVGANIAFTYNSNAQIADEMVQDLEKNYKIKARAYEFNILEP

ETYKELFEKIDVDFDRVDYFISNAIISGRAVVGGYTKFMKLKPKGINNIFTATVNAFVVGAQEAAKRMEK

VGGGSIISISSTGNLVYIENYSGHGTAKAAVEAMARYAATELGEKNIRVNVVSGGPIKTDALRAFTNYEE

VKQATINLSPLNRMGQPEDLAGACLFLCSSKASWVTGHTFIVDGGTTFK

>YP\_002344213.1 4-hydroxy-tetrahydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAVETC

KGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLYNVP

GRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNGGKGVISVT

SNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFRLPLCSPSK

ENFAKIEEVMKKYKIKGF

>YP\_002344212.1 zinc protease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIAYEKIQLKNKLEVYALPVNKNSDVISVDIFYKVGSRNEIMGKSGIAHMLEHLNFKSTKNLKAGEFDEI

VKGFGGVDNASTGFDYTHYYIKCAKKNLDKALELFAELMANLNLKDEEFQPERAVVLEERRWRTDNNPLG

YLYFRLFNHAFMYHPYHWTPIGFFKDIENWSIEDIKEFHSIYYQPKNAILLVSGDIESKEVFELSKKHFE

KIKNTKTIPKIHTKEPKQDGVKRIYLHKNSDTELLALAYKIPNFKHKDIPALNALSELLGSGKSSLMSEI

LIDKLNLINDYYAYVNDCIDENLFIFICNCNPNVNAEKVEKELLKIIDKLKMGKISQKDLQRVKNNVKSD

FIFSLNNASAVANIYGSYLARGDINPLLNYEKDIQNLELKDLISCAKKYFIQENSTTVILRKDSNG

>YP\_002344211.1 dihydroorotate dehydrogenase 2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYEMIKLLLFKLNPEHAHALVEYSLRALSASFPGALSFLAHKYIVDDESLRQNLLGLDFNNPVGLAGGF

DKNATMIRPLSALGFGFLEVGTFTPKPQEGNEKPRLFRLVKQESIQNAMGFNNEGAEKIALRLAKTYPFV

LPLGVNIGKNKITPNDKALEDYFTLFRDFKDLCDYFIVNISSPNTKNLRELQNDDFLNTLLEEAKKITSK

PILIKIAPDMKIDDALNLCENAIKKGADGFILANTSVDYSLLDNNRTFGGISGRLITEKSGIFFKEVTKI

LFGKTLLIASGGIDSADIAYERIKNGANLVQVYTALIFKGPSLVKNINQNLIELLRKDGFLHISEAVGVN

LK

>YP\_002344210.1 lipid ABC transporter ATP-binding protein/permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHNEMNLKEVLIRFKPFYKRYWKQFAIAIFGMILASGGTAGSFYALEPILNYIFVEKNEALLYTVPFLLV

LMYFFKNLGTYLQSFYVSFIGTDMLRVLRARVLKNVLRLDMDFFKRYRSGELVSRCTNDINALQSIVSNI

IPDFFRELLTAIGLLAVVLYQSPTLAFFALVILPLAIFPLVWFAKKLKKYARNIQETNSDLLSYLGEIFS

NIELIKANDNEKKESDKFAKHNDTLCKLNLKSARIDALTSPLMDMMGSVGVAVVIIVGGREVINGSMSVG

SFISFVSALFAIYTPLKRLSSLYGKLQGAVAASERTFYLLDLEPQIKGGSKELKNIEKISFENVEFAYEN

PHKSVLKGVNFDFVKGQMLALVGTSGGGKSSIINLLMYFYEKQKGKILLNQEDISTFTIESLHAKIGLVT

QNIYLFNDSFAANIAYSEELEEEKVIQALKLANAYEFVKEMGGIWAEVKEHGKNLSGGQKQRIAIARALY

KNPDVLIFDEATSALDNESEKAIVKTIENLKQDRLILVVAHRLSTIENADKIVVLDKGKVLAIGKDEELL

QTCSLYQKFKSKEKTKPSFS

>YP\_002344209.1 cysteine--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRLLDSVTKEKIKLDKKDISIYLCGPTVYDDAHLGHARSSVCFDLLRRVLLAQGNRVKFARNYTDIDDKI

LKKMAQSGQTLEEITEFYIKSYEEDMRVLNVLDPDFKPRATHYITAMLDLIKKLAKDGFVYTLEDGIYFD

TSKDEKYLSLSNRNLEENISRLSNEVQKRNESDFVLWKFDENFYESEFGKGRPGWHTECVAMIDSIFENT

LDIHAGGIDLLFPHHENEAAQCRCGCKRKLANIWLHNGFVKIDGEKMSKSLNNSFFIKDALKEFMGEALR

FYLLSSHYRSHFNYSLSDLENAKKRLDKFYRLKKRLDLGEISDFDVLNDIGIKSEIAKQILEILNDDLNV

SKALALLDDFISSANLELDKESKNKILKQNIKEALSELAKIFGFGFMDATLYFQWGVSKEEREEIEKLIL

ERTEAKKNKDFNTADAIREQLNSKKITLLDTPNGTIWEKINA

>YP\_002344208.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSLVFKNFIINALGILFSRILGLARDVLIALFLGAGLYSDIFFVALKMPAFFRRIFAEGAFGQSFLPNF

VKAKKKGAFCVSVMMQFSLIVFLFCLLVSFFSSFFTKLFAFGFNADTIALAAPLVAINFWYLFFIFLVTF

LGAILNYRQKFFITSFSAALFNLSIVIAAFFVDKNAPQNTLYYFSYATVLSGVAQLILHLLVLKNNPVIR

AMTLSIKFKKTKAKLQGFYGNFFHGVLGSSATQFSSLLDTTIASFLMSGSISYLYYANRVFQLPLALFAI

ALTQVSFPKILKHLKSDQENLALKFMQRALALLSILLIASSIVGSVFALEISKLLFERGNFTHEDSVITA

YVLIAYLIGLLPFGLQKLFSLWLYAKFKQKTAAWIAVKSLIISALCSMAFIFLIKDESLKVIAVALSSSI

SAFYLLGANIKEFGFKKFFALISIKICLLVIVALIVFTILLILIKPYILSFFIGIFTSFKGVF

>YP\_002344207.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MALDEKIIAYTENPARELLSVASRTNLSLNELDFSLLAFSTQYRFGDLEWEKISEKELTLFDKDEIFLKN

DLQIKQEYKIEIFHGINQSKASQAVKLVANKNLTKIVAQIDFTNLDFHEKLALELLQNIYKKMLKLKFLI

GIRIFDFKKKLMSFCNQYKNTPLNKTIQITVAQGIDPIESQDESLILTYKEKTKNYTIDEKRSGIIVVDE

NEVVLKHVKFKQGKEGKDLNLHTLKVLAANENKVKFSCSSAFKQVEQDGYTEYIALKKGYVVQDGEKFDI

ANELDFNGVDFKNIGIIRAGLDKNVKINIKFLSEVKDAVNSGVGIECEELNVVGSVGSNTQLNATKMKIE

GTTHSKAKIQAKQAYIKTHRGFAEAEILNIDLLEGGTIKAKEVRIKKSLGGNIQADKIYIENLESNNSCV

FFENTTIERINGDNNKFHAKIKTLDKNYDEEFAILGEQISKLNHKINKIRQYILSSKNGILSVEKKITEL

KNQGQNVPVQYEKALKDFSLQNLELNKLQNEEKELLERKKSLQLELINLQKMLFEATFINKSGKWTDMNE

IKFSLLEPKEDIFCSSFVNESAKFIGIKKVIQNNQESIEIHKKLDYEEKDIAWLSASKE

>YP\_002344206.1 Holliday junction DNA helicase RuvA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVVGIEGIITKKEPTFIIVKCASGLSYGIFISLFCSAKIQTQEKHEFFITQIIKEDSNKFYGFLDKDEQK

MFEMLLKVNGVGANTAMAVCSSLDVNSFYKALSLGDESVLKKVPGIGPKSAKRIIVELSDTKTKLENVSD

DKSEALAALLTLGFKQEKIISVLVSAQATGTSELIKEALKKLG

>YP\_002344205.1 D-alanine--D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFAILFGGNSYEHEISIVSAVVLKKVINQNLEFIFCDEERRFYHIPSEKMNSKTFSTKAYKKEKELFIK

QGGFFSKGFLKENKLECECVINLIHGRDGEDGKIAALFEFYSIKFIGPRLEASVLSFNKELTKLYAKSVG

VKTLDYTILRKNQNSKEKLSFPCIIKPARLGSSIGISIVKDEKDLEYAKDVGFEFDNDLVVEEFKNNIKE

YNLAGCMINDEFVFSIIEEPKKKEFLDFEQKYLSFSGHNELIEADLSEELKEKLKDSFKKIYNPLFKGAL

IRCDFFILDNEIYLNEINPNPGSLANYLFKDFNTTLNALADQISLEKMIKINYNFLHSINGQKGKL

>YP\_002344204.1 hypothetical protein Cj0797c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLSFKQDEIYTATEVVRNFSPIMEKLKKSESGKIVILKNNKFEAVMLSMKEFERLQNAMQLLENIYKNQK

A

>YP\_002344203.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAQTQLSYKNKTYQISYEILGDLSLPQILILHGWGADKKLMKQSFCPFLKDFCQIYMDLAGFGNSSVEEI

LNTQDYANITELFLKQKKLNVCFFMGHSFGGKVSTLLAKEKDTLILLSSAGILAKKSLKVRFKIRIFKIL

KLFGLGKFYRYFASKDGANLSPIMYETFKKVVDEDFSEIFAKQKAKSLIFWGKSDEATPLYCGEKMHQFL

KNSTFYPLEGDHFFFLKHSAFIAQKIKEI

>YP\_002344202.1 UDP-N-acetylmuramoyl-tripeptide D-alanyl-D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLINTLYFINSLFFNFCIAFYLMSALQWYSYKFKRVFFHYHKPLWHLYFLFIPYFLFLAFPLYSLVYFAL

IHTPILYFWNKGIDKKLVFTSKVKWFFVFVFVYNAIFTILALRFSFLFNLFSLPFALLSLKIYEFFTNLY

YKKQAKAKLRANENLKIILITASFGKTSIKNFLYELLKDDFKSYKTPRSVNTLLGIVADINANLSQDTQI

YIAEAGARLKGDIDEITHFLQPQISIVGEIGNAHLEYFKSVENIRSTKLEALNSERLEKAFLHSSTQKEE

DKLISLYDDKLSLIHSSLEGLEFKVDIENKSYDFKSQILGDFNAQNLCVCILCAHYLGIKLEKIQKQVLN

INSVEHRLQVLSREPKFIIDDGFNGNFKGMSTSYKLCKSYKGRKVLVSPGIVEVSEEENIKLAKIINECF

DLAIISAQINAEIFKKELKIKTIILKEKSQLVQTLAKETKHGDLILFSNDAPSFM

>YP\_002344201.1 hypothetical protein Cj0794 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITQTMQSKESKESKENSKISFANAFLKQNASKLNEIQNANSQTLARSEALNSTNTTNTSNNTNFSISSK

TSSPNYDISSEFKNSIYTLKYKQVDISNTSTNTAYGYSVDKDGYMGSDFNKAAGLPEDFKIHKSTLDEIE

RKAENNSYTSDIKKYLGIDKYYTNIDMAETIKQYYNQFNQIVNYAFNDTNKTSFTEADINSMPKGISELS

SDKTIGIMPKNYDKLTITNYYNTQEQYNEAEQLGMFGHINIGLQPLNFTPQSMQTQNLDKDTAIDTFNPD

MSVYPQNEDGSYSKEALFMSFLKSTGVSPREGSATLNPIAKSYAEAMAKESFDGSLASLDDIMTGKVDFA

SLLKGYAQEGWLDADIYAMDKGVAWQNTSIGYGGAWFDREFNQVKANGWKASSESINSYVGSIMDRLNNL

MGQTRV

>YP\_002344200.1 signal transduction histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNESILKSLDSNEKETLQKGLESLIEQTYVIENEYKTLNENYNSLRAMVDEIIEVLPSALWILDKEKNII

LQNQEALKNPKLLSIISLDKIRDELEFEGRFYAVKIIAHNEKTIVSATDISDEKRNERLASMGSVAAHLA

HEIRNPIGSISLLASTLFARSELKNKHIVLEIQKAIARVERIVNSTLLFTKGVHINALNFNLLELKEECE

SAINSYNFTSQIDFEISFLDKQICADKALLGLVLQNLIYNAIDAIEESECEKPMIKILASYDNEKICIRV

YDNGCEIKDEKLVFEAFKTTKLKGNGLGLSLSKEIINAHKGELSFQSDPKNFYFTLPLV

>YP\_002344199.1 hypothetical protein Cj0792 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLYKRKNIKFKNFVDLHKNLSLSKLFDFYSVFEGFEKLNILNFEDDVFTNIERILLDDYLKIKSYFALDE

TSSYALTLLAKNNRKRFSINRKIQHFKALSTLKYLLETGIIKLEYSKEAKKIKDKRQKIKKELRSYVVQD

KIIFSNHFTRFFFYFLKPNEKLILQNRYKEVLECIKEKFELYQSFCFEQLSRELLEKKFNINGVQSYWDK

NLELDLYYQDENLCFVGEVKFKNKKICKNILNLLKSKAKSLNLAPNYYIIISKNGFSKEIDKICEQNLLL

LDLNDFKILLEE

>YP\_002344198.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYLQISDLKKELILKKGILHFDFTASALALKCVEKEILKILPTYANTHSDSSLNSFKTQQTYEQARKDIK

KSLSLDENFALIACGTGSSSAIKKFQELIGIYIPPLVKERYFTQIDKNTLPLVIVGPYEHHSNELSFREG

LCECIRIPLDKNGEIDFDFLEKTLQKNKKRKIIASFSLASNVTGILSDYKRISEMVRKFKGIVAFDASSF

IPYKNISCQYYDALFISSHKLIGGIGGSGLLAIKKDLCGNKPSFAAGGTVGYVSRTSQCYLCNEEALEEG

GTPGILQLIRASLAFKIKDSIGVKNIEKKEEILKDYFFEKLKTIPNLILYAKNLKTRLPIFAFNIKGISP

FDIAYELSKKYHIETRAGCACAGPYGHDLLGLKDNQKLKTKPGWLRISLHYTHEKEDIDYFFNALNKTIV

KLSH

>YP\_002344197.1 formyltetrahydrofolate deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MISVLKICTKDQKGLIYRISDVIFKYHINIVKNDEFVGEGMFFFRALLEGEFDKEAFIGTLEAMLGQEAL

IELCEKRKKDIVVFATKESHCLGDLLIKHYSNELEANIKAVISNHNSLKDLVEKFEIPYHFISAENLDRK

EQENQILKCLEQYKFDYLVLAKYMRILSPDFVRHFEGKIINIHHSFLPAFIGANPYKQAFERGVKIIGAT

AHFVNNNLDEGPIITQAVSPVNHEFTWQDMQQAGRNIEKDVLSKALDLAFEDRIFIHNNKTIIF

>YP\_002344196.1 poly(A) polymerase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQISKISLKNNPDLQFIAEFLKPYTKRAYLVGGSVRDLFLGLKICDYDIELYDIKPKDFEKIMQKLGAQG

FGKSFFVYKFKNYDLALARTENKISYGHKGFEVQICNDEKLGAKRRDFTINSMMINLFNDEFLDFYGGLK

DLGVGFLRHIDKQSFQEDSLRVLRAVVFASRFNFKITSESLKLMQSMDITDLSKDRINAELCKFFKSPRL

DVGYRYLQELGLEKQVFGFESVFKSSEFQNLLRQSREFVKSDALFLYLYLNFFNLEKDIFFKRTKLKKEY

LKYANQAFYLDDISDFELAKIAFEMPLKEWLGLWSKKRIEQAKRLGLYENKFESKILAKDFINAGFCGKI

LGLKLQEARENELKEYIKGLAK

>YP\_002344195.1 hypothetical protein Cj0788 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLEDLAKKTISEVSSIMEEQRRQNEILKEQELNRKTEIKDELPPMEFVCEELDTPQDLEDKISMAKFEE

EQKIQNNIEISTQENKEFKKEEPFLQNEILNPSVMTEVQTLNEDIFLKHLRERILVLFEGLNSIKKDDLE

NRLNLTINFLEFLLANIEDKLKK

>YP\_002344194.1 hypothetical protein Cj0787 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKNTVTEASIYEAQGLKDEALEIYKNILKEDPNNQNAIDAVRRLSGFRSKHKDLNTQMLDFFINMKSDE

EINEFKRWLIKI

>YP\_002344193.1 hypothetical protein Cj0786 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVFLIPLLIIIGVIFGIDYVYFKNQDLKVQVKKEQKELNSSLEKEKKEYIEKLFKTK

>YP\_002344192.1 nitrate reductase assembly protein NapD [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNLSSVLILAKEEYINDLKKAISEIPFCSVELCENEKIIVVIESENLEDELNSYKMLEKLPNIISINMV

FSYQDLNDDIQKAINSGAIETIEKNENAENVRYYGSVFNQFS

>YP\_002344191.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFLFILSLFCVLSYAYELKLNANITALKLDKQNLYIGTDKGEILQYNIKDKSLKELLSLPKIKNYYGD

DFAKIYNIDIFKHTLLILSEGDFGAKNLSFYKENLQIKKLEENSIIKAFFINENTYLLISIGSEIELIDK

SLKNIKKFNFSHSSLNDAVLNEDKSRLIAGFESGEVELFDLKNWKMLKNYDKMHKDNIYQVDFKNNVILS

CGTDRRIGVVKNEEQNFLQKDFLIYTCALSPSGEFAVYSDNEAGVSEVFSTSDFKPVKTFNNENLMSEFI

IFLNNKDFIVSGFGDSIMFRSIDE

>YP\_002344190.1 nitrate reductase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKKKLVLLGSAAVVFFAACAMNSGVSSEQIGLRKASLENENKVNLVEANFTTLQPGESTRFERSYENAP

PLIPHAIEDLLPITKDNNMCLSCHDKAIAADAGATPLPASHYYDFRHNKTTGDMISDSRFNCTQCHVPQS

DAKPLVGNSFKPEFKNEQLKSRSNLIDVINEGVK

>YP\_002344189.1 quinol dehydrogenase membrane subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKYLIARRIVQLGILALFSFKATDFILQGNLSSSRLFNTIPLSDPFAVLQIILASWSIDLMALIGALII

FFIYGLLLGRVFCSWVCPVNLITDFAAFVRNKLTLNNKFLILPKNLRYFVLVLVLVLSFVFSLPVFESFS

YIGMIHRGIIFATSSWIFVAFILFCIDTFLSPRAICSHFCPLGAFYAFISRFALLKIKHDSDKCTKCYEC

IRICPEKQVLWMVGKESTSVKSGECIRCARCIEVCNDDALNFNIFDLRNK

>YP\_002344188.1 quinol dehydrogenase periplasmic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKGRREFFVSAFKAACLCTGGGFLANLALKADDNYALRPPGAENEARFLSKCIRCGLCVKACPYDTLKLA

SLLDSPKNGTPFFKAREIPCYLCKDIPCIRECPTDALDKKHLEQGIESLKMGIAIVDSASCVAHWGIQCD

ACYRACPLIDRALKLELKRNERTAKHAFLLPSVDHEVCVGCGLCELACITEKPAIRVLPREYVLGKAGSH

YVKGWDEKDEGRIKNADTSKHFNVKKATNYLNDGEL

>YP\_002344187.1 nitrate reductase catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNRRDFIKNTAIASAASVAGLSVPSSMLGAQEEDWKWDKAVCRFCGTGCGIMIARKDGKIVATKGDPAAP

VNRGLNCIKGYFNAKIMYGEDRLVMPLLRMNEKGEFDKKGKFQQVSWQRAFDEMEKQFKKAYNELGVTGI

GIFGSGQYTIQEGYAALKLAKAGFRTNNIDPNARHCMASAVVGFMQTFGVDEPSGCYDDIELTDTIITWG

ANMAEMHPILWSRVSDRKLSNLDKVKVVNLSTFSNRTSNIADIEIIFKPNTDLAIWNYIAREIVYNHPEA

MDMKFIKDHCVFATGYADIGYGMRNNPNHPKFKESEKDTVEKENVITLDDEEATSLSYLGVKAGDKFEMK

HQGVADKNWEISFDEFKKGLAPYTLEYTARVAKGDDNESLEDFKKKLQELANLYIEKNRKVVSFWTMGFN

QHTRGSWVNEQAYMVHFLLGKQAKPGSGAFSLTGQPSACGTAREVGTFSHRLPADMVVANPKHREISEKI

WKVPAKTINPKPGSPYLNIMRDLEDGKIKFAWVQVNNPWQNTANANHWIAAAREMDNFIVVSDCYPGISA

KVADLILPSAMIYEKWGAYGNAERRTQHWKQQVLPVGAAMSDTWQILEFAKRFKLKEVWKEQKVDNKLTL

PSVLEEAKAMGYSEDDTLFDVLFANKEAKSFNPNDAIAKGFDNTDVKGDERKIQGSDGKEFTGYGFFVQK

YLWEEYRKFGLGHGHDLADFDTYHKVRGLRWPVVNGKETQWRFNTKFDYYAKKAAPNSDFAFYGDFNKML

TNGDLIAPKDEKEHSIKNKAKIFFRPFMKAPERPSKEYPFWLATGRVLEHWHSGTMTMRVPELYRAVPEA

LCYMSEKDGEKLGLNQGDLVWVESRRGKVKARVDMRGRNKPPVGLVYVPWFDENVYINKVTLDATCPLSK

QTDFKKCAVKIYKA

>YP\_002344186.1 thiol peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSIVNFKGNPVKLKGNSVEVGADAPKVNLKAKDLSVIEIGAAGKTQIILSVPSLDTPVCATEAREFNKKV

ASYNGAEVIVVSMDLPFAMGRFCSTEGIENLSVASDFVAKEFGEKYGVLINEGALEGLLARAVFVIKEGK

VAYKELVNEITEMPDIAKLDAFFGGSSCCGGCGCH

>YP\_002344185.1 major antigenic peptide PEB2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILILSLAASFLNAEILVYGPGGPAPVLKELALKFEEKTKEKVIVTAGPTPAWVDKAKENADLIFSGN

TSMMDDFAKKIPSLSLENLSVLNVRPSGIIVRPNNPKNIKNFEDILKDGINVMVVDGAGQVGLYEDMALK

SAKRENLVKLRKNIKIYAKNSKAAVDEWNNNPNIDALIIWSHWAKALGDDKALFIKDKNAVIYRAAEIAP

TKKGLENKKALEFVDFIKSQEAQKVWKKYTWKEVK

>YP\_002344184.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPLSKLNNEQYLAATADFGHNLVIASAGTGKTSTIVARISYLLSKGVAPQKIMLLTFTNKASKEMIGRLG

KFFDKNITSKILAGTFHSTAYTLLRNADKNIALKQASELKTLLKSVYEKRTFRHLSDIKPYQSSYLYDLY

SLFQNKAHNQDFYTWFCQNYEDQSIYAEIYEDILKEYDNEKKRFNYVDFNDLLINLKDLLKEEKYEFDEI

LVDEYQDTNTLQSSLIEAFHSKSLFCVGDYDQSIYAFNGADINIIGGFKDRFKDAKIFSLNKNYRSSRSI

LALANKVILNNERLYPKELIVTRNDEFKAPSLLTFEELFDQYQNIAKMILTSGVSLEEIAVIFRNNSSAD

GVEVALREQGIASVRKGSGSFFESLEVKAFSSMLALVVNPKDIMAFIHLVQYTKGVGGVLAKEIFDALLK

LGHGNLIKGFLDPDKNVNLQNHQKRNYQLGLFADLEELASETRFKFESEFDAHPILRLSKINDLCARNLE

KIYLFLKKAMEIKHSLTLVNLICENSFYREICEELATKRATNKAGQVDLLRKSENLEKIETKFNVLKELT

KNYSDIYKYYNFLTLGASEMSSGKGVNLLSVHASKGLEFDLVFVIDLAQGRFPNQKLMGMGGSLEEERRL

FYVAVTRAKNILYLSYAKYDKNKKTSFAPSRFLIEAGLCKGELTID

>YP\_002344183.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLKIFSIIVGILIAVIVILGGTYYYLFEYSKPKNYTLNTNTYTEQKSYTNNYDNPYSPSIQTNNSSSNV

NTNNNTIQKQETNPLLDENQSLNNDTFNISISENNQSLNNDTNTSNNINTNENKQILDTDKEKLKQENKQ

AKIEALKKEISKQQKILERERAIKKELQSNKSNKNKYLNTAREYLSIGKNSRLEPELSTENMKVYILDGK

FLSQYRINLLKDMLSIIQDNAKDYYLSIFVKMLPKGEMKLTIYNKEIIFSDMKKAYKYISLDRLSPYLNN

PKELNEHVAREEILERLKLQIKKDGKGSDFSKHIKSLKTGLNTAQYFFPFCEIIEISSIK

>YP\_002344182.1 valine--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYDKNLEKEYYQICEERGYFEIDGNKTIQEKDKNFCIMMPPPNVTGVLHIGHALTFTLQDIMTRYKRMDG

YKVLYQPGLDHAGIATQNVVEKQLLTQGIKKEELGREEFIEKVWEWKEQSGGKILDQMRTLGITPAWSRL

RFTMDEGLVNAVKKAFVELYDKRLIVRGNYMINWCTHDGALSDIEVEYKENKGKLYHIKYFLKDSDEFLV

VATTRPETFFGDTAVMVHPDDERYAKFVDKEVILPISKKAIKIIADKHVEKEFGTGVVKVTPAHDMNDYE

VGLRHNLDFISVFDEKGILNEHCLEFQGLERLEAREKIVAKLESLGFIEKIEEYNNQIGYCYRCNNIVEP

YISKQWFVKKEIAQESIEKVALGESKFYPNHWINSFNAWMKDLRDWCISRQLWWGHQIPVYYCECSHEWA

SQHTPKTCPKCQSQNFKQDEDVLDTWFSSGLWAMSTLGWGNENWGKDKIWSEKDLKDFYPNSLLITGFDI

LFFWVARMMFQSTNVLHQLPFKDIYLHALVKDEQGRKMSKSLGNVIDPNESIKEYSADILRFTLALLAIQ

GRDIKLSNDKLLQVRNFTNKIYNAKNYLLLNESKFEDLENITLHSELAKYIYAKFQTCVKDVRENLDNYR

FNDAANTLYKFFWDDFCDWGIELSKAEKSSVKELGSIFKEALKLLNPFMPFISEYLYHKLSDTELKTSPS

IMISKYPKFKEQDKNIEKIFSLLIESIVSIRRAKSLIDLGNSKIEKAYIKFNDKKIKDEIKAYMNFIIML

AKCEQIEFSEEKLPKAICDVSENLEIFITLENVDLSGILTRLENQKNKLEKESFKLNSMLSNEKFIANAP

KEVVEQNKEALENLKIQLEKISVELQNLRG

>YP\_002344181.1 methionine ABC transporter ATP-binding protei [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKIKNLKKYYGKELVINDVSLEIKKGEIYAIVGHSGAGKSTLLRCINGLENYQEGSLKVFDQEIKDLSQ

KKSKELRMLRKDIGMIFQNFALMERKNVFENVAMPLRTHYTQCKFHAKLFNKEYMSEKEIAQKVNSLLEI

VGLDHKNKSYPRELSGGQKQRVAIARALALNPKILLSDEATSALDPNTTKNILELISKINAEFGITVVLV

THEMDVVKDIAQKALLLEHGQIIGSGAIDELFLRPNAKMKEFLGESDFLPEHGLNIKLYFPKEVAQNSVI

THMARTLNIDFNIVWGKIEKLNGKALGNLVININEKDKDKVLDYIEKSGVLWEVAS

>YP\_002344180.1 binding-protein dependent transport system permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEENISIVSAFFSRISQFFNEFSWQDIKEVSLSSITSFNENYENILKPALNETIYMSLMAVLFGFLLAI

IPGILLAIWDKNGIKENKIAYSILDFITNILRAFPFLILIVVLLPLSKIIVGTSIGTNAAIVPLAIGIAP

YLAKMLESAFKEIDKGIIEAAKSYGASNIQIIFKVIFSEALPAIISGITLTLIFTIGFSALAGTVGGGGL

GDVAIRYGYERFNKEVMIQTVVILLILVQLVQILGNLFYTWAKNSKTTYIIATLLILLGVSIVININNDE

NFFWQVIVFILFLGSLLYKGFKK

>YP\_002344179.1 NLPA family lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKSLFIASILTLSLNANALETITVAATPVPHAEILEQVKPDLEKQGYKLEIKEFTDYVLPNLAVDNGE

ADANFFQHTPYLEEFNKNKGTKLIKVAAIHIEPMAVYSKKYKSLDDIKEGVKIAIPNDPTNESRALDIIA

KKGLVKFKDKALKTPLDIIDNPKKIKFVELKPAQLPRALNDVDFAVINSNYALSANLNPAKDSVFIEDKE

SPYANILVVRVGHENDPKIKALIQALQSDKIKQFIIEKYNGSVLPAF

>YP\_002344178.1 NLPA family lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLFKIIILACILNLSSLFAQNITIGATPNPFGSLLELMKDDFKNKGYELKIVEFSDYILPNRALEEKEL

DANLYQHKPFLEEYNLKKGSNLIATTPVLIAPVGVYSKKIKNLENLKEGARVAIPNDATNESRALELLEK

AKLIELNKNTLKTPLDINKNPKKLKFIELKAAQLPRALDDVDIAIINSNFALGAGLNPSKDTIFREDKNS

PYVNYVVVRSEGKNSEKTKVIDEILRSDKFKAIINEHYKDILIPAF

>YP\_002344177.1 NLPA family lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNIKKIFLSVLFTISLSFGADKTIIIGATPTPYAEILNFSKPLFQEKGWKLIVKEFNDYNIPNIALNEKD

LDANLYQHKPFLDDFNTHKGTKLSSLGAIVLVPMAIYSNSIKDIKDIPNGAKIAIPNDATNESRALDLLA

KANLIEFKSQSTLKTPIDISKNPKKLKFIELKAAQLPRALNDTDLAIITTNYALGAGLNPLKDGIFMEDK

DSLYAIVLATRKGEETSQKSLVIKEILTSDKIKNFIIEKYKGSVIPTF

>YP\_002344176.1 flagellar basal body P-ring biosynthesis protein FlgA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIFLTFFIVINYIQAASLEEIKTALAKEFRNNFPKIIISQIDLKITSLPKDFDQYEFLRIANGRFNQA

QGFLRAEFKTPQNIQKNVFFRYFIQANLEVLKSERAIKRGDKLGAFDYKSVLIDFDKVPLNALTLDDVDN

LVAKSNINKNAILRANMFKTTALIRRNDPIIGVLSEANVDVLIELVALQSANMGERIRAKNKEGKVMQGI

VVGKNRMIIQ

>YP\_002344175.1 3-polyprenyl-4-hydroxybenzoate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVLLGISGSSSVNLGLKLLKNLENQCELYCILTQGAKLNFKTENQANLEEICQENFKYTHFLDDKNLSL

SVASGSFGIEKTIIAPCSISSLAKIHAGFADTLLMRAAAVALKERKKLILGVREMPFSTLNLEHMLKLSQ

MGVIIAPPIIASYSKANNLEQMENFIAGKWLDLLEIKHNLYEKWQNF

>YP\_002344174.1 phosphopantetheine adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTCLYPGTFDPITNGHLDVIKRALKIFDEVIVAIAKSEHKKPCYDLEKRKELALLATQNLKNVKIIAFDN

LLVDLAKELKVNTIIRGLRAVSDFEYELQIGYANHALWEDMETIYLMPSLKHAFISSSIVRSIVAHGGDV

SSLVPKEILPFLKDQSCM

>YP\_002344173.1 thymidylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYVVFEGIDCVGKSTQISLLKEIYKDAIFTLEPGGTELGKHLREILLNKTHPINKRAELLLFLADRAQHF

EEILKTNQNKLIISDRSFISGMAYAKDFENDLLFALNSFALENFFPQKIIFLKGDANLIQERLSQKELDS

IEKRGIEYFLSVQDKLEKVLHFLKEKISVEILTLDAKESKEKLHQQIKEFLQ

>YP\_002344172.1 histidine--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINALKGMKDLLDKDAYYYEKVIKICEEVAKNYGFTFINTPHLELCTLFKRSVGESSDIVGKEMYEFIDK

GENHVCMRPEGTAGVVRAYIEKKLDKNTSVKRWFYYGSMFRYERPQKGRLREFHQFGVESLGIPNVYEDA

SIILMLVEIFSRLGIDFKLQLNSLGCSQCLPKYRDRLVEFLDSKEGFCEDCLRRKNLNPIRVLDCKNEHC

QNLLENAPLLINNLCTSCQKDFETLQQILKDNGVKFELDSKLVRGLDYYSKTAFEFISDEIGAKAAIAGG

GRYDRLIEYLGGKSGYGIGFAMGIERIITILEQKEEKIQREGIYLCAMDEIYIQKLLHIATNLRKEYKVL

LSYEARKLAKHLENADKNNTEIFLCMGENEAQNESLFYKNLAKKEEKMIKISDLKKVL

>YP\_002344171.1 arginine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMDYGIDIWGNENFIIKNGKVCINYEKKPAIIDIVKELRDDGYKGPLLLRFPHLIQKQIENIYGNFNKAR

KEFGYKGGFNAVYPLKVNQYPGFVKNLVKLGKDYNYGLEAGSKAELLLAMAYNNEGAPITVNGFKDRELI

NIGFIAAEMGHNITLTIEGLNELEAIIDIAKERFKPKPNIGLRVRLHSAGVGIWAKSGGINSKFGLTSTE

LIEAVNLLKENKLLEQFTMIHFHLGSQITEIHPLKKALNEAGNIYTELRKMGAKNLKAINLGGGLAVEYS

QFKNEKSRNYTLREYANDVVFILKNIAEQKKDLEPDIFIESGRFVAANHAVLIAPVLELFSQEYAENKLI

LKKQNPKLIDELYDLYKSIKPSNALEYLHDSIDHLESILTLFDLGYVDLQDRSNAEILTHLITKKAILLL

GDKQNPADLLAIQDEVQERYLVNFSLFQSMPDFWGLEQNFPIMPLDRLDEEPTRSASIWDITCDSDGEIS

YSKDKPLFLHDVDVEKENYFLGFFLVGAYQEVLGMKHNLFTHPTEAIISINEKGYEVEGIIEAQSILDTL

EDLDYDIHAIMDILNERISNSKLVNDKQKKHILGELYLFLNDNGYLKSIGV

>YP\_002344170.1 serine acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFWGIIKEDFSQPKAQDPAFNSCIELFFNYPGVWAVVNYRFAHFFYIRNFKRIARMISGISQFLTGVDL

HPGAELGRRIFIDHANGVVIGQTAIIEDDVLIYQGVTLGGTSLEKGTKRHPTIKKGVIIGSGAKVLGNIT

IGENAKIGSNAVVVKDIGANLTAVGIPAYIIEERKNKNIRAIDANCDDKLEKLEKKILELENLILKQPES

QK

>YP\_002344169.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTKRSQVLEESITLAITALANELKAKGEDIISFSAGEPDFDTPQTIKNAAISAIEKGCGKYTAVAGIPE

VLKAIQTKFKKDNNLDYETNEIITNVGAKHSLFECIECLVEKDDEVIIPSPYWVSYPEMVKFAGGKPVFI

EGLEENGFKITAEQLKKAITAKTKVLMLNSPSNPVGSIYSKEELTQIAKVLEGTQITVLSDEMYEKLRYD

GFDFVAFASVSKDALKRTVTINGLSKCGAMPGWRFGYMASKNKALISAVKRLQGQSTSNICSITQHAAIP

ALNGECDKDIEKMRQAFEKRRNLALDILKQIPNISVYKPEGAFYLFVNIQKIEKDSMKFCQKLLEQEKVA

VVPGVGFGMDGYFRLSYATSDELIKKGLERIANFIKNYK

>YP\_002344168.1 hypothetical protein Cj0761 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIQWNGAEFSPKEVKINVLIDNEKGKEIQILLAKDSVMKEHKAPFAIHVQVLSGKIWFEVEKEKFELN

ALDMISLEANVAHSLGGLENSIIRLSLNKSDSVQRVNAVLKKP

>YP\_002344167.1 hypothetical protein Cj0760 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLSFKIFDISNTQRSKAKKVQGKKYEIFLNENEHSLITPKVSFKEILRYYYLYPKNAIPSFKLPFFKPD

LSGFSTPHITWLGHSSLFISFKEYKILIDPIFNTHASPISFINKAFKNAPVYNINDFNEIFAVIITHSHF

DHLDAKSVKALKDKAKFFITPLKVGNYLKSYGVSEKKIIELDWWSGIEFGDLKIMATPAQHSSSRGDGKN

KTLWASFVMEFLSVDKRVFFSADGGYFTHFKKIGEYFGSFDLACLESGQFNIAWPYSHSFPEQILKEAKD

LNAKAVMPIHWGRFLAGTHAWNEVVKFLYENLDLPLITPKMGEAYEVGAKFKQDFWWKEE

>YP\_002344166.1 chaperone DnaK [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKVIGIDLGTTNSCVAVYERGESKVIPNKEGKNTTPSVVAFTDKGEVLVGDSAKRQAVTNPEKTIYSIK

RIMGLMINEDAAKEAKNRLPYHITERNGACAIEIAGKIYTPQEISAKVLMKLKEDAEAFLGESVTDAVIT

VPAYFNDAQRKATKEAGTIAGLNVLRIINEPTSAALAYGLDKKDSEKIVVYDLGGGTFDVTVLETGDNVV

EVLATGGNAFLGGDDFDNKLIDFLANEFKDETGIDLKNDVMALQRLKEAAENAKKELSSANETEINLPFI

TADASGPKHLVKKLTRAKFEGMIDSLVAETITKINEVVSDAGLKKDEIKEIVMVGGSTRVPLVQEEVKKA

FNKDLNKSVNPDEVVAIGAAIQGAVIKGDVKDVLLLDVTPLSLGIETLGGVMTKIIEKGTTIPTKKEQVF

STAEDNQSAVTINVLQGEREFSRDNKSLGNFNLEGIPPAPRGMPQIEVTFDIDANGILTVSAKDKATGKA

QEIKITGSSGLSEEEINNMVKDAELHKEEDKKRKEAVDARNAADSLAHQVEKSLSELGEKVAAADKENIQ

KALDDLRETLKNQNASKEEIESKMKALSEVSHKLAENMYKKDEPNTANDKKKKDDDVIDAEVE

>YP\_002344165.1 heat shock protein GrpE [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEQKQEFENENAENSEHLQDENLQNIEDVEQNKLQKDYDELKDKYMRANAEFENIKKRMEKEKLSAMAY

ANESFAKDLLDVLDALEAAVNVECQDEISLKIKEGVQNTLDLFLKKLEKHGVALIKDEKEFDPNLHEAMF

HVDSENHQSGEVVQVLQKGYKIADRVIRPTKVSVAK

>YP\_002344164.1 heat-inducible transcription repressor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKSRDKKDLILESIIQTYLLDNAPIGSNELNSNLCIPASTIRVYLKRLSDEGLITQLHISSGRIPTILT

MQNYWQNFWEKEQDKNIHIKNESFLKELSKEFEIYCLVYGGRSLVLKEVLDLNTKFIVLDFEDEELVLKY

EKEAWNFLQSLIGLDLSSIEKIALRVHFIDLVEKIASLRQNLICYRSNEERAYQIYQNDEFVKLLDCQIH

RHFKESLEFEPLFKEGFMGLKVDAQFLGEDVNIILAGSVYTDYKKILQYIKEAA

>YP\_002344163.1 ferric enterobactin uptake receptor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKICLSVCAIGLLSSNAISQNVELDSSIVSASGFTQDIKEAPATINVITKKELQSKPYRDVAEAIADIP

GVDLYASKGKTGSYNITMRGITGYTLVLIDGRRQGIGGEVGPNGFNEISNSFLPPISSIERIEVIKGPMS

TLYGSEALGGVVNIITKKVSDKWETSVSLDALLNENKDWGNTYGTSIYSSGPLMNDKLGLTLRFREFYRQ

QSNVEFTNGSGQRVQGDQAQSPTKANNFNIGTRISYLANDYNTFIFDIDFSRNHYDNKQGQLGTITSPGR

TPGSLTGGYADIMEVDKFVTYLSHEGVYENFSITSGLQYNRVSNDGREVVGQSTQPFLGENRDIVAEDII

LDTKSVIPLGQSHILSVGGEYRLEKMQDKIASPTNFDQYLLAIFAEDEYSIKDDLRLTFGARYNHHEIFG

NNVSPRAYVVYNPTNELTLKGGVSTGFRTPYANRLINGTYSYSGQGRFPTYGNPDLKEETSLNYEIAAIY

NNDLFYVSATGFLTNFKDKISSQSYNNSEPIPGIGTCDADRCSRAINHGKVEYKGVELGAGISPLDNLNV

NFAYTYLDTEVKEAQDRSVIGKPEQDSLKHNIMLKTEYSFYNKITPWIKGEWQIDRYMGDTNINREYYKD

IFLASMGVRYDINKQWSINAAIYNLFDKSFTNGWESYASGSGSTWVNTYNRIEEGRRMYISINGNF

>YP\_002344162.1 TonB transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTFISNHKNQSSFITLFVFTPLFFVFLYSKDFLHIQPNETIKENKFNMAIKHFVQNSSDMKPTQPTQTI

QEPSNVQPKEPVQEIKKIKPRKEKPIAKPKKIIPPANAKAISQPKKDTNMQQQTPQASSYQSVSLTSNSE

LLKEIKSAIDEALIYPRQARKMRMSGEVLVEFTWTKEKKLENLKILKPSKYDFLNKSALETIRIASKKFP

QYEKTFHIKIPLVYKLS

>YP\_002344161.1 hypothetical protein Cj0748 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLETLKKYAENQGIEDNYPKKIYNQKEKKP

>YP\_002344160.1 hypothetical protein Cj0747 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGVVYDEINIAVNTCKGLVLSKKRLLALNLSFFIQ

>YP\_002344154.1 hypothetical protein Cj0736 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGVENIYTLPLNGVPYISGSVAFDGEAKDNKLILESNTKIDLHNSQYFSDEEGKDIYDERITRLMGAFGI

NSNLQNNKVLIDSANIVLHGPDGEYTARSTFEILGALADVNNLKKYNVSKNSVIIKNLNLDLMVNSQNKI

TFYDAVLFGEIYGGRTLQGNAEKNSIEVYHFNSLDHLNKNIKTHASLNLYGGYSNDGEANGNKIVFRLKK

PLKISDNFYGKNYYNLYGCFATEGANFNVFDIQNDLTYEKVPQNYSDKFTVYAARTLSGKANNNTLSIKD

SVISLPLYAFITSETTLDGIDYIADESNNNEVNFENIKSSKNLSLMINAKNVSNNKINYNLIQSLTEASS

LGKGSKIILKATQNANNNLIKLKDCSSAAVESSCIIKADKESAFNKIINNNTAFSTASDKRQGYVGLIAG

VSANSHDNIMELVNLNIDEYKNQDAIFLAPSGTSDISNFKSYNNTLYLGGELNFFKDVNIDLLSGSVFHE

VNKKGKIITQILPHQEDFSKNNRLIIDTQDVKSEVVNNFENFTFILPNKIKNPILTIEKLINLPANGSME

ILTKNKPTKGKYILIQSDVGIYDGDNGLLNQQELENLLEKMKNNKNKFNYNKIEKLAKSTLKNVNFSFEV

SDDAKIIYINIL

>YP\_002344153.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYFNIFKIFTNKTNAKFGLGVCSVVLSSSVCFAAVQAASKDGKIFYISEHSFKDNQVYDPQAEIFKKI

NGKNFYASKSKYPISNLTMIYNNPKSGNKNLSKLEILTPDTSKEEIITAFSTLGTVSSDTQAVPSSFMPF

IVTAYAQNTNATNNKLILENGELSSVYFCKPSIGDCGVPNNSQKGDRFKYLITAAFTDRGEGFNNQTILK

ENSYINNGCRKYLHLALKWSSLYFRICSF

>YP\_002344152.1 histidine-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILSIALVALVGLFLGACSDSKNKESNASVELKVGTAPNYKPFNYKENSKLTGFDTDLVEEIAKKNGI

KIVWVETNFDGLIPALKAGKIDMIASAMSATDERRQSVDFTKPYYMSKNLYLKLKNNDSLQTKNDLEGKK

IGVQLGTLQENTAKAIKNAQVQSNKDLNIAVLALKNNKIDAIVADQDTAKGFLAENPELVSFYQETDGGE

GFSFAFDKNKQKNIIEIFNKGIDEAKTDGFYDTLIKKYELE

>YP\_002344151.1 HAD-superfamily hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLVLFDLDDTLIQGDSAKLWLKFCVEKGFLPQEYLEKIVFYQKQYQEKKFDMDEFMTFFLQSVKGKNED

RISSLVDEFIKIYIKPYEKAKELIIKYQDQRCIIISATAEFLVRKIASFLGVRESIAIKCERVGDKFSGK

AYGIYSFKEGKVLRLKEYLGKDYEKWMKDSYFFSDSINDLPLLESVSKAFVCNGDEKILKIAKERKYEIL

TF

>YP\_002344150.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYLKIKNFKKAYGDKIIFEDINFSAKKGEFITLLGPSGCGKSTLLRCIAGLSQINGGKISLNDKDLTKL

SPQKRNIGMVFQNYALFPNLNVFENVAFGLKIKKMDKKDIEKRVKKMLKLVELEEYAKTYPHKLSGGQMQ

RVALARSLVIKPDLLLLDEPLSALDAKIRKYLRVQIKEIQKELELTTIFVTHDQEEALELSDTIILMNEG

KIIQNSNANNLYLLPESHFVASFIGNYNILSPKELDSLGLKHDFKKDIALRPETIEISNEGLEAKIKEKS

LLGNIIRYRVRVQEIEFKVDTLNFSTHSTYEAGDKIALKFNLSLAKELK

>YP\_002344149.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNENLSLKAKIYHYAVLFLVFLFLALPLMATFLYSISTSWGVSVLPDDLTLKWYQELFHDERFLLALWHS

LLVCVGSILLSVILVFPLVFVLNYYFLKLKAFVNILIIMPFAVPPIVSCVGLLQLYADNIGGTAWILIFT

YFTIALPFIYRALDNAISNVNLNELITSNAMLGGSLMGAIFKLILPNLRNGILVAVFLSFSFLIGEFLYA

NILVGSAYETLQVYLYNIKNQSGHYSSALVIVYFVLIFITTFIASLIKE

>YP\_002344148.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEKFLAFLSILPFFIVFTFFMIAPLIWIVFNAFYVEEDEIYSLANFIHIFESKFYLQSIINSLQISFIS

SIFGLLIGLLASYSLFVLAPSKICKFLFSLNTMISNFSGVPLAFAFIIVLGSNGVVNVFLKNLGIEPFVS

VYANFGVNIVYVYFQIPLAILLLLPAFKSLENSHLNACKMLGGGNFLYWLKIALPLLAPALFGVFVILFA

NAFGAYATIYALSSGNFNVAPVRIAALIAGDINLDPYMASALSIIITIIMLVVTFIANFLSKKYNFKVL

>YP\_002344147.1 type I phosphodiesterase/nucleotide pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMSKAILVVLDGLNCKSASINMGYLNALCKENLGKFYSLECELPSMSRPLYECLLTGVKPVLSGIINNKL

SFSKQTSIFDLCKEQGLKAGGAAYHWVFELYNKKEFIPSLHRHIEDENLTLPYGHFYYEDDYLDSHLFAD

GEHLRNKYNLDFTLIHSMNIDDAGHKFGSHSIEYANKTKKVDILISEYLPTWLEQGINVIITSDHGMTEG

KSHGGLSEDEILVPFFTFGSAFSYENAKIKQDEICGSICEILGLKHDKRYNDEILKAKK

>YP\_002344146.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVILTSAMLCSVLFGVQEYEANLAGHIIIDSKSTVKPPKDAPDFFKTYGKFANIAREEKIGTFKSKGN

RETDFYLPFKNQPIQGHSGIKYIPKKDVFWVISDNGLGKKYNSYDAMLYAHEFKFDFKNSKYELLKTVFF

KDSDKKYPYPITTETTKERYLSGVDFDTESIQVINDEFYIGDEFGPYLLHFDKNGNLKEVFDVYVEGKKL

ISPDNPSLKFSDKPDGENEKFNIKRSKGFEAMASSKDGSKLYLLLEGSIYNNNAYENEKGKEYLRIIEFN

VKNKKFTGKTYKYFLEDKSHSIGDFNMIDDKYGIIIERDQKEGTKDKACKEGEDTKHCFNNVAQFKRIYK

VKLDDKTHEAQKISYIDLLNIKDRNKISKKPLVNDKFVFPFETIEGVDIVDDSHIVVENDNNFPYSSSRE

PNKTDDNEFILLEVKDFLKSK

>YP\_002344145.1 substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKFFLSLGLVALLFSNSQAIDENLIKAAQAEGRVNSLAMPDTWANWKDTWADLKNLYDIEHSDTDMSS

AQEIAKFKTEKKNASGDIGDVGASFGEIAVKQGVAQPFKTSYWDQIPTWAKDKDGNWLLAYTGTIAFIVN

KDVVKDIPKTWQDLLKGNYKITVGDVSVAAQAVSAVLAANYALGGDEKDLSPALAFFNTLAKQGRLVNND

VSIANLEKGEVEVGLVWDFNGLGYRDKVGKDRYEVLIPADGSVISGYTTIINKYAKHPNAAKLAREFILS

DKGQINLAKGYARPIRIDHITLPDDIKAKLLPSEQYKNARAIKDQKAWEKSAKELPQLWQEKVIVDMK

>YP\_002344144.1 magnesium and cobalt transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLYIYIKTQNALVQRINFNLDSQELPQNILWIDLLHPSAAEIAFISSEFNLEFPTKEEREEIELSAKYWE

DNATITINAHFLVRDLKSDEEDRNLIKLRTEIVTFATAKNILFTIRYNEFSTFEEIQARILASPKNFEDG

FDIIDKMFEVRVEKDADLLEWIDKEARRLRTSVLEKKDEYSYDEMLKDISSLQELNMRVRDSLFDKRRAM

TSLLKSDKIDKDIKQNLTIVLKDLNSLVEFSVSQLNILDNIQTILASQINIEQNKVIKIFTVATVAMMPP

TLIGTVYGMNFKFMPELELHYAYPIVLGVMVISIILPLVVFKKKGWL

>YP\_002344143.1 molybdenum cofactor biosynthesis protein MogA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDTINIGILTLSDRASSGIYEDKATAEIERVLNSYIKNDIIYHKELIPDDYDLIIKKLLYLADEKKCDLI

VTSGGTGPALRDVTPEATEAVCDKMMPGFGELMRLESLKYVPTAILSRQSAGIRNKSFIINLPGNPKAIK

ECLEPVFPAIPYCIDLIEGAYIEANDEVIKVFRPKKKCQN

>YP\_002344142.1 hypothetical protein Cj0724 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFFKKKISQKQKEKPKIPINDVILDDRLCKFKNKVQKISKDEASASLLARQLSRLIRANKF

>YP\_002344141.1 integral membrane zinc-metalloprotease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLIAILCLYTALLSWISYAQIRFLEREKDKQAQILSEKDYQNAADIAIENEKFKLFSNFYNLIISIAWI

GFGFLYLKELLILNNTRFENTLFLLSFLIITSILNLPLSIYESFIKDKAHGFSNMTVKLFIKDTMKSLIL

TLIFGFLILYTLLFCYDFFGTFWWIAAFIFAFCIIVIINLIYPTLIAPIFNKMKKLDDENLLKKISSLMK

QCGFSANGVYVIDASKRDKRLNAYFGGLFKSKRVVLFDTLLKALNERELLAVLGHELGHFVHKDIIKALF

NGAITMFLLFFVFANLPEFVYLESHLEGVNGGVFALLFILANIFSFLISPMLNALSRKNEFAADQHGAKV

TSKEDMKNALIALARENKAFIKTSKIYTFFYLSHPSISDRIKALS

>YP\_002344140.1 DNA methylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTIKNALMEAKSSLKGYENEAVFILCEYLKKDKAWLFLNQDIKIDHEPYFELIKRFKSGEPFEYIFEKVD

FWGLEFKIKKGILIPRYDSEILLFQILNLCKKNTFNGILEIGFGSGILSIVLAKELGLKITACDINPKAL

ELALENAQLHKVDHLIDFKLCNFKQIKENYDFIFSNPPYIKNSYPIDIWVQKEPKEALFGGEKGYEILEE

IIHFSLDKKVKFLACEFGYDQKEILEKILYQNNFIVDFFKDEQGYNRAFIAKFTNMRYDKK

>YP\_002344139.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKAVNLFLLASIIGVELILGIVVAPTIFFPQNLIGEGVLSHFQSGLMMTQIFIKMGYLLIFVSVVNFLYE

IYSLIKDEMKFQIKFSKFMLSLLILILSLIFVFYFTNTIIELQNLGENATKTQEFISIHNASEVVIKIIL

IMQVFLYFLSFKIAKK

>YP\_002344138.1 flagellin C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMISDATMMQQNYYLNNAQKASDKALENIAAVRAISGVDSANLAIADSLRSQSSTIDQGVANAYDAIGVL

QIADASLTNISQSADRLNELSVKMNNAALNDSQKGMLRTEATRIQESINDSFNNATYNGKNVFQTMNFVV

GSGTETTNLNPLATDGLSIDSQDSITNFMDQLGSLRSEIGSGINAITSNINASVQNSINSKAAENNLLNN

DMAKNVNDFNANYLKENAAAFVAAQSNMQLQSKIANLLQ

>YP\_002344137.1 hypothetical protein Cj0719c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLEQILEKTKNVRLVAASKYVDASIIEKLFDQGIVEFGENQVQALAQKKENLDEKKLDIKWHFIGTLQS

NKINLLIKQKPILWHSCNGIKIAKAMDKRLDYKLNTLLEINSANENSKSGLDPNQAVEEYLQIQEECSNL

NLCGVMSIGSHSQDKENIIKSFETTFKIYEILQKHGAKICSMGMSNDFEIAIKCGSNLVRLGSILFKNLK

>YP\_002344136.1 DNA polymerase III subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQFTHLHLHTEYSLLDGANKLKELALTLKEQGATSVAMTDHGNMFGAIDFYQTMKAQGLKPIIGIEAYL

HNHDELDDKSSRQRFHLCLYAKNEIGYQNLMYLSSQSYIKGLYYYPRINKKLLEDYSEGLICSSACLQGE

VNWHLNTYSERNVRFGAKGYEAAKEAALWYKKVFKDDFYFEIMRHGIGDQRMIDDDIIRLSKELNIKIIA

TNDTHYTFKERAAAHEVFMCIAMGKKLNDPDRMRHSVHEFYVKSPEQMSELFADIPEAIENTQEIAQKCN

LELNLGNPTPPNFKFTREYAKDHNIILPEETKEFSFDNDDMVFEELCKKGLEERLKFIDESKHEEYKQRL

EVEINIIKNMKFSGYMLIVHDFIKVAKDKGIPVGPGRGSAAGSLVSYCLRITDLDPIPYSLLFERFLNPE

RVSMPDIDVDFCQDRRAEVIDYVIDKYGADKVAQVITFGKLLAKGVIRDVARVCDMSIQDADELAKLVPE

ELKITLDAAYEKEPKIKEFIDRHPKGLEVWEYARALEGLNRNAGMHAAGVVISNESLWKKTPLFRQSKND

ERHLVTQYSKDHLEDVDLIKFDFLGLKTLTVINNAIKLIKKRYNKDIIWETIDVNDSKVYKTIQSGNTLG

IFQIESGGMQSLNARLKPERFEDIIAVLALYRPGPMESGMLDDFIDRKHGLKSIEYPFDSLEKVLEPTYG

VIVYQEQVMQIVQIIGGFSLGGADVVRRAMGKKDPEKMKKLKTDFADGAEKQGYDRAKAEDLWELIVKFA

GYGFNKSHSAAYALITFQTAYLKTYYPSEFMAALLTSEENNVDKIAVYIDEMKKMNIKLLPPSINKAIRE

FSALEQDGKDAIIYGLGAIKSVGIPAVENLLEARQDGEFKDINDFLGKIDPTKINRRTLESLIKAGAFDE

FGFTRKALFDNMENLSEASRKMAEVRKNAASSLFGEEELTSGVQVNFTPKNEEFEVMEKLGYEKEILGIY

VSGHPLDRFYEQINAIDYVKSLDFESLKNNGEILSIGKIEDFKSMMSKNNKRYGRIEILDYYSSFDATVF

ESNVEEIENIIKDENLKNNAYGFVLGFKAEGGEKPSFFLKAIKDLQSLEDGEIKAIKKFGAKKDFKNKEE

NHFTAEPKEFEKNIIELDLTRLNRELIYEIHEIARNAHNPNEKNNKKLVLKVISAGSCLLYHTDFIISDS

IVEEISNKYA

>YP\_002344135.1 ArsC family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLYGIKNCNSVKKAMDALTQKGIVFDFMDIKKINQDILYTWLKQKSFEELINTAGLTSKKLGLNKEKVK

NLNEKELEKIVLENPSCIKRPIIEYEQNIYIGKEYEKML

>YP\_002344134.1 phospho-2-dehydro-3-deoxyheptonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWAKNSWKNYPIKQQPIYPDQEEMNRVLARLEKLPPLVFAGEVRNLQKSLARVCKKEAFLLQGGDCAESF

ENFGAVNIRDMFKILLQMAIVLTFAGGCPVIKIGRIAGQFAKPRSSDFEELDGISLPSYRGDIINGFEFS

EQARIPDPHRMLEAYYQSAITLNLLRGFAKGGLADLHEVHRWNLGFLKKSELHKQYTDISEKISQALAFM

EACGINTSNTPSLREVSVYTSHEALLLPYEEALTRVDSLSGEIYDCSAHMLWIGERTRALDEAHVHFLSG

VKNPLGVKIGPSASADDIIALANVLNPNNEEGRLNIIIRMGADKIINNLPKIFSKLKSEGLNLVYSIDPM

HGNTVKAGNFKTREFDKIMQEVRSFFEIAISEGVYPGGVHLEMTGKDVTECTGGASNVTAQSLEDRYETQ

CDPRLNADQALELAFLIADLVKKTRK

>YP\_002344133.1 5-hydroxyisourate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFSIKKTLLILASVPMFLSATEYQLSTHVLDITSGQPAPKVKVELYKLEANQQWKKVSEEFTEENGRIGD

LLPYEKAENRAFGIYKLKFFTKDYYTSHKINTFYPFVEVSFELSKDQKHYHVPITLSPFGYSTYRGS

>YP\_002344132.1 50S ribosomal protein L19 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNKYIEQFEAKQIEGKNVPDFRAGDTLKLAIRIKEGDKTRIQNFEGICIARRGNGVSETFIVRKIGANN

VGVERIFPIYSESLESITVLRRGRVRRARLFYLRDRRGKAARIKELKK

>YP\_002344131.1 tRNA (guanine-N(1)-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFSFVSLFPNLMEFYFQDSILARAKEKKLFKLNFYNPRDFSKNSYHKVDDYKIGGGAGLLMQAEPMYEV

LRSIQEKKENPYFIFLNPSGKTFNQKDAKRLSKKEHIVFVCGRYEGIDERVLEIFANEVFSIGDFILTGG

ELPALVMCDAILRNVNGVLGNMESLEEESFENNLLEAPAFSKPFIFEKKNKKFYTPSEFLKGNHARIASL

KTTLASCKTKFFRPDLFLEHERKK

>YP\_002344130.1 ribosome maturation factor RimM [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEKDFVQVAKLGKTVGLKGYVKLHNLSDFSSQFKKDATFFIKNTKEMLKIKHYNANNSTVLFENYEDIE

KAKELTNLILFQSIEKSRQTCKLKKDEFFYFDILECEVFEEDKRLGKVVDILETGASYLFEIQSDEKWVE

KKYPKIFFIPYLDKFVKNIDIEKRQIFCTQDAFLILENS

>YP\_002344129.1 hypothetical protein Cj0711 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVENFLREYAKLIADYPEQIDTQKIELSENFFEIVLFAHKVDTGKLIGKNGKMINAIKTVISAYKSKDAS

SYRVTVKALE

>YP\_002344128.1 30S ribosomal protein S16 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTVIRLTRMGRTKRPFYRIVVTDSRKRRDGGWIESIGYYNPMVEPEVIKVDAERLAYWKSVGAKLSDKVA

SITSK

>YP\_002344127.1 signal recognition particle protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFELVSESFKSAINKLRFVDDEKALKNALETLKKALLKADVHHKVTKELLTLIEEDAKQNGIGQKQFLNA

IKINLENILSVNGKNQGFVFASKPPTVVLMAGLQGGGKTTSTIKLANYLKLRNKKVLVAACDLQRLAAVE

QLRQLCEANEIELFFIENEKDPIRVAKEALKKAESSMVDVLLVDTAGRLAIDEALMDELRAVKDVLNPDE

IFYVADAMSGQDGVKTAASFNEVLGISGVILSKFDADTKGGVALGIAKQIGIPLRFIGVGEKVADLEVFI

PDRIVSRIMGEGDLATLAEKTAAIIDEKEAKKLNQKIKKGEFNFNDFLNQMESIKKLGSMKSLIGMIPGL

GGMANAVKDIDLDNSKEIIRIKAMISSMTPKERENPDLLNNARKRRIAEGAGLSQVEVNRFLKQFSNAAK

LAKRFSGKKGMESLTQMMSQARRQF

>YP\_002344126.1 pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEKAYKLLALQEKISNREAKDLIDKGCVFSYGKKVVVARALMSDKARFNVIKAKNPQIIFEDDKIIAIN

KPYAYVSEDLEKKFNAKLLNRLDKETSGVILLCKDEDFRKLCIEEFKKHRVYKSYIAVLDGVLAEEVEVN

EPIFTIKVKGGALSKVSKDGLSALSIITPIMMQSKKTLAKIVIQTGRTHQIRVHAKFIKHGVVGDEKYAK

ISSDRMYLHSYEIKIFNYHFRANLDSGFAKFGFDIKNLDF

>YP\_002344125.1 3-deoxy-D-manno-octulosonic-acid transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFFYYFLTWTAFLFCAVFILLLSFLKSKYKISLKSRFFLYKNLHQEKADVHFHACSYGEVRSIKALVLK

FDSRITTITQTGFECAKEFCKKVNYLAFENFLPFWLKPCKVLVIFEAEYWLMLVFMARIYKAKIILLNAR

ISDKSYHSYQRFSFFYKKIFSYIDEVFAQSDLDKARLESLGAKNVKIFKNIKANLEIKNNKIYTKPKEKL

IIFASTHKDEEELLLDHFKLEENEKLIIAPRHPERFKEVENLLLNKGLEFEKFSSLKDENKKFSKKILLL

DALGELVNFYAISDVVVLGGSFIEGIGGHNPIEAAYFDNVLISGKFIHNQKVLFEEVENVYFCEKLKDLN

DKVHYLNLKAKISKKENLDLIIQTIQKGIDARKSL

>YP\_002344124.1 hypothetical protein Cj0706 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKYLEQLVLLSKIDQEIDSYEPKIDSINKTLKDAELKIEKINADLEKIDEEIKDIENQKIQNNAHISEF

SAKIKDLSKKSGVVKTEKEANALKIEEDIAKEQLDAANDEIVRLDKILENKETYKKELEEEKIKQEQNIN

EIRVSIKSEMEVLEKDRMSVYDKKTKLVSEMNQKVLSFYEKIRKWAKNTAVVPVKKQACYGCFMKIYDKT

YLSVVKGEEIVTCPHCGRILYKEQEEQN

>YP\_002344123.1 hypothetical protein Cj0705 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLSEIYNFLDQLSPFNIQESWDNSGILLGDRDSEISTVYLSLDIDENIIKEASENSLIITHHPLIFKGL

KDLYDKTYPRAFIKEMIYKNISLISMHTNYDLSHLNTYFTEEILGFKISFKDKFLIYVENSMSFEALCDW

VKKKLNLQILRVSDCGKKDIKRIAICTGSGGDLISKVDADCFLSGDFKYHQALEALSNQISLIDLGHFES

ERYFSQCLAKDLKNLPLQVIITVSKNPFQYF

>YP\_002344122.1 glycine--tRNA ligase alpha subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTFSQMILNLQNYWQEQGCAIMQPYDMPAGAGTFHPATFLRSLGKKPWAAAYVAPSRRPTDGRYGENPNR

LGAYYQFQVLIKPSPDNIQELYLKSLENLGFDLKSHDIRFVEDNWESPSLGAWGLGWEVWLDGMEVTQFT

YFQQVGGIAVDLVSAEITYGLERIAMYLQNVDNVYDIVWSEFNGEKIKYADVHKQSEYEFSKYNFEVSDV

KILNEQFENSYKECKNILEQGLALPAYDYCMLAAHTFNLLDARGAISVAQRQDYMLKIRELSKNCAEIYK

KNLNEAE

>YP\_002344121.1 hypothetical protein Cj0703 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQTYLELEEFCKLVHLNEDVVKGMMANGALNFKEEEGKIYIEAHQGTFSVVPSSAKSQTAMVNSMTLAGE

SFVEKTIGTILNLHEKVLDAKDETLEALKNENKFLKDALYSMQELYDEDRKTIETLNNELKHAREEIEFL

KRKYKLMWSKTAEIFGAKTEPDLEMNKNLEKPIENMEQ

>YP\_002344120.1 N5-carboxyaminoimidazole ribonucleotide mutase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFVSILMGSKSDYETMKEAAKTLESFGVKYELIISSAHRSPKRTKEYIANAEEKGVKVFIAAAGMAAHL

AGAVAAYTTKPVLGVPMSGSNLASMDSLFSTVQMPSGIPVGTLAIGKAGAINAAYLAMQILAIYDVDLAQ

KLKEDRLEKEKKLVSDSKEVEVLL

>YP\_002344119.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIIPEIVAPAGNFTKLKIALAYGADAVYAGVNNFSLRSRTAREFNYESFEEAIKYTHERGKKIYVTLNGF

HLSSQIEGLKRHILKLREMKPDAFIVASVGAMRLVKELAPEISLHVSTQANILNYLDAQVYKDMGAKRVV

IARELGLKDAKALKENCDIELEAFVHGSMCFAYSGRCLISSVQSGRMSNRGSCANDCRFNYELYAKNPEN

GTLFRLEEDENGTHIFNSKDLNLCSYIEKIMQENCISAFKIEGRTKSEYYVALTTRTYKMAIQDALEGKF

ESSKYEKEIATLKNRGFTDGYLVSRPLEKTDTQNHNTSIEEGSHQVHAISEDGRFFKCKGKIVLNTPYEI

LTPLGDVIQTCDNELGKIYQKEGKYFIEFKKLIAKNNKEFSEIHSGNEHEIQLPNKISALSFLRKEI

>YP\_002344118.1 hypothetical protein Cj0700 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTQEELDALMNGDVDLDSETEAEVKTEESNTEEDALMLEDVKIADYKPNPSVVWPPPPPNQEHKVVHQLD

DVTKDSELKATEMMDKLESINNFFADSESLLKEINKAIEKNIDIFSKLNEKFPNVESFSEALELNNQAKK

SSKEIVGNLQSGQDEVMMAMDAMQYQDIHRQKIERVINVMRALSRYMSSLFEGKIDDKKRVSSAVHIEGD

STADVVSNDDIEALIASLGQK

>YP\_002344117.1 glutamine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGKFVNNIDDFFKFCKQNEVLFVDFRFTDMIGTWHHITYNLHAINEETFQTGIPFDGSSIHGWQPIEKSD

MILKPDAQSAFLDPFTADPTIIVFCDVYDIYKGQMYEKCPRSIAKKAIEHLKNSGIADTAYFGPENEFFV

FDSVKIVDTTHCSKYEVDTEEGEWNDDREFTDSYNTGHRPRNKGGYFPVQPIDSLVDIRSEMVQTLEKVG

LKTFVHHHEVAQGQAEIGVNFGTLVEAADNVQIYKYVVKMVAHLNGKTATFMPKPLYGDNGNGMHVHMSL

WKNGVNLFYDKDGYSGLSQTAINYIGGILKNARSVAAFTNPSSNSYKRIVPGFEAPCILTYSCQNRSASC

RVPYGIGKNSARIEIRFPDSTANPYLAFVSLLMAGLDGIKNKTIPVGPMDENLFDLTLDEIREKGIEQLP

HTLRGSLEALIRHNSYLKPVMSDIFIDDYQHLKFETQVWPVEARPTAYEFKTCYSC

>YP\_002344116.1 flagellar basal body rod protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRSLHTAATGMVAQQTQIDVTSNNIANVNTAGFKKSRAEFADLMYQVMKYAGTSTSATTLSPSGIEVGV

GVRPTAVTKVFTEGNLKSTSTDGLDMAIAGNGFFQIQLPDGTIGYTRNGQFTKDNEGNIVNSDGYRLLPE

MTIPEGATAINVATDGTVSVMLPGEQQETQIGQVELVQFINPAGLHSMGDNLYLETGASGAPVAGIAGQD

GLGTIRHGFIELSNVQLVEEMTDLITGQRAYEAGSKAITTSDDMLGIVNQLKR

>YP\_002344115.1 flagellar basal-body rod protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNGYYQATGGMVTQFNKLDVITNNLANINTSGYKRDDVVIADFKRIFKETQDELPIENHTRDASRFVNT

TIDGIPQVSQEYTDFSLGSLKATNNPLDLAMTREDAFYLVQTKDGEVRLTKDGNFQLDDEGYLVNKQGYK

VLSSDYFNNPQNAGIRIPNGAVQISVDKNGSIEVDGAQNARLFVAQVDDIRALQKDGDNVYKIDDLTRIR

DLKNSNAIRQGFSQGSNVNPVTEMVGLIEANRMVEMYQKVMTAHMDDLNQEAINKLAAVK

>YP\_002344114.1 cell division protein FtsZ [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEFLVEEMQHNKGAKIKVIGCGGGGGNMINHMVKMGLNDLDLIAANTDAQAISISLAKTKIQLGEKKTK

GLGAGMLPEVGAESARESFEEIKASLSQSDIVFIASGFGGGTGTGATPVIAQAAKEIGALTVSVVTMPFA

FEGKQRKKLAESGLLELKKESDSILVIQNEKLLSIIDKKAGIKDAFRLVDDILARAVKGMVSILLDNGDI

NVDFADVRTIMSHRGLALMGVGSASGENAIEEALSNAIESPLLDGMDIKGAKGVILHFKTSSNCSLFEIS

AAANSIQEIVDENAKIIFGSTTDDSMEDRVEVTIIATGFEDKDTVAKKSTEEAQASKKNPYLSLKKVSGG

YDEEIMAQIETPTFLRRQMD

>YP\_002344113.1 cell division protein FtsA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILNILGIDLGSTQTCAIIAQKDEDGLKIIGFSKSKTNGVKKGAITNIELASKSIEEAVRSAEMMSGVHY

DRVVVSISGAYTKSVDSIGVVNIPNHEIGIKEIHRAVSTAKHTANLPSGYEIIHVLPYNFKVNDLEHVDD

PLGMSGNRLEVSTHIVISQESHIKNLKKAVELADLRVDNIVLSGYASAIACLDDSEKELGAVLIDMGGAI

CDMVVHTGNSIRYNDCLQIGSINITQDLSMALHTPLKEAEKIKLNYAALSQQPNTLIQIPSMGDERKVNE

VSLDIISNVIYARAEETLMILAKILSDNRYANAIGGGVVLTGGMTKLAGIDELAPATFDNRSVRLATARK

DLITGFSEIFNDPENTCAIGLCLYGAGYFTPYELDSNEKLRYKGEIENFNRQIKQDIVLQKDAESEIKSD

FFDENLQENDTIAIQEQLDFKEPKEKKPSVFSNIWHKIMNQF

>YP\_002344112.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTWMQHHKKYLVVTIWVSTIAFVGAGFLGWGAYDFNLNRSSSVATVGNEKIGFSEFDTRYRQILSYYNQ

ISNGALTPENAEQLGIKNIALSSLVEDKLLLNFAKDLGIGVNENQILQKLANTREFQDPTGDFNKTIYYE

LLNANNLAPKDYETQLANEVITDKLNQIFNIPSKDEELKMLASSYFMQDALSIAKIDYDKKNIKINEEDL

KKLWNEHKEDYKTKKIYEISTYFLPVSNEKIDDKELEKFYNQDENKLKYKDFAGKVMDFQSAKNEVAKDY

ALMQLKNVANAKFLDLKNGKDNFQKDQNISESDVYYPIDLLNKAKNGDVLRPAPYNNGYIIVKLNKVDPI

RNKTFEEAREEVLPMYLSEQARKNLEEKAKNSLVNFKGDDIGFVSRDSSRESVKVSDKILNDSEFAYFLM

NVFNTDQNSSYVVINDNKAILYKINKQKLDMNSDKFEQYKTMLEQNLQNLKANELKQELVDELKKIYPIK

IYYKGN

>YP\_002344111.1 rRNA small subunit methyltransferase H [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILEIPHIPVLLNEVQEIFKNLKTGYFLDCTLGFGGHSEALLKNHPDLKFIACDQDQQALKFSKKRLKDF

RNRITFMQSNFSEVLEKISHKEELRGILADIGVSSFQLDNNERGFSVNSDFLDMRMNQNSKISAYEIINT

YTKEQLTSIFKDYGELHDAHFIAEKICLERSKNLIKSAKELYQIIGKGKQNHRKISKATLAFQAIRIEVN

QELKVLKDFLEHLENLKPKNCILAIISFHSLEDRIVKQFFKKWSKNCICNEKIMRCECGNNHSLGQIITK

KAISASKEELLKNSRSSCAKMRAFYFNNLDNK

>YP\_002344110.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEDDFIKERQNIRQKMLKFSRAINQGKPLDDDLRDEISSDDILRRRFKKKTPNKFLEELDEEYESKHTK

KSNIYLKEDLINVKLEEKQSLAKKIFSKMKERRKEENKKTKKNFLFSRKKANEIKNIQTKTQIQTKSNQA

TTQTKQEKKELTNSIEKIQKTETKIQKPLIIEKKLDVKNQPNIKKSLENLQKKITPQENKQELPKPSNQA

QEKQQNDEDAQKAKNILLEGFSNATKEDRNLNFNHLLFAALLVSFALFLFAPQIYIRNQIYYLSREIATL

RTEESVLNEENKDLKRRLENMRFQNQILDYLE

>YP\_002344109.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFKEFSLRFLFKVSEQPVLIRDLLEANALFNDGMLVDPSKLNFNFKILNSYIYFGVFCAVILLPLLLI

THYFLTKLDFHISIVSAVMVTACVFIGYDIFKVYTRKIISKKIIQKAWALHFPYFAYEKYSTMAGEFYKE

ALKEEIPKANLEQYVLDKIIHSK

>YP\_002344108.1 restriction/modification enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNYYQELKKYLNNNLFTSYSLEIDFPKIYNFNANQKAFRDILTKITKIYDKNKFIKQNEHQFEDEFISKV

LEILGWCFVRQDEKIIQGKLEKPDFLLFSNDKLKSKYENLDKETKKSSNDFTIILESKAYNIEIDNKKVK

DNPHFQILRYLGNLKKNYGFLTNGRFWRFYDNSILNSNKVFYEINLEKIIEDQNIEAFAYFYSVFSAFNF

TEKEDHLEITLQNNKLSKIKIEDDLKSIIYGTNGNESLFEFIGSRIYNKTKADLKLIYENSLYFIFRLLF

IAYFEDKFEIILEKHKYFKSKISLRTLLENLQEDESSSGGFGELENIFNIYNKGKGNFDMPVFNGGLFDE

SKTALLSTPKIFNDKDLKFILNQLLNFKDKNLSFKRDYKTLSVEHLGTIYEGLLSYFFEIANEDIYYVSY

KEKSKEIECYFDNYDFKILEKSKKVEKYTFYKKGQIYLKNTSNSRKASASFYTPQSIANFLIQSALKDKL

NNENILKFKILDNACGSGHFLVGVLNAITHIVLSDFDHFTNLKELYEEEKENILNHIKDFVQDYEVDESD

ILKRLLLKRIIYGVDLNPFSIELTKLSLWIDSFIFTTPLSFIEHHIKCGNALINSNLSDFKDLIKQNSSN

LFTNSITQEFEILQEVFEKLDNLKDTNEEQIKQSKQIYQNEITPKLNKLNLYLNYINTLHFVNKEELQIL

KALSQDDIQNLSQNEQAKAIISKYQKEFNFFNYELEFPEIVENQVFKGFDIIIGNPPWDKTKFSDSDFFP

QYKSDYRSLIASKKKEIQDNLLAKDYIKQNYEKQKAYINDLSEYYKKAYPLNKGSGDGNLFRLFVEKNLS

LLKQDGNLAYVLPSALMFEDGSLILRKEILENKTLEYFYSFENNKAIFIDVHRSYKFALMLIKNTQANHT

HKIKMMFYKTDINSLKNKDEILTLNLKDIKKLSPTHLALMELKDKQALEILRKSYNAFQNLSFDYIDFRR

ELDMTNDKDLFIEEFREGLLPLYEGKMIHQFDANFSQATYFLEKAKFDERLKSKELYRAKKATGKELNPK

LIKYDREFFRLGYRKIASDTNERTLIASLLPKNCGGADSTYSNIPKQYVLKDDVICMDIVPYERILFVLA

LFNSLVVDFIIRNMVQINVSKSYLERIPLPQPSDEEIQNNEIYKTLAKNALLLQLYNDQNRHFDELKQEF

NIKNEEIPKTKKAYDILRAKNDLLVKELYGLSDDEFSYMISTFKVLNEKQSEYITLLKTI

>YP\_002344107.1 acetate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILVLNSGSSSIKFKFFDNKVVKASGLVEKIGEQNSKVVLKNTLNNESFERELTINNHEEGLSIVNELF

KESGILADLNALDGCGHRIVHGGRNLSEHCLVDDYVLKEIDRVSIFAPLHNPAHLAGIKTMIKAAPSVAN

AAIFDTAFHRTMPDFAYMYALPYDFYDKHNIRRYGFHGTSHAYVSSRAAKFLQKDQNELNVISAHLGNGA

SVCAIEKGKSVDTSMGFTPLEGLVMGTRCGDLDPAILPFISHLKGLTIEEIDTLMNKKSGVYGICGYNDF

RDIEREIEQGNDKARLALDMFCYRLVKYIGSYFAVLPKTDAIIFTGGIGENDSLVRQKVCERLAHLGIEL

DFELNKQRISGERMINHANSKVKVLVIPTDEELEIARITEELIGKN

>YP\_002344106.1 phosphate acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMANLYLMRSRSDELNTIISTNLLKNYSKIYKNIAIYCPVIYIHRVPVLQGWLEEFNINQTVKSAYGFTF

REAMEEFSKDPHNFFNVILEEYEELKRKYDFVLVNSFCEFGILDGFDLSIKLAKNLNTPIAAIINDEDKL

IAQKYFDHALDGRNYVLINENFNFEEVQKLKEYDFITPHRFKYELIKQSIKNKKTVVLPESNDERILKAA

EILLKSKVVDLILLGDEEKIKQDATRLSLDLSAMQIMNPLNSEYNQKFTSILYEARKSKGMSLEEAKMLV

QDKTYFGTLLIHTGKADAMVSGASTTTAETIRPALQLIKTKEGISSVSGIFFMGLEDQVLAFADCAVNPS

PTAEQLATSAYVSAMTAKSFGLEPRIALLSYSSGDSGKGESVDLVKEALKIAKEKYPELNIDGPMQFDCA

YDPKTAAKKMPNSKIAGHANVYIFPDLNAANICYKAVQRTANALAIGPILQGLKKPVNDLSRGCLVDDIV

DTVILSAIQAQ

>YP\_002344105.1 flagellar basal body L-ring protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVLFYVLPFAFFGCSATVDPQISMKPPAYVEELAPKQSNNVESAPGSLFGKGDNPLFSDKKAMNVNDL

VTVVIQESTTQSTQANKATSRTNTSNLGGGALTGSSGVVANALNKVNAYSNIGFQTNSSNNYTGTGSQSR

NESFNTTISTRVIKILSNGNYFIEGSRELLINGEKQIIQLSGVIRPYDIGQDNTIDSKYIADAKILYKTE

GEVDRSTRKPWGSKVIEAIWPF

>YP\_002344104.1 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEYKRFKTRQIKVGNVLIGGDAPISVQSMLFTKTRDIEGSLEQINRLYFAGANIVRLACLDMADARALKE

IKAKSPLPLIVDIHFNHNLAVYCAEFIDGVRINPGNIGSKENIKEVVKACKERGIPIRIGVNHGSIEKQF

SDKFGYGVDAMLESAMYNIKLLEDLDFFDIKISMKTSDAQKTIEAYERLRPLCDYPFHLGVTEAGTKFHS

TVKSSIALGNLLLKGIGDTMRVSMTGELEEEIRVARAILQDSGVQKSGVNIISCPTCGRIQSDLLSAIKI

VEEKTKHIKEPLNISVMGCVVNALGEAKGADVAIAFGKNQGLVIRHGEVVAKLKESELVDRFLAEVEDEV

KSRVVKE

>YP\_002344103.1 invasion protein CipA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNYIYKLNTIKRGYMQNLLFYIKNNLTPTLAQILLQALKNSNNEKFFTFVLENIETICTWLNSNKFRDRY

LSTKHPYPPLINPNFIEIDSSRHCAELAWDLNLPLPKHYKFIYISPHGVGAAAFLRYLNQCCDVTCFASW

VLPPDSKERYCINYMCLNDNTIAQYAINISEINLPYFDKYLSLLDFNSKIICGVRDPIGLLKHSWGRDWS

KVLRNYPPEFNLTYDWRYYINYLTHQNHKIKIDINELQQGVFIISYLLKYFNKDNVYYLDMEEIRQSKAF

DTMNLLAINFNFTPPHKDKLDLFKIKEFRGYIRYLFPITLYANSKDINNTFYLNTPKNNKNFNIDRTSSI

PIILDRKHINHEKIDVIQEIIKNDLCNDMGVYIDKNDFKQLEQNNLLFSTIKHYLYDFLYQIKITIDETE

SKMMKEKDVIDYFIKNKSLIYTFLIYLKMN

>YP\_002344102.1 primosome assembly protein PriA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQRSDIRYYELAICGLYLDNLTFHSFDEIKPLTQVLVDLKTKKNLKAIVLKECQKPDFKTVEIKEITEYF

LTPLQFELANFIVYYYASKLGFVLGFFETSPKYECHKMFFKDTPKLSNQQQNALSFLQKENNSLLFADTG

SGKTEIYISLIKECLEQGKQALLLMPEIALTPQMQKRLEVYFKDNFFLWHSKISKKKKQEYLERFCKGEV

LLVAGARSALFLPFRNLGLIVVDEEHDNSYKASNQPFINARDLALFLGQKNNIQVILGSATPSLTSFYKQ

KSFRLKGTFFESKKHFLYDENELGITPMLLSELEKSLKHQKQAIVFLPTRANFRQIICKDCGETIKCPFC

SIAMSMHKKKNILKCHYCNYTSLIEQNCPSCKGEMLEARKIGTAELLELLQNALPLAKIAKFDSDEITSV

KKLNTILKNFNENKIDILIGTSMLAKGHDYHSVDLSVILGLDEYLLRPSFRASEETLALAMQVAGRAGRK

GEARVLLQTKNRAFFERYIENYDAFLKDELENRKDLYPPFKRLLRVLIEDKDQKSAQKLCEKFASQFRNI

KQVELVGYGICGVEMLYGKYRFYLLLRSENHKALVAIENYILQFKNASADIDPIDFV

>YP\_002344101.1 hypothetical protein Cj0683 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKAFTLLELVFVILILGILSSLSLSFINTTKDEVKILKLKMDYEMLSSALALMRSQMRLKNLNFPEILD

NAQNNQAKEKLFYCLNDCDYSLLDTPIYSDFKSWIKIGKNHYRFALNAKEMVEFIYDSKEGLLKCIGSSR

CKDLI

>YP\_002344100.1 hypothetical protein Cj0682 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MADNLKQVIVNVNAKDFIVKCSEEFANFLEDDIALISGGTKKIELKRFVDAFVKKSYENYILERELKKLI

KAINEELPTK

>YP\_002344099.1 hypothetical protein Cj0681 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDEKIINTMTDKVNELIEKYNEVCEANEALRNELVSVKAQNEAKSNQIMRLEEELKSRNIESEDIYKKI

EAVLGR

>YP\_002344098.1 excinuclease ABC subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLELTSEFKPSPDQQEAIKGIVKSIKKGNKYQTLLGVTGSGKTFTMANVIKELNIPTLIMSHNKSLCAQL

YSEFKGFFSKNHVEYFISYYDYYQPEAYIPRTDVFIEKDSSTNEDLERLRLSATASLLSYEDVVCIASVS

ANYGLGNPNEYIGMVLIFELGMQISQKELLKKLVDMGYKRNDNFFDRADFRVQGDIIDIYPAYYEDEVVR

LEFFGDELDAMYHYNVLENKKGKDLKRFILYPTSQFSVGETRLKQAIKDIKAELNERLAYFEHENKLVEY

QRLKQRVEFDLEMLTSTGMCKGVENYARHLTGLKEGDTPYTLFDYFAIKDRKFLVIVDESHVSLPQFRGM

FAGDRSRKQTLVDYGFRLPSALDNRPLMFDEFIHKNCQFLFVSATPAPLELELSKENIFHQIMRPTGLLD

PLIELKDSDNQVEILFDEAKKVIQRNERVLVTVLTKKLAEELTRYYLELGIKVKYMHSDIDAIERNEIIR

GLRSGAFDMLIGINLLREGLDLPEVSLIAIMDADKEGFLRSTTSLIQTMGRAARNVNGKVLLFCKKITKS

MQEAMDTTNERRKLQMAYNKKYNITPTSVKRHIEESLKNEEDLGEIYRKGKKLEKMPASERAKLVKELRK

QMLEAAKALEFEKAAAIRDEINKLRDL

>YP\_002344096.1 potassium-transporting ATPase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKQNKLITKEILNNAIKGAFLKFDPRFMVKNPVMFMVEVGSILTLILSIFPTLFNGNSDERIYNILIT

FILFIILFFANFAESIAEGRGKAQAATLRQSKKDSKARHIKSDGSEEMLNSSELKIGDIVLVKAGELIPN

DGEIIEGTASVDESAITGESAPVMREAGGDFSSVTGGTTVLTDFLKIKILVGAGESFLDKMINLVEGAAR

QKTPNEIALNTLLIVLSLSFLMVVVSLYPFMQFLGVSLPISWLVALLVCLIPTTIGGLLSAIGIAGMDRV

TRFNVIALSGKAVESCGDVDTMILDKTGTITFGNRLANEFYEVQGISKEEMIKACVLSSLKDETPEGKSI

VALAQKMGYELEGNDIKEFIEFSAQNRMSGVDLQDNTKIRKGAFDAIRAYISEMNGKIPSDLETKVMEIS

NLGGTPLVVCKNEKILGVIYLKDTVKPGLKERFDELRKMGIKTLMCTGDNPLTAATITKEAGLDGFIAEC

KPEDKIKAIKKEQAQGKIVAMTGDGTNDAPVLTQADVGIAMNSGTQAAKEAANMIDLDSNPTKILEVVEI

GKGLLITRGSLTTFSMTNDIAKYFAILPAMFSVVLPQMQILNIMHLATPKSAILSALIFNAIIIPLLIPI

AMRGVKFKPMKSEHLLLRNLSIYGLGGMIAPFIGIKIIDIPTAWILRILGV

>YP\_002344095.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKGYPMDIIFALLLLLAFGSLCFFICFCEIQTKDTRMIFLLVLSLILALYLFYALLYPEKF

>YP\_002344094.1 anaerobic C4-dicarboxylate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFLTSLSEAGQFAIQIIIVLICLFYGAKKGGIALGLLGGIGILMLVFAFHIKPGKPAIDVMLTILAVVV

ASATLQASGGLDVMLQIAERILRRNPKFLTILAPFVTCFLTILCGTGHVVYTIMPIIYDIAIKNGIRPER

PMVAASISSQMGIIASPVSVAVVSLTALLLNANHKLAGFDGYINLLQITIPSTLFGVLCIGIFSWFRGKD

LDKDEVFQEKLKDPEFKKYVYGDSKTLLGVKLPKSNWVAMWIFLGAIALVALLGVFDFLRPNWGQVVKNG

IPQVDALGNPKMDVLSMVSVIQMFMLLAGSLIIIFTKTDAKKIGSNEIFKSGMIALVAVFGISWMADTMF

AVHTPMMKAALGDIVKEHPWTYAVMLLLISKFVNSQAAAISAFVPLALGIGVEPGVIVAFAAACYGYYIL

PTYPSDLATIQFDRSGTTHIGKFVINHSFILPGLIGVITSCIAGYFIAMAAGYL

>YP\_002344093.1 RNA polymerase factor sigma-54 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKQKITQAPKTKISQTLRSWLPILQANIEDLKENLDKFAEDNPFLNVQDSIQTHDKGKNYFDSFYKHNV

NSAFVDSKGLAKKSVYELLNEQILPPLFPTSKSQELAKKIIECLNEEGYFEHDEEFLKEYSLEEIERVRA

RFKFLDPVGVGAKDYKEAFLFALENMELDEDIDEFCRMLIMDFENIQNYTKEPLYKEALAVLKRFSTPPF

LEYFEDSRIIVPDIFVYKENGEIKVKINDDYYPEISIQTDGLEHDFLSHYIKEAKNLVDALAMRKATLYK

IGLMIVEYQYDFFMGKEIKPMTFKDLALDLERNASTISRAVANKYLSCERGLIPLRDFFAFALDEEGETS

NVGVKEFVANLVKNEDRNKPLSDSKILELIKEEFKVDIGRRTITKYRKHLNIASSTDRKKLYELEG

>YP\_002344092.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKLEIVNLEKIIKKTKIIHGISLEVNSGEVVGLLGPNGAGKTTTFYMICGLISPSSGKVLLDGLDVTKD

PLNKRARSGIGYLPQESSIFKDLSVEDNLLLAAQIFYKDKKILHDKVEQMLELLSIEPIRLRKGLSLSGG

ERRRCEIARSLMCEPKFLLLDEPFAGVDPIAVAEIQTLIKELKRLGIGVLITDHNVRETLAICDRAYVIR

SGSLLASGNADEIATNKDVKKYYLGAEFKLLD

>YP\_002344091.1 ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEFILAKNEIKTMLQIMPKEGVVLLQGDLASGKTSLVQAWVKFLGLDVRVDSPTFSTMQKYENHDICIY

HYDIYQEGLEGLLANGLFENFFEKGLHLVEWGGENLKKTLMKFGISTIQIKISIKDDKRKYEIYE

>YP\_002344090.1 S4 domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRVDKFLNVVNITKRRAISEDMCKSGVVGINGVIVKASKEVKVDDIITLHFTEYTQKYKVLALPSTKSIP

KNAQNEYVVKL

>YP\_002344089.1 argininosuccinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNEVKKVVLAYSGGLDTSIILKWLQDEYNCEVVTFTADIGQGEELEPARKKALSLGIKEENIFIKDLRD

EFVKDYVFPMFRANAIYEGEYLLGTSIARPLIAKTQAQIALQTGADAVSHGATGKGNDQVRFELGYLAFS

PDLKIIAPWREWDLNSREKLLAYAQKHGIDISKKKGKSPYSMDANLLHISYEGLVLEDPAHAPEEDMWRW

SKSPKDAPNESEIIELDFQKGDLVAINGEKLSPAGLLTKLNELGCKHGIGRLDIVENRYVGMKSRGCYET

PGGTILLKAHRALESITLDREAAHLKDELMPKYASLIYNGYWFSPERMMLQALIDESQIHANGRVKLELY

KGNVMVIGRESANDSLFNAAYCTFEEDEVYNQKDAAGFIKLNALRFIIAGKNGRKF

>YP\_002344088.1 50S ribosomal protein L9 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVLLIKDVKALGKAGEIKEVKDGYGQNFLIAKGFAKAATNEVLRKYESDKKKEAENLRFEIANLEKLKE

ELSKITLEISKPVGANGSLFGGVTKDEIAHALKEQSHIEIDKKSLECDTLKSLGIHEVSVKLGHAIHAKF

NINIKAE

>YP\_002344087.1 ATP-dependent protease peptidase subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFHATTILAYKGKNKSVIGGDGQVSFGNTVLKGNAVKIRKLNNGKVLAGFAGSTADAFNLFDMFENLLQS

SKGDLLKAAIDFSKEWRKDKYLRKLEAMMLVLDRNHIFLLSGTGDVVEPEDGQIAAIGSGGNYALSAARA

LAKHTDLDEEELVKSSLQIAGEICIYTNTNIKTYVIEDEK

>YP\_002344086.1 ATP-dependent protease ATP-binding subunit HslU [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLTPKEIVKFLDDYVIGQKKAKKIIAIALRNRYRRMQLSPELQDDIVPKNILMIGSTGVGKTEIARRLA

KMMGFPFIKIEASKYTEVGFVGRDVESMVRDLANAALNLVKNEQREKNKDKIDEFIENKILEKLLPPLPK

GISDEKQEEYKNSLEKMRTKLRNGDLDESTIEIEISQNMFDTNPNLPPEMGAMQDIVKVIGVGSKKVKKE

MKIKDAKNALKNEAGEKILDQESIKSEALKRAENEGIIFIDEIDKIAVSSGNSNRQDPSKEGVQRDLLPI

VEGSNVQTKIGTLKTDHILFIAAGAFHLSKPSDLIPELQGRFPLRVELDSLDDKALYEILTRPKNSLLKQ

YSQLLKTENLELEFDDEAIKEIAKIASRANEEMQDIGARRLHTVIEKLLEDLSFEADEYAGKKFVVDKKM

VEEKLGDIIENKDLARYIL

>YP\_002344085.1 GTPase Era [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSGFVSIIGRTNAGKSTLINSLLEEKIALVSHKQNATRRKIKAIVMHEKNQIIFIDTPGLHESGATLNQ

LLVQSAIKSMGDCDVILFVASVFDSTKDYENFLSLNPQVPHIITLNKVDLTDNATLLKKLSEYAKFSQHF

KAIIPYSSKKKSYKKGLLDEIVKYLDEHEYFYDPEFLSASSEKEIYRDFILESIYENLSDELPYSSEVLI

HRTKDTPNLLILEANIITDTNSHKGMLIGKEGATLKRIGKDARFKISKLAQKKVLLKLFVTVKKNWQKDE

EFLKKLLNDEN

>YP\_002344084.1 transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKINSLNKINFIKSTDLLYAQRTGISKEDELFNNLTADFKLSKPFDYQIAFFKHNEIYHCFLAPVYKLK

KSRFCFPEPLIFQALFDERFIEESDYCVLNLYDQTLYLYFYQEGKFINLKKIENFNPGNMDLFFKQNRFT

ELLKHYESKLLLYQDLNTIKHYFSSQIKCLNLNDILDKNSLLKLSSYSIKNLDQNCNFIKHNKIKISISF

KIILIFIFSFSLSMMILLFKDFIEYKQNKEIQNKNFIIQEEISKLKQDKQKLLTNIQDLNFTLSNKISST

QQQFHILSTITKEINLDKNKAIILNQIISWLNSNDLKITNLEFEQTKIILSFIDENHFKRALENLNSAFK

ILDKNEETFNIILEVIHE

>YP\_002344083.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKIEVFLQNLNPREKFLFISFICLCALFLAFKIHDHFLEDIFQKTLVEHNYLALNEAKIENSHLKEIET

KLTKQIKIEEEKLKYYKEKLHLFSYDKDFFNKKINNLSKNLIINEIKFSQENKNFIHYNYVSLSLNGNFK

DLLNFIQNLENLPIALKIDKIKLYNTQGLKLKLDLMFKFVNL

>YP\_002344082.1 aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSIYKQRVLELRRLMKENNIDAYLILSADPHLSEYLPEYYKNRVFISGFKGSVGTVLITQEEGFLWVDGR

YWLQAQKELEGSGILLQKQDAKNTFTKWLEKNLSEDQILGIDFALLPLSLQKDLKINCKANLKHIDLISP

LWKDRPTLPQEKIYEHELEYCSYSRKEKLALVRQKMKNLNATSHLISSLDDIAWLTNLRGNDVNYNPVFL

SHLLILEDKALLFVDQKKVNSELEKKLNLDGFWLKNYDEIIMELEELANTNLLIEPSKMTALLINSLDKS

VKIIQEINPSTHLKAAKNTKEIAHIQDAMIEDGVALCKFFAWLEEAIKNKELISELDIDVKASEFRAQSK

YYISDSFATIAGFNENAAYPHYKATKESFAYLKKDGLLLIDSGGQYKNGTTDITRVVPIGKANAEQIHDY

TLVLKAHIAISSAIFPKDITMPLLDAITRAPLWKEQIDYIHGTGHGVGYFLNVHEGPQVLSYLSPVLEKT

KAKEGMLTSIEPGIYKVGKWGIRLENLVIHTKVENPKNKDFGEFLYFKPVTLCPFEISCIDTKMLDEKEK

EWLNNYHKEVFEKLSPKLGDYPKALVWLEKRTKAIF

>YP\_002344081.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRMRLVVGFILLFFIFLLSRVYYLSIKSNVYYEELAKQNAIKTEFLPPVRGQITDRNGTLLAINDLGFSI

SIKPYLSIKKSNKGILDKELSELTNLFPDLNASKLAEIYKRNDSYYNQDFIKVVDFIPYDEIISHYSELN

LNKTIKIDPVVKRKYPFGKLASHIIGYVGKANLQDVQENEIAKLSNYTGKSGIERYYNDILQGEKGTRVY

KVNALNQEVEQLSYTPAMSNDIELTIDIELQSYLTSLFEGNAGAAIIMNVNDGSILAAGSFPEYDLNPFV

TGISFKDWDELSNSLDHPFTNKLINGYYPPGSVVKMGVGLSFLNSKNISPSTHYVCNGSIELGGRFFRCW

NRSGHGPVDLKHAIKYSCDVYFYNGSLQVGIDQISETLSRIGFGVKTGVDLPSEFVGTLPSKEWKMQRYR

QSWFQGDTLNTAIGQGNFLATPMQIARYTAQIAKSGEVIPHFLKSIENNNTTIENQMDENKKEIFTLFEK

SQLPYIRDAMYAVANEQGGTSYRYLHNLDVKVAAKTGTAQVVGFSQTDKNRVDEKQFEYYTRSHAWLTSY

APYSKPKYVVTVLLEHGGRNITSGATVAKIYQKMIELGYFK

>YP\_002344080.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRRNLSAYKAKFNGAYVFLGFFFLIYQILGSTFVYTPLLYGIFFCYMFCLLEERERTFSKLDFRWYFSLF

FLFFTDITYNFFIFSSWLAFFIFYYLCADWIKTNLKIGKFIPVVFVLCAYGIILFLDMILSYIGDEKIKI

LGWAYIVSVFIECCLAYVFFKGKI

>YP\_002344079.1 GTP-binding protein EngB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIISAKFITSLVKFDENLSSNFSEVAFLGRSNVGKSSLINSLCKQKNLAKSSATPGKTQLINFFEVICRR

NEEKFNINFIDLPGFGYAKVSKNLKEIWNQNLDEFLKLRTSIKLFIHLIDSRHTHLEIDVNLNDYLKRFL

RPDQKILKVFTKCDKLNQSEKAKLKNEFKDSILVSNLNKFGLDSLEDIIINQTLGLDK

>YP\_002344078.1 OstA family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVARQIILLLVCVSVTWATQIEVKALNFYSDENKGESILSGNVEVIRGDDILNSEKLIIYTDKNRKPIRY

EAMQNARFKIVLKGKTYKGSGDKFIYNVIKDTYEINGHAYINELGSNQKLFGDKIIVDRKANIYRVESKD

QKPARFVFDLKDK

>YP\_002344077.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAIKIFGILIALFTITFTILSLQDPYSLNLQTNALNFKNIEAKNLKAYESNTSIIKAYYKANSWVRYADR

DEFNDFITLNLDFNLSANRLEFFNKDMSKVLFEGNVTYIGSNNVKIISQEVEYQPKDKILHTNTNFKALI

NGSIINGNTLNYDVKNKILNIQGVNAWLQDK

>YP\_002344076.1 HAD-superfamily hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTELIFLDVDGCLTDGKIIYTSNGEFIKEFNVKDGAAIEAWLKLGKKIAIITGRNCPCVEKRAKDLKIKI

LYQGIKDKLACAKEILQKLNLDFSQCAAIGDYFNDKALLESVGLSFKPKDGHKDLNVDIVLSKKGGKAAV

AQMIEILVEKNHLEEEWNKLWL

>YP\_002344075.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIKTITLKLSAVSLGALFFSGCLGTSFFSSLDNAQVYYPSNDFKSSPSSSGTKGTMKPYTINGKTYYPT

VVAVGETADGIASWYGPGFHGKKTSNGETYNQNALTAAHKTLPMNTILKVTNLNNNRQVTVRVNDRGPFV

NNRIIDLSKGAASQIDMIASGTAPVRLEVIGFGSSNSGNNIVHSNVNYGNSGEIANNGQIYEGGNFMVQI

GAFKNPAGAQTIAARYKTYRTYSSTIRTSSVDGLNRVFLTGFRSEDEARDFAASGAFAGAFVVRE

>YP\_002344074.1 transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILLCFLICFNFLFAQINTPEFYERQMNVLRNLDINPSFISDLIFVQTQQDIKSKHAQTLIDSMQNFS

KVTPMIRKILAQQEVPDEILYLAMVESGLKTHSVSNAKAVGVWQFMQPTARNLGLRIDAYVDERRDPVKS

TYAATNYLKELKEEFGKWYLALLAYNCGNGKLRQAIKQAGSDDLSVLLNPDKKYLSLETRNFIRKILTLA

FLANDRDFLLDKDASLMNYALSNEFAKVDVPSSASLKEIAKNLNMDLATFKKYNPQFKHNFTPPGKGYYM

YIPLNKVAFFDKNFKAEKLAKVDTTIPMTRTYTVKSGDSLYKIAKNYNISVDEIREFNKIAKNHLSINQK

LIIPIKENKNANKNNYTKVVSR

>YP\_002344073.1 TatD-related deoxyribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFLNLDFQDGLRIVDTHCHLDSEAFKDDLDETLNRAFKNGIEKIIIPGADIKDLPYAATIAHKYKNIFFA

AGVHPYEIDNYDEKILRQYLCDEKCVAVGECGLDYFRFKSDLAEEIQKEKENQKKIFIAQLELAIEFKKP

VIIHSREANHDTYEILHGYSKDLVGGVLHCFNASEHLLTLFEEGFYFGIGGVLTFKNAKKLVEILPKIPK

DKLLLETDAPYLTPEPYRGKRNEPLLTQFVVNKMCEVLNLSRKELLEICFNNSEKLFFKGY

>YP\_002344072.1 two-component response regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKKILIIDDNKMLGKLLAKKIQMTLDYEVDIAFGFAEAKELMNNDYFLAFVDLCLPDAPNGEVVDYVIE

KKIPAIVLTASGDKATKEKFMDKDILDYIFKESETCIDEIISSIVKLNQYAKTKVIVAMSKLPERNEIKK

ILTQRQFNVLAAAHGEEAMSYLNDNNDVKLIIADVNMPVISGFELLTQVRERFSDDELGVILLGDHNDSF

EANSFKNGVNEYLFKPLSKESFNCRLDRCLSYMDDKKFLSTYNVLDPVSGVKNYNALIDGIDDYFNEIAT

KDEEFAFAFLDIDNLQMINDEYGREVGDEVIKICANEIVNETKGRDLVGRYSAEKICILLKNISQERAIK

IFSRIRVNIKKAGVLVNLDEVFFTASIGVVFGKSGDKIDSLADKASKILSQAKDNGKDRVEVCS

>YP\_002344071.1 DNA repair protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINRIFMKENLGFKKAELEISKGLTVFTGLSGAGKSVLFKGILSAFSLSESEAKIVEIEVDDKLDLESFG

IESEEENVFKLLKEKNTKYFINNQSIAKKSLQNLSKTFIKYLSAKENNEFGNEKFLNLLDALEMQENTNF

VSFLEDFKKDFNAYSQISNELNAILEEEKKVEELKELARAQIEKISSINPKIGEYEELLILKKKLSKKDK

LEEAWSKAERIFELEKVVIEALNLSEVDASFFSECLNELRVICENQKMEDLDFDVEALLDRIENLSYLIK

RYESIENALEVLKQKKYELEHYENLSFEKKELEKKFQELKQKLEEKAQILTQTRKKNLKKLEKCLNNYLK

DLYMKDASLTLKENEKISILGKDEIMLDINLAHLKNLSSGELNRLRLAFIATECNILNAGKGILFLDEID

ANLSGKEAMSIAKVLEELSKFYQIFAISHLPQLSSKAHNHFLVEKNGEESKVKKLDQEERIKELARMVSG

ELVSDEAIEFAKTLFKN

>YP\_002344070.1 NAD kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNKIDYKNIKKIGLVTRPNVSLDKEILKLQSILSIYKVELVLLKESSEILDLPKYGLDDLFKISDFVIS

LGGDGTLISLCRKACEYDKAVLGIHAGHLGFLTDFKVDEAENFFQAFFQGEFRIEKPYLLSIFLEDRQGK

ILEKLAFNDVVISKNNQASMAHIEVFRKEKKFNEYFGDGLIVATPAGSTAYNLSANGPIVYTLAQAFILT

PVCSHSLTQRPIVLPKGFEIEIMAKDCMLCIDGQENYKMNDFKSIKVGLSDKNVALIHPKNRDYFQILKE

KLHWGN

>YP\_002344069.1 aspartate--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRSHYNTDLGISHVGQSVKLCGWVNSYRDHGGVIFIDLRDRSGIIQLVCDPNDSKEAHEIASNARNEFVL

ITEGTIRPRGEGLVNPKLKTGEIEVVVSKLTIENESAVPPFAIADESVNEELRLKYRFLDLRNPKLYENF

ALRSKACIAARNSLANMGFLEVETPILTKATPEGARDYLVPSRVHQGEFYALPQSPQLFKQLLMCSGFDR

YFQIAKCFRDEDLRADRQPEFTQIDVEMSFCEQKDVIKVAETFLKDIFKACGKEIQTPFRQMQYKDAMEN

YGSDKPDLRFDLKFIDVIDIFTKSNNEIFANIAKDTKKNRIKAIRVPKGDTIFSKRQMQRFEEFVRKFGA

QGLAFIQVKKDGLKGPLCKFFSEEDLNELSKRCELEVGDVVFFGAGAKKTVLDYMGRFRIFLANELKLID

PNALEFLWVVDFPMFEQNDDGSYSAMHHPFTMPKNIDETDLEEISSIAYDVVLNGVELGGGSIRIHKNDI

QQKVFKLLNIDEEQQKEKFGFLLDALSFGAPPHGGIAIGLDRLIMLVTGANSIREVIAFPKTQRAQCLMT

DAPSPASNEAMRELGIKLRENIK

>YP\_002344068.1 adenylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKELFLIIGAPGSGKTTDASLIAQADATNITHYSTGDLLRAEVASGSELGKTIDSFISKGNLVPLDVVIN

TIVYALKAAPTKTIIIDGYPRSVEQMMEFDKVLSEQNEICLKGVIEVRVSEEVAKERVLGRNRGADDNEE

VFYNRMKVYTEPLNEILDFYQKKKLHFIIDGERTIEPIVADMKELIKKIQSI

>YP\_002344067.1 inorganic pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLSKIKIGDIPNKINAVIEIPYGSNIKYEIDKDSGAIMVDRVMASAIFYPANYGFIANTLADDGDPVDI

LVLNEYPIQAGAVIPCRLIGVLIMEDESGMDEKLLAVPNSKIDARYDNIKTYTDLPQATLNKIKNFFETY

KILEPNKWVKVQDFKDEKAAIEILEKAIKNYK

>YP\_002344066.1 methionine sulfoxide reductase A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNIVLGGGCFWCVEAVFERLKGVINTEVGYSGGKPNPSYESVCNGDGNIEVVKINYDEKQISLLEILTL

FFKIHDPTSIDKQGGDIGIQYRSIIFYENEEDKILAQNFIEEQQKIFSKKIVTKISRLQTYYKAENYHQH

YFINNPDQGYCQAVIAPKLQKIQSD

>YP\_002344065.1 NOL1/NOP2/sun family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNILSSFAQEKNVCVFANTLKTSIEELEKEFLKQNLKFKKINVYCYLFDAKDKAILSSMKAFNEAHFYI

QNYSSYLCALNLEVKAGQSVLDMCAAPGGKSINLANFMQNTGYLACNEMSRDRFFILQKNLKNYGVNAKV

FMKDGKNIGNLCPLKFDKILLDAPCSTFAKIGFDLEKSYKEIKNIAKTQKKLLHSALKALKIGGELVYST

CTFTKEENEEVIENALKSEFKLELLDIDLENVEAKAGQSEEFAEISKCRRILPSLDYDGFFIAKLRKLC

>YP\_002344064.1 Holliday junction resolvase-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRALALDVGLKRIGVALCIDKKIALPLDAVLRKNRNQAANEIKNLLKIHEISLLIVGIPKGGSSEEEMTR

RIKHFVSLLEFDKEICFVDESGTSKEALGYGVANTRKKDGKLDSLSAFIMIKDYFAL

>YP\_002344063.1 DNA processing protein A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MASEILPDEFLELFKDLKKPPKKLHYKGNLSLLKQDKIAIIGSRRMSVYTKNCVFSLASMLKNAHLCVVS

GGALGVDITASMAAMPNTIGIFANGLDQIYPRTNEKIIKQIYENALALSEYEDDYLPKNYDFLLRNRLVI

ALSKAVVVAQADIKSGSMQSAKLALELNKPLYVLPQRLGESTATNLLLKENKAKLICDFKEFVSEFASID

MNQDEFLEFCKKGVSVDEALKIYGQKVYEYELEGKISIEGLFIRVLA

>YP\_002344062.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKKLVQIQRYLIIAILFLLCIALALGILVKYQNSQDVSSVKPDYFIDKQEDLISLNKDHYEIGIFQEN

EFDNNKSVSILEQKIQEIDDLNTSLNEQNLSSVEQNLSLEQNQSLEQNFILKDTNLTQDQNLTFNEDIHL

NKISKKPKLAIIIDDMANASQVRGLKALNLKLNPSFFPPDKNHSETPKLALKFDFYMVHLPLAAINYNKP

ELDTLNPNDSKERIFKKIKQIKKDFKDLRYINNHTGSLFTSNEEAMKKLYEALKNQNIFFVDSKTIGNSK

ANKIAKELSIPYIQRDVFLDNEDDVNYVKKQLENAVKLAQKKGFVIAIGHPRKNTFKALEQSKDLLKGVD

LVYLSEIYGK

>YP\_002344061.1 ketol-acid reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAITVYYDKDCDLNLIKSKKVAIIGFGSQGHAHAMNLRDNGVNVTIGLREGSVSAVKAKNAGFEVVSVSE

ASKIADVIMILAPDEIQADIFNVEIKPNLSEGKAIAFAHGFNIHYGQIVVPKGVDVIMIAPKAPGHTVRN

EFTLGGGTPCLIAIHQDESKNAKNLALSYASAIGGGRTGIIETTFKAETETDLFGEQAVLCGGLSALIQA

GFETLVEAGYEPEMAYFECLHEMKLIVDLIYQGGIADMRYSISNTAEYGDYITGPKIITEETKKAMKGVL

KDIQNGVFAKDFILERRAGFARMHAERKNMNDSLIEKTGRNLRAMMPWISAKKLVDKDKN

>YP\_002344060.1 ribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEFLNSLSYGISSHEVNNEFKQIFRELLTNHIIKEHKNKYYLNNGFAFGVLDISSKGTGFLQCFDESFK

KDLLIENKNLKGANYKDIVAVKLLPLKKKRPSAKVILVLKRANETSLMITKRYGEAVLGMNIKTGLSTAL

KASQKSLKALPLGTILKIENENNNIIEVLGHIDDESVDEKISLALFNKNNEFSDACIKEALANGDSVDAS

MYENRMDLRALPFCTIDPIHAKDFDDAIYFDTQKREIYVAIADVSEYVYAYSAIDKEARNRGFSIYFPHI

AIPMLPRPLSENICSLKPHLDRLAYCFKITLNHENKVIKEELFEGIINSKRRFNYDEVDEILIQKPDLKE

LSWLYELFEITKNLRKMRLKNAFEFRTEELRMNLDENLSLKSTVFEKDTPSHNLIEDCMLLANKAAAKLI

DIGVFRNHLSADVRKIDKLLNELRELGIDVNFKPNLPELIRDIQALADELNLRAEVDKLIIKAQKKAEYS

SVNAGHFGLGFDKYSHFTSPIRRYSDLILHRLLKAKQKNDEKLFNYLLLNIESTCENLSTLEREADKVAF

DFMDRKFARWAAKNIGKKFKALVVQNDGVCIAKLDDEIKGADIILYDTRVNLLENVEVQIMEADIVMAKI

YAKITQRLIKEENV

>YP\_002344059.1 DNA polymerase III subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYRKELQILLSKDSIPNFFFLYGADNFQSELYAEFIKEKYKPDETLKLFFEEYNFTRASDFLSAGSLFSE

KKLLEIKTSKKIPTKDLKVLVELCKNNTDNFFLLELYDESSKQSDIEKIFSPHFVRFFKANGAKEGVELL

SIKAKQLGVEITQNALFTLFTSFDENLYLAASELNKFSGLRVDEKTIEQYCYSLNTGSFESFFDKILKKQ

DFKSELEKILDNFNEIALINSLYNSFYRLFKIALYAKINGKIDFKELLGYTPPPQVGQNLSSQAFSLKIE

QYKEIFTLLLKSEYELKTNPKLVKKEFLISNLLKLARILKN

>YP\_002344058.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKTALTKTYTKDIQNSCLNSKKIVLSLATISFLASCTHATLTPEIKTYEETNRHAKARSGLQSRNSNNE

TINNLQTLTKTISDTGNTLVIESSGTITISNDGQQAVNFQPNSSTSTFLNKGTLIGGNNTASVQLGAANG

NNGVSIETFNNQGIIGNGSSKFGVTVFGGGSKDNPKSIINNFSNSGTIHSNTGESIYFGNAKISSFVNSG

TIKSKQGAGVNISQGTSIENFNNTGTGIIEGKRMGVNVRSTINTFVNDGLIAATNDGIQINANVKTLINK

GTIKGDAISIRSLGGTIETLTNEGIMYGKSAGIYMNRSLVKTLTNSGTINQNNSATWSAGIKLENGSIIE

NIINTGSIRSNAFGISVTGGKFGTLTIKDGGMVYGKYSAIGVGRSQTLGDLYIDGRSNNGTVSGIYSEEH

GILLENNSRTQKIELKNGGIIKGNIDGIRLINSASLSGEMILSGEGSRVEGGRGVGILNRSGKIEGSIKV

EDGATVTATSNRAIANSGSGSITGGITVSGKNTKLEGNIINTGNASIGSDIKIEGGAKVEGGLVNQGNGS

ISGSVQVSGGSSIDSITNEGNGAISGSITVYKDSKLDSITNTSTSSTGISGSITNNSDNKLEISNSGNIG

GKIESTGSADMVISNSNGGTISGGISSSGSGSTSISNSQGSTINNGITVSGSAQVEISNQGSVGKDENGN

TVTNNGSGSVGIKDWLVSTDKNTGKLNTVVIGGSRAFNVKVENITVDQSNVDLEELNDINNIISGVNQNN

IGNIGTNGSGEISLSFDPITGKLTTDFNLNASISGATFRSLISTTSRRSTFIDNVMGNSMQSFALASSSK

SQSIAMSEKGNLYADASDYIKSDLNNGSYGSNKEHSLFILPYTSSQNVELSLNEESKGHTKGTIIGYSTL

KDSGIYGVYAGYEDTKMGSTYFDINNRTYYAGLKYFNTLFTTEKGQEVYIKAQGKAALIKNDLTEKIGNN

EAKAEPNSYAYGVNTALGMNFISNKDIFSPEIGLAYEGGYTEAFSMKDTIGQATVKGGERTYANYLNLFS

TKTSLTWFRDWLPNLKTSVELGAKFNINPKVEAEARFGNIKVSDEFDLPRVQKFVSTSFIVPVNEAFYFS

LNYNGMFDKDGNTHTGFAQFNYLW

>YP\_002344057.1 hydrogenase nickel incorporation protein HypA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHELSIVESLIELCEENALNNKAYNVQEIYVKIGRLSGIEVDLFKRCFETFKENSNICKNAKLFIELAPL

EILCLKCDQTSILEENVFKCPKCQSIEYKIIQGEDLHLMRLVMK

>YP\_002344056.1 hydrogenase isoenzymes formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNISLAHGGGGEEMNELLTKLFKIFDNEILNANNDAAILGNLALSTDSFVLSPIFLDEEVNIGKLCVCG

SINDVLMVGAKPKYLSLGLILEEGFELEKLERILKSIKEECEKCGVMLVCGDTKVVPKGKADEIYINTTA

LGEIISKKESKNIKAGLSILLSGDIGRHGASVLIKRNELEADIKSDCKALNKEVLELLEKDIKVVAMRDA

TRGGLSAVLNEWAKQSGNDLLIFEEKIIVQDEVLGLCELFGYEAYELANEGTFILCVEKEDELKALEILK

KYNVNASIIGEVLEEKKARVILQNAYGAKRFLESPKGELLPRIC

>YP\_002344055.1 hydrogenase isoenzymes formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFIDEFRDKESILALKKLIEQELKNPINIMEICGGHTHSIMKYALPSILPKEINFIHGPGCPVCVMPRV

RIDTAIKLASMKDTIFCTLGDLLRVPGSEISLLDLRAKGADVRALYSPLEVLEIAKQNLNKNIIFFAIGF

ETTTPMSALLLQKVIEEKINNVFFHINHITVPAPVEAIMNDENVKINAFLGPSHVSVITGYGIYEPLAAK

FKTPIAVSGFEPVDILESVLNIIKQSNEGTFKVYNQYKRAVSKEGNVKAQNLVKKYFRVCDFEFRGLGLI

KDGGLELKEEFSAYDASKKFDCTVQSKNESKACICGQILRGLAKPYDCKVFGKACTPRSPIGSCMVSGEG

ACAAYYKYSKVNA

>YP\_002344054.1 hydrogenase isoenzymes formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCLSIPSEILEIDELNNALVQTLGVKRKVNLDLIDEPLKQGDYVLIHVGVAMEKIDKEAALESIKTYQEI

VEKMNSGEIKSDEGDLGLNEFHR

>YP\_002344053.1 hydrogenase isoenzymes formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCKDCGCSINSSHTHGHHHDHHHENPSLKEGKTIEVISKILSKNDEEAKHNRAHFNEANTLCINLMSSPG

SGKTTLLESTIKALKNELKIAVIEGDLETNNDALRVKNAGALAYQITTGQSCHLDAFMVHEALHHLAIDD

VDLLFIENVGNLVCPASYDLGEHLNVVLLSITEGSDKPQKYPVMFKKADIVLITKADLAHHFDFDIKEAT

RLIKELNPRADIITLDAKNGTNMELWYKVLKLKKELF

>YP\_002344052.1 carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCHLGYKIKISGLVQGVGFRPLVYELALKSKLFGEVRNDGFGVEIILACTQKECENFIENLKNHLPPLAR

IDQLIITQISISNYENFSITPSLENTKSTPMLSDFAFCKECKKEFFDEKNPRFLYPFITCTHCGPRFSII

KSLPYDRAHTSMQELLMCEFCKSEYEDPKNRRFHAQPISCPKCKINVFLKNPKGEILAKDQEAFMQSAKF

LKEGKILAIKGIGGFHLMCDAFNEEALKTLRLRKNRPKKPFALMCKDLQSAKELAFIDEKEEALLGGVLA

PIVILKAKKAFSLIAPDVDKIGIMLAYTPLHLLLFEYFKGSLVATSANLSGESIIKDEFNLCKKLDKVFD

FYLDYDREIINASDDSIAQVVNGETMFLRTSRGLNPFYLERNFNKKGTFLALGAELKNEFVIFYENKLLI

SPYIGDLKSLDVHERFFKLLEFFKQNYDLKFDAILCDKHPHFSYAKEFEERIKISHHYAHFCAAYFEYEE

NFAKDEKALAFICDGTGYGEDGKIWGGEVFVGNLKEYERIAHFENFTLINSDIKNIQNLALSLIFHYDLE

DKAKDFLAKIPKIKLKNLKKIYSHSNLQTSSLGRIIDAFGSIVFNLEKSSYEAQVGLMCEAFYDKNLDFS

YKLFVEKGQVNFKNLILGALQDEKTKAITGMFNALANFIIDFSKDYDLKVLLSGGVFQNKTLLEILKAKN

FDFFIPLKYPCNDSSIALGQMVHFLNLEK

>YP\_002344051.1 hypothetical protein Cj0621 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLDFDFIYNADNDIFEYLLRFYAKNYNYILSKEENTYHFSIDADEENLKTFCDSLNFMSHSVFLKKFDV

KAGQGFNPCIPEDKEFSRFSYITHLNSNAYQEKKLLNKNEWGVFCECEFSSNLSEFEKINEENFNTFLNL

AFDLLSQEKKIYLKDKNGIYEFSLFKNEFIGDFLLPCDIKAINSVFVCSNENLKLLASLEKPLMKLRLNA

MFRKNHNLDFSDFKIRLARDLFCFALGLKLFENEYKFLSVKKIEEYQKDFYISALDEQVVVLEGFEFINA

KARELIFSKEDKNMARISYLVSRYKEKAFILELSKDYEDILLINKELNLLKLCLPKHSKELYEEIKKDEI

GARLLENFNKEFPLLDENFELQNNFYSLLGLLGRVLNLGRNLQESASELLKIADESKMPRGVKIDYRLKE

DKSFDYTRTLRSAMSFMLAGVDSANIAYGAVESLAYFLRDTYDELREKKQSDLALISGSLFEHKSLLKNT

LKHLKNCQLSDVPLRI

>YP\_002344050.1 hypothetical protein Cj0620 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARQSSSLKSFIYKDECYFYSKKCIKTLRLRLNEKGEFVLSIPYFCTFKSVYEFLDKSSSWMNEAKKRFE

KKVLKDDELIFLAKKYKIIFDENTKKTYFDKDKIICQNKAKLDLFLRQNAKKIFTFYLKKWSQKTGLFYT

HLSIKNMKTRWGSCNHNKAYVNLNLKLIQKSLRAIEYVILHEISHLKFPNHSKEFYTFIEHFMSDFRQRE

KEFLS

>YP\_002344049.1 MATE family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKQLSLTRLSFPIFWDLLSKYLTVIINTAMVSHYSNFLVGAMGAGNQILDLFITIFSFLSVGCSVLIA

QAIGAKDHVLARKVIHQSLFLNALLGFVCGVLILWHGEYLLYLLKIPQELLKDSEIYLHMLAICLFFDAI

GIVLAAIVRVYNMAYWVMFIGFLMDIVVICGNYYVLHYTKSELFGVGLSNIFARIVAIVALFAILFYKLK

IHLKIKEMIKLEKEVLKKVLNIGGFSAGENLLWIVQYTIAFAFVASLGEASLSVQTIYFQISMLIMLIGQ

AISIANEIIVGKLIGARYENIAYKHAWRALYFSVIASALVAFLNYLCQDFTMQILGLKEELKNLMIPLFA

LSIFLEISRTFNIVMVNSLRASGDAKFPFFSGLVFMMGVSLPVGYVLCFHFNLGILGVWIGFCADEFLRG

MVNSYRWKSKKWQGKALV

>YP\_002344046.1 phosphate ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIAKTTNLNLFYGKKQALFDINMQIEQNKITALIGASGCGKSTFLRCFNRMNDKIAKIDGLVEIKGKDVK

NQDVVALRKNVGMVFQQPNVFVKSIYENISYAPKLHGMIKNKDEEEALVVDCLQKVGLFEEVKDKLKQNA

LALSGGQQQRLCIARALAIKPKLLLLDEPTSALDPISSGVIEELLKELSHNLSMIMVTHNMQQGKRVADY

TAFFHLGELIEFGESKEFFENPKQEKTKAYLSGAFG

>YP\_002344045.1 phosphate ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLFKKRQKASKSFKRLCKMGLYINLIFLCIFLGSVAYLGFPAFKQTYIFVEANRNSPAYDLLSRAEQR

KIRTGQITEKSWLLANSEVDQYMKQKYNRLSEKQRTLVDDLMQKGEIELKFNSNFFLNGDSKSPENSGIL

SSVVGTLLVMLVCMVVSVPIGVAAAIYLEEFAPQNILTHFIEVCINNLASIPSILFGLLGLGVFINLFGM

PRSSALVGGLTLAIMSLPIIIVSTKAALKSVDINMKNAAYALGMTKVQMVKGIMLPLAMPMILTGSILTL

AGAIGETAPLMIIGMIAFIPDVASSIFDSTSVLPAQIYSWSAMPERAFLERTAAGIIVLLGLLVVLNLSA

ILLRKYFQGKLK

>YP\_002344044.1 phosphate ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKEKIIKFALFLCAFVSVIVSFAIMLTILIEALKFFQKESVVTFLFSSQWAADAAFMNADGTSKQGVFG

ALSLFWGTFYISLIAMLTALPLGVMCAIYLGVFAGKKSKNYLKPILEIIAGIPTVVFGFFAAIVVAPFIV

WFFSLFGIQASFQSALGAGFIMGIMIVPIVASLSQDCIEAVSEKRINGAYALGMTKKEVVFAVILPEAIP

GIVAACLLGLSRALGETMIVVMAASLRPNLTLNFLEDMTTVTVKIVEALSGDQAFDSSLALSAFSLGLVL

FVITLIINMFSVYLINRFHKRKNL

>YP\_002344043.1 phosphate ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILSLSVTSLALCGALNAVDLKIAGSSTVYPFTSFVAEEYASIKNTKTPIVESLGTGGGFKVFCEGTT

DISNASRPMKLSEFETCKKAGVTDIVGMMIGYDGIVLAQNKTNAPLNITKKELFLALAKEIPQNGKLIPN

PYTNWNQINKNLPNRKISVYGPPSSSGTRDTIEELVMSDVSKKIPEYKGEYKTIRQDGAYIPSGENDNLI

VSKLTIDKDAFGIFGYSFLVSNSDKINAANIDGVTPSEESIADEKYELARSLFIYINAKKNPKEAFDFAK

IYMSDDLAKSGGELEKIGLVPLSDDKLKASQKHVEDRKILNDELVKAGKVF

>YP\_002344042.1 ferritin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLSKEVVKLLNEQINKEMYAANLYLSMSSWCYENSLDGAGAFLFAHASEESDHAKKLITYLNETDSHVEL

QEVKQPEQNFKSLLDVFEKTYEHEQFITKSINTLVEHMLTHKDYSTFNFLQWYVSEQHEEEALFRGIVDK

IKLIGEHGNGLYLADQYIKNIALSRKK

>YP\_002344041.1 acyltransferase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTYFSLEFSILMIAFFAIYWTFKNDYKIQNILILIFSYIIYILINPYFALVLFIYTFFIHYFALLIFVRR

KRYIFATCMAFIILNLCFFKYFPSIKGSVDEILNFFGLEFLNIDLVLPIGISFYTFTSITYLVEVYQKRR

LESFLNLATFLSFFPTLLSGPIMRSSFFFEQAYQKREFKHANLIIILLVFGIVKKVLIANYLGIYAKSIL

DFPQSYNFIQLLSAIYAYAIQIYCDFSGYVDLVCAFALMLGFTLPPNFNMPYLAKNLKDFWARWHISLST

FIRDYIYIPLGGNRKGIPRTVANILIAFILSGMWHGNTLAFIVWGLLHGIGIVFIHLLTLSKFSLQKIPA

LGRFLTFQFVCFTWIFFYYSKNLEDAIEYFKACYYNFFQIPSYNDIYMLVAFGVLFMIYPLFINFKEYCI

KILNLTPFLLKPFIIAFILLLVFAFMPDGIPDFIYSSF

>YP\_002344040.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSVVRFFFILIIVLGLVVVVMNQSISSYIEQKYHFAFYPHNDLLKEANGFKIKLEQIRAILSNEPLPQTN

EETTNQENKSIDENLSKIDKVLNTLENDENTSHKETNPTLIQDANISFIDNTKLELQNGDEFLFIGDSLM

QGVAIALNRDLRNLNLKVTDLSKQNTGLSYKSYFDWSKATNEAFIKNSNIKYLVVLLGANDPWDIKKGGN

YHRFGSLSWIDIYTSRVDEIIKIAKKHKAKVFWFEIPPVKKEDLNKKIQVLNKIYSDEILKNKEIFINTK

LFFSVNDEYSAYIKDENNRSIKVRTDDGVHFTPSGAREMSKLLLEHIKLKEENASK

>YP\_002344039.1 hypothetical protein Cj0609c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLVNKFKVILLFFIIFTSSYAQNLNTNDTIDSILNQNKNHSALTSYVSKKDLKNLEKKLEKNQNIGIRIY

GDSHMAADFFPRVIRGYLIRSNSIGFAYPLQPKYQQNLNLVYSYKNFEILNSRNPANAGHNFPLGGIIAK

AKTKGAKINLDTTLDKKNFKIGFLFKAKQNTNAFSIKDAKNQSYELRTTQINKWSYKELELDLPLQISAL

QKDAELGGYFITNKDNNVFLDTIAINGAKSDLWLSWNQEVVKKELELLHNDLIILAYGSNDALFKGFEKQ

KFKNNLKKWISILKTYNKNAVIMLISPPTVVQKQGKNYKLAPDFFTIRKALYEVAKEEKTLIFDMHQFMQ

DSGGKNKWIEQKLSLNDVHLTIKGYELMAKKLLEDLKNIIDY

>YP\_002344038.1 outer membrane efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIILSIFLAFFLSACGVKLSLPKEVDLTQEQMKDLNLTYDWYRSYDNAKLNEFLNFVLLNNSDINIARK

TLLSALARADLIDYDLYPTLSGNLGFGADKDLNSGKQSKNFNNSLNLSYELDIYGKLRDSASASEFSAKA

SAYDLENLKISMINTALNDVFELAYFNDVDKLLRAYLSNLEQMKELYNYKYKLGKIEELDLLNIEQSLLR

AKQNLLSNDQNRNLLIKNLQDLLARQEGFAYIEYFKTLSLNDFKTLSPDFNIPLKALAYRADVRSKLNSL

KSAFKDYSSMQKSILPSISLGGALSGSDKKIDDSFKFEILSGNVKISLPFLDYGRVKQNIKISQFAYEQL

LISYEQVLQSAMNEFALNYKDYQSDTLLLQNLQNINIKQELITKAYYEKYILGKSELKDYLDANNTLNST

QQEFLRARFNLLKTINSYYQITALSFNNENLEFPKY

>YP\_002344037.1 macrolide export ATP-binding protein/permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFLKNICKNIGENAILKNVSLSIEKGEFVAIIGQSGSGKTSLLNIIGTLDTPSSGTYVFDEYEVTKLNN

DEKARLRREKIGFIFQRYNLLSLLSAKENVSLPAVYAGKNLQERSQNAKKLLNDLELAHKLDSKPNELSG

GQQQRVSIARALINGGELILADEPTGALDSKSGIMVLEILQKLNEQGHTIVLVTHDPKIAAQAKRVIEIK

DGEILSDTKKEKAQEKLILKTMPKEKKTLTLLKNQAFECFKIAYSSILAHKLRSILTMLGIIIGIASVVC

VVALGLGSQAKVLESIARLGTNTIEIRPGKGFGDLRSGKTRLNFSDLETLRSLEYLEAVDAHSNTSGVAT

YTNISLSARAEGVGVNNFAIEGLRIDAGRILNNDDVKNSTNVAVLDFNAKKNLFPDEKSENILGRVVLFN

SQPFKIIGVLQKDTDKPIEDNVVRFYIPYTTLMNKLTGDRNLREIIVKVKDDVSSTLAENAIIRILEIKR

GQKDFFTFNSDTFKQAITANKRTTTILTACVAVIALIVGGIGVMNIMLVSVSERTREIGIRMAIGARRED

IMMQFLIEAVMICTIGAILGVILSIFVIFAFNTLSTDFPMILNAYSVLLGLLSSMFIGVVFGFFPARNAA

NLNPISALSKE

>YP\_002344036.1 secretion protein HlyD [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKKIVLIILIAILGSVGAYFIFFNNDEKISYLTQKIQKKDISQTIEAVGKVYAKDQVDVGAQVSGQIIK

LYVDVGTHVKQGDLIAQIDKDKQQNDLDITKAQLESAKANLESKKVALEIANKQYQREQKLYAAKASSLE

NLETQKNNYYTLKANVAELNAQVVQLEITLKNAQKDLGYTTITAPMDGVVINVAVDEGQTVNANQNTPTI

VRIANLDEMEVRMEIAEADVSKIKVGTELDFSLLNDPQKTYHAKIASIDPADTEVSDSSTSSSSSSSSSS

SSSSSNAIYYYAKFYVANKDDFLRIGMSIQNEIVVASAKAVLAVPTYAIKSDPKGYYVEILENQKAVKKY

VKLGIKDSINTQILEGVNEDEELIVSSSADGLAPKMKLRF

>YP\_002344035.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKLVENLALKYYDKVVDLRHQIHMHPELEFEEENTAHLVCKILDEFGIKYQKNIAKTGILAIIEGKKKS

QKKPKCVLLRADMDALPVQEKTNLSYASKIDGKMHACGHDGHTAGLLGAALILNELKDEFCGTIKFMFQP

AEEGSGGAKPMIESGVLENPYVDAVFGCHLWGPLLENTAQIVSGEMMAGTDIFDLEFIGRGGHGAHPHTC

IDPIIMTTQFVNNIQSVISRRLAPYEAGVITVGQICAGTTYNVIPTNAYLKGTVRFLNDKTQDILKSSLE

EVAAATAKSNGGDYKLKYTKEFPPLINDEKAVLIARKAFAKVLGEENIIVSSKPDMGAEDFAFLTRERMG

AYVFVGISKDLNHPALHHSSTFCWDDENLKVLMQGDVMMALEFLNL

>YP\_002344034.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQENNSPKAQAVVKKNEIYVSVKRKKSTIEYEKDLKNLQIELLKFQNHVKAKGLKVLILIEGRDAAGKGG

AIKRLIEHLNPRGCRVVALEKPSDVEKTQWYFQRYIAHLPSAGEIVIFDRSWYNRAGVEPVMGFCTPQQH

KDFLREVPLFENMISNSDIIFFKFYFSVSKDEQKKRFEKRRSDPLKQYKLSPVDQKSQELWDKYTLAKYS

MLLASNTPTCPWTIISSDDKKKARLNLLRFILSKVEYPNKKTGDFSKIDAKLVRSGEEEIRKMEANLEKL

DSKKADEKIKDLD

>YP\_002344033.1 thiol:disulfide interchange protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRIFGIILLSFCLCFASILSLNEAFNVKSNSYNNSISIDIELGKDIYLYSNKLKLYINEKDISSLINLPQ

SSTRGNENVYYQKLNLALPNLLLERFAKNTTNLIKLEFQGCSEQGLCYNPQTWYFDLISKKDAFEISKPY

KAQKTDKKTKIESEESSIANFLATDNFFWILLSFFGYGLLLSLTPCILPMIPILSSLIVAKSNAKFSKKY

SFFLSFIYVFFMSLAYAIAGVIASFLGASIQGILQKPIILILFALIFIAFAFAMFGAFRFELPLRFQTFI

HKKSEKGKGVVGIAIMGFLSALIVGPCVAAPLAGALIYIANTGNALLGGSALFIMSFGMGIPLLFIGLGL

GFIKPGFWMEKVKIFFGFVMLAMAIWILSRIIEENYILIAYGILGVFFSVFMGIFEKSFTIISKIKKSIL

ILILAYSLSIFLGGLFGAKNFLNPLNFNTISASKHALSYDYINNFEQLKQEIQTNTKPIMLDFTASWCEN

CKLLDELTFSDERIIQKMQNYKLIKVDVSENNNEQIKTMKEFNVFGPPVLIFFENGKEKLKITGFISADD

LLKKIEP

>YP\_002344032.1 MOSC-domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIQSLQIGKIKNYKNFQSAFIKDTYLEETQIDFLGVLDDQIADKIHHGGYHKAIFTNSCQNYPIWERFL

NKKLNFGSMGENLSIDGLCEQNVCIGDIHQFSNAILQVSEPRKPCVKISKIHNNPNFTHEIFKTGLSGWY

YKVLQVGQIRKHENIKILEKNSTSLSVFELNQLFYSPHQILKQNPNLLDKLEKLNSLISQNWHETIHKRL

KNTYDISYMDSL

>YP\_002344031.1 sodium-dependent transmembrane transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQRQTWSSTLTYILTVAGATIGFGATWRFPYLVGENGGGAYVLVFCIAMIIIGIPVILVENVIGRKAMTN

SVDAFKQKWQSIGYMGLLGSFGIMAYYMVLGGWVLVYIWELTLGNFSLANVVSKEFTHQFFNDKIAFNPL

GVGIFTTVFVIINYIILKRGIIDGIEKSVKFLMPLLFICLIIVVGRNLTLDGAMAGVKFYLEPDFSKILS

PKLLIDVLGQVFFALSLGFGVMITLSSHLNKNENMAKTAIYTGVLNTIIAVLAGFMIFPALFSAGLAPDS

GPSLVFETLPIAFSHIHFGTIVCILFFVLLLIAALTTSLPIYQVIISVLEEKFKYSKNLSINLTLGFIFI

LGNLPCILTYGPWRDIVIIKGKNIFDSFDFISGNILFVLTAFFCCIYVGWILGKQESLKELSNNNTLKSS

WFGIWFYYVKYIVPLIILIIFIYGILN

>YP\_002344030.1 hypothetical protein Cj0600 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFIKTISPIQKINFNGFEFYIKRDDLLGEINGNKARKLAFYIHQRYPKNQSFVSYGGSQSNALAALSIF

AKQRSYKLVFACEKISTFLKNNPCGNYALALENGVDFVENIHSLSLKQFALSLCKKDDVFIEQGIANLEA

QYGYMELAQEIQMQSQSLKLDFDIFLPSGTGTSAAFLAKYSKFKVFTCACVGDIKYLKKQILTLDPSYDF

SNLEFLTSDKKYHFAKPYKEFYELYMDLKLKCNIEFDLLYDILGLSIALKQEWKKPLLYIHQGGILGNST

MLERYKFKKSV

>YP\_002344029.1 OmpA family membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNESKEDSNFWIAYADLMAGLLFVFILLIGAIVVKYVLTQSDLKEIKDNLNKQEARLEESKEELRNKEA

IVFKLSSDLNNASSALNLANSQKAELEANITNYKQLSKDLNSTLDNKDKQILILLGQLEKKDEELKNLQE

DFQKAKEKVQNLGLIRENLSKELQSKLDNNITIDEKIGSISLPAEVLFDKDSYVLKNEAKASLRKILSEY

FDAILEDPKIFSNIENIIIEGHTDSDGSYIYNLDLSQKRAYEVMNFIYTFYKSDKLQKLLMASGRSFSDP

VFVNGVEDKDKSRRIEIKFSIKNDNALKDVEKFFEFH

>YP\_002344028.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDIKSDEISELVLPEGKDARGSLVYFKIIFIPAFLYILILLGYFNVIDFKVELHTVIMTGVIFFTALIFA

RHSAEYAYSIFEQQKDEFKQALKRHIMRHFLAIGKDTKSNANFDDFAYTYIKGARNENFASIGSAIFPMM

GILGTFISIAFSMPNFSSSDTAALEQEIADLLSGVGTAFYVSIYGIFLALWWMFFEKYGKSKIDRLLNRQ

KNATSGFFWTKEELDQRYLTESLQHFEKIGAIFKQVSNDDFFAELDHAIDRKFGIFQDMLNVEEKAIRLS

SEHIKQTMGELSKAQRDQRDLGKLYSEMLNGIGLLNQNLKEINTRMSEQYNRLLDISSDKIHHLDKTLSA

FDEKIERFGKNFELYEKAMLESQEKVFEGFKASLFEGMHKFKEVYEEEKSIDAKIKMMDELKKEMKALDE

ETSQMMSKLSGDENQNKENETKQIEDFSESKTEENQDEIQAEISKQESNDELKNEDKENK

>YP\_002344027.1 fructose-bisphosphate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGVLDIVKAGVISGDELNKIYDYAKAEGFAIPAVNVVGTDSINAVLEAAKKVNSPVIIQFSNGGAKFYAG

KNCPNGEVLGAISGAKHVHLLAKAYGVPVILHTDHAARKLLPWIDGLIEANAQYKKTHGQALFSSHMLDL

SEESLEENLSTCEVYLQKLDALGVALEIELGCTGGEEDGVDNTGIDNSKLYTQPEDVALAYERLGKISDK

FSIAASFGNVHGVYKPGNVSLQPEILKNSQKFVKDKFALNSDKPINFVFHGGSGSELKDIKNAVSYGVIK

MNIDTDTQWAFWDGVREYELKNRAYLQGQIGNPEGDDKPNKKYYDPRVWLRSGEESMIKRLEIAFEDLNC

INKN

>YP\_002344026.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFSLVAATLIAGVVLNVNAATVATVNGKSISDTEVSEFFAPMLRGQDFKTLPDNQKKALIQQYIMQDL

ILQDAKKQNLEKDPLYTKELDRAKDAILVNVYQEKILNTIKIDAAKVKAFYDQNKDKYVKPARVQAKHIL

VATEKEAKDIINELKGLKGKELDAKFSELAKEKSIDPGSKNQGGELGWFDQSTMVKPFTDAAFALKNGTI

TTTPVKTNFGYHVILKENSQAKGQIKFDEVKQGIENGLKFEEFKKVINQKGQDLLNSAKVEYK

>YP\_002344025.1 endonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRNLEIKELFLKHFDKPVTELKFSNLYELLVCVMLSAQCTDKRVNLITPDLFKAYPDIKSLANANLSSL

KTYIQTCSFFNNKAQNLIKMAKAVCENFDGEIPLDEQNLKSLAGVGQKTAHVVLIEWCGANFMAVDTHVF

RVSHRLGLSKAKTPEATEEDLTRTFKDNLNYLHQAMVLFGRYTCKAKKPLCKECFLNHLCKSKDKELK

>YP\_002344024.1 DNA/RNA non-specific endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIFIFLLTISLNIFALEPYKPSADFSSYFNNINCSQILDKFFYLNCYDYKLKGTKAVAYKVEASNLKDR

QIKKRPRFEDDTNIPKKYRTTWSNYKNSGYTRGHTAPNASFSFSKAAQNSVFLMSNITPQNAQINNKIWN

EIEQRERNLALEFQSIEVLNLVLYDKEPQYIKNRIAIPSFYVKIIKTPKFKECYQAPNHEVNDENIKQYQ

INCDKF

>YP\_002344023.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEINALTITTLYIIGISAEGMTGALAAGRHKMDLFGVIFIALVTAIGGGSIRDVLLGHYPLTWVKHPEYI

ILICFCALVATKIPRVVTKLETLFLTLDAIGLVVFSILGAQIAIDQNHGFIIAVAAAVITGVFGGILRDI

LCMRIPLVFQKEIYAGIAIIAGAIYYSLIIWLELNALVCTLLTLFIGVFARLLAIKYQWSLPIFSYNEEK

>YP\_002344022.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRRLSILLAILIVINITACDSKTENYYKNLPSEAKEKAKECKESGTLSEDCINALKVGVKPTNEEGKYSP

NTPKKSDNQILEALKQNDLKKEKTTKDINQSSENNESIIIPPIAETPSEIYPSKTTENNQSSIFSDDVNM

TQEK

>YP\_002344021.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTMKITLFLSLIGIFFAACEQTKSVEYYQNHPEEAKKRSLECRHKAIISQDCVNAYKIGFPKDEWEDENI

SNP

>YP\_002344020.1 tRNA (cmo5U34)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKDELFKQSPKKQFEFDKSVASVFDDMINRSVPFYRENLELCGNLLAKILPTNASVCDLGCSSANFLIF

LANLRKDFKLFGVDNSASMLEVAKSKAKAYGLDISFFEANLCEFDFFTCDVFVANYTMQFIRPPKRQELL

DQIYKNLNSKGILIMSEKILYEDAFLSKNIIELYADYKEKQGYSKFEIAAKREALENVLIPYSQKENLNM

LEKAGFKKIESIFKWANFETFIAFKD

>YP\_002344019.1 bifunctional riboflavin kinase/FMN adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNIFTTISKINITSLAIGCFDGMHLGHLKLVKCLDENGALLVINKFKGQFLCSNRQKEEISGKKVIEVD

FESIKSLDGRDFLSFLKKEFVNLKFIVVGYDFSFGKNRAYNAKDIESLSGIKTIIVDEFSIDGIGVHASL

IKDFLSKANLQKAKEFLGRDYSIKGKMIKGQGLGSKELFATINLDCEGYFLPQNGVYVTLLKSQRKTYKS

VSFLGVRSSDENFAIESHILEELGENFTQGEFFELEFISFLRENQKFQDLKKLKNQIAKDIEQARELLRK

NDER

>YP\_002344018.1 hemolysin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRFDFFVSKRLNISRNKALELIENEEILLNGKSFKASFDVKNFLENLKKTQDLNPEDILLANELKLDLLS

EIYVSRAALKLKKFLEENDIEIKHKNCLDIGSSTGGFVQILLENQALKITALDVGSNQLHPSLRVNEKII

LHENTDLRAFKSEEKFELVTCDVSFISLINLLYYIDNLALKEIILLFKPQFEVGKNIKRDKKGVLKDDKA

ILKARMDFEKACAKLGWLLKNTQKSSIKGKEGNVEYFYYYIKN

>YP\_002344017.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLLKNSSYILTLLSLFGFLLTWQRSAFSLFFLISIFLTLFWEFFLFLKLRKNIIKEATLIKGSLFYRVS

MGDFYLYIFSFFLAIFGLVSLFLNFLNLEKIDFVFIFIILPLLMIFLKKELHLQFVDNAYNDFRIVVIAS

FFTALFYAFYGLFFTYNELLNLELFSRKIIAYKSASFVYFDFLSEFLHFVSNLKFFIFSYFGYLGFRALN

FIFDFFNFFMFCSLLAFVFNFVLKIKIKIIVLFLCFIMVLGNYFLKEQRNNALKSEQEQILLWMNNFNFL

KDNNLSLIQKEKDLFEKDLKDLREIFKKNAFEIGIWWFSKEKEDLEKRINESLK

>YP\_002344016.1 DNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKEEYLEKVALANLWMRAYYEKDEPLASDEEYDALIRELRVFEEQNKDEISKDSPTQKIAPTIQSEFKK

IAHLKRMWSMEDVFDESELRAWAKRAKCEKNFFIEPKFDGASLNLLYENGKLVSGATRGDGEVGEDITLN

VFEIENIPKNIAYKERIEIRGEVVILKDDFEKINEKRALLNQSLFANPRNAASGSLRQLDTSITKERNLK

FYPWGVGENTLNFTKHSEVMQFIRELGFLKDDFVRLCANLDEVLKAYDELLALREKKPMMMDGMVVRVDD

LALCEELGYTVKFPKFMAAFKFPALEKTTRLIGVNLQVGRSGVITPVAVLEPVNLDGVVVKSATLHNFDE

IARLDVKINDFVSVIRSGDVIPKITKVFKERREGLEMEISRPKLCPTCQSELLDEGTLIKCQNIDCEDRL

VNSIIHFVSKKCLNIDGLGENIVELLYKHKKITTLESIFHLKFNDFEGLEGFKEKKINNLLNAIEQAREC

ELFRFITALGIEHIGEVAAKKLSLSFGKEWYKQSFEAYANLEGFGEQMALSLCEFTRVNRTRIDEFYKLL

NLKIEKLEIKSDGVIFGKTFVITGTLSRPRDEFKALIEKLGGKVSGSVSKKTDYVLFGEEAGSKLSKAKE

LEVKCIDESAFNELVKE

>YP\_002344015.1 dihydropteroate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFFKINPNTDFNLLCSFINPHKMGQKIMSEKTKIHFIFIKDISTPAANILKQDALRVGAELITHKEVIT

AKITHSNALLMASKEQIQKLVVKEKLQDFGLKNLALFLQKDFLKPKKAELMAVINVNEDSFNAKSRVSEE

DFEKRLNDFLALKPEYIDIGAVSSRPGSEYCGKEEEFKRLKKVLDLIYEKNYYEQAIFSLDSFDEYCLEY

ALNKGFKLINDITSLRNLNLAKLASKYGAKYCLMHMQNNPNNMQDNPFYEDLLDEMTLFFKEKLELLESF

GVKESILDVGIGFGKSAGHNMILIKHLEHFLQFNKPLLIGASRKSVINAYFQSEIKDRLAGTLYLHLKAF

ENGASIIRVHDLYEHKQLFALAQAMDNIGV

>YP\_002344014.1 DNA polymerase III subunit delta' [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFISKIIISEDFLGIKEEMINNFGIKKLRFFIPQNEFLLDDARAVEKESYIAETEEKIIVLMADSYRIEA

QNFLLKLLEEPPKNIKFLIVIPSKNLLLPTIKSRLICEKRKVEKEVKKLDLDLKRMDLRMLFDFLQKNEN

LDKNELMDQIALLAKECVKYKDFNAEELEFFYESYELAKLNSKSGVLLATLLLNYYTKK

>YP\_002344013.1 hypothetical protein Cj0583 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDFLSFTLENIRNGGAFMAWLESRRLEWAPLMAARLKYLLEGRTFVLMCDEQRSWYEEYFLKNINSKAT

RPMLPFVSLNSLCKKKVQSSEDIALLNDLLDISFPNGYVYFYIGSASDNKSLIAKSRDDSLLWLFDEQLQ

DSFYLNSKDKDLDIKLISLYQLFDVSLDAILFSKVQLG

>YP\_002344012.1 aspartatokinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIVQKYGGTSVGTLERIEAVANRVIQSAQQGNQLVVVVSAMSGVTNTLIEQAEYFSKTPNGKDMDMLLS

SGERVTSALLSIALNEKGCPAISFSGRKAGIITDSVFTKARIHHIDTKAIKSELQNGKIVVIAGFQGVDE

EGNVTTLGRGGSDLSAVAVAGALNADLCEIYTDVDGVYTTDPRIEPKAKKLDKISYEEMLELASLGAKVL

QNRSVELAKKLNVNLVTRSSFNNNEGTMITKEDGMEQALVSGIALDKNQARVTLRNIEDKPGIAAEIFSV

LANENINVDMIIQNVGVDGATNLGFTVPQNELELAKNAMQKILSSKTTIESDSAVLKVSIVGVGMKSHSG

VASKAFKALADEGINIGMISTSEIKISMIVHEKYGELAVRALHECYGLDK

>YP\_002344011.1 RNA pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENEKNYRPNVAAIVLSSSYPFECKIFIARRSDMDNIWQFPQGGIDKGESVKNALFRELKEEIGTDEVEI

IAEYPEWLSYDFPSKIVKKMYPYDGQIQKYFLVRLKHGATININTKHPEFDDYQFVSVKQIFEMINHFKK

NIYVRVIKYFEEKGYI

>YP\_002344010.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHFYIHIPFCESKCNYCAFTSLKKNDYEKAYFKALKEDIVFQLKQFNIQSNQIKTLFIGGGTPSCVNAYN

YEDIFKILYPLLDKNVEISCEANPNSATLNWLKNMKNLGVNRISFGVQSFHPKKLHFLGRIHNQEMIIKT

LENANKVGFKNINLDLIYDTKLDNKKMLEFELLHLKQIKDLITHLSAYNLTIESNTAFAKKEHFKKNAPN

LMKFFIKQLLELDFFQYEISNFSKTKAQICKHNLAYWQGKNYLACGLSAVGFYENKRFYTAKNLKNYIEN

PTFRSIEQLSSKDLNLEHLFLGLRSIVGIDETKLNQWQKDKINILLKEKKLFYKNKRYFNPNFLISDELA

LYLSS

>YP\_002344009.1 Sec-independent translocase TatB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSFGEIIVILVVAILVLGPDKLPEAIVQIAKILKAVKRNIDDAKSSIEKEIRINDLKEEAKKYKDEFSST

NENIRKKLSFEEFDDLKRDILDKTKVDLTFDSRDDKVKNNLSGQNLNTEEKPNLSKLETQDKNGKINV

>YP\_002344008.1 Sec-independent protein translocase TatC [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFEELRPHLIELRKRLFISVACIVVMFIVCFALRSYILDILKAPLIAVLPEVAKHVNVIEVQEALFTAMK

VSFFAAFIFSLPVIFWQFWKFVAPGLYDNEKRLVVPFVSFASIMFAFGACFCYFVVVPLAFKFLINFGLN

EDFNPVITIGTYVDFFTKVVVAFGLAFEMPVIAFFFAKIGLIDDSFLKRHFRIAVLVIFVFSAFMTPPDV

LSQFLMAGPLCGLYGLSILIVQKVNPAPKDKESDE

>YP\_002344007.1 S-adenosylmethionine--tRNA ribosyltransferase-isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKDLLLSSYDYTLANELIANYPTNPKEDARLLVFDRKNKEIFHTTFKNLQDFLPNCAIFFNDTKVIKAR

IYGNKASGGKIELFLHQPFLNSHNPLFLAQIKGRIKKDEILYFKEDLKVRVVELLNDGLRKVQFFQNDKT

LDTSNLYNLLDKIGHIPLPPYIKREDEKSDLKDYQSIFAKNLGAVAAPTASLHFSETMLENLRKKHEIYH

LTLHVGAGTFKSVECENIQEHKMHSEFFNIPQQACEIIDSKQAILGVGTTVTRTIEYYTRTKTKNGFCDL

FLHPQNPPIRQNHLLTNFHLPKSTLIMLVSAFIGREQCLKLYELAIKEKYRFYSYGDAMLIL

>YP\_002344006.1 UDP-3-O-acylglucosamine N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLSEIAEFLSLEYKGEDIEISALNSLLKANFTELTYCDGEKNTKDIPHTGAAAILVSKEYENLVPKDTK

ALITQSPHLSFAFLSKLFAKPLISTAKEKVQNIAKSARIMPNVYIGDNVNIGENVIIMAGAYIGDNVSIG

DESIIHPNVVIYNDTKIGKKCHLLANCVIGSDGFGYAHNKNGEHYKIYHNGNVVLEDFVEVGACTTIDRA

VFDSTIIKAGTKVDNLVQIGHNCNIGQNCIIVAQTGISGSSELGRNVIMGGQSATSGHLKIGDFSTIAAR

GGVSKNLEGGRVYGGFPIMLQKDWLKLQAKIAINFKEKSQD

>YP\_002344005.1 acetolactate synthase 3 regulatory subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRRVLSVIVLNEHGVLSRIVGLFSGRGYNIDSLTVAPLENKEFSRINIVTSGNERTFEQIVKQLHKLIPT

YKVIESEEFIDKEMALVKIPLNENLGGLDAVLKAYNGTIANSNENFLFLMVADDANRIDNFLKTIKKYNP

SDIVRSGSVLMEIK

>YP\_002344004.1 acetolactate synthase 3 catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKELSGSAMICEALKEENVKIVFGYPGGAALNIYDEIYNQKYFKHILVRHEQAALHAADAYARMSGEVGV

AIVTSGPGFTNTITGLATAYSDSIPLVLISGQVANSLIGTDAFQEIDAVGISRPCVKHNYLVTCIEEFPR

ILKEAFYIARSGRPGPVHIDVPKDVSATLGLWEYSKEISMKTYKPVYKGNSKQIKKFAELLKEAKRPLFY

LGGGCISSNASEQIRELIKFTKIPAVETLMALGTLRSDDVFNLKMAGMHGSYAANMALSECDLLVSVGAR

FDDRITGKTSEFAKHATIVHVDIDPSSISKIINAHYPIVGDIKEVLKELLEELKKENFNTTFKEWHETLK

RYNELYPLSYEDSNEILKPQWVIEECAKMAPDARIITDVGQHQMWVAQFYPFNYPRQLATSGGQGTMGYS

LPAALGAKLAVGEEVVINFVGDGSVLMNIQELMTAYEYGIKAINIILNNAFLGMVRQWQSMFYKEHFSQT

DLSTQPDFIKIAQGFGCEGYEISNKEEFIQAFSQALKSDKTSLLNVKIDRFEDVLPMVPAGGAIYNMILP

KAKDRQ

>YP\_002344003.1 GatB/Yqey family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLKEQILNDIKEAMKQKDDFKRDSLRTLNAAFKQIEVDERIELDNERIYKIIASEIKKRKDVIELYLKA

NREDLAQKEQNEISLFEIYLPKQLSDEELTLALKQLIEELGVSSLKEQGLVMKEAKIKLGASVDGKRLNL

ALKELLQ

>YP\_002344002.1 bifunctional 3,4-dihydroxy-2-butanone 4-phosphate synthase/GTP cyclohydrolase II protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFVSVEQAIKDLQAGKMLVMVDAEDRENEGDLIFPAQFSTQEKVNFMIKEARGVVCVALDETLAKKFEL

PLMVPKNTSNHETAFTITVDAKDATTGVSAYERNMTIQIFADDNAKASDFVRPGHINPLIAKKGGVLERT

GHTEGTVDLCKLAGLKGACVICEIVKDNGDMARREDLEIFCQKHDLNMIAVSDLIEYRLKHESLIKLEEK

SQSVLAGFKAEKFIFSDHNQTQHIAFCFKDIKKCENVKFHISGSDFELLTSDKFSKLLEQIKFLSENGGV

IVFMQGEKSSTTQYKNYGIGAQILRYFGIEEIKLLSQSCDKDYIGLEGFGLNLKACNFN

>YP\_002344001.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEYDKLSIRLVQILSKFNNGESLSAQELAQEFNVDTRTIQRDLNERLTFMPIKKENGRYVLESFALGKL

SFKDIQNFATLSGIAELYPKLDQGFIVDLLSHRVNKVLMVKNEGFQKVDYELFKDLSVAILKHNVLNFFY

KEKERQIKPYKLVNYKGIWYLLGDENDKLKHFNLDKISKLRTKNENFIPNEKLEEQIQNDPNIWLGESKE

VILKLDKNAKEYFFRKEILSNYQIIDKDETSYTLSTQVSYEDEILHLVKQWIPYIKILAPIELKIRLEDI

LKSYLNNLSK

>YP\_002344000.1 ATP/GTP binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNHLLILYNPYYQEDVIKQHLSILQEKSQVAFGKIKSKLNDQEKQNSLEEIYQSTNEENFLQLFLSDYAN

LFVAKVVKISKNVDESLIPSYYKEKNLEVEDFFIISDLRELVREDFSRLRDKFLANFITPNDHTYAIYGN

HYTYPLPVRLKEECSYFLGDEKHYLSVYKSKEYLAMQENFIRFVFGKRIFYLLHSDSISNIIHAELELLQ

SENDLLNDFTSIIVKYSKTLEYEIYAFAKKVLLKACMKDPSLYDLAYNVQGKSFILKDFFTQKPNLGSIK

FLLRHENIQCHLGKSLTQFINYPFSKSLTIIQEIRNEAVHAKAPSLNEVKKLRNEILGIEGVSLLKRILT

HKEIS

>YP\_002343997.1 hypothetical protein Cj0567 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKIQENTKIEKAILAEKQQIFLIQNKLSEIEKNIKE

>YP\_002343996.1 hypothetical protein Cj0566 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENICQFIIENIDKNSLNTKKIKLVFNMQEQEITTISKIFKVSSEHIIAFYDTSTSFNYFSKTTGICFTG

KEVIFKRKEDEVLMKINYEDFKEANKSLPEKTTTLQDIKFPISFHNLGTSYLSFDDFKKKNYIEENDELI

INFLHILTSKNNIESFKNESMFPQALEKTNESIKENYIKVIIKIILDQYGFLDEKRSIKIFALMNKINVA

SETRYKIQDFLHNKHSSFEDLLNIIKQESRFMQFKYILISLIKDLIDIDFEDNKIYNFLYENKDIFKIKD

LKEIYWVKEIIKKEYQIILDDNKEIQQIFNFISETATKNNISLNGLHLSGMTIGMSVSIMELLGFGELIK

LPLIDSSKKYHNKNKQQLRLFIIQEILKENQKTITQIIDIINNLIEQCNTNTQNLQELIKLLKLASKNNE

TFKEREKLLYCPETLSLITINNHLKEDDIQFIEQYYTYNQNTHKYERNDNLSSSDLEKLSNFFKLKNL

>YP\_002343995.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGIILGILSLIAGFVAIVLMCGLYFIAFMVFVGIAILIFLSMQPYPYNIIFCAIYLITILALVLWRKT

>YP\_002343994.1 hypothetical protein Cj0563 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFYTFFVILKQGEKMLKQIAFGSIALTATGYGIKKLYEKLSKPERKFDTHAIVPSCKDVINTEEYKLKRE

LEIEQKKNQIQEFLCECMECYSGFSKYFNSKEFLEFEQNFTSKNNHKTEFLLSSYKDQMIKVIDYAKKFK

CLSAFLETQSEKNDLAVVKMISESMERKTQRFYLQTKFQTFPQYIFPSVWSSPMWDKQWE

>YP\_002343993.1 replicative DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQQEYYDLDLERAILSSCIMSEEAYASIAGDISPKDFSLKAHQDIFKAVIACSNNKEPISVSFLRKHKKI

DEQILAEILATPSMIDLPAYVNELHEKSVKRQLLSFAHLLPTRINEDRAVSEIADEIGKEIFSITNRVNS

RDIKDVDMVISELFEEFKKQKTLENKGIIGLDTGFEGLNKMTKGFKGGELIIIAARPGMGKTTLCLNFID

KVLRQKKGVALFSLEMPATQIMQRMLSSKTSIPLQKILTADLNDDEWERLGDACNDYSQKKLYIYDSGYA

TIADVRAILRRLKSQDESIGLCVIDYIGLMMSNSNFNDRHLQVSEISRGLKLLARELDMPIIALSQLNRG

LEQRANKRPLMSDLRESGAIEQDADAILFVYRDEVYREQEEKERENKAKAEGKAYQRLFIPNPMQENAEI

IVGKNRNGPVGTIEVVFLKEKSCFVDKPIGYETTEFTG

>YP\_002343992.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYLFSCVLASILTQSATAVEFQEGFSGNLSIGVGARDIKSNISTLANSDYLSSHNADNSDSSFIPFIG

AELYYGNLIDNDRIFIKNYNGRDISGIALGYERAYLERFSTSFSVISSLREKAYANPYAIGNREETDVDR

YGFKISQLYESDFGKFTTSYLFSKNKYDKDTIAQSSLKREGYYHEIELNYNYSLLNLGLNYDYNDADGKA

QSYSRYGFSIGTNLAFANDYIFTPNLNLSKYEAVGTDPIFHKKQDGNIVKLNLKVVKNQFLGYNGLYGFA

NYGIEKRNSDIGFYDETYQIVLTGIGYKF

>YP\_002343991.1 MATE family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSSIFSTLSPFRLFVKYAVPNVISMAFISFYYIVDGIFVGKYLGSDALAALALIIPFIMMSFALADMIAI

GSAVQISMHLGLGKKNLARKIFSSSMLIIFIISCFIGILEYFLGPVLIDCLNVSDEIKTMTKECMFVFAL

FAPFTMLSFALDNYLRICGKTAYSMVMNVIIALSNIVLDYIFIVELGWGLFSAALATCLGLVLGGIFGIF

PFLFQNLELKISSLYMNLKIFKNILYNGSSEFFGNISGSLYSIFANFVLLKISDTQAVAAFSIVLYIDSF

IIMLIIAIGDAMQPALSYNYAKKDFSRIKAIIKVVFFAGGFLSLFSIVLILIFGENLITLFTKENNQEFK

TFAYTALMLFAFNYFFAWFNVLSGSFLTAFNKASFSLVLSLAQNLFIPLFFLLFLSCFMGLNGVWLSPFF

AEFCVLILAWIFLKRIFKDLSL

>YP\_002343990.1 pyridine nucleotide-disulfide oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIDLIVVGAGPTGIGCAVEAKLKNKEVLILEKSNNICQTLMQFYKDGKRVDKAYKGCEGTNHGHVPFE

DGTKESTIETFQNALKEHNIEVEFGSEVESVKNENGVFLVSTAKGVYECKNIIVAIGRMGKPNKPDYKLP

MTLTKIINFNANSVLGNEKILVVGGGNSAAEYAVDLANSNQVSLCYRKKEFTRLNDINLKDIHEAGNSGK

VELKLGIDINEVEDDNGKAKVNFTDGTSDIYDRIIYAIGGSTPLDFLQKCGINVDDKGVPLMDENKQSNV

KGIFVAGDIATKNGASIVTGLNDAVKILSVL

>YP\_002343989.1 gamma-glutamyl phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNLLENIKKNSQKLLNLTPKDKEKIILKLAQILRENFKIILEANKKDMANFTKSGAMKDRLLLDEKRIL

ALCEGLEKIAYIEDPIGKISKGWKNYAGLSIQKMSIPLGLICVIYEARPSLSAEIAALMIKSSNACVFKG

GSEAKFTNEAIFTLVNKVLKEFDLQDCFAMFTQRDEILQILAFDDLIDVIIPRGSSNMIQEIANNTKIPL

IKQNKGLCHAFVDQSANLDMALKIILNAKCQRVSVCNALETLLIHEKIAKNFISLLIPEFEKFKVKIHAH

ENALAYFNNSNLKIFKANENTFDTEWLDFALSVKLVKDCDEAIEHINKHSSLHSETIISNDASNIAKFQR

LINSSCIYANASTRFSDGGEFGFGGEVGISTSKLHARGPMGIEDICTYKYIINGEGQIRE

>YP\_002343988.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKIEILKQHFKEIAKLNSSEQVWQMPFFAALGVGIVLGLSVFFGKLNYGLIAMIGALSFLYVPSTPLYH

RMAVVMCCSFGIVSSFFLGILTHFLPAIFAFIPIGIMAMGSSILIRYYNIGAPGYFFFVFSCVLGAYSPF

EAKDFIFLVGLVFLGAMVANLMALLYSIVVIYGFKNALPSEIPPREYIGFDAVFVDSLIMGSFVAFSIFI

GTFLELERSYWIAISCTAIMQGVTLNSIWIKQIQRIIGTALGVCFAWWLLSKQFHDIELILLMMSLFFIG

QFLVNRNYALAMIFFTPYATYLSEAANFMSENADKLILARLIDVVIGSILGLLGGFVIYKPYLRVHFERI

AKYIFRIKQKA

>YP\_002343987.1 amidohydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIDTHAHIFLKKLNTVANARYKPDYDASFKDYKANLDHYDFNKGVLVQPSFLGIDNEFLLQSIEKDENI

KAIVVVDENIKFDELKKLKERKACGVRLNLIGKELPNFKSMVWTQFFENLSKLKMQIEIQRDLDNNLVDI

VENLIPYGCNIVIDHLARANANLTNLEDLICLKNSRIFFKISGFYRAKIDYANNEQAVKFAKKIYEILKE

HFPLSNFVFGSDWPHTNFEANINFSSALVAFNEVVVSKKEQEQILGDNACALFGF

>YP\_002343986.1 dicarboxylate carrier protein MatC [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIMVFLIISSIIVAIILGYITRHNVGIFAMIFAYIIGAFFMDLAPKKIIAFWPISIFFVIFAVSLFYNFA

TVNGTLEKLAGHLMYRFANHPYLLPFVIFVVSAIIAALGAGFYTVLAFMAPLTFLLCDKIGLSKIAGAMA

INYGALGGANFITSQSGIIFRGLMENSGIEANEAFANSSIIFAFTIILPIVVLSFFVFNAFKNNIKISVI

SKPDPFDYKQKTTLILMFMMIVVVLIFPVLNIIFPHNETISYFNKKIDIAMIAMIFVAIALFLKLADEKQ

VVALIPWGTLIMICGVGMLISIAVEAGAIKLFSDLVENEINVIFIPLIMCAIAAFMSLFSSTLGVVTPAL

FPIVPSIAASSGLSEALLFSCIVVGAQASAISPFSSGGSLILGSCPDKYKEKLFKDLLIKAVPIGFIAAI

LATIIMSFIL

>YP\_002343985.1 hypothetical protein Cj0554 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKFIKQFSFIALENIFRELPNKITHSFNDINDIKPPKLMYPIFYGSYDWHSSVHSHWLLVKILKDFSHF

APKDEIIKALDSQFSKEKAEGELKYLQNPAHKGFERPYGWGWFLKLTLEINLLAKENDKAEIWAKNLEGI

ADFFVKEFKEFLPKMDYPIRVGTHFNSSFALYFALEYARFKKDQELEYCIIQSAKKWFLNDKNMQALEPC

GDEFLSPVLMEAVLLSAVLHKNDFVKFFKAYLPNLEAKEPATLFTPVSVSDRSDGKIAHLDGLNLSRAWC

FKILSNFCDENLKILLRNNATEHFDKAIAHIEDDYLGSHWLGSFALLALDVDIL

>YP\_002343984.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MISLDLLYYIVGILFLVFGILSFSNQAKDIKSRISGGVFWISYSFTFLLAGVLPHFVMGCIVILLALIAG

FNLLKPAKIEVSKEEKEYEIKHANIYKNKLFIPALMVPLITLIGTFLFPYLSFFENKNATLMALIIGIII

SSVVACFMFKASPKRAVKDAAHTMDHISWAALLPQILATLGVVFVSTGMGDQVSKLLSSYISLDNAFIAV

AVYCIAMALFTIVMGNAFAAFPVITAAIALPILIIQMHANPAIIGAIGMLSGFCGTLMTPMAANFNIVPA

ALLNLDDKNGVIKAQFMSGLVLLVANIFLMYFLAFRF

>YP\_002343983.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEWLLLASIPLIVLGFALKINPFLVVTSVGIYAGLVSGFDFVKVVSDIGKSFVDNRYVAIIWLILPLLAV

LERKGLREQAKNLISKIKVASTGRILMCYFVFRQVTAALGLLSLGGHAQMIRPLIAPMAEAAAKLKFKNL

THKDSQKIKAFSAGTDNVAVFFGEDIFIAVHSILFIKAFYESNGIIVEPLHLSVWAIPTGILALIIHCSR

LYLFDKRLEKTYKGLSDDKS

>YP\_002343982.1 elongation factor P [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MASYSMGDLKKGLKIEIDGIPFKIVEYQHVKPGKGPAFVRIKIKSFIDGKVLEKTFHAGDKCEAPNLEDK

TMQYLYDDGENCQFMDTQTYEQVAISDDDVGEAKKWMLDGMMVDVLFHNGKAIGVEVPQVVELKIIETAP

NFKGDTQGSNKKPATLETGAVVQIPFHVLEGEVIRVDTVRGEYIERANK

>YP\_002343981.1 hypothetical protein Cj0550 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQWLSDFKLALIQEDVNKLENLLDELDMKAFIKNLAKESPSEDFLKENANDVFYQVQALLQEAVILIEQ

KKKTKAVEIQKFQKALTYFKS

>YP\_002343980.1 flagellar protein FliS [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNNLAYNAYSQNQVGIESPQKLIEMLYEGILRFCARAKVAIRNEDIEQRVYFVKRTTAIFIELINTLNY

EKGGEVAHYLSGLYTREIQLLSLANLENNEDRINEVINVTKGLLEAWREVHNNETVAQ

>YP\_002343979.1 flagellar hook-associated protein 2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAFGSLSSLGFGSGVLTQDTIDKLKEAEQKARIDPYTKKIEENTTKQKDLTEIKTKLLSFQTAVSSLADA

TVFAKRKVVGSISDNPPASLTVNSGVALQSMNINVTQLAQKDVYQSKGLANDGGFVNAQLNGTADLTFFS

NGKEYTVTVDKNTTYRDLADKINEASGGEIVAKIVNTGEKGTPYRLTLTSKETGEDSAISFYAGKKDSNG

KYQKDINAEKIFDDLGWGLDVSASIDPDKDKKGYGIKDASLHIQTAQNAEFTLDGIKMFRSSNTVTDLGV

GMTLTLNKTGEINFDVQQDFEGVTKAMQDLVDAYNDLVTNLNAATDYNSETGTKGTLQGISEVNSIRSSI

LADLFDSQVVDGTTEDANGNKVNTKVMLSMQDFGLSLNDAGTLSFDSSKFEQKVKEDPDSTESFFSNITK

YEDINHTGEVIKTGSLSKYLNSNGGNTNGLEFKPGDFTIVFNNQTYDLSKNSDGTNFKLTGKTEEELLQN

LANHINSKGIEGLKVKVESYNQNNVTGFRLNFSGDGSSDFSIKGDANILKELGLSDVNITSKPIEGKGIF

SKLKATLQEMTGKDGSITKYDESLTNDIKSLNTSKDSTQAMIDTRYDTMANQWLQYESILNKLNQQLNTV

TNMINAANNSNN

>YP\_002343978.1 flagellar protein FlaG [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEISKANGQMDTALANISQRTSETQASLNIQTDRSQGQEGDDGQQRGVSEKLADITKKLNEQMDSLDTNV

RFGYSDKIGSMYISVTEKSTGREIRQIPSEEAMRLAEYFRDVIGMIFDKES

>YP\_002343977.1 3-octaprenyl-4-hydroxybenzoate carboxy-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEFIQILKENDLLRVIEEPVDVDLEIAHLAYIEAKKGEKGKALLFKNPIDKKLNKQYKFPVLMNTFCNK

KALNLAFGRDYKEVAEEISKLIKLHIPTSFKAKMDFFMNLLSFKNIPPKRLKKNKALYDYEILNSLEELP

ILKTWEDDAGKFITMGQVYTQNLDKTQNNLGMYRLQMSDKNELLIHWQIHKDGANFYHEYKNAGFKKMPV

SIAIGGDPLYIWCSQAPLPKGIFELLLYGFIKKTPAKITPCENGIFVPYDSDVVIEGYVDLEEFKIEGPF

GDHTGFYTPAELFPVMKVEKIYAKKDAIYQATVVGKPPLEDKIMGLGTERIFLPLLQTSVPDLIDYNMPE

NGVFHNLILAKIDAKYPAHAQQIMHAFWGVGQMSFVKHAIFVDKNAPSLKDYDALIPYMLDRFNTKKILI

SEGICDQLDHASPNSCFGGKAGLDACEEIQVEELEILEDEKLLELFKTKVELLNLKQFYKESKSPIVCIL

LDKKEKIEQSFDKLLEFKKYFRILVFLDAENKLENSYMLVWRVVNNIDAKRDIFIKEERLGVDASAKGEA

EGYLRAWPKQTDCTKSVIEDLILRNILENNPDLFNKFEIF

>YP\_002343976.1 porphobilinogen deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLIIATRKSQLALWQSEHVAQILKNTHQIEVLLEGFKTKGDVLLDSPLAKIGGKGLFTKELEESMLRKE

AHLAVHSLKDVPSFFPQGLVLAAVSKREQSNDAMLSQNYKDFLSLPKGAKIGTTSLRRKMQLLLLRPDLE

IISLRGNVNSRIEKLKNNDFDAIILAMAGIKRLNLDKQVNFVYEFSKDELIPAASQGALGIESINDEKIL

ELLKCLNDENALIETSIEREFIATLEGGCQVPIGINAELLGDEICVRAVLGLPDGSEILKDKRMIKKNDF

KGFGESLAKEFIAKGAKELLKKAESMI

>YP\_002343975.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNYKLSLSPLFVLEIIASVLFIVFFGFGNFLFFILLSMIFGAVLLGIFWKNMLEFQMGGLKDMLTQFSFV

IAGFLLIFPGIITSVFGIFVFFFGIALKLITKSKYQYTKQEYQNSNEEIIDVEIIEDRK

>YP\_002343974.1 proline--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRFTKFYAPSLKEAPKDASLPSHIFLTRAGFVEQIGSGLYNFLPLGKRVLDKIKNIVKEEMDKAGAQEV

NLSFITPASLWQESGRYNVFGKELLRFKDRKENEFVLGPTHEEAMLSLVKNKITSYKQLPLHLYQIGLKF

RDEARPRFGLLRCREFLMKDGYSFHANEEDLGREFELMYKTYSQILQRMGLDFRAVEADSGAIGGSGSKE

FMVLAKNGEDDILICENCDYAANVEAAKRAKKTCQDERPEANYASKFHTPNIKTIDSLAQFFKINAFYTI

KAVVKKAIYENESKLVVFFIRGSDDLQEVKAQNTCSALELVDASEEELKKAGLVAGFIGFVGLKDIDFYI

DFELENEKQMIMGANEKDYHLIGIDVVNLNKDRFKDLIEVKEGDCCVKCGAKLKQSKGIEVGHIFKLGQK

YSKAMNANFLDENGKSQPFYMGCYGIGVSRLLAVAIEANHDEKGCIWNKTLAPFVLEIIVSNLKDEKALE

FANKLYRDLTNLGLEVLLDDRNERFGVKMNDFELMGFPYALVIGKGLENNEIELIQREGLVKELIKTDEL

MEILKKKVL

>YP\_002343973.1 glutamyl-tRNA reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYYCISFTHKNTDIALREKLSFSNEAKKGEFLKIISTHENIEECLVISTCNRVEIVAFVKMACAEFIVKS

LALLCDVDKDILLEKADIFEDSGAIHHLFSVASSLDSLVVGETQIAGQLKDAFAFAVKNNFCGVHLSRAV

HSAFKCAAKVRNETQISKNSISVASVAVAKAKELADLTQKKAVVIGAGEMGELAAKHLIAAGAKVIILNR

DLQKAKDLCERLGVLSEYDSLENLKKYLNQYEFFFSATNAPNAIITNSLIEELSYKRYFFDIAVPRDIDI

NENENISVFAVDDLEIVVQKNLALREQEARMAYGIIGRETSEFFRYLNDLALMPIIKAIRLQAKEYADKQ

LEIALKKGYLKKSDKEEARKLIHQVFKAFLHTPTVNLKHLQGKMQSDTVINAMRYVFDLQNNLEGLNQYK

CEFDMENNDEIY

>YP\_002343972.1 polyprenyl synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKIDELIKQFLQELGYEPILNMLSNVKSGKKLRSKLLLAIADESEIAFKICAAIELIHLASLLHDDIID

ESELRRGARSVNAEFGTKNALMLGDILYSKAFYELSKMDARFASIISDAVVKLAIGELMDVDLGEKFNIN

KEAYLKMIYNKTAVLIEASARCGAILAGLYEKDFAEYGKNLGLAFQMIDDILDIKSDEKILGKPAMNDFK

EGKTTLPYIYLYENLQEQDRIYLQTLFKKDLNENEKEWLKTKFEEQKALEKAILEAKTYAKKARKAIEKY

DNNKLNDIIKAMIDREF

>YP\_002343971.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKISPYLICIFFIFSNVLASEPTFDYTYKFILKKDERASVQIKEIGYEDKVQNFDFYWTLFDNTNIIVH

SKFRKYPRQFVMSLRRNLDWVTQTLIPDYTNPHIDRARLILEFSGYNKGLATFTVYIEDKESRLMVEFLD

PRKKALQNPPQNNQVVPMINFNEPQVKPLTSKENNNSN

>YP\_002343970.1 hypothetical protein Cj0539 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFFDEMFNKTPKEKFIEIIQNGNLGALEKVFEEFFADHIAMVELLEKQGLTEMDVKNFILENGDFIEER

QNDIYIELGAKILGHEG

>YP\_002343969.1 2-oxoglutarate-acceptor oxidoreductase subunit OorC [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYQLRFGGEGGQGVITAGEILAEAAIKEGRQAFKASTYTSQVRGGPTKVDIIIDDKEILFPYAVEGEVD

FMLSTADKGYKGFRGGVKEGGIIVVEPNLVHPESEDYKKWQIFEIPIITIAKDEVGNVATQSVVALAIAA

YMSKCIDLDVLKETMLHMVPAKTRDANAKAFDLGVKYATQAKPHS

>YP\_002343968.1 2-oxoglutarate-acceptor oxidoreductase subunit OorB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAFNYDEYLRVDKMPTQWCWGCGDGVVLKCIIRAIEKLGWNMDDVCLVSGIGCSGRMSSYVNCNTVHTTH

GRAIAYATGIKLANPSKHVIVVSGDGDTLAIGGNHTIHGCRRNIDLTHIVINNFIYGLTNSQTSPTTPKG

FYTVTAQFGNIDPNFDACELTKAAGASFVARGNVIEANKLENLIYKALAHKGYSFVDVFSNCHINLGRKN

KMGEAVAMLDWIKNRVVDKAKFESMDFEERKDKFPTGILHEDNSQPEYCHAYEEVRRAAKEKRMVDLGAL

K

>YP\_002343967.1 2-oxoglutarate-acceptor oxidoreductase subunit OorA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MREVIATGNVLIAKAAIDCGCKFFGGYPITPSSEIAHELSHMLPANDGTFIQMEDEISGISVAIGAAMSG

VKSMTASSGPGISLKAEQIGLAFIAEIPLVIVNVMRGGPSTGLPTRVAQGDLFQAKAPTHGDFASIAIAP

ASLEEAYTETIRAFNLAEKYMTPVFLLMDETVGHMNGKAVLPDLKDIKVYNRKKFEGDKKDYKPYAAGEN

EPATLNPFFTGYRYHVTGLHHGDIGFPTEDGVIVKKNMERLIGKIKNNQEDICTYEEYMLDDAEFLIIAY

GSVSRSAKEAIQRLREQGIKVGLFRPITLYPVAEKKIAEVVSKFKKVMVSELNMGQYLEEIERVTSRRDF

ISLHRANGRPITPSEIIAKVKENI

>YP\_002343966.1 2-oxoglutarate-acceptor oxidoreductase subunit OorD [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSMTAPKDTPVWVDEHRCKACNICVSYCPAGVLAMRDDVHAVLGQMIEVVHPESCIGCTECEIHCPDFAI

MVAKRDEFKFAKLTAEAKDRAVAVKNNKYKKLA

>YP\_002343965.1 succinyl-CoA synthetase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSILVNKNTKVIVQGFTGKEATFHAEQCMAYGTNIVGGITPHKGGQTHLGKPVFDTVADAVKATKADVSL

IFVPAFAVGDSVIEAADAGIKLAVVITEHTPVKDMMFAKQYANKKGMKIIGPNCPGIITSEECKLGIMPG

FIFKKGCVGLISKSGTLTYEAANQVVQGGYGISTAVGIGGDPIIGLAYKELLSEFQKDDETKAIVMIGEI

GGSLEVEAAKFIKENISKPVVAFIAGATAPKGKRMGHAGAIVGSADESAAAKKEALKSYGIHVVDSPALI

GEEIQKILG

>YP\_002343964.1 succinyl-CoA ligase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNIHEYQAKAIFVDNGIPTLKGKVAFSVDEAVANAKELGGSVWAVKAQIHAGGRGLGGGVKIAKNLDEVK

DYASKILGMNLVTHQTGPEGKLVQKLYIESGANIVKEYYLAILFNRMAEQITIIASSEGGMDIEKVAKES

PEKIAKVGIDPQIGFKMFHGLEVARVLGLDKDEGKKLISMIAKLYKLYMDKDMNMLEINPLIKTAEGDFY

ALDAKCSFDDSALYRHPEIAELRDTTEENPAEREAAEFGLSYVKLDGDVACMVNGAGLAMATMDIINYSG

AKPANFLDVGGGASPETVAKAFEIILRDKNVKVIFINIFGGIVRCDRIANGILEATKNVEVNIPIVVRLD

GTNAAEAKTILDNSNLKNIKAATNLKNGAELVKSLVG

>YP\_002343963.1 malate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKITVIGAGNVGSSVAYALILREIANEIVLVDINEDLLYAKELELTQSIAALNLNIDLLCTKDYTHTKNS

DIVLFSAGFARKDGQSREELLQLNTSIMLDCAKKIKDFTEDPLFIILTNPVDFLLNTLYESGIFSSKKII

AMAGVLDNARFKYELAKKLNVKMSRVDTRLIGFHNDDMVLVKSYASVKNKNISEFLNEEEFEDLENEVKT

GGAKVIKHLKTSAYLAPASACIRMLESIRSGEFLPMSVILHGEFGVQNKALGVMARLGLEGVIEIMKMDL

SLQEKDKLEKSLIKYQYKGE

>YP\_002343962.1 isocitrate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQITYTLTDESPALATYSFLPIVKAFLSRAHIGVKTSDISLSGRILATFSEYLKEEQRCEDALELLGELV

KRSDANLIKTPNISASIPQLKAAIKELQDKGYMLPNYPDEPKNDEELQIKTKYQKVLGSAVNPVLRQGNS

DRRSTKAVKDYAKNNPYRVVEFNPNSKTRVSYMKEGDFFSNEKAVLIDQDCVANIEFTSVDGKKEILKEG

LKLEKNEILDATFMDVQKLQEFYAKEIKASKDDDVLFSLHLKATMMKVSDPILFGYAVKVFFKELFIEFQ

DEFEKLGINPNNGLSELLSKIENSSKKDEILKKYSEILAKSADISMVNSDKGITNLHVPSDVIVDASMPA

MLKNGARLWDKEGKEKDTNAVIPDQTYATIYEAVIEDLHKNGTLNPSKLGSVSNVGLMAKKAQEYGSHDK

TFVAKEEGTFKIVSNGKVLLEHKVRKGDIYRANQAKFDAVLNWIDLGIERSELSGAEAIFWLDSKRASNK

IMITLVQNRLKEKGKNVAILTPKEACLRSLELIREGKDVISITGNVLRDYLTDLFPILELGTSAKMLSVV

PMLNGGAMFETGAGGSAPKQVEQLVEENHLRWDSLGEFLALQASLEFYANKCGNHKAKVLAECLDEAIGE

WLENNKAPSRKVKEDDNRTSHFYLAMYFANHLARQASDMELQSFFKDIALELSSNEEKIRAEFNDAQGVK

VDLGGYYKFDDEKANKIMRPSATFNAILEKIGQR

>YP\_002343961.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKKILYIVVFFVVLILALFIVLKNGIVISSIQFDFLKLEQLYIKLDKKLIVRAKNITINETQNSEISSQ

THSSDNASTEILKITKNLKYLYTFVKEIDIQNLNIKDNHVRILFKDNEFFIDNDLLFLKLTLQRQNKELI

ADIKKLLLKDYDLSIDGNLSINTKSEFYYFQGRASGELLDFNASISYKDKNLAYKIEDLNIRNITEIFKR

VNKRIELPQSLNLWVAYRAKGEFYHLDYLQGFIDFTKDNYYLDNISASGYVNNVKVRLDDKMNAIEIPKL

DLNLNKQKLDFVFNKAFYNGADLSSSKVYLYDLFDEKKVGIYLRIKSDNLKFDEKLAKALEDYHFSLPFY

QKSGKIKSDLELKIDFHDKGEISYSGILALENASISLADFNITKAFVKLNQNDLNIENASVKNGFLEADF

NAKFDLQKQQGNFNTQISRLYFDNAELLDLKNQNVEVKLDYSQNVNISIPQWNLILNFKDGLEANLNNPK

ILFSFSPLLKKLGFINAKNVYYKTLNFEDFNASVNDAYFKNNLLINGQTPYENDSFDIVKNKGIMEIHTQ

SDTASAKISSDNKEIHLKNLSYIYRKHSNSSNSTFDIATNTQNISFGGANVALILADSNKTLAFDRVEAD

LKGNALDLKGSRGNAKFDLYYSSNDLNLNVSNIDDNYLNEFLQKQAVQDGVFNLSIKGSGLEYFDGQIDF

KNTYVKDLKGINQLISFIDTVPSLLMFKSPTFNQKGLSLHDGKIIFNRKKDLLSVSAINLNGDSVDIYGL

GSANLRLNTVDFSLELKTLKSASEAISKVPILNYVILGKNQEISTNLKIDGSIDDPKFHTEILTDTLKTP

FNLIKNIIQLPANLLN

>YP\_002343960.1 aminodeoxychorismate lyase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTIPFLSTINKANISTTKNTTIYKIFFFIRNFFLIFILGIFYYLTQPLKSNSVVFIPQGSISQIITYLKQ

NKYQMSNIDKYILFFLGHPQSGWINIGTKDLNRAEFLHKLTIAKAALQTITLIPGETSVIFLEQAAKQLG

LDKDILLKEFQAQAPYDEGVFLPETYKIPKGITENLLIQMLLNHAEISNKKTSEKIFGDYNPKKWHQYII

IASVIQKEAANDNEMPIVASVIYNRLKKGMKLQMDGTLNYGIYSHVKVTPQRIRQDNSSYNTYKFTGLPK

EAVCNVSLAAIRAAIFPLKTDYLYFVRDKNTGVHIFSTNIDDHNKAINLQKGK

>YP\_002343959.1 flagellar basal body rod protein FlgB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINPFKSKELVTGALAGRNLRNQLINANLANVDTPFYKARDIEFETALVNRANEIFKKNDNKELQLAVTE

EEHQKPWKFPDPSKSTIYLRDGHLARNDANTVDLDVETTEMSKNTVMITALDGVLRRQSNIFSSILDASS

KLS

>YP\_002343958.1 flagellar basal body rod protein FlgC [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYLSDFDISGYGLSAQRFRMNVISSNIANANTTRTAEGGPYRRREVIFKATDFDKLLNEQINKDNNFLK

YENPLNDPSSPEEAKPAIQSVVVDKVVRDDKDFRMKYDPSHPDANAEGYVAYPNVNPVIEMADLIEATRA

YQANVSAFTSAKTISQSAIDLLRG

>YP\_002343957.1 flagellar hook-basal body protein FliE [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNINDLRLNNNISNTNKSQNSTGIGDEFAKMLKNEINDLNKAQESGEAAMTDIATGQVKDLHQAAIAIT

KAESSMKFMLEVRNKAISAYKEITRTQI

>YP\_002343956.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEYKKNRVSKVAFAYCMALLFMIIFISSTFFLTSKRHIPNTEKDQYALALRGSIITKDNFTITSSKQIY

RAEIDLRSINKDKFDLFLKLFQIYSGISNDQVADIKKRMQNQKKRSYNFVLLQNLDSKQASYLKDLAKKL

YIQGFFKAFTNNSGRVETRGLNIIEHEEDRIYMSKDSFTPIIGYTKMILDPESGILKNIGVKGLEKYYDA

CLSPVQNEKIQGLKDIGGNIILNLNSLQQKKINGCDLYLNLSLKLQKSIEKAIDQRNEDLKANEIIVGVM

ESKTGRILALASSRRYDPQNRGKDLSVLNASAIEYGYEAGSVIKPFIFTTALRLGKIKMDEVINTYGGSY

KLGRFTIKDDHKMDKMTMEEVIRYSSNIGMIQIAKRLNNIEIVSGLKIFKFGEKSGIDLPYEQKGEIPNP

KRLRDIEKSVLSYGYGLKTTFIQLLAAYNVFNNDGFYITPRLAEKFYQNGRFTNLDDDVKKEKILSSEAA

KTMQNVLINVIEKGTGKKAITQGIIAGGKTGTARIAERQGYTSNRYNASFFGFANDLNHAYTIGVLVRHP

TKPYSYYAAQSALPMFKDVVDILINEEFLTPIQDNNQTSTNN

>YP\_002343952.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLGIYLLIAALSFLALYFAVKKLTLNIDERTLLEPIKMDIYPKFCDLIDEKIREFKENIQNANLTLKNSN

QKDEFLEKLGDLSRELTFIQTMNLSNKNDSIWQNELFSFLKELENLLLEYLEKGEEEAENLREFLMDEFE

KLKG

>YP\_002343951.1 rhodanese-like domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIENISASLWTKQDLNAYQIFDVRTPLEWEEGILPNAQCVALYDNQGLLNAKFLDEFQSKRDESKKLAFI

CRSGHRSMVAAEFIAEKLGLESINLDGGMLALKGC

>YP\_002343950.1 chaperone protein HtpG [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQFQTEVNQLLQLMIHSLYSNKEIFLRELISNASDALDKLNFLSVSDDKYKSLKFEPKIEIKIDKDKKTL

SISDNGIGMDKDDLINNLGTIAKSGTKSFLENLSGDAKKDSQLIGQFGVGFYSAFMVASKIEVLSKKALD

DKAYLWSSDANGYEIDDANKEEQGTSITLYLKDDEFANAYKIESIIEKYSNHIQFPIFMEKEEFTPAKEG

EEEGKTELKISQINKANALWRMQKSSLKAEDYERFYEQNFHDSNKPLLYLHTKSEGKLEYNSLFFIPQNA

PFDLFRVDYQSGLKLYVKRVFISDDDKELLPTYLRFVRGIIDVEDLPLNVSREILQENQILKGIKEASVK

KILGELEKLKNNDKEKYLSFFKTFGKVLKEGLYGFGGEKDSLLKLMLYKSTKGENLRSLEEYKNDLQGEQ

KEIFYIAGNNESLLRTSPLLEEYKQKNIEVLLMDDEIDSLVTPMLEFEGLKFVSINQVEDKNELSDEEKN

TFAPLVAKFKELLKDQVEDVRLTSRLKDSPSCIVYDKNKPDFAMQQLLKQMGQEQNFKPILEINPKHAIF

TGLKNNESFSADIATLVLNMAKLSEGMGVDNPAEFNASLTKIINKAFS

>YP\_002343949.1 fluoride ion transporter CrcB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNTLLVVGFGGFIGAILRMLSINLVNKFFPYSISFGTLFVNVLGSFIIGLLFSYAQNKGLSPLLKSFIS

TGFLGAFTTFSTFSYQNLLLLQSGNYLHFALNIILNVFLCLFAAWLGFLIFK

>YP\_002343948.1 1-acyl-SN-glycerol-3-phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIYKKIKALYFWIFFVLSVALVIFCFCFTKSQNTLWKIRKIWAKFQRYTISYKQEIIGTFNPQAQMILMN

HQSALDIIALEELYPKNLCWIAKKELGEIPIFKVAMKKPKLLCIDRKNPRDLVRVLKEAKERISEDRVLA

IFPEGTRSKNEKMLKFQSGAKILSEKLNLKVQPILIVDSAKILDTKSFSASSGVLKIICMDLVDTNDEKW

LENTRKKMQELLDQERAKLC

>YP\_002343947.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILLTLIFSIVVLFGRGEISVFSGQDENMQKELQKLPQEEQKIYQNIPPSDENNDFESNVDDPFVAKGS

LVLTNDEYPSRVYVGEVFPITIYARTTENIKFDFNISVEKTNLSFLNPDAKWEFINNEYKTTLWFEAKNS

NASLSKISIKLLRNNEAFQEADINLNPIKFENTLFNKDFSHLVASSLEIKKVKASYFDDANIIMMIELNA

TNTNLKSFFIEGIQKQGIENLKGDFNASSAFYYAILPLSKTNFEFSYFNKDSKKLENINLKLKISDDEIS

TQSDLNPVNKDLNIYKQYALWFLAVLFGVLFVWRKNYIILALAVVCFALSFLVDTNTQNAIIKAGSRAKI

LPTEPSTYFYTANADEKVEVLGKRQNYIKVLFSDGKIGWVNKDDLQKN

>YP\_002343946.1 phosphoribosylformylglycinamidine synthase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVAIIRFPGTNCEFDTTYAFEKLGVKTQIVWHEEKEFDADLVVLPGGFSYGDYLRCAAIAKLAPAMQGV

FNHAKKGGYILGICNGFQILLESGLLKGAMKHNNNLSFISKNQSLRVVSNDNAFLKNFKKDEIINLPIAH

GEGNYYADETTLKELQDKDLIILKYEPNPNGSVFDIAGICDENKKIFGLMPHPERACEKVLGNDVGLKML

KGFLLENFINFNF

>YP\_002343945.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEVIVNISLKNGVLDPQGKAVEKALHSLNFNSVKEVKIAKQIKISLDEKDEKLAKEQVKKMCEELLVNSV

IEDYELIIEKE

>YP\_002343944.1 phosphoribosylaminoimidazolesuccinocarboxamide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKKEMLYEGKGKKLFKTDDENLLISEFKDDLTAFNAEKRGNESGKGALNCKISTEIFHLLEKNGIKTHL

VEIISDTEQVVKKCKIVPIEVIVRNVATGSLTKRLGIKDGTVLPFALVEFCLKDDALGDPFINDEHCLIL

NLVQNEAQISEIKNMARKINSILTPFFDNKNLRLIDFKIELGLTKDNELVLADEISPDSCRFWDKFSNEK

LDKDRFRQDLGNVKMAYEEVLKRILN

>YP\_002343943.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMELILKTKRFFAGLAGFATTFILCLFLTSHLQAKVDQKEEQVQKRLEALDKLTKTLAIVEQYYVDDQNI

SDLVDKSLSGLLSNLDAHSSFLNEKDFNDMKIQTNGEFGGLGITVGMKDGALTVVSPIEGTPADKAGIKS

GDIILKINDEATLGINLNDAVDKMRGKPKTQITLTIFRKGATKPFDVTLTREIIKIESVYAKMIENENIL

YLRVTNFDKNVVDVASKELKKYPNVKGVILDLRNNPGGLLNQAIGLVNLFVDKGVIVSQKGRIASENQEY

KADPKNKISNASLVVLVNGGSASASEIVSGALQDLKRGVIVGENTFGKGSVQQIIPINKTEALRLTIARY

YLPSGRTIQAVGVKPDIEVFPGKVNTQEDGFSIKESDLKQHLESELEKIDKNKKEDKQENKDNKNLISQK

QINDDAQLKSAIDTIKILNIKQGQ

>YP\_002343942.1 hypothetical protein Cj0510c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCQEKHTHTHSQKHLKAVCNRLSRTIGHLSAIKRMVENDKDCSEILIQLAAVKAEVNNTAKVVLKEHLAH

CMVHAVEENDIQSIEELNKAIDMFMK

>YP\_002343941.1 chaperone protein ClpB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MANIQDFLTDNMLSNLESAASLAIHSKNNEVVPLHLLWALSVDSTSILNQILNKLNISKEALELEIKSRI

SKLATSSNVNRENIRFSNELINSLENAKGLMSANGDSYLSVDTWLISESQKSPIKEILAQFLDLREFQKE

LESLRAGRKMDSKTSDETLDSLNKFGIDLTLKASEGKLDPVIGREEEIERLMQILIRKTKNNPILLGEPG

VGKTAIVEALAQRIIKKDVPKSLQNKKVIALDMSALIAGAKYRGEFEDRLKAVVNEVIKSENIILFIDEI

HTIVGAGASEGSMDAANILKPALARGELHTIGATTLKEYRKYFEKDAALQRRFQPVNVGEPSVNEALAML

RGIKEKLEIHHNVTINDSALVAAAKLSKRYIADRFLPDKAIDLIDEAAAELKMQIESEPSSLRKVRKDIE

TLEVENEALKMENDEKNQKRLDEIAKELANLKEKQNALNSQFENEKSVFDGISAKKKEIDLLKNEASLAK

ARGEFQKAAELEYGKIPSLEKEVEILEDKWKKMSENGVLLKNQVDEDLVAGILSKWTGISVQKMLTSEKQ

KFLEVEKHLKESVIGQDKALSALARAIKRNKAGLNADNKPIGSFLFLGPTGVGKTQSAKALAKFLFDDEK

AMIRFDMSEFMEKHSVSRLLGAPPGYIGHEEGGELTEAVRRKPYSVLLFDEVEKAHKDVFNVLLGILDDG

RATDSKGVTVDFKNTIIILTSNIASNAIMNLSGKEQEDAVKNELKNFFKPEFLNRLDDIITFNPLGKDEA

YEIVKLLFKDLQMSLENKGIKASLSENAALLIAKDGFDPDFGARPLRRAIYDLIEDKLSDMILADELHEN

DSIIIDAKDDEIIIKKA

>YP\_002343940.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILKYIFSFFTLLFITGFIYVAYLFTSADTEGYTFKEYKPPLTTQIYDRNGKLVANIFEQHRFYAPYEE

LPPRLIEALVAIEDTSFFEHNGVNIDAIFRAAVKIIKSGGKTMEGASTLTQQFIKNTELTPERTIARKIR

EALLAYKMETILTKEQILERYLNFIFFGHGYYGVKTAALGYFHKNLNELSLKEIAMLVGMPKAPSSYDPT

KHLDLSISRANNVISRMYNLGWISKADYDTAIKEIPQVYDDTLTQNAAPYVVDEVIKQLSPNIKDLKTGG

YKIILNIDLDVQNMAQNALKFGYDEIVKRDKDANLSTLNGAMVVVNHQSGDVLALVGGVDYEKSNYNRAT

QSMRQPGSSFKPFVYQVAINLGYSPMSEIADISRIFEGGAGNNEDWKPKNEGGKFLGLITLKEALTRSRN

LATINLALDMGLDVLYSKLMEFGFKDIPPNLSIVLGSFGISPLEYSKFYTMFGNYGTIKDPQIIRQVQDK

TGKTIMEFNSNERKVSDEAQSFLVLDMMRNVVEKGTGRNARVKDIEIAGKTGTTNKSVDAWFCGLTPEIE

AIIWYGNDNNKPMRYTEGGARTAAPVFREFLTQYIEKFPDTTRKFSIPNGVYRGNYKGESAYYTTKSPLP

KANMKFNESEIIF

>YP\_002343939.1 Maf-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLILASSSISRANLLKTAKIDFRQVSFDYDENLNKNISPFLYVQKIVLEKERQFLSTLGKDFQNQNLLFA

DSIVCIDEKILTKAKDKKEAYEMLALQNGKYASILSAFLLVKPEKRVFSLSKTTLYFKNFDENALRDYVE

NDLYKGKAGCIMCEGFHQNFITQQVGNLSTALGLDIQTLKAYL

>YP\_002343938.1 alanine--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDIRKAYLDFFASKGHEITPSSPLVPDDATLLFTNAGMVPFKSIFTGEIPRPNPPRKTSCQTCIRAGGKH

NDLDNVGYTARHHTFFEMLGNFSFGDYFKEQAIAYAWEFVTEVLKLPKDRLYVTVHENDDEAFNLWQKHI

QKERIYKFGDKDNFWQMGDTGPCGPCSEIFYDQGQEHFNSSEDYMGGDGDRFLEIWNLVFMQYERSADGV

LSPLPKPSIDTGMGLERVTAIKEGKFSNFDSSLFMPIINEISKLCNKTYVYESGASFRVIADHIRSSVFL

LAQGVSFDKEGRGYVLRRILRRALRHGYLLGFKQAFMYKLVDVVCDLMGGHYTYLNEKKDFIKEQIRLEE

ERFLSTIENGIEIFNEELKNTKEIFSGEVAFKLYDTYGFPLDLTADMLREKNLKVDEEKFELFMNEQKAR

AKASWKGSGDKTASGDFKNLLEKFGENHFVGYEKAECESKILALLDEDFKEVSTLKDAGWVMLENTPFYA

TSGGQSADSGFIAKREVLDTQKFFNLNLSFIKAGEELKVNDIVHARIDTEKREQIARHHSATHLLHHALR

EILGSHVSQAGSLVESNKLRFDFTHHKALNKEELESIEKRVNKMIINSSEAILENMPLEEAKKSGAIALF

NEKYQGNVRVLTLGESKELCGGTHVKNTAQIGSFYIVKESGVSAGVRRIEAVVSKAALEFVKNQLEELSK

VKDELKNNDILSGIKKLKNEILSLKNELKNSSKTELDSKNIQGVEICVKRIDNGDIKAMIDDFKNKFAKA

VILLIQVKDEKITLAAGVKDVPLKAGALVKEAAQILGGNGGGRDDFATAGGKDLSKINEALKQSLETIEK

AL

>YP\_002343937.1 DegT family aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFINLQAQYLAYKDEINAEIESVLSSSSFIGGAKLNEFEQNLAHFLGVKHAIGCSSGTSALYLALRVLD

IGKDDEVIVPSFTFIATAEVVALVGAKPVFADINLSNYNLDFKAVQKAITSKTKAVIAVSMFGQMSDLRA

LEEILKDKNITLIEDGAQSFGASFKGEKSCSIAKISCTSFFPSKPLGAYGDGGAIFCHDDEIAKKIRILL

NHGQTQRYKHEFIGINGRLDTLQAAILNVKLKYLEKELDKRQKLAQIYNANLKNCQIPQINPNAFSAYAQ

YSVLVEDRASVLRKFEKANIPYAIHYPTPLHKQPCFSEFSNLELKNSEYASEHILSLPFSPFLSEEEQEQ

VICIFKD

>YP\_002343936.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIGIIGLGKMGQNHLNELSKNSHFKLNALFDLCKNPNLNIFDDIFYDDLDKFLNQNNDIIIIATPTNSH

LTIAKKVFKQCKCVLIEKPLALNLKEIDEISNLAKEYSIKVGVGFCERFNPAVLALKKELENEEIISINI

QRFSPYPQRISDVGILQDLAVHDLDLLCFLSKQEITKTNLLKKYTQDQTRESESIILCGLEKCIASIHQS

WNSTQKLRKIHLITKNHFYEANLNDFSLLKDGNFIELTQQSPLFSEHEALLKLIDNQPNHLASTSDAYKV

QEILERFA

>YP\_002343935.1 ferrochelatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLVLFLNMGGATNLQDCEVFLKNMFNDPYILGIKNRFLRKFVAWIITKARVKAMQENYKKMGGKSPLNE

LTQSLCDKLNLKQDEFKFDFVNLYVPPFATEILQKYTLNASDEIILFPLYPHHSCTTVTSSLEVLQNEIS

KQKIQAKVKTIDIFYKNELYNEMIVSHILAKKSKFDAKILIFSAHSLPQSIIDKGDLYEKHVNDHVEILK

EKLKDHFDEFILAYQSKLGPVKWLEPNTSDVLANLNDKALIYPISFCIDCSETIFELGMEYKHLSKYNYD

LISCPNDSDEFMEFILKYLSDLN

>YP\_002343934.1 rhodanese-like domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLSEVEFVEFQKENFSLLIDARSPREFLHSHLIGALNFYALNDEEYQEIGTIYKKNQALAKAMGASYICQ

NTTKHILEITQNFRIGEKVGIYCSRGGLRSKSIAVILSELGFRVVRLKGGFKAYRTFVTHYFENEINFDF

FALCGNTGCGKTELLEQLPQAINLEKMANHLGSSFGDILGKQPTQKAFEAELFHNIQNLENFAFIESESR

KIGDIILPLKFYEKMQKAFKIYCFCSLENRVRRIQKIYQEKMTPLKFQQCVQKISPYISLNLRQDLLQSY

ERKEWQKLIVMLLEYYDKTYKKPDKIDLELNTDDILKAKEELLDHFKVQLLF

>YP\_002343933.1 histidine triad (HIT) family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQYLYAPWRSEYFEKVKSICPFCDCANKIKSDEELGVIFRAKHCFGVMNRYPYSAGHFMVIPYIHEEHIE

NLSDEIWQEMSYFVRLGVKILKEQIHANGVNIGMNLSKDAGAGIAFHCHYHLVPRWSGDTNFITTIGETR

VCGTNIEQVYQKLVLAFKNAQ

>YP\_002343932.1 Indole-3-glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILDKIFEKTKEDLKERKLKLPYDMLGRSLASNPFFPKDVIKALKRVEKEVKIIAEVKKASPSKGVIRED

FDPLSIALNYEKNKAAAISVLTEPHFFKGSLEYLSLIRRYTQIPLLRKDFIFDEYQILEALVYGADFVLL

IAKMLSMKELKKLLEFARHLGLEALVEIHDKEDLSKAIFAGADIIGINHRNLEDFTMDMSLCEKLIPQIP

NSKIIIAESGLENKEFLEHLQNLGVDAFLIGEYFMREKDEGKALKALL

>YP\_002343931.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYRYLLFVLAAFFLAACGSSKINVVYPDYTKYKSNDFDLRVMKAYNYEYYKQYKEARDEFLSLYQDYNNT

NFLENAFLLTLANNLDKQAELDNLAKPYLNQNDNLKRLSALYALNSNDINNAQKLMKELLTKKDSDPRNL

ELYGDILVKKNDLKNATKYYRSAYNQVQNEEILFKLIGIYAILNDTLNIKNVLEFSRKTNGCTLKTCVLL

AKIYFDEKNIEALKSIYKELYQLTKNKSFVLALVELLNSQGKTEEALKISLQYDLDDDIKLALYQNLKRF

DDAKKMSLALYHKTKNKEYLLRAAVFEFEAANEAKKITPKVIDSVKEKFEQAIDKDSNALYLNYYGYLLI

DYDLDVKKGIELVKLALEKDPQNLYYLDSLAWGYYKLGDCKQAWEILKQTLDDKEFANSDESKAHIKAIK

ACIKP

>YP\_002343930.1 hypothetical protein Cj0496 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFDKNFSYAFDENACEKCGGKCCTGESGNIFASKEELEVLRKHLNLESKEFAEKYLRKVGFKMSFKEVE

CEDGFACIFFDTQKRNCSIYDFRPKQCRTFPFWEYFKTHQKELEKECIGICYLS

>YP\_002343929.1 methyltransferase domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDLITLAQLSQGYRYNSDSLILADFILKQGIKGAVFDVGAGCGIIGILLKKNIANLSLSLIDIQKENIE

LIEKNLKSNKIQGDIFHDDFNQFQIIKKFDFIVCNPPFYRQGAYKSEDQHKAISKFQEFLPLHSFLAKTN

SMLKPNGTLYFCYEALALDEICFILKDMKMKITKLCFVHTHQSKKARLVLIQVKKGSKSPCEILPPFFVY

ENEILSKQMQEIHLRFRLKSYDI

>YP\_002343928.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKIAFFITFVISFLAAQSPVNFKEDNNITKERNIFKEQLPKRIKIPTH

>YP\_002343927.1 elongation factor G [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRSTPLKKVRNIGIAAHIDAGKTTTSERILFFTGMSHKIGEVHDGAATMDWMEQEKERGITITSAATTC

FWKDHQINLIDTPGHVDFTIEVERSMRVLDGAVAVFCSVGGVQPQSETVWRQANKYGVPRIVFVNKMDRI

GANFYNVEDQIRNRLKANPVPLQIPIGAEDNFKGVIDLVTMKALVWEDDTKPTDYVEKEIPAELKEKAEE

YRTKMIEAVSETSDELMEKYLGGEELSLEEIKTGIKAGCLSLSIVPMLCGTAFKNKGVQPLLDAVVAYLP

APDEVANIKGEYEDGTEVSVKSTDDGEFAGLAFKIMTDPFVGQLTFVRVYRGCLESGSYAYNSTKDKKER

IGRLLKMHSNKREEIKVLYAGEIGAVVGLKDTLTGDTLASEKDKVILERMDFPDPVISVAVEPKTKADQE

KMSIALNKLAQEDPSFRVSTDEESGQTIISGMGELHLEIIVDRMLREFKVEAEVGQPQVAYRETIRKTVE

QEYKYAKQSGGRGQYGHVFLRLEPLEPGSGYEFVNDIKGGVIPKEYIPAVDKGVQEALQNGVLAGYPVED

VKVTVYDGSYHEVDSSEMAFKLAASMGFKEGARKAGAVILEPMMKVEVETPEDYMGDVIGDLNKRRGQVN

SMDERGGNKIITAFCPLAEMFGYSTDLRSQTQGRATYSMEFDHYDEVPKNVADEIIKKRNG

>YP\_002343926.1 30S ribosomal protein S7 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRRRKAPVREVLPDPIYGNKVITKFINSLMYDGKKSTATTIMYGALEAIDKKGGEKKGIDIFNDAIENIK

PLLEVKSRRVGGATYQVPVEVRPARQQALAIRWIISFARKRSERTMIDKLAAELLDAANSKGASFKKKED

TYKMAEANKAFAHYRW

>YP\_002343925.1 30S ribosomal protein S12 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPTINQLVRKERKKVLEKSKSPALKNCPQRRGVCTRVYTTTPKKPNSALRKVAKVRLTSGFEVISYIGGE

GHNLQEHSIVLVRGGRVKDLPGVKYHIVRGALDTAGVAKRTVSRSKYGAKRPKAGAAK

>YP\_002343922.1 hypothetical protein Cj0488 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQRYGQIIKIKKEKIEEYKELHTKPYEGVCEMIKECNIQNYSIYLFGEYLFAYFEYIGADFEADMAKMAR

DESTQKWWKVTDPCQISLGYAGQKWLNMEEVFHLD

>YP\_002343921.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKIFDAHLHLWDLEKIPISWIKDDEKLEQNYDFFRMKQEYKEFEFIGAMYVEVNSDDLEKEALFALEQK

KLHNLLFCLADFKHKEELSSFREVMHTSKKGAKRLFEADFEEKIEILKTFNIPFEACIKNEELGFLEKFL

SKNPNLKVVLNHLGSPKINRLNEYKKDLSFLKKFQNLYIKLSIPDGFSQETPKEFIFELFAFLKENFSEN

KFIFGSNYPVAKITPAKWAKLIIESKIFDDLDKIFYKNALLIYKGG

>YP\_002343920.1 sugar transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTDSKNIKIAIVLVTSLFFLWGVSYGLIDVMNKNFQNHLHISQHESGFLQFAYFGAYFIIALPAGYIANR

FSYKMGIIFGLALYAIGALLIIPATNLASFHLFLFAFFILACGIGSLETSANPYMTKLGDEKNASFRINA

AQSFNGLGQFVGPIIGGALFLSITKQEEGASKEQIQAALVANMGNVQLVYIGIAVIVILILIAFVANKLP

EGSAVSDDYKQKDDSKPIYVFKHRHFNLGLLAQFLYIANQVAAGAFFINYVVEHNEGLKDAQGAYYFSIA

LVAFMLGRIVSTPLMKIIKGEKILGFYSLINVLICFSLYFASGFFSIVLLIALFFFMSISFPTIFAVATK

NLPLNQVKLGGSLLVMSIVGGAIMPIIIGFINDHYGTGAGYLAMAPLFLYVAWYGFIGSKVRKNAKDF

>YP\_002343919.1 short chain dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDLKIKNKVCIITGGAKGIGYGIAKLWASEGGIPVIFSRSMPKEHDKELKKLSSEYEFYEIDLKNYEQIE

KLVKKVAIKHGGIYALVNNAGTNDNLHIENTSTQDLIKSYENNLFHYYTMTKECLPYIKKEQGSILNIVS

KTGITGQGRTSAYASAKAAQMGFTREWACAFAKDNVRVNAIAPAEVMTPLYEKWLQNFPNPKEQYEKIAK

AIPLGHRFTTIEEIANTAVFTLSPLASHTTGQILMPDGGYVHLDRALNWDEN

>YP\_002343915.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGILKGTLPALLTPYKDDGSINEKEFIRYCEFGISKGLNGLFCNGSAGDSQALSVEEQVKLMKLTKKATK

NNIPIITGITSTIYENTFILAQKAYELGLDALLLAMPYYYKLSEDALFEYVKYLASEVKLPLYVYNIPLF

APALSLKFIEKVSKLDNVVGIKDSSGDALLLNHILDVVPSNFDVFVGREEFYVGALLAGVKGSMTSIGGV

FPELMSEIYKSINEKNIGRALLIQKSLLKAIRFGMSIAFPMGFALLLKARGFEFVNASIHPLSPATKEEL

NTRFDEAKELIKTIEKETGIKL

>YP\_002343914.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHQPTLRVLNILELLAKEKLTLSAIAKKLNIPAGTLWPILQTLQEKKYIKCDLKNKSYYLDFKIIELGCN

IKNENNIFEIIKKHMKNIRNLTNQTCQMGILKDGNVLYLEKIDANNTVQLKSFIGTSYPAYATSLGKALL

SNKNKKELEKLYPKNFDKITENTLNNINELYQQIKQIKKEKIAIEIGEMNPQIECMAIGIEHKNKIIAAI

SISYLIYCSNKAFREKNKKILLEEKNKIEKVLKIYFNDLDTLY

>YP\_002343913.1 DNA-directed RNA polymerase subunit beta' [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKFKVIEIKEDARPRDFEAFQLRLASPEKIKSWSYGEVKKPETINYRTLKPERDGLFCAKIFGPIRDYE

CLCGKYKKMRFKGVKCEKCGVEVANSKVRRSRMGHIELVTPVAHIWYVNSLPSRIGTLLGVKMKDLERVL

YYEAYIVENPGDAFYDNESTKKVEYCDVLNEEQYQNLMQRYENSGFKARMGGEVVRDLLANLDLVALLNQ

LKEEMGATNSEAKKKTIIKRLKVVENFLNSNLNANTDSDEAVPNRPEWMMITNLPVLPPDLRPLVALDGG

KFAVSDVNDLYRRVINRNTRLKKLMELDAPEIIIRNEKRMLQEAVDALFDNGRRANAVKGANKRPLKSLS

EIIKGKQGRFRQNLLGKRVDFSGRSVIVVGPKLRMDQCGLPKKMALELFKPHLLAKLEEKGYATTVKQAK

KMIENKTNEVWECLEEVVKGHPVMLNRAPTLHKLSIQAFHPVLVEGKAIQLHPLVCAAFNADFDGDQMAV

HVPLSQEAIAECKVLMLSSMNILLPASGKSVTVPSQDMVLGIYYLSLEKAGAKGSHKICTGIDEVMMALE

SKCLDIHASIQTMVDGRKITTTAGRLIVKSILPDFVPENSWNKVLKKKDIAALVDYVYKQGGLEITASFL

DRLKNLGFEYATKAGISISIADIIVPNDKQKAIDEAKKQVREIQNSYNLGLITSGERYNKIIDIWKSTNN

VLSKEMMKLVEKDKEGFNSIYMMADSGARGSAAQISQLAAMRGLMTKPDGSIIETPIISNFREGLNVLEY

FISTHGARKGLADTALKTANAGYLTRKLIDVAQNVKITIEDCGTHEGVEINEITADSSIIETLEERILGR

VLAEDVIDPITNSVLFAEGTLMDEEKAKILGESGIKSVNIRTPITCKAKKGICAKCYGINLGEGKLVKPG

EAVGIISAQSIGEPGTQLTLRTFHSGGTASTDLQDRQVSAQKEGFIRFYNLKTYKNKEGKNIVANRRNAA

VLLVEPKIKTPFKGVINIENIHEDVIVSIKDKKQEVKYILRKYDLAKPNELAGVSGSIDGKLYLPYQSGM

QVEENESIVEVIKEGWNVPNRIPFASEILVEDGEPVVQNIKAGEKGTLKFYILKGDGLDRVKNVKKGDIV

KEKGFFVVIADENDREAKRHYIPRESKIEFNDSEKIDDANTIIASAPKKERKVIAEWDAYNNTIIAEIDG

VVSFEDIEAGYSADEQIDEATGKRSLVINEYLPSGVRPTLVIAGKGDKAVRYHLEPKTVIFVHDGDKIAQ

ADILAKTPKAAAKSKDITGGLPRVSELFEARKPKNAAVIAEIDGVVRFDKPLRSKERIIIQAEDGTSAEY

LIDKSKHIQVRDGEFIHAGEKLTDGVVSSHDVLKILGEKALHYYLISEIQQVYRGQGVVISDKHIEVIVS

QMLRQVKVVDSGHTKFIEGDLVSRRKFREENERIIRMGGEPAIAEPVLLGVTRAAIGSDSVISAASFQET

TKVLTEASIAGKFDYLEDLKENVILGRMIPVGTGLYGEQNLKLKEQE

>YP\_002343912.1 DNA-directed RNA polymerase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCDMLDNKLGNRLRVDFSNISKQIEIPNLLQLQKKSFDYFLNLDNGESGIEKVFKSIFPIHDPQNRLSLE

YVSSEIGKPKYTIRECMERGLTYSVNLKMKIRLTLHEKDEKTGEKVGVKDIKEQEIYIREIPLMTDRVSF

IINGVERVVVNQLHRSPGVIFKEEESSTVANKLVYTAQIIPDRGSWLYFEYDAKDVLYVRINKRRKVPVT

MLFRALGYKKQDIIKLFYPIQTIHVKKDKFLTEFNPNDFMDRIEYDIKDEKGKIVHQAGKRLTKKKAEQL

IKDGLKWIEYPVEILLNRYLANPIIDKESGEVLFDSLTLLDESKLAKIKEQKSFDIANDLANGVDAAIIN

SFAQDGETLKLLKQSENIDDENDLAAIRIYKVMRPGEPVVKDAAKAFVNDLFFNPERYDLTKVGRMKMNH

KLGLEVPEYVTVLTNEDIIKTAKYLIKVKNGKGHIDDRDHLGNRRIRSIGELLANELHLGLAKMQKAIRD

KFTSLNADLDKVMPYDLINPKMITTTIIEFFTGGQLSQFMDQTNPLSEVTHKRRLSALGEGGLVKERAGF

EVRDVHATHYGRICPVETPEGQNIGLINTLSTYAKVNELGFVEAPYRKVVNGKVTNEVVYLTATQEEGLF

IAPASTKVDAKGNIVEEFVEARQDGETILARREEVQLIDLCSGMVVGVAASLIPFLEHDDANRALMGSNM

QRQAVPLLTASAPIVGTGMEQIIARDAWEAVKAKRGGVVEKVDNKSIFILGEDDKGPFIDHYTMEKNLRT

NQNTNYIQHPIVKKGDIVKAGQIIADGPSMDQGELAIGKNALIAFMPWNGYNYEDAIVVSERIIREDTFT

SVHIYEKEIEARELKDGIEEITKDIPNVKEEDVAHLDESGIAKIGTHIKPGMILVGKVSPKGEVKPTPEE

RLLRAIFGEKAGHVVNKSLYATASLEGVVVDVKIFTKKGYEKDDRAIKSYDKEKMALEKEHHDRLLMMDR

EEMLRVCALLSKASLNSDQKIGDKNYKKGQTADISELEKINRFTLTTLIKAYSKEIQKEYDDLKNHFQNE

KKKLKAEHDEKLEILEKDDILPSGVIKLVKVYIATKRKLKVGDKMAGRHGNKGIVSTIVPEVDMPYLPNG

KSVDIALNPLGVPSRMNIGQILESHLGLVGLRLGDQIQEIFDRKQKDFLKELRAKILEICSIPRLANEKE

FIKSLSDEELLNYARDWSKGVKFSTPVFEGVNIEEFSKLFKMAKIDMDGKTELYDGRTGEKIAERVHVGC

MYMLKLHHLVDEKVHARSTGPYSLVTQQPVGGKALFGGQRFGEMEVWALEAYGAAHTLREMLTIKSDDVE

GRFSAYKALTKGENVPATGIPETFFVLTNELKSLALDVEIFDKDEDNE

>YP\_002343911.1 50S ribosomal protein L7/L12 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAISKEDVLEYISNLSVLELSELVKEFEEKFGVSAAPVMVAGGAVAGGAVAAAEEKTEFDIVLTDGGAKK

IEVIKIVRALTGLGLKEAKDAVEQTPSTLKEGVAKAEAEEAKKQLEEAGAKVELK

>YP\_002343910.1 50S ribosomal protein L10 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTRSEKVEIIAKLEEGFKASEAIVVCNYRGLSTKKLEELRNNARENNVKVQIVKNTLANIALNNSGKTGL

VLKDTNIYLWGEDQLSVSKVAAKFEENNDKFEIKTAHIEGEVADVAKVKALAKMPSRNELLAMLLQVWNA

PITNFTIGLNALKNKKESE

>YP\_002343909.1 50S ribosomal protein L1 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKIAKRLKELSQKIDSNKEYALSDAIDTIKTLKSAKFDETVEIALKLNVDPRHADQMVRGSVVLPAGTG

KKVRVAVIAKDAKADEAKNAGADIVGSDDLVEEIQKGNMNFDVLIATPNLMGLVGKVGRILGPKGLMPNP

KTGTVTMDVAQAVNNAKSGQVNFRVDKQGNIHAGLGKVSFSKEQLWDNVSTFVKAINKHKPAAAKGRYIK

NAALSLTMSPSVKLETQELLDMK

>YP\_002343908.1 50S ribosomal protein L11 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKVVGEIKLQIAATKANPSPPVGPALGQQGVNIMEFCKAFNERTKDMAGFNIPVVITVYADKSFTFIT

KQPPATDLIKKAAGISKGTDNPLKNKVGKLTRAQVLEIVDKKIADLNTKDRDQAAKIIAGSARSMGVEIV

D

>YP\_002343907.1 transcription termination/antitermination protein NusG [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSTHKWYAIQTYAGSEMAVKRAIENLVKDNGIEEQLKEIVVPTEDVIEFKNGKEKISERSLYSGYVFALL

DLNTELWHRIQSLPKVGRFIGESKKPTPLTEKDINLILEKVHNRAAPKPKISFEEGENVRITEGPFANFT

AIVEEYDMVRGLLKLNVSIFGRSTPVEILYSQVEKII

>YP\_002343906.1 protein translocase subunit SecE [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKLITYFKLSKAELRKVIFPLKEQVRNAYITVFVVVAVISLFLALVDWLMSSIVSAIV

>YP\_002343905.1 50S ribosomal protein L33 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRIKVGLKCEECGDINYSTYKNSKNTTEKLELKKYCPRLKKHTLHKEVKLKS

>YP\_002343904.1 elongation factor Tu [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKEKFSRNKPHVNIGTIGHVDHGKTTLTAAISAVLSRRGLAELKDYDNIDNAPEEKERGITIATSHIEY

ETDNRHYAHVDCPGHADYVKNMITGAAQMDGAILVVSAADGPMPQTREHILLSRQVGVPYIVVFMNKADM

VDDAELLELVEMEIRELLSSYDFPGDDTPIISGSALKALEEAKAGQDGEWSAKIMDLMAAVDSYIPTPTR

DTEKDFLMPIEDVFSISGRGTVVTGRIEKGVVKVGDTIEIVGIKDTQTTTVTGVEMFRKEMDQGEAGDNV

GVLLRGTKKEEVIRGMVLAKPKSITPHTDFEAEVYILNKDEGGRHTPFFNNYRPQFYVRTTDVTGSIKLA

DGVEMVMPGENVRITVSLIAPVALEEGTRFAIREGGKTVGSGVVSKIIK

>YP\_002343903.1 amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSILKIENLQKYYGSHHALKDINLEVKAKEVVVILGPSGCGKSTLLRCINGLEEIASGNIYIDNEKIDKD

FKEWPRMRQKVGMVFQSYELFEHLSVEENILLGPMKVQKRKKDEVLKEAKIWLEKVGLLHKIHAYPRELS

GGQKQRIAIVRSLCMNPELMLFDEVTAALDPEIVREVLEVMLNLAKEGMTMLIVTHEMGFAKAVADKIIF

MDEGKIIEENDPKSFFKNPKSERAKKFLNLFDYHNIDKNNIGL

>YP\_002343902.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLELLNTDTLLRLWQGLFVTLEISFISIIITSIGGLFLGILMSFKNTYIYAFCRLGLEFVRVMPLLVWLF

VVYFGFPRWFGWDLSSVSAAIIVFSIWGCFEMMDLVRVSLQSIPKHQYESASSLGLNTVQSFAYVIIPQA

MRRLTPMSMNLLTRMIKSTTFAYLIGAVELVKVGQQIIEFHNRNDFAPFIIYGLIFFIFFILCYPITLYS

RKLEKKWS

>YP\_002343901.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFDFILAQAPAFLTAAWLTIKLSFFGIIFSLIIGLFCILMSYFKIKILENICKLYIEFSRNTPLLIQLF

FLYYALPKFNIHLEQIPPLDLICLSVEETLRPSFACAIVGLSFLGGSYMAESLRAGFEAIRKQQFEAGLS

LGFSKFGNLRYVILPQALAISMPSISANIIFLIKETSVVSIIALPDLVNLMKSLNSLTYKTDELLFLLFM

GYLCIILPLSFILLKFEKRLLHA

>YP\_002343900.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKDYLELLSSVGKLKKFQKNSILFYEGEEAKNFFILLKGKIRIYKSTASDKEITLHYFNPPNFIAEMPAF

KKLNYPANAVFEEDGEILEIDFINFQNLCSENKEFNFLLISSLFDKIKILEKKLSQNALDLRTRLLKYLL

ENEKNLDTISQKQIAIDLNVRAQSLSRVLKELKISELIDTKKGRIEILNKDMIMKELW

>YP\_002343899.1 group 3 truncated hemoglobin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFETINQESIAKLMEIFYEKVRKDKDLGPIFNNAIGTSDEEWKEHKAKIGNFWAGMLLGEGDYNGQPLK

KHLDLPPFPQEFFEIWLKLFEESLNIVYNEEMKNVILQRAQMIASHFQNMLYKYGGH

>YP\_002343898.1 ATP-dependent DNA helicase RecG [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKESDFEFFKKLKIRSAIDLALLLPKKIENLNPSKNPKENEICTQKITIKSVSSRKNQLFGLGFCEEW

QENISFVFFHPRAWHFGICKVGKELIFNAKLSHFNHTWQFNNPKILTSFEGFSPKYQILGLKDTKIAAFI

HKYLNYENLKESGIEDKYIHFLLNLHAYDEKSFFMFENLQNFSKDLKYIEIYNFLKRLKAKKTHFKAHQI

NVFNIANWLKDLPFSLTKDQLNALKDIEKDLHSKEAKRRVIMGDVGCGKTLVLLGAALMVYPKQAILMAP

TSILAYQLYEEAKKFLPDFMNILFIKGGKKEKDLEQNIQKANLVIGTHALIHLESHNAVLVMIDEQHRFG

SAQREKIHSLNKQEFAPHFIQFSATPIPRTLSMIQSELLNFSFIKQMPFKKDITTYCIQNEGFSKLSEKI

KEEIAKNHQIIIIYPLLSASDKIPYLSLEQAKEYWQSHYEKVFVTHGKDKQKDEILERFRDEGNILLSTT

VVEVGISLPRLSMIVIVGAERLGLATLHQLRGRVGRVGLKSACYLYTKLKEIPSRLKEFASTLDGFKIAE

LDLKNRLSGDLLDGFMQHGNEFKFFDFSKDEEILEKVKKDLAKKLPN

>YP\_002343897.1 zinc protease-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQYLESRGIKIPFIFEKNSDFPIVVLKLVFRNCARSYDEIAGLAKMFSRILNEGVDDKFFKDLEFRAINL

EASSGFESLEINLSCLKENFDFALKSLEKLLLKPRIEEKTLQKLKINALGELASKNSDFDYLAKNLLNAQ

IFKCKEFQSPNDGDEKSIETLSLKDLQNFYKNFIHLSDLVVILGGDLEEKQAKEDLLKLLSKLQIGKKNT

PKKYELGKNIKDEILVRPESEQAYIYFATPFFADFKDKDLYLAKIALFVLGQGGFGSRIMEEIRVKRGLA

YSAYAMLDMNMSFSRVFGYLQTKNESAKEAKKIVKELFEDFIKNGMTQNELDQAKNFLIGSTPLRYESLS

KRLSMSFNEFYQGLNLGYYKEELKLMEKVKLETINAYIKKHQELLNISFASIQNEN

>YP\_002343896.1 hypothetical protein Cj0462 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRLDKKEALDLLHHASLTELGEMAYKRKLELHPEKITTFVVDRNINYTNVCCIDCSFCAFYRHHKEDDA

YILSFEEIGKKIEELEAIGGTQILFQGGVHPKLKIEWYEELVSWIKEHYPNITVHGFSAVEIAYIAKASK

ISITEVLKRLQAKGLFSIPGAGAEVLSDRVRDIIAPNKCDTATWLEVHRQAHKIGMKSTATMMFGTVEND

EEIIDHFEHLRKLQDETGGFRAFILWSFQSDNTALIQKHPEIMKQSSNKYLRLLALVRLYLDNFKNLQSS

WVTQGSLIGQLALKFGANDLGSTMMEENVVSAAGASYRMNQDEMIRLIRSLGENPAKRNTAYEILERF

>YP\_002343895.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNYIELLKNNKNIRILASVQFIVYFGAWFSQTGVFTLLVELNAPTWATATSAMLAFLPGVLLAPINGVIV

EKNKPKKLLLSMISIELISIFCLIFVTSLSMLWLLFILIFIRLCVASIYFQAEMSLLAKILTPQELKLAN

EMHSVIWAISYTAGMASAGIFIYFLGVKTAFLFDCILILIGISFLVRLSIPDFHQKTQSRFFTMIKEGFF

YVLNNKIIFHLILLHAFIGLTAYETLVTLLAQHQYKEVLSAALVIGFLNAVRACSLAIGPMVLSKFINDK

NLFYMYLGQGLGIILWALTQFNFYISFLGLIGAGFFTSALWAYTYTMIQKNADKEYHGRVIAYTDMIYLS

FSAIISMLMGFLFEIGLSLELITGLLGMIFIFAAFYWKWFYKKYL

>YP\_002343894.1 transcription elongation factor NusA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKIADIIESIANEKNLNLENVREKVATALINTAKRIYGQEYEFFVDPKNLNLYQKITIVADNDERLQNK

SESFIALSKAKSEAPDVEIGDELTYECSLENLGRTAVNTLHKELEYHIQKLLEQTIFEKYKNKVGQMVFG

TVVRVDNEENTFIEIDELRAFLPRKNRIKGEKFKIGDVVKAVIRRVYTDKGIKIELSRTSPKFLECLLEA

EVPEIKDGYVNIIGCARIPGERAKIILQANGTNIDPVGATVGVKGVRINAVSKELHNENIDCIEFTNESE

ILISRALAPAIVNSVKIEDKKAIVSLNSEQKSKAIGKNGINIRLASMLSGYEIELNELSSSQLNNAISNE

EAMKNLQDLFKI

>YP\_002343893.1 hypothetical protein Cj0459c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILKDLAMELKLARTLINEKPKNISLEKIEEAIEKEGQKFFYFDKDNTHKQLIALVNHFEKKGVSIYHR

TVKYGLDDNDFMYEVHIL

>YP\_002343892.1 tRNA-2-methylthio-N(6)-dimethylallyladenosine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSAKKLFIQTLGCAMNVRDSEHMIAELTQKENYALTEDIKEADLILINTCSVREKPVHKLFSEVGGFEKV

KKEGAKIGVCGCTASHLGNEIFKRAPYVDFVLGARNISKITQAIKTPKFMGVDIDYDESEFAFADFRNSI

YKSYINISIGCDKHCTYCIVPHTRGDEISIPFNIIYKEAQKAIEKGAKEIFLLGQNVNNYGKRFRNEHKK

MDFSDLLEELSTIEGLERIRFTSPHPLHMDDKFLEVFANNPKVCKSMHMPLQSGSSEILKAMKRGYTKEW

YLNRALKLRELCPNVSISTDIIVAFPGESEKDFEETVDVLEKVRFEQIFSFKYSKRPLTKAATMPNQIDE

EIASRRLSTLQNRHSEILDKIVKKQENKTFKVLFEELRAGNSIAGRTDNNFLVQVEGSEELLGQFKEVKI

TNAKRMVLYGEIV

>YP\_002343891.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGKSFKIHCLTYIIFILQWLIFLSCKKHYKGEKVDRKAGVILFWHGKLALMPFAFRHYRQKNKKAYVMIS

HHKDGEQIAKIIKLFGLDTVRGSTSRGASSALRAAFKVLEQNDDIVITPDGPRGPYHSISDGSIILAQKK

ELKIRILNYEANRFWKFKSWDKMILPKPFSKITYSLSEPLDILSLDKEKAKEFLMKQFDKISLADQFKE

>YP\_002343890.1 hypothetical protein Cj0456c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLFLLKKIFPQLFISIILEDKKNIVKASIYRGNKLISSNEKTFDKSENLLEYIKNLSKHFLFYHTALFLD

AKEQGLIPSTNIQDCEHFNIGKISLQHILLNNALVYTATEHVEYYSELFEEYRGLDFLYSPFALLYYNMQ

KEKQPDDQILLYGFKQGYLLAIIVAKGNTILYGDFKIFEQELGLELELPSEDNQEIENNNDDTEVTLDNF

NEALNNKFDLLDQENNLETLDNNDNFNLDELNQFSNDMELCRYIITSIEKFYNDDKYAGVFINGILLYSE

SDININAIDFLESETFLEIKTKQINTLDLMIELMRKEVK

>YP\_002343888.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGGIVLLVLANKFQELQMKDKSLEEIDLLKLIICALSFISVCTALILFLLLPTLKNYKQANLRENSQLAI

LKAAKSKFDFSEDKISTLRSENNKSLEQFEQNFNIGNFNIFLQKYFQNVKIQETKPEKQEKYLKNRLAIK

ATMNNPRRLYDFIDALKNYNNLIKLDYPLNLKAGEQGISIDLTLKVYSS

>YP\_002343887.1 phosphomethylpyrimidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTQMNYAKEGIFTKEMQIVAQKENLSKDFLLENIACGKIIIPANINHKSLDPNGIGFGLRTKVNVNLGV

SNDCVDYSEEMKKVELAHKFGIEAIMDLSNYGKTSRFRDELVNVSKAMIGTVPVYDAVGFLEKDLKQINA

KDFLDVVYHHAKSGVDFMTIHAGINSRAAHIFKQSKRLTNIVSRGGSVLYAWMMMKDAENPFFEYYDDLL

DICLKYDVTLSLGDALRPGSTHDASDGAQISELIELSLLTQRAWDVGIQVMIEGPGHMAINEIEANMQLE

KRLCKGAPFYVLGPLVTDIGAGYDHISGAIGGAVAAASGADMLCYVTPAEHLRLPNLEDVREGIVATKIA

AHAGDIAKLPKERARDDEMSKARQEIDWEKMFKLAIDGEKAKKMFNERRPDDLNSCSMCGKMCAMNTMNQ

ILKGEDVSLA

>YP\_002343886.1 DNA polymerase III subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLQQIDQIISILNKQSKPYDWVMQEFAKVEELKNFDLDLETFELLGLGLTLNKDNIFTLKTRTTKIKDE

IFCIVDIESTGGVSKGEILEIGAVKIQNSKEIGRFQSFVKVKEIPKNITELTGITYEMVENASSLAKVLS

DFRLFLKDSIFVAHNVRFDYSFISKALNECGFGILLNRRICTIEFAQCCIESPKYKLEVLKEFLGVENMH

HRALDDALAAAEIFKYCLGKLPYHIKTTEELINFTKTARIKQK

>YP\_002343885.1 ribulose-phosphate 3-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYVAPSLLSANFLKLEEEVKAIEAAGADLLHIDVMDGHFVPNLTFGPCVIEKISTISKLPLDVHLMVKDV

SKFVDLFISLKPKFISFHMESEVHPIRLCEYIRSQGIHPAIVLNPHTPIDSIKHMLEFVDMVLLMSVNPG

FGGQKFLPLIHEKIKELRQMIDKKNAKVFIEVDGGVNGLNASDLEESGADILVAGSYIFSSNDYKTAISS

LKLEF

>YP\_002343884.1 50S ribosomal protein L28 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARVCQITGKGPMVGNNVSHANNKTKRRFLPNLRTVRVTLEDGTTRKMRIAASTLRTLKKQNSK

>YP\_002343883.1 hypothetical protein Cj0449c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLHEYRELMSELKGKDAHFDKLFDRHNELDDMIKDAEEGRTSLSSMEISTLKKEKLHVKDELSQYLANYK

K

>YP\_002343882.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFGSKINHSDLQKLEEENKNLTHKIEKFQSENLELKNKITSLEQAALESKLKTDLLNVLLTGVLKNITII

QGDMLENVNKAEVISSYSKTSLAEMDELNHIANSINASLGNITESANKTRDVAGTLHRSVDEITNVINLI

KDVSDQTNLLALNAAIEAARAGEHGRGFAVVADEVRKLAEKTQKATTEVEMNINLLKQNANEMYTQSEQV

EKISIDSNAHIMSFSEKFTHLVNEAHSTNSNAVGIASEAFVSLAKLDHIAFKLNGYKEIFSKSGKQLADH

TSCRLGKWLASTGKERFGQNKSFLKINEPHEKVHENMNNAITIANTEDISKDITQHSIINKCEVAENASL

DLFNVFKEMLDESDH

>YP\_002343881.1 NUDIX hydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAFKNLKELSFEKSNYIKPKRFAYESNGRLCTWDFIESKDSVSVLLYHKELESFIFVRQFRIPLWYHQMH

DKDYVKDDDMGYTIELCSGLVDKKLSLEEIAKEECIEELGYAPKNLEKIGDFYTGFGSGVSKQSFYFVEV

DEKDKISSGGGVDDEEIEAVYVKVQDFEKKCKNMIRTPLLDFAYMWFLKEKWGKLKII

>YP\_002343880.1 acetyl-CoA carboxylase carboxyltransferase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MASYLDFEKNIQQIDEDIINAQIKGDTEAVSILKKNLEKEISKTYKNLSDFQRLQLARHPDRPYALDYIE

LILNDAHEIHGDRAFRDDPAIVCFMGYLGEKKIIVIGEQKGRGTKDKIARNFGMPHPEGYRKALRVAGLA

EKFQIPILFLIDTPGAYPGIGAEERGQSEAIARNLYELSDLKIPTIAIVIGEGGSGGALAIGVADKLAMM

KNSVFSVISPEGCAAILWNDPAKSEAATKAMKVTADDLKSQGLIDDVIDEPTNGAHRNKEAAAVAIADYV

KKSLNELENIDVRELSANRMQKILKLGAYQEA

>YP\_002343879.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRVVVTGIGMINALGLDKESSFKAICNGESGVNKITLFDATDFPVQIAAEVKNFDPLEVVDGKEVKKID

RFIQLGIKAAREAMQDAGFSEELDKEEFGIVSASGIGGLPNIEKNSIICSERGPRKISPFFIPSALVNML

GGLISIEHGLKGPNISCVTACAAGTHAIGEAYKSIALGNAKKMLVIGAEAAICPVGIGGFASMKALSTRN

EDPQHASRPFDKERDGFVMGEGAGALVFEEYEEAKKRGATIYAELIGFGESADAHHITSPTLDGPLRAMK

KALNMAGNPKVDYINAHGTSTPVNDKNETAAIKELFGNNIPLISSTKGQTGHCLGAAGAIEAVVSVMVLR

DGVVPPTINQLVKDDECDLDYIPNISRKVDLKVVMSNSFGFGGTNGCVVFKKVD

>YP\_002343878.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MATFDDVKAVVVEQLSIDADAVKMESKIIEDLGADSLDVVELIMALEEKFEVEIPDSDAEKLIKIEDVVN

YIDNLKK

>YP\_002343877.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMLFSNLIKENQKIWNAYLHHDFVKKLEDKSLKQENFLFYLKQDYIYLLNYAKCYARLALNSNTAKELRF

AMKFQNYIVEGEMELHRAILSLGINADELDIKDESLVNIAYSRYMLSVGENGDFLDMLVALSACAIGYAK

IGAEIINRLKNENLKDHPYKEWILTYGSENFQNEAKEFEDFVNSYTSSVGAQKFQKLSEIFHTVTRLEVA

FWEHSLRMELNL

>YP\_002343876.1 succinate dehydrogenase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKEYAFFPGCVLSQAAKESKISLEAIAPILGWKLNEIKGWSCCGASQAQCVDPIATLVANARNIALAEE

MKMPMLTTCSTCMLTLTKAKNTLDKGAKERINIFLAQGGMKYQGSTPITSLLWELYEDLDNLKSKVKKPL

SNLKVALFYGCHSLRPEDAFGKKESSTNPKSFESVVEVLGAKIVPFEKRLDCCGFHASYPAEKSVKKMSS

QIVNNASENQADCVVTPCPLCQMQLDIYQERFQDYTNSKARLPIIHLSQLVGLALGLSKEMVGLDYNIID

ASKIA

>YP\_002343875.1 succinate dehydrogenase iron-sulfur protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>YP\_002343874.1 succinate dehydrogenase flavoprotein subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGEFSRRDFIKTACISVGALAASSSGVYALDDSSKMDKDINLPSCDVLVIGSGGAGLCAAAAVRKENPKL

SVVVATKMMPSRNATCMAEGGINGVTDFSNGDSYKLHAYDTIKGGAYLVDQDAALKFCELAGKAIFNMDF

IGTLFSRNEQGGVAQRLMGGASKKRCNYSADKTGHILMHSCLDDAISSGVKFLMNHELLDIGVVDGKCEG

VVLRDIQSGGIYPVLCKALVIATGGYTRIFYNRTSTPFIATGDGVAAALRAGLGFEDPEMIQFHPTGVAN

GGTLITEAARGEGGYLLNNRGERFMKNYHEKMELAPRDVVARAIETEIREGRGYGEGLGAYVLCDVRHLG

KEKILKDLPKIRHTAMLFENIDLVDTPVPIRPTAHYSMGGIEVAKFEDMGTKIAGIYVGGEASCISIHGA

NRLGGNSLADAVVTGHLAGIGATNYAKDASFGKGAKTHELAQKWQVRFKEITNNGGNGQEMYELREELGS

QNWDNMGIFRTQEKLDLLAKKLEDIQARYEKIRIPNPNEVMNTAFTDYVELGNLILLSRCACLAARNRLE

SRGAHTREDYPKRDDKNFLKHSIVNLENDELKLSYKDVVVTEFSLDGRRVQ

>YP\_002343873.1 pyridoxamine 5'-phosphate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMDLKEIAQFLDDNAPAFLATLGTCGNPRVRPIQSPLLVGDKIYFCTANTKGLFKHIKNYNDIEFCSCAK

DGTFLRLRANAVFEPNLEVKKMMFKKYPYLVNLYETPQNPKFEVFYLDHLSARMQFMNGEFKLFKA

>YP\_002343872.1 3-ketoacyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFSGKNVLITGASKGIGASIAKTLAGFGLKVWINYRSKPELADALKDEIIASGGVAAVIKFDASKEDEF

ENGVKTIVESDGELSYLVNNAGVTNDKLALRMKLEDFSGVVDTNLSSAFLGCREALKTMSKKRFGAVVNI

ASIVGEMGNAGQVNYSASKGGMIAMTKSFAKEGASRNLRFNCVTPGFIKSDMTEVLSNEIKQTYQDNIPL

KRFAEPEEVANCVAFLLSDYASYVTGDVLKINGGLYM

>YP\_002343871.1 2,3-bisphosphoglycerate-independent phosphoglycerate mutase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQKCVLIITDGIGYNKNSKFNAFEAAKKPSYEKLFKEVPNSLLKTSGLAVGLPEGQMGNSEVGHMCIGS

GRIIYQNLVRINKAIENKELEKNENLKKLLAKCKRVHIIGLYSDGGVHSMDTHFKAMLEICAKNGNEVFA

HAITDGRDVSPKSGLNFIKDLKEFCENLGVHFATLCGRFYAMDRDKRWDRVKEYYECLLGKAYKVPNLLE

YLQKSYDENVTDEFIKAAQNENYKGMREEDGIIFINFRNDRMKQLVEVLNSKDFKEFEREKIFENLLTMS

VYDDKFKLPVLFEKEKIENTLAQVISKAGLSQLHTAETEKYAHVTFFFNGGKEELLENETRVLIPSPKVK

TYDEKPQMSAFEVCDAVKKGIEKGEDFIVVNFANGDMVGHTGDFNATIKAVEAVDTCLGEILECAKKHDY

AFIITSDHGNCEAMQDEKGNLLTNHTTFDVFVFVQARGVSKIKDNMGLSNIAASVLKILDLEIPKEMNEA

LF

>YP\_002343870.1 phospho-N-acetylmuramoyl-pentapeptide-transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYYLSDLSHYAFFTYISVRAGFAFFIALCLSLFLMPKFITWAKAKNASQPIYEYAPETHKTKCHTPTMGG

LIFISSAVIASLFCIKFDNIFAISALLCLILFCLIGLIDDLGKVLKKDNHSGLSPRMKLLAQIIAGLICI

LPLYFSSELSTELFIPFYKHPLFDMEIFAIAFWILVLISSSNAVNLTDGLDGLATVPGIFSLSTLGIFLY

LSGNLNYSEYLLLPKIQGLGEVVIICAALIGALMGFLWYNCYPAQVFMGDSGSLALGGFIGFLAVISKNE

ILLLLIGFVFVLETVSVILQVGSFKIFNKRVFKMAPIHHHFEKVGWVENKIIVRFWMIALLSNLLALASI

KLR

>YP\_002343869.1 UDP-N-acetylmuramoylalanine--D-glutamate ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKISLFGYGKTTRAIAENLVDKFGPFDIYDDHFTETKKDTLGNLLLNPNDFDDNLSDIEIPSPGFPPKHK

LIQKAKNLQSEYDFFYDIMPKSVWISGTNGKTTTTQMATHLLSHIGAVMGGNVGTPLAELNPYAKLWILE

TSSFTLHYTHKAKPEIYALLPISPDHLSWHGSFDNYVQDKLSVLKRMNECDVVILPKIYANTPTKAHKIS

YEDEKDLAVKFGIDTEKISFKSPFLLDAIMALAIEKILLDTLSYKLLNSFVMEKNKLEELKDSQNRLWVN

DTKATNESAVMAALSRYKDKKIHLIIGGDDKGVDLSNLFDFMKGFDIELYAIGISTEKMLDYAKKANLKA

YKCEVLSKAVNEISNHLRVNEVALLSPACASLDQFNSYAERGKVFKECVNKI

>YP\_002343868.1 ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKAFSLLEFVFIILILGIVFNLGSLYLKKDNLLEGAIQILNDIQYTQSLAMMQEGIRVDELTIAKREWF

KSKWQIYFIKSAATGYDQTYTIFLDKNGDGNANLGKTEINIDREIAVDVINHNKLMNSGQSGVISKDDEK

TTQRFNLTKRFGIEKVEFKGSCSGFTRLVFDEMGRVYSPLKNANYAYEKTLAKNNSDCIIRLLS

>YP\_002343867.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKIKNYKLIIILLSLDLLALLYGTSTLSISADEADIYFGEQGKSLIFSHSLLYYISHFGTFIFGQNDFG

LRLPFLFFHFLSCLLLYLLALKYTKTKIDAFFSLLLFVLLPGTVASALLVNAASLVIFLTLAILCAYEYE

KKWLFYILLIIVLFVDKSFNILFLTFFFFGIYKRNAILFTLSLVLFGASISFYGFDTGGRPRGYFLDTLG

IFAACFSPLVFVYFFYTIYRLTFQKYKNLLWFLMSVTFVFCLLLSLRQKLFLDDFLPFCVICTPLLIKTL

MQSYRVRLLVFRLRYKIFIECSIIFLIFCYFLIVANQLLYYFINNPNRHFANNYHFAKELALELKKQDVL

ELATAPSLQKRLRFYGIKNSNKFYLKALKQADKHDMDKKIVKVKLGKYEKVYQILNYD

>YP\_002343866.1 hypothetical protein Cj0429c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQTIDQIFQTQIDIKKSTFLSFLCPFKDFKFLIETLKKEHPKAVHFVYAYRVLNDFNQIVEDKSDDGEPK

GTSGMPTLNVLRGYDLINAALITVRYFGGIKLGTGGLVRAYSDAANAVINNSSLLSFELKKNTTIAIDLK

NLNRFEHFLKTYSFNFTKDFKDCKAILHIKLNEKEEQEFEIFCKNFAPFEIEKL

>YP\_002343865.1 hypothetical protein Cj0428 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQVNYRTISSYEYDAISGQYKQVDKQIEDYSSSGDSDFMDMLNKADEKSSGDALNSSSSFQSNAQNSNSN

LSNYAQMSNVYAYRFRQNEGELSMRAQSASVHNDLTQQGANEQSKNNTLLNDLLNAI

>YP\_002343864.1 hypothetical protein Cj0427 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMAKFRIQYSAGFGHYTQNHKGFGPTIYIEEVVEFDNGKDYFDYIDFYKTYSKSDDTYFHISFLEDRPLS

DKEITIRNEYRKMRDENCKKAKEEFIANNELDVEHLPTHHD

>YP\_002343863.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVEVKNLTMRFANQLLFENVNLKLVRGQRYGLIGANGAGKSTFLKILSGEIESSSGEIVFDEGLKIAVLG

QDQFAFENYTIKDAVMCANKRLYEALKEKEKLYMSEEFTDEINERLGELEIITAEEDPNYDCETRCEKIL

SSLKIKDFDALMSTLQSADKFKVLLAQVLFLGADALFLDEPTNNLDLEAISWLENELLRHEGTLVVISHD

RHFLNKICTRILDVDFKQIRDFAGNYDDWYMASTLLAKQAELKRDKTLKEREELENFIRRFSANASKAKQ

ATSRAKALEKLELEEIKISSRRDPSIVFRTNREIGNEVLEIKGIGKAYDKQLFSNLELKIEKNDKIALIG

ANGVGKSTLAKIIAHAISPDSGSIHLGATIELGYFPQDTSNLICENLKLYEWLMSEKFKDLDEIRKCLGR

MLFSGSDQEKMAASLSGGEKHRLMLSRLMLERPNFLLLDEPDNHLDLESIIALGEALYNFKGVVLCISHD

RELVSAFANRIWHLENGKLTDFRGTYQEFLGENDG

>YP\_002343862.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKKVILFFLMGFALLQANSLDKCDNTAVVSNLKEKIPSEIFKNLYELSGLKAQGIDYEDYAKGLKEIAK

HDGMVNYTDMIEVNSISNFDLNFDSCMATINAALKGEQRKGLWSVVYKVSNINQVKITDITYINGDFQ

>YP\_002343861.1 acidic periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKFLSICSLIAMLLSGCGSDFPGQPSDVARVQQNKYPNGNLKKEIPYNKDSRIHGLKRAFYDNGQLRAE

ENYKNGKKDGISREYSRNGQLLEEVHFKDNRGYGDFASYYENGNMRAKGKLLGYNEDGMPEFEGNYKEYY

ENGTLMCDYNFDNKGKFDGVQKRYDENGALEDEENYKNGLKNGVFREYKKGEIVREEEYKNGILVAKPKN

>YP\_002343860.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEGASGGSIFVTILLFILYMLPAIIGLSRKHSNWLIISLLNLFFGWTIIVWLVCLIWSFTGSFKQTIIIK

EKNEK

>YP\_002343859.1 H-T-H containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKKSKRDMAYELDIDVSTLYNWRKYKPNLYRIVMLGFKFDELLDNSKKTHEELLHIEQTIQDEIAKFK

>YP\_002343858.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFLLDFLISLSFIFEISALVLSFYFKNSKIFFLTLVLLGAKLPYFYTSFFQANLFVALFLPMIFTLFCVG

KHHVLILNKKNIASITTLIFIGILSIILPRNTTFNSAGLEFHFIALDFFKPVSELGFLFFLVGLILIFIK

TFKTKEYYLLIAFFTAYFQFLFQEGAGIRYFEFASLVFCFYLLNHAYRLAFFDTLTKLPNEKSLTRFTKG

KNNYIIALLHFNELKDTKESYTKLILKQIAKILKRFRAKIFIVENDFILIFNDKNQALNHLAFLESTLKN

TEFNLENENFKPDFKLIWQESEENLDKNLQSLRARLLD

>YP\_002343857.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVLLSSLVAVSLLSTGLFAKEYTLDKAHTDVGFKIKHLQISNVKGNFKDYSAVIDFDPASAEFKKLDV

TIKIASVNTENQTRDNHLQQDDFFKAKKYPDMTFTMKKYEKIDNEKGKMTGTLTIAGVSKDIVLDAEIGG

VAKGKDGKEKIGFSLNGKIKRSDFKFATSTSTITLSDDINLNIEVEANEK

>YP\_002343856.1 histidine triad (HIT) family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIYENDLIYIEKEEAQVPWLKIFTKEIYKEFSDCPLELQKELFEKILFCEKAMIEFYKPEKINIASFANY

VPRVHFHVMARFKEDAFFPECMWGKQQRETIKLDLPKFEEFVKFLNSKIF

>YP\_002343855.1 hypothetical protein Cj0418c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQISSSYNSYDYYSSKPSFDKTNQSDSTQKDEKNLSENKDDKEKNGEQTQMVNGVELSQKEVAQVRELQS

IDRNVKAHEAAHQAAGGGLAGAASFTYTRGPDNQMYATAGEVPISMQKGNTPEETIANARQIAAAAMAPA

DPSPQDYKVAANATKMEFEARAEAMKLKAEEAKEKEEENKEKDDKNSENSLEKTDKDSKNNDKNSNFDKD

FKNLVTRTYQQNSQNNDIKFSIAS

>YP\_002343854.1 hypothetical protein Cj0417 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNILHANSSHRFHKCMPKEVHQIYDTLKLMEQQEGTKKSRSQKRRAK

>YP\_002343853.1 hypothetical protein Cj0416 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITLSSFNRYFGNNPLQTLTKIRDESIENAKI

>YP\_002343852.1 GMC oxidoreductase subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAEVLKKVDVVTVGAGWTGGIVAAELTKAGLNVLSLERGHMQSTENFNYIHDEWRYGINYGLMQDCSKDT

VTFRHDPSGLALPYRKMGSFLLGNNVGGAGVHWNGWTFRFMPYDFEIQTLSKQRYGNKLGNDYTLQDWGV

TYKDMEPYYDRFEKTCGVSGEPNPLAEKMGAFRSSPYPQEPLENTKMLKRFESAAKSSNLHTYRLPASNS

KGGYTNPDGQDLAPCQYCAYCERFGCEYGAKASPLNTVIPKAMSTGKYTIRTYSNVTQILKKDGKVTGVK

FVDTRTMKEYIQPADIVVLTSYMFNNAKLLMVSNIGEQYDPKTGKGTLGRNYCYQMNMGTTAFFDEQFNT

FMGSGALGTTSDDFNGDNFDHSKEKFLHGAMIYSVQLGTRPIQSAPLPAGAPTWGAEFKKALNYNFTRAI

TVGGQGASLPHKNNYLSLDPTYKDAFGMPLLRLTYNFTDQDRALHKFITDKTAEVAKRMQGVKSIKKGAY

LKDYSVVPYQSTHNTGGTTMGADRETSVVNTYLQHWDADNLFVVGAGNFQHNSGYNPTDTVGALAYRCAE

GILKYHKSGKSLA

>YP\_002343851.1 oxidoreductase subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQDNIIDRRSFFKLGLLGGSVVAASTIGGGAVLKAAELTHSHQASQGKSNKIRGRMFFQTQTEFDTLSAA

CERIYPKDEQGEGAIGLGVPYFIDNQLASAYGYNDREYMQGPFMEGKAEQGYQTPMQRKDIFLEGVHALE

ENAQKRYKKSFSLLKGGDQDKILSDFEKGKIQTTGFKSSYFFTLLRDMTVAGVLADPIYGGNDNKNGWRM

MQYPGAQMSYVDKIASDEFFNIEPMGLADMES

>YP\_002343850.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRIFLTLFLFFNSLFALSELEEGLKLYEANKFDKAYEIFKSLCEKDISKACFSLAFMHESARGVSKDLNQ

AYKFYDKACKLGLANACSNMALLLQNQGYENEALLAFNKACTLGESLSCNNIALFYEKEKDGQMASSFYK

RSCDLKNARACYQLGSLYDKGELVKASVKSALAFYSKSCTLGFGEACYLLGRYNQLEKQDLTKAKRYFGM

ACDQKHQEACAAYKELNSKDIELY

>YP\_002343849.1 ATP/GTP binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQINLLNDFIKAYENTYSVSFDDSFKGRIQELCKELNEPFMHASYALENELKELVFSLDKNVNIAIIGQF

SSGKSSLLNLILGRDCLPTGVVPVTFKPTFLRYAKEYFLRVEFEDGSDIITNIEKLAFYTDQRNEVKQAK

SLHIFAPIPLLEKITLVDTPGLNANENDTLTTLDELKNIHGAIWLSLIDNAGKKSEEDAIKANLELLGEN

SICVLNQKDKLSAEELDNVLNYAKSVFLKYFNELIAISCKEAKDEQSYEKSNFQSLLDFLTQLDTTVLKE

KFVKRKILNLCEILEDENQLFVGIFDRLLNQFQSYEKHLLLAYENFLKEIEILNHQILEQLKSISERISS

EIFASVKEKDAYFYKESKGFLKKDLYTRYDYKAPYISSDDAFLAMFYNSDVMSKEFKKIKNELYKSFEEI

KMKLKDFINILEREILLFKAEFSNIQKDHIFQSDKNFSELRAFCNASDEYFLKDFKELLFKSILELDLFF

EKLNLKAFTNYENATKLSLAFFSRKINESRVLYELDSSEFVLFYPKKSEIYERVLNELNVYEFETLLINK

PILTKIAKNFLEQSQNLIQEKNKFLDLKKAELQKRRAQILNVRESIKED

>YP\_002343848.1 ATP/GTP binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKELFQKIWQNELQFLNFDAKFQDKSKLDTAECAIILSVNKDNYERYFLLKEFQELCKKIDLRVDIFSMQ

NAQICILNLFKSGFISKQDLLKALKILEKISKNTEIFDFILQEKVQSIDQKALFQNDFKELNTINLELQK

LSFDENLKSRLQKTLEKFQNLEFNIAITGVMNAGKSSLLNALLKEDFLGVSNIPETANLTVLSYGKSEEA

KIYFWDKKEWQNILESSHFNADLKEFIDKLDKSVNIEDFIKDKPLIQNIALCELKNFSSAKNKISALIKK

IEIKSHLEFLKNNISIVDTPGLDDVVVQREIVTNEYLRESDFLIHLMNASQSLTQKDADFLVHCLLNSRL

SKFLIVLTKADLLSKKDLEEVIVYTKESLKSRLVDLDENLVEKIDFLCVSAKMASDFYKGLASKESLQKS

GMQEFENYLFNELYAGEKSKIALRAYKKELHLELKNILSEYEMQNRLIKENKQGVSEENQKLLLELQKQN

TLLKEAQDEISNSIAKLKNIDSGIDNLVLLLAKKLKERLIDEFKYLKNNAQKLNLSRILNIVDITTKDGI

NDILREIKFENIKKIEELKTNLSLKYDFLKDDFDNGFEGFKDGISKNIDSIFQSEKFALLRLKIEKLSNL

KSDLYELETNLDTVIFDTFKEFKMSEILNSLNINGAFFEFLNDKLKHYEKNQKSKLESLEKVLQSLKNQD

ANILNSFEENLEKIEKLKQLEMGLLNAD

>YP\_002343847.1 fumarate reductase iron-sulfur subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>YP\_002343846.1 fumarate reductase flavoprotein subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNIQYSDALVIGGGLAGLRAAIEVAKSGQSVTLLSICPVKRSHSAAVQGGMQASLANGAKGEGDNEDLHF

ADTVKGSDWGCDQEVARMFAQTAPKAVRELAAWGVPWTRVTKGPRTVVINAQKTVIEEKEEAHGLINARD

FGGTKKWRTCYIADATGHCMLYGVANEAIKHQVKIIDRMEAVRIIHDGKKCLGVIARDLTNGQLIAYIAR

GTMIATGGYGRIYKQTTNAVICEGTGAAIALETGLCRLSNMEAVQFHPTPIVPSGILLTEGCRGDGGILR

DVDGYRFMPDYEPEKKELASRDVVSRRMMEHIRKGKGVKSPYGDHLWLDISILGRAHVEKNLRDVQDICK

TFNGIDPADEGPKGWAPVLPMQHYSMGGIRTKPTGESQWLNGLFACGEAACWDMHGFNRLGGNSCAETVV

AGMIVGDYFADYCKNNGEVIDTNVVKDFLTKEYQYLKSLVDKEGKHNVFEIKNRMKEIMWDKVAIFRTGE

GLKEAVDELEKLYKDSQDVKVHCKELDCANPELEEAYRVPRMLKIALCVAYGALLRTESRGAHYREDYPK

RDDLNWMKRTNTFWVEGETLPRIEYEELDIMKMEIPPAFRGYGAKGNIIENPLSEKRQAEVDAIREKMEA

EGKGRYEIQNALMPYELQAKYKAPNQRIGVDYE

>YP\_002343845.1 fumarate reductase cytochrome B subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRELIEGYLGKSIEGKKSKMPAKLDFIQSASGLFLGLFMWVHMLFVSTILVSEDFFNSVVHFLELKFVYD

NPVMSYLTSFLAACVLVVFFVHALLAMRKFPINYRQYQILRTHSKKMNHSDTSLWWVQAFTGFIMFFLGS

AHLIFIVTNADKISGDMSGDRVVSHFMWLFYAVLLVCVELHGSIGLYRLCVKWGWFEGKNVKESRKKLKT

AKWIISIFFLVLGVLSLAAFIKIGYENYQNQTQTTAMIKNYNGANYEYTI

>YP\_002343844.1 prolipoprotein diacylglyceryl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFWQHIYSNFNVIAFSIFGLKVHWYGIMYVIALLLALLLAKFFVRKFQLDINEKHLDSYFIWVEIGVIL

GARLGYILIYDANTMYYITHPWQIFNPYINGEFVGIRGMSYHGAIIGFLIATLLFCKKYKTNPWIFLDLV

ALSVPLAYVFGRIGNFLNQELFGRITNVPWGIYVDGVLRHPSQLYEAFLEGIVVFIIVYLARFKQSFQGE

LILVYAGAYSLARFICEFYREPDFGIGFVLWGMSMGQILSFIMFITALLVYICIKFKKVNI

>YP\_002343843.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYILLASSMLILAACGGTSSNFVNVSMPNFKPQVPTKVEPIDSGVSIALVPINIEQNNNYSDYFENSV

LKIRIEKEIDLLKQNLEEQIKTIAQLKGYKIVTTNPDYTLKSSISIYTEEKNVQKTSNFMSGDYVKSNLG

INFKGKIDFIDAHNPQNSTNLSSSTKLDSLVALNYPIKNDDGVNMFKTTISTVPTQLNKGLEQPAFEIDK

SFLAFYKNTLNTLYNNLPKATDIGKTIPNTNSGFNSFDGDATFEESLPQTNSNQNNTIENAPTQNIPTNP

SSTNQNNQSKNQDGVEIFE

>YP\_002343842.1 shikimate 5-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFLAVIGDPISHSKSPRMHNNAIKALGLDSIYTRYHLRNANCLREDFFKLGLSGANITLPFKEKALDIA

DVKDDFARNIGSANTLCLKEDKIYAYNTDALGFLEAIKDFDNIKKALILGAGGTALALAYVLKQKGVEVY

IANRSKERFKDFLAYPTYLYKNLQDFDFDLVINSTSAGLKDENLPCDRELLDRILPKAKFAFEVIYGRET

PFYRLCKEYHLKIKDGLDMLLWQGVFAFELFFEIQDKREMIKNAMQQALILK

>YP\_002343841.1 transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENQKNEFDDIILEKSNKSEKVKKILLRVIALVILFLAIMIVMKLINGSGDENTQNQSVLPSEPIATQDN

NNDTSFESMPITDNTSAEDQFEALRKQFQDEQNTTQNTTTSSSNNNDTTNFAMPDQEVPAEPTATTSANT

TPQASTPKQEVTQTAKSKEEAKKQTAVKKEKESAKQTPKKEQNANDLFKNVDAKPVHPSGLASGIYVQIF

SVSNLDQKSKELASVKQKGYDYKLYKTTVGSKEITKVLIGPFEKADIAAELAKIRKDIAKDAFSFTLK

>YP\_002343840.1 hypothetical protein Cj0403 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MISPMDMSLIKIIGDHYYIRRDKIVNKITHRGRLFFDKFERVDAPLNLNVMREHAAKKIVVAHDLITKDN

KVENIVFDYNGFNAERFYHRAQLILREEGFINFTAYKTKTPGHLHLYIHKGHTALNEGYSLASKLSMMFA

SKMPVEWKVFPSMDVPREFNILILPYEVYQKERGSSWSKHM

>YP\_002343839.1 serine hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLEMFDKEIFDLTNKELERQCEGLEMIASENFTLPEVMEVMGSILTNKYAEGYPGKRYYGGCEFVDEIE

TLAIERCKKLFNCKFANVQPNSGSQANQGVYAALINPGDKILGMDLSHGGHLTHGAKVSSSGKMYESCFY

GVELDGRIDYEKVREIAKKEKPKLIVCGASAYARVIDFAKFREIADEIGAYLFADIAHIAGLVVAGEHPS

PFPYAHVVSSTTHKTLRGPRGGIIMTNDEELAKKINSAIFPGIQGGPLMHVIAAKAVGFKFNLSDEWKVY

AKQVRTNAQVLANVLMDRKFKLVSDGTDNHLVLMSFLDREFSGKDADLALGNAGITANKNTVPGEIRSPF

ITSGLRLGTPALTARGFKEKEMEIVSNYIADILDDVNNEKLQENIKQELKKLASNFIIYERAMF

>YP\_002343838.1 lysine--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDNILEQQRIEKAKELKNLGINPYPHFLEKEMSLKTFKDKFSYILEQVEKRDESVNAVVAGRLKLLRIA

GKSIFANIEDEDTNLQIYFSKDSVGEELYTILKKNLEVGDIVLVKGFPFVTKTGEFSLHASEVKLATKAI

VPLPEKYHGLTDIEQRYRKRYVDMIMNVEVRKDFLVRSKVVSLIRHFFENKGFLEVETPMMHPIAGGANA

KPFVTFHNSLGVERFLRIAPELYLKRLIVGGFEAVFEINRCFRNEGMDLTHNPEFTTIEFYWAYHNYKDL

MDLTEELFALLLDKLNLGKTIEFDGKMINFSKPFERITYKDALCKYGGLDRDLIEDKEKILTKLKADGFE

ANEKLELGHLQAELFDNYVEEKLINPTFVIDFPISISPLSRRSDEDSQIAERFELFICGRELANGFNELN

DPLDQYERFLKQIEAKNAGDEEACEMDEDFVNALGYGMPPTAGQGIGIDRLVMLLTNKKSIRDVILFPAM

RPLKSELKEKE

>YP\_002343837.1 ferric uptake regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIENVEYDVLLERFKKILRQGGLKYTKQREVLLKTLYHSDTHYTPESLYMEIKQAEPDLNVGIATVYRT

LNLLEEAEMVTSISFGSAGKKYELANKPHHDHMICKNCGKIIEFENPIIERQQALIAKEHGFKLTGHLMQ

LYGVCGDCNNQKAKVKI

>YP\_002343836.1 colicin V production protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFYWFDAFILGFTLLLGLKGIINGLIKEIFGLLGIIGGVFIASKYATQAAEFIQSTFYKIENQSLAGFA

GFLAILIIFWIACLLAGNFLSKLIKLSGLGFLDRIGGFIFGGAKIFLIFAILVFCVARIDFLNDKLDNFA

KNSYTLNLLKETGSFIMNQPLTENSLDHASEKLQDIVSDLNNTQKGE

>YP\_002343835.1 glutamyl-tRNA(Gln) amidotransferase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIDEKLLSKLEKLSALQITKNRNETIAQLSEIVNFVEKLNELDLDSQEITVSTIKGGAPLRIDEIRNSN

VIDEVLDCAPKKQEHFFVVPKIIE

>YP\_002343834.1 hypothetical protein Cj0397c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGLKDNLKAVKNELNTEEQFIENFIKGERFIRKYKFYISAVVIILVAWFAGNFIISKINDYKTKEANEIY

ANLIQDPSNKNLLEQLKNKNTNLYAIFLLKENINDFNNTTLQNELKQIYNNAQTNTLLKNIIALSLGDKS

IFLKNYDKLLEAYKLLEQNKIEEANVLLSQIKENSSLNQIAKNLKHYQGITQ

>YP\_002343833.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLTLFCLIFLCACGTKRQYFEPKQTDGDLSHNSNLKSKIVDWNLVSAKLSNNTTILKNNISIDKFK

LPKNYMLLAYQDGEYFTADNNGNLKIFDNSYNEIYNFQFDASVVGVASNGDDLALVLANNTIVLANRSLG

IKFSQTLTSAPAQDSRTANPIFLDNIIVYPTLDGKILILSRNNLQIIKDVVISAENFFNNVIHLSVIGDK

LIAATAKKIIVVSPARTLYLDADIKDVALSDDGIFILEKDGTIIKTDYNLRKIAEKKFEFAIFVKSNIYN

NYLYIFEKTGYLIKMNLNLDNAQVFKLSEAVDKISFMGNGKFYYGDKILDLL

>YP\_002343832.1 hypothetical protein Cj0395c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKILEQTIKALKLNLKPYDLSMLTRKKSYICAKDQNNILFMYTGKTKFLMKDALFLENLAQQININNKY

FFSMASLCSKAKNHLEMKGFNIYVAL

>YP\_002343831.1 pantothenate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLLCDIGNSNANFLDDNKYFTLNIDQFLEFKNEQKIFYINVNEHLKEHLKNQKNFINLEPYFLFDTIYQG

LGIDRIAACYTIEDGVVVDAGSAITIDIISNSIHLGGFILPGIANYKKIYSHISPRLKSEFNTQVSLDAF

PQKTMDALSYGVFKGIYLLIKDAAQNKKLYFTGGDGQFLANYFDHAIYDKLLIFRGMKKIIKENPNLLY

>YP\_002343830.1 malate:quinone oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQQEFDVLVIGAGISGAALFYELARYTNIKNIALIEKYNTAATLNSKGTSNSQTIHCGDIETNYTLEKA

RKVKRTADMIVKYGLMQNAQNNFMFSHQKMALAVGDIECDYMKKRYEEFKELYPYIKFFDKAKIKQIEPK

VVLGEDCNQDRPENICAMGVESGEVFTTVDFGKMSINLIEQAQKQNKNTFVAFNQEIIHIEKKDDIFILK

TSNHQEYHAKSVVVNAGAHSLYLAHKMNLGMDKSCWPVAGSFYLTKQKLLNGKVYMVQNPKLPFAALHGD

PDLLADMNTRFGPTALVIPKLERYHGLKSVPEFFEALKLDKTVLKVTFNMFKDATIRNYIFYNYLFELPF

VDKSLFVKDAKKIVPSLKASDIYYAKGFGGVRPQVIDKTKGELMLGEASITETPGIIFNMTPSPGATSCL

GNAERDAKLVCNYLGMEFNEDKFSSELL

>YP\_002343829.1 pyruvate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKKTKIVATVGPASEKEEILRQMIINGVNVFRLNFSHGTHEYHKKNLDTIRRVAKELHTRIGILQDISG

PKIRTGELKEPFELKKGDRLDFYRETILGEKIAQNHYKISINQKSILDMLKIDEYIYLYDGSIRAKVVNI

DNQKIETIIENDGFLNSNKGINFPNTKINIDVITQKDKNDLLWGIKNEVDFLAISFVQNAHDIDEVREIL

AQNNAKISIFAKIEKFDAVENIDEIIKSSDGIMVARGDLGIEVPYYKVPNIQKEIIQKANNASKPVITAT

QMLFSLAKSKTATRAEISDVANAVLDGTDAVMLSEESAVGIDPANAVDIMCQTIIETEKRYPYNKFNDFN

DLDNTDKIMRSSAHLATDLNADAIFSLTSSGKSAIKIARYRPNIEIIAVGHSEKTLNSLSIVWGVNPAIL

VNKSNELTELLKDSVRSSVEKGFMDEDKCYLLTAGFPTGVEGTSNLIRILNKEQIAYYLQ

>YP\_002343828.1 hypothetical protein Cj0391c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQVNTFSNIASMARTQVSNKKADDAKENTKDKNVQSANSSKDVDKNTLEKLNALGGKGITQIYLVQFQQQ

TMNAVIGSSNAQTGLDSLLNGANLDTAKSILTNIDFASLGYSSKNPLDMNTDELQQLVSEDGFFGVENTA

NRIADFVIKGGGDDVEKLKKGLEGMKKGFEQAEKMWGGELPQISQNTIDAALKKVSDRIDELGGKTLDLQ

A

>YP\_002343827.1 transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAEQEDIILEKPEDGLNQPRLDESLEGFKGQEGQAPEDEEFASLPEELPQENSESGFKFTRESAPEDVST

FEEVESQEPTPWYKDRKFMSLVGLSLGIICILVFTLFYLTFSEGKIKPDIIASKPLEQPVIMPDESYKYN

DMQRIDGMIQKANALYLKGEVEQALKVYEQVAVYNESLSNYNLGVSQMNENKFQEAFESFKKAIANGENQ

SVAAINAAVCALKLNDKEKFRYYIDLAQVYLPKEGKSKLYDYYLSLINYYKGYYPEALQMLQRTDVEPYS

DVAKYLSAKIYAKMDFDSKAIQQLNSQGNFESSLSLGLLYARIGEYAKAKVALSTAMKIERDFNQSLAAL

TLVDIKTGNYQDMLARLQNSYDNDKDRYKILDTYKIQVRLNKDLFNIAVAQNSFSKDLLKKQKDQFDLLF

YFAPYQVFDSKQAALYIKKANVTDFVDDSTDAGIYLNISKALSSTNVKIANIINYALNQKLRLANQEFQK

LIKDYPEHSILHYNLALTYAQMQNYELAYKHFSSSYHLNPKNYLAGAFAMFCAKLIDIDTTKLYNEILDN

IAADSNFKANMQKSMLFLVNNNYISMLPYLDETKKDTPLSLIFEAIVAKNNNLNNQVDVKIAKLRSELPE

DILANILYFNSLNSNLNIKEYAQNAQIHFKNLKLDYRSVFGGPNIAREFYVNLMHIAGLLNLERQKFKEL

INVSGAKDEGILQTLAYLDIFAQQYEEAYALYNSLIDDYGAKDTKTLFLAAVAAVGANNPNSAIALLQLS

KLTDKNNKESKAALGMLYQEVKNYEAAISQYKTLPNNFKSEFFTFDINNN

>YP\_002343826.1 serine--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLDLKNLQNNFDEVAKKLKNKKVDENILKKLAELFASLKKEKIALEEFQAFQNKFSKELATAEDKESLKA

KLSENKSKINEQSAKVNALENELEEIAHAIPNIPDECVPVGEDENENVELKKVLNPPSFDFTPKEHFELG

ESLNWLDFMRGVKISQSRFCVLKNEGALLSRALVNYMIDFNRSRGFEFVNVPFLVNGATMFGTGQLPKFK

EDMYKVDDEDLYLISTSEIPVTNLYSGEILASETLPIKMTCYSACFRKEAGSAGRDTRGIIRQHQFEKVE

LVSITKPEQSDSVFNEMLECASDLLSSLGLAHRHLMLCTGDLGFSAAKTVDLEVWLPGQNKYREISSVSN

CRDFQARRAKIRYKNEQGKNELVHTLNGSSLAVGRTLVAIMENYQDKEGKIHIPDVLKKYF

>YP\_002343825.1 tryptophan--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRVLTGLQPSGDLHIGNYFGAIKQMVDAQEKSQMFMFIANYHAMTSSQDGEKLKQNSLKAAAAFLSLGID

PQKSVFWLQSDVKEVMELYWILSQFTPMGLLERAHSYKDKVAKGLSASHGLFSYPVLMAADILLFDTRIV

PVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKMSKSYQNTIDIFSSEKTLKKQ

ISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEAREK

YNELLEKPSHLKEILDFGATKARKIAQEKMQKIYEKIGL

>YP\_002343824.1 shikimate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKAKNIVFIGFMGSGKSTLARALAKDLDLVFLDSDFLIEQKFNQKVSEIFEQKRENFFREQEQKMADFF

SSCEKACIATGGGFVNVSNLEKAGFCIYLKADFEYLKKRLDKDEISKRPLFYDEIKAKKLYNERLSKYEQ

KANFILNIENKNIDELLSEIKKVIK

>YP\_002343823.1 GTPase Der [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQSIILIGKPNVGKSSLFNRMARQRIAITSDISGTTRDTNKTQIHIHSKKAMLIDSGGLDESDELFKNVK

KNTLKVAKESDIILYLVDGKLAPDDEDRQFFYSLKKLGKPIALVINKVDNKKDEERAWEFANFGVKEIFN

LSVTHNVGLDELYEWLEKFLHEEFLIPDEEENLEDFLEYYEEGKEFQFKEVDQNHIRVGIVGRVNVGKSS

LLNALVKQERSVVSSIAGTTIDPVNESVVHKDKVIEFVDTAGIRKRGKIQGLERFALNRTEKILSHSQIA

LLVLDAHEGFNELDERIAGLVAKHYLGVIIVLNKWDKSEMDFDKTVKELRLDRFKFLAYAPVISVSALSG

KRVHVLLDKILQIFENFTQKIQTSKLNTLIENATRAHPLPHDYGKLVKIYYAVQYDLAPPKIALIMNRPK

ALHFSYKRYLQNQIRKEFNFEGVPLVIASRKKGSKENDES

>YP\_002343822.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKVIKHNLGIYFMILACLDFALMGACAKILSKEMSSIEIMFFRNIIGIFFIVYLLKRSKAHKEGGYFWL

LVFRGVVGTLSLYMFFYNVSNITLGGAFAFQKTAPIFITLIAFVVFKENIGIKGWIGILIAFGGVLLIAQ

PWVHNLNHSGFDLKNSVIGITSGFLAALALTSVRELRKSYTTEQIAFSFILLGTLMPLISMISAEFFEPQ

HLDSLHLDFILAPFVMPSLTAWLIIAIMGTLGTIYQIHVTKAYGIAKQAGVVAGVSYLDVVFSMIVGIIL

GDNLPSTMVFLGIIGIIFGGLILVKNKGKK

>YP\_002343821.1 2-dehydro-3-deoxyphosphooctonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKMILIAGPCVIESKDLIFKVAEQLKNFNENPNIEFYFKSSFDKANRTSINSFRGPGLEEGLKILQSVK

DEFGMKILTDIHESNQANPVSEVADVLQIPAFLCRQTDLLVAAAKTKAKINIKKGQFLNPSDIKYSVKKV

LQTRGIEDEGYEAAQRNGVFVAERGASFGYGNLVVDMRSLVIMREFAPVIFDATHSVQMPGAAGGSSGGK

SEFVEPLARAAAAVGIDGFFFETHINPCEALCDGPNMLNLTRLKNCVNTLLEIQNIIKENK

>YP\_002343820.1 6,7-dimethyl-8-ribityllumazine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNIIEGKLNLDSNTKIAIINARFNHIITDRLVEGAKDAFLRHGGKEENLSLILVPGAFELPYALKKAIES

KKFDAICCVGAVIRGSTPHFDYVSAETTKGIANVSLNHNIPVSFGVLTTDTIEQAIERAGSKAGNKGFEA

MTTVIEMLNLSKEL

>YP\_002343819.1 transcription antitermination protein NusB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MATRHQVRQSVISLLYAFELNSQNNVFVDEILDEKKIRNEQKNFTLNLYNGILDNLNNIDETLNSFLNDN

QITALGHVERAILRLGAYELLFTDTPSAIVINEAIELAKELANDNSPKFINGVLDALIKAKK

>YP\_002343818.1 orotidine 5'-phosphate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEELKKVDDFKIFLDLKFHDIPNTMAD

ACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSALTSFDEENFFSIYRQKIEEAVINFS

KISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQKRVANLAMARENLSDYIVVGRPIY

KNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEEWIKTRPDKEHALKEFYAKCGIKY

>YP\_002343817.1 hypothetical protein Cj0380c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNYQQLECDYFNLYNQFLSVDFQISLFEKDHKGLIKDFIFFYYQILKQKDLSYLLEVRNKISLKVYNYMQ

EHSTSPKDLSLICLRENKHIEFFQIFYKALAYFVAFRKKLDGEQKIKNLISNINDCFGYHFLNSDFNNLQ

NFQKSDLFTLPEKHLKYFHFAMIHLCFMVLNPLNFKDSNRHLDKAINYLVDGTFEIYELIFKEYFLLFSK

DKELKDELRKLKKLEFKILMQETSKIKLLNHYKEFCEEIFYNIELEKITQN

>YP\_002343816.1 sulfoxide reductase catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLITPEKLYKQRRNFLKLGAGALISSSVLASKLSALNFTSDTNPNKLEISDEELATNYVNFYEFSTDKRK

AVSLAQNFNTQNWKIDISGEIEKPLTLSMEDILKFPLEERIYRFRCVETWSMVVPWVGFELRRLIEMAKP

TSEAKFVKFTTLLDKSQFPDQDALFPTIDYPYVEGLRMDEAMHPLTLLAVGMYKKALKPQNGAPIRLVVP

WKYGFKSIKSIVKIEFTKEQPKSTWESYAPSEYGFYANVNPNVSHPRWSQANERALGDFFTKPTLMFNGY

EKEVASLYKNMDLKVNF

>YP\_002343815.1 ferric reductase-like transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQTKYFKFLAYFSFIISLIYGFYHIIKAFDFVKEAYIYTGIFALIFLNLSLLFSLLKFKKTKNYPKILGI

FAAFWAILHFLNYFIFDRNAQILRLFDDISHRLLEAIGFIAFLIIFLMLLSSFKIFKKLSKIRKLGYLCL

ILASYHYFLTPKIPMFWEWSALIIALFYFIVRYTKTLKS

>YP\_002343814.1 AAA ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKLKNFLILKNIEDTQIYKELKCAKNEALILRELCRNYVVSISSINAFTLLSTIFGNDKYLYLDALEDL

KKLIERGFVNQNSSFFKSLENNKTQTLTLALLQSELSLSEYFLEFLEAKPRLNFEKQEAYADYLEYLKDE

FARIQLYERLSFIQKSAYNSEIKNQIKLYERHIKERLKKSKFYNVLADIFKEYNLEHKEQIIFLALLKEE

YALSNESSISREMNSLLSLISENDLERHKNKKLLQENAPLLNLIECDEYLNAFGDISKSFFIIDEILQRI

INFEPKQSKKIKIESVLKDQDIFELIEPSTDINDIIMPENTKELLENILKQQDKKVLERLHSWGIKSNKN

IEAKIIFYGPAGTGKTMSALAMAKSMKKSVLSFDCSKILSKWVGESEQNVRKIFDTYKNIVQTCKQSPIL

LLNEADQFLSTRVDGSSGSDKMHNQMQNIFLEQIERFSGVIIATTNFLESLDSAFSRRFDYKIEFKKPDF

KDRLKIWEKFLPKKALFEKDFDINILSNYELSGAQILMVVKNTALKVAVSKDGVFKIQDFIESIQKELNS

SFDKSKIVGF

>YP\_002343813.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFFLLVFCFVNLALAKVYKGELHFYHLQDKEIFAIVYDNAPMTPLFDRDKNQTSSSFLIVDDINGNLEI

PLVKINDFWQDERKKYKINSSKMLTYDNKNFQGENLGTTTLELVETQDGIRIKRSLDFIGFNDDFKEFHP

VHKGVFSFEQIRQKPIFLQDGKISFEEWYYFYEDGMSRAILELNNFVYDINAHAFVKLNDLYNTENQKFQ

NLLHEKLKNTCDECFEDLQNLQFNNNFLLNNGKLKICYLPFEGHFLDENICVEFNEDELKEFKK

>YP\_002343812.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKHCLALCFVFFLCACSVKNQNFSSQSLMVLIASPMIKINDTAFLKKENNALNLEVYKLGQAFFELKIKD

KICINAVCYDKQVFNQKFFKNVYYDDILSDILKANPLWQGKNLEKTDCGFEQNLKAKNYEIFYQVCDNKV

SFFDKISHTKIILTHIQN

>YP\_002343811.1 nucleotide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MASEHSFDISAALDKQELKNAFEQAKKELDSRYDLKGIKCEIDLSEKESIFKLSSSSEGKLDVLKDIVIS

KLIKRGINPKAIKELSRESGAMFRLNLKANDAIDSENAKKINKVIKDSKLKVNSSIRGEEIRVAAKQIDD

LQAVMKLVKELDLELNISFKNLK

>YP\_002343810.1 2-hydroxyacid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIVCLDAATLGDYDLSVFEKFGSLQIYTTTNKEQTIERLKDANVAMTNKVVIDKDVIDACKNLKLILET

ATGVNNIDIEYAKEKGIIVKNAAGYSTMSVVQHTFAFMFAFLNQVLYYDKWSKEGKWCESPIFTDYSRIL

NTLSGKKHGIIGLGTIGKEVAKISKAFGAEIYYYSTSGANKNADFVHLELKDLLKTCDIISIHAPLNEKT

KNLLAFEELKLLKDNAILINVGRGGIVNENDLAKIIDEKNIRVGLDVLEIEPMMKNHPLLSIKNKENLII

TPHVAWASKEALNALMDIVYNNLKEWIENGK

>YP\_002343809.1 glutathionylspermidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQLLQVDKLQKDYLENIGFSWHTDEDGSDYISNKLVCVKESEANAYYEAVNELYDMFIAAAQEVINNDRF

DELGIPFNLIDAIKMSWENEVHWHLYGRFDLAGGLDGKPIKLIEFNADTPTALFESAILQWALLKQNGMD

ESAQFNSIYESLMDNFKRLITLDESVEGFEEHYQGWKILFSSVAGSKEEEITTKLLAHIANEAGFQTNFS

FVDEVEFSEEGIFKEGENYEYWFKLIPWEDIAIEEGELAMLLTQIMRNQRAIILNPAYTLLFQSKGILKI

LWELYPNHPLLLETKDTPLEGKNYVKKPVFGREGANISIIKDGKTLHENVGPYGNNKAIYQEYVEFNSCE

NEYYQAGVFFAYEGCGLGFRKGGLVLDNYSKFVGHIIKD

>YP\_002343808.1 hypothetical protein Cj0371 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIKKIIQIGMIGGLAAVAGGALAGCGSNNDNADTLNQAANAQGAFVIIEETAPGQYKIKDQYPSDETR

VVLKDLNGTERILSKEEMDALIKEEAAKIDNGTSNLTKDNGQISSGGLSLGETLLASAAGAILGSWIGSK

LFNNQNFANQQRGAFSNQSAYQRSVNSFNKAGTTSSASSAKKSGFFGGGSKATSSSSSFGS

>YP\_002343807.1 30S ribosomal protein S21 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPGIKVHPNESFDEAYRKFKKQVDRNLVVTEVRARRFFEPMTEIRKKQKISARKKMLKRLYMLRRYESRL

>YP\_002343806.1 ferredoxin domain-containing integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQGHITNYTKKRYFVYLIASIIIFSLPFIRINENHFFLLSFDHSKLNLFFISFSTQEFYLMPFVLIFLFL

FIFFITTLGGRIWCAWSCPQTIFRVIYRDIIQTKFLKIRKNINNKQKEYERQYFKKFLGVIIFYFISLVA

VSNLLWYFIPPEDFFNYIQNPGEHLLLLGILFCASLLFTLDITYLQEKFCVYVCPYARIQSVMFDHDTMQ

VIYDEKRGGLIYDGHTKLHKKPPEGECIGCEACVSICPTHIDIRKGMQLECINCLECADACSKVQSKFNR

PSLINWTSAKAIETRSKVHYLRFRTIAYFIVLLIALLALIIMGSKKESMLLNINRSSELYNISNVKGELV

ISNAYTFLFQNTDSKPHEYYFTANLEGINDGIEIIRPNKPFKLKAGEQVKKIVVIRATKNLANNDKKDVI

FPLHIKAYAKDNEKISVFRKSIFVYPKSTLIKDKNELK

>YP\_002343805.1 transcriptional regulator CmeR [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNSNRTPSQKVLARQEKIKAVALELFLTKGYQETSLSDIIKLSGGSYSNIYDGFKSKEGLFFEILDDICK

KHFHLIYSKTQEIENGTLKEILTSFGLAFIEIFNQPEAVAFGKIIYSQVYDKDRHLANWIENNQQNFSYN

ILMGFFKQQNNSYMKKNAEKLAVLFCTMLKEPYHHLNVLINAPLKNKKEQKEHVEFVVNVFLNGINSSKA

>YP\_002343804.1 multidrug efflux pump protein CmeA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLFQKNTILALGVVLLLTACSKEEAPKIQMPPQPVTTMSAKSEDLPLSFTYPAKLVSDYDVIIKPQVSG

VIENKLFKAGDKVKKGQTLFIIEQDKFKASVDSAYGQALMAKATFENASKDFNRSKALFSKSAISQKEYD

SSLATFNNSKASLASARAQLANARIDLDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYAD

FFISDTDKLNLVRNTQNGKWDLDSIHANLNLNGETVQGKLYFIDSVIDANSGTVKAKAIFDNNNSTLLPG

AFATITSEGFIQKNGFKVPQIAVKQNQNDVYVLLVKNGKVEKSSVHISYQNNEYAIIDKGLQNGDKIILD

NFKKIQVGSEVKEIGAQ

>YP\_002343803.1 multidrug efflux pump protein CmeB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFSKFFIERPVFASVVAIIISLAGAIGLTNLPIEQYPSLTPPTVKVSATYTGADAQTIASTVASPIEDAI

NGADNMIYMDSTSSSSGTMSLTVYFDIGTDPDQATIDVNNRISAATAKMPDAVKKLGVTVRKTSSTTLAA

ISMYSSDGSMSAVDVYNYITLNVLDELKRVPGVGDANAIGNRNYSLRIWLKPDLLNKFGITATDVISAVN

DQNAQYATGKIGEEPVTQKSPYVYSITMQGRLQNPSEFENIILRTNNDGSFLRLKDVADVEIGSQQYSSQ

GRLNGNDAVPIMINLQSGANALHTAELVQAKMQELSKNFPKGLTYKIPYDTTKFVIESIKEVVKTFVEAL

ILVIIVMYMFLKNFRATLIPMIAVPVSLLGTFAGLYVLGFSINLLTLFALILAIGIVVDDAIIVVENIDR

ILHENEQISVKDAAIQAMQEVSSPVISIVLVLCAVFVPVSFISGFVGEIQRQFALTLAISVTISGFVALT

LTPSLCALFLRRNEGEPFKFVKKFNDFFDWSTSVFSAGVAYILKRTIRFVLIFCIMLGAIFYLYKAVPSS

LVPEEDQGLMIGIINLPSASALHRTISEVDHISQEVLKTNGVKDAMAMIGFDLFTSSLKENAAAMFIGLK

DWKDRNVSADEIAMELNKKFAFDRNASSIFIGLPPIPGLSITGGFEMYVQNKSGKSYDEIQKDVNKLVAV

ANQRKELSRVRTTLDTTFPQYKLIIDRDKLKHYNLNMQDVFNTMNATIGTYYVNDFSMLGKNFQVNIRAK

GDFRNTQDALKNIFVRSNDGKMIPLDSFLTLQRSSGPDDVKRFNLFPAAQVQGQPAPGYTSGQAIEAIAQ

VAKETLGDDYSIAWSGSAYQEVSSKGTASYAFALGMIFVFLILAAQYERWLIPLAVVTAVPFAVFGSFLL

VYLRGFSNDIYFQTGLLLLIGLSAKNAILIVEFAMEERFKKGKGVFEAAVAAAKLRFRPIIMTSLAFTFG

VLPMIFATGAGSASRHSLGTGLIGGMIAASTLAIFFVPLFFYLLENFNEWLDKKRGKVHE

>YP\_002343802.1 multidrug efflux pump protein CmeC [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKIISISAIASFTLLISACSLSPNLNIPEANYSIDNKLGALSWEKENNSSITKNWWKDFDDENLNKVVD

LALKNNNDLKLAFIHMEQAAAQLGIDFSSLLPKFDGSASGSRAKTAINAPSNRTGEVSYGNDFKMGLNLS

YEIDLWGKYRDTYRASKSGFKASEYDYEAARLSVISNTVQTYFNLVNAYENENALKEAYKSAKEIYRIND

EKFQVGAVGEYELAQARANLESMALQYNEAKLNKENYLKALKILTSNDLNDILYKNQSYQVFNLKEFDIP

TGISSTILLQRPDIGSSLEKLTQQNYLVGVARTAFLPSLSLTGLLGFESGDLDTLVKGGSKTWNIGGNFT

LPIFHWGEIYQNVNLAKLNKDEAFVNYQNTLITAFGEIRYALVARKTIRLQYDNAQASEQSYKRIYEIAK

ERYDIGEMSLQDYLEARQNWLNAAVAFNNIKYSYANSIVDVIKAFGGGFEQSEDTSKNIKEESKNLDMSF

RE

>YP\_002343801.1 hypothetical protein Cj0364 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKAKIVQNLNALFKQRAEFYSYFDENIAKINNTEVFDFKNAKNLNPEEVYKQFYHFDYAIRKLLPAIYK

AYEITDADLDKDF

>YP\_002343800.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLFQNLALKYSHTMMEKSLQKGFNVELLKQPEEKIPKQDKSYMLYAHVPFCHTFCPYCSFHKYYYDENL

AKVYFQNLREEIKIMKNKGFDFTSMYVGGGTTLIDEEELLKTLELCKKLFNIKEISCESDPNHIDPNKLS

MFKGIIDRLSCGIQSFDDETLKKVARYNKFGSSKELQEKISKALGILPIFSIDLIFNLPGQNEKQLLNDL

EIAKNLAPQQITTYPLMKSNLTKDNIAKSLGVSIKDNEFTYYQIIREFFKDYTQNNGWSFSLEKNKLNDE

YVSSHHEYLGVGSGAFSFLDGELLINAFNLNDYAKFIQEKQNANIAKACFDKKEIIKYVFLTGIFSGKIE

IDKFNKTLNCNLEKELFIELLGLKTSGAIIKDQNALIATEFGQYLFVVLMKDFYTGMDLVRAVFRDDKRL

KNKDYIDIMKENIDPLNSASMEFKAETN

>YP\_002343799.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTEWINDYYFWIKWVHYLAFVSWMAGLFYLPRLFVYHAEHKDNKGFVEVVKIQERKLYYYIQTPAMIVTL

ITGSLMLHAHKEVLMVGAGFMHVKLTCVTLLIIFHIHNYYCLKALANDTSTKSGKYFRIYNEFPTIMFII

IALMMVVRPF

>YP\_002343798.1 lipoprotein signal peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKTFKFIFYFWGAFVLVFALDQWVKSLTLAGFRWQSEYLDLTYALNTGVAFSMLSFLEHNLKYLHLALI

GVLFIYLFWQRTLLKTHSIAFGMMLGAGVSNLLDRFIHGGVVDMFFWHKWFNFAIFNVADVMINISVALI

LIQEIFKKRKKDDRMD

>YP\_002343797.1 phosphoglucosamine mutase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLFGTDGVRGKAGEFLDSFLAMRLAMAAGIYFKDKSITNNILVGKDTRRSGYMIENAIVSGLTSIGYNV

IQIGPMPTPAIAFLTEDMRCDAGIMISASHNPYYDNGIKFFDAHGNKLSEDIEKKIEEIYFDDKLIQASK

VDMEKIGQAKRIDDVIGRYIVSIKNSFPKDLTLKSLRVVLDVAHGAAYKVAPTVFKELGAEVIVMSDKPN

GLNINENCGALHPANLAAEVKRLRADVGFAFDGDADRLVVVDEKGEVANGDSLLGVLALYLKEQGKLQSS

VVATIMSNGALKEFLNKHGIELDTCNVGDKYVLEKLKANGGNFGGEQSGHIIFSDYAKTGDGLIAALQFS

ALMLSKKKSASSILGQVKPYPQLLTNLKIAEKKDLDKIKGLKELKKDLENKNINTLFRYSGTENLIRLLL

EARDIKLLEKEMKNVVEFFKKALNG

>YP\_002343796.1 cytochrome C551 peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVKSLLIASLVAFSSLNAASLIDEAKNSGLVALPKDQKGVDEILKQNGVKASEFTLEKAELGKKLYFEP

RLSKSGIISCNTCHNVGLGGTDGISTAIGHKWTANPHHLNSPTVYNAVLNNTQFWDGRAGTLADQAKGPI

QADPEMATPAKLAVEKISSLPEYVSEFKKIYGKSGVNFDNIADAIANFERTLITPSRFDKFLEGDEKALT

KEEQKGLKLFIDKGCVACHNGVNLGGNMQAFEVAGKYKFANLGDFKGDANGMVKTPTLRNVAETAPYFHN

GAIWNLKDAIKEMGSVQLGIKISDKEAKSIETFLKSLTGTKPAIVYPQLPISTEKTPKPEL

>YP\_002343795.1 glycerol-3-phosphate acyltransferase PlsY [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENLIIYAFIYLLGSIPFGLILAKFFAKTDIKKEGSKSIGATNVLRVVKEKNPKLAKKLAIATIILDFAK

AAIPLLTLKFLHYDQALLWSVAVLAILGHCFSIYLLFEGGKGIATGAGAMIVLLPLEVLTAFIVWVVIGK

IFKISSLASLAALLAFVVSSFIFNYDLEIHTHAPVFIIAFIIVYKHLPNIKRLIFKEECKVI

>YP\_002343794.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQSHIKIKFHFKCIIGILDFERRKKQKIIIKLKAKANEFLNYAEVITKIKTWYKKEEFYTLEESLDFVSL

NLKKDFPNLTNLNIKIFKPHIIKNATVGVKLKKKY

>YP\_002343793.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRILVIEDEISLNKTIIDNLNEFGYQTDSSENFKDGEYFIGIRHYDLVLANWTLPDGDGAELVNTIKHKS

PRTSVMIMSSKTDKETEIKALKAGADDFVKKPLDFDILLARIEARLRLGGTNVIKIEDLVIDPDEEKITY

KGQDIELKGKPFEVLTHLARHSDQIVSKEQLLDAIWEEPELVTPNVIEVAINQIRQKMDKPLNISTIETV

RRRGYRFCFPKKS

>YP\_002343792.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLLITKDCVCCDACREECPDEAIYENSPIYVIDPDLCSECVNDFSEPACIVACPYECIIPDPDNVETIE

ELKLKHRDREF

>YP\_002343791.1 phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKTAVVDLGSNSIRMVIFEKTSRYGFYTTCEYKRKVRLGENAYNNGKILQEEAMQRAEDALAFFKQCA

LKHKCKKIFIVGTSALRDAPNSKNFIKRIKDNLSLNIRCIDGKSESYLGGLAALNLLSPFKDGTTLDIGG

GSSELCLIKNNRIISCISLDIGTVRLKELFYDTGKMDSLEEFIKPILEQIPKEFCNQNLIAIGGSLRAIS

NSIMQKNSYPLKNLHDFRYMLDEEKGHILKIFNSNLDSLINFGIKKDRFDTIKEGIFIFLKIAEKIKAKQ

VITSGVGIREGVYLQDLLRPKITFPPNFNPSLKCLQDKFLQSKQKNKTPHFALQIFTTLKNLHKLNDNYK

HTLLNAAKLCHIGEYLNFYFANEHSAHFVLGGLNYGFSHKEKALIASIIKLNGKKVNPYNLEPYKQLLPN

IHTISWLNFILCLAKTLSANEDKIDFAFANNTLYIYQENKILNLPKDELKKIAKPATIALAINQKI

>YP\_002343790.1 transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRLLVLFFLILPLYSVELISYNIYDRNDRVDLMLSFDNAYNGKISQKKEKNLTLLTFSDLTYSKDELKEL

NSQLVDKISISSKNNNTYIMLQNKQNINLELSSINDKFGVRIRAIEQGKANIESAPTTTANNSQELMPKP

KSTSLEGYDYTNYILVMLILVILLIVLWWFKKTMVYKNNNVSRDFTMIFQRFLDKNNQLVVFDHANKRYT

MIIGNSNVLLESIEIPEEQTIKHTEKTEKNFDSFFEENKKRIQNLIEQRQKGKKS

>YP\_002343789.1 flagellar motor switch protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDDIEFNIHHGLLQSYEDILDITVDFVSELGTTNMSVAELLKLEVGSVIDLEKPAGESVELYINKRIFG

KGEVMVYEKNLAIRINEILDSKTVLQYFKKEI

>YP\_002343788.1 hypothetical protein Cj0350 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKILEYSITHFCEHILRLRIEAAQDISGELYGASIPIMGKSEGECNFYLFFPKEFLKKIAEILINDEKF

KEDDWCDLTKECANQIIGYAKNLLNDAKGDDEYKLGIPEYLGKVDFSEIVLDEALTYKFENCYFRIGYCK

>YP\_002343787.1 tryptophan synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVDFRKFYKENANVAYTVLGYPNLQTSEAFLQRLDQSPIDILELGVAYSDPIADGEIIADAAKIALDQGV

DIHSVFELLARIKTKKALVFMVYYNLIFSYGLEKFVKKAKSLGICALIVPELSFEESDDLIKECERYNIA

LITLVSVTTPKERVKKLVKHAKGFIYLLASIGITGTKSVEEAILQDKVKEIRSFTNLPIFVGFGIQNNQD

VKRMRKVADGVIVGTSIVKCFKQGNLDIIMKDIEEIFKK

>YP\_002343786.1 tryptophan synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAYYGDFGGQFLPESAMFALNELEGAFLKFSKDKLFKKELNELLKTYVGRPTPLYFARNLSKKYQHEI

YLKREDLNHTGAHKINNAIAQALLAKKMGKKKIIAETGAGQHGLATATAAALLGLECEIYMGATDVQRQA

LNVYKMELLGAKIHAVQSGLKTLKEATTAAIQAWVGDIKNIFYVVGSAVGPYPYPKMVMHFQSIIGKECK

MQLQKLNKKVDYIIAAVGGGSNAAGIFYDFIKDENVKLIGIEAGGLGIDTPYHAATLNKGKTGIIHGMKT

KVLQDDLGNILPVHSVSAGLDYPGIGPLHAFLFESKRAQYHAISDEECMQALKLLCKEEGIIAAIESSHA

LAFLEKLCPTLKKKSVIVVNLSGRGDKDMQMIRDYKKGVIYG

>YP\_002343785.1 N-(5'-phosphoribosyl)anthranilate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKLKICGIKDEKNAKDLAFLNIDFFGLIFAKSPRRVSLEQARNLSAIFHEKDKKVVGVFVDENLEQILR

CIKEAKLDGIQIYRTITKEEFEILKVQNVFVWQVISVENSLDLKSEIFANLVLFDAKGILKGGNGISFDW

TLLGSYTKDFILAGGIGLDNVHKAVKTGAKILDLNSKLEDEKGLKDINKIKQILKELKK

>YP\_002343784.1 anthranilate synthase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILLIDNYDSFVFNVKSMLEQLSNDEILVRRNDAISLSEIKNLNPTHIILSPGPKHPSQSGICLEIFKAR

LNIPVLGICLGHQALALAFDSLVVKMQEPMHAKNSLIKQCRENELFSNLPSNFSVMRYHSLEVKQLSDEL

EILALDEKGVIMALGHKNLPYYGVQFHPESYFSEYGLQLFSNFLKQDIKKPQKQENPLSFYLQKMSENHF

LQSDDFEQICKIIMSKDYEILQVVALLILITEKSLNEKSLSAFVRQILRYSQTFSDESEMIDICGTGGDG

FKSINVSTTSAFILAALGVKVAKHGNRAISSSSGSTDVLEALNITTPNTLESVLKQLNNQGLSFLHAPFF

HPLVGELKEIRSRLGVRTVFNVLGPLLHPNLKLKYQLMGNYHAPVHRLLIEVLKNLGRKKALVVRGNDGM

DELSICDESKIYELCEGEILEYSICPEQFGFKRAFHSEIIGSSAYDNAKDLKDILSGRMQGAKFDLVVLN

AMFALYTANKASSPLVAKDMILEAIYSGKVIEYFKEYQAYAKA

>YP\_002343783.1 anthranilate synthase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFVKNVNFYYRQILEKFENSYFAEDLTKVIIGIDCDYLDANELSFSEFKAKYYEALSKNKICDFAGFFGV

FSANFVSLFEKIPLSSKKNYDFPLFLFANAKAYLIYEKNSKMFFKFGASKYFEYLKDDIEPMKKKQKNDF

EILNSLEDEKNDFLKMCEKAKEYLLSGDIFQVVLSKQLCIKHQVNAFDYYESLSALNPSAYMFYFPSKYG

VVLGSSPEFLLKIKKREIYLAPIAGTRNLENNCDLLALEKDLLSDEKELSEHKMLVDLARNDASKFGTQT

RVENLFSIIKNKFVMHIVSEVYANMKEDASIFDVIEAVFPAGTLSGAPKIRALEITSELEDCDRGIYGGA

VGFLNFNEDITLAILIRCAFFTQDKAYLASGAGIVLQSESQKEYAEICAKRKALLVAFENLKKENQ

>YP\_002343782.1 hypothetical protein Cj0344 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFQNIIKYKDFIIFILNLKQNLYLLIKINLDFKNFHKSLNF

>YP\_002343781.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEITDLPYLIIGIISGIASGLFGIGGGMIIVPSMFALGASAHHAIGISVLQMIFAAVFGSYINYKKKNLN

LKDGIMIGFGGLIGASFSGMLLKALSDVALTSVFLAVSCIFFIKYAFGIKENIVQNQRSVWVKNVILFIA

GAFTGIFAISLGIGGGLLIAPILAYFLGYDSKKVVSLSLFFVIFASVSGIISFSNSGVIDSEVIHKGILV

GIASMVGVFIGIKIIEKMHISAHRKILLCVYALSILGTTHSLLNKLNFINF

>YP\_002343780.1 excinuclease ABC subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNDTIKIIGARENNLKNIHLEIPKNKLIVFTGLSGSGKSTLAFGTLYAEGQRRYIESLSAYARQFLDKVG

KPDVDKIEGLTPAIAIDQKTTSKNPRSTVGTITEIYDYLRLLYARVGIQHCHRCGQKISSMSVSDIVSEI

LKFPKGAKIIIYSPLIREKKGTYADLLENLRNKGYVRAQIDGVLVRLDEEIELAKTKKHTIKLVIDRLEI

QEDLLSRLASDIEKGLQESFGEIEIEVLNHEEINLNKHYHFSEHSACFDCKISFVPLEPLSFSFNSPKGA

CEACDGLGIRYTLDMKKIIDENLSLENGAVKIMYGFNKSYYYKFLIAFCEQNEIPIKIPFMQLNEVQKRL

VLYGNAKTIEFLWKRNRLKRTFEGVVKMAYEMLKDEKDLAEYMSEKICKDCGGHRLKPESLAVKVAKKSL

GEILDMSIEDSTAFFADEKNFSYLSEQQKLISKPILKEINERLFFLYDVGLGYLSLGRDARTISGGEAQR

IRIASQIGSGLSGVMYVLDEPSIGLHERDTAKLIKTLRNLQQKGNTLIVVEHDKMTIEEADFIVDIGPKA

GKFGGEVVFSGTYKELLKSKSETALYMNGKKQISQLQNRTQKEWLELKNVNINNIQDLSVKFPLQNLVAI

TGVSGSGKSSLILQTLLPFAQEELNRAKKVKKLGGVQIEGLEKLDKVIYLDQSPIGRTPRSNPATYTGAM

DEIRNLFAATKEAKMRGYKAGRFSFNVKGGRCEKCSGDGEIKIEMHFLPDVMVVCDTCGGKRYNDATLEI

KYKGKNISEILNMSVLEASEFFTAVPKIKQKLDTLVKVGLDYLTLGQNATTLSGGEAQRIKLAKELSRSD

TGKTLYILDEPTTGLHFEDVNKLILVLQHLVDLKNSVFVIEHNLDVIKNADYIIDMGPEGGVKGGKVIST

GSVEKVAKEHKKTRSYTGYYLDLELKNTQKS

>YP\_002343779.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDFLYNDISYLGLFMVCFLSSTLLPLASEAFVLGFIKLDFNPNLVLIVATLGNTLGSLSTYALAYFGKE

KILEKYFSKSLKKLENFNANFAKFGSIFAFFTFLPLVGDLFALGLGFAKYSFLKTIFFILLGKLSRYTFI

IFIANSF

>YP\_002343778.1 nucleoside hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRLILDTDIGNAIAGANTDDGLALALILSSKEIKLEMLSTVCGNVPSLVAYSVAKDLFQRLNLNIPVYLG

ANEALKEPSKAWRQRLDESVKNFKLEYLWENIKSPEILENINPDAIFKMGELVSKNPKEISICAIGPLTN

IAMTMKIFKDFDINLKELFIMGGSFDMPYYTKDTNFGFDPEAASIVLNSRAKITLIPYNATMQTLLTHED

LKELQGKNILCDFIVETLGVWIDYASKTRGTKGTWIHDALTIACALDSSIADFDECYADVICDSSLARGM

SWRCFREPKMSMGVDLSTKNCVKILKNVDNARLLKLIKERLLKGVCYENYESITT

>YP\_002343777.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTNQQIDGIADKNFNTPEGRKVFKKAVFSCWLGTAMEYADFALYGLAAATIFSEVFFPEQTPVIALLLSF

VTYGIGFIARPIGALFFGHLGDKHGRKNVMMATIALMGISTTLIGFIPSYAVIGVWAPICLVALRFMQGF

GAGAELSGGTVMLAEYAPSKRRGLVSSVIALGSNSGTLLASFVWLLMVQMDEASFKEWGWRVPFMGSILI

ALFAVYIRFHVKETPVFEKQKNEMMKLRLNNEKHMKKDERSFWQRSRAFWTMVGLRIGENGPSYLAQGFI

VGYVTKILLLDKSVATTAVMIASLVGFLVIPLAGYLSDKFGRCITYRMFCLLLMIYAFPAFMLLDSKNEI

IVILTIIVGMSLASLGIFGVQAAWGVELFGVKNRYTKMAFAKELGSILSGGTAPMVASALLAYYGSWWPI

ATYFVLTAGIGFVTTFFAPETRGRDLNKIEDAI

>YP\_002343776.1 DNA polymerase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTLTIVDTFGFFFRLYYALKGFKNSQGQASGMISGFANFIYSLKNEYKSDYIVFALDSKGKTFRSEIDP

NYKQNRTPPPPELLEQIPICIKMIEKMGFISVSQEGYEADDIIASFVKTCENRDIFVRIITQDKDLYQLI

KDGKTSIYSPISKNDYDEAACLEKYGVKPNQIRDFLALCGDSSDNIPGVKGIGAKGAKTLLDEFGSIEGI

YENLTLVRNERSRNLLLEGKENAFLSKKLASLYDNLEVQNLIEKATYPDEEPLLKILEILEHYELNTLLK

KLRQNPDNKDKNLGFKATLVQDENKLFEILNTLDKESIIAFDTETTGLDTKEAKIVGFSFCMNENEAFYV

PLTHNYLGVGEQISLQSAKKAIEVIFNHFVIGHNLKYDFKIIQNNFDLNLPQKYADTMILAWLKNPSLRV

NMDDLALRLFNYETLHFESLVKKGENFASVELEKACKYAAEDAYITLRFYLYFLKNLETPLLELAKNCEF

DFIKIIMMMEENGIKLDTNALEILMKKFENEIKNLSEEIYTLCEDRFNLNSPKQMGDILFEKLKLPSGKK

GKTGYSTDEKVLNILLDKHPVIAKILDYRELAKLYSTYCEPLLKLALKDKNSRIYSSFLQTGTATGRLSS

KDPNLQNIPAHGQYAKDYKSCFVAKDGFSFISLDYSQIELRILAHFSEDEKLLNAFANDEDIHARTAIMI

FGESNYETRSVAKSINFGLIYGMGYKTLSQNLKIEANLAKSYIEKYFENFTSIKKYFEKVKNEAKQNGFI

VTLSGRKRYFDFENAKPMQIAMYERESINSILQGSAADVIKLAMLEINKELNEDKKLILQIHDELIFEVK

DDLCENFVKKTRDIMENIVKLKVKLKTSSSIAKNWGDLK

>YP\_002343775.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDLSTILGMVLAVTSISVGDILEGGNPLHVVHLSSFLIVMPTAAFCAMTSTHKKIVKAAYKELKVVFKGS

GVNLPERIAQLIEFAIIARRDGLLALESRTSEIENEFLKNAMMMLVDGKSFEEIHESMEIQTEQLEEHYK

ECAEYWIVFGETCPTMGLVGAVFGLILALKLLDNPQAMAAGISGAFTATVTGIFGAYALFAPWGKKLKAN

GMDLVKEQIVITEAIKGIAEGANPRDLEAKLFNFLSHDDPRISQFDKG

>YP\_002343774.1 flagellar motor protein MotB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKHKCPECPAGEKWAVPYADFLSLLLALFIALWAISKTNPAKVEALKTEFVKIFDYTSTQTVKEESKT

QEKYKGAAKEESDELKSLKQMTMTQQETIKRLQAALDQSDNQVALNLPSKVEFERGSAQIVSADIQDYLK

RMAELTTYLPPQAKIEIRGYTDNSDSIIRSYELAYQRAENVLKYFIEGGANLKNISIKSYGLNNPINGNP

QTLENNRVEIYFKVDTADTSTQKSVLELINKIGTKAP

>YP\_002343773.1 flagellar biosynthesis protein FlhB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAGEDQEKTEEPTSKKIEDARKEGNVPKSQDAAAIVTLIIGVTITLFMMSFMGERIVNLYRYYQSFIGVE

FDLRIIQAIMIKSIFEVLIILAPIVLSIMIAGVLGNIMQFGFIFTTKPIMPNLGKINPLKGLKNLFSLKK

IVESIKIILKVGIVFTIAFIVLLKFMQELPRVELYTMVAQLTWLRDRAIVLAAIVIVAFLIIAVLDVFLV

RFQYFKGLRMSKQEIKDEYKQMEGDPQVKGRIRRLQMEAARRRMVQDVAGADVVITNPTHYAVAIRYDTG

KEQAPRVVAKGVDFLALRIKQVAYENNVVVYENPPLARELYKACDVNDLIPREMFKAVAEVLGFVYNTNN

KSRLAGQVKKGN

>YP\_002343772.1 alkyl hydroperoxide reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIVTKKALDFTAPAVLGNNEIVQDFNLYKNIGPKGAVVFFYPKDFTFVCPSEIIAFDKRYQEFKNRGIEV

IGISGDNEFSHFAWKNTPVNQGGIGQVKFPLVADLTKQIARNFDVLYAEAVALRGSFLLDADGTVRHAVV

NDLPLGRNIDEMLRMVDTMLFTNEHGEVCPAGWNKGDEGMKANPKGVAEYLGKNEAKL

>YP\_002343771.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAVKITDICIACGSCIDECPVNAIVDDTNNPEGEDRYYVYANKCVECVGHNDQPACASACPTDGCIVWSA

VESGQPSRDNIGADMRSGDTPVFA

>YP\_002343770.1 nucleoside diphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMISGPV

VVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>YP\_002343769.1 hypothetical protein Cj0331c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIPFSKINTKEYPFKLNLENIIFEGNLVKINPKLVKINAIMQGFIYRPCDSCGTELELEIKENLELFAS

DGIFKDEANELSNTIEFFDGHIDLIEVAISELEAYLSDYFYCINCNN

>YP\_002343768.1 50S ribosomal protein L32 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAVPKRRVSKTRAAKRRTHYKVSLPMPIKDKDGSYKMPHRANPTTKEY

>YP\_002343767.1 phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINIAIDAMGGDFGEKPIIEGVLKALETKPFNAILVGNSKILKPLIPKKLEQYIQYEEASEIFSMNGNAT

DALKNKETTIYKAINLLKEKKVDAVVSAGHSGASMSLATLKLGRLKGISRPAIATLMPNIVNKTLLLDVG

ANTDCKAENLFQFAIMGEVYAREIMQIQKPRLALLSNGEEECKGNELTKESHQLMKKIPNFIGNAEGRDI

FNGEIDVLVCDGFDGNVILKACEGVATAIFQLLKNEVKQSFISKIGALLMKPSFKKLKKHTDWQEYGGAP

LLGVNGCVIISHGKSDSRAIKNAIFQAINFSQSHINKFIENELGKYNA

>YP\_002343766.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKASLKSIASYIPEKILSNADLEKMVDTTDEWITRRTGIKERRIASENENTSDLGTKAALKAIERANLK

PEDIDAILVATLSPDYFTMPSTACKIASNLGLVNISAFDISAACSGFIYLLEQAKALVESGLKKNVLIIG

AEKTSSIMDYNDRSICILFGDGAGAGVVSLDNENHILDVHTASNGNYGDLLMTQRSQKSSLCQTLSMQMK

GNEVFKIAVNTLSNDVVEILAKNNILAQEIDLFIPHQANLRIIKAVQEKLNLSDEKCVITVQKYGNTSAA

SIPMAMNDAYEEGRLKKGNLILLDAFGGGFTWGSALLKFGGENF

>YP\_002343765.1 endoribonuclease L-PSP family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKRFDECDRMSQIIVFDKYFKTAGQVAFEPSGDIKKQTKEALAELDALFEKIGANKGDLIQIQIWLANM

QDFDAMNEIYDAWIKNYPKPVRACVGSALAEGYLVEIQAFGKLREN

>YP\_002343764.1 phosphoserine aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKINFSAGPSTLPLEILEQAQKELCDYQGRGYSIMEISHRTKVFEEVHFGAQEKAKKLYELNDDYEVLF

LQGGASLQFAMIPMNLALNGVCEYANTGVWTKKAIKEAQILGVNVKTVASSEESNFDHIPRVEFSDNADY

AYICSNNTIYGTQYQNYPKTKTPLIVDASSDFFSRKVDFSNIALFYGGVQKNAGISGLSCIFIRKDMLER

SKNKQIPSMLNYLTHAENQSLFNTPPTFAIYMFNLEMDWLLNQGGLDKVHEKNSQKATMLYECIDLSNGF

YKGHADKKDRSLMNVSFNIAKNKDLEPLFVKEAEEAGMIGLKGHRILGGIRASIYNALNLDQVKTLCEFM

KEFQGKYA

>YP\_002343763.1 exodeoxyribonuclease VII large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTPTELNLKAKALLETHFDDIVLSGEISKITLHGSGHWYFDLKDERSSIACAMFKGANLKVGFKPAVGDF

LELCGSVSLYPESGRYQFIATSMKKAGFGDLEAQFLALKERLQKEGLFDPRFKKSLPKFPKKVGIITSKT

SAALQDMLKLIHQKEYFLAKIYIFDALTQGNNAPFSLIQALKKADDMDLDVLIIARGGGSREDLFCFNDE

NLAREIFKAKTPIISAIGHEIDYVISDFVADFRAPTPSAAIDTLFYSKLDIEQSLDLMEEKLMQLWNYKI

QNYENLLLNLSKFFKFNSLPKIIDEKIKQSHNIEKQLNHLLANQMRYNELKLDKLQNAYLQHENFFNKSK

KFICIRKNGKIANLEDLKSDDIVILSSQTSQKEAKIL

>YP\_002343762.1 ubiquinone/menaquinone biosynthesis methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKQEKIIEMFNQIAPTYDKANRILSFGADVAWRKKACQRVMSLYLKKDLKIADIACGTGDMIEIWQESA

LKMEKNILNIKGIDPSSGMLNVAKEKFPNVEFIKAGAQNLPLESQSLDILSISYGIRNVVERQKALSEFA

RVLQKDGILVVLEFTKREKGGFIAACRDFYLKNILPSIGGIISKNKSAYEYLPNSIEGFLSKKEFILELK

NAGFEMLDYKSFSFGVSSMFIAKKL

>YP\_002343761.1 hypothetical protein Cj0323 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVYEIQKNFLLSDCTLLENLKKDNIPFRNSKFETFYTQITSNHSVKFQSFCNEFYKITKFNNSILEQNQE

EKISKKKFEKARKKIIGKSIKKERFEFKFCSLKSYIDIYEEPKICILKIFFPTLDSSNEFKIPKDFKIQK

ELHHDLNSKHIVLYGFEYQNFDIEKYFKIIEKNQNFSLDFPNYINAYDGFRIFLFYLFKKLKFYWTLSLE

RKDKQSLCEFLFYSRSLYIVLSSMNTILDKNLSNILALKFKDITKKTQDILASENSNQDLLLFLSDEKIQ

DLFNDFDFFIKENSFYEGDCKDRFFKQLVALELRKKIILFRKNILKNFDLELFENSFFELAIFLEYFYHF

LEIKNLNKLYEKYSKDRDKNIFSKIINNKNKFCKLLKKSSKNLKIYKG

>YP\_002343760.1 peroxide stress regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MELLQMLKKHELKATPQRLCVLKILKRHEHPNIDELYIEIKKEYPSISLATVYKNLNTLQEQGLVVEINV

LNQKTCYDIYEEEHIHVVCTKCGGIEDLSFKDAKLYEYQEHLEKKIGNLVNHLSVCAYVDNCKKCH

>YP\_002343759.1 1-deoxy-D-xylulose-5-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKFAHTQEELEKLSLKELENLAASMREKIIQVVSKNGGHLSSNLGAVELSIAMHLVFDAKKDPFIFDV

SHQSYTHKLLSGKEEIFDTLRQINGLSGYTKPSEGDYFVAGHSSTSISLAVGACKAIALKGEKRIPVALI

GDGALSAGMAYEALNELGDSKFPCVILLNDNEMSISKPIGAISKYLSQAMATQFYQSFKKRIAKMLDILP

DSATYMAKRFEESFKLITPGLLFEELGLEYIGPIDGHNLGEIISALKQAKAMQKPCVIHAQTIKGKGYAL

AEGKHAKWHGVGAFDIDSGESVKKSDTKKSATEIFSKNLLDLASKYENIVGVTAAMPSGTGLDKLIEKYP

NRFWDVAIAEQHAVTSMAAMAKEGFKPFIAIYSTFLQRAYDQVIHDCAIMNLNVVFAMDRAGIVGEDGET

HQGVFDLSFLAPLPNFTLLAPRDEQMMQNIMEYAYLHQGPIALRYPRGSFILDKEFNPCEIKLGKAQWLV

KNNSEIAFLGYGQGVAKAWQVLRALQEMNNNANLIDLIFAKPLDEELLCELAKKSKIWFIFSENVKIGGI

ESLINNFLQKYDLHVKVVSFEYEDKFIEHGKTSEVEKNLEKDVNSLLTKVLKFYH

>YP\_002343758.1 flagellar assembly protein FliH [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVNRSNVISGGASDQHVVEGYRFKVISEFDNHTGEKKHTQTPDEENTNISLNDEKPVEENQVIASTQAVM

ETQIPTFQPSFVEDLLKKTDEMSSNIIKLQMQIESQENEFNNRLNSELENAKEKFTKEGYEKAKEEFQKE

LSDFKDKYLKSIAKLDNACENLENFIEKNEKELADTAIDIAKEVILKELELNSSKIAYALAKDLIGELKG

ASAIELKVNAEDYEYLKEQFDQNAHIKISLDDAISKGSVVIISDAGNIESNLNSRLTKIKKMVNNE

>YP\_002343757.1 flagellar motor switch protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKLSEEQKMVYDDLSMPEKVAIFLIQLGEDATTSVFSHMEIDVITEISRYIAMAKNVDRSVATAVLEEF

YTLLQSNQYIKSGGLEYAKEILFRTFGPEIANKILEKLTKSMENNQNFAYLAQIKPQQLADFITKEHPQT

IALILAHMDSIHAAETLEYFSDELRAEVVIRMANLGDISPSIIKRVSAVLESKLESLTSYKVEVGGPRAV

AEVLNRLGQKASKSTITYIEQSDERLAETIKELMFTFDDIQKLSTQAIREILKVADKRDLMIGLKGASEE

LKQKFLANMSTRASEAFLEEMGFLGAVRVKDVEDAQRKVVEVVQKLAEQGLVQTGDADEMIE

>YP\_002343756.1 flagellar MS-ring protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFKNMLHQIGQLYQNLTRKQRIVIAASIIVVVGFLVFLALFRGSGSNANNGYAVLVENVSPSSSAAIVA

KLEQNNIPYKLESENKILVPQDQVYRQRMFIASEGLIKDSRVGFEAFDTQAFGATNEEQKVKYQRAIEGE

LARTIETLEPIRSAVVHIAFPKDSVFTERQIPPTASVVVNVREGLKLTRKQIDGIKNIVSAAVPKLTKEN

VKISDQSGVPLDEQEAYEDDLVRAQIKFKSDQEKALEDKIIENLAPFAGGMDKVKVSVNIDFDFSKQESQ

SEIYDPNPIVRSEQTLNEERTGRKDPEIQGVPGAVSNIGPVEGLDNKGQIDTYKKNQVTTNNELSKTITN

TKKQFATVLRTSAAVTIDGKYQDVVDENGDVKSEYVPLTKEELASVESIVKNTINFSATRGDSVVVQNLP

FHRESIRVESKVKTFYNRFVEPFIPPVKYFIAAILLFIFYKKVIAPFTQKMLEDVAAQEEMQQGPNAVLD

DAEDALEKFNAARKKVEEQLGFGDNFNEDSIQYEVLLEKLRGLVSDKGEEIAALLQNLIQNDSEFGEKDM

>YP\_002343755.1 histidinol-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFNEFLNNLSNYEPGKDIEVIAKEYGVKEVIKLASNENPFGTPPKAIECLRQNANKAHLYPDDSMIELK

STLAQKYKVQNENIIIGAGSDQVIEFAIHSKLNSKNAFLQAGVTFAMYEIYAKQCGAKCYKTQSITHNLD

EFKKLYETHKDEIKLIFLCLPNNPLGECLDASEATEFIKGVNEDCLVVIDAAYNEFASFKDSKKHLEPCE

LIKEFDNVLYLGTFSKLYGLGGLRIGYGIANANIISAFYKLRAPFNVSNLALKAAVAAMDDDEFTEKTLE

NNFSQMELYKEFAKKHNIKIIDSYTNFITYFFDEKNSTDLSEKLLKKGIIIRNLKSYGLNAIRITIGTSY

ENEKFFTEFDKILR

>YP\_002343754.1 bifunctional chorismate mutase/prephenate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPNLEEFRNKIDAVDDKILDLLNERMTYVKSIGELKQSSGGSIYRPERERAIINRLKNANLGLLDQNAIE

AIYQEIFAVSRNLEMPQTIAYLGPEGTYTHQAARSRFGAMSRYIALANIEDVFKELSNKEAKYGVVPIEN

NTEGAVGITLDCLGKYNELKIFGEIYMDIHHSFVGINENLKEIKRIYSHPQGYNQCRKFLESHELSAIEF

VPSKSTANAAYLASQDKYAAAICSRIAAKLYNVPVLFDKIEDNAANKTRFLILSDIKNPKMPNCKTSILA

HTAHKPGGLSFLLEQFKKENINLTKLESRPVKSKEFLHSFYIDFEGHIDDENVKKALKDIQEIVWLGSYL

SGEKDEI

>YP\_002343753.1 HAD-superfamily hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFFLDVQGTLISDHDKSLIHGAKELIDFLNAKNLPYLIITNNTKKLDFLEKLQQKGLVIKENAYIDPFSV

LKHLLRPCKVAAFGADEFVKSLENLGFELDFVNPSAVLVASYDDFKFKDFATMIELARREVRFIAMHETS

IYKKDGRPYPGVGSIMAMLKNAIDFEYEVVGKPSIAFYKEALNLIRRQNSKIDFEDIKIISDDFRGDLLK

AKELGMKTLLVLSGKISDTKGLDTDLLDGVYPSVFEFLKDLKCQI

>YP\_002343752.1 diaminopimelate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDYKQLKQEFNTPFYIYNFDFIKERFLNLKEAFKARKSQIFYAVKANSNLSLLQMLANLDSGFDCVSIGE

VKRALKAGAKAYKIIFSGVGKTKEELRQALEYDILYINLESEAEMMLLESVAKELNLKARISIRVNPNVD

AKTHPYISTGLNENKFGVEIDIARKMYLYAKNSSFLEPVGVHFHIGSQLLDISPIHEAAAIVAKLVRELK

ALQIDLKFFDIGGGLGVAYEKNECEPDLYDYAQGILAQLHGLDLTIGMEPGRYLVAKSGEFVCSVLYEKQ

NKTKRFVVVDGAMNDLIRPSLYEAYHEIILPYNQGEESLCDVVGGICESGDFFAKARSLPSTQSDDIMVI

KNTGAYGFSMSSNYNTRNKVCELALEEGQVRLIRQRENFEDQIALEEKFLKA

>YP\_002343751.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWIFFRFISGIYLKNFFIIFFSLLGFYCGIDLLLNFKDLPKAANLDLLYVMFLSFSAVPYVLPISLIFAL

VVSLISMIRANEFVSLYALGLSRNYVILFPFLWALFFCCIYIGLNFTSFAYANDYKRNILKNGTIMNQSG

EVFLKFNNNFVYISKINNGQNSAQNIKIFNINDLNLSSFASAKNAHFEGESWILRDGNITLLPKNYELAN

DGLKIQDFSELKSLEGFKPKIIEGVASNSDYSISDALESFELFKAQNVNTDTLKINLYKFVFTPFFAPFL

MLIMYYFFPVIARFFNLAFVTFIAFVVTLMIWGVLFLLTRLSENSVIASEIGIVVPIIILGCLSAYMYYK

HR

>YP\_002343750.1 peptidyl-tRNA hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILVVGLGNIGVEYENTRHNVGFMLIDLLLKESNFTNLTNSKFKGELFKIGSSLLLLKPSTYMNNSGLSV

KAVNDFYKCERMIVIHDDIDINLGALRFKKGGSSGGHNGLKSIDTLCGNDYERVRIGVGKGENVISHVLG

KFKSEEEITLSKVLEHAKKALLELIENDDLSAISSKYSLKA

>YP\_002343749.1 50S ribosomal protein L25 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEGIVRESIGRKAAKALKRDGYLIANIYGKGLENINAAFKVNEFIKEVRKKTTLIFDVKVGSQTLSVVV

VDYQKDPVTAELKHVDLKVAQKGVISKYMVPVKITGTAIGLKNKGVLIQSKRRLKVKCAAENLPNFFELD

VSKLDVGDALLVRDIVVPAGVTMIDADRVAVVGVEKAR

>YP\_002343748.1 efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEKFNINIAWFLIILGGIIECFWVSGLKYSTEIWQYILTAIGVCISFTCFLKACERLEVSITYSVFVGI

GTIGVVLNEMFIFNEAVSIIKLVLIAILLLSIIALKWVSKEA

>YP\_002343747.1 efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEWFYLFLATACEIFGVVIMKELVSTKNKLYLLALIVCFGFSFTFLSLSMQNIAMSVAYAIWTGAGTAGG

VMIGVLFYKESKSFLKLFLIAVIITCTAGLKFLS

>YP\_002343746.1 dethiobiotin synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIYVSGIHTDVGKTHFSAAFCANFNYDYFKLIQAGTPTDSEFIAKFSPKTKIFKEGIFLQTPASPHLGK

IKEKLDYKALDIILPKSKNLLIELAGGLFSPMDENYTMIDFVNIFKHPTILVAKYYLGSINHILLSIEAL

KQRNINLLALVMMGKKDILQDDFIKNYAKIPIINLDFFDENSILNKDFKEQMQEILQLKIP

>YP\_002343745.1 adenosylmethionine-8-amino-7-oxononanoate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNQILKNLDLKHIWHPCTQMKDHETLPLIPIKKAKGVWLYDFDDKAYMDCVSSWWVNLFGHCNEKIANA

IKKQVDELEHVILAGFTHEPIIKLSARLCEKVGRNFNKCFYADNGSSAIEVALKMSFHYHLNKGVKKSKF

LSLSNSYHGETLGALSVGDVALYKDTYKALLLECLSTPVPQGKDYTKELEILKDILEKNASEICAFILEP

LVQCAGNMHMYEARFIDEAIKLCHKFGVQVIFDEIAVGFGRTGTLFALHQCKQSPDFICLSKGITGGFMP

LSVVLTRDEIYNAFYDTYESQKAFLHSHSYTGNTLACAAANAVLDIFEDENILVKNQILSEFIKKEFSRL

EKFDFLGNFRTCGMISAFDILSTKYKRVGLFVFQKALEKGLLLRPLANTIYFMPPYIITKEQIVYVLESL

EQIFKEF

>YP\_002343744.1 8-amino-7-oxononanoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLEKILQDLEQNHNLRTLTPLKHENKFVYKQDHKLLNLVGNDYLYLASSKELKAEFLNTLKEQDLFFSS

SSSRSLSGNFEIYEKLESFLKTKFKDKEILHFNSGYHLNISCIAALSSVSKTLFLTDKFIHASMIDGLRL

GRADFFRFHHKDMNHLESLIQKHYENYENIIVLSEALFSMDGDFSDFKTLCELKRRYDKIKLYIDEAHSV

GCFDEEGLGLVKKLALENEVDFLVFTFGKALASMGACIICDEKYKKFFINKARAFIYSTALPPINVAWTQ

FIFKKMPYFKKEREKLELLSTFFKSKLQEKNHIVLGDAYIICLLLGENKKALEISQKLQKAGFFAPAIKE

PTVPKNTARIRFSLHAGLNTEELERIIELL

>YP\_002343743.1 hypothetical protein Cj0305c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYEFLCKNPDSKKLIVVFGGFASHSSHFSHLKSDKNVILFYDYENFDLNFDFKAFDELFLIAFSMGVCV

ANRLLKELNFKQKIAINGTNLGIDKSKGIHPAIFRKTLQNFKLENFKEALFKERKNLTKDFIFKDEKALK

IELEKLFDFALVKQEENLLWDKVYSSKKDEIFPPNALKNAFSKLIFLNEPHFAFFHFKTWDEL

>YP\_002343742.1 biotin synthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFLKAKDYEKHAKVQDFMGLKLCEILKNLRISHFEKVFEFGCGRGELSKKLQNFITFDEYLKNDILDFK

ENSSILIFDMNEIAKQDLSKEKFDLIVSNATLQWLDLKRIIPSLRDMLNQNGILLLSTFAEQNLKEIKQS

TGFGLNYFSLNELEQIFKVYFNEVKITQELIKLSFDNALDVFRHLKLSGVNSLGFYPLNKGFLKEFEEKF

QNKLTYHPVFILCKNDIK

>YP\_002343741.1 molybdenum ABC transporter substrate-binding lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFVVFFGILLFVSCLNAQNLSIFVASSASKAMSEVKDEFLKTHPEDKIELVFGASGKYYELLKQGREF

DLFFSADTKYAKAIYDDKNALIKPKVYVLGVLALYSLDENLLQGGVENLKEKANKITHLSIANPKVAPYG

VAAKEVLENLGLNELLKDKIVLGENISVPVLHVDSKNSDIAIVAYSLVSSINHPKGKAVIIDAKYFSPLE

QSYVITKYAKDKKLAFEFNEFIGSSKAKEIFKKYGFSTP

>YP\_002343740.1 molybdenum-pterin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLIKGQICELLNQEDIVIVKILSKEVIFSVLMLELKSLENLKIGVSVELLFKEHELCFSASKTLLSVEN

SFLAKITKIKKGKLLYQVFFDFKGNELSSIITKEKALELEICENQEWLCFVKANDIVLRSHSA

>YP\_002343739.1 molybdenum ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLDPAFLQTLYLTFKLAFITTFILFFIGVFLAYLLSFVRFPFKTILQSFISLPLILPPSVLGFYLLVTFS

ANSFLGQVLKEYFNLSLVFSFEGLVFASLIFSLPFMVNPLQSAFSSINPNLLDASYSLGKSKIYTLFRVI

LPNSKAGIFSACAMSFAHTVGEFGVVMMIGGHKQGETLVASIAIYDELEILNYSLAHQYAFILFIFSFLV

LFSLYFINKKMSFQ

>YP\_002343738.1 molybdenum ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIRIDINHPMNTAKGRLDLNFKKDIESGKITALFGESGAGKTTLLKIIAGLIKPKLGRIEVDNELWFDSS

KNFSLALQKRKIGFVFQDYALFPNMNIKENIAYAASSKAKVSELLALMKLENLAKIYPKHLSGGQAQRVA

LARALAREPKILLLDEPLSALDFKMRANLQDELTKILEYFKISTLLVSHDLAEIYKLSHRILELKNGKII

KDFPKNEFFTHSNISAKLRLSATLLEIKKSDILVVLTLLLNQDIIKITLSEEEFLKAYQDVKIGDTLLLS

IKAFNPIIVGKLDK

>YP\_002343737.1 beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKITLFLLFLNLVFGQDKILNNWFKEYNTSGTFVFYDGKTWASNDFSRAMETFSPASTFKIFNALIALD

SGVIKTKKEIFYHYRGEKVFLSSWAQDMNLSSAIKYSNVLAFKEVARRIGIKTMQEYLNKLHYGNAKISK

IDTFWLDNSLKISAKEQAILLFRLSQNSLPFSQEAMNSVKEMIYLKNMENLELFGKTGFNDEQKIAWIVG

FVYLKDENKYKAFALNLDIDKFEDLYKREKILEKYLDELVKKVKNDG

>YP\_002343736.1 3-methyl-2-oxobutanoate hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKSMISFLEKKAKNEKITMVSAYDYHSARILDNSDIDIILVGDSLAMTVLGMQDTLSVTMDEMLIFTKA

VSRGAKKSFVLADMPFMSYQSSDRDAILNASRFIKESHANGVKVEGGIEIASKIKLISQSGIPVVAHLGL

TPQAVNMLGGYRVQGKDLQSAQKIIDDAKAVQDAGACMLVLECVPVKLAQKISSILEIPTIGIGSGKYCD

GQVLVYHDLLGLNKDFKAKFVKHFDKIDPQVGVEKYRDEVKSGIFPSQEHSFDYLDDELLDKLY

>YP\_002343735.1 pantothenate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQVITSVKEAKQIVKDWKSHQLSIGYVPTMGFLHDGHLSLVKHAKTQDKVIVSIFVNPMQFGPNEDFSSY

PRDLERDIKMCQDNGVDMVFIPDATQMYLKNFSTYVDMNTITDKLCGAKRPGHFRGVCTVLTKFFNILNP

DIVYMGQKDAQQCVVVRHMVDDLNFDLKIQICPIIREEDGLAKSSRNVYLSKEERKASLAISQSIFLAEK

LVREGEKNTSKIIQAMKDILEKEKLIKIDYIELVDFNTMENIENITDNVLGAVAAFVGKTRLIDNFLVQG

LK

>YP\_002343734.1 aspartate 1-decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNITLLKSKIHRASVTEARLDYIGSISIDEKLLQASGILEYEKVQVVNVNNGARFETYTIATQEEGVVCL

NGAAARLAEVGDKVIIMSYADFNEEEAKTFKPKVVFVDENNTATKITNYEKHGAIF

>YP\_002343733.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLRKADIKDLNACLSLFEQSVKTLCAKDYTKDQICAWIKIDRQQWEEKFKYDEIFVYEKRGKIASFISVK

QEQKLLDLLFTHPDFVRQGLAQNLLDFILKTYLHNEIYTFASLSAKDFFLKNGFELIRENKVIKEGQNLK

KILMKKDVIYKN

>YP\_002343732.1 MoeB/ThiF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMNDRFTRIKWLVGEEKFQKISQTKVLVCGLGGVGGICVDALYRSGFKNLTLIDADKFEITNQNRQIHSE

NIGEEKAKVFERIYKVKGIVSKIDENFLKNFDLSEFDLIIDAIDDIPAKVALAHLIDFKKQIFISSTGGA

RKLDPTRIKTTSIFKTHGDALAKKFRYELRKSGFKGNFDVVFSDEEAHCKDLGSFMGVTASFGLALASLA

LRKVLAKKS

>YP\_002343731.1 stationary phase survival protein SurE [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEILITNDDGYESEGLKKLIKMLTKEFKAKITIVAPASEKSACSHSITLTKPLRFVKVGKRFYKLDDGT

PADCVYLALHALYKKRLPDLVISGINKGANVGEDITYSGTCAGAMEAVLQGIPAIALSQFYKKSEKELDY

KNALQITKKIIQNIFDKGFPLEKKEFLNINFPAKSKIKGIKICKAGKRVYNFEAHSNVNPRGVEYYWLAA

ANLDFEDEKNSDIALLKKGYATITPIMLDLTAYERMKKVKKWLKANDE

>YP\_002343730.1 major antigenic peptide PEB3 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIITLFGACALAFSMANADVNLYGPGGPHTALKDIANKYSEKTGVKVNVNFGPQATWFEKAKKDADIL

FGASDQSALAIASDFGKDFNVSKIKPLYFREAIILTQKGNPLKIKGLKDLANKKVRIVVPEGAGKSNTSG

TGVWEDMIGRTQDIKTIQNFRNNIVAFVPNSGSARKLFAQDQADAWITWIDWSKSNPDIGTAVAIEKDLV

VYRTFNVIAKEGASKETQDFIAYLSSKEAKEIFKKYGWRE

>YP\_002343729.1 ipid-A-disaccharide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTFLVCALEPSANLHLKEVLKAYKKDFGEFELHGIYDESLCKEFDLNSKPLYSSHEFSAMGFIEVLPLI

FKAKKAIKELANLSFTQKINGILCIDSPAFNIPFAKALKKAGSKIPRIYYILPQVWAWKKGRIPIIESHF

DILASILPFDNQFFNKSTYIGHPLLDEIKEFKNQEDINHTFSKKDDEKTIAFLPGSRRSEIRRLMPIFKE

LSQKFKGKKILCVPSFNLEKLEVYGDISEFKIESNTPKVLKKADFAFICSGTATLEAALVGTPFVLAYKA

KAIDIFIAKLFVKLKHIGLANIFCDFAGKEALNPEFLQDKVNVLNLYEAYNKYDYKAFFAKVDFLKEYLQ

FGSAKNLAKILNEI

>YP\_002343728.1 transcription elongation factor GreA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKEPMSQFGYDKLAAELKDLKDNQRPAVVIEIDTARSHGDLKENAEYHAAREKQALIESRIAELSDLLA

RAQVIDPSSYEHDSVKFGSSVVIMDLDTEKESKYTLVGICEGNLDKGYISIASPIAKAMLGKKEGDDFKV

RLPKGESEFEILSINYEPLKF

>YP\_002343727.1 hypothetical protein Cj0286c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIGEISATHEFAKPYIELLEELALKIEIIYLEGNHDFNLSCFFKRVKIFNLQEQPIKLNLHTSKGNNLV

LNSAFIKLAHGDIFLPPLLQFTLKTLRNHYLLVFLNFLNIITRNFISNKILQNQNKKNLFYQIKDFENLA

KKRYEKYENLGFWVCEGHYHQNHQINKENIKYLNLASFAYERSFFVVEYQQEIKFREQKLRGQNV

>YP\_002343726.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDENIVKTGSNEMELVDFRIFKQGHDKVYEGIYGVNVSKVREIIKIPSLTELPGVPDYIEGIFDLRGVV

IPVVNLAKWMQITEPESTMLKPRVIITEFSNILIGFIVHEAKRIRRINWKDIEPATFSTGSGALDKGKIT

GVTRIENDEVLLILDLESVVEDLGIYAPKTDIDFGKIEKFTGTALILDDSMTARKRVKEMMQQMGFQVVE

AKDGVEGINKLEELSQIYGESLNDTLKIIVSDVEMPQMDGFHFAARIKEDPRFKDIPIVFNSSLSNEFMN

EKGVQEAGGEGYLVKFNASDFFNEIAKVIKKHQSQEQG

>YP\_002343725.1 chemotaxis histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEDMQEILEDFLVEAFELVEQIDHDLVELESNPEDLELLNRIFRVAHTVKGSSSFLNFDVLTKLTHHMED

VLNKARHGELKITPDIMDVVLESIDRMKTLLNSIRDNGNDTAIGMDIEPICARLTAISEGESPVVATDSN

EKSIPQAELEAPKQEIATPEPEVDVNQLSDSEVEAEIERLLKVRKAEDQARRAQKKQTTNAAPKPTNNTA

NKPTESGEKKVPASGSNASSMDQTIRVEVKRLDHLMNLIGELVLGKNRLLKIYDDVEERYEGEKFLEELN

QVVSQLSIIITDVQLAVMKTRMQPIAKVFNKFPRVVRDLSRELGKQIELEITGEETELDKSIVEEIGDPI

MHMIRNSCDHGVEDPATRAANGKPEKGIVQLKAYNEGNHIVVEITDDGKGLDPNGLKAKAIEKNLITERE

ADQMTDKEAFALIFKPGFSTAAKVTNVSGRGVGMDVVKTNIEKLNGVIEIDSELGKGSSFKLKIPLTLAI

IQSLLVGTQEEFYAIPLASVLETVRVPIDDIYTIEGKNVLRLRDEVLSLVRLSDVFGVKQVLESGDQTYV

VVIGVAESKLGIIVDTLVGQEEIVIKSMGDYLQNIQGIAGATIRGDGRVTLIIDVGAMMDMAKEIKVDIK

AQLESSAKKPKEQPSDYKVLIVDDSKMDRTLMQKALEPLGVSLIEATNGVEALNIIKSGEHDIDAMLIDI

EMPRMDGYTLAGEIRKYSKYRNLPLIAVTSRTSKTDRLRGVEVGMTEYITKPYSPEYLENVVRKNLKLG

>YP\_002343724.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNEKLEQILQKQQTQMAGPDVDQREDDIIQLVGFVVGDEEYAIPILNIQEIIKPIEYTRVPSVPDYVLG

VFNMRGNVMPLIDLAQRFHLGSSKMTPQTRYIVLRGETNGTGVGGNAGFVIDRLTEAIKIHRNRIDPPPE

TLVKDKGMIYGIGKRDENILTILKVEALLKREF

>YP\_002343723.1 phosphoserine phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKLCVFDFDATLMDGETIDILATAHGKGNQTSEITRHAMTGELDFFESLQKRVSFLKGMSYKKVLELSS

TLPLMRGAHELIQYLKSKNIQIVIFSGGFHEGINPAMQKLGINLGFANYLHHKNDILTGLVGGEMMFSNS

KGLMLQRLKSFLNLKTDEVMCVGDGANDLAMFNESGLKIAFCAKEILRSQADICIDIKDLKEIIKVI

>YP\_002343722.1 transaldolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNFSLWCDFIENSFLDNEFLNLLSHGINGATSNPAIFKNAILNSPIYKDKILKLKEKKTKDIYEELAIS

DIQKAADKLAPLFYQKNDGFISIEIDPRLHDNTTLSLGEAKRLYSAIGKENIMIKIPATKASYEVMYELM

KNGISVNATLIFSLEQSQKCFEALNAGLVEFRKNNIALKEQNTRTPQAVISIFVSRFDRLLNPKAKEQNR

IGILNANLAYNNIYSKNEPNIRALFASTGVKGDDLPKDYYIKELLFENSVNTAPLDAIEAFKGKMHFKKP

LMNFEIYTELNQIISQSEREKACNDLLSDGLEQFCIAFEDILKAL

>YP\_002343721.1 hypothetical protein Cj0280 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIYLAQTDTTVGFLSKNLEEINALKGRDKNQPCLITSAKFCELKSLARIPKSFKNLVRRSKKTTFIYPNN

QAIRIVKECKHANFLSKNGYFYSSSANKHGKEFDEEWARSVADIILDEKFFENIPSKILKLSKNKMIKIR

>YP\_002343720.1 carbamoyl phosphate synthase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPKRTDIKSILLIGSGPIVIGQACEFDYSGTQAAKTLKELGYRVVLINSNPATIMTDPEFADATYIEPIT

KESILSIIKKEKIDAILPTMGGQVALNVAMEVYESGLLGDVKFLGANPEAIKKGEDRQVFKECMKKIGMD

LPKSMYAYNYDEALKAVDEIDFPLMIRASYTLGGAGSGVVYNMDEFKELTNTALALSPIHEILIEESLLG

WKEYEMEVIRDRADNCIIVCSIENIDPMGVHTGDSITIAPALTLTDKEYQVMRNASFAILREIGVDTGGS

NVQFAINPKNGRMIVIEMNPRVSRSSALASKATGYPIAKVATLLAVGFSLDEIKNDITGTPASFEPVIDY

IVTKIPRFTFEKFPGANTTLGTAMKSVGEVMAIGRTFKESIQKALCSLERSLSGFDRVKFEDRNDLVFKI

RNANEKRLLYVAQAFREGFSVEELYELCKIDPWFLTQIKEIVDFEEQIDMDILNNKALLRKAKTMGFSDK

MIALLVNLKDNLELSQNDIYYVRMKQKIIAEFSEVDTCAGEFEALTPYLYSSINVSELTQSKNDAKDKKE

KKVMIIGGGPNRIGQGIEFDYACVHASFALKDMGIKTIMYNCNPETVSTDYDTSDILYFEPIDFEHLRAV

IEREKPDGVIVHFGGQTPLKFAKRLSAFGAKIIGTSARVIDMAEDRKKFAEFITKLGINQPKNSTATSVE

EAVLKASDIGYPVLVRPSYVLGGRAMRVVNDEAELRLYMQEAVDVSDKSPVLIDQFLDNATEIDVDAICD

GKDVYVAGIMEHIEEAGIHSGDSACSLPPCNIDEKMQEFIAQKTADIALNLGVVGLLNIQFALHNNELYM

IEVNPRASRTIPFVSKATGIPLAKVATRVMWQGNLKEALKFYDTFKVVNFDTKILRPKTPKYMSVKEAVF

PFAKLSGSDLELGPEMRSTGEVMGISKDFANSYAKSQIASFNHLPEQGVVFISLKDKDKKYTKKIAAEYV

KLGFKLMATGGTCKEILESGFECELVHKISEGRPNVEDKLKNGEIHLVINTSDSHSFKGDTKKIRENIIR

FKIPYFTNLRSALAGAKSIKAIQSKSCLDVKSLQEWLKS

>YP\_002343719.1 rod shape-determining protein MreC [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNKIFYVLVLAFLVFISFYYGGLIKQNVLRVNDFVIGNFYNIKDYLGEKISEHFNQANQIQQLKARNKE

LEDIAVKVTSFANQLNRILEDQNSTKYLPQVSLTRVISYVQLNDYKKLWLDWSKIPVGKNRGLIYQGYTA

GIAINKNGRAMALLQGDDQCVFSVYIGKSKAPGLIQGEDGRIVVKFIPKWAKINTGDEILTSGLDNIFFS

DIPVGIVNRVNDEDMYQSVEVKPYVKISIPAYLYVVDNL

>YP\_002343718.1 rod shape-determining protein MreB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILDQLIGFFSSDMGIDLGTANTLVLVKDKGIVINEPSVVAVERERYDSKAKILAVGKEAKDMVGKTPGN

IEAIRPMKDGVIADFDMTEKMIRYFIEKTHRRKSFLRPRIIISVPYGLTQVERKAVRESALSAGAREVFL

IEEPMAAAIGASLPIQEPKGNLVVDIGGGTTEIGVISLGGLVISKSIRTAGDKLDMSIVNYVKEKYNLII

GERTGEEIKITIGSAIQLPKELSMVVKGRDQVSGLLSRIELTSEDVREAMREYLKEIADALKMVLEMMPP

DLASDIVENGVVLTGGGALIRGLDKYLSEIVRLPVYIADEPLLAVAKGTGKALEEISLLQQLTNEE

>YP\_002343717.1 ATP-dependent protease ATP-binding subunit ClpX [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFLSIGVKIMPRKCSFCNEVENPQRRILANENDDAFICEYCVEGAYSIIYGEEKEFKEPKQSHNTEFKD

ITPKELKAYLDRYVIGQDRAKKVFSVGVYNHYKRLFKAELQDDDTELFKSNILLVGPTGSGKTLLAQTLA

KFLDVPIAICDATSLTEAGYVGEDVENILTRLLQAADGDVQRAQKGIVFIDEIDKIARMSENRSITRDVS

GEGVQQALLKIIEGSLVNIPPRGGRKHPNQEFIQIDTSNILFVCGGAFDGLETILKRKLGDKVVGFFDDA

KEENKALLEKIEPDDLVHFGLIPELIGRLHVIASLNELNEEDMVRILTEPKNAIIKQYQKLFAIDGVNLK

FEEDALRAIAQLALERKTGARGLRSIIEEMMVDLMFELPEYKDYDIVITKEVVKDNAKALLIKRKIS

>YP\_002343716.1 acyl-ACP--UDP-N-acetylglucosamine O-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIHPSAVIEEGAQLGDDVVIEAYAYVSKDAKIGNNVVIKQGARILSDTTIGDHSRVFSYAIVGDIPQD

ISYKEEQKSGVVIGKNATIREFATINSGTAKGDGFTRIGDNAFIMAYCHIAHDCLLGNNIILANNATLAG

HVELGDFTVVGGLTPIHQFVKVGEGCMIAGASALSQDIVPFCLAEGNRASIRSLNLVGIRRRFDKDEVDR

LSRAFKTLFRQGDLKENAKNLLENQESENVKKMCHFILETKRGIPVYRGKNNA

>YP\_002343715.1 3-hydroxyacyl-ACP dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIDVMQIQEILPHRYPFLLVDKITELKVKEVVLGYKNISISDHVFMGHFPGHPIYPGVLILEGMAQTGGV

LAFESMEDKVDPKSKVVYFTGIDGAKFRNPVRPGDRLDYEMSVVKNRGNMWIFKGQAFVDGNLVAEAELK

AMIVDK

>YP\_002343714.1 hypothetical protein Cj0272 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLVHICCSVDSHYFIEELRKTYPDEKIIGYFYDPNIHPLSEYELRFLDVKRSCDKLGIKLYKGEYEYEKW

LNAVRGYEDEPEKGARCEICFDVRMGSSVKFAAKIGEKKLTTTLLTSPKKDLEQLKNALQKECEPYGVEF

LAPDFRKNGGTQRQFALAKKEMLYHQNYCGCIYGLKKQKQDKNFIDELMSSVNKQILPVSIEARIALYKK

VVLWEKKGIKFEILREKFLNYRLLSALIKLDKKPVKSHILFYSHFKNAYTRFSLDEENLKQNLKEGFYRS

TKDEIVLVEFWRFNAFFKNKWKNFEDFLKKPLSVQAEIKWRNKLFGTYNLSPIIILENILPSRYEVIAKS

EIYHDNQEVLVKI

>YP\_002343713.1 bacterioferritin comigratory protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLNIGDKAPQFELLNQDGVKIALKDFIGKKVILYFYPKDNTPGCTTEACDFSANYDKFGGKNAVIIGIS

PDSVASHEKFISKFDLKHILLSDSEKEVAKAYGALGLKKNYGKEYEGLIRSTFVIDETGKIAQIYSNVRV

KDHALKVLESL

>YP\_002343712.1 tautomerase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPLVNIKLAKPSLSKEQKAELIADITELLSTKYNKSKERVVVVLEDVENYDIGFGGESVEAIKAKASK

>YP\_002343711.1 branched-chain amino acid aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MISADKIWMDGKLVDFKDATLHFLTHSLHYGNAVFEGTRAYKTDKGLAIFRLEDHTKRLLESAKITLLNC

PFSQKELENAQIELLKANNFKSNVYIRPLIFLGDGVMGLYHIKAPVRVGIAAWEWGAYLGEEGLEKGIKV

KISSFARNSVKSCMGKAKASANYLNSQIAKFEAIEAGYEEALMLDEEGFIAEGTGECFFIVKDGVLITPP

NDFSLKSITQDTVLKIAHDLGITVLRQRISRDEVYTADEAFFTGTAAEITPINNIDARIIGNGLRGSVTK

KLQDAYFDVVYGRNEKYASMLTYI

>YP\_002343710.1 transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPADLNDYFNKKNGNSNNNGNNNRQNFNFKAPEFNFKGFGKFSPFVYGVIIIILFLIVAKPFMVINSGEM

GIKSTTGKYDPNPLEPGLHFFLPFVQKITIIDTRVRQINYASIEGSNENLSSGSGVINKNSISVLDSRGL

PVSIDVTVQYRLNPLQVPQTIATWSLNWENKIIDPVVRDVVRSVVGKYTAEELPTNRNTIATQIEEGIRK

TIEAQPNEPVELRAVQLREIILPSKVKEQIERVQIAKQEAERTKYEVERANQEALKKAALAEGEANATII

SAKGKAMAVKIEADAQAYSNKEIANSLNTPLLNLKQIETQKEFNEALKVNQDAKIFLTPGGAVPNIWVDT

KDAKKQSAANMN

>YP\_002343709.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKLREIVLFYTTHLYLVDYMLILLVFFLFTCVLLLCVFLRHRPIAALFIIAFDIIICFLVYIYGYKLID

NEVRTRKIAITDQKMIQSSNDLIVDFNITNNSKNNFKECKITAKIFADKIPNDNIIEEYKKKFIPFRQKS

REIKDLKKNATQVQRIAFENFNYENNYTIRLVSECF

>YP\_002343708.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHFTIFHIIAFIILLICFALICILIFLKVKQKEMALISYTIATIFTALLIYSIFLTINQFTTQADLSKLT

YTRDLRHESVIVSGKVQNLTKFEIKKCYLILSILNQQQVGGEIFNDKNIRNAKMQNTSVSYTIEIIDTLP

GNTYKEFRASVPFPPTFNNPEFYHTLKCI

>YP\_002343707.1 cytochrome C-type heme-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFISFVVLATCLWAKNTAYTDEVVSLYLNKDDTKVIGRLLPTNPFEVLKSENNRVLLKIDGYVNPKA

PSVIYFNDSQRIIVAAFSKNTKLNFSQRITGKNGKWDKVSLEIWADKKEFVKDNKEMLNRAKELFVNNCG

ICHAIHKEKEFTANAWPAIFRSMADRTGIDKKDRWLVIEYLQKNAKDFKTK

>YP\_002343706.1 molybdopterin containing oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLDRRKFLKIGASLSALPLIPSLSAGKTVEASKVSLGLVKNGEVITAAHWGILKLTIKDGKIVKSEPWEK

VTKMDNPLQHYTADMVYKSRVKYPYVRKSYLENPDNPKPELRGKDEFVRVSYDEAIKLIAKELKKTRDSK

GASAIFGGSYGWKSSGNMQNSRILLHRFLNVTGGFVGATGDYSTGASQVIMPYVVGSIEVYEQQTSWENI

LSDSKYVVIWGADPLSTLRIAWTSNEQRGLAYFEKLKDSKIKVICIDPVKTTTAKFLNAKWIAPRPNTDV

ALMMGMASHLIAKKKVNYEFLDTYTTGFDKFKDYLEGKEDGVKKDTKWASKICGIDEKTIKNLAETFYDN

STMIMSGWGMQRAHHGEQPHWMLVTLCAMLGQIGTKGGGFGLSYHYSNGGVPTCKGGVIGGMTAGSLGIW

KNGKFKGLSKAEASSEGAEWLQNAASYSFPVARIADALLHPGKTIDHNGAKITYPDIDFIYWVGGNPLVH

HQNTNTNVKAWRKPRTVVVNEIYWTPTAKMADIVMPVTSSYERDDITMTGDYSNMHIAPMKQAVEPVGES

KDDYVIFSDICKIYGKDVFNAYTENGKKAKDFIKEYYNSALKQTQSFGEAFATPMPSFEEFWAKNEPITF

EPTAESLEWTRFSEFIEDPILNALGTDSGLIEIYSETIKNYNYDDCKAHPTWFEPIEWLGNASKEAPFHL

LTNHPRDRLHSQLCHTSLRDTYAIKDREPILINSKDAKKLGIKNGDVVRVFNKRGEVLAGAVVSDEIMQG

VVRLCEGAWYDPNENGLCKCGNANVLTMDIPTSKLANGNISHTGLVNIEKFKGELPKLTAFSAPKGAN

>YP\_002343705.1 zinc transporter ZupT [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQFTFEQIFIAMLLTLFAGFSTAIGSIIAFFSRKDDLRVLSLGLGFSAGVMIYISFMEILPTALKDFKNH

YDSHWAELLGLACFFGGILISLLIDKLIPEDVNPHEPKEDLSELKICPLPQKGQNPPKFHPGEKLHQINT

KALKRTGIFTALAIAIHNFPEGFATFISSLDNLTLGIAIAIAVAIHNIPEGLAVSLPIYHATGDKKKAFI

YSALSGFAEPLGAFVGALILLPFIGDLTLAISFAVIAGIMVFISLDELLPAAKTYDKAHDSLYGLIAGMA

IMALSLNLLGQ

>YP\_002343704.1 methyl-accepting chemotaxis signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQSINSGKSVGISAKLTLWVGILVVLILAITSAISYFDSRNNTYELLKDTQLKTMQDVDAFFKSYAMSKR

NGIQILANELTNRPDMSDEELINLIKVIKKVNDYDLVYVGFDNTGKNYQSDDQILDLSKGYDTKNRPWYK

AAKEAKKLIVTEPYKSAASGEVGLTYAAPFYDRNGNFRGVVGGDYDLANFSTNVLTVGKSDNTFTEVLDS

EGTILFNDEVAKILTKTELSINIANAIKANPALIDPRNQDTLFTAKDHQGVDYAIMCNSAFNPLFRICTI

TENKVYTEAVNSILMKQVIVGIIAIIIALILIRFLISRSLSPLAAIQTGLTSFFDFINYKTKNVSTIEVK

SNDEFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLD

VLQARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQT

AVQSLTTSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAI

EAARAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQ

TTKDNVEIANESAIISSTVSDIANNILEDVKKKRF

>YP\_002343703.1 SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLWDKKAKTYARYQNTLNTIQKQTFEYLQNLKISFQDKSIIDIGCGTGVWTLHLAKEAKEILALDSANA

MLEILQEDAKKLNLNNIKCKNLSFETWMQNNPNVKFDLAFLSMSPALQNEKDYTNFLNLAKIKIYLGWAD

YRKSDFLDPIFKYFNTEFKGFYKKDLENYLLEKNIFFHKIVFDETRKVQRTKEEAIENALWHLSMNKITA

SKETVSSFVENNITETIESKIKLLIINNL

>YP\_002343702.1 hypothetical protein Cj0260c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKNLIIKFGRLILDAIAVISFVVALLYSLFMMFSIGFLAGLLSLIVSFIALFLSFFCNLSCYRYQRCSC

K

>YP\_002343701.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLKNPLDMHLHLRDNQMLELIAPLSARDFCAAVIMPNLIPPLCNLEDLKAYKMRILKACKDENFTPLMT

LFFKNYDEKFLYSAKDEIFGIKLYPAGITTNSNGGVSSFDIEYLKPTLEAMSDLNIPLLVHGETNDFVMD

RESNFAKIYEKLAKHFPRLKIVMEHITTKTLCELLKDYENLYATITLHHLIITLDDVIGGKMNPHLFCKP

IAKRYEDKEALCELAFSGYEKVMFGSDSAPHPKDTKECCGCAAGVFSAPVILPVLAELFKQNSSEENLQK

FLSDNTCKIYDLKFKEDKILTLEEKEWQVPNVYEDKYNQVVPYMAGEILKFQLKH

>YP\_002343700.1 ArsR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFENLIREILGKKRFELLKFLCENADENGFIMIKISDLEEKLHQSKPTIIATFKFLEEKKLFKRLKNGF

YQLNIGDKNET

>YP\_002343699.1 diacylglycerol kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKPKYHFLNNARYALEGLFALFKNEMAFRIELCIIIPAIVFSFFLKISFLEHLLLISVLILILIVEALNS

AIEACVDLITNEWHEKAKIAKDCASAAVFFSVLLALFVWGFILYNIYL

>YP\_002343698.1 sulfatase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLRLTWFQFTFFNSLMIVLLNFNLFYFVYEKNTQNWLITFVFIVAYFALVHVICSLLFIKFFTKFFSILF

IISSFLSVYFISFYGVLIDSDMMQNVVQTDIKEVKDLLNLKLILFVVLALLLVFYVVKVKIDYYGSFKSH

IKIKIINIISGLIVVCAVLIPLSKTFLPFFRNYNEIRMYNTPFYQIYAVYRYYVRFVKAKPEFKTIANDA

YRENNHTKKLLVLVVGETARAANYSLGGYTKNDTNFYTKKDNVVFFDNFSSCGTATAVSLPCMFSISKRE

NYSSSEFQENAMDVLYKTGVDAVWFDNNSGGCKGVCDRLAYKQKLSSDLDENLLAPFKEKLNHLSDQNII

VLHLQGSHGPTYYKRYPSEFKKFTPTCDTNELSKCDSEALINTYDNTLLYTDYLLSEIIKLLKEQKSYES

SLFYLSDHGESLGENGIYLHGMPYAIAPSYQTHIPAIFWSNDKNLMNLAKEYKGLKLSQDNLFSTLLGYF

DVKTSVYEPEYDLLNPKLKANP

>YP\_002343697.1 exodeoxyribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLLSWNVNGLRAICDKNALDWIAQEQIDFIGFQEIKAHEDKFPKKIYEYPFKHMYFNSAKRAGYSGVMS

LCNFNSEVKKCEFFDDEEGRVLEHRFKNIALFNIYFPNGQKDEERLNFKMQFYADFLVYLDKLLKDGFEI

IICGDVNTAHKEIDLTHPKANANTSGFLPIERAWIDDLLKLGFIDTFREINGEIKEKYSWWSYRMKARER

NVGWRIDYFFISKGLKDKLKNAFIRDDIFGSDHAPVGIEIDI

>YP\_002343696.1 hypothetical protein Cj0254 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYFKKEGKMKNTLIIFENSLSNLGKDEASDLLEDLSFNLAYKQISHNPHETKKVLNSLLVEFLTILKKLD

FFDDENVTKVIKALVKASIVDAQNSLYEYISEAELLNKQIENQKNLIKNQISDNFFEFENILQECSFCDE

FSGGLNDAILFDIEMLGILKETAESAFLTTLEKAEDIELTSSEIAKNLVYNAICEAHFEKERILKISSII

LNTAFEIANESMAYAKDLCLGVIKGTRDGIVLAMEKFKASLTYANFEEDVSLKSKELIGIEDDFIALLKK

EIQLQNDPCKSIVENLLEHELDNLFAKFRRLAGESREQLILVLNDIKKNPKINDFNKLTQRKLNRFKQEI

FELEKIASEKYKDLNSKKAKKLGVRLWEKAKKFVKK

>YP\_002343695.1 hypothetical protein Cj0253 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVNLCDLKKEPQINYPTFWDYKVIFEVHVKASEIFEEILGQREYKFKHSNSSASGKYQSYLLNVYVDSKK

DRLDIFDKLKAKAKFVL

>YP\_002343694.1 cyclic pyranopterin monophosphate synthase accessory protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLSHLDEKNHPKMVDVSDKNITLRIATASGIIYMSQEAFDVIKNNTAKKGPVLQTAIVAAIMGVKKTSE

IIPMCHPLMLSKVETNIVEFVKECAFKLIVTVKCEGKTGVEMEALSGVSIGLLTIYDMIKAIDKSMRITD

IVLESKEGGKSGKFVRS

>YP\_002343693.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYEDEEDLNYDDYENEDEEYPQNHHKNYNYDDDDYEYDDDNNDDDFYEMD

>YP\_002343692.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKTLNQKDIKVLGLSSLGGTLEFYDFIIFVFFANYISTNFFPKDLSSFWQMFNTYGIFAAGYLARPLGG

VILAHFGDKFGRKRMFMISILLMVIPTFTLAFIPNYESIGFLCIVLLVFIRICQGIAIGGELPGAWVFVY

EHAPQGQKRTYLGILTASVVGGILLGSLVFLIMNKIYTQEELHEWAWRIPFFLGGIFGIISAYLRKFLRE

TPVFEQMKKDKALEKFPLKEVFKKAKMGIVLSMMITWVLTGCIVVMILLMPSYMAKILQINTSIQTYLQI

GGILLICLGCIISGILADKIGVIKSCVFFSVFFGIASLLYFNTLYRQNADFNLVACLYLLVCFFSGVMNF

CPLIMSEVFDAKIKFSGLSFSYNIAYAIAGGLTPQLAFFLHSFALNNLSNFWRFSLGLYVFFLAIIALLC

AFIFSYLNNTQRTYSQ

>YP\_002343691.1 hypothetical protein Cj0249 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKSLILPPNEFLDHYILNAEFHRFAGISKNAYKFWKNAEIGRYQGTRIIFLHRNCILEKHQQALRQCSG

LNGFVLASAFCSFTGLAPSHLVEKNNSSIYKLLELKEICGIKFVNLKKFYDFLGLNYHQHIYIEKCHFFS

PAPFEKRIKITESMCVGYY

>YP\_002343690.1 hypothetical protein Cj0248 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIGDMNELLLKSVEVLPPLPDTVSKLRKYVSEANSNIETMKVAEIISSDPLMTAKLLQLANSPYYGFTRE

ITTINQVITLLGVGNIINIVMADSIRDNFKIDVSPYGLNTQNFLKTCNEEATFIANWLNDEDKKLSHLLV

PCAMLLRLGIVIFSNFLIQNHKDKDFLAFLNKNENLALAENEFLGVDHISFLGFLLHRWNFDDVLIESIC

FVRTPHAAREKVKKSAYALAITDHLFAPHDGSSPFNAKAAVALLKEAKTQGINFDLNNLLSKLPNKAKEN

LNKED

>YP\_002343687.1 50S ribosomal protein L20 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARVKTGVVRRRRHKKVLKLARGFYSGRRKHFRKAKEQLERSLVYAYRDRRRKKRDFRRLWIVRINAACR

LNDLSYSRFINGLKKAGIELDRKILADLAMNDAAAFAKIAEAAKKAL

>YP\_002343686.1 50S ribosomal protein L35 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPKMKSVKSAVKRFKVGKNKIKRGSAFRSHILTKKPAKRMRGLRTAKYVHSTNVKAVEKMLGI

>YP\_002343685.1 hypothetical protein Cj0243c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTINSANPYQNLTLSNPLQNSSALNLIKDSKALDQEGNENSLEQLSYIFNNTTYASEFGFRINEEGFFDK

DLNKIANIPESYDINIKSVRSIAKELAKQDENLNYNKIDLPYLLNSYHSSLKSINSEFLQDDNAYLSRDL

ISKLSSGFSTDNGEFLGQISRIYNNQEEIDLALSNITNLNTLMLDNKITNFHFDKAIENTSSNEILKPYL

TKNAEVSKSGLLMNFIYHDIKTQNEKEFNFFMKPATLELSSHQNLQKILKGETDIEDYIKKENEKKMSFD

LYLYINGVDKKTSTQDKLSVFFQQYINYQKDMDLREFANSSSIFQIYIDQNRNDFDALKKQYQNQSQDTQ

RLEEANQLRSSSIENFLDRRQKQANINKILNSYMSVMV

>YP\_002343684.1 bacteriohemerythrin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTYNEKIISMNNDLLDHQHKELFEISKKLSLMNQRHVGTKELKIVLRELLIMINRHFSDEEAFMREIEYP

YINHHTRIHRKIILEIEEIIISEAKFVNIMTEKLNLVVQDFIFKHTAKEDSKIVKYYEEKFKK

>YP\_002343683.1 cysteine desulfurase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVYLDNNATTMLDPNAYELMLPFLKDMYGNPNSLHQYGSATHPALREALDKLYAGLGANDLDDIVVTSC

ATESINWVLKGVYFDHILDKERNEVIISSVEHPAVTAAAYFLKSLGVKVIELPVNEEGVSTVEDLRKVIS

DKTALVSVMWANNETGMIFDIKAMAELAHEFGALFHTDATQAVGKIKVNLTQVGVDFASFSAHKFHGPKG

VGGLFIKKGLKLTPLLHGGEHMGGRRSGTLNVPYIVAMGEALRIANTMLDFEDSHIRRLRDKLEDQILAL

PDTTVVGKREHRVPNTILASIKGVEGEAMLWDLNKNGIAASTGSACASEALESNPIMEAIGAEHDLAHTA

LRLSLSRFNTEEEIDYAAKQIKNATQRLRAISCTYAYNPNNYK

>YP\_002343682.1 nitrogen fixation protein NifU [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGKNSLIGGSIWDEYSQKVQDRMNNPQHMGEFSEEDAKARNAKLIVADFGAESCGDAVRLFWLVDEKTDK

IIDAKFKSFGCGTAIASSDTMVDLCIGKTVDEAVKITNLDVEFAMRDNPETPAVPPQKMHCSVMAYDVIK

QAAAHYKGISPEDFEDQIIVCECARVSLGTIKEVIKLNDLHSVEEITQYTKAGAFCKSCIKPGGHEKRDY

YLVDILAETRAEIDREKLKNTMKSDVAFDEMTVVGQLKAVESVLDAEIRPMLHNDGGDLEVIDIQKAEGA

AIDVYIRYLGACSGCSSGSGATLYAIETILQEELSPNIRVMPV

>YP\_002343681.1 mechanosensitive ion channel family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIIFSLCFFILHLGAQEFKFIDANISKEDEGIYALVEKYVDLNNQIKEFKKNNDENSSTFNGILSEFE

KDKKTILAKIPDMIVGQKINEEAVARFLKAKEKLLDVQKKNINKPYIYTDATLNLVYFNIVESFYSSLFE

VEKLFKNTASSEDLIATVDKAMENLQNSSNVNLDSFKSKITNPEELEKITLKERYISNAVDSYSEILKYL

RSNADLLESNYIFSLLELQVWIDRINEAIGVSFVNIGKIVISALVLVFFISLRRFFANIVYFFLVQLFYR

NKNDVDDIKVIFIENIKKPVGFLLIVYAISLCLTIATYPAPLSVNLSNFFHIVYAVLIAWLILRMLDGYG

VVLVSKLAQKSGKKEVVNLIIKILYFVIIIIALLYILAQLGFNISAIIASLGIGGLAVALAAKDIIANFF

ASILLLFDNSFNQGDWVEVSGIEGTVVETGLRKTTIRTFDNCLVFLPNSTIMGANIKNWSKRRMGRHVRM

YLGVGYDATPEKLEQCVKDLREFLHTSDLVAHDEDSALKYGDHTTKYRQNLVSINDLEGYKNACYVALSE

FADSSINIELYFYIKEIGGKDFREARQSLMLEFMRIIEKNGLTFAFPSRSIYIENLPPLDLQAKAIK

>YP\_002343680.1 carbonic anhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENLISGAIKFMQEDFKEHEELFESLKNKQNPHTLFIGCSDSRVIPNLITNTGPGELFVIRNIANIVPPY

RVGEDYLATTSAIEYALNSLHIKNIVVCGHSNCGGCNALYYSDEELNKIPNVKKWLTMLDPIKKDVMIFA

RDDLAMRSWLTEKLNLVNSLQNILTYPGVQEALDEGKIEVHAWYYIIETGEIYEYDFKAKIFTLIQDRKV

Q

>YP\_002343679.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLYDRDYSRSKEFENTRSSELSIFIKQTYQLFAASLLAATVGAYVGIFALASFFIQSQVTFWILFAVEI

GLLFALQWKKREAPLNLVLLFGFTFCSGLTLTPLLISVLALPAGGIIIAQAFALTTVAFAGLSVFAMNTK

KDFTVMGKALFIVLIVIVAASLLNLFFQSSIVNLAISAVAAILFSFYILYDTQNIIRGNYETPIEGAVAL

YLDFVNLFVSLLNILRSFNSR

>YP\_002343678.1 protein translocase subunit SecG [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITLLIILQFIIVVVICIAVLLQKSSSIGLGAYSGSNESLFGAKGPAGFLAKFTFVMGILLIANTIGLGY

LYNKASKDSLAEKIKVENNNTTIPSAPIVPTTPNTNSIAPSAPQLPSDVNSSK

>YP\_002343677.1 ribosome recycling factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIMLNEIFNKQKTQSEKSLEALKKDFTTLRTGKVNIHILDHITVDYYGTQTPLNQVATVLASDASTISIT

PWEKPLLKTIESAIAAANIGVNPNNDGESVKLFFPPMTREQREENVKQAKAMGEKAKVSIRNIRKDANDA

VKKLEKDKAISEDEAKKAYDEVQKLTDTYTTKIDEGVKSKESELLKV

>YP\_002343676.1 orotate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLEQIYKDCGAYLEGHFLLSSGKHSQFYLQSAKVLEDPKLAAKLCDELAKIIASYKIEFDSICSPALGG

ILAGYELARACSKRFIFTERVNKEMTLRRGFEVKKGEKFIICEDIITTGGSALESAKIIESLGGIVVGFA

ALANRGFCAVENLKSPRKDNAKLPENLPLFTLGNFEFEIYDETNCPLCKKGNKAIKPGSRGN

>YP\_002343675.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTKAKISSRWLRFRALLIDIFLIYVPILYLFYFLLGSKEAFLNNHFITTLCTFLFGLIQAIFLTKKAQS

PGLKAYDLYLIDIKTGKKLSFLRILLRYVIFIISFGLLFGLFVSFVRKDRLNLHDILTQSCIATKA

>YP\_002343674.1 ribonucleotide-diphosphate reductase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQRKRIYNPSSNETLGDRKVFDGNPHGILNFTKAKYTWALKLWDLMEANTWFPKEVDTTKDALDYRCNLT

AGEKRMYDLVWSQLISMDSFQTNNLADNINPYITAPEINAVLARQAYEEANHSKSYAVMVEAICDNTDLI

YEMEKHDETLREKNDFISSIYEELAGDVDDNKLLLAMVANQILEGVYFYSGFTAIYALARAGKMLGSAQM

IRFIQRDEITHLLLFQNMINSVRKERPDLFHDENINKIYDMFKKAGDLEIKWGKYITQNQIMGFTDDIIE

EYIHYLVDQRLSAINLDKLYNAKHPIKWVDDFSKFNDQKSNFFESKVTNYSKGSISFDDF

>YP\_002343673.1 nicotinate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMTSKTSLALLCDFYEFTMSQGYFKNNKKDQICYFDIFFRKIPDSGSFAIFAGLEDILDFVENLSFDAED

IEFLRKQGIFDTEFLDFLANFKFKGEIYAMREGEVIFPNEPLLCIKATTIEAQLLETFLLLSLNHQSLIA

TKTNRIVRAAKDSKILEFGSRRAQGSEAALKGARAAFIGGCIGSACTLAGKIYNIPINGTMAHSWVQMFE

NELEAFKAYVKIYPKNPVFLIDTYDCLNSGLKNAIKVFKEFGIQEGGVRIDSGNLLELSLKIRQELDQAG

LQKCKIIVSNALDEWSIKKLKEQNAPIDIFGVGERLITASSDPIFSCVYKLAALEDQGIKPKIKISENNE

KSTLPHFKKLFRVYDKNTQKILFDELYVFDENPNQDENLERKELLELVYKEKRLLKKSSLNTIQDYTKEQ

ISKLDESFLDLDRFVKFEVKLSPKLQNITEDLLKTRF

>YP\_002343672.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIKFKNHSPKLGQNVFVAEGAKIIGEIEIGDESSIWFNCVLRADVNFIKIGKRTNIQDLSTVHVWHREF

DEKGKLKDAGFPTIIGDDVTIGHNCVIHACVIKNRVLIGMNAVIMDNALIEEDSIVGAGSVVTKGKKFPP

RSLILGNPAKFVRELNDEEVSFLKQSALNYVDFKNEFLKDLQ

>YP\_002343671.1 protein-L-isoaspartate O-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNAFEQKRCQNMAEEIAQKVFINEELFNAFCQIPREIFSPLKAHAYRLDALPLANSQWISSPLTVAKMTM

ALDFKNADSILEIGCGSGYQAAILSKVIRRVFTIERIENLAKKAAQTFRELELFNINVKFDDGQNGWKNY

APYDRILFSAYATQIPEILLDQLSDDGILVAPILHNGKQFITRLRKNGTNLQKEILEECLFVPIVDGKE

>YP\_002343670.1 acetylornithine aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKMDYKEQSHIIPTYKRFDIVLEKGQGVYLFDDKAKKYLDFSSGIGVCALGYNHAKFNAKIKAQVDKLLH

TSNLYYNENIAAAAKNLAKASALERVFFTNSGTESIEGAMKTARKYAFNKGVKGGQFIAFKHSFHGRTLG

ALSLTANEKYQKPFKPLISGVKFAKYNDISSVEKLVNEKTCAIILESVQGEGGINPANKDFYKALRKLCD

EKDILLIADEIQCGMGRSGKFFAYEHAQILPDIMTSAKALGCGLSVGAFVINQKVASNSLEAGDHGSTYG

GNPLVCAGVNAVFEIFKEEKILENVNKLTPYLEQSLDELINEFDFCKKRKGLGFMQGLSLDKSVKVAKVI

QKCQENALLLISCGENDLRFLPPLILQKEHIDEMSEKLRKALKSF

>YP\_002343669.1 acetylglutamate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIMQKYLEKANVLIEALPYIRKFNSKIILIKYGGSAMENEELKHCVMQDIALLKLVGLKPIIVHGGGKDI

SAMCEKLGVKSEFKNGLRVSDKATIEVASMVLNHINKNLVHSLQNLGVKAIGLCGKDGALLECVKKDENL

AFVGTIQKVNSKILEELLEKDFLPIIAPIGMDENFNTYNINADDAACAIAKALRAEKLAFLTDTAGLYED

FNDKNSLISKISLEQAKILAPKIEGGMHVKLKSCIDACENGVKKVHILDGRVKHSLLLEFFTDEGIGTLV

G

>YP\_002343668.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIRAMQKSDYEAVYKLWCEIKGFGIRSIDDSKENIENFLDRNPNLSVVAVIDEEIVGSILCGHDGRTGG

FYHVCVHKDHRKKGIAHEMAKFCLEALKAQKINKIALIAFKNNDLGNEFWKHYGFTLREDANYYDLSLNE

YNQTSFNA

>YP\_002343667.1 N-acetyl-gamma-glutamyl-phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKVGILGASGYAGNELVRILLNHPKVEISYLGSSSSVGQNYQDLYPNTPLNLCFENKNLDELELDLLF

LATPHKFSAKLLNENLLKKMKIIDLSADFRLKNPKDYELWYKFTHPNQELLQNAVYGLCELYKEEIKKAS

LVANPGCYTTCSILSLYPLFKEKIIDFSSVIIDAKSGVSGAGRSAKVENLFCEVNENIKAYNLALHRHTP

EIEEHLSYAAKEKITLQFTPHLVPMQRGILISAYANLKEDLQEQDIRDIYTKYYQNNKFIRLLPPQSLPQ

TRWVKSSNFADINFSVDQRTKRVIVLGAIDNLIKGAAGQAVQNMNLMFDFDEDEGLKFFANL

>YP\_002343666.1 DNA modification methylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKENPSFLKEQIITYLGNKRALLSFLNNGFKVAKKELGKDKFSFCDIFSGSGVVSRFAKAHSNYILANDL

EDYSKLINECYLANKDKDLLQNIKKYYKNLIQNLDFQKGFISELYAPKDDDDIKKNERVFYTFKNALYLD

TIRQKIENEIPKELRHFFIAPLIYEASVHSNTSGVFKGFYKGKDGIGKFGGEGQNALKRIKGEIELKMPI

FSNFSCEFEVMQKDANMLAKELDFFDVVYLDPPYNQHPYSSNYFMLNLIANYKKPEEISKISGIPKDWNR

STFNKSKFAQDALFELINDLKARVILLSYNCEGFVKKEIFLKRLSTLGKCRILEQKYNTFRASRNLKNRN

IHLHEQLYILVKN

>YP\_002343665.1 translation initiation factor IF-3 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKEKEVLLNEEIRADEIRCVGDDGKVYGIISSDEALEIANRLGLDLVMIAADAKPPVCKIMDYGKFRYQ

QEKKQKEAKKKQKVIDIKEIKLSVKIAQNDINYKVKHALEFLEQGKHVRFRVFLKGREMATPEAGVALLE

KIWTMIENEANRDKEPNFEGRYVNMLVTPKKA

>YP\_002343664.1 threonine--tRNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKEVIAYLDNETIIDSQSVKNTNLKEIYFDNSKESLEVIRHSCAHLMAQAIKSLYPEAKFFVGPVIEDG

FYYDFRVESKIGEEDLVKIEKKMKELAEAKIEISKYEITKSEALAKFQNDDLKQEVLLRIPDRAVSIYKQ

GEFEDLCRGPHVPNTKFLRFFKLTRVAGAYLGGDEKREMLTRIYGTAFADKESLKEYLTIIEEAKKRDHR

KLGTELKLFTFDDEIGGGLPIWLSNGARLRSKLEHMLYKIHRLRGYEPVRGPELLKADAWKISGHYANYK

ENMYFTQIDEQEYGIKPMNCVGHIKIYQSDVRSYRDLPLKFFEYGVVHRHEKSGVLHGLFRVREFTQDDA

HIFCMPSQIKEQVLEILAFVDNLMKLFDFSYEMEISTKPEKAIGDDEIWEIATKALKEALDEQGLKYGID

EGGGAFYGPKIDIKITDALKRKWQCGTIQVDFNLPSRFKLEYTDSDNEKKQPVMLHRAILGSFERFIGIL

TEHCAGEFPFFIAPTAVGIVPIGEAHIAYAKEIQKELLELNIDSEVYEKNESLSKKIRIAEKQKLPMILV

LGDDEVAKRSVALRDRRAKEQKNLSLDEFIKLVKEKMSEVHF

>YP\_002343663.1 undecaprenyl-diphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENLYALILGIIEGLTEFLPISSTGHMILGTTILGIDIDEFWKSFLIIIQLGSILAVIFVFWRKLFQGLD

IWLKLAVGFFPTGVIGLFVAKYLNALFNGWVVVGMLIFGGVVFILIELAHKNKQYRINSLEEISFKQAFC

IGIFQSLAMIPGTSRSGASIIGGLLLEFNRKVAAEFSFLLAIPTMIIATAYSIYKEPELLGNANSLIPLG

IGFITAFIVAVLVIKFFLKFISKFDFIPFGIYRIILGFVFFYLYYSGILNAGSEFKL

>YP\_002343662.1 oligopeptide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMYKKQNLPELTLRGLILGSILTIIFTASNVYLGLKVGLTFSSSIPAVVISMAVLSLFKTSNILENNMVQ

TQASAAGTLSSVIFVIPGLFMCGYWSEFPLWQTFMICLCGGGLGVLFTIPLRRTMVVESKLAYPEGRAAA

EILKVANKDQSSKKGKQGIKEIALGSFIAAIFSLLSNGFKLAASESNFAFIWNKMAFGFSMGYSLALLGA

GYLVGLAGAIALFVGMFLAWGIFTPYLSNFEFDSTKNAVDLASSVWSSKVRLIGTGAIAIAALWTLIELL

KPVIEGIKEIVKNVKITNQEKNERTNIDLSLKSIFILFVLMVVGLFITFYSFVEDANLSIYYQMLFSFVG

TLVSVLIGFFVAAACGYMAGLVGSSSSPISGIGLIGVIISSIVFLVLGVELFQDPMLSKFAVALAIFTTS

VILATAAISNDNLQDLKTGHLVGATPWKQQVALLVGCVFGALAIVPVLNLLYQAYGFVGAMPREGMDASS

ALAAPQANLMSTIAQGIFHHNIEWGYMAFGVFVGILMIIIDKILKGTQKMSLPPLAVGIGIYLPPAVNIP

LVIGGILKYIVMQHLTKKYAKNSHKEEKLASCEQRGTLFASGLIVGESIFGVIIAGITVFSVSMGGSENP

LALNLANFHDSELFALIFFVGVVLYFIKRIVKKDA

>YP\_002343661.1 citrate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEIFLALLGFFSLGLIVWLLLKDYTTPALAFISVSISVACILLILERLGFGVGVALGVKGGVFDIKTLVV

FIKDGVKSVTDTAALFVFSILFFSVLNASGFFTKILNAFLSKMKANVYQVCILTVFIAAAVHLDGSGAST

FLIVIPALLPIYERLGIRKTSMLLIITSAMGVMNVIPWGGPTLRAATNIGMDANLLWHHIIPIQIVGLVL

SLLLAIWIAKIEIKRGAGAGNLSGINLNIEKSEHHNEKWFWLNLLVAIGVIGLLISGIIPSYICFMIGLA

IILPLNYPNLKTAKKVLDRASAGAMLMYITLIGAGILIGVFDKSGIMEKMGVLILNFVPDYLGAYIPLMV

GILAVPMAIIFCTDSYFYGVMPIVLSVTKAFGAEPLTIAIIMVIARNCATFISPVVPATLLGCGLAEVNI

KDHIKRSFFYIWGISIICLIFAEVAGII

>YP\_002343659.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFYLNKILYFFLILFLLIGILGFFINSNPSNQIIKKPYLPFLEIGDLVFRAGIGSESFLIENLSQSPYSH

IAMVVKTSPTILIHATTDDDKNAKNQVILSSMDDFLKLSHKIAIKRLKFDEKTKQKIVAKDLEHLGRKFI

ISTDKDAFYCTTFLEQSINSITPFHLQYTLIKAPFNEGLYLFPQTFFENNQSVLIYESQNF

>YP\_002343658.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKSILFASALLASSMLFADSLKLEGTIAQIYDNNKTLLIDSIYGGQMAIKVLPNTEIEMDDCGIFGTDK

DGTFKDLQVGNFLESKISYGTPATPNTQAIPVARKIEIQCYKKAY

>YP\_002343657.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKWIFIVFCFILGFIIHIFYIGYTNELLFNKFIKNSNPDYTITDIYFKKGFLTSKGSFTLNHSHTQLST

KINLKFNNYFFLNKIIKGNFTNPFDFLDEVLKNNKLGTFTLKLHDNNSKIFLNIKDINLSNEGGDTIING

GYIEVLMNKNLEIKNMKIHFDMINFSQFYTKFVLQNLNYEQFFNNPVQFYELNLFSDSQQEINFDYLVLD

NNKINSFYSKNQVNFNEENSAVNLNIQGKSNEIDLKSLLGQNLNFDKTKFNITINKFFNSNFNISHFIQK

NLDLKIQNLILEKNKQNISLQGNLNINNSYQAKLQVISSDEPDEIFPWTKDYGGLNQYFLKENNNFFLNL

SYDSLANPQLKINGSEFSNMDLN

>YP\_002343656.1 recombination factor protein RarA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLALTFRPENFDDILGQYELIEIFKKFTALQKLPHSIFFGTAGSGKTTFARVVAKEFGLDFYEFDGGNF

KLEELRKILDNYKNSLYKPLIFIDEIHRLSKTQQEMLLIPMENYRLILIGASTENPYFVLSSGIRSRSML

FEFKSLGAKELETLLLRVQEKMKFSIDKEAKDFLLKSADARAMLNLLEFVLVLDEKHISLENLKKLRNTI

NSEGVSSKDTHYILASAMIKSLRGSDVDAAIYYLARLIDAGESADFIARRLVIFSSEDVGNADPNALNLA

VSTLDAVKNIGYPEARIILAQCVVYLASTIKSNASYKAINEALNYVKNNEALEIPNYLNNNHQEKQNYLY

PHDFGGWVEQKYLGKNLKFYHSKGLGEEAKLLDNLYKLKNHKA

>YP\_002343655.1 4-hydroxy-tetrahydrodipicolinate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKIGIYGAKGRMGKQIEECLKSETQARISILYDKGGNLGELFEKSDVIIDFSSPSGTHELLNYARTMPK

PLVIGTTGLDEKILHLMQSASEVMPIFYATNMSLGVAVLNYLASKASQMLRNFDIEILEMHHRHKKDAPS

GTAMTLAQSVAKARNLELEKVRVSGRDGIIGERSKDEIAVMSLRGGDIVGRHTVGFYEDGEFLELNHTAT

SRATFAKGAIKIAIWLSKQEAKMYSINDFLGI

>YP\_002343654.1 amidophosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCAVVGVINSKNASTYAYYALFAMQHRGQEASGISVSNGKNIKTIKAKGEVSQIFNPDNLKTLEGEIAIG

HNRYSTAGNSSLNDAQPIAATSVLGDIALAHNGNLVNKEEVRSRLIQDGAIFQTNMDTENVVHLIARSKQ

ESLKDRFIESLKECIGAYCFVLASKDKLYVVRDPHGVRPLSLGRLKDGGYIVASETCAFDLIEAEFIRDV

KPGEMLIFTQGNDKFESIELFSQTPRICAFEYIYFARPDSIVEGKSVYEVRKKMGEALAKKFAYKADFVV

PVPDSGVSAAIGFAQYLQIPLEMAIVRNHYVGRTFIEPTQELRNLKVKLKLNPMRKVLEGKEIVVIDDSL

VRGTTSKKIISLLRAAGASKIHLAIACPEIKFPDTYGIDTPTFEELISANKNAEEVREYVEADTLSFLSI

EELTQSIGDERKYSLISFDGDYFIK

>YP\_002343653.1 flagellum-specific ATP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLEKLRSKLGKENLSAIFGEITKISATSIEIRGLKTGVGDIVKLVSNENENLNTLAMVVEIKEQFSYLS

PFSFIEGFKIGDRAFISDAGMQIGVSDELLGRVVDPFMRPKDGKGAIEATKYMPIMRAPIDAMKRGLIEE

VFPVGVKTIDALLTCGVGQKLGIFAGSGVGKSTLMGMIVKNSKAPIKVVALIGERGREIPEFIQKNLGGK

LDDTVIIVATSDDSALMRKYGAFCAMSVAEYFKEQGKDVLFIMDSVTRFAMAQREIGLALGEPPTTKGYP

PSVLSLLPQLMERTGKEEGKGTITAFFTVLVDGDDMSDPIADQSRSILDGHIVLSRELTDFGIYPPINIQ

NSASRVMSDIISPEHKLWARKFKRLNSLLKENEVLLRIGAYQKGSDKELDEAISKKEFMQKFLGQNPEES

FEFNQTLELLSQIDTPNTPLPPTQNINVGSASATLPNPNLK

>YP\_002343652.1 GTP cyclohydrolase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKKFEDCVKTMLEIIGENPNREGLIKTPNRVFKAYEFLTSGYTQNVKEILNDALFESSNNEMVLVRDIE

FYSLCEHHLLPFFGRAHVAYIPNKKVVGLSKIPRLVEVFARRLQIQEQLTEQIAQALMENVDAKGVGVVI

EARHMCVEMRGVQKANSTTTTSALRGIFLKNEKTREEFFSLINSAKQVRF

>YP\_002343651.1 trigger factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEVKAKQLDSVNATASVKIPSGMIKSEVENLAKKASKSVKMDGFRPGKVPVSAVLKRYERELTQDAEQNL

FKSAVNSALQELKKENKELVGEPYFEKFDRKDGEIIAELILSFKPEIKLEGYEKLIPEYQTPKVSKKEID

EKKDELLKRFATPEAIKTKRALKEGDFAKFDFEGFVDDKAFEGGKAENYVLEIGSKQFIPGFEDGMVGMK

IGEEKDIKVTFPKEYGAAHLAGKDAVFKVKLHEIQELKIPELDDEMLKKLLPGEEKASVEVLDEKLKEQI

KNEKLFKLVNDELKGKFADALIEKYNFDLPKGIVEQETDMQMRAAFNTFSEKEIEELKASKEKYQEKRDS

FKEEAQKSVKLTFIIDELAKLRKIEVNDQELIQAIYFEAYRYGMNPKEHLENYKKQGALPAVKMALIEEK

LFNDIFIPKTEKSEKVSKKEKEDK

>YP\_002343650.1 ATP-dependent Clp protease proteolytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFIPYVIEKSSRGERSYDIYSRLLKDRIIMLSGEIHDELAASIVAQLLFLEAEDPTKDIYLYINSPGGVI

TSGFSIYDTMNYIKPDVCTICIGQAASMGAFLLSCGAEGKRFALPNSRIMIHQPLGGARGQATDIEIQAK

EILRLKTILNDILAKNTKQKVAKIAKDTERDFFMSAQEAKEYGLIDKVLEKSFK

>YP\_002343649.1 peptide deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVRKIITYPNPRLFLNSEIVNKFDTELHTLLDDMYETMIASNGVGLAAIQVDIPLRVLLVNIFDENDEQK

KEDLLEIINPEIIPLDEEMITCTEGCLSVPDFFEEVKRYNHILLKYQDRFGEFKELEAKGFLAVAIQHEN

DHLNGHLFIEKISFAKRQKFDKEFKKKKKNHKKEK

>YP\_002343648.1 hypothetical protein Cj0190c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLKCISFHEGLDIIEVESTFTRGLPNLSIVGLASTAIKESVERIKATLLSCDFAFPAKKITINLSPSG

IPKKGSHFDLAIALLILLQNEELDDFFVVGELGLDGSIKSTNELFSLLLFLSAKIKKAKIVVPKSIAQKA

SMIPNLEVYGLENLNEAIEFFKEKNYENFRFSHNHPLFANPLQIENEIFLQNMDFKLDFKDIKGQEKAKR

ACMIAALGMHNILFEGSPGSGKSMCAKRLVYIMPPQSLSEILMQNAYMSLDSKDCEFTKIRAFRHPHHTS

TRASIFGGGTKNARIGEVALANGGVLFFDEFPHFNKQIIESLREPLEDHKIHISRVNSKITYETKFSFIA

AQNPCPCGNLFSKNLSCVCSENEIKKYKNHISAPIMDRIDLYVAMDEISKDDKTSISSKEMSEKILQAFI

FSKKRGQKEFNGKLKDEDLSRFCVLEKDAKDTLDLAISRYNLSLRSLNKILKVSRSIADLEQSLNISKTH

ILEALSFRARN

>YP\_002343647.1 hypothetical protein Cj0189c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENKSIAIFIDAENIPAKYAKSIFDIASDYGEVIIKRIYGDWTQKNIQGWREQIAEYSLIAMQQFNFAAN

KNSSDMYLITEIMSIFYEKNIDIFVIVSSDSDYTSLIQKLRENKKQVIGMGLEKSIKSYVNAFSEFFYLD

KDESKKEDILSKDYLRALINITEQLIDEKGRAEYAQIRTNMNRKYSDFHPQNYGFKNFRALIQKFLPKMK

KFEEEREKNIYFLVKKDYESYY

>YP\_002343646.1 kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKAIIDNIKILEQNAINKGLDELILMENAGLNLAKLIKKEAKKIRIQRKIRKVKILFLLGGGNNASDGLV

ALRNLKHAKAYKIGFKENTLFKKQEQILQNYAFKFCKKEPNFKKFHIIIDCILGTGSNRCLDEKTSLIIQ

KVNQSKALKIACDIPTNLGFYPCFKADITFCMGALKEILLEDFAKEFVGRIKIANLGIRSKKFYPNSQAF

LLEKKDLKTIDRKINANKGNFGHIYIVANASAGTLAGLGALNFGAGLVSLVAQKSFSPLLMLKEKIENNA

SAIALGMGLENLDFLKDEILQNTPLILDANCFLSEALLWYLNRKDVVITPHPKEFIKLYKMCFDENLDIE

TLQKNRFFYARKFSQNYDCVLVLKGANPIIVQKEKLFVVNLGNQALAKGGSGDVLSGMIAAHLGFGFSAL

EAAKNATLAHGLVAKKYKFNKNSFDALKLIKGLKCL

>YP\_002343645.1 phosphoribosylglycinamide formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLVKLAVLFSGNGSNLENILEKLHKKTIGENTYEIVLCLCNKKDAFGIQRAKKFGLNTVIIDHKAYNTRE

EFDTILVQKIKESGANLTVLAGFMRILSPVFTKNIKAINLHPSLLPLFKGAHAIKESYESDMKVAGVSVH

WVSEELDGGMIIAQKAFEKRNLSFEEFEEKIHSLEHEILPLSVIEIFS

>YP\_002343644.1 TerC family integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFEWIFSIDAWITLATLSALEIVLGIDNIIFLAILVSKLPPEHRDKGRILGLAFAMITRILLLLSLFWVM

KLVTPLFSVLGNEISGRDLVLLLGGLFLIVKSIKEIKEQISHQEESQSHFKASNKLWIVVAEIAVIDIVF

SLDSVITAVGIAQDVTIMIIAVIIAVAVMLFASKPIADFVEKYPSIKILALAFLVLIGVVLVAESFDIHI

DKAYIYTAMAFALVVQILNILDQKKEKNG

>YP\_002343642.1 serine/threonine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRILLVLRGNYYAGQEEFIKNNKLQNYTLDLNALRLLSGSVKNIVSEYKILNVKNDEDLSKILLKLLEMR

MQKGEFSIINAYNETLKIYKDLAKQYRYKIYVIVFDSSLKQCQEKNLLEAKKNGYIIPYALLEKTQDLLK

KNPKKYPILDSRDWKKCLYQMPNLSKYKKIHHIGDLQGCYSVLKEYIKTIKEDEFYIFLGDYINRGIENG

KVIKFLLKICEKENVCLLEGNHERHLIKWANGELSNSKEFNENTLKDFRKEKLTPRDARKLYPHLKECLY

YKFQNKFIFCSHGGVNFIPSKPEKISFIPSHDFIYGVGGYEDSQKVANQFCNFTSDNLYQIFGHRNKEKL

PMKIAKRVFLCEGKIDDGGYLRVVTLDEKGFECV

>YP\_002343641.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDPSQVLDLNQTSTASFDAGYSILMVVVALALVFLNGFFVLSEFSIVKVRRSKLEEMVKEKKAGAKKALE

VTSRLDTYLSACQLGITLSSLALGWIGEPAIAKMLEIPLINLGFSTVIIHTMAFIIAFSIITLLHVVLGE

LVPKSIAIAVADKAVLFIARPLHWFWMLFLPCIKIFDFLAAISLKLFGIKPAKESELTHSEEEIKIIASE

SQKGGVLDEFETEIIRNAVDFSDTVAKEIMTPRKDMICLNKQKSYEENMQIICEHKHTRFPYIDGSKDTI

LGMIHIRDIIQNELNHKSQNLDTFVKPLILVPENISISKVLVMMNKERSHTALVVDEYGGTAGILTMEDI

MEEIIGEIKSEHEEDSYKKLAENIYEFQGRCDIETVEEMLVINYDEDLEQVTIGGYVFNLLGRLPMVGDR

IEDELCYYEVKKMDGNSIERVKVVKKTNKDEE

>YP\_002343640.1 transmembrane transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIMFSSFFKSKKWALWAYLGLFLLLFFLYIQTSLNVAINSWYSDFYNVLQKPKIELLDSNSTQKIEENLE

NNATLIQEANQRAEQNFQKANFINKGALYYYQNLLEYFFNSRAMIEKPNYSASDFYALILVFLAIAIPYV

LIATINIYFASVYAFKWREAMTFSYLKFWKNKDDNIEGSSQRIQEDTYNFSKIVESLGLSFIKALMTLVA

FIPILWSLSDVVSKALFANLSENSFFYFLKNIDGLLVYIALLISLGGLVVSWFVGIKLPGLEYNNQKAEA

AFRKELVYAEDNRKEYAKNETMIELFTGLKFNYKRLFLHYGYFNIWLILFEQMIVIVPFLIMAPGLFAGA

IGLGIVMQINNAFDQVRSSFSIFITNWTTITQLRSIYKRLKEFEKNISYKS

>YP\_002343639.1 TonB transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSSVIFGFVLSLILHTLVLMFFLFSFYTQEKSSGVDFKQGAEFTSIMMVSEFPIGELKEVSIDQKKSNS

QDKNKKQDERISFNSQDKNAVLKVQKKIEKQDENQAQKEIANASENSKFKNESLSAPLQSNKDKTQTIVS

GNAKEQVKSYQALLMAHLTKFKKYPQEAIMQKQEGVVRIRVSIDESGNVLSKELKKSCPYAALNDEALSL

FKRASPLPKPPKEMLKNGDKISFVMPIDYNIKDYLGKK

>YP\_002343638.1 biopolymer transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKTEMAHKEEELSEINITPFIDIMLVLLIVFMAVTPLITSSIKIELPKSSQQAEDKLKNPIILYLNTDN

TLAINDDKLSLENLSSALDIKTKGNKEEIIYFHIDKSVKYEDIMQVMQKLKENGYGKIALSSKKMD

>YP\_002343637.1 biopolymer transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKKCFYFVFLLLNLNAEANATDTNLSFDSSKIETEAPKIELSLSSLYQNADEVVKGVIYILVLFSILAW

AVFISKLMQFYFMKKNLDLSIQKIKELKNLNELDQTKDFAGVLSLEIQDELEKSEYKNDHIKERIELRLQ

NTISKQITASKNGLSLLASIGASAPFIGLFGTVWGIMNAFIGIANLGNASLAVVAPGIAEALFATAFGLI

AAIPAVLFYNYLTRKNLKLMHHLDELANFVYILFHRSYFNDKN

>YP\_002343636.1 TonB-denpendent outer membrane receptor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLSLFCAVGLCFASFAFSEELEFDSLEISGSKIKNDEKPFVTPGATSTREGIGSDTQSIDSIVRSIPG

TYTNTDQAQGTVQVNIRGMSGFGRVNTMIDGVTQTFYGSASDDPARFHSQTGTSAFGAVIDTNFLIGVDV

TRGTFEGVGGANALMGSANFKTIGINDIVHDGNIFGFLGRFSYGSNGIGPSYMSAVAGKTELENNGYVGA

LFGYSAKRITQNYTVGGGGKIGSSMVDTDGDGIADTNIAPFDPDFLTQKPNSQLFKLEYVPNSFTNTIFS

YRRYQNELAGRKIHNDNYQLDFWHNPNEWLNVNTLIAYNQGIQTYGSKSTFAANDAIANTKAKNTATTFD

ISDTLEGEWHRFNLNIRFGANILLNDYKNTLNTSIQGVNSIPFQPRGKQNLFTYYLDNSLNYGIFTLDTN

VNLLDWNIKGHRPACDEVNFMCFPKAATDIDKNGLRLNASVMLSAAIHELITPFVSFARTNRAPNVQEMF

FSNNEGNGINSFLKPEQANTWQIGFNSFKHGLLKDDDRFGFKAVYYHTKIKDYIYNEQFYLEDPSKDPPS

SQFYMHLNSADDTIFKGVELELSYDLGFAYAKAMYSRQDTSSTISQTSGPLLGSFSASKIMELPKDYANV

ELGFRLNDKISFGGIAKYTGKAKRVNPNTDDWNKDPNNPYYPKPTTQDLPKIPIIVDLYWNIEWFKNLTM

RAEVQNLFDKNYMDALNAYNSLDNQLQYNGAGDPIYLFSNSARGRTFIVSFEYKY

>YP\_002343635.1 iron transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFYTILSILFISFMLSACAVLQKSSPLQENKDFYILDTHTQKKISFEDMILELLKADVILLGEKHDEVK

HKISQVMIFNALEGNLSSQNINFDVALEMLASTEQNHLDKAFKNKKTIKANELTNALNWDKVWKWKDYEQ

FVNVVFYSKSKILGANLSRSEITSIYNGAQPLKGYVSTTNEVKKQLFDIISLSHKLNPEENKELLDKLVE

IQQFKDRRMADVLVHHVNKVLLLAGSYHTSKKIGIPLHIQDFKSSKKIVVVNLSYGEIDLKDSDYVLIYK

GEE

>YP\_002343634.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSMKKIILFLLCVGFAFACSEHSHTDFKDLNKTEYNSQLKDKI

>YP\_002343633.1 iron-uptake ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFFMFLTAVSFLGASELNIYSARHYNADFEIIKKFEEKTGIKVNHTQAKASELIKRLSLEGSNSPAD

IFITADISNLTEAKNLGLLSPVSSKYLEEFIPAHLRDKDKEWFAITKRARIIAYNKNTNIDISKMKNYED

LAKAEFKGEIVMRSATAPYSKTLLASIIANDGNKEAKAWAKGVLENLATNPKGGDRDQARQVFAGEAKFA

VMNTYYIGLLKNSKNPKDVEVGNSLGIIFPNQDNRGTHINISGIAMTKSSKNQDAAKKFMEFMLSPEIQK

ILTDSNYEFPIRNDVELSQTVKDFGTFKEDQIPVSKIAENIKEAVKIYDEVGFR

>YP\_002343632.1 iron-uptake ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYKTLKYYKLGAILLALFLALPIFGIFAELFYILFQNFNTSDLTQFSSIKENLSHFFDYLFLKFIKDTFI

ISMGVLCLSLILGVSSAYLIANYDFYFCKILEKLLILPLAIPAYILAFVYVGIMDFQGFFHENFGFRIDF

FNHYGVIFVLAISLYPYIYLFAKTAFKSEAKEAYEVAKIMKYSEFRIFTRVALLSARPAIFSGALLVLME

TLSDYGASAYLGVDTFSAGIFKLWYDLNDSYSSSVLSGILMLFVFLIMYVDYYYKNKHHYSFNQNLALFI

KKRKLNPIKQILSCIYCFMIAFVGFILPFIWLVYWGLKDHKLFESQFYIISFQTIILALITALITTFLAY

FLMFSSRIVKNHFFNLFILKISSLGYSIPAAALGISIIVLFVFLDKFFHMSLLGNSLLVLVFAYIIRFLA

SAIYSLEGGYNKIHLNIDEASLNLRTSYFILFFKIHTPLMKHFLFLAFIIVFIDTIKELPLSRILAPFGF

ETLSVKAFWFASDERIYDAALPSLFIVFLSLMVVVWMDKITRKDDVRN

>YP\_002343631.1 iron-uptake ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMLEIKNLSKNFGKIQALENINLHVKEGEFLSILGGSGSGKSTLLRIIAKLEQASSYDLFSCKGEVALMF

QNYALFPHLNVEKNILFALYDKKDKNQILNHLLKTFEIEDLRYKKIDEISGGQAQRVAFARAMARGCKLL

LLDEPFSNLDQNLKQDLRRELKKMIENQGITAIMVTHDIEDAYCMSDQIAFLEKGKILAHANPKELYFKP

DFKSAQILPDLNIIEEKLDLEDEFFAWIASKNYIFGYAELKIGNRFEAKILQKEFLGAFCRLKLLYKNII

FFILVSSSYDLEEKISFDIINF

>YP\_002343630.1 saccharopine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLLIIGAGGVSRVATVKCAMNSDTFSKITLASRTKSKCDEIAAFIKERLGVQIETAQIDADDSNAVVE

LIKKTEAQILLNVALPYQDLSLMDACIKAGIDYIDTANYEHPDLAKFEYKEQWARNDEFKQAGILGLLGS

GFDPGVTNVFCAYAQQNLFDEISYIDILDCNAGDHGYAFATNFNPEINLREVSAKGRYWENGKWIETQPM

EIKMEWDYPEVGVKDSYLLYHEELESLVKNIKGLKRIRFFMTFGQSYLTHMKCLENVGMLGIKPVIHQGK

EIIPIEFLKTLLPDPASLGPRTKGYTNIGCVIRGKKDGKDKQVYIYNVCNHEECYKETGAQAVSYTTGVP

AMIGTKLIAKGIWQGKGVFNMEEFDAKPFMEELNSQGLPWKIIEMTPSLGE

>YP\_002343629.1 hypothetical protein Cj0170 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEWILTLSQHSTQKGAKMDNSLSAYTQKYDKEGYGLQYPDGHVIRFYERILKYKLSKTSGKLLDFGCGN

GVHSKYFKNITGGGIEPYGIDIVPSLKKVWEKDPCLDSKNFHIISPNSSFKKLFNTKMDFIFANQSLYYL

TKQAFKEAVQEFYELCNEGAIIFATMMSDKGYSMYERGELMDNSLREVKGCPSGRLSGSSYIRFTKDIEE

LKEDFKPFKPLFWGDYELINLYNFEGSVEHFIYIGQK

>YP\_002343628.1 superoxide dismutase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFELRKLPYDTNAFGDFLSAETFSYHHGKHHNTYVTNLNNLIKDTEFAGKDLVSIIKTSNGGVFNNAAQV

YNHDFYFDCIKPSTGCGCGGSCQSIDANLQAALEKEFGSLENFKAEFIKGATGVFGSGWFWLVYNTKNQK

LEFVGTSNAATPITEDKVPLLVVDVWEHAYYVDHRNARPAYLEKFYAHINWEFVAKAYEWALKEGMGSVS

FYANELHPVK

>YP\_002343627.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVVLISALLGAFAANVFAANTPSDVNQTHTKAKADKKHEAKTHKKTKEQTPAQ

>YP\_002343626.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFYSLIFLSCALGMDAFAVSLCKGFSVKKLHLKHYLIVGIYFGGFQALMPTIGYFIGITFASFIASIDH

WIAFILLSLIGLKMIKESLENENCDSNANQFGFKTMLALAIATSIDALAVGVSFAFLNVNLLLAIFLIGI

ITFILCIIALKIGNKFGIYLKNKAELLGGLVLIILGVKILIEHLFFD

>YP\_002343625.1 tRNA dimethylallyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFFEIALIGTTASGKTYIANTLAREFNAVVLSLDSLCVYKEINIASAKPSQDDLASIKYFGVNLLSVNEH

FNVELFIREYQKAKEFALARNLPLIIVGGTGFYLKTMIDGLSEKTLESKSSLNNDEIYALLLNIDPNYKI

EKNDTYRLKKWLGIYEQTREIPSEFLKRTQKTGVLKDIEIYELAWDKEILKKRIKTRTKEMLDNGLLDEA

KILFSKFDHKLKALNSIGLKECKEYLDGEISFKELENLITIHTTQLAKRQRTFNKKFQSKALEFDKALAT

LRMKFSIEK

>YP\_002343624.1 4-hydroxybenzoate octaprenyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTFWIKFKDILELVVFKHSIFALPFLFSSMIVASKLANDTAWFGFKALILGIICAVSARNFAMATNRLM

DEDIDKDNPRCANRPNVSGKIGRKSVWIFIIINALIFISCSYFINTLAFYLSFPVLLVLAIYSAFKRFSS

LAHLVLGFCLGLAPIAGSVIIMGEIHIYSVILCLGVTFWTAGFDLLYSLQDMEYDKKIGLHSIPAKFGSK

ATLFISSFCHILAVLFWLLFVWEVWGVALGKIALIGVIISGIILALEHKIVHKNFAHIDRAFFTLNGYLS

IIFFIFIWIDLLWN

>YP\_002343623.1 hypothetical protein Cj0163c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MELALFKAGFEAHLECCEIENNRFLGEYLKLGAISQILKWKKLALRIDFDEGEKIIFDLLLSLKEDILRL

ENSLDKNKELIPLKQKGVIESLNFEYLNFLDTILEEDKEYYLRFDLNNQKIAIFIKAQSQTLAKIIKIKP

EDKMAFDAFVVEIQRNMIRNKKGQE

>YP\_002343622.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDDVLYLVFIIVLLIAMLAYMNIKERENNAKIAKLQNVIEDITKELHYFRKELGVKDDSEEDEDYKTSL

LKEEIMIELDKQISSKITPVLRTLKTMEHIIEDFQNEQQNRLLNLEQKAQSMAKLTPNYDTEEQKIENLF

KEGKSIEQIAKDLRIGTGNVELVLKFKKLIK

>YP\_002343621.1 cyclic pyranopterin monophosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIDQFGRKINYLRISVTQRCNFRCLYCMPKIPFDYQPKENLLSFEELFLFVKAAIDEGIEKIRITGGEP

LLRKDLSIFIKMISDYKSDIDLAITTNGFLLKDFAKDLKNAGLKRLNISLDTLDHKKAKTLAQKDVLDSV

LSGIDEALNLDLKVKLNTVALKNLNDDELISLLEFAKSKKAQIRFIEFMENTHAYGKLQGLKRDEIIQIL

SQKYQIQLIKKDEKAPVSIYKADDYEFGIIDPHSHEFCDSCNRIRLSAEGLLIPCLYFDEALSIKEAVRK

GDIKAAVEILQEVLRNKPEKNKWSVVDNETSSRAFYQTGG

>YP\_002343620.1 radical SAM domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQLVESFLSIQGEGKYNGKLAIFMRFAGCNFNCLGFNVKISKNDKTLIGCDTIRAVFTKDFKESYETLNA

NELLKRVIKLKKDFDPIVVITGGEPLIHYENPEFIEFIQMLLKNKFEIHFESNGSIEIDFDRYPFYKECI

FALSVKLQNSGIKKDKRLNFKALKAFKNYAKDSFYKFVLDANTLDNSFLEINEILKEAPNQIFCMPMGEN

EQNLKKNAQKIAEFCIKNGYNYSDRIHIRLWNDKEGV

>YP\_002343619.1 6-pyruvoyl-tetrahydropterin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIIRKLFEFENAHIVRFCSSKRCKSSIHGHSYKVEVLLESKYLDNAGMVYDFGLLKTYIRQIIDSFDHAI

TLFKYDDAKYLEEMKKYSSRWICLPVNVSAENFCRVFFILIDALLKQTKMVNGEQGVTLQSIIVHETRTG

YAQGFREDAYSELMPKISLQDIEFSNGIKAEWNDIDFYNKLKNEEIFINPKEI

>YP\_002343618.1 heme-binding lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKAKILIALSFFLLVLSACSNDEKNISKTQNTDQEVVQIEQNDEKTELSDSNLPLPVDDEAQSSNDEHE

VNPSIINSLYKQKCATCHGEKGELKPKNSTAIKTLSNKIFIQKIKTIKDKNHSFLSDEQIQNLADFINKG

K

>YP\_002343617.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDQSYEFFLALHLYSLYASGFLMLFYLILTQGNFKTEFIFIRRIRLFLPIYYLFLALIIFTGCLLSAMKQ

FQMNVNIWVMIFSWILIFALAIFHFVCFKKARRFRKYATFRWISCLILPFEIFLLFLPFLIERYL

>YP\_002343616.1 rRNA small subunit methyltransferase E [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQFLYNKQAGEEFIQLQGENFNHLKVRRVKENSELNLRNLQDNFLYNYTITNLTRNSCTLKFLNKKSQNI

KQSELNLALAIIDIKILEKTLPFLNELGVKKLHLVFTNFSQRNFKIDLERFEKIIISSCEQCGRNTKMDL

IIHQSTQEFVQKFPNAIMVDFQGEQQSHFDEKELYFIGPEGGFNNDERLLFNRKISLKSSNILKSQTAII

AIASKILL

>YP\_002343615.1 50S ribosomal protein L31 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKEIHPEYVECKVSCACGNTFTTKSNKAELRVDICSNCHPFFTGSEKIVDAAGRVEKFKKKYAMQ

>YP\_002343614.1 rRNA small subunit methyltransferase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLYFIPTPIGNLSDISFRALELLKTCDLVFCEDTRVSKSLISLLNTKFHTDIHISKFIALHSHNEKEVLA

SIDLKIFEKNVAYLSDAGMPGISDPGKALVEFAQENNITYEILPGANAALVALVSSAFCQKEFIFIGFLA

NKGKERQKDIEKILNFPYPSIIYESPKRILSLVEQIMILDNQREIFLIKEISKKFEKKFKGNAKELSEIL

KKSNLNGEWVVVLQSKEQNFLQNTLCEKDIMDLELSLKAKAKLLSKINGKNAKEIYQKLLLSQD

>YP\_002343613.1 rRNA methylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIVYGKQIFFYILEYHKDCINELYLAKECDKITFSKIAKSGFKIKKLDFKTAQAYAKGGNHQGFLLDIKE

SSFANLNEIKKNDFIVMLYGISDVGNIGAITRTAYALGVGALIFIGEKLAMEGVIRTSSGAALDLPIVIS

NDALSVINELKQVGFYFYASDGSGKEIHSVKISNGKKVLVLGSEGFGLSSKIVKKCDECVGIAMKNNFDS

LNVSAAFAILCDRMLNA

>YP\_002343612.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNWKKIQELNLKEVAAKTQIELDFLEALVEKNFAVLSRFNVKGFVKILSREYELDFSDFNEEYEAYLNE

NNPTPQTKSKMITPKLDAYSQKSFNTWPFLIVLIVLVIIGSGIYYFDTLKTFFKDEQNNTSATVIDIIGQ

AQENLKSLGGNNVVVIDNNKAQETNRTESVLPSQNISLQENDKNISIENNISENNTTLLDEEKNTQIQED

TNTPKTDSLKEAHFKTSTKIWIGLIDLKSLKKTSFVKEKDFNISLDKDQLILTGAAALTMFDQENKEQKF

PAGISKRFLIKDGKITSISAAEFVKLNKGKEW

>YP\_002343611.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKKIIILTFWVNISFAISSLELAKNLVNNPSKNSQLELLFSNNSYIDNNGNCDIAKISQILKTNSLIAL

TLSNPQSLRLNFKAKADEVMFFKILSDVLTDAGYIYFIPTDLILREGNIDYTIQVESQYVLDPGTLYNLL

KENSVYINNIKRIGVYDYEYDLNFSNAVLKTNTNVNLNTPKSLEKPLKDYVLDLKNATNLIIDANDLDNW

FPKIFFLDKNLNLIKAVKSENKNNHFSELIPNGAIYAIVSDMYSLDNIRRGLKITLKK

>YP\_002343610.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDEIRFNTIERLPNYVFAEVNAIKMAARRAGEDIIDFSMGNPNGKTPQHIIDKLCESANKDKTSGYSTS

MGIYKLRLAICNWYKRKYNVNLDPENEVVATMGSKEGFVNLARAIINPGDVAIVPTPAYPIHTQAFIIAG

GNVAKMPLAYNEKFELDENQFFENLHKTLNESIPCPKYVVVNFPHNPTTVTCEKSFYERLIATAKKERFY

IISDIAYADLTYDDYKTPSILEIEGAKDVAVETYTLSKSYNMAGWRVGFVVGNKRLVSALKKIKSWFDYG

MYTPIQVAATIALDGDQTCVDEIRATYDKRMHILLEAFENAGWKLQKPRASMFVWAKLPESKRHLKSLEF

SKQLLQRASVAVSPGVGFGEAGDEYVRIALIENENRIRQAARNIKKYLKE

>YP\_002343609.1 homoserine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVAILGYGTVGSAVVKFLLENDKLIRARCGQSITPVIALARSPKKNALIPITHSVAEILNADVDVFVEL

MGGVDEAFKIVSEILKKKKAVVTANKAMLAYHRYELENLAKNLAFGYEASVAGGIPIIKVLKEGLSANNI

LAIKGILNGTSNYILSSMSQKNMSFKQALQIAQNLGYAEADPTFDIEGQDAAHKLLVLSSIAYNLKAKPE

DILIEGISEIAPEDMYFANEFEFTIKLLGIAKVRENKVELRVHPTMIDKEKMLAKVDGVMNAISINGDLL

GESLYYGAGAGGEATASAVISDLMDIARDQVKAPMLGFVNTLEYKLLSKDEIYTKYYLRVKVEDKIGILS

KITQLMSENNISIDSFLQKPKKNDENYSTLFFTTHLTYEKSIQNLLEILRKQDFIKTKPFMMRIE

>YP\_002343608.1 hypothetical protein Cj0148c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGVKAYLDGILGEDKACKFLKKQGFEILKRNFHSKFGEIDIIAKKDEILHFIEVKFTQNDYEVSERLDRK

KLEKILKTIEFYHLKNGISSDFQIDLICIKNDVIQFCENISF

>YP\_002343607.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGKYIELTSDNFAQAKEGVALVDFWAPWCGPCRMLAPVIDELSNDFDGKAKICKVNTDEQGDLAAEFGVR

SIPTLIFFKNGEVVDQLVGAQSKQAISDKLNSLL

>YP\_002343606.1 thioredoxin reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLDVAIIGGGPAGLSAGLYATRGGLKNVVMFEKGMPGGQITSSSEIENYPGVAQVMDGISFMAPWSEQCM

RFGLKHEMVGVEQILKNSDGSFTIKLEGGKTELAKAVIVCTGSAPKKAGFKGEDEFFGKGVSTCATCDGF

FYKNKEVAVLGGGDTALEEALYLANICSKIYLIHRRDEFRAAPSTVEKVKKNEKIELITSASVDEVYGDK

MGVAGVKVKLKDGSIRDLNVPGIFTFVGLNVRNEILKQDDSKFLCNMEEGGQVSVDLKMQTSVAGLFAAG

DLRKDAPKQVICAAGDGAVAALSAMAYIESLH

>YP\_002343605.1 TAT pathway signal sequence domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MERRLFLKGSALGSMVAFFASSNLSAAMLKDKDLLGFKAVSASTQDKVIVPQGYEAKVLISWGDPLFSKA

KPYDENKIIDMNAVKNAHLVFGDDNDGMSFFPLSKNRGILAVNNEYINPEIMFNHHGKNLSKEDILYEQA

SVGVSILEIEKKGDDWTVVLDSKYNRRIDANTKMQVSGAAKKEVLKNEKFVHGTFANCANGQTPWGTYIT

CEENFDDFFGSLDENLEFNDSLKRYGFNKTSLYGWEKFDERFDLAKNMDEANRFGWIVEINPFDAQSTPV

KRTSLGRFKHENAEIIVEKDGSVIVYMGDDEMNEFIYKFVSKHKYKKGADTSKILDEGILYVGQFNGNVG

DFKGQGKWIALEYGKNSLNEKNGFKSQAQVLINTRLAASIVGATPMDRCEWIASHKQSGSKEVFATLTNN

KNRQEPNAANPRTKNVYGQILKWMPKNSHKDDDFTWEIFALAGNPDNQQGLYKGSNNITSENKFNSPDGL

KFDRDGRLWIQTDGSYSNKDEYESMGNNCMLAANPKTGEIRRFLTGPIACELTGIAFSEDYTTMFVGIQH

PGEGLKGSTFPYGKTPRSSVMMIRKLDGGVIGS

>YP\_002343604.1 methyl-accepting chemotaxis signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSVKLKVSLIANLIAVVCLIILGVVTFIFVKQAIFHEVVNAEINYVKTAKNSIESFKARNSLALESLAK

SILKHPIEQLDSQDALMHYVGKDLKNFRDAGRFLAVYIAQPNGELVVSDPDSDAKNLDFGTYGKADNYDA

RTREYYIEAVKTNKLYITPSYIDVTTNLPCFTYSIPLYKDGKFIGVLAVDILAADLQAEFENLPGRTFVF

DEENKVFVSTDKALLQKGYDISAIANLAKTKEDLEPFEYTRPKDGNERFAVCTKVSGIYTACVGEPIEQI

EAPVYKIAFIQTAIVIFTSIISVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFG

QISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARV

GSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLT

TSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAG

EHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNV

EIANESAIISSTVSDIANNILEDVKKKRF

>YP\_002343603.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIILFILSLGIFYTFTQAKNLEQEQNTSSNLVSVSIAPQAFFVKKIAANTLDVNVILPPNSNEHNFEF

KPSTMKKLEKSDIYFTIGLEFEKVFTDKFKQNFPKLQVINMQKNIALIQTHDTHEHSHEHEHHEHGHFDP

HTWLDPILVQTMALNIYDTLIQKYPQNENLYKENLDKFLAELDSLNLQIASKLEKLKNREFVVYHPSWTY

FAKRYNLTQIPVEILGKEPKSKDLQKLITLMKDKNLKVIFVQNGFPENAAKTLAKECDAKIYKIDHLSYD

WENELLKTADAFSHNL

>YP\_002343602.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLFFEISNLNYAYDNEIILKNINLSYDNKDFLSIIGPNGAGKSTLVKLILGLLKSKNEIHFKALQRKEIG

YVPQHTLANPNFCPRVLEIVLMGLVSKKIFGFYGKKDKEKAMQALKSVGMEKFWNKTIDSLSGGQRQRVF

IARALASECKMLILDEPTASVDNKSAIQIFELLISLHQKGMGILLICHDINLVLAYSDKIAHLNKELFLH

TNTKEKEKSSFLKHLYENHSHFCDVEMSLNTCFCNEENCDSKKLCEQEFTRRNLKKTEFKKENFCLKFSK

ENNA

>YP\_002343601.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEILNFTFFQNALLGAILVSIACGIIGTLVMINRLFSMAGGITHGAFGGIGIAFYFSLPILLSTGIFTL

FLAFLVAFLAKRYEHRSDSIIAVIWAFGMAVGIILIDLSPSYNTDLMAYLFGSILAVGTQDLWLMALVDS

VMVLLIFLFYRQFEALSFDVEFTKVRGINTSFFHYLLIALMAFCIVISIRLVGLILVMALLSIPSFIAEN

FTKRLGFIMILASFLSMIFCILGLILSYYLNLSSGACIIAIACFGFLVHLIGKFLKR

>YP\_002343600.1 hypothetical protein Cj0140 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNSIFSIIEHQAFSKEDLKEIFKEKAEGFYKELEDFAKNNENLLGFKNKNSLKAKNYVGIIQTKSGVLEI

LPKCTNLDSYKKEDSSSNHDKEKLRRCYELDNISKNNDFYEKDFKFNPKNLLINMLKTLKNSPFKKSQIS

SLQSSKIPLFEVFITMFLDEFDSVYKKGLMRSYLSCEENRAFLKGKLLFNEHIKQNLIHKERFFTSNDEF

VLDIAPNRLIKSTLNFLKSKTSLNKFRLIKAMQMLDEVEFSKNYEKDFSYKISRHFDYYENLLLWCKIFL

KNESFMPYHGKNEAFALLFPMEKIFEDYVAYMLKKVNSTQDIKVQNNGKYLISKNDENCFMLKPDLYIKN

KMILDTKWKIPNDSEDEKKQGIAQSDLYQMFAYACKFKIYDIKLVYPLCEKTQDLQRKIAEKFFVFKASE

HLYFKEQGQKDIKVQVFFAPLPF

>YP\_002343599.1 endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWNLDEKKLQEMLDGFLNFQEVWTLEKVKNMTLEEYTNIKKDNPNRDDFTFWIESKLDNLGSIWGGSAFK

FGIYRRNDESQKESSSGRLYSQNYAWIAKYGNNENEAFNNIKEKIIQIIQASQDNNLKTIEKIDFGDAIK

WKIAFHYQDVKNIKIVNIFSKNVLDLISLNEFKEKLKIYQIHKKLLENKNLSLVKMIENIAIPLWNKYGM

DSQNYIDKMKNLFSEYLNKKKLDKNTINKYIQVIENISKEFLKENLYSCDLFSFDQNINKLNKNEEFKLK

NSNGHNMYSSALNYYRAFLIDYYEQDIFITERVQSEESNMKIIPLNQILYGPPGTGKTYHTIDKALEILG

ENLESRDEKKAKFDEYVRKGQIVFTTFHQSYGYEEFVEGIKPIIDNDENSQEVKYDVKDGIFKELCDKSL

KNYILSMQNENEIDLDKLIFEFANYINQDFLNKGNEFPLENKVSIKKILLNFKDEYRSFSLGGSIKSPQS

LTIDIIKRDYLNFKNKKILSFKDIKPKYDSQSDYHGNAIYYFMFYNKLKEFENIQNEKFKIKKEILKSYI

IIIDEINRGNVSKIFGELITLIEPSKRIGEKEELKVTLPYSGEKFGVPKNVYIIGTMNTADRSITSLDTA

LRRRFEFVEMMPDVSKLSMDCEGINLQELLKAINTRIEYLLDREKTIGHAFFVSVENLEDLKKVFQNKII

PLLQEYFYNDYALINAVLNDNDMIFEDKKDDKYLQKIKNLDSVNSERSIYNIASFDDKIWDKIEIYQAIY

NDEIANKLKNENE

>YP\_002343598.1 hypothetical protein Cj0138 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLEALCKEAGLSFYDDELVSENGRKIYRIYVQKEGGVNLDDCARLSEILSPIFDVESPVNGEYFLEVSS

PGLERKLSKIEHFAKSIGELVKITTNEKEKFEAKIIAVDDENITLENLENKEKTTINFNDIKKARTFVEW

>YP\_002343597.1 ribosome-binding factor A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNPSEIKKLRTESILKELIPEALANLDDENLKNLCVVDVECKKGRYDAFVYLDKMFFNVHEQEKILSSLK

KASRALQNYCMSEQGWYRCPNFHFKFDDRLEYQNHMDALFEKIKKDKNES

>YP\_002343596.1 translation initiation factor IF-2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKIRIHEIAKELGYDSKEIIEKANELGLGIKTASNAVEPEIAAAIYEYIQTREIPEAFKKNIKTPTAKK

PKKENIKEQEKLNESEKKEPKKEEKLKQEVKKEELKIEKENAKEEEKQEIIDAHKPQSLASATLAKRRGL

VIVKKKKDEEEIQVKKEEVKNSNDISINNEERLSLKTMFSNADESLKKKKKEKKSFVASKKESTEKMNFL

DEHDFGDISLDDEDEVVLPDFSVKEQEKPQNINKKQPNFIRQAVGNSAGFGFEGGIQRRSRKKPSKKIEK

KEVEEVGSVAISKEIRVYEFADKIGKSTSEVISKLFMLGMMTTKNDFLDEDAIEILAAEFGIEINIINEA

DEFDYVKDYEEETDEKDLVTRAPVITIMGHVDHGKTSLLDYIRKSRVASGEAGGITQHVGAYMVEKNGRK

ITFIDTPGHEAFTAMRARGASITDIVIIVVAADDGVKPQTKEAINHAKAAGVPIIIAINKMDKEAANPDM

VKTQLAEMEIMPVEWGGSYEFVGVSAKTGMGIEDLLEIVLLQADILELKANPKSFAKASIIESSVQKGRG

AVATVIVQNGTLTVGSTVVAGEAYGKVRAMSDDQGKALKEIKPGECGVIVGLSEVADAGEILIAVKTDKE

AREYANKRHEYNRQKELSKSTKVSIDELGAKIKEGNLKALPVILKADVQGSLEALKASLEKLRNDEIKVN

IIHSGVGGITQSDIELASASENSIVLGFNIRPTGEVKERAKDKGVEIKTYNVIYNLLDDVKALLGGMMSP

IISEEQLGQAEIRQVINVPKIGQIAGCMVTEGVINRGAKIRLIRDGVVVYEGNVSSLKRFKDDAKEVAKG

YECGVGIEGCDDMRVGDYIESYKEVEEQASL

>YP\_002343595.1 hypothetical protein Cj0135 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKHIPIRMCIVCKNRFEQNMLFRFKVVLGDIVPKAEHGRSGYLCQNCIEREDKVLQKAFSKICKNLNTK

ITQQGLKEIFLNGKD

>YP\_002343594.1 homoserine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILVPATSANLGPGFDCLGLSLKLFNETQIQKSGVFSISIGGEGSDNIFLKKNNIFVNIFYEIYEKLSG

KKDNFRFIFQNNIPLSRGLGSSSAVIVGAIASAYYMSGFKVEKECILDEALIYENHPDNIAPATLGGFVC

SLVEKNKVYSIKKEIDKDLAAVVVIPNLAMSTEQSRQALAKNLSFNDAVFNLSHASFLTACFLEKKYEFL

KFASQDKLHEINRMKNLPELFEVQKFALENKALMSTLSGSGSSFFSLAFKDDALALAKKIQTKFKDFRVQ

YLEFDDNGFEIC

>YP\_002343593.1 glycoprotease family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIGIYQDDKLIKTYKSEEKASEFLPKILDELLKEYDFTSLIYANGPGSYMGIKISYVSLSTLSIVKNIPL

FAVSAFELNGYKPISANKNFCFVYKEGEICLEQNIPAEFFLPKNLQELKLNNDNLPFYFLDAI

>YP\_002343592.1 UDP-3-O-[3-hydroxymyristoyl] N-acetylglucosamine deacetylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQLTLAKTVKGVGIGLHKGEPIEITLEPLEANSGIVFFRSDLNASYKASPENVINTQMATVLGDDRGFI

STIEHLMSAINAYGIDNVRIVLNANEAPVMDGSSISFCMMLDEAGVKELDAPKKIMVIKKPIEVRDGNKF

VRLTPTKEPRINYTIKFDNAVIGEQSYNFEFSKKNYIENIARARTFGFLKDVQALRSMNLALGGSLENTI

VVDENRILNPEGLRFKDEFVRHKILDAIGDLTLLGYRVFGDYTSYAGSHHLNHLLTKEVLKDKDAYEIVS

LEKTTQKAYEKVFA

>YP\_002343591.1 peptidase M23 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKRKGKTYLSVLILVLIAILIFFISRLSIFEKNPPQILMPDVVYTDLKKPILVHIKDDESSIKNVQIIL

HKDDNTSAMVIADEKISNLKDITLQVALPKFGYKENVKSFVLEVIAKDSSFWNFFSGNEARKQIAVLVDN

TAPKINIISNSYQIEQGGAGAVVFKADDANLDKVYIETNKGKIFKATPYVKEGYYAALIAWDARDEEFRA

FVIATDKAGNISKERIRYYFVNRKYRVSNINLTDKFLDGKIENLANQYAPKDNNLNRYEKFKFVNETLRN

SNEKLIHEITSKVPEEKIDNFDLNLFLPLKNGMKVADFADHRYYSYNGQFVSDSYHMGLDLASVAQAPII

SNNAGKVVFAAENGIYGLNLIVYHGFGVYSLYGHCSSKNVDLDEMINKQSIIGKTGTSGLALGDHLHFGV

LVQGVETRPEQWQDKKWIENNIYNVLNDGKKIILGKN

>YP\_002343590.1 prephenate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIAIIGLGLMGGSLGLCLKENKLISCVYGMDLSKENEKDALQLGLIHELIEFKDLALCDMIFVATPVNA

IIEILQKLVDLPSNVTIIELGSTKRKIIESLPKNLIKQTLFAHPMTGTENSGPKAAFKELYKDAVCVLCD

SEIADDLHQKRAVEIFSHLGMKIVFMDSKAHDHHAAIISHLPHVISFSLANFVMKEEDKRNIVHLAGGSF

KGMSRIAKSSPQMWESIFLQNKDNLLSSIDFFQQELERCKQMIQLDKNDELREWMKQANTLREIL

>YP\_002343589.1 outer membrane protein assembly factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKHLISICALVAMANAATIKDIKFIGLNHLSNTSAINIAGLKIGEEINPAKINTAILNLYKQNYFENIA

VENNNGILEIIVTEKPTIAKVTITGIASNDRKQVESILGIKRGTLLDEGNIKEAIERIKAYYEAKSYFDT

IVEYKKKTLENTDGLELEFIVNRGENIIIDNVHLSGAKKFSYSDIEPAVVNKEKEFMGWMWGRNDGKLKV

FELSNDSSRIADEYMKKGYLDVQVSSPYLKTYTDTYQANLTYFIKEGKPYKIKSISIENPLFDDKQNAQT

VKDLRSSAGKTINIEDIRKDVKTIETQSADLGYAFVEVYPDIQKNDQTQEATVVFKVIPHDKVYIRNVII

SGNSRTVDRVIRRELYITEGNLYNRTDLSESKNALKRTSYFDDVNIKEEKVDDTHIDLIVDVKEASTGAI

SGGIGYGSSDGILLNASLSDTNIFGSGIKSSVSVDKSDDTLSGRISLVNPRVLDSQYSLGGTLYSNDYEW

DNYSEKNYGFDITIGRQFARYYNVSLTYNLEQSDIYHLSPTLLRTGYELGKSIKSSITPAITFNDTDDYY

LPRSGIIASTSLEYAGLGGDQEFISSSSKFNFYQGLQDYIGYDLIYRYKASFYKVWDEGYLPINQRIYLG

GIRSIRGFESRTVSPKNQWGDEIGGTIAFANSVELSFPLIDRIKLRGSVFFDYGMIGRKNLDEIKRMSTG

IGIEWITPIGPLQLVFAKPLNDKKGDDTNSFEFNLGTRF

>YP\_002343588.1 inositol monophosphatase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEFLDACLNANLQIRKYLNNIPQNDLKLCSKLGYDKNQGYELDLKCEQIFIKYLSCFGQIFSEESGLIG

KASPKQMILDPLDGSSNFVSKIPFYGTSIALMEKDQAKSAFVCNLVSQEIFAFNNKQAFKSNLSDPKYSP

LTPNLFSKIGIVEKISLYPELLDFLTKNQLKFRSLGATALSLAYASYFSFVLILGKTRIFDTAAALAIHQ

NLYIEKNENFLLLSQDKKIFDIILEFLKNN

>YP\_002343587.1 acetyl-CoA carboxylase carboxyl transferase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFADIFSKIRRQQPSVKEAPNHWVKCQSCHALMYYKEIESCFNVCPKCNYHMRISADERIKLLSDEGSF

IEYDANLEAIDPLKFVDSKSYKKRLSEGESKTGRKSSVISGECEINGLKTQLVVFDFSFMGGSLGSVEGE

KIVRAIQRAITSKTSLVIVSASGGARMQESTYSLMQMSKTSAALKLLSKEKLPYISILTDPTMGGVSASF

AWLGDLIIAEPEALVGFAGARVIKQTIGADLPEGFQKAEFLLEHGLIDAIVERGEQKQYLSDVLKFFSGK

>YP\_002343586.1 hypothetical protein Cj0126c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENNLQVNIFCIQKSDEFKTCSEKYSKLISKYATLKEINVFNKKIALAQNLNAIEAKKSYEEAFMPYKKG

YCIALDEKGKDLTSIEFAKLIQDKNELSFFIGGAYGLREEFNQSLDFRLSLSKLTLAHQFVKTLLLEQIY

RAFCINNNHPYHK

>YP\_002343585.1 hypothetical protein Cj0125c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKNEIQNFKNILEERKKAILENLQSNSNEIEALHNSVPSDSVDFSVIETGSQIDFAISTNLKEELIEIE

DSLDKIKNGTYGICESCDDEIDSQRLKVKPHARYCITCRQIAEQGKKHEN

>YP\_002343584.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKLFLLASFIYIALIFAFAWHLELGSYTLNISTYTFELPIMIWLVIPLFIYMILAVLHIAFYGFLRYL

KFKHFFKDAAKFEAYTQDLLLEKDLKTTFQTKEFRSVAQLFKTIKTHEKIPHSNKINEILDLIDGLNKNE

FFNLSKFKLENNNVLYLQNEKNHLKNDANYAYNKLKNLNEIKDEFEEIAFNTLIEKASYEQIKNVKIPKK

PSEVLTLIKRFKEGNLELSVAEYEVLLSHNILSEKDYLNAAKLSTKLLNPDAILGIFNKIKNEKSEALRA

YLYLLAEFGLLDELREQIHNDDKKFNDFKAFLALREKNIKIDLNQLIQ

>YP\_002343583.1 tRNA-dihydrouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIDFSKKPLFLAPMAGFSDLPFRNVVKKFGADITISEMISSNALVYESSKTLHMLERAELENPYIVQIAG

GDKEVLKKAVQMLNEMDFVDGIDFNCGCPVNKVVKQCAGSALLENLELFKNLVGVIKENNKKSLTSVKFR

LGFNEKYPEKMAKICESLGVDFISIHGRTRKQLYSGKADYGSIASAKASVKIPVIANGDINAQNAKEVYK

ITKCDGLMIGRASVGNPWIFYEIKSGKSVDEKLKKEIILTHFDEMIKHYKDQGVSIFRKHLHEYSKGHKD

ASTFRDTVNRIDNVEEMRKKIEEFFSLT

>YP\_002343582.1 hypothetical protein Cj0122 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIVFPLSSFNRYFGNNPLQTLTKIRDESIENGNPELTKKQREELGNDLIDLYKISKKFSDKIELVEGSIE

DKLRNNELPESEVKNLFQWMDENAKHPRWMHIDGVSYDEAYVKIFHTSKSIDEFKEKYLELQKKYFVDFN

NIDSSQKKLQETSEEDKKAFKPIQVESKSETYKDDNKMNELLRKLLETKFGTSDELEILFGMNFSNDNAG

EFNKILSQNTSAKIIDIKA

>YP\_002343581.1 metalloprotease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILSDEKCDFLESIASFLSPKDVELVFVDSKEMQEINLEQRKQDKTTDVLSFPLENIDESLPLGSVVINV

DLAKEKAKELGHSYEEEISLLFIHAMLHLLGFDHENDNGEMREKEKELIEHFNLPKSLIVRTLED

>YP\_002343580.1 recombination protein RecO [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQGFILHTQKVKDEDLIVYILSPKMLIKAYRFYGLRHSSILSGYKIDFALEENPSFLPRLKDVLHLGFLW

IMQRDKMLIWQEFIRLLYRHLKDVEELDSFYFDLLDECVKRFEKQNPKRVIVDAYLKILEFEGRLHKDFF

CFACDEKIQNSITLLRAFLPSHSQCALGFEFEEKKLKQFYSSKNCAIFDDEEIENLYHLIKEGL

>YP\_002343579.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAFVLVDYQNDFIDGSLGFDKALKIKENILKALNQIDFNNTHLLLTYDTHDEHYLQSKEGLNLPVKHC

IKESLGWQMPKEFEPFLQKAHKIFYKNTFGSLELANFIQKSDYEELHFAGLVSHICVFCNIILAFGAKPN

ARIILHQNLSASFDENLEKSAFDILRAYGIEIV

>YP\_002343578.1 hypothetical protein Cj0118 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINLSKKLIRQVAQANAKFGLIKDGDRVLLGLSGGKDSLALAHLLNRMQAHAPFKFELEAVTLSYGMGED

YSHLHAHCEEHGIKHSVLDSNIYEVSGDTIRENSSFCSYFSRMRRGALYTYALEKGFNKLAIAHHLDDAA

ESFFMNFIHNGALRTLAPIYQSKRGITVIRPLIFVRERQLRDNATQNELSVIGNEFCPGMKLSEKNVKFP

HAREEAKQLLANLEKDHPKLFTSLKTAFANLHTESFWLQKA

>YP\_002343577.1 aminodeoxyfutalosine nucleosidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKIAILGAMSEEITPLLETLKDYTKIEHANNTYYFAKYKNHELVLAYSKIGKVNSTLSASVMIEKFGAQ

ALLFTGVAGAFNPELEIGDLLYATKLAQYDLDITAFGHPLGFVPGNEIFIKTDEKLNNLALEVAKELNIK

LRAGIIATGDEFICDEAKKAKIREIFNADACEMEGASVALVCDALKVPCFILRAMSDKAGEKAEFDFDEF

VINSAKISANFVLKMCEKL

>YP\_002343576.1 malonyl CoA-acyl carrier protein transacylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNAAFIFPGQGSQSLGMGKDFYENSIKAKELLQNASDFCKIDFKHLLFEENEKLNQSEFTQPAIVLNSLM

AYSVLLEKKPDLSSKFALGHSLGEFSALAVNGAFDFLEALSLVNKRGLFMQEDCAKVEAGMMVVLGLDDE

KVEELCQKAQKENKQIFAANYNCDGQIVVAGLKPDLASYESVFKEAGAKRAMLLNMSVASHCPLLENASA

KLCVELEKVLKPNFKAVISNANAKIYTSKEEALELLKAQLISPVLYKQSIKACENEVDYFIEFGASVLKG

LNKKITSKETYALTNMNDIDEFLKVV

>YP\_002343575.1 FKBP-type peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAIEKNSVVSMFYELKDANTNEVLESNLYSQPISFILGKGQILESLEEEVMKLDCPSNADVVIKKEKGLG

EYDENAVQTLPKEQFAGIDLKVGMELFGEGENGETVRVTVKEIGENDVTIDYNHPYAGRDLLFSLNIVDA

RAASEDEILTGIIAGSHSCGCGSGHGHDHHHGHGHGGGGCCGGGGCGCH

>YP\_002343574.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFTVALLGATLLYAESSAFGAGDITSNSSYGLTSNEKLFKEKLDNLNNENIQTNARINEINERIEGL

QSTLEGINSQYAKSNSRLSQVEENNQNIENNFTSEIQKLKAYVEESRKIQEANNKQVKKVLAELSSLVDA

INANYVSKNELNDANLSVKTITPSVVVSTTDSNSTIENNNTQNTQDDKAKQIDESWKKKKNNEILELAIK

DVDKNAFEDSKAKLNFLITKQYKPARANFWLGEIEYKQKNYNNAIVYYKKSSSLSTKGDYFPKLLYHTAI

SLDKTGDTKTANGFYKALKTNYPNSPEAKASPNRK

>YP\_002343573.1 peptidoglycan associated lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILFTSIAALAVVISGCSTKSTSVSGDSSVDSNRGSGGSDGWDIDSKISQLNDTLNKVYFDFDKFNIR

PDMQNVVSTNANIFNTEVSGVSITVEGNCDEWGTDEYNQALGLKRAKAVKEALIAKGVNADRIAVKSYGE

TNPVCTEKTKACDAQNRRAEFKLSR

>YP\_002343572.1 translocation protein TolB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIVAIFLVFLGSLWAEDPVIDVVNSGVVLPKIIVKDNSNLSDENLKKSFYNIIVNDLKVSSNFEVVAN

ATETSNYIFEYTLNKNGNTLSLNVKIKAGGSDKSEQTYTLNGLEQYPFLAHKSVKASVNALGLAPVDWMD

HKILIARNSSSKKSQIIMADYTLTYQKVIVDGGLNLFPKWGNKEQTLFYYTAYDHDKPTLYRYDLNTNKA

SKILSSGGMVVASDVNVDGSKLLVTMAPKDQPDVYLYDLNTKNLTQLTNYSGIDVNGNFIGSDDSKVVFV

SDRLGYPNIFMQDLNSNSAEQVVFHGRNNSAVSTYKDFLVYSSREPNQAGVFNIYLMSINSDYIRQLTAN

GKNLFPRFSSDGGSIVFIKYLGAQSALGVIRVNANKTFYFPLRVGKIQSIDW

>YP\_002343571.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNYGLSNLNSFLLALAIYISIVILVFFRLVSEVEPAIQYTDIKDSFVDIELAEPSKQVITQSNTPKEIQ

KPTEQIDIEKLFAQTTNKTVKTEDIDQKASNFNELFGNIKEIQEEKTTKIQSSAKSGISSAPKPQASELV

KQLNDSLLQEESSTQGESTKAQKIGIYDEFLGKVVRIITQRWTQYYPNSEKISVKVKIFIDENGKFGYTS

VEKSGNPLYDAKVAEFLESQKGKFITYPPQNKNISITMNLRDEVKVKND

>YP\_002343570.1 ExbD/TolR family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPFDDEKPELNITPLVDIMLVLLAILMVTAPSITYEEKINLPQGSQKNTSTPTVKSLIISINAKKEIFLN

QEKYDFISFADNLAQRKAQFNTEDPVFIRADKSLKYDDVISVLRSVKNLGFNKVALQTE

>YP\_002343569.1 MotA/TolQ/ExbB proton channel family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFEAIFHFFNSSSIITYIVLLWLSLYFILAFSILFARLTYLATWRNKEKESLETLLLGEKDLSRTDSIL

RKCNDTTSNHLEIYKNLASRRASAGLTWLSIIASTSPFIGLFGTVISILETFGGLGTQNSLSIIAPKISE

ALVATGCGILVAIPAYTFHLIIKRKAFELLSIIDSEIKVISSSK

>YP\_002343568.1 ATP synthase subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNDLINFEIVTPLGVIYQGEVKSVTLPGSEGEFGVLKGHAALVSSLKSGVIDIEKADLNHELIAIDAGHA

KVDEDKICVLAKGAVWVCGSDESEIEKNLAQAKDLIKSMSSDNAALAATFSKLDNARMH

>YP\_002343567.1 ATP synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQGFISQVLGPVVDVDFNDYLPQINEAIVVNFESEGKKHKLVLEVAAHLGDNRVRTIAMDMTDGLVRGLK

AEALGAPISVPVGEKVLGRIFNVTGDLIDEGEEISFDKKWAIHRDPPAFEDQSTKSEIFETGIKVVDLLA

PYAKGGKVGLFGGAGVGKTVIIMELIHNVAFKHSGYSVFAGVGERTREGNDLYNEMKESNVLDKVALCYG

QMNEPPGARNRIALTGLTMAEYFRDEMGLDVLMFIDNIFRFSQSGSEMSALLGRIPSAVGYQPTLASEMG

KFQERITSTKKGSITSVQAVYVPADDLTDPAPATVFAHLDATTVLNRAIAEKGIYPAVDPLDSTSRMLDP

NIIGEEHYKVARGVQSVLQKYKDLQDIIAILGMDELSEEDKLVVERARKIEKFLSQPFFVAEVFTGSPGK

YISLEDTIAGFKGILEGKYDHLPENAFYMVGNIDEAIAKADKLKG

>YP\_002343566.1 ATP synthase subunit gamma [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNLKEIKRKIKSVHNTQKTTNAMKLVSTAKLKKAEEAAKRSKIYAQKIDEILSEISFQINKIVHNEDDV

RLSLFHKKEQIKTVDLIFITADKGLCGGFNIKTLKTVSEMLKEYEAKNINIRLRAIGKTGIEYFNFQKIE

LLEKYFHLSSSPDYEKACEVIHAAVDDFLNGNTDEVILVHNGYKNMITQELKINHLIPVEPKSIEQTHNS

LLELEPEGTELLKDLMKTYFEYNMYYALIDSLAAEHSARMQAMDNATNNAKARVKQLNLAYNKARQESIT

TELIEIISGVESMK

>YP\_002343565.1 ATP synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFKADEISSIIKERIENFDLNLEIEETGKIISVADGVAKVYGLKNIMAGEMVEFENGDKGMALNLEESS

VGIVILGKGEGLKEGASVKRLKKLLKVPVGEALIGRVVNALGEPIDAKGVINANEYRFVEEKAKGIMARK

SVHEPLHTGIKAIDALVPIGRGQRELIIGDRQTGKTTVAVDTIISQRGQGVICIYVAIGQKQSTVAQVVK

RLEEHGAMEYTIVVNAGASDPAALQYLAPYTGVTMGEFFRDNAKHALIVYDDLSKHAVAYREMSLILRRP

PGREAYPGDVFYLHSRLLERASKLNDELGAGSLTALPIIETQAGDVSAYIPTNVISITDGQIFLETDLFN

SGIRPAINVGLSVSRVGGAAQIKATKQVSGTLRLDLAQYRELQAFAQFASDLDEASRKQLERGQRMVELL

KQPPYSPLSVEKQVVLIFAGTKGFLDDIAVSRIKEFEDGIYPFIEAKHPDIFEQIRSKKALDSDLEEKLA

KAINEFKANHL

>YP\_002343564.1 ATP synthase subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENIIARRYAKAIASRADINDFYQNLCILNSAFVLPKFKNIIESNEIKKERKMEFLDSFFDIKNSSFQNF

LRLLIENSRLECIPQIVKELERQKAFKENIFVGIVYSKEKLSQENLKDLEVKLNKKFDANIKLNNKISQD

DSVKIELEELGYELSFSMKALQNKLNEYILKII

>YP\_002343563.1 ATP synthase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKLFFIIFLLPLYAFGASNGSGEYDIIPRTINFLIFVAILYYFVATPFKNFYKNRIVKISSKLDEIQKK

LLESKAKKLDTMKKLEEAKASAAAALITAKKEAEILVQNIKKETQDELDLLQKHFEEQKDYEFRKMEKEL

VSNTLNEIFSDPNMTLKQSEIIELMMKKVS

>YP\_002343562.1 ATP synthase subunit B' [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFEDMHPSIMLATMAIFLAMIVILNSMLYKPLLKFMDERNDSIKNDENKVKENSQEVLGVNDELEAIHIN

TREEIQKIKQSAIAAAKEEAEQILRSKKEELERKMASFYADLAVQKKELQEHLNIHLSELKQALQNNIKK

I

>YP\_002343561.1 chromosome-partitioning protein ParB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGLNKDRGLSSLISDMDTVYSKELGFDKNQSTMIEIDQISPNPFQPRKNFDQEALDELANSIKEFGLIQP

IIVFKKNNKFILIAGERRLRAVKALGKKEILAFIADIDENKLRELALIENIQRENLNPIELANSYKDLMQ

VHKITQENLAELIHKSRTQITNTLRLLNLDIRTQELIASGKISQGHAKVLVGLDQKDEKMLVDSIIGQKL

NVRDTEKIVKKIKNNESLPNQEFEDEIKKLKQILNRFGFDCKNKNNDFVIHLENIDKIKKLIKMLEKL

>YP\_002343560.1 ParA family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEIITIANQKGGVGKTTTAVNLAASLAVAEKKVLLIDVDPQANATTGLGFNRNNYEYNIYHVFIGRKKL

SDIILKTELPQLHLAPSNIGLVGIEQELAKGENNEKKMLLKNQIQEVIDEYDFIIIDSPPALGSITINAF

AASDSVIIPIQCEFYALEGVAMVLNTIKIIKKTINSKLRVRGFLPTMYSSQNNLSKDVVDDLKQNFKKQL

FTINGNEDDFIVIPRNVKLAESPSFGKPIILYDIKSPGSVAYQNLAYSILG

>YP\_002343559.1 biotin--[acetyl-CoA-carboxylase] synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKGLKVKIVCVESIDSTHLFLCKQIRNGKIDENFAIYALEQINGVGSRENSWQSSKGNLHLSFCIKEED

LPKDLPLASVSIYFAYLLKEVLQEKGSKIWLKWPNDLYLDDKKAGGVISAKISNFIIGGMGLNLKFAPQN

TALCDIEISLKDLVSEFLQKVEKKILWKNIFSKYMLEFEKSRKFSVHHEGKVFSLENSFLYEDGSILLGD

KRVYSLR

>YP\_002343558.1 methionyl-tRNA formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIIFMGTPSYATCILKALVENENFKLVALFTQPDKAVGRKQILTPSDTKAFLSQNYPSIPIFTPSSLK

DKNIIREIKDLNPDFIVVAAYGKILPKAILDLAPCVNLHASLLPKYRGASPIQSAILNKDEKSGVCTMLM

EEGLDTGAILESLECDIKDKNSSEVFELLANLAAKIILSTLLNFDKITPKKQEESLATLCRKIKKEDGLI

NLQNARELYQKYLAFTPWPGVFLENGLKFLELELVDELKQNAKMGEILELEKESFLLACKQGVLRIKKLQ

ESGKKALDGRTYLNGKRLKSEDSLC

>YP\_002343557.1 glutamate 5-kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRIVVKVGSHVISEENTLSFERLKNLVAFLAKLMEKYEVILVTSAAISAGHTKLDIDRKNLINKQVLAA

IGQPFLISVYNELLAKFNKLGGQILLTGKDFDSRKATKHAKNAIDMMINLGILPIINENDATAIEEIVFG

DNDSLSAYATHFFDADLLVILSDIDGFYDKNPSEFSDAKRLEKITHIKEEWLQATIKTGSEHGTGGIVTK

LKAAKFLLEHNKKMFLASGFDLSVAKTFLLEDKQIGGTLFE

>YP\_002343556.1 GTPase ObgE [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFIDSVKITLASGDGGKGAVSFRREKHVPLGGPDGGDGGNGGDIIFVCDNNTHTLVNFKGKRELRAQNGA

GGMGRNKNGKKGENLELIVPEGTQVIDAQTNEILLDLTKEGQRELFLKGGKGGLGNTHFKHATNQRPDYA

QPGIKGESRLVRLELKLIADVGLVGFPNVGKSTLISVVSNAKPEIANYEFTTLTPKLGLVDVNEYNSFVM

ADIPGIIEGASGGKGLGLAFLKHIERTSFLLFVLDPMRQMPLKEQFIVLRKELEKFSNELFGRKFGIMIS

KSDSVRLGEEFAEQIALNINELDNYLKEINNPQSFLIKVSSLEKTGLKELKFMLLEEIKTLRNNKKNLTI

>YP\_002343555.1 50S ribosomal protein L27 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAHKKGQGSTQNNRDSIGRRLGVKKFGGEFVRAGNIIIRQRGTATHAGNNVGMGKDHTIFALIDGFVKFE

RKDKDRKKVSVYPA

>YP\_002343554.1 50S ribosomal protein L21 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYAIIKHSGKQYKVSVGDELKLDHFEAESKASIEVSEVLAINDKELKVGAPFVAGAKVVLEVINHGKDKK

VVIYKKRRRKDSKLKRGFRRQFTRVVVKDIKA

>YP\_002343553.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIKILFLGLFLSLSLNAKVITTTSTKSSTGEGTGLTREDAINNAIIEAIGKMSGVSINSLKKSNTSVS

TDNSGSNIQDNYSEQISKATKGRADTYEINSVEQDANGKYTANVTIFKTTTTKKYQAPGLSADNRRSITV

FDSTPDAAKRGIGSALQQKIISDLLQSRKFNVLDRDSSGYYEMEKALIKSGDAASDEVYKLKNMLATDYI

LLFSISGLEGKQKTSNLTGKSKTEIEVIVDYRVLLFATRQIKFSNTLSMKVNLKDNSLSANETALKQIAN

RIAGDILNAIYPLKVASVENNEVIFSQSLNQGDVYECFALGKVIKDTYTKENTGRVESKTGSIEITRTSP

KFSYAKITEGSVKVGDICRPLSNTGSGNGYTIGRDANYQTQEGGGVNLGF

>YP\_002343552.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILFIGSLVMASLLYAQGSQPVEITQQDINTQNEMSDASTKDITPKSIEDFFEEFADNFGIEYGITKD

GKTFYTGKSTVAVNDTDPQFAQALQNAYQKAMLNLQSEFIRDAFGRIATSKIQNYEADNSTNAKEFDELP

KGDKVDQILNKLTQLAGAQLDKALKDLGIDTNSLSEDRKKTLLKQEFLNKTMTNAIGSMSGLVPVQTIVT

QRRGEYDVGVVAVISNKTRQLAKDMALARQSAIKGKGKAISEYLPKDTKGFLNEYGIRLVYDENGAPIIL

SYGNWGYVADPSNAKKTNILEDRAKETALTMADAAIIEFINTNLSLKDERTTGDTYEEIIKQSINVNDSS

TQEQTQNITNIIDKVNSKIKASASGKIRGIRTLKKWSYTSENGIEHVGAVRFYSYENLANTNEALNSKSN

ATKNEAKKSSSIQRSSNVVNSMDDF

>YP\_002343551.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKTKILGTALIGALLFSGCAQTAYTDGKASQVKKGDALTLGLDRQDFESAAETMINSMLSDPAFANIKP

GTRKVIAIGRVVNDTPQRIDTEKLTAKITSALRKSGKFVLTSAVAAGGALDSMSEDVRELRDNDEFNQKT

IAKKGTLVSPDFSLAGKIRQDNVKLSNGKTQVEYFFLLRLTDLTSGLVYWEDEQTIDKTGSSKSVTW

>YP\_002343550.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKNILFILMFLLSACAPSYQINSNQNTVILGSNLPKSLVKQFQKRINSNGYLEFEVILRSTFAKDVIYK

VDWLDKDGFVLRDVLNEDYQALRIPAGQEVILRKLASDTRANDFRLEIKAKN

>YP\_002343549.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKVGLIFSGIACLFLTACVNQVKQNTTFENTLTQKYCGDDFFNQNLEKIKKNDDVIYTGLNAGLIARN

CGDFNKSNVFFDAVEESYKYDVDLENVSPKAAKFIGTTLLNDNIVDYDGSLYERIMVNIYKALNYMEEDD

YENARVEFNRVLMRQDKAKEYFAKEIEKNRADLDKAKEDKNYDKNMNENSKVIEAQYDNLFKEFDTTKNF

INPYATYLASIFFFMDKDYRKAADLFREVAIIYPKNKTIKKEAKIFKEYATKIKVKKAKKYVFVVYENGF

GVVKDEFALTLPFIVDKKIISTNIALQTLKKREASFANLNINGQNTNDFVDLDNIVATEFKINMPAMIAK

ALAQTIIKTTLNVAVANNDSTGGWLSLATAVATAATNKADVRSWRGLPKSIAIATIENDGNLEIKDPQGN

ILFQKSLDKNKNALVIVRSFAPYLPASVAIMEK

>YP\_002343548.1 anaerobic C4-dicarboxylate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDIMIILQVIVLLGAIFIGIRLGGIAIGYAGGLGVVILGLVLGMKPGNIPWDVILIIAAAIAAISAMQQA

GGLDYMVRVTEKILRSSPKFINYLAPACGWLLTILAGTGNAVFSLMPVVVDVAKSQNIKPSVPLSLMVVS

SQIGITASPVSAAVVYMSGVLEPLGWNYPTLIGIWISTTFVACMLAAFIVSLITPMDLSKDSVYQERLKA

GLVKDAGAVLHGEDKPGAKLSVVIFLITVLAVVLYATAISSNIKWIDPVVVSRDAAIMSFLLTAATLITW

LCKVEPGKILDTSVFKSGMTACVCVFGVAWLGNTFVAGHEASIKEVAGDWVKQTPAMLAVAFFFASMLLY

SQAATAKAIVPVIITALGISAANPHDSYMLVACFAAVSALFVLPTYPTLLGAVQMDDTGTTRIGKFIFNH

SFFIPGVLAIAIAVALGFVLAPMLI

>YP\_002343547.1 aspartate ammonia-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGTRKEHDFIGELEISDEVYYGVQTFRAVENFDISHDRLKDFPRFVRALARVKKAAAMANHELGLLDKNI

QDAIIKACDKILEGGYYDQFVVDMIQGGAGTSTNMNANEVIANIGLELMGHKKGEYQYLHPNDHVNLSQS

TNDAYPTALHLALHDYLSDLAKAMEHLKKAYERKAEEFKDVLKMGRTQLQDAVPMTLGREFKTFAVMIGE

DIQRVLEARKLILEINLGGTAIGTGINSHPDYPKVVERKIREVTGFEYTVAEDLIEATQDTGAYVQISGV

LKRVATKLSKVCNDLRLLSSGPKCGLNEINLPKMQPGSSIMPGKVNPVIPEVVNQVCYFVIGADVTVTFA

CEGGQLQLNVFEPVVAYSLFNSVVMLEKAMYTLADKCIDGITANEKICSDFVYNSVGIVTALNPYIGYEN

SASIAKEAMNTGKRVADIALERGLLSKEQIDEILTPSNMLNPHMEAKK

>YP\_002343546.1 uracil-DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEEITINIDKIKINDDWKEFLRDEFQKKYFLEIKKQYLNAINQNIIIYPPANLIFNAFNLCPLKEIKIII

LGQDPYHQPNQAMGLSFSVPKNVKIPPSLNNIFKELQNDLNITPAKSGDLSSWAKQGVLLLNSILSVEAN

KAASHSSWGWQEFSDAIIHKLSNEKSGLVFMLWGNYAKNKEILIDNTKHLILKAAHPSPLARTGFLGCKH

FSKANEFLKKVGKIPIDWKIV

>YP\_002343545.1 amino acid recemase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTIGIIGGMSFESTITYYKTINQAINDKLKSLNSAKILLYSVNFEEIENLQSQDKWQEAAQILTQCAKK

LELAGANFIIIATNTMHKVFDEIQQNINIPILHIAKSSAKALKQENIQKIGLLGTKYTMTQDFYKKMLIE

ENISVITPSDEDIKIVNDIIFNELCKGEIKQDSKEKYLNIIKKLQEKGAKGVLLACTEIGLLISKNDTNI

KIFDTSLIHALDAANEALKDL

>YP\_002343544.1 cytochrome bd oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFFGLELEGLQIYWWLILSLLGGLLVFMFFVQGGQTLIDELSKDELEKTMLVNSLGRKWELGFTTLVLFG

GAAFAAFPLFYSTSFGGAYWAWLCILFCFILQAVAYEYRKKENNVYGSKTYEIFLKINGYLGVFLIGVAV

SSFFSGSEFILNEHNFVSWQNPLHGLELLLNPFNYLLGLALVFLARLLGAAYFMNNINDENIKIRAMKKL

MINSILFLPFFLGFLAWIFLKDGFSVDTNGVVSMSANLYLYNFLNQMIFAVLLVIGVILVLLGMVQGTKG

CSKAIFTLGLGTVLTVFALLSSIGLGQSAFYPSLSDLQSSLTLKNASSSYYTLSVMAYVSLLVPFVLAYI

IYVWNAMDKVKITREEIANDDHAY

>YP\_002343543.1 cytochrome bd oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNELSSVDWSRAQFALTALYHFLFVPLTLGLSFMIAIMETIYVKTKNERWKKITKFWLSLFAINFAIGVA

TGIIMEFEFGTNWANYSWFVGDIFGAPLAVEGIMAFFLEATFFAVMFFGWDKVSKGFHLLSTWCVAIGSN

LSAFWILVANGWMQYPVGMSFNPDTARNEMQSFFEVALSPVAISKFLHTIGSGYVISALFVMGISAWFML

KGRHIIEAKKSLVVGASFGLVCSIFLFFSGDESAYRVTQTQPMKLAAMEGVYQGEHRAGLVPFGILNPKK

TIDNNESVFLFDITIPYALSILGNRDPNSFVPGIEDLIYGNESKGIEPMQNRIDRGKIAIQTLKDYKLAK

ENNDTIAMANHKSILETHFKDFGYGYLEKPSDTIPPVALTFYSFHIMVALGSFFFLLFIVTLYLTMANDI

EKFRKVLWVCLLSIPLGYIAAEAGWIVAEVGRQPWAIQDLLPVHIAATQLGKVNVQISFWIFAVLFTALL

IAEVKIMLTQIKKGFDAHAGHTPLMGKGEK

>YP\_002343542.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFYFVVFKGRIYMYLKHLYFSISQIFNFYKEGFKNLTLGKTLWKIIFIKLFVMFVILKLFVFDVNFNSIF

KSDKEKSTFVLKNLTLEGK

>YP\_002343541.1 cytolethal distending toxin A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKIIVFILCCFMTFFLYACSSKFENVNPLGRSFGEFEDTDPLKLGLEPTFPTNQEIPSLISGADLVPIT

PITPPLTRTSNSANNNAANGINPRFKDEAFNDVLIFENRPAVSDFLTILGPSGAALTVWALAQGNWIWGY

TLIDSKGFGDARVWQLLLYPNDFAMIKNAKTNTCLNAYGNGIVHYPCDASNHAQMWKLIPMSNTAVQIKN

LGNGKCIQAPITNLYGDFHKVFKIFTVECAKKDNFDQQWFLTTPPFTAKPLYRQGEVR

>YP\_002343540.1 cytolethal distending toxin B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIICLFLSFNLAFANLENFNVGTWNLQGSSAATESKWSVSVRQLVSGANPLDILMIQEAGTLPRTATP

TGRHVQQGGTPIDEYEWNLGTLSRPDRVFIYYSRVDVGANRVNLAIVSRMQAEEVIVLPPPTTVSRPIIG

IRNGNDAFFNIHALANGGTDVGAIITAVDAHFANMPQVNWMIAGDFNRDPSTITSTVDRELANRIRVVFP

TSATQASGGTLDYAITGNSNRQQTYTPPLLAAILMLASLRSHIVSDHFPVNFRKF

>YP\_002343539.1 cytolethal distending toxin C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIITLFFMFITLAFATPTGDLKDFTEMVSIRSLETGIFLSAFRDTSKDPIDQNWNIKEIVLSDELKQK

DKLADELPFGYVQFTNPKESDLCLAILEDGTFGAKSCQDDLKDGKLETVFSIMPTTTSAVQIRSLVLESD

ECIVTFFNPNIPIQKRFGIAPCTLDPIFFAEVNELMIITPPLTAATPLE

>YP\_002343538.1 L-lactate permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEQILTWQQIYDPFSNIWLSALVAFLPILCFLVCLVVLKLKGYQAGFLTVILATLVALFAYKMPWNLVGA

SFIQGFTNGMWPIAWIIIAAIFLYKLSIKSGSFEIIKKSVMSITPDHRIQVILIGFCFGSFLEGAIGFGG

PVAITAALLVGLGLRPLQAAGLCLIANTAPVAFGAVGIPIIAMANLVGIEQHSVSAMVGRMLVPLSLTIP

FFIVFLMDGFKGIKETFPAILVAALSFTTTQFLSSNHLGAELPDIISAVVSLAVTTVFLKFWKPKNIFRF

DNESNFTQDNTLSFNQILKAWSPFILLIVCIIIWTQPWFKALFDKDGILSYTSITLQFSNITTGILSPSI

TGIGEAKPLSLALGVDLINGKTVAQAGTAILLAAFLTIAILKIKAEDAAECFWVTLKEMAIPCITIGLVV

AFAFISKNSGMSTTLGLAFAHTGDAFSFFSPIIGWIGVFLTGSDTSANLLFGTLQQVSAQKLGISEALFL

AANSVGGVVGKMISPQSIAIACAAVGLVGKESDLFKFTLKYSVAFIILIGIWTCIIAFFLQGIIPEVIVK

>YP\_002343537.1 oxidoreductase iron-sulfur subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKKVYFYATCLGSTAMQQSVLNAIKLLRREGIEVIFKKNQTCCAQPSFNSGYFDESREIALYNVDLFDK

DYPIVVPSGSCAGMMSHDYKELFKNRPEFSKIKTFSSRVIELSQYLDEVLKVDYEDKGVPIKVTWHSNCH

ALRVQKSIQASKNLIKKLKNVELVELQYEEECCGFGGTFSVKEPEISNAMVRSKIKDIQNSGAKYLISGD

GGCLLNIDGTMKRMGLDIKGIHLYDFLLKRLEGGRL

>YP\_002343536.1 iron-sulfur protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQKIPHEQIVQIKLNDKQMQENLMTAMHTLQKNRLNVIDARFKDWQGLRAKAKQAKNNALMSLEERLLE

FEKNATKNGIKVHWASSDEDACEIVYEIMKEKNITKLLKGKSMASEEIGLNHYLEKKGLKAIETDLGELI

LQLNEEPPLHIVVPAIHRNRHEIGEIFKEKLGANLENDEPESLNAVAREHLRKDFEGLKLGLSGVNFAMS

REGAFWLIENEGNGRMCTTAPDIHIALCGIEKIMESFEDAATMVSLLTPSATGQFIPTYNNIITGPRKNG

DLDGPKEVHVILFDHNRSKMLAHEDYYEALRCIRCGACMNFCPVYDQIGGHAYQTTYPGPIGEVISPNIF

GIDHTGDILNFCSLCGRCSEVCPVQIPLADLIRKLRCDKIGQGKNPPLGANNVHHNALEAFAFKQFKNIA

TNGDKWRFSLSKAHYFNWTVQNFASILPVIKKWYAFKELPQIKMDLYKEVQKLEGVSYE

>YP\_002343535.1 hypothetical protein Cj0073c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKIDEISSKSKANILEHLKKAYKETTFTRIESIDPVEHIQTTQDMLTEMKQKMSDNKYIVENATKDTLE

EKINEIVAKYSFKSMIYGADLNLNLEQIKAEKKICFDKEIENLRSEVFHSDFSIIHARAGVSSHGVALIP

SSKTQPRMLSLAPKLCIVLLKKENVVKSLSEALNLVKKENEILPTNILFIAGPSRTADIELITVFGVHGP

QIAHIIIY

>YP\_002343533.1 hypothetical protein Cj0069 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKNIVFFEVKGGSDKGEDGYRKDTMPMVNALKAKGWNAEVIFFEVGKKDEIYKYVKENFDGYVSRINPG

NLKEENEYFDMLRKLCADKLVGMPHPDAMIGYGAKDALTKLADTDLVPSDTYAYYDIKTFKENFPKSLAK

GERVLKQNRGSTGEGIWRVSVEGNVSGDSLPLNTKIKCTEAKDNHVEHRELGEFMDFCEQYIIGDNGMLV

DMTFLPRIKEGEIRLLMLYNTPVNVVHKKPAEDADAFSATLFSGAKYRYDKPEDWKTLVDMFLGELPKVR

EKLGNYDLPLIWTADFILDTDEKGNDKYVLGEINCSCVGFTSHLELADEVASNIINIVSKTKA

>YP\_002343532.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQILKSFFKALGCGIKFINTYFKTFVLLLIVIWILIPSANSSSNLANLERIDLKGEIFDSSAVLEKIINA

KNDSNIKGVLFVIDSPGGAFAPSMELALAIKDLKIKKPVLVYASGTMASGSYLAGVGANKILANPASFIG

SIGVIMQGADLSGLANKLGIKEQTIQAGEFKSAGTFARAWNENERNFLQGLIDQSYDLFTGFVAKERALD

LNKKDQWANARVFLAAKAKELGLIDELSNYENAKKELEKLANVSNPVWKEEDKIDKFLNRLEGQTSSLIS

KSLIEIAYKTNSSFINAR

>YP\_002343531.1 amidohydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFIVAARYLFLCDEDFTILENQAFVFEDKILELGELDNLKKKYPKAKIIKTPKNSVILPAFINPHTHLEF

SANSTTLHFGEFLIWLKSVINSRSILNAQAKEELILQSIKKMQKSGIGTIGEISSFGSDLDPCLKASHKG

MRIVFFNEILGTNENQVEDKKQEFLKRFENSLKFKNDFFIPAISIHSPYSTHPSLAHFALDLAKKQNLLA

STHFLESKAENIWLRESKGGFKKWLENFTLHPKPLYTPKDFVKLFKGVRTLFTHCVYLKEYEWLDKNLHS

ITHCAFSNRLLSQKSLDLKTALKSGLNIHLGTDGLSSNISLSLLDEMRANLLIHKNFDLLELASKLLQMV

TLYPARALNLNLGELKKGKIADFNVFELGECDKKQAPLQFILNAKEVDKLFIKGKECKF

>YP\_002343530.1 3-dehydroquinate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIMIIQGPNVNMLGVREVGIYGAMKMEEIHEQMKLAASQNNVELDFFQSNFEGEIVDKIQECLGTVDGI

IINAAGYTHTSVAIRDAIAAVALPTIEVHISNVYRREEFRQKSLIAPVCSGTIVGFGPFGYHLALMGIIQ

ICEQIKNLRAMQQAQQTNK

>YP\_002343529.1 2-amino-4-hydroxy-6-hydroxymethyldihydropteridine pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKIQGVKHFEKSRFFPFFSQNIRSFKYLALIGLGSNIEPEKKRFDMLFRVMMDDKRFKILSTSPMLINE

AFGFKEQKDFTNAVMLIQTNLHARALLKVLLYYEVKFKRKRTFKNAPRTLDLDLLYFSQKVKRDKWCEVP

HKGAKERVSVILPLGMI

>YP\_002343528.1 flagellar biosynthesis regulator FlhF [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGQLIHTFTVEDTEQIIPKVKEDYGDKALIITNKQIRPKTLNRSALYEVMVAIEESDYEEHLKKQGKSLP

AKKSSPKPSSTSLAEEKIRSQIPQEDEDVVLDFSNTRLNTNLNTVKNNDLAKKTYQDFPQNKINPHQNKT

LGFDDFKEKLSEVSNEISKVTNTPLENYTPNPNYNKKIENFEKQFEKQINKLNDKIDLLADMMWDDKAEA

RKNLMIPPEFASIYKQAKESGMLENHLEAIMKATIENMPAAMKTNKDAVQRYFHSLLRNILPCRVESDIK

KQKIMMLVGPTGVGKTTTLAKLAFRYAYGDKRYKTGIITLDTYRIGAVEQLFQYAKMMKLPIIDSIEPKD

LDEAIKSLNNCEVILVDTIGNSQYDQSKLAKTKEFLMHSNAEIDVNLVVSANTKHEDLMEIYKNFSFLNI

DTLIITKFDETKVFGNIFSLVYETNIPLSFFSIGQEVPDDLEVANSDFLVHCILEGFNKGKNNE

>YP\_002343527.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNQANKLRNLMSQNGTKKSQNTHFIAITSGKGGVGKSTISANLANVLANNGYKVGLFDADIGLANLDVI

LNVRIQKNLLHVLRGECSLEDILIEVKPNLWLIPGESGDEILKYNDKNIYERFLNQASILDELDFLIIDT

GAGIGGNILNFLEMADEVIVVTVPDPAAITDAYATIKTTSKTKENLLMLFNVVKNENEALKVFENIKKVA

DANIKNPLNLEFLGHLSASKDVSGSIKKRTLFSDENTASSDEIKALASKLLYRLERKVLDNVSNRSFSSF

FRKIIERF

>YP\_002343526.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRPENYVAFFTVCGFFIGLAFSIISIDEAFDILIFTCFITFMFYVFVHIAIMNFIDVKKISGRIFNKHDY

EKTSNNIINDLVIREKKMDIILEKLNEEREELKKNEFKERRRNAKRAA

>YP\_002343525.1 flagellar biosynthesis RNA polymerase sigma factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNSKKDEEMLKEPPKAYAQMLKKEQDELVLSYMPALRAMAFRLKERLPSSIDVNDLISIGVEEMIKLSRR

YDKEQNDNFWGFARKRVNGSMLDYLRSLDVMSRNNRKIIKDIDAIMDEYFLEHECEPDDEYLAKKLDLDV

EKIKEVRTAHAISYTLPIDEQIELYNEDNTLEKIEKEELLEKIHEVLDDLKERDQLIIQLYYYEELSLKE

ISEILQISESRISQIHKKLLKKLRERLV

>YP\_002343524.1 flagellar motor switch protein FliM [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAEILSQEEIDALLEVVDDNTDTPIASNSKDEKDERNIVVYDFKRPNRVSKEQLRTIKGIHDKLARNLAS

QISSMMRSIVETKLHSVDQMTYGEFLMSLPSPTSFNVFSIKPLDGNCVLEINPSIAFPMIDRLLGGQGDS

YEASRELTDIELNLLDSILRIIMQRLKESWATVTEIYPSIEAKESSPNVVQIVSQNEIVIMVVMEIIIGN

SSGMVNICYPVVHLESILSRLANRDIMMGETSAKKSRNKELKTLIGRAEVVYEAILGKTLINVHEFLELK

QGDILRLDREADDKAIVSIDKKDVFLAQIGLHRFRKSIKILELIRTDKDEIKEILEKYEEERKAKASVYD

EPEEEDEEI

>YP\_002343523.1 flagellar motor switch protein FliY [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINDFLKMFTNECISTIEGLTGKSAEFSEYKEFDVNTSDTLKAPLVYAIFNIANGGKIGILAGAILMSAI

GEWMMGEEEITKNDKLGPDEMDAAKEAIQNIISAFSTTLGAQKDIPKMDFSIESCEFVPESVDFKDFKKL

FLYDVKIGDLEEQVSLAMDQTLHNILSGKPAETGNTSTDSNHNTEEKAIMLSEELKNINLIMDVRLPVRV

RIGNKKMLLKDVLTMDIGSVVELNQLANDPLEILIGDKRIAYGEVVIVDGNFGVQITEIGSKKERLEQLR

>YP\_002343522.1 peptidase C39 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKILKILLFLPILALSTKAEWVVKSYQEIKNERVIRQTYEQSCGASSLATLLNILDDQKKFDELELLKI

MSGQELYTDMVSFADLNDAVKKLGFQSNSYQINRENLDKLVNIPMLVKIEDDPRFPHFVIIINHKGNYLQ

VLDPSHGEYISSKSQFFSIWDRYNKGGYALIVAPKKELKPFKLNTPKSLHFDFSPFSLF

>YP\_002343521.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLTFMVLVNCVFASDELNIDSLFKKQIGLRSITSFSLLSTGNANSYSLYPNITIGGDPTIWNDTKQ

VFLTQTFIYTLTPKFDILISGGGSYARQEYTNFFTNAYSHKDRIGFDNLWLGFIYTGDSIADLIPQITFQ

TAVVQREKAINQTKNFYLKSQSLQASLRGYSDPVVYSIYTGFGYNQSRKFKTLKIEYGNSIYVGGDLSII

LSPKITLDLGAEQRFQMKQKINGYQNSEVRSIPTLSLGSTYSINSDTAVSVNASFGGSSASPDSIFGISL

WKKF

>YP\_002343519.1 hypothetical protein Cj0055c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVGILSSKEEKLMINSLNSNLNYDYNTSNFKQDKNIDFKINKHGVAVITGEGALPYRGKKFEYNPKIFGL

DESISKKDMQEFNNFMKSNALKDPNKIEKSPLKDFNPAYTKWDPTTEKMMLGFFVSYSKMFHLGYDIIKK

ADEFYKEFDALISKDLSLNEFKTKYIDFKQRYDEFVKEYEMAMGDKMLLSSDDEIITQQSEKPFKAIQGE

SKNKETYKDDSTRNELVKKLLEGKFSTSKELELLFGMKFSDDDAGEFNKILSLNSTPKSIDIKA

>YP\_002343518.1 lysine decarboxylase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEKISQDLEKFANIPNLKNAVTFFGSARLKEDNFYYQQAKILAQKCVQNGFCVISGGGGGIMRAANEGA

FSQNNNTNSMSSVGFNIFLPHEQKLNDFVEYNITFESLAIRKMALIEKSLAFVIFPGGFGTLDELCEILT

LKQLEFKKDVPIILFGSEFWRGFDEFVRNSLLKLEVISKGDELKYKITDDLDFIINTLKEI

>YP\_002343517.1 tRNA-specific 2-thiouridylase MnmA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILVAMSGGVDSTVTAYKLKNLGHEVIGCYMKLHGKPNYHEENIKKVEKVANFLQIPYHILDLQEDFKN

KVYMPFVDTYKEGKTPNPCALCNRFIKLGKLLEFAKSLGCEKLATGHYARLENNLIKTAVDESKDQSYFL

ASADKEALKYLIFPLGEMKKEDVKKFASTIEVLKSFATQKESSEICFVEDTYVQVLDQFMDTKIPGEVLD

SSGKVVGKHEGYMHYTIGKRRGFEVRGAHEPHFVLKINPKQNQIIVGTKEELKISEFNLKNINLFIDAKE

LDCEVKIRYRSKSTPCKVEIYEDKSAKIILKDPVYGLASGQMAVFYDHDKVIASGFIE

>YP\_002343516.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVKWSRDFSIKNMQLDKQHELIFEITNLANDLALNIQDNNTQHKNDLKQILVKLFQYIKIHFKDEEKFM

ESIDFPLIEEHKKSHQILVEKTKELLEHSNDIVKMSQELSILTKDWILDHFANEDLWIANFTKKTLHLQE

IHYTLEQYIKLKSIKQDLRAEKTYDYICNCSLRIHAVPQTIHQELVSKENTLKCEKCGQILVHLDYFDLN

QNFEKFNAIFEDALQNHHFTTQENDMRGGG

>YP\_002343515.1 hypothetical protein Cj0044c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFQVKTLETFNPFESLNHEQANTEQILDFRVIDFKLLCSSVKPAKTKTYERKDFDLFYADDFFVKNYNT

IVQKFLIEIYPKTQSFPFTVKLRSNSNLTHLKASINLTENFKYYPNLKFDILQNIYKIMIKQKFLILRLD

KNLFDKIDDFILSIQKSPSIKEIELEIAKGVDKIEHKSDEIIYHRDVNEECFDENINYDEGNYCKPIEKN

ELLFEYIYRILGKEGRNLRGEILHLNPIAFLDNPFIIKDESIYTEELEDRIKYFSANYGFLNKDHTGYCI

ANNLKLSQIGLKTTGSIKTNTDENINLEITNFDISDDAIKSGIVNVQASNIKVNGNVGATKLYGKNISIK

GLTHAKSEIFAQDIFITTHKGTLQADTVYIKNLENGTIIAKNVFVENCMGGKIEAENIYICNLLTDNTLY

PRKNLIITNNIKFKNNIVVSPLVSIENNSDTECENLKNLSLKIKSKLDDTISKMQNYYDYLIKNQIKIIK

LQKTKNPSAIEMKFSNLYHDIIKKYNHLSISYKKLVKLKYQIDAKLNFLNEMVYNVKIYIKAENIGEDNF

LKFYPNTNTNLELKHHINLKDYEKVLYLEKGQQVSYIKSSHNYSESDIEEIKIIFKKLEKDNS

>YP\_002343514.1 flagellar hook protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMNSFYNGISGVKSNSFGIDITANNIANVNTTGFKYSDAQFKDIFYTTITTQSTNPAQGGYGSGAASSQV

VFEQGSPVASDGEFDVALQGKGFFGVLGADGNAYYTRNGSFRRDANGYLVDSYGNFVLGTMNPAFTGINY

SDRVAGLMGDYLNTGTPVNNGFTVNSNNSFSIGTTASQGAIKVPVNMYLPPQVTQNVKWSGSLNTNTTTE

VVKVDLDPSKFNITKTEDGKYVVSGSVSKEDVFSAKAGDRIILNFTDDNGVKTSFEATLDENLNFKSNEL

DLKGLDENSIKLDTAQISTEQQKANKDILESPIYNADGSKSTLRVTLERVLPQEGDNIQYKAIAQIYDSN

GNAVGNPTEGNMVFDKNGALLQNNITSIANPNGGTINIDLGSPYDANKPGSGYSGIYIKQGVEKNVVTQQ

DGVAEGFFEQYNISDDGSIVAQFSNGKNAIVGKLALYNFINEQGLVAMGDNIFAATANSGDASFIMKDGQ

VVNTAKFKGGFLEQSNVDLSAELSNLIVTQKAFDASSKSITTSDQMIQKAINMKR

>YP\_002343513.1 flagellar hook assembly protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MISSSDWNLNTTATTSGTTSSGSTSGTTRTDSSSSSGIVSNPNATLDKDAFLKLLLIELQHQDPTDPMDS

DKMLTQTSQLSALEMQQNTNTTMQKMVETMQKLSDSFSTSMSTSALGAIGKMATVSDNKIKLTGADELIA

LKMYLPEDSDENGVTLEIYDSNNKLVFSEKSDAKSISQGLFTMEWPGRNNDGVYAGDGEYTVKMVYNNKN

GEKITANYGTYPIEGVVFKDGVAYAKMAGQEVPFDAIQEITDYKLGSSSSTGGSGSSGDSSGGSSDGDSS

GSGSTEDGDKEEKA

>YP\_002343512.1 flagellar hook-length control protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMSNLAPQNDVLNLTPSKTSTTSSSFSKTSKNKEHESSDSKNSTQDDTESFLNSLLNSINETNEFLPDHM

KISQKEVVNEAMSRLQKGAFDESDKISIFESASFMQILSLLDKLKTDTADVKLANLSTQLSSLIKTEANF

NALKGASNLSELLDIAKDLGLNVKNIKVDRLLDLKATFPNLDKADFFKGAVDNVFKEIINNKISNVSKNL

NHNLENTTHTTSTHSMQKTNSKDSGSLLSQTLKNLDSILSSKESKHEKNDKVKSKIEEDTTDAKNTLKNI

KNDEFAKNLTEELNIKDKKNQDNLNKESKDLNKDFNKELNKNQEKNNLNQENIQDQNKNLKNNDQNLNLD

KNLNKEIVKDTQKLVSNLTQKDFNLNKEPKNNNKENKDIKQNFFDQKLNFENLNKTQVVQNKENNANFNN

NNTNNKETFTQEQTKTHSENVDKNSLDELNSLVKDLNKVTQNNARNITPKETLQYFSQDLKEAVDQYKAP

ITKLSITLNPNNLGEVEVTLIQRGNNLHINFNSNANAMNLFIQNQAEFKNSLVNMGFTGLEMNFSDQGKR

EQNQNQGKNRSGYGFKDALDGKNESEKVNLELVLAKYF

>YP\_002343511.1 hypothetical protein Cj0040 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKPLNEEIFVEFKSDLAERKNEVLLQVLELLETFRSDENEKMARISSELTEILENEENLEKILNAKNLE

ELLNILTALNEDKMIKVYEDSYLKEKFPNVMVDKFLK

>YP\_002343510.1 GTP-binding protein TypA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENIRNIAVIAHVDHGKTTMVDELLKQSGTFSEREQISERVMDSNDIEKERGITILSKNTAINYKGTKIN

IIDTPGHADFGGEVERVLKMIDGVLLLVDAQEGVMPQTKFVVKKALSLGLKPIVVINKIDKPAADPERVI

NEIFDLFVALDANDEQLDFAIVYAAAKNGYAKLDLNDESDNMEPLFKTILERVPAPSGSDENPLQLQVFT

LGYDNFVGKIGIARIFNGVVKKNQSVMLAKADGTKVNGRISKLIGFMGLEKMDIEEAGSGDIVAIAGFEA

LDVGDSVVDPNNPMPLDPLHIEEPTLSIVFSVNDGPLAGTEGKHVTSNKIAERLEAEMKTNIAMKYESTG

EGKFKVSGRGELQITILAENMRREGFEFCMGRPEVIVKVEDGVKTEPFEHLVIDVPEEFSGAVIEKLGKR

KAEMKTMAPTGDGQTRLEFEIPARGLIGFRSQFLTDTKGEGVMNHSFLEFRPFSGAVEKRNNGALISMEN

GVALGYSLFNLQERGVLFIEPQTKVYTGMIIGEHSRPNDLDVNPIKGKNLTNVRASGSDDAIKLVPPRKL

SLERALEWIEEDELVEVTPVNVRVRKRYLDPTQRKRMEKAKS

>YP\_002343509.1 poly(A) polymerase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDLKSLENNRLYILKRLGILKFLSIIEALLVGFLAFVFIRDALIAVILAVFVGVFFFRFTAKKLKLAQKE

LQINALNLFLRRFGAKFKKQSLSQKDFLKLGLTKDLKEFKSQNCFEFKDFKIYDIQFLDENKRFFCGILL

EISKANKNPSFENEEQIYIKLTDKNFTLNHIFSKENHYLITTLSNPFFIDIKKDLESNFKDLEENLNSIK

NKLFK

>YP\_002343508.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKHILLLGLCLSLSLSAKSVSDYKVGEELSDKEGVEYFKELSKRPVQEWPNKNLSINDVPKGKQGDLIR

YGIELLSKTESTLGPYSKLKKTSNEVNCISCHMDNDGNGLPGTKKYVIPFLNILNNYPRLDIETMKIISV

EDRIRGMGGTDSHRFPNDSKEMKAILAYFKWLKEAYGIKDGVKLEGDFFAKMNFPNRPADPVRGKKLFEE

NCVACHGERGLGVKNDNYEQGSGHLYPSLLIYPDGGHMAMIPFLARFLKSAMPFGASADNPILSDEDALD

IAAYVNTGFVRMPITTTENRAGLDTAYSKSPSLKPEYFASPQQNLDPKEYIKVKYGPWKNPNHFPGE

>YP\_002343507.1 hypothetical protein Cj0036 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNLNQNEQIKCPSCGSFIDISTALYAQILDKAKQEMLKQKKEFDDEVNAKRAEYTKALNDLKTQKIEQE

KLINEQVSQKLLLEKQKFEQELLIQKQNFQKEFSEKFNKEHENEMKIMQEELEKKSKELSEFLSIKAENE

RLKREQKENEERLKFQAKEEAFKEFKEQESKNLEFEREKMRLEFQKSTQEQDLKYKELETNFKSVAQKLE

DAQRRIEQGSQQLQGEAAELLIEEYIQSEYLSDEVKEVPKGVNGADCLHIVKDNFGNICGSILYESKRTK

EFNKEWLDKLKLDSIAAKSDIAVLITKTMPKDKEKTHFKEGILICTFNEFKGVLAVLRESIINAYKLKNA

LQNKDEKNHILYEYLNSKEFNTQITFILKTYQNMKEELEVEKRALQNIWKKRERAIENLSFNSTAIVSSL

NAIFSDLQGGNLIGEEGIKSLENLAKDED

>YP\_002343506.1 efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKHTKIHGFAKFKLIVILALMSSIAPLSTDMYLPALSHVEQSFQTNSFLTQLSIASFFIAFALGQLIYG

PLSDIFGRKIPALVGIFFFIVSSLFCVIIDDIYAFIALRFFEALGGCAGVVIARAIVNDLFEIKEAAGIF

ALMMVFSSLAPMLSPTFGGILLEYFSWHSIFATLFALGILLFLMILFGLKESAPHLKNKKFSHHEAMKSY

KFVLSDKRFLVYILCASFALAAMFAYITGSSFVFTQFFSLSEQKFALLFGANALGFVICANINARLVLKY

ESEKILAKALMIMFISTVILLVNAFFHPNFLLFELSIFTSIAMLGFIAPNTTTLAMARFKEHSGTASAVL

GTVQFGFAGLISFVVGAINANTPIILAFVMCACVLVANMIYFLIKIKEKK

>YP\_002343505.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTNNIFMALAIVLASLILAFGFNKALSDFKTLERSVSVKGLSQKEVEADTLILPIKFTRSNNNLTNLYE

ELEQDKENIIKFLEKQGIKEDEISYNSPNIIDRLSDPYSNDTQAAYRYIGTANLLIYTQNVKLGKSILEN

ISSLAKFGIVTKIDDYDIEYLYTKLNDIKPQMIEEATLNARNAAIKFAQDSNSHLGKIKKASQGQFSISN

RDKNTPYIKTIRVVSTIEYYLKD

>YP\_002343504.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEELTKEQRQIIEEEIKKEIKKANTFLKPELINKIIQDIIGDIKGKINNKFKCPKNLEEILSSIPQKVYV

SLGKEEIKQILKLDFCCFVDNVFYIDSAPKIEPYEHNQNKTAIEEQRIIQCSYDDLLYLFKTYPLIFNHC

IFDYKIDKKTPIEQIKKLSFLNCNFKKEVYLNFQECLDSFQMDNCVFEDRVTIKGKFNDNVYFNNSIFKN

YADFHECEFEKTANFYGVRFNKTPNFSQAIFRGNLNAVNANLNFTFDDLQERIKQEYEDFNKNIENKKSL

DKFANDFRDSFRTFKNALIKDNNLLDASNFHKYELYCKEIELKQNWDKRGENVKNTTDLEKNVSRIRDFM

DFLLLGFYRKLCDHHTDFLKVFNNLILLIALYALFVFGFTWLHDDKLEDTRAILTLFGFFDKFRLYFDII

STIFVVFGCGFFVCKLDSYEKKNNVSKKQNINFIYIIGDFLNLIKSLLFASFIPCVFYVLFSLFGFFLNL

GKDFGYSLLINTLFVSLYICLVYTKSLFFGRYVVLIFSYIVFIIMLIKQPNVIHPLIGKIANESDKFFNY

PSLIVLNILYTILLALVLFSLQKTARKNSIVPS

>YP\_002343503.1 type IIS restriction/modification enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHFTLLNEKDFFNPYYRKKQIMQNEFDIFSKALMQYLERLESSQSENEDYLVANALSPFLTMLNFKTHIK

TKQKGKSEIDLSISKDEFSKDLEVLIEAKKPNSKEFITHTKVNSKALHETILYYFRNREYSFSLKFIIIT

DFYKFYIFKISEFEELFYKNPSFKKLFEEFCNPNSLFKGNTEEFYKEVAKLIENSKENLKGFLIDLTFLK

DKQKSNFKNLASIYKTFHRDFLLSEFNPNDANSLNNAFYKELLYILGLYESKQNSKLIIAKSEESKEEQG

TFYTAINSKLKEENFETILKLLILWLNRILFLKLIESNLVRFNDDKNLKFLNFKKIPDFDKLSELFFEVL

AKEKSTRKKSEFTYLPYLNSSLFEKQSIENTLEISSLSNDLKLFYYKNTVLKDDKCKAKKGQVGLLEYLF

EFLDSFDFGSDDEQSEILSQKELISSSVLGNVFEKLNGYKEGSFYTPSFITSYMCKESITKVVLDKFNAQ

FDLDAKDISELRKSLRKEDKKAQKELLNSIKICDPAVGSGHFLVSALNVMLSIYDELNLFDEEFYLEVQN

DEILITGRKGEFIEYKRPSTPKDKTHLIQQELFHTKKDIIENNLFGVDINPNSCEITKLRLWIELLKHSF

YQSFDDGNYHDLKTLPNIDINIKCGNSLVSYFETGKSLNHYPNIKERMGKYKRIVKDYKEGFYTDKSHIN

QEIKNLKISFKNFCFADKFKKEMKSFNDKCEKYSKKYGNFLAVDDENLKFFVSANLTLFDFDEKEAIKEF

ANLKKEYDNIFNLESNHPFEWRFEFPEILDDDGNFKGFDLIIGNPPYIRQEELKELKPHLAKNYKVYKGT

SDIYTYFYELGFNVLKDRGGVLSYITSNKYTRAGYGEALREFLLKNVKFLEYTDLNGIKVFDSATVDTSI

LCFEKSKSKDNKFKYLALSNEILKTCAYDIGLYKDFAEFSQNSLSKESFTFSDENTSALKAKIERIGTPL

KEWYGLNINYGIKTGLNEAFIITTEKRNEILANCKDEAEKERTAKLIRKMLRGRDIKRYSYEWAGLWVIG

TFPSLKIDIEQYPALKQYLSQFLPHIEQSGEKGCRKKTSNKWFETQDNIAYYEEFEKEKIVWAEMTKEAC

FVYDNSNFFTNQTCYFFTHCDYKYLLAILNSRLIVYYMQYISSHLGQGAFRWIRQYIEKLPIPKINSKNE

KLADELINLVDEILKAKEQDKNANTQELENKINSLVYKLYNLTEEEIKIIEGK

>YP\_002343502.1 hypothetical protein Cj0030 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKFIERLLEEDIKFEKDVNNGLSDINIFDALNIETKENYHSKFIAYLIDINKDHYQKNFAKVFLEKLGK

SLVNTKFENLNIEDIKSVETEACIKDNRRIDILITLSDKRYIIIENKIYAKDQKNQLKDYINFVRKNIKN

IKDCYKNILTIYLHQDECASPSDYSLGNFTIKTNLIKDKNENNVSYYLKMDYMWIKEWIDECIKIYEEKS

TKDQKFILDIQNIIFTLNQYKSILQWYIADEYTQRDDVLEFIFQDIIKMQNLKNAMILYRYNKNKSELKN

LNEEKYKKAKDIIQHKWSNICEYIIEEFFDSFEHKEIKIGDITFIGNKIEENRVNHGVFIFYPVDYKNES

IYPCIYIYFKKKYYDIIGLTFEISNDDEEDIENEKYKECLKLFKDVKEENVRKYQNHYYCDKLINNEKLE

GEYAFIYWLIENQNSKKDFIQILNDFFIKKPIQEAYKGINDILNS

>YP\_002343501.1 L-asparaginase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNMCDEI

WLRLAKKIAKLFAEGIDGVVITHGTDTMEETAYFLNLTIKSDKPVVLVGAMRPSTAISADGPKNLYNAVA

LVVNKEAKNKGVMVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNAPFD

VSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVSSRV

VAGCVAVSDSDEKLGFISAEDLNPQKARVLLMLALTKTSDPKKIQEYFLKY

>YP\_002343500.1 single-stranded-DNA-specific exonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIINKNEIKKILASRFEKDLHTKLCDLPLPCCLKDAYKAANRIKEAVEKNEKVAIVGDYDVDGIISCVI

MAEFFDDIGFDYIIRIPNRFKDGYGLNAEIINELDVNLIITVDNGIAALEAAKLCKEKNIDLIITDHHMP

QDILPDAFAIINPKQKDCDFPEIEICGAQVAWYLIAALKEVCKLKYDMCKFLELLAIAIVADMMELRDLN

RALVRRGIDHINKSKRAAFRAIKHYYQKDKFALDNIGFLIAPLINSAGRMDDASISYEFLHTKDFNKALE

YLEQIVSFNESRKDEEKQLFEDSLNQIDENDSCIVVSGLNWHEGVLGIVASRLAKHFNKPAFVFSQNEEH

LKGSARSVGKIDILALISKTNSILSNYGGHKGAAGISLNSENFEQFKNKIKKECSQISESEFLDTDEILG

ILEPSEIDFEMLEILESFEPFGHKNPRPFFVLENLCVKNKKLLGKDEKHLKLVLTKENKTIEALFFNFDK

EPELNQNISLLGSISKNEFRGMVTPQFVVKEIL

>YP\_002343499.1 CTP synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQTKYIFVTGGVLSSLGKGIAAASIATLLKNSGLKVSILKADPYINVDPGTMSPFEHGEVFVTDDGAET

DLDLGHYERFLDESLSQDNNFTTGRVYQSVIEKERRGEYLGKTIQVIPHIVGEIKDRIKKAGEGKDILIV

EIGGTVGDIEGLPFLEAIRALRLEVGKNNAMNIHLTLVPFIKAAGELKTKPTQHSVGELRRIGISPDMII

CRSEKALDRDLKDKIAISCGVEKNCVIESVDAASIYQIPLNFLKQDILSPIAEILDLKNLKPNMENWDSL

VKRVIAPSNEVKIAFVGKYVDLKESYKSLTEAIIHAGAALDTKVELKWVDSEKLENMESSEVFKDVSGIL

VAGGFGYRGVEGKIKAIQYARENKIPFLGICLGMQLALVEFARNVLKLKDVNSSEFNEKCQNPVVYLIDE

FMDTNGEKQIRTAKTPLGGTMRLGAYKCDIKEKSLLAKVYNEVKSVKERHRHRYEANPKYRADFEKYGLI

VSGESKGLIEAVELNCHPFFLAVQFHPEFTSRLEHVNPVICSFIKAAINYEDN

>YP\_002343498.1 thymidylate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQITLLFHTPLSVCSHATRTCWQSFEKGDCGGEKDKELIDRVGNKFKHASTLEHLNYTFYIQGISRACLQ

EVARHRHTSPSVKSTRYTLKELRNEAEFKIGDFENASRYLVLCGNEEVDNASIKALENLRTILQKSISLD

IAKYCLPESYKTELTLTINARSLQNFISLRSSKSALWEIRNLANALFEALPQEHKFIFEHCLHKDIE

>YP\_002343497.1 sodium:dicarboxylate family transmembrane symporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKQFFQDFLMLSQAHTIATLAILCVVFYALKKMRDIKINFSLRMLFALLMGLGFGFALQYLANFPDAEE

ASNILWYSETKHWFAFVSSVFVAFIKMLVVPLVSICIIKVIIEIDKNIKISSLLGISLFWILFSTAIAAT

LGIFLGYSFDLGSNFAIYEGDKQIREIQTFSNIILGLIPSNIITAINKENIIAIVIFSFFIGISAKKISK

KEEYEQAFKSFHNFILTFYNIMMNMTATVIRFMPYAVVCMMANVLLSNGFEAIKTAGLFIMLIYIAMFIM

FGVHFLLLASQGLNPIKYAKKAFPVWLFAFSSRSSLGTLPMTTSTLQNKFGVNSAIANFVASIGTTTGLN

GCAGYFPALAAVFVAFATHTHIDFTFALMIVLVAVIGSLGIAGVPGSATMAASIMLAGIGFGNNFVMLSL

ILAIDPIIDMARTASNVSGAMTSALCTAKNLKALDKEIYNS

>YP\_002343496.1 ribonucleotide-diphosphate reductase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVIKRNGRTEELDVSKIKKCTSDAVKDLEGVNLSELELDAKIQFRDGISTEEIQKTLIKTAVDKIDIDC

PNWTFVAARLFLFDLYKKVNGMNRYNHLREYFQKGEKEGRILLGLKEKYDLDDLNAYIKPERDMQFTYLG

IKTLYDRYLIKDSKGMPIELPQQMFMAIAMFLAQNEFNPQEWAKKFYDLISKFELMLATPTLSNARTTRH

QLSSCYIGSTPDNIEGIFDSYQEMALLSKFGGGIGWDWSKVRAMGGSIDGHKNAAGGIIPFLKITNDIAV

AVDQLGTRKGAIAVYIEPWHMDISDFIDLRKNSGEERRRAHELFPALWINDLFMKRVRANDKWTLFDPAD

TADLCDLYGEAFEKRYEEYEKDESITKEIVEAKELWKKILLNYFETGLPFLCFKDSANRANPNAHVGIIR

SSNLCTEIFQNTEPNYYQIKVVFENGDELHFDEEQKVVIDGGYEKPAKKISTLDSIEGNKVYIVEKYKND

GKTAVCNLASINLSKVYTKEDIERVVPTAIRMLDNVIDLNFYPHRKVKDTNLKSRAIGLGVMGEAQMLAE

AKIHWGSDEHLNKIDEIMEQISFEAINASSNLALEKGSYEDFEGSNWSKGIFPIDVASPKAKALTLREGL

FDQSECDWVKLREKVKKDGMRNGYLMAIAPTSSISILVGTTQTIEPVYKRKWFEQNLSGMIPVVVPNLSL

DTWQYYTPAYELDQKILVKAAAVRGKWIDQGQSLNIFLSLDKASGGYLNEIYQLAWELGVKSTYYLRSES

PDSEKVNVADRSIECEGCQ

>YP\_002343495.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVERYSREIMAKKWDMQAKYDAWLKVELAAVKAWNKLGLIDDTDCEKILKNAKFDIARIDEIEKTTKHDV

IAFLTSVSESLGEESRFVHYAMTSSDCIDTAVALQIKESLELILEDVSLLLEAIKKRALEHKNTLMVGRS

HGIHGEPITFGLVLAIWYDEISHAKELLEHAKEVISYGKISGAMGNFAHAPLEFEEEVCKNLGLKAAPVS

NQVIQRDRYAQVISAIAILASSCEQIAVAIRHFQRTEVYEAEEYFSVGQKGSSAMPHKRNPVLSENITGL

CRVLRSFVTPALENVALWHERDISHSSVERFILPDAFITADFMLMRLTNLIDKLLVYPENMMKNLNLTGG

LVFSGRVLLELPFKGISREEAYKIVQRNAMKVWADLQNGKAAINEKNESLFLLALLSDEDLRKSLSEEDV

RKCFDYNYYTKNVDAIFKRTFK

>YP\_002343494.1 pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYIKIKLSNNGKKAFQVLMENLKISINEAQKLIDKKRLFCDGILVEEKNKILNGLVELIVYENNPKGVE

IVFENEDFAILEKESGILSHPNGRHCKYSLSDEIWHLWGKEACVAHRLDKETSGLILIAKNKKAQIDLKS

LFEKKLVQKEYLALAHGKIEENFIVDKAINLTKNYDDVKTRMQICKEGKQAITEFEILEYFPKINATLLL

CKPLTGRQHQIRVHLHYKNHTILGDPLYGLSKQQIESILDEKLNPKERLKLTGALRLCLHSYRLKFQYKN

QNFDINSKINIKEIFNNSIK

>YP\_002343493.1 fumarylacetoacetate (FAA) hydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFVNFIQGQKPNLGVLNSSGKIVSFDDLGIETNDMNEFIIHFDKFKHKLTDLDSKIAYEIPQENYLAPI

IEPRQDIICLGINFLDHAKESAKFKGEKFEEREYPVYFGKRCNQATAPFGDIPLHADVTSQLDYECELAF

ILSKDAYKIKAKDAKDYIFGYTIINEISARELQKRHKQFYRAKSLEGSTIMGPYITSVDEISYPPKLQLQ

SYVNDELRQNSNTQLFIFDIAYVLEELSAGMLLKAGSIISMGTPSGVGMGLNPPTFLKSGDKVRCVIENL

GELCNKIKNINY

>YP\_002343492.1 cytochrome C551 peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIIMILCLSYANIVFAVDMITPIPNSISYDKEKAKLGKSLYMDKSLSKDGKVSCNTCHRLDQHGVDGL

EFSIGVDNQLDKPFNTPTTFNSVFNFVQFWNGRAKDLAEQATVPFFNPKEMGLSPELLLQKVNSNENYVK

TFKKLYGEVTVENIALAVAEFEKTLITPNSPFDRYLSGDQNAISTQAKKGYEDFKANGCISCHQGQNIGG

NMFQKIGIFEEYPNQEDLGRYEITKREADKMVFKVPSLRNIAKTAPYFHDGSIPTLDACVQFMAYYQLGK

FLDQETVDNIVAFLESLTGEYHDK

>YP\_002343491.1 MCP-domain signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTNKKSSFLIKFIILSTLVLAFILVLLGIIFNNYSSSKDNKELINIVQQLEISDEKINSVFQNSFNFINY

DPSVQAIKKMQENFTKLKTFGIDINKAEEIFNAKLIQLNYFKSANSIAVNSKLYLFELAKNYFEELEQNH

ETNKNNYKTMSSMLSVLSTENILQKTTLNQLNNLMKEIKNDTKSENLQLFLKHYNMIVKQISIMQDNSSI

YENNSLMKELKQLNTFTQNTIEQSNLFKFYIALAVFGITLVLFVFFILLTLKKVIMPIHTLEKLSANLAS

KEANLHSRLNIDPKSELGQSAQYINSFISTVQNSIIEAIENAKSSHQNSQKLKNNSMMLENSSNSQHEQI

QGVKEITHVLDDHINLAGNLAQESIENMQDMHILMDKVELTLSELVNLINENNEKEQNIVANMDNLTQSA

DNIIEITNSIKDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVGQLADKTSKSLLNINATVNTIVQQI

NDNKALMDLIHDSMKETSSKTNDLQQELVNSMHKLESSIESTQTMKDKSMEVKDKMLILGTNIDKVNELA

NSVKDLSCEINNISQNVLNGASKLSEKLSSFQ

>YP\_002343490.1 disulfide bond formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFLELLLVLIALILIIKKPEKENLAFGLVMVAWLLMVFFYVGHKTGALLTIMNL

>YP\_002343489.1 disulfide bond formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEINKTKNFYTLMCLAGFLIILLPVGIANLIFGYMLGDSPCTLCWGQREAMIFIGVMALFIVRYGMKGK

YLAALLIMTAVGLYQSFAHYGNHAHRDLDQGFGLAVFGIHTYFWAEVVFWAVVLLLGVIFAFAPKFNAFE

AELNGEKFRKYTKFSFAAVLISAIIVASNVFQAFVSTGIPPYVGQGDPVRFSLNPKYIIWSKEGWNGLWQ

NISFLGKRDVKAPDYAFAPASEKLGIKFDNDINNAPFAKINDELKITNEQTINFDKAINTLDYINNEFVA

SSKWDVAFLDNNFSVKEGFELDPYFSASIDPIIGIIPYMNDKFILMGSNKSFLRFAKNPNASEEDIAKQY

ADFVKGNDKFKGQGESLGRGRLDTVRAKFNHVASMTTDGNYLYLATVPNNKDAKTFVISKVSLKDRVLSG

EFTPKANLKEGKTLGDLYVTSMTFKDGEIYALSKNHNVIAVIDPVKEEVVKTIAFPSSITNARSIFFKDG

KINILSYQDGANKLYTLN

>YP\_002343488.1 7-cyano-7-deazaguanine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKALCIISGGMDSTLCAYLAKKEGYEIIALHFDYEQRTQEKEKECFKQICKALKVEKSYILDVSFIKD

IGGNALTDKSIDIPKNELCTSDTPPITYVPFRNGIFLSIAGSLAEKENCESIFIGVVEEDGSGYPDCTDE

FIQKAQEFINEGTSKNFKVCIKTPLVRLNKAKIVELALKENVPLELTWSCYESEDEACGECDSCLLRLRG

FEKAGFKDKIKYKS

>YP\_002343487.1 hypothetical protein Cj0015c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINIKLIEHIFKAASISRWNDYPRMANLVELDKQAHKFIIAYFIAKMEKDVDMRVIIEGGIFEFLSRVVV

TDIRPDVYHEIVRQKKAEVNAWVLSKIEPMIEDIEDGEFLKRFEAYLNGNAYAKERLILKAASYFATRWE

FNIVYQTSAFLNDIDEIKNKVEEELEDYYELIGARKIALNQKIAKIIDLSGRLRFQKRWAQTPRIPETAV

LGHMLVVAILGYFYSLKIKACDKRLENNFYCALFHDLPESLTRDIISPVKYGIDGLHDIINDYEMKLINE

RILPFVPEGLRAEFSYILGIREGRNGESNFVKNEFENRTYKNAKIELCSGSLSSFNENEFGAIDGKALKY

CDKIAAYIEAGLSISYGVKSKELESGFLGMHEFFKENPTIDGVNFFEICESLREYFKI

>YP\_002343486.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYFQKRYTLAFFIGILAGIFGAIVKWGWEVPFPPRNPNVFWPADALERVTPPKIFLEQLGLPTDWTYM

FSGMQMPLSIFIVHVGFSIIFGVAYCMIAEKWHRITMWQGAVFGFFVYLFAHVIIMPLIAEVPPLSEIPF

DEHLSEIFGHIVWLWGMEIVRRDIRNRITKEIEE

>YP\_002343485.1 dihydroxy-acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRSDAIKKGHLRAPNRSLLRACGLKDEDFDKPFIGVANSYIDIIPGHYFLNDYAKIIKDEIRKNGCVPFE

FNTIGVDDGIAMGHEGMLYSLPSRELIANSIETVMNAHQLDALICIPNCDKITPGMLMGALRVNVPTIFV

SGGPMASGVTKKGEKISLSSVFEAVGAYESKKISEEEFKDIECSACPSGGSCSGMFTANSMNTLCEAMGI

ALEGNGTILALSKEREELLRKAARRICEIALDERFKIRNIITQKAVRNAMVVDMAMGGSSNTVLHMLAIS

REAGVALDIKDLNFISSKVAHIAKIAPSLNSVYMDDIHKAGGVSAVMAEISSRQGHILELDALTITGESL

KERLKNAKIKDENIIRKVDNAYSKVGGLAILFGNLAKQGCVIKTAGIIGERKFKGKAVCFNSQDEAIKGI

IKGKVQKGNVCVIRYEGPKGGPGMQEMLSPTSLLMGMGLGADVALITDGRFSGATRGLSVGHISPEAAEG

GLIGLLKDGDEIEIDVDAYTIHANVSEEEIAKRKKEFALPQKEVSSRWLRMYQKLVSNASKGAVLDME

>YP\_002343484.1 non-heme iron protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRQYETYKCQKCGNEVEVQNVGGGKLSCCGEEMKCITTDLTAVNLMKAFAGESMARNKYDLFADVAEEEG

WHAVARHFREAAENEKWHARAEFKAYHEIVDGKPLEVTTKNLVTAAEGENYEHTTMYPNFAKIAEDEGKK

AIARLFTAIGKVEIEHEREYLALKKMLEEEEFFNSEVEELWVCEVCGHIHRGKKAPAACPLCKAPKEYFK

REFLG

>YP\_002343483.1 non-specific DNA binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLLFLFFALTAFLFGAVNINTATLKELKSLNGIGEAKAKAILEYRKEANFTSIDDLKKVKGIGDKLFE

KIKNDITIE

>YP\_002343482.1 ribonuclease HII [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTLFDTKELLNEFDINLIGIDEAGRGALAGPMMMAACKLNKQLDGLCDSKKLSEKKREELYEIIIKNSN

YLILAFSSEQIDALGLSTCLKKGLKLIKKHFKTENNFLYDGNTNLGINGIKTQIKADTSILQVSAASILA

KVSKDRVMNFLAKDFPCYEFEKNKAYGTKAHKEFIAKFGICKLHRKSFKLL

>YP\_002343481.1 glutamate synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGNARGFLDFKRMDFKKIAPKERILNYKEFTIPLDKKEQEVQGGRCMDCGVAFCHTGVMSEGKDVGCPLN

NLIPEWNDLVYRSLWKEAYERLDLTNPFPEFTGRVCPAPCEDSCVCAINGVSVSIKNNELSIIENAFKEN

LVRVNKPKQYNGKKIAVIGSGPAGLACANTLNSLGYKVSVFERSDKIGGLLMYGIPDMKLDKSIVQRRVD

LLKKSGIEFKVNENIDSKDKVSKLLKEFDALVLCTGASKPIDLDIEGRKLKGVEFALDFLTQNTKTLLKT

GKGADMAKGKNVLVIGSGDTSVDCIAVATRQGAKSIVRFERSPKRPLQRSQNNPWPLKADIFTTDYGLEE

AIAVYGKDPREYQKMTKKFLGKTHVEGVEANDLKREFKEGKAINVEISNSKKTYKADLVLLAMGFSGCEE

AISKNFGVKLDEKNNISTENFQTTHKKIFACGDARKGQSLVVWAIKDGIECALSLHQNLAK

>YP\_002343480.1 hypothetical protein Cj0008 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAGFQSPITINEAMQRIKNNEYLLPAFQREYVWEPWQIEELFDSLIRGYPISSMLFWKVKDESKTAWKFY

RFLEYYRESYHTHNDYFNTSNHKDFYAILDGQQRLTSLYFALFGNYDIHRSYNKWENNDRYFKICHFYFN

LTQSKKPENENIEYEFLWLDKLETKEQNIYIDKYQQKWFKCQYLYQYDSGRVRKIAKEFNLNENEEDRLD

LLHQKIFDKNLINFYLEEEQDPDKAVNIFIRINSNGEPLDYSDILFSIAIANWNKIDARTEINNLVDKIN

ENFDISKDLILKGFLYLFHNNIKFQINSFDKNFIESIEAKWEGIKNAFIETFRLLRSFGFEAKTLSSNNA

ILPILYFIYHKNLTNNIVDSVKCNENRAIIKKWLLRAIILKPFGGSSDTVLSNMRKAFIKDFKQNSGFFD

REIELFPLEEIEKEAKYIQTIDEEYLENNVIECRKNSPEAFAVLSLLYPNLDYKNNNFHKDHLHPESAYK

EYEKLYKATDNCISFNIYDSLPNLQMLDANENESKNNKPLKQWVNEKCNGNRKEFLGKHLIPDVDLSLEN

FNNFIEERKKIIIDKLKSILNKE

>YP\_002343479.1 glutamate synthase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDLENILENNQSIGLYHPKNEHDACGIAAVANIRGIASYKVICDALEILMNLEHRGGTGAEENSGDGAGI

LIQIPHDFFKTQELGFELPKKGDYAVAQMFLSPNTDAKEEAKEIFLQGLKDKKLEFLGFREVPFNPSDIG

ASALKAMPYFLQAFVKKPSKISAGLEFERVLYSTRRLIEKRAINVPKFYFSSFSSRTIVYKGMLLSTQLS

DFYLDFKDVNMKSAIALVHSRFSTNTFPSWERAHPNRYMVHNGEINTIRGNVDSIRAREGLMQSEYFENL

DEIFPIIAKLSSDSAMFDNTLEFLALNGRTLEEAFMMMVPEPWHKNENMESKKRAFYEYHSLLMEPWDGP

AAIVFTDGVIMGASLDRNGFRPSRYYLTKDDMLILSSETGALKLDEKNIKAKKRLEPGKLLLVDTARGRV

IADNEIKEHYANAKPYKKWLKNLVELEKQKSGVYKHQFLKEDEVLKLQKAFGWSYDELKMSVAAMAQNGK

EAIAAMGVDTPLAILSKTYQPLYNYFKQLFAQVTNPPLDAIREEIVTSTRIYLGSEGNLLKPDENNAKRV

KIALPVISNEELFEVKALNKFQVKEFSILYDYSKKTLEKALDELCVKIEDEVKKGVSIIILSDKGVDEKN

AYIPALLAVSGVHNHLVRKNLRTHTSLIIESGEPREIHHFACLLGYGATVINPYLVYESIQKLIANKDLN

LSYEKAVENFIKASSSGIVKIASKMGVSTLQSYNGSALFECLGLSSKVIDKYFTSTTSRIEGMDLEDFEK

ELIALHKHAFNDTHKALDSKGIHGFRSAKEEHLIDPLVIFNLQQACRNKDYKSFKKYSALVDEKQVNLRS

LMEFDFSEAISIDKVESVESIVKRFRTGAMSYGSISKEAHECLAQAMNKIGAKSNSGEGGEDEERYEIKE

GVDKNSAIKQVASGRFGVDLNYLSHAKEIQIKVAQGAKPGEGGQLMGFKVYPWIAKARHSTAGVTLISPP

PHHDIYSIEDLAQLIYDLKHANKDAKISVKLVSENGIGTVAAGVAKAGANLILVSGYDGGTGASPRTSIP

HAGIPWELGLAETHQTLILNKLRDRVRLETDGKLMNGRDLAIAALLGAEEFGFATAPLIVLGCTMMRVCH

LNTCPFGIATQDTELRDRFKGKVDDVINFMYFIAEELREYMARLGFERLDDMIGRVDKLRQKSVQGKAGK

LNLDKILKSLPTYNRTAVHFKDYKDNKLEKTIDYRILLPLCKNAVEKKEPIKLSLEVGNQSRTFATMLSS

EILKTYGKDALDEDSIHIKAIGNAGNSFGAFLLKGIKLEIIGDSNDYLGKGLSGGKIIAKISNEATFSPE

ENIIAGNACLYGATKGEVYLDGIAGERFCVRNSGALAVVLGTGVHGCEYMTGGQVVVLGDVGANFAAGMS

GGVVYIFGRHNEAHVNTELVDIKDLNAKDEKELKAVIEKHITYTDSKKAKDILEKFDKKDFFKVMPRDYE

KMLKMLDLCKNEKDPNLAAFLKITQK

>YP\_002343478.1 Na+/H+ antiporter family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILTLLTNPIIISVVLMTLLCLFRFNVLLSLLISALVAGVFSHLELVDTMNILISGMKENLKTALSYILL

GAIAAAISKTNLTAYLIKIVSHFISHKKYLLLLSIALISCFSQNLIPIHVAFIPLLIPPLLSLFNKLKID

RRAVACALTFGLTTPYMVLPVGFGLTFQDLLKDNLNANNVSASLNDVTNTMYFAAICMIAGLFLALFVFY

RKPREYQEVEIAKVDLENLEMTRKEWGVLAGLVLTLILQILTMNLPLSGLLGFVLMVILGGVEFSKVNEV

FDDGLKMMGFIAFVILVAAGYGEVLKESGSVVDLVNSVVPWMEQSKFLAVFFMLLIGLIITMGIGTSFGT

IPIIATLFCPICLELGFSTALIIFILGVAGALGDAGSPASETTMGTTVGLNADKQHDHIKDTCIPTFIFY

NGPLLILGSIIAMFL

>YP\_002343477.1 molydopterin containing oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQNDQKENRRDFLKNIGLGLFGISVLSNFSFENFLGSKALAKELPDFKIEGKKDLIYHGEKPLTAETEI

YALDSDFTKPENFFVRNNGLPPSLETIKERLHKGWTLEIDGESIINKKSYTIEDLKKKFKTYTYALTVEC

GGNGRSEVIPSTKGTQWGYGAVACGRWTGVRLKDILKDCGIKNDAVYIGYYGIDTKLNGEETSPISRGVP

ISKALQDETLIAWAYEGKDIPLVNGYPLRLVCGGYPASTSGKWLYKISVRNKIHDGEKMEGSYKVPVNPV

KPGDFNYKGEMKIIESMPIRSVITNIKNGSEIKANKKFEVRGKAWAGELEVSEVYVSNDYGVTWTKAKVE

KPLNRLAWQKWSAQISIPTKGYYEIWARAIDSQGNSQPMVLAQWNPGGYINNACHRVNVYGV

>YP\_002343476.1 monoheme cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIILILALFLSASWAQNLEINPDTGLIIDPDSPLVEANCLACHGSNLITNMHASRKAWLAAIRWMQDS

EGLWEIEPEDEEKILNYLEKYYGEKYDTRRRIPLAILLQNKTH

>YP\_002343475.1 DNA gyrase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQENYGASNIKVLKGLEAVRKRPGMYIGDTNIGGLHHMIYEVVDNSIDEAMAGHCDTIDVEITTEGSCIV

SDNGRGIPVDMHPTENMPTLTVVLTVLHAGGKFDKDTYKVSGGLHGVGVSVVNALSKKLVATVERNGEIY

RQEFSEGKVISEFGVIGKSKKTGTTIEFWPDDQIFEVTEFDYEILAKRFRELAYLNPKITINFKDNRVGK

HESFHFEGGISQFVTDLNKKEALTKAIFFSVDEEDVNVEVALLYNDTYSENLLSFVNNIKTPDGGTHEAG

FRMGLTRVISNYIEANASAREKDNKITGDDVREGLIAIVSVKVPEPQFEGQTKGKLGSTYVRPIVSKASF

EYLTKYFEENPIEAKAIMNKALMAARGREAAKKARELTRKKESLSVGTLPGKLADCQSKDPSESEIYLVE

GDSAGGSAKQGRERSFQAILPLRGKILNVEKARLDKILKSEQIQNMITAFGCGIGEDFDLSKLRYHKIII

MTDADVDGSHIQTLLLTFFFRFMNELVANGHIYLAQPPLYLYKKAKKQIYLKDEKALSEYLIETGIEGLN

YEGIGMNDLKDYLKIVAAYRAILKDLEKRFNVISVIRYMIENSNLVKGNNEELFSVIKQFLETQGHNILN

HYINENEIRAFVQTQNGLEELVINEELFTHPLYEEASYIFDKIKDRSLEFDKDILEVLEDVETNAKKGAT

IQRYKGLGEMNPEQLWETTMDPSVRRLLKITIEDAQSANDTFNLFMGDEVEPRRDYIQAHAKDVKHLDV

>YP\_002343474.1 DNA polymerase III subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLSINKNTLESAVILCNAYVEKKDSSTITSHLFFHADEDKLLIKASDYEIGINYKIKKIRVESSGFATA

NAKSIADVIKSLNNEEVVLETIDNFLFVRQKSTKYKLPMFNHEDFPNFPNTEGKNQFDIDSSDLSRSLKK

ILPSIDTNNPKYSLNGAFLDIKTDKINFVGTDTKRLAIYTLEKANNQEFSFSIPKKAIMEMQKLFYEKIE

IFYDQNMLIAKNENFEFFTKLINDKFPDYEKVIPKTFKQELSFSTEDFIDSLKKISVVTEKMRLHFNKDK

IIFEGISLDNMEAKTELEIQTGVSEEFNLTIKIKHLLDFLTSIEEEKFTLSVNEPNSAFIVKSQGLSMII

MPMIL

>YP\_002343473.1 chromosomal replication initiation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNPSQILENLKKELSENEYENYLSNLKFNEKQSKADLLVFNAPNELMAKFIQTKYGKKIAHFYEVQSGNK

AIINIQAQSAKQSNKSTKIDIAHIKAQSTILNPSFTFESFVVGDSNKYAYGACKAIAHKDKLGKLYNPIF

VYGPTGLGKTHLLQAVGNASLEMGKKVIYATSENFINDFTSNLKNGSLDKFHEKYRNCDVLLIDDVQFLG

KTDKIQEEFFFIFNEIKNNDGQIIMTSDNPPNMLKGITERLKSRFAHGIIADITPPQLDTKIAIIRKKCE

FNDINLSNDIINYIATSLGDNIREIEGIIISLNAYATILGQEITLELAKSVMKDHIKEKKENITIDDILS

LVCKEFNIKPSDVKSNKKTQNIVTARRIVIYLARALTALTMPQLANYFEMKDHTAISHNVKKITEMIEND

ASLKAKIEELKNKILVKSQS

>CDK02668.1 TPA: proteolysis tag peptide encoded by tmRNA Campy\_jejun\_700819, partial [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

ANNVKFAPAYAKAA

>CDI30530.1 TPA: proteolysis tag peptide encoded by tmRNA Campy\_jejun\_700819, partial [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

ANNVKFAPAYAKAA

>CAL35824.1 crossover junction endodeoxyribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLKILGIDPGSRNCGYAIIEADKGKNILIEAGLIKIKPSTLQYQITELCEGLDLIFKNHSFDEVAIEDI

FFAYNPKTVLKLAQFRGALSLKILQIHGDFAEYTPLQVKKAVTGKAKATKEQVAFMVKRLLGLSKDIKPL

DITDAIAVALTHAANLRVRV

>CAL35823.1 flagellar hook subunit protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRSLWSGVSGLQAHQVAMDVEGNNISNVNTTGFKYSRADFGTMFSQTVKIATAPTDGRGGSNPLQIGLG

VSVSSTTRIHSQGSVQTTDKNTDVAINGDGFFMVSDDGGLTNYLTRSGDFKLDAYGNFVNNAGFVVQGWN

INWDDQTIDSSRTPQNIFIDPGMHIPAAKSTEVAIKANLNSGLNIGTSSRNLYALDSVHGWNTKTQRAED

ENDTGTTQFYTTSKNSVEVTEKGVDAGSLFNAKGQGLNLRDGQGIWVSYADATYSTNKVGVNAFDPNLQQ

NQTAAFWGTANQKVNLDITLNGVRIQNADIQSIDDAIAYINTFTAPTDTRDGTGVKAVKNKDGSGIDFVN

DNADGTTDNMKNINLVVANTNTAGELWNAVWNNNNQTFTFNNNGNGQAGTPTINKNGSSLWTATNITFTP

QPPQAATNVQLTGGLNAQIITAHKYIYSSNPVDIGPMYNPDGGPAFQPGANATTRPTEPGSAAYWDAVNG

GLLNTNVRTFRTTEDLRELLQRDARYGVDYDGSGTFAAADINQNIKVVVTADGHFAISNANEQSTVPPNA

INGVGNATTTDPKNMSFNITAYSNKQGTVSTNDAFTAIFKAFDGPLVIGNQIKESEQLKLSAFSAGLEIY

DSLGSKHTLEVQFVKQSTTQDGGNEWQMIIRVPEPAEINTTGEGPNNIIVGTARFNNDGSLASYTPRTIN

FSPNNGAAPNQQIKLSFGTSGSNDGLVSSNSASTLTGQATDGYTSGNLKPDAIRVDDKGNILGEFTNGKT

FAVAKIAMASVANNSGLEEIGGNLFKVTANSGNIVVGEAGTGGRGEMKTSALEMSNVDLSRSLTELIIIQ

RGYQANSKTISTSDQMLQTLIQLKQ

>CAL35822.1 small hydrophobic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFFAPFKGASLALQAYLGSLVILGLGLNCLQFIANSLLLGVGCNKIFSNVI

>CAL35821.1 putative O-acetylhomoserine (thiol)-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLAN

VEGGAFGIPVASGMAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEKV

IDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSKYVSGQ

GTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAWL

LLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDYE

HARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQA

IES

>CAL35820.1 homoserine O-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPLIIPENIPAYELLKEHAFIMGLRRAKHQDIRPQEILIVNLMPKKIETENQILSLLANSPLQVNITLLA

TTSYVGKNTPFTHLEKFYKGLEEVKKHKFDGAIVTGAPVEQMDFEKVAYWEELLEIFDFLKQNVTSSMYI

CWGAMAALKYFYGVDKISLDKKIFGVYKHDKVSPDLLLTNLDEKVLMPHSRHSSMDEEQILALQKQGKLK

ILLRNKKIGSALLRDEKNIFILGHLEYFKETLHQEYVRDNFIQKAKNYYDKKGNIKYNWRSNANTIFANW

LNYDVYQSTPFVL

>CAL35819.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKSIAIIGGSIAGLSAALFFASAKNEELDFDITVFDEGKADLKAAAIYNVPFFPKGAKADEIYTHIKAQ

IASMLEVKYIDSKVVSISGEKGDFTVNDEQGLGIKADYIIVATGANKSDIKELEDFVIPHELMPKPNKFC

FKHHGRQIIKEGIYAAGLASGVTTMVACAMGSANEAACAILSDIKGAVSVYHDTPTTRV

>CAL35818.1 putative GTP cyclohydrolase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRYGEKEIKEFDVENMEIWPNDAKNDYIIKITLPEFMCCCPRSGYPDFATIYLEYMPDKFVVELKAIKLY

INTFMYRNVSHEASINEIYNTLKDKLKPKWIKVVGDFNPRGNVHTVIECRSDMVVPK

>CAL35817.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVKFIPVILACSAILASANTISNVSAQTSAVAPAPATSYPVYPQYAVPPQDHFNGLPKILPVKFKISIQ

VLLS

>CAL35816.1 hypothetical protein Cj1722c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDWEAYGYEIKLNNYMELYFDRNGNFLGQEFDN

>CAL35815.1 putative outer membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKKFLSIIAGIALFSSSAFAEEKSGFFIGADAAYVQTKVQGNLKHNQTGAVFNGDLSSSIPILGLKAGY

RFNDLHRLYLAYNYSDEFSDIIRTPKLKIESDFSTHKFLMGYDFTPKIFERVRAVAGGYLGYAKTNLDLK

TSLLSLSQKFDGFVYGVKIGAIFELGASNEIEAGFKVEKIEYNTRDFYQKAIGSNLYDPRQTNYGLYLGY

TYKF

>CAL35814.1 hypothetical protein Cj1720 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKELLEIKKEMEPVIHEANVKLNVLAREVIVRKKEYEIYGPMVDRVYLDNAIYVKVMSSGRDVKTDNVT

IKNGFYMVFVAPEKESTKDIKNKLKVAYEGLDNKFIATLIRSCQRFKEIINKTQATLAKASKMNVVVKTN

LGEASAALKFNITIEYTKENQKLTRENSKSAGSFRDTKTYINLVVEKNTDSQICEKLLDDVEKYFIGGG

>CAL35813.1 2-isopropylmalate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKDNKIIIFDTTLRDGEQALGSSLGINQKLQIALALENLGVDVIEAGFPVSSQGDFKAVQKIASKVKNST

ICALSRALDKDIDMAYEALKVAKHFRIHTFIATSTLHMQDKLKKDFDEILSMAKRAIIRARSYTDDVEFS

CEDAGRTPIDNLCFMVENAIKAGAKTINIPDTVGYTLPSEFANIIKILFNKVPNIDKAIISVHCHNDLGM

ATGNSLSAILQGARQIECTINGLGERAGNCALEEVVMAIKTRKDYLKGFYTDIKCENIFKTSKLVSAITN

ESIPSHKAIVGSNAFSHSSGIHQDGVLKNRQTYEIISPSAIGIHENRMLMTARSGRAMIKTCLENLGYDE

NTYNLDDVYERFLRLADKKGQVYDYDLEALMFLSYESEEENEFVLEKLSVISGNIPTACVCMRIKEELKT

EACTGNGPVEAVFNCIARITNLKPALKAYSINAKSSGVDAQGQVDVDLEFKGRKFHGKGLSTDVIEASAQ

AFVSAYNAIYRSLKVEERKMA

>CAL35812.1 3-isopropylmalate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTYKVAVLAGDGIGPLVMKEALKILTFIAQKYNFSFEFNEAKIGGASIDAYGVALSDETLKLCEQSDAI

LFGSVGGPKWDNLPIDQRPERASLLPLRKHFNLFANLRPCKIYESLTHASPLKNEIIQKGVDILCVRELT

GGIYFGKQDLGKESAYDTEIYTKKEIERIARIAFESARIRKKKVHLIDKANVLASSILWREVVANVAKDY

QDINLEYMYVDNAAMQIVKNPSIFDVMLCSNLFGDILSDELAAINGSLGLLSSASLNDKGFGLYEPAGGS

APDIAHLNIANPIAQILSAALMLKYSFKEEQAAQDIENAISLALAQGKMTKDLNAKSYLNTDEMGDCILE

ILKENDNG

>CAL35811.1 3-isopropylmalate dehydratase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTMAKTLYEKVFDAHVVYEGKNELPILYIDRHLIHEVTSPQAFSGLKMAKRRMARADLTLATIDHDVSTK

SMDLNACSDMAKEQITTLMQNTKEFGVRLLGLGDKNQGIVHIVGPELGFTLPGVTLVCGDSHTATHGAFG

ALAFGIGTSEVEHVMATQTLKQAKLKTMKIECKGQFQKGVYTKDLILYLIAQYGTAKGTGYAIEFCGELI

RNLSMEARMTLCNMAIEFGAKVGMIAPDEITFEYIKGKEFAPKGEEFQKYCEYWKSLRSDEGAKYDASIT

LDVSKIKPQISYGTNPSQVIGIDEKIPKISDFKNQSEQKSLLDALYYVNLEQDQVIEGVKIDIVFIGSCT

NGRLEDLKIAADILKGRKIHKNVKALIVPGSMQVRKEAENLGLDKIFIEAGCEWRYAGCSMCLGMNDDKA

NSGQRVASTSNRNFVGRQGKGSITHLMSPASAAACAIEGVICDNRKYLGV

>CAL35810.1 3-isopropylmalate dehydratase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKFIIHKGIACPLEYANIDTDQIIPKQFLLAVSKQGFGKHLFHDLRYLDDKESVLNMDFNLNKKEYQNS

SILVSFENFGSGSSREHAPWALVDYGIRAIIAPSFADIFKNNALGNGLLTIELAKDEVLEIVDELKKSQD

KNIEISLLEKRVFFKDKIFSFDLDDFHRICLLEGLDNIALTLKHEAQIKAYEKNSKSFLV

>CAL35809.1 putative acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNTIIQKAVNKDLNSILEITKDALNAMKTMNFHQWDENYPNEIVFQEDIQAQELYVFKENDEILGFICI

NEKFKPEFYKQVIFNKNYDDKAFYLHRLAVKQNAKGKGVAQKLLNFCENFALENHKASLRADTHSKNFPM

NSLFKKLDFNFCGNFDIPNYQDPFLAYEKILNQKAF

>CAL35808.1 small hydrophobic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTMLDIFEIIFITTVVIIGFGGIVFVVTKEKK

>CAL35807.1 putative radical SAM domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKELVNILDFLPEELGEKIKPMFRVKQIYQWIYQKYANNFSDMSSLPKDLRLELARNFHFSPVKCVKNEQ

SKDGSIKYLFELIDGLRVESVLLPMKEEKIDAEGKRISHARYTICVSSQVGCKSGCSFCLTAKGGLKRNL

SAGEIVGQILWIKKQNNIPYERRVNIVYMGMGEPLDNLKNVSKAVKILAQNEGLAISPRRQTISTSGLAK

QIKELGQMNLGVLLAISLHAVNDELRTELMPINKAYNIAAIMDAVREFPIDQRKRVMFEYLLIDGINDKL

EHAKELVKLLNGIKAKVNLILFNPHEGSLYKRPSLENAIKFQDLLSNKGVTCTIRESKGLDISAACGQLK

ERAKEQ

>CAL35806.1 hypothetical protein Cj1712 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIICAGGNENFSFAKAIGIGLVESAFHLSQLCFKEKPSKLIFIGTCGLYDKGEILEIYRSSHAFNVEFSK

ISHAFYTPAKYEICLEKENVSRETIKINSSNYICQNSKAAKEFSKLGFFAENMEAFSVLSVAKNLNIDAE

CILCATNFCNENAHEDFIKNHQKAKENLEEYLKKYHYI

>CAL35805.1 putative dimethyladenosine transferase (16S rRNA dimethylase) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKAKKQYGQNFLIDKSVLAKIIQAIPKEMNNIIEIGPGLGDLTQELLKISQVKAYEIDNDLIPILKKKF

QKELECGKFNLIHQDASEAFNPSLDEKPYFLVANLPYYVASHIILKALEDKNCLGLIVMAQREMAEKFCA

KEGNSEFSSLGVLSAMICERKILFDVDPQCFNPPPKVMSAVMSLIKTKDFDELCEIENFKNFLKDCFKAP

RKQLLGNLKTYKAKVLEVLSTLGLKENIRPHEICVDLYLKIYDKLKDEYGRKQRDK

>CAL35804.1 putative metallo-beta-lactamase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNMDENKEINKNEQNPNSNSKNNKRYKYKNRRKKLADSLQNENDTPKIDQNSNKENSENSENKTEKKKKK

NRNLPSKLTGNEDWQIALAECIEANRISHENRLHPLKYNNSSEHKIRITPLGGLGEIGGNISVFETNKDA

IIVDIGMSFPDGTMHGVDIIIPDFDYVRKIKDKIRGIVITHAHEDHIGAVPYFFKEFQFPIYATPLALGM

ISNKFEEHGLKAERKWFRPVEKRRVYEIGEFDIEWIHITHSIIDASALAIKTKAGTIIHTGDFKIDQTPI

DGYPTDLGRLAHYGEEGVLCLLSDSTNSYKEGYTKSESSVGPTFDQIFARTKGRVIMSTFSSNIHRVYQA

ITYGLKYGRKVCVIGRSMERNLYTTMELGYIKLDRKIFIDADEVSKYKDNEVLIVTTGSQGETMSALYRM

ATDEHKFIKIKPTDQVIISAKAIPGNEASVSAVLDYLLKAGAKVAYQEFSEIHVSGHASIEEQKLMLTLT

KPKFFLPVHGEYNHITKHKETAMKCGIPERNIYLMSDGDQVELCQKYVKRIKTVKTGKVFVDNQINKQIA

DDVVIDRQKLADSGIVVIIAQIDKATKTLINKPRVFSYGLVADKHDHAFSKDMAEVLGQFFINVKDEVLN

DPRFLENQIRQVLRKHIFRKIKKYPTIVPTIFVM

>CAL35803.1 putative ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRINKFISHNTRYSRREADELIKQGLVKINNKIALLSDEVKFDDKVFVKGKRVQKRTQFSVIIYHKQKGE

IVSKKDDRGRKTIYDTLPRQFSTWLSVGRLDYASEGLLLLTDSPVIADALMHSDLEREYYLKVKGTVSKQ

VIEAMQNGLEIKNEKKGAHAKTKITSMSFAPFIDFEIFGSSGGYTKLRVVINEGKNRELRRFFGHFDLEV

MDLKRVAFGALDLGMLKAGKHRYLENGEYEKLRDFLKFNEIRY

>CAL35802.1 30S ribosomal protein S10 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MERIRLKLKAYDHRVLDRTVAAIVEAVKRTGADIRGPIPMPTKIKRYTVLKSPHINKDSREQFEIRIHAR

MLDIVAATPDTVDSLTKLDLAPEVSVEVRAMGK

>CAL35801.1 50S ribosomal protein L3 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEYIVEKIGMSRTITNPSIAVTLLRVVNAKVCEVEGGKALVAYPKGKASNKCVAGQQKKYNLSAEYNRFA

TLEVANTEAGDLDETPLNEAKILKVSFNTKGRGYSGVMKRHNFAGGPASHGSRFHRRHGSIGNREWPGRV

QPGMKMAGHYGNTKVTIKNEVVSYDAENKILVVKGAVPGYNGAMGKIRIAK

>CAL35800.1 50S ribosomal protein L4 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKVVVLNDKLEKAGELDLPSKYAEVNPHNLYLYVKSYLASLRANTAHTKGRSDVSGGGKKPWRQKGRGG

ARAGSTRTNVWVGGAVAFGPTNERNYFQKVNKKQKRLALERALADKAAKGVLFTADSLAIESGKTKDANA

VIKKLGVKDALIVKDLLDEKTLLAYRNLANCYVVDVTEVNAYLVSVFNAVIMEKSVLESITKEG

>CAL35799.1 50S ribosomal protein L23 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MADITDIKTILYTEKSLNLQEQGVVVIQTSPKMTKTGLKAVLKEYFGVTPKSINSLRMDGKIKRFRGRLG

QRNNYKKFYVKLPEGVSLENTEA

>CAL35798.1 50S ribosomal protein L2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAIKTYKPYTPSRRYITGLSSEDITAKPSVRSLLVKLPAHAGRNSYGRITSRHKEAGAKKLYRIIDFKRR

KFGIEGKVEAIEYDPYRNCRIALIAYKDGEKRYILQPRGLSVGDIVAAAESGLDIKPGNAMKLKNIPVGT

IVHNVELKPGKGGQMIRSAGAYAQLMGKEEKYVILRLASGEMRQVLAECMASIGEVGNEEWANVTIGKAG

RNRHRGIRPQTRGSAMNPVDHPHGGGEGKKNSGRHPVTPWGKPTKGAKTRRKKASDKLIISRRKGK

>CAL35797.1 30S ribosomal protein S19 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARSLKKGPFVDDHVMKKVIAAKKANDNKPIKTWSRRSTITPDMIGLTFNVHNGKSFIPVYITENHIGYK

LGEFAPTRTFKGHKGSVQKKIGK

>CAL35796.1 50S ribosomal protein L22 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKALIKFIRLSPTKARLIAREVQGMNAELAMASLKFMPNKGAKYIANAISSAVANGGFEANEVIVKSCR

VDAAAVLKRFRPRARGSASRIRKPTSHILVEVAKAEVKSEEKKTVAKKTTTTKAPAKKTTSTKKATVKKE

S

>CAL35795.1 30S ribosomal protein S3 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGQKVNPIGLRLGINRNWESRWFPTKANLVENIGEDYKIRAFLKRKLYYAGISQILVERTAKKLRVTVVA

ARPGIIIGKKGSDVDNLRKELQDLIGKDVNINIKEERKAGASAQLAAESVATQLEKRIAFRRAMKKVIQG

AQKAGAKGIKVSVSGRLGGAEMARTEWYLEGRVPLHTLRAKIDYGFAEARTTYGNIGVKVWIFKGEVLHK

GMQPEKTEESAPAKKPRRTRRGK

>CAL35794.1 50S ribosomal protein L16 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLMPKRTKYRKMMKGRNRGYANRGTEFTFGEFALKATEAGRINSRQIEAARIALTRFVKRQGKTWIRVFP

DKPLTKKPLETRMGKGKGAVEEWVMNIKPGRIIYEMAGVSEEMAREALTLAMHKLPFKTKFVTRESQNEI

Y

>CAL35793.1 50S ribosomal protein L29 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYTEIKDKTAAELATMLKEKKVLLFTLKQKLKTMQLTNPKEISQVKKDIARINTAINALR

>CAL35792.1 30S ribosomal protein S17 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAFKREIQGVVVKIAGEKTASVLVERKVVHPRYRKIVKRFKKYLIHDERNEVKVGDTVVAVECRPLSKRK

SFRLKSVLATGVE

>CAL35791.1 50S ribosomal protein L14 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIQSFTRLAVADNSGAKELMCIKVLGGSKRRYATVGDVIVASVKKALPNGKVKKGQVVKAVIVRTKKEIH

RDNGSLIRFDENAAVILDNKREPIGTRIFGPVGREVRYGGFMKIVSLAPEVL

>CAL35790.1 50S ribosomal protein L24 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAVKLKIKKGDSVKVITGDDKGKTGKVLAVYPKTLKVVVEGCKIAKKAIKPSEKNPNGGFINKEMPMDIS

NVAKVQE

>CAL35789.1 50S ribosomal protein L5 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRLKEKYNQSIKPALVKEFDIKNPMLIPVIEKVVISVGAGELAKDQKVLQNVADTISLIAGQKAVITKA

KKSVAGFKVREGFPVGVMVTLRKENMYAFLDKLISIALPRVKDFRGLSRDGFDGRGNYNFGLDEQLMFPE

VEYDKILRTHGMNISIVTTAQNDKQAQKLLELIGVPFTKGK

>CAL35788.1 30S ribosomal protein S14 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKSMIAKAARKPKFKVRAYTRCQICGRPHSVYRDFGICRVCLRKMGNEGLIPGLKKASW

>CAL35787.1 30S ribosomal protein S8 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINDIISDSLTRIRNAGMRKLETTKLLHSKVVEALVGIFQAKGYIESFNVIEEDKKKFINVVLKYDEKGK

SVINELKRISKPGRRVYKGKDEIKRFKNGYGTIVVSTSHGVLANDEAYKAGVGGEILCTIW

>CAL35786.1 50S ribosomal protein L6 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRIGKQPIAIPAGVEVKLEGNLLKFKKGNLAKELDTKANVNVEIKDNNILFSPKGEDRQSRAYWGTYRA

LAYNIVVGLTQGFSKTLEINGVGYKAALKGKVLELSLGFSHPINYDIPEGIEIVVDKNTIAVKGSDKQVV

GQVAAQIREFRPPEPYKGKGVKYSDERIIRKAGKTSKK

>CAL35785.1 50S ribosomal protein L18 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRANVLKRKLTLRIKRKKRIRAKISGCENFPRISVFKSNRTLYIQAIDDVKAVTLAAVDGRKLGVKANKE

GAKKIAAEFAKTLKVKKIEQAVFDRNGYVYHGVIAALAESLRENGIRL

>CAL35784.1 30S ribosomal protein S5 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKYNREEFEEVIVDIGRVTKVVKGGRRFRFTALVIVGNRKGLVGVGYGKAKEVPDAIRKAVDDAFKNIV

EVKTKGSTIAHDVEVKYNASRILLKPASEGTGVIAGGSTRPIVELAGIKDILTKSLGSNNSANVVRATIK

ALTMLKG

>CAL35783.1 50S ribosomal protein L15 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLTKAAGSTHKTKRIGRGQGSGMGKTATKGGKGQTARKGYNEKRGFEGGQQPLQRRLPKVGFTSKIQKP

YVINVEKITAVKELSEITFESIKSVHKISKSVNKIKLIGASAKDLVSKIKDENISVTGSK

>CAL35782.1 preprotein translocase subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNRALTNKILITLAFLFAYRVLAYVPVPGVNADVIAEFFNNNQNNALGLFNVFSGGAAERFSIISLGIMP

YITASIIMELLAATFPNIGKMKKERDSMQKYMQIIRYATIVITLVQSIGVAIGLQSLHGRGGAGAIMVED

LNMFIALCAISMLAGTMLLMWLGEQITQRGIGNGISLIIFAGIVSGIPRAISGTVGQINSGEMNFLTAFA

IFALILITIGVIIYIELGERRIPISYSRKVVMQNQNKRIMNYIPIKLNLSGVIPPIFASAILMFPTTILQ

TSTNPYLQAINDFLNPNGYLFHVLTFLFVIFFAYFYASIVFNAKDIAENLKKQGGFIPGIRPGEGTSSYL

NEVASRLTLSGSIYLGLVATLPWVLVKFMGVPFHFGGTSVLIVVQVALDTMRKIEAQIYMSKYQTLSAVG

L

>CAL35781.1 putative efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNDKTYKFHPNDTKMDKKIIQITEKSGFKAAVFSMAAMTMLGSVVISSALPAINRHFEELLTQSGATLAS

SFTLAHLDILVRLVLTIPAIFVVILSPFAGILMDKFGKLKFILPAMVVWTLSGISGFFLNDIYAILTSRA

IFGMATAFIMTGASALLGDYYSRGGFNRRENALSLQGFFCAVGGAVFISIAGFVSSYSWRYPFLVYGLGI

LITLMAIIYLFEPRKFKFYNHTKIETKTNYWQFFPIYFIGFFIMVVYYISPTQLPYYIEEHLGLDPKYIG

ISMSVSALCYGFFSLSYRYIIKFLSIKTIYVLTLFIVSCSFLLLFLVDSFFTVLIALALLGMGGGIMLVN

NTAYLFSICPENARSRAYGILASCIFLGQFLSPIISQPIVRQMGLVDAFLIWSIVIFIVCIVFLFLKQKP

RIN

>CAL35780.1 DNA topoisomerase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKNLIIVESPAKAKTIGNFLGKDYEVIASKGHIRDLPKSSFGIKIEDDEFIPEYRITSDHSALVKELKS

KAKDAKEVYLATDEDREGEAIAYHIAKAIGKDENTLPRIVFHEITKSAIENALKNPRKLNMHSVNAQQTR

RLLDRIVGYKLSPLLGQKIQRGLSAGRVQSAALKIIVDREKEIRAFVPLEYFSIDMIFQKDLDAELVEFD

KAKIEKLTITNKDRAKLILEACKNEVYSISDIESKERKIAPPPPFMTSTLQQSASNRLGFNPKKTMMIAQ

KLYEGVNTHEGVMGVITYMRTDSLNLAKEAVENARKFIQANFGKDYLPSKANVYTTKTKGAQEAHEAIRP

TNLSFTPEIAAKFLDKDELKLYTLIYNRFLACQMSPAISQTQNVFVKNDRVVFKISGRKILFDGYYKVYG

DMDKDKILPNFKIGQNLKVQNLEMNSHFTEPPSRYSEAGLVKKLESLGIGRPSTYAPTISILTSRDYVTI

DKKQLIPSDVAFNVTEVLEKNFSDIVDSKFTSNLENTLDEIAEDKADWQETLKEFYYPFMRKIEEGKTKI

ASQKTVTKLGESCPDCGGELAIRKGRFGEFVACLNFPKCKYSRNLKSESKNESENTAAKAKANGTGITCP

SCQKGEIVERFSKRGKFYGCSAYPKCNFISKYKPSEEKCEECGETLVIKELKKGTFLECLKCKIKKEMKD

>CAL35779.1 putative biotin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIMLCAISNIASGNCSEDCKYCTQSAHVKTDIQKYRRKELSQIVLEAKMAKKNEALGFCLVTAGLGLDD

EKLEYVCEAAKAVQKEVPNLLLIACNGMASVEQLKELKKAGIFSYNHNLESSKEFFPQICTTHTWESRFQ

TNLNAKEAGLMLCCGGIYGMGESEEDRLSFRKSLQELQPFSTPINFFIANENLKLQVPRLSADEALKIVR

DTKEALPQSVVMVAGGREVVLRERQYEIFQAGAGAIVIGDYLTTKGEEPSQDIIKLKEMGFTFASECH

>CAL35778.1 putative transmembrane transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHQSVIDTQALIDLKILIVIALCLLFSPHIAKILRLPLSATEIILGAIIAHFGFIGKSENFALLANVGFY

YLMFIAGMEVNLRAFFNMDKEIAKKSFFYIFLLYALSSFIVWIFGLSLVFVIIIPVMSVGLLSLLFKDFG

KECYWLNIAMIVATLAEVISIVLLTIAGAFLREGTGIIDVAQSILYLNIFLGLCLLGFKMLGVLFWWYPQ

LKVVLMPWEDKNEKDIRFCMAIFILIIVAMVITKLEIVLGSFIAGSFIATFFDHKKDLEHKLSTFGHGFL

IPIFFIHIGSTFDLKMILDYKIVLQAFLLMFVMVGLRILCASVFLKRIGFKNMILFGLSHSMPLTLLIAT

ATLGYSGKVIDEKLYSALILTALFEAIIVMSMIKFLSNSKK

>CAL35777.1 citrate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNSVTITDNRNGKSYEFPIYDGTTGPSVVDMSSFYKQTGMFSYDEGLTSTATCKSKITYIDGENGILMH

RGYPIEWLAENKLYLDVVHLLLYKELPDATRLEAFRYEMKKRSFIHEGMHRLFDSFPDNAHPMAVLQGAV

SSLSAFYPDHLNMNVKEEYMEMAARIVAKIPTIVATAYRYKHGFPMAYPNLDRGFTENFLYMLRTYPYDH

VELKPIEVKALDTVFMLHADHEQNASTSTVRAVGSTHAHPYACIAAGIGALWGHAHGGANEGVIRMLEQI

GSVDRVDEFIKRAKDKNDPFRLMGFGHRVYKNFDPRAKVLKKLRDQLIDELGIDTNLIKVATRIEEIALS

DDYFVQRGLYPNVDFHSGLILKALGIPNEMFATLFVIGRTPGWIAQWIEQKEQESLKIVRPRQLYLGETS

KI

>CAL35776.1 CysQ protein homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNLDKFLEIAINASNQASKAILEERKNFKTWEKEDKSPLTSADLASNKILNDILGSTDIKILSEEKLLS

KEECEELKTFWLIDPLDGTSGFLKGSDEFCVMISLVHDNRPVLSLIQNPSKGDIFYAHAKTKVYKNDKPL

QIDQQEYEKNKYKALLSVNHLSKEDEDFAKEHQLEAINIGSGLKFCAILEARAGVYKRFEKLNIWDIVAG

DFLINQNGGFMGDFSKKYILYNPLSYKSNPFICVSSRNFLQDFL

>CAL35775.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKMRYCFILFLSLVLSSNLLANNFSQKKVIKIEKSADSFEVIDLNQNVANPNLNQQKALFDSSTLIEKKS

QITKDKDIDFAIVLTSRKNFGYFLDGFRVSDKEFSTLFAKNLIQSLKLNWVNSAANGIYQSPKTLSYFSP

KDAKLINVSPFLTQEKDKAKMYAKFTDYVVVVNLQDFYVNITNYFITTSKEGVANVNFKIISTSNGKILV

AKNAELNLTLKDQDAKQNYQDIINQMPKMLADVIKNQIFHLKLLN

>CAL35774.1 conserved hypothetical protein Cj1679 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDKIHYYYFNANYEKCLNLSEQFLKESPKFALEFATLSSYKLSLFQKALYYAQELFSLNPTSFNGLMLA

KSYIENLRLDEALNLLQTLLTRKDDLEDELKLELAFIYKLSNKLEESEQIFKELLSKDMYNLNLWKNYAE

IYFKHDFTKALNAHEHLCHFMQDLIDKLQKGIIAEQTNLNLVKLEDRLHSKTKENLTISKIEDFLTHQIL

PQKAYLLFKLFRISDSLELFQSLQEANQHHAQFWQNYAKVLEFNSNYQEAYHAYKKCLSLDSHATYQFDL

AYLLMRMGVDDNFEEGKKYYESRLFYAHNETFSTYHYNESLKAFNKFGVDAFKNKEVLVFCEQGFGDTIM

YARCLEKLCKIASKVLFAPQSAMYEMFKNQIKFLNQNDDIFKNVKVLKNLPTNFDYAIPICSLPFFIDIK

LDEILRLKTPILPQKKPHNQRKKLGIFYATPNAENSDLLRNVKFEFLFDVLKDLDYEIISFQMQLKEELP

KVIEDRSKLIKNWNDTLNYLYDIDCMLSIDSAIAHLSLAMDIPTIVLLHPRFDWRWGKFENPKSYFWPKA

KCFIIKEQEETKRNLQKLIKDILN

>CAL35773.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNITLTKIPIGEGKEPCLNSKKIVLSLATISFLASCANAKLNSEIKTYDEVNKNVKTRSASVYSPQAKI

NTTINSLHNQQVTITGNGTSNSLTIGSSGTLGSIGNTGKIIYAHANGSNTLTLANLTNNRTINGKIGIEN

NGNFTGTIAVNTFENTGQINGQIYMGIWGNNSGTLNIDKFDNSGTIIDNNKGVFEGKNTNIQTFNNSGFI

SANKGVDIGNIGTIKNFNNNGTIQGSEVGVAINTKIDTFTNNGFINSPGSGQWNNGIWISSNATIEKLVN

NGTIKGGHSAIMVTSQHIKTVENTGIIHAEGEWGSSILLEYGGFIEHIINTGTISNNNVGIGSAYGVFGT

LTIKDGGMVYGKYSAIGVGRSQTLGDLYIDGRSNNGTVSGIYSEEHGILLENNSRTQKIELKNGGIIKGN

IDGIRLINSASLSGEMILSGEGSRVEGGRGVGILNRSGKIEGSIKVEDGATVTATSNRAIANSGSGSITG

GITVSGKNTKLEGNIINTGNASIGSDIKIEGGAKVEGGLVNQGNGSISGSVQVSGGSSIDSITNEGNGAI

SGSITVYKDSKLDSITNTSTSSTGISGSITNNSDNKLEISNSGNIGGKIESTGSADMVISNSNGGTISGG

ISSSGSGSTSISNSQGSTINNGITVSGSAQVEISNQGSVGKDENGNTVTNNGSGSVGIKDWLVSTDKNTG

KLNTVVIGGSRAFNVKVENITVDQSNVDLEELNDINNIISGVNQNNIGNIGTNGSGEISLSFDPITGKLT

TDFNLNASISGATFRSLISTTSRRSTFIDNVMGNSMQSFALASSSKSQSIAMSEKGNLYADASDYIKSDL

NNGSYGSNKEHSLFILPYTSSQNVELSLNEESKGHTKGTIIGYSTLKDSGIYGVYAGYEDTKMGSTYFDI

NNRTYYAGLKYFNTLFTTEKGQEVYIKAQGKAALIKNDLTEKIGNNEAKAEPNSYAYGVNTALGMNFISN

KDIFSPEIGLAYEGGYTEAFSMKDTIGQATVKGGERTYANYLNLFSTKTSLTWFRDWLPNLKTSVELGAK

FNINPKVEAEARFGNIKVSDEFDLPRVQKFVSTSFIVPVNEAFYFSLNYNGMFDKDGNTHTGFAQFNYLW

>CAL35772.1 UDP-N-acetylenolpyruvoylglucosamine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIIDFKKYSSVRIGNEFEVLVLDQICDFDGFLIGGANNLLVSPKPKNIGILGDGFNFIQILDRNKDFIHL

RIGCKTKSSKMYRFAKENNLKGFEYLSKIPGTLGGLLKMNAGLKGECISQNLIKIATSQGEILRANINFD

YRFCPLNTHFFWAEFKLNFGFDTLKDEALKNARSNQPSGASFGSIFKNPKNDFAGRLIEAVGLKGFSKGD

AMLSDKHANFLINKKNASFEDAFFLIELARKKVFEEFGTNLENEVIII

>CAL35771.1 flagellar biosynthetic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDESTLVALGVQTFKITLLLSLPMLLAGLIAGLVISIFQATTQINEMTLSFVPKIILVVVILIFLMPWMT

TTMIDFTENILNQIPTFIK

>CAL35770.1 conserved hypothetical protein Cj1674 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKITIAHSPDADDIFMYMAIKFGWIGNDFAYENTALDIQTLNEFALKNEFDATAISFGLYPLIASEYAL

LRTAVSFGEGYGPKLIKKKDTHLKRNFKVALSGANTTNALIFRMKYPEARIIYKNFLDIENAVLSGEVDA

GVLIHESILNFDQSLYVEAELWDIWLEFAKENLPLPLGGMALRRSLPLSDAIKIERDLTNAVKIADANRK

ILAPMLMERKLIRVDEEKLDTYLNLYANKNSISMNQTQLLAVDTLFKLGYDYKFYDKIIHVNDFLIPSEY

EEARNS

>CAL35769.1 recA protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDDNKRKSLDAALKSLDKTFGKGTILRLGDKEVEQIDSIGTGSVGLDLALGIGGVPKGRIIEIYGPESSG

KTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDLI

VVDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTT

GGNALKFYASVRLDVRKVATLKQNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVK

LDIVDKSGAWFSYKDKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMISGSEDDEGEE

>CAL35768.1 enolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLVIEDVRAYEVLDSRGNPTVKAEVTLSDGSVGAAIVPSGASTGSKEALELRDNDERFGGKGVLKAVANV

NETIADEILGLDAFNQTQLDDTLRELDGTNNYSNLGANATLGVSMATARAAAAALGMPLYRYLGGANASI

LPVPMCNIINGGAHANNNVDFQEFMIMPFGFTSFKEALRSVCEIYAILKKELANSGHSTALGDEGGFAPN

LANNTEPIDLLMTCIKKAGYENRVKIALDVASTEFFKDGKYHMEGKAFSSEALIERYVELCAKYPICSIE

DGLAENDFEGWIKLTEKLGNKIQLVGDDLFVTNEDILREGIIKKMANAVLIKPNQIGTITQTMRTVRLAQ

RNNYKCVMSHRSGESEDAFIADFAVALNTGQIKTGALARGERTAKYNRLLEIEFESDEYLGEKL

>CAL35767.1 hypothetical protein Cj1671c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFWAFLVVIGAIYFGNMFFGQYSLDTLLSLENTKEELNKKIILLKEQNAKAQKDYFELKGLYPNEN

>CAL35766.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTRILAIFFIFTSLLYADENPFKTDQNITLVAPPEFQKEEVKFNSSARILKSITFNYINLDGSEDKIDL

DVNKSIDWHDTYTISRFKSPDPSKVLDVSVTIPEKNSSKQESNSTANVEIPLQVAKIYDFISYAVYKNKI

KLNTSDEMITDFSVGNPSKIVIDFRSKMISPTKNIRLSNSIFKRIDFGSHKGYYRLVIYLDGTYNYNIQK

DATGYMINLL

>CAL35765.1 putative ATP-dependent DNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRFVFLICCACLVFANEILLLSKFDKQDFNSKDFNAYLMSEKLDGVRGIWDGKYLKTRQNYKIKTPDFFT

KNFPPFAIDGELWIARNKFDEISALIRSGDSNLTLWKEVTYNIFDVPNACEEFQISTCTLKNRLAVLEEY

LQKYPSAYIKIISQIPVENQNNLNQFYESIIKNQGEGIVIRKNLSPYEKGRSKNATKLKPYDDAECELVG

FRKGKGKFENQVGALLCKMPNGQIIKIGSGLKDEDRKNPPKIGSIVTYKFNGLTKNSLPRFPVFLRIRDE

NP

>CAL35764.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLGLVLAVLVALNVSAFADLIVINKKDLVPVSASEMQNKYFQESIKSTLTEPLFKKATFYEADIVAKV

DPRTYNSTQAIIQKEYSDKSNYVYYKQVLILTSDGKRARLSTLSCEIASFDKKGYLCGGTADHNYSIK

>CAL35763.1 RepA protein homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKHSKYKIYLNFKLFKLKISSFLNRFIFYIFAAKTKSTLIKSLFLIKFL

>CAL35762.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKTILTILFLLTLTQAKEIQIYESPTCGCCDLWADYMKAKGYEVSVHKTNDFLKIKEKMGIKDEYQSCH

TGVIEGYAIEGHVPESAIAWLLENKPKDVIGISAPGMPQGSPGMEQGYSEKYPVILMKKDGSYELYGYFI

GDKKL

>CAL35761.1 putative lipoprotein thiredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGIFRIQAYFFALIIALFFVACDSGENFKALNSDKTYNFAYNGFEKSLKLNDKAQNFALVFFTKDCGVCK

EQIPILQNLAKNYDFNIFVVLGDANDANDAKAWADEKGLSNLAMFYEKRAAKYLSSAIGEIYGVPVLSFF

KEGKMDEKFIGLTPYSILEKEIKKVKS

>CAL35760.1 putative periplasmic thiredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKSLLILSILFLLNACSFENSKDTGKVGEKSAEISAKDTLGKAVKLADDNTSLKVLVFFQNGCPSCLKE

LPSLDEFIQNHPNKISVYAINSIDNANVVKVLAEQFDFKNVKVLKDDLKITNDRYAVFATPTTIIIKDGM

IKDRILGEKPWEFFESKLISLL

>CAL35759.1 putative ABC transport system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKKELIKINNLNKEFGKVKALNNINLSVYEGEWLAIMGPSGSGKSTLLNILSLMDTPSSGEYILDNENL

EQMDEEQKITLRREKIGLVFQQFHLIPYLNALENVMLSQYYHSSVDEEDAKMVLEKVGLSHRLTHLPSQL

SGGEQQRVCIARALINNPELLLADEPTGNLDEANEQIVLQTLQKLKNEGKTIVLITHNPDLAKFADRTLI

LQHGVLK

>CAL35758.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVDKFFLNELFKSISFSYQRLFIIVLSVFIGALTCSAFLNIYFDIDIKLSKELKAYGANVMISPKQDENF

ISNTEYEKIKENLKARALTPFLYDFLNLGSTSGVVLGTDFRALKITKPFLEVKEGSFSLNDFDENSAFLG

VNLAKQLGLKAGNELQIYNPNNGKSIKLTIKGILSSNDEFDSIVLAPLSVVQNLSDRAGINYANAVVYGN

FDEVKAKTQAISNEFIDAKPISSVSLSEGLVLGKIKALMFLIILVVLIIVTTSVNTTLSSIIFSRKKEIA

LRLALGAKKSEIFKLFASECFIVSFFASLIGAFCGIFLANVFGYLIFNSSIDFRFIAVFIALIISLIFAF

LAAFFPIKRALKINVCENLKGE

>CAL35757.1 possible ABC transport system permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMLAKMIFNSIFKNKIQKFLAFLTCFLATLLLSTMLNITLSIGDEVTKQLKSYGSNILVLPKGSSLSIEI

GNELYEPLKNKNYLEEKNLYMIKDIYWRNNITALAPFLEGKITIENSQQKALIYGAYFQKAIKIKDDDDF

ITGIKSLYPYLAVQGEWAKDDSNEIMLGEDFAKNNKLKLGDTIKFIGENNQSKEAKIVGILLHANPKMSN

KIIAPLNLAQDLLNKQGLYSSTEVRAFTIPESALSEKVRRMGEEKLDQLEYDKWYCSAYVGSIASQISDG

LPGADAKALNAISDAQSLVVKKIQSLMGITCIICLIVASIAISSLMSSEIHRRKKEIGLLKVLGANTFQI

YLIFASENLIVALFAALLGFIFGTALSQIISLSIFGYFIDIAFVALPLSFIFAGLIALLGCLLPIKNITQ

LSAAGVLYGR

>CAL35756.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSIYFVHFLISVLPLSILMAFITPNKKYIFKSFFVVFLGFLFGYFAFFIAAQFLKTENLIFNFDFVFIGL

LLVSFIFYFWKKIEILNFILLGILSFCTALHYYFLSQDFPIFTSSLIDSEGISSLGFIALALLVCILIFF

FLKWQKNFNQKTSFMLFLLLILIESDKALANILLTLMRNSIIETHAFLVSFVGKSNYFGVFGIYVYLIFI

TFLAFLSLKIRKKNISKKQILDINYRKNEAKTSLINRYFSSVFISCVVSFCIVLYFFMVSSKPLTIDEPK

EILPDKNGKFIFDIALLRDNKLHRFAYISAEGKVIRFFLINKREDKDSPVAVFDACMICGDMGYIKKDGQ

LICISCNVRIFLPSVGKSGGCNPIPLKYEYDGNKITIDVKDVIAGSNYFSQIKEIEVQDPVSKTKVINTQ

APFSYSYKGVTYYFSNQNNYEEFKKDPTKYVEENEAQFLIQRRNDVG

>CAL35755.1 periplasmic protein p19 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKKVLSVVAAAAVISTNLFAGEVPIGDPKELNGMEIAAVYLQPIEMEPRGIDLAASLADIHLEADIHAL

KNNPNGFPEGFWMPYLTIAYELKNTDTGAIKRGTLMPMVADDGPHYGANIAMEKDKKGGFGVGNYELTFY

ISNPEKQGFGRHVDEETGVGKWFEPFKVDYKFKYTGTPK

>CAL35754.1 putative iron permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIFKIIFLIISIFLSSSAFARVDDYINEANLIKDMLKQSIETYKKGDNLGAKKLSEDAYFQHFENMEGS

IGRNIGRKAITMERKFVNLRRMYKDEAPLTQINALIDSLYYDLDEVAPILQNGYRLKAEASDINYDKAKA

EKSSLEANAKREADAEALIAQMMGVDKKDLAQSSLTTQAPIPINNDTSKLTDDNASTDLQAAAAMDVRLQ

FILDNISTKFSQAANAFKEKNYQTSKDFLNDALFSDYRNTKVEILVNKFTKAGNDQKIQQAIRTLIRQIN

DAKIDEKGLRDGLDNIEEQIFDVFLQIPNSELSSLQISGFNDETKGKDYAKVSNDIKLALDEILKNYDGF

SASIVDDLQGIYLDIFEASGMENKIGAVDSGLKLKIESLFSKSVALIKASTDKKELEATFNDLEQLIASS

VDKIQDSTPYSLFIWALGIILREGLEALIIVVAIVSYLVQSGNKNRLNIAYSALFTGVILSFVTAFGVSW

LFKENAGQSRELIEGITMLIAVLLLFYVGFWLLSNAQNKKWTSFIKQGAIDAISNNSAKTLWITVFLAVY

REGAETVLFYQALLFDAKTSTDFGAVFGGLGLGILILIVLYFLLKAGAIRIPVKQFFYITSYIIFYMVFV

FTGKGIAELIEGKVIIPSLIPMNFEPILWLGIYPYYETLIPQFIVLIMLIIGILITKQISKKGVKS

>CAL35753.1 hypothetical protein Cj1656c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVSDVSMGNVNLMTAVNTSVLKKSMDTNEALMNELIEGMEGVSQASAPQASSSSGLDIYA

>CAL35752.1 Na(+)/H(+) antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQMIKKMVLSETFPGILLIFFTFLALLCKNSSLSVIYTDFFHANFTVGFDHFQISKSLDLWINDGLIAIF

FLCIGLELKYEILRGQLKNIRAVSLPIFGALGGMITPALIFIAINYSHDFAMKGWAIPTATDIAFAVGIL

MLLGNKIPTSLKLFLLSLAIFDDLGAIVIIALFYTDQLSALAIIICLFCIFALLLLNYYHITHLSLYVLV

GVVLWIAMLKSGVHATLAGVIISLFIPLDTKNKKPYLHEVLKDLNPWVVYFILPLFAFANAGIDIRDMHL

GSVFSPVSLGIILGLFLGKQLGVFTFCFIAIKLKLAKLPENIKYGKFYGICILTGIGFTMSLFIDGLAYK

NSDIFEYADKLAILVASFLSAIVGFIYLKIVK

>CAL35751.1 Na(+)/H(+) antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNIVHKLKTLVLNEAFGGVLLIVCTLLALLVQNGSFSEHYREFLNLKVGFSVGEFELNKPFLLWINDGL

ISIFFFAIGLELKKEFLHGDFKNPKNIVLPFMAALGGILIPAMLFALVNIGDAYTLKGWAIPTATDTAFA

LAILMMCGKHIPSSLKIFLLSLAIFDDVGAILIIAIFYTTKLSIAAFVIAGLAILVMLILNLLGITRKSF

YFICSVILWISVLKSGVHATLAGIVTAFFIPMQTKNGEAFLEEIYESLKFWIAFIILPLFAFANAGVNLS

NIDIGAIFSGVSIGIFLGLFVGKQVGVFLFSYLAIRFKFAALPQGSNLKQLYGVCILTGIGFTMSLFIDG

LAYEVSDIFNYADNLAILIASFCSGIWGFIYLKFFTTRS

>CAL35750.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRHIFFIITIIFFISGCSFYQNLNYRPSYNTNKEARLKVIANEWKKTPYVLGGTSKKGADCSGFTQSALA

QLNIRIPRTTKTQLGSGRKVSKSKLQTGDLVFFKTGRGPNGMHVGIYMSKGKFIHLSTKDGVKEVELNSS

YWKARYIGARRY

>CAL35749.1 glutamate racemase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDTIIKFCLEALDFFEQFQIDMLIIAC

NTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIATKATIKSEEYQKRLLSQGYTNINAL

ATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLLGRSLSKYFGDKTKLIHSGDAIVEF

LKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>CAL35748.1 methionine aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIELKKPDEIEKLRIANQIVAKTLNFLENEIKIGMSLKQIDKMAEDYILSLGAKPSFKGLYGFPGAICTS

LNQVCIHGIPDDKIIKEGDILGLDVGSLIDGYYGDAARTIAIGEVSPADKALISCAKDALYHAIDIIRDG

MRFKELSAALGEFIHVRGFVPLRGYCGHGIGRKPHGEPEILNYLEKGASAKSGPKIKNGMVFCIEPMICQ

KDGTPKHYNGKWDAGSIDGLNAAHYEHCVAVINGRAEILSMI

>CAL35747.1 hypothetical protein Cj1650 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSDLDIFKKHLGEIQGVNEFKANQICSQINDANDFIGALQVLDMSLKKIEKSILERIDENSDDMQKRTL

DATASQLIQNCSFMGTALFGNIFNVYVGKKLFEFEIANPLLILQTSNYEGVLAYIQDKRDEIKIILSELS

TAITMGETMDNAGIYNSTMDFKNLFK

>CAL35746.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKQLFCILTFIFMLCGCSLRHETINKNENIILKDEGIDSNIFFKKTGKILKIRNANAPLYLNSRAIVYI

DNGFSNKYAHYFWGDLPSNLYSFLILSKFEQSNIFTTLLSSTSSLSADYSLESRINSFEQILNNNENYAQ

ISISVNFINLENNQIIAHKIFNTKEKIEKKDIRSTYNAFQKALNKIGNEIVFWVNSNLS

>CAL35745.1 putative ABC transport system periplasmic substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENRANYFFVGLFVFGVFFASLGFILWLGGYSKEESFKYYEIHTQESVAGLGIKAPVRLLGVEVGSVEEI

SIYNQDELGVNIRIKVKNNTPIKEDTFATLQLQGITGLKFIQLQGGSKNSKDLVSMQGKLPVIPFKESFL

ATIDRQSEHIFSLVKTADDKSKELLSEKNLKNLEILLQNLAELSANLNANSKNLSLNLSNASLKIGKMAD

NISLSAQNFNSSLKNIKESTMILKNFIKKADEKLNTYDDIKASLMQNLELFKRVLIESNILIENLQNSPA

DLIFKETKPKLGPGEK

>CAL35744.1 putative ABC transport system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVIKAQNIITKFGEKIVHDGVSFEIKKNEIFGILGGSGSGKSVLLKQMLMLEHFDDGEYEILGYKLKNIN

EEDALALRKKWGVVFQFAALFSFFNVYENIAIPLKEYTHLDENSIQELVLMKLKMVGLNESVLKQFPSEL

SGGMQKRVAIARALALDSKLLFLDEPTSGLDPHSSREFDDLVLELKKSFDLNIILVTHDKESMKNLLDRF

IILENKKVGFCGTYEELRLQNERLFKRFME

>CAL35743.1 putative ABC transport system permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTNFKFQNNTLFIFGIWDKTSIYKLKIKDFLALIQSKEVIFDFKDLKAIDTAGVRFFLALENDLKNKNI

KITKEGLNSRFQTLFELCEKNYQRLGKTKKSHQNFSEYFIDLGKLSLELLKILRKFINFTGAFFTSLFLC

LKNPKNFRFIAFLYHIENSAFKALPIVILTALLVGVVLAYQAAYQLAQFGANIFIVDLMGISATRELAPL

IAAIVIAGRSASSYTAQIGVMKITDEIAAMNTMGFRSFEFIVIPRVMALVVAMPLIVAISDAISIIGGMM

VAKLNLDISFAEFLRRFREAVDIKHIFIGLAKAPIFGFLIGLIACFRGFEVKNTTQSIGIYTTKSVVNAI

FWVIAFDALFSVILTSTGI

>CAL35742.1 transketolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNIQILQEQANTLRFLSADMVQKANSGHPGAPLGLADILSVLSYHLKHNPKNPTWLNRDRLVFSGGHASA

LLYSFLHLSGYDLSLEDLKNFRQLHSKTPGHPEISTLGVEIATGPLGQGVANAVGFAMAAKKAQNLLGSD

LIDHKIYCLCGDGDLQEGISYEACSLAGLHKLDNFILIYDSNNISIEGDVGLAFNENVKMRFEAQGFEVL

SINGHDYEEINKALEQAKKSTKPCLIIAKTTIAKGAGELEGSHKSHGAPLGEEVIKKAKEQAGFDPNISF

HIPQASKIRFESAVELGDLEEAKWKDKLEKSAKKELLERLLNPDFNKIAYPDFKGKDLATRDSNGEILNV

LAKNLEGFLGGSADLGPSNKTELHSMGDFVEGKNIHFGIREHAMAAINNAFARYGIFLPFSATFFIFSEY

LKPAARIAALMKIKHFFIFTHDSIGVGEDGPTHQPIEQLSTFRAMPNFLTFRPADGVENVKAWQIALNAD

IPSAFVLSRQKLKALNEPVFGDVKNGAYLLKESKEAKFTLLASGSEVWLCLESANELEKQGFACNVVSMP

CFELFEKQDKAYQERLLKGEVIGVEAAHSNELYKFCHKVYGIESFGESGKDKDVFERFGFSVSKLVNFIL

SK

>CAL35741.1 geranyltranstransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLKELFIHHLEKNLPKVESFHPFFNEALALMLKAGGKHFRAQLLLSVVQSNKPELLNQALDVALALEFI

HTYSLIHDDLPAMDNADFRRGIPTLHKSYDETTAILVGDALNTEAFLVLSHAHLKDEIKIKLIKTLAFNA

GLNGMVIGQAIDCFFEDKRLSLNELEFLHTHKTARLIAAALKMGCEICELNNEESNQIYKLGLKLGLIFQ

INDDIIDVTTSQEQSGKPTNNDIHKNSFVNLLGLEQAIKTKENLLSECEQDLEKLNEKLAQMIQNLIIQY

L

>CAL35740.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILIICMLFTLSFGIERPKFEDFLAGYERNKASMLNYEGMPAFALSENLLAVLKQPNAKLNKYVKYDP

FLNLYLVRTDFSLIPTPMGDEEKLTRNDWVGIWDPNKPYIGHIKYLAQNIDEKDQLDFNSKIGLLGTPCC

EMMGIALNNSSFIGNRYLKHFMKYNDVYWGDIGVDFVVRENKIYVNNVRKNPQFLINDQVISVDGLPAND

LRKLNEKILFADRGSTLYFQVLRDNMDLNISTEVFAKDLSKFNLPDSKPKPKITNFTSNLGLTVNASLVV

TKIDPKSKVSNAGFMVGDKILRVNNIILNNFKELQNILSAGNDFSILIERKSTKLPLSNFNNELGGNANS

GGDGKFQFFIRLTK

>CAL35739.1 conserved hypothetical protein Cj1642 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFENMDFSKMGELLNQVQEKAKNIELELANREFSAKSGAGLVKVSANGKGEIIDVSIDDSLLEDKESLQI

LLISAINDVLAMVAQNRSSMANDVLGGFGGMKL

>CAL35738.1 UDP-N-acetylmuramoylalanyl-D-glutamate--2,6-diaminopimelate ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLKLENSFITDNTLECEKECFFLQTTQNAKFHAQALEKGAKIIDVNECKKLLKIDEKIQIIGITGTNGK

TTTAAAIYSILLDLGYKCGLCGTRGAFINDEQIDEKSLTTSPILKTLEYLQIATQKKCDFFIMEVSSHAL

VQNRIEGLNFAAKIFTNITQDHLDFHGTFENYKEAKELFFTDESLKFINKDALAIKFNVRNAFTYGIENP

ALYQIKAYSLEEGISTIVTNKNQTFHIDSPLLGLFNLYNLLVASACVNELVKPDLKDLEKAISGFGGVCG

RVEQVAKGVIVDFAHTPDGIEKVLDTLKNKKLIVVFGAGGDRDKTKRPLMGKIVEHFAKIAIITSDNPRS

EEPKTIMEEILSGFTKKEKVLMIEDRKEAIKKALELKENDDLVVILGKGDETTQEIKGIKYPFSDKVVVN

EILKNQG

>CAL35737.1 hypothetical protein Cj1640 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNYKKLGIEHFYKKDFKTAKMYFSMAYEKRKNKRLLNFICLCDLALKSPKEASLLFDFYIEHYKISSID

KDLEEILSTIEFKKQENKQENEFEDGHALNYQDFLKSEEELGFQKSFENIINSTKLVIDNRDDFLDFLEK

LLDNGYKDMTLNYIENVMPHFWANDRFIKLQEKLMGFKSEIKT

>CAL35736.1 NifU protein homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMPFSDEELINPVKASLEKSLPMLERDGGGLEFLGIKNGIVYVHLIGACKGCASSGTTLKYGLERQLKID

IHPEITIINLNGGADEFAKL

>CAL35735.1 DNA primase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITKESIENLSQRLNIVDIIENYIEVKKQGSSFVCICPFHADKNPSMHINPIKGFYHCFACKAGGDAFKF

VMDYEKLSFADAVEKVASLSNFTLSYTKEKQENKKELKSILPSLNAYFKDNLKHHKEVLTYLYQRALNDK

DIAKFELGFAGASEDSIRLLQNQKIPLEDAMSVGALKKDENNEFYASFIWRITFPIYDHKDLLVGFGGRT

LNPNVPAKYVNSPQNILFDKSRIFYAFNIAKENIAKKKEIIVCEGYMDAIAFHKAGFNNAVAVLGTALTE

HHLPLIRRYDAKVILCFDNDEAGLKAATRSAFLLSTNKIDGKVAILQGGKDPAELVAKNESTKLHNILDE

GIELGEFYIRRLISTHSIISALDKQKALETIQKFTFNLEPLVANSYTSLVSNLLKVDEKFIVLSQNSKKT

IQTPLISQNKYNFPKEKIHIAELELIAFLKQHPDICNDFKQISDSVCFKHKILLDKILEKKGYEDSDIRE

FESKNIRKNLNYSEFLLGICKVNLAFLNNVKIKNSTLALKKQLFTLIDKNLNLLIKNLNTAELNNFLKEY

LSFLKYEKNEEILQQSFRNLNGIFGNKNFTAYDLGFSIQNNDEPF

>CAL35734.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFFFVEYRDPLVGLIILTILVFVVAVANYIWKIFANKDEEQKLEKFIKKFEMDNAHKELLRNSSLSFGN

LSFLAEIFTKSGEFEKATQIYLIALEKCKDKQEREFIFLSLAKVYFKAGFLERAKEVLLQALKLRPRNIQ

ALKLLKIVYLKLRSYKENLELLECLFELNEDVQKERDFIKALELCTFNITDEEKKKKLLEFKIEDNPMLG

RLVFEKYHMFLGQNFFDICDLLYRENEAFNLENQDFLEFFYALGKISKHDDTHQFVFKNSNFKMLKILKD

NSFNAGLEFSYRCSECKNVMPLFFYHCPVCYEFNTCKIIYEVKNNETH

>CAL35733.1 ribonuclease HI [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKHIEIYTDGSCLNNPGFGGWAYILRYKEYQKEGFGAEANTTNNRMELMAIIESLKALKEPCEISLFTDS

NLMVQSINEWLEGWIKKDFKGKKNIDLWKEYIKVAKSHKIKAFWVKAHNGHLENERCDTLAREAALKIAR

ENDEKH

>CAL35732.1 ribonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAVLDLVVGEYLFHKFAKDAEGDLSKL

RAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALEAIIGAIHLEAGFEFAKTIALRLIE

KNFPQIDAKILIKDYKTKLQEITQGKIGQTPQYETVRAFGPDHLKQFEIALMLDGKELARAIAGSKKEAQ

QMAAKIALEKLGAL

>CAL35731.1 chorismate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTFGTRLKFTSFGESHGVAVGCIIDGMPAGVKFDEEFLQNELDKRKGGSKFATPRKESDKAQVLSGVFE

GYTTGHPIAIVVFNENAHSKDYDNLKDLFRPAHADFTYFYKYGIRDHRGGGRSSARESVARVAGGAVAAM

LLREFDICVQSGVFGVGTFVSNLKEEEFDFEFAKKSEIFCLDPKLESDFKNEILNARNSKDSVGAAVFTK

VSGMLIGLGEVLYDKLDSKLAHALMGINAVKAVEIGEGINASKMRGSCNNDALKDGKFLSNHSGGILGGI

SNGENLILKTYFKPTPSIFAKQESIDKFGNNLKFELKGRHDPCVGVRGSVVASAMVRLVLADCLLLNASA

NLNNLKNAYGLK

>CAL35730.1 putative ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKALALFSGGLDSMLAMKLITAQGIEVKALNINIGFGSTSDKSEIMKKRAAMVGADFEMIDVRNSYLQEV

LFNPQYGYGKHFNPCIDCHAFMFKTALAMLKEENASFIITGEVLGQRPMSQRSDAMAKVKKLALDEEDLI

LRPMCAKNLPLTKPEREGWVDREKLEGIIGRSRKRQLELAAKFGLEDFESPGGGCLLTLDSFAKKIRDFI

EFDKDMQVNDAQLLKYGRHLRLPNGAKMIIGRNELENTLLKGLKTPKYEAIEIGDLIGAYSLVDEKISEK

DLELALKIALTYTKHEVGKSYELKFKNQAYTSIAFENKADINQFFIS

>CAL35729.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKIILVLSILSSFAFANSCANYEQELKKCNSLKNSHERKMCRLGLFAKCKKG

>CAL35728.1 conserved hypothetical protein Cj1631c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIDTSASLTHSLTNNVDKKELSVLKKEDQDKIPVQDLSSLNSDGVKVVFENKQGELIALNLSDENYSSL

QKNFGSYMNYVARNDGSIRLNGEVNQFVSNWFESVKDNFGSLNSNLNNKQQSVKLNFNTSTLQQSMQNLG

FKTSDEKISDDANIEEKLNFFIDKDVNKDGKVDDSDVKEPSMREILSDIKEASGGGANAMKTIDPQKINK

KDDKENNIKEKEDEDLLQKAQEKGLSALSADEQAKLEASNPEEFEKLKQKSLQELSQNLSKDFQNKIENQ

EAQIVDKRV

>CAL35727.1 putative TonB transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTLFLNHKYQASYITFIVFIPLLFVIFHSNDFFKMEIKNEDSFSLAIKQFTQTNPTNETKPTESIIEPI

KPKPQPKVIKKTPEKMQKKIKKTPPHPIPNKTPIAPTQEVKTFAKTTDTNVKPKITQLTQGKDNHPVLKE

IQKAIQQAQFYPRQAKKMRMQGTVKVEFLWKENKTLADLKIIEISGYDLLDKSALESIRKASLNFPHYNG

DLRITLPIIYDFKTLRG

>CAL35726.1 putative exbD/tolR family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKLPKNEGLNIVPFIDIMLVLLAIVLSISTFIAHGKIQISLPSSENATNISNNEKKLLITIDEKNTFYL

NDKLADLNEVQNAIFSLDKKTIVELKSDKNAKFESFVKIIDFLKAKEHENFQILTEKNK

>CAL35725.1 putative exbB/tolQ family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFLKDYIDLIIFLILGIMAFIAFWCVVERMLFFRKINFKNYENQEQFDDAISENLTTIYIIYSNAPYIG

LLGTVIGIMVTFYEMGLAGNIDVKSIVVGLSLALKATALGLLVAIPALMAYNALLRKVSLLSNAYKANKN

A

>CAL35724.1 hypothetical protein Cj1627c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTIDLNHNFTSFVLLDEVDFNFSELKSILEDKFNIKIADENFTKEGVIFSYENMLVTLNLINNPIPNHEV

EYYANFNFMWKDALEQTKKHKAHLLIAVLSQDQSKLEQAKMFTKIAALCLDNKHALGFYTGAVVLEPSFY

IENAKMLDDNRLPVYNWIYVSVYPSENGVNAYTYGLRNFDKLELEVCDLNIEEKELFFCIYDIVLHILTY

DINLKDKDILKFEDGKEIKFIKSQGISVENESLKIIF

>CAL35723.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKAKLTLLALLGTTVLLAKDMVVPASELPNNAKEFISKNFKTAQIGLVKKDIDSYDVILNDGTEIDFMIN

GEWKEVDGKYKALPHTILPNVMKKVSATQPNAQILEVDKEINGYKFKFNNNMEVYTDMQGNILGQKLD

>CAL35722.1 amino acid transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>CAL35721.1 L-serine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNLSIFKIGVGPSSSHTLGPMLAGNLFCKKVAKKLDEIDRVEVTLYGSLSLTGKGHLSDKAVIWGLNGL

EAKNLSAAIQDEVNKNAIENAQIDFCGEKKLSFNYEKDLIFSKDFLPLHENGMKIKAYDCKGGLVDEETY

YSVGGGFVLTAAELEKKGKNSNQNKKKKLDIELNNAKEALELCDKRDWDLAELSYRYELQFHTKEEICAY

CLEIWEVMQEVYYNGTHPNEDYLPGKLHLKRRAKGLKERVAMTADPMGIIDFISLYAIAIAEENASGAKV

VTAPTNGACAVIPAVMLYLKNHTIGFSDEKVIEFLLTAMLIGSFYKKNASISGAEAGCQAEIGSASSMAA

AAMATVLGANAFKACNAAEMAMEHHLGLTCDPVAGLVQIPCIERNAFGAIKAISAARMAMTRKSTPMVSL

DEVIETMYETGKDMNYKYKETSLGGLATNLKTVC

>CAL35720.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAFMNFSGFFYARNDLRLFKIEKKNELKSFFYKDYTLSSYKDDLNLNNEIFFYQSLKEGLFKENDEILVS

NLGKKIILFRNFTQNCDNFNETKLKQILLLFFLLLASVFFASLAMINEFGAIDLLFLTICLLLLVMGVIN

LGLLFKQIRILKSFSKEEMKEFLSQRMKKYTKV

>CAL35719.1 riboflavin-specific deaminase/reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNFKIQGRQMKEFYMNLALNEAWKYQFLTYPNPAVGCVILDKNEKILAIKAHEKAGLAHAELNAIAHAF

KSLRPEISLPKEANALHEFICKNHQGVFKDSIAFVTLEPCSHQGKTPPCAKLFSELGFKKIFISVKDENK

IASGGAEFLKKQGIEVEFDILKEEGKKLLKPFLKWQKGQFKLFKLALSMNGSPFGKIVSNELSRTYAHEI

RAVIDLLVVGGETIRKDCPILDARLCKAKAPNLCILSRQNIDNFDKNIPLFKVPNRQIYTQIPSEAKFLM

YEGGENFLKIFKDEIDMFLIFQSSSLNDEKNVTIPLNFKPLYRNFLGSDTYGIYEL

>CAL35718.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLAFFKGLGVGFLCLLLFVAGVVFNVEFLGKKDSNHDLYFSRNIEVSNTLKPDILYANINFWANENLSSK

ITLDNSEKAEITNTFNQILERSKKENFCSGGSFSLEPNFSYKDGIQTPKGQRFDANLECEFKENQLADFN

KLLNDINSIIAKNNFISVSTPAIQTKFSKDTLNNNKENLYKELLKTSYEYEKTYSLDLNKTCVLKNLQVN

ANTNIAPRMLNAKSDNIELSSPIISKKEQILNAKALFICK

>CAL35717.1 A/G-specific adenine glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKKELEKLQENLLLWYEKNGRKTLPWRNLQSQNCDESLKHIDRAYGVYISEIMLQQTQVKSVLERFYFP

FLQKFPTLESLANANEDELLKAWQGLGYYTRARNLKKAALECVDKFGAKLPKDVEDLKKLSGIGAYTAGA

IACFGYDQKVSFVDGNIRRVLSRLFALENPSMKELEKRAKELLNLNHAFDHNQALLDIGALVCVGKNAKC

RICPLYDFCQGKFHTELYPRAKKILYESLNLNLFLFEFNKKFAIQKSQDKLYKGMYNFPFFKEGEYKLSK

DMGFVGEFKHSYTKYKLNIKVYHQILNNENKNYEFKTLKELESTALSALSLKALKLIKL

>CAL35716.1 alpha-ketoglutarate permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQELTRTKKIRSIIAASSGNLVEWFDFYIYAFTATYFAHTFSTSDNPVIQQINAFGVFAAGFFMRPIGSW

LFGSLADKVGRKKSMVISVVLMALGSFMIAALPSKDTVGDLAIILLLIARLIQGLSVGGEYGIAATYLSE

LATEGKRGFYSSFQYVTLIGGQLLAVASISIMFLFFSIDDMKDYAWRILFVIGGILALGSLFVRKMMNES

ATKLHQHEDRGTLKALCKSWKPFLMVLGVTSGGSLAFYTITTYTKTFMENTGMDKMLVNNLFLGALFILM

IIQPLFGYIGDKIGHKRSLIVFCILALVGIYPIFSLIANNAQNNPSLTFMLVVLLFVILSFYTSVAGIFK

AKLFPEHVRALGTGLGYAISNAVFGGSAPWVALQFKNAGIENGFFIYIAIFTIIMLIATLCLPKKSELN

>CAL35715.1 putative radical SAM domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLHILINFINFGKMFTLGNIMKFKKIYIELSDICGLKCDFCPSQKGIRGVMSEEKFQNLAYEISNKAELF

TFHLLGDPLLLPNLENYLKIAKDEAMKLEITTSGFYLNSKNQALLLGYENIHQINISLMSFLSQSKISLE

QYFKPILELCKKHLEQKSLSFINLRLWNLDANFKAPKSNLKIYEFLAKEFEAKIDANLSKNRLQRHILLH

QNKLFKWPNLKDEPLYKKGKCHALKEQIGILSDGSLVPCCLDTKADINLGNVFENNFDKLFRSPRIKMMK

KAFEEDKRIEKLCQTCEFFKARLGD

>CAL35714.1 putative haemin uptake system periplasmic haemin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILIIMSLFLIALNAKERLVVLDPASIETLFMLKAEDQIVGIATLQHSNIYPKDQTSKLTSVGTFSNP

SLEKIVALKPSLVILSSYSLNLEEGLKNFGIKSINLKAERLEDITKNITTLGQITKKEKEAELLKQEFNQ

KFKKLSDKPLNKSAIYLYSSNPLMAFNDNSLIADILRLIGIKNLSPQSQISRPVISAEYILKQNPDILIL

GINAKNNLLDTNALLKNTKAVKTGSIYFNKDTPILLRLSPKIIDRIQEFKTKLENNNF

>CAL35713.1 putative haemin uptake system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKIHNLSFAYHQKDLLKNIHLELKNQAFIGILGPNGSGKSTLLKLILKNLSPNKGVISLFNTNIKDFSL

KEFAKICGFVPQKSELNTPLKVIDVLLMSKYPNLKHAFSSYSKEDILEIKEFAKDLRLENFLERSILSLS

GGEFQRMLLARALLKKPKILFLDEPTSALDLNYAIELLNLCEKLVKEKNIAVVAILHDLNLASIFCDKIL

FLKEGEIKYFGTSKELFTQEILKEIYDLNCEIIYKNSKPYILALKEKK

>CAL35712.1 putative haemin uptake system permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNLNTHSKILVIIGLLVAYIIASFTALCLGDENLNPKELFSYIFSQDEILRQIIIDGRLPRIIMAILIG

MLLASSGAITQNVFSNPIADPYIIGIASAATFGAVLAYLLKLNDYYYGILGFVCSAFFALGVFKISSKAS

IATLLIIGIAASSFLGAFTSFFTYLIGEDSFKIVAWLMGNIGNASWFRVGILILPLIFCLFYFYAHKNEL

NILLSGDDEARNLGVNAQKLKINLLIVSSLAVSFAVAFSGLIGFVGLIIPHTIRLLLKNYNNALVIPLCT

AFGGLFLLICDTLARTLLAPVQIPIGILTAFFGAPIFLYLALSARRFL

>CAL35711.1 haemin uptake system outer membrane receptor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHPNKKAFKLSLFALLLITNLNAQESNKAINLQKVVVSTTGFEQDADSNLRNVISIEGKDLQNKGYVSLE

QALERISSISFVNFGLGRNIDMRGQGNKSNIAVKVMIDGHAINVLDNSHGVTPLDSINLDNVERIEIIPG

GGSVLYGSGTRGGVINIITKKQKSDAFAINLKSSAYDHGGLGGNLGINGAKQINENLAFSFDIQSFNLDG

YQEGYNEKGYFINTKTYIDINDNSDLTLGYNYFKSKNTSSGYLTKAQAQSDPTQKGKSDNITQINRPEIS

LDYHYYFDDIWEFNLEAFWQNQKINYLKDVSTMSYMNMSLPVYQNGSGFEDTLTGISLKNKLNYANNSYF

IFGYEFANHDAKRKSLVYYSVPSVINYHRMTTLIDMTKQSHSIFALDSHNFNEFFTLSGGARYEFSSYNT

DRSYRNEMSMNGRPPSPTIIDSTTLFDTNKNANNFAFEITPNFKYSDTGKLYIKYERGFVSPSPAQFVNK

DKNSQKYYSANLNPEIFDTFELGIDDFWWDFYGFNLTLFYTLSKDEISYLGNPHSTSGSWWKYYNIDQTR

RLGVELSLSQNFLDDDLIFRESLTYLDAKISKGVNDGMRIPYVSKIKATAGLEYAWNKNFSNFIDLTYFS

RAKDGGTIDENTGKMSKNSWIRDYFLTDIGMKYNYKKLQILAGIRNLFDKRYYTYQDSINDQYLVGNGRN

YYVEFKYAF

>CAL35710.1 putative pyridoxamine 5'-phosphate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFESIISHMNDHHKSNLVDLCKKFGGIEQVQDVFLKSVDFNGLDLVYNDKENLRVEFPKKADENTIKDA

IISLCMSAKSEQNFSGVEKELNEFMLSFNSVALATLNANGEVVCSYAPFVSTQWGNYIYISEVSEHFNNI

KVNPNNIEIMFLEDESKAVSVILRKRLRYRVNASFLERGERFDQIYDEFEKQTGGEGGIKTIRKMLDFHL

VKLEFKKGRFVKGFGQAYDIENGNVAHVGASGNPHKFLHKH

>CAL35709.1 peptide chain release factor 1 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLASKLDPFFKRFEELNSLLSSSDILNDISKMTTLSKEQKNLEPIVLKAKEYLKTLDNIEENKALLNDPE

LGELAKEELKTLEELKPKLEEEIKILLLPKDPNDERNIFLEIRAGTGGDEASLFVGDLVKAYARYAENRG

YKLEIVSSSEGSVGGFKEIIMLVKGTGAYSRLKYEGGTHRVQRVPQTESQGRVHTSAITVAVMPEVDDIE

IEINPNDLKVDVMRSSGHGGQSVNTTDSAVRITHIPTGIVVVNQDGKSQHKNKESAMKVLKARLYEMQES

ERLAKESEARKSQVGSGDRSERIRTYNFPQNRISDHRINLTLYRLDAIMQDGLFDEIIEPLITHHQAQAL

QEQNL

>CAL35708.1 30S ribosomal protein S20 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MANHKSAEKRARQTIKKTERNRFYRTRLKNITKAVREAAANGNKNAANEALKVANKSIHAMVSRGFIKKQ

TASRRVSRLALLVNKIA

>CAL35707.1 putative phosphatidylglycerophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKLFLTFFYSGSVKKASGTFGTIAALIPAFFILKYLGINTLFLLSILIFVASIRVIDDYEKKTGIHDDK

HIVIDEVAGVFLACAIAASVENSIVNFILAFVLFRLFDITKPSIIGKIDKKVKGGLGVMLDDMLAGLFAG

LLSAVIYGFLLKFNLVFWDINLKDLF

>CAL35706.1 putative sulfate adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSARKNKNIIIDQNEFGILSLIKEGLLGTCTHLMNEKEVNEIIKSGKFKGESFPYPLSFAPKNAEEALN

DIKSGDRIDLMLDEKVVGHIDFKSQFKNNKNFSDIFSPNTCSLEDMGTTCISGKIEIYNSQIEKIKENFQ

QIKNNLNAQKITAIVSSFDPLHRAHERMFRWTIDKADLVVIFLVESFDVNGFEFELKEAYLKKFIQNYLP

PDRIFIFPLKNINIFHAHLNPGLESIIAKSLGCTKLVVGQNHTGLGMFYDDNQPKTILDDFSKDYGIEVI

VLPEFVFCDQCRMIVSTRSCPHGCHHHLHYNSQSLKDLLRAGIIPPAIFIRKEVSSVILTSLFPNRLKNM

QKIYNELFPTDGILEYKNDEEFYQKLLEIHQMSYMV

>CAL35705.1 putative two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVLIIENEIYLAQSISIKLSDAGYSCEIINSFDEYNGEKYYDIILLSTNTNNFLKAVGQFKHSIIILLI

SYISTDTVSNPLKLGASDYIQKPFMIEELIRKIKHYQDFRKLSILNKAYQSYIKSRLETIKIPEYNYKKL

KLPLILKSNKQSSADAFVFNYANECDITLSFIDLTSTNSVEKVMKLPTENNLLFLSNFQALKAAEKEKLL

DFIQNKNVILHTNSNTDDLKINCINLNDNEKNINSNEILTIDEYVKYVIINYQNIFPDTDLSKKLGISRK

SLWEKRKKYEISKKK

>CAL35704.1 2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase/ 2-C-methyl-D-erythritol 2,4-cyclodiphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEMSLIMLAAGNSTRFNTKVKKQFLRLGNDPLWLYATKNLSSFYPFKKIVVTSSNITYMKKFTKNYEFI

EGGDTRAESLKKALELIDSEFVMVSDVARVLVSKNLFDRLIENLDKADCITPALKVADTTLFDNEALQRE

KIKLIQTPQISKTKLLKKALDQNLEFTDDSTAIAAMGGKIWFVEGEENARKLTFKEDLKKLDLPTPSFEI

FTGNGFDVHEFGENRPLLLAGVQIHPTMGLKAHSDGDVLAHSLTDAILGAAGLGDIGELYPDTDMKFKNA

NSMELLKQAYDKVREIGFELINIDICVMAQSPKLKDFKQAMQSNIAHTLDLDEFRINVKATTTEKLGFIG

RKEGMAVLSSVNLKYFDWTRL

>CAL35703.1 putative ATP/GTP-binding protein (Mrp protein homolog) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEQILEKLKTVKYPGFEKDIVSFNFVKDIKIQDDGVFIDIEIVSANPEVANEIRKNTIEALSSLALKNI

ELNIITPKIPEEKSNSRSGKNIAPQVKNFIMVSSGKGGVGKSTTTVNLAISMAKMGKRVGILDADIYGPN

IPRMLGETKTQPEVVGQRLKPILTHGVYMMSMGVLIEEGQGLMWRGAMIMKAIEQLLADVIWPELDVLFL

DMPPGTGDAQITSAQSIPIAAGVCVSTPQTVSLDDSKRALDMFNKLHIPIAGVIENMSGFLCPDNGKEYD

IFGKGTAEDMAKAYKSEVLAQIPIEMIVREGGDEGKPVSFYHPESVSSKRYLMAAEKIWSFIEKINNEGG

ADNSAIQPVMNGKSACSH

>CAL35702.1 putative 2,3,4,5-tetrahydropyridine-2-carboxylate N-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINTKEDFLLLIKQIEQKSGYKKPKAFGIARLDRGQLNKNKILQASFALINYEQNFGSAAIMLEAFMQRG

VEIDFNASEFVQTLKLEDIDFALSCFKPFLEEDGHQNIDLLKIIKDKFKDDEFSFVCLFEDKEPLSVESI

YLKLYLLSTKKVPLRSINLNGAFGLLSNVAWSDDKPIELEYLRANEMRLKMSNQYPKIDFVDKFPRFLAH

IIPEDNTRILESSKVRMGASLAAGTTIMPGASYVNFNAGTTGACMVEGRISSSAIVGEGSDVGGGASILG

VLSGTSGNAISVGKACLLGANSVTGIPLGDNCIVDAGIAVLEGTKFLLKDAEELAKLNPYFNFDKEIYKG

LELKGLNGLHFRQDSISGAMIVALNKKAVKLNEALH

>CAL35701.1 phosphoribosyl-AMP cyclohydrolase/ phosphoribosyl-ATP pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNFKELNEKIAWQKVDNLLPVIIQDAKTCEVLMLGFMNNEALEKSLESGKVVFFSRTKQRLWMKGEESG

NFLNIIDLSLDCDNDTLLILANPVGPTCHTGDISCFEKISKNADFVFLARLEKLINARKNADENTSYTAK

LFKSGTKRIAQKVGEEGVETALAATVKDKEELICEAADLMYHLSVLLADANLSFSDVISKLKERHKA

>CAL35700.1 imidazole glycerol phosphate synthase subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTKRIIACLDVKDGRVVKGTQFKNHKDMGDIIELARYYSQNGIDELVFYDIAASARKERISREWVSEVA

KNINISFCVAGGIKSEEDAAELLANGADKISINSPALNDPSLITRLAKSFGVQCVVVGIDSFKDENGNLK

VFQYTGDEKTSKHSGKSTLEWVKKVQDLGAGEIVLNMMNQDGVKNGYDLEQLEAVYKICKVPLIASGGAG

KMEHFLEAFKLGIDGALAASVFHQKLIDIKELKIYLKNQGLSIRI

>CAL35699.1 conserved hypothetical protein Cj1602 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSSKLSYKELTLEILKQSDRPLSVNEIWQKALEQGLDKKLSSIGQTPIATLGARIYVDIKELQHNSLFIK

ASQKPTTFWLKERENELLKLDNKNEITNEKQEKNKFHERDLHPLLVKFLYENLDFNLNCKTIYHEQSKKG

KGGEDKWNYPDIVGVYFPYDDYEKETITLLENIKQNSYKLFSFELKIALNFSNLKECYFQAVSNSSWANE

GYLVVLQEIDSEVLSELRRLNQSFGIGVIKLEKDISNSQILISAKEKELDIQTLNMLINKNPNFKEFIDD

INKQIKVGKEAKIQANFDEIKSDEEMEKYLKEKCILEK

>CAL35698.1 phosphoribosylformimino-5-aminoimidazole carboxamide ribotide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTQIIPALDLIDGEVVRLVKGDYEQKKVYKYNPLKKFKEYEKAGAKELHLVDLTGAKDPSKRQFALIEKL

AKEVSVNLQVGGGIRSKEEVKALLDCGVKRVVIGSMAIKDATLCLEILKEFGSEAIVLALDTILKEDYVV

AVNAWQEASDKKLMEVLDFYSNKGLKHILCTDISKDGTMQGVNVRLYKLIHEIFPNICIQASGGVASLKD

LENLKGICSGVIVGKALLDGVFSVEEGIRCLAN

>CAL35697.1 imidazole glycerol phosphate synthase subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIIDTACANLASLKFCLDRLGFNATISRDLKELESADKLFLPGVGTAKEAMKNLEQFNLIDFIQNTK

KPLLGICLGMQILGNFSEELNQETLKLIDFTTQKFKAKEGFTFPHMGWNEVYSSHALFKGLEGAYFYFVH

SYCVGLGKYTIADCEYSQKFSASVMKDNFYGVQFHPERSSEAGEILISNFIKDIG

>CAL35696.1 imidazoleglycerol-phosphate dehydratase/histidinol-phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQKILFIDRDGTLIEEPKSDFQIDTLEKLRFEKDAIPTLLKLKKFGFKFVMVSNQDGLGTPSFPKENFE

IAHEKMLDILKSCGIEFQDIFICPHFENENCACRKPKTAMLEEYIKHELYDKEQSFVIGDRESDMILASN

LGVRGLKYGELSWKEIENEILSSFRSASYQRTTKETDIKVKVCLNGGKVSIKTGIDFFDHMLEQIAVHGG

IGLEISCKGDLEIDEHHSVEDVALALGACIKKALGDKIGIARYGFALPMDECLASCAMDFCNRPHLVYKA

KFKKSHLGALSTEMIEHFFYSLSYAMGVSLHLKVKGKNDHHKAEGLFKAFAKALKMAVKIESENLASSKG

VI

>CAL35695.1 histidinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQILVYDNLDEKQKEEALKRPAISAKDEISKIVSSIIKEVQEKGDKALIEQALKFDKAEISKIKITQEEI

TQASNRLDKDLQEAILVAYENIKKFHEAQIPHEIALETTKGVKCEVLTRPIEKVGLYIPGGLAPLFSTVL

MLAIPAKIAGCEKIVLASPAKINDAVLFCAKLCGVDEIYQMGGAGAIAALTYGTQSVLKVDKIFGPGNAF

VTEAKRQVSSDINGAAIDMQAGPSEVLVIADDLANEKFVASDLLSQAEHGADSQVILVCLSQDFAKKASD

EVQSQLELLPRKELASKSIANSRIIIAKDLNQALEISNLYAPEHLIIQTQNPRELLKGVKHAGSVFLGAY

SPESMGDYASGTNHVLPTYGLTKTHSSLGLADFSKRMTVQELSKEGFLALGKSVEILAQNEHLDAHKNAV

TFRLESLK

>CAL35694.1 ATP phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQENTRLRIAIQKSGRLSKESIELLSECGVKMHIHEQSLIAFSTNLPIDILRVRDDDIPGLIFDGVVDLG

IIGENVLEENELERQSLGENPSYKLLKKLDFGYCRLSLALPQENKFQNLKDFEGLRIATSYPQLLKRFMK

ENGINYKNCTLTGSVEVAPRANLADAICDLVSSGATLQANNLKEVKVIYESRACLIQKENALSKEKQALV

DKIMLRVAGVMQARESKYIMLHAPKEKLDKIQALLPGVERPTILPLAHDEKNVALHMVSKENLFWETMEA

LKEEGASSILVLPIEKMLK

>CAL35693.1 50S ribosomal protein L17 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRHKHGYRKLGRTSSHRAALLKNLTIALVNSGKIETTLPKAKELRGYVERLITRARLGDFNAHRAVFASL

QDKNATNKLVTEIAPKFKDRNGGYTRIIKTRIRRGDAAEMAFIEFVA

>CAL35692.1 DNA-directed RNA polymerase alpha chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNITTSAYTPTEFTIENISDTVAKISAWPFEIGYGITLAHPLRRLLYTSTIGYAPTAIHIDGVAHEFDS

MRGMLEDVALFIINLKKLRFKIKGDSNKEIVEFSFKGSKEIYGKDLNNDQVEVVNKDAYLATINEDAELK

FTLIVEKGIGYVPSEEIKELINDPKFIALDAFFTPVREATYDIEKVLFEDNPDYEKVVLTVTTDGQITPN

EAFQNALEAMYKQLSVFDKITNVRSVIKNQATSNELENTKLLQNITDLNLSARSYNCLEKAGVVYIGELA

LMSVSELAGLKNLGKKSLDEIKNIMESIGFPVGTSKLSDNKEILKNKIAELKAQNEG

>CAL35691.1 30S ribosomal protein S4 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARYRGPVEKLERRFGVSLALKGERRLAGKSALDKRPYAPGQHGARKGKISEYGLQLREKQKAKFMYGVS

EKQFRRLFAEAARREGNTGVLLIQLLEQRLDNIVYRMGFATTRRFARQLVTHGHVLVNGKRVDIPSFRVE

AGAKIEIIEKSKNNPQITRAIELTAQTGIVAWVDVEKDKRFGIFTRKPEREEVVIPVEERFIVELYSK

>CAL35690.1 30S ribosomal protein S11 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKRKIVKKKVVKKNIAKGIVYISATFNNTMVTVTDEMGNAIAWSSAGGLGFKGSKKSTPYAAQQAVEDA

LNKAKEHGIKEVGIKVQGPGSGRETAVKSVGAMEGIKVTFLKDITPLAHNGCRPPKRRRV

>CAL35689.1 30S ribosomal protein S13 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARIAGVDLPKKKRIEYGLTYIYGIGLFTSRKILDKVGISYDKRVHELSEDEAAAIRKEIQENYMVEGDL

RKQVAMDIKALMDLGSFRGLRHRKGLPVRGQKTKTNARTRKGKRKTVGAKS

>CAL35688.1 50S ribosomal protein L36 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVRPSVKKMCDKCKVVRRKGVVRIICENPKHKQRQG

>CAL35687.1 translation initiation factor IF-1 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKDDVIEIDGTVLEALPNANFKVELDNKHVILCHIAGKMRMHYIRIMPGDKVKVELTPYSLDKGRITFR

YK

>CAL35686.1 conserved hypothetical protein Cj1189 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNFITTLLKTNLYFLEEKTTSKNSNQTHIISLKQSDDEFLNLLFSFLVPQSDEDKNFIEKTRTKIKRNE

HNIVLIKNPNFNALIDTGFLDTIDTLKEKLHIHKTDFKDITHIILTHAHPDHIGALMSEENLFPKAQILI

DKKKYDFWIKSDRQEIKNTLLKLKNIEFIDHSKDLIFQNSGIKAIPAYGHTPGQNAIIIDDKIVFWGDLL

HLYDIQIPKPKIAIKFDIDQNEAIQTREKLLKEFKERKLKVIGTHVPFIKPKFLD

>CAL35685.1 putative MFS (Major Facilitator Superfamily) transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKSKFGTKEIKILGLSSLGGTLEFYDFIIFVFFAEYIANVFFPKDMSEFWALLNTYGAFAAGYLARPLG

GIVMAHFGDKFGRKNMFMLSILLMVLPTFVLAFIPGYETLGFLAPVLLILIRIFQGIAIGGELPGAWVFV

REYCQEKQKAFFLSCLNSAMALGILLGSIVFLIINAFFSIEEIAAYAWRIAFFVGGIFGIISIYLRRFLQ

ETPVFKQMKKESSLSSFPLKDLFKEKDIVKNLFSSMMMTWVLTGCVIVLVLLMPKFMPSILNLSGVEGSY

LQILGILGIALGGAFMGYLVDKFGLFKICIFFSLTFVFFSFLYFYALYELKNLVLVCILYSIICFLGGIN

VFAPILMSEVFRAKIRFSGISFSYNISYAISGGITPQLVFWLNTLASKNENPFLYGMSIYMIFLALLAIC

AVFIVKDKIKF

>CAL35684.1 putative ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPFIMELLKQNKLKLISFLLFSFITSAVGVLTLVFINDYLLKNAQNIPIFYFIVLLLIFFISSTIVELGL

SIFGQNFIFKMQRRVVKQILDTPLLRVAKVGKARILASLGSDVRNISFGLLRLPDFLQSSILILCTSVYL

CYLSPQIFALCVVWIMVIFITNNFLMMKVYQYFRKARENDDALQNNYQNILDGHKELLINRDRAKLYYED

EFENNARLKKKNSTLGNLFNNLSNNWTNVTLLALVGVEFYLALKFEWASVADATTIALSILFLRTPLVSM

IGSFPTLLLAKIALDKIAKLELDDYIEGFKKTHYISEWKKISFRNTQFAYEENFHLNPVNIELKKGELVF

LIGKNGSGKSTFCMLLTGLFKPSKGGIYVDDTLIDDKNLDEYRSLISAVFSDFHLFTKTLNKENFASEEK

IAFWLEFLELKNKTSVKDNELTLTKLSTGQKKRLAMLIALLEERDILVLDEWAADQDPVFRRFFYKKLLP

LLKEQGKTIFAITHDDAYFDSADRIFLAQNGEISELKGENIKELAKNLVEKFD

>CAL35683.1 single domain haemoglobin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKEQIQIIKDCVPILQKNGEDLTNEFYKIMFNDYPEVKPMFNMEKQISGEQPKALAMAILMAAKNIENL

ENMRSFVDKVAITHVNLGVKEEHYPIVGACLLKAIKNLLNPDEATLKAWEVAYGKIAKFYIDIEKKLYDK

>CAL35682.1 putative oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MANFKAFYKEAKYIFKDRIFNDYARCYAYGIDASCYFYIPKIVIIAKNEDEIKQIIQLANTYKTPITFRA

AGTSLSGQSSCDGVLVVIKFAFKKIKINKDANEITLGCGVVGIHANESLAFLKKKIGPDPATINSALIGG

IINNNSSGMCCGTKDNSYKTLRSIRVILANGSMLDTSDALSVARFKDENKKLINELREIKEEINANKELK

DLIIKKFKIKNTTGYSLNAFVDYDDEIDILAHLLIGSEGTLGFVSEVKLAVLDDLEFKACALLFFDNINN

AANTIKEFAKVDFVSSAEIMDYASLKAASTYDELRDILADIKEGNTCVLIQSEHSNELKLDENINKIKEI

SKLAYKSYFSKNKAEYDLWWKIRKALLPIAASLRKAGSTVITEDVCFNIEDLADGIKSIQELFYKYGFGD

NGIIFGHALAGNIHFIITPDLNNKLEFDNFSNLVKEMSNIVASYGGSIKAEHGTGRMVAPFVEVEWGKQA

YLINKKIKSIFDKDSLFNPDVIISDDKDIYKKNIKQVSWIDEKLNTCMECGFCERFCPSNEYTITPRQRI

AILREIKRLESLNDDESKAKLKDIKKYYNHLVDSSCAACGVCSFSCPLGINFADFSLKYRKNNIGFISKI

LGNLAYKNHEKTLKIAKFSLSIANKFDNLSLDNKLEKASNFLSIIPRTRAYLPKVNDYELKSHKRVCNVV

YFTSCLNKSFKPNEKMHDKRSLQEVFESLCKKANIGIIYAPNDLCCGKAYENFQDIQDKNIQKINDFLSN

IDSPIVLDHSACSAKLISDHSKYEIYDLSEYLLKFIAPKLRIDKINENVGLYIMCAARKLGLNENIIKLT

KLCTNGKVLIDNDTYCCGFAGYKGFFKPQLNISATKGFKKFYAKTNIKRGFSTSSTCEIGLSDATGISWQ

HIAYLLDECSEAI

>CAL35681.1 putative peptide ABC-transport system periplasmic peptide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLRWFVLLFLLFLNLEAKIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKS

WDISKDGLVYDIFLRDDVLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLF

KPYPAFLDALSIGMLPKHLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLI

IKHIFDPSIASAELKNGKIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALN

YAVDKESIVKNLLHDYAFVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEF

EIWAMSNDPLRVSLAGILQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQD

SALNDEGWNFGHYHDKKVDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGI

KTRTLGHHGVGFTWNVYEWSK

>CAL35680.1 putative peptide ABC-transport system permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKRLVFSIFIAFFSTFLCFVLLHFSKGSIAYANGVNSQSKEFVQRIEQNLGLDKPLLEQYKIWLFKALK

GDLGVSFLSGESVLKLIKERIFNTFILGFSALMLLFLLSVFLALLGYYYKESFIDKIITFLAFNFFALPP

FVLALLFVLIFGIFWKILPVMGSSDIGFEDDFLNRLEHLILPVLVLVLSHLALFLRIARNFINESFSQIF

IQNLYARALREKDIYFLVLKYSLSPIVAYFGGSALSFMMGTYVVESVFAYKGLGSLLFKSIIFKDYPIVL

ALIFFSVLLAAFFTFLSDIVARILNPRLRRLDFV

>CAL35679.1 putative peptide ABC-transport system permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILFKFLIILAPLIFLFLCALFAPFLALFDILSTHLENLHQAPNFTYILGTDFLGRDLFSRLLFALRNSL

IIGVGGSLLSIIFALCYLFLARCFFYVFCMRILEFFLALPAFLLMMFFQSMITSDVFLMIFLIALIHWCF

IARIIESELKRLENLDFYKANIVLGRTKFRAFFKDLIPALKTLIFTLFIFNIVHAIATEATLSFFGLGLG

FEIPTLGTLLSESSKAVFIGAWWMILFPLLSLLLLFLPLLWLGNFLQKIWGIRS

>CAL35678.1 putative peptide ABC-transport system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVRNLNISSKNNLLLKDINLDIKTGKTLMILGQSGVGKSLLGKALVRLLDSNFTISFDELSFHNSCIFN

FNKEELRNFRSKVALVLQDAELSLYPYLDIGNLCHLVLKTHTKLKQKERKDYAFSYFQKLGFENLDRLWH

SYANELSLGMARRVSLALALLNQPQILICDEITASLDKENASKIISILKELKNTTALVCITHDLNLVNSL

ADEILMLEKNSSNLYSLNEFLRYYNA

>CAL35677.1 putative peptide ABC-transport system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKVCNLSKFYELKKHWYLKKERHIIFDNVNFSLNENDNLIILGKSGAGKSTLARILCFLEDPSEGEVWY

ENLNLHKLDKNKQRLLRKQIQYCFQDQKMALNPYKKIKNLIQDGLENFNLQKNDDLILEFFDFFSLKKQI

LEQKSYELSGGEATRVGLIRALVLNPKLLILDEITSAFDIKTSKEILTFLYDYQQKNNISYIFITHQSDL

FYKFNHKKLKL

>CAL35676.1 NADH dehydrogenase I chain A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSHIDASHPYFGIFLMLVLASVIFFGLVFLASKIGNNFAAKNRKKLGLGIYECGPIPVKQANKINSQFFI

IALIFILLDIEVVFLFPWALIFKDLGWFGFLEVFVFIVLLGVGFLYAYKKGAFAWQSIK

>CAL35675.1 NADH dehydrogenase I chain B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAEHQVNYASGLPVVLTSVDKLVQWGRSNSLWALSYGLACCAIEMMAAGGSRYDFDRFGTIFRASPRHSE

VMIIAGTLCKKHAEFTRRLYDQMPDPKWVISMGSCANTGGMFNTYSTVQGVDRIIPVDIYVPGCAPRPES

FQFALMILQKKIRKEKASRKIAPKRLI

>CAL35674.1 NADH dehydrogenase I chain C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRKYSDKKNAQTQNYYKDRFYHAPHTVKSDVNESVFKEDFEVLKTQVEILNSFVELDFWVIEIKKEDNV

KTLQMLKTLGYLSFTEASAIDFIADKNGFEVFYQLLNLEKKLRVRIKTFVGVKERLQSVAHVFKGANWSE

REIYDMFGIFIINHPNLKRILMPDDWFGHPLLKTYPLKGDEFARWYEIDKIFGKEYREVVGEEQRDSGFA

DDKDTLNFARLYHEVPKGGQKKEISFKQEYQEDEGVAFVKKVKRDEAKILEKRR

>CAL35673.1 NADH dehydrogenase I chain D [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIPSKLKPYYENIAFEQEDSKMIINLGPQHPSAHGNLRLILELDGEQVVKARPCIGYMHRGMEKMAENM

IYQEFIPTTDRMDYIAASANNYAYCAAVEKLCGLEIPRRAAVIRMILLELNRITSHLLWLATHALDIGAM

SVFLYCFREREYVLDLIEKYCGARLTHSSMRIGGVMLDLPENYLEEMLAFCDKFPNDLKDYEDLLDDNRI

WRLRTENVGVVTKEQALNWGCTGVMLRGSGIKYDIRKEEPYLLYNEVEFGVPYATQGDSYARYKVYMQEF

RESLKILRQCAMLYKDTSPEILATHPEYVSASKEQILTQNYSLMQHFVLITQGLKPPKGEVYVPTESPKG

ELGFFIHSDGTGRPYRLKARTPSYWHCAFFEEMLVGTYLADVVAIMGNVNIVLGEIDR

>CAL35672.1 hypothetical protein Cj1575c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRRVDLRKSKELFEDLAQIIKEAKQGEVLVVLFEIGDFSPVEKSFSFVKEQGCELLNSLKFNQVDWTIVI

KKERV

>CAL35671.1 hypothetical protein Cj1574c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIYDNALCFLDMPSLKNKNLCEKIGVNSINISCLEDKNLKAKFYKCEIASLSFVLALLCKLSDEGQFCDL

DEGYLSAESCFGEEEAGEVLAFLKEVKYLIIDKNIHSYKDSENIKYFLNFLSVKYGLKILDSDEEECDFK

KAKLNTLKELDNYDGLVLFRANLQDKNLHCSKQFLQIAKCKDQSEVEILAKDFSFKTKLCLDENLQGTIA

FLNYENNGFDFTPIRIKEAK

>CAL35670.1 putative NADH dehydrogenase I chain G [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTVKINGIDCAFEEGEYILNIARRNDIFIPAICYLSGCSPTLACRMCMVEADGKKVYSCNTKAKEGMVVE

SDLQNLWDERNEIMQAYCINHPLECGVCDKSGECELQNFTHKSRVNVQKHWIKDTHKPHKHWGMINYDPA

LCIVCERCITVCKDKIGESALKTVPRGGDSVDNSFKESMGKDAYAIWTKFQKSLIGPANGDTLDCSFCGE

CTSVCPTGALIGSKFQYTSNIWELKRIPASNPHSSDCELMYYDIKQSGISNQKEKIYRVSNDFAFASLNK

AARFAFDTQNEADKDEKAFKELVELFEKNEIKNIKFNSFITNEEALILQNLKKKFNLSLINEEALKFKEF

LQEFIANSGEFYSANTQDITKSDFLVVAGMLLRYDAPTLSYKINNALVMNKGSGLYFHPMEDMGIAKYSK

NFIPHIHKNGDEEQILYFLLQKFSQDEGIKTHLAEFFVSENKEIEESINEEVVEQVIEKDEEGNEIQKEV

KKVVPKKVKKIIEVQRSVFAKNLGIDEDKLEDLLLKKANFTLVAGSDFYFHKNAKKLAKLLALIQNTTPF

KVFLNPTHTNTLGVAMICDLDNNTQEGKTLGYNEKGDFSFSYEEHANLASASLNQQEGTFLNYDKRVVPT

NAALEFKGYFLNDLANALGFDEEYTINYTKRLPINKGFSPIDFDHLDNFYTNAGDCKRGYELNLECFKQV

AKKEFISPNFENLSLKEDEILLYSANPSYQFGRFSNRASAINEVIFLGVSENLAKEKNLKDKDLVKLKIK

DKELSLSVRVDKDIKNGAFLPYFDEKLDTLSFFDERFVVANLEKLGANHE

>CAL35669.1 NADH dehydrogenase I chain H [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDFAFFALETLIKCIIIIAIFASLAGLATYAERKVLAYFQRRIGPDMVGPFGLIQLVADMIKLFTKEDI

IPSNSQKFIFAIAPLISAICAFVSLAAIPMLPEFTLFGRVIQPIVADINVALLFVIGTSGLCFYAVFLGG

LASNNKWSILGAARGLVSIISYESVGALALIAIIMLVGSFSLVDINNYQSDGFFSWLIFKQPLAFVLFII

ALFIETNRTPLCLTENDAEIVAGYGTEYSGLRWGMFFIGEYTSMIAGAILVTLLFLGGFNSFWIIPGWIM

MIVKSSFIFFWYFWARAAFPQLRPDQVMKMCYLILIPLAVLNLLITALTVLL

>CAL35668.1 NADH dehydrogenase I chain I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNYYLVDEKRKTPVSTWEKISQALRRSVKLELFVGLFVMMRELLKRNNSATIKYPFEKVKLDNRYRAVH

RLMRFIESENERCIGCGLCEKICISNCIRMETSLDENGRKKVENYSINLGRCIYCGFCAEVCPELAIVHG

TEYENAAEQRSYFGYKQDFLTPIDKLKNQVEFEGAGSLRKDANLWVKKTPNYYDVMIERALENQNTQEQG

ENK

>CAL35667.1 NADH dehydrogenase I chain J [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIENLAFVFFSVVVLGFFGIAVLSKNMLYSLSALAGGMVFLSGFYFLLDAEFLGVIQIIVYSGAVLGLYS

FAMMFFDASKEFKEQLKAKKSFFTLVVLSTILLLAMLIGFKYQNISTDLPLNDPALFDFNKQLALAIFSK

YLLAFEFIAILLLIALVCAIVLTHKELTKEKQ

>CAL35666.1 NADH dehydrogenase I chain K [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIEKYFFVAILMFVIGLVGILKRQNLIMLFISSEILLNSANLALVAASKMHNDLNGQVFALFIMGVAACE

VAVGVALCVLWYRRKGTLELKSLKEVEA

>CAL35665.1 NADH dehydrogenase I chain L [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNLALISLFSPFVAFLFASCFALSEKKQFVGIICSLLVALSAFCSLYLLFCNEAFNVSLFEWFAGVNFG

FDIDAISLTMMSVVGIVATCVHFYSIFYMAHDEGFNKFFAYLGLFVFSMLFLVMSDNFLGLFVGWEGVGL

CSWLLIGFWYKNDTYSFAANEAFIMNRIADLGMLLGIFWLYLQAGTLKYDEVFSMAQSLDHNALILIATC

LFIGAMGKSAQFPFHTWLADAMAGPTPVSALIHAATMVTAGVYLVIRASTLYDLVPEVSYIIALLGAFVA

IFAASMALVVRDLKRIIAYSTLSQLGYMFVAAGLGAYGIALFHLATHAFFKSLLFLGAGNVMHAMNDKLD

IKKMGGLFKPLKITAILMCIGSLALAGIYPFAGFFSKDLILGYSFISFHHGIFLVLLIAAFLTAFYSFRL

LMLVFFTPARHDEHPHEASKIALLAMSPLMVLAIIAGFFEHSFFEYLSTKLVFIDAQNQIVMICASVAAI

LGAILAIFAYKNSWFKESIEENKIHKLLSNDYFIPQFYHQFIVSKYESLCAILKHCDLYIFDRIVEKIAL

YSQNISQKMIMPNSLNLMLRFLVAAFVILLILVWMV

>CAL35664.1 NADH dehydrogenase I chain M [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNYLIFFPLISAFVVLLLNRGGVKVFSVVVSFMILALNLDIFADFLQGVSFDYNLSFKILKFFSFHVGV

DSIALVLILLSSLMIFLSFLFLKLEQKALISCIFFLEFAIMGLFSAKDGLLFYVFWEFSLLPLLYIMGVY

GKDFRAGVKFFIYAFAGSILMLVALIYQAYLNYQLLNIFTFDLEIWKNNASAVNFTEQLLLFGAFFIAFA

IKAPLFPLHTWAPKVYANSPILVSVMLVVFKMAPFGFLLFCLPLFPDASVYFMPLIVALCIVSIVYNALI

AYRAENIKELIAYSSISHLGVMILGIFSLNALGISGAVFYMFAHGIVTGALFLMVELLYQRYHTYDISFY

HSLAKKAPLFSIFFMLILLASVSLPLTVSFVGEFLILLGIAKINLFYALLAGLVIILGAIYMFAVFRKIF

FMQKQSFIEGFSLLFREIVALVCIVVMIFGLGLMPNILLKPIQKDVDNLIKTMNIRAVEQNTLDFLSKIG

EANVK

>CAL35663.1 NADH dehydrogenase I chain N [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNNFLNLELLNISLSYPFLFLITTAIVLLLCSGFWKFHRSFYIGISSLSLIVSAFLILNNANAQGLEAK

AFLATLNNDIVSFYASLVILCFSFLYLLMQKEENQGEFYALFLFMIASLLLMVSSSNLVLIFIGLESSSL

ALYTLIAMRGSDNAISSAIKYFSVAAVGAGFFVMAVAFIYLKTGTLDLSANLALKNEFQKDPMLLGAGVM

IFVLCAIKLSLAPFHFWLKDVYYAAHTNLVAFISVVPKVAMLVVVIRLFDFLNNTGFEYIIIVLAIFSML

IGAFAALSQNNIKKMFAYSSVVHSSLVLVACIPLLKEQNFDGILLAIFGYWTLFAFANYAVFMILSNYEN

NSYESLNGLLVKKPLIAFCLSISVLSLAGIPPFGVFWGKFMILNTAILNGYWYLALFVALSSVIMLYAYL

KILIHALFMKNDRVHNIKFSFIQNFILAFCVCVSTFVILLML

>CAL35662.1 paralysed flagellum protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRILFLILLSFLNAFAFELVLNTGRENNQAFAVLHASNDLEFTCQKFITEAKVHFECDIVGMVDNKLKDQ

SFSAFDLKFIQEAQKIKMIILPKIQARMFDTSQNIYIDKELSSSSSHKSKAFTFIFTPELAPIKDYDGLD

FNINFPHESLPYVGALDLNSDPVVIPQSADINTYLRIKKEYDKANYNQVVIDAQNAINRYRGSIFTSEFI

LYKLRAQNKLYTQDPSMRDQQILEKMIDDAKNWTRTFTSDKNFSEVLHIMLRTYIALAQRADVEYTMSIL

DNEQPNNYFTQLSKLDYADYIYNLNEKEKAVNIYENTYFNTKNLDLAARAAMSLAKNLLSNEQVNKAIEY

INTILKANPEYFGKDIPRSLELAKLFNQKGQFDISASIYEDAFAKMSKLDPSYEETLKDLALVLSHANRS

SDAKKYLDLYMDDYLDGKYLDEIKKASDEVFFALGDNNASFLHQRYTDLMKQYANKDENIANKALDEDVA

LYYKEGNFSAILAYKDLIESKKIPNATQFLEKAAINDLKNAIKADNCINAANIFMRFSAYDIGQKIENKK

QMLACLIRTSNVEQALDYIDKNYNEDSIFYGLQKASILFDNKQYPQVIKISKDIANSRILKSDDENFKAY

YLQFLSLLRLNDYNQAIKILQILESFPMNFSMVEAYDALLSYANDHNMQTTILTYAPKAIDYQNFKGINL

FSPNLEFIYLDALTKINKNEESLAVLTDLLKLKLSDEDRARALYIQALTYERMQNIQAEKESLKQCLEIK

SASNWQNLCKSKNQILNQ

>CAL35661.1 putative methyl-accepting chemotaxis signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKITKIKRKIMNSIKIKLSLIANLIAIFALIVLGIVSFYFTKTSLYESTLKNQTDLLKVTQSTVEDFRS

TNQSFTRALEKDIANLPYQSLITEENIINNVGPILKYYRHSINALNVYLGLNNGKVLLSQKSNDAKMPEL

RDDLDIKTKDWYQEALKTNDIFVTPAYLDTVLKQYVITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTP

GNTFLFDQKNKIFAATNKELLNPSIDHSPVLNAYKLNGDNNFFSYKLNNEERLGACTKVFAYTACITESA

DIINKPIYKAAFIQAIVVIIVVVFSVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSND

EFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQ

ARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQ

SLTTSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAA

RAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTK

DNVEIANESAIISSTVSDIANNILEDVKKKRF

>CAL35660.1 putative transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYTIKKVEKETKISAHTLRFWAKKGLFPFVQKDENSVKYFSKSDIEWVKWIEWLRISGMPIEQVKHYIK

LCSLGIKTAKERQEMLKQTKKKLQNQIKTLKESEKVLSKKIKIYEEMLANEVDGFNPESKDYQPCDKLHK

FKG

>CAL35659.1 hypothetical protein Cj1562 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYVRRQGTWAYYGINNELLKLHLDLFENIKNLELKNAIKKNENIITQICP

>CAL35658.1 putative transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKFLAIISAINDESRVLILHHLLRYKELCVCDLQELLNMGQSRLSRHLKILKDAGFCM

>CAL35657.1 putative permease, partial [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

KQLAGDKISSYFKAIFLGALTPFCSCSTIPLLRAFLEAKVKLSIALAYLFTSPLINPIIFSMLFVTFGLK

LSLIYVVFLIFLIFIISFVFSKFKEDSFLKHIPKNTKSSIFTQSAHNPSNFIFKQKSCCANTQDKSKNIT

INYKELFKESLKNYKKLLPYIVVAVFIGAFIHGFIPQEILQKYLNGNEILSIALAAFLGIFLYLRVETII

PIGLALLQMGISQGVIMSFLIAGAGCSLPELVLLKQMFKMKFLFLFVMIILGVAISFGIFINLI

>CAL35656.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQSFLNTFKEFLYLFTELSVLFIAISFLVSIINQKYEGIFKNNLLVTKFQVILKLYF

>CAL35655.1 putative transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYHSLCPIETTLNLIGNKWKILIIRDLLQGTKRFGELRKSISFTKNQNISQNVLTQNLRELEEAKLIK

RKVYAEVPPKVEYSLTSLGNSLESILKSLENWGNSYKNIV

>CAL35654.1 hypothetical protein Cj1555c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIAILCASGKVGKEISKEALKRNLEPVCFVRNSSKMNEFLPQAKIVQRDLFELDSKDLIDFDIIIDAFG

EWENLSLHKKHIECLSVILQGSKAKLFVVGGAGSLYMDENHTTRLMDMPDFPKEYLDIAKASAEVLEFLR

NEKGFKWVYVSPSAIFSPDLPKSNHYKIIGEKFEVNANNESKISYSDYASAMIDIVLNSCYENTRIGVIS

L

>CAL35653.1 putative type I restriction enzyme M protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKKEIKLEDALWKSADKLRKNIDAAEYKHIVLGLIFLRYISDSFMQKYEELLKEQDDGADPEDADEYL

ADNIFFVPEKSRYNYIRDNAKNPKIGKMLDEAMDEIEKHNDTLKGVLPKVYAKDNLDSKCLGELIDLIGN

IAFDTGKSTDVLGHVFEYFLGEFALAEGKQGGQFYTPKCVVELLVTMLEPYKGRVFDPCCGSGGMFVQSE

EFVKSHQGRLDDISIYGQESNQTTYKLAKMNLAIRKIESSQVIWNNEGSFLNDAHKDLKADFIIANPPFN

DSDWSGELLENDGRWKYGVPPASNANYAWIQHFLYHLSPNGGVAGFVLAKGALTSNTTNEAAIRKALIED

DLIDCIVNLPAKLFLNTGIPASLWFIRRQKLPKTVKKTLFIDARDLGTRINRRNKTLNKDDINQIANIYK

AWKNGTDYEDIKGFCKSVSIDEIRELSYVLTPGRYVGLADSDDEFDFDTRFNELLAKLKSQIKTEQELSE

IILKNLEKIK

>CAL35652.1 conserved hypothetical protein Cj1552c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIRTVMDFKFVLRLLEANQFENEVVEYKKNNKDFIVLGKNISALSNTAALLGIDKAYIIFGIEDGTLNIV

GTNFKPKQEKKGNEELESWLHKVLKPNIEFKIHEITEKEIRLVVFEIEATKISPIKFEEKAYIRIGSNRK

ELDKYPEKEKKLWQVLSGFSFENEIAKSNLNIQDIYDLLDYSKCFDMLDISYDNYSSDEYIIEKLIEHGL

VKNLNDSFAITNLGAILFAKDLTKFKGLNRKRIRFIRYQGKNKIHTLEELEGRKGYAIGFQGLISYIMQY

VPKNEVIENAIRKDTTLYPEIAIRELVANAIIHQDFTINGRNPMIEMYSDRIEITNNGKSLIDIKRLIDM

PSKSRNDKLANLMRIMGICEERGSGVDKVIDSVEAYQLPAPDFINNEDYFQAILFSHMPLEDMTKQDRIR

ATYQHCCLKWASREAMTNASLRARFKIGDKQHSKASKIISDTLEAGLIKQQDPENKSTKHVKYVPFFV

>CAL35651.1 putative type I restriction enzyme S protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNWKKCKLGDIAEITMGQSPKSEFYNFDNIGMPFLQGNRTFGRKYPYFDTYCTEYKKIAKKGEILFSVR

APVGDINFANNDICIGRGLCSMNAKNGENEFLYYLLHNLRSVIINNESGSVFGSVNKNDLQTIEILLPLL

EEQRQIATILSSIDDKIELLHEQNKTLEELAQTLFLNWFKDREFNSTISDFISMQNGFAFKSKDFIDYGN

NGVIKIKNISNGIVDIVNTDKISQNTINEVNNKFNINSGDILFAMTGAEIGKMGIVPSTNKKLWLNQRVG

MVKERFLGARFLAYIHLTSEFGYDYVINSATGSAQENISATDIENCPFVKLTSEEIVSYSKQLNDFFEKI

IFNLGEIQTLENMRDILIPKLLNGEIKITN

>CAL35650.1 putative ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKYKFVKFQVKNFRSLLDITLNIDNNNINTICGENNIGKTNFLRALNLFFNHNNGVEYNQNEDRPYHIQ

KGSTGGRKTELIGYFTKNNVTHILKVEFHKDKIVYILNGKMVEWKVARDIVESFKLLFIEASNVNMPSVI

SAILENDALLALDNKRKKQSEPLRTLKLFIEQSKKAIEDIEKDINIYLKQMLDFDNTLKDKEIKIRFAEF

EKLRDVVKTMTSVTLDDGNDHLMDHKGSGAQRIVLLSLMQYITDKITTDIIWAIDEPEAFLQPKLQKKIM

EIFKNIVREKKQPIIMTTHSQYFVDFNNLVNTHLFKLTKEEKIYARKKGRVFQEINTKPIYIGTAFEKLS

VIKKHLGIETNDNWDIMPYNILVEGEEDKKYLQMLIEILNLSMPNIIHSGGATKIAGFLEYFNNQCSYTS

FKPYFICIFDNDEEGRKQYNKISKDNLYPNIKLDAKKLKRYGESIQENNRDIWEIEDFMPIKIIVDAVNI

ILKYKQYNTITNSQISDRKKLAFKNMSILDYLEKCIADRNEEKERFILNTESRKKEICQNAFRAREKYTK

NDLEDYHVDFMNELIDSFNKVDLIKKDN

>CAL35649.1 putative type I restriction enzyme R protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKAKTSEFDLEQFVISSLLEHGWCYEKPVRATDEVLLETSLVNALCRLNPQLDLSKANEIYKELKSKNH

LSLLDSNENFHYKLVNGVNINTTKDGESRADIINLIDFNNASNNEFIATNQLSITEAKENKIPDVVLYIN

GIPLVLMELKSPSDENATINSAYNQINTYKQTIPSIFTYNAFCVISDGYFARAGSISADFSRFMAWKSSD

GINYAPNKSLEIKTLIDGMLNPKTLLDIICNFIVFEKEQIRDLNGILSIKTTKKIACYHQYYAVNKAISR

TITASSKDGDKKGGVVWHTQGSGKSLSMVFYSAKAIKALNNPTILLITDRNDLDDQLFGTFASCANLLRQ

EPKQANDKEHLKELLRVASGGVVFTTIQKFSPENDNVFECLSLRDNIIVIADEAHRTQYGFDAKVVEEKS

KSGDVLGQKIVYGFAKYLRDALPNATYIGFTGTPIESHDINTPAVFGNYIDIYDISRAVEDGATVSIYYE

SRLAKIELSEEGKRLVNELDEKLENQDSQKAKATKLEALVGSTSRLKQIAKDIVKHFETRSSKLGGKGMI

VSISRSVAIKLYDEIIKIRPSWHSDELSSGAIKVVMTSSSSDGVEFSKHHTSKIQKQFLANRMRNIDDEL

KLVIVVDMWLTGFDVPSLHTLYIDKPMKGHNLMQAIARVNRVYKDKPSGLVVDYLGIASDLKKALSFYSE

SGGKGDIITTQEDAVKVMIEKLEIVEQMLPNDYEKYFELDTGAKLEYILDVEEHILSNEDGKNRFIKEFA

ALDKAYTIAMPHEKALSIKNKIAFMYAIKARFLKFAKENENENLLNQALIKQVVDKAIVSSKVVDIFDAS

GIKKPDISILSDEFLLEVKNMKRKNLAFEMLKKILNDEIKAREKLSLTKAKKLAQMLSDAIKKYNNKLIS

SSEALDELINMSKSIVSMEDEAKKLGLKDYEYAFYSALACNDEYEKILGNEKLLALVSEILQIIKNNVSI

DWMIKENVRARLRVAVKRVLNKYGYPPDMQQLAIDGVLAQAEILAKELANE

>CAL35648.1 putative NADP-dependent alcohol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQYKILENNRIASKGYAMLSKDAKFTPFEFSRHAIGDNDILIKILYAGICHSDIHTARSEWGEATYPCVP

GHEIAGEVIAVGKNVSKFKVGDYAGVGCMVNSCGECDACKRSQEQFCENGKTIFTYNSCDVFHGNENTYG

GYSNNIVVSEKFAVCVPKDAPMEKVAPLLCAGITTYSPLKFSNIKEGSSVAVAGFGGLGMMAVKYAVKMG

AKVSVFARNENKKADALAMGVSSFYTSCDKNAVKERFDLIISTIPTPYNPAIYLDLLKFGGEMAIVGLPP

HEVAPSISVITFVHKAGKKVYGSLIGGIAETQEMLDFSLKHGIYPETELITPQEIDKAYENLTSGKAKFR

YVIDMTKE

>CAL35647.1 Blc protein homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLELIGELSLQNYMGEWLEIARKPAFFQKSCLNSKAKYELKYKNGIPYVEIENFCSKKNEISSIKGKAKI

VSNRQLAVRFNIFMNLFNKVNYEIIFVDSEYKVAIVGSPDKKYLWILARNIIDEKNIKELLNIAKQRGFD

ISDVVFDKY

>CAL35646.1 putative transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKENSPCNFEECGFNYTLALINGKYKMSILYCLFRYEIVRYNELKRFLSSISFKTLTNTLRELENDGLI

IRKEYAQIPPKVEYSLSKRGQSLIPILQAMSKWGKKDKKGKKCLN

>CAL35645.1 MdaB protein homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNILLLNGAKEFGNSKGQLNLTLHNHALEILKTLGYEVDQTHIDQGYDPKEEIQKFIKADAVIYQMPAW

WMGEPWIVKKYIDEVFGLGAGVLFKNDGRTHENPSKNYGKGGLDHGKKYMFSLTWNAPLEAFNDKNEFFE

GKGVDMVYWHLHKAHEFIGMKALPTFMCNDVVKNPQVEKYLNEYELHLKKIF

>CAL35644.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTRTKYLYILLVIAMFLWGSSWPTSKILANYTDTSIITFWRFFFVVLGSFFVLNFLKIPLKIEKTALKWV

LIAGVLNGLYAFVFFIAIKHGLAGKGGVLVTTMIPIFSYLIFMIAIFFQKNKKSTHKITKSEILGLFLGL

LSGFCLLNLGSLEDLFGKFNILFLTCSFIWALMAVFNHKAKGAHPLAINFYINLISILMFSWILFDVKSY

EIFHFEFKFWISMFVVAFLSTIIGTSIYYYGIHILGSVKANSFVLITPASALICSYFILDEVPNALTLLG

CALAIGAIYFINIYGKKA

>CAL35643.1 putative allophanate hydrolase subunit 2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSIKIIEASINSSLQDFGRKKFAKFGIARSGAMDEDALRMANILLGNKQDEAGIELCLKGGKYEFLDENY

FVLSGAEFEAKLDNQKIKTCKVYQANKGDILELDLAKIGFRGYLCVAGGFEVKSFLNSKSSDAKMGAGVF

EGRALQKDDILNTHNTFIPFNLEARECENPLFKSPKEPIIRVILGTNEDAFTQKGIETFLNTTYKVGLKS

DRMAIYAESSESIEHKNSADIISDPAVFGSIQVPKSGIPIILMAGRQSTGGYTKIATVIENDLSLLAQAK

LGSSFKFQSISMQEALELYKQREMKFKAMDQKINLDFENLI

>CAL35642.1 putative allophanate hydrolase subunit 1 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFSVHFSGSKALLLRFEQEISPQINAYVLSTEQRIQKALKEGEIYGIDELVSAYASLLIYFNPCVLSLNS

LLDFLEKIKKDIKLAEQNSSLCIEVPLCYDEEFGLDLEFVCKHNQISKEELISLHTKPYYLVFMLGFMAG

FPYLGGLDERLFTPRLSSPRAKIEAGSVGIADKQTGVYPISSPGGWQIIARTPLEFFDKEDEKNPTLLKA

GMFLKFKAISKDEFFDIQEQVAKKVYQKEIYEYKNH

>CAL35641.1 conserved hypothetical protein Cj1541 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKVDLNSDLGESFGAYKMGMDEEILKFVSSVNVACGFHAGDPCVMDETLNLAKQNGVCIGAHPSYPDLL

GFGRRNMQISFEEAKNYALYQLGALFGFAKAKGMKIQHFKAHGALYNMAAIDENLALALCEAVASFDENI

IFLGLSNSAMNEAAKKKGLRYANEVFADRAYNDDGTLVSRKLEGALIHDENLAIKRVIKMIKESKVTSIN

GKEIDLKADSICVHGDNAKALEFVKKIKENLKKEQIQICALENFI

>CAL35640.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIISLALALALSASAAELKMATTTSTDNTGLLDALKPLYEKESGNTLKWVAVGTGAALKMGEDCNADV

LFVHSPKAEKEFMKKGFGVDRTPVMYNDFIIIADKSLASKFKGKNLKESLELIKNEKLTFISRGDKSGTD

NKEKSLWKNLGGVPEKQSWYQQSGQGMLASIKIAEEKKGVILTDRGTYIKYEANEKGKPNLVIVNEGDDS

LKNFYSVIATNPKHCKNVNYTEASKFIKWVTSDKTLNFIADFKLLNKPLFVIDAKTRKD

>CAL35639.1 putative anion-uptake ABC-transport system permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKLLILKRIFLDYIFDGFKQALFLLFNADESVISAIKTTLLSSSISIVLALLIGFPLGFILGFFEFKLK

RFIKLIVDTSLSFPTVAVGLILYALISSRGPLGEFGLLFTIKALILGQFILALPIVIALFSNLIENMNKK

HFLLIKSFHLSPLKLVLTMIYELRFALISVVALAYGRIVAEVGVAMIVGGNIKYDTRTITTAISLETNKG

EFASGIALALVLILIAFCLNFITHKLKRT

>CAL35638.1 putative anion-uptake ABC-transport system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIEISNLFFNYQNKEVLKIKNLKLDTSKISILMGANGSGKSTFLRILKFLEGDFSKNISYFGNFKPNNKQ

KREIYLLFPEPILLNRSVRANFLFTLKTYGIKEDIEERIKESLMFLNLDESLLSKHPNELSSGQSQKIAF

AIALSVRAKYYLLDEPSAFLDKNTTLLFKKTILKMHENFNTGFLIASHDKHFLDSLAQKKLYLHSGEILE

FENTNVFELENQGVKFCNFIDFSNCKKYKDFKKPPSKIAIDPYKISFFNSKNIPKNNYDFILEKCYIIAL

RSRKSDVFIRVSCMDKILEFALEKQEFLRFDLKLYEELSLYFYEDAICFLN

>CAL35637.1 acetyl-coenzyme A synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNQNNQELFKPSKEFSRNARIKNLCEYYDLCDEAKEDFEGFWKRQAFEKIEWFSPFSRVLNEDKAPFYK

WFEGGTLNVSYQCLDRHMKTRRNKAALIFEGEMGDYEVYTYRRLLHETCKAANLLKKFGVKKGDRVVIYM

PMIPETAIVMLACARIGAIHSVVFGGFSPEALRDRIIDAGAKLVVTADGAFRRGKPYMLKPAVDKALSEG

CESVEKVLIVIRNNEPIEYIKGRDYVYNELVKNESYKCEPEIMDSEDLLFLLYTSGSTGKPKGVMHASAG

YILWAQMTMEWVFDIKDYDNYWCSADVGWITGHTYVVYGPLACGATTIMHEGTPTYPNSGRWWRMIEEYQ

ISKFYTSPTAIRMLHADAPNEPRKYDLSTLEVLGTVGEPINPSAWKWFYDEIGGTKSPIVDTWWQTETGG

HMITPLPGATPLKPGCATLPLPGIFAEVIDEEGNKKDEGEDGLLCITKPWPSMIRGIWGNDERYIESYFS

QAKKDGKAVYFSGDGAFYDKNGYITITGRTDDVVNVAGHRIGTAEIESAIAKHPSVAESAVVSILDTIKG

ESLFAFVVLSPASSCDLGGAIETLKELNDILRVEIGPIAKIEKILYTPGLPKTRSGKIMRRILRTIARGE

EIKQDISTLEDSKVVETIVKLAKAEFE

>CAL35636.1 UTP--glucose-1-phosphate uridylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLQTCIFPAAGYGTRFLPATKTLPKEMLPILTKPLIHYGVDEALEAGMENMGFVTGRGKRALEDYFDISY

ELEHQISGTKKEYLLDEIRSLINRCTFTFTRQNQMKGLGDAVLKGRPLVGDEAFGVILADDLCVNEEGLN

VMAQMVKIYEKYRCTIIAVMEVPKEQVSNYGVISGNFVEENLIMVNSMIEKPSPDEAPSNLAIIGRYILT

PDIFGILENTKAGKNGEIQLTDALLTQATNGMVLAYKFQGKRFDCGSVEGFVEATNYFYEKSKC

>CAL35635.1 putative glucose-6-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNNTLFFKQSEIHTISSYANRINDEVKSGDIGYYHLIDTSLNLIDESLQFIQDKEYVKNIVLVGMGGSS

CGVKALRDMLFNEKSNQRELFILDNTSSHSFNKTLEKIKLEESLFLIISKTGSTIEVVSLFKLLIEHFKL

DMQELKKYFVFITDKDSKLHQEGENLGIKCFFIPANVGGRFSILSAVGIVPLCFCGYNAKALLEGAKACF

EDFFTHKKDEILQKAYHYCTHKNANINVLFSYSDAFKGFNEWYIQLIAESLGKKQGYKRIGLTPIALIGA

RDQHSFLQLIMDGPKNKTVTFLKIKDAQKAPIIPDIHFKFLDSLSNKVNLHELLNAQCDATMHALIAENL

SVDVIELEKLDAWHAGYLMYYYELFTSTCGVMLGINTYDQPGVEVGKLILKNILNS

>CAL35634.1 putative bacterioferritin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSVTKQLLQMQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEMAELFDSCAERVLQLGEKAITCQK

VLMENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLWMIG

ATLQGACKM

>CAL35633.1 putative helix-turn-helix containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVLNFFYENHPKFEVSYERKNQISKPNIIIKGPRFCGKKTLIFNFLSQFKASEILFLDLYDTRFEKQSL

ERLADFLNENLQIKILCLYNLDFIPNLEKINIPIILSTNIKDLNVNGFEELELDYFDFEEFISVSKKNLP

INNLVGLFLQSGRSKFGEKNILLRQSFTLLELEILKYLALNLGQQISISKIFIELKKRLKTSKDSVYQAI

KKLENTYVIYTLKHDEKKLQKIYFKDFGLRNNLCISKDFSHLFENLVLSELFKFKEEFFYNKYFNFYSQI

SKIAYISSPTLDIDLIKLRAKKILPKALELGIFHVIFITLSSEDNFFEQGVKFEVISFDKFSLGF

>CAL35632.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKPIIIFFSLFLIPLFADDLKSGFGEEYYKLDIDQKRQIFFIKMNEMFDQSFKKIEQERAFIEAFFKDAY

KTGFRTSNQINLEKLITIKNKYRIENLYDFAEYKKRIQKIPKSMGIAQALVESATGTSRFAREANNLFGE

WTWGEKGLIPDLRHPDKKHKIKIFDSLQDSVDSYVLNLNRHFAYEKFRDARAKFESEGKEITGLEAIKTL

DSYSERKGYYINLITKIIKRYNLEKYDTNSNNT

>CAL35631.1 diaminopimelate epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFYKYCASGNDFVITNADRKEDRSALAKELCNRYEGIGADGFIVILPHEKYDFEWEFYNNDGSRAAMCG

NGSRAAAHFAHHINKINPNMSFLTGAGIIKAKVNQDKVEVSLGKIKSVQNTFEELGKTWQLCNTGVPHLV

HFCQNLDEFDTMLCQKMRQKYNANVNFVKILDENHLKVRTYERGVEDETLACGTGMGACFYLAFLNKKVQ

NKVKITPKSGEEVGFAYKNEELFFEGKVKYCFEANYNFF

>CAL35630.1 putative dephospho-CoA kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKIDRKI

LGEIVFNNKEAKKILENFTHPKIRAKILEQMQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPKELS

LKRIMQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNM

>CAL35629.1 phosphoribosylformylglycinamidine cyclo-ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKISYEDAGVSIDNGNTFVEAIKPLVKETFNDNVVGGIGSFAGAFRMPSGFKKPVILGATDGVGTKLRLA

IDAKKYDTIGQDLVAMCVNDLICNFATPLFFLDYYATAKLEVEVAKAVVSGIAKGCKMANCALIGGETAE

MPGMYAKDDFDLAGFAVGMAEEDEIDRSKFVKNGDILLALSSSGLHSNGYSLARKVLFESLKLKFDDKIE

GKNLIDILLEPTRIYVRDFLTLKPYISALAHITGGGLVENLPRVLPRGMGATIRKHHLKTPEIFYTIGQA

VEESEMYRSFNMGVGLVMVVDPSNVSKILENSDAFIIGEICINEGIVLE

>CAL35627.1 putative CRISPR-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARILAFDIGISSIGWAFSENDELKDCGVRIFTKVENPKTGESLALPRRLARSARKRLARRKARLNHLKH

LIANEFKLNYEDYQSFDESLAKAYKGSLISPYELRFRALNELLSKQDFARVILHIAKRRGYDDIKNSDDK

EKGAILKAIKQNEEKLANYQSVGEYLYKEYFQKFKENSKEFTNVRNKKESYERCIAQSFLKDELKLIFKK

QREFGFSFSKKFEEEVLSVAFYKRALKDFSHLVGNCSFFTDEKRAPKNSPLAFMFVALTRIINLLNNLKN

TEGILYTKDDLNALLNEVLKNGTLTYKQTKKLLGLSDDYEFKGEKGTYFIEFKKYKEFIKALGEHNLSQD

DLNEIAKDITLIKDEIKLKKALAKYDLNQNQIDSLSKLEFKDHLNISFKALKLVTPLMLEGKKYDEACNE

LNLKVAINEDKKDFLPAFNETYYKDEVTNPVVLRAIKEYRKVLNALLKKYGKVHKINIELAREVGKNHSQ

RAKIEKEQNENYKAKKDAELECEKLGLKINSKNILKLRLFKEQKEFCAYSGEKIKISDLQDEKMLEIDHI

YPYSRSFDDSYMNKVLVFTKQNQEKLNQTPFEAFGNDSAKWQKIEVLAKNLPTKKQKRILDKNYKDKEQK

NFKDRNLNDTRYIARLVLNYTKDYLDFLPLSDDENTKLNDTQKGSKVHVEAKSGMLTSALRHTWGFSAKD

RNNHLHHAIDAVIIAYANNSIVKAFSDFKKEQESNSAELYAKKISELDYKNKRKFFEPFSGFRQKVLDKI

DEIFVSKPERKKPSGALHEETFRKEEEFYQSYGGKEGVLKALELGKIRKVNGKIVKNGDMFRVDIFKHKK

TNKFYAVPIYTMDFALKVLPNKAVARSKKGEIKDWILMDENYEFCFSLYKDSLILIQTKDMQEPEFVYYN

AFTSSTVSLIVSKHDNKFETLSKNQKILFKNANEKEVIAKSIGIQNLKVFEKYIVSALGEVTKAEFRQRE

DFKK

>CAL35626.1 putative CRISPR-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSYDEAFKTLLISSNAKLNLELNHLVIKQDENIAKLFLKDINIIVLESLQISISSALFNAFAKYKIILLT

CDETHSINGVFTPFLGHFQSAKIAKEQMNVSAQKKAILWQKIIKNKILNQAFILKKHNKIEQSNELINLA

KKVSLNDSKNIEAVAAALYFKTLFGTSFSRDELCFENSALNYGYAIIRACIIRAVCISGLLPWLGIKHDN

IYNSFALCDDLIEVFRASVDDCVLKLKGESEFLSKDDKRALIGNLQSKINFDGQNYPLNRAINHYVANFK

NALLYEDELKIVKFDD

>CAL35625.1 putative CRISPR-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIEDKFMRVLLMFDVPTKSKKEQKLASKFRNNLIKLGYFMLQFSVYMRICKGLSSAKSSIENVKKILPPY

GNVRALIITEKQFDKMELLLGGIVFNEKVNNETNLTLFDIDSHGEFKYKNSNNEEIQINKKQEKYHQQNL

FEF

>CAL35624.1 putative molybdopterin biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLMSYEESLKILHSHIKTYEKIEKIALTECLGRILAQDIKAPKNQPEFPTSAMDGYAIKFEDQDKPLKIL

GLTPAGTMPQFSVQNGTCVKTFTGSLMSEGSDTLVPVENIRIENNTLFIEKKVPQAFAVRAVGENYKKDE

ILLKKGTRLNYSEIALLAELGFFHISVFIKPIVGVLSSGSEIKDLGEALENPAQIRSSNHIAIANLAKNL

NCDTRVFPLLKDDEKATFSTLESALQSCDILVTTGGVSMGDFDFLKKAIKEYEIIIDKADIKPGRHIKIA

KANEKFIIALPGFPYSAMVMFNLYTREILNSWLLQPKDYICKAFLQGSYKKKTPYLEFVACNIEFKNGRI

LANLEGKKEGSSAIINNLNNKAALMVVPKECEMLENESLVDIIFMP

>CAL35623.1 putative molybdopterin converting factor,subunit 2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKHFTLYQGSLDIPKIYSQWYEFSKDKNCGALLTFCGIVREEGGIEALSFDIYESLLKKWFDEWQKRVDF

DGISLLFAHSIGDVAIHESSYFAGILSKQRKLGLKLLNEFVEDFKASAPIWKYDVINKERIYAKERSTKL

CGAGLLKG

>CAL35622.1 putative molybdopterin converting factor,subunit 1 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKVEFLGPINKENLELEVKNLKELKEILQKDESLKEWLELCAVSLNDEIIFNENTKLKDGDKIALLPPV

CGG

>CAL35621.1 putative periplasmic oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNRRNFLKFNALTLASMGVAYANPMHDMHSMHKNHSINHDLDTSFINFAPKNLKLLDPKQFPQGEILKAL

PLLKNESKEKNIFRATLEIKENHIELIKGKKTLFYTYNGLVPAPKIEVFEGDKLEILVKNKLKEATTIHW

HGVPVPPDQDGSPHDPILAGEERIYRFEIPQDSAGTYWYHPHPHYTASKQVFMGLAGAFVIKAKKDALSH

LKEKDLMISDLRLDENAQIPNNNLNDWLNGREGEFVLINGQFKPKIKLATNERIRIYNATAARYLNLRIQ

GAKFILVGTDGGLIEKAIYKEELFLSPASRVEVLIDAPKDGNFKLESAYYDRDKMMVKEESNTLFLANIN

LKKEKLELPKNLKIFKPLEEPKEFKEIIMSEDHMQMHGMMGKSENELKIALASMFLINGKSYDLKRIDLS

SKLGVVEDWIVINKSHMDHPFHIHGTQFELISSKLNGKVQKAEFRAFRDTINVRPNEELRLKMKQDFKGL

RMYHCHILEHEDLGMMGNLEVKE

>CAL35620.1 putative decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFYEKIQTPAYILEEDKLRKNCELLASVGEKSGAKVLLALKGFAFSGAMKIVGEYLKGCTCSGLWEAKFA

KEYMDKEIHTYSPAFKEDEIGEIASLSHHIVFNSLAQFHKFQAKTQKNSLGLRCNVEFSLAPKELYNPCG

RYSRLGIRAKDFENVDLSTIEGLHFHALCEESAGALEAVLKVFEEKFGKWIGQMKWVNFGGGHHITKKGY

DVEKLIALCKNFSDKYGVQVYLEPGEAVGWQTGNLVASVVDIIENEKQIAILDTSSEAHMPDTIIMPYTS

EVLNARILATRENEKISDLKESEFSYLLTGNTCLAGDVMGEYAFDKKLKIGDKIVFLDQIHYTIVKNTTF

NGIRLPNLMLLNAKNELQMIREFSYKDYSLRN

>CAL35619.1 hypothetical protein Cj1514c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGALMDLEKLRLARSLYYQCLGELFVFSFSEERLSKLQEYLKTMQECLFDENLKSNFDILLKHLDDENSI

QAFFKEYDLLFLSLKNSIPTTFSYIEEGFENSNPLLCVRQILVKSKIRRNEKFFKESEDSVGFCLLLMSE

FLRQNEDDLAKELFEKVINKSIDEFLGDVFMNKNANLYKEIASIASAFMEFERLCFEVEKPAKINSKKVQ

NDLSRSEFLRREANKQRRTREKSQGIS

>CAL35618.1 possible periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNRREFLKKSAFALGAAGVLGSTTLALAKDEERKDLVKGKSKKKEVLFQRSANWENYYIKAE

>CAL35617.1 putative formate dehydrogenase large subunit (Selenocysteine containing) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSSVGENIKLTRRSFLKMAALSSLATPLLARSETLREASADELKEAYEGSKKVKTVCTACSVGCGIIAEV

QNGVWVRQEIAQDHPVSSGGHCCKGSDMIDMVRSHVRLKYPMKKENGEWKRISYEQALSEIGEKLAAYRK

ENPESVMFLGSAKLNNEQAYYIRKFAAFFGTNNVDHQARIUHSATVAGVANTFGYGAMTNHLGDIQRSKC

IIIIGANPAVNHPVGFRHFLKAKEKGAKLIVVDPRFTKSAAKADIYARIRPGTDIAFMYGMLKIIFDEGL

EDTKYLDERVFGIDKIREEAAKWTVEEVENVTGISKELLVQITHEVAKNKPTTLIWAMGLTQHTVGTSNT

RLAPIVQMVLGNIGKFGGGVNILRGHDNVQGASDMACLSENLPGYYPLNEATWRYYAKIWGVDYEWLLGN

FVSKDWMHKTGLSLARWWAAALNGKDGNDAIDNAGTPLKALVVMGNGITSTAQQVKVKEGLEALELLVLA

DPFVNEAGIIAERKDGIYLLPAATQFETSGSVTATNRSGQWRFKVVDPLYESMEDQEILFELAKKLGFYE

DFTKTLRDEKGEIVWPENATREIAKAVRSIGLNGWSPERLKKHTLYWDKFDEVTLEGKDEVAGEYYGLPW

PCWSDKHPGSPVLYNTDIEVAKGGMGFRNNFGLEYEGESLLAKNAPLNSPIDTGYPQITKDNIEKVLGIT

LSAQEKEKMGSTWSYDDSNIIATKCIEKGIVPYGNAKARAVVWTFKDKIPLHREPLHSPRNDLVQKYPSF

EDQKALYRVDTKFVSVQQAKDYSKEFPLNLVTARLVNLNGAGMENRASMYLTRLTPEMFCEINPELAKEQ

DIKAGDMIWVHSPEGTKIHVRVKVNPGVAKDMIFLPFHFTGVMQGVDLTHNFPEGTKPYASGESANTVTN

YGYDIMCQIPETKGGLCRISKDGK

>CAL35616.1 putative formate dehydrogenase iron-sulfur subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKVNFANLEKERLKFFCDNERCIDCNGCAVACDEAHELPIHIRRRRVITLNEGIQGKEVSTSISCMHCD

DAPCSIVCPVDCFYIRADGIVLHDKEICIGCGYCLYACPFGAPQFPKDSVFGNKGIMDKCTMCAGGPEAT

NSEKERELYGQNRIAEGKVPVCAAMCSTKALLVGESSKIEEIYHNRLMNRNYGIPNPSESLEWKIAYTGK

ERL

>CAL35615.1 putative formate dehydrogenase, cytochrom B subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKVFVTLLLSVVSLFAYGSERMGQDTQIWDFHRITNIPNYDTFGKLWTTLQGEYIATIALIAVIAVLSA

FALHYMVIGPKQFSHDGKKIYAFTLFERLFHFIAAISWVILVPTGFVMMFGEVFGGGVFVRVCKNLHAFA

TILFIISIIPMFLCWIKRMLPASYDIRWMMIVGGYLSKIKRPVPAGKFNFGQKSWYYIAVFGGFLMIITG

GFMYFLDFNSTAIQGLFGLTQIELLRISAIVHNFLGIVCAVFFGVHIYMAVFAIKGSIHSMISGYKEEEE

VYILHSYWYKELSNKKQIEPSFSYDPNVKI

>CAL35614.1 FdhD protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDPLFTTQILKYKGDESFTCNDTLVREIKLEIFINDEKVGALMATPVDEQALAIGYLMSENIIAKVSDIE

SIETKDDGMSVHIKAKIDKENLAKLNAEGVVISGCGRAHTANIDPEAIEASKISSDAKFSKDEILKQMST

FYTQCELYEKTGCVHTAKLFVDEKTFFIGEDIAQHNTIDKALGKACLAGVDLSQCFLMVSGRLSSEMVAK

AVMHKIPVLVSRTAPTCLGVMIARKFDLTLCGFARENKINIYSGEFRIHG

>CAL35613.1 putative regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKNQEKEIISYMRELLNSNEKLDCGTAFKIAKKFNINIEKIGQLADENHMRIDNCELGQFGHLDFEKAK

IEVLKKIEPSLDEKRRIFCKDARDIAKEGCGLKSMRSALKTYKVDVKYCQLGCFKEKKGKQFIVRTKTWI

ENADGDLLFGRGKTELLELIGQTGSLLHASKLMGINYKKAWMHLQTLQKNSQEILVSTRQGRSKESGTKL

TPRAMELMENYSILQKDIEEYANKRFKELFLKGKK

>CAL35612.1 putative MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKSLNIGLKLIFSVAAVVVIGLVILISLITKQVSQNITKNTEDILASITKEYATQTQGIFGEMIALNKS

ISGTLTEMFRSTSKEDLDIDNITNIITNTFDNSAYSNFTYLYLIDPPEYFKEESKFFNTQSGKFVMLYAD

EEKDNKGGIKAIQASDEIANLQVVQDILKKAKYGENKVYIGRPIKMNLEGQDFDAVNVAIPIFDRKNQVV

GVIGMTLDFSDIATYLLDPKGQKYDGELRVLLNSDGFMAIHPNKNLVLKNLKDINPNKGAQETYKAISEG

KNGVFNYIASDGDDSYAAINSFKVQDSSWAVLVTAPKYSVFKPLKKLQLIILGASFIFIFVVLGVVYYCV

RKIVASRLPVILSSLESFFRFLNHEKIEPKAIEIRANDELGAMGRIINENIEKIQISLEQDQNAVDESVQ

TAREIEKGNLTARITKNPINPQLVELKDVLNRMLDVLQSKIGSNMNEINRVFDSYKALDFSTEVFNAKGE

VEITTNILGKEIKKMLLASSNFAKDLANQSEELKNSMQKLADGSNAQASSLEQSAAAVEEINSSMQNVSG

KTVEVASQADDIKNIVNVIKDIAEQTNLLALNAAIEAARAGEHGRGFAVVADEVRQLAERTGKSLSEIEA

NINILVQSVNEVAESVKEQTAGITQINDAIAQLETVTKENVEVANVTNNITNEVNQIAAAILEDVNKKRF

>CAL35611.1 putative two-component response regulator (SirA-like protein) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIDCRNLSCPQPIVETKNALEKLQENEILEIVLNSIISKNNVVKFLNSLNLNPVVDENAQEFCIKVQKK

NFDSSEVNIHDYNVLFLKTDKVGEGELGQNLLVGFLSTLKNLDHAPSKILCVNESVLINVDENHKAHLAM

KELENLGIEIISCGACLEFFNKSKELKIGNIGNAYEILNELFGKAKIITL

>CAL35610.1 putative selenide,water dikinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKTPALLSDIGNNEDASVYQISPDLALVQTLDFITPIVDSAYHFGAIAAANALSDVFAMGAEVINALNI

VGFDTCNHDLNILKELLEGANDKVKECNALVVGGHTIESTELFFGLSVTGKVHPSKFIANNTSKIGDCII

LTKPLGTGILSTALKAQMLNQKHLDIMLKNMIELNYKASQIALKFHPSAMSDVTGFGLLGHLKEMLNKNI

SFEIFESELPFLDGVKEYFNMGLIPAGAYKNLEFIKELTPDLNEEKLLLCDPQTSGGLLISISEKDSLEC

LKKLEDENIQAKIIAKVVNKQENDIIIS

>CAL35609.1 putative proline dehydrogenase/delta-1-pyrroline-5-carboxylate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIQKALALAEELQGQIEANISNSEKEFHAKMQKLLNNPKNKVMLIELLDRSFRCKDKNASFELIEYTLSK

YGIADFFSTFEKFLLFSFLNFGKFAPNLSVPFFVKHLREDTKAMVLDANPSVLEPHIKKRKEQDKITLNV

NLIGEEVLGEAESKYRMQKYEEALKSSYITYISIKITTIFSQINIIDFNYSKEEVVKRLDYLYALALEEE

KKQGVSKFINLDMEEFRDLELTVAAFMESVAKFDIKAGIVLQAYIPDSYKYLKKLFAFSKERVLKGMKSI

KIRFVKGANMESEETIASQRGWELPTFYKKIDTDSNYNKMLDFILEGDNYKYINIGIASHNIFEIAYAYT

RISEVGALDSFTFEMLEGMSLQCSYELSKMHDLILYTPVCDEAHFNNAIAYLVRRLDENTSEDNFMRYFF

NLKVGDKNWNIQKELFLKSLEGIKTLDNTTHRKQDRNKESNIISSYEGKKFSNESDTDFILAQNRVWAKE

IKTKYENLKDYDVYPVIGELDFKAENLNVLEVKDKIEDRVIGKAYLAGEKEIKQALEVAKNSKFTQKSHD

EIYQILAKSAKLMRERRGDLIGLAALEVGKTFLEIDPEVSEAIDFIEFYPHSLEELKKQNPKVTFTPKGI

GVTIAPWNFPIGISVGTIAAPLAAGNVVIYKPSSLSTLTGYMLCKCFWDSGIPKDALIFLPSKGSDISKY

LLIDEAIKFSILTGGEDTAYAMLKANPTLLLSAETGGKNATIVSKFADRDSAIKNIIHSAFSNSGQKCSA

TSLLVLEEEVYHDEEFKKTLVDAASSMAVGNPFEFKNKLGTLADKPSSKVQKALDELQPYEEWALKPKFL

EDNPYLMTPGIKYGTKKGDFTHMNELFVPILSVMKAKDLKEAIDIVNSTGYGLTAGFESLDEREWEYFHT

HIEAGNIYINKPTTGAIVLRQPFGGIKKSAIGLGRKVGIYNYITQFLEIKQEDFDDHLIEDKFSKKLAQI

DLKEAQDFINNLIKMSQSYAYHYKNEFSVSKDYVNIRGEDNLFSYTKIKNMVLRLCGNESLKDVLGVVLG

ANIANIDLSISYDEQDVSMIERIVQSIGAKVLFLKENKENFIKSIKEYERVRYLAKPDVNDEIYKEAAKL

AKIIIREKPLLNGRFELLNYFNEKALSISFHRYGNLGIRAIS

>CAL35608.1 putative sodium/proline symporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKERLMEVVQINTPIAVMFVVYALLMLYIGFYFYKQNKNSEDYFLGGRTMGPVISALSAGASDMSGWLL

MGLPGALYVSGFIDSYIAIGLTIGASLNWIFVAKRLRIYTSVIANSLTIPDYFETRFDDDKHILRIVCAV

VILIFFTFYVSSGLVSGAKLFESTFGIRYDYALTTGTIIIVAYTFLGGYKAVCWTDMIQGLLMMMALIIV

PLVMLYHLGGFGEAMNIVREIKPQALSMGEGVGIVSIISALAWGLGYFGQPHILVRFMSIRSTKDIPMAT

FIGIAWMAVCLLSACMIGILGIAYVHKFELSLQDPEKIFIVMSQLLFNPWIAGILLSAILAAIMSTASSQ

LLVSSSTIAEDFYKKIFREDAPSHIVLNLGKLGVLLVAVIAFLISTDKNSSVLSIVSYAWAGFGASFGSV

MLFSLFWSRMTRVGAILGMITGAATVVLWKNFANSGLYEIVPGFLVASVVIIIASLFTNVRSGTKAAYEK

MLKEF

>CAL35607.1 conserved hypothetical protein Cj1501 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKITYSLNLQGEACPYPAIATLDVLPKLKSGEILEVLCDCPQSINSIPQDAKNRGFKVLEIDQSGPTLRF

LIQKP

>CAL35606.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNSFKQKYLINFWDNSRSMIALGILSAVYFGIFGGVWAVTGEMTRWGGEFLELLGMNLDGYSYYQKQNLN

GTPLTRTDGIMLIGMFIGCLVAALLANKVKFRLPASNIRIFQAIVGGILSGYGARLAFGCNLANFFTGLP

YFSLHTWLFTVFMVLGIYLGVKICNTSFFKPKAKLERVNKENLPLNKQSLRTKLYFNLGILLFIAFLVWV

FYLVFTNGNISTQNKQSLLALALIFGFVFGFVISRGQICFTSCFRDLFLFGRDNAIKGALIGMIIASLIA

FAFILQGHTSKLIELSPAVAVGAFLFGFGIVFAGGCECGWTYRAFEGQSHFIIVGIANIIGTMILALSYN

FLPKAFKEGIKINLLTEFGNLNGFFINLILFILMFVFVVFYKKHFFKNQLKG

>CAL35605.1 adenylosuccinate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKADIIVGIQWGDEGKGKVVDKLCENYDFVCRSAGGHNAGHTIWVNGVRYALHLMPSGVLHPRCINIIG

NGVVVSPEVLIAEMAQFENLKGRLYISDRAHLNLKHHSLIDIAKEKLKGKNAIGTTGKGIGPSYADKINR

TGHRVGELLEPQRLCEALIKDFEANKTFFEMLEIEIPSAEELLADLKRFNEILTPYITDTTRMLWKALDE

DKRVLLEGAQGSMLDIDHGTYPYVTSSSTISAGTLTGLGLNPKEAGNIIGIVKAYATRVGNGAFPTEDKG

EDGEKIAQIGKEIGVSTGRKRRCGWFDAVAVRYTARLNGLDALSLMKLDVLDGFEKIKICRAYEYKGMEI

DYIPSDLENVQPIYEEMDGWDKVFGIKDYDLLPENAKKYIARLEELAGVKVKYISTSPERDDTIIL

>CAL35604.1 hypothetical protein Cj1497c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSKYNSVVKVRKQQLDKAESNLNQAKQRQLEHEKAYELSRQECESLGVLPKSGSIAELRSNLSMAQVGR

EALARAKEKVELSKKEMNHYQFLYQKAHLDYEKMKVLEAEEIKQKQKELAKAEEKFLDEIAISRFFKGEK

DD

>CAL35603.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKKFILLVFISSVVFGAEQDCEQYFEARKAQIELQTREFDEARQSLEAYKASFEALQKERLENLEKKEA

EVNATLAKIEELKLENARLVEEQQKILNSINDKTQGRVKEIYSQMKDAAIADVLSQMDAEDASKIMLSLE

SRKISGVLSKMDPKKASELTLLLKNLDNNASN

>CAL35602.1 conserved hypothetical protein Cj1495c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRIKLPHIPYIANKMMLDIANSSFVEIKDQLEKLKVCIIEVLEKDILNERKLDERVKELLEQQEDEMELM

QVDRKNMFWLVKKKLAPEFNVILDSEDRHNHLAHQILEELVENDYINFIVSENRVKNLIFSSIESYLKIY

EKLEDEVYEKISNYKTKPIPGSEEYDLIFEKLYQEELRKKGMF

>CAL35601.1 carbamoyl-phosphate synthase small chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKAYIYLENDIFLSAKAFGKSGTFFGELVFNTSLTGYQEIISDPSYAGQFIVFSMPEIGIVGTNENDNES

KEIFASGVLMRELSSSFSNFRAKESLQDYLEKHGKIGIYELDTRYLVKMIRNNGNLRAVISTEISNKEDL

KIALEKSAKIDEVNFVKEVSTKKNYSHKQGVWNASFQKFNDAKRSEKKVAVIDYGVKTNILNELVEVGFE

VEVYPYNVKADELITLYKKGEIQGVFLSNGPGEPRILKQEIAEIKKLAEAKIPMLGICLGHQLLSNAFGY

ETYKMKFGQHGANHPVINLDTKTVEITAQNHNYNVPEELAQVAHITHRNLFGDNVEGVRYKDYPIISVQH

HPESSSGPHESKYIFKEFMNLM

>CAL35600.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSIDFLAIISVAFLSSFGHCYSMCGGFNLLFINLNSKSNNLFLLTFIYNLFRIFAYIVLGIIFGTFGNIL

AINAKVQSLSFFILGIFMMILGFALIFRGNMLSFIENNVFFDSFVKKIIKKSKNFKGLKSAIFLGFSNGF

VPCGLVYFFIANAMSKQNIFEGILVMMIFGISTLPAMLFFSKISQFFSDFLKNLFNYLSYGVIVCYGINL

AYIGFKAFQ

>CAL35599.1 putative two-component sensor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKDFFKDQFFKALEKNTIFSRADVQGNLIFVSDKLCQISGYSKKELIGKKHSIFKHPDVEECYIEELLKK

LSYKKPYQVIFKNIDKLGKTFYLETLLIPILDKNNELIEIVAFSHDVSNSFKLNEELALNHAKLRELSIN

LENTVKNHQQEFIQLGKKFEKKMQIALEKNEKDIKIAYEEILKSSLEQMISDIAHQWRQPLNELGIAMFQ

MKQNLKDEKGFAEIYSQSKDMIKNMSETIDVFRTLFNKGVEQCVFIKETLNKALEIAFETIEKNHVNINI

VSKSDYEVLAYENGLIRVFLNLILNSIEAFKNKKRKIITINFSKFGKNYLKITIKDNAGGIDKENLDKIF

QPYFTTKHPSQGIGVGLYISRQIIESFQGKIKVKNGKDGACFEIFLKLKERVE

>CAL35598.1 putative two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQECKELIILVVEDEVKARESMINILSERFSKVIGAQNGDEGLKKFKKFKPDLVITDIAMPIMDGLDMA

REIKEISDDVPIVVLSAYSEKERLLRSIDIGIDKYLIKPVDIEELFKVLDYLIGEKIEANMLVKISEEYQ

FNKTKRTLIYSGGEIVLTKKELAFISLLLKQPGALVLHEDIKKNVWIGEHVSDTAVRTFIKRVRDKVGED

FIKNVPSLGYKININK

>CAL35597.1 cb-type cytochrome C oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHPGNVLNYDYTVARYFMFATILFGIVGMAIGTLIAFQMAYPNLNYLAGEYATFSRLRPLHTSGVIFGFM

LSGIWATWYYIGQRVLKVSMAESRFLMAVGKLHFWLYMLTMVLAVISLFMGVTTSKEYAELEWPLDILVV

LVWVLWGVSIFGLIGIRREKTLYISLWYYIATFLGIAMLYLFNNMEVPTYFVTGMGKWWHSVSMYAGTND

ALVQWWYGHNAVAFVFTVGIIAQIYYFLPKESGQPIFSYKLSLFAFWGLMFVYLWAGGHHLIYSTVPDWM

QTMGSVFSVVLILPSWGSAINILLTMKGEWSQLRESPLIKFMILASTFYMFSTLEGPILSIKSVNALAHF

TDWIPGHVHDGTLGWVGFMTMAALYHMTPRVFKRELYSKSLMEAQFWIQTTGIVLYFASMWIAGITQGMM

WRATDEYGNLLYSFIDTVVAIVPYYWIRAIGGLLYLIGFFMFTYNIYKTIACGRVLDKEPKSASPMAA

>CAL35596.1 cb-type cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFSWLEKNPFFFAVAVFVVIAYAGIVEVLPNFAENARPIEGKKPYTVLQLAGRAVYIKDSCNACHSQLIR

PFKSETDRYGMYSVSGEFAYDRPFLWGSKRTGPDLARVGNYRTADWHENHMWDPTSVVPDSIMPSYKHMF

KNNADIETAYAEALTVKKVFNVPYDAENGTKLGSWEDAQAEVKAEAQAIVDQMKNQEVKDAFAKGEIKEI

VALIAYLNSLK

>CAL35595.1 cb-type cytochrome C oxidase subunit IV [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEHLSIVFDVIKNLITFDLATVQKHEWEIFQGYGFFALVMFLSIVLYAYWYHLYRTEKKGERNYENYANL

ALKDDIDDSVLESKRSA

>CAL35594.1 cb-type cytochrome C oxidase subunit III [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQWLNLEDNVNLLSLIGAILIILITLVIVGRMFKQMKEKKGESELSEHSWDGIGEYKNAVPTGWAVVFFL

TIVWAIWYFLWGYPLNSFSSIGQYNEEVATHNTKFEEKFKNLSPEDKIAMGQNIFLVQCSACHGITGDGI

NGKAQNLNIWGSEEGIINVIKHGSKGMNFPGGEMLGAADLGVAEEDIPAIAAYVAKDLSAIKKTANENLV

AKGKEAYATCAACHGEDGKGQDGMFPDLTKYGSAAFVVDVLHSGKAGFIGTMPSFPTLNDIQKEAVGEYV

ISLSRGE

>CAL35593.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMENNNRCVFSLSGVTGMLIATVLLLVILAVLTIWGLKAQQEVMQKPYSLKDVQSVKMFGSKEQDHRSIK

EAQ

>CAL35592.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKALEYLIVIGLVAAAAITAWSVLTVNHLHIG

>CAL35591.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILQDGFFLAIFFFVLLPSRVFALDAVLFNENILSQKVSNEINLIGKELYQKSNIFIGVMVGDKTEIE

TLLNKQKELPQSYILLLLSKNSHKVDIVGSKGALALIDKEAVLSPYPGTGSILPILATNKGDIYNAAILN

GYADIVDRVAKSLGLQLEHSIGNANRDTINILRILIYGFICFALLYYAQRRIKRKKNVRN

>CAL35590.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLETKKSFWPYGILLSLLAIIIACIVTIFIASHHPVYEDDFYFDSYQNVENNYNQIQKQQVNFDKFFKVN

FQNDKITFIGKRKIPSYEVDQNSYVANFKISALQNINSNDLKVQVLLTRPFTKNFDQKLEGQVKNGILSI

ALPKLDKGRWELKLKFYANQETVGFFSYELNAQ

>CAL35589.1 hypothetical protein Cj1482c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLRIFSSSRQIREYYNQKKQQNALLDSAIHIGEFLDKVCLSNFHKASSYESLLLMQEACLKSKDLEKKL

GISVEFFAFLKNNEYLFSFFKELSLEKKSIEDLKNNDYYATYNEHLEILDEVYKNYLALLEKNSFYDDLS

LPKNYTLNKDFLDEYEAIVYDLQGFLSKFEENLLSEISQIKEVVLSFKTSKFNLEYLLKLDFLKIFDLKI

NTHYEINLSKQEILKEEIFKTKNSKMKLKSFELRALQCAFVMDEISHFVRKGLKPENIAVITPDESFCEF

LRLFDKDNMLNFASGISIKESLFYQKFQALYESASSASFVYKNQEDYFEDTQMIFDYHNTLLHSLKLDFI

EFKKYFDEKCDFEYFEKLLALFLENEKQELMYLIRKELYFIKDLLKNQSLTLKELIHLFFMQISQLSLSD

VGGGKVTVMGLLESRGLCFDGVILVDFNEEFIPKRSVNELFLNNEVRKKAGLISYDRRENLQRFYYESLM

KNALEVSICFVENEEKSKSRFLDELDFDFFYETHIHQKAYLNALKLDYEGIKPNLTPIKAPILKHNPFEF

PLSFSRFNLLENQKRTYYYRYILNLAEPRVLSEESKAKNQGNFIHKMLEIYYKNYANNDFDIKVFANLLD

KEYQKYNISELDLEVFKLKFMQFAKNEKEHFSKGFYVVHTELELNNILKLGTDSIKLKGTIDRIDSSKEG

NLIIDYKSGKVPSNSYQLAFYQALYDENASVGFYDLNSMQILHQKAKSLDELRERLKDLVLMSKEEIEFE

NEQDEYCPYKLIYKKELK

>CAL35588.1 putative helicase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQFEPFLALEASAGSGKTFALSVRFVALILKGARINEILALTFTKKAANEMQKRIIETFLNLEKENKTS

ECNELCKLLGKDKEELISLRDAKKEEFLRTELKISTFDAFFGKILRVFALNLGLSSDFTMSEERLDVREI

FLKLLKKDELKDLAYYINLVDEKENFFNELEKFYENAYFQNRPKILNPTKAYINKAYSELRSYCLGLTHV

KNYKNLCDNFKSEVLDLSVFMQSSFMTKFESTKYLQDLESTNLHFSAKRMEFINALNTYAIELENYKIAN

LMNLLNHYSEAKNIFHKDKNTLNFQDVSKKVYELITSEFKDMIYFRLDGFISHLLIDEFQDTSVIQYQIL

RPLIAELVSGEGVKKNRTFFYVGDKKQSIYRFRKGKKELFDLLKQEFSQIKSDNLNTNYRSKELLVDFVN

ETFKEKIKDYKEQFALESKKGGFVRIVESKEQKVKNQAQEIKEKTLETLFEQINFLRSKNISYDDICILC

WKNSDADMVLDFLREQNIPAFTQSNVLLENKASVRLVLEYAKYCIFGDEFYLVFLKELLGFEPRKITLDF

SKNAMENVLFLIKELKLDLNDIALIQFIEYAKTKENFLKLLFEPCALKIVSEQNMGISIMSVHKSKGLEF

DHVILLDSLSKNNSNNEDIMLEYDINQGWQLHIKDKIRELTKEPIYTLFKENITRANYEDDINKLYVAFT

RAKESLIIIKRNEESVNGNYPSYFKGGFLNIHSQERGFLESKEQILSVKKESIQTLQKFEKITLQEIQSE

ERLDSKELYFGNAFHFFMQNLKLPKGENFQILTQRCKSKFRHFLDESDFEKLFKRIEILLKNIQFQNLIG

DGKLLKEQALSFNGEIKQLDLLALKDEEAFIIDYKTGLAMQDKHKEQVGTYKIAISEILQKDKVRAFIVY

CLENEIQILEI

>CAL35587.1 50S ribosomal protein L13 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKITKPNEVKREWIVLDAEGKRFGRLLTEVATILRGKNKPCFTPNVDCGDYVIIINASKAVFTGANKAE

DKLYHRHSGYFGSVKSEKFGDLLEKNPAKLYKLAVRGMLPKTNLGRAMLKKLKIYAGSEHPHTAQIAKEG

K

>CAL35586.1 30S ribosomal protein S9 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MATTYATGKRKTAIAKVWVKPGSGKISVNGVDLNTWLGGHEAIKLKVVQPLLVTKQETSMDIKATTLGGG

YSAQAEALRHGISRALAAMDADFRALLKPKGLLTRDSRTVERKKYGRRKARRSPQFSKR

>CAL35585.1 outer membrane fibronectin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLCLGLASVLFGADNNVKFEITPTLNYNYFEGNLDMDNRYAPGIRLGYHFDDFWLDQLEFGLEHYS

DVKYTNTNKTTDITRTYLSAIKGIDVGEKFYFYGLAGGGYEDFSNAAYDNKSGGFGHYGAGVKFRLSDSL

ALRLETRDQINFNHANHNWVSTLGISFGFGGKKEKAVEEVADTRATPQAKCPVEPREGALLDENGCEKTI

SLEGHFGFDKTTINPTFQEKIKEIAKVLDENERYDTILEGHTDNIGSRAYNQKLSERRAKSVANELEKYG

VEKSRIKTVGYGQDNPRSSNDTKEGRADNRRVDAKFILR

>CAL35584.1 putative hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKTILFDLDGTLIDSTDAILNSFQGAFKALGLTSKNNEEIKNLIGYPLEQMFRMLYPDKVNLSKEFVLA

YREIYAQIYLEQTTLLPKAKEALELGSEIADLGIVTTKGGKFTPILLDYLGVKKFFKTLITLEDVTNPKP

SSEPIILALKGLNKTQENAYMIGDTILDIQAAISANITPLALTCGYGNENELKAHSMVFLNAYEAVNYIA

RLN

>CAL35583.1 pyruvate-flavodoxin oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGKIMKTMDGNEAAAYAAYAFTEVAGIYPITPSSPMADYTDMWAAAGKKNLFGVPVKIVEMQSEAGAAGS

VHGSLQAGALTTTYTASQGLLLKIPNMYKIAGQLLPCVIHVAARSLAAQALSIFGDHQDIYAARQIGFAM

LCSHSVQETMDLAGVAHLAAIKGRVPFLHFFDGFRTSHEIQKVEVMDYAHFDRLLDREALLEFRNNALNP

ENPKTRGTAQNDDIYFQTREVSNRFYDALPDVVNEYMQEISKITGREYKPFTYYGHKEPECVIVAMGSVT

QALEEVVDYLNAKGEKVGILKVYLYRPFSLKYFFDVMPKSVKKIAVLDRTKEPGSLGEPLYLDVKSAFYG

RENAPVIVGGRYGLSSKDVDPAQMIAVFENLKLDNPKDGFTVGIIDDVTHTSLSTGEKISLGDESTIECL

FYGLGADGTVGANKNSIKIIGDKTDFYAQAYFAYDSKKSGGYTRSHLRFSKKPIRSTYLVSTPHFIACSV

AAYLEIYDVLAGIRKGGTFLLNSIWNAEETIRQLPDAVKKTLAEKEVNFYIINATKLARDIGLGNRTNTI

MQSAFFKLAKIIPYEDAQKYMKELAYKSYSKKGDAIVEMNYKAIDVGADGLVKVEVDPNWKNLELKEKEQ

TNAYKGTEFVEKIVKPMNAAKGDDLPVSAFLGYEDGSFEHGTTEYEKRGVGVMVPRWIEANCIQCNQCAS

VCPHAVIRPFLINDEEMANAPRGVKDHALEAKGTKGEKLSFKIQVSPLDCTGCELCVHECPTKEKSLVMV

PLQEEMDFGEQENADYLFKEITYKDDILNKETTKGAQFAQPLFEFHGACPGCGETPYITLITRLFGERMI

VANATGCSSIYGGSAPSTPYRKSVKNGHGPAWGNSLFEDNAEFGLGMKIATENTRHRIEHIMNESMQEVP

NALSALFKDWIANKDNGAMSVEIKDKMIPILEQNKNIKAVQDILELKQYLSKKSHWIFGGDGWAYDIGYG

GLDHVLASGENVNILVLDTEVYSNTGGQSSKSSRTGAVAQFAAAGKPIQKKDLGQIAMTYGYIFVAQVNS

TANYTHLIKAITAAEAYDGPSLVICYSPCIAHGIKGGLGYSGEQGELATKCGYWPLYTFDPRLEEQGKNP

LTLTGKEPDWDLYEQFLMNEVRYNSLKKANPEHAAELFERNKKDAQRRYRQLKRIAMADYSNEVES

>CAL35582.1 hypothetical protein Cj1475c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCFSTLFAQDNFEEYFKLIDKENRINFNTLQNPFVNPTFEKLRHIKITAIMLDKVKIYDRWYKKGDMIDD

AIIYEINTKEIKFQYDNLEIAIQINKNDKINININ

>CAL35581.1 putative type II protein secretion system D protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIRLILILINILFCHYLYALDCQKRLFDISINEKLSIQESLDELAKYCSFSIIVKDKIAKEKLETLQNSV

NIHQMSLDEIFNFFIKEHDLSYDFDGKILRISGINTKIFKISYITSIREGQSITKASVDAKPRQSEYSGS

FDDAEDNMIKSMEKFDFWQNIEKEIIVLLKNSHEDYEAKTPIINPNAGLIIVTGTNSQLKSVKNYLQKLE

NRLKKQVIIDVSILAVSLNESHSSGINWQNFNIGLNSQVNNENSFIQFQNGQGFVKNLGLRANLNFDSII

NFLSQNGKTSVLSNPKLMALNNQQAIISVGDTINYQVKESSKGTENGTTVSESYNNYSIFVGILLNILPE

ISDDGKIMLRINPSLSDFKYPEDNKRQKEPRTIAPDTIQKKLSSVVQVENNQTLILGGLISHDKSNEKNS

INFLSKIPILGSLFKGEVLNSKATEIVFIITPSIVDSVNAPSLKDLGFKHYE

>CAL35580.1 putative ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKIIPFREEIFHQINQILESQKAFIFLWGKSGSGKSVLLQRLAKKYNVDFINENFKDQSFLKEKIEFLI

SQGQSLIILDEVGMYDYAMLESIRIYSDSISFVLSSHKKLNILKKEHFKSRLSACFKLKNISLLELDDYI

KLKFGMNFSNKCLKFLQKISQGNLRYIDKTLKSFYEINSFFDKNKSQEYILKLSALENGLLR

>CAL35579.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQERIKELELRYKYFLLKKYLKYLLLIILISVIAFCFFVLMQKYNKQKNIYLQAIEHKKHLEQKILQAQI

LQEKNKISREKLYKELEEVKAVQENTHISKIEIDSKILNISDLKKSFYQNPSYEKALNLAKKYFDIKAYQ

KTIFWALKANELDKQKQDSWLIFAQAKRALGEEKEAQSALDAYINYYGLMELDGK

>CAL35578.1 putative type II protein secretion system E protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MESRMDKIFQAYIDNEISLDEICTKFNITSWDFFNKLANFCNLHFVDLDEDNDFIYEGIPFSLLLKFKFL

LIKNNDGFMIIRSKPCSLELLEQVKTFMICEKIDTAIADELKIAKILNQIRIQEEIKRLSIKLRLEWQEN

HKRDDQSCISQIFDFLLHEILSFHASDIHIEARNNDALIRFRVDGILREFAIFEKDIYEALVFHVKFLAC

LNLAESRKTQDGSFELDFENERYDFRVSCLPLIYGESVVIRILKHDKEILDLYKLNLGNKNLEILKKILH

RPNGMILLTGPTGSGKSTTLYACLNELKSIEKKIISAEDPIEYKIPLVQQILLNSKVGVEFNSVLRAILR

QDPDIIMIGEIRDEESLDIALKASLTGHLLLSTLHTNDALSTIDRLLDMQAKSYLIASALSLVIAQRLVR

KLCPWCKQKSKKHYIEFEGEFFEPKGCERCHHSGFFGRELIAECLEINEDLACAIRENQDKTILMELAKK

YGFQTMFEQGLKKAKEGLTSIDELLRVVR

>CAL35576.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGFEHLNTIYYFILFFVALFAGFIDSIVGGGGLITLPALIACGIPAHLSLATNKLQSVFGSFTATLTYFK

STTLPRLAWGVFFTALGAAIGSYSVLFVKDEQLKLIILIFLTLTFLYTALRPNLGKHESEPKIKNIKIFH

LICGLTLGFYDGFLGPGTGSFWIFACVMLLGFNMRKASINTKILNFTSNIIALAIFLWQYELLWAVGLLM

GVGQVLGAYLGSKLVLKTNGKFIKTLFLIVVGATIIKVAWDYFS

>CAL35575.1 hypothetical protein Cj1467 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNFIHLKAKLDFLANQKNTNHSLFETPDPLQIAKIHNDEFIALICALFAYGNAKNIVNFLKKLDFSLLN

LQEKQIKKELKNLKYRFQNEKDIQEIFITLSRLKNEISLYELFYQAYQERENTTDAILAFMQKIKTLNSY

SSYGYDFFFGKIWQNTPTSPLKRYNMYLRWMVRKDELDLGLFTKIHTKDLLIPLDTHAHKISLTLGLLKR

KIYDYKSVLELTQNLKKLDANDPIKYDFALYRLGQSKEIDKFKE

>CAL35574.1 putative flagellar hook-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGIFGTLYTGVTGLKASEVQIATTGNNISNANATFYTRQRVVQTTNGYITTGGVQVGTGTAVESIVRLHD

EYSYYKLKGASTQLEYTKYMASTLQEIAQRFPDLQNTGILQDLENYNKAWNDFASNPNENATKIALVKAS

QTLTESVNNTFATLDKIQKKVNDDIKNTVDEINRIGEEIATINKQIYGQEALPTEHANELRDRRDELELT

LSKLVSAVASKNEINQDNRLDTTITDPGHQYNLSIEGFSIVDGINFHPLKLDYDDKNKSYSIYYETPDEK

VRDLTAKISGGQLGAQLDLRGRNYSKSEGKYEDGIIQGYMDSLDTFAKTMINETNNLYASSAKSSVTSDY

LSGLKGDIPLVNYDRTIQPGSFDIVIYDDKGDKKLTKTITIDVNTTMNDIMRQINANTDDNDNKNSNDDV

DDHINASFSYDAKTGDGLFQINAKSGFKVAIEDKGTNFAGAFSIGGFFSGTDASDMKVKDSILNDPSTVR

ASSNGVDSGNDMANKIIQLQYKKVNFYNEDGTIDNLTMEEYYRKLTGKIASDGENNNVVNSSNETLYNSV

YSEYQSKSGVNTNEELAALIQYQSSYGAAAKIVSTVDQMLDTLLGLKS

>CAL35573.1 hypothetical protein Cj1465 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKQRLDEVNAILAKLIALTEEDIENIKVAKHESVTPSVEEKNKLIAEFITAKKQLDVALVELNNSSTKG

LSELLDDEDKQKLDLLKKNLQNLHSKNKEYAKFVLIVKDFLDGLVNKMFDINDGTNNAYGDKKTNPESIF

KINV

>CAL35572.1 hypothetical protein Cj1464 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINPIQQSYVANTALNTNRIDKETKTNDTQKTENDKASKIAEQIKNGTYKIDTKATAAAIADSLI

>CAL35571.1 hypothetical protein Cj1463 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVDNFLNTYSMNSALLDRAAKARSLESSIKINDNDIVTKSKEDKALKEQTNAFEAFFLKQVLDVSLKSQ

NSLFGKDASDEIYSSMYNDTMSKALSGGMGFSKLLYDFLKERG

>CAL35570.1 flagellar P-ring protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRVLTIFLLFMTSIFAVQIKDVANTVGVRDNQLIGYGLVVGLNGSGDGTSSKFTLQSISNLLQGMNIKVD

PNDIKSKNTAAVMVTAKLPAFAKSGDKLDITVSSMGDAKSLQGGTLLLTALRGIDGEIYAIAQGSISTGG

LTPRPGGTGSHSTAATVMGGANVEREIPQNFSQNNDLTLSLKVADFKTANNIERVLNTVFGEEVAKAIDS

RTVKLKKPEDLSNVDFMARVLEQDIAYKPQSKVIIDERTGTVIAGVDVEVEPVLITHKDITIKIDPNNNT

VANQNEIDMKDGGFVDPSSNTLRINNAKSTVANIARMLNKLGATPNDIIAIMENLKRAGAINADLEII

>CAL35569.1 putative DNA methylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNDEFISVKDFFNHNEKRKKFLQKQEIKPPKEKTKKTKETKLYTNIESGKYKGKKLLLPSLTTTRSTKSI

VKSCVFNVIREDLRSKIFIEAFGGSALIAAEALSNYALKAYAIELDIKAYKIALENAKNIDPNLEVIHAN

TFEILPKLIENSKNEIILYLDPPFDIREGFSDIYEKIYHFLENLDLKTLNLIIFEYHSTIKTPEKIQNFQ

KVKEKKFGSTSLSFYSS

>CAL35568.1 hypothetical protein Cj1460 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKISLECKDLIIEKTLELFLKDHLVMKKNCDFIISDEKIHTAKPLFIISKNSPFLSIPFSKETLFESLNE

FDNALKAAALQLALEQKRLLEEKIDAIALEFKKDYENKIDLAIKDLKNKLVKALNDE

>CAL35567.1 hypothetical protein Cj1459 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLELRIFRFDKTKDYEAYYKPYIYDNYENFASFYDLLLQVQNDDIYFDFDKDEDTYIVVNKQIIPLFT

PLEKIAKEFDFNLCIEPLSTKRAIKDLIIDKNDFLDKYKYLEKFGDEEDKKLYAKYDYLYYATEILDYLP

EYMGDGVFYLASKMIEKYPEKKIEILKTLADKEKGIFYHLESKNEILETTIKNLQNEILNLGLFDKNILH

FDLPKTNAFDNEIKELKEIKHNFKDFNIAFYGFNACDTLKSKLKAKFISYENSIKNNGFSLLNLNPTLSY

KIAADIVLDAYDSGADFMVVKEEKDFYLFDTCAKKLMQTSKRDFEDFYILSRFEFLALIEGIQAPSLKNH

TLKVSLI

>CAL35566.1 putative thiamin-monophosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKEDFIIKAFLNKKNGDDGAIIDDWCFSKDLFFENVHFKREWFSLEQIATKAMLVNISDAISMNAVPKY

ALLGLALPKNLSENEIKALQKGFLKTARKFNIKIIGGDTISNDKIDISLTIISKINDKAVFRKGLKKGHL

LAYTGKLGRSLKGLEILQNGGTLKPNHVFIKPKLRASFFYEIAPLISCAMDISDGLSKDLSRLLALNKCG

ISWFKKLDDYALYSGEEYEILFAFDEKERQNIEIIAKKHGVKLNIFGKAVKGKYEFRGREHHF

>CAL35565.1 tRNA pseudouridine synthase D [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLEEENTIFKPLYSLKHSPINAYFSKNSDDFVVRERPLYEFSGKGEHLILHINKKDLTTNEALKILSEA

SGVKIRDFGYAGLKDKQGSTFQYLSMPKKFESFLSNFSHPKLKILEIFTHENKLRIGHLKGNSFFIRLKK

VLPSDALKLEQALMNLDKQGFANYFGYQRFGKFGDNYKEGLEILRGKKMKNVKMKEFLISAFQSELFNRY

LSKRVELSHFANDFSEKELIQIYKISKEEAKELKKQEQFFKLLKGEVLGHYPFGKCFLCEDLSAELGRFK

ARDISAMGLLIGAKAYETGEGLALNLENEIFKDTLEFKAKMQGSRRFMWGYLEELKWRYDEEKAHFCIEF

FLQKGSYATVVLEEILHKNLFE

>CAL35564.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILTSALALGAMTLIVDCGDGDLVELKNNGNDQAMFDLGNQEIMKKYPNYKLYDYTSVRTISDINNPE

GKIKEMKRDLEIDKTPYSNYVFLLNPNDKKTIKL

>CAL35563.1 peptide chain release factor 2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDNYEFSELLKTLKNKVGNIASIIKPENIQTRLKEIEELENSPSFWSDVKQAGIIGKEKTKITNLLKNYE

NAFNALNDASELFDLANSENDTETLEALFNDAPKLEDTITSLEISMLLSGENDGKNAIVSIHPGAGGTES

NDWASILYRMYLRFCEREGFKVETLDFQEGEEAGLKDVSFLVKGENAYGYLKAENGIHRLVRTSPFDSAG

RRHTSFSSVMVSPELDDDIEIEIEEKDIRIDYYRASGAGGQHVNKTESAVRITHFPTGIVVQCQNDRSQH

KNKATAFKMLKSRLYELELMKQQDSANTGEKSEIGWGHQIRSYVLFPYQQVKDNRSGEAFSQVDNILDGD

IKKMIEGVLIALKAE

>CAL35562.1 putative radical SAM domain family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKLYLMSLGCNKNLVDSEIMLGHLSAYELCDEPSKADVLIVNTCGFIDSAKKESINAILDLHEQRKKDS

LLVVTGCLMQRYREELMKELPEVDLFTGVGDYERIDEMILKKTNLFSNSTYLQSENSKRIITGSNSHAFI

KIAEGCNQKCSFCAIPSFKGKLKSREISSIIAELKDLVARGYKDFSFIAQDTSSYLFDKGEKDGLIRLID

EVEKIKGIRAARILYLYPTSASEALIKRIIASEIFINYFDMPLQHISDNMLKIMKRGANSTRLKEMLNLM

KSAPNSFLRTGFIVGHPGESEADFEELCEFVKDFGFDRISVFAYSKEEDTAAFDMEQVPFKVINKRLKII

EKIVDEVIEKSFEKEVGQKRLVVCTGKSSEGEFFIAAKDLRWDREIDGEILINESECGNLEMGQIYECEI

LQNLDKKLLAKALRKVDAN

>CAL35561.1 putative tRNA(Ile)-lysidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIKDEILSLLKRGKNLLAFSYGSDSSVLFYLLMQEKIDFDLVMINYKTRKNSDLEELKAKELALKFHKK

IFIKHAPKFQSNFEKKARDFRYDFFEKICLEQGYDHLILAHHLNDQFEWFLMQLSRGAGLAEILGMQECE

KRSNYTLLRPLLFISKDEISSFLKEKDIFYFHDESNENEKYFRNYIRKNFSNAFVSEFHQGLKRSFSYLD

EDRKKLYDFENIKEIQGLLICPKNESLIARAVKMKGLLLSTAQRKELLKGDCVLGGKIALAYKNEQAIVF

EYETCQKLPKNFKEECRIAKIPRLLRAYLYNHKIDISSLSF

>CAL35560.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDILKLAIKDFLSLKFLKFALIPLIFSLILMLFLGVLGFSALLDYFNSLFSVGEDSFWAWFYALHFVQIL

ITIISFLFSGFIVVFASVFLALFITSFLTPFIAKEINQKYYHYDNTNEVSTLKTIFEIFKIFIKFIGILL

LCTLALFLPFINIFVYYLAFYYLFHKLLMIDVTSTILDKESFKNFHSDFSPLEFKFSTLCFYLLSSVPLL

GLFLQVFFVIFLTHLSYQRILKLKAKA

>CAL35559.1 dUTPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTNIEILENMLKLQQKLNDETNGLNWENGYTKEGKLISWRRCIYMECAELIDSFTWKHWKNISSLTNWEN

VRIEIVDIWHFILSLLLEEYRDKNNKDFKAIATEVNAVSVFQDFCKEEEYPNEGDIYGILNDIELIIHKC

SGFGFNLGELLSTYFTLAIKCGLNLEILYKTYIGKNVLNIFRQNNGYKDGSYKKTWNGKEDNEVLAQILE

QELDFDTIYKKLEECYKKA

>CAL35558.1 putative ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIDASKNQSFSMDYTTKSGKHLALSMYDNQSVSYANNEEGKTLNLKRQYGFSFTFEGSKLTQNDLDEIK

NAMKEVEPMIKDFLANSKVGELKPKEIIESAMQMANVLPTPNDENHQNAIMNNFTNKLSDLLKQNQTDDK

DINASMLEDSKKLLDEVLEQMKKQLEKQQEKAKENQDKTDDSLNLYA

>CAL35557.1 hypothetical protein Cj1449c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDERILEFIKNEQLLSWAMIDEKGVYTASAFYAFDEKNLAFIIASHEDTKHIRLASENSSIALNIAKESK

IAFLKGVQAKAEFKMASKEQMKIYFSKFPFAKFDKSAKIYALELFWLKFTNNALGLSKKLEFYKK

>CAL35556.1 capsule polysaccharide export system inner membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNVIYALFFRELKTRFGKNRYLGYIWVVGEPMSIVLLVTIIGTIVREYHHQVMPEGISIFMFLISGIMP

FFMFRSIVTQLMNGTQANLALFAYKPVKPIHVFIARTLLEFCIYFVIFIIILFFAGWFFRLDVFPVHLLG

VLFCIFLLICSAFALGICFAIIWHFVEPLRTLLAYFSIVFYWTSGIIFPTWLTPRPLLDIFYYNPLLHIF

ELLRFNFFENYPLQDEYSYFYAIFWILLVLFIGLFIYYYNRQALTAVKKE

>CAL35555.1 capsule polysaccharide export ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKLINLTKSYPLFSGGRHYVFKNFTFEFPENCSIGLMGYNGAGKSTLMRLLSGAELPDSGKIITNKKLS

WPLGLNGAFQGSLTARDNAKFVARVYGYKGKELQEKVKFVEDFAELGKFFDEPMKTYSSGMSARIAFGLS

MAFDFDYYLIDEAGAVGDPAFREKSVKLYRERLSKSKVIMVSHNVAEIKEWCDKIIYMKNGQITVYDDVD

EGIAVYQGKV

>CAL35554.1 capsule polysaccharide export system inner membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEENKTLLEKIKDLSIFDSFKIVWFIMIFVVIYYTLIAAPRYVSTMILDVRSTSGESAQTSGILSLLSST

STASEDLNYLKGYIESSDMLKILDEKIKLKNLYQEQHIDLPFKIWDSSSIESYLKYYQARVKVHTDETTK

LLKVEVEGFTPKSAHLIAQAIMQESEKFINEISHKAAREQMAFAENEVQKYKERYQKAQNDLIAFQNKYG

VFDPLKQAETKASLVAQIEANLAQKEAKLLTLQSYMNDAAPEVVALKAEIEAIKKQLLREKSKISANNSS

QKLNDLAAKFQDLTIEATFAQKAYEAALKAYESARIEALRKIKQLVIIQSPDIPESAKYPERIYDILTAF

IVLSLIFGIVKFIKMIIEEHKY

>CAL35553.1 capsule polysaccharide export system periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILILLFSCILCFGAVDVSQIISAEDQGSATTSIDQNLSSNYDIANKENNLTKIHQILVFGAHLFNGN

FKNYNQRVYNPDYKIAVGDQISLKIWGAVEFSQVLVVDSQGNIFIPKVGAVNLLGVKNSALVSVIKARVN

KIYKSNVFVYADMNAYQNVSVFVTGNVNAPGLYQGLSSDSVIQYLDKAGGINLEYGSFRDIQILRNNSVI

KNIDLYDFLLKGQMDLFPFRSGDVILVGNVQNYAFVNGDVQRPFRFELSNDIKTLADLARVSGAKPIVTN

AIVKSYGEDHKLDVSAYNKMQFSKVLLRTGDEVEFHPEYVSENITISVNGEHNGLKTLVVGKGTTLEDIS

KLIKANPQSNMQALQVFRKSVARTQKELINAQLKELETLALTSGSVTAQGAAIRAQQAKTILEFIQRAKQ

VEPKGQIVIDNPKSYNSVILEDGDTINVPSKNNLIIVQGEVSLPGAFVYDKGKDLRYYINLAGGYGERAD

TSKVLVIRSNGKAEKYHSGIDMKRGDSVLVLPKVDSENLQIFSMLTQILYQIAIATNVVLNL

>CAL35552.1 D-arabinose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTLEIAKEVFEKEAQAILDLATNLDENFNQAVNLMLNTKGRCIVSGMGKSGHIGAKIAATLASTGTPSF

FIHPGEALHGDLGMLTSEDVLIAISNSGETEEILKIIPAIKKREIPLIVMCGKKNSTLVKQGDIFLNIAV

EKEACPLQLAPMSSTTATLVMGDALAAALMKVRNFKPDDFALFHPGGSLGRKLLTKVKDLMVSSNLPIVH

PDTEFNDLVDVMTSGKLGLCVVLENEKLVGIITDGDLRRALKASDKPRFDFKAKEIMSINPKVVDADAMA

SEAEGIMLKHKIKEIIVGKEEKVVGIIQLYAIGNV

>CAL35551.1 putative sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPLLSVIIPFGLSKERPYIEERVLQKAKFFQSDENIEFIFVEGYSSKDHELKNFIQANHHIYLKDMDQKA

FSQGRCRNLGASYAHSNVLLFLDVDCYISLDNFEKILKLIQIKNISQNINALIVLPVVYLNKEANEKLKQ

YDDKFWDILIQEDLFTAKNTWVKFFAPSSTSSIVINKHQFLRLGGNDENFIGHGYEDFDLFARILKACVS

FEKMPTNLSYDARNWNFFNFKGFRSWFSLLGYEACFYGIYIYHFYHIEPNQNAYMQNKDKNHQLFYKHLK

NIKKHDLKPLQVFKAKGEKVLMLFKDQNYDFKDISVYVGEIIYKNISDFFIAKELKYELLLDFLQQEKIT

KIFLDASIKLQFNGIDYCDIFYFQKGILPHSWFFAKKLDLGYKQDLNLSEQKLYQVKEYFLTLKEDEKKV

ILDFLSQNNDDKYDLYKMLYYLINELYSFEHDGIFYQIIIDKEKMLIAQKHDKSFYPLRSFVYKPYLHEL

KSIRPFSFLMKILGLEYLGAMISHTKFYRLARKLFFNPKGFFEDFNYKIMKGKI

>CAL35550.1 UDP-glucose 6-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIVIVGIGYVGLANAILFSKNNENEVVLLDIDENKIQSINNHKSPIKDKLIEKFFVQNISKLHATSNIK

EAYFNADFAVIATPTDYDEQLNFFDTRSIENVLKDIKNINSKINVIIKSTVPIGYTKTIKQKFNMSNIVF

SPEFLREGSALYDSLYPSRIIIGDKSVLGKTIGDLFLKNIEKKNVDIFYMDSDEAESVKLFSNTYLAMRV

GFFNEVDSYARKHNLNSADIIKGISADDRIGKYYNNPSFGYGGYCLPKDTKQLLANFYNIPNSLIKAIVE

TNEIRKKFITQLILEKKPNILGIYRLIMKQNSDNFRNSVIIDIIKYLQEYNSNIELIIYEPLVKEKKFLN

IKVENDFNVFGAKVDLIIANRFDDKLKEIKDKVFSADVFYTDI

>CAL35549.1 putative sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTVGVVIPIYNVEKYLRECLDSVVNQTYKNLQVVLVNDGSTDENSLNIAKEYTLKDERFILFDKENGGQ

STARNVGIEFFSKEYDFKNITQELKENSLVEFKLDNEDNPYNIYKIYKSSNFFKNKDELLNFKAPDIDYI

IFLDSDDYWELNCIEECVPKMDGVEVVWFDSCSIFEEGFKKQWSSLLKLYDLHEGVIKSKVWLEYSINKK

IYNFYFTWSGMIDFIYLKNIKLKFIDYIIHQDHHFGMLLFAKCKYIYIFPSSMHTYRIRSNSTINLSDSE

LQIHIPRYMQSIYDSFNINIKEAKEYYSSMSMFYVLKNCFNDKILMENRYNAYLLEKAFFKFICERCLRI

FLLKRDPCCIKIQIKKILKQYKNYRYVHLTNFYGAFIYFKIFKINIIKKYIRYLFFR

>CAL35548.1 UDP-galactopyranose mutase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYDYLIVGSGLFGSIFAYEATEKGYTCLVVEQREHIGGNCYTENIKNINVHKYGAHIFRTSDQNIWDYMN

QFCEFNHFINSPIAIYKDEIYNLPFNMNTFSKLWGIKTPNEARKIIEMQKQIIQHPPKNLEEQAISLVGT

DVYEKLIKGYTEKQWGRSCKDLPASIIRRLPVRYIYDNNYFNDPYQGIPKGGYTAIFDKMLKKSKVILNT

DFLKYKDKFKNKAKKIVFTGCIDAYYDYRYGALEYRSLKFEHKILNLDNFQGVAVVNYTDKEIPYTRIIE

HKHFEFGNTDTTVISEEYPLEWIKGIEPYYPINDEKNQALYEKYKQLAKHESNVYFGGRLGEYRYYDMQD

VVRSALLFCKNELKNKQG

>CAL35547.1 putative sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISD

KKSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYILESNKGKYSKITPID

FLYNQIISFKTHPNIFNFQSINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINEAF

YMLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLDFL

KRFSQDFRKILKDKELDENLFGDGDMKIIYSIVENPENYYFLYMGYCNDMFGKLYFGASERIKWQLSYRI

GKLLIDLKNPVQILKFPFKLFLEIKQFKFEQKIYKTTIKFYPNLQLPPLEEYSDYEQALKTKKHLSYILG

KSFINNPILFIFKIKKIYKQYKKDISSSKKNIKELSDYDFLLNRHKQIFDYTPDFKCPVTFNEKLIYRIL

YDRSCIYSFLADKIKMRFYVASALSDNHEYSWDKIDILNEKSILFNNIDDLQDKIFETNKCKYLPKIYGI

YKNIYDINFNELPNSFVLKTNHDCGGYVIVENKQEFLRDTVVFSNAMKKLKKHLEWNYYSVFREWHYKDI

EPRVFAEELLLGENKKPADTYKFHIFDKENLSNNFIQVTTDRFDNYQRAMFDLSWNLAPFNFMYDNKNVT

MIPKKPNLLDSMINISLILAKPFDYVRVDLYQFDKKIYIGELTFTHGAAGEKVIPKEWDKKLGDLWRLKR

LDNASK

>CAL35546.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQANKNIQKLTPYLSIPHKIWNSSQSNILKLDWNEATIPPSPYVIESIKKFLVNGNLNWYPNTKNLYLLD

KIAEYTKQINSSFVELFEGSDSAHECIIDVFLDKCDKIGIVSPTYDNFRSRANGVGIETISFTLDDNFNL

DFDSLEYFIHEKRIKLLYLCNPNNPTGKSYNIQKIKSLIINNPNVMFIIDEAYYEFTSQSVCDLVEQCNN

LIITRTFSKAFALASFRIGYIISHPENIESINKLRNPKSVPMLSQIAANAALEDLQYMRDYVDEVSCARM

EFVKFLNTLTTGGGGIFNDSVANFVLIQNENISLFVGFLEKEGIFIRNYSHLISKNCRISIGTRNQMSYV

AEKIQEFAKKQGGFHLV

>CAL35545.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIKLNDYEKNITQKIKDLKNASGSHSPSIFTMAEQIPELNIKIDSCFLSNPYATALFLRYLKEELIDGQ

KLRSVLEFYPSQNSIIAKTVADFIGIDPKNVFIGNGAIEIIQAVMHNFVGKKIIVNIPTFSSYYEFAKSE

TNVVYYQLSKEDNYNLNIEHYLNFVKNENPDSVVLINPNNPDGGYINYEKLRYILSELKYVKNIIIDESF

IHFAYENKDYNGINIEYLFKEFHNTIIIKSMSKDFGVAGIRIGYAIMSEDKIRGLLKNGYLWNSSGLSEY

FLRLYVRKNFFDEYDKVRREYIQETQTFFRKLSGIKQFKVYPSMANFALVELLDGSSSTDFVAKMLIKYG

IYMRTCNDKIGLEGEFIRIASRTLEENDMVLKSICDVFKE

>CAL35544.1 putative phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKEILALFDFCETLTNFQTLDRYLPLAGSKNINYTQSKNLARRERFQRENLPYPRYEWLIDLDVDLAEE

IAQEFVYTDVMANLNQNVMDRLFWHQDEGHTIVIVSGGLTIYIKEFARIYNIENIVAVDLEIYKNKLTGN

IDGIHTMQERKLYKLAQKFNLKQFDLKNSYAYSDCVSDIPLLSLVGNPNVIECGKDLQWARILGFNILLK

Y

>CAL35543.1 putative sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISD

KKSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYIFAYGKTEYVNVLRNS

CEDIYNYKVNWNKDIRIFLGSDGINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFIN

EAFYMLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKL

DFLKRFSQDFRKILKDKELDENLFGNINMQRINKIIENPVIYYYFSRGARARLQNQLVYRLGKVVVEAKS

FNKIIKLPFLMLKICLEHNFEHKVYRSIVQFRPDLKLLPLECYLDYHEALVIKEHLSYKFGKLILLSFKG

WYKGKIFILPFMLKKRYKEYKNKMI

>CAL35542.1 hypothetical protein Cj1433c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQRFKKWFLSIIKNFKQHEKIKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNT

KIDLNNTKIDLNNTKIELSQLKKEHYKVLDFHLRKITPQAFLEIVEIHLAESCNLNCFGCNHFSQIAEKE

FPDIEIFKKDMQRLSEISKGIVGTFRLMGGEPLLNPNCIQFFDITRYFFPKSAIWLVTNGILLDKQNEDF

WNSCQRNKMQIRPTKYPIKINWDLIKDKCDQYDIPLIFFNNGELEKTSWKFSLDPSGNCDNYHSFTNCSM

ANHCVQFKDGKLFTCTFPAHVQHFNKKYGNHFEVCEFDFIDIYKAKDYQEILFFLSKPIPFCRYCKVSQW

AEIGKWRSSNKTKHEYLI

>CAL35541.1 putative sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKKILLITPELEYTGALNSFKRICEVLLNNKYAVDIWTYNEGPYISEFDKLGVYVEVISEDDIDSKWVH

ERISKYSLVIANTIVVYKCVELIQNLTPVVWYIREAENLPDFFWKPERKLALEKAKKLYVVSEYAKDFII

HNYNKNVEVLHNYVDDVFYEKHDDFLKQIKSDKLKFLALGTIEKRKGYDVLLQAFIDLPVDIRDQCELHF

AGRFWEGAKDFFPKILSLAKKFPNIFYHGELRDRKKIHSLIFQCNVMVVPSRDESCSLVALEGAMMSKPL

ILTENIGAKYILDENSGWLVKTGSVDSLKNAFIQAYKNKNKLDAMGANSRNNYLQTSTYEIYEKNILKMV

RDEICKNQYLYRINQENYVLFSFDIFDTLISRNIAKPSAVFLIMKQKMRNMDFPLNLVKNFDRIRVEVEQ

YYYRNVCKNKYEDTNFDEIYNLLQQNFSLSFQQKEELMKLEINTEKETLYPIKKNIELVEELIKNEKRVV

LISDMYFSSSIIRTFLNKFSPIFNNIPIYMSSEFRLKKNSGNLFKAILNLEKVDPKKWIHCGDNWVGDYL

KPSNLEISTNFYINQLLPYEEFALNRNSLDMDLQKIIGISKKIRLENTLTNLQEIGVSFGAPMLLPYVQW

ILNIALKNSIRCLYFIARDGYVLQKMTDMLIQAKKINIKTKYLYGSRESWREPFRNKDKLKIQLIDEYLD

QEIDKQEIFAFVECCGTGETLDYIVKRIESNQQFKNMFFGSLYLYRSKLNKTKTQSLFMLPLNENYTYGI

ELFVRSLQGQVLGYDKKDGRVIPVFDFLEGEALQKFRYDEYIDGVMLFMEYIVKTDNYEKIFDNMNVTIL

YLNYLSNNYIDKKFIEIMGNVPFILNGVKDRVGIFAPRLNNKITLDQKNSFFNWSVLRSCKDIRVKYNMD

NDCYFGLIGAVDIIKSHLSYKLGKVILLNIKNPLKWIKLIVLIPILIFSHHEQKKIYLTEKKINIDLSFY

KDYNEAIMVRNFFSYQLGELILKTSRKWNVLAIVILPYKIAQLYRKKFKKG

>CAL35540.1 capsular polysaccharide heptosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDNSKPLIIAGRDDGFGERMRALLNALYISKKFGFKFGFVWRDINNIQNLLDGKVLIPWANLPTREYLFD

QDFIKSYYRQDIEFAYETPVLWSLYRQSIKNILKKPYEKEWGWYSTQGDLSEYFTDVDEGEYRTELVSCW

KQIDFSSHVKKIFEKAHSKFLDIGKFVAIHIRTGEVIHDEFYRNILYHCRYKIFPYPFALEIALKEIKKG

HRVIFFGDDLNLIQNLKEYCSFNKQAQENIFSIDDIIAFEQLDNGYDRLLFELVLMSKSEYIFGSGTTGF

SRCASWIENKIFINIFDHLSLIEQYEIILKYIDIENIDDLYRSCNYFFLFLLSEQLNLNFDIKLRYLSKS

LRYDSGSLNSEVFYINLLLQNEKFKEADDRLEQVICKNKKKFFDLLLGYGQNPTFPYDIYMNYYFKDFDQ

YSNIFYVACRIFSEFNIPESRVNTYYPNFHPIIFDQFKMFIFKDLPKSDQEIGAVKKIRNHLAYKLGVAA

IKNSKSLWGYIRMPYVLSYIRDMHKESQNKMDKKSISLEYYSDYESALKEKEGFVYKLGQIIIKAHKNWH

KGGYIMLWFEVKKLKKEFKKGK

>CAL35539.1 putative dTDP-4-dehydrorhamnose 3,5-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAIEFDIQESKILKGVYIITPNKFRDLRGEIWTAFTDEYLSKLVPDGIKFKHDKFINSHFNVLRGIHGDV

KTYKLVTCVYGEVHQVVVDCRKDSPTYLKWEKFIISYKNQQLILLPPNMGNSHYVSSKEAVYYYKLAYEG

EYMDAPDQFTYAWNDERIGIDWPTNTPILSDRDILATKNKG

>CAL35538.1 hypothetical protein Cj1429c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKLLKELNNNIKLSNQLSYQILMSNIISNLDIDKKDKEILLLLLQARDRNYIRINNNEQCYQNIINYLN

LIRPLELPLCDLLRIGGNGDGGYVMYNGGGDMSDINAKALSLGVSDSSPWDLEMAQRGFKVIEYDASIEK

CPYDHENIVFHKKFIGNVNNENTITLVQALKDNNLDENKPNILQCDIENCEWDMLENIDISILNKYFSQV

IFEFHGCNPEEQDGVEKRISLLKKLNEYFVPMHTHFHNHGKIFYSQGLFFSTTLEVSYLRKNLINLDIMK

YRDVAGGFKNLDFPWISNPEIPIRFRGY

>CAL35537.1 GDP-L-fucose synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQTNSKIYIAGHKGTAGTALVENLQKRGFNNLVLKTRQELDLVNQQAVAKFFKEEKPEYVFLTAVLPCGA

ANVAQRADFIYENLMIQNNVIHNSFLNNVKKLVFFGSGYMYPENAKNPLKEEYLFQGDLEYGAYSFGAAK

IAGAIMCESYNIQYGTNFITLVLNNLYGTKANFDFGKSRVLPALLRKFHLAKLLSEGNITQILQDLKMNN

FEEAKEYLHNFGISKKSVEIWGTGKVRREFIHSDDLADVAIYTMQNIDFKDLIKDRKSKNTHINIGTGID

YSIKEVALMVKNIVGFSGELVFNTSRPDSTMDRLMDCSKIHSLGWKHKIELKDGIKMMYEWYKTQN

>CAL35536.1 putative sugar-nucleotide epimerase/dehydratease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKVLITGGAGYIGSVLTPILLEKGYEVCVIDNLMFDQISLLSCFHNKNFTFINGDAMDENLIRQEVAK

ADIIIPLAALVGAPLCKRNPKLAKMINYEAVKMISDFASPSQIFIYPNTNSGYGIGEKDAMCTEESPLRP

ISEYGIDKVHAEQYLLDKGNCVTFRLATVFGISPRMRLDLLVNDFTYRAYRDKFIVLFEEHFRRNYIHVR

DVVKGFIHGIENYDKMKGQAYNMGLSSANLTKRQLAETIKKYIPDFYIHSANIGEDPDKRDYLVSNTKLE

ATGWKPDNTLEDGIKELLRAFKMMKVNRFANFN

>CAL35535.1 putative methyltransferase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKEQLEVLKEALNGLIYQIDNHQQARKPIADVERIISELQVLNHWNKQENVYNALHLIQGAIADPQGLG

RLNLLLDNARIPKQYYDIFYKMLYVDKYGGGDGYRPVCIDCGGHAGLITDIILHCGGQSYIFEPNIYLNY

FLRKKYENNINVKLFQKAVSDRNYETDFIMFGNRILSQGNRIVESVQDSQTEKTYKVQVIDLCEFIENEI

LTQHKRIYFLKLDIEGMEFEIMKKIIEKKIYKKIDYIACETHEYMFDDSEKKIGELKQLINKCNIQNILL

DWI

>CAL35534.1 putative D-glycero-D-manno-heptose 7-phosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTIRTQTPLRLGLAGGGTDINLYCDKYTGYVLNATISLYIHCTLIKREDGKIIFDSPDTNSYCEYESKE

FLGNDGKLDIFKSIYNRIVKDFTKKPLSFSLHTYSDVPSGSGLGGSSTLVVGVIKAFAEWLNLPLGEYEI

AKLAYEIEREDLGIVGGAQDQYAATFGGFNFMEFYNNKRVIVNPLRIKNWIASELEARTVLYFTNITREA

KDIEEHKKGKLGDEKSLEAMHAIKQDAIKMKEALFRADFGTLAQILGKSWRSKKIISEIVSNDELERIYK

LAIDNGAYSGKTSGAGAGGFMFFFVDPTKKYNLIKALRKEQGYVQDFSFTKEGVKSWRI

>CAL35533.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENLNSYIKGHFADSILVKEQILKDENLITLIKNASLEVIKAYKNGNKTLLAGNGGSAADAQHIAGEFVS

RFYFDRPGIASIALTTDTSILTAIGNDYGYENLFARQVQAQGVKGDVFIGISTSGNSKNILKALEFCKQK

EIISIGLSGASGGAMNELCDYCIKVPSTCTPRIQEAHILIGHIICAIVEEELFGKGFSCKQ

>CAL35532.1 putative D-glycero-D-manno-heptose 1-phosphate guanosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQAIILCGGLGTRLKSIIKDIPKPMAPINDKPFLEFIFEYLKKQGIKEVILAVSYKYEVIKEYFKDEFLG

IKIKYSIEKEPLGTGGAIKETLKFVKNEAYVLNGDTFFDIDLSKLKLNESKICLALKQMNDFDRYGTVNV

DEQDLVISFEEKVFKKQGLINGGIYLLTKDIFNDFALQEKFSFEEFLQENYKKLKARACIFDDYFIDIGV

PEDYYHFLINN

>CAL35531.1 putative sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFVGFFLHTSGEKAMERFLKEVGVVLIGAFGYEDGKRY

ISIFNFLISEACACNDLKFAIGILDVNCQKYDKFCFLLQNKPVLILLRDPIDSLKSFINVRHQKNGFNEI

LKIDINNTDFDKINDRIVYVHESNGCFNPDTNQKFPSLESIKALSDTNHWMLMYNIRRNKTIEFFRFNKI

IYIDMMDIVGDKTLFTLEKLSKILNFSSPDKNNKIFYQQLYSPLTVLLPCIIKVNNKVKIFVSNRFSVKN

IQIMENCIDITDKFKEIFHENLIIFCSKDHFDSLINNQTLYNVVLEYINKFLISLKKRINVEKNKEVKVD

DVLDYFKKNISVAKSYKDILDEELVYIKQHRPDIVASWKYYQEFERMCKELDENNQNPSLSFSNQ

>CAL35530.1 putative sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFMWFFSHGAGAFTLGQFFYHLFKINILDYFCGGDGDI

RYYKFYNKLLELKDKRNIITINDIDPSWYGNQHKRDKLFSSFQKITPILFQIRDPIELIKHAYGRKWGNN

LAKTKEFDLSYQFNDIITEVEVYNYNLPNTLEGQRPQSFLWKSLIECFDKFNDCFYLDISKIRGEETIHT

LNYLSNKFNLKQIKINDKEFVTKSYFKGNLYFLLPLTLYLNKEDLNTNIPNKKINKNNSLIININFFQND

NNLFNLYSELSILDMDSSVGFYIDKQDYNKLKNDSIFYKQVIDYLRNFAYELKNRIQIEEDLMLKVEDVL

RHLYNNKNARVSAKNILDEELVYIKQHRPDIVASWKYYQEFEKMCKELDGDI

>CAL35529.1 putative methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQGDFTKVAKHYHNRPAYSPFLLEKLVACINDKNKNLKDLNIVEVGAGTGKLTKMLGEMFGCQISAVEP

NDNMREEGQKFTQNLSNISWHKGSGEETCMSNNQADWVIMASSFHWTDPKKSLPEFNRILTGGGYFTAIW

NPRHIVEGSVFDEIEKEIKHIVPDLARVSSGTQNVKKWEEILVSTGDFIDCFFMECDYKEFWDKERYLGA

WHSVNDIQAQAGEKRWKEILEMIEAKISHMQSIEIPYKIRAWTARKA

>CAL35528.1 putative methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKLVEQVWDYTKHAKFYSYRPNYAPKTIDMLISLVGKKDIKVADIGAGTGNLSIMLLERGCKVVSVEPN

DAMREIGIERTKDQKIDWVRATGLNSTLQNSEFDWVTFGSSFNVMDRNEALEEAHRLLKSEGYFSCMWNH

RDLNDPVQKIAEDTIVEFVPNYTRGTRREDQRPIIESRKDLFDNIVYIEEDFYFHQSIENYINAWKSVKN

PYWDLETDEGNELFNKISNKISQRLPKEFSIKYTTRCWSAKKI

>CAL35527.1 putative transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAELKFKTKAQNLKNLQTKLKKAKVLPLVLTSLEELISNEDKVLQDIQTLKANRLIIRSSSLSEDSMKNS

NAGAFLSLANIKADSKDELLKALYEVANSMPSKSDEILVQPMLENITLCGVGFSVDKDNFSPYFCLQYDE

NGSNSSITDGSSKSAKTYYHYRNYLEFKDIRLQKIIELIKELEVLYDCHFLDVEFAFAIQDDKEELFCLQ

VRPLVMHEKNNLFHSLPKEALYRFYKRFESLKESRSRVLGDKAIFGVMPDWNPAEIIGLRPKRLAFSLYK

EIITDNIWAYQRDNYGYRDLRSHPLIHSFLGIPYVDVRLSFNSFIPKKLDENIAQKLVNFYLDKLNKNHE

LHDKIEFNIVYSCYDFNSSKKLEELLNHGFNENEIKRLEFSLLELTNKIINPRSGFYLKDIQKAYKLKER

YDGIINSNFSLIDKIYWLIEECKRYGTLPFAGVARAAFVAMQLLNSLVEIDFITKEEKDDFLNSLNTVSK

NLSKQTNHLNFHNKDQFLKDFGHLRAGTYNILSPRYDEDFELYFDADQKDSKVYLQDKAFVFSKEKTRAL

NALLKEHGLEINACEFFDFLKQAIEGRELVKFEFTRLLSKAIVYIEELGKYYDIEKEDLAHLDIKSILNL

YSSLYSINPKEQFIEEINRNKKEYELTQAIKLPSLLCNADEIFSFYNHSIIPNFITQKSITAFTAKENDK

DLEGKIVLIYAADPGYDYLFTKNIAGLITCYGGANSHMAIRASELGMPAVIGVGEENFEKYLKAKKINIE

CESEQIFCL

>CAL35526.1 putative amidotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFIGITQRLICNDSYHEKRECLALDWGKLFNKDLFKNFTPLPLSYEIDFSYYKHLIKAVILSGGNDLSFY

SPNVLSKKRDLYEKQVIEICLEEKIPLLGICRGAQMIAHYFNSHISPCENHIGKHEVFFSKEKFISNSFH

NFAIEKLGEDLVELCLAKDNTIEAFKHKYENIFGIMWHIERENGLNNIQILKEWFSLIKE

>CAL35525.1 putative sugar nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNAIILAAGFGSRLMPLTKDQPKCMVEYKNKKIIDYEIEALKSAGINEIAVVGGYLNDVLKNYLNKYDIE

HFFINSKYDKTNMVHTFFCAKDFMLKCIEEKQDLIISYADIVYFQDCVQKLINAKEELAIVVDKSWCKLW

SKRFANPLEDAETLKMTNGYIIELGKKANAYDEIEAQYIGLFKFSYQFLSEVIAFYEMLDRDILYDNKNF

ENMYMTSFLQALIEKYNNAKAVEIDGNWCEIDFMSDLEVQIEK

>CAL35524.1 putative adenylylsulfate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNNPYIIWLTGLAGSGKTTIGQALYEKLKLKYKNLIYLDGDELREILGHYAYDRQGRIDMALKRAKFAK

FLNDQGMMVIVTTISMFNEIYDYNRKQLKNYYEIYIECDMHELIQRDQKGLYTKALNKEIDNVVGVDIEF

DKPEADLVINNSCRNNLEEKVELIIKKLAL

>CAL35523.1 capsule polysaccharide modification protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYYSISKKLIANVRNFYTISLYKKNLKIKKDDLFFGWGRKKSGLKAMNLAKKYKAKFILLEDGFIRSLN

LGVENSPSFSMVKDDIGIYYDATMPSKLENLLNTCEFKDEEIKQAKKAIELIKKYKISKYNNNLDIPDNY

FQKDEKRVLIITQTANDASLEFGLAKDFKTLDMIKDAIKENPKSTIYIKIHPDVLSGKKQSDLDLNSLPK

ECILITENFNPIALLEFFDKVYTKTSGMGFEALMQECECICYGMPFYAGWGLTKDKLECKRRMQKRSLEE

VFYAAYILYAEYFNPYLNQKSNIFDTIQTLAKYKDIEKVNSNKLFMLGFTLWKRHFIKPFFKAKDNEIIF

LNSLKSLARYKLKENDKFFIWGKRIDYNALKTTLIKKAQDENLLHFTPKISLVEDGFIRSISLGSDLTRP

FSLIVDDKGLYIDPNKASKLEELLQNEIFDENMLNRAKNIIKILLENRFSKYNGLKHEDLKINAKIGQKI

ILIPAQVEDDASMILGGFGLSTLDLLKEVRAKNQDAYIIFKPHPDVLSGNRVGLKDETLILEFCDEIVKD

CSIDSAIKIADEIHTITSTSGFDALLRAKKVFTYGMPFYAGWGLTKDKYRCERRIRKLSLEELVAGALII

YPRYINPKTKTLCEIEVCLDIMLNLQKAYFSKKYIKLAIDFKTFMLRKIRRFYEFLAKK

>CAL35522.1 capsule polysaccharide modification protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRFSTKIKKEFSGKNVLLLQGPVGNFFHHLAVKMRKNQTKVFKLNFNGGDFFFYPSGTRCKCDEKDLENF

YRDFFQNKKIDAILMYNDCRIIHAKAIKVAKELGIEIWIFEEGYLRPYCITLEKDGVNANSSLPRDKNFY

LSQNIFTKESIKEIPGGFKFMAFDAFLYWLFAFILAPFFNNKLHHRTLYPFEFLFWFRSLYRKYLYKITE

KKLNEKIYNLEKKYFLAILQVYSDTQIKYHYKKSIEHFIEETILSFANHARAKSYLVFKHHPMDRGYKNY

FKLINDLSRKYHVEGRVLYVHDTHLPVLLRKALGCITINSTVGLSAILEGCPTKVCGNAFYNFEGLSYPK

KLQFFWREAHAYKPNPVLVCNFKKYLLQTNQFNGNFYKNFFLDK

>CAL35521.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDREVFYIAGYDPKSYRFYYDLFKKNLKDYSHAFNIKADLSKIEKNEQFPFFQISCEGVQTKYHFLTWND

IVKKNWSENYKDALADCYSFFRIYTITGLFIKFGKESIYQLITGYYPFFYVLFSLLFSLVLAFGSFAFLQ

NYMHFSLAIIIGCFLGFLLNHFLFKLGKKLAVFWIARICAFCATWQDKKTGTMQERIKLFANTIVDKLKQ

NENKQDYELVLVAHSVGTIVCIEVLECILRQNLDLSLLHKLKILTLGECIPLVSYQKKADEFRKKLEFVS

RFDLKWYDYTSIIDGACFPQVDFFRTSGVNAKFTPPFLSAKFHTLYEKHEYKKIKRDKNKAHFLYLYSIS

VKGDYDFFSFIIMPKFLEEKVKI

>CAL35520.1 putative cytochrome P450 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSECPFFPKPYKNKASTLLTFLLKRRSWLDGLYERSYKMQTGYVKMPNFDLYVINDTKEVKRMMVDEVRE

FPKSAFLHELLSPLLGESIFTTNGEVWKKQRELLRPSFEMTRINKVFNLMSEAVADMMDRFSKYPNHAVI

EVDEAMTFITADVIFRTIMSSKLDEEKGKKILNAFVTFQEQSVHTAMRRMFRFPKWLSYVLGDCKRAKAG

DVIRQVLSDIIKPRYDMADNAEFEDILGSLLLVVDADTNKRFSFEEILDQVAMLFLAGHETTASSLTWTL

YLLSLYPKEQEKAYEEITQVLQGGVIEISHLRQFKYLTNIFKESLRLYPPVGFFAREAKKDTQVRDKLIK

KGSGVVIAPWLIHRHEEFWTNPHGFNPSRFEGEYKKDAYLPFGVGERICIGQGFAMQEAILILANILKTY

KLELEEGFVPDVVGRLTVRSANGMRIKFSKRKL

>CAL35519.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRVRTKIRANFRRRVKRTLKGSLKEKLAGTILLCAIVPLAVLGYLFIVIIGIFFNTARARQGVRALDHF

VNASLFNGYAWESVSSHAWRERNRKKWARIVIKITDFFQKDHCKRANKREQPVVDFILSRNLDKQTIGK

>CAL35518.1 holo-[acyl-carrier protein] synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRVGCDIIAISRIEKIHSRHGKNFLDKFLNPKEQILIKNPATLAGLWAAKEAASKALGVGICELCSFFDI

EISKDEKNAPKLKYSQKITKDFNITQTSLSISHDNGFAIAIVAVV

>CAL35517.1 putative flagellar protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDEELENEETKKKKGGSLVIIIVILLFVLLLSIMGVIAWLISSSSSDESEVKEAPKEEAKADKPKVSAPA

QRGSDFANIGPMYPLDPFTLNLLSDSGSRYVKCTIELEQNSELLKPELDKKVPVIRDIIIRTLTAKTFEE

VSTQKGKERLKDELVGKINEILTDGFIKNVYFTDFVVS

>CAL35516.1 putative phospho-sugar mutase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLKEKMLDVIFREYDIRGLYDKELNEKSVKAIGFCLGQTMLNRGCKNVSVGYDARYSANELFNYLVSGL

NKAGIKIYDIGLVPTPLGYFSLYEGLKFDANVMITGSHNPKDYNGFKITINKESFFGVELKEFSKEVYKH

LDDDIEENLEVEKYDILNLYVKFMCEQFSFLKDFNYKFGVDCTNGAAGVVIKPLIKALNLKAHVMFAEPD

GQFPNHAPDPTEEENLSAIREFLNQNQDYSLAFAFDGDADRMVALSKTHVFCGDELCYLFAKDIPNPRIL

GEVKCSKNLFDEVAKFGTIFMGKTGHSNIKKMMKEKDIDLAAEVSGHIFFKHRYFGYDDGIYAFLRALEL

VYKGFDLESMIKALPKLYTTPEIKIPVNEEEKFKLVEEFQKEIEKGALKGVKSLCEIDGARIDFGDGWAL

LRASNTSPYLITRFEATSLERAKELESMVFTLFNDIKARFKN

>CAL35515.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILILLTLCAFAFGASECDRKIDRINKEISFSKAHNDTARTLSLELALKQVQNDCAKDPMFYDKKLEA

KKLKEQEVEKIEKELDALKEQKDYMSKAEYKAKKEALKEQKEKIKK

>CAL35514.1 conserved hypothetical protein Cj1405 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQERIDLIVKILDEKKAENIKTIDMSEQEYFVKYVIIAATLGERHALSLIDELKTRLKAKGEEFLNIDSS

EEWSVIDLGDILIHLLTPEHRGIYNIEELLENLKKGRV

>CAL35513.1 putative nicotinate-nucleotide adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIALFGGSFDPPHNGHNSVVLEALEKLDIDKLIIMPTYINPFKQSFSADEKQRFLWVKKLWGHLPKVEI

CDFEIRQKRPVPSIESVKYLYKLYNPSKFYLLIGADHLEKLHLWHDFEKLNSLVEFVIANRNDIGIPKNF

KDLKTNKKIASSFIRDTLNTNEVCEEIKDEVKKYYEKLQKN

>CAL35512.1 glyceraldehyde 3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAVKVAINGFGRIGRCVARIILERNDIELVAINDTTDIELTKYLFKYDTVHGEFKGSVDSEGDDLVVNGK

KIKVFKSRNVKDLDFAKHGAQIVLECTGAHLTMAKCQEFIDMGVQKVIMSAPAKDDTPTYVLGVNSELYK

GESIISNASCTTNCLGPVCRVLQDNFGIEKGLMTTIHAYTNGQSIIDAKAKDKRRSRAAAQNIIPTSTGA

AKAMKLVMPELNGKLHGQSMRVPVIDVSSVDLTAQLSRKVSKDEINEAFRKAAATNLKGILMVDDDERVS

SDFITCSYGAIVASDLTQVIADDFIKVIAWYDNEWGYSSRLVDMAVYIANKA

>CAL35511.1 phosphoglycerate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDIISIKDIDLAKKKVFIRCDFNVPQDDFLNITDDRRIRSAIPTIRYCLDNGCSVILASHLGRPKEISS

KYSLEPVAKRLARLLDKEIVMAKDVIGEDAKTKAMNLKAGEILLLENLRFEKGETKNDENLAKELASMVQ

VYINDAFGVCHRAHSSVEAITKFFDEKHKGAGFLLQKEIDFASNLIKHPARPFVAVVGGSKVSGKLQALT

NLLPKVDKLIIGGGMAFTFLKALGYDIGNSLLEEELLEEANKILTKGKNLGVKIYLPVDVVAAPACSQDV

PMKFVPAQEIPNGWMGLDIGPASVRLFKEVISDAQTIWWNGPMGVFEIDKFSKGSIKMSHYISEGHATSV

VGGGDTADVVARAGDADEMTFISTGGGASLELIEGKELPGVKALRSKENE

>CAL35510.1 putative triosephosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFAANLKCNHTRASFKIYAKILNKTMGVKCDDIIVFPPSIAFLENENNFIQGAQNFYPCVNGAFTGELG

KEHLDEFGIKCVLIGHSERRALGDEEFIKAKFDFAKEHGYKIVFCIGENLDTKNSGKTLEFLKKQLEIID

LNYEKLIIAYEPIYSIGTGVSAQSTDIAKVLEFLASLTKVPLLYGGSVNENNIKEILSVNHCGGVLIGSA

ALKVENFIKLIKG

>CAL35509.1 enoyl-[acyl-carrier-protein] reductase [NADH] [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIMKGKKGLIVGVANNKSIAYGIAKACFDQGAELAFTFLNDALKKRVEPIAQEFNSNFVYELDVNNNEHL

DSIAEKIKKDLGEIDFVVHAVAFAPKEALENSFLETSKEAFDIAMQTSVYSLLSLTRAVLPILKDKGSIL

TLSYLGGVKYVPHYNVMGVAKAALESSVRYLARDLGVKGIRVNAISAGPIKTLAASGIGDFRMILKYNEI

NSPLKRNVSIEDVGNSAMYLLSDLANGVTGEIHYVDAGYNIMGMGDVEKNEEGQTVLCWDNQKG

>CAL35508.1 putative Ni/Fe-hydrogenase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKLSNEELKNILEDRIKKLENSTLKEDKVINEESVKILARHLSLGNEIPALAQRFFQIAPKTKLVWLHL

CECTGCSESLLRSELPSFDELIFDFFSLEYHETLMAANGTKAEELLEYVLEEDFILAVEGGVAAIDTFFL

TIGAQGESGYEILEKLAAKAKAIFAVGTCSSYGGIQAAYPNPSKTCGISEVLSQKVVNIPGCPPSDINII

ATLSFFALFGVLPELDEQNRPVWAYGKCLHDMCERKAKFESGIFAEHFDDEAAKNGACLFKIGCKGPYTY

NNCPKVKFNAKTSWPVAAGHGCIACSEKNFWDEFGNYEKPMANIFSYAKLCNEELKQEFFLEEQIKILEQ

IDFEFESNIKLILQNIAKNKLGALLVENYKKSFEKNYAFIEQNFDENPMPSKDFWKYLEISFILVKGAFL

KDKNDFLIVAKNYAFKHASPYDFKLNMNAEKPKLDVSKSFRMTLIYLCGGLDFEGVAYSILKAFEDNIAK

ISSLKAS

>CAL35507.1 ferrous iron transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIKIALVGQPNVGKSLLINALCKANMKVGNFSGVTIEKASAKTFYKNYEFEVIDLPGTYSLDGYSEEE

KITRHFLNQNDYDVIVNVLDATNLERNLILSAELLSLNKKMLLALNMCDEAKKEGIELDTSILSQEFQSQ

VVEISAKTKENLELLLQKIIILFESKFIPRSQFYTPLCEKSPEKEDLLYFINELSKKIITHKKEERNLTK

KIDALLIHKFFGLPIFLFLMWLLFQLTFSLGQIPMDYIESGFNTLGEFVKNNISNTFIASALADGIIAGV

GAVILFLPNIMILFLGIALLETTGYMSRVAFLLDGILHKFGLHGKSFIPLITGFGCSVPAFMATRTLKNK

RDRLLTLFVINFMSCGARLPVYVLFIGAFFPSEKAGNYLFGIYILGAILGLCAAKFLRMTAFRGLDEPFV

MEMPKYRMPNWHLVWFMVYNKAKMYLKKAGTFILLASLLIWFASNFPKSEENLNDFNAQERAIEQSYLGQ

FGKGIEPIFQPLELDWKLSVSLISGLAAKEVMISTMGVLYSLGKDVDETNNDLKGIIAKNIPIPSAVAFI

LFVMIYNPCFAATIVFSKESGKLKYTLFLFLFTCTSAYIVAFIGLHIAKILLN

>CAL35506.1 putative ferrous iron transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLNELKDGQKAIIVNLNAHKELKNRLLSFGFIKNKNLKKIHSSLKNATIMVELDTSCVILRSDEAKTIE

VNLI

>CAL35504.1 putative fumarate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTGISVFDHRLLADSWSTQEMRAIFCEQNRIQKWLDVEAALAKAQAKLKIIPKKAADEIAKKAHYKFMDM

DFIFAEFKKTKHPLVPTVRGLEKACDNNLGEYVHFRVTTQDIIDTGLVLQFKEAMTLVKSELKAIAKALA

KLAKTHKNTAMMGRTLALQALPITFGHKVAIWLSELDRHFERILELEKRLYVGSIVGAVGTKASLSDECN

EVEKLTLENLGLEVPNISWQSTRDRFIELGFVLGNINATFNKIAHQLLILSHNEIDEVAEPFGKGQVGSS

TMPHKRNPAVSENAVTVSNAFKANLAILSDIERHEHERDGQVWKMEWKLLPEMFLMLSVVLANMKFALSD

LEVKKDKMLKNLDTLKGFVLAERVMFALSDHYGKQHAHEIVYENAMLGIEQQKTFKEVLLADTRVSQVLK

EKDIDALLDATSYVGYAPKLVDEFLAKIKNSAILK

>CAL35503.1 putative cystathionine beta-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKYRELRKTDRVLSYGARGTTTNFELEKLICTLEGGYRAQLFPTGLAALAMVLLNYASKDAHFLITDAI

YGPVRTICELFLDKIGVEIDFLKADASDIEEKIKPNTKLILCESPGSILYEIIDLPKLCKIAHAYNIPVA

IDNTYSSGYFLNPLELGVDISVIAATKYLSGHSDVTMGIVVINEKEWKNFDKLPEALGFTTSPDDAYLVL

RGMRTLDVRMKAHEKSADEIVEFLQSRKEIKTIFYPKLKSHPNHEIFMRDHKGANGMITIEFAEGYNKDD

AIKFVDKLEYFSIGASWGGYESLATVTTPPRTATDLSARGLFVRFHIGLEDTKDLIADLTQAFDSIKK

>CAL35502.1 putative cystathionine beta-lyase, N-terminus [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNSKTKLIHCGRGDQGAEVRSVNPTLMRASTILFKDHATWKNTEN

>CAL35500.1 putative endoribonuclease L-PSP [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNYPKAIGPYSAYREVNGLLFISGQLPINPASGEIESSDIKEQTKQSLKNIGAILEENGISYDKVIKTT

CFLADINDFVAFNEIYAEFFKAPYPARSAFAVKDLPKKAKVEIEIIAQKG

>CAL35499.1 helix-turn-helix containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDEGQKQQFIKLTYFLGEVLGEQYEIVFHVITEDGAYIAAIANSHISGRSLDSPLTAFASELMQNKKYLE

KDFLCDYKALVGKSKLIRGSTFFIKNHDKLVGILCINHDTSIMRDLICKMIDLEKIGDMGDILGNISFSQ

NDSSIETLSHSIEDILVQSVDSSYLNSDYQLSITQKEEIAEKLYEKGIFNIKGAVPIVAKFLKISEPSVY

RYLKKFKK

>CAL35498.1 ankyrin-repeat containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTTLSLEEEKRFEELCKMAFNFARNNECENLKIMIEAGLNVNLKTHKGDSLLMLAAYNNSYESAKMLLEK

GAKVDEKNDRGQTPLAGVCFKGYLPMCELLVKYGANIDENNGLGMTPYTFAIMFGRKDVAEFLLKKSKNN

FLKKISLKILKFIKKF

>CAL35497.1 catalase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLTNDFGNIIADNQNSLSAGAKGPLLMQDYLLLEKLAHQNRERIPERTVHAKGSGAYGEIKITADLSA

YTKAKIFQKGEVTPLFLRFSTVAGEAGAADAERDVRGFAIKFYTKEGNWDLVGNNTPTFFIRDAYKFPDF

IHTQKRDPRTHLRSNNAAWDFWSLCPESLHQVTILMSDRGIPASYRHMHGFGSHTYSFINDKNERFWVKF

HFKTQQGIKNLTNQEAAELIAKDRESHQRDLYNAIENKDFPKWKVQVQILAEKDIEKLGFNPFDLTKIWP

HSFVPLMDIGEMILNKNPQNYFNEVEQAAFSPSNIVPGIGFSPDKMLQARIFSYPDAQRYRIGTNYHLLP

VNRAKSEVNTYNVAGAMNFDSYKNDAAYYEPNSYDNSPKEDKSYLEPDLVLEGVAQRYAPLDNDFYTQPR

ALFNLMNDDQKTQLFHNIAASMEGVDEKIITRALKHFEKISPDYAKGIKKALEK

>CAL35496.1 hypothetical protein Cj1384c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSVLVIGADEITPIRAVLHDLGAKKIEHWDARNENRVNRKPIPCDTECIVMLTSFLNHNTMKKIKNEAKK

RKIPLVCAKRSVSCVYCEYCKIFNLNKEFSCYKG

>CAL35495.1 hypothetical protein Cj1383c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLFGFDDKQEFIPQIYRYLNNQELMLTFLTQYNASVDSALKIPLLYAKNTKSLKMIFGNFLHNIMHVSFG

KIQNINIKLNTYAFYFQKRKSLIFNTKISKNVDLLRLLRIYLYGICFDAQILFSSYVYDKVSFQNNGKNI

DQDGDLIIIDKKFAILPLCKEINTHNLEIENEIYELLNLIKENNFEKFYIVCPRNKNFTHFIEIKHFLCD

LNKTMLKLVPYKISNQIIRRK

>CAL35494.1 flavodoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSVAVIYGSAMGNTEGAANTIASKLGISDVFNISDIDAAKMNSYDKLICGTSTWGSGDLQDDWDGFDFSG

LSLGGKTVAVFGMGDSESYSDTFCGGMGKLAQNLKDAGANLVGEVSTDGYTFEASDAVVDGKFVGLALDN

DNQEDQTESRIDAWVEQIKPYFA

>CAL35493.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKFALILSFFIALFMSACTNATFTQSFIQTSNEGIFIRSQKQQSFKISFQNPSQLQTTLDRDLALKLKN

LGLKEVKENADYEILINLVDMKKHSYAQKITTSARFFYDFDPLESDGEWMVENYYTMQVNLQINSKNHNS

QKTSLLARTAYLGNKERCQLSLENKIINQIVSFFYF

>CAL35492.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLSLILVCSASLFAASNSEISDFYSKSIKAQFPNATVSVSNRQKVGNTGFESVIVSVELNGQKQENIL

FTKDSLITPDLIDLKTGISYAQEYEMKKFQEARENFTKNAKAVAQKETMVIALGDKNKPAIYVFSDPECP

YCREHLAQIDDELKNYQVNYILTPVHGKSAFEKSALIYKEAKKAKNDKEKIAILNKYYDANIKNYPKVSD

AELKEVFSLYEKYRSLGLSATPTIIK

>CAL35491.1 putative selenocysteine-specific elongation factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSVIIGTAGHIDHGKTSLIKALNGFEGDSLKEEQERQITINLSFSNLKLKDKNISFIDVPGHKDLVKTM

VSGAFGFSVCLFVVDINEGLKEQSLEHLEILKILDIKNIILVLSKCDLCENIEQKSVEILEELKNLDYPI

LKVFHTSIKNNQGIEELKNYLYTIENKENDEELIFHYYIDRVFSLKGIGTVVTGSLNEGSITLNEKIICL

DTQKELIVKNIQNHDTNLEQIKACNRVALSLNCDYKELKKGYLLSKKGYFKAFKECDALVKAKNLQNSKM

IFCVGSRQIECKINILKKLENDEFFVHFSFDKNVFLSFDEAFILLQNNRVIGGGKVLNPLSEPLKKEQKN

KFLMFLKNKDFKAAFSFLKDAHKYGFGLLSSYQRFKLSHQKALKLAKELNQVFVDEKNLNVYHLQSLEEI

KNFIKFILEKNPYAMLSAHSLALRITWASENFCELGLKEMSNLLDFQNGIYFKKGIDFEKLQEKNNNQMY

EILKKQGIKPEAPYNLYDFLELDRKSGDNILKKLTQKGLVVRLSHNLFIEKQALEKLMQECLNLLKNQSL

DVQSMKEYFNLSRKYAIAYLEYLDKFPQVSKEAEKRFLTNI

>CAL35490.1 L-seryl-tRNA(SeC) selenium transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKFRTFPQINTLIEDESLKSYPFYIKAFFCKKVVAKLKENFFQDEISKDKLLLEIKKEIKTFYRKDLQS

VINASGVVIHTNLGRSVIHEELYEACKDIICNYSNVEFDLENGKRGSRYALVLEKLKMLFECEDALVVNN

NAAAVFLVLNSLCYDKEVISSRGELVEIGGSFRVPEVIKAAGVKLCEVGTSNKTHLKDYEQAINENTALI

LKTHKSNFALMGFHSEVNIKDLHELAKEKELLSYYDLGSGWCENLNEKLIKNEPKIRKLVQECDILSFSG

DKLFGSVQAGIILGKKELIEKLKQNQLLRMLRVDKLTLSFLNESLKAYLQKDYEKIITLKLLNDDLSFIE

KKALRVQKELKFQTQLKKSKSLVGGGSMPDKSLDTYILTFQGDALKLQTRFRKENIIGRIENDEFVLDFR

TIRENELQKLILTINQMENL

>CAL35489.1 putative ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQDFVYIKNDVLIPLPDAIEILDQANDKEALICNDKNQKAQIYAPEINFYLKNSQDEILEQSKNVLTLYE

ARASVYDLGLDLEQSKEVQNRLIVADGDAQTVEFLKEHEFKVIALSSAEILAVFGSVGELCAVVKNQGEE

VEIDFDFLLFKAEDLSVVRKDFTRQSGCYNLLNFENLEVLFEFLQSKSPKYHYKTYISYNASVCQYHERR

SEHCAKCAEICPTVAILKDDENKHLEFSQVDCLGCGGCISVCPSGSLDYAPMPRESFFTLCEFYKDKKIL

IIPKKMSLENLNLALPKDVLPFMIEGEKWLSSMHFLTLLQNSGANLVFYTDFVSRGSNEAIVLLNTFFER

KFQKKAIFVAKDEKELQNVLKEQEFIQDLKYDFHNNTLTTRENFAKRMQEMIKNEDFGSMESGEWLRYGK

VEINPNTCTLCLSCVGACNVGALIADKQENALKFNASLCTTCGYCELSCAEKDTLKLFRSGMEFRASYFE

YQTMAKDELFACIECGKEFATKKAVEKIANLMKPKFGNDENKIKTLYCCADCKAKVMIKAMIN

>CAL35488.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILFLFCSFFLAFAKPSLEIPKLSKQAKQNFILENVKFNYNGTIYKIFIAKNKNENSNYKYKIIYLLD

GNAFFPLFLNLFNTPVKENLLIIGIGYDNNLAFDTQKRTKDYTPTTNLNKQGGGSKEFRNFLITQLIPYI

NKMYPIDFSHQILFGHSFGGLFAIDTLLYDSKIFSHYFIISPSLWWDNSEFLPNIIKLQTCPKIYIGLGS

LETNSSIIKGVAKLNAQKLSEKISKETNCKTHFKLFKNETHGSVISKAMLWMKKLLDLN

>CAL35487.1 putative multidrug efflux transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNNVLPLSFIVGTRFFGLFIVLPVLSLYALKLEGANEFLVGLLVGVYALTQMILQMPFGILSDKIGRKK

TMLIGLIIFIIGSLICSFAENIYTMLLGRMLQGAGAIGAVATAMISDFITEENRGKAMAVMGSFIGLSFA

ASMVISPLMSAKWGLSSLFDLSAALSLLCIILLYTVVPKENKITHENEKTPFFHLIKQKNLALMNLTNFM

QKMLMSIAFLSIPIILVKHLGFASDKLWIVYSASMVAGFIAMGFAGSLGEKKGLAKQILLLGIVFFILSY

LFFAFSNSIDFFIIAVVIFFIGFNLHEPIMQSCASKFCKVHEKGAALGLFNAFGYGGSFIGGIIGGIFLH

LDTLNLLAIILVILALIWLVALFFLKNPADFKNLYLPLETPLNFSTFGENLGVVDIYKNSKNLVVKFDSK

LTSKEELEGKL

>CAL35486.1 conserved hypothetical protein Cj1374c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIILATSNKHKVLELKEILKDFEIYAFDEVLMPFEIEENGKTFKENALIKARAVFNALDEKQKKDFIAL

SDDSGICVDVLEGNPGIYSARFSGKGDDKSNRDKLVNEMIKKGFKQSKAYYVAAIAMVGLMGEFSTHGTM

HGKVIDTEKGENGFGYDSLFIPKGFDKTLAQLSVDEKNNISHRFKALELAKIILKILNKG

>CAL35485.1 putative ntegral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFAKLLKFFISRPKSTFFGTLFICLFLSFFAFKLSVDASAESLLLEDDADLKTFREISKHYKSDNFLLLA

FKPYDEKPFSNENLAKLKKLHEELEKAPLVERVFSIINAPLLQSSQNTDLKELLKNIPNIESQDINRTKA

QNEILNSPFYKNNIISKDGKVTGLIIYLKPDTVYNNLIEKRDLATDEKEKDQIRLAIKEHQDKQKVITKQ

SLDTIKSIVRNYEKNKDTLYLGGVSMIADDMIAYIKSDLVLYGVSLVFLLGLALYYFFRSWRFVFLPLFI

CFISLSAASGVFALLNFQITVISSNYVALVLIITLSVVVHLITHFIESTQNHPKAKVERIVLETLLAKAN

PSLYAIVTTMIGFFSLILSNIEPIIKLGIMMSIGIGLALIFSYLFLASILVLLKPKNYHKKEFKFNLLAF

CAKTALDPKKRRMIYEISVLAIILALIGISKLRVENSFVNYFKDGSEIKKGLLVIDKNLGGTLPLEVIIR

FPNNKNDQNASDTLDSFESEFENLATQETYWFDSKKTRIAKKVHEFLENKEFVGSVLSLNSLLTLGKNIN

DGKELDDFALAFLNENLPAKFKQDLLSPFVSIENNELRFSMRIVDSDPNLRRNEFLIDLKKQLNELVKND

GVEVQITGIMVLYNNMLQSLFSSQFDTLIFVILAIFILFIIVFRDLKFSVAAILVNVIPLSVVFALMGLL

GIPLDMMSITIAAIAIGIGVDDAIHYIYRFREEIKNKSLEEAIMISHLSIGSALYYTTISIVLGFSVMMS

SNFIPTIYFGILTVFVMILLLSGSLFLLPSFLITIYSKKTKFPNQHKEHILKQ

>CAL35484.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLILTLFFNAFALQLDEISSTMQKNIDASLKLLQDNKEDKKQAANGIFKLFDSIIDYKLMAKLSLS

KNYSKLTPKEQEKFTTAFETSLKKSFTDKLSLYKDQVLKVKNGELKNEKRYFLTTSMVVDGEEKNIIFKF

YNDNNNWLIYDVDVLGVSIVQTYRSQFGDILANQGFDALLQKLESIVIE

>CAL35483.1 putative periplasmic protein (VacJ homolog) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRIKFISFILIFFTIFAFAKEQNLDDFEQEYQNYQVNDPLSGYNKAMTSFNVALYDYGLRPVLKGYNAIT

PEFIRLGARNFFDNLLAPLRFVSNVLQFKFEEAGEEFKRFTANTIMGFGGLMDVASKMGLKKHPADLGTV

LAHWGVGSGFHIVLPILGPSNLRDTLTLPATWYASFTAYIDPTWASIAISAYGFGNELSFRLDEIDEIYH

NTPNLYPFLRDAYEQRRNELSK

>CAL35482.1 putative nucleotide phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFYSYEEFKEDVKILAKEIKEDFNPDALLAIARGGMSLGHSLAVALKTRQLFALNSIHYDNTKKLDTIE

IFNIPDLSKHKKILLIDDIVDSGESLAEIKKVLLEKFPHIELKITTIFYKKTALLEPDFKVKEATEWVDF

YWDINLD

>CAL35481.1 putative permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSFFKLKENNTSFKTEVIAGLTTFLAMVYIIPVNSSIVGNTGMPIEALITATALITIVASAFNAFFANTP

VAMSVGMGLNAYFTFAVCLGQNIAWQSALGAVFISSIIFLILSFTHFRLWVIRNIPKDLRLAICAGIGCF

IAFLGLSQMGVIMHNKDTLVSIGNFKSPHVLFGIFTLALIIFFWAIKLRGAFILGVLASSIIAWIFHLDN

ASFPVQIFSWPNFSMENGLGAIFLQLDIKSALNITMIPIILTFFITQLFDSIGTITGVGERGKIFDDPKN

GEKKLSKTLMADATGSALGAMTGTSTVTAFVESTTGVESGGRTGLTALVVAICFAFTLFLLPLFKAIPAN

AIYPVLVMVGILMFMEVKNIDFKDSAIAVASFFTIIMMPFTYSITTGFAFGFLSYLLVRIFKREWDKINL

GIIVLSLLSLGNFLLMALQ

>CAL35480.1 putative radical SAM domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLITKLENEERLNQEEANALWDLDLFTLGKYAHKKRTKLHGKKVYFNINRHINPTNICADTCKFCAFS

AHRKNPNPYLMTHEEIMKIVDETVKRETKEVHIVSAHNKDTTWQWYLEIFKMIKEKYPNLHVKAMTAAEI

DFLHRRFKMSYEEVIEKMLEYGVDSMPGGGAEIFDEEVRKKICHGKVSSENWLKIHKLWHEKSKQSNATM

LFGHIEERHHRIDHMLRLRDLQDQTGGFNAFIPLVWQRDKSFIQTDKIMDSEEILKTIAISRLVLDNIKN

IKAYWATMTLNLAMVAQEFGANDLDGTIEKESIQSAGGAKSAKGTSLKTFIDMIKTSNLIPVERDSLYNE

LKTY

>CAL35479.1 putative nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNKELEIFKKNLSSYTQSCRKFFLKQGAFSLYHSKNMDNFIKKAYDIVLKDYFDDFSPPSDNIPFCVLA

SKAYANNSLCFNESISLIFVYKDIKAFHLKPMIKAFIEILNDAHLQIDSVILEFNGLYNASNELKTSIIQ

TRFICGSRILFKGIKIKFESIIKENKNDFAKLLLENFKEFDIPFIKQEFNILKDFGGLNHLRSLESLLVL

FKTSPKNYALNFIDEKKLSELRLAGDFLLSLKSAMNLLSAKDEDEFLLINVHDLSELMYKKAKKHFGANE

LLVQKALQSMHTIGFYTHFLAKQIQDGLNHTLKQEYKFKTLVEVLEYLLKLEDKHVIFDLNLVFALGRLK

YGKKDIEKALILFEKIFYKRHSFCVLKLLLDSGILKDLCKPFWTVRFLSDEEGNYSFDEQVFLMLSEFEK

YEDELEILQKLKTDEKMILKLVILLSAIESENEISLAGIYRAYCSKFDLKNEILEWGLKIFKNNNALKDL

VEKEDIYNPIVVSSLVSKLENLENLELLYTLTWLKAKALNYNAFYFRVLDKLLENAKQGFEDENLLEESA

RRVKKELTLKRSKIFLEQDEILQDKIIHIKSNLFIIKNTFEDIVMISKLAKENDFKFWFSNETNLSLQIV

APLHFNIAIILSSLTNLNLIFMNFFELFDDKIYLRFEYDNIISDEQKLKLCELLNSNLSGFNLKKIKKPI

IKKDELKLDLNYSKMYAKLGLNTKDQQGLMAYLMNVFNELELVLCAAKIQTIRQRTRNIFIFQKNEKLEH

SEQKLVNLLISE

>CAL35478.1 glucosamine--fructose-6-phosphate aminotransferase (isomerizing) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCGIVGYIGNNEKKQIILNGLKELEYRGYDSAGMAVMQEGELSFFKAVGKLENLANKCTDFESQGYGFAI

GHTRWATHGKPTEINAHPHLGQYSCVIHNGIIENYKEIKDKLEKEGVSFLSQTDTEVIVQLFEFYARNLG

VFEAWQKTIKELRGAFATLLVTKKDPNHVYFAKNAAPLIIGKNANKEWYFSSGDAPLIGSCDEVMYLEDL

SLGYASKDELVVYENDILKSLCFSKLSGDKAYAKKDGFRFFMEKEIYEQSRVMSEVLMGRIQGDEVVFDE

LNNEDLSQVDEITLCACGTSYHAAMASAYLFERIAKVKAKVEIASEFRYREAIIKKDSLFIVISQSGETA

DTLEALKIAKEQGAKTFAICNVDNSNIVRLAHLSLLTRAGIEKGVASTKAFATQVLTLWMLAIFMAQKRN

LNVSAEIKALLHTPNCVSVKQALHEKIHRLSKRYLDGHGFFFIGRDVFYPLALEGALKLKELSYLHAEGY

PAGEMKHGPIALADSKLYTIALMPKHMLYEKTKSNVEELIARDSTVLSISPLEFDLSDDFIKTNEQDHYM

CEFFEMMVITQLLAMEISIRLGNDVDMPRNLAKSVTVE

>CAL35477.1 putative secreted serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFFCLTLVCKLFALSEFELHHIDKVHKLGYSGDTIIIGVADDAFNQDHISLKDKILKSTYPTDTAGKQ

LIPDLKKSTHGSHVAGIAVGAKIGDSKPYGVAYGAKFYGAGVFPNGSYTQIPDIYNFFKDVSIINNSWGI

NFYPYFNLKASNSGLVDCTQTNQGTSYNICNTPLEYVMKADKVANDMMRLSKDKGVLNVFAAGNEGILSP

ALHAILPSYDESLRAWLAVGALDANEITLESDGTLIIKSQGLADFSNGFKGATNFSLVAAGVNINNVDSS

TNDKFTKKSGTSMAAPMVSGTAALVKQNFPFLDGKQIADILLSTANKNYKAPKFTVKQVTDGTNQPKFLI

VYISQDPPGIEDEIKRDLKQLYNGIQVQVNGQWIDYSDYIWDNRDSAQSQKLNTSTISSINGVVRVEKEE

LFGQGILDAQKALKGLSILDANRLSDQDVLKYEQEPNTAYYTINTAGYDAEFSNDISQRKWDESTHLSSA

INKPTHLANLNIGLSKEGEGILIISGQNTYEGATLIKQGELKLKGKVKNNAYVEQKAILSGNGIVGQNLN

NKGIVRPGNEDLNDLTVQGTYTQEGVDSKLQLDFGNYKNSKLIAKTYDIKSGNLEYIPLPKYYILNKPVK

INLGDLEKSLSSFNHVLIQNTYALNFDFVLSDDLVSINKTLIKPNLKPNAYEIPNTSLGNALRQLRSRAD

LSQTYQEFFASLDNGIDVKTKLNRIEGSGYLSTFSNHNQSNLMQNNMLFTLHPLNINNFAQNNNILLAST

YLPRIFSNEEYFWHLTPSYKYYKDKDFSGQKTGANISLGENFSSGFLAYALSLSSAKFNFNNGSDLKSYN

MDLLLNYNHDLDFIKILSGLGIGVGFNTLNRFVVEQPIEGKYKTLQTSAQLGVTKDIILGQDFIFNPLMY

FTHSFFYQEDFKENKSPFAKNYESLKHHSINANLGFNLAKNIEQDDYQASFSTFVIFEKRIYGRTLENKA

SFVDFPIAFIQKYKLKDNILSQGFNSEFLYKNNVFWQFMLMNRFSHNAYELHLMSSVGKRF

>CAL35476.1 fumarate hydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEYRVEHDTMGEVKVPNDKYWGAQTERSFENFKIGCEKMPKVLIYAFANLKKSLALVNNKLGKLDDAKKN

AIVQACDEIIAGKFDDNFPLAIWQTGSGTQSNMNMNEVIANRATEIMGGDFRKEKLVHPNDHVNMSQSSN

DTFPTAMSIVAVEQVEKKLIPALDELIATFEKKVKEFDGIIKIGRTHLQDATPLTLAQEFSGYLSMLLHS

KEQIIASLPTLRELAIGGTAVGTGLNAHPELSQKVSEELTQLIGTKFISSPNKFHALTSHDAINFTHGAM

KGLAANLMKIANDIRWLASGPRCGLGELIIPENEPGSSIMPGKVNPTQCEAVTMVAVQVMGNDVAIGFAA

SQGNFELNVFKPVIIYNFLQSLDLLADSMHSFNIHCAVGIEPNRAKIDHNLHNSLMLVTALNPHIGYENA

AKVAKNAHKKGISLKESTMELGLVSEEDFNKFVDPTKMIGPKA

>CAL35475.1 acid membrane antigen A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNGKFFLISFILVILFLLLYLFKGFLLVIIIASLMAVATSNINAKFLNLTKGHKFLASILTTTCMVLLF

FAPFVYAMIELAKALKNFDINLVTQTLDYVKNYQFTLPESFNFLEPKIKEFLASIDLNSISKQILSYASS

FTKSGAKFLIDMVLICVFYFFANLYGTELVIYLKSIIPIDKKELDDVLSEVGNVMAVVLYSMVIVAIFQG

ALFGLITIFYGYDGILMGVIFAVSSLIPAIGGALIYMPVSLYEFASNNLNSALVIFIYSVIVISFIADTL

IKPLIIKWINKKLVKTPTKINELLIFLAMIAGISTFGFWGIILGPAILTFFVSTLRMYVILKDKNLI

>CAL35474.1 holliday junction DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDRIVEIEKYSFDETYETSLRPSNFDGYIGQESIKKNLNVFIAAAKKRNECLDHILFSGPAGLGKTTLAN

IISYEMSANIKTTAAPMIEKSGDLAAILTNLSEGDILFIDEIHRLSPAIEEVLYPAMEDYRLDIIIGSGP

AAQTIKIDLPKFTLIGATTRAGMLSNPLRDRFGMQFRLEFYKDSELALILQKAALKLNKTCEEKAALEIA

KRSRSTPRIALRLLKRVRDFADVNDEEIITEKRANEALNSLGVNELGFDAMDLRYLELLTAAKQKPIGLA

SIAAALSEDENTIEDVIEPYLLANGYIERTAKGRIASAKSYSALKLNYEKTLFEE

>CAL35473.1 hypothetical protein Cj1361c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEFTLNFNDYGLKMGILTKLELDYEIDDIEKFLQFFRTMCDRFEPLIIKLGSDSVRYKEAIKELETLAH

NTAWAARRLNLEEVTDFCVFCEEMMAQANRFNGPASDEFTDWMLLMSDQFEKYCRSYENDDSVLAVFNPL

IVNVPNIISK

>CAL35472.1 putative proteolysis tag for 10Sa\_RNA, partial [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

ANNVKFAPAYAKAA

>CAL35471.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQTSPDMFINRELSWLRFNSRVLDQCSKNLPLLEKLKFIAIYCTNLDEFYMIRVAGLKQLFSAGVNASSS

DEMTPLQQLKAIRKYLHQEKELLERYFNEITSELEKENLFIKHYENLDENLKQKCDEYFFSNIFPVIVPI

AVDATHPFPHLNNLSFSLAVKICDKAHPELVKFGMIRIPRVLPRFYEVSANIYVPIESIVHQHAEEIFPG

YKLLASAAFRVTRNADMVIEEEEADDFMMILEQGLKLRRKGAFVRLQIQKDADEQIVEFLNTHMKIFHKD

VYEYSILLNLPSLWQIAGNKTFTHLLSPLYTPKTLPPFDENLSIFDAVEKEDILIIQPFESFDPVYKFIK

EASKDPEVISIRMTLYRVEKNSNIVQALIDAASDGKQVTVMVELKARFDEENNLHWAKALENAGAHVIYG

ITGFKVHAKVSQVIRKQGDKLKFYMHLSTGNYNASSAKIYTDVSYFTSKAEFARDTTSFFHILSGFSKNR

RLQTLSMSPNQIKEKVLEMIRIETSKKNEGVIVAKMNSLVDSDIIQALYEASMEGVQIDLIIRGICCLKP

DEEYSKNIRVRSIIGKYLEHARVFYFKHSEPNYFISSADWMPRNLERRLELMTPIYDERSKAKLAQFLRL

QLSDNVLAYELKNNGEYEKIPSSEKIIDSQQTLEEYVSKIYKTLKKDTDQSRATHLASKLFKEN

>CAL35470.1 putative periplasmic cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIILRRKILKKTSNLFTIFLVLLFVFFAVGFYTFYNAKGTSYLSNASESCNNCHIMNEVYNEYMAGPHSQ

KVKGEPRATCVDCHLPHNFVAKWIAKAQSGLGHAYAFTFKLDELPTNLSATEKSRKMVQENCIRCHADFA

QTAINATTNPHADKSLNCASCHKDVGHKHGI

>CAL35469.1 putative periplasmic cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKNILRLGIVVLVLLIAGVLWLNNDINQKKEDEANKNAIAANADFSLLSDDDPNFEKWGKVFPEQLKMY

LTVEKEEPKATEFGGNLAYSKLIRFPQLTILWAGYPFSLDFNEERGHFWVQVDQMKTARNNKDFLNAHGL

AAFKGQPAACMNCHSGWTPWLIKNVAKGDFTAFNSTNYWTMIKNIPAVDGIVENSPEHAGPHGGKRMGVT

CADCHNPNDMSLRLTRPAAINALVSRGYEKDPVQGVKATREEMRTLVCSQCHVEYYFKPTGEKVKVMGET

IVDDSSKKWWNGTQKNYDEYEFWRDGNKVKEIETDGIVLTFPWSEWKKGQPFRIEMLDDYYDKVRGVFGA

DFTHKLTGAQIIKIQHPESELYSGGVHAANGVSCVDCHMPYVREGAKKVTQHNITSPLRDINSACKSCHK

QSEDYLKAQVLDIQNSVAHDQRTAEYAIVSLIMDTKKLRDELGNMEKFQSDGKADAKKISEELKEVLELH

RKAQMRADFVNAENSTGFHNPREASRMLLQAVDMARMGQTKLVEIAAANGIKDFKTSNLGFEDIQKFNPG

ELYYKVDVNNHKAGERYYADEKDVNGNPPKELLEHDKELAPYNYQVIDKK

>CAL35468.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINKNKLFRQVHIYLSLFFLPCALLFALTGIAYIFGINQDVGLKVEQYQLSKVIESGKEREALIEYLKTN

GLKVPSNTNIIKSKDKGITIGGTHYSANITQNSTNEYNITLKTRSLLGDMIMLHKDKGAWYFSVLSVGFG

ITLFMLYISGLMITLFANKKDRSKQFAVLGVGVVVTLLLAYLSL

>CAL35467.1 enterochelin uptake periplasmic binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKSLVFAFFAFFLSLILTACNSNSNENNASSTTKTNTATVKVLPISMSDEGDSFLVKDSLGENKIPKNP

SKVVILDLGILDTFDALKLNDKVVGVPAKNLPKYLQQFKNKPSVGGVQQVDFEAINALKPDLIIISGRQS

KFYDKLKEIAPTLFVGLDNANFLSSFENNVLSVAKLYGLEKEALEKISDIKNEIEKAKSIVDEDKKALII

LTNSNKISAFGPQSRFGIIHDVLGINAVDENIKVGTHGKSINSEFILEKNPDYIFVVDRNVILGNKERAQ

GILDNALVAKTKAAQNKKIIYLDPEYWYLASGNGLESLKTMILEIKNAVK

>CAL35466.1 enterochelin uptake ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKLKNITKFYDNKVIISDLSLDFHKGKITSIIGANGAGKSTLLALASRLIKPSSGEIYIDGMNLKNYKE

QILAQKISILKQQNNINLRLKVEELVAFGRFPHSQGRLNTNDKIKINEALEYMELSNLRNEFLDTLSGGQ

KQRAFIAMIIAQDTEFIMFDEPLNNLDMKHSVQIMQLMKNLVKDFNKSIAVVLHDINFASIYSDEIIALK

DGKLLKQGSKDEIINQENLKQIYDMDIPVSQINGKKICIYF

>CAL35465.1 enterochelin uptake permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKKMLILSFLTLNMIGIFIFVGLNGFDEYALKSRFLQIAAIIIVAICIAVSTVIFQTLCNNKILTPAII

GLDSLYMLLQSALIFSFGAANLSVYKNDINFLITLVCMVVFSLGLYKILFSSDRSIYLIMLLGLVFGTLF

STLSSFFEVLIDPDEFMVIQGRMFASFDNIAFDVLILAYIISFLSFIWIFRYMKFLDPLNLGKDLAINLG

INYQKISKQLMIIIAILTSISTALVGPITFLGLLVVNITYELFKTAKHSILLSACILISILALLGGVFFV

SRVFDYNATISVVINFLGGIYFIYLVLKGNKL

>CAL35464.1 enterochelin uptake permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFFKHILSLKVLIALLLFFGMISLFIGVISINVKDILNLNSTQLEIITLTRIPRLIAILLTGMSLSICGL

IMQQLTQNKFVSPTTAGTMDCAKFGILISLIFFTGASFFTQAIIASIFALLGSFIFIQILRKIKLKDVIF

VPLIGLMFGGIISAITTFFAYALNYIQNIQGWLQGSMANVMQGNYELLYISLPLFILAYFLAHKITIVGM

GEDIALNLGISYNGILFLGLMIVSIITSLVIVSVGIIPFLGLIIPNLVALYLGDNLRKNLIYIALCGALF

LLVCDIISRLVIFPFEMPLSITTGVLGSLIFIFLLLKRKVYA

>CAL35463.1 phospholipase A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKIALFLSLCVFIWASDLQQALEYEKQGDYKKAMEIYKKLALKNSSVLISQEQNNSSQATQTQNSITIK

KEEKQDFSRLALANYLGENESFNPLGISSYKMNYFLPFAYSFNSLGVNNNKSEAKFQLSVKKRLFENLLG

LDEKYYIAYTQTSWWQIYEHSSPFRETNYQPEFFIDLPLYLKDYEFFNNLRVGILHESNGKGDENLQSRS

WNRIYVSTAILYNKFLFVPRLWYRIPENKKDDDNPAILHYMGNFDVNLAYLGDDYFINLMLRNNLKFHNN

KGAIQVDLGYDIFNNGIYWYLQYFNGYGESLIDYNKHLQRLSTGFLISY

>CAL35462.1 putative molybdopterin-guanine dinucleotide biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQLNELNCVILCGGKSSRMGQDKSKLILKNQNLTQFQVDKFSKIFKNVYVSAKEDKFENHFSLIKDSLEF

EVYSPMLALYSILSNFKNEFVFVLSVDSPKVGENELLKMLPFLEQNYKIIIAKTPLHKHPLCGFYHSSLA

QTCKNFLEKNEQKIGLLFSEIKTKFVEFEDEDAFLNLNFYEEYEKFKSKLK

>CAL35461.1 putative fibronectin/fibrinogen-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYTELLQLQTFFSRFKKIDFIKRINDNILELSFDRERFIFDLTRAMSAIYTAKFNAKNYNAPFDFMLKK

YFSNAFIKEVKVLEGNRILCFSVKANKAYKSYESKIYFEFTGKNTNVILTDEKDLIIEALRHIDKSYRVV

KPNVILESLKPYKMDENFEEIKDFADYFSRKFTSIYESKIKQIKNLKLAQVDKKIQNLQELFSSLDEENS

LLLKALEYRKRADVLFANLSVLKDYEREFKLDDFEGKELEFKLEFNPKQSANLYYKNAKKLEQKAKNLNI

QRQNLKEKLDFTLSLKELLLQAKSEIELEILLPKKNSKKNQDHKQEDLVANFYFNEFKICVGKNEKGNEF

LLKNAKKDDLWLHVRDIPSAHTLIVSNKQKISLDVIEFAARLCVSFSKLKKGSYWVDYTLKNFVKVQQKA

FVNYTNFKSINITKD

>CAL35460.1 putative coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPVSPLGNINYINQNMAYPATQASNELAKEGFAATLNMAEFNEKEKTLNKLEKVNETHEIKEEIKEKAEQ

EEKKKKHNQEAKTSDDEKNEEDESKDPNFKDAQSIHRLDISI

>CAL35459.1 phosphatidate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNTTRIISALVMIGAIIIIALIDQFFINFIVFAVLLYLSFSEAKKLFALENISIIPLAIAFILGSLSHK

ALLFGILVLLLVVGYLVYKKASLKPALIYIYPSLPILALWQVYLDQGMFALFWLIIIVAACDSGAYFIGK

LMGKTPFSPTSPNKTLEGVIGGLICASVIGTILGVFVYSFWLSLLCSFFVAIFAVIGDLLESYFKREAGV

KDSGDLIPGHGGVLDRIDAVIIAAFVMVALL

>CAL35458.1 1-deoxy-D-xylulose 5-phosphate reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILFGSTGSIGVNALKLAALKNIPISALACGDNIALLNEQIARFKPKFVSIKDSKNKHLVKHDRVFIGQE

GLEQILTECQDKLLLNAIVGFAGLKSTLKAKELGKNIALANKESLVVAGSFLKGAKFLPVDSEHAALKFL

LEGKKNIAKLYITASGGAFYRYKIKDLNQVSVKDALKHPNWNMGAKITIDSATMANKLFEIIEAYHLYDF

KEIDALIEPRSLVHAMCEFKNGASTAYFSKADMKLAISDAIFEKQDTPILEAVDFSKMPALKFHPISTKK

YPIFKLKNTFLKEPNLGVIINAANEVGVYNFLENKSGFLDIAKCIFKALDHFGVPKISSIEEVFEYDFKT

REYLRS

>CAL35457.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFFLTILFFITSIFALELDFSVGENGKSLDDNNTVLIFGGIQGDEPGGFHAASLLLSDYNITKGKIIVA

PNLAFDSIIKRSRGNNGDLNRKFASISPKDPDYKTVQRIKELILLPEVSMVINLHDGWGFYKPTYIDAMQ

NPKRWGNSSVIDTSEINASKYPDLENIATQTVNSVNSSLADPKHAYHLKNTKTQELGDTEMLKALTYFVI

SNHKAAFANEASKNLPVNLRAYYHLLAIENYLKTAGIEFSRDFELTPQGVDKAINKELEVKLFDDRILLS

LKNPRKVINYVPFPVNKELNYNTSNELTAVIAEGNSFYIQYGNRFQTRLYPEYLEFSDAFNEVTFQVDGN

ETTVPFGTKVKVKENFLIPKIANVRVNIIGFDHSKDESGILVHKKNMQTQYSLDMAGKIYRAEFYELRGA

NLQQLLEANINSKLIKNAKNLDLNTLKMARSKDKFLGSILVEFE

>CAL35456.1 putative glycoprotease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>CAL35455.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAFTILELVFVIVILGILAAIALPKMSSSKDEAEVSKSLNNLKTLINDISIYTLKNDHLSSIKTMSNV

SGVENVDLSNFNGIKEVNFRVGDDKECLKLVFINKADFILMGISSNEASKNAIINAANQSHEDLENIDFT

SSSSNKACVILSKNENFKNLASKTYLLIGGM

>CAL35454.1 motility accessory factor (function unknown) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIVSKAYEIDSCDDVELGIKRESKLEFKLWYDDEKTPEALVFVVQGMGDDISSIQYVGDYMVRQFNTAVV

GVNYHCIGNRPQTGSSFFMDDIDKLILKASCEAADIKLPYDVDKIQDYKAMSEIFHFVNNQIVEGKQKGN

FTPNYFLNLHVSLQPTKNEYQNFGIMQAQDLLNVALYLKKHAPFDTMGGGIPIIMIGGSHGGYLAHLAAK

IAPWLVDGVLDNSAYAKFLWRVVGFGKEIDFMQYSEFATFDFFHHIKTHCSTKTFWTSNSSSPRFFSPAR

RKIRNLLEEDHLLKQSKCLKTCFISYHSLYDEYVSLKEKTMFYEELEKLGFDVTLHSITKESQVDGKFIK

NLNHGMGIPVKLLIKKELPLMLEKIKQNSKKDYKEKCISYPCEDLLYQFSEKDDKMSLKIDKI

>CAL35453.1 motility accessory factor (function unknown) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTILEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELCSGKIYLVDIEEERVDIQL

LILFDMKDMFEYLSLYEMFVNNVYYKKFYEDVWHKADELCEKNIKVVIRNLNSSLCIGFECYSHLLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENKTSLNMLSCATHPSLVHFLDNKSVVLRDDPLYQRFNLNDFGYIDTGTHVSHFSYT

LALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRIKLE

YLFACNEQKAKFYNATEGGARINFTEELSFKECCEKLLTKEKPQFELPKSLTKNRSDKLLVKFKEKIQKD

QDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDGILKAVMYERGLKIS

LVYKENIIDNASFISAYIKAYHEWLLYFMEKLEQRINIIIDSFKELP

>CAL35452.1 conserved hypothetical protein Cj1340c (1318 family) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLLEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELKVYKVVLFDCVAKDLEIQI

AMIFDQQSILEYLSLYEMFISSHYYLKYYETSILSLNELCIKSASVAIRNADITCFLPLLTHGQFLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENLKQSIIALECATHPNIVRSLNAENCMIVLRNKALYQRFNLNDFGYIDTGTHVSHF

SYTLALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRI

KLEYLFACNEQKAKFYNATEGGARINFTEELSFKECCEKFLTKEKPQFELPKSLTKNRSDKLLVKFKEKI

QKDQDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDETLRGAFAYRGK

MIADVLKLHIQDKTHFITAYIKAYHEWLLYFIEKLEQKYKSLSKV

>CAL35451.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGFRINTNVAALNAKANADLNSKSLDASLSRLSSGLRINSAADDASGMAIADSLRSQANTLGQAISNGND

ALGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTVKATIGATQSSKIGLTRFETGGRISTSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALADEINKNADKTGVRATFTVETRGIAAVRAGATSDTFAINGVKIGKVDYKDGDANGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGQIDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TAITNLDQIRADIGSVQNQVTSTINNITVTQVNVKAAESQIRDVDFAAESANYSKANILAQSGSYAMAQA

NSVQQNVLRLLQ

>CAL35450.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGFRINTNIGALNAHANSVVNARELDKSLSRLSSGLRINSAADDASGMAIADSLRSQAATLGQAINNGND

AIGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTIKATIGATQSSKIGLTRFETGGRISSSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALAEEINKSADKTGVRATFTVETRGIAAVRAGTTSDTFAINGVTIGQVAYEDGDGNGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGRFDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TATTNLDQIRADIGSVQNQLQVTINNITVTQVNVKAAESTIRDVDFAAESANFSKYNILAQSGSYAMSQA

NAVQQNVLKLLQ

>CAL35449.1 PseE protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MREENNFNKNLKALSGFEYNNLRKKLEDLKELREFTFTQGKDNLDINIIKKRNLKKMYQDPIKELEKNLE

YFKDFTRYPVLFFYGFGNGILYKILLQNQALKRIIIFEKELELIFLALNFIDFSKDLSLGRLIILHHDDI

NLPKMDKVFRLIGDLFYRSYNLHIANDFYEHYKEDILKLNKLNMQIIKNHNLMHGNDPKDALQGIEQFVY

NLPSMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGIKPDYV

CMLERDEIVAECFNNDFKDFDKDIIFLVASLVHKKTISYLKKNKRKYILIIKGQPFARCLGLDDYGYINA

GMSVSHMAYELAENLGHNNIILIGQDLAYAKDGQTHSQGFIHANLHNGDYERDLDRFSTTAYGGNGKVQS

SEIWTLFRQIFENFIAFSKSKTYNCTEGGARIESAIEKPFKELCEDLLKNKKDKKFKKLQVLNTKEQVKL

GLKIYQKIKKNMNLSLNFKKECKKVQKQIHNLTHGKNKLSLEQINQNIDKIKEKLSNKKYLFLQEILGPT

LHHEQSILTPLYLKDIKDESDKQNKLFAWVYAHEALIENIIELLEVQDKRLKIAILPLLDFLEKKKAL

>CAL35448.1 motility accessory factor (function unknown) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGGYNENLLYQDP

IKELQTMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQNA

RLMVLENDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAENFKNIILRNGNDPK

DALQGIEQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPI

LAKHGIKPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNLVITQKVLAFPYYIN

LKDFSYAAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYESQMYEHILTEAYGG

NGKVETHSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFEKLE

PLSLNKQNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLAIRKIDEFKNKLENI

KQMQDLYEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNILP

LEEKLKERKLDKWMERVRR

>CAL35447.1 motility accessory factor (function unknown) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MREELFLKNTQALFEVDEFLACTLRSLKYLTFALIQDENGINFKKDDIFLYENPNKELLENLTLFKTEYN

KYPVLFFYGFGNGMFYKTLCKNKQHKHIIIFEDNLEILTLAFHLFDFSEELKKEQLILFYTPNINTAQLT

TLFTYEIIQKSVKIFNLFIHNDFYQQFYSTQIQNINTQLIEMIRFIVLNKGNDPHDSLVGIKHTLDNLPK

MLNHGIFQEFLKERRAKVENAIIVSTGPSLIKQLPLLKKYANKATIFCADSSYPILAKHGIKPDYVCMLE

RDDIVSKCFDNDFGDFNKGILFILASVVHKEVLDFLEKDQRAYMLVHRPLNFAASLKLDEYGYLGVGHSV

SNMIYELAGALRFENIIFIGQDLAYGEDGSSHPKEHIHGSQGEEIRGEKYTLAYGGKGKVRTQLTWNLFR

QAFEKDIFWAKEKLNITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFDFPKFLDKKLAKEKLEKT

KKYLQKSILESKEFIKKTQTQLQKLRYTLEKNDKNFQTLEKIKNDLLNLFKEFKKLKLFNELCQAIYFHN

ECEILKFEVLNTNKQKENLIDFLKIQHNWFIQGLGYLDTQNKTIEKSLENWNFDDIIKK

>CAL35446.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGLMMTFTPTQKELFNKNIEALSNLFLKESLKEIKSSKFELILGKDNLDINLKDTSDNTFLYENVIDELN

SMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQSARLMIL

QTSSLDIELFSNFCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLVQDFKDSILSHGNDPLDALQG

IEQFVYNLPQMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHN

IKPDYVLSLERIPLTSEFFNNDFGEFDKDILFVLKSYVHPHTTKYLQKNNRNFMLVSTYASFINYLKLDD

FGYFNMGFSVANMNFLLAIHLKHKNIVLIGQDLAYAKDGLSHTKDYSNLDKHEGHFQRDKNKYTTQAYGD

NGKVESSFVWTLFRHNFEQDVANAKKNYYITTYNCTEGGARIEGTIEKPFLWACENLLHKDLNKPFEKLE

PLSLNKQNEFLLKAYYKVYQSIKHCRDFSNKFIKSYDKIKNSFMSLQNSQENETLIKEIIKDIDKIKTQI

DELYNTQKDLMQILGPLLTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIK

NILPLEEKLKERKLDKWMERVRR

>CAL35445.1 putative oxidoreductase (flagellin modification) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLENKIIFVAGACGRIGKALCEKILLSKGIPILADINKECLNKLQENLETNFKTKLLSLELDITKQESLQ

TALQKSQERYGKIDAFVNSSYPFGKDWGKTPYYELKYEQICESLNLHLAGFMLAAQEFVKFFKQQGYGNI

INLSSIMGVYAPKFENYEGTSMQSSLEYSVIKAGINHMSSWLAKELFNQNIRVNTLASGGILDNQNELFL

KAYRKCCASKGMLDADDICGTLVFLLSDESKFITGQTLVVDDGWGL

>CAL35444.1 acylneuraminate cytidylyltransferase (flagellin modification) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAEILCTICARGGSKGVKNKNIRKINKLEMIAYSIIQAQNSKLFKHIVISTDSDEIASVAQKYGAEVFFK

REAHLANDRTAKLPVMRDALLRSEEHFKTCFETLIDLDASAPLRSSLDIKKAYESFVENDNSNLITAVPA

RRNPYFNLVEIQNNKVVKSKEGNFTTRQSAPKCYDMNASIYIFKRDYLLENDSVFGKNTGLFVMDESTAF

DIDSELDFKIVEFLISLKNLSPKDF

>CAL35443.1 hypothetical protein Cj1330 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVLIIGFGSIGKKHFLALKNLNHEVSLLSLSAKKEEFKNTPIYRSLKECDLNEFDLFIIANITTEHFNT

LKTLDELVKDKTILVEKPLFEKSQNFTSSKNHIYVAYLQRFNPVIVALKRLLKGEKIYFASLVCNSYLPH

WRALDYRQNYSAKKELGGGVLLDLSHEIDLAFFLFKDLELIYSQNAKISELDITSDDFAFLALKNSQEAK

IHIELDYFAKFNKREIIIHTLEKSFKADLINNKIEIYHKNQSQKILNFENDTIKTLQNLHHAVFEKDKEL

CDLKQALKVLELCDEVRKKNG

>CAL35442.1 putative sugar-phosphate nucleotide transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDINKLKLTPDSSIKEALKIVGQERVRLGIIVDKKDKFLGVISDSNIRKALISGKTLKDSIKDIYTKNPI

TIKENTSKEQLLKISAKTDIYDFPVLDEKGQILSIKSISSLLKANPNSIIIMAGGLGSRLKELTKDTPKP

MLKVGKKPILESIIQRLKNQNFENFIFCVNYKKQIIEDYFQKGQKFGVKISYIKERKKLGTAGALSLIKQ

EFKESFIVMNADILTELDFNALLKAHKKSKALMSVCVREFEQQIPYGVITQKQGFIENIEEKPTQKFLVS

AGIYVLENEILNLIAKNEYLDMPELIKLVLQKGKVNTYIINDYWIDIGRPDEFLKANEDFK

>CAL35441.1 putative UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKRKICIVSATRAEWYLLRNLCHEIQNDKDLSLQIIATGAHLSPEFGLTYKEIEKEFKITKKIPILLAN

DDKISLCKSMSLAFSAFSDAFEDLKPDMVVILGDRYEMLSVASVCLLMHIPLVHLCGGELTLGAIDDSIR

HSISKMSHLHFVSHEIYKKRLLQLGEEEKRVFNIGSLASTIIKNMNFLNKKDLEKALEMKLDKELYLITY

HPLTLNVKNTQKEIKTLLKKLDTLKNASLIFTKANADENGLLINEILQNYCQKNSHKAKLFDNLGSQKYL

SLMKIAKAMIGNSSSGISESPFFKTPCINIGDRQKGRLRTQNIIDSEINDLDQAFEKLESKEFKQNLKNF

KNPYDNGKNPNKIIKTCLKNVNLDTILHKNFIDL

>CAL35440.1 N-acetylneuraminic acid synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKTLIIAEAGVNHNGDLNLAKKLIEIAADSGADFVKFQSFKAKNCISTKAKKAPYQLKTTANDESQLQM

VQKLELDLKAHKELILHAKKCNIAFLSTPFDLESVDLLNELGLKIFKIPSGEITNLPYLKKIAKLNKKII

LSTGMANLGEIEEALNVLCKNGAKRQNITLLHCTTEYPAPFNEVNLKAMQSLKDAFKLDVGYSDHTRGIH

ISLAAVALGACVIEKHFTLDKNMSGPDHKASLEPQELKMLCTQIRQIQKAMGDGIKKASKSEQKNINIVR

KSLVAKKDIKKGEIFSEGNLTTKRPANGISAMRYEEFLGKIATKNYKEDELIRE

>CAL35439.1 putative methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNSLEAYTMKYNENGYGLLFPDGHVVRFYERILKYKLNKINGNLLDFGCGNGVHSAYFQSKGFKTFGID

IVPSLKEIWEQNISGGGYCKIIEPNSSIKGLFDENMDIIFANQSLYYIPLKELKQNILEFYELLNTGGIL

FATMMSKKNYYFSHSQKEEKNGLSKVEINGRLNETSFIHFIDKAEDLENLFQPFETLFLGDYDPINFYNF

EGSAHHYIYIGIKK

>CAL35438.1 hypothetical protein Cj1324 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIYCDHCVMPNTRPGINFTKDKEGKNICSACINHKNKENIDYKARFKELEVLCDKYRRMNGKFEYDCAIA

VSGGKDSHFQVHIMKEKLGMNPILFSVEDNFTMTEAGKKNLKNLSETFGCHIISLKPDIKTQKKVMLKTF

EKYGKPTWFIDRLIYSYPFAMALKFNTPLLVYGENVSYEYGGSDTEETPSAKEIFLNGVASDLNINEFID

DEIKEENLQLFFNPNKDKLDKLNPIYLSYFVKWNSYSNYIFAKSRGFTDLEGEWDRTMCAENFDQVDSIG

YILHAWMKYPKFGHACASDYAARFVRYGLLSRKEAIELVQKRDHKLDNKCVEDFCNFIGISKTTFWKIVE

KHYNMDLFYKNDFGEFKLKNKLQ

>CAL35437.1 hypothetical protein Cj1323 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDDLNCDFIHFFNTIYIKLIELCGSNLERFTPLKDLKKLGFHIICSKGNRGALANLLLFNEISSFFKIIE

KYDYNFKECQTVYDLLYEKRNLLNIIDTIGIELCNKICKNLKEDDENFYHPKIFKKAL

>CAL35436.1 hypothetical protein Cj1322 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEINIIDFGLMGKQISALFYLLGYEIGVYNKSKLNIYEFEKQIKLLQRKIDFSNFNAGKINIYQHIEDL

KNSLTIESLNEDLNLKKEIMQILRDNNIVFSRVWMI

>CAL35435.1 putative transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNVIIIGAGGFTRELYSYLKDANYEIIGYIDIQENNFFDLKYLGNEDNFDKKLIQKASFALGVGQINLR

KKILVKLSKKSCNFITFIHPQSFVSKEAKIGQGVIVCPFVTINANSNIGDFVLCNIYSSIAHDCKVGEGS

ILSPYATLNGNSSIGKNCFLATRVSLLPCVNLEDNCIVSR

>CAL35434.1 putative aminotransferase (degT family) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKKEISFIKSLFNKENIALHEPCFIGNEKKYLLECIDSGFVSSVGEFVTRFEEALKEKTKARFVIATNT

GTAALHIALLANGIDENCEVITQSISFVATANAIAYTGAKPVFLDIDENTLSLSPKALEHFLENQTYQKD

NLSYNKTTHKLIKACVIMHTFGLSAHIKAIKELCEKYHILLIEDAAEALGSTYENKALGTFGKCGILSFN

GNKIITGGCGGAILSDDENLAKLARHLSTTAKIPHPYEYDHDRIAYNYRLCNINAAILFAGLENLELFLE

NKRELAKIYKDFFKNHDKCKFIDEKSNEKSNFWLNTLLFKNENLRNIFLEECLKNNIFVRPVWKSLPSLK

AFQNCQSNELMNTKKLEKRLINLPSSVRIANKKE

>CAL35433.1 putative nucleotide sugar dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNILVTGADGFIGSHLCESLVKKGFKVRALSQYNSFNFWGHLEKSPFLKDMEVISGDLRDSFFCEKITK

NIDAIFHLGALIAIPYSYTAPQSYVDTNVNGTLNMLEAAKKNEISHFIHTSTSEVYGTAFYVPIDEKHPL

QPQSPYSASKIAADMMALSYYNSFNLNVNIARPFNTYGPRQSARAIIPTIITQILSGAKEIKLGDLSPKR

DLNFVLDTCEGFISLLNLKHFGEVYNIGSGVEYSMQEVLDLIQKILDSKVKIIQDEQRLRPKNSEVFRLC

CDANKLKKATNWQSKISLEEGLRQSIEYFKENLENYKSELYNV

>CAL35432.1 motility accessory factor (function unknown) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGGYNENLLYQDP

IKELQTMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQNA

RLMVLENDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAENFKNIILRNGNDPK

DALQGIEQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPI

LAKHGIKPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNLVITQKVLAFPYYIN

LKDFSYAAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYESQMYEHILTEAYGG

NGKVETHSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFEKLE

PLSLNKQNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLAIRKIDEFKNKLENI

KQMQDLYEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNILP

LEEKLKERKLDKWMERVRR

>CAL35431.1 Pse synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIGNFNTDKKVFIIAELSANHAGSLEMALKSIKAAKKAGADAIKIQTYTPDSLTLNSDKEDFIIKGGLW

DKRKLYELYESAKTPYEWHSQIFETAQNEGILCFSSPFAKEDVEFLKRFDPIAYKIASFEANDENFVRLI

AKEKKPTIVSTGIATEEELFKICEIFKEEKNPDLVFLKCTSTYPTAIEDMNLKGIVSLKEKFNVEVGLSD

HSFGFLAPVMAVALGARVIEKHFMLDKSIESEDSKFSLDFDEFKAMVDAVRQAESALGDGKLDLDEKVLK

NRVFARSLYASKDIKKGEMFSEENVKSVRPSFGLHPKFYQELLGKKASKDIKFGDALKQGDFQ

>CAL35430.1 pseudaminic acid biosynthesis PseA protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFCKKCVMPDTKPDLHFDEEGVCDACRSQEAKNQNINWQEREKEFFELIKKYKKHPVYDCVIGVSGGKD

STFQVVKMLELGLNPLCVCFEPSVPTKIGRKNLDNLNHLGVDLIHIKRDPKVYQKLAREAFIRTGDNEWQ

NHLGIFTSVPRIAVNFGVPLIIWGESPQIEYGGPASSKNKNILGREWLEEFGGLLGNRASDMLGVNGITE

KDLFLYTYPSDEELQRVGVTGLFLGYYFKWDYKKILEISKKYGFLTLDHPVETTYENFENLDCYSNHVHD

YLKYCKYGFGRATDNACLDIRLGYISREEGVRLAQKYDGKPPKKAIKKYLEFSGFSEEEFQKIVDSFTNK

KIFKRDENGKFIRDYDGSLVRKDECVLK

>CAL35429.1 imidazole glycerol phosphate synthase subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIALIDYKAGNLNSVAKAFEKIGAINFIAKNPKDLQKADKLLLPGVGSFKEAMKNLKELGFIEALKEQVL

VQKKPILGICLGMQLFLERGYEGGVCEGLGFIEGEVVKFEEDLNLKIPHMGWNELEILKQVPLYQGIDNK

SDFYFVHSFYVKCKDEFVSAKAQYGHKFVASLQKDHIFATQFHPEKSQNLGLKLLENFARL

>CAL35428.1 imidazole glycerol phosphate synthase subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKTRIIPCVLLKNSQLVKSIEFKDFRTIGHLTSTMRIYNARNVDELIILDIDASKSGEIDFESIEDLAK

ECFMPLTIGGGIKTLEDIQKILNLGADKISINSKALEDMDFISKAGNRFGSQCIVCSIDVKRKGDQFCVY

DRGNLLEKSPLELALEYEKKGAGELLLTSVDFEGKAKGYDLELLKIFQNKLKIPLIINGGLSKPSDGVEA

LNLGADALAGAYIFHFSKYTPKDVKEELARQGFAVRLL

>CAL35427.1 N-acetyltransferase specific for PseC product,UDP-4-amino-4,6-dideoxy-beta-L-AltNAc [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKLKNFAELNSQEIKLIFKWRNHPDISQFMKTKHIDFEEHLRFIRNLHQDSNKKYFLVFQDEQIIGVID

FVNITTKSCEFGLYAIPDLKGVGQVLMNEIKKYAFEILKVDTLKAYVFKDNHKALKLYQQNHFTIYDEDK

DFYYVCLKQSHCKALPS

>CAL35426.1 nucleotidase specific for PseC product,UDP-4-amino-4,6-dideoxy-beta-L-AltNAc [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVLFRSDSSSQIGFGHIKRDLVLAKQYSDVSFACLPLEGSLIDEIPYPVYELSSESIYELINLIKEEKF

ELLIIDHYGISVDDEKLIKLETGVKILSFDDEIKPHHCDILLNVNAYAKASDYEGLVPFKCEVRCGFSYA

LIREEFYQEAKENREKKYDFFICMGGTDIKNLSLQIASELPKTKIISIATSSSNPNLKKLQKFAKLHNNI

RLFIDHENIAKLMNESNKLIISASSLVNEALLLKANFKAICYVKNQESTATWLAKKGYEVEYKY

>CAL35425.1 putative acylneuraminate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLCIIPARGGSKRIPRKNIIDFLGKPLISYSIENALNSGIFDEVVLSSDDEEIIEVALKYGAKAPFVR

DKNLSDDYASSTAVVQNAIEILQSQNQIYDHVCCLYATAPLLNKDILKQAYEKFIQNQSKFLFAATEFEY

PIQRAFYLNENNQVYMFDEKHYKSRSQDLTKAYHDAGAFYFGTSKAWLEEDFIFKPHSSVFVLPRNLVCD

IDTIQDLEFAKILYKVNHESAF

>CAL35424.1 hypothetical protein Cj1310c (617 family) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLINQTFEIDSCDDVELGIKRTSKLEYRISYDDEKDIKAIVFIVGGFGANANISFLDFDREYIAKNFDVV

VVHVFYHCFCARQSIDQKYNPKLIPNQDDLERVNGILKNINLGHLSVNKDNFEQIIPLIEQKVNKMKQAG

LVDESQKIELSCDFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGVCLPFLACILGREMNQGEFYFEGSGYRLYCFVYKYWNRNMNSSYYFGDENYLIRAVLN

SNHLQIQSNLNKNTIFVSYHSIQDMGAPVQNKIELYKCYQELGYDATLHLIKDENDIDGRFVKSLEHGLR

MTDRALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFVFKDLEDKFELEMIN

>CAL35423.1 hypothetical protein Cj1309c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTAYLHIGTTNTGNQEKQGFLMQNEEKLLQKAYIYPKSLRVANRHWALVDMVLELVQKEDILKKESVLSH

ITNERLLRAIENFKSESALHKDKKFIFSAEGIVWDFSTKKHVEILEKIMRELGFTQIYIIVYFRDTLGYL

NSHCSQDHKNNMGYYSADFAPQDHPRKYIFDYEWICKTHAEVFGEENLIVRLLREDYVGGTLLKDFVYHL

GLEWDESFVLKQTKNESFNLLGMELMSRLNQKDLKQDNLNSLLFMARRKFEGSKEKRLKFAVQKDIAKAY

VDYFASSLEWVKNKYFPHKNSLFTPVNWEEYEQNYTLTHMLSKDWDDVADFIAQIIVSKNEIISSLKEQL

ELARKD

>CAL35422.1 putative acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEIKQFFINIERTDINESMENLVSEDFIDSIDIMALVAEIEKFYKKPLKAEFITPENFESFENIKKMLE

TAMKD

>CAL35421.1 putative amino acid activating enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTTHIYDFLEKSLIKFSEKTAFVEPFVKERKEITYKDFDLFSKKLASEILKTLGNDNPTQAPVLIILPKG

IDCLISFFGVALSGNFYTLLDEKSPKERVEKVIEVLKPKLFITSKDLNFNLDLPTLYTQDFESFNIDESL

IKHAKEKHIDTNLLYVFFTSGSTGIPKGVSIAHKSVIDYTFWVCETFKFDENEILANQAPFYFDNSILDI

FSSVKSGATLHLLPNHLFAFPNKILECLEKEKVSTIFWVPSVLIYFANTEALNNFSLNALKKMLFCGEIM

PNKQLNIWRKHLPNALFANLYGPTEITDVCSFYIINRTFKDEELLPIGKACKNTELLVFDENMNFISPKQ

IGVKGELFVRGTSLSLGYYNDKEKTKQAFIQNPLHDNYLDLLYKTGDIVSYNEFGELLCYGRADNQIKYM

GHRIELGEIESVINSHVNIKNSACIFKEDIICFYESEEEINFKDFLKDKLPSYMIPKNFIKLDKFKLNQN

GKIDRKVLKELV

>CAL35420.1 hypothetical protein Cj1306c (617 family) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLINQSFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSTLADFTKDDLKLIEKVLRKYNIPCDQLANNTVVSHCEYLSEIMTELKMLN

RLPYDFEERLSATFIPSRGEYQNFGIMAAIDHINALKDLVKRFPKLADLPKIYGGGSYGGYLALLIAKIA

PWYVDGVIDNSGSAVPPLNYIIGRELEFKSKDTNGDMYMQGDHFFVSCFLKTHWTRKENSPYFFNNENYF

IRTLLNKDHLILQSQKNKNIIYVSYHSKEDPLTPANFKELTMQILKILGYDVSLNLIDENKIDGKFIKNL

DHGCGIPDKALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFTFKDVENQLKLIIN

>CAL35419.1 hypothetical protein Cj1305c (617 family) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLINQTFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSAYKYFQEEDIENIKNLLNQFHFSYGEINNDNALFLANSLVKHVENLKMQN

KLDHNFKLNFTSTFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGSALPPLNYILGREMEHSYGDYYEDFPHNRIIFFLKTHWTRKENSPYFFNNENYFIRTL

LNKDHLILQSQKNKNIIYVSYHSDKDPLTPANFKQQTMQILKILGYDVSLNLIDENKIDGKFIKNLDHGC

GIPDKALFRKELPLMLEKLQKRKSFMQENSISYPCGNKVFIFKDVGDKFELVIKD

>CAL35418.1 putative acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKTEFLEELKEAMHRDEDLNEDMLLDDIDEWDSLAFVSVMVLYKNLFTLKITAEDLKNCQKVSDLINLA

KLD

>CAL35417.1 putative 3-oxoacyl-[acyl-carrier-protein] synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTRFDKAKISGICVSVPEHKICIDDELESVFSNDIKTLKRMKKVIGLNTRYICDENTCVSDLGKHAANT

LLQGLNIDKNSLDALIVVTQSPDFFMPSTACYLHQLLNLSSKTVAFDLGQACAGYLYGLFVAHSLIQSGL

GKILLICGDTLSKFIHPKNMNLAPIFGDGVSATLIEKTDFNEAFFELGSDGKYFDKLIIPKGAMRIPKAD

IFNDDSLMQTEEFRQLENLYMDGANIFNMALECEPKSFKEILEFSKVDEKDIAFHLFHQSNAYLVDCIKE

ELKLNDDKVPNFIMEKYANLSACSLPTLLCELDTPKEFKASLSAFGAGLSWGSAVLNFKDLYTKNILIYT

KEK

>CAL35416.1 putative HAD-superfamily phosphatase, subfamily IIIC [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLFSPHLKRNELIKFAKELDFSKSQDLLINVHRNHAFEGVQSIIAPFLHFANLRAEFNFSSYDDSLSFD

NFKEASLELLWLDLTRYKNNVQNFIEERLLELRKISQNPILVLSLGEFKTDKKILNCEIFNIEKLIKEYF

DEEDILDLAKEELTGSKLNNKALIFLAQILGLSLIPALVKPALKALVLDLDNTLYQGILGEEGIDNLNLS

PLHKTLQEKIKTFKKQGFLLALASKNEEKDAKKLFEIRKDFILQWDDFDARMINWEPKGENILKIAKKFN

INTNAMLFIDDNIAELENTKITGVKTLLCDENILYKIKLFPNLLKLSNTKEDQIRAKDIAANALREELKS

LSDEEYFQNLEISLNFSKNDLQNIPRISELLGKTNQFIANYTRLNQEKVAQHMQKELIVSVSMSDKLSDS

GIIAIFVFSCKEGNLFIDDLCISCRALGRKLETRMFFKAFELALHFFDLKNNNARLYYQKGERNMPFLSF

LEQISKEFEKNSALIPFQNLNFKGLIIHEN

>CAL35415.1 hypothetical protein Cj1301 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNTTLNLPLHHIGVACKNLEKERECFFKLGFYKESEFIDEKQGVRGEFIIPCNEAFPQYRFELLQNLND

KGPLDSYLKNNTKMYHLAYESKNIAQDLILLEQQGGICIVPIMQASYFAKLCFIMMPNRLLIELVELK

>CAL35414.1 putative SAM domain containing methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKENIEKLFQAIAQKNPIHSKYLKKIEFSQEDEEEFDKLISYYIQDGISIKEQCDCYLLILNDTLEETKF

FIENGAYRYSSFDEVKDKVYFNESYMKQYMIGLALSSFVWIAHIKVRKYFSQYLQNFTPKTTYFEIGPGH

GEYFARAVKSGKFSAFYGLDISPTSCELTQKMVKQQVGGLITKCDFLCQDFFTYDFDKKADLIVIGEVLE

HVEKPLEFLKRSKELLSDGGEIFATIPINAPAIDHIYLFSHPDEVKDLIEKSGLKFKAYECFMANDYSLE

KALKFKNAITMAVVLNA

>CAL35413.1 putative acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKQFYEILENILETKVDENTNLSMENCKNWTSLAHIDIIMSLEEEFEIKFNKEDLSLLKSQSALLEKIQ

TLKAEK

>CAL35412.1 putative N-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYLLEFENKKYSTYDFIETFYKLGLQKGDTLCVHTELFNFGFPLLSRNEFLQTILDCFFEVIGKEGTLI

MPTFTYSFCKNEVYDKINSKTKMGALNEYFRKQTGVKRTNDPIFSFAIKGAKEELFLKDTTSCFGENCVY

EVLTKENGKYMTFGGQGHTLTHYAEEQFNVFYRYHKIFSGILIDENNISYNKTISYYVRKLDISSEPNLI

NIINIVNNTKNFKKNNFAGDHINIYNAKEYIEILWKKLDINQTILIENYDTIY

>CAL35411.1 hypotehtical protein Cj1297 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKGAKADIFLKENSSCFGKDSVYEILTREGGKFMLLGLNYGHALTHYAEERNTSFCRYFKEFKGFVIDEL

GQKREKRINYYVRDLEKAYVCSLDKINEIVRQTRYYKSIKFAGDFLESYDAKEYVKAIGNALKQDKFAIY

EKLLL

>CAL35410.1 hypothetical protein Cj1296 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYFLEHNGKKYSDKDLIDAFYQLGIKRGDILCVHTELMKFGKALLTKNDFLKTLLECFFKVLGKEGTLL

MPTFTYSFCKNEVYDKVHSKGKVGVLNEFFRTSGGGRLGELATLFFPLL

>CAL35409.1 conserved hypothetical protein Cj1295 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKLDFRSQDFSQTGKAMYELACELFPIPRSITGQGFRDSLEILNKTLGGGILKFHSIKSGTKVFDWIVP

DEWNVKEAYIITPKGEKICDFKKHNLHLLNYSEAIDQEIELEELQDHLYSIEEMPDAIPYVTSYYKRRWG

FCLTHNERKKLKKGKYKVYIDAKHDENGVLDYADFILPSTQNSKDEILISTYLCHPSMANNELSGPVVSI

FLAKWLLGLKERRYNYRFVIIPETIGSIVYLSKHLECLKKHVKAGFVLSCLGDDHTYSLIHTVKENTLSD

KVALHTLKNKENFKAFSFLDRGSDERQYNAPLVNLGIVGVCRTRYGDYDGYHNSKDDLNFISEKGLMGGL

QSMQEMILNLEINAVYENTIVCEPNLGKRGLYHTLSTTNDIPLACNFLAYCDGENDIIDIANILNMQAYE

FKELLEKIKFYGLVK

>CAL35408.1 C4 aminotransferase specific for PseB product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>CAL35407.1 UDP-GlcNAc-specific C4,6 dehydratase/C5 epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNKKNILITGGTGSFGKTYTKVLLENYKPNKIIIYSRDELKQFEMASVFNAPCMRYFIGDVRDKERLSA

AMRDVDFVIHAAAMKHVPIAEYNPMECIKTNIHGAQNVIDACFENGVKKCIALSTDKACNPVNLYGATKL

ASDKLFVAANNIAGNKQTRFGVTRYGNVVGSRGSVVPFFKKLISEGAKELPITDTRMTRFWISLEDGVKF

VLSNFERMHGGEIFIPKIPSMKITDLAHALAPNLSHKIIGIRAGEKLHEIMISSDDSHLTYEFENYYAIS

PSIKFVDKDNDFSINALGEKGQKVKDGFSYSSDNNPLWASEKELLEIINHTEGF

>CAL35406.1 putative deoxycytidine triphosphate deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGLKADNWIRKMALEHKMIEPFCEANIGKGVVSYGLSSYGYDIRVGREFKIFTNVNSTVVDPKNFVEENV

VDFEGDVCIVPANSFALARTIEYFKMPDNVLAICLGKSTYARCGIIVNVTPFEPGFEGHITIEISNTTPL

PAKIYANEGIAQVLFLQGDEKCDTTYKDKKGKYQAQTGITLPRILK

>CAL35405.1 putative biotin carboxyl carrier protein of acetyl-CoA carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKEEIKELVNLFAEANISKIKIKEQDGFEIELERDMCCDVPAPVCPPVPAPQPINVSVVNEAQPSQSVK

SNKPSINSPMVGTFYQAPSPGAAPFVKVGSTVKKGDTIAIIEAMKIMNEIEAEFDCRIAEILVADGQPVE

FGMPLFAVEKL

>CAL35404.1 biotin carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEIKSILIANRGEIALRALRTIKEMGKKAICVYSEADKDALYLKYADASICIGKARSSESYLNIPAIIAA

AEIAEADAIFPGYGFLSENQNFVEICAKHNIKFIGPSVEAMNLMSDKSKAKQVMQRAGVPVIPGSDGALA

GAEAAKKLAKEIGYPVILKAAAGGGGRGMRVVENEKDLEKAYWSAESEAMTAFGDGTMYMEKYIQNPRHI

EVQVIGDSFGNVIHVGERDCSMQRRHQKLIEESPAILLDEKTRTRLHETAIKAAKAIGYEGAGTFEFLVD

KNLDFYFIEMNTRLQVEHCVSEMVSGIDIIEQMIKVAEGYALPSQESIKLNGHSIECRITAEDSKTFLPS

PGKITKYIPPAGRNVRMESHCYQDYSVPAYYDSMIGKLVVWAEDRNKAIAKMKVALDELLISGIKTTKDF

HLSMMENPDFINNNYDTNYLARH

>CAL35403.1 possible periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILLSFAFFASLASANTINAIAVVVDKEPITTYDIDQTMKALKIDRNKALGVLINEKMEISQMKQLGI

VVNDLELDDAINKMLAQNKTTLNAFKANLKSKNQSYEQFRTNFKKDLEKRKLYEKIASMAKTDFSDDGAK

KFFEQNKDKFTFYTQINANIYLSNNPQTLENIKNTKKTILKPQNASLNTSNADPRLLGLLSQIPVGSFSP

VLNGKNGYELYEVKSKDGTQTPEYEQVKNEVLNAYVSEQRQNFIQDYFDKLRSKINIEYLR

>CAL35402.1 glutamyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHEKLTTRFAPSPTGYLHIGGLRTALYNYLYARKNGGNFLLRIEDTDLKRNSKEATKAIIEAFKWCGLEH

DGEVTYQSERFDLYKEYVKKLLDEGKAYYCYMSKEELEELRAKQEAAKERPRYDGRYREFTGTPPQGIEP

VVRIKAPQSGEIVFEDGVKGEVRFKAEDIMDDFIIARSDGTPTYNFTVVIDDALMGVSDVIRGDDHLSNT

PKQIVLYEALGFKIPKFFHVAMIHGEDGKKLSKRHGATDVMEYKEMGILPQALLNFLVRLGWSHGDDEVF

SLEDLKKLFDPYHINKSASCYNAKKLEWLNAHYIKTLPFEEINRQLKDLGFDLSVYEKAGFLLDLLRERA

KTLHDIINGAKSIVNAPQNYDENAVQKFVNKNNLELLQAFANTLKDQKTGKDFEDFTNDFLEKKEAKLKD

LAQPIRIALTGSAVSPSIFEVLEFLGVDECKKRIDNFLKVRGK

>CAL35401.1 malate oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLKEEALKYHLGGKIDIVPSKPMATSYDLSLAYSPGVAEPCLEIAKDNELAYTYTNKANLVAIVSDGSA

VLGLGNIGAQASKPVMEGKACLFKKFANVNAYDIEINVHSIEEIVNFCKALAPTVGGINLEDIAAPKCFE

IEAALQDLGIPVMHDDQHGTAIISTAGLMNAMEISGKKFKDIKVVVSGAGAAGIASAKMYRNLGVENIIL

VDSKGVISKDRNDLTPQKLEFAVDSKEKTLKEVLKGADVFLGLSAPKILDDEMVLSMAKDPVIFALANPI

PEVMPEDVARLRKDAIVGTGRSDYPNQINNVLGFPFIFRGALDVRASKITENMKVAAAKALADLAKLPVS

DAVKKAYNLSTLEFGRDYVIPKPFDERVKAAVSTAVAAAAVKDGVAKVKNFDEKAYFESLK

>CAL35400.1 uracil phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNIHCINHPLIEHKLGILRAKETKPFQFRMLIDEISSFLLFEASKDFSLKEIEISTPIQKTTVKKLDEK

IMICPILRAALGMLESVFKMIPDASVGFLGFVRNEETLKADFYFQKLPKDAKKRTAIVIDPMFATGGTAI

DACNFLKSQGVKKIKFISILAAPQGLKKFSQMHDDVEVFVACIDEGLNEKGYIIPGLGDAGDRVFNTL

>CAL35399.1 conserved hypothetical protein Cj1285c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFGKIDYINLLPLHIYLKKYPLPNGYKASMEYKKGVPSKLNKDLFYRRIDAAIISSIESARKKYKNLDL

GICANKRVLSVLVEKNTSNAKDPSSATSNALAKVLKQDGKVIIGDKALKLYLKDPSKYIDLCAKWHEKTG

LPFVFARFSCVQKKALYKQILKKFPKTKIKIPYYILQNYAKTRDLDIKDVRYYLDEVIYHKISTKEKTAL

KRFVKACKALNLA

>CAL35398.1 putative K+ uptake protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLNYGIIGLGKFGSVVADELIAGGHTVIVADKDEEALKSIQNPPSYAYILDSTNISALKEAGFHDVEV

VIVSIGENVEKSILTLMALKDIGVKNIIAKATSNIHGQILSKLGATKVIYPEKESAKRLVKEFLTKDADY

EVFDLSANTIRAIKINIDEKLAGNSLKHVAQNMKVISYKKLNSDWEILPDLETTTVYSGDVVILLGTVKE

LREFEH

>CAL35397.1 putative K+ uptake protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQFGLDRRTFKILLAGYIIIALFGALLLHSSWAHTTPIDFLDAFFTSTSAVSMTGLVVKNTAVDFTLAG

QIIILALVQIGGLGYMGIGLFVYILIRKKVGFSARNLLKESLFYPSMDGLFKFFKKVLLFIFTIELIGAI

LLTMRFALEMNFKKALWFGIFHSISAFNNSGFTIFEHGFIAYKHDIAINLIITSLIIIGGLGYFVLVELY

FFQRKKLQNLSLHTKMVVVASIFLIFSSTLIIFAFEYSNPQTIGHFSFFDKILSSYFIAINYRTAGFNTL

DMGHLHDASLFFGSLFMVIGGAPGGTAGGMKVTTVMVLLLYAYWSIRDGRVRIFGHEIPRETISKAFIIA

VGSAVYIVIAVILLSLLESKFDFIALLFETSSAFATVGISVGNGGTLSLCALFSDPSKVIIIIMMLSGRI

GVFAFLLSVFKQDKAIHLKFPEGKVNL

>CAL35396.1 RodA protein homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFRLDRRILTHFDYIQPILFLPIILISFFLIFEANPFLAEKQFVYACVGLFAFMVFFFFPIRKFIWIIPV

AYWINIFLLLSVDIFGVEKLGAKRWLEIPFTHFTIQPSEIFKPSFILMLAYLIYQNPPPKNGYKLKQFIK

LSFYIILPFLLIAKEPDLGSAMVLLLVGFGVLFIMGVHYKIWLSIVIAISVSSPIIYTHLLKPYQKQRIH

DFISEKPSYQVAQSMIAIGNGGLTGKSQDEATQTHFKFLPISTSDFIFAYMIERFGFIGGLTLIIFYILL

IFHLLSLNYKLKDDYFARVAINCVALFIFIYAAVNISMTIGFAPVVGIPLPFFSYGGSSFTIFMIFFGIL

QHLITFRYFWTDIKAK

>CAL35395.1 putative ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQTFLVDENSRLDVFLAKKLNQSRNQVALLIEKDCVQVNDKIQDKNSFKLKNGDIISIASLKLCNEIKPQ

FEVDFDIDVLYEDEDLLVLNKPSNLVVHGASSVKNATLVDWLIEKKYTLSNLGGEIRAGLVHRLDKDTSG

AILIAKNNFTHQKLSEQLADKSMGRIYLALIDLPLKEDKIIVEKFLMRSPSNAIKKIAIDKENKFSKNAK

SAFINVVKTENLTLMAAKLFTGRTHQIRAHLASLNRYILGDSLYGYKGKYDCRIMLHAYFLYFIHPKTKE

QIFVKAPLMEDFKNIMFEQINLGENDEKISLEFLLEFFNSFA

>CAL35394.1 putative fibronectin domain-containing lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKRFRLSFYLSFLTLLLSACSVSQMNSLASSKEPAVNESLPKVESLKSLSDMSNIAFEWEPLYNENIKG

FYLYRSSDENPDFKLVGTIKDKFQTHYVDTKLEPGTKYRYMMKSFNEQGQISEDGKVIEVSTAPRLEAVP

FVQAVTNLPNRIKLIWRPHPDFRVDSYIIERTKGDDKEFKKIAEVKNRLNAEYIDSDLKPNENSSYRIIA

VSFNGIKSGSSQVVSSTSKALPPQVEHLSASTDGSSKIILTWDAPTYEDFSYYKVYSTSSSFLPFSVLAK

TDKNSYEDIVEGAGKSKYYKVTMVDKDGLESPMPKDGVEGKTLGNPLAPSIILAQSTSEGINLEWSDNDT

RAVEYEVRRYGGEQNAVFKGIKEKRLKDVKALPGVEYSYEVIAIDSAGLRSEPSSKVKAAQ

>CAL35393.1 putative tRNA (guanine-N(7)-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPNFKSKKIKEINLPYSKDDVEFLWLAKNDNVSLIYTKVQEESFFLQIKKAQNGFVIKGDKHTKPSKIGY

LQKALKIFKEGFCEDIINEAFGLKNNALIEKTPFIVDNFDELLSRLQGKIYIEIGFGSGRHLLYQAKENP

NVLILGVEIYNPALTQVAKLAKAQNVNNILLIQSDARLLLSVLKSKSVEKIFLHFPVPWDKKPHRRVIGK

DFCKECARVLVQNGRFELRTDSFEYFNFTLEQFLTFPAPKFSLRKNENLEISSKYEDRWKKQEKNIYDLW

VWNFNQECKNYELNEFNLSSVEFSKEDLKKIEQNFKNITIKKDDFFLHFESIYKQDENLLLKVAFGAFNK

PEHCYLHLDKTIDFAFKEPFKIQENIKAINELKEILKVQFKI

>CAL35392.1 putative ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPNLIQANKLTLGYDELVIKEASFAFKDDDFVFITGKSGSGKSTLLKSFYGDLEPISGKLEVCGSLMNKI

GNLELLKLRQRIGIIFQDYKLVQEYSVEKNVMLPLMIKGYSKKVCHDQATKLLKHVNLTFKADKLPNQLS

GGEQQRVAMARALAHNPKLLLCDEPTGNLDEYSSDIIWTLLKSARELLGTCVIVVTHRIPSNLRVDYRRF

NIENGKMNEIF

>CAL35391.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFFKTHLSLILPLLFMMFAFEFILITNATLKHYEELVNKDYNIIVVSKTELDQNVVKTKVPFFAGLESL

DPKDLIDRLKNDVSEKNLKVLKDSLPKFYTLKLNSLPDQNELNSIKNQLLNIVGVSKVETFSKTHDKIYS

LLILMKFVFWLFLFIIILLAFVLFLKQMRIWLYEHTDRIEIMCLFGAPFWFRSFMLYKVVVVDCFIAFVI

LLAFFTQIFDLSIIQESLKAVDIIFPPINFILHLTLIFLATLFICLLCVNTVMFKVKR

>CAL35390.1 putative peptidase M23 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKNILIFFCFFLFVDISLANAINEKTKSLEENKRIQEQLNKKLEDLASDILNGEKSLKDLSLQIESLNS

QTSKLEASAKAQNQELNTLTSQNEDLLKSKSNMEGKLISLMAKDFAYDLPIPQGYIESEESFMAFEILGS

LNKVLNEEIFKISKDYEGVSRLIDDKQAQIKKINESLKDYNAQLAKLQSLKQKQISEINKQKTDRAIYAK

KLDDLQAQQEELRKTLNQLKIINDKEDANSNKNDTKIVKNNQKIRQLGSSYQGSSVKRYTGKKTIAPLDS

FTVKQKFGNYVDPVYNLKIFNENVVLRSNKSDAVVKNVLDGKIVFAKDTSMLARVVIVEHDNGIHTIYAH

LDKIAPNIKVGKNIKKGAVVGRIKNDLTFEVTQKNFHINPLELISLN

>CAL35389.1 uridylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQERKRVLVKFSGEALAGENGFGIENSILKFIASEIKELIKNQIEVGIVIGGGNIIRGVSAAKGGLIKRT

SGDHMGMLATVINAIAIQEALESSGLEVRVQSAIQMEAFCETYIMRRAQRHLEKGRVVVFAAGTGNPYFT

TDTTAILRAVEIDADMVIKATKVNGVYDKDPKQFDDAVFLNTLSYDEAMQDNIKVMDDTAIALAKDNKLP

IVVCNMFEEGNLLKIIQGDTSLCSTVKNN

>CAL35388.1 putative DNA-directed RNA polymerase omega chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKRIEEVAAKALEKMGNDRYRLSLVVAKRAEQLANGATPLVDFDKNKNKLADIALYEIAENKITLEGLV

ETNR

>CAL35387.1 putative guanosine-3',5'-bis(diphosphate) 3'-pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKPIDEELLLEQLIDNVKNCKDLEAAKALLFEICGHDAILEKAVDYCIFCHEGQFRKSGEPYAVHPILVA

TLVGFLSENKSNILAALLHDVIEDTNCTEEELREQFGSEVLKLVLGLTKIIEIREDNLISSKSKKSLTKS

ALTFRNMLLASIEDVGVLIVKLCDRLHNMLTLDILREDKQKRISEETLVVYAPIAHRLGISSIKNYLEDL

SFKYLMPDEYKLIDNYINSNNQEMQLGLNEFISKIELLFLSNGFRQGSFEIQKRIKHSYSIYLKMQRKGI

GIEEVLDLLGVRILVEKVSDCYLALGILHTHFNPLVSRFKDYIALPKQNGYQTIHTTLFDAKSIIEAQIR

TFDMHKIAEFGIAAHWKYKEDGSVVAPRLDWLTDISMQSINNLENAEDYNAIELYEYAKDSLYVEDVAVY

SPKGEIFTLPRGATVLDFAYEVHTKVGLHAKSAYVNRIKVPLLTELKNGDIVRVVTSNDKFYRCSWIDSV

KTGKAKASIREFCKQKIREINLASSINMLSFIFGVDKNRIETWIEKENLVRRIRQVATDSAYLKDIVNGL

KKYAKKSYWFDKYEIKEQKIGNFTLYCNHKIANVDFDFCCHPKRGDAVLAFVKGGNAIVHHKLCDRADKM

IDNNQDMVFIKWDSNIPKSYKLIFSLENKKGVLAEFLAFLAKMQINLLTINLSSDLNSAVDYFEITMEIP

DNINPDSVKDRLKSRCKILDFTSLNDAYKES

>CAL35386.1 tyrosyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDIKKILAEVKRGCAELIDEERIENLIKNYYEKGENFFIKAGFDPTAPDLHLGHSVVLTKMAFLQKHGAI

VQFLIGDFTGQIGDPSGKSATRKKLDKEQVLINAKTYKTQVFKVLDKEKTQIKFNSTWLNELGAAGIVEL

TSTFSVARMLERDDFTKRFKEQSPISICEFLYPLLQGYDSVALKSDIEMGGTDQKFNLLMGRQLQRVYNI

GKEQAVIMMPLLEGLDGVNKMSKSLNNYIGVTEKANDMYAKILSISDELMFRYYELLSQKSLEEIAQIKK

DIEQGNLHPKKAKENLALEITERFHSKEEANNAKSEFDRIHSQNALPSDMAEFEIQGKIWLAKALVECGL

ESSTSAARRSISANAVSVNSQKVSDEQMYLEQGEYILQIGKRKFAKLKVKE

>CAL35385.1 putative 2-nitropropane dioxygenase,oxidoreductase protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLQPLQIGKHTIKYPIFQGGMGLGISWDRLASAVSLNGGLGIISSVGTGYYEERKYASKELNAKPYGSE

NFYSRKGLQALINNARKVCGDAPLGCNILCASNDYARIARDACEVGFNVIVSGAGLPTNLPEFTADFPDV

ALVPIISSAKALKIICKRWQSRYNRLPDAVVLEGPKSGGHQGFTYEQCLDPNYQLEKLIAPVVEEAKNWG

SFPVIAAGGIWDKKDIENAISLGASGVQMGTRFIGTFECDASEEFKSVLLASKEEDIELIKSPVGYPARG

VRTNLLNLVDKRMGPKINCISNCVAPCGRGKEATKVGYCIADRLFDAWSGKKETGLFFTGANGYRLDKLI

SVKELMEKLVNGE

>CAL35384.1 N-acetylmuramoyl-L-alanine amidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKIFVFLVFVFTTLFGVYENELANFDKNFIGSKSEVQVKFHHQLKSLYIQSVINEDEKTKIEILKRLII

SSNTLNLDDKSYANELKESGISETSINALRKAVIKDIKVQNISQDTEKSTFEPIKTVQKNEKKSSNEQIK

NTEKTNSKTSQAPKSSIVSKAKSDDKIYVLKSSKTNQGVEFELNADLDKDQLKSFALDEKGNYRFISDFD

GVLEGGKKEFKFDDYRLVISQFNPKTIRIVVYAKEKIPIDISFKEEKIIFSKETTSQKKTEQVSKISEKK

QDQKTEIKTKVLETKKQDKKTNNEKENQEPLYVLDVDKISNAVVLNLSDDLDEKEIAVFDTKDQKFRYVV

SFKGVLEGNRKSFTFGQNVITVTQYNPKTVRVVLSAPKEFKLLKELDNNNLTLGFYIQTTNQNANKKATQ

SSSKTLNTNYKSGKLVVIDAGHGGKDSGALSDKKGSLKEKDIVLSTALKLGNELKKRGYKVLYTRSSDKF

INLRDRTKYANDKRADLFISIHANAAPNATKAKSSEGVETFFLSPARSERSKKAAEKENQGDFEEINYFS

KQSILNFLNREKIVASNKLAIDVQKNILTQTRKKYKIVDGGVREAPFWVLVGAQMPAILIEIGYITHPNE

GKRIANKAFQDLLVKGIADGVESYFYNNR

>CAL35383.1 putative FAD dependent oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAKLIFKDNTPFSLDFDDFYFNFKDGLNESKFVYTHSFEWKNQENFIIAESGFGIGLNFFLTLKRFLE

TTPSKRPKKLFYISVEAFYIEKEQLREIYQKLEFYEEFKELLEQFLKFYPKAKEGIYRFYFEDCFLDLVF

EDIAVLKELDFKADVWYLDGFSPNKNSQMFDENLIFEVARLSKKNTQICTFSSASFLQKNLKKYGFRVEK

TKGFRKREMIKAYLENELEFKDKEAYFSRTFSSLKNKKVAIIGAGISSAVLAYELSLRGFEIDIFEKHLE

LGKGASGNESGILSSLILKPKVNLGEFSELSFIEASRFYRQILDLEFKGVVEFAHNDLMQERFDTQRENV

LFKISKNQAFLEEGGVIFPKKLVKNLFEKSKACIYFNHEFQAYKFENGCFSLKFKNDVVKSDYAVLIYAM

GADAKDFVFYDEMKLSKVRGQVTHLKPFLDTPFPLSSKAYICPVKDDLQVIGASYDRLNASLESKEEDDK

QNIENIADFMDKNTKLEIIGSKVGFRSYSSDRFMIVGNAYDEAFYKEEYKALLWTKNKEQKPAKMSCNLY

FNFAHGSRGFSTSVLAARYLCALINNEPLCLEKKYIHAIHPARFLIRKLKKGL

>CAL35382.1 Ni/Fe-hydrogenase small chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIDYHQIESRLSALEKLPSLKDNDSITKALEKSGFSRRDFMKWAGAMTAFLALPASFTPMVAKAAELADR

LPVVWLHMAECTGCSESLLRSDTPTIDSLIFDYISLEYHETVMAAAGWQAEENLESAIQKHKNKYILMVE

GGIPMGDTEHFLTIGAHGKTGYELSKMASENALAIFAIGTCSSFGGIQAARPNPSNAQPLSKVTSKTVIN

VPGCPPSEKNIVGNVLHYLLFGELPALDVYNRPKWAYGLRIHDLCERRGHFDAGEFVHAFGDEGAKQGFC

LYKVGCKGPYTFNNCSRERFNQHTSWPIQAGHGCIGCSEPNFWDTMGPFEEPMASRKFDTVFGLGADSVS

DKIGIGVLTLTGVAIAAHAVISSMQKDKE

>CAL35381.1 Ni/Fe-hydrogenase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQKIIVDPITRIEGHLRVEVVVDDNNVVKEAYAGSTLWRGIETIVKGRDPRDAGFMTQRICGVCTFSHY

KAGIVAVENALGITPPLNALLTRTLMNAALFLHDHIVHFYQLHGLDWADVVSALSADVKKASDEAFKYTS

NPYATGADKLLEVQQRLKTFVDKGNLGPFANAYYGHPTYRLSPEQNLIVLSHYLECLRIQRIIAQCMAIF

GAKNPHPQSLTVGGVTCVMDLLDPARMGEYMVKFQEVQDFVNRAYYPDLVMAGKAYAHEASVLNDIGVNN

LYTFKEFQIGRDEWLFESGIIKNGDLSKVYEVEEDKITEEATHSWYADNEPLHPYDGKTNPNYTGLVDGE

SVDHHGNNVHSKVFDTKGKYSWIKAPRYEGNPMQVGPLANVVVNYAKGNQNVVPVVDEFLKETGLPLNAV

FSTLGRTAARCIEAKIVANNALKAFNNLVENLKVDQSTCAPYVIDNSKEYKGRYMGHVPRGTLSHWCRIK

NGVIENWQAVVPSTWNASPKDANGVGGSYEQCLIGLKIADVKQPLEIIRKIHSYDPCIACAVHVMDTKGN

NLSEYKVNVNL

>CAL35380.1 Ni/Fe-hydrogenase B-type cytochrome subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNKEEKLQRKAEYEFSIGLRLTHWVRAIAIVILIGTGYYLSYVFQSPISNGEPVNFMQAKYRLVHQAVG

FVLIACIIFKVYLFFCDKVSAKERRSVWDIFNIKLWIEQVKFYIFLGKHPHLKGVYNPLQFVTYFFFYLV

ILGIILTGLILYTHTYHEGLGGLLYHILRPLEAAMGGLADVRTYHRILMWVIMIFVPVHIYMAIFNAVKG

KDGAMDAIISGYKFVKEEQH

>CAL35379.1 putative hydrogenase maturation protease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFLVLGIGNIMFADEGLGVHLCKQLEKNYKFTHSEFTLDFVDGGTLALQLSYIIARYDRLIVLDCIEAQ

GASIGDVFFFPYDAMPNKISWSGSAHEIEMLQTLQYMELAGDLPKTHILACVPKRIEAMSFKLSDELIQG

AKIMEKTLLDFLSKEGFAYEKIADFSLQELADISYKNY

>CAL35378.1 recombination protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKGLEKFNELVESFANLPTIGKKTAIRLAYHLCINNQIDGMKLAHNIENAIRFIKPCEQCGALSENELC

EICSDKERNKNILCIVESPKDILTLEESQSYNGLYFVLDELNEEKLEKLKQIILKLNISELIFALTHSIN

SDATIFFIEDKFKGLNLTFSKIAQGIPSGVNLENVDLISLNKAMNFRTKI

>CAL35377.1 two-component sensor (histidine kinase) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKNYSIHTKLIILFVVTFFLVCVLFIVLLKIEGNTYNEEESLKQENLIKNLLISYENTSGVEIGAYLGN

SGFNAIQNPNLVKAIRNNGQSLFKAGGELCTLSSLKYHSNLYFDVQCKDFDGLYEENTSDRVYNLLLIGF

FSFSLLVVFMYFSVLKSLEPLKKLRRQVAEVANGEQPDFLDYQEDEVGKIAFEFQKAFKKNQELIQSRQL

FLRTIMHELKTPIGKGRIISEMIKEDRQKERLIAIFLRMDSLINEFAKIENLFSKNYNLHFKPSRFSTIL

EEAKEHLMIDDFNKVVKVDIRYDALINVDMEIFSVILKNLIDNALKYSNNGTCELFCCKECFTIKNPGKP

LAEPIEHYLEAFTREKHNQVKGMGLGLYIVSEVCKLHNFDLIYFYDDGKHCFKIFFGDKEK

>CAL35376.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINVLMIEDDPDFAQLLSEYLAQFNIKITNFENPKSALNVGIQGYDCLILDLTLPGIDGLEVCREIRQKS

NIPIIISSARGDLSDKVVGLQIGADDYLPKPYDPKEMYARIMSLIRRTKRVEHTNNENINSAFKIDERRH

EITYEDKVLTLTPAEFEILEYLIQQHGYSVSREQLVSRCKNLKDKDSKSLDVIIGRLRVKIGDSSKSPKH

IFSVRGIGYKLIG

>CAL35375.1 chaperone DnaJ [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEISYYEILEITQNADKETIKKAYRKMALKYHPDRNQGDKEAEDKFKLVNEAYEVLSNDEKRAIYDRYGK

DALKGGGFGSSSSGFGGFEDLGDIFSSFFGEGFGSSRRRKSSNDEKIPSDFIVNLKLSFKEAVFGCKKNI

DFTYKCSCKTCNGTGAKDGKLQTCPKCQGRGQVGVSQGFITFAQTCPDCQGIGEKASEKCSDCKGLGYNE

SKDSVELNIPEGVDTGMKLRVNAKGNILKNGTRGDMYVKIIAAEDDTFIRDDDDIYIEFPVFFTQAILGE

SIKVPTIRGEATLNLPKGAKDGQRFVLEKEGVKDVHSSRMGNQIVQISIKFPTSLNDEQKELLEKLSESF

GIKDGMHQEQKGLFEKITNWFKS

>CAL35374.1 major outer membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLVKLSLVAALAAGAFSAANATPLEEAIKDVDVSGVLRYRYDTGNFDKNFVNNSNLNNSKQDHKYRAQV

NFSAAIADNFKAFVQFDYNAADGGYGANGIKNDQKGLFVRQLYLTYTNEDVATSVIAGKQQLNLIWTDNA

IDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGADLLEHSNISTTSNQAPFKVDSVGNLYGAAAVGSY

DLAGGQFNPQLWLAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKTHANGNLFALKGS

IEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNET

VRVGADFVYGGTKTEAANHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQA

LYKF

>CAL35373.1 putative phosphotyrosine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILFICLGNICRSPMAEFIMKDLVKKANLEKEFFINSAGTSGEHDGEGMHYGTKNKLAQLNIEHKNFT

SKKLTQKLCDESDFLITMDNSNFKNVLKNFTNTQNKVLKITDFSPSLNYDEVPDPWYSGNFDETYKILSL

ACKNLLVFLSK

>CAL35372.1 putative efflux pump [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENFNRTLLVCWFGVFTTSMGLSQIAPILPFYIKELGHVDTSEIAFYSGLAFGITPLFMAVFSPLWAFLG

AKYGYKNMLLRASFGMSVLTLWLSFAHSALEVVFVRGLTGIISGFTSAAVVFIAVIAPKEKVAYALGTLS

TASISGSLLGPLFGGFVAEFFSISAVFDVVAFLIACSFVTIYFFIHGRKIQKEAKKNTQKVKENKTLIIV

LFITTFVIQFGTFGVMPILSIYVEQIHQGGNLALWAGIVVAASGISNLFFAPKLGKIADKIGPSKIIFGA

LIFCGICFYLQAVASNVYTLIFVRLLIGVGLGGLLPCVNALLKKSVSAKNLSVIFGFNQTCQFLGNFCGA

FGGGLMASHFSVEFVFTFVCLIFIINAFIFLAFEKKYIFSNQGL

>CAL35371.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEMILFVLVMILLVLLFVVLFRQYKSPKIEEKSTQSFSDIMQLKSIGELSVFQVFSKEIVTKKDSAFNGI

WKNLLGWSLSERQIALIFEFEITFLYDLRDKNFDILPLGDDAYKIIMPECRYKHSIIDMKFYDEKNAKFL

PFLLPDSINSTGISFSESDKNKLIKEAKDEVKDLSLNLIQNLESKIHKSAKDTLEAIAKGFGAKRVEFEF

KDNTQKLDVS

>CAL35370.1 putative isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPFVNIRITKENGEPTTEQKQELIAGVTDLLAKVLNKNKSSTVVIIDEIDTDNYGLGGKSITQARKEKS

>CAL35369.1 hypothetical protein Cj1254 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEFLTHPFEPFFDKDSKILILGSFPSIKSRQDGFYYQHPRNRFWPILETLFNAKLENITEQQAFLRKKH

IALWDVLQSCKIKNSDDKTISYAKANDLNLILSQTKIQAIFTTGQSAYRFFVKFHPRLEAIALPSTSPAN

LNFSFEQLLQNYEIIKKFTK

>CAL35368.1 polyribonucleotide nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQYSIEINKNTEIFDIDKVAKQAAGAVLMRQGKSVVLATVAREEKQVEEDFLPLTVQYIEKAYAAGKIPG

GYVKRETKPSDAETLTARIIDRSLRPLFPKGYAYPTQIVVMVLSADPKVDLQVMSLNAASVALYLSDIPM

KAPVCGVRIGKIDGNFILNPNNEELQNSTLDLYVAGVKDELLMIEMRALPDQKENEIFIEAPYADVLTQT

TSQNMNELSEDEILEALNLAQKAILNGSNAYEEAFSKHKKNSQIELKNEIEHPEILAFIENNFQKQIKEA

INQMAKSERASELNKIAKEILNLEITKDWSEESVLNTLAKVKRKLIREQILNEGKRADGRSLNEVRPISI

ETNILPNAHGSCLFTRGQTQALVVATLGGENDSQMIDLLTEKNPISERFMVNYNFPGFSVGEASPIKAPG

RRELGHGNLAKRALYPSVDENYPYVIRLVSEILESNGSSSMATVCGGSLALKAAGVPSLKLVAGVAMGLI

FEDNKYAVLTDIMGLEDHDGDMDFKVAGSKDGVTALQMDIKLGGIDQEILKQALYQAKEGRIHILNIMEE

AAKEIIVNEEVLPKLELFSVDPSKIVDIIGQAGKTIKEIVEKFGVSIDLDREKGEVKIAGSQNEQIKAAK

DYIINITSSQKGTKKGPKDKDISGFELGQEFQGIVKKIAPFGAFVELKNGVDGLLHSSKIKHLNLSENQS

LKVKISEIKNGKISVDLCE

>CAL35367.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWRKFSLLLGTSIALNAAQVDIYALDAKKEGDILTANNDVIIFSDFYFITANKAIYNEKTGDVELFGDVN

ILRGQNERSHSDYAKINLNSNQADFSNFFFSNNNLEVWFQSKTSHLNDKVFESKVSAVSSCNVEDPDWEI

RFSKGWLNRETNFVHLYNARLYVKNTPVFYLPYFGFSADTHRQSGLLIPKIVLKSSEGLYYEQPIYIATQ

ENWDLELDPQIRTNRGFGLYSTLRFLDSPYSTGELNFGAFRENSSYFHDENLKNQTHYGIELKYSRDDLI

KSLLSDNFQEGLWIDATYLNDVDYLNLGSRDYRDLNSLVTSKINYFLADENNFYGAYARYYIDTSKLSNN

TTLQEYPSFQYHRFLNNLFDERLRYSFDASFHNFYRPAGSYANELNLDLPISYHNAFFGDFLHFTFTERF

YASFVNYSNDPERNHEHYFRNTHDFNLYTDLSKAYENFFHTLNLGVNYILPGAKSGKITQDYLEEYDKEN

EHTSLYTVQYFYNNEGQKKLKHRISLDYLNKQNEFYELENLLTYYFNENINLNSEVLYSYEQSRFTNVIS

QIEVNTNSKFNWMFSHAYQNDEYGKYSFIGTRANYIATPNYNLFGGIWFDTQRAHANMWELGYTYQRKCW

NYSLMYRERIDPQLTSGGITAKNQSGVYFIFNFYPLGGVKYDFSLAESENKI

>CAL35366.1 conserved hypothetical protein Cj1251 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKENLQDRLERENLKIASFGKRVLAFLIDDMVISLIVFIIFYDRLIQAKDLFETTQIVGNFYLGFILLHF

SYQAIFTYLYGASLGKILCKIIILDENLLDKPNLIQSCIRSAVRQVSAMAFMLGFAWALSNDLRKAWEDY

LARTIVVDVA

>CAL35365.1 phosphoribosylamine--glycine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIMILGSGAREYSIALALRRVDKNLEFYFAPGNGATESLGTNLNLKDPVVLATYAKEKGFDLCIVGSES

FLAEGVVDIFKQQGLAIFGPSKAAAMLETSKSFMKSFLKKYRIKTAKFLNTNDIEKAKNFIYSLTPPIVV

KADGLCAGKGVIIAKTHEEAIEETAKMLSGESFGDAGKLVVIEEFLDGYELSIFAVCDGNDFVLLPAAQD

HKKLLDNDQGPNTGGMGAYAPSSLANESLLRKVQKDIILPTLAGMKKEGAEFCGVLFIGAMIVGNKPYVL

EFNVRFGDPECEVLMPLIEDPLELILAATQRRLRHSKIKIKKEFAVGVVCASENYPYKSSPKSEITVNNI

PENSHISYAGVSLEDGKLMADGGRVLVCVGTGKSIEEAQKNAYKLCDNVNFKGKQYRKDIAHQVLK

>CAL35364.1 hypothetical protein Cj1249 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHGKIAIYMDSTGRGTVTNSANTFFDFNRQIWNDKKSMPSVGMLVEFRTLSSEKKAEDGKLVQTSKTITG

IKPSKFQEFKEGDFITEHDFWKTDNDDELEDLQNSRRSAYITELYRTTDFDTIEKIPLSFTIPQAIQKYF

AHEILSVETLQANLQDEKEIPCILDYLILKRFLFKAYDTLIFMDNSIDQTQFSALKSIMMHLENSYKQMM

ADQKPNITKIFNETFLSLQCHYQALVATIDTRKNRLASLEAQMKTLQSEINLKSNATDADPEKLKARQER

LAKLQKEAEYYRTTLKRLDAIREDFYKKNYNIFENAFKLSREKLFKKIVTGLNLCATIMDVKIWHLSLKS

SGVKNSYFTMSNIENSFCSLSFAEHYLSRLNKSALNPFDQKLLVYIQKITKEQRKKFLVVTSDLDLLCKL

KIENFSQNPYYLVKYAPKKVNYQSLMRDNTFDIVYIDEKHVWENVADIILQGKHFDKSGKTKFKLI

>CAL35363.1 GMP synthase (glutamine-hydrolyzing) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKADILVLDFGSQYTQLIARRLREQGVYAEILPFNVSLADIKAKEPKGIILSGGPASVYATDAYFCDKG

IFDLNLPVLGICYGMQLMAHHYKATVAPAGHKEYGKANIEIKKDNALFKNLPKKQTVWMSHSDKVENLPQ

GFEVLATSENSPFCVFGNEDKKFFALQFHPEVQHSEFGKNILKNFAKYACNCESIWNMGSFAKTQAEKIR

EEVGNDKVLCAVSGGVDSSVVAALLASAIKEQIIVVFVDNGLLRSGEKEQVEFMFKNTLGIDLISIDASE

IFLSRLVNVTDPEQKRKIIGNTFIEVFEEEAKKHKDVKYLAQGTLYTDIIESSVVGASKTIKSHHNVGGL

PEKMNLKLIEPLKEIFKDEVRALGLELGLSKEVVYRHPFPGPGLAIRIMGEVNRASLELLRKADVILLEE

LKSTGWYDKTWQAFCVLLNVKSVGVMGDNRTYDNAVCIRVVDASDGMTATFSHLPYEILENISRRIINEV

EGINRVVYDISSKPPATIEWE

>CAL35362.1 hypothetical protein Cj1247c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGKRNNIKMTKNASAVINELMDKPHYKPLKTLFFCKDFLSSFPLAKQRLIAKIYVKNHILNIITLHPAAY

QELNHDDSKIYIKFLIKAYGQKYPLSGFVDIKDIKIFSQKYTYAANKNKNDEKLSKNSYLELSKGEFKNC

FKDKKLFKKFEDLRELIKKGSNLD

>CAL35361.1 excinuclease ABC subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKENLENELKTLPNSTGVYQYFNQEGKLLYVGKAKNLKNRVRSYFAFTPNLHANPRNSLRIQKMIEETV

HLEFIATNSEADALILENSFIKQLHPKYNILLRDDKTYPYIYVDFEEEFPRFEITRKLVKKSKIKYFGPF

FKGARELLDALYLYYPLKQKASCKSPCIFYQISRCLAPCDKLISREKYLEILDEAIHALLNPSVLLKNLE

KQMLVLAQNENYEEAAKVRDQIAMIKDLEVKVEIDIAKLEDFEVFALAFKNSVLSTLRFVVQNGKIISAN

SKITPIKNDIQWDQNEIYKQLILENFSMDIPLLANVIYVYEEFEDRVLLEEILSQRFDKKISIKIPKIGE

KRRICDLAFQNALLNIEKEQKNHDFTIQKELKSYFELENLPNDIEIFDNSHLQGVANVGAMVTYRINSWD

KSKYRKFHLKHKNDYDQMREVLTRRALDFDKIPPPDLWLIDGGKALLDLAKEIIVSSGVNVDILAISKEK

IDAKAHRAKGGAKDKIHSLKGEFSLSINDKKLQFLQKLRDEAHRFAISFHQNTKKKQDLKSSKLANLGLS

SGVMQKLLAYYGNFESIYKADFKDLTMLVGRKAAQKIKEN

>CAL35360.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILAGIIFIFNLILAYLSIDISKLDSVTEQLKIGMFSSIFVLSLTLFIFAFRQNRNINKIYQKIFCMQND

FLNFQKKIDVDSALDLLKEKFETTSQNLTKISHEKDRYLHLLEENLYQLINISNAMRCLNEGYNKEINSL

ILNALNSQKDQIRLELNEALEHHKSIIGTSHGKVLQFEASVAIVNNDELENFLLANLLSYFGIESTCFKN

LSFDVNDFHLIFIKDKIFNKNVKKNYDFIVMGRHKNTHYEYFLTLPFEKKDLENILQNKLDKVCTLKFKT

PYQNNVLLFKQNDFDATLFFNIIEKQCDKNICINSFSQLKQELSKETYRLILLDYELIKFDLEQMRNLLS

AYKKQHPQSHIIFFSKEKVRDFDCVSEVLSDVSRNDLITLLRKYLPKA

>CAL35359.1 putative radical SAM domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILFGPVSSRRFGRSLGIDLSPSKKQCNFDCVYCELDPKKAQEKQDEIISIDKIISEVKAMLEKNVEFD

FLTLTANGEPSLYPYLNELILSLRSIAKDKKLLILSNGTAVLDEDKFNALLKLDVVKFSLDSAVAKTFYR

IDRALKNIDLEKMIEKMADFRARFNGDLIMEILVVKDLNDNEEEFEALNQALKKIMPLRVDLSTIDRPPA

YAVKKVSEEKLLELSKLIDSTPVLLAKRHYEGEKLSFNEEELLKMLHLRSQSEIDIEVKFDEQSKTLLNQ

LIKEKKVKILDLAGVKFYKV

>CAL35358.1 uroporphyrinogen decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFIDACFKKPTPYTPIWMMRQAGRYLPEYMEVRKQAGDFLSLCKDYKKASEVSLQPIDILDVDAAIIFS

DILVVPLEMGMNLRFEKGEGPVFGNPISTLEDLEKLDDQNAHKKLNYVYDALKLTREKLSQNKALIGFCG

SPWTIATYMIEGSGSKNYAKCKKMLYQNPELLHKILNKLTQVLKLYLEEQIKAGANAIQIFDSWASALEY

DKFFEFSFNYMLEISNFIKSKYPNIPVILFPKGISGYLDRIDGNFDVFGVDWSTPLDLARDKLSHKYTLQ

GNMEPCRLYDKNAIKEGVEKILKTMQNKAHIFNLGHGILPDIPVENAKYFIKLVQESSAK

>CAL35357.1 hypothetical protein Cj1242 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVVDNTQKTSNAIFSTTTKVKEKNTSADEFQATLNEVKNKEEKEDKKTNSSKFTNEDIDLGAVREDFRSY

AWQKMREDQYKKNEETLLNKLFTTIDAGNATNNTKA

>CAL35356.1 putative MFS (Major Facilitator Superfamily) transporter protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNYKKALFALALSAFCMGVTEFVMAGVLVDVEAYFSVDAKTAGYLTTLYAIGVVIGAPLITIPLSRFHR

HTQLLINLGIFALANFIIFFSQNFYLTAFARFIAGTQHGVFFVIATLAVSAITPDDKKSSALAIMVTGLT

VALVTGVPLGTFIGHYFGFKFIFLLIFIITSLAFFGVWHMMPKNLHPSPTNLKNLIPAFSHQNLLKTYTI

TICSCGAQFVLYTYLQKILVEISGFKVQDTAYILLLYGICAICGNLWGGKIVDKKGAIFSLRLILSIQVL

VFLSVFLTMHSKILIIFSVALIGFFAFSTIPALKMLSITKAKRHTYKVIDSTVSVNEAAFNVGIALASFL

GGIVLARLGIEFNALFSALFVSPALIFALLFAKDKLNYKKFQRKSFTKV

>CAL35355.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIILLLGLSLASLGALSFDELIYKDEVKPSFDCSKIKYDGKSDDELMICNKIGVRNEFDNKKLALVDN

IYSSLYQNISKKADKKMKKDFKAISKKMLKERKICIKNMQNTKAGENPLLSLLNASDCMQEAYIKVLLEL

MQRAKKDTKTKEVLEQIFKNKVDKYENLLTQSLNTNKDLQDFIDSLAKEDLIDSRAKFKL

>CAL35354.1 putative 4-hydroxythreonine-4-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYEFNF

IKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKAWED

AGLKYKGHTDALRDFFKKNAIMMLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKKMGL

LGFNPHAGDYGVIGGEEEKIMEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPYPLV

ADTAFTKTGLKNCNRLVAMYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINTKSY

FEAAKFAINLHSKA

>CAL35353.1 pyridoxal phosphate biosynthetic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLLGVNIDHIAVLRQARMVNDPDLLEAAFIVARHGDQITLHVREDRRHAQDFDLENIIKFCKSPVNLECA

LNDEILNLALKLKPHRVTLVPEKREELTTEGGLCLNHAKLKQSIEKLQNANIEVSLFINPSLEDIEKSKI

LKAQFIELHTGHYANLHNALFSNISHTAFALKELDQDKKTLQAQFEKELQNLELCAKKGLELGLKVAAGH

GLNYKNVKPVVKIKEICELNIGQSIVARSVFTGLQNAILEMKELIKR

>CAL35352.1 putative phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLGIDLGSNTLRAVQMDEKLNKLKEYEFVIGAAKNLNQSGEISKEAIQRLKNTLSILAKEQDLSKARAVA

TAAFRKASNTNEIFAHLKKEFGIDFKLIDAKSEAKISVLGMQSGLRRLKIWGEFAYCDLGGASCELSFGK

SFKSFDFGIISFYEKNYHSYYKSCISYKKLIKKYPKFIINIKDKKLKIHFLIANPYLKHLAFRAFDEVAM

IKKELRSLGAKTVVLNSGVPTTLSALKQNISYEKYEATKVNGKKLCHKDFLNYAIKLFHMEEKKAIKEVG

TMRKNYLSAGCLLFYALFDKHKLLVIDEGLREGVCLASMKNIKF

>CAL35351.1 conserved hypothetical protein Cj1236 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFSDFFHAWLHESYYKNAVSIGKNGDFFTAVSVGNLFGTLLAKHFLNLIDEKILKPPLELVEIGANEGY

LSRDFLAALLELRPEIFSQISFFIIEPHEKLRTLQKKTLEGVEFTHKNSLKECHFKNAFFFCNELFDSFT

CELIDHDKMAFVENFKLIFKNMDENLITKCKALNLTKGELSLELENFFKDLNQTCERFIFAGFDYGTLNP

QSFSLRIYQKHEVFSPFEVSLKDFFGKSDLTYNVNFTHLQKLIKEYDFKPLAFKKQSLAFMDFGFEDLLE

YAKNKNIKTYESFLSQAKILFFNFDEKFHFFEFQKN

>CAL35350.1 putative peptidase M23 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKALWILLSLTLWLFGAQNLELIKGQALFLELDKKDFLSLKNNDKNIPTFAHPKNQEKILAIFSLPYKNP

PQNTKLIAFYKDKKEEIFIKTLEGNYKSEKLQIENKKIFPPKTIQERITKELKEANAIYSSYTPKALFNG

AFNIPLNSFITSDFGKARTFNEKVASYHSGTDFRATTGTPIYAANSGVVKIAKDRYFAGNSVVIDHGFGI

YSQYYHLSKIDVKIGQKIKKGELIGLSGATGRVSGPHLHFGILAGGKQVDPLDFVSKFNAIFQ

>CAL35349.1 glycyl-tRNA synthetase beta chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSELLIEIGTEELPAIPLLKELANIEKKWNNVLEEYRLVSDFKFYYTPRRLVFFHENFADKQEDSFAEFI

GAPKNVAYKDGVLTPAGQSFLQKARISENELSFKEIKGKEVLYHQKAIKGLQSQEILGEMVEKFLKSLSF

GKSMRWGANSFEFIRAIRSIACILNDELVNFQSYGVKSTKKTFIHRSVSYDLQDFNNAKEYFELLEKNYI

ILDPIKRKEKILEQFKLIESQKNIQIGEDEELLAEVVAITEYPNALLGSFEEEFLEIPSEVIITSMRENQ

RYFAVFNDKGLSNHFIVVSNAVCKDYSKIIHGNERVLRARLSDAMFFYQNDLQNGLKPEKLAKMTYLEGL

GTMQDKSLREIKIAEILCQMLHNDKIENISTALKYAKADLATQMVYEFTDLQGIMGSYYAQKMGLDYQIC

LAIKEQYLPNSEQAPLPSTEFSSIVALANKLDTLIGLFSIGKIPSGTKDPYALRRAANGIIKIALNLNKE

FDIQILLEKLSNHYKSFDMQILKDFIFERLYTFYTVNASFVKAVLSSQNTDLIHINQSVNALIKLSKKDN

FNENFATFKRLANIATKNPHKVDESLFVQEAESKLYKAFQEKTKANSLQEKLENLFALKPFIDEFFNQVM

INAEDEKLKNNRQALVYEIYAEFLKIADLKELSL

>CAL35348.1 putative HAD-superfamily hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINVFFDMDGTLIDSANAISCAVNEIRQDLNLAPLSREIIMQTINTPNIDWAKELYNIENFHHSSFKEGY

EKYFVKHYEQSVVLFEGVKELLEFLKSKNCFLAIATNAPQSSLSNILKKHDIIPYFDKILGVSLGIEPKP

HPMMLELLKSEAPYKTSVFIGDSQKDKECAKNANLPYFHAKWYQKNLKENEFSNASELKGFLQKYL

>CAL35347.1 hypothetical protein Cj1232 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKNEEKALRVKYLRNLEKFFNGAISALKKEDFDKTKFEERMLKNAKFFEKNPAVNLNSTYAKNLEFFVN

ACLDFSKEKSELLNLANALDKQKKQGEKKEKHKNYLKDYE

>CAL35346.1 putative glutathione-regulated potassium-efflux system protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDNFLEIFLITVAIAIVLNVIFKKFEIPTIIGYIAAGEIISEIYHLSGKGEITHIAEFGIVFLMFTIGLE

FSFKHLMAMKQEVFLNGSLQMLTCGFVFMLLAIGILGLGDKSATIVGFALALSSTAVVLKILNDNGDINE

QYGRKALGILLFQDIAVIPLLLLVDIFSSNNQNIEKLLFTSLISALILITLLFFIGKYLVDRIFRLIIHT

SSQEIFISTVLFMVIGASFLANYFGFSYSLGAFIAGALIAETKYKHKIEADLIPFRDLLLGLFFITVGMQ

IQLDVVAQNWFLIIVLTLLVMALKFGIVFGFLFLYTKKRVALKTAFAIAQIGEFALAIFSLLQAKNMLDI

KTSQILIVVSILTMIITPFILNNIRKITNVVEDIALNTNAVQNIDSNIKLKNHLVVFGYGRLGQEVVQKI

KNTGVPYLVLESDLNLVELGVSRGENVVFANAAQEETLKIANIEECAVAIITVTNEAKLEILCQVLANYP

KPIDTIIHVNGTLKKMLFSSIDENIRIIRSEKVIARNLVQEALECRIHKNT

>CAL35345.1 heat shock transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEQHYDEPVYLISVVAKVLSIHPQTLRQYEREGLIEPSRTDGKIRLYSQRDIDRIKLILRLTRDMGINLA

GVDVILKLKNQLHEFENLIDELRLELSKQQDKEAASKAVVKHKNSFDLIFYEKK

>CAL35344.1 putative curved-DNA binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNSLYETLGVSKNASADEIKKAYRRLARKYHPDINKEKGAEEKFKEINAAYEILSDEKKRAQYDQYGDSM

FGGQSFHDFSRNTGGVNLDDILKDLFGGGFGGRSRGGFNGFSSKGFSSGFGGFGGFEEEILDSNLELHIP

FEKAVKGGEHSFNFQGETIKFKIPHGIKEGEKLRIRSKGKQSRNGARGDLIIIVKIEESPIYTREDDDLY

QKVDISLKTALFGGKINIKTLKEGKEEAIINITPNSKNNQKIRLKGYGVQNRKSDIYGDMYLILNVVLPN

LDTLDEKFIELLKEKLP

>CAL35343.1 serine protease (protease DO) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLSLSLASALFAASINFNESTATANRVNPAAGNAVLSYHDSIKDAKKSVVNISTSKTITRANRPSP

LDDFFNDPYFKQFFDFDFSQRKGKNDKEVVSSLGSGVIISKDGYIVTNNHVVDDADTITVNLPGSDIEYK

AKLIGKDPKTDLAVIKIEANNLSAITFTNSDDLMEGDVVFALGNPFGVGFSVTSGIISALNKDNIGLNQY

ENFIQTDASINPGNSGGALVDSRGYLVGINSAILSRGGGNNGIGFAIPSNMVKDIAKKLIEKGKIDRGFL

GVTILALQGDTKKAYKNQEGALITDVQKGSSADEAGLKRGDLVTKVNDKVIKSPIDLKNYIGTLEIGQKI

SLSYERDGENKQASFILKGEKENPKGVQSDLIDGLSLRNLDPRLKDRLQIPKDVNGVLVDSVKEKSKGKN

SGFQEGDIIIGVGQSEIKNLKDLEQALKQVNKKEFTKVWVYRNGFATLLVLK

>CAL35342.1 putative two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTNILMIEDDLELAEITAEYLEKFDMKVDIAHEPYIGLSKLALKEYQLIILDLSLPGLDGLEVCEEIRKK

YDTPIIVSSARHDITDKVNALELGADDYLPKPYNPKELQARIKSHLRRISNTKSAIAKSVKDLVYDQYKH

IITMKGQELTLTNAEFDILSYLIKKEGGVVSREELVYNCSSISEDSSNKSIDVIISRIRQKMGDDPKTPK

YIHSIRGIGYKLTQ

>CAL35341.1 putative two-component sensor (histidine kinase) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKSSIFYTITFIFIFAGVSVILGFLWLIEYDQQNYTRELNTKYSLIANARLLNFAGVISEKEFEEQTKN

YNKMDEITEAKQIRKILFRGDVLARVEVNNGLIEIISYNRQVYLNIIYDGKVYLYKDQDYQTYRYFIIKA

IAVAVICILVLLYIYIFKKLKPLKRLKKQIDKFAQGKLGDIEDVSTGVDEISQVSEAFYQAIVQIRKLNQ

SRQFFLRNIMHELKTPITKGLLTLEMIEDNKYKERLNGVFTRLEILINEFAAIEQITSGAAFINRKKYNI

LDVLDEAKEIAMRDDSNIRIFMEESFFVNVDFKLFTTAIKNMIDNGIKHSEDGFVQIDIIDDYICFKNRG

PELNNTLEYYTQAFTQGSKQKSSFGLGLYIVNTILETHGMKLDYLYEDGVNLFYFRNLKSVIVKE

>CAL35340.1 conserved hypothetical protein Cj1225 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRNVKTYSFRMPLELKERLDNLSKNLSKPKSTIVKEAIEAYLNEVEDFSFAVNALEELKDGDYQKASKK

IDKIVKNLKQTK

>CAL35339.1 putative iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLPKWDNSYSVHNAKIDEQHKKLFKLAAKVEVVSDRSVSKNEVKELLAEFFNYMKDHFNDEEKYMQLIGY

PNLEEHRKIHKEIIQTMINLIKDIKSTNDLKEKLYIVAKKWLLEHILYEDMKVEKWRSSSLSTDDGGDVS

FEAAEDEDNEHPQFYLYTCNCPGKIHDVPYSIHQKIELQGRKFTCKTCKQAIKFYKKYS

>CAL35338.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAAKILLLEDDLSLSEIIEEFLNDEGYEVFLCDNAQEALDMAYERYFDLWILDVKVPLGDGFSLLKELRK

SGKQTPAIFMTSLNTTNDLKQGFDAGCDDYIKKPFELAELSIRVKALLKRAFSHKNEDFEDLGDGFRFEF

TTQILYHNNKALTLPSKEIKLLSLLLKNKNNFLSTERIFEELWDYDEEPSELSLRAYVKNLRKILGKEKI

INQRGRGYCYG

>CAL35337.1 two-component sensor (histidine kinase) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKVIRQILLIYLTTTGIFLTIFFALWYQKLYEELVVLKGATLRENHRNIVISILNSRFTPIDISAKNI

AQSTALKFAIFDAKKIVFSNIDFDLRKAKIELKGRGICDNKVFFLASMSADHYFLRHASNEEVNTNDGLQ

ILIQGEDVGKDLFWIRTKVFSFAIMAFCILGLISYILVKIALKPLEDKISTLNRFIKDSTHELNTPLSVI

LMSIEQLEHQNLGDNTKFTRIKLAAKSLSQVYSDLVFYNFPNTLETEKQKFDLRILLEERLEYFKVFFEQ

KKITLKLDLNQANIFAPKSQISKLIDNLISNAIKYNKKGGVISIILKANFLSIADTGCGISKSNLNHIFD

RYTRFNTDQGGFGIGLSLVKKVCDDNDIKIICESVENQGSVFKLNW

>CAL35336.1 60 kD chaperonin (cpn60) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKEIIFSDEARNKLYEGVKKLNDAVKVTMGPRGRNVLIQKSFGAPSITKDGVSVAKEVELKDSLENMGA

SLVREVASKTADQAGDGTTTATVLAHAIFKEGLRNITAGANPIEVKRGMDKACEAIVAELKKLSREVKDK

KEIAQVATISANSDEKIGNLIADAMEKVGKDGVITVEEAKSINDELNVVEGMQFDRGYLSPYFITNAEKM

TVELSSPYILLFDKKITNLKDLLPVLEQIQKTGKPLLIIAEDIEGEALATLVVNKLRGVLNISAVKAPGF

GDRRKAMLEDIAILTGGEVISEELGRTLESATIQDLGQASSVIIDKDNTTIVNGAGEKANIDARVNQIKA

QIAETTSDYDREKLQERLAKLSGGVAVIKVGAATETEMKEKKDRVDDALSATKAAVEEGIVIGGGAALIK

AKAKIKLDLQGDEAIGAAIVERALRAPLRQIAENAGFDAGVVVNSVENAKDENTGFDAAKGEYVNMLESG

IIDPVKVERVALLNAVSVASMLLTTEATISEIKEDKPTMPDMSGMGGMGGMGGMM

>CAL35335.1 10 kD chaperonin (cpn10) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFQPLGKRVLVKRVEETKTTASGIIIPDNAKEKPLMGEVVAVSKEITDIANGDKIVFAKYGGTEIKLDN

NEYLVLNLDDILGILK

>CAL35334.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFYGIVAFVVVLLIALYTILFTSFGNNIVANIAQKKIKENAGLDVNITRFNLRFSSLELQANIANMA

DCNLQGALSPFKLGFDLDYLISLNQNYAKNLGLNLNQNLSFGGKIQGKASDFTLDGKGYLLGSNVLLNAR

MYNYSPIALNLDAQNLKIEEILHLLSYPSYAKGFLNAQAKISAQNLKPDGNIIIKLDTSYINYEAIKKDF

SLDLPLNSNPKAEILANVKEDKIYAVSKIYNDYLNLQTQKTLYDMSKNILSTDFNLNIPSLAKLEKLTKT

RLNGSLGVIGETSVVNNALSSLNAQVIGLGGEVKASLKNNKIFADINEASLEKLLALAGYGALVSGNLNA

KLLNADLDFSNFDLEAKINNAKINTNELKKLAKIELPNTIFSFDAKANAKNSNIAYNALLASNLLNIKKL

QGTYNLKNSELNTDLNAFIDDLSQFSAIAGQKLQGKADLTAKAHIIGTQIQNLNANANLADGVIKADSNG

KKLDLNIDKLDLSKLFVIAGMPNYASGIVNAKVNLDNIDFSNLNGKANLEAKGILNAATLSKILNKNFPN

NTSYDLNTKINFKNNIAQFDSVLNSSLADLTKLQGSFDISKMLLNSDFNLKINDFSKLGFLLDRKLKGKA

EFNGKVGFDKNLNFVVNSPNLFEGKLQSTLKDNLLLADLNGVDLSSLAQGLDFMDVYQGKADVKANYNLL

SEEGEVNLDMKEGKLKPNLITNALKILTLKDITNDVYRTANAKALIKKENIKFDLNMQADRSYILVQSGA

LNSKSGALNLPFDIKFDRANFKGSITGTTENPKVNLNAGSVLNSIKNVVGGGMSDGAKSTGDKVDKAVNK

LLNKIF

>CAL35333.1 putative riboflavin synthase alpha chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNGLIREIAKVQSYQNNTLSLKAKYCPNLGDSIAVNGACLSVTKLYEGGFEVELSRESRTHIVIENLKD

KVHIEPALRYGDRIDGHLMQGHIDFIGTLEKIQKDENGVDFYISLPKEAMKFMAEKGSIGVDGVSLTINE

ILKNGIRLTIIPITFKETLFKDYQVGRKINIESDLLARYIYAQLQGKNKGLSWEEVERISYLY

>CAL35332.1 conserved hypothetical protein Cj1217c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGRSRKNFLSLLENDKVGIFCAFDKDYNVFRAKIHNENLFSHLGFKDIEKCVFMDQIHSHKVIIYDENLK

NLSCDGLISKEKNIALCVLSADCLPLILYHESGIIAALHSGRKGSFENILKECVDQITMQNSHLDKNKFH

LFILPGICAKNYEIDGEILEFAKKEFKEFVQDDKLDLKALVKFQAQNLGIENIKDCGICSFDDESFFSYR

RDKTTKRFVSVVYLKD

>CAL35331.1 hypothetical protein Cj1216c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYERKDLRVLKIIQKAREFGDGDLLNEALVKQLIDADFCEINEKEKEELATLLHSLINAKDKALLSN

>CAL35330.1 putative peptidase M23 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLLLLFIFVVQSFAALSVEELTWDNGDTLLKFLQRNSIPMSLYYGLDREDQELASDIAYKIKYQVLKD

ENNNIEQVLIPISDDLQIHIYKDKDGQYTLAFTPVSYQKEDRILHLTIKSSAYQDVYEESGSSTLARAMV

RAFRGSINFRNIQKGDEVTLYYEQKRRMGKLWGDINIKMAMVEINKSAREVFSYNDIFYDRDGKELESFL

LTKPVNYTRISSPFTTARYHPILKRYRAHLGIDYAAPTGTPVKSAGKGVVTFIGTKGGYGNVIQIKHDSG

YMTLYAHLSRFAKIKNGQKVNQGQVIAYVGSTGMSTGPHLHFGVYLNNKAINPASVVKIAKSELSGKAKE

NFKHIIAGYEQVVKEALASNQPNPPKEEDFENYIEF

>CAL35329.1 putative exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKTIVCFLALNLSLFAVGFDLKPIKSELVKVDDIYGYIKDSDDIKLYSSGVVVQHFSNSQSIIARASVI

DKKNGLAKLEFSVFSALKQDALPLPNVLPKVGDEVVLNFLYDRGLVIAPDEQTYNELVREFPQIYFTHID

IFGAQLIRTATLSPKRSDFRQFCDDNAVGILVVALENHAEVVDCQDFNKLYEVPISKPTSVQVPFYSRIG

GYKSNFFDFNSQEIGNYYRYYDALINLPKVQ

>CAL35328.1 putative glycolate oxidase subunit D [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKEFEQYFKRFLGEENAYFDEIHKRAYSYDATKKHYLPDGVLFPRNEEDIARILKFCNENNIIVIPRGS

GSGFTGGALAVNGGVVLAFEKHMNKILEIDLENLVAVVQPGVINIHLQKEVAKYGLFYPPDPASMEYSSL

GGNVSENAGGMRAAKYGITKDYVMALRAVLPSGEIIRAGKRTIKDVAGYNLAGILIASEGSLAVLSELTL

KLIPLPKFKKTAFAIFPSVKSAMNAVYKSLASGVSPVSMEFLDNLSIRAVESKFNKGLPIEAGAILIADV

DGNVKEAIDEDLRNLEHYFLEAGASEFKIAKDEQETADIWFARRNCSQSIAMYGTLKLNEDITVPRSKLP

TLLEGIDEISKKYGFKIPCFGHTGDGNVHTNVMVPDKNDKEQVKKGYEAVEEIFKLTVKLGGTLSGEHGI

GLSKAPFMNLAFSEAEMNLMRNIKKAFDPNNILNPFKMGL

>CAL35327.1 putative ribonuclease BN [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNFFTILLNLRDKEILNYAAALSFYTVLSLIPILFVCFSVFTQISSFKAYYEKAKQVIFAFLIPTQQDV

VATYIDTFLKNSVNLGIVGLIAMAFTSLAFFSGYDFVINRITKNEPKGLWQSISSYWTLLTLVPLGLGLS

FYISGFIQQTLDDYKIGFNFFEILPFVIIWGLFFISYSSSVHKGTLKSLALVSFGAGTIWYIGKNLFVYY

VVYNKTYASVYGSFSTILFFFIWIYISWIIYLFGLKLYYFLNHNHNEGNKIRKNTKKS

>CAL35326.1 putative competence family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLWNSFSYSFKEFHYLFFSVVVIFIFNILLEYNNFLNFKNQKHYLIDNALLTHQYIKYNKKNKKYWVLK

LQTENFTFYTTSFKDLNLSKNQFLSLRIITHNINFKDYLSKSFYAPSYDFEKLKEKEYNPIISYFLNQHT

NEKIKEFYGALFFALPISLELRNDVNYYGIAHLIAISGYHIGLLFSLIFFILAPIYSFFQKRYFPYRNLR

LDLSILIFALLLAYACLIGFVPSFVRSLIMAFWVFYLLCKNIKIINFVTLFCSILLCISLYPRLLFSIGF

LFSILGVFYIFLYMHHFANKFNNLINIILLNIWTFFAMVLPVLYFFPLISYQQILGIILSGIFVIFYPLV

LFLHLINYGDLLNFILDEFFKFKIYGTNIHIPFWIFISYLIASLISVRFKYLAFLCIFANFIPFIMIVI

>CAL35325.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQDMIDTLIKYGYIVLFFYSLGGGMVGILAAGVLSSQGKMDLSFCIALAFIANTIGSTLLFILGKYYKKD

IMPYFKKHRRKIALAMIKTKQHGIILLVTQKFIYGLKTFIPIAAGMAKYNFIKFFIINTLASLAWAIVLG

FTAYTFGYVIEAIFDKLSLYPYAAPLFLLFLAGIIWLYLSKFSKK

>CAL35324.1 HD/KH domain containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIESLIALIAAIVGLGIGYLVAKKINDAKYEIFVEQAKAKAKAIEYEAELILKDAKNSILNAELEVKKKY

EEKTHKFQKDFNQKFDDLSKKEQKLQQEEEKLKEDKEYLCKSQKHIQNLQSDVDKLKNKYQEKLDDVLKI

LEHSTGLTQNEAKEIILKKVEENSREQIAHIVRKYEEEAKNEAKRKANFIIAQATSRFAGEFAAERLINV

INIKNDELKGRIIGKEGRNVKTLEMVLGVDIIIDDTPGAIIVSCFNLYRRAIATKVIELLVEDGRIQPAR

IEEIHEKVCKEFDSAILEEGETIVMDLGLNKIHPEIVKLIGKLKYRASYGQNALAHSLEVAHLAGIIAAE

CGGDENLARRAGILHDIGKALTHDFEGSHVDLGAELCKRYKEHPVVINAIYAHHGHEEATSIESAAVCAA

DTLSAARPGARREVLEAFLKRVSELEDIAKSKEGIKNAYAINAGREIRVIANAQLVNDDESVLLAKEIAA

EIQEKMQYPGEIKVNVIRELRAVEYAK

>CAL35323.1 putative 5-formyltetrahydrofolate cyclo-ligase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKTDFRALQKIRLFKHSKLNFKQDYKIFKECLKIIKLFKAKNILIFIPLHYEPNLIKFRHILNKNYKLF

VPFMQDKSLKIVKLRLPFIKKRFGVLEPIDSFFKAKIDLAIVPVIGVDKNLKRIGHGQGFYDRFFENLNY

KPHIIFIQSIDALSQNNLTQKHDISGKLYINPYKKYYKKERKNDRITYRTYSRYSRTRYRIFSCKKNQ

>CAL35322.1 putative lipoprotein thiredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKKILLLVAISCLFVACSNDKEKQQNDVNLSTEASINQSDDMNFKLNLIDGGSISVKKENAVLNFNDE

DKVTLFVFFTTWCTPCIAEIPHLNKLQEKYNNDFNIVGVLLEDKSNDEIQKFIEQHKISYKVANGENNYL

LAKALGGVNGIPTMFLYNKHSKLINQYLGLIPEEMLEIDIQKAIL

>CAL35321.1 putative signal recognition particle protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNFFKKGLAKTLENIVGVKGENKKITKDLLEEILLEADVSYEIVEEIIYYLPPQNEVKKEDLKRVMGSY

FLYEKKETNQEKPFVELILGVNGAGKTTSIAKLAYLYKNQNQKVILGACDTFRAGAIEQLKLWAQKVDVD

IVLTAQGHDPSAVTFDTISKAKAKDFDRVIIDTAGRLQNQKNLAHELEKIVRISNKALEGAPHRKILVLD

GTQGNAGILQAKAFNELVKLDGVIITKLDGTAKGGALFSIARELELPIFYVGVGEQMTDLQEFNASAYLD

TLLDPIFE

>CAL35320.1 putative DNA repair protein RadA (ATP-dependant protease) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKNKALFECQACGNQQSKWLGKCPDCGAWDSFVELKAEQIKVLKELAQVSMKTSEAVCIEDVELEHFTR

YSTDDNELDLVLGGGLVEGSLVLIGGSPGVGKSTLLLKIASNLAKQGKKVLYVSGEESKAQIKLRADRLE

ANTPNLFLLTELCLENILEELHKKDYSILIVDSIQTLYSNKITSAAGSITQVREITFELMRVSKAYNIST

FIIGHITKEGAIAGPRVLEHMVDVVLYFEGDATKEIRLLRGFKNRFGGTNEVGIFEMTAKGLISAKDLAN

RFFTRGKAISGSALGVVMEGSRALVLEVQALVCESSYPKRSATGYEKNRLDMLLALLERKLEIPLGHYDV

FVNISGGVKVSETAADLAVVAAIISSFKNRPLSKDSIFIGELSLNGEIREVFSLDTRLKEAKMQKFKNAI

VPSKPLEDIGLKCFVAKELSQVLEWM

>CAL35319.1 ATP synthase F0 sector A subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKDLFLFSSLLDASHTFSYFFHIGLVALIAVIVAMMATRSMQLVPRGMQNLGEAFLEGVLSMGRDTMGSE

KGARKYLPLVATLGIIVFFSNIIGIIPGFHAPTASLNLTLSLAIIVFVYYHFEGIRAQGFVKYFAHFMGP

IKLLAPLMFPIEIVSHLSRVVSLSFRLFGNIKGDDLFLMVILALVPYIAPLPAYVLLTFMAFLQAFIFMI

LTYVYLAGATVVEEGH

>CAL35318.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIYILEFFKGASLALMLFGALFFFFKYNSFFYLCLGIIPGLLLSLIFVLLIENHKLKNENKLR

>CAL35317.1 5,10-methylenetetrahydrofolate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCSFSFEVFPPRKDENIKNLHAILDDLGQLSPNFISVTFGAGGSINSQNTLEVASLIQEEYQIPSIVHLP

CIHSSKEKITQILQKCKEKNLNQILALRGDICENLKKSKDFSYASDLISFIKKQEYFEIYAACYPEKHNE

SKNFIEDIHHLKTKVNAGTDKLITQLFYDNEDFYTFKQNCALADIDIPIYAGIMPITNKRQVLKISQLCG

AKIPPKFVKILEKYENNTLALEDAGIAYACDQIVDLITSGVDGIHLYTMNKSKAAIKIYEAVKHLLKEEL

HA

>CAL35316.1 5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNSIISYPRIGANRELKFAIEKYFKNQSSKEELLKSAKDLRIRHWQEIQKAGIDFIPSNDFSLYDNVLD

AAVLFNIVHTKYKNLNLDALDEYFAQSRGYQGENGDVTALAMKKWFNTNYHYLVPECDNADIIALTGDKI

FKEYLEAKELGIESKPVLIGIFTLFKLIAFKDEKTQKLAKEKLLNAYIELFDKLNELKVTWLELDEPYLV

YDLSKEDIALFEEFYQELLNHKKDLKILLQSYFGDLRDIYPKLLESKFDALGLDFIEGKQSLALVQQYGF

AKDKILFGGLINGKNIYANDYAKSLKLIKELQKYTQNIILNTSCSLLHVPYSTEFESKLDSSYLKLFAFA

KEKLQELKDLKEILNSSEENPLFRANQELFKNIPERLDEKVKARLKALKKEDFTRTPSFKERALIQKEFL

KLPLLPTTTIGSFPQSADVRSNRLAFKQEKISAQNYTEFNQQKIKECIQIQEEIGLDVLVHGEFERNDMV

EYFGENLKGFLFTQNGWVQSYGTRCVKPPVIWGDVSRTKPITLAWSKFAQSLSQKIVKGMLTGPVTILNW

SFPREDISLKESTEQIALAIRDEVLDLENAGIKIIQIDEAALREKLPLRKSDWHSEYLDWAIPAFNLVHS

GVKAKTQIHTHMCYSEFSDILKEIDAMDADVISFEASRSNLSLLDTLKAIRFKTEVGPGVYDIHSPRVPS

VEELSLTIEKILNKLPKEQIWINPDCGLKTRAYEEVITSLKNLVTATQKIREQL

>CAL35315.1 putative NLPA family lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKGEKMTLFTKAFCVATLFTGFAWANEELKVGSSITPHADILRFIKSALQKQGYDLKIYEFNDGVIPNV

MVENGELDANYFQHEPYLKEFNQRQGTHLVKVASIHIEPMAVYSKKHKEFHPKEGQSISIPNNPTNESRA

LRIVVSKGLIEVKDNELITPLDITKNPKKLKFVELKDAQLTRSLDDVDYSLINSNFAILAGLNPVKDGLY

TESKYSEYGNIIAVKEGNENLPKIKALVKALQSNEVKKFIEEKYQGALIPTF

>CAL35314.1 putative iron/ascorbate-dependent oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLPILDLQAYEKDKSTFLKNLREIASKIGFFYLINTSIDKNLNEKLFKLGKEFFNLSRSSKELISMVHS

PQFRGYTSEGFEYTAGSKDYREQLDIGTERDALNWNLNSPLWQRLEGPNLWPSEIPELKKTFLTWHKQTK

KACLKLLKAFAQALDLPNNAFDKLYGENSYEHCKIIHYPKSSKNITQGVGSHKDGGLITFVFQEKQSGFE

AFIDGKWLSIPPLENSVVVNIGEFLELATNGYLKATIHRVNLSPKERFSIAYFLGVQLDKDIPIFKLNPE

LAKESKGVDTDPKNPLLRNVASNYFKRMIRSHPDVASIYHSDLIEKFSFA

>CAL35313.1 S-ribosylhomocysteine lyase (autoinducer-2 production protein LuxS) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPLLDSFKVDHTKMPAPAVRLAKVMKTPKGDDISVFDLRFCIPNKDIMSEKGTHTLEHLFAGFMRDHLNS

NSVEIIDISPMGCRTGFYMSLIGTPDEKSIAKAWEAAMKDVLSVSDQSKIPELNIYQCGTCAMHSLDEAK

QIAQKVLNLGISIINNKELKLENA

>CAL35312.1 Glu-tRNAGln amidotransferase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFEVVIGLEVHAQLNTKTKIFCSCATSFGEAPNTNVCPTCLALPGALPVLNEEAVKKAIAFGKAVNATIN

KKSVFNRKNYFYPDLPKAYQISQFDIPIVEKGELFINVKGENKRIGITRAHLEEDAGKNIHESNFSKVDL

NRAGTPLLEIVSEPELRSSDEAVAYLKKLHSIIRFLDISDANMQEGSFRCDANVSIRPKGDTKLYTRVEI

KNLNSFRFIQKAIEYEVKRQSEAWEDGTYEQEVVQETRLFDTTNLVTRSMRGKEEAAEYRYFPDPDLLPV

LLKDEFLDIKIPELPDEKKVRFIDKLGIKESDAEVLISSLEMSRFFESLISQNLNPKLCVNWLNTELMGL

LKGELTIENSPVDAQKLGVLIKRIEDGTISAKAAKDVLAFVFENTSVEIDEAIEKLGLKQVSDDSAIEAV

IEQILNANADKVAEYKSGKDKLFGFFVGQTMKEGKGAFNPAKVNEILKTKLG

>CAL35311.1 glycerol-3-phosphate dehydrogenase [NAD(P)+] [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRIAVIGAGKWGSALHLALKENHNCFISSLHQRDLEDFVSIKEALECEYLVFALSSQGMRAWLKENFIN

KGQKILIASKGIEDQSCQFLDEIFLDFVPKENFCVLSGPSFAAEVMQKLPTALMISGINQELCKKFASFF

PDFIKTYIDNDVRGAEICGAYKNVLAIASGISDGLKLGNNARAALISRGLIEMHRFGKFFGTKEETFLGL

SGAGDLFLTATSVLSRNYRVGLKLAQNQKLDSILAELNEVAEGVKTAYAIEKLAKMKGIYTPIVNEVVAI

FKGKSVQEATQNLLKQND

>CAL35310.1 putative dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIIKNAKIYGDSLQDIEIKEGKITNIDSNLQGEEILDAKGMTLLPSFVDLCVSLKNDKFSLANLELLENE

CLKGGISSIVLRDCMDFDEESFALFLQNLAQRKMQIFSSVRVKDANGKLKNLATLLNKGACALELDSSLD

ANTLKVSSQYAFMKDSPIFVRCYDKDFDDNGVMNDCEMSFELGLIGMSKIAETSQIAKMKELAKFYKNKV

IFDLLSLKDSLVLLDEKDLKLVSIHHLIKDDSACEDFNTAAKLMPPLRSKEDVLALREVLKEGKISFLTS

LHSAKSISLKDLAFDEAAFGIHSVCEFISLCYTFLIKEGFLNWQELCRFTSKNPSEFLGLNSGVIEVGKE

ANLVLFDENEEIFAPKSSLYSEDKLFGKIKMHIIKGKNILEK

>CAL35309.1 possible phosphate permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKDNLIAFVIFIISTIAFVIWGFGYISQHQLILFILASIFGIFMAFNIGGNDVANSFGTSVGAKTVTIK

QALIIAAVFELSGAIFAGAEVTKTIRSGIVIFPNSLDPMLFVIIMLAALLSSGVWIFIATKKGLPVSTTH

SIVGGIVGASIMMGLLKFDGIQTLSMVKWSEILRIAISWIASPLLGGIVAYIIYSYIDKKILKPSEKLND

DLKNIKKERKKFKEEYFLNLKTKSQEEQIKELSAIALDEEEQENNFYRNKMKEFKDQEKDIDIYSILKTH

MPIIACIAAAIISAMFLFKGLNNVSTLDILQNFWIIGIIGTISYVVTFAIVKIVKKTELNKTTDRIFSWF

QIFTASSFAFSHGANDIANAIGPFAAILDVLKNGTINATSPVPFAALAMFGVALVVGLWFLGKEVITTVG

SKLATIRPTTGFSAELGASIVILLATQFGIPVSSTHILIGAILGIGVYNKNANWIMMKPIGLAWIITLPA

AGIMAALVFLGFKLSLGI

>CAL35308.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRGIFYIIALFSLLNGDELTEALAKNNNQNSWEHFDYKNTKEAPKIQEENVDFKSTFDSLLSKTLENNNG

IDKTDGNLDFQNENAQVKNLSSLYEGENNSLLFQKELFVAQDNYNYSGGLINRYEKDDFLFGVNGFIDKQ

KEQKDTKSFGTEFGYSKFIKAYSNYYIPNEAEKKLQLGMSFVIPTYTAFAFDISKDNDKTNYQVSYSPYS

VFSLNLLRRDYSARETVDDTVVQVGFSFNFNESFLKQFRKKDNTLEEVNRYDFLQRTH

>CAL35307.1 putative C4-dicarboxylate transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

METLSQTLAERKPPLYKRIIKSLGFWVIIGIITGIVLGYTDKELAIASKPGVDYFIGALKVLIGPIIFVT

LVLGIISLESLKKVGSIGAKAVIYFEVVSTLALAIGIFMANVMQPGHGMNLDPSQLDTKSVQKYISQTTE

VSASSEIMHILKDAMPTDIITPFTEGKTIQVLVIAIITALIISLMRIEDKQAIQRVFEVVQNFVFKILQI

IMYFSPIAAFSAMAVLIAQYGIGSLINLAYLLLVMLISCLVFIFGILGLICYFAKVNIFKFMRFISREVL

IVFATSSSESALAPLMRKLEKAGLSKATVGLVLPTGYSFNLDCTNIYLAMSLIFLAQAFNVNLSLAHEIS

ILIVLMIASKGAVGVTGSGFIVLGSTLAALGNMEISEANATLAQVLPVAAIGVLLGVDKFMSEMRAVGNL

CGNSVAALIVAIWDKQIDWEKFRYAMDNPEKFHNAGMN

>CAL35306.1 putative PAS domain containing signal-transduction sensor protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEIVLSENALITSKTDLKGNIIYANNDFLKYAGYKVDELLYKSHNIVRHEDMPRTVFKCLWDYIQKGDE

IFAFVKNKAKDGNFYWVFANVSASFDTNGNIINYYSVRRAPNRKSLSIIEEVYKILLEKEQKSGINAGVS

ALMDIVSSYKMTYNELIFNLQENN

>CAL35305.1 bipartate energy taxis response protein cetA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKNGLLLTIFLSVIGVLGVIFIHIFVGAIIFVLIAVLMIYLLRQHKDEQIMIDKLLVLCRELKEGNFDN

RIIYVKTKSKKLAEIADNLNNTIDGLEAYLREINTSISCSQKGEFYRKALPEGLKGIFAHNIEFINKALA

NIEVTARSTFKNALSRTLMDLSLGNQNKDMSQISSSLNQDISMMKNVYDTVDAISHTATENGSEVDSLQS

AMGSLMDVVNSSKETVQTFVANSQNITSVVEVIRDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVRK

LAERTQRSTSEISIAIQTMQQDFVNIQSGSEQVFNIVSESEERINKFSQAFKRLEENSSALGVNFGSFAK

RLILSVVKIDHILYKSNIYLNLNGAQNFNLESVDPISNLCQDERAQGVINELSSETELNLAKEFIKDNAK

KAIEESSQDYIDQKAYDAIVNDIKSLEQRSAEILAKLKI

>CAL35304.1 bipartate energy taxis response protein cetB [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSREIFLQEDSLITSKTDLKGKIVYANDDFLKYAGYTMGEVLNKPHNIVRHEEMPKTVFKYLWDYMKEGK

EIFAYVKNKTKDNNYYWVFANVTPSIDVNNNIIGYYSVRRMPNKSAISTIESLYSDLLRAEQQQGLNKGV

EMLKNFCKDADKTYNELIFSLQEAK

>CAL35303.1 tRNA uridine 5-carboxymethylaminomethyl modification enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDVIVIGGGHAGVEASAAAARMGKKTLLLTTLIEQIGAASCNPAIGGLAKGHLVKELDAMGGLMGEITD

EAGIQFRILNESKGVAVQGSRAQIDMDKYRIIARNKLLKLPNLEISQEQASVLIVENDEVKGVKTNLENI

YFAKKVILTTGTFLNGLIHVGENKLQAGRVGELASVNLGNYLQTLGLKMGRLKTGTCPRVDAKSIDFSVL

EIQDGDVNPKAFSFRSRNFNPTQLPCYIARTNTTTHEIIKNNFYRAPLFTGQIEGVGPRYCPSIEDKINR

FSDKESHHLFIEPQTIDATEYYINGFSTSLPYEVQTQMLRSVEGFENAKITRFGYAIEYDYIEPTELKHT

LELKKIKNLYCAGQINGTTGYEEAAAQGFMAGINASLSIDMKEPLILRRDEAYIGVLIDDLVVKGTKEPY

RMFTSRAEFRLLLREENAILRLGKYGYDLGLLSEQDFTYIQNIANNLQKGLEFLLSKEFTPNNQNNAFLE

SLGEDKISSIVNLQKIVARASFDIEKLKKLDPIFETMDHYSLREILNEAKYYHYISMQKAQVEKMKNLSE

LKIPENFDFKSVSGLSNEVVEKLNHHKPPTIFAASQISGITPAALDILQIYIKMQKKKA

>CAL35302.1 arsenical pump membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLAFFIFLSTLVLLFWRPWNLPIWVFSSLGAFFVFIFQLVDFKDACFVFSLVWDSSLTLVGLIILSFSLE

ALGFFDFIASKILYFSREKNQEKIYISTKKMMLFLLIFVFFLSAFFANDGAILIITPIIIALFSTLKDCK

NHAFILSSFLLSLSFLCDASSNALVISNLTNIITANYFKIEFLEFAKNMFLPNFFVLLSTIVTVFVLYVR

VLPKRLEFKLIKKEQISLKLFFLCIVFLFLFVISFFIGEIFDIKISFFALLWAGIFWLIVLKIQGKKSIK

ILFEAPYGVLLFSFGLYMVVFALHKIGVSEILVKSYAFLMQDKSGIFGVALISAFGSSVFNNLPMVLIGD

LALKEYFENFSFDSLMIYAHLLGVNIGPKLTPIGSLATLLWLGVLARKGINISFWQYCKFGFLITLPVLV

FSLFALIV

>CAL35301.1 putative ubiquinol-cytochrome C reductase iron-sulfur subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MATSESRRSFMGFAFGSVAAVGGVFSLVAMKKTWDPLPSVKAAGFTTVDLSGMQDGELRTIEWRKKPIFI

LKKDASMPKDEKRDVVVDNAAYTVVIGLCTHLGCIPAYQPSEQLFKCACHGGEFDTSGKNVFGPPPKPLE

IPPFKIDGTKLVLGEEGPEYKKMIAEA

>CAL35300.1 putative ubiquinol-cytochrome C reductase cytochrome B subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAQIRKANGLVDWLDQRLAVHKLLDVLMVKYWIPKQINFLWAMGVILTTLFAVLFVTGLLLVMYYKPDTA

LAFDSVNKTIMQEVDYGWLWRHMHGVAASVVFLIIYIHMLTGIYYGSYKKGREMIWVSGMLLFVVFSAEA

FSGYMLPWGQMSYWAAQVITNLFGGIPFIGPELVIWIRGDYAVSDPTLTRFFMLHVCLLPIVIIAIIAFH

FYSLRIPHVNNEISEELDFDLEAEKYMAGDTKGSKVIPFWPGFLSKDFMYISFFMIFFFYLVCFKFEFAM

DPINFDPANALKTPAHIYPEWYFLWSYEVLRGFFFDIAGIKAFDIGLAAFGIAQVIFFLLPWLDRSDVVK

PAHERPLFFIWFWILLIDLIVLTVYGKLPPTGVNAWVGFYASIVFLLLLIVVLPVITIMERKGAKQ

>CAL35299.1 putative ubiquinol-cytochrome C reductase cytochrome C subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MREIKIFLVVVVFTALVYWGVEPYAHSVMKPHVAPANFDFAVEDTTFAKGIVEAKELALKDAQASGDAKR

IESANKELEKAKEELSKVETLWVDVAKIDFAKGDAKKGKEFFENNCFACHGVKEDGIAANITDSSMGVIP

PDLSAAGAIFDEKFLAALIMHPALALKVDHKFGDAFIMTAYNKDTSGESEEATNANIANVIAYLKDVSVK

FEANEDATIKKDVEAKYAKMENSAQKAALMEKDIKFAKDKATFIEACGRCHDMKYDSFFTPSNQNDLKTY

LGSVPPDLSMMIRSRGEQYLHDFINNTQKLLPGTAMPRVGLTEAAQAKVVSYIDQVGDSKKEERKTTGIY

VMIFFVILSIFAIGWKRSVWSKLH

>CAL35298.1 cyclopropane-fatty-acyl-phospholipid synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEKTLIKSILKKWDYGDFRVVFWDKEEFFIGNKPAKFSLIFKEKIPFLELFGDTSLVFARHYMQAKLDI

EGDYDEMAKVLYYFSNQQFFKTKKDVLSKITQKQESKNIKSHYDIGNDFYKLWLDDTMSYSCAYFKEPNN

TLYEAQINKIEHTLKKLDLKEGEKLLDIGCGWGWLSIMAAQKYGVKVVGITISEEQCKKAKERVKELGLE

DKIEIRLQNYQDLEFENYFDKVVSVGMFEHVGKENLGLYFMKVKQVLKPGGSMLLHSILAMFEGKTNAWI

DKYIFPGGYLPSLREVVSAMSEWDFHLLLAESLRMHYAKTLDLWDENFNKVLDKVREKYDEEFIRMWDLY

LRSCASAFRVGSVDLFQFLITKEINNNLSLTKDYIYK

>CAL35297.1 30S ribosomal protein S2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVSMRDLLECGVHFGHQTRRWNPKMKKFIFGERKGIYVIDLQKTLRYFRYTYNIVRDAAAEGKTILFVGT

KKQAGGAIKEYAEKCGMPYVNHRWLGGMMTNFGTIRQSIRKLEVIEKMEEDGSIKLLTKKEALMLTRKKE

KLLAYLGGIRYMKTQPDMIFVIDTVKEKIAVQEANRLRIPVVAPLDTNCDPDLVTYPIPGNDDAIRSVQL

FCQEMAEAINEGKALREQDGEALVNEEKEITDEEKKEVLDEAMSEEDFGEEQE

>CAL35296.1 elongation factor TS [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTEITAAMVKELRESTGAGMMDCKNALSETNGDFDKAVQLLREKGLGKAAKKADRLAAEGLVSVKVSDDF

TSATVSEINSETDFVAKNDQFIALTKDTTAHIQSNSLQSVEELHSSTINGVKFEEYLKSQIATIGENLVV

RRFATLKAGANGVVNGYIHTNGRVGVVIAAACDSAEVASKSRDLLRQICMHIAAMRPSYLSYEDLDMTFV

ENEYKALVAELEKENEERRRLKDPNKPEHKIPQFASRKQLSDAILKEAEEKIKEELKAQGKPEKIWDNII

PGKMNSFIADNSQLDSKLTLMGQFYVMDDKKTVEQVIAEKEKEFGGKIKIVEFICFEVGEGLEKKTEDFA

AEVAAQL

>CAL35295.1 putative ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MELLRAENLSHSFDYPLFEGLNLTLNTKDCIAIQGSSGCGKSTLLHILSSLLIPKKGEVFFKGSNLYQMD

ENERLKIRRYDFGIIFQTHYLFKGFSALENIELASVLSGQDLDEKILKRLGINTLLHQKIGKLSGGQQQR

VSIARVLCKKPKIIFADEATGNLDFDNAKNVIELLISYVKENDAALFFVTHDSKLASFCDKTYTINANGI

C

>CAL35294.1 flagellar biosynthetic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFVNYLGDKNVVTFMLLLARMGGLIVFFPFFSHNSIPMVIKSTIVLFLTMYLYPLARLESLHLDSFFVL

QLISEVIFGMIAGLMLQIIFAIIMMAGEQIAFTMGFTMASILDPSSGTSMPITSQILNLLALMFFLAFDG

HHLMLLFLSHSLGYISLGGFYPHENLMHYLNMGMFNIFIIGFTMSFPILGISLLADVIFGLLMKTMPQFN

LLVIGYPIKIALGFVVLIAILLVMMQYFKNLILELFTHMQTLFFF

>CAL35293.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILLLNENPVVSRLVSLSAKKMSYDFEELNAYSENLGNYDVIVVDSDTPAPLKILKEKCDRLIFLAPRN

QNVEDIDAQILQKPFLPTDFLNLLNNKDANKHTSIDLPMLSNDENPYADISLDLDNLNLDDLPDENSLDI

NSEGMEDLSFDDDAQDDNANKTLETQNLEHETIKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEP

SLDELDDKNDEDLEIKEDDKNEEIEKQELLDDSKTNTLEMQEELSESQDDNSNKTLETQNLEHDNLEQET

IKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEPSLDELDDKNDEDLEDNKELQANISDFDDLPEV

EEQEKEMDFDDLPEDAEFLGQAKYNEESEENLEEFAPVVEEDIQDEIDDFASNLSTQDQIKEELAQLDEL

DYGIDSDNSSKVLEDFKDEPILDDKELGTNEEEVVVPNLNISDFDTLKESDIQEALGEEILEKNEEPIVS

DVTKDDNSEEIVNELSQSIAGAITSSIKDDTLKAALKGMNMNININISFKED

>CAL35292.1 guanylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLQGFVLLISGPSGAGKSTLLKKLFDEFEDELYFSISSTTRKPREGEKNGIHYHFISHEEFQKGIDSDH

FLEWARVHENFYGTSLKHTQNALDNGKIVVFDIDVQGFKIARKKMADKIVSVFITTKNKDELKKRLIKRN

TDTIIQLEKRLQNASDEMKELSEYDYLIINDELKQSYEALRAILIAHKFRTKGQNLGQIQNIWNEGE

>CAL35291.1 Sec-independent protein translocase (TatA/E homolog) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGGWSSPSHWLIILLIVVLLFGAKKIPELAKGLGKGIKTFKDEMNNDDEVAKNTQKIEENKNTTNNTNAD

ASIDETKKA

>CAL35290.1 arginyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSIIFNEIKKILECDFALENPKDKNLAHFATPLAFSLAKELKKSPMLIASDLASKFQNHDCFESVEAVN

GYLNFRISKTFLNELANQALTNPNDFTKGEKKQESFLLEYVSANPTGPLHIGHARGAVFGDTLTRLARHL

GYKFNTEYYVNDAGNQIYLLGLSILLSVKESILHENVEYPEQYYKGEYIVDLAKEAFEKFGKEFFSEENI

PSLADWAKDKMLVLIKQNLEQAKIKIDSYVSERSYYDALNATLESLKEHKGIYEQEGKIWLASSQKGDEK

DRVIIREDGRGTYLAADIVYHKDKMSRGYGKCINIWGADHHGYIPRMKAAMEFLGFDSNNLEIILAQMVS

LLKDGEPYKMSKRAGNFILMSDVVDEIGSDALRYIFLSKKCDTHLEFDISDLQKEDSSNPVYYINYAHAR

IHQVFAKAGKKIDDVMKADLQSLNQDGVNLLFEALNLKAVLNDAFEARALQKIPDYLKNLAANFHKFYNE

NKVVGSANENDLLKLFSLVALSIKTAFSLMGIEAKNKMEH

>CAL35289.1 putative efflux protein (multidrug resistance protein) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYIFIIVLSALLDIVANLLLKKSDGFKHKIWGLAAIVNAILAFFLLSFSLKYVPLSIAYSTWGAIGIIGT

CLGGWILYKEKLNKIGILGIIIVIIAVFLLNY

>CAL35288.1 putative efflux protein (multidrug resistance protein) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNIAKKELFVAWFFLIAAIVFEVLGTSFLKMENQILGYIFMALFIAFSYFFMGKAIKKIQVGIAYAVWEL

LGIILILLVSFIVFKESLTLTQILGIVLSIVGIIMINIGEVKE

>CAL35287.1 conserved hypothetical protein Cj1172c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGRAFEYRRASKEARWDKMSKLFPKLAKAIQVAAKEGGTDPDMNPKLRSAIATAKANNMPKDNIDAAIKR

ASGKDSADIKNIHYEGKAAHGALVIVECMSDNPTRTVANVKAIFSKNGGEVLQNGSLGFMFTRKAVFHLE

KFAGDLEELELDLIDAGLEELEQNEEELVISGDYTAFGELSSAIEAKGLVLKKAGLEYIPNNPVSFSEEQ

LSDIEKLLDKLEDDDDVQAVYTNID

>CAL35286.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKTIDTSKVNEYKFALIETEKGTMKLKLFGDEAPQTVCNFATLANEGFYKDLNFHRVIPNFVIQGGCPH

GNGIGGPGYEIICECDDQEHKHERGTLSMAHAGRDTGGSQFFICHSPQAHLDGVHTVFGQIDPKDEESLE

VLDSIRQGDKILDIKICDKI

>CAL35285.1 50 kda outer membrane protein precursor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTRFSLILSACLLSSSLFAKNTDDEITKLQKQLAQIQAELAQIRKEREAQVKQNEAVKAELADLNDRAD

ETEFQAALSKVKFGLEFSTAVSNTNYKVSGQDYSANNKWMNELHLNMNADINDKTKFYGRLSMAKNWSQM

GWSGTPYDLDAGRNTRSSGPVLYVDRAYLDYYITPEWIATVGRQPGTDGPGSNLRNNALRQSTYPALAIN

ALGDAAVITYKPESLQDHKVAIRAAYGKTYQWDEESGKVRDWMSDQKDADANLYYAAVEGELPIEGMGDN

LIIFNVAHMTDFALPIPGSMLLGDDDEVVNLGNLTLANIHFENYKAFGTNFNWFASLGYSNGSNNEINPL

LSTALQSKGYGNGKFNEKDGYAVHVGGRYDFTKALKVGYEFFWGSRYWYTMSRPSINDPLNIRMTRGTAH

DFYVIYQLDRYQFLRLSYTNIQNIWGNRGLPFGGAKKDKARADNIMLMYNVKF

>CAL35284.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKILFASLLPIIALADCASLMAKYEAPEPESKTMKQVERWINKKVSDPADAAVLKECMIARAADNPNQV

SVAGK

>CAL35283.1 putative integral membrane protein (dedA homolog) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEIISFIVETASAWGYLGIIILMTLESCFIPFPSEVVMIPAGYLAHKGELDITLCILSGTLGSVLGALI

NYYICFFWGKNFVLKWGKYFGINEAKFAKFEEFFNKHGEFSTFTCRLLPGIRQYISMPAGLVKMKLINFI

LFTALGSAIWVAILVFLGYYIGQNEELIKTYLTQILIIIIVFVILASLIYIKIKKPFKKA

>CAL35282.1 L-lactate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKIGIVGLGYVGAASAYSIVIQGICSELYLYDIKQDLALAHARDLEDMSAIHFSYTKIFHVPNLENLAS

CDIIILAFRKESLKELPSRLVELKNNILELKDIVLTLKNANFKGKYIVATNPNDTITYYTQVLSQLPKNH

VFGSGTNLDSSRLKKLLAKDLNINSKDIFACMIGEHGDSQFAALSNASVLGQNLLDFYKQKLGKDLDIQE

LEKAVISEGYFIYERKGRTEFGIGTSCANLAKAILEDRKSLYPVSVVFDDIAFSMPAIIGKDGIEKVFEL

KFNEKEKIKLENSKQQIKNAIQSVKDKI

>CAL35281.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKPDIQRLTNFLIIYTKTLLGAGTYTARVAKCVGRIAEVYGYEININFFFHHITLNVVDMDDNSIQRTY

VIPNHHAHVNFKLIFDLSALSWAIYDHKYDLEKAKVVFGQISQQKKHSYLLNLLFVSMANSAFCRLFGGD

FGAGNLVFFATFVGLLLRYILTKAKIDLRIQYILCSFISSWFVFFGLDMGYTNTSDVALGSSILYLIPGV

FFINSVIDILKDHILMGLSRIISVAILICCIALGIYMTLSISDFGILR

>CAL35280.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIEFILRDMFFAAVAGFGFAYACNPPLKTLILSALLAAIAHGLRFTLVEYFHFQTLAIATFVASFCIGCL

GIVLAKIIKTPAEIIAFPALIPMIPGIYAYKAILYLISFIRSDDLKAKSEFLVQFFDYFFTTVSVTLALA

IGVSVTLLIFFEQSFMMTRHAKKH

>CAL35279.1 hypothetical protein Cj1164c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLCPVCNVDLVMSDRSGVEIDYCPKCRGVWLDRGELDKIIERSVPNTANFNQAPRQESRYNDSAYHQHND

YYKKKKKESWLGELFDF

>CAL35278.1 putative cation transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYKFLSHEPLANKSCHHNHEEHSHEHHHSHADARSVDKKILKISLLMTFSMMLVQFIYSILSNSLALLSD

TLHMFSDVFALALSFLAIIAVEKWQDHQKTFGYFRLEVLVAFINALTIILSALFIIYEAIEKFINPKEID

AKTMIIVAILGFLVNGINALMMFKGANLENVNMKSAFLHMMSDLLGSLAVIIGGIVVYFSDIVYIDTILA

IVLSILLLRWAIILLKQSANVLLESSPVDIEKVRQVLLLNPSVDEVVDLHITQITNKMLVASMHLKVRVC

NLKEFEKLSQDLSHKLLHEFEIGHITIQPIRSENEI

>CAL35277.1 putative heavy-metal-associated domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFKVKNVNCMNCVNLIKNSLEDEFGNIEVDLEQKILSLNLEENQVSNFTKEFQDLGFEIVERL

>CAL35276.1 putative cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEELRIKIGKMTCVNCSNAIERACKKIDGVKDASVSYVNSSGVFLLEDQKKRKDIIAKIKNLGFEILEDE

QSLNAYKAKKHLELRKNLLLSIVLSVIIMYFEMFVKSSFSQNIQMALSFFGIFYCGRDFFSHAFLGFKSK

NLDMNTLVALGTLSAFVYSFLVYLQIFKEEDLYFSGAMMIISFVLLGKYLESKAKFKAQDYQRILENIDT

KKTKILLEDESIKEISSSFVKSGDVLLVKEGESIVADGVVLLGSAELDMSFLNGEFLPVLKKEGDEVQAG

AVVLNGALRIKANKKAMDSTLEQIKNLVFEAGSIKSPLANLADQISKYFVGGIIFFAFLVFVFWVLKADL

NTAFLHSCAVLLISCPCALGLATPIALVVASANAAKNFILIKNPAALEKLALVKYAFFDKTGTLTKENLS

IFKHNLSKDDFDKLCQIESLSSHPIAKALHKDHFFDLKGEGRVIVGSGIKYKEDNDNYLVGNAQFLHENE

IDTKESDIFFDTFKEYVRVYFAKNKKCLGGVLLSNALKDGAKELVLNLKKQNLKTFILSGDHVKNVEKIA

KELQIDEFHAQLKSEEKLQIIQKFKKTLFVGDGINDAAALSAASVSMSFSKANELAKKTGDFILIKDDLS

AIFKCFKLAKKTRGIIKLNLFWAFIYNVLCIPIAAGFIPFISLSPHIAALAMCFSSITVVLNSLRLKRI

>CAL35275.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQQKCFCISKMIRFSKIIILLTVVSLAGIVVFGNVTDYNSNFQFVSHVMSMDTKPDLFR

>CAL35274.1 small hydrophobic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAITSPVIYHIGYIAIILFETFIALTALKKVLMICLKLEI

>CAL35273.1 small hydrophobic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKARNLDAQSFHNAKIFWDYFFNLCILWFFAFQVVVAEWFGMWMSKVWKGLPDTIRLVTYMFLALIFIS

LKNDD

>CAL35272.1 putative DNA polymerase III subunit gamma [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLQALAIKYRPKTFDELIGQKTVSVSLKYALNHNRLAHAYLFSGLRGSGKTSSARIFSRALVCEQGPSDT

PCGTCKHCLAALEGKHIDIIEMDAASNRGLEDIQALIEQTKYTPSMARFKIFIIDEVHMLTPQAANALLK

TLEEPPSYVKFILATTDPLKLPATVLSRTQHFRFKQIPQSEILNHLKEILLKENVKFEEEALKFIARSGN

GSLRDTLTLLDQAIIFCQNEISISKITDMLGFLDPQKIKAFYQAILTKDKEKVFVYLEELQDYEASSVID

EMLFYLKESFFAKSTEFSTLIYERFFRILSKAKNMLCDDDGFTLCVMAFMMMEASHLKEIDAQIQEIKQE

NTTNIISRITPSPIIPHLEKKTEKNAYEILLDSIYDRDFDLAECFKQSTNFISFENNTLNINSNAQGQNR

DTLNKGFKLIQELFKAKFGENAKINVQKALTIDENKLQSLTQELPNNENKNIDIQSSINMLKEGAKKFDP

QEDLKEALKDCFGEPSIEN

>CAL35271.1 transcription termination factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKEKKQHQRTHVPVEGYKIEELKLLDLENLVKIANECEIENPREFRRQELIFEILKAQTKKGGFILFTG

ILEISSEGYGFLRGMDSNLSDSVNDAYVSNSQIKKFALRVGDIVTGQVREPKDQEKYYALLKIEAINYLP

LQEAKERPLFDNLTPIFPTEKIKLEYDAMKLTGRVLDLFTPIGKGQRGLIVAPPRTGKTELMKELATAIA

KNHPEMHLIVLLVDERPEEVTDMQRCVKGEVFSSTFDLPAYNHVRVAELVIEKAKRMVETGKDVIILLDS

ITRLARAYNTATPSSGKVLSGGVDANALHKPKRFFGAARNIENGGSLTIVATALIDTGSRMDDVIFEEFK

GTGNSEIVLDRNIADRRIYPAINIIKSGTRKEELLQGVANLQKIWAIRSAISQMDDVEALKFLYSKMLKT

KDNVELLSIMNE

>CAL35270.1 putative cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIMKCEHCKLDYKQAQMIEYKGKFFCCKGCESVWEILHESGLDEFYEKLGNQTLSPVNFQNEMKNYDEFI

TKTKEGFSEIYLMIHGIECAACVWLNEKILTKQEGILELDINHLNHKARIVFDEQSISLVQILRLIESIG

YKASAYDASKASKKADLLKREFYSKLVVAIACVMNIMWIAVAKYAGFFSGMDKDTKDILNFAEFILCSPV

LFYTGSHFYKSAFKTLKMHSLNMDVLVISGASLAYVYSLWAMFFRVGEVYFDSVAMIICFVFIGKYLEMF

SKKRALDTIDGLNDFLQNEVLVFNGKEFVSKEVQKVCLGDRILLKTGDKILIDGICKSGEMSVDTSSLNG

ENTPKLIQKEDEIFSACIVLDGSVEYEATKFYKDSKLSQIIQLLELASSKKAKLESLVNSLLAYFSRTVL

LIAFICFAFWFFYKEESFEISLVNAIAVLIIACPCALALATPVSNLVALGRALKKHILFKSSSVIEDLSK

CDCVVFDKTGILTKIELELKEVFLDKALDLNELYNFVKLSKHPISQNIVLYLKQKGAKDLNLDFKKHSSI

QAKGLSAELNEGLLLGGSSKFLQEKGIVAKEFDNTHFIFAKEGKILAFFEFDSVLREGAKELIAYLKKEK

KELMILSGDHQKAVEKIAKKLEIQNYQASCLPEDKMKTIENLSKNYKVLFVGDGVNDALALKYASVSMTL

REGSDLAIESSDVLLLKNDLLSLKKAIKLSKNTFKIIKQNLAFSLFYNACTIPLAFLGMINPLFAAISMS

FSSIIVVLNALRIKE

>CAL35269.1 putative cytochrome oxidase maturation protein cbb3-type [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNSIIMMMIGVSILAFFIILATLLWGIKNKQFDDDYKFTTLNDDEDSLRDAIELERRKKEALDKKRLS

>CAL35268.1 putative periplasmic cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLLVVSALACLGVSAFAADGATLFKKCAVCHGANADKVYLNKVPALKTLSSAERLQYMKEYSEGKRNA

YGQGAIMKLNLKGLTEEDFKAIEAHIETLK

>CAL35267.1 D,D-heptose 1,7-bisphosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFIFFLKKLYYNVFMKTKALFLDRDGVINIDKKYVYKIEDFEFCDGIFELCRYFLARNYLLFIATNQSGI

ARGYYKESDFFKLCDYMLKEFAKQDIKIDKIYHCPHLEGCECRKPKAGMLLKAKDEFDLDMKNSIFIGDN

LSDMQAGLNADIGTLILVNEEKKEGDFFRQFKNLKEILNFFKEKDI

>CAL35266.1 ADP-glyceromanno-heptose 6-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIAITGGAGFIGSQLALNLQEKHEILIIDKMRSSATFENGNLQSFGHFKNLLEFDGELFAGDINDEKVL

KKIEDFKPEIIFHQAAISDTTVFDQTKVLQTNLNTFKDFIELSIDLNAKLIYASSASVYGDAKSPQTVGK

DEEPKNPYAFSKLMMDKLAKKYYDKAHLVGLRYFNVYGKGEFYKNKTASMVLQFGHQILAGKNPRLFEGS

DQIYRDFTYIKDVISANLIALDSKCGVYNVGSGKARTFQDIVDILQKELKTDLPCEYIPNPYVKSYQFHT

EAKLDQTWNYQPKFSLEEGIKDYLGEIKRLFEKEVNA

>CAL35265.1 D-beta-D-heptose 7-phosphate kinase/D-beta-D-heptose 1-phosphate adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEFLSQQKPKILIIGDFMVDNYTWCDCSRISPEAPVLIAKTLKEDKRLGGAANVYANLKSLGADVFALG

VVGDDESGKFLQENLKGEFLIQKGRKTPFKNRIMAHNQQVLRLDEEDISEILLENELIALFDEKIKDFKA

VVLSDYAKGVLTPKVCKAVIEKAKVLNIPVLVDPKGSDFNKYSGATLLTPNKKEALEALKFENLEGENLE

KGIKKLKEDFSLRYSIITLSEAGIALFDEGLKIAPAKALEVYDVTGAGDSVIAVLAFCLANEIEIFKACE

LANEAAAVVVSKIGSVSVSFDEIKSFKRVDFEKKIKSKEELLVLLKQNNKKIVFTNGCFDIVHFGHIKYL

DKAKRLGDVLIVGLNSDASVKRLKGESRPVNSEFQRACMLAAFYFVDFVVIFDEDTPLELISFLKPDILV

KGADYKDKLVVGADIVSRVELIDFEEGFSTSKIIEKIKDKK

>CAL35264.1 sedoheptulose 7-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINLVEKEWQEHQKIVQASEILKGQIAKVGELLCECLKKGGKILICGNGGSAADAQHFAAELSGRYKKER

KALAGIALTTDTSALSAIGNDYGFEFVFSRQVEALGNEKDVLIGISTSGKSPNVLEALKKAKELNMLCLG

LSGKGGGMMNKLCDHNLVVPSDDTARIQEMHILIIHTLCQIIDESF

>CAL35263.1 heptosyltransferase II [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIFIHLPTWLGDTVMASPALYTIKEHFKDAQFILYGSFVSTALFKEFPNSKIIIENKLSRYKQALSLRK

ELGKIDLSFAFRSAFSSKIILHILKTKQRYFFDKNKYKEEHQVLKYLYFIENSLSIKAHFKDLKLPFKLK

FQNPLILRNGKKILGLNPGASFGSAKRWDASYFAKVALNFSQSHDILIFGAGKAEQELCNEIYQILKEQN

IKVKNLCNKTTIKTLCQNIAFCDLFITNDSGPMHLSAVYKVKTVAIFGPTKFTQTSPWQNENAKLVHLDL

ACMPCMQKTCPLKHHKCMKDLKPEKVIEQAKNLLKNSHL

>CAL35262.1 putative glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPQLSIIIPLFNSCNFISRALQSCINQTLKDIEILIIDDKSKDNSLNMVLEFAKKDPRIKIFQNEENLGT

FASRNLGVLHSSSDFIMFLDSDDFLTLDACKIALKEMKKGFDLLCFDAFVHRVKTKQFYRFKQDEFFNQK

EFLEFLSKQRHFCWSVWAKCFRKDIILKSFEKIKIDERLSYGEDVLFCYVYFMFCEKIAVFKTCIYHYEF

NPNGRYENKNKEILWQNYQDKKKSNELVKKLCLNFKNNDFHKKLFEVLEKEEFDLQRRVDEARN

>CAL35261.1 hypothetical protein Cj1144c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQEISSFWYTPRGYKGIGLMELLSIKSFIDNGYKFILYTYNLDDKIFKKLDELFDDFELKDANEIVSFK

NYFRDDRGSGVAAFSDYFRYNLLYLKKKGGVWVDLDMICLNYIDLNEEYIFTQEVDEDNKKSRITTSFLK

FSRYSDFGKNLIQEAEKIINKRKKISWGVIGPWFLADHVKKCGLENFVWDYKRTCQIPWCNVKIFLDNTS

IDISQPFLHLFSEMWRLNNMEKNTFHQMGVYGQLLKKHEIEKLYNQINTCLKTSMLDNIASFLTKFFIKK

L

>CAL35260.1 two-domain bifunctional protein (beta-1,4-N-acetylgalactosaminyltransferase/CMP-Neu5Ac synthase) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLFYKIIAFLRLLKIDKKLKFDNEYFLNLNKKIYDEKHKGFFDFDPNSKDTKSPLNPWAFIRVKNEATT

LRVSLESMLPAIQRGVIGYNDCTDGSEEIILEFCKQYPSFIPVKYPHEVQIENPQSEENKLHSYYNYVAS

FIPQDEWLIKIDVDHYYDAKKLYKSFYMASKNTAVRFPRINFLILDKIVIQNIGECGFIDGGDQLLIQKC

NSVFIERMVSKQSQWIDPEKTVKELYSEQQIIPKHIKILQAELLQWHFPALKYHRNDYQKHLDALTLEDF

KKIHYRHRKIKKINYTMLDEKVIREILDKFKLSGKKMTLAIIPARAGSKGIKNKNLALLHDRPLLYYTIN

AAKNSKYVDKIVLSSDGDDILEYGQTQGVDVLKRPKELALDDTTSDKVVLHTLSFYKDYENIVLLQPTSP

LRTNVHIDEAFLKFKNENSNALISVVECDNKILKAFIDDNGNLKGICDNKYPFMPRQKLPKTYMSNGAIY

IVKSNLFLNNPTFLQEKTSCYIMDEKASLDIDTTEDLKRVNNISFL

>CAL35259.1 putative UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIVFVSGTRADFSKIKSLMMKVENSNEFELFIFVTGMHMSKKFGSTYMEIEKCGFKNIYKYINHDKYY

QMDKALSSTIDGFSKFIHEIEPDLIVVHGDRVEPLAAAIVGSLNNILVAHIEGGELSGTIDESLRHAISK

LAHIHLVNDEIAKKRLIQMGEDEKSIFIIGSPDLELLNNTISLDEAKKYYDIKFKNYAIAIFHPITTEIN

SLYKQSEEFVNALIKSEKNYIVIYPNNDLGFELILQNYERLKNNERFKIFPSLRFEYFISLLKNANFIIG

NSSCIIKEALYLNINGILVGSRQDGRTDINKTIRVNAEEKDILEAILNTSKCTNITNKRLEILNSSEQFY

RLLKNNILFTINKQKIFMDKK

>CAL35258.1 sialic acid synthase (N-acetylneuraminic acid synthetase) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIKIDKLTISQKNPLIIPEIGINHNGSLEIAKLMVDAAKRAGAKIIKHQTHIVEDEMSQEAKNVIPGNA

NISIYEIMEQCALNYKDELALKEYVEKQGLVYLSTPFSRAAANRLEDMGVSAYKIGSGECNNYPLIKHIA

QFKKPMIISTGMNSIESIKPTVKILRDYEIPFVLLHTTNLYPTPSHLVRLQAMLELYKEFNCLYGLSDHT

TNNLACIGAIALGASVLERHFTDTMDRKGPDIVCSMDESTLKDLINQTQEMVLLRGDNNKNPLKEEQVTI

DFAFASVVSIKDIKKGEILSMDNIWVKRPSKGGISAKDFEAILGKRAKKDIKNNIQLTWDDFE

>CAL35257.1 alpha-2,3 sialyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSMNINALVCGNGPSLKNIDYKRLPKQFDVFRCNQFYFEDRYFVGKDVKYVFFNPFVFFEQYYTSKKLIQ

NEEYNIENIVCSTINLEYIDGFQFVDNFELYFSDAFLGHEIIKKLKDFFAYIKYNEIYNRQRITSGVYMC

ATAVALGYKSIYISGIDFYQDTNNLYAFDNNKKNLLNKCTGFKNQKFKFINHSMACDLQALDYLMKRYDV

NIYSLNSDEYFKLAPDIGSDFVLSKKPKKYINDILIPDKYAQERYYGKKSRLKENLHYKLIKDLIRLPSD

IKHYLKEKYANKNR

>CAL35256.1 beta-1,3 galactosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQISIILPTYNVEKYIARALESCINQTFKDIEIIVVDDCGNDKSIDIAKEYASKDDRIKIIHNEENLKL

LRARYEGAKVATSPYIMFLDSDDYLELNACEECIKILDMGGGGKIDLLCFEAFITNAKKSIKKLNIKQGK

YNNKEFTMQILKTKNPFWTMWAKIIKKDIYLKAFNMLNLKKEIKINMAEDALLYYPLTILSNEIFYLTQP

LYTQHVNSNSITNNINSLEANIQEHKIVLNVLKSIKNKKTPLYFLIIYLLKIQLLKYEQNFNKRNINLIY

YKINILYQKYQFKWKKFLYNLIP

>CAL35255.1 putative glycosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYKLKNKTQTIKENSLIEFNIEGNNPYEIYTVYKSYKAFNNEQDLTNFTYPIIDYII

FLDSDDYWELNCIEECVPRMDGVDVVWFDSIEYHDIEKSYFKHHSRLKDINIKKECRINPIEWLKLLRQN

KIKDFAFAWSGIIDFDYIKDKKMKFKDAIFAEDHLFGILLFSQAKNIYVYPKVFYYYRIRANSLTNQDKK

ITKDNILPYFKDIFIAFEENATLAKEYFKYVSWVETSLELVRFVENYHDKKISSLLKDTILYFYIKNAFK

IKKFDKDPLCIKEKLQLLKPYKISKIRYKVMKFLISLRN

>CAL35254.1 putative glycosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIQQNNSLIYNTLTKKLSSFIPIKSTRRKLRNHIQYKLEHPKVTNYLSNNYINPFLEGKIPHFDFEKKH

YFKNDKIIWQFWYQGKNQASPMIQQCFNSVQSQMKDDYTIIILDKDNIKDYLDFPPFVIEKLENNFFGEK

TITFFSDLLRVCLLATYGGIWCDASIFLSSKIPSELCDKDFFTFERSKIKPSKEKLKKFIKSGYFSYGYF

NWNDDFKVKMLSSFMIAKTNNTFIQTLKDILMNYWKNEQSSENHYYFILHIIFELLKEHGFVNDIYKNMS

DIECHLLQFSAKEKFNSTLWEEIQKQSFLHKLTHFKSIKKDSMIDKIILQS

>CAL35253.1 putative glycosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYETQYIEKENELNVFKIIGDNPQNIYKIYKYKNALASDKLEISKIDYIIFLDSDNY

WELNCIEECVVRMQNVDVLWFDHACIYDDGIEDKGQKTRMNVFNFTQECTITPRDYAKQAIKVGSRDISF

SWGGMIDFSFLKQLKLKFINKIINEDIHFGMVLFASADSIYILPKRLYLCRLRANSISNHDKKVTKANVS

EYFKDLYEFFGENAKEAKNYLKAASRMITALELIEFFKDQKNENSQAIKEAFLPFYVKKALMIKKFKKDP

LNLKEKLPIIKPFIQTKIPYDLWKIWQKIKGILDKINFAK

>CAL35252.1 putative two-domain glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLKQISAIIIVKNAKQTLLECLNSLKDFDEIILLNNESSDNTLNIANEFKKDFANLHIYHSAFIGFGAL

KNLALSYAKNDWILSIDADEVLENECIKELKNLELQEDNIIALSRKNLYKGEWIKACGWWPDYVWRIFNK

NFTRFNDNLVHESLVLPSNAKKIYLKNGLRHYAFRDISHLIDKMQYYSSLWAKQNIHKKSGVLKANLRAF

WTFFRNYFLKNGFLYGYKGFIISVCNALGTFFKYMKLYELQKQKPKTCALIITTYNQKERLKLVLDSVKN

LAFLPNEVLIADDGSKEDTARLIEEYQKDFPCPLKHIWQEDEGFRAAKSRNNAIKASKSEYIILIDGDMI

LEKDFVKNHLEFAKRKVILQGSRVILNKNESEEILKNNNYSLAFNKKGFKNQRSIFLAKCVYKFSKLTKK

FFKKSQLVKGSKTCNMSFYKSDFEAIEGFNEKFIGWGREDSEFVARFLFNDGVFKRLKFNALAYHIYHEE

NSKNMLEINHQIYLETIKNEKTTWR

>CAL35251.1 putative lipid A biosynthesis lauroyl acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNSDRIYLSLYYILKFFVTFMPECILHFLALIVARIAFYLNKKHRKIINTNLQICFPQYTQKERDKLSL

KIYENFAQFGIDCLQNQNTTKEKILNKVNFINENFLIDALALNRPIIFTTAHYGNWEILSLAYAAKYGAI

SIVGKKLKSEIMYEILSQSRTQFDIELIDKKGGIRQMLSALKKGRTLGILTDQDCVENESVRLKFFNKEV

NYQMGASLIAQRSNALIIPVYAYKEDGKFCIEFFKVKDSQNASLEELTLYQAQSCEEMIKKRPWEYFFFH

RRFASYNKEIYKDAK

>CAL35250.1 heptosyltransferase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIAIVRLSALGDIIQSAVVLQFIKNFKKDIEIHWFVDEKFEGILKNHPLINKLYALPLKDKKILKSLKI

LLKARKNNYNAVIDLQGLIKSAIVSRILSRNNFGFDKNSLKESFAHNFYNQKLELDYNENVFVRYLSLTS

FMLNTDFNVKNLAFKQDIFSVDENLKQLLNNKLKLDKNEKNILIHVGSSVENKIYPKTKLAILCKLLINE

FQQTKIWLAWGNVKEYEFAKEVLNLSGIDETHIELAPKFNLEELMAFTKMMNLIIGNDSGPTHLAFALNK

ASITIFGATPSYRNAFQTHINKIIDAGKKIQNAKHIDKSDFCITRIEEEDIFKLAKGLLNEK

>CAL35249.1 conserved hypothetical protein Cj1132c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKNEGYICVFDCESVPDVELIRKTLGFEGSDLEVSLKALQWQKEQSGSEFLPLPYHKIISICAVLSDNF

GKFIKVNKIDGQNEKEMIENFFNFIENYEPKLVSFNGKNFDMPVLVLRALKYNLKAATYLDTQSDKWNNY

KTRFSELKHCDLLESLGSNGRGIKLDTLCSMVGLPGKYDVHGDEVMKLFYENKLEKIHEYCESDVLNTYM

LFLKYELIKANVDEEDYVGFLSYMRDFLCAKKSDRSYTEVFAKACESEISKVRS

>CAL35248.1 UDP-GlcNAc/Glc 4-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILISGGAGYIGSHTLRQFLKTDHEICVLDNLSKGSKIAIEDLQKTRAFKFFEQDLSDFQGVKALFERE

KFDAIVHFAASIEVFESMQNPLKYYMNNTVNTTNLIETCLQTGVNKFIFSSTAATYGEPQTPVVSETSPL

APINPYGRSKLMSEEVLRDASMANPEFKHCILRYFNVAGACMDYTLGQRYPKATLLIKVAAECAAGKRDK

LFIFGDDYDTKDGTCIRDFIHVDDISSAHLAALDYLKENESNVFNVGYGHGFSVKEVIEAMKKVSGVDFK

VELAPRRAGDPSVLISDASKIRNLTSWQPKYDDLELICKSAFDWEKQC

>CAL35247.1 flippase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>CAL35246.1 GalNAc transferase/polymerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKISFIIATLNSGGAERALVTLANALCKEHEVSIIKFHAGESFYKLENEVKVTSLEQFRFDTLYHKIAS

RFKKFFALRKALKESKSDVFISFLDTTNIACIAAKIGLKTPLIISEHSNEAYLKPKIWRFLRRVSYPFCD

ALSVLGSSDKVYYERFVKRVKLLLNPCHFSDEISFDSSFEKENLVLFIGRLDHNKNPVMFLKAIAHLDKN

LQENYKFVIAGDGQLRQELEYKVKSLGIKVDFLGRVENVKALYEKAKVLCLCSFVEGLPTVLIESLYFEV

CRISSSYYNGAKDLIKDNHDGLLVGCDDEIALAKKLELVLNDENFRKELVNNAKQRCKDFEISHIKEEWL

KLIAEVKNA

>CAL35245.1 glucosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPKLSVIVPTFNRQVLLEKAIKSIQNQDFKDLEIIVSDDNSSDDTKSVVQNLQKDDDRIKYFLNQNYKQG

PNGNKNNGLDQASGEFVTFLDDDDELLSGALSTLMQKANEGYAHVFGNCLIEKEGNLSKEFSGKGLEKDS

EISKKDFLMAKFSGEFFSVFKKSLLENKRFNEEFYGNEATLWVNLYKEKSFYIHKAFRIYRIFRQDSVTL

GASKNAYRVYLGYLELAKILENELRMSKDKDYKKTCASYYKMAAYYAKLAKNYKALYKCLFKSLSIKINA

PALILLILSIIPNNMIEKLSKIRVALCKN

>CAL35244.1 GalNAc transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKLGIFIYSLGSGGAERVVATLLPILSLKFEVHLILMNDKISYEIPECQIHFLECSKPSENPILKFLKL

PFLALKYKKLCRNLGIDTEFVFLNRPNYIALMARMFGNKTRLVINECTTPSVMYMKNNFNSLVNKFLISL

LYPKADLILPNSKGNLEDLVQNFSISPKKCEILYNAIDLENIGQKALEDIALKDKFILSVGRLDKGKNHA

LLIRAYARLKTDLKLVILGEGVLKDELLALIKELNLEEKVLLLGFDNNPYKYMAKCEFFAFASVFEGFSN

VLIESLACSCAVVCTDHKSGARELFGDDEFGLLVEVDNENSMFQGLKTMLEDDKLRKAYKNKAKTRAKAF

DKVKIARDALKYLLG

>CAL35243.1 oligosaccharide transferase to N-glycosylate proteins [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKKEYLKNPYLVLFAMIVLAYVFSVFCRFYWVWWASEFNEYFFNNQLMIISNDGYAFAEGARDMIAGFH

QPNDLSYYGSSLSTLTYWLYKITPFSFESIILYMSTFLSSLVVIPIILLANEYKRPLMGFVAALLASVAN

SYYNRTMSGYYDTDMLVIVLPMFILFFMVRMILKKDFFSLIALPLFIGIYLWWYPSSYTLNVALIGLFLI

YTLIFHRKEKIFYIAVILSSLTLSNIAWFYQSAIIVILFALFALEQKRLNFMIIGILGSATLIFLILSGG

VDPILYQLKFYIFRSDESANLTQGFMYFNVNQTIQEVENVDFSEFMRRISGSEIVFLFSLFGFVWLLRKH

KSMIMALPILVLGFLALKGGLRFTIYSVPVMALGFGFLLSEFKAILVKKYSQLTSNVCIVFATILTLAPV

FIHIYNYKAPTVFSQNEASLLNQLKNIANREDYVVTWWDYGYPVRYYSDVKTLVDGGKHLGKDNFFPSFS

LSKDEQAAANMARLSVEYTEKSFYAPQNDILKSDILQAMMKDYNQSNVDLFLASLSKPDFKIDTPKTRDI

YLYMPARMSLIFSTVASFSFINLDTGVLDKPFTFSTAYPLDVKNGEIYLSNGVVLSDDFRSFKIGDNVVS

VNSIVEINSIKQGEYKITPIDDKAQFYIFYLKDSAIPYAQFILMDKTMFNSAYVQMFFLGNYDKNLFDLV

INSRDAKVFKLKI

>CAL35242.1 GalNAc transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRIGFLSHAGASIYHFRMPIIKALKDRKDEVFVIVPQDEYTQKLRDLGLKVIVYEFSRASLNPFVVLKNF

FYLAKVLKNLNLDFIQSAAHKSNTFGILAAKWAKIPYRFALVEGLGSFYIDQGFKANLVRFVINSLYKLS

FKFAHQFIFVNESNAEFMRNLGLKENKICVIKSVGINLKKFFPIYVESEKKELFWKNLNIDKKPIVLMIA

RALWHKGVKEFYESATMLKDKANFVLVGGRDENPSCASLEFLNSGAVHYLGARSDIVELLQNCDIFVLPS

YKEGFPVSVLEAKACGKAIVVSDCEGCVEAISNAYDGLWAKTKNAKDLSEKISLLLEDEKLRLNLAKNAA

QDALQYDENIIAQRYLKLYDRVIKNV

>CAL35241.1 galactosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYEKVFKRIFDFILALVLLVLFSPVILITALLLKITQGSVIFTQNRPGLDEKIFKIYKFKTMSDERDEKG

ELLSDELRLKAFGKIVRSLSLDELLQLFNVLKGDMSFVGPRPLLVEYLPLYNKEQKLRHKVRPGITGWAQ

VNGRNAISWQKKFELDVYYVKNISFLLDLKIMFLTALKVLKRSGVSKEGHVTTEKFNGKN

>CAL35240.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARTEKIYIYGASGHGLVCEDVAKNMGYKECIFLDDFKGMKFESTLPKYDFFIAIGNNEIRKKIYQKISE

NGFKIVNLIHKSALISPSAIVEENAGILIMPYVVINAKAKIEKGVILNTSSVIEHECVIGEFSHVSVGAK

CAGNVKIGKNCFLGINSCVLPNLSLADDSILGGGATLVKNQDEKGVFVGVPAKRM

>CAL35239.1 putative integral membrane protein. Functional classification-Surface polysaccharides,lipopolysaccharides and antigens [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVFLWEYLQKGCKLHFNNNLVVHYIVNPSPLGWIVINLLTICLICYIFPLKNSLKHKKLFSLKANVNS

KNSRIIKYTGIAAFLGGLIGIWYNFEGFYQLLFFFELENENLKTLWSLQVSVSSVITGMLLLLIYVINLA

MVCENGIYIVSKFNLFYMYFIKREDLEIVKIEKMKFLNQVEVCFVIKTKNKILLKCFESIYKKEDLEKLK

NWYENKL

>CAL35238.1 UDP-4-keto-6-deoxy-GlcNAc C4 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>CAL35237.1 UDP-GlcNAc C4,6 dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFYKSKRLAFFLTSDIVLILLSVYLAFSLRFSGDIPSIFYHGMMVSAIILLVLKLSFLFVFRIYKVAWR

FFSLNEARKIFIALLLAEFCFFLIFYFFSDFFNPFPRSAIVIDFVLSYMFIGTLRISKRMLVDFKPSRMK

EEETPCIVVGATSKALHLLKGAKEGSLGLFPVGVVDARKELIGTYCDKFIVEEKEKIKSYVEQGVKTAII

ALRLEQEELKKLFEELVAYGICDVKIFSFTRNEARDISIEDLLARKPKDLDDSAVAAFLKDKVVLVSGAG

GTIGSELCKQCIKFGAKHLIMVDHSEYNLYKINDDLNLYKEKITPILLSILDKQSLDEVLKTYKPELILH

AAAYKHVPLCEQNPHSAVINNILGTKILCDSAKENKVAKFVMISTDKAVRPTNIMGCTKRVCELYTLSMS

DENFEVACVRFGNVLGSSGSVIPKFKAQIANNEPLTLTHPDIVRYFMLVAEAVQLVLQAGAIAKGGELFV

LDMGKPVKIIDLAKKMLLLSNRNDLEIKITGLRKGEKLYEELLIDENDAKTQYESIFVAKNEKVDLDWLN

KEIENLQICEDISEALLKIVPEFKHNKEGV

>CAL35236.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYIKDIQRFEDNRYRARAYMSYILTRNLPNKLPDIHLETIKTALDKIAHEVVVFDALYILDISGMQIENA

ISLNKAHEIGQGEDRSTRSYFYRAVKLRRCVLSDPYPSVLNNELCVTASMPIYDDKNNLLFVVCIDIKLE

DILKIIQAGKFEFVFTQFSRLVYFCFALVLFVITCFLFQKGFFSLFDNQAIGIEHMFESTIAITLALAIF

DLAKTLIEQEVLGRTKKEEGGIQKTMVRFLGSIIIALAIEALMLVFKLAIGDLSQMIYAIYLIGGVSLLL

LGLSVYLFTVKYKNNNI

>CAL35235.1 chemotaxis regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLLVVDDSSTMRRIIKNTLTRLGHDDVLEAEHGVEAWDLLTKNEDVKVLITDWNMPEMNGLELVKKVRA

EKKYEDMPIIMVTTEGGKAEVITALKAGVNNYIVKPFTPQVLKEKLEDVLGTGSGEGAAE

>CAL35234.1 ribosomal protein L11 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKKYYELFFIVEEQYKNLFLDFAFDLGIEAIEEKDNGVYIRSHESLEEFSWALEIFAQKLTTTFNLNHK

IISNLSLVEKENKDWIQEYKKGIKPILVDNVYIHTTWQEEKKNCINIKINPALAFGSGHHESTYSCVKFL

QKFSKSKLRALDLGCGSGILGIIMAKFGCNVEICDTDELAIDSSLENARLNGVDFHKAWCGSIDKANGLY

NLIVANIIADVILILEKDIKNHLEDNAILILSGILDKYSTRIKEKFQDLELIDEMQINEWCSFVYKNNKK

G

>CAL35233.1 membrane bound zinc metallopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNNTQNNKGNPQGNNFFNKNPIFIFAIFAIIMIIIFKGFFDGNGSFGGALNGNEVNKNVPYSELKKLIE

SGQINQVSIGQTTIKAISSSHNTVYTAKKVNDPELVSLLDSKNIAYGAYSETNWFTDILFSWVLPVFIFF

GIWMFLASRMQKNMGSSILGIGSSKKLVNSEKPKVKFSDVAGVEEAKEEVKEIVDFLKYPERYIKLGAKI

PKGLLLVGPPGTGKTLLAKAVAGEADVPFFSVSGSSFIEMFVGVGASRVRDLFENAKKEAPAIVFIDEID

AIGKSRAASGMMGGNDEREQTLNQLLAEMDGFGTESSPVIVLAATNRPEVLDAALLRPGRFDRQVLVDKP

DFKGRCDILKVHMKDVKISPKVKVEDIARLTAGLAGADLANIINEAALLAGRDSKKYVEQNDLVEAVERA

IAGLEKKSRRINEKEKKIVTYHECGHALIAETTKGAKRVSKVSVIPRGLAALGYTLNTPEENKFLMQKHE

LIAEVDVLLGGRAAEEVFIGEISTGASNDLERATDIIKAMISMYGMSEIAGLMVLEKQRNTFLSGGQTIK

DYSEKMAESLDDYVKKTLDERYKDVKDTLNTYKGAIETMVAALYEEETIEGNKVREIIKEFEDQNSLPTR

LQELEEVKTEVKVEE

>CAL35232.1 putative phosphatidylserine decarboxylase-related protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKDFIAKDGYLSLIILSLVFIFMWIFYSFSILLLALIVICIFLFRTPKRELVCSDEKAIFAPIDGRVTKI

ENIHHKDLGECVEITIKNALYDAGNFNTPFAMSIIDIRLRHGLFLCSELKSAKMMNERAFILAKVKENKT

IALRIYAGSFDRKLKLDNISHDLKAGDRMGFLINGSISLLLPKDTRIHIGLNDEIKAGSLLGYFA

>CAL35231.1 CDP-diacylglycerol--serine O-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNRPQLIYILPNLFTAASAFLGVISIIASIHGNYYTALIYIILSLICDGLDGRVARLTNSTSKFGVEFD

SLADLVAFGVAPAVLFYMAIGYDFGKLGSLITAFFVVFGAIRLARFNVTTGTYEPSVFIGLPIPTAAVVS

AIWTYAFISYDFLKPYGVVFLVLQAILGLLMVSNIRYPSFKKLDFNRSSVLKVLIILIIIFSFLYLYPLE

SLVILASLYVLYGIIRVLYTIIVSKFKTRNQE

>CAL35230.1 conserved hypothetical protein Cj1113 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKEFFQELQDILYEKNITIKFHSFQNFYEDFKSHKFIFNHEHQSIFKKNTSQQITLFHPTRIRRPKFLN

STHALAKIIHSVAHIEFNAINLALDASYRFKNLPLQFYYDWLEVADEEIKHFKLLNSALEELGYKYGDFP

VHDNLESALEATKDSLSFRMGIVHRGLEAKGLDANPFVVQKLQSSNHSIKNLLMEYLEIILNDEIKHVKK

GDTWWKFANQNKYNFIELCKTFKQFSLAGKKLNIQARIKAGFTQEECEVIEKFYS

>CAL35229.1 putative SelR domain containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKELNEEEKKVILNKGTEAPFSGKYNDFYEKGIYQCKQCGASLYKSEDKFKSGCGWPSFDDEIKGAIKRI

PDKDGIRTEIVCANCNGHLGHVFEGEGFSAKNVRHCVNSISLEFVKTKD

>CAL35228.1 putative MarC family integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGSELYLMFFAAITLLAILNPFGNLTQFLAMSDGLPLMLRKKLFRTILYTAFTIVLVFLLSGPLFMNYIF

RVSLDDLRVSGGLVLIIMAIKNLLFSTKIATKDFSSYQDMDDKEILRQSLIPMAFPMLVGPGTLASVIVI

AEDGGLDVALGGVMIAFIFMFILFHFAATIEKIVGKLILHVFSRIAQVFIVAMGFKMIIVGLKDIFNL

>CAL35227.1 putative MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFGAKKNNTKIIEQLEKKCNGLGDILRSIGNTMAVIEFTTDGVILEANQNFLTTMKYSLSEIKGKHHSMF

CLPEVVNSSAYSDFWKDLRDGKARSGLFRRIAKGGIDVYLEANYLPISDNNGYVYKIIKFANDITQRHYE

MLDLRNTIAAANRSMAIIEFKPDGTIITANENFLRAMDFNIDEIKGKHHSMFCDSNYRHSKDYVQFWEDL

REGKFQSGKYIRYGRNNKKVYLEASYNPVKNDDGKIYKVIKFATDISEQVKKDQEKLRLISELAEKNDNL

TQDGDRVIENTVSNVQNIADMMSQSSNLVSSLNQQSDEIKSIIQTISDIADQTNLLALNAAIEAARAGEH

GRGFAVVADEVRNLAERTGHSVNEITTTINSIRNVTSQVVESIKSGLEDVNQSVELAKEARECMEKIRES

SAEVAKAMS

>CAL35226.1 leucyl/phenylalanyl-tRNA--protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSSNLYSKLLNAPKNAPVFLSQNLEADFIVKAYTFGLFPWTSKPVTWWCPDPRCILIPNQIHIQKNMKK

FINLYQIKLDYDFLKLITLCRDTRSQSWIDDEFITTYYKLFTQGYAHSLELYENNELIGGIYGLILGKVF

FGESMVSIKKNASKVAMIKLCDLLKPYDFIIDCQVYNQHLEFMGAHNISRKEFLNILKEKCNQESGFKNF

KDLIT

>CAL35225.1 ATP-dependent Clp protease ATP-binding subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYQENLQKYLDNAKNLSLINHHEFVTCEHVLFALLKLSTDFKDIFEEFSDGDLELLETELKNYISQNNQ

VIKQEIEPTISVVLDEILLSSKNKNNEIKIIDFLEKLIQDSRSYSSYLLKKHNINLNKIQELQNHENIQN

LNNHTSDLTLLAQNGKIDPLIGRKFELERMMQILSRRKKNNPILVGEAGVGKTAIVEGLALAIAEKKVPK

NLQNAKIFSLDMASILAGTKYRGDFEKRIKEILSELEKIPNAILFIDEIHTIVGAGSTGESHTDFSNLLK

PALSNGTLKCIGATTFMEYKNTFDKNKPLSRRFAKINVDEPSQEESLQILKGLKNKYEEFHHIKLNDEIL

QYAVIWGKKFFNDKFLPDSAIDLIDELGASFALNPRAKKNANLKDLENVLAKMTHHHKMFEFDQNKALMN

LKTNLKAKIFGQDEVIDSLVSSLKQSFAGFKNSNTPRGVFLFTGSSGVGKTELCKALAEFLGLNLERFDM

SEYAEKHAISKLIGSPAGYIGFEEGGLLSNAIRKNPFSLVLFDEIEKAHPDLSNTFLQIFDNAELTDNSG

LKVDFKNTIIIMTSNLGLKESNELGFLSKNEEKSNRAIKDFFAPEFINRIDKILHFNDLNDAILVKIIEK

ELDEISKNLNNIKLSVDDKAKIYLAKKAYNKEFGVRLLKRIISEEIGEKISDEILFGKLKKGGIAKIKLG

KNEKLEFIF

>CAL35224.1 ATP-dependent Clp protease adaptor protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPKTQTLEQTKLSEPKMYKVILLNDDVTTMDFVIEILMNIFHQNLEKASQTMLEIHHNGSGICGIYTQEI

ALSKQKKVMDAAKLANFPLQAKVEEE

>CAL35223.1 putative periplasmic thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKISALFLISLAFFLNACSKEEEIQNDFMFEEYHKGDKIVLNSVNGGSKTLIRTDKGFVVEGEEGKVLM

FDFFGTFCTPCKEEALDLSKLWKNNSSKFIIIGLTHFEDVSDETVKKFAGDYGAYYFLSNGSSNDRIIAQ

ILKDIDYQNMEQLPFKVVLKNGIYQKISDYWNNNTPTNFYLGKIPTELMQEDLNKIYKGK

>CAL35222.1 small protein B homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIARNKKALFDYSIIERFEAGIVLKGSEVVALRAGRANLKDSFVRIIKNEIFLLNSHISLLHTTHSFY

KHEERGARKLLMHRKQIDKLLGKVSIEGYTIVALDLYFNTKNKVKATLALAKGKNLHDKRETLKKKQADL

EARAAMKNYK

>CAL35221.1 putative 4-diphosphocytidyl-2-C-methyl-D-erythritol kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKAYAKANIFLKLTGFDSRKYHLLESRFILLKDVFDELELVDKESDSKKEFEIISNFKCENNIIQKAYLL

LSRRYNNELKELFSKKSLKLTKNIPVCAGLGGGSSDCASFLLLINETLNLKLNLQELINLSIQLGSDIAF

FLSGFHSANVSSCGEIIEEFEDDIPNLKWTFPQISCQTKAVYDEFDRGIFDFQKNNNQAQIYKKLSTKEL

LQNFKNKELNDLFTPCATLYPKMKSYLQEDFFLSGSGSSVFKVDR

>CAL35220.1 carbon storage regulator homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLILSRKENESIIIGEGIEIKVVQTGKGYAKIGIEAPKSLMILRKELVQQVKDENLHSVVQNDIKLDDLS

KKLIK

>CAL35219.1 tRNA pseudouridine synthase B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKIFAAFKPRGLSSNAFLSTLKKKYKNKKAGYSGTLDPFAKGVLIVAFGQYTKLFRFLKKTPKTYKATL

WLGVYSLSLDDQNIKEIKNIKEFDLPNLQQIIDQMQGIISYTPPQFSAKRINGTRAYELAKKGIEVNLKP

CQMEVFDCKILSYNHPFLNIEITVSEGAYIRSYCELFARKLGINATLSSLERIKEGKFVYNNEKSLNVLK

YINLKPNFIKDLNKLENGAKIFVEELEFHDKGDYYIETEKYFSIINIKENTVKYLLNKVEKC

>CAL35218.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLFEDLNDSQKQAVSHIDGAMLILAGAGSGKTKTITTRLAYLIGEVGIPSHNTLTLTFTNKAASVMRHR

ALNFLQGNHNPLLCTFHKFGLLFLKLHFERLERKNSFIVIDTDDTKKIIKDLIHDKNKDNVYDIIQYISY

CKNEGKRVSNVFEDLNLLKEHNFEKYQNEYKFANYYRAYEEYLLKQNFVDFDDLLLLSNLILENDINFAK

EQSLLYNYITVDEYQDTNTLQYKILKNLCCMHENITVVGDDDQSIYSWRGAKIENILNFQNDFKNVKLVK

LEQNYRSVGTILQAANNLISHNEQRLGKTLICTKDTGENIKILKNENEKDEGLYIAQEVKKLLNSGVEAK

EIAILFRVNALSRAIEEAFMKKQISYKLLSGMRFYERLEIKDLISYLRLILNPSDDLSFKRIINRPKRSI

GEKALKNLEEYAKKRQISLFDALCESDGGVGILTTKKAQNEANIFIQNIHTLKSYDNAKKVFDNIEELFK

IKDYFSEQDDGDERIRNLDEFYANLREKLKEDPEASLEDLLSEISLLSDQDNLDEECVCLMSIHASKGLE

FDYVFIIGFDEGFFPLNSEENLEEERRLAYVAITRAKKFLTISVANSRFYHGSRANINPSRFLEESKLIN

EKSKNQNIQKTSFCKGDLVKHKIFGIGRVVEANKSGKEEKLNINFGGIMRVIMASFVEKAV

>CAL35217.1 hypothteical protein Cj1100 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLETILKNENFIHTMQKHCYEVISHLIEENIEFSIVANTNFIDFNPELPKELDIKQNPYALFALGGYTFE

SIQLNKDFIQFHAGFGNDDFDSFVKVDLGAITQIQVENSILFVNFSLYKREDSKNLQKSKNIFLNNPKNK

DIFKK

>CAL35216.1 peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEWDLSALFHDKEALQNFTQDQIQQSLNFKKNYENKLYTLNANEFLQALKDYENLNQALGKIMTYAYLL

FAKNTQNGSFYAQYEEECKKIEENLLFFELEFCELAPEKSREFTTFCKDYDFYLSNLLQNKRYNLSKNEE

RIMLYLSNTGANAFSRLFDESMSALKIPFEGKKLSEEEILSKMYDENRKIRKKAAKKFSKVLQKNSRLLS

FIINMIKTERKNISLLRGYENAEISRHISNQISQKSVDSLIASAQKHFNLVSQFYKRKKQILGYDELKDY

DRYAPIGKEASFDFKTSKNIVLEAFQAFSPQFYDIAKNAFDQGWIDVYPQENKQGGAFSHSATSDAHPFV

LLNHTNKRRDLFTLAHELGHTIHQKLSYNVSYLNQNTPLTTAETASVFAEMLVFDFIKDKLKKEELLSLY

ANKIEDIFATFYRQINFTCFERRLHAQENELSTEEINKIWMEESQKMFQDSVKLTKNYASWWSYIPHFIH

SPFYCYAYAYAQLLVLALYGLYKSKKCENFKELYIKMLSLGGSVSPKELVGMFGFDIEDENFWEIGIKEI

QKLINEFMELQSC

>CAL35215.1 aspartate carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRHLITTKDFNKVEIMELFKEASDFLDEKPRTFLEGKSITTIFFENSTRTLSSFESAARRLGARVLRLDV

SRSSSSKGETLYDTAANLDAMSPNAIVVRHANSGVPLILAKHMHCPVVNGGDGKHAHPTQALLDLFTIYN

HFQGNVEGKKICIVGDIKNSRVAASNIELLSRFNLDITLVAPPHFMPNTHLKKHYKLDENIIANSDIIMS

LRTQTERHNKTVYASLKDYANDFCIQKSLVKDKKLILLHPGPVNRNIDISDEMMSNERTLVLKQVKNGVA

IRMAVLKKLILENEG

>CAL35214.1 putative transmembrane transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFSKIIQSYAKGNLIVQICIGIALGILIGISSKEISEIANLLGILFTSALKAIAPMLVFILILTSICTKD

FSQSGAKIKNIIILYIVGTFFASACAVLANFFFPVKLVLDGVQTATNSSPTHMSDIFKDLLFKIVDNPIN

ALSSGNYLGILTWAIAGGIALKHCSNEAKQVFIDINEGVLKIVKFVVKLAPFGIFGLVANSVAQTGAQGL

LSYVKLLILLVATMLFVTFVINALIVFFYTRKNPFPLIFICLRHSAFFAFFTRSSAANIPVNMALCAKLG

IDKEFYGISIPLGATINMAGAAVTIAILSLTAANTVGIEISLLQAFLLSIIATFAACGASGVAGGSLLLI

PLACSLFNIDYDIAMKVVAIGFIIGVIQDSVETALNSSTDVLFTAICSKNELNYNIK

>CAL35213.1 S-adenosylmethionine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYLFTSEVVSAGHPDKCADIIADTIVDILLKNDKNSRVASEVFVAGNKVVIGGEVKSNHKLSKADYDNLV

KDVLKNIGYDGAGHFSKEQCLHPDEVDVMVFLNEQSPDINQGVDQEDGETGAGDQGIMFGFASCEAEEYM

PAAISYARMLCDRVYAYAKANPHELGVDIKTQVTIDYGTKANFENCKPQSIHTIVVSAPCVESMKIEDLR

SLVMKLILDSNLPKELFDPNKTRILINPTGKYVNHSSLHDSGLTGRKLIVDSFGGYSPIGGGAQSSKDYT

KVDRSGLYAGRWLAKNIVAAGLAKKCIVQLSYAIGVAKPTSVSVDCMGTNTSVNDDVLSDFVMQNFSLTP

NWIRDKFHLDKPSKETFLYADVAARGQVGQKDYPWEKLDALEQFKKLL

>CAL35212.1 putative apolipoprotein N-acyltransferase. Functional classification-Membranes, lipoproteins and porins [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLKLNFLPYFSFIPKKLNTNSIIFKIIKVFFIAILLSNSIYLSFFENIFTQTISPFLAIWGLVLLLKSK

TSKQYFWIGFFVGILWFWWIGLSSIYFNLNYLVPIIPIIIGFIYGLLFRLCYLLKFDFLRLCGIFCISFI

HPLGFDWFNWGIFTVYGFFDPSYRGIICIFLIAYFIYEGYISRYYKIAIVLILFFSGFQYNEKQAQTLNL

NYKLINTNISQDQKFLQENLKSNSDILIQDILQAINEKKELVILPETAFAFDLKNTKYELMLKELSYKIT

IITGAFHVEKEHTYNSTYIFKKGNVYILNKHFLVPFGEEIPFFKDLTKKYFLKNIEEFSKGPIQSKYKLD

NQIITNAICYEATKEQNYQNSQIIIALSNNAWFNNSSEYKLQQLLMKFYASKYGVSVYHATNGKENIVIL

PKKLLSKDWKNLSKEIFNDKK

>CAL35211.1 putative preprotein translocase protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAENSILTSLLPLVVLFAIFYFLVIRPQQKQAKAHKQMLESLQKGDKIITNGGLICEVVKPEEDFIKVKL

NEDNVTAKISREFIAKKIDA

>CAL35210.1 protein-export membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNSKINYRLIIFIAVFIFGVAFSLPSFLQSERGAKINLGLDLQGGLYMLLGVDNEEAVKSKIKSIASSL

SYSFNKENILNDGLNTHDDILEFTLLDNADIAKVENLLKEIKGINIQSENMHYKISFTSKEVKNIENFAL

LQAVETIRNRLDQFGLAEPTVAKQGDDKILVELAGIKTKEDELRAKERITKAAHLQLMEVDDSKMGQAST

MSDAEAASYGLILVPDSRNPNLKYTLKSIPILDGSMLTDARVGLSDKSNYPVINFTLNAEGSKKFADYTG

ANVGKRLAIVLDNKVYSAPSINERIGGGSGQISGAFTQEEARDVAVALRSGALLAPVKLLEQRSIGPSLG

ADSIKMSMIALIGASVFIVVFMMMYYGVAGIFANIAMLVNVLVVVAVMAMFGATLTLPGMAGLVLTVGMA

VDANVIINERIRELLRDGVNIRVSIEQGYKNAMSAIIDSNITSLVTSVALYAYGTGAVKGFAVTLGIGIV

VSMITAILGTHGMFDYFMQRIEKNNNTRFWFGYRRR

>CAL35209.1 protein-export membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQFFSEKKIYDFMRMRFAAISLSFILFFGSIYLLWDRGLQYGIDFSGGTLVQLKYENAAPITQIREILEN

QGTFQNLSVTEFGSNEEVTIRFLGSNDNVSNDIGEHISTLLKDTGKFEVRRADVVGPKVGDELRNKGLMA

IAVSLIAILIYIALRFEWRFALAAIISEIHDVVITLGAISLFKIDVNLDTLAAVLTVLGYSLNDTIIIFD

RIREGIKTSKKTELAPIINESVSATLSRTVLTSGLTLATVVILYFFGGEMIQGFSLALIVGIIAGTLSSI

FVASPTLLWFKFSVLEFRNKEIEKAKRKQDKERNRAMYEKGTV

>CAL35208.1 leucyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYEASLIEKKWQKIWDENEYFEPKDDLNLPKKYILSMFPYPSGRIHMGHVRNYTIGDALARYYRKIGFN

VLHPIGFDSFGMPAENAAIKHKIHPKSWTYENIAYMKKELFSLGFSFSKKRMLATSDPLYTKFEQEFFIK

MFEKGLIYTKEANVNWCEQDQTVLANEQVEDGKCWRCGHEVVQKKMPGYYVKITAYAEELLKDLEELKDK

WPNQVLTMQENWIGKSEGLEFSLNLDEESKQKTKESSLEVFTTRADTIYGVSYIALAPEHKIVQNLLSQN

LLNQDVLNKIKVIQNQSPRERQSSEKEGYFLGIYAIHPLSGEKIPLWVANFVLADYGSGAVMAVPAHDER

DFEFATKYNLAIKQVIQTQENLPYMQKLGKLINSQEFDNLDCNEARLKIISQFEAKNIGKRVVNFKIRDW

GVSRQRYWGAPIPMIKCQSCGIVPQKLENLPITLPEDVQITGEGNPLDKHPTWKNCICPKCGKEAQKESD

TLDTFFESSWYFARFASDEKTWQEKALDEKSVKYWMSVDQYIGGIEHAILHLLYARFFQKALRDLGYLTQ

NEPFDRLLTQGMVLKDGAKMSKSKGNVVDPDEIIEKYGADTARLFILFAAPPAKELEWNDDAVEGAYRFI

CKLYDRAQNVKKGELVELKQENLNKEEKYARLKVYEALKKSFEVYHQSFAFNTLIAACMEALNALALCKN

EALEQEAFYIILNILEPIIPHVCFELSEELFKCKNFKKLELKEEVFVKDTLNLAVSINGKKRAEFEISSS

ASKEEILAFAKENTAKWLEGKSIVKEIYVEGKLVNLVIK

>CAL35207.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILIFCIGLFLGACGYIPTSKIANNIFDEKVYVNVELSQQDPKNSIYVADTLKEMVISKLGRKLALKH

EADDVINVKMNNLEFIPLAYDKNGYVISYKAKLNLDFNVVFKDGSSQAFSTSGSYNFEISPNSIISDSAR

YEAIRAASSEAFDEFISVIAIKGQKRDSKY

>CAL35206.1 hypothetical protein Cj1089c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIPNTNEIAKQTLIALKERKLKPTPENYTEIFEELSLKYGITSSNKAKLDKYKTLLLPIYQQELNSKTIR

SLEELISFLISVLNRQSGKQFSEFFDFLYTISKTLQISKDKKIRDLAKVTSIRISKTMDSESIYLLTKKW

KELERNYDENDLEEQARKYGISKYDDYDSVIKKLLVKLEERSYEHFSELLCLGLNPSLVEDLKIQGFIQN

LTQKPFVIGEENFKNELMEFINHRIMVDNMYVQKNLNFFNDNLKKIYELLVLLNKSNEKNMDFINTLKPD

ENGEVKLSFEDLKLKFKQLGEKITSLNNQIEFTQSLEEREAWSVLKELDKMDENFNKYKVNYSLALFSIV

NYRFIMEKYGMGSLNEIFVRFKKILKDSCSEFDELWMIDEKSYLIVSPGKSKDEITQLVNTNLKTIENFR

FIYKQDIITPKIHVAYLDKQSKPSINILDELIKQIAAVNEQHNES

>CAL35205.1 folylpolyglutamate synthase/dihydrofolate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQRLMNNIMKVENFLAQKSINYDKIDRFLMFRMYEKYKKYFKNIPIIQLIGTNGKGSTGRYLTQLLENLN

YKIGHYTSPHIFSFNERFYLDGKIANDEELEQAHIRLEEIFKQDLQKLSYFEYATFLAMILFQKCDFIVL

EAGVGGEYDATSIFERRMSIFTRIGFDHIQILGNSLEDIARTKLKVMAPIALISDEQEQNVLNLAKKIAF

LKKANLQVSSLNPFLKEKFEIYCKKFVLPYFLKHNLKLALKACEILTSQEKTLEALKKLQELNLQGRCQE

ISPNFFVDVGHNPMAAKAMLDKFQGEKINLIYNAYLDKDIFQILNTLKPIIDTIQIYKYKSAERKLADDE

IYSIASKLGMQCKEFVKLEENKKNLVFGSFMLVENFLKEWCGKK

>CAL35204.1 putative peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKNKFTITITDINGSRHFYLNQIIKKIVFYIIAFIVLFLVFSGFYIKYLDSKLSDISEKREELLKKSKE

LELSNSQMQKSIEEKTQQYAAIEDKIASFEEALGLEAENNLTISARLDNLQLTNEQQLGILGQIPNGWPI

ENKGITGNFGWREHPLLKRREFHPGIDLRAEIGTPIYAPASGVVEFSGYSDNGYGYNVILLHNFGFKTVF

AHMMRKEVVKAGQFVNKGQLIGYSGNTGLSTGPHLHYEVRFINKTLEPLYFLNLQRKNMNDFFNQERRVP

WQSLIKAVSAQHPALAQKQQ

>CAL35203.1 conserved hypothetical protein Cj1086c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAIFNKGGISPTSSSSSETTVISSGARIEGKFYFASMLHVDGELSGIIHSESIVVIGKNGNLKGELQADK

IVVNGCFEGQLEANSLEILAGGVVNGDISTQKISIENGGRFNGTSKIKEDTIKLIENNNEE

>CAL35202.1 transcription-repair coupling factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQASFYEYLQNPKICELFLCKDEKQADLLAQVSRFKGLKTFVLPDFRAQFGDDLRAFSKELFDLCKILNA

YHKEEEKKILISPLNTVLKKLPSKKHLQNYHIDKKQNFDLKCFEDEISRLGYEFVDIVQDKGEISIRADI

IDIFCINEENPIRILLFGEEIESIRYFDLQSQKSIPNELEHFEICPFLKYFDKENYEIFKDKLEDFQSDA

LIHDINSLGFWCIDDFFDYLELDFLACEKFDINEYEKDISFVNAKILPQAKKFKELQSSYNKDFFEFHKN

KKITLLAKNEALFKALELEDTQNIHFVKSDLRLNLISPEELIISLNQKEKQKTRKKASLIIDELKNGDYI

VHEDYGVGKFLGLEMIVISGAKKEFVAIEYQNSDKLLLPVENLYLIDKYLGVSGSIPSLDKLGKTSFIKL

KEKLKTKLLAIASEIVIMAAKRSLVQAKKITVDLNRQTDFIASAGFIYTSDQDKACHEILQDFQSGKVMD

RLLSGDVGFGKTEVAMNAIYPVVKSGFCAFLFAPTTLLSHQHYKTLKKRFDPFDIKVFKLDRFTSSAEKK

QVLQNLKENKACVVVGTHALLSVECENLALVIIDEEHKFGVKQKEKLKEITQNSHILSMSATPIPRSLNQ

ALSSIKSYSVLQTPPEDRMDVRTFVKENDDALLKEAIARELRRGGQIFYIHNHIASIEQCKKHLLELFST

LRILILHSKIDAKMQEEEMLKFENKEYDLLLSTSIVESGIDLPNANTIIVEKSDRFGMADLHQLRGRVGR

SDKQGYCYFLIEDKNAITKDALKRLVSLESNSFLGAGSILAYHDLEIRGGGNLLGVDQSGHIEQIGYSLY

LKMLEDELNALSKNEVDQKENKLDLKLNVNAFLNSELISEDRLRLELYRRLSKCEQVHEVYEIESEIEDR

FGKLDIYTKQFLSLITIKILALNKFKSISNYEQNIQFTALNDEKELIKAKSKDDDDILEAILTHLRKA

>CAL35201.1 putative ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDWNKTYAAIYRARKDYLKPIFEIDPIALKDLVGMESQKKALYENTLNFIQDKGANHALLWGSKGTGKSS

LIKAIFNEFKEQGLRLVELNKEDLFALADIIDEIRLENFKFILFCDDFSFEKGDDSYKFLKPLLEGSIEK

APNNVIIYASSNRRHLLSESITDNLDTQITHTELHLSDAAEERLSLSDRFGLWLSFYQGNLEEYLKMIDF

YFKDYSCDKELLHAKAKEFATLRASRSGRTAKQFYLAFKENFK

>CAL35200.1 putative nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTGAQIFTKLLNLDLNYHDFDWLENQGLSEFELLISVVLTQNTNWKNVLKALENLKKENIASLEQINTLS

NLELATLIKPSGFYNTKAKRLKGLVESIINTYENLENFKTNVSRKWLLNIKGLGFESVDGILNYLCKREI

LVVDSYSLRLAFHLGYEFENYEELREFFQSGIESEQENLCKILGRKCELYELYQIFHALIVAFAKQSFKG

QKLSPKGEEWIKILKEDL

>CAL35199.1 phosphomethylpyrimidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKAKGSELIPVLTIAGSDCSGGAGIQADLKTFSAHNLFGMSVVLSVVAENTARVISVHDIPTQSVDEQML

AVFEDIVPKATKIGMIGSCELMSCVAKNLSEFKPQNIVIDPVMFAKNGYALMPQENCDFFKQTIVKFADI

LTPNIPEAEFLCGFKIANEEQMIKAAKHLCSLGAKAVLLKGGHSEINANDVFYDGKEIYILKGERIETKN

THGTGCTLSSAIASNLAKGKDLFHAVSEAKEYVRNAIYYSLNLGKGCGPTNHFFKFLDEK

>CAL35198.1 thiamin-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNKLDLSLYLVATKGSKSEECFLNTLENAIKGGVSIIQLREKELNAREFYKLGLKVQKLCKSYKIPFLI

NDRVDIALALDADGVHLGQEDLEAKLARKLLGDEKIIGLSLKKLEQLEFIQGVNYLGCGAIKATPTKESS

LLSLELLSQICDKSPIGVVAIGGIDKEALVELKGINLSGVAVVRAIMDAKDAFLAAKELKRKIYENLSLK

>CAL35197.1 putative uroporphyrinogen-III synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIYLLNETPFEGVENLILNEIVFYDFSVDLSLYDALICTSKNALKALQHAKITLNFKLNLYAVGQSTAQ

YAKNLGFKKIKIPSKAYGKDLFLEFKEELKMQKCLYLRAKNIVSTLNLDLKNVGVDLDEMIVYENVFKKG

DKKLIHPAIFIFTSPLSVENFLKFYSLKEEDKVVVIGQSTAKKLLNFKNLYICENQSLLNCVKLAKTLV

>CAL35196.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAYVLIWTIFLILLISLWMSLTLNISSYTPKIIQDSYYYLQAQILSHNATQFSKYFLYQAKQENKECL

DNIYFNYTKALIKIKYFYPIAQCVNFKFSNFNPDANLSKDGVIIAHISIALNRDKNVNDEILLTKSIIIY

PKENFWNLKN

>CAL35195.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKAFTLFELIISLILFTFITSLLSKPLMDFYHLNFTALHTNNLITQAHLNLLKIEKLIQNCINITFSQN

TLKCLLKDELISLKDNKLYLINSALILENNHTLYSPHSDFKTQLQNRKDLYNDNEHISYAYKINKIEKIS

ILENGISANFTGSFIPLQAQLVIKLQNEELIYEIKPKFNEQLNQQGLISKNISSFNLQNNKLKICLKRQT

KHCLEKRILL

>CAL35194.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAFILIESISAITIISLIFIGIFYYYIQLYKNYENLNIFERLYKLQEELYEKPIFKTIILQTSALKPI

VLQEQFVNDGIFQFQKLYFQDQNYSVYFKE

>CAL35193.1 pyrroline-5-carboxylate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLYILANGSMATALAYGLKDDYEICIVGRSIEKLQALAKEGFKTLLYKDFNIEGKDVILAFKPYALENIA

QMLKGQARILISVLANVDFEKLQTIKAQNYVRIIPNTAAKYKASTTPYILKNSHFENEILDILKTFGSAY

KLDNEIQMNAAMAISGCAPAFLALIAESIANAGVYEGLSKELSLNLTRSLFKSSNALLEHEHPAIIKENI

CSPGGVTIKGIKILEQKGIRGSFFEAINASSAK

>CAL35192.1 conserved hypothetical protein Cj1075 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLAVKCPILGFEETKNMEFSTIDEVFVRLKSLDGKDFSFVLINPYLIRPDYEFDIPTYYQELLSLTPES

NMKIFNIVAIAKSIEESTVNFLAPVVINLDNNTMVQVILDTVNYPDFFQADQIANYIKK

>CAL35191.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKGIFLLVFLSVFFSACSTKNDEGLYNLSASEWYKQIIKDLQDKDLEKADDHYNGMASEHVADPLLETT

LIILAQAHMDEEEYKLAEFYLDEYNKKFGNSRNADYIRYLKIKAKFDAFAVPNRNQALMLESQKEIDTFL

KDYPYTEYEPLVQTMLTKFNLAVFYLNSTIENLYQRIGHDESAQIYKQRLQESEFYQQSIIKPELPWYRS

IFERF

>CAL35190.1 ATP-dependent protease La [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIEEIQNYPANLPVLVEDELFLYPFMITPIFINDSSNMKALDLAIKNDSMLFVAPSKLENGRNFDEIYN

CGVIGTIMRKVPLPDGRVKILFQGYAKGKIIEQISNKPLEAKIELIKEDFLEGTKKEALLEVLKEKVKNL

ANISHYFSPDLLRTIEEGFDASRICDLILNTVRIKKQVAYEFFVLTDLEQKLVKLIDLIAQEIEANKIQK

EIKNKVHSRIDKVNKEYFLKEQLRQIQKELGSDTQKEDEVREYQKRLELKKKFMHEDAYKEIKKQIEKFE

RIHQDNSEASMIQTYIETALDIPFEKISKKKLDIKEVSKQLNHDHYALNKPKERIEEYFAVRELLEKRKI

AEKDGAKVILCLYGPPGVGKTSLANSVSKALKRELIRIALGGLEDVNELRGHRRTYIGAMPGRITQGLIE

AKQINPVIVLDEIDKLNRSFRGDPSAVLLEILDPEQNSKFRDYYLNFNIDLSKVIFIATANDISNIPAPL

RDRMEFIELSSYTPSEKFHIMKKYLIPDELKKHGLKSNELSIDDETIELIISDYTRESGVRNLRRKVAEL

CRKSAKKLLLENIKKVIINTKNLNEFLDKKVFEIEKNNGENQVGQVNGLAWTSVGGDVLKVEAVKIKGKG

ELTLTGSLGDVMKESARIAFSMIKVLIDEGKIKIPKKIIIDPKVNVYDSYNIHIHVPDGATPKDGPSAGI

TISTAIASIFSDKKVKADVAMTGEIDLKGKVLPIGGLKEKLIAAYKADIKTALIPRKNYERDLKDIPSEV

RDNMEIIAVDTFSDVLEYTLV

>CAL35189.1 30S ribosomal protein S18 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAEKRKYSRKYCKYTEAKVEFIDYKDTAMLKHALSERFKIMPRRLTGTSKKYQEMVEVAIKRARHVALIP

YIVDRKEVINNPFEGL

>CAL35188.1 single-strand DNA binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNKVVLVGNLTRDIEMRYAQSGSAIGASAIAVTRRFTANGEKREETCFIDISFYGRTAEVANQYLTKGS

KVLIEGRLRFEQWSDQNGQNRSKHSIQVENMEMLGNSNAPQQGGNFGNNSFSNNNYSGNYENQSYDPYMS

ENQNFNKAKANPAPQRNQSPQHEEKLKEIDIDAYDSDDTNLPF

>CAL35187.1 30S ribosomal protein S6 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKHYEVLFILKPTLTEEEVNTKLEFVKEVLTKNSAEIETVVPMGTRKLAYKIKKYERGTYFVIYFKAPTN

LIAELERVLRITEEVIRFLIVKYENKKEIAAWEKLSHGIKQSKKEIKPLDAPEIQ

>CAL35186.1 conserved hypothetical protein Cj1069 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKKFSYPIPNFTDRRKSIIFWRYLRFQARKILYFPQVRLLEKTLNKEKNKHLKDFFSQRPYACYNATRR

FCDKSFKANERVKTLIYDVDKGLACFKFLPEEQIIFSFDEDFELFLGYNYNVCEEGFWAFSLKFKKYTIL

QCNFCFTLENNLLLSCIQGHKYKDFNILEINKILTKKCHGLRPVALLIECSKMLCEILKLQATLGVHEKN

QIRSQKGKEKGYFVDYQKIWLENGGELIKINKHKYYKLHHSQKNLEEIPSQKRSMYKKRFAMLEEIKTNL

DKTLSIQD

>CAL35185.1 putative peptidase M50 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRSLLLLIVILILGIKFYSIEFLATVLVISFLIFFHELGHFLAARSLGVKVEVFSIGFGKSLIEREFKGT

NYRLSTLPLGGYVKLKGQDDMRPGFENLDKDSYSILSPLKKIYILFAGPFFNLILAFFLYIIIGNLGLNK

LAPQIGNIAPNSAAQEIGLQKNDTILEINGIRIQTFDEISKHLSLDPLKILINREGKNLEFILTPKIGQG

YNDFGQIVEKPQLGVSPNGTSTLVKHQGLESFKYAAQESFQASTLIIKGIVKLISGEVEAKNLGGIITMT

EITSKAAQNSFTLLLFITALISINLGILNLLPIPMLDGGHILFNLYEMIFRRKVPQRTFEYLSYTGMAIL

LSLMLFATYNDISRIIGE

>CAL35184.1 CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLPNILAIFRMVLAPLLFFLLIHKFENIHQSWINYFAALTFSLAALSDFFDGYIARTWKQTTKLGGILD

PLADKMLVLAAFLGLLLTGKANEWVIYIILVREFFITGFRVVMISENLNVNASFAGKLKTAFQMTAIGFL

IMEWIGGEILLYIALILTLYSGFEYIYTYIKAQKKGEK

>CAL35183.1 nitroreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKELEIFSTRYSCRNFKNEKLKKEDLNSILEIARLSPSSLGLEPWKFIVVQDEKRKEELSKICNQQKHV

KDCAALIIIISRLDFLDYFEEKLRKRDMSETEMQKRLDTYMPFLKSLNQEQKISYAREQAHIALASILYS

ANALNIASCTIGGFDKEKLDSYLSLDIQKERSSLVVALGYCNDKKNPQKNRFSFDEVVKFI

>CAL35181.1 putative acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEIKLKEDLEKIYPLIKQLRNNLSLKDFLDKIQLATQTQHYKLFAYENEGSYKAACGVMPFNVLYHNHC

LYICDFVVDEALRGKGIGQAFLKKIQIWAKDQGYEELELSSSFFRTQAHEFYIQKMGFEKSGFVFKKNIK

L

>CAL35180.1 putative CinA-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKHLLYLIGDELTINEKFKNYIYRTYEEKFKEINEIRIQNKTDKDLPFLLENLLNQYDFITLFTSPLHYA

TVAKILATLNDDNLILKDDTLVPDKAEFSKNSFVCNFSNSKINVVKINPSEKLPDLLGHIKLNFAYFCIF

GMDDESAILLLQTLTKSYEISIKSTKFLDNLVLIKATCANFGKLDGFLNSVKNLFGQKVFLGKDPIHFIS

SKLLEKKLKISFAESCTGGLCASTLTKISGVSEIFEGSIVSYSNRIKHEWLGISESVLENNGEYSERCVY

FMLKGIFKTANPDFALAISGVVGEKDEGKIKSGTIYIGAMFRDGTFIQETLYLDGDREFMQEQAVLATFC

LLLKLKPEIFEI

>CAL35179.1 isoleucyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDYKETLLLPSTTFAMRANLAELEPQRFKKWFEQNYAYEKMKENRKNAKKSFTLHDGPPYANGHIHIGHA

LNKILKETIIKTHYFKGESVRFTPGWDCHGLPIEQQVEVKLGEKKKSLSKKEIREFCRQHASEFVDIQRE

EFKDLGIIADWDKPYLTMKFEFEAAIYRTLCEIAKKGLLCERSKPVFWSWAAKSALAEAEVEYQDKEDYS

IFVAFDLDVKACEKLGVSKASAVIWTTTPWTLVANQAIALNPNENYVITKEGLIFASALLKSMVEKGLTS

GEIQKELNAKEFEKLEAINPLNGRKSVLIMGEHVLMDGGSGLVHTAPGHGEDDYYACLKYGIEVLMPVDD

SGCYDETLRAKGLLPSHLLEEFIGLHIFKANEKILELLGEKLLHSSKFIHSYPFCWRTHKPVIYRATKQW

FILMDEPKLQGKTLRECAKEQLLKTTFYPQSGVKRIGSMVENRPDWCISRQRDWGTPIAFFRDKNTKEVI

FDDELFDFVAAIFEKHGADAWWEFEIKDLIPTNSKYKAENLEKVYDILDVWFDSGSTFNAVLNSGLYDAG

EKRASMYLEGSDQHRGWFQSSLLVGTAINESAPYESILTHGFTTDEKGQKMSKSKGNVIASEYVAKTYGV

EILRLWILLSDYSSDLKISDNILKQVGEQYRKIRNTIRFLLANTNDLKDLEVKEFSFIDKWILSRATKVF

KASKEAFFAYEFAKGFSLLLNFLSADLSGIYLDISKDRLYCDSENAQRRKSAQVAMALMAKELLNLLAPN

LSYSVDEALEHANVLIKGDAKDVFDLSLTQDFDYDFGIDDTFLMSAREKFFEQIDILKKDKIIKSTLELN

LNISFNKFPNEELADWFMVSQISNENEEILAEFEVENEKFKITKASLCKCPRCWKLQSKNEETPCLRCEE

VLKGVQC

>CAL35178.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLENPIPNSIIITTIAVVLAFSALAVFLIKKTKENK

>CAL35177.1 Glu-tRNAGln amidotransferase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITLKEALKYSKEELENLKKELNEKAKKEKKLGAYIEQFLDKDLSVSGEGVPVAIKDNISVKGWELTSAS

KILQGYIAPYDASAIVNLKANGFSPFGRCNMDEFAMGSSTASSCYGKTLNPLNFERVPGGSSGGSAAAVA

GGLALASLGSDTGGSVRQPAAFCGCVGFKPSYGRVSRYGLASYSSSLDQIGVLTQNVEDAAILYDAIAGY

DKMDSTSANIEFIKTVPNLNANKKLKIAVIENYVNDADSEVKNALLKTIDMLKANGHEIVYKNLLDSKFD

IAAYYIIATAEASANLSRYDGVRYGKRSENIQNLKEMYVNTRSEGFGEEVKRRILLGTFVLSSGYYDAYY

IKAQKARAFIKAKYEEILQDCDLIFMPVTPTTAFKFDTQKSPMQTYLEDVYTISVNLAGLGGISVPVAKD

KEGLNISAQLICKAYDEQTLLDGALSLEQMIKN

>CAL35176.1 inosine-5'-monophosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISAAMDTVTEHRAAIMMARLGGLGVIH

KNMDIASQVREVKRVKKSESGVIIDPIFVSPKASVAEALEIMAEYRISGVPVVDEDKKLIGILTNRDLRF

ESDFSNLVENVMTKMPLITAPKGCTLDDAEKIFSTNKVEKLPIVDEQGRLEGLITIKDLKKRKEYPDANK

DNFGRLRVGAAIGVGQMDRVDALVEAGVDVVVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAA

KALCEAGVDAVKVGIGPGSICTTRIVSGVGVPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVG

ASSVMIGSLLAGTDESPGELFTYQGRQYKSYRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYV

GSIRSVVHQLLGGLRSSMGYVGAKDIEDFQKRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>CAL35175.1 putative coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSFEENLKHANESLEKLNNQELALDESVKIYKEGLESIKKARLELEKAKLEVEQIDE

>CAL35174.1 putative carbon-nitrogen hydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKIAALQFPTLALSESRLDYYLKASKDNGANLVVLGEYVINSFFTELLHMPKNMIKEQSEAKKESLIKL

AKKYELEIIAPYVSVEAKSYKKLCLKVTPNGVKSYEQQILMPYEHWNEEKFFSNKTPSELKIFTFNYEKL

KCALLFGFETHFDIFWQQIMAKKIDLVIVPSACTFESKQRWEELLKTRAFLNSTSILRVNRIGKTKDEWN

FYGDTLFINAFGEIESKLGSEEEMLIIEPKKSDEARKLWGFDKILKNF

>CAL35173.1 putative sulfatase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKILLQIFIFSVLFIATFAINRILMQNSFIPTGLISDKNEIFLMYLLGVFHDIRFLSAAFLPFLLCGFL

SLIFSNIKINNKLVIYSKNFYFIFSSVYIIVLSCLCIGFSYVKYYYYEIYKTKFDIFMFTLKDDNTKTIL

SIIYHDYPILKILALMLIFGVFVFFLNLKILNLKLKPVNLRLFPLIALNLILIIVYVIALRGPFKHVAIN

VQNYSFSEYSVVNDTMLNPIMAFSWALKQYKEEAALKVITPLKAQELKEKLFDYLHQSPINLKAEKNHPS

VFVNLMESFGLNLADFTNTEHNFLGSLDKHFKQDFLFKRFLSSSNGTIPSFANLFFVSPFSNISTSKFQK

TYLDLTPIAVYKKAGYKVIFVSAGNGSWQNIKNYLSILGVDEIIDENILMKEYNGAKDSENGYGIADEFL

YKKVYDLLQKNPHKTLIIALTISNHPPYKIPQNDLPKLQNIPQTLLNMLPYEKDKQDNIIKAYTYANNEF

GKFLDKVKQSPFKNSVIIAATGDHRVREMSMDLNSQKAFAYSVPFYLYIPKDLQDNIYYDKDRVGSHKDI

FPTLYALSLNNVKYLSVGGRNMLARPSDEKLEFGINDAVWIDKKGIYSGGKGYYFESNDTLKDMNKAFNL

DGYTKDFDKFYRELNLYQLAERLGISK

>CAL35172.1 UDP-N-acetylmuramate--alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMQNIHFIGIGGIGISALARFLREKGFKISGSDLKESKITKELEKEGVKVSIPHHKDNILNKDLVIYSAA

IKEENPEFKYAKELGIKCLSRKEALPLILEDKRVFAVAGAHGKSTTSSILASLLDDASVIIGAILKEFGS

NMIYKESQNLVFEADESDSSFLNSNPYLAIVTNAEAEHLDHYGNEVSKLHHAYTQFLDVAKIRVINAEDE

FLKNYKNESIKLYPSKDIKNCTMCIENFKPFTSFELKDLGEFKVFGMGYHLALDASLAILAALNFLDIET

IRTRLKNYQGIKKRFDILHADENLVLIDDYGHHPTEIKATLSAAQEYVKLGGYKKITAIFEPHRYTRLAT

NLKEFAKAFEGVDELVILPVYAAGEEPIELDLKAVFPKALFVEDIKREGKFLVASKGQVFEEGLIIGFGA

GDISNKLRQKNE

>CAL35171.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRVFLYFLIILILALITFALREKLGKKTKPFFGILLVIFIVLAVFFEFENTQKSHLRTDIIVAFNQNKN

ILCKDINVSKAYFNYEFGTGSFISKDNNQSFNSLIIDIKDCRLNDE

>CAL35170.1 putative mismatch repair protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMNDTKEELISKLDLNSYLEEFKALFARDKEIFLQGDSNLHFKRIHELCEVEFPTMPELSNLDKALVHLS

KQGILHLDEIFEFVKIFRYFEKLKKIKLGTNLGSWLQKIEFVSGALELCLNFDEKGELKESLDERLVNLN

AALRLKNESIIAEFKKFCYTKALMPYLIDTQIHLINNLEALLVRGGFNHAIKAKIIGRSSGGGFYIVPLS

VENLQNDIEKIKNQKEEIYYEYAKNFSAFLAKNLPFLKFINTAFDLFDHYSARVLLAKKRDFEFVLCDQS

TDLVLKNFAHPALKNPKSVSLEFKKQVLIITGVNAGGKSMLLKSMLSAAFLAKHLLPMHIKASESKIGTF

KEFDAIIEDPQNVKNDISTFAGRMLHFSRLFSKKNLLLGIDEIELGTDFEEAACLYSVLISKLIANNLKI

IITTHHKRLAMLLAKNEQVELIAALYDEELSRPKYEFLKGTIGKSYAFETALRYQIPPNLVSEAKKLYGE

DKENLEELVGKNINLELELKAKLENVEKKEQKVDEILLSLKEQKEKNEQEFRTSLRNLEFKFHKAIEEAK

KTIQLKDIKDKQRSLNKTNELKKEIILPSMEQNEELRVGDFVKYEKIKGKIISISKNDAMVESDGIKLRV

PLKLLKKSTPTPKISPKTSISVAKPTNLSVSLDLHGLRSDEAISRLDKFISDALLAGFDEVLVYHGIGTG

KLAFAVREFLKTHKSVKGFNDAPINQGGFGAKVVRL

>CAL35169.1 restriction modification enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITKDNLKQVLENLGFKNKNENYVKTINNYTLLIDYKNQSINYPKEIKIHDKTTSNFSHPENFVVFECVH

RLLEKGYKAEYLELEPKWNLGRDKKGGKADILVKDNENNPYLIIECKTTDSKNSEFIKEWNRMQEDGGQL

FSYFQQEKGVKYLCLYTSDFSDKLEYKNYIIQAYDNEEYLKEKELQNSYKKSNNNIELFKTWKESYELQY

FKQGIFEENVNAYKILEITPTFDNLKELKEEGKYHEFAKILRKHNISGKENAFDKLVNIFLCKIYDETFN

KNNLKFGYFGVMADTYANMQDRLMWLYKEAMKEFLGEKITFVSNEDIEKDFKQLKIKTLKEVMQNYIKEL

KFYSNNDFAFLEVHNKELFLKNALVLKEIVELFANYKLTQNSTNQFLGNLFELFLQKGMKQDEGQFFTPI

QICEFIMYSLPLQEMLSKSSKALRVIDYACGAGHFLNTYANELKRYLTEDELKEHYKNIYGIEKEYRLSK

VSKVSSAMYGQNEINILYADALASFELANTNNLEGEKAKPQIESNSFDLLIANPPYSVKGFLETLSDKSK

NTYKLFNDDINIETNNSIECFFCERANQILNDNAKAAIILPSSILNKDSIYKNTREILFQNFDFIAIVEL

GNQTFGATGTNTIILFLRKKETFKQENHLISQDYSLIKERIEAENLKDNENFYQNYLSAYCDFRKFDKEL

YSNFLNGNLDSKLAELEAFKDYRNAFRQTSDYKKLKESKIYKESKDKQDLEDKAFLAYTQAIEKDKLLYF

CLSLNQEVLIIKSPSDIKEQKKFLGYEWSNRKGDEGLKELHEPYLSPLFERGNPQNETKLNTLICKAFLK

TLSDIPKDLQGYASKARLIDMMDFEKVEFNKAISLNVKSRDELNPFKNSKYELVRLGEVCDLNKIRNQAS

ATEIEKMNLNSGNVKLLPSSKNYEWWTDEKTAGQFINEGEVITLGVARYANIKKHKGKFVSANNHILSVK

DKSKIIFDFLYILLEICGQKLYKQGQQYPQFDTNIFYSFKIPLPPLEIQKQIVAECEKIEEQHNTLSLSI

KEYQKLIKAMLQKSGIIEDNQEYELNSILENLQKLESKLDFNLLLSLIEEQISHSEVLVEETQSKERKQD

FNAFKNFSKTIQELLQTLSTPPKDGWKRISLKNEQYMELNPSKKEISKLDENMLVSFIEMASVSDKGYIQ

SKIDRSLNEVRKGYTYFIENDILIAKITPCMENGKCAIAKNLTNNIGFGSTEFHIFRAKTGLDSSFLFYN

LNQQNIREKAALAMTGASGHKRVPISFYENLTIPLPPLEIQEKIVQNIELVEQQIDLLNLKLEFLEKEKE

KILQKYLFS

>CAL35168.1 NAD-dependent deacetylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNIMILSGAGLSAPSGLKTFRDNDGLWEEYDVMEVCSATGFRKNPKKVLDFYDARRAQLQNVKPNHAHE

KIAQLKEKWGKNLFVITQNVDDLLERAGCKDVVHLHGFLPELRCLKCEGIFNIGYEKFTDKQCPKCKSKD

LRHNIVMFEEQAPAYATLYSLLHQTSLFISIGTSGAVLPVGQYASMCEKSILNIYEKDVNLERYFDKIYI

EDIISAIDKIALDIENFMKDGNV

>CAL35167.1 putative LysE family transporter protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDSFLSGVFLGFGVSVPFGPVNILILTYALKAFKNSIAVGLGAFSMDMLYLFLLQFGLLNFLDNVIFMR

FLAIFGFCFLTYMAYLMLRKKKESLNLEHKEFKESLLKSYIKGAFLNGSNPFVIGFWLSAASVVLSSDHA

YLMTLGLVVAILFWVSALAFVVARYSHVFSAKVVFIINIISAIIIEYFALNLLYKTFLG

>CAL35166.1 succinyl-diaminopimelate desuccinylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNAKEFLIELLKFKSVTPNDDGALNFIAMELSDFEAFFIEKEGIKNLLLTKKFKDEGEHLAFGGHVDVVP

AGEGWSNNAFAPVEKEGFIYARGAQDMKSGVAAFVDAAKNADFKGARLSLILTSDEEGEAIYGTKAVLEW

MQERDMLPDYAVVAEPTCVKKIGDSIKIGRRGSINGKLLIRGKQGHVAYPEKCINPVHDFAPVLKLLAGF

DLDPGSAEFSPSKIVITDIRGGMGVCNVTPNDLKLMFNVRNSPDTSLEDVKSYVEKICHGLNYELELKQS

SEAFLTNIDNKIVQKMNESVQKITHEVPELNTKGGTSDARYFAKYGVKVVEFGVCNDRIHAIDERVSIEE

FEKLCLVFKDLIENF

>CAL35165.1 putative thiamine biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIINGQKLELKELKFMDFIKEKGFKIELIALELNGEIVPKSEFENLILKENDKAEIVSFVGGG

>CAL35164.1 putative molybdopterin biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRVKFNGKELDTDFKTSLEFFENISKNENDVWIINGFATKENIALNENDELFCIEKNTLPPKDALDAMM

RARHTPKLHDKLKNGRVAVCGLGGLGSHIAINLARSGVGYLKLIDFDVIEPSNLNRQAYRVSDLGKFKTE

ALKEQISEINPYISVEICTLKIDEDNLESLFKDIDIVCEAFDSAIAKAMIAQNFHRFYKDGILICASGLA

GYGDSNSIQTRKIAKNFYVCGDLVNGAKLGNGLMAPRVNICAGHQSNLVLELLANKE

>CAL35163.1 thiazole biosynthesis protein ThiG [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQENLKNDKLKIGKYEFDSRFILGSGKYSLELIKSAIEEAKAQIITLALRRANTGEIANILDYIPKNITL

LPNTSGARNADEALRIARLSRELGCGELIKIEVISDSRYLLPDNYETIKACELLAKEGFTPLPYMHADLY

AARAMRDAGAAAIMPLAAPIGSNKGLCAKEFIQILLNEIDLPIIVDAGIGSPSQACEAMQMGVSAVMVNT

AIAEAKDIALMARAFSLAVNAGRVAFLAGVASVSEAKASSPLTGFLRD

>CAL35162.1 thiazole biosynthesis protein ThiH [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQDYMQHLPHMQEIKSEILNKVLTQVQSYDESQFSAKDVKNALNQTHLSIEHLKALLSSAAEDFIEELAF

KSAKVKQKYFGNSISLFTPLYLSNYCNSKCVYCGFQKGNKIARAKLNEAEIHEEMQAIAKSGLEEILMLT

GEGREFASVEYIANACKIAREYFKVVGVEIYPMNEDEYKILHEKGCDYVTVFQETYNPLKYSKIHLAGEK

RIFPYRFNAQERALKAGMRGVAFAALLGIDDFRKDALATALHAHFLQQAYSHAEISISVPRLRPIINNAK

IHPKDVSEKRLLQVLCAYRLFLPFAGITISSRERIGFRDEVIKLGATKMSAGVSVGIGEHKGEKKGDEQF

EISDDRSVDEILAMLKRSNLQAVMSDSIYVG

>CAL35161.1 putative thiamine-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWDKKIIAISDRKCVEIDFLKQIEKLAKAKVDAIVLREKDLSEFEYYDLAKEVLSICAKQKVTCFLHFFD

RECLKLGHRYFHAPLSLLRKEPKLTKYFHILGTSVHSKEELLEAMSYKVNYAFVGHIFESSCKMGLEPKG

IDFLKSLLEFSQIPLYAIGGINAQNIENFKDINVVGVCMREILMKEKDLKKYLLECRQNLR

>CAL35160.1 putative transcriptional regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKILSLPEDLKQLKGVNYKKIKSCTFAKYTQTDTSHSTFVNVGSHLLTFVRKGYKILHTASKDYKINSY

ETLFLKAGSYTLSNVGLSKGVYEAYLFFFDNAFLIELIYKYKDFFKLDQKFQNYEIFWVKNDKILQGILE

SFSPHFEENTQILDPIVSLKFEEIFLHLLLNKNIYFISFLSGILKEFRLDLSQLFEYCGREFLSVNEMSN

FAKLDLATFSKEFKKCFGQSPKKWLDEKRLQKAKILLKFSKKNINEIANECAFSSVAWFIERFKEKYEQT

PKQYQKTKNLYFLSKN

>CAL35159.1 putative periplasmic ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYVLSLALLGSLLGASELKYQEFDGFKSPESIFVDKNYVYVSNVGEKLEPLAKDNDGFISKLDKNGKV

LEYKFLTHLNAPKGMMEIGKTLYVVDIDVLRGFDLKTKKEIFNLPIKGAIFLNDIEKLDDNTLLVSDTGT

GLILKVDLKTKQYDELLKLDLAKFGGPNGLYLDRKKHKLFIAGYHPDGVSGGVVMAYDLNTKELSIIKNE

KESYDGIVPYKDGLLVSSWGNNLNGYIYNLDNVKSVKLELPLMKGPADIFIEGNILWIPKMVEGKIFKVE

LNK

>CAL35158.1 putative MFS (Major Facilitator Superfamily) transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MASFKKIFWINVTIVIIVAFNLRAPITAVGPIIDIIKDKYYLNSTVAGILTSLPLIAFGSISFIVGYFSP

IRAIVFGIFLIFLGEIIRSYFGVYGLFLGMLAMGCGIAIANVLLPSFIKEKFPKKMASIMGIYSLVLSIS

SIMGIALAIPLLSVFDLAGAMFFWAIFSFVALVVYYPQAKNGRFFRIKKKTHKKINLFTNLTTWKITLFM

GFQSFLAYSLFFWYVQIVVEKGFDKEFSTSMVLFAQLVAAPVSLFGPLLLGKLRQNLHTFYIAGLCSMYV

IAFGMLFIFDSKISIIISAFIMGFPWGGVFGIALLFIAQKSSNAQIAARLSALAQGFGYLIAAQGQWIIG

FLHDKFENFSFAILMLVFVGILVNIFGYLSYKSQIIK

>CAL35157.1 putative undecaprenyldiphospho-muramoylpentapeptide b-N-acetylglucosaminyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTIALTGGGTGGHLAIVRCLLESAIKKNIECVYIGSQNGQDKAWFENEVRFKEKFFLSSKGVVNQSKFDK

ISSLLHTLKLSKDCREIFKKYHIQAVFSVGGYSAAPASFAALFSHLPLFIHEQNSKSGSLNMLLKPFATK

FFSAFEKEISPYPVADKFFDNARIRKELKNIIFLGGSQGAQFINELALNLAPKLQEQNIKIIHQCGKNDF

EKCKKHYQSLNIQADIFDFSLNLEEKMKNADLAISRAGASTLFELCANTLPTIFIPYPYAAKNHQYFNAK

FLQDQALCQIFMQNSINLDEFFKSILKLNLENISTRLQNITQKNGADMLIQKALFDNLTFIR

>CAL35156.1 putative cell division/peptidoglycan biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVADKRLFYLSCILITIGIVFSYSLTAFTVLFLDYSEFHFFIRQLFFGISGILIMFFISRLDPDKALSKK

IILAILIVSFIFIIILPFLPSVLATASGGAKRWIRLGPLSISPVEFFKIGLIYFLAWSYTRRIDDSKKAI

RHEALILLPYCILASIVIGYIYITQNDLGQSVISFFLILALAFFAGASKRLFAFGTLIIMMIGIMVIFSN

QRRIQRIASWWGNIQDAFLPMLPDWLANALRVSSNSEPYQISHSLNAIAHGGMFGEGLGLGTFKLGFLSE

VHTDFVLSGITEEIGLLGLGVICYIYLWMILRIFRIAGRCEAKQDFIFCSGIALLLLFSFFMNAFGIISL

TPLKGVAVPLLSYGGSSMWAICIGIGYVLMISKKVKL

>CAL35155.1 pyruvate carboxylase A subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNQIHKILIANRAEIAVRVIRACRDLHIKSVAVFTEPDRECLHVKIADEAYRIGTDAIRGYLDVARIVEI

AKACGADAIHPGYGFLSENYEFAKACEDAGIIFIGPKSEVIHKMGNKNIARKLMAKNGIPIVPGTEKLNS

YSMEEIKIFAEKIGYPVILKASGGGGGRGIRVVHKEQDLENAFESCKREALTYFNNDEVFMEKYVVNPRH

IEFQILGDNYGNIIHLCERDCSIQRRHQKVIEIAPCPGISDNLRKTMGVTAVAAAKAVGYTNAGTIEFLL

DDYNRFYFMEMNTRIQVEHPITEEITGIDLIVRQIRIAAGEILDLEQSDIKPRGFAIEARITAENVWKNF

IPSPGKIGEYYPALGPSVRVDSHIYKDYTVPPYYDSMLAKLIIKATSYDLAVNKLERALKEFVIDDIRTT

IPFLIAITKTREFRRGYLDTSFIETHMQELLEKTEDRHQENKEEVIAAIAATLKKIRESRE

>CAL35154.1 conserved hypothetical protein Cj1036c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFLDSLKSIKKEMQANTNTSKLAKKSSKSGASVKNLEKLAKDIREKNQETNIDKEMQEIFLKQEKLQDE

FSEFIKNADIKKI

>CAL35153.1 putative arginyl-tRNA-protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEIGFCTLEDQCPYLKDKRSRIEYKYIENCPKEINNELIKRGWRRFGRYFSRPICKDCDECLSLRILVN

EYNFSRSERRVVNKNINTKVILRTPNLSNEHLFLYDKYHRFMEEKKNWKRYDLSFKQYYNLYVDGFMNFG

YELAFYIEDKLVCVDLIDILEDGISSIYCFYDPDFSYFSLGKFSLLNEIQIAKKMNLDYIYLGYFVKKCQ

SLSYKADYTPNEILKGTKELFENEVLWEK

>CAL35152.1 putative DnaJ-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIVQTLETINVNTDDISVFQYFKDLITKNFTKVIGRKNKIFSFFEENEIPQRRYFLKVLDQKYRKSTNE

GIENLQDAHFKTFRLIFEQNNMLKPMLFIKIDFVAGRILMKLSSNEKLFITYIRNYFQDHNIEYNEMTNI

LILEYKNENTLELFEAFADESEHLKYCVNFEVDREEYKKFRQNIHNKENMKWKFNALAKLFSNYFNTLEC

TPQNDLSEIRQKYLILVKLYHPDFHQGKSAIEKAYAREQFEKIQIAYDNLKALYKNNT

>CAL35151.1 integral membrane component of efflux system (multidrug efflux system CmeDEF) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKLAINRPITVLMFFLALMIFGLISAFSMSVNLFPNVSIPLIKITSKINGDLNFVESKVTKEIENALSE

IDGVKTITSAAYDNFSVSVVEFKLGKNLEVAANDVRDKIGTLSLPSKPEIEKISSDSGSAISLFLYSKDK

LQLMREINDKIKPFLQRVEGVGKIEAKGFLEPQIRIELKPNQLRKYNLNALDVANIIKSQNFKQALGELN

NNQDNYIIKGYFEATNLEELSNLRIKTGVFLSDIANISSLYEDEKQSALYEGKEGVLLELGKITNYNTLE

MIKNVKNALPILEKQIPKDISINMLYDKSLNIHKHLSQVIFDMVLGIFLTLVIVFLFLRNLSTTLIACIA

IPTSIISTFFIIDLLGYDLNRLTFIALTLSIGIFIDDAIVVIENIAKKLKTYPPLQAAFLGINEIGFSVL

SISIVLLCVFIPISYMNSISGLFFNALGISVASGIVISFLVSVFLIPSIGARFLNPKENKFYEKTEAFFE

KIEQKYENLLYKILQNKVKFILATLVFIGLSFALATRIGLDFLPMEDDSEIQVLLESKKDLSLEAMKEKS

LNLLEKIKNDSNVKYAFLLVGYDDAKDATKAKIYVKLKNLDERNLRQSAIVSLYRQKFQDESLKIKILEL

PKIEGAGIDDPVQFLILGDDLNTLKEAASQAKEILGTNARIVDISDNANATKDEVALHINKEKAKLLDVN

PQYIAGVLGYSFSQLSVGSMDRGNSKDDIILSFAPEFKKDIEALKRISIKNNQGINLELSSVVDFIYSKD

LKTINRYNKNRSVKITAGVNDLSLGAVQKLLLDNMDKILNNNPSLSYAFSGFINLLGETVQGFAMAVALA

FVLIYLVLAALYESFILPLIIMITMPLAFGGASIGLFITGHNFSLFVLIAIILLFGMVGKNAILLVDVAN

KKCHEGLDPDKALLIAGKSRLRAILMTTFAMIFAMLPLALSRGAGYEANSPMAIAIIFGLISSTLLTLLV

VPALFKFCFKLDSKLRKIYEREKLN

>CAL35150.1 membrane fusion component of efflux system (mutlidrug efflux system CmeDEF) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILFLLLVFNCAFGEEIYASFNVEASKQSKLALESIGLVQKIPVEIGQKVSKGELLLALDQESEKIAL

QNAQNSYQLALVEYENTKSRMQKIKAVENVIDKQSYEDMKAKFDAANLNLNKAKINIAYYKNIMAKKELR

APYDAIIANKFIQVGEGVGGVAQPLIEIFSYPQSKLILSFDEKYKDKVRLGDDFFYKIDQNGTELKGKIN

LIYPSIEVKTRKIYAEVQTTNLTPGLFGEGRIITKD

>CAL35149.1 outer membrane component of efflux system (multidrug efflux system CmeDEF) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFEKYLKSAIFLALYPLAMLASNLHEFIALSQNNESYLIKQMQSEQANLDKEQAFRNYLPSLSLNSAYVA

NNKDRFIIDPQESLFAKVSLNFLLFDGGAREANLRALESREKLSLLDKEQNKNYLALNAITLYFNTLSLE

KILLANQQKVSFLKSTFERLQKFYDAGLSPKDELESIKAKYHLSLLELSQNELKLANIQKEIKILSDTDF

KVQGNAFLENPQQEKSQNYEVMIAKEQINLAKESVNLAKAEYFPKFYIQDNFNFYKNNYNPKVPAPFANL

ADQFLEKYSQGNQFILGMEWKIFDFNARAKEVEKERLNVQIANANARFSERKNKEELNYLDKSLKVLQEQ

ILALNLSLNAANLAFESVDKKYQAGLVSYVEYLQALEVKFKAQSDLELAKNEFEITKANYYFNAGIDLNS

KVKE

>CAL35148.1 GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSVKNIRNFSIIAHIDHGKSTLADRIISECGAISDRQMSSQVMDTMDIEKERGITIKAQSVRLNYKFNNE

NFVLNLIDTPGHVDFSYEVSRSLASCEGALLVVDASQGVEAQTIANVYIALENNLEIIPVINKIDLPNAD

VEKVKHEIEHIIGIDCKDAICVSAKTGVGIKELIETIITKIPAPKTDDEAPTKALIYDSWFDNYLGALAL

VRIYEGSIAKNDEVLVMSTDKKHIVQDLFYPHPLSPIKTQSLQSGEVGVVVLGLKTVGDVQVGDTITLVK

NKAKEAIGGFEKAKAFVFAGLYPIETDKFEDLRDALDKLKLNDSSITYEPETSLALGFGFRVGFLGLLHM

EVIKERLEREFNLDLIATAPTVTYEIYQTDGELIKIQNPSELPPVNKIDHIKEPYVKATIITPSEFLGNL

ITLLNRKRGVQVKMDYITPERVLLEYDVPLNEIVMDFYDKLKSLTKGYASFDYEPIEFRVGDLVKLDIKV

AGENVDALSIIVPNEKAQSKGRELVSAMKEIVPRQLFEVAIQASIGNKIIARETVKSMGKNVTAKCYGGD

ITRKRKLLEKQKEGKKRMKAIGKVNLPQEAFLSVLKID

>CAL35147.1 putative liproprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKKFLIFIVPILFLSACATKQDTFAQVNQISKNSQCSSCESPGGFEAKIKGLLYISDVGIQCCANKRTL

DTGIALKKVYLHRFYDLKEGQKVLNAKGKKLFVDVNFNAVFYTYLKQELEARGIVVLDNNDQNSPYVSKI

DLEFISYGATQDAIGLHSKLVGVLQVSDINKNKKFTIRTKQDVQGFDDLKETTFYTHLLIKQMANKAASL

ISEL

>CAL35146.1 putative purine/pyrimidine phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRCINCGAFALLCFCELCELELSEFSLNVRKLDNNFKVYSFYKYHEIQHLLHSKHYFYGYFVYKMLAKLS

FAKFKDFFDPRMTINVIALDDKVEDMLYSHSAILARYLKTKFVKPVFNVLKAQNSVKYSGKSLEFRQKHK

RNYKLLKTIHEPVILVDDIVTTGSSLLEAKKVLEENKISVLFALVLADAKV

>CAL35145.1 DNA gyrase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENIFSKDSDIELVDIENSIKSSYLDYSMSVIIGRALPDARDGLKPVHRRILYAMQNDEAKSRTDFVKSA

RIVGAVIGRYHPHGDTAVYDALVRMAQDFSMRYPSITGQGNFGSIDGDSAAAMRYTEAKMSKLSHELLKD

IDKDTVDFVPNYDGSESEPDVLPSRVPNLLLNGSSGIAVGMATNIPPHSLNELIDGLLYLLDNKDASLEE

IMQFIKGPDFPTGGIIYGKKGIIEAYRTGRGRVKVRAKTHIEKKTNKDVIVIDELPYQTNKARLIEQIAE

LVKERQIEGISEVRDESNKEGIRVVIELKREAMSEIVLNNLFKSTTMESTFGVIMLAIHNKEPKIFSLLE

LLNLFLTHRKTVIIRRTIFELQKARARAHILEGLKIALDNIDEVIALIKNSSDNNTARDSLVAKFGLSEL

QANAILDMKLGRLTGLEREKIENELAELMKEIARLEEILKSETLLENLIRDELKEIRSKFDVPRITQIED

DYDDIDIEDLIPNENMVVTITHRGYIKRVPSKQYEKQKRGGKGKLAVTTYDDDFIESFFTANTHDTLMFV

TDRGQLYWLKVYKIPEGSRTAKGKAVVNLINLQAEEKIMAIIPTTDFDESKSLCFFTKNGIVKRTNLSEY

QNIRSVGVRAINLDENDELVTAIIVQRDEDEIFATGGEENLENQEIENLDDENLENEESVSTQGKMLFAV

TKKGMCIKFPLAKVREIGRVSRGVTAIKFKEKNDELVGAVVIENDEQEILSISAKGIGKRTNAGEYRLQS

RGGKGVICMKLTEKTKDLISVVIVDETMDLMALTSSGKMIRVDMQSIRKAGRNTSGVIVVNVENDEVVSI

AKCPKEENDEDELSDENFGLDLQ

>CAL35144.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIYFMLAIAGIFAGCVPSANSATKNSSANSTAPSQDVIVQKVDKDDVRDIIREEKMLAPDASETELSF

TAVGEGIAPMNTVSTAQALALAKRAAITDAYRQLASKLYGVKVNGKDTVKDAMLRSSTITAQVNGLIKNA

SIIDENFNQGLYRVNLELKIDADKWKELFAY

>CAL35143.1 hypothetical protein Cj1025c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MERIVCLLIFLSFKLFAQDEFIFWAELSSKNFILFHQNQNLSLAMTQSENVEEQWVCEISYSDQDLKVLP

RTSLGLIDDNMPKTIKFNFLNSHKDELSDCFIGARISVKDIVNTDLLRAQSETYVKILPLRFTVEFGEQN

AIIYYLKKK

>CAL35142.1 sigma-54 associated transcriptional activator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLVIVEDDINMRKSLEIALAEYEEFNIKSYKSATEALKKIDDNTDLIITDINMPGIDGIEFVKACENKY

DFIIMTGNATLSRAIEAVRLGVKDFLTKPFDVDTLVEAIKRAKIIREKTADKKSKKNEKKEENKDFFSTS

PNLEKTLNLSQKAAKTDASVMFFGESGVGKEVFSRYIHTHSKRSNKPFIAINMAAIPANLIESELFGFEK

GAFTDANATKIGLFEMANEGTLFLDEIGEMPYEIQAKLLRALQEKEITRLGSTKSIKIDVRIISATNANL

DEKIKNGEFRSDLYYRLNTVPINIPPLRERKEEILGIAQKVLEDTCKEYDFKEKQLSQEAKNALLEYDFP

GNIRELISVVQRACILSENDEISSEDLFLEARSIKKDVKNLEKELICEVLLSVDYDKDQASQILGMDIKI

LNEKIKKYQIKDK

>CAL35141.1 aspartate-semialdehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKQKIAIVGATGAVGEELLNVLDELDFPVESILPLASAKSVGSEVEFKGKAYKVKELTENVFKENPID

IAFFSAGGSVSEKYAKFAVESGAVVIDNTSHFRMEKDVPLVVPECNPEDIKDWKKTGIIANPNCSTIQMV

QVLKPLNDAFNLKRVDVSTYQAASGAGKEGMQELVEAMQSFFAFKLDEFEPQTFPYTLALNLIPQIDVFM

DNDYTKEELKMVNETQKILHKNLEVSATCVRVPVLRSHSEAITMHFEKEIDVKKAKEILKKAPSVIVIDD

PKNKKYPMPLMTSDTNETYVGRIRADVYDKKILHLWCVADQIRVGAATNAVRIAQKWLELKNK

>CAL35140.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEKIFESLLVRSRIVTILPVIFGLIGAFVLFFIASYDVLKVIFYTYNYFFDAGSNVDLHEDVVALIIGA

VDLYLMALVLFIFSFGVYELFISEIEEFKQTKQSKVLEVHSLDQLKDKLAKVIIMVLVVNFFQRVLQMKF

ATPVDMAFLAGSILALCVGLYFLHKGGH

>CAL35139.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLIGMILNHFVFAAPLDEVFKDIEVSGTVRYRYDIKKEKKYNKKTHRYQNKTQTEITIK

>CAL35138.1 putative cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIARWLFISSIFVVALFGINLKSFFTYTFDANKQYDMEKAKALYFQNKCNTCHGDNAEKSVIGSRILKDM

SPEDIKGALIGYTLDSSSSTTASQMAFYARNLSHEDIDNIIAYIKGGNFALDLQVKDLLEEEPAQKTKHN

IFLK

>CAL35137.1 branched-chain amino-acid ABC transport system periplasmic binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLTLTLSVLTMVNCLYAKDINIGVVLPLTGTVAAYGQDVFNGIELANKLQPKLSNGDVIKLITIDTKG

DKLETSNGVNRLIATDKVLGIIGEATTPNTIQAISIAEEKKIPLIAPVASGDKLLDKKKYASRVCFKDSF

QGDKFATYVSKDLGLKNAVIIIDQSNVYSLGLARAFENSFKNNGGKIIKKLVINSGDKDFRAVVSQLKSL

NPDFVYMPIYHPEAALIARQARQIGFDKLLVAGDGVNNQTFIDLGGSAVNGVIFTDSFDYNSPSTQLGKD

FVAAYEKVKGTKELPAFSAMGADAYFVMLNAMNACVDNLSSECINSKIHQTKDFQAVGGVISIDESGNAI

RSVVIKEIQNQKQNYKTIINP

>CAL35136.1 branched-chain amino-acid ABC transport system,periplasmic binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKSLILASILSLSLSAAEVKIGVVLPLSGATAAYGQSALEGIKLANSMQSALSNGDKVSLAIIDTKGDK

LESSSGANRLVSQDKVIGLIGEMVTANTLQVMRVAEDNKIPLIAPAATGDRLLDKKIYSSRVCFMDSFQG

SSLAKYVFSKLNYKSAVIVVDQSTDYSLGLAKAFEKQYKSNGGQILRILRVNSGDKDFRAIVAQVKSLNP

EFIFLPLYYSEASLFARQSKLAGLNIPMGSADGVADQTFISLAGDASEGYIFTDSFDANNPTTKLSKEFI

SVYEKAKGTKEVPNFSAMGADAYFVMLNAMNACVENLTSKCVNEKIHQTKNYQGVSGVISIDQTGNATRS

VVVKEIKNQKQNYKDIINP

>CAL35135.1 branched-chain amino-acid ABC transport system permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDSTLFLQQLVNGLSLGSMYALIAVGYTMVYGVLRLINFAHGDIMMVGAYAALFCMTNLNVPFLGALSLA

MIFAACVGIATDRIAYKPLRQAPRISLLITAIGISFFLQNLFNMLFTSTPRTFTPPSYFEESVNFGGVIT

TYGSLMVPALTFVILIAVLWILYKSKYGIAIRALAFDIQTVNLMGIDANRIIAIVFALGSALAAVGGVFW

AANYYSVEPTMGTLIGLKAFAAAVLGGIGSVVGAVLGGLIIGFTEVVVVAFFPDLSGFKDAFAFIFLVFI

LLFRPTGILGINFEKSRF

>CAL35134.1 branched-chain amino-acid ABC transport system permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMVRIKVSHLIFLIASIIFIFISPYIFGDYGLNIVNQIAIFIILAVSYNLINGVTGQFSLEPNGFVAIGA

YAAALVLLSADAKNDQFFLDGPSSFILAIHSNSFILALIVAGICSSLLALILAFAVFRVRGDYLAIVTLG

FGIIIKIAAINFPSITNGSRGLVDIPQFSTIYWTGGIAIVAVILILNIVYSKYGRAMKAIRDDEDAASAM

GINTFWIKTLAFSTSAFLEGVGGGLLACLLTTVSPTQFDFLLTFQLLIIIVLGGLGSTTGAIIGAILVIG

GSEWLRFLDELNIKIDSLNLDIQSTPGLRMVVFSIVLILVMLFARKGIMGYYELSDVIRGIKKRFKRSKK

>CAL35133.1 branched-chain amino-acid ABC transport system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILELKQISKSFGSVKAINETSFKINEGEIFALIGPNGAGKTTLFNIITGNYKPSSGSVEFLGERIDHLK

PHKIVHLGIARTFQNIRLFSSMNVLENVLIGFNKQMKYNIFEAFLHLGRFGKIEQVFKEKAYAILEELGI

AEFAYEKATSLSYGQQRKVEIARAMATQPRLLLLDEPAAGMNSSESDELAGLIFKLRKDYKISVLLIEHD

MKFVNKLCDRVLVLDYGKTIFEGKLCDAVNHKEVIAAYLGDFDANS

>CAL35132.1 branched-chain amino-acid ABC transport system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIVKDLHVYYGLIEAVKGIDFKVETGHIVSLIGSNGAGKTSTLNALLNSVKRTGEVNFLGYDTKRHLTH

TLVQKGIALVPEGRRVFINLSVEENLKIGAFNNAENYEHLREQMYKLFPRLASKKHALAGTLSGGEAQML

AISRALMSEPKLLMLDEPSLGLAPKIVGEVFDIIVRLKEEGITILLVEQNAYSALKISDYAYVLENGRIV

MENEAKNLIGDDEIRKKYLGL

>CAL35131.1 putative cytochrome C biogenesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNIIKSIGDLRVSVVLFLLFALFCALATFIESAYGTPTAWAMVYDTFWFEYIQLLLGINLLCGMFRYKM

FGLKKLPLMIFHISFLFILVGSAMTRYAGFEGILPIREHTQNSLIESSKTSLRISAIKDGERYSAVNDRY

IGNLPFANSFKLKLNLGDDQAVLKYKDLILNAHYTYKENNNSDPLLVLMLSQKGSQGVDVKFEKGEVKNI

EGVNFAFMNDNVKAPFVKIDENLTLSSSENLHFLSMLDGQNLDLKIGEKANAKERRLYEINDISFVVKAA

SLHAQEALEGSNRPQDESFWLWFKSAWLEVGRTMLISTFGEPQNWKNSLLLHFKDFALSNENKNLELTGS

NALKLELSYKNESKEFYIFEYNKPIMIELADQKFFISWALSYEQLPFDIYLRDFVLDRYPGSMSPASYAS

EITVKNNNENFDYRIFMNNVLDYDGYRFYQSSYDQDEKGTVLSVNKDPGKIPTYIGYFLLCLGMFMNFLN

PHSRFRTLARLINKDTLKHTSVIIFILLLSFGSEKTFAQDLNSTLPVVNTNHAKALATLIVQKSADGRMV

PFDTLSREILEKIHQSDSYKGQNSNAVMLSMLVDVDKWQLEPFILMPQNQAVRDAIANILEIPSAKYIAY

KDFFDENNRYKLQKYVENANRKNPNARGVFDKEIIKLDERANVVNLVFSGELFKFIPVQNNPNNVWLAPF

SAVTTLKGDEGHIVLALIQNYFSAVENAFKDGNWIRADEGLKFIKEYQEKIGYKVMPSKTKVEMEIFSNK

AEIFVKLAPVYLIAGFLLLILVFSKMVVPNLKISFIFKVVYVLNVLAFVIHTVGLGLRAYLSGHAPWSNG

YESMVYIAWALSLSGIFFSRKSPIALSLTSILSGVVLMVAHLSEMNPQITNLVPVLNSYWLSIHVSVITA

SYGFLGLCALLGIFTLFLMCFLKKDGKYNLNILRNITEATRINEMAMIFGLCLLTVGNFLGAIWANESWG

RYWSWDSKETWALVSILVYAAILHLRMIPKYCNQFVFALWSMFAYWVIIMTYFGVNYFLTGLHSYAAGEA

AQIPNYVYWGFALMVVLAFFARRKRNFVGKL

>CAL35130.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVIFCAALALLLFLGVIAYLITSDGKKTIKKQKTSQKQHVAEKTKKFDTDLDKMIIAASDVKLTDIELKE

LAKLYVQTHKLGSKTSKELDEAAKKKLEFVSALAANINASAQTVSYLNKELKKIYGSYKKEIDAYEHMGL

AKRKIKEDK

>CAL35129.1 putative CorA-like Mg2+ transporter protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLELHENLKKILQAKNLETFYSEIYGQKIFVYVGLNLETWLFNDEKIYKLQDGEFKLSSIEEFSNFIKSI

LEDFKVQNTHFQNLLEHKEGIILKGGFVKNFYKKSFVLRQKINKNLKQINLLSEAFNLLLSEQAQYKKHL

KILNLSISILSKNTKEHLARIDTLYTLTNAIKNEKMNKSIYLLSILSSIFLPLNLIVGFFGMNTNNLFFK

DSPYGTLYIFSLICCILIVGFIFYYSKKTKEFDLDEGKKAKKQTK

>CAL35128.1 queuine tRNA-ribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFKLKHKDGMARVCEITTAHSTFLTPVFMPVGTVGAVKSLDANDMKNELDAKIILANTYHMYLRPTSKV

VKDFGGLHGFTKFDRSFLTDSGGFQAFSLSKNSKHFNEGIEFKSHIDGSRHLFTPKSVLDTQYDFNSDIM

MILDDLVALPATKERVKISVDRTILWAKEAITYHKNMQNKGIGIGQNIFGIIQGGTDYEERKRCALSLNE

MPFDGLAIGGLSVGEENALMYETVQNLNPYLDENRPRYLMGVGTPEDLVENVERGVDMFDCVMPTRNARN

GTFFTSFGKFNIKKAEFINDHEVIDSTCSCYTCRNFSRGYLNHLFKAKELTFFRLASLHNLHYYLELARK

MREAILNNSFTQFKRNFYHLRGK

>CAL35127.1 conserved hypothetical proetin Cj1009c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNILIIIDGILAKHFLERLCFEKGLGYFFTVVCQNSEKNNLNISSEYIDLHYFDPTSTARLENIMSKDF

KQAFIYMQDEFETKKSYEALRSLNPNLEIEIMDFWGLSVNDTHANLADARMTLSRRFMDFLPDIALTAQY

IGLGVGEIMEVKIPAGSIFAYRHISSIQQKRWRIVLIYRNSKIYFVKPSFVLEPNDSILIVGDPVVLQSI

FHNIRGKAGQFPMPFGSNVFALIDMKNMNQNMQERVLDTTLKLTQKSNAKRFFIHVINPKLGVMYEKLKK

LSEDKEGVFFDYFNTDFKQISMWLQNNDIGLVVTDIKNFEKEKQAFFDLKIPIMKVGEASFDELKEAIIL

SADESELENNANVITDLSKQLDFGVILYYYNPNSQNTTDMEEYFRSLSKLYDKNIQIINKNDENPLLNLQ

YREDLLQFVSFQKELLNRDFARNLSTNLNRHYYKMRQNYQLFIPVE

>CAL35126.1 3-dehydroquinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQVEVKLKENAYKVYIDELEELEFDSKVFILSNPKISGLHLKTLLSKIKAKEIFIATVKDGEEYKNLSTM

EEILNQMFNSKLDRKSVLISFGGGVISDMGGFAASIYQRGIDFINIPTTLLACVDAAVGGKTGVNNNFGK

NLIGTFYQPKAVYCESFFLKTLSSRELAAGMAEFIKMAAMFDYSILDFIEKIDEKSFLNATCENEIFTQI

IAKSIELKSRVVEQDEKESRLRMLLNYGHTFAHVIENFTDYKLYLHGEAVAIGMVMANQLALNLGLLDKM

QSQRIKDILLKFGLPISYKINNVDEFYEAFFMDKKSSNKKINFVLASPLGKGLIKGDISKEDIIATLREF

Q

>CAL35125.1 putative mechanosensitive ion channel family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIIILTFFVVFAFGDVNRTIINNINEKINTLNTVISASIWNIRYENFIKYQDINDELIILNLNLKKTS

DIHQQEELKRKIANLEEQLNLLKEYKDLNFAQSLSAPDNIETLSKLTNPLAIIGAFSHIKKLKGEKEEYI

FKFNDFKNLVDKIREKNSELKELVELKPSVENIEALKASDKKLEEFEQALNFASVSYSVYEKKIDEELSR

VSAEIKVQSLRAVNILVAIVIVIAIAFMLKFIAKKYIKDSERYYTATKIINFININIIFLILLFAYIENI

TYLVTILGFASAGLAIAMKDMFMSMLGWCVIIFGGSFRVGDRVKVFQNDTTYIGDIIDISFLRITLYEEL

TLETYNKNRRSGRIIFIPNNYVFTNLLANYTHHGMKTVLDGIDISVTFDSNLDKAQEIVENIVTRHAKGY

TELARKNIARLQHEYSIKNPKVEPRFFMFFEHWGMRISAWYMTNAYAALVLRSTISKEIIKEFNKHKDIK

IAYPSQNLYLGNLNQNHFEQHHENMYFHARNKD

>CAL35124.1 putative MiaB-like tRNA modifying enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEKVFFKTFGCRTNIYDTELLKSYVKDYEIINDENKAQIIVVNSCTVTNGADSGIKSYVNTMQKKGIKV

ILTGCGAVSKGKELLDKKQVFGVLGASNKDKINEFLGAKTSFYELGNLNFIDKDIVCEYENHTKAFVKIQ

EGCDFACSYCIIPSVRGKSRSVDEKALLKQVEILGANGYSEIVLTGTNIGSYGLKNGTTLGKLLQKMGQI

LGIKRIRLGSLEPAQLDESFLEILDEAWLERHLHIALQHTSEKMLRIMRRRSHTDNDLKLFNTIASKGYA

LGTDFIVAHPGESEELWQEALRNFKEFPLTHIHAFIFSPRNNTHSATMKDVINGTLAKERLNTLKSIVEK

NNYEFRKKNQVSLEVLVENQKDGFFEGYDQFFNKIKIKSDKDIAKEWIVISEYEVQEKSNFTNLKG

>CAL35123.1 putative membrane bound ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNKKIILASFMVLCMLLGILYFKNEPKYIDENLYQSLLSQNLIQKAVIDKDEIWLKAEGENYVIIKDGI

DIKTLLSKVPVEVKKDNTLWVFFVLLIFIIALFISLGYFARKKELAKYPISNKNQNHTQAQNSNINLESS

HIKPVISNITFNDVAGVDEVKMELSELVDFLQNPKKYKEFGVKMPKGVLMVGPPGVGKTLIAKAVAGEAG

VPFFYQSGSSFVEIYVGMGAKRVRELFSKAKMMAPSIVFIDEIDAVGKARGEMSNVERDSTLNQLLTQMD

GFEDNSGVIVIAATNKIELMDPALLRSGRFDRRIFLSLPDFKDRLKILEIYMKDKNNNINLNKIAKASVG

FSGAGLETLVNEAAINALRRNSALVEESDFYAVLNKVLLGKKKILSFNNEEKKIQATYQAAKALSAYYFD

IGFEKITLIEDRFKEYEHNIRSKSELINRIKVYLAGSRAMRLIYNESYTNSQDDFLKIKELLDYMLSFDM

LKESNLSEQKKEMDEFLNSMKDKILKLSELLLEKEKIEYDDVKDIMQV

>CAL35122.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKFLNIITILSLSLNADIIISADNLPNVSKEFLQHNFKAPIGIVQKDKNSYEVYLSDGTELEFDIDGA

WKEIENKAFPFDLDFLPQNLANIIKNEFPNTKAREIERKINHYKIKLDNDIKILIDFNGTILYKEFDD

>CAL35121.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTIFLIFLNILCYFLISYDYYNILGLNILFFNGAYWQLLSSMFLHGNLTHLILNMIVLFQFGRMLETYL

GALCFIFIYFIGGLLCSLLSVFYVYFDFKYFGENINVIGASGAICVLMGFYAVIDKNSTKGLIVAILLMS

FVPLLMGVNVAWYGHIFGFMCGYILAKIKEVK

>CAL35120.1 putative phosphoglycerate/bisphosphoglycerate mutase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIYIIRHAKASKSEDIDDFERKLTKSGKEDLKKLFKNLASHEIHPDLVLSSPAVRTAKTAKKIAKFYN

FDKNRICFDERLYLCNVENLLKILQDIDDEFNEVFLVGHNPSLMELGELLSSLCLASFPTSSILCLEFDI

KEFKNLKKHSGKLVFFEHVRKLKEEKDLGF

>CAL35119.1 RNA polymerase sigma factor (sigma-70) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNAKTQEAELEELFQENAKDYITYEKLVKYLTKQPSASTTKKVQALMKKHKVQLFSAAEIAQMKNIEDAK

RLQEEKQKLQDTSLENEFDLANENDLLEWSRSDSPVRMYLREMGQIALLNKDEEIEISKKIELGEDIIID

AFCSVPYLIDFILDYKEPLINRERRVKELFKSFDDEEKSDDKLDELDIDEDEENETELESDEENTKKNSK

KEDERTLKVIEKFKALEKAKKDWLKTSKDKESGDELLDKLSIAFKKNILKEKLMDLGPTSKLISEIVKSM

ETALKSDEEFDKELKRLEYRLPMFSDELKKRHADILKDITKLSKEEITERALETTMVSTYMEIKKLFQTK

EASEKSFDLEKSRLKEILEQIKRGKKISDEAKGRMAKSNLRLVVSIAKRYTNRGLPFLDLIQEGNIGLMK

AVDKFEYKRGYKFSTYATWWIRQAISRAIADQARTIRIPIHMIETINQINKIIREHLQKDGKEPDVSVIA

KEVGLSVDKVKQVIKITKEPISLEAPIGNEDDGKFGDFVEDRNSLSPMDHILKDDLKEQIDEVLDQLNDR

EKAVIRMRFGLMDDESDRTLEEIGKELNVTRERVRQIESSAIKKLKHPKVGRKLKNYIEGWK

>CAL35118.1 putative transcriptional regulator (LysR family) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKDIEIFLDLLNTQSPTHTANNFSITQPNVSIVIKNLENKFDGILFERLGKKLLPTPKALELGKNWLK

IIQAYYQSLEKLNDESMLLGEIKIASTQSISEHFLAPILFDFKAEFKNIEIRSQTQNSKECLNLLKNGNI

EFAIIEAELDPALVEYENLEINFWQDDELIVATSDKKLNEKEFYIDELLEQKWILREVGSGLRDKFLNEI

GASSKKLNIFLELDRMAAIKELVLQKKAISIFSKKSIEKELKNSTLYEIKLKNIDLKRKFYTLKRKNYNF

NRALEKFEKIFKS

>CAL35117.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTSFLAHSVAIVRSNFKGLLFTACIVIFAMYLSSVQSIKDTTHLAATAFAIIIGVLLSPWFFKYQHHFQ

AGVHFSAKKLLRLGIVLYGFNITLTELLSVGLKGFLLSAIVIFFVFIIALFVGTKIFKLDKETSMLVGAG

SAICGAAAVLALESSLKSDPFKGILAVGTVVIFGLVFMFLYPIAFSLNLFPFFDQNAMGVFMGATLHEVA

NVAGAAEMAKDMAGFEQGASNVAVIIKMMRVILLVPFLLIVTYFFAKNQHSSSGKTAKSITIPYFAFAFL

GMIVLNTYLASKESILGIATSDIISLGKTLCTLCIVFAMAALGLQIDFKKFLKSGSRVFGLAFVLGLVLI

FGGYFLTLAFKGILW

>CAL35116.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILVSVLSSCLLASALSAVSFKEDSLKISFEGYKTKDMIGTKGEFKNVEYKFSKNIKDLASYLKGAKA

TIKPSNAFMGEGNDIITNNITKVFFPALLGDTDIKVVFQDVIAGENKGVISAKITMDKKSTIVPLTYTIK

DNKFEAKGQLDLHTFKNGSKALKALSDVAAGHGGISWPLVDISFNADLAE

>CAL35115.1 putative methyltransferase (GidB homolog) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFKDYDFLQNYDLKNFEEKVKIYKELLSKFNRIHNLTHLKNIDENIFDSIKILDFYDFSKAKNIADIGS

GAGFPVVFLAFLLQSNFHLFEPNPKKAAFLRTLKIECELPNLHIYKEKVQEYKNTFKADIITSRALMDVK

PLLEICKNLKDENTVFILWKGSEIYQELENIKDYEIFENNLRRYCILK

>CAL35114.1 GTP cyclohydrolase II [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEIKISEIANLPSKWGNFQMQSFKENDKEHLCIFKNTPKDTLNLRIHSECLTGDALGSLKCDCGEQLEFS

LKYIEKNGGMVIYLRQEGRGIGLFNKVNAYALQDKGFDTIKANHQLGFKADERTYEIVEFILKHYEISKV

NLLTNNPEKLDSIKEKIITRIPILIEPNRFNVEYLNIKQTQMGHLK

>CAL35113.1 delta-aminolevulinic acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKRFRRLRLNENLRSMVRENSLSVNDLIYPLFVVNGTGIKKEISSMPDVFQMSLDEILKECQNVVNLGI

KAIILFGVLENEKKDSCGSDALDDEGLVARSIREIKKNFPDLFIISDLCFCEYTDHGHCGIIDPKIKSVD

NDATLEISAKQALVHARAGVDMIAPSGMMDGVITTLRKALDKEGFENLPIMAYSTKFASSYYGPFRDVAE

SAPSYGDRKSYQMDFANGKEALEESLEDEAQGADILMVKPALAYLDVVKEISLHSNLPLCIYNVSGEYAM

LKAAKNAGVIDYEKVLYETIIAFKRAGAKLIITYHAKELAKMLKGEK

>CAL35112.1 ornithine carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAMIFEKNSTRTRMAFELAITELGGKALFLSSN

DLQLSRGEPVKDTARVIGAMVDFVMMRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWNK

MQNGIAKVAFIGDSNNMCNSWLITAAILGFEISIAMPKNYKISPEIWEFAMKQALISGAKISLGYDKFEA

LKDKDVVITDTWVSMGEENEKERKIKEFEGFMIDEKAMSVANKDAILLHCLPAYRGYEVSEEIFEKHADV

IFEEARNRLYVVKALLCFLDNQRGRE

>CAL35111.1 hypothetical protein Cj0993c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKELEKYSTCLKRIDEFSQNLGIKKKDRTIFKMKQSENENEKCLVLENGSFDSPEPWFVIDENDEIHTLL

SLQSLKNILESLKQSQKENFELRLEKAIYQQIPVDFNDVWTVAMDEIKQKAQNGTMEVSIDLEKLISKIK

QEHPNLFVDMQAMIERVNQNERL

>CAL35110.1 oxygen-independent coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRDYKAFVKYSKAGPRYTSYPTAVEFNANFKYEEYIEILKKQDRSLSLYFHLPFCRSACYFCGCNVIYTA

KEESKERYLTYIFKELDILSTILDTKREVVQMHFGGGTPTFFSAKQLQSLILKIRSVFGNFSKDAEISCE

IDPRFLNEEQAIVLTQNGFNRISFGVQDFDEKVQKEIHRIQSFELTQNALNLVRNKGIKSVNMDLIYGLP

YQNLQSFTQTLEKVMLLNPDRLAIFNYAHVPWLKKNMRKFDENTLPSPDVKLEILEFCEKFLSKNGYKMI

GMDHFAKENDELFKALENGTLHRNFQGYTTKGGADLVGVGLTSIGEGQRHYAQNFKDMSSYEAALDRGVL

PFERGVILSDDDELRKAVIMELMANFKLDIKSIEKEFSIDFKEYFKEDLKALEEYKDFVNFDENFIKVNE

TGVLLIRNIAMCFDAYMKNISEDKKVFSKTV

>CAL35109.1 putative oxidoreductase ferredoxin-type electron transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFSQISDACVKCGKCIPVCTIHEENRDEITSPRGFLDLLTAYKEGSLELDKEAKKVFESCFLCTNCVEV

CPSKLRVDNAIEEVRYDIAKKFGIAWYKKLIFFFLRRRKILDLVAKLGYVFQSCAFKIQNENENTGMKAR

FSMPFVKKGRLLTSFNKKSFLNSNPKFINNDGEKTIGFFVGCLANYFYIDTANAVLKITKELKINVDLMK

EQVCCGAPQFFTGDFKSVEVLAKKNIEYFEKKLEKLDAIIVPEATCSAMLKIDYEHFFIMQNDLDWAKRA

KCVSSKIYMASEYFYKFTSLEEILKTKNKFNYSITYHDPCHARKMQGVFKEPRELLKTNYHFVEMSNSNT

CCGFGGVSMQTDYYDRALSVGLKKAQMIDESKASVVSAECSACRMQISNALEQNSSKVVFASPLELIAKA

L

>CAL35108.1 hypothetical protein Cj0990c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMMKIVFKGKSSEYEIQRSCFCVDAFVIKDKIEERDGVDFITSNVDLLEFSDDSFTFEEIVKHFNICDTE

DMIIVEDFDMKSNKDNQNQEDDIEHNILKSEKIIHENTKQTSMQFKNLKFFSRIFKNENFLSDFKESKQE

VVTIKKHEKLEIFKNLSQEDQEISFVKIEILNYDSNEDSLSFNLDIFPSGMSYKYGILKGSMHIILQGKT

SSTMLFPFLKSMIYKNKSENSSEKIFTLMINQKKHYKLIANLS

>CAL35107.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFLAFIFLIIIFLFVVFIIVTRYEKKIKLLNQNIQNMKEDIADLKETTQKNRSLIEKNRSNIENIIK

>CAL35106.1 very hypothetical protein Cj0988c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKIPYFSFLKLDFEIYHLNTSKNFYGFFILYFSFFIFKLIYKFSKSNKKIYKKIIKLKKIIKDNKYLIF

LCYILINI

>CAL35105.1 putative MFS (Major Facilitator Superfamily) transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKSLLFHFRRIGVEFIIFSVYAVFSISWAATGSLMPLISNDLALNTQQATLITSMIVVAKIFGASFTAF

LVYKFGLKKGYFLGCILMSSGIFLSFVDSYSGILIIRFLTGLGSACALVCLVPIAQQWFEKKALHFVISF

NITSNLVGITLGLVLAESISNYFGNWRDSLSFYAWINLILLILWLFVGKDENKKEEKKNNAKDLIYALKS

RVTWGMIIFYIGPILFLNSLFTFLPTFYAQYAGFSKELADFAKKEIPALANFAIIFGPYLGLFFKRKNIS

FKIMLLSGGACIFICGFCMLFLQNLVLIQIFAVLSGIFYSM

>CAL35104.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSAFWSITFVILSFNLWVVSWSVDKTHSFTLGFVYIFALIFISAILAQFVLPRREKFIQGEK

>CAL35103.1 hippurate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLIPEILDLQGEFEKIRHQIHENPELGFDELCTAKLVAQKLKEFGYEVYEEIGKTGVVGVLKKGNSDKK

IGLRADMDALPLQECTNLPYKSKKENVMHACGHDGHTTSLLLAAKYLASQNFNGALNLYFQPAEEGLGGA

KAMIEDGLFEKFDSDYVFGWHNMPFGSDKKFYLKKGAMMASSDSYSIEVIGRGGHGSAPEKAKDPIYAAS

LLIVALQSIVSRNVDPQNSAVVSIGAFNAGHAFNIIPDIATIKMSVRALDNETRKLTEEKIYKICKGIAQ

ANDIEIKINKNVVAPVTMNNDEAVDFASEVAKELFGEKNCEFNHRPLMASEDFGFFCEMKKCAYAFLENE

NDIYLHNSSYVFNDKLLARAASYYAKLALKYLK

>CAL35102.1 conserved hypothetical protein Cj0984 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILFSPSESKNENCVKNPINENSFIFKELFPYRMEALKHYEEFIKNASLQNLQELFGIKNENEIDKFKH

DLKQAPTQEAILLYTGVSYEYLNFKALDKKSQAYILENTLIFSNLFGIVRANDTLPFYKFKQGAKIGNFA

IEKFYKEHFSKALDEYLENEEILDLRAGFYDKFYTPKKKFYTYKFVKNGKVISHFAKAYRGILLSISAKN

QVKNNKELLANLPSNLKLKEIQIKGLKEEIVLEILD

>CAL35101.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKGIFLSIGIAVLFSACGNSIDEKTVKKYENQLNQTVKQEIASLSQDSGIKIEFSDFKCNADGDFIACL

SPNFKTLTKDNNDEYQELFQAKNIKIRSNEIYKGKANASISIKEYYNDLFKNQKSIQSNLVFEDFKLGEK

VVSDINASLFQQDPKISSFINKLSSDSYTLSFDNSINKQENNYLDNLDIKFYNAKLNFNTNLNINLKEDL

LNYLDSKGIKFNTQTLVMDKQAINELLNIANYEQASDFSNTIQKYIILNNFKIDSTLKTEGVFSSYIATA

KENLQTLKAQSQNEEQALIFDKALAILNNITQNDDYKLNLDLKFKNIPVSDYSTQGIDSIEKLSINNQDA

TEALKIILPFIMFSMLMGGASF

>CAL35100.1 putative amino-acid transporter periplasmic solute-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILLSVLTAFVAVVLAACGGNSDSKTLNSLDKIKQNGVVRIGVFGDKPPFGYVDEKGNNQGYDIALAK

RIAKELFGDENKVQFVLVEAANRVEFLKSNKVDIILANFTQTPQRAEQVDFCSPYMKVALGVAVPKDSNI

TSVEDLKDKTLLLNKGTTADAYFTQNYPNIKTLKYDQNTETFAALMDKRGDALSHDNTLLFAWVKDHPDF

KMGIKELGNKDVIAPAVKKGDKELKEFIDNLIIKLGQEQFFHKAYDETLKAHFGDDVKADDVVIEGGKI

>CAL35099.1 putative MFS (Major Facilitator Superfamily) transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKKYKNIIYASLGGILEFYDFVLFAFFLDIFAKVFFPQNDAFWMQINAYIAFGAAYLARPFGSIVMAHF

ADRYGRKNIFYISMLLMVLPSFALAFLPSYESIGIFATLILFTIRILQGLAVGTEVSGAWIYVSEFVKGR

QIPLALGFISATLTIGLLLGNIATLGIRSYFTPEEVQSYAWRIPFIIGGFFGILALFLRNKLSETPEFIK

VQNEKKILSFPLFEALKTHKMSMLVCFLMTMVLTSGVATLMILPKYFESLLAMSKTSALWVQNFAILAVI

FGALFQGFLASKWGSYKICSIFSIAFIIFGMLFGFYDENFLFYFLLACFAQGIITFAPVFMTQIFKSELK

FSGLSFAYNISYAILGFLTPFIVNAFYKEYLGIYLAIVGSCSLLCVFLLKRVFARSKIKELSIVF

>CAL35098.1 putative peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNVIENFKQLCKIPHCSYETEQMKEFLSSYAKDKGFKVSVDKAGNIHAIKGKPKICLQSHYDMVCMGDA

PNLEVYEENGFLRAKNSSLGADNGIGIAIMMSAMAEFENLECLFTNDEEVGLMGVNLLEHTLESKMLLNL

DHESDDEIMIGCAGGVDIEASLSFNTLRKKGKIYELCAQNFKGGHSGINIIRNEKSSIKEMAKFIQENEG

EIISFEGGERINSIPKHAKALVHFKDEVKSNNWIKCEFKEENEFEICDQSKKLLSLINSFTHGVRAYDEN

LDIVQTSINLATLRMQDNQIKFALFARSNILDGLKQVEFETLEFFKAFDFKIRSFNFYPPWEGKPNALSD

MVFKALKKVSPNAKVSAIHAGLECGIIEKKQELLCASIGPNIHNPHSTDEHCEIASVEKISKVVFEVLKD

NA

>CAL35097.1 putative secreted nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRINYKKIFNLRKLLSDPKKLFSVLIFTLVVVFIQNYIAQNSSFEGKVVRIIDGDTIEVNHENKLARIRF

FGIDAPELKQSFGKQSKEALSRILSGKQVEIIYKNKDTYGRIVAIVKLNDVDINRFLVSKGYAWADTYYS

NAYTKEQENAKKNHLGLWKESNPIEPYKWRKHNKF

>CAL35096.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYTLMVLLVLGISGCFVNERGISNRFYDDCKEYYDGSGTYHKDCPKNWVDIKMTP

>CAL35095.1 hypothetical protein Cj0977 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKDNFEEYAQLEEYASAEDISRVRAELLTCPELNTSLAGTIIEIDKNYAKSILITTSEMVADDQGLIF

DAFIFAAANYVAQASINKEFSVIIGSKCFFYAPLKLGDVLELEAHALFDETSKKRDVKVVGHVKEVKMFE

GTIQVVSTDEHIFKLKRPPLNTVKPTENQEQGAKINNPEAVAAALMASVGGK

>CAL35094.1 putative methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRIKMQENLLEKQFLNHPLYAKIQELKALNLACNFSLGDSVNLSTNSQAKDEILAIAKELKPWRKGPFK

IDDLFIDTEWQSFIKFNILKPFMNEISQKCVADIGCNNGYYMFKMLEFNPAKLIGFDPSIKYRLQFELIN

ALAKTPIKYELLGVEDLPSYSLKFDVIFCLGVIYHRSDPIKMLKDLKAGLNKNGVVFLDTMYIEDEREIA

LVPNKTYSKIPNIYFVPSISALKNWCERAGFKEFEVLATKKTDENEQRKTEWIDSFSLENFLDPKDKNLT

IEGYEAPKRVYIRIKI

>CAL35093.1 putative outer-membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEQSPYKEDANSKNYNNTLKVKDGVIIIDHSNTSDDNNSKTINTKKNTQKNQPNLSNDNTLKTKTPNSN

TPSLKNTSKEESIHKVSFSFHITNKNINFKDLGLDEQVLQEALNDYKKESISVQDLQDIANIISYYVQVS

GYPAATAYIPQQELKDQIQINITLGVLGKYVVQNNSSVRDYAIESKLPNHKGEIITTKLVEDAVYKVNEM

YGIQTLASLKAGDNPGETDVVIETTPSDSFVSVLFYGDNYGIKESGRYRDGASMSFNNIAHQGDSLNAYL

QRSDEAQTNYSISYTTFLGNLKITPSYSKRNYALGGAYKNANFIGTSENLGIDLKYPLWITTYNSFYLTS

SYYHKKLSNSRLNIMTIDKSSDTISFSIEGVYNGISNDSFSYSANVSYGNVKDGGTTILGMSSKTDGDGF

GKFAKLNVNLNNAYFFNDTFTHLFSLNYQQVVNGATLDSSETISLGDPYGVRAYNNGDGEGDNAVVASFG

LRMATPLKDFYITPFYNIGYSWYENDSKLYRASETNYMDAYGLQLLYNKTGNFYVKLDLARALKKYKLDD

DYSSKAYVSFGKYF

>CAL35092.1 very hypothetical protein Cj0974 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKMIKIQKVKSLLDLVKKLKNKQSLKIKNQTNTKENLNKTHYLTI

>CAL35091.1 hypothetical protein Cj0973 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLQLFIQTTDEDPNINEDDKQASIDEASTQESGNVV

>CAL35090.1 hypothetical protein Cj0972 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKGQENAQKTYDTAVNAYNEAVKACNTALSGITGNNGDKVIAGLKQAIDKVSSDLQQATIALQIATAST

NSSLENSNKTLASASINGTSHLTVNENIVQTISQYPL

>CAL35089.1 hypothetical protein Cj0971 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSIRSNKGLTGPGGDPTDTIGYKETSDLIAKDNISNEVLNSIFNDLKFNSSVDISDLSKFYKDGKILTAD

ELTSINQSMDFITALYGQTQDSNNATFANALKEVLGNSYGDLGKANQVIIKTKEILSQNS

>CAL35088.1 hypothetical protein Cj0970 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEFTKDGKLSAFKGNPKTISPVIKSNAGNVINLETITVGERVAMAGNQVSNMKYGGTDYGKFIFTNKKE

QSNTVYLNVYSNDTFVIRGPASNTIKKKTL

>CAL35086.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKFCFKLSIVTFLSINAFAATQANTTDNRNFNIPEHYFNDNELYDKTNSTYKKLQGINYYAKSSKQYIN

NITLIYNNPKPNITNINDLNFKHYLLTPDMREDEVLSFKARHGVNTAGHSIKTVRVLPFLITAKTDHADA

SYNKLILEQGELSSVFYLKPKDTHIKNPSNSKSNQRMNFLMSSTFTHYGNASYNQTILQKDAHISMGVEN

TYDLALNGAPYLIGAIATYGDSTNNSLNIEAGSSVEFFTSLPKKDKNGNNTFDERITHLVGGLAYQGNVK

NNKIFIKDANMIIHGPSKAYASLAAAHISAGYIDSGTDKNFQASKNLLDIDGFNLDMYMNHDKQPLAYNS

VLFADFWGGKTEQGQALDNTINLKDIKNLKKDKNNENIFAQALFNFYAGASNNGEANYNTLNIELKHPLE

IANNFLGYNQHSFYGGFATKGANHNTINIKNDLTTTDLSQSYKDALNIVAARTLEGSADYNKVYINNSMS

TLPVYIYTAKKNILNNQDFYPSSANNNEVVIKDFASFRNLTVLTEAKEASYNTINYNNVQSITDVSNIDK

GSKIIIRALDKANHNTIDIKNYSSNAADNAYLIMAYNEAAYNKIIINDTLFGVASDKREGILSIIAGLSN

NAHDNTLIINNLNLDEYKNNNSIFIAPSAITGLSEAKSYNNTLYIGGNLNIFKNTFIDILAGALVHYEDN

YSASNAAAPSDISLSKNNRLILNTKVEARIINNFEHYYLIVSNKINTTPLLKSYDAPINISS

>CAL35085.1 putative acyl-CoA thioester hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKMRVYYEDTDAGGVVYHSNYLKFCERARSEIFFNKKVDIFDASKGHFLLAKANCNFLKPAKLGDMIEIK

TKILEVKNASVEILQEIYKDEILLFKMELTLAFIKNEKPARMDMQLKKLFEELF

>CAL35084.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLIFFLSCFLLNAKEQKLVDVKPVENFYPKLSVQECNTNCLFDLLESRLYLSFLSEFADQNDQFLS

NVYAKLLNSITDFEKNVQKITSVKLAIIIPEKTIKSYSNTIINSSIAYLLRQRAEIKVKVFLTGTEDNDK

IRAALDAAQAQGYQYAIAGFTLKGANELKNYSGNMKIFIPTIHKNNIQISNQNIIFGSIDYDAQIATLLS

KSNANIAIFSDGSALSSNLNSRILAQNNNARIYTIEGEKLDFSRLLRSQGGVNNASIFFNTPLIKTALAS

SQLRIYNIHPYVLLSTQINYNPTFLSLTQQGDRENFIIANSINNHDDNLVYLNEIFNQSIDYNWIAYATS

IGVDYFYTEFLNKKSESLFDEKIKNSQVDYKVRLMQGKQASFEELK

>CAL35083.1 hypothetical protein Cj0963 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIRSLYYLKAMGFNFVDTHTNHFEQVQNFQELKQLVSSCTLCQFSKTRKFSLMEPKIKNAKLLILDVFGQ

KSENESGILLNSKKGEKLKHYIYQILGLCDEDFYFSYLFKCFCNGKFDDFSLQSCLPFFWNELKLIQPAF

LLCLGEYTFKSLGFKDYHILKGEVFAYKNFFIMPSYDLDFIEKNPSYEKNFIQDLKKIKGFL

>CAL35082.1 putative acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEFKIIDLRQEDLDILQEMIIEFAKYEDMLDFLQCTKEKLEHSLLKNKFARAFLLKENEKTIGYMIYFY

TFSSFWGSGGIYLEDIYIREDFRKKGYGKAVFKFLGEICKKENLKRLDWVCLNDNILGINFYESLNAKHL

KQWRNYRLSGENLEKLCDL

>CAL35081.1 50S ribosomal protein L34 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRTYQPHGTPRKRTHGFRVRMKTKNGRKVINARRAKGRKRLAV

>CAL35080.1 ribonuclease P protein component [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNFDKFSTNEEFSSVYKVGKKWHCEGVIIFYLNSYEKKIAVVASKKVGKAVVRNRSKRILRALFAKFER

YLQDGKYIFVAKNEITELSFSRLEKNLKWGLKKLECFK

>CAL35079.1 conserved hypothetical protein Cj0959c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MICLKILRFYQKFLSPLKPAACRYYPSCSEYALWQFQKKNFFLAFFSTFFRILRCNPFFKGGFDYPRVSK

NFYPINLCFKPIFLAEKQLCFLYIPYKNKSFYLIKIIFKRTNQ

>CAL35078.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNSNNIFQQKRILLAVVISFLFFVIYDYFFIPKQPLKIEQNITQKNQQNTSINNTPNIQNATTNTPSAA

LVSQDSVISKVQSKHFEAQIDSFGRISAFYLKDRKYQNEKGEFINLVSKENSPYPLEMRFSDPSINSEAF

KIPYVANASNLFVDENGSQVLKLTQNLSGLKIEKDITFYPKGNYEIEVKLSKNANYFISPGYRPNIAVDS

YTVHGALVMDNKETIETYKDGDVEKDESANNVVMTSAFDRYYATFFYNFDKPLNVAISKDANQNPIVFAY

SDNEFKAGGYIGSKEHVILRSIDPRLEAVVEYGWFTFIAKPMFEFLNFLHQYIGNWGWAIVVMTLIVRII

LFPLTYKSMISMNKLKDLAPKMKDIRERYKGDPQKMNMHMMELYKKHGANPMSGCLPILLQIPIFFAIYR

VLLNAIELKAAPWAFWIHDLSVMDPYFILPILMGATMFLQQLITPMTIQDPMQAKIMKFLPVIFTFFFIT

FPAGLTLYWFVNNLCSLVQQWVINKIFAKEHHKKTSGA

>CAL35077.1 hypothetical protein Cj0957c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIEAIDLQSALTEASRSLECSVMDLEYEIIQHPRKGFFGFGRKKAIIEAKAKKRILKKNPKKEFTSSKN

HKPETHEPKQENKIEIKNEKNKSQKEKYTVKSDEIFDSFHRESKGVRNTQDILDEIRIQLVKLLESSQFK

IELSELRMYDEDCVLIRLDGEDAALMIGKEAHRYKAISYLLHNWINLKYNLLVRLEIAQFLENQIQGMQL

YLQSVIEKIKIHGRGQTKPLDGVLIKIALEQLRAEFPDKYVGIKQNNDQRFVVINDFFKKDE

>CAL35076.1 putative tRNA modification GTPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDTIAAIATAHGVGSISIVRLSGERALEFALKLSHKTKLTPRHATFTKLFNQNNEIIDEAIMIYFKAPY

SFTGEDIVEFQTHGGFSVSEVLLEELVSLGARLALAGEFSKRACLNGKMTPLKALNIQDLILSKSALAAK

IIARNMQGNLGELLEKIRTDLVKTLAFVETSIDYADDDLPSDLLEQISTMCEENSKILKEIYTLSQSKKG

LIEGFKIAIVGKPNVGKSSLLNALLSYERAIVSDIAGTTRDTIEENFKLGTHLLRIIDTAGIRESKDVIE

QIGVALSKKSLEDADIILAVFDASRVQDKEDEKIFDLLANTDKKIFWILNKSDLENVFKNTQNKNFIKLS

AQKDITLLKEELQNYLNSFDSEGIMVSSLDLINACKISSEAIFRAKGLLEESSLEFFAFELNLAINELAR

FTKDFQRDEILDEMFGNFCLGK

>CAL35075.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKETIKAHKISDEEYAQILEILGREPNLLELGVISAMWSEHCSYKSSKKYLNGFPTKAPWVIQGPGENA

GVIDIGQGMAAVFKVESHNHPSFIEPFAGAATGVGGILRDVFTMGARVVAGLNSLKFGDIHDEKCGKHQK

YLVKGVVNGISHYGNCMGVPTIGGECAFDECFNGNILVNAFALGVCKSEDIFYAKAEGVGNPVIYVGSKT

GRDGLGGAVMASDSFNEESKSLRPTVQIGDPFSEKLLMEACLELFKTDYIVGIQDMGAAGLTSSSFEMAG

RSGSGMKLYLDKTPMRESGMTPYELMLSESQERMLICAKKGYEDKVIEIFKKWDLDAVVMGEVTNTGKME

LFWHDELVGLIPIEPLSEKAPILSRPTSEPKYLSEIKNYKFELKSSVQELFIQMLQNENINNKAFIYDQF

DSSVQTNTIKADGRLGASVIRIKENGASVAMAIECNSRLNYVNSKIGAALAVASAGRKVACTGAKPLAIS

DCLNYGNPQNPEVMWQFAQGCEGIKEACKELNTPVVSGNVSLYNETEGVSIYPSPTIVSVGVLEDANKTL

KASFEKENLSVYLLGESLGEFSGSMVMKIQDKKVSGSLKELDYKAELALWDLLYKANQNSLLECANSVGI

GGIAMTLAKMFAISSVGANLTSDFDDEKMIFDESASRAIIGLSKENEEAFLNLAKEFGVKAYKLGVSTSQ

KHFKLDSIELSKAELDKLYFESFKEQIQ

>CAL35074.1 putative DnaJ-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLVLIILVVLVFYWYYKTWGKQDFLNSATRGAKGFAKGFARGVMEERMDEFKRRMNYYVIALLAKIAKS

DGRVSENEAEMIKDLLDANAKDEKERAFLKASFNEHKENLSDAFYVAKDFLKEVPLPKNERFNVLRVLVF

MALIDADFNAKKREILEQIAKAFDIAKSELDAFIASLSNLKSTKKELSLDEAFAILELPNNADLNAVKKQ

YRNLAKKYHPDILNANNVSEEELKIGVEKFQKINEAYEKVKKHLER

>CAL35073.1 phosphoribosylaminoimidazolecarboxamide formyltransferase / IMP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRALLSVSDKEGIVEFGKELENLGFEILSTGGTFKLLKENGIKVIEVSDFTKSPELFEGRVKTLHPKIHG

GILHKRSDENHIKQAKENEILGIDLVCVNLYPFKKTTIMSDDFDEIIENIDIGGPAMIRSAAKNYKDVMV

LCDPLDYEKVIETLKKGQNDENFRLNLMIKAYEHTANYDAYIANYMNERFNGGFGASKFIVGQKVFDTKY

GENPHQKGALYEFDAFFSANFKALKGEASFNNLTDINAALNLASSFDKAPAIAIVKHGNPCGFAIKENLV

QSYIHALKCDSVSAYGGVVAINGTLDEALANKINEIYVEVIIAANVDEKALAVFEGKKRIKIFTQESPFL

IRSFDKYDFKHIDGGFVYQNSDEVGEDELKNAKLMSQREASKEELKDLEIAMKIAAFTKSNNVVYVKNGA

MVAIGMGMTSRIDAAKAAIAKAKEMGLDLQGCVLASEAFFPFRDSIDEASKVGVKAIVEPGGSIRDDEVV

KAADEYGMALYFTGVRHFLH

>CAL35072.1 putative HAMP containing membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMFKTIGFKVSAAIFVVLLISFIVMQVILNLDFKNTANKMSRANLDTVSTSVFQTMRMAMNLGDPEKIKE

AIEDAKSIEGISDIKIYPSKDTIDLFEMKAPQISNDKRIIEQFSNPKIQALEENVNLRLIRPLIADESCV

ACHANANVGSVIGVMDISHSLEGVQKDISKTSQSYIVIFTIALIFTLCVVLLMLKVVVGKPVLELLNHAK

ELAQGSGNLKARISVKGQDEIALACGYIN

>CAL35071.1 putative MCP-domain signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNKANSANEKSFLLLEQMLKSLFNVANKVSTVSQNENELAKKVENMVNQAGNIQKATQMMDEIADKTNL

LSLNAGIEAARAGAFGRGFSVIAEDVRQLAQNSEEFLGNVAQITKELLQSINEVSAELKKNAQSVQALND

DTALLVDDANEVKLCNEDARALVTQCTEKIKISQENIQNLLSRMQENVEVSEKNEEISKILLQVADELKI

VCHNLESELNQFQI

>CAL35070.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKMLQIALAATFFAGCASTSLTSSTSKGNNELVQNQLFKIEKIIVNGKTFDPKNAEESPNISFENNKFY

GYSGCNRFFGSYQTKADTLQIEGDRVASTQMLCHPMDVMDFENSFLSNFKGTFKISNENGKLVLSNDEMK

IFFK

>CAL35069.1 putative peptidyl-arginine deiminase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKSIPEWSEQEYLMLSLPHEKSDWNPYLEEILQSYKEFVKVVSEFQKVLLIAPKQSDFENFKDIKNVEF

FKCDTNDTWIRDFGAIDIVENGRLKALDFTFNAWGNKFQSELDNAVNSKLFKEKFKEELKKVDFILEGGS

IDFNGEGVMLTSSHCLLNENRNSHLNKTQIDTKLKEIFGLKQIIWLENGFIKGDDTDHHIDTLARFIDKN

TIAHCICEDEEDEHYLPLQKMKEELKKTGFDLLELPIPKPLYYEERRLGATYANFVFINNALIVPFYKDK

NDEIIAKRLSKALPNHKIIGVDARVFLRQNGSLHCSCQNRFKGLR

>CAL35068.1 putative cation efflux family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLQKKATLVASLCAIVLALVKFIVGLTSGSVAVLSSAIDSLMDFAISAFNFLALKKSSQKANENYNFGF

SKIEALMGLLEGVFIVGVGIFIFYESILKIYYKEEIKDLNSSIYVMIFALIMTFFLVLFLNYVAKKTKSL

IIESDALHYKTDCLTNACTLGALVLIYFTNLHIIDAIFGIVISLYTAFSAFKIIKKALAFLMDEALPKEQ

VDKICTLISNNPEIISYHELKTRKTPSCNYLSVHLVFCPIISLLNAHKISDEIEEGVRKMFENEKWDIQI

HLDPYDDAEQERQRQ

>CAL35067.1 putative carbon-nitrogen hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIALIQQKFHLNKEQTIKKTCEFIEEASKQGAELVCLGELHQSEYFCQSENVDFFDYANDYEKDVKFWA

NIARKNQIVLIASLFEKRSAGLYHNTAVVFEKDGSIAGKYRKMHIPDDPCFYEKFYFTPGDLGFEPINTS

LGKLGVLICWDQWYPEAARIMALKGAEILIYPTAIGWFDKDKDEEKQRQLNAWLGVQKGHAIANGLYVVA

INRVGFEKDVSGVEEGIRFWGNSFVFGPQGEELCLLDSQNECVKIIEIDKKRSENVRRWWPFLRDRRIEY

FTDLTKRFID

>CAL35066.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSCLYFTFIVLFLTACSTKNLTSLHRENLEQKNENQHYVKLEYEQNVNILPQFAYDINFDAKRYKKYFF

NPWHDSFKNYKGQNIFWSFPLYLNSKNTYYFFNKQIIPLSWFKNAINNANIQEFGKLNQKALIIQNTIIK

NLPTQRAILKNPFFENEGIPFDYASDGILNTGAPVLISHFSKDKRYAFVLGEAGFGFVESKNLEFFSNDR

AKIYENLNFITPLKEKFAIYSEDGKFLFESRIGAIYPYYKEDKNYFYGKIGSKKYKISKKDVSKFPLQFN

DKNLKNQLSQVLNLPYGWGGYNFERDCSLLTRDIFSAFGLYLPRNSAAQKNSFNHFDISTLSNSQKKDFL

NRFGKAYLSLLYLPGHIMLYAGQITDNNIAIHNIWGLRKDATQRLLISSSVITSLEIGKNEILEDNLLLS

RLKEISFINLNEQEKEQIKSYLENIQNK

>CAL35065.1 putative helicase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDKLEKILAYDNVFLSGGAGVGKSFLTNELIKSYRKQKKLAIALGSSALSAFNIGGVTLHSFFCLGYCD

DMMKLSVLDRNQKQKEKLTKLKELLKTIELIIIDEISMVSANVFEMIGFRLKNSQFNGKILVVGDFFQLP

PVIKEKKETLFNHSYYAFSSFFWQDLNFKNIKLSQPKRTQNMEFYNHLSLIRQGFLDEKILSFFESLRID

YKELENLEDDYTLLCGINKKVNNINQEKLSKLETPLVCFKAQVKKEDKRIKDEELDSWIRSLNILEELNI

KIGARIIFCVNNWDKNYYNGEQGIIEDILYEEEKIYISIIKNNGMKILLEPYTFFMEELEQSGKDFVVNI

LASVTQFPIKLAYAITIHKSQGMSIEKLVCDIDHIFENGQLYVALSRATNPNTLKIYSTKKINFGFYFAN

ILKIDSNVIEFYKKHNFLDLEIQEQII

>CAL35064.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLSVFLVLSLNAQNLEIDKIRTDLYSKSGANVLKKVEISLEFDGNNLKENENKLIDAVNTVISGFF

YEDIFTEIGKNNFKKTLEKFLDKKYKIKLDDIYIISLSGVEKFDLEEFKRFLESTEAKEKGMGSEVKKAL

ENLEVPKTQVPSVEKIPTPSVPNLEVKQVEQLFKDPDEENKNDNGEINIDNLNTPKMTPDIEEKIKRDLI

ANPPQIFKENNASKPYHLPQTGYDIKLDENSTQN

>CAL35063.1 putative outer-membrane lipoprotein carrier protein precursor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKTFLIFFIFIGQLFALDLNFNTFSSNFTQIVKSKNSTLSYSGHFILSKDQAYWSYDTPSKKEIYINKN

QVTIVEHDLEQVIFSHLDNIPNLNEIFKKASLIDKDKLVAKYDNINYTIKLNQEQIQSISYKDEFENDVI

INLNNQIKNPKINSDVFKAKIPQNYDIVR

>CAL35062.1 preprotein translocase SecA subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFLNALKAVFGTKNDREVKKYFKRVAQINALEGNYQNLSDDELKAEFAKFKEQILSGEKNENDVLNDVFA

IVRETGKRTLNMRHFDVQLIGGMVLHDGKIAEMKTGEGKTLVATLPVVLNAMSGKGVHVVTVNDYLAKRD

AEQMSAIYNFLGFSVGVVLSSQNSDIEHKQAYDCDITYGTNNEFGFDYLRDNMKFSKAEKVQREHNFVIV

DEVDSILIDEARTPLIISGPTNRTLDGYIKANEVAKQMQKGEAVLPPAKPEGDFVVDEKNRNILITEAGI

AKAEKLFGVENLYSLDNAILAHQLDQALKAHNLFEKDVHYVLRNNEVIIVDEFTGRLSEGRRFSEGLHQA

LEAKENVKIQEESQTLADITFQNYFRMYNKLAGMTGTAQTEATEFSQIYSLDVISIPTNIPIKRQDKDDL

IYKTQNEKFKAVIEEIKKANAKGQPVLVGTASIERSEVFHNMLVKEKIPHHVLNAKNHEQEALIIQDAGK

KGAVTIATNMAGRGVDIKIDDEIRALGGLYIIGTERHESRRIDNQLRGRAGRQGDPGISRFYLSLEDNLL

RIFGGDRIKSIMDRLGIEEGESIESRIVTRAVENAQKKVESLHFESRKHLLEYDDVANEQRKTIYRYRNE

LLDENYDIRAKISQNIAEYSANVMNDYMLDESGSNVNFENLKAKILYECSTQISEKDFENLSVIEMQDKL

SQILENSYNEKMLRLEIKELRNIERILYLQVLDNAWREHLYQMDILKTGIGLRGYNQKDPLVEYKKESYN

LFLELVNRIKFDSIKLLFSVQFNQEEAQNLENKANEENEKLLQSSVEMGASEDNLGEAEFKKVPRNAPCP

CGSGKKFKECHGKSGPKQGILA

>CAL35061.1 putative permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKSVLKYLLFKYLRFDKEQPFINLSMLLAFLGVCVGLCVLLVAMAIMNGFDKEFEKRFFVMNYPITILP

KFYAPVNDEFIDELRKTFPNLLFSPYLSTQVVVKGDNRFEGGVLFGVNFNDEKKINEVVAKALKDENLSG

FDILVGSALTDEFGLHKNDKLSLIFSNLNPSGFSLVPQTKRFDVKARFTSGLAFYDKAYMYTDVDALKKV

LGIPKNPNYDGIHVYSDNAFKDVEKIKSYLKDDYAVVGWWEQNKNFFSALELEKRALFIVLMLIILVASL

NIVSSLLMIVMNRRSEIALLLALGASKNEVKKSFFALGMLIGGGGMIVGVVLAFFALWLLGNFDIVTLPV

DVYGTSKLPLDLSLMDFSLTIVGALIIIALSSFYPAKKATQINILDTLRNE

>CAL35060.1 putative glutamine transport system permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLFTQKNKNFKPLKPLSKSKIITNLILLILFLILFCYCSFSISAYHFDFSAIATYKEKFLQGFLNTLII

SFFSLLLSIILGGVFCAFSLSSIVFLRFLSTFYIELVRGTPLLVQVLLIYYIIANNLGLDNRYVAGVIIL

SCFSAAYLAEIFRAGILSISISQLESARALGLKEMQVFAYVIFPQALKNILAPLSGQFANLIKDSSLLSV

IAVNELTQSAQEINSYTFATLEAYVILAITYLVLTLPISIFSRYLERKCQK

>CAL35059.1 hypothetical protein Cj0939c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIIGHKLLKNLDFSFIESVEEVKDNKVYCIVYDEKLISYLSQNDFEFAILVQNKDEIFLANALGAKFLL

CNDKKLAKFASKVAEFYVFDSRVLMIVDKLENFKKFYKLKIDGIILKDNIDNFPKN

>CAL35058.1 putative 2-acylglycerophosphoethanolamine acyltransferase / acyl-acyl carrier protein synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKKSFLKIYGLIPFLLIAFINAFVDLGHKIIIQNTIYKAYEGSEQLFLNAIVNALILLPFILMLSPSGF

LADKYPKNIVMKISAIFNVILTLIICICYYSGAFWMAFIFTFIMGAQAAIYSPSKYGFIKELVGKDFLAM

GNGVINAVSIVAILAGMALFSLSFESLYSSMYNQTDEILKEVAPLGIVLILFSCIEVFFAWRLPKLKQTN

KDLVFNKKDYIRGKLLINNLKLVFKNKTIWLCIIGISFFWAISQLYLVSFPVFAKNELFIENTFYVQISL

AFSGIGVILGSLVAGKFSKNYIELGFIPLGALGMFLMAFLMPYFISLLSYSFLFFFFGFCGALFIIPLNT

LIQFHAKENELGQILAGNNFFQNIAMLGFLLLATLFVKFEINVIYLFYFIALVTFIGSFYILLKLPFSLV

RILLSIAFLQRYRLLVEGFENIPEKGGALLLGNHISFIDWAVVQMAIPRKIYFVMERSIYSKWYIKIFLD

KFGIIPVSSTGSKTSLELIAKHIKEGNLVCLFPEGTLSRHGQLNEFKAGFELACECLSEDDGKIIPFYIR

GLWGSAFSRSDEEFSARNRTLNKRKIAIAFGKAMPLHSKKDEVKAKVFELSFMAWKSQCEAMHTIARAWI

DTAKKNLNQIAIIDTLAGDISYRKMLTLSLFLNFFIKRKSKELNINLQRGSYAPKEEAIGILLPASFASS

LTNLSVLIAEKIAVNLNFTAGEKALKAAIKNAQISQIYTSKTFLEKLANKGINLNFDTNIHLIYFEDIVE

DFKMQKTKIFSMMLAVSIIPSFILKSIFTPSKNNLAIAAILFSSGSEGSPKGVMLNNRNILSNIAQISDV

LCTRNNDVILSSLPPFHAFGLTVTTFLPLLEGIKSITFSDPTDALGVAKAVAKNNVTIMCGTSTFLGIYA

RNKKLDALMFESLRIVVSGAEKLKNEVRTTFEMKFKKSIFEGYGATETTPVASVNLPNHFDVDYWLIHRA

NKEGSVGMPLPGTAVRIVDPNNYENLKTNEDGLILIGGHQVMVGYLNDKEKTDEVVKEIDGIRWYNTGDK

GHLDEDGFLYIVDRYSRFAKIGGEMISLGAIEEEIAKFIDTEVVKFCATSLEDEKKEEQIVLLIECNNEI

FEGVCEAIKNSNIPTLFKPRYYFQIEKIPLLGSGKVDLKKVKELAKNLAI

>CAL35057.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFVFIPLFTIFILLAGGYFAKRIGVLKQKQARTFLDFAIIFALPCLIFDKAYHLNFDFSLIIFIFIGLFS

CILAAFFAILIGKVFHFSKVTLVSMFLLSCFGNTIFVGMPIVAGIFNDPQFSAEVIFYDALATTLPISLF

GPFILSLGNGEKVSLLANVKKILSFPPFLALLFGFLCKLITLPEFIFSPIRLFGASATPVALFAIGLGLG

FMAIKTSYKPTIVVIFAKMILAPLFFVFCLKIFNLELKDSTIVAIIESAAPTMTLAGAMVMKAKLDSNLA

VSAVAFGVLFAFVSMPILIWTLL

>CAL35056.1 ATP synthase F0 sector C subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVLFLLLACTAVAFAAETNAPVEQEAINVWIKAFSVLAAGLGLGVAALGGAIGMGNTAAATIAGTARN

PGLGPKLMTTMFIALAMIEAQVIYALVIALIALYANPFIVLQ

>CAL35055.1 putative sodium:amino-acid symporter family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSSKFSKIGFILAVAGSAVGLGNAWKFPTLVGQSGGSAFILLYIILTLGVGFVIFLAELSIGKISEKDPV

NAYEKLAPSNKKAWSYVGFTMVGAILIVSFYTLVIGWIVKYVFLSITGNLPMDLEVSKAQFGFFISEDFL

SQFICFTLVFLCVFYIVSKGVKNGIEKLNVWMMPSLFILLILMLVYAISKDGFIMAVKFLFVPDFSKINT

SNVLEALGLAFFSLSLGVGTIITYSASLPDKTNFITSTLNIIFINLLVGLLMGLVVFTFIFEFGYNPNQQ

GPGLVFISLATLFEKIGVIGCIFGAAFFISLIFAGITSAVSMIEPFTFYLINTFGMSRKKALILIGIVVY

ILGMLCILSSLKSTQFGFFGMSFFDLLDSVSSKVIMPLGGILAAIFVGFVMKKEALKILFKPYMRGIFFE

LWYVFLRFISPLAVVIVMIAAFLK

>CAL35054.1 putative sodium:amino-acid symporter family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRTYFSKIGFVLTVAGGAVGLGNAWKFPTLSAENGGFVFVLLYLFFTLTIGFSIFLAEVAMGRLSKSDLA

NAYSNLAIKYGNRWRYGGVFMLGGIFVLSFYLVIMGWVLKYTVVSLYYLPKTLDEAASNFQNLITTNLTS

SVFFFTLSFFLTLLIVSKGLIKGIEKLNVVIMPSLFLMLVFMLFYCMGFKQGFANAFSYLFYPDFLHFKF

SSIAEALGLAFFTLCLGIGCIVTYSSALDKKTNFIKSSVYIVLINLLISFIMGLIVFTFIFEFGADPHTQ

GVGIVFISLMSLFNQLGALGYIFAFCFFLALFFAGITSAVSMIEPLTFYMINNYQISRVKALFLIGLFVF

VFGICCILSLNLNFFSMFSFFGKDFFTLLDKLTSNFLLPLGAIVCSIFVGFFMNKKQIYKIFSKFISRKI

FLIWLFFIRFISPIAIILVMCYQIFV

>CAL35053.1 putative pyruvate carboxylase B subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKFIDVMDTSFRDGFQSVYGARVLMDDFFPAVEAAKEAGITHFEFGGGARFQSLYFYLNEDAFTMMDR

FRAIVGKDANLQTLARGVNTVTLDTGSSELIDLHAKLFAKHGTTTIRNFDALNDINNLKFSGECIAKHGL

KHEIAITLMDLPPNCKGAHDVPFYEKILKEILAAEIPFHSICFKDASGTSNPNKIYETIKMARKILPQDM

HIRLHTHETAGVSIACYLAALEAGVDGIDLAAAPVSGGTSQPDILTMMHALKGKDYDLGGLEEEKILKYE

EVLKDCLKEYFLPPEATMVNPLIPFSPMPGGALTANTQMMRDNNILDKFPQVIHAMREVVEKGGFGTSVT

PVSQFYFQQAFNNVMFGSWKKIAEGYGKMVLGYFGKTPVAPDANIIELASKQLNLEPTTELAINIADKDE

SKSIAYTKTLLEKEGIETSEENIFVAAACKEKGIAFLKGEAKVNIRKLASMPKPMSADENKFTVAVNGNK

YHVEVSYGFDKDVNVKSVKKVEENKNIISSNSTSSVDAENEVLAGISGNVFKIYVNEGEEVKSGQAIMVL

EAMKMEIEVNAPKDGIILELCIKIGDTVNEGEVLAIYKN

>CAL35052.1 phosphoenolpyruvate carboxykinase (ATP) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFDKLGLDNIKEIFHNLSYDELNAHEKANNEGLSTDNDTFCVDTGIFTGRSPKDKYFVKQDPSSKYIA

WGKVNQPITKELFDKLLTKAKQELSGKKIYVQDVFCGASLQSRKAVRFVTEIAWQAHFVKNMFIRPSQEE

LENFKADFIVYNACKCINEDYKQDGLNSEVFVIFNVEENIAVIGGTWYGGEMKKGIFSMMNYWLPLENKL

SMHCSANVGEKDDVALFFGLSGTGKTTLSTDPKRRLIGDDEHGWDDEGVFNFEGGCYAKTINLDPEHEPE

IYGAIKRNALLENVVLRADKSVDYADASKTENTRVSYPIEHIENHEPSLKAGHPKNIIFLSADAFGILPP

VSKLSKEQAMYYFLSGYTAKVAGTERGITEPQATFSACFGEPFMPLHPTVYARLLGEKIEKHEVNVYLVN

TGWSGGSYGVGKRMSIKATRACINAILDGSITKCEFENFEVFDLAIPKALEGVESVLLNPINTWLDKNAY

IATRDKLAHMFIQNFKRYEDVKEGIEFSKFGPKI

>CAL35051.1 argininosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNEMWSGRFSGASDELLKEFNASLNVDKTLFNEDIQGSIAHATMLESCGILKKEELDAIIKGLEQVRSE

IEQGKFIFDIKDEDIHMAVEKRLSEIIGSEIGGRLHTARSRNDQVATDFKLFVKKSHIELIKLLKELIQT

MLEHAKVHKKTIMPSFTHLQHAQPVSFSFYILAYAFMLMRDIKRLQNSLELADFSPLGSCACAGTSYAIN

RELSAKILGFKDIMPNAMDGVSDRDFALDLLYDIAVIFTHTSRLCEEMILFSSSEFSFITISDSFSTGSS

IMPQKKNPDVCELIRGKTGRVYGNLISLLTIMKALPLAYNKDMQEDKEGIFDSVKTAKDSLIILNAMLKE

IQINKENMLNACKKGHLLATDLADYLVREKNIPFRKAHFIVGNVVAQAEAQGIDISEIKDLSKIDPVFDE

KAMELLNFEFSLNSKQSEGSSSIASVEKQIQILEGFIQNL

>CAL35050.1 putative GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLSVGIVGLPNVGKSTTFNALTKAQNAQSANYPFCTIEPNKAMVEVPDLRLNELAKIVKPERIMHSLIE

FVDIAGLVKGASKGEGLGNKFLSNIRETEVILHIVRCFDEENITHVEGGVDPLRDVEIINTELILADIEQ

LSKKIEKLTKEAKANQKGAKESLELANSLLDHLNKGLAASSYPEKESEIYQALIKELRLLSAKEVIYGAN

VDENGISEDNDYVKALKEYAKKNDHEVIKLCAKIEEELVGLSDEESHEFLSSLGVNESGLDQIIRTAFAK

LGLISYFTAGVVEVRSWTIKKGWKAPKAASVIHNDFEKGFIKAEVISYEDYIQYKGENGAKEAGKLRLEG

KDYIVLDGDVMHFKFNV

>CAL35049.1 aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFELNDKKLDAIKADFELVFIQDKNLKIFNKEKDFFKLNNYKGEGALLDLNNKKLYLELKSLAYEDIRL

SLCTAYKTLEKLNIKSVKLPSIIGDCVVRSFASLVEGVLFGAYKFDKYKSEKKTSTLEKFIISNEELNGK

KFNKDEAKIGLERGEILANATNFTKNIVNEIPEIYTPLKMAEDAQNLAKENKNIICKIYDEKFLAKEKMN

AFLAVNHASVHPPRLIHLSYKAKNAKKRVVFVGKGLTYDSGGLSLKPADFMLTMKADKSGAAAAMGIIKA

VAELALDLEVHCILGATENMIGGNAYKPDDVLISREGVSIEVRNTDAEGRLVLADCLSFAQDLKPDLLID

MATLTGACVVGLGEFTSAIMGNNEELQNDFYLSSKKSGEYTTILHFNPHLRELIKSNIADVSNTASSRYG

GAITAGLFLDKFIRKEYKDKWLHLDIAGPAYTEKSWGYSSFGAGGAGVRMCVNYLIQILRKAK

>CAL35048.1 putative integral membrane protein (dedA family) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEEFLKNLLYQYKDLAYIIIFLWCILEGELALILAGIFAHQGHVNLGFVIFIAGLGGFVGDQIYFYIGRY

NKCYIQKKLKTQRRKFAVAHLLLQRFGWPIIFIQRYMYGFRTIIPMSIGITRYSAKKFAIINLFSAWVWA

SITILLAWYFGEQIWKMVTWAEEHWYYAAIIIIAFLSLLLFGFKQMEKAILKDKRKKS

>CAL35047.1 adenine phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKLTQEEQKYLLDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFI

FASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKVELHKDAFKNIQNARVLLVDDLIATGGTAIA

SYELIQKAGAKCVEACFLINLKDLNGANKLEKLTSVYSVLEI

>CAL35046.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFTNWLVLTILICATIYLIVMLFYYKTLLNKEKTSKDFIKNNLDDTEIVIRKLQIQLQRSLGNIDILTEE

LNKIKADLTSLRTRNSQYRLENDKLRQRIKELEAKIEALL

>CAL35045.1 ribose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLREKIYIASDHAGFELKEKICVFLKEKNIIFNDLGTNTCASCDYPDYAHLLAEKINKRSFGILICGSGI

GISIAANRHKNIRCALCHESLSAELARRHNDANVLALGGRLIGVELAIDIIEKFIQTPFEEGRHMQRIQK

IEVKI

>CAL35044.1 putative MCP protein-glutamate methylesterase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLILIGSSTGGPNQLKFLLKDIDVKNTCVVIAQHMSASFIPSFVGQFNKEAFSEVCLLNDKEILSNKIY

ICPKNTILSGNLNIVAAWQDVASSFKPSVDLLFHSAVSLAKTNKILAIILTGMGDDGAKGLFELYKTGVR

CLCENEADSVVYGMPKRAKDMNPHLKPMSLKEIKKEIVNFIDQD

>CAL35043.1 putative MCP protein methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKKITPSELELNEFIKIINEMSGIDLTDKKNILALKLNKFLEGTNTKNFSEFLGKLKSNRQLKQETLDF

VTIGETYFLRELAQLKEIIYYAKSLEKRVNILSAPCSSGEEVYSLALLAAQNFIKDMYILGVDINSSVIE

KAKLGKYQGRTLQRLSESEKRRFFLESEDKFYTINKNELCTCKFELCNVFEEKFSRLGKFDIIASRNMII

YFDHESKLKLMERFHRILNDKGRLYVGNADLIPETIYFKKIFSPRGVYYEKV

>CAL35042.1 ABC-type amino-acid transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIELKNVNKYYGTHHVLKNINLSVKEGEKLVIIGPSGSGKSTTIRCMNGLEEVSSGEVVVNNLVLNHKNK

IEICRKYCAMVFQHFNLYPHMTVLQNLTLAPMKLQKKSKKEAEETAFKYLKVVGLLDKANVYPATLSGGQ

QQRVAIARSLCTKKPYILFDEPTSALDPETIQEVLDVMKEISHQSNTTMVVVTHEMGFAKEVADRIIFME

DGAIVEENIPSEFFSNPKTERARLFLGKILKN

>CAL35041.1 aspartate/glutamate-binding ABC transporter protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVFRKSLLKLAVFALGACVAFSNANAAEGKLESIKSKGQLIVGVKNDVPHYALLDQATGEIKGFEVDVAK

LLAKSILGDDKKIKLVAVNAKTRGPLLDNGSVDAVIATFTITPERKRIYNFSEPYYQDAIGLLVLKEKKY

KSLADMKGANIGVAQAATTKKAIGEAAKKIGIDVKFSEFPDYPSIKAALDAKRVDAFSVDKSILLGYVDD

KSEILPDSFEPQSYGIVTKKDDPAFAKYVDDFVKEHKNEIDALAKKWGL

>CAL35040.1 putative ABC-type amino-acid transporter permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNESVGFVEHLRQILTSWGLYDENSISPFAVWKFLDALDNKDAFINGFIYTLEVSILALLIATIFGTIGG

VMATSRFKIIRAYTRIYVELFQNVPLVIQIFFLFYALPVLGIRLDIFTIGVLGVGAYHGAYVSEVVRSGI

LAVPRGQFEASASQGFTYIQQMRYIIVPQTIRIILPPMTNQMVNLIKNTSVLLIVGGAELMHSADSYAAD

YGNYAPAYIFAAVLYFIICYPLAYFAKAYENKLKKAHLTR

>CAL35039.1 putative ABC-type amino-acid transporter permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENVFNAQNIEFLMQGLFLTLKIALATCIISIVFGTFLAITKNYGDRLSKFLAACYIDIFRNTPLLLWML

AACFVLPVFFGQFPQAFWGTIGFSLYTSSVMAEIIRGGLNSIPKGQFEAAYSQGFGKFFTLFYIILPQTF

RKIIPALLSQIVTTVKDTAYLAGLGIAELTYNSKTILAKLTSFEEILAMIGVVAGIYFIICFSLSMLVRY

YAKKTAYIS

>CAL35038.1 ribose-phosphate pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRGYKIFSGSANVEFARQVSKYLSLPLSDAGVKRFSDGEISVQIDESVRGKDVFIIQSTCAPTNDNLMEL

LILTDALRRSSANSITAIIPYFGYARQDRKANPRVPITAKLVANLIQAAGIDRVATIDLHAGQIQGFFDI

PVDNLYGSIVFNDYIKAKHFKNAIIGSPDIGGVARARSVAKHLGLDIVIVDKRREKANESEVMNIIGDVK

DKEVILVDDIIDTAGTIVKAAEALKEKGAKSVMACCTHAVLSGKAYERIASGVLDELVVTDTIPLKEQLP

NIKVLSVTPVFAEVIRRVYHNESVNSLFI

>CAL35037.1 putative integral membrane protein (CstA homolog) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTQLSTKILWLFVAALGAICFGYLALQNGESVSAIYLVVAAVCIYMIGYRFYGSFVAYKVLELDKNRATP

ALVENDGRDFVPTNKAVLFGHHFAAIAGAGPLVGPILAAQMGYLPSMLWILVGGVLAGAVHDFVVLFIST

RRKGRSLGEMIKDEMGKFTGGVAMVAIFGIMLIIIAILAMVVVKALAESPWGLFTIAMTIPIAIFMGIYM

RFIRPGRVGEASIIGFVLLILAIHYGSVIAADPYWAKIFTLEAPTLAIVMMAYGFIASVLPVWFLLAPRD

YLSTFLKIGVIVVMAVAIVLVAPDLQMPKANTQYFDGTGPVFAGGVFPFLFITIACGAISGFHALISSGT

TPKMLENETHTLAVGYGSMLAESAVAIMALICACILHPGLYFAINSSSALIGTDVVNVAQTISSWGFSIT

PEEITTLTTNIGEYTILSRTGGAPTFAIGVALILHELFGGVDLMAFWYHFAILFEALFILTAVDAGTRAC

RFMVQDILGNVYKPLGDIHNYPAGLLATALSVAGWGYFLYQGAIDPKGGIYTLWPLFGVSNQMLAGMALL

LATTILVKMGKARYTWVTLVPAVFVLVATLYGGIQKIMPYEEGNKIANAVSHVAAVSIQSQKIKDLEFKL

NNTKDEKEISTIRKEISIATQNKVGNLLNAILCVFFMIATLLVIISCIGICLGKIKIPLKETKYIKIDEF

QKI

>CAL35036.1 conserved hypothetical protein Cj0916c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFKKFKYYYEKAERFFHPLVGLSSYDKYLEHMKQKHPGKIPKTRGEFFKECLDKKYNSGGLNKC

>CAL35035.1 putative hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRDMGEPKLKIVAMPSDTNPAGNIFGGWILSQIDLAGAIAARELSPERVVTISMDKVVFKEPVFIGDIIS

CYSKVVNVGNTSISVEVEVTAQRVDSQGCTSCINVTSALVTYVSVTRDGKKNPISEELKRIHGFLNA

>CAL35034.1 CiaB protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNFKEIAKLVRKYKERNNALYEFLDKEDVGEYFRSLISLSELKQDKTTMLAILRRLIDLKEENLVQEWK

KNNFKEDKIIELKHKFYEEVRKFYEKEHQNLINEIKEKKLLNNFYQSLIQGVHNIGLIMNIFEISWTKEI

IEKNNKILSTQFPNLDDAMEFLRKNHLYQKTPEGEICERSYGVLVRIGNLWKFVPYARFFENEILKLEFA

FENMIDQLKIFASSEEEKAYIEYFEKLKLAFCEKDEDRVIKAWQEAEFAWMKVKSPLQVGHPLEYYEDNY

THAVALEWDIRIEDENDFDVLKFGNEIKESFEHVYKNIGLEDCELEKEVLSNIEKTQLYICTPMIFYGAE

LKGLFSAQVVPNDEFVSSKAGKKIFAFINFVYENAKTKPFMKISSEVFDKEFLDFGRNILFYQEKIWKRV

YEVSTIGHEFGHIFFIANDTEKTMNQSGFFKNIEEYKATTGGLINFFYHEQDDLIMPVFHELIKRAIGLI

SWQRVDEVRPYYTEGLIHLSLLFESEVLIFENNNLKINFDLGYYEKFKELTLKNYHELAKHYALRLDAKE

FLSRFCEIEDNIFLPIMPKCKEFVKFYYDLYEKIGNEIDNSGEFERYKKK

>CAL35033.1 DNA-binding protein HU homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKADFISLVAQTAGLTKKDATTATDAVISTITDVLAKGDSISFIGFGTFSTQERAAREARVPSTGKTIK

VPATRVAKFKVGKNLKEAVAKASGKKKK

>CAL35032.1 cysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVHEKVSELIGNTPIIHLKKFGINVFAKCEFLNPSHSIKDRAAFEMIKDALDSKKINQDTTIVEATSGN

TGISLAMICADLGLKFIAVMPESMSLERRKMITLFGARLELTPANLGMKGAVDKANEILLNTPNSFMVSQ

FENISNKNAHRKNTALEILRDLDNELDIFVAGFGTGGTISGVGEILKEKLEKVHIVGVEPLNSPLLSKGE

AGSHKIQGIGANFIPAILNKEVIDEVITVSNEDAINTAKELAKSGLMVGISSGANVFAASMLAKKFPDKR

ILTMLNDTAERYLSTDLFA

>CAL35031.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKNIILFIVIVAIILGVIFFIKNHQNSYDFILKSDLKEETTLKDFKGDKLIIYFGYTYCPDVCPATLSL

VGKALKQINNPKAHLLFISLDPNRDNNLSNTNEWLRYFYPKADALIAKDEKTLQKITKQYNVQYQKIDLN

DSFMGYSIAHSNMLYLIDEKGHFYKEINDLNPQEILRELRIFLNSQ

>CAL35030.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKIIFILAFAFVIAILYIIFDFYVIKDSQKITKTDFSTPLTCDLNVKDCTYSFNNKKVLISLNPKPLQS

LDVTNLKIVNLGNYNNLGIKIYGLNMYMGEIKPKIHRLNSTDYESKIVLAACVLDTMRFRVEFMDNNKPI

GFYFDFELKK

>CAL35029.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILLLGALFAVNLWAVNDIEVKNAFVKQTPPHAQNSAIFLTIFNNTNKDIALISAKSDISEVSELHTH

IHKDGKMMMQKIPEIIIKAHSSTELKSGGYHIMLLKLKKPIIKDTKVNLDLKFNNHKTIELKNIDSKEF

>CAL35028.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIRNFFIGMSFLGILFLAFYTLYDKKKESIFSLNTCQPLTCDLNLQDCVFSFNKKNIEVSAYPKPIKIFN

KTTIKIKNFPHYSNLKIKIYSLNSYIGDIIPKFNIVNGDILINFIGRSITDDSRFRVEFLNNNAPTGFFF

DFDVTMQKNFQTGNTH

>CAL35027.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKRLALLIALSSLMLHASDLVKIYLNQGLDAVGVAIEKELTQKDFWLSEIGDKNISLGYYDDNVAIVLT

NKTDKILRVYSYEDGKIRKDFEQKEIITGLMGDKKIEGDLKTPVGFYELGRKFNPGDPYYGPFAFATTYP

NLLDKVQGKTGGGIWIHGYPLDGSRLDEFKTRGCIALFNNNLEKFAKVVQDKKVFVMTEEKEKIRAKKDQ

IASLLADLFTWKLAWTNSDTNAYLSFYDEQEFKRFDKMKFEQFASMKKSIFSRKEDKKIKFSDINISPYP

NLENETMYRISFYEDYYTKNYRFRGDKILYVKIDSKGKMKILAEQ

>CAL35026.1 alanine racemase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLIKIDQKAYEYNLRHIAKKIGSFQRLICVFKDNAYGHGAKLLAPLAKNLGVSFVAVKSEEEAREIEEF

FENILILSHRPHGNENSRFIYALNDISQVKNYKQDIKIHLKIDTGMHRNGICVENLEHAINLIQGSDLKL

TGMFTHFASADEMDGSFFVQKENFQKAKKIVKKYFSNLLFHSYNSAALFRGKIPEDEYCRVGLVQFGYGD

SNLKRVLSLYAHRLSQRILQKGQSIGYGGIFTAAKDMEVATYDLGYADGLFRYNGRGELVLGNGKAMLGK

MSMDSFSCENSGEEICVFKDADIWADFFHTINYEILVKLNPNIQRVLV

>CAL35025.1 putative RNA methylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFNIVLVHPRIPQNTGSIGRMCFNAGFKLHIVKPIVFDISQKAVRRAGLDYWDKLEPIIWENLEEFLNEN

MIYKNRFFFATTKSQKAYFDAEFQKNDFLFFGSESYGLPMELMQLNWENAITIPMKSYGRSLNLATSVGI

ISYEALRQNFRNFAS

>CAL35024.1 putative amino-acid transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLDIMLDFANKASDIIANKIVPNTDIIMVVLLIVCGLYYSFLTRFVQFRMLSSVFKILTEKNEGHAKEH

ISPFQALMISTASRVGIGNIAGISLALATGGAGALFWMWVMAFFGGASAFAESTLAQVYKSKDDTGGFKG

GPAYYIKKALGSHFFGAFFAFILIITYAYGFNGLQSQTMTSSFKVYYDMFNPNAAVDFASSSWPMIIGIV

LTIFGAWMFFSHHTKIGKISSLIVPFMALAYVLLAVIAVLMNFDKIPSVIHMILQSAFDFKAIFGGFAGS

ALVIGIKRGLFSNEAGMGSAPNAAAAALTSHPAKQGVIQAFSVLIDVVVCTSSGFLVLFSMAYLGLGENK

IDGGMPLVQEAMREYYGSFGIHFITIAIVLFAITSLIGNYYYAQANVKYLTNSKFVMNLFRITAVAMIFI

GSQMNLKLAWNLADLTMAFMATTNIISLLLLGGIVNKVLKDFNTQQKSGIDPKFNASKLGIKNAECWD

>CAL35023.1 putative glutamine transport ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIEVKNLQKKYGELEVLKNINTTISKGDVIAIIGPSGGGKSTFLRCINRLELADSGEILINKQNILDKEI

DINKIRQKVSMVFQHFNLFANKNVMENLCLTPIKTGILSQEEAIKKAKLLLAKVGLADKENIMPHKLSGG

QKQRIAIARSLMMNPDVILFDEPTSALDPEMIGEVLSIMKDVAKEGLTMLVVTHEMGFARNVANRIFFMD

KGKIAVDASPKEVFENPSNERLREFLNKVLNH

>CAL35022.1 putative amino acid ABC tansporter permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNQKNIRIFVFFVIIILWGYFSFPIEILKIQDPSGVASYGYTENAKAYLKSYLITLLLTACAVIIGVIIG

FSLAILRFSKFKTLNFIIDEYIDIIRGTPVILQLMIFAFVIFTFIDNLYAAILALGLNSSAYIAEIVRSG

INSVDKGQMEAARAMGLDYKTSMKEIILPQATKNILPALANEFISLFKETSVVGFISVIDITMQSQSLQA

VLYNPKPIIFTGLVYYVSVKIFSYFAKKLELRMNKND

>CAL35021.1 small hydrophobic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEFPKNKVVFMEILDFILIVIFVFLMIVLVIGFNHQMMQKNKEREERFKKYKKGEQNE

>CAL35020.1 4-methyl-5(beta-hydroxyethyl)-thiazole monophosphate synthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKVLIPLAQGFEEAEFIGIADVLKRAKELNPDLEVVIASLNSELLVKGANSISIKADCSIEDVDIENL

DAIALAGGFEGMMNLKNSNVILNIIKQLHSKNKIVAAICASPIVLNEAGVLEGEFACYPSCEVGLNGNRV

NKAVVVNKNVITSAGPATAILFGLELAKKLCGDEIYQKLYEGMLLPLTK

>CAL35019.1 putative histidine triad (HIT) family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEKTIFELIVEGKLPCNKVLESDDFLAFHDIAPKAPIHILIIPKKYFKDFQEFDPELMAKMTSFIQELA

VLLGVDKSGYRLVTNCGKNSGQEVFHLHFHMLGGFELPKEKTKKENPQALF

>CAL35018.1 phenylalanyl-tRNA synthetase alpha chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNFIEQIQKCENLNDLEAIRISVLGKKGILTEGFTKLKELEDEAKKEFAAKLNAQKEIFNEAYLAKFKD

LENLALEERMKQDALNFNYFDESITTGALHPVMSTMDKIIEYFIALNFSIEKGPLIEDDFHNFEALNLPK

SHPARDMQDTFYFDDKRLLRTQTSPVQIRTMLAQKPPIRMIAPGAVFRRDFDITHTPMFHQVEGLVVEEG

QKVSFANLKSVLEDFLRYMFGDVKVRFRPSFFPFTEPSAEVDISCVFCKGKGCRVCKHTGWLEVLGCGIV

DPNVYNFVGYENVSGYAFGLGVERFAMLLHQIPDLRSLFEGDLRLLEQFR

>CAL35017.1 phenylalanyl-tRNA synthetase beta chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIITKSWLNDWLELEEISSDKIAKTLNSIGIEVDRVGALKAPDKVVVGYVKEKIKHENSDKLSICQVDIG

SETLQIVCGAANVDAGQFVAVATKGAIMSNGMEIKEAKLRGVDSCGMLCSSLELGFEKINEGIMLLDESI

GKLELGRPLNTYEIFNDELIEVELTPNRGDCLSIYGIARDLAAALNLNLKEPKPFKESENVLGIGRILRL

AAEKELNGLYNYRAIGLKEEIQTNLLLSLRLAQIEGLGKNSIENLLNYATHSTGVLFNAYDLSSFSEKDE

EFTINLSKQVHGETKVSYKDKLLSFSGIFQNNESRCKDDSKIIIIEANYTDPLVIADAKIYHKDQDEKML

YRSFRGSEPKLNLGMDFLLGIFEQIPNLVIYSSSQQILTDKELPIIPISIEGISDIIGQNVDKDEVLKIL

KKLGFELILSGEGLINVKAPLHRPDIKNLSDICEEVVRIIGIDNIASKGLEFIEKNRLNSAYKNYIEFLN

LRKRAVASGYFESLHYVLDNGEELKRLGFDSVKLKLINPITAELNTLRTTLLNHLLNAASLNAKNSKKII

KLFELGAVFNVNNQELNRIAFIHSGLKEEAKISNKAKPESVQFYDFLLDIKNIIGDFKLKSSKYNILSPY

EQADIYLSDIKVGFIGRLHLKIENERDLPKTYICELDLDLIRQDFKIAKPYSKFPAITRDLSVLIPKGFE

YNQIKNCIEELNLEILENFRLVDIYSDENLKEFYSITISFSFRDINKTLEDNQVNECMDKILNTLKNLGL

DLR

>CAL35016.1 3-phosphoshikimate 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIYKLQTPVNAILENIAADKSISHRFAIFSLLTQEENKAQNYLLAQDTLNTLEIIKNLGAKIEQKDSCV

KIIPPKEILSPNCILDCGNSGTAMRLMIGFLAGISGFFVLSGDKYLNNRPMRRISKPLTQIGARIYGRNE

ANLAPLCIEGQKLKAFNFKSEISSAQVKTAMILSAFRADNVCTFSEISLSRNHSENMLKAMKAPIRVSND

GLSLEINPLKKPLKAQNIIIPNDPSSAFYFVLAAIILPKSQIILKNILLNPTRIEAYKILQKMGAKLEMT

ITQNDFETIGEIRVESSKLNGIEVKDNIAWLIDEAPALAIAFALAKGKSSLINAKELRVKESDRIAVMVE

NLKLCGVEARELDDGFEIEGGCELKSSKIKSYGDHRIAMSFAILGLLCGIEIDDSDCIKTSFPNFIEILS

NLGARIDY

>CAL35015.1 4-hydroxy-3-methylbut-2-enyl diphosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIIELAKNYGFCFGVKRAIKKAEQIKDAATIGPLIHNNEEISRLQKNFNVKTLENIQALSNEKKAIIRTH

GITKQDLEELRKKDIEIFDATCPFVTKPQQICEQMSKEGYEVVIFGDENHPEVKGVKSYVSTKAYVVLDK

KELQNIKLPNKIAVVSQTTKKPEHFMEIVNFLILKTKEVRVFNTICDATFKNQDAIKELSLKSDVMVVVG

GKNSANTKQLFLIAKTNCEDSYLIETEEELKKEWFLDKKHCGISAGASTPDWIIQKVIAKIENFRIN

>CAL35014.1 30S ribosomal protein S1 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEVNKKVQDGVDDYLEEEDFGQLLEAFDKSREEATTEGVIVEIKNDEVYVDIGKKSEGILALSEIQGDN

SKLLFNVGDSIKVAVMGSRGGRSLLSHKKALRKEKVIEFIKNYQENQDDIFTVKVVGKNKGGLIVVDEND

VEFFLPKSQYGFKETNNIIGKTFKVKIIKIDKDEQSIIVSRKKTLDDERRKRKELINNVAQQEDLIEGIV

KKITTYGMFVDVGGVDGLVHYSEISYKGPVNPGTLYKEGDKVPVKVIKYDKERKHLSLSIKAALPDPWSE

IKDTLDIGDTIKVIVSNIEPYGAFVDLGNDIEGFLHISEISWDKNIKNPKDYINKGQEIDVEVIEINPNE

RRLRVSLRNLLSRPFDEFMKSYKIADVVEGEITSVTSFGAFVKLGGIEGLLHNEDASWDRNDKCKDKFSQ

GDKIKVKIIKIDEENQKISLSTKELSSSPVQEYAKIHKVGDIVKGAIRDIKDFGVFVELSKNVDALIHKE

DISTSMLENLKIGDDIEAAIVFIDEKKNRIRLSVKNLVRIKEREVLNEINNDDKVTLGDIIKDQLA

>CAL35013.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYITISILSILLLILLAVVFTLLWQFKANVNFIPQFAKDTNTQPSIQTQNQDLSWQEELAKWPTRDFT

PAAEKFTLYFDADTSELKEKNKYYQLIVGKYDIYSMFCLRQTLNSFNVKYFLLKSGHSPEIFLDTGNEKL

IDDIIKELKKYKINTEVKEIWL

>CAL35012.1 D-3-phosphoglycerate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKKIIVCDAILDKGVDILRKAEDIELIEAAKFPKDELMQMLSDIEVAITRSSTDVDVNFLNHAKKLKAL

VRAGVGVDNVDIPECSKRGVIVMNVPTANTIAAVELTMAHLLTSARSFVNAHNFLKIERKWEREKWYGIE

LMNKTLGVIGFGNIGSRVAIRAKAFGMKILAYDPYISASKITDLDMEQAKNLDEILEKSDFITIHTPKTK

ETNGMIGKQEIAKMKDGIRLINCARGGLYTEEALYEGLKSGKIAWLGIDVFDKEPATNHPLLDFENISVT

SHLGANTLESQDNIAREACEQALSAARGVAYPNALNLPIKTEDLPPFVAPYIELVSKMAFLAVQIDKNPI

KSIKLEAEGIIGEYANSMLTFAAVGALGGILGEKINYVNAEFVAKEKGVELSCETLPNSGYNNKLSVKII

TENSNISVSGTVFNENEQRIVGLNGFKTDFKPKGKMIIFKNKDIPGVIAKISSVLAAKNINIADFRLGRD

GFGYALAVVLIDEKVQKEVLDELKQLEACVFVQYVEI

>CAL35011.1 putative sensory transduction transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKFKILIIEDDIDLNELLVLKLKSSGYEVISLADFFGVEDLLDNEQIDLLIVDRNLPSGDSLEKIQDLR

EQGYKEAVIFLTAKALHQDLLEGFESGCDDYVCKPFDFNELLLRIKAILKRHKKEEEKLSFGDFILDLVS

YEFFYKNQKLEISNLDYELLKCFFENPNTLLTRQFLSESVWKDDTTSDKTINIALTRLRNKFPKLKDHII

SVRGIGYKLC

>CAL35010.1 putative sensory trasnduction histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKTKNIFIVFFVVLALIFGFIFYTFTNSYLNFLLIKQYEQKIKSLDDVLKFSLLEHLNDANIKDFAKDT

RADFIILNNDMKISSVKNPDFFSNLKEGEILNFNSKKILTKSFIYKGYKYIIIVYPRFLDLELFWTKMAI

GFGVCLLFVFILMLLLGRRIEKNFNKILDFLDSIGDHKVVILEKGIFKEFNLLNEKLLKTKDKILKNTQK

NKKQSDKITLKNTQLASVISAISHELKNPLSVIDLSLEMLKDEKLEDKKLKKELLEKISRQSVKLNALTH

KLNFVFNLNSEALQMQEFDLFSLCEKITKNPGFERVALQGKSTKVKADEFLIEQVIINLLSNALKYSQKK

VILTARDQKIIVQDFGKGIEEDKIKLITKKFYKIDVKSDNSFGLGLFLVKKILNIHKSYLEISSTLGYGS

SFSFKLSQG

>CAL35009.1 ABC transport system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MALIDLIEASKKFGDKIVLNEVNFSANEGEKIAIIGKNGEGKSTFLKTLLGALPLDSGRIIRQNGKSIAM

LSQTVDFNANLSVKEAIKQELVEIYNTLEEYEILHKKLEEDPSNKDYLQKIDTLMTLIDSKDAWSIESKI

IRVLKEFSLLEYENRIISTLSGGEIRRVGLCILLLKNPDILLLDEPTNHLDVYMTSFLEELLKNSKMCVI

FISHDRYFIDAIAHKCVEVEQGKLSIFKGGYANYLEKKTQILQSLAKSHETLLKQLKSEEEWLRRGVKAR

LKRNEGRKERIFKMREEAKKNPGAIKRLKLEISRAALNFNGEKTINRKKMLFELKNISKNINNKNLFKDF

STRILQGERIAIVGRNGCGKSTLLKILLGQIKQDSGEIKRGELKIGYFDQARSLVNSDKSLLEIFCPNGG

DRVEVRGKNMHVYGYLKNFLFPKEFLDKSVALLSGGEKNRVALALLFAKEYDVLILDEPTNDLDIATINI

LEEYLLSFEGAILLVSHDRYFVDKIATKLYAFEGNGYINILHTLYTEYLENEKEIEELDNFALELQTQEQ

NNNQKEKSSKKLSYKENEILKNHPEKIDFLEQKIAKLNQDLSDPNVYQEIGINKLYQELEVMQKELEILE

NEYFLVLEKSENL

>CAL35008.1 putative flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRITNKLNFTNSVNNSMGGQSALYQISQQLASGLKIQNSYEDASTYIDNTRLEYEIKTLEQVKESTSRAQ

EMTQNSMKALQDMVKLLEDFKVKVTQAASDSNSQTSREAIAKELERIKESIVQLANTSVNGQYLFAGSQV

ANKPFDSNGNYYGDKNNINVVTGAGTESPYNIPGWDLFFKADGDYKKQISTNVSFTDNRWDLNKDPDKTK

YLTGDSKWQQLIGQSYVKDNSLDADKDFEYDDSKLDFPPTTLYVQGTRPDGTSFKSAVLVKPEDTLEDVM

ENIGALYGNTPNNKVVEVSMNDSGQIQITDLKQGNNKLDFHAVAFTPQADDKTELNNIIQAAQDEGITME

DVTNRVMTAALGNPNNGDITNLNNPVTIQINGQNFEIDLKQTDFIKSKMTDTDGNAANGADYDNVYFEKN

GNTVYGNVSQVIKGSNAYATDSTKLSEVMAGDSLNGTTLNLKVNSKGGNSYDVTINLQTSTVSYPDPNNP

GQTISFPIMHTNPATGNSGVVTGSNDITYGQINDIIGMFAADKIPTTTIQANNGQINNADYTQIQQLMKD

SQATVDVSMDYKGRISVTDKLSSGTNIEISLSDSQSGQFPAPPFTTTSTVQNGPNFSFSANNSLTIDEPN

VDIIKDLDSMIDAVLKGNMRADSESENPRNTGMQGALERLDHLADHVSKLNTTMGAYHNTIEGVNTRTSF

LSVNVQSIKSNVIDVDYGEAMMNLMQVQLAYQASLKASTTISQLSLLNYM

>CAL35007.1 putative cell division protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLAPGMGEWVYKANLFLFGEFAYYYPFFLFILNYVYYKRNYKLANFTRRELFGIGFAFFSSLLLFAVFYP

NSGYILELAYAIFSTILGHTGSGIFALLLLLFSLVLLFPKFAKEILKIELDFTYLLKVEQAFKSLLMRVF

GGENEKEDVGKSEPIVPKLNILQDSIYGNLQINKKGETNNLEQIIKDSNINASKNSITTAKENFEKLKNQ

ILDETIEIDKQSLKESRSFVHEHSQQVRNFAQKASKMSISLDEDFNFISEEEVDMIPERFLKPKKLEDIK

QIDTNKNLDEPSYKRKNIEIPVSNQEVKPKIFTKELELRENLIKKEKLEQEYKAYQNEILENKVKQEIKK

LEEYDAINSSDIIEGNKYSFNSPKTIKTETEESDKINENKNLDKADNIFEFAPIVEELNHPYIEPTPIKN

INEIVIEEKNTLDFIQNTETKIDNEKTNDQEIKLQKAVLAKEIAINQALLREIEQGEIEKPKDFTLPPLD

FLANPKEHKQEINESEIDKKIYNLLEKLRRFKIGGDVISTYVGPVVTTFEFRPSADVKVSRILNLQDDLT

MALMAKSIRIQAPIPGKDVVGIEVPNDEIQTIYLREILQSEVFKNAKSPLTIALGKDIVGNAFVTDLKKL

PHLLIAGTTGSGKSVGINSMLLSLLYRNSPKTLRLMMIDPKMLEFSIYNDIPHLLTPVITDPKKAVNALS

NMVAEMERRYRLMADAKTKNIENYNEKMKELGGEKLPFIVVIIDELADLMMTAGKDVEFYIGRLAQMARA

SGIHLIVATQRPSVDVVTGLIKANLPSRISYKVGQKIDSKVILDAMGAESLLGRGDCLFTPPGTSSIVRL

HAPFASEFEIEKIVDFLKDQQSVEYDESFLKDQQSVGVTTNESFDGEADELYEEAKRVILEDGKTSISYL

QRRLKIGYNRSANIIEQLTQNGILSEPDAKGQREIL

>CAL35006.1 30S ribosomal protein S15 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MALDSAKKAEIVAKFAKKPGDTGSTEVQVALLTARIAELTEHLKIYKKDFSSRLGLLKLVGQRKRLLSYL

KRKDYNSYSKLITELNLRDK

>CAL35005.1 putative transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLFTKASEYALLSLIYISQKETPQDVDSLALELDIPKSFLAKILQTLAKDGLLKSFKGAKGGFVLIKEPS

QYTIKEIVNSAEKKDISVFECSGGTCPNNKEENCTLMPMLVNLQNKVDEFLDSITLEDIMKNNGKK

>CAL35004.1 flagellar biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKNKIVDLVFPFLGPLIAPVLKAKSLTIVGFLVCILAIIIVPLPSPILDFFLALSIALSVLIILISIYI

PKPTDLTTFPTLILIITLFRLSLNIATTRMILSEGQNGPEAVSEIIAAFGEFVVGGNMVIGVIVFCILVL

INFMVVTKGSTRVSEVQARFTLDAMPGKQMAIDADLNAGLIDEQTARARRQEVIAEANFYGAMDGSSKFI

KGDAVAGIIITIINIIGGFLIGSFQHDMALSDAASTYTILTIGDGLVSQIPGLITSTATAIIITRASKDE

ENFAEGTLTQLLSEYRTLLIVGFVLFIFALVPGLPTLSLGFMALVFLSLGYLTKQVKEGKIDITTVKKSK

PSAAAASQSGAGGTTAAPAKKSEEEILKEEEHKINDILKVEILELELGYGLIKLAENELTERIRSMRRSI

AESLGFLMPKIRIRDNLRLKPNEYSFKLKGVSIASAEIYPDKYLAMDSGFITEEIEGIATKEPAFNSDAL

WIDANLKDEATLNGYIVIDPASVISTHMSELIKAHASELLTRQEVQNLLDKVKNDYPIIVEGALGVAPVS

LIQKILKDLLKHHIPIKDMLTILESVSDIAEVSKSFDMIIEHVRASLARMITNMYLDDKGNLDIFILDSA

SSAVLMENVQFRDGSYHLPLSVAQTGTLVDTLRAEVAAVANGRIKPFILCVEPQLRKFIADICYNFSINI

VVLSFAEIAENTNFNTEGIIRIEL

>CAL35003.1 hypothetical protein Cj0881c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIYHLSHTDLDGYACQFIVNFYFKSVKFYNSNYGKEINENFNSIIGDIEKDENFGKAIILITDLNLNLN

QCEEFEKICKEKNTKIFLLDHHQSGEECAQKYSWYLLDSKRCATKIVYDFFSKICTPVLELSKFVDVVNA

VDIWLSEDENFELGKVFLGLIANAKEINRVMFKESQIDYMFFLLDKAWKFIGKENANILLDNATHFIKKD

YFARKNDDTLSNLISYFVVEKLSELKENFSIEYEGHKGILTSNIGNTSVIGNDFLVKNPDYDFFIDVSSR

KTLSFRANGKIDVSLMAKNLVGGGGHKNASGGLFATFKDGANYNYIKAQIIDLIKSKELKKENNESKQ

>CAL35002.1 hypothetical protein Cj0880c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNQNNNKTLKNELEDLQYELSIVLEAMLLYAGVKREKLENAIEAYIDNIDNVLENSNKEGVDEILEVVEF

LKNKYKDFFQ

>CAL35001.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKCILIFFSLYSLSFANIYEKLNDFAYEKKPNKDFKIQEVKLVQFSQENKDCLELLIEASQVRILNSYN

SCQKLSKDESFQKFLNEDFLKLYKNNGYLINENLQNLKNTMQDIMIYYKLRYSFSKDVKDMSKNKNLDIL

NIDEKDGGTLLYKINNQACVGIELTRHDSRMAMKIYGIENLDKECKLFIQSPSFKDLSYTKKDFKWYYLE

>CAL35000.1 hypothetical protein Cj0878 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLSIQEKKDLDNCVFQNLGRQDTFTLSVVFKNFYLKIKAFILNNTT

>CAL34999.1 very hypothetical protein Cj0877c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQDFIIAKKLYFCFKYISSILNINEYYFKV

>CAL34998.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKFSIVLTLLLCGSCALALDPNLEKTKSATGIDLPTAKWNLPKELNEDGTIDETKMPKNSEYSKMVILG

NKILNETSKYVGPQAKDPKKKICGK

>CAL34997.1 putative cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWVHKPKILKKRFAGNNLSCSSCHANGGSVQNQSGFVGIWARFPQYNARGDKVITLADRINGCFERSTNG

KRMPSDTPEMKAMLTYMQWLSQGVPVGAKIEGQGLKKIDFILKAADPKKGKAIYMDKCAVCHQENGLGLK

NEDSTGAYYLYPPLWGDDSYNTGAGMYRLSKLLLILKKICLKVRLT

>CAL34996.1 hypothetical protein Cj0873c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPQGAPDLSLEDAYDVAAYMNSQARPIKANRNKDFPDRKIKPLDMDVGPYDDSFSTTQHRYGPYTNMIKK

>CAL34995.1 putative protein disulphide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNFFCKFVLALVFYSSFALANNSFITLNPSLPSSENSVIEAFSYKCIHCYNHHKFGTLEKLREAFPNLH

FKLYPVSLMNGEFSKEMNELFTFAQYKDEQNGKDASYSDSLSHKLADVYFVSYFLNKQRNFSNLDEFYDI

GLKAMNVNKNEVLNFLNTPKAKEILSEFQRANDIAKTYGTPAFVVNGKYQINPSAINSMQDLEDLVKKLS

NMK

>CAL34993.1 putative disulphide oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSCIKMKDKCRNFSLSKWQDTRKPWLILIIVTIGLTCIAHFLFQEYLFMKPCEQCVYIRFDMLVMAIGGM

IALINPANNIIKIFSYSLAFYGIWLGLEHCLTLNHIHEVVHSENPFAGVDGCREIPIYPFNLPLYKWASS

WFLPTGECGMDTPVVPENAYNHLNAFQKFFIGTPPDFENGLYSNGWYLIPSLKFMNMAICCLIAFLCCFV

VLFAMFIAYVLDKNKPNAKIFALVIVALVLVLKFIGESKNPNQNIASLNQVVLRYS

>CAL34992.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFPVKLARSIVVCAFLAGISASALSEGKEYVILKNPIANADNYSVGLKAMNVSKADFENFLKTPEAAEL

LKSYEIANPISQNYGTPAFVVNGKYQIVPSAINSPEALIEITKELSKQK

>CAL34991.1 DNA recombinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYPLDCEENFEKSFLFWLAKYVKFKLNSLSNKELKNPQALAEVNFALTKGVKNIDELDALAKKARNAGL

SGVNTYFNPLKKVFEYLNFYKLYSLKQIDEELIVEVLASITGALSDASKKNYRIAVINFFDFLDKQNEED

EKAHIFDINLKNWAGIAGSKGVKLPEFMSKEELKKFLDAIENADFKNNTIRNKLIIKIIIFTGIRVSEAI

NIKMGDISEENDLYIIRIRAKGNKYRVVMIKKELIYDLLKNVSINYISKDALLFVNKKGTPLTQSYVSRI

VEQLLFRAGIRKQKNGAHMLRHTFATLLYKKQKDLVLVQEALGHASLNTSRIYTHFDNDKLKLAAQVAKE

LSDS

>CAL34990.1 para-aminobenzoate synthase component I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLENYAVFGKYFYHDLKHTLKAFNHKESKKCFKFIEKYKNDFYILMLTDYELYRYFQDKNFTSKKAYLS

VFAFKKRKKFQKEDIDEEKFIPEFINFLDQDNYKENFIKVKEAISKGRVYQINLTQNFKFHSKMDSFELF

KLLLSRQDTEFKAFIKDETREILSFSPELFFKTKKRKIFTKPMKGTIKRDKDPIKDEENKIFLQNDTKNL

SENVMICDLLRNDLSKIITKKSLKTKLFEIQSHPTLHQMTSRAQGKLKKNISLHQIFKALFPCGSITGAP

KLESIKFIEELEQRDRGIYCGTIGLIHKNKNKFSVAIRTLEKQDEIYTYSTGSGLVWDSKFKDEFEELKL

KSAILNPCDFHLFETMYFKNSQILFLKEHLLRLINSALKFNFNTHKLFKDFYNILNQKSSYKKYQNFTLF

KLDEKIFHKKHSLFYNFPLPFKNPHKEGILKLILYKDGRYEFQQSALKQNSNDILLLSDDKINSKSDNLY

HKSSLRTFYNQHSYKWQQNLCYDIAFFNEKDELCEGSRTNLILEKNSQFYTPQIQSGMLNGVYRNFLINL

GLIKEKALFKQDLFEAENIYCINSVRGLKKVKLQ

>CAL34989.1 para-aminobenzoate synthase glutamine amidotransferase component II [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILFIDNYDSFSYTIIYYLKELSFECKVIKNDGFKKAKELEKFDFTHLIISPGPHSPKESKLSLKAIK

YFKKNKKILGICLGHQCIAEIFGGRVSKMQNPMHGKISKLYFKKDPIFKGIKKEIEICLYHSLHISSMPE

KCKILAHNSENIIMAIKHKKYPIYGLQFHPEAVLTQKGKKILKNFMKL

>CAL34988.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGVFLVLLGGIFWAISGVLAEYLFKNNYSVDWVCFYRLLSTGLILIFLSFKAQKILVFTNLKESLSICMF

GFFGLLLTQFGYFKAIYYTDAGTATMIQYCAPLIIMLYLCFKNKKFPKLIEIFALILIIFALFLLATKGD

IEAVVLNYWGIFWAVIGAFGVAFYSLSAREVILKYGLFWIMGWASLFASFVFLLILQFDKGLIHYAFNLK

AFFSMGGIVFIGTIGAFCLYLKGVEYIGALRASMIASIEPVAAALMSFLFLKTRYSLLDIFAFVLIILSV

ILNAKKTKVS

>CAL34987.1 hypothetical protein Cj0859c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQINNSLNSLSQYVKVNSNEENQNSKNQEQNALAQDPAVEVNISKEAKEKSNTSNQNNSQAPAQALNAQN

NTQQDSSSNSEDKLTELTQKLAEIQAKIVELTAKMSKANEDQIKSIESQIATLNAQASTIQAQIQELQSQ

QA

>CAL34986.1 UDP-N-acetylglucosamine 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTYLEIEGTNHLSGNVTISGAKNAALPLIVSSILAKNEVKINNVPNVADIKTLISLLENLGAKVNFQNNS

ALLNTNTLNQTIAKYDIVRKMRASILTLGPLLARFGHCEVSLPGGCAIGQRPIDLHLLALEKMGANIQIK

QGYVVASGNLKGNEILFDKITVTGSENIIMAAALAKGKTKLLNVAKEPEVVQLCEVLKDAGLEIKGIGTD

ELEIYGSDGELLEFKEFSVIPDRIEAGTYLCAGAITNSKITLDKVNATHLSAVLAKLHQMGFETLITEDS

ITLLPAKEIKPVEIMTSEYPGFPTDMQAQFMALALKANGTSIIDERLFENRFMHVSELLRMGADIKLNGH

IATIVGGKELNAADVMATDLRASSALILAALAAKGTSKVHRIYHLDRGYENLEEKFKDLGAKITRLEE

>CAL34985.1 putative molybdopterin biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNIFETLKDLENQISCLDESELISLEKAKDRILAKDLYARKNLPSFDNAALDGYAFNYTDINEALEIKG

TIFAGDKNFYTVAKNECYKIMTGAKMPKNADTILMLEDECIEENKLIIKKVPKQYNAYRYKGEELKKGEI

LLQKGTKLNDKHIALLASQGLYKIEVIRKIRIGIFSSGNELKEPWQECDEESIYNANALPLLTMLQNASY

LGIIKDDFKSTKEALENTNFDLLITSGGASVGEADFMEKALDELGFTPLFKGLKARPARPTKLYRKGENF

VLILPGNPMAAYLSCFIFAKKIINLLSGNLDNPLTFYGKMGMDLKLKSGRNNLILGNLEKGIFTPFNENK

FGSGMILPLIKSEFLLISEENTGELKKGDEITLLKI

>CAL34984.1 signal peptidase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEILKKLYKFSQSWTGTVVIVLLVIFFFIQAFVIPSGSMKNTLLVGDFLFVKKFSYGIPTPHIPWLEIPV

LPDFNKDGHLIKAQGPQRGDIVVFRNPRNEKEHFVKRCVGTGGDRIVYANKTLYVRMHEGDEFMKEHYPN

DLVTLGGQIYVKEPYKQKGIHYDPKKDIESDILRFLSIGDFAMSPAYIKELGNHIGFSGGNAYVFDVPEN

EYFMMGDNRDYSYDSRFWGSVPYRLIVGKPWFVYFSWDKDKNVRWERIGRFVDTLENDEQYIHDHDDEDK

LS

>CAL34983.1 methylenetetrahydrofolate dehydrogenase/methenyltetrahydrofolate cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLLDGKALSAKIKEELKEKNQFLKSKGIESCLAVILVGDNPASQTYVKSKAKACEECGIKSLVYHLNEN

ITQNELLALINTLNHDDSVHGILVQLPLPDHICKDLILESIISSKDVDGFHPINVGYLNLGLESGFLPCT

PLGVMKLLKAYEIDLEGKDAVIIGASNIVGRPMATMLLNAGATVSVCHIKTKDLSLYTRQADLIIVAAGC

VNLLRSDMVKEGVIVVDVGINRLESGKIVGDVDFEEVSKKSSYITPVPGGVGPMTIAMLLENTVKSAKNR

LN

>CAL34982.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIVLMFFLFSISLFGADFITLKEYSKMLYENPRGISCKECHGADGSEQILGYYMKNGIKTAYKVPSIQN

LSFENFKNSLNQSKDAKSIMPNYSLTNDEIVTLYNYIKQFSKEEK

>CAL34981.1 glutamate-1-semialdehyde 2,1-aminomutase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTNKKAFKETCKFIAGGVNSPVRAFANVQSEPKFISHGKGAYIFDIDGNSYIDYVQSWGPLLFGHCDKDI

QKACQKALHKGSSFGAPTLLETELAKLVLSDFPHLEKIRFVSSGTEATMSAIRLARGFTKKDKILKFEGC

YHGHSDSLLVSAGSGAATFNSPSSLGVLEDVAKHTLVAKYNDINSVKELFEKNKDIACVIIEPIAGNMGL

VPAKQDFLEELAKICKNNQTLLIFDEVMSGYRASYLGSYGINHIQADIITFGKVIGGGLPAAAFASRAEI

MDILSPLGGVYQAGTLSGNPLAMAAGIASLTKAKKKTKLYDKLGKLAKKLTQGMKKLADEKGLPLQACHV

GSMFGYFFTKDPVSNYQDALKSDLALFSKFHKNMLENGIYLAPSQFETGFICSKMDDKIIDTTLEAVRES

FKRI

>CAL34980.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNILKEEKNHLENSNSKRQKIIRKTLEAADGLSLGISMVVAVFIGVGIGYLLKKFTPYPWLFWLGVFWG

ISAAILNVYKAYKVQVKSYEEFKERDELIKEKIQKEKNK

>CAL34979.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEHKKALFCIFAIIHLFFWIIFSSLNHFKLDTFLSYEIAFFSVLLIIFASYLNYKKVIIKKSKNYEKDFN

FISSLFIKKKQNLSKIIHFKVLKDDLKPNVKEKIHFFAMFFTLFKLMAYVILVAGFLFLHRQDKLDIFAY

ICGISSLLVCVFIFILYIKKYESKKNY

>CAL34978.1 putative MFS (Major Facilitator Superfamily) transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSPKKIIKSMTALFAGMAFLFAGNALIVSSIGVILKENGESSLAVGVVSSCFFVGALIGTISTHKIISRI

GHIRSFGLFGAIFGISAMLHTVSENLIFWAVLRFFIGICYYGLLMVIESWLNEKSKNAIRSRILGFYEIV

FYLAFGIGVLIIALNLSKHSVFILSATLILLSSLPLNLIKIKEPVLPASSPISIPKIFDIAPLAIVTSFI

AGMLINGFFSMASLFILLQGFDTKAVSYFIFCGVLGGFIAQTIIGTISDKLGRKFAIITCASIGFITMLI

FIFFKLHLYMQYFLGITLGIGIFCLYALALARANDVLVSKNKGVELGRGVLFCYSLGSLFGPLILGFLMQ

YFEIKGFIWFYIVSLAFLILFAINKPNILNKKFKKKPGNMVIFDD

>CAL34977.1 conserved hypothetical protein Cj0849c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINTQLASQIANTQKNDLKVDNSASKDKTNLKDNPKEALAQALKQNLGLSKDASSEEILAKFVQNETGTK

LKELVNKLLDQINAQKNPDSPVLKQGKNLNLAPNFANELKILSTELAKSDTFTQVLDRLNQILKPASEIK

NNNLAPLFKNSGVFLEAKLKDALNEELLPKSFHSLLSTIKGLSSEKLSVQIAQLANTNLSPKDTLKELKN

IINSSKNENKQILNQSSFKALLNLSSKLENFKNYISKNPSHAQEKITPIANKILKELNSIKNDFFKALNK

PENLMIKDPNILKQTATAFEKLENTLKNILGNQASKIQDKENILENLLSNKENMKEEKLNHNTKNQDEEK

HIKASKEDENLDSGIKTHEEDTQDTKNDIQNNETENKPDNDIKNSTPNQEKIKDEKQEKSKENIKENPKF

YETKTENKTSINTNTNTSNPNTNNTQNLNNTQNIQSNNNQTMQNIFKNQEFIKQNIVKNLAFNVENLDLE

QVQDLSKNLSNLSRRLNESLKELEPYTQNAKLNQAELKNLEHKLNLSIKDLAQIKPKTEQDIAESLHHDV

KSTLLQISNLAKNEGNEAVYNQANRLLAQIEINQLMSLANDSINTYLPFSWDDLNDSKIMFRRGKKDKFF

AQIKLEFAKLGDLEILISLNNEKYIDINIMAENIEFRKTIYENAHELKRNINKAGLLSANFFVGDIIRSK

FDTRNMKNLDLEMGMDKKV

>CAL34976.1 conserved hypothetical protein Cj0848c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKIKRSIKKAVALGYQKEKNSAPKVLASGKGESAAKIISLAKEHGVPIKEDEDLIEILSKLDLGDEIPP

NMYKAVAEVFAFIYQMANKTPKN

>CAL34975.1 phosphatidylserine decarboxylase proenzyme [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSFSKESSRLFGFVAGIKFPKMIQKVINENYVKYFNINMSEFKAPCEYESLNALFTRTLQIPRKFEEGFI

SPSDGKILECGSTFLANEEHFAFSIKGHAYSVEELLKDSFEKDELKNGLDYVNIYLSPKDYHRYHSPCDM

QILSATYTSGVLYSVNEKHLERISNLYVKNERVSLKCQNEKGIFWLVFVGAQNVGKMRFNFDASIQTNAK

ISHNFTRKYENLNFKKGEELGNFELGSTIVLISQKGLLTFNLKVGQGIKFGEKIAD

>CAL34974.1 putative metallophosphoesterase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFLIFSFIVLLIFGLANVYIYKRLIKKITLFKYFYKIFSFIFIVLFLAQAVFLIFRRDEYLSDTWYEIL

AMFYAPTYCLFFMTLAWDFVKLILALMGKRDKTYNLILRLIFELSLIVLSVFLIYASINNALKTPEVKSV

DVEIPNLKKDLKIVMLTDIHLGKNLHENFLDKLITKVNLQSPDMVVIVGDLIDTNPKDLKNYISKLNDFN

STYGTFYALGNHEYYHGINEVLDLLRKHTNMKILVNQNLDLGFIDIAGLGDLAGLDRGLYAPDLARIKVD

LNTSKASILLTHQPKTALLYDLSDFDLVLSGHTHGGQIFPFMFLVKLQQGFVHGLYDLGEKTKLYVSSGA

GFWGPSLRVFAPSEIVILNLKGKK

>CAL34973.1 glutamyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYRFAPSPTGDMHIGNLRAAIFNYICARQKNMDFILRIEDTDKARNIAGKEEEIKEILNLFSISWQHYYI

QSENLKFHRQMALKLVSEKKAFACFCTEEELEAKKELAKKQGKAYRYDGTCEKLADIDVLECEKPFVIRL

KKPTHTMKFTDFIKGELSFEPENIDSFVIMRTDKTPTYNFACAVDDMLENVTCIIRGEDHVSNTPKQEHI

RASLGYNKAMTYAHLPIILNEEGVKMSKREAHSSVKWLLESGILPSAIANYLIMLGNKTPCEIFTLEEAI

KWFDISKVSKAPARFDLKKLLQINREHIKMIKDDELNKILDLNKDLAQLAKFYTQETSTIKELKEKMQAI

FNAKDFGEFETEYKILKELLKDIELFENYEDFKNELLNKSNLKGKKFFMPLRIILTGNIHGPELSDLYPY

IKNFIHELARI

>CAL34972.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVIDSFIISIFQVLQIVINIYTWIIIITALLSWVNPDPYNPIVQILYKLSYPAYALVRKIPTRIGNIDLA

PLIIVLALQFLGIFLGNILRSIL

>CAL34971.1 putative secreted transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKKILVFLFIFSSLNATQYSIEKLKKEENSLAKDYYIYRLLEKNKISKKDAQDLNSHIFRYIGKIKSEL

EKIIPLKPYINPKYAKCYTYTANTILDANLTCQSVRLNSLVFIASLNSKDRTTLAQTFKNQRPDLTNLLL

AFNTSDPMSYIVQKEDINGFFKLYNYSKKYDLDLNTGLVNKLPNHIGFKDFAQNIIIKKENPKFRYSMLE

INPENVSEDSAFYLGVNALTYDKTELAYDFFKKAAQSFKSQSNKDNAIFWMWLIKNNEEDLKTLSQSSSL

NIYSLYAKELTNTPFPKIESLNPSKKKNNFNMQDPFAWQKINKQIRDANASQLDVLAKEFDTQETLPIYA

YILERKNNFKKHYFIMPYYDNIKDYNKTRQALILAIARQESRFIPTAISVSYALGMMQFMPFLANHIGEK

ELKIPNFDQDFMFKPEIAYYFGNYHLNYLESRLKSPLFVAYAYNGGIGFTNRMLARNDMFKTGKFEPFLS

MELVPYQESRIYGKKVLANYIVYRHLLNDSIKISDIFENLIQNKANDLNKS

>CAL34970.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIYSVILGAFLLGACSLKDQAIVDTNLKSQTLMFTQKYKITQDKINAIITMSYLNPILDKTSKDDVLAL

SFTPNTLKIQNLEVFINNKKANIEKLDDEYLKYIIQNNYTDYFKASLPSVKEETRLVAKICLDHLPCFEL

NFQKYPKSLYYRSEDVDTQYN

>CAL34969.1 putative molybdopterin-guanine dinucleotide biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQLIIAFSGPSNSGKTTLITKIADNFLQQNLKVLIIKHDPADKAQFDFNGKDSFKFFQSGAEVMVLSPT

RTTFFSHENRDILKALKLSPDFDICLVEGLKTLDLPRISVFCKEIDESYFIFSNAIASYEKISHPYLTWL

DLNDIQAICQYILKNAKNLQGEL

>CAL34968.1 fructose-1,6-bisphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>CAL34967.1 hypothetical protein Cj0839c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEVRDEFEQDMDKKKEILLSCQNSKNLNSCYNCDEIFNCQTRKNYVDAVYNSMSKGKTEGGFDF

>CAL34966.1 methionyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRYITTPIYYVNDVPHLGHAYTTIIADTLARFYRLQGHETRFLTGTDEHGQKIEEAAKLRNSTPQEYADK

ISFEFKKLWDEFEITYDIYARTTDTRHIEFIKAMFLKMWQKGDIYKDEYEGHYCISCESFFTQSQLINDC

SCPDCGKQTRILKEESYFFKLSKYQDKILQWYEEKDPILPKNKKNELINFVQNGLKDLSITRTSFDWGIK

LPQEINDDKHIIYVWLDALFIYVSSLDFQNKGENAKFWPAHVHLVGKDILRFHAIYWPAFLMSVDLPLPK

FIGAHGWWTKEGEKMSKSKGNVVKPKEVVDAYGSEAFRYFLLREVPFGNDGDFSENMLINRINAELSNEF

GNLLNRIIGMSTKYSQGNISKEGVLKFYNAELNQAKEHLNLAVEFLENLQCNRYLEELFKALSVANLAIS

KYEPWSLIKENKHEQANALVALCANILAKTSLLLSPTLPKSSQKVALALNFEISSANYTKMILDNELLDF

KANPCEALFPKVEKALLKQEIKEEPKKEESPKIKIDDFAKIEIKVAKVLDCQNIEGSEKLLKFQLELDDK

EIRQVLSGIAKYYKASDLIGKQVCVISNLKKAKIFGHESDGMILSAKSGDKLVLIAPEQLVQNGSLVG

>CAL34965.1 conserved hypothetical protein Cj0837c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQISNLGELLNATLIHEGSVLSVEGFAINLNELKTGFAFFNNDKKEIAQAVKKGAYAIITENDITIEDKE

IFYFRVENLERALVRFLRFFCEDKECEFLLFKSYELSLCKAFYFNILKGNIFADFEKLIKAKKGEIFCYC

EENYLNKLCTYSHSLKDANFTLLSRSSFFFTTLICENLYFKNLNLPFFYANSFAKIISFLKEKSQKIIFD

FNKIDDFKIYFIDDKFEITPFGSSSQAFIVSNNQNTFEFWKEKFKNIKDFKIASKNSLFCDFSYNQLSDL

RKLKNFKYCLILENYDIFEQEFENKENQTPSLF

>CAL34964.1 methylated-DNA--protein-cysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKVYYKMPLCYLSLHSDGKFLTRVDFCDNKRSEKNCSLLDLAKYELDLYFTHKLRKFSIPVLIQGTDFE

SKVYKALMEIPYGKIATYKDIAEKINHPKAFRAVGNANSKNQIPIFIPCHRVIASNGIGGYNGGLEIKRF

LLENEGVNLK

>CAL34963.1 aconitate hydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSFMQEYNKLVEERAALGIPPLPLNANQTRELCKLLENENNEELANLLENRVNPGVDDAALVKCEFLDSI

LKGKISAPNIDKKRALRMLGTMLGGYNVKVLIDALKDENIAKDAAEVLKNIIFVHDNFHTIAELSKNNPH

AKEVLQSWANADWFNKKEKLPQVIKCIVFKVAGETNTDDLSPAGDAFTRSDIPLHANAMLKVRQTGSLEK

IKELKKSGREVVYVGDVVGTGSSRKSAINSIQWHLGKEIEGVPNKHSGGIIMGSTIAPIFFNTAQDSGAL

PIICDVTNLEMGDEFEIHPYEGKIIKNGSTIAEFTLSPNTLLDEVRAGGRIPLIIGRGLCTKAREFLGME

SENIFTKPEQPKSSSGGYTLAQKMLGRACGVEGVRPGMYIEPITLTVGSQDTTGPMTRDEIKELASLGFN

ADFVMQSFCHTAAYPKVSDSNLHKTLPNFMTSRGGVSLKPGDGVIHSWLNRFVLPDTVGTGGDSHTRFPI

GISFPAGSGLVAFAAVTGSMPLNVPESVLVRFSGELQAGVTLRDLVNAIPYYAIKQGQLTVEKKNKKNIF

AGKILEIEGLPNLKVEQAFELSDASAERSAAACSVDLSIESVSEYIKSNISLIEAMIEVGYENKATLARR

AEKMREWLKNPTLLRADKDAKYAYIIDINLNNIKEPILACPNDPDDVATLSEILADDKRPKNIDEVFVGS

CMTNIGHYRALGEILKDKGILKTRLWVVPPTKMDKAQLINEGYYSIFGAAGARIEVPGCSLCMGNQARVN

DGAVVFSTSTRNFDNRMGMGAKVYLGSAELAAVCAILGKIPSKEEYLQIVSEKLSNEHKANIYRYLNFNE

IENFKLEN

>CAL34962.1 ankyrin repeat-containing putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLLFTSFCCFASLMASDAINCDNIKNNKTLLNESSNLDYLNIASSCKESLKNQDFTKKLYAISNEIRGS

NSSCNGVAYLPKLQQFDFLLLKIAIDPIAYQKTLDTPENLEKKYDILKSYFRYWAYQSIGNFRLYKAFWQ

EYNNAIEPLEKYFESNFNFDKGSNIYYTSNALNEFLNWAVGETKIYKDISPLAKIMSNKNYSVSYIQDFI

FSNNPSQDDLTIALQAALLNQREKEILELLIRFGARIDEGYESAIFYALESYENTNFLIQNGANVNQANA

FGKTPLFYAIEFNRLDIIKLLLDNGANVNQKYINNNEKLALSANIGSNTPYFITFCALEHTSKNVLMHAA

AYGNVEILKLLISKGANFNAVDDLGFNALDFALSAGKKENADYLKSLGLKANENLFYGGSLE

>CAL34961.1 putative oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTAFITGASSGFGRACVEAFIQEGYKAIALARRKERLEELKNAYKDKIYTLCIDVRNQKEIFEAIENLP

KEFQEIDVLFNNAGLALGVDEFDKLNLEDINTMVDTNIKGFLYVAKAIIPILRKQKNAYIFNLGSVAGRN

PYFGGNVYCGTKAFVGQFSLALRNDLRGSNIKVTNIAPGLCKTEFSEVRFKGDIQKADAVYENTQFISAN

DIAKVVMSIINLPSHINVNEIELMPVTQTWNGFYIERDE

>CAL34960.1 putative Na+/H+ antiporter family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKFLVSLFLPLVAFANSSEAAANANLFGAFTLIPPLVAIALAFITKDVILSLFTGVLSGTFLLSLSTNI

FKAQHLTFVNYYNTTVESFSKIISYILGSTSDPVNAGIILQILCIGGLVALITKMGGAKAVALKFAKRAK

SAVSAQVNTWFLGLLIFFDDYANLLIVGPIMRPLADKFKISREKFAFIIDSTAAPVAGIAVISTWIGLEV

SLIKTAYEHIGISNISAFGIFVETIPYRFYNIFMLFFVVMTAIMGREFGSMYKAEVRARTTGQIAPLPKS

GTLDTTELEDQFLAPKEGIKIRAFDAIVPIFTLIILAILGFYFNGLSTLEGEELAKASTNPLSFETFRAA

FGNADSSVVLFQAALFAAIVAIFIGVRRKIFNLKEAVETWIYGWKTMIFTIVLLLFAWSLSSIVKDLGTS

LFITSLLADKLPEFILPATIFAFASAISFAIGTSYGTMGILMPLAVPLAHEIAKINGMDANAMHHYMVIN

ISCVLTGAIFGNHCSPISDNVILSSMSAKCDHMEHVRTQIPYALFICGISLIAGYIPVSLGLSVWFVLPL

NFILIALLLRLIGKKVP

>CAL34959.1 tRNA (uracil-5-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLENFGNFLTLDEKHSFIKKYFKEFYTKDFKLFASKDKHYRTRAELSFYHENDTLFYAMFDPKSKKKYI

IEYLDFADEKICAFMPRLLEYLRQDNKLKEKLFGVEFLTTKQELSITLLYHKNIEDIKSNLENLSNILHI

NLIARSKGKKLIFKTENLRQTLNIQDRKIFYEFNNDCFIQPNTAINEKMITWVCEILNTQKRMDLLELYC

GYGNFTLALAPFFFKILATEISKSNINFALKNCELNNTTNIHFARLSSEELSLAIKKEREFFRLKDIRLD

DFNFSHVLVDPPRAGLDKSVIDLIKKYGNIIYISCNPMTLKENLKELSLTHRVEEFALFDQFVNTPHLEC

GVFLSKV

>CAL34958.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEEFYPYTLTIHLLCAILFIGYLFVDVFVLGVVKKKNPNFDKSLFSATGVKIMPFVVLLLFLSGGALAGF

HFKPLNLLFAVKIILAFGILSLVVFSLFCHFILKKKNPLGVFIHPFVFVLCIAIVILAKLMNYFFIPC

>CAL34957.1 putative CoA binding domain containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEKETISYIINTSKNIVIFALSPDKTKASYRVAEFLQRKNYKIFPIYPKEEFILNEKVYRNLDQIEEKI

DTLILFRKGEVALEILPKLVEKNIKNLWLQLDISNETAKEECKKLDINFIQNRCIMLEYPHFKTKEK

>CAL34956.1 threonine dehydratase biosynthetic [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLELNKIYKAKQQISGFVNKTPFIYSSFLSDICQSEIYLKNENLQITGAYKIRGAYNKIANLSTEQKQHG

VIAASAGNHAQGVAISAKKFSIKAVIVMPESTPLLKVSATKALGAEVILRGDNFDEAYAFATSYAKENNL

SFIHPFEDEFVMAGQGTLMLEMLDEISDLDMIIAPVGGGGLISGISSTAKQINPNIKIIGVGAKGAPAMY

ESFHAKKIKNAKSVRTIADGIAVRDANPINFNIILECVDDFIQVDDEEIANAVLFLLEKHKIIVEGAGAA

SVAALLHQKINTQNHKKIGVVLSGGNIDAQMLNIIIEKGLFKSYRKMQIYVTLVDKPGALLHLTDSLKIA

NANIVKIDYDRFSTKLDYGDAMISITLETKGKEHQEEIRKILTQKAFNFYESF

>CAL34955.1 tRNA pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKIKIIFSYDGSAFLGSATQPHKKGVQDALSGALSHLGIFSPLLMASRTDKGVHASYAVASVECGDYFT

NLEYLQKQLNKFSHPFIHIKKIEKVKDDFEVRFDVKSREYRYIFSHASYSPFMASYVHFYPKFDLGKANE

LLGFFVGKKDLKFFCKSGGDNKTTLREIFIARAYAYKDFSIFHFKANGFLRGQIRLSVASVLKVLEGKMS

EKELKEQIEAKKQYNHFLAPPNGLYLSRICY

>CAL34954.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLSLRYVLNQFLSTNLSIFFVLFAIVSMVFFIQLAKLTSSIEISFLDLLKLYGFMLPRILIFTLPISFF

ISLTLALFRLSKENESIVLFTLGFSPMILAKFFLKIASLISAFMLVVALVMIPIVFELQDNFVNYKSTQV

KFNYKTGEFGQKFLDWMIFIEKQDSDKYENIIMYRPKHKADDKEQLIIAKEAHVQRKDDSFAFSLNQGKM

YNFEQGQSIFSGEFDTLVVNTQFNTDNLQTKKFYEYWNDLNENLQRAREFVIYTTIALFPLASTLFALCF

GLVTYRYEKGYVYLGMFGVIAIYFGLLSSFSQPPILACLGIFSLSLFVSAYCFKKMILSRY

>CAL34953.1 putative processing peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFFIIILGACLGSFCTSLASRIIEKKLFFISRSFCFSCDTKLKYYEIIPIFSYIFLKAKCQTCKCHLSI

SLLINEILGAILLILVYSLSQNFYDFLFLSLFLFNLFLLSLIDIKLKAVPQILLWSAFLFAFFYAFRESE

ILHFLIFKEFSGGFLLNAFSFGGFVFLLKSLVFFLMNFQKKDEILENLGDADIIIMSCIGGILGFEYGFL

VLFIASILTLPFFIFFRIKAIKEQELAMIPFLNIAFVAVLFYKNLGLF

>CAL34952.1 undecaprenyl diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNELKHLAVVMDGNRRWARAKGFLAKLGYSQGVKTMQKLMEVCMEENISNLSLFAFSTENWKRPKDEIDF

IFELLDRCLDEALEKFEKNNVRLRAIGDLSRLEDKVREKITLVEEKTKHCDALCVNLAISYGARDEIIRA

AKRVIEKKLELNEENLTQNLDLPLDVDLMLRVGNAKRLSNFLLWQCSYAEIYFSETLFPSLTKREFKRII

KEFRNRERTFGK

>CAL34951.1 hypothetical protein Cj0823 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSMINSTLPIQMKVLAKSGYGHYTLLLNHKKIQTKSMIELEIGAEYLAELYMQNGGVIQFKHLSKRPNFK

PFEEGLALIIAILEDKISYKKFIIQNLLDCKDIERYQILKEMLFASFENIYHIPFNFENKSCLFQMRKRA

KYLEIYLYFSVFGALKILIDSQGISVFTPFAKVQKFLNEHLDFNVSQENKIEPLFVFKRLFDFKG

>CAL34950.1 phosphopantothenoylcysteine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTILLAISGSIAFYKSYELISLFKKEGFRVKVLLSNGLLKFASKMSFEALVDEVLCEENESWQNSNNHI

AFSKDVDLVLFTPASVNSINKLAFGIADNLFIQTLIAANKPLIIAPAANTNMFHHFSTQNSLKILKENKA

LIIEPICKVLACKDEGVGALAEVKDIFNITKRELLKEKFWCNKSVVITGGGTRERIDDVRCVSNFSSGKM

AKAIADAFYFLGARVKLLSSVEFDTPYELCKFESSKDLKELLDKNLSHDFLIMTAAVSDFIPQSVKGKIK

KNEHLQGLNLHLSLNEDLLKTCKFQGKKIGFKMEFDSQNALENAKKSLKDKQLDMVCLNIIDQKNYFGSD

QNELYFITLNNENKSTLQSKEKLAFELVKWCEKL

>CAL34949.1 UDP-N-acetylglucosamine pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTSILILAAGLGTRIKSQKPKVLQELCQKSMILHILKKAFALSDDVSVVLSHQKERVEKEILEYFPKTQ

ILEQDLQNYPGTAGALSGFEPKNERVLILCGDMPLVEQTSLEALLGNNAKLNLAVFKARDPKSYGRVVIK

NDSVEKIVEFKDANTQEKEINTCNAGVYVIDSRLLKELLPLIDNNNAAKEYYLTDIVKLAKEKDVMIKAV

FVDEDEFMGINDKFELSIAENFMQKKIKKYWMQQGVIFHLPQSTFIGADVEFVGECEVYENVRIEGKSKI

INSIIKSSSVIENSIVENSDVGPLAHLRPNCELKNTHIGNFVECKNAKLNTVKAGHLSYLGDCEIDSGTN

IGCGTITCNYDGVKKHKTIIGKNVFVGSDTQFIAPVKIEDEVIIAAGSTVSINVEKGALFINRAGHKMIK

DYYYKKFQK

>CAL34948.1 flagellar biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILLFLLLSMSLFAAEATIPTVNLSLSAPNTPNQLVTTLNIVIVLTILALAPSIVFVMTSFLRLIVVF

SFLRQAMGTQSMPPNTILVTLALILTFFIMEPVATKSYNEGIKPYLAEKIGYEEAFIKGAKPFKDFMLKN

TREKDLALFYRIRNLPNPKTIDDVPLTVLVPAFMISELKTAFEIGFLIYLPFLVIDMVVSSVLMAMGMMM

LPPTMISLPFKLLIFVLVDGWNLLVQRLVESFVT

>CAL34947.1 small hydrophobic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEFIFTLILDFTFYSIKTLEKVFLGRTALVILFVVFIALFCVKGLFLYILLALELFLLLYLFLGILFLR

FYKS

>CAL34946.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVAFFLLFLFLSCTVLNAAREYCKYAYQEDRAIPLILNYGIRLGVVGAGVANAPAPGGSTYNSKIDMM

AARCH

>CAL34945.1 putative glutamine binding periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIILIFISFFALNLSAKDLVVGMELGYPPFEMSDKTGKASGISVDFLEAFAKKNGYKLVVKNIAWDGL

IPALKTAKIDLIMSSMTITDKRKKVVDFSIPYAKANLAILTPLNSDITNIKDLDKKGKVLALKRGSTGHL

YAVKNLKNATINLFDKENAAILEVIQGKADGFFYDQLTIYRTWQKHQDTTRAILAPFQENPEFWGIAVRK

GDEALKDKLDNFIDESRKNGFLDFLGNKYLKDIKEVFKQNNITFFL

>CAL34944.1 hypothetical protein Cj0816 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYENNISKESAMGNWALDAEIKQALANGWKAKPSTIDSYADSIMDRLNNLLGQTRV

>CAL34943.1 hypothetical protein Cj0815 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKGLSSETLGLSLEEIKNVSRGEDWQFNPDMSVYPQNEDGSYSKETLFMSFLKAQGGQPVESLKTTLNP

KLEAYKRAMAKESFSGPAINIDSIMTGKSDFKSFFRYWAEWHRR

>CAL34942.1 hypothetical protein Cj0814. Functional classification-Unknown [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITQTMQSKESKESKENSKISFANAFLKQNASKLNEIQNANSQTLARSEALNSTNTTNTSNNTNFSISSK

TSSPNYDISSEFKNSIYTLKYKQVDISNTSTNTAYGYSVDKDGYMGSDFNKAAGLPEDFKIHKSTLDEIK

KAAENDPVVSSTKEYLGVSSYYSNIDIANTIKQYYNLFSNALGQSFSNDKTSFSEADINSMPSGYGVSGT

QWMDFNEPSNRMNITGLKDFSNSLISNVYKTPEQAKEADEI

>CAL34941.1 3-deoxy-manno-octulosonate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIIIPARLKSSRFHEKILCDIGGVPMFVATARRVSSVDEVCIALDDEKVLSIAKEYGLNAVLTSKDHESG

TDRINEACKKLALKDDEIIINVQADEPFIECENLLKFKEFASFCLDKKAFMASCYKKITQEEAMDPNLVK

VLCDKEGYALYFSRAKIPYERENYEESFKGHLGIYAYSVKALREFCSLSSSALERAEKLEQLRAIENGKK

IKMLEISTTSMGIDTKEDYERALKIYLEK

>CAL34940.1 threonine synthase. Functional classification-Amino acid biosynthesis-Aspartate family [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLVESRNVNNVSSFKEALINPNAPEGGLYSPLNLPIFEGEKYANLSYKDFALKLIESFGFGEEELFKKA

LKSYESFDDKNTPISLQKISEKTYINELWHGPTRAFKDMALQPFGVLLSEFSKDKNILIICATSGDTGPA

TLKSFENAKNVKVACMYPKGGTSGVQELQMRALDKDNLKVFAIDEDFDAAQRTLKELLFSKDFQNEIKAL

NYELCAANSVNFGRILFQIIYHYYASLKLFNEFLEEVQIIVPSGNFGNALGAFYAKKMGAKISKIKIASN

ANNILSEFFNQGVYDLREKSLKKTISPAMDILISSNIERLLFAKFKDKRTKELMNLLKNERYFKLEKEEL

QSLQEDFEADFCTDEECMQFIKQSKILIDPHTATCFKMLDPLKPSIITSTAEWTKFTPSMIKALYDRDSK

NEKEDLKFIAKEFNVQVKDEILALFDLKNSDEKVFEARNIKKEILDWMQK

>CAL34939.1 tetraacyldisaccharide 4'-kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEEKNYELWLDNYFFKPNFWQKCLAFILLPLSVLYAFFAILNTFFRKKIVFKKPVISVGNLSFGGNGKT

PLCKAIAREFDGVFIVLRGYKRKSKGLFVVKNQNEILCTLTQSGDEAMEYAFEENIKGVIVSEDRVKGIE

KAFELGAKIVVLDDAFSKFHIKKFDILLESKIKPYFNFTLPSGAYRLPKFYEKRADFIALEGRDFVRYSF

VKENPKAVLVTAIAKPFRLYEHFIKARACYFFKDHYEFKKEELENLLKKHNCDTLMLTFKDFVKVKDFGF

KCQIIELNIELKDSLREKIKTYIKEFEQ

>CAL34938.1 NH(3)-dependent NAD(+) synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDWQKITEKMCDFIQEKVKNSQSQGVVLGLSGGIDSALVATLCKRALKENVFALLMPTQISNKANLEDAL

RLCADLNLEYKIIEIQSILDAFIKQSENTTLVSLGNFAARIRMSLLYDYSALKNSLVIGTSNKSELLLGY

GTIYGDLACAFNPIGSLYKSEIYALAKYLNLHENFIKKAPSADLWENQSDEADLGFSYTKIDEGLKALET

NDEKLLRTLDPSLIAMLKNRMQKNAFKGKMPEILEI

>CAL34937.1 putative hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIIKQACGVYETNCYILFTPKGEFIIDPGTDALLFIKKHVKNPLAILNTHGHYDHIWDNAKVKKEYNIP

IYIHKNDAFMLHDDFNQGYDSSDADFLVDNEDILNICGVDFKFHFLPGHTPGCTMIEIVGKNIMFSGDFL

FYRSIGRWDFPYSDANLMKQSLEKVMTYKEDFKLLPGHGQETTLKEEQVHLPSWLRYF

>CAL34936.1 small hydrophobic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MELDQILLYAFIFLNLFALFGLFLGNKKKNQFNDKKFYKICPCKKMAENGSLSTICIYSAVGGFFYSVLS

IGFVGFGNWTLNFIFLLALLSVFLGWKLKLD

>CAL34935.1 putative oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTEFQGKTLVISGGTRGIGKAIVYEFAKVGANIAFTYNSNAQIADEMVQDLEKNYKIKARAYEFNILEP

ETYKELFEKIDVDFDRVDYFISNAIISGRAVVGGYTKFMKLKPKGINNIFTATVNAFVVGAQEAAKRMEK

VGGGSIISISSTGNLVYIENYSGHGTAKAAVEAMARYAATELGEKNIRVNVVSGGPIKTDALRAFTNYEE

VKQATINLSPLNRMGQPEDLAGACLFLCSSKASWVTGHTFIVDGGTTFK

>CAL34934.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAVETC

KGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLYNVP

GRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNGGKGVISVT

SNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFRLPLCSPSK

ENFAKIEEVMKKYKIKGF

>CAL34933.1 putative zinc protease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIAYEKIQLKNKLEVYALPVNKNSDVISVDIFYKVGSRNEIMGKSGIAHMLEHLNFKSTKNLKAGEFDEI

VKGFGGVDNASTGFDYTHYYIKCAKKNLDKALELFAELMANLNLKDEEFQPERAVVLEERRWRTDNNPLG

YLYFRLFNHAFMYHPYHWTPIGFFKDIENWSIEDIKEFHSIYYQPKNAILLVSGDIESKEVFELSKKHFE

KIKNTKTIPKIHTKEPKQDGVKRIYLHKNSDTELLALAYKIPNFKHKDIPALNALSELLGSGKSSLMSEI

LIDKLNLINDYYAYVNDCIDENLFIFICNCNPNVNAEKVEKELLKIIDKLKMGKISQKDLQRVKNNVKSD

FIFSLNNASAVANIYGSYLARGDINPLLNYEKDIQNLELKDLISCAKKYFIQENSTTVILRKDSNG

>CAL34932.1 dihydroorotate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYEMIKLLLFKLNPEHAHALVEYSLRALSASFPGALSFLAHKYIVDDESLRQNLLGLDFNNPVGLAGGF

DKNATMIRPLSALGFGFLEVGTFTPKPQEGNEKPRLFRLVKQESIQNAMGFNNEGAEKIALRLAKTYPFV

LPLGVNIGKNKITPNDKALEDYFTLFRDFKDLCDYFIVNISSPNTKNLRELQNDDFLNTLLEEAKKITSK

PILIKIAPDMKIDDALNLCENAIKKGADGFILANTSVDYSLLDNNRTFGGISGRLITEKSGIFFKEVTKI

LFGKTLLIASGGIDSADIAYERIKNGANLVQVYTALIFKGPSLVKNINQNLIELLRKDGFLHISEAVGVN

LK

>CAL34931.1 lipid export ABC transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHNEMNLKEVLIRFKPFYKRYWKQFAIAIFGMILASGGTAGSFYALEPILNYIFVEKNEALLYTVPFLLV

LMYFFKNLGTYLQSFYVSFIGTDMLRVLRARVLKNVLRLDMDFFKRYRSGELVSRCTNDINALQSIVSNI

IPDFFRELLTAIGLLAVVLYQSPTLAFFALVILPLAIFPLVWFAKKLKKYARNIQETNSDLLSYLGEIFS

NIELIKANDNEKKESDKFAKHNDTLCKLNLKSARIDALTSPLMDMMGSVGVAVVIIVGGREVINGSMSVG

SFISFVSALFAIYTPLKRLSSLYGKLQGAVAASERTFYLLDLEPQIKGGSKELKNIEKISFENVEFAYEN

PHKSVLKGVNFDFVKGQMLALVGTSGGGKSSIINLLMYFYEKQKGKILLNQEDISTFTIESLHAKIGLVT

QNIYLFNDSFAANIAYSEELEEEKVIQALKLANAYEFVKEMGGIWAEVKEHGKNLSGGQKQRIAIARALY

KNPDVLIFDEATSALDNESEKAIVKTIENLKQDRLILVVAHRLSTIENADKIVVLDKGKVLAIGKDEELL

QTCSLYQKFKSKEKTKPSFS

>CAL34930.1 cysteinyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRLLDSVTKEKIKLDKKDISIYLCGPTVYDDAHLGHARSSVCFDLLRRVLLAQGNRVKFARNYTDIDDKI

LKKMAQSGQTLEEITEFYIKSYEEDMRVLNVLDPDFKPRATHYITAMLDLIKKLAKDGFVYTLEDGIYFD

TSKDEKYLSLSNRNLEENISRLSNEVQKRNESDFVLWKFDENFYESEFGKGRPGWHTECVAMIDSIFENT

LDIHAGGIDLLFPHHENEAAQCRCGCKRKLANIWLHNGFVKIDGEKMSKSLNNSFFIKDALKEFMGEALR

FYLLSSHYRSHFNYSLSDLENAKKRLDKFYRLKKRLDLGEISDFDVLNDIGIKSEIAKQILEILNDDLNV

SKALALLDDFISSANLELDKESKNKILKQNIKEALSELAKIFGFGFMDATLYFQWGVSKEEREEIEKLIL

ERTEAKKNKDFNTADAIREQLNSKKITLLDTPNGTIWEKINA

>CAL34929.1 putative integral membrane protein (MviN homolog) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSLVFKNFIINALGILFSRILGLARDVLIALFLGAGLYSDIFFVALKMPAFFRRIFAEGAFGQSFLPNF

VKAKKKGAFCVSVMMQFSLIVFLFCLLVSFFSSFFTKLFAFGFNADTIALAAPLVAINFWYLFFIFLVTF

LGAILNYRQKFFITSFSAALFNLSIVIAAFFVDKNAPQNTLYYFSYATVLSGVAQLILHLLVLKNNPVIR

AMTLSIKFKKTKAKLQGFYGNFFHGVLGSSATQFSSLLDTTIASFLMSGSISYLYYANRVFQLPLALFAI

ALTQVSFPKILKHLKSDQENLALKFMQRALALLSILLIASSIVGSVFALEISKLLFERGNFTHEDSVITA

YVLIAYLIGLLPFGLQKLFSLWLYAKFKQKTAAWIAVKSLIISALCSMAFIFLIKDESLKVIAVALSSSI

SAFYLLGANIKEFGFKKFFALISIKICLLVIVALIVFTILLILIKPYILSFFIGIFTSFKGVF

>CAL34928.1 putative ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MALDEKIIAYTENPARELLSVASRTNLSLNELDFSLLAFSTQYRFGDLEWEKISEKELTLFDKDEIFLKN

DLQIKQEYKIEIFHGINQSKASQAVKLVANKNLTKIVAQIDFTNLDFHEKLALELLQNIYKKMLKLKFLI

GIRIFDFKKKLMSFCNQYKNTPLNKTIQITVAQGIDPIESQDESLILTYKEKTKNYTIDEKRSGIIVVDE

NEVVLKHVKFKQGKEGKDLNLHTLKVLAANENKVKFSCSSAFKQVEQDGYTEYIALKKGYVVQDGEKFDI

ANELDFNGVDFKNIGIIRAGLDKNVKINIKFLSEVKDAVNSGVGIECEELNVVGSVGSNTQLNATKMKIE

GTTHSKAKIQAKQAYIKTHRGFAEAEILNIDLLEGGTIKAKEVRIKKSLGGNIQADKIYIENLESNNSCV

FFENTTIERINGDNNKFHAKIKTLDKNYDEEFAILGEQISKLNHKINKIRQYILSSKNGILSVEKKITEL

KNQGQNVPVQYEKALKDFSLQNLELNKLQNEEKELLERKKSLQLELINLQKMLFEATFINKSGKWTDMNE

IKFSLLEPKEDIFCSSFVNESAKFIGIKKVIQNNQESIEIHKKLDYEEKDIAWLSASKE

>CAL34927.1 putative Holliday junction ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVVGIEGIITKKEPTFIIVKCASGLSYGIFISLFCSAKIQTQEKHEFFITQIIKEDSNKFYGFLDKDEQK

MFEMLLKVNGVGANTAMAVCSSLDVNSFYKALSLGDESVLKKVPGIGPKSAKRIIVELSDTKTKLENVSD

DKSEALAALLTLGFKQEKIISVLVSAQATGTSELIKEALKKLG

>CAL34926.1 D-alanine--D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFAILFGGNSYEHEISIVSAVVLKKVINQNLEFIFCDEERRFYHIPSEKMNSKTFSTKAYKKEKELFIK

QGGFFSKGFLKENKLECECVINLIHGRDGEDGKIAALFEFYSIKFIGPRLEASVLSFNKELTKLYAKSVG

VKTLDYTILRKNQNSKEKLSFPCIIKPARLGSSIGISIVKDEKDLEYAKDVGFEFDNDLVVEEFKNNIKE

YNLAGCMINDEFVFSIIEEPKKKEFLDFEQKYLSFSGHNELIEADLSEELKEKLKDSFKKIYNPLFKGAL

IRCDFFILDNEIYLNEINPNPGSLANYLFKDFNTTLNALADQISLEKMIKINYNFLHSINGQKGKL

>CAL34925.1 hypothetical protein Cj0797c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLSFKQDEIYTATEVVRNFSPIMEKLKKSESGKIVILKNNKFEAVMLSMKEFERLQNAMQLLENIYKNQK

A

>CAL34924.1 putative hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAQTQLSYKNKTYQISYEILGDLSLPQILILHGWGADKKLMKQSFCPFLKDFCQIYMDLAGFGNSSVEEI

LNTQDYANITELFLKQKKLNVCFFMGHSFGGKVSTLLAKEKDTLILLSSAGILAKKSLKVRFKIRIFKIL

KLFGLGKFYRYFASKDGANLSPIMYETFKKVVDEDFSEIFAKQKAKSLIFWGKSDEATPLYCGEKMHQFL

KNSTFYPLEGDHFFFLKHSAFIAQKIKEI

>CAL34923.1 UDP-N-acetylmuramoyl-tripeptide D-alanyl-D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLINTLYFINSLFFNFCIAFYLMSALQWYSYKFKRVFFHYHKPLWHLYFLFIPYFLFLAFPLYSLVYFAL

IHTPILYFWNKGIDKKLVFTSKVKWFFVFVFVYNAIFTILALRFSFLFNLFSLPFALLSLKIYEFFTNLY

YKKQAKAKLRANENLKIILITASFGKTSIKNFLYELLKDDFKSYKTPRSVNTLLGIVADINANLSQDTQI

YIAEAGARLKGDIDEITHFLQPQISIVGEIGNAHLEYFKSVENIRSTKLEALNSERLEKAFLHSSTQKEE

DKLISLYDDKLSLIHSSLEGLEFKVDIENKSYDFKSQILGDFNAQNLCVCILCAHYLGIKLEKIQKQVLN

INSVEHRLQVLSREPKFIIDDGFNGNFKGMSTSYKLCKSYKGRKVLVSPGIVEVSEEENIKLAKIINECF

DLAIISAQINAEIFKKELKIKTIILKEKSQLVQTLAKETKHGDLILFSNDAPSFM

>CAL34922.1 hypothetical protein Cj0794 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITQTMQSKESKESKENSKISFANAFLKQNASKLNEIQNANSQTLARSEALNSTNTTNTSNNTNFSISSK

TSSPNYDISSEFKNSIYTLKYKQVDISNTSTNTAYGYSVDKDGYMGSDFNKAAGLPEDFKIHKSTLDEIE

RKAENNSYTSDIKKYLGIDKYYTNIDMAETIKQYYNQFNQIVNYAFNDTNKTSFTEADINSMPKGISELS

SDKTIGIMPKNYDKLTITNYYNTQEQYNEAEQLGMFGHINIGLQPLNFTPQSMQTQNLDKDTAIDTFNPD

MSVYPQNEDGSYSKEALFMSFLKSTGVSPREGSATLNPIAKSYAEAMAKESFDGSLASLDDIMTGKVDFA

SLLKGYAQEGWLDADIYAMDKGVAWQNTSIGYGGAWFDREFNQVKANGWKASSESINSYVGSIMDRLNNL

MGQTRV

>CAL34921.1 signal transduction histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNESILKSLDSNEKETLQKGLESLIEQTYVIENEYKTLNENYNSLRAMVDEIIEVLPSALWILDKEKNII

LQNQEALKNPKLLSIISLDKIRDELEFEGRFYAVKIIAHNEKTIVSATDISDEKRNERLASMGSVAAHLA

HEIRNPIGSISLLASTLFARSELKNKHIVLEIQKAIARVERIVNSTLLFTKGVHINALNFNLLELKEECE

SAINSYNFTSQIDFEISFLDKQICADKALLGLVLQNLIYNAIDAIEESECEKPMIKILASYDNEKICIRV

YDNGCEIKDEKLVFEAFKTTKLKGNGLGLSLSKEIINAHKGELSFQSDPKNFYFTLPLV

>CAL34920.1 conserved hypothetical protein Cj0792 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLYKRKNIKFKNFVDLHKNLSLSKLFDFYSVFEGFEKLNILNFEDDVFTNIERILLDDYLKIKSYFALDE

TSSYALTLLAKNNRKRFSINRKIQHFKALSTLKYLLETGIIKLEYSKEAKKIKDKRQKIKKELRSYVVQD

KIIFSNHFTRFFFYFLKPNEKLILQNRYKEVLECIKEKFELYQSFCFEQLSRELLEKKFNINGVQSYWDK

NLELDLYYQDENLCFVGEVKFKNKKICKNILNLLKSKAKSLNLAPNYYIIISKNGFSKEIDKICEQNLLL

LDLNDFKILLEE

>CAL34919.1 putative aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYLQISDLKKELILKKGILHFDFTASALALKCVEKEILKILPTYANTHSDSSLNSFKTQQTYEQARKDIK

KSLSLDENFALIACGTGSSSAIKKFQELIGIYIPPLVKERYFTQIDKNTLPLVIVGPYEHHSNELSFREG

LCECIRIPLDKNGEIDFDFLEKTLQKNKKRKIIASFSLASNVTGILSDYKRISEMVRKFKGIVAFDASSF

IPYKNISCQYYDALFISSHKLIGGIGGSGLLAIKKDLCGNKPSFAAGGTVGYVSRTSQCYLCNEEALEEG

GTPGILQLIRASLAFKIKDSIGVKNIEKKEEILKDYFFEKLKTIPNLILYAKNLKTRLPIFAFNIKGISP

FDIAYELSKKYHIETRAGCACAGPYGHDLLGLKDNQKLKTKPGWLRISLHYTHEKEDIDYFFNALNKTIV

KLSH

>CAL34918.1 formyltetrahydrofolate deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MISVLKICTKDQKGLIYRISDVIFKYHINIVKNDEFVGEGMFFFRALLEGEFDKEAFIGTLEAMLGQEAL

IELCEKRKKDIVVFATKESHCLGDLLIKHYSNELEANIKAVISNHNSLKDLVEKFEIPYHFISAENLDRK

EQENQILKCLEQYKFDYLVLAKYMRILSPDFVRHFEGKIINIHHSFLPAFIGANPYKQAFERGVKIIGAT

AHFVNNNLDEGPIITQAVSPVNHEFTWQDMQQAGRNIEKDVLSKALDLAFEDRIFIHNNKTIIF

>CAL34917.1 putative multifunctional Cca protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQISKISLKNNPDLQFIAEFLKPYTKRAYLVGGSVRDLFLGLKICDYDIELYDIKPKDFEKIMQKLGAQG

FGKSFFVYKFKNYDLALARTENKISYGHKGFEVQICNDEKLGAKRRDFTINSMMINLFNDEFLDFYGGLK

DLGVGFLRHIDKQSFQEDSLRVLRAVVFASRFNFKITSESLKLMQSMDITDLSKDRINAELCKFFKSPRL

DVGYRYLQELGLEKQVFGFESVFKSSEFQNLLRQSREFVKSDALFLYLYLNFFNLEKDIFFKRTKLKKEY

LKYANQAFYLDDISDFELAKIAFEMPLKEWLGLWSKKRIEQAKRLGLYENKFESKILAKDFINAGFCGKI

LGLKLQEARENELKEYIKGLAK

>CAL34916.1 hypothetical protein Cj0788 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLEDLAKKTISEVSSIMEEQRRQNEILKEQELNRKTEIKDELPPMEFVCEELDTPQDLEDKISMAKFEE

EQKIQNNIEISTQENKEFKKEEPFLQNEILNPSVMTEVQTLNEDIFLKHLRERILVLFEGLNSIKKDDLE

NRLNLTINFLEFLLANIEDKLKK

>CAL34915.1 conserved hypothetical protein Cj0787 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKNTVTEASIYEAQGLKDEALEIYKNILKEDPNNQNAIDAVRRLSGFRSKHKDLNTQMLDFFINMKSDE

EINEFKRWLIKI

>CAL34914.1 small hydrophobic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVFLIPLLIIIGVIFGIDYVYFKNQDLKVQVKKEQKELNSSLEKEKKEYIEKLFKTK

>CAL34913.1 NapD protein homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNLSSVLILAKEEYINDLKKAISEIPFCSVELCENEKIIVVIESENLEDELNSYKMLEKLPNIISINMV

FSYQDLNDDIQKAINSGAIETIEKNENAENVRYYGSVFNQFS

>CAL34912.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFLFILSLFCVLSYAYELKLNANITALKLDKQNLYIGTDKGEILQYNIKDKSLKELLSLPKIKNYYGD

DFAKIYNIDIFKHTLLILSEGDFGAKNLSFYKENLQIKKLEENSIIKAFFINENTYLLISIGSEIELIDK

SLKNIKKFNFSHSSLNDAVLNEDKSRLIAGFESGEVELFDLKNWKMLKNYDKMHKDNIYQVDFKNNVILS

CGTDRRIGVVKNEEQNFLQKDFLIYTCALSPSGEFAVYSDNEAGVSEVFSTSDFKPVKTFNNENLMSEFI

IFLNNKDFIVSGFGDSIMFRSIDE

>CAL34911.1 periplasmic nitrate reductase small subunit (cytochrome C-type protein) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKKKLVLLGSAAVVFFAACAMNSGVSSEQIGLRKASLENENKVNLVEANFTTLQPGESTRFERSYENAP

PLIPHAIEDLLPITKDNNMCLSCHDKAIAADAGATPLPASHYYDFRHNKTTGDMISDSRFNCTQCHVPQS

DAKPLVGNSFKPEFKNEQLKSRSNLIDVINEGVK

>CAL34910.1 putative ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKYLIARRIVQLGILALFSFKATDFILQGNLSSSRLFNTIPLSDPFAVLQIILASWSIDLMALIGALII

FFIYGLLLGRVFCSWVCPVNLITDFAAFVRNKLTLNNKFLILPKNLRYFVLVLVLVLSFVFSLPVFESFS

YIGMIHRGIIFATSSWIFVAFILFCIDTFLSPRAICSHFCPLGAFYAFISRFALLKIKHDSDKCTKCYEC

IRICPEKQVLWMVGKESTSVKSGECIRCARCIEVCNDDALNFNIFDLRNK

>CAL34909.1 putative ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKGRREFFVSAFKAACLCTGGGFLANLALKADDNYALRPPGAENEARFLSKCIRCGLCVKACPYDTLKLA

SLLDSPKNGTPFFKAREIPCYLCKDIPCIRECPTDALDKKHLEQGIESLKMGIAIVDSASCVAHWGIQCD

ACYRACPLIDRALKLELKRNERTAKHAFLLPSVDHEVCVGCGLCELACITEKPAIRVLPREYVLGKAGSH

YVKGWDEKDEGRIKNADTSKHFNVKKATNYLNDGEL

>CAL34908.1 periplasmic nitrate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNRRDFIKNTAIASAASVAGLSVPSSMLGAQEEDWKWDKAVCRFCGTGCGIMIARKDGKIVATKGDPAAP

VNRGLNCIKGYFNAKIMYGEDRLVMPLLRMNEKGEFDKKGKFQQVSWQRAFDEMEKQFKKAYNELGVTGI

GIFGSGQYTIQEGYAALKLAKAGFRTNNIDPNARHCMASAVVGFMQTFGVDEPSGCYDDIELTDTIITWG

ANMAEMHPILWSRVSDRKLSNLDKVKVVNLSTFSNRTSNIADIEIIFKPNTDLAIWNYIAREIVYNHPEA

MDMKFIKDHCVFATGYADIGYGMRNNPNHPKFKESEKDTVEKENVITLDDEEATSLSYLGVKAGDKFEMK

HQGVADKNWEISFDEFKKGLAPYTLEYTARVAKGDDNESLEDFKKKLQELANLYIEKNRKVVSFWTMGFN

QHTRGSWVNEQAYMVHFLLGKQAKPGSGAFSLTGQPSACGTAREVGTFSHRLPADMVVANPKHREISEKI

WKVPAKTINPKPGSPYLNIMRDLEDGKIKFAWVQVNNPWQNTANANHWIAAAREMDNFIVVSDCYPGISA

KVADLILPSAMIYEKWGAYGNAERRTQHWKQQVLPVGAAMSDTWQILEFAKRFKLKEVWKEQKVDNKLTL

PSVLEEAKAMGYSEDDTLFDVLFANKEAKSFNPNDAIAKGFDNTDVKGDERKIQGSDGKEFTGYGFFVQK

YLWEEYRKFGLGHGHDLADFDTYHKVRGLRWPVVNGKETQWRFNTKFDYYAKKAAPNSDFAFYGDFNKML

TNGDLIAPKDEKEHSIKNKAKIFFRPFMKAPERPSKEYPFWLATGRVLEHWHSGTMTMRVPELYRAVPEA

LCYMSEKDGEKLGLNQGDLVWVESRRGKVKARVDMRGRNKPPVGLVYVPWFDENVYINKVTLDATCPLSK

QTDFKKCAVKIYKA

>CAL34907.1 thiol peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSIVNFKGNPVKLKGNSVEVGADAPKVNLKAKDLSVIEIGAAGKTQIILSVPSLDTPVCATEAREFNKKV

ASYNGAEVIVVSMDLPFAMGRFCSTEGIENLSVASDFVAKEFGEKYGVLINEGALEGLLARAVFVIKEGK

VAYKELVNEITEMPDIAKLDAFFGGSSCCGGCGCH

>CAL34906.1 major antigenic peptide PEB2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILILSLAASFLNAEILVYGPGGPAPVLKELALKFEEKTKEKVIVTAGPTPAWVDKAKENADLIFSGN

TSMMDDFAKKIPSLSLENLSVLNVRPSGIIVRPNNPKNIKNFEDILKDGINVMVVDGAGQVGLYEDMALK

SAKRENLVKLRKNIKIYAKNSKAAVDEWNNNPNIDALIIWSHWAKALGDDKALFIKDKNAVIYRAAEIAP

TKKGLENKKALEFVDFIKSQEAQKVWKKYTWKEVK

>CAL34905.1 putative ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPLSKLNNEQYLAATADFGHNLVIASAGTGKTSTIVARISYLLSKGVAPQKIMLLTFTNKASKEMIGRLG

KFFDKNITSKILAGTFHSTAYTLLRNADKNIALKQASELKTLLKSVYEKRTFRHLSDIKPYQSSYLYDLY

SLFQNKAHNQDFYTWFCQNYEDQSIYAEIYEDILKEYDNEKKRFNYVDFNDLLINLKDLLKEEKYEFDEI

LVDEYQDTNTLQSSLIEAFHSKSLFCVGDYDQSIYAFNGADINIIGGFKDRFKDAKIFSLNKNYRSSRSI

LALANKVILNNERLYPKELIVTRNDEFKAPSLLTFEELFDQYQNIAKMILTSGVSLEEIAVIFRNNSSAD

GVEVALREQGIASVRKGSGSFFESLEVKAFSSMLALVVNPKDIMAFIHLVQYTKGVGGVLAKEIFDALLK

LGHGNLIKGFLDPDKNVNLQNHQKRNYQLGLFADLEELASETRFKFESEFDAHPILRLSKINDLCARNLE

KIYLFLKKAMEIKHSLTLVNLICENSFYREICEELATKRATNKAGQVDLLRKSENLEKIETKFNVLKELT

KNYSDIYKYYNFLTLGASEMSSGKGVNLLSVHASKGLEFDLVFVIDLAQGRFPNQKLMGMGGSLEEERRL

FYVAVTRAKNILYLSYAKYDKNKKTSFAPSRFLIEAGLCKGELTID

>CAL34904.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLKIFSIIVGILIAVIVILGGTYYYLFEYSKPKNYTLNTNTYTEQKSYTNNYDNPYSPSIQTNNSSSNV

NTNNNTIQKQETNPLLDENQSLNNDTFNISISENNQSLNNDTNTSNNINTNENKQILDTDKEKLKQENKQ

AKIEALKKEISKQQKILERERAIKKELQSNKSNKNKYLNTAREYLSIGKNSRLEPELSTENMKVYILDGK

FLSQYRINLLKDMLSIIQDNAKDYYLSIFVKMLPKGEMKLTIYNKEIIFSDMKKAYKYISLDRLSPYLNN

PKELNEHVAREEILERLKLQIKKDGKGSDFSKHIKSLKTGLNTAQYFFPFCEIIEISSIK

>CAL34903.1 valyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYDKNLEKEYYQICEERGYFEIDGNKTIQEKDKNFCIMMPPPNVTGVLHIGHALTFTLQDIMTRYKRMDG

YKVLYQPGLDHAGIATQNVVEKQLLTQGIKKEELGREEFIEKVWEWKEQSGGKILDQMRTLGITPAWSRL

RFTMDEGLVNAVKKAFVELYDKRLIVRGNYMINWCTHDGALSDIEVEYKENKGKLYHIKYFLKDSDEFLV

VATTRPETFFGDTAVMVHPDDERYAKFVDKEVILPISKKAIKIIADKHVEKEFGTGVVKVTPAHDMNDYE

VGLRHNLDFISVFDEKGILNEHCLEFQGLERLEAREKIVAKLESLGFIEKIEEYNNQIGYCYRCNNIVEP

YISKQWFVKKEIAQESIEKVALGESKFYPNHWINSFNAWMKDLRDWCISRQLWWGHQIPVYYCECSHEWA

SQHTPKTCPKCQSQNFKQDEDVLDTWFSSGLWAMSTLGWGNENWGKDKIWSEKDLKDFYPNSLLITGFDI

LFFWVARMMFQSTNVLHQLPFKDIYLHALVKDEQGRKMSKSLGNVIDPNESIKEYSADILRFTLALLAIQ

GRDIKLSNDKLLQVRNFTNKIYNAKNYLLLNESKFEDLENITLHSELAKYIYAKFQTCVKDVRENLDNYR

FNDAANTLYKFFWDDFCDWGIELSKAEKSSVKELGSIFKEALKLLNPFMPFISEYLYHKLSDTELKTSPS

IMISKYPKFKEQDKNIEKIFSLLIESIVSIRRAKSLIDLGNSKIEKAYIKFNDKKIKDEIKAYMNFIIML

AKCEQIEFSEEKLPKAICDVSENLEIFITLENVDLSGILTRLENQKNKLEKESFKLNSMLSNEKFIANAP

KEVVEQNKEALENLKIQLEKISVELQNLRG

>CAL34902.1 ABC transport system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKIKNLKKYYGKELVINDVSLEIKKGEIYAIVGHSGAGKSTLLRCINGLENYQEGSLKVFDQEIKDLSQ

KKSKELRMLRKDIGMIFQNFALMERKNVFENVAMPLRTHYTQCKFHAKLFNKEYMSEKEIAQKVNSLLEI

VGLDHKNKSYPRELSGGQKQRVAIARALALNPKILLSDEATSALDPNTTKNILELISKINAEFGITVVLV

THEMDVVKDIAQKALLLEHGQIIGSGAIDELFLRPNAKMKEFLGESDFLPEHGLNIKLYFPKEVAQNSVI

THMARTLNIDFNIVWGKIEKLNGKALGNLVININEKDKDKVLDYIEKSGVLWEVAS

>CAL34901.1 putative binding-protein dependent transport system permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEENISIVSAFFSRISQFFNEFSWQDIKEVSLSSITSFNENYENILKPALNETIYMSLMAVLFGFLLAI

IPGILLAIWDKNGIKENKIAYSILDFITNILRAFPFLILIVVLLPLSKIIVGTSIGTNAAIVPLAIGIAP

YLAKMLESAFKEIDKGIIEAAKSYGASNIQIIFKVIFSEALPAIISGITLTLIFTIGFSALAGTVGGGGL

GDVAIRYGYERFNKEVMIQTVVILLILVQLVQILGNLFYTWAKNSKTTYIIATLLILLGVSIVININNDE

NFFWQVIVFILFLGSLLYKGFKK

>CAL34900.1 putative NLPA family lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKSLFIASILTLSLNANALETITVAATPVPHAEILEQVKPDLEKQGYKLEIKEFTDYVLPNLAVDNGE

ADANFFQHTPYLEEFNKNKGTKLIKVAAIHIEPMAVYSKKYKSLDDIKEGVKIAIPNDPTNESRALDIIA

KKGLVKFKDKALKTPLDIIDNPKKIKFVELKPAQLPRALNDVDFAVINSNYALSANLNPAKDSVFIEDKE

SPYANILVVRVGHENDPKIKALIQALQSDKIKQFIIEKYNGSVLPAF

>CAL34899.1 putative NLPA family lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLFKIIILACILNLSSLFAQNITIGATPNPFGSLLELMKDDFKNKGYELKIVEFSDYILPNRALEEKEL

DANLYQHKPFLEEYNLKKGSNLIATTPVLIAPVGVYSKKIKNLENLKEGARVAIPNDATNESRALELLEK

AKLIELNKNTLKTPLDINKNPKKLKFIELKAAQLPRALDDVDIAIINSNFALGAGLNPSKDTIFREDKNS

PYVNYVVVRSEGKNSEKTKVIDEILRSDKFKAIINEHYKDILIPAF

>CAL34898.1 putative NLPA family lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNIKKIFLSVLFTISLSFGADKTIIIGATPTPYAEILNFSKPLFQEKGWKLIVKEFNDYNIPNIALNEKD

LDANLYQHKPFLDDFNTHKGTKLSSLGAIVLVPMAIYSNSIKDIKDIPNGAKIAIPNDATNESRALDLLA

KANLIEFKSQSTLKTPIDISKNPKKLKFIELKAAQLPRALNDTDLAIITTNYALGAGLNPLKDGIFMEDK

DSLYAIVLATRKGEETSQKSLVIKEILTSDKIKNFIIEKYKGSVIPTF

>CAL34897.1 putative flagellar protein FlgA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIFLTFFIVINYIQAASLEEIKTALAKEFRNNFPKIIISQIDLKITSLPKDFDQYEFLRIANGRFNQA

QGFLRAEFKTPQNIQKNVFFRYFIQANLEVLKSERAIKRGDKLGAFDYKSVLIDFDKVPLNALTLDDVDN

LVAKSNINKNAILRANMFKTTALIRRNDPIIGVLSEANVDVLIELVALQSANMGERIRAKNKEGKVMQGI

VVGKNRMIIQ

>CAL34896.1 putative decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVLLGISGSSSVNLGLKLLKNLENQCELYCILTQGAKLNFKTENQANLEEICQENFKYTHFLDDKNLSL

SVASGSFGIEKTIIAPCSISSLAKIHAGFADTLLMRAAAVALKERKKLILGVREMPFSTLNLEHMLKLSQ

MGVIIAPPIIASYSKANNLEQMENFIAGKWLDLLEIKHNLYEKWQNF

>CAL34895.1 phosphopantetheine adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTCLYPGTFDPITNGHLDVIKRALKIFDEVIVAIAKSEHKKPCYDLEKRKELALLATQNLKNVKIIAFDN

LLVDLAKELKVNTIIRGLRAVSDFEYELQIGYANHALWEDMETIYLMPSLKHAFISSSIVRSIVAHGGDV

SSLVPKEILPFLKDQSCM

>CAL34894.1 thymidylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYVVFEGIDCVGKSTQISLLKEIYKDAIFTLEPGGTELGKHLREILLNKTHPINKRAELLLFLADRAQHF

EEILKTNQNKLIISDRSFISGMAYAKDFENDLLFALNSFALENFFPQKIIFLKGDANLIQERLSQKELDS

IEKRGIEYFLSVQDKLEKVLHFLKEKISVEILTLDAKESKEKLHQQIKEFLQ

>CAL34893.1 histidyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINALKGMKDLLDKDAYYYEKVIKICEEVAKNYGFTFINTPHLELCTLFKRSVGESSDIVGKEMYEFIDK

GENHVCMRPEGTAGVVRAYIEKKLDKNTSVKRWFYYGSMFRYERPQKGRLREFHQFGVESLGIPNVYEDA

SIILMLVEIFSRLGIDFKLQLNSLGCSQCLPKYRDRLVEFLDSKEGFCEDCLRRKNLNPIRVLDCKNEHC

QNLLENAPLLINNLCTSCQKDFETLQQILKDNGVKFELDSKLVRGLDYYSKTAFEFISDEIGAKAAIAGG

GRYDRLIEYLGGKSGYGIGFAMGIERIITILEQKEEKIQREGIYLCAMDEIYIQKLLHIATNLRKEYKVL

LSYEARKLAKHLENADKNNTEIFLCMGENEAQNESLFYKNLAKKEEKMIKISDLKKVL

>CAL34892.1 biosynthetic arginine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMDYGIDIWGNENFIIKNGKVCINYEKKPAIIDIVKELRDDGYKGPLLLRFPHLIQKQIENIYGNFNKAR

KEFGYKGGFNAVYPLKVNQYPGFVKNLVKLGKDYNYGLEAGSKAELLLAMAYNNEGAPITVNGFKDRELI

NIGFIAAEMGHNITLTIEGLNELEAIIDIAKERFKPKPNIGLRVRLHSAGVGIWAKSGGINSKFGLTSTE

LIEAVNLLKENKLLEQFTMIHFHLGSQITEIHPLKKALNEAGNIYTELRKMGAKNLKAINLGGGLAVEYS

QFKNEKSRNYTLREYANDVVFILKNIAEQKKDLEPDIFIESGRFVAANHAVLIAPVLELFSQEYAENKLI

LKKQNPKLIDELYDLYKSIKPSNALEYLHDSIDHLESILTLFDLGYVDLQDRSNAEILTHLITKKAILLL

GDKQNPADLLAIQDEVQERYLVNFSLFQSMPDFWGLEQNFPIMPLDRLDEEPTRSASIWDITCDSDGEIS

YSKDKPLFLHDVDVEKENYFLGFFLVGAYQEVLGMKHNLFTHPTEAIISINEKGYEVEGIIEAQSILDTL

EDLDYDIHAIMDILNERISNSKLVNDKQKKHILGELYLFLNDNGYLKSIGV

>CAL34891.1 serine acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFWGIIKEDFSQPKAQDPAFNSCIELFFNYPGVWAVVNYRFAHFFYIRNFKRIARMISGISQFLTGVDL

HPGAELGRRIFIDHANGVVIGQTAIIEDDVLIYQGVTLGGTSLEKGTKRHPTIKKGVIIGSGAKVLGNIT

IGENAKIGSNAVVVKDIGANLTAVGIPAYIIEERKNKNIRAIDANCDDKLEKLEKKILELENLILKQPES

QK

>CAL34890.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTKRSQVLEESITLAITALANELKAKGEDIISFSAGEPDFDTPQTIKNAAISAIEKGCGKYTAVAGIPE

VLKAIQTKFKKDNNLDYETNEIITNVGAKHSLFECIECLVEKDDEVIIPSPYWVSYPEMVKFAGGKPVFI

EGLEENGFKITAEQLKKAITAKTKVLMLNSPSNPVGSIYSKEELTQIAKVLEGTQITVLSDEMYEKLRYD

GFDFVAFASVSKDALKRTVTINGLSKCGAMPGWRFGYMASKNKALISAVKRLQGQSTSNICSITQHAAIP

ALNGECDKDIEKMRQAFEKRRNLALDILKQIPNISVYKPEGAFYLFVNIQKIEKDSMKFCQKLLEQEKVA

VVPGVGFGMDGYFRLSYATSDELIKKGLERIANFIKNYK

>CAL34889.1 hypothetical protein Cj0761 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIQWNGAEFSPKEVKINVLIDNEKGKEIQILLAKDSVMKEHKAPFAIHVQVLSGKIWFEVEKEKFELN

ALDMISLEANVAHSLGGLENSIIRLSLNKSDSVQRVNAVLKKP

>CAL34888.1 hypothetical protein Cj0760 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLSFKIFDISNTQRSKAKKVQGKKYEIFLNENEHSLITPKVSFKEILRYYYLYPKNAIPSFKLPFFKPD

LSGFSTPHITWLGHSSLFISFKEYKILIDPIFNTHASPISFINKAFKNAPVYNINDFNEIFAVIITHSHF

DHLDAKSVKALKDKAKFFITPLKVGNYLKSYGVSEKKIIELDWWSGIEFGDLKIMATPAQHSSSRGDGKN

KTLWASFVMEFLSVDKRVFFSADGGYFTHFKKIGEYFGSFDLACLESGQFNIAWPYSHSFPEQILKEAKD

LNAKAVMPIHWGRFLAGTHAWNEVVKFLYENLDLPLITPKMGEAYEVGAKFKQDFWWKEE

>CAL34887.1 heat shock protein DnaK [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKVIGIDLGTTNSCVAVYERGESKVIPNKEGKNTTPSVVAFTDKGEVLVGDSAKRQAVTNPEKTIYSIK

RIMGLMINEDAAKEAKNRLPYHITERNGACAIEIAGKIYTPQEISAKVLMKLKEDAEAFLGESVTDAVIT

VPAYFNDAQRKATKEAGTIAGLNVLRIINEPTSAALAYGLDKKDSEKIVVYDLGGGTFDVTVLETGDNVV

EVLATGGNAFLGGDDFDNKLIDFLANEFKDETGIDLKNDVMALQRLKEAAENAKKELSSANETEINLPFI

TADASGPKHLVKKLTRAKFEGMIDSLVAETITKINEVVSDAGLKKDEIKEIVMVGGSTRVPLVQEEVKKA

FNKDLNKSVNPDEVVAIGAAIQGAVIKGDVKDVLLLDVTPLSLGIETLGGVMTKIIEKGTTIPTKKEQVF

STAEDNQSAVTINVLQGEREFSRDNKSLGNFNLEGIPPAPRGMPQIEVTFDIDANGILTVSAKDKATGKA

QEIKITGSSGLSEEEINNMVKDAELHKEEDKKRKEAVDARNAADSLAHQVEKSLSELGEKVAAADKENIQ

KALDDLRETLKNQNASKEEIESKMKALSEVSHKLAENMYKKDEPNTANDKKKKDDDVIDAEVE

>CAL34886.1 heat shock protein GrpE [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEQKQEFENENAENSEHLQDENLQNIEDVEQNKLQKDYDELKDKYMRANAEFENIKKRMEKEKLSAMAY

ANESFAKDLLDVLDALEAAVNVECQDEISLKIKEGVQNTLDLFLKKLEKHGVALIKDEKEFDPNLHEAMF

HVDSENHQSGEVVQVLQKGYKIADRVIRPTKVSVAK

>CAL34885.1 putative heat shock regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKSRDKKDLILESIIQTYLLDNAPIGSNELNSNLCIPASTIRVYLKRLSDEGLITQLHISSGRIPTILT

MQNYWQNFWEKEQDKNIHIKNESFLKELSKEFEIYCLVYGGRSLVLKEVLDLNTKFIVLDFEDEELVLKY

EKEAWNFLQSLIGLDLSSIEKIALRVHFIDLVEKIASLRQNLICYRSNEERAYQIYQNDEFVKLLDCQIH

RHFKESLEFEPLFKEGFMGLKVDAQFLGEDVNIILAGSVYTDYKKILQYIKEAA

>CAL34884.1 ferric enterobactin uptake receptor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKICLSVCAIGLLSSNAISQNVELDSSIVSASGFTQDIKEAPATINVITKKELQSKPYRDVAEAIADIP

GVDLYASKGKTGSYNITMRGITGYTLVLIDGRRQGIGGEVGPNGFNEISNSFLPPISSIERIEVIKGPMS

TLYGSEALGGVVNIITKKVSDKWETSVSLDALLNENKDWGNTYGTSIYSSGPLMNDKLGLTLRFREFYRQ

QSNVEFTNGSGQRVQGDQAQSPTKANNFNIGTRISYLANDYNTFIFDIDFSRNHYDNKQGQLGTITSPGR

TPGSLTGGYADIMEVDKFVTYLSHEGVYENFSITSGLQYNRVSNDGREVVGQSTQPFLGENRDIVAEDII

LDTKSVIPLGQSHILSVGGEYRLEKMQDKIASPTNFDQYLLAIFAEDEYSIKDDLRLTFGARYNHHEIFG

NNVSPRAYVVYNPTNELTLKGGVSTGFRTPYANRLINGTYSYSGQGRFPTYGNPDLKEETSLNYEIAAIY

NNDLFYVSATGFLTNFKDKISSQSYNNSEPIPGIGTCDADRCSRAINHGKVEYKGVELGAGISPLDNLNV

NFAYTYLDTEVKEAQDRSVIGKPEQDSLKHNIMLKTEYSFYNKITPWIKGEWQIDRYMGDTNINREYYKD

IFLASMGVRYDINKQWSINAAIYNLFDKSFTNGWESYASGSGSTWVNTYNRIEEGRRMYISINGNF

>CAL34883.1 TonB transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTFISNHKNQSSFITLFVFTPLFFVFLYSKDFLHIQPNETIKENKFNMAIKHFVQNSSDMKPTQPTQTI

QEPSNVQPKEPVQEIKKIKPRKEKPIAKPKKIIPPANAKAISQPKKDTNMQQQTPQASSYQSVSLTSNSE

LLKEIKSAIDEALIYPRQARKMRMSGEVLVEFTWTKEKKLENLKILKPSKYDFLNKSALETIRIASKKFP

QYEKTFHIKIPLVYKLS

>CAL34881.1 hypothetical protein Cj0748 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLETLKKYAENQGIEDNYPKKIYNQKEKKP

>CAL34880.1 hypothetical protein Cj0747 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGVVYDEINIAVNTCKGLVLSKKRLLALNLSFFIQ

>CAL34878.1 hypothetical protein Cj0741 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQYNNEVTGKKDFDSAVRKKFNDIKYLDNNSYAFADSFTKATDAVKLSKDDFDPKLLQRILDDLMNGKYT

YDFDTKTWTYTDSKGVVGKDEASEITQSLNFLNAFKDTGVEQEFLKLWQGSQEQNYKNYTNLYEKWTQKK

TAMDKIKTGEGYFASFKEELQKYQEALAQLDKENKNYEKIKESGLVSDETLRAIYEKLLEQKEALEKQFA

DLSGNEGFRYKLENEILNSQGFSIEGKDVDGKVYTGNFNFKGKLASLPEKPNISIYEPDKQGGEDPDKPS

VLPPEIPEKVVEAPIKIQTEVDAKKRRR

>CAL34877.1 hypothetical protein Cj0740 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSAGNYKTQAGKVIGDPGISVNNNFSNIYVYHNLENGYIDEGQNFLSLCNIIMK

>CAL34876.1 hypothetical protein Cj0739 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGGIGRQIDGGNFNNVVVNDIEKLITSGNDSKTGGFTGKVGNLKINNAYLFYKMEQF

>CAL34875.1 hypothetical protein Cj0738 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTVNDLVINTAVNTKVGGIIGWGNGSGGNNTINFTNVAINNISIVAKKVLMWVA

>CAL34874.1 putative haemagglutination activity domain containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKMSKHIVLSFAVSSLLFSQAYALLSGGKFTHGTSGTIHTSGNTVTITGKGQNHVIQWGGGFNIGQNES

VNFNGKNQNYLNIAYQKDASKIDGALNRGNNNIFLVNPMGVLIGKTGTITAGKFVASTTALSDDNVKTFL

EKGASFSPAFDVSKQGNIINLGKINADNIVLIGNKVEINKGKITLDVLKLEGNKVYVDAGVVKDTKNIVA

KAEQEAIIQQSITSFEEDGALLGNSSSKFSFDDSSKVKNWTKYGSIADATEWNKFADFWNVNKEKFRTAF

DHFRLIDDIDFSGVKTYIVGDNTSNAFAKSFDGSGYALKNVNINSSNQYVGIFGVVQNSYIRNFNIQGLK

IASTGYDA

>CAL34873.1 hypothetical protein Cj0736 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGVENIYTLPLNGVPYISGSVAFDGEAKDNKLILESNTKIDLHNSQYFSDEEGKDIYDERITRLMGAFGI

NSNLQNNKVLIDSANIVLHGPDGEYTARSTFEILGALADVNNLKKYNVSKNSVIIKNLNLDLMVNSQNKI

TFYDAVLFGEIYGGRTLQGNAEKNSIEVYHFNSLDHLNKNIKTHASLNLYGGYSNDGEANGNKIVFRLKK

PLKISDNFYGKNYYNLYGCFATEGANFNVFDIQNDLTYEKVPQNYSDKFTVYAARTLSGKANNNTLSIKD

SVISLPLYAFITSETTLDGIDYIADESNNNEVNFENIKSSKNLSLMINAKNVSNNKINYNLIQSLTEASS

LGKGSKIILKATQNANNNLIKLKDCSSAAVESSCIIKADKESAFNKIINNNTAFSTASDKRQGYVGLIAG

VSANSHDNIMELVNLNIDEYKNQDAIFLAPSGTSDISNFKSYNNTLYLGGELNFFKDVNIDLLSGSVFHE

VNKKGKIITQILPHQEDFSKNNRLIIDTQDVKSEVVNNFENFTFILPNKIKNPILTIEKLINLPANGSME

ILTKNKPTKGKYILIQSDVGIYDGDNGLLNQQELENLLEKMKNNKNKFNYNKIEKLAKSTLKNVNFSFEV

SDDAKIIYINIL

>CAL34872.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYFNIFKIFTNKTNAKFGLGVCSVVLSSSVCFAAVQAASKDGKIFYISEHSFKDNQVYDPQAEIFKKI

NGKNFYASKSKYPISNLTMIYNNPKSGNKNLSKLEILTPDTSKEEIITAFSTLGTVSSDTQAVPSSFMPF

IVTAYAQNTNATNNKLILENGELSSVYFCKPSIGDCGVPNNSQKGDRFKYLITAAFTDRGEGFNNQTILK

ENSYINNGCRKYLHLALKWSSLYFRICSF

>CAL34871.1 histidine-binding protein precursor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILSIALVALVGLFLGACSDSKNKESNASVELKVGTAPNYKPFNYKENSKLTGFDTDLVEEIAKKNGI

KIVWVETNFDGLIPALKAGKIDMIASAMSATDERRQSVDFTKPYYMSKNLYLKLKNNDSLQTKNDLEGKK

IGVQLGTLQENTAKAIKNAQVQSNKDLNIAVLALKNNKIDAIVADQDTAKGFLAENPELVSFYQETDGGE

GFSFAFDKNKQKNIIEIFNKGIDEAKTDGFYDTLIKKYELE

>CAL34870.1 putative HAD-superfamily hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLVLFDLDDTLIQGDSAKLWLKFCVEKGFLPQEYLEKIVFYQKQYQEKKFDMDEFMTFFLQSVKGKNED

RISSLVDEFIKIYIKPYEKAKELIIKYQDQRCIIISATAEFLVRKIASFLGVRESIAIKCERVGDKFSGK

AYGIYSFKEGKVLRLKEYLGKDYEKWMKDSYFFSDSINDLPLLESVSKAFVCNGDEKILKIAKERKYEIL

TF

>CAL34869.1 ABC transport system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYLKIKNFKKAYGDKIIFEDINFSAKKGEFITLLGPSGCGKSTLLRCIAGLSQINGGKISLNDKDLTKL

SPQKRNIGMVFQNYALFPNLNVFENVAFGLKIKKMDKKDIEKRVKKMLKLVELEEYAKTYPHKLSGGQMQ

RVALARSLVIKPDLLLLDEPLSALDAKIRKYLRVQIKEIQKELELTTIFVTHDQEEALELSDTIILMNEG

KIIQNSNANNLYLLPESHFVASFIGNYNILSPKELDSLGLKHDFKKDIALRPETIEISNEGLEAKIKEKS

LLGNIIRYRVRVQEIEFKVDTLNFSTHSTYEAGDKIALKFNLSLAKELK

>CAL34868.1 putative ABC transport system permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNENLSLKAKIYHYAVLFLVFLFLALPLMATFLYSISTSWGVSVLPDDLTLKWYQELFHDERFLLALWHS

LLVCVGSILLSVILVFPLVFVLNYYFLKLKAFVNILIIMPFAVPPIVSCVGLLQLYADNIGGTAWILIFT

YFTIALPFIYRALDNAISNVNLNELITSNAMLGGSLMGAIFKLILPNLRNGILVAVFLSFSFLIGEFLYA

NILVGSAYETLQVYLYNIKNQSGHYSSALVIVYFVLIFITTFIASLIKE

>CAL34867.1 putative ABC transport system permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEKFLAFLSILPFFIVFTFFMIAPLIWIVFNAFYVEEDEIYSLANFIHIFESKFYLQSIINSLQISFIS

SIFGLLIGLLASYSLFVLAPSKICKFLFSLNTMISNFSGVPLAFAFIIVLGSNGVVNVFLKNLGIEPFVS

VYANFGVNIVYVYFQIPLAILLLLPAFKSLENSHLNACKMLGGGNFLYWLKIALPLLAPALFGVFVILFA

NAFGAYATIYALSSGNFNVAPVRIAALIAGDINLDPYMASALSIIITIIMLVVTFIANFLSKKYNFKVL

>CAL34866.1 putative type I phosphodiesterase/nucleotide pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMSKAILVVLDGLNCKSASINMGYLNALCKENLGKFYSLECELPSMSRPLYECLLTGVKPVLSGIINNKL

SFSKQTSIFDLCKEQGLKAGGAAYHWVFELYNKKEFIPSLHRHIEDENLTLPYGHFYYEDDYLDSHLFAD

GEHLRNKYNLDFTLIHSMNIDDAGHKFGSHSIEYANKTKKVDILISEYLPTWLEQGINVIITSDHGMTEG

KSHGGLSEDEILVPFFTFGSAFSYENAKIKQDEICGSICEILGLKHDKRYNDEILKAKK

>CAL34865.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVILTSAMLCSVLFGVQEYEANLAGHIIIDSKSTVKPPKDAPDFFKTYGKFANIAREEKIGTFKSKGN

RETDFYLPFKNQPIQGHSGIKYIPKKDVFWVISDNGLGKKYNSYDAMLYAHEFKFDFKNSKYELLKTVFF

KDSDKKYPYPITTETTKERYLSGVDFDTESIQVINDEFYIGDEFGPYLLHFDKNGNLKEVFDVYVEGKKL

ISPDNPSLKFSDKPDGENEKFNIKRSKGFEAMASSKDGSKLYLLLEGSIYNNNAYENEKGKEYLRIIEFN

VKNKKFTGKTYKYFLEDKSHSIGDFNMIDDKYGIIIERDQKEGTKDKACKEGEDTKHCFNNVAQFKRIYK

VKLDDKTHEAQKISYIDLLNIKDRNKISKKPLVNDKFVFPFETIEGVDIVDDSHIVVENDNNFPYSSSRE

PNKTDDNEFILLEVKDFLKSK

>CAL34864.1 putative periplasmic solute-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKFFLSLGLVALLFSNSQAIDENLIKAAQAEGRVNSLAMPDTWANWKDTWADLKNLYDIEHSDTDMSS

AQEIAKFKTEKKNASGDIGDVGASFGEIAVKQGVAQPFKTSYWDQIPTWAKDKDGNWLLAYTGTIAFIVN

KDVVKDIPKTWQDLLKGNYKITVGDVSVAAQAVSAVLAANYALGGDEKDLSPALAFFNTLAKQGRLVNND

VSIANLEKGEVEVGLVWDFNGLGYRDKVGKDRYEVLIPADGSVISGYTTIINKYAKHPNAAKLAREFILS

DKGQINLAKGYARPIRIDHITLPDDIKAKLLPSEQYKNARAIKDQKAWEKSAKELPQLWQEKVIVDMK

>CAL34863.1 magnesium and cobalt transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLYIYIKTQNALVQRINFNLDSQELPQNILWIDLLHPSAAEIAFISSEFNLEFPTKEEREEIELSAKYWE

DNATITINAHFLVRDLKSDEEDRNLIKLRTEIVTFATAKNILFTIRYNEFSTFEEIQARILASPKNFEDG

FDIIDKMFEVRVEKDADLLEWIDKEARRLRTSVLEKKDEYSYDEMLKDISSLQELNMRVRDSLFDKRRAM

TSLLKSDKIDKDIKQNLTIVLKDLNSLVEFSVSQLNILDNIQTILASQINIEQNKVIKIFTVATVAMMPP

TLIGTVYGMNFKFMPELELHYAYPIVLGVMVISIILPLVVFKKKGWL

>CAL34862.1 molybdopterin biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDTINIGILTLSDRASSGIYEDKATAEIERVLNSYIKNDIIYHKELIPDDYDLIIKKLLYLADEKKCDLI

VTSGGTGPALRDVTPEATEAVCDKMMPGFGELMRLESLKYVPTAILSRQSAGIRNKSFIINLPGNPKAIK

ECLEPVFPAIPYCIDLIEGAYIEANDEVIKVFRPKKKCQN

>CAL34861.1 hypothetical protein Cj0724 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFFKKKISQKQKEKPKIPINDVILDDRLCKFKNKVQKISKDEASASLLARQLSRLIRANKF

>CAL34860.1 putative integral membrane zinc-metalloprotease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLIAILCLYTALLSWISYAQIRFLEREKDKQAQILSEKDYQNAADIAIENEKFKLFSNFYNLIISIAWI

GFGFLYLKELLILNNTRFENTLFLLSFLIITSILNLPLSIYESFIKDKAHGFSNMTVKLFIKDTMKSLIL

TLIFGFLILYTLLFCYDFFGTFWWIAAFIFAFCIIVIINLIYPTLIAPIFNKMKKLDDENLLKKISSLMK

QCGFSANGVYVIDASKRDKRLNAYFGGLFKSKRVVLFDTLLKALNERELLAVLGHELGHFVHKDIIKALF

NGAITMFLLFFVFANLPEFVYLESHLEGVNGGVFALLFILANIFSFLISPMLNALSRKNEFAADQHGAKV

TSKEDMKNALIALARENKAFIKTSKIYTFFYLSHPSISDRIKALS

>CAL34859.1 putative DNA methylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTIKNALMEAKSSLKGYENEAVFILCEYLKKDKAWLFLNQDIKIDHEPYFELIKRFKSGEPFEYIFEKVD

FWGLEFKIKKGILIPRYDSEILLFQILNLCKKNTFNGILEIGFGSGILSIVLAKELGLKITACDINPKAL

ELALENAQLHKVDHLIDFKLCNFKQIKENYDFIFSNPPYIKNSYPIDIWVQKEPKEALFGGEKGYEILEE

IIHFSLDKKVKFLACEFGYDQKEILEKILYQNNFIVDFFKDEQGYNRAFIAKFTNMRYDKK

>CAL34858.1 putative integral membrane protein. Functional classification-Membranes, lipoproteins and porins [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKAVNLFLLASIIGVELILGIVVAPTIFFPQNLIGEGVLSHFQSGLMMTQIFIKMGYLLIFVSVVNFLYE

IYSLIKDEMKFQIKFSKFMLSLLILILSLIFVFYFTNTIIELQNLGENATKTQEFISIHNASEVVIKIIL

IMQVFLYFLSFKIAKK

>CAL34857.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMISDATMMQQNYYLNNAQKASDKALENIAAVRAISGVDSANLAIADSLRSQSSTIDQGVANAYDAIGVL

QIADASLTNISQSADRLNELSVKMNNAALNDSQKGMLRTEATRIQESINDSFNNATYNGKNVFQTMNFVV

GSGTETTNLNPLATDGLSIDSQDSITNFMDQLGSLRSEIGSGINAITSNINASVQNSINSKAAENNLLNN

DMAKNVNDFNANYLKENAAAFVAAQSNMQLQSKIANLLQ

>CAL34856.1 conserved hypothetical protein Cj0719c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLEQILEKTKNVRLVAASKYVDASIIEKLFDQGIVEFGENQVQALAQKKENLDEKKLDIKWHFIGTLQS

NKINLLIKQKPILWHSCNGIKIAKAMDKRLDYKLNTLLEINSANENSKSGLDPNQAVEEYLQIQEECSNL

NLCGVMSIGSHSQDKENIIKSFETTFKIYEILQKHGAKICSMGMSNDFEIAIKCGSNLVRLGSILFKNLK

>CAL34855.1 DNA polymerase III, alpha chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQFTHLHLHTEYSLLDGANKLKELALTLKEQGATSVAMTDHGNMFGAIDFYQTMKAQGLKPIIGIEAYL

HNHDELDDKSSRQRFHLCLYAKNEIGYQNLMYLSSQSYIKGLYYYPRINKKLLEDYSEGLICSSACLQGE

VNWHLNTYSERNVRFGAKGYEAAKEAALWYKKVFKDDFYFEIMRHGIGDQRMIDDDIIRLSKELNIKIIA

TNDTHYTFKERAAAHEVFMCIAMGKKLNDPDRMRHSVHEFYVKSPEQMSELFADIPEAIENTQEIAQKCN

LELNLGNPTPPNFKFTREYAKDHNIILPEETKEFSFDNDDMVFEELCKKGLEERLKFIDESKHEEYKQRL

EVEINIIKNMKFSGYMLIVHDFIKVAKDKGIPVGPGRGSAAGSLVSYCLRITDLDPIPYSLLFERFLNPE

RVSMPDIDVDFCQDRRAEVIDYVIDKYGADKVAQVITFGKLLAKGVIRDVARVCDMSIQDADELAKLVPE

ELKITLDAAYEKEPKIKEFIDRHPKGLEVWEYARALEGLNRNAGMHAAGVVISNESLWKKTPLFRQSKND

ERHLVTQYSKDHLEDVDLIKFDFLGLKTLTVINNAIKLIKKRYNKDIIWETIDVNDSKVYKTIQSGNTLG

IFQIESGGMQSLNARLKPERFEDIIAVLALYRPGPMESGMLDDFIDRKHGLKSIEYPFDSLEKVLEPTYG

VIVYQEQVMQIVQIIGGFSLGGADVVRRAMGKKDPEKMKKLKTDFADGAEKQGYDRAKAEDLWELIVKFA

GYGFNKSHSAAYALITFQTAYLKTYYPSEFMAALLTSEENNVDKIAVYIDEMKKMNIKLLPPSINKAIRE

FSALEQDGKDAIIYGLGAIKSVGIPAVENLLEARQDGEFKDINDFLGKIDPTKINRRTLESLIKAGAFDE

FGFTRKALFDNMENLSEASRKMAEVRKNAASSLFGEEELTSGVQVNFTPKNEEFEVMEKLGYEKEILGIY

VSGHPLDRFYEQINAIDYVKSLDFESLKNNGEILSIGKIEDFKSMMSKNNKRYGRIEILDYYSSFDATVF

ESNVEEIENIIKDENLKNNAYGFVLGFKAEGGEKPSFFLKAIKDLQSLEDGEIKAIKKFGAKKDFKNKEE

NHFTAEPKEFEKNIIELDLTRLNRELIYEIHEIARNAHNPNEKNNKKLVLKVISAGSCLLYHTDFIISDS

IVEEISNKYA

>CAL34854.1 putative ArsC family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLYGIKNCNSVKKAMDALTQKGIVFDFMDIKKINQDILYTWLKQKSFEELINTAGLTSKKLGLNKEKVK

NLNEKELEKIVLENPSCIKRPIIEYEQNIYIGKEYEKML

>CAL34853.1 putative phospho-2-dehydro-3-deoxyheptonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWAKNSWKNYPIKQQPIYPDQEEMNRVLARLEKLPPLVFAGEVRNLQKSLARVCKKEAFLLQGGDCAESF

ENFGAVNIRDMFKILLQMAIVLTFAGGCPVIKIGRIAGQFAKPRSSDFEELDGISLPSYRGDIINGFEFS

EQARIPDPHRMLEAYYQSAITLNLLRGFAKGGLADLHEVHRWNLGFLKKSELHKQYTDISEKISQALAFM

EACGINTSNTPSLREVSVYTSHEALLLPYEEALTRVDSLSGEIYDCSAHMLWIGERTRALDEAHVHFLSG

VKNPLGVKIGPSASADDIIALANVLNPNNEEGRLNIIIRMGADKIINNLPKIFSKLKSEGLNLVYSIDPM

HGNTVKAGNFKTREFDKIMQEVRSFFEIAISEGVYPGGVHLEMTGKDVTECTGGASNVTAQSLEDRYETQ

CDPRLNADQALELAFLIADLVKKTRK

>CAL34852.1 transthyretin-like periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFSIKKTLLILASVPMFLSATEYQLSTHVLDITSGQPAPKVKVELYKLEANQQWKKVSEEFTEENGRIGD

LLPYEKAENRAFGIYKLKFFTKDYYTSHKINTFYPFVEVSFELSKDQKHYHVPITLSPFGYSTYRGS

>CAL34851.1 50S ribosomal protein L19 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNKYIEQFEAKQIEGKNVPDFRAGDTLKLAIRIKEGDKTRIQNFEGICIARRGNGVSETFIVRKIGANN

VGVERIFPIYSESLESITVLRRGRVRRARLFYLRDRRGKAARIKELKK

>CAL34850.1 tRNA (guanine-N1)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFSFVSLFPNLMEFYFQDSILARAKEKKLFKLNFYNPRDFSKNSYHKVDDYKIGGGAGLLMQAEPMYEV

LRSIQEKKENPYFIFLNPSGKTFNQKDAKRLSKKEHIVFVCGRYEGIDERVLEIFANEVFSIGDFILTGG

ELPALVMCDAILRNVNGVLGNMESLEEESFENNLLEAPAFSKPFIFEKKNKKFYTPSEFLKGNHARIASL

KTTLASCKTKFFRPDLFLEHERKK

>CAL34849.1 putative 16S rRNA processing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEKDFVQVAKLGKTVGLKGYVKLHNLSDFSSQFKKDATFFIKNTKEMLKIKHYNANNSTVLFENYEDIE

KAKELTNLILFQSIEKSRQTCKLKKDEFFYFDILECEVFEEDKRLGKVVDILETGASYLFEIQSDEKWVE

KKYPKIFFIPYLDKFVKNIDIEKRQIFCTQDAFLILENS

>CAL34848.1 hypothetical protein Cj0711 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVENFLREYAKLIADYPEQIDTQKIELSENFFEIVLFAHKVDTGKLIGKNGKMINAIKTVISAYKSKDAS

SYRVTVKALE

>CAL34847.1 30S ribosomal protein S16 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTVIRLTRMGRTKRPFYRIVVTDSRKRRDGGWIESIGYYNPMVEPEVIKVDAERLAYWKSVGAKLSDKVA

SITSK

>CAL34846.1 signal recognition particle protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFELVSESFKSAINKLRFVDDEKALKNALETLKKALLKADVHHKVTKELLTLIEEDAKQNGIGQKQFLNA

IKINLENILSVNGKNQGFVFASKPPTVVLMAGLQGGGKTTSTIKLANYLKLRNKKVLVAACDLQRLAAVE

QLRQLCEANEIELFFIENEKDPIRVAKEALKKAESSMVDVLLVDTAGRLAIDEALMDELRAVKDVLNPDE

IFYVADAMSGQDGVKTAASFNEVLGISGVILSKFDADTKGGVALGIAKQIGIPLRFIGVGEKVADLEVFI

PDRIVSRIMGEGDLATLAEKTAAIIDEKEAKKLNQKIKKGEFNFNDFLNQMESIKKLGSMKSLIGMIPGL

GGMANAVKDIDLDNSKEIIRIKAMISSMTPKERENPDLLNNARKRRIAEGAGLSQVEVNRFLKQFSNAAK

LAKRFSGKKGMESLTQMMSQARRQF

>CAL34845.1 putative ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEKAYKLLALQEKISNREAKDLIDKGCVFSYGKKVVVARALMSDKARFNVIKAKNPQIIFEDDKIIAIN

KPYAYVSEDLEKKFNAKLLNRLDKETSGVILLCKDEDFRKLCIEEFKKHRVYKSYIAVLDGVLAEEVEVN

EPIFTIKVKGGALSKVSKDGLSALSIITPIMMQSKKTLAKIVIQTGRTHQIRVHAKFIKHGVVGDEKYAK

ISSDRMYLHSYEIKIFNYHFRANLDSGFAKFGFDIKNLDF

>CAL34844.1 3-deoxy-D-manno-octulosonic-acid transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFFYYFLTWTAFLFCAVFILLLSFLKSKYKISLKSRFFLYKNLHQEKADVHFHACSYGEVRSIKALVLK

FDSRITTITQTGFECAKEFCKKVNYLAFENFLPFWLKPCKVLVIFEAEYWLMLVFMARIYKAKIILLNAR

ISDKSYHSYQRFSFFYKKIFSYIDEVFAQSDLDKARLESLGAKNVKIFKNIKANLEIKNNKIYTKPKEKL

IIFASTHKDEEELLLDHFKLEENEKLIIAPRHPERFKEVENLLLNKGLEFEKFSSLKDENKKFSKKILLL

DALGELVNFYAISDVVVLGGSFIEGIGGHNPIEAAYFDNVLISGKFIHNQKVLFEEVENVYFCEKLKDLN

DKVHYLNLKAKISKKENLDLIIQTIQKGIDARKSL

>CAL34843.1 conserved hypothetical protein Cj0706 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKYLEQLVLLSKIDQEIDSYEPKIDSINKTLKDAELKIEKINADLEKIDEEIKDIENQKIQNNAHISEF

SAKIKDLSKKSGVVKTEKEANALKIEEDIAKEQLDAANDEIVRLDKILENKETYKKELEEEKIKQEQNIN

EIRVSIKSEMEVLEKDRMSVYDKKTKLVSEMNQKVLSFYEKIRKWAKNTAVVPVKKQACYGCFMKIYDKT

YLSVVKGEEIVTCPHCGRILYKEQEEQN

>CAL34842.1 conserved hypothetical protein Cj0705 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLSEIYNFLDQLSPFNIQESWDNSGILLGDRDSEISTVYLSLDIDENIIKEASENSLIITHHPLIFKGL

KDLYDKTYPRAFIKEMIYKNISLISMHTNYDLSHLNTYFTEEILGFKISFKDKFLIYVENSMSFEALCDW

VKKKLNLQILRVSDCGKKDIKRIAICTGSGGDLISKVDADCFLSGDFKYHQALEALSNQISLIDLGHFES

ERYFSQCLAKDLKNLPLQVIITVSKNPFQYF

>CAL34841.1 glycyl-tRNA synthetase alpha chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTFSQMILNLQNYWQEQGCAIMQPYDMPAGAGTFHPATFLRSLGKKPWAAAYVAPSRRPTDGRYGENPNR

LGAYYQFQVLIKPSPDNIQELYLKSLENLGFDLKSHDIRFVEDNWESPSLGAWGLGWEVWLDGMEVTQFT

YFQQVGGIAVDLVSAEITYGLERIAMYLQNVDNVYDIVWSEFNGEKIKYADVHKQSEYEFSKYNFEVSDV

KILNEQFENSYKECKNILEQGLALPAYDYCMLAAHTFNLLDARGAISVAQRQDYMLKIRELSKNCAEIYK

KNLNEAE

>CAL34840.1 hypothetical protein Cj0703 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQTYLELEEFCKLVHLNEDVVKGMMANGALNFKEEEGKIYIEAHQGTFSVVPSSAKSQTAMVNSMTLAGE

SFVEKTIGTILNLHEKVLDAKDETLEALKNENKFLKDALYSMQELYDEDRKTIETLNNELKHAREEIEFL

KRKYKLMWSKTAEIFGAKTEPDLEMNKNLEKPIENMEQ

>CAL34839.1 phosphoribosylaminoimidazole carboxylase catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFVSILMGSKSDYETMKEAAKTLESFGVKYELIISSAHRSPKRTKEYIANAEEKGVKVFIAAAGMAAHL

AGAVAAYTTKPVLGVPMSGSNLASMDSLFSTVQMPSGIPVGTLAIGKAGAINAAYLAMQILAIYDVDLAQ

KLKEDRLEKEKKLVSDSKEVEVLL

>CAL34838.1 putative protease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIIPEIVAPAGNFTKLKIALAYGADAVYAGVNNFSLRSRTAREFNYESFEEAIKYTHERGKKIYVTLNGF

HLSSQIEGLKRHILKLREMKPDAFIVASVGAMRLVKELAPEISLHVSTQANILNYLDAQVYKDMGAKRVV

IARELGLKDAKALKENCDIELEAFVHGSMCFAYSGRCLISSVQSGRMSNRGSCANDCRFNYELYAKNPEN

GTLFRLEEDENGTHIFNSKDLNLCSYIEKIMQENCISAFKIEGRTKSEYYVALTTRTYKMAIQDALEGKF

ESSKYEKEIATLKNRGFTDGYLVSRPLEKTDTQNHNTSIEEGSHQVHAISEDGRFFKCKGKIVLNTPYEI

LTPLGDVIQTCDNELGKIYQKEGKYFIEFKKLIAKNNKEFSEIHSGNEHEIQLPNKISALSFLRKEI

>CAL34837.1 hypothetical protein Cj0700 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTQEELDALMNGDVDLDSETEAEVKTEESNTEEDALMLEDVKIADYKPNPSVVWPPPPPNQEHKVVHQLD

DVTKDSELKATEMMDKLESINNFFADSESLLKEINKAIEKNIDIFSKLNEKFPNVESFSEALELNNQAKK

SSKEIVGNLQSGQDEVMMAMDAMQYQDIHRQKIERVINVMRALSRYMSSLFEGKIDDKKRVSSAVHIEGD

STADVVSNDDIEALIASLGQK

>CAL34836.1 glutamine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGKFVNNIDDFFKFCKQNEVLFVDFRFTDMIGTWHHITYNLHAINEETFQTGIPFDGSSIHGWQPIEKSD

MILKPDAQSAFLDPFTADPTIIVFCDVYDIYKGQMYEKCPRSIAKKAIEHLKNSGIADTAYFGPENEFFV

FDSVKIVDTTHCSKYEVDTEEGEWNDDREFTDSYNTGHRPRNKGGYFPVQPIDSLVDIRSEMVQTLEKVG

LKTFVHHHEVAQGQAEIGVNFGTLVEAADNVQIYKYVVKMVAHLNGKTATFMPKPLYGDNGNGMHVHMSL

WKNGVNLFYDKDGYSGLSQTAINYIGGILKNARSVAAFTNPSSNSYKRIVPGFEAPCILTYSCQNRSASC

RVPYGIGKNSARIEIRFPDSTANPYLAFVSLLMAGLDGIKNKTIPVGPMDENLFDLTLDEIREKGIEQLP

HTLRGSLEALIRHNSYLKPVMSDIFIDDYQHLKFETQVWPVEARPTAYEFKTCYSC

>CAL34835.1 flagellar basal-body rod protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRSLHTAATGMVAQQTQIDVTSNNIANVNTAGFKKSRAEFADLMYQVMKYAGTSTSATTLSPSGIEVGV

GVRPTAVTKVFTEGNLKSTSTDGLDMAIAGNGFFQIQLPDGTIGYTRNGQFTKDNEGNIVNSDGYRLLPE

MTIPEGATAINVATDGTVSVMLPGEQQETQIGQVELVQFINPAGLHSMGDNLYLETGASGAPVAGIAGQD

GLGTIRHGFIELSNVQLVEEMTDLITGQRAYEAGSKAITTSDDMLGIVNQLKR

>CAL34834.1 flagellar basal-body rod protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNGYYQATGGMVTQFNKLDVITNNLANINTSGYKRDDVVIADFKRIFKETQDELPIENHTRDASRFVNT

TIDGIPQVSQEYTDFSLGSLKATNNPLDLAMTREDAFYLVQTKDGEVRLTKDGNFQLDDEGYLVNKQGYK

VLSSDYFNNPQNAGIRIPNGAVQISVDKNGSIEVDGAQNARLFVAQVDDIRALQKDGDNVYKIDDLTRIR

DLKNSNAIRQGFSQGSNVNPVTEMVGLIEANRMVEMYQKVMTAHMDDLNQEAINKLAAVK

>CAL34833.1 cell division protein FfsZ [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEFLVEEMQHNKGAKIKVIGCGGGGGNMINHMVKMGLNDLDLIAANTDAQAISISLAKTKIQLGEKKTK

GLGAGMLPEVGAESARESFEEIKASLSQSDIVFIASGFGGGTGTGATPVIAQAAKEIGALTVSVVTMPFA

FEGKQRKKLAESGLLELKKESDSILVIQNEKLLSIIDKKAGIKDAFRLVDDILARAVKGMVSILLDNGDI

NVDFADVRTIMSHRGLALMGVGSASGENAIEEALSNAIESPLLDGMDIKGAKGVILHFKTSSNCSLFEIS

AAANSIQEIVDENAKIIFGSTTDDSMEDRVEVTIIATGFEDKDTVAKKSTEEAQASKKNPYLSLKKVSGG

YDEEIMAQIETPTFLRRQMD

>CAL34832.1 cell division protein FtsA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILNILGIDLGSTQTCAIIAQKDEDGLKIIGFSKSKTNGVKKGAITNIELASKSIEEAVRSAEMMSGVHY

DRVVVSISGAYTKSVDSIGVVNIPNHEIGIKEIHRAVSTAKHTANLPSGYEIIHVLPYNFKVNDLEHVDD

PLGMSGNRLEVSTHIVISQESHIKNLKKAVELADLRVDNIVLSGYASAIACLDDSEKELGAVLIDMGGAI

CDMVVHTGNSIRYNDCLQIGSINITQDLSMALHTPLKEAEKIKLNYAALSQQPNTLIQIPSMGDERKVNE

VSLDIISNVIYARAEETLMILAKILSDNRYANAIGGGVVLTGGMTKLAGIDELAPATFDNRSVRLATARK

DLITGFSEIFNDPENTCAIGLCLYGAGYFTPYELDSNEKLRYKGEIENFNRQIKQDIVLQKDAESEIKSD

FFDENLQENDTIAIQEQLDFKEPKEKKPSVFSNIWHKIMNQF

>CAL34831.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTWMQHHKKYLVVTIWVSTIAFVGAGFLGWGAYDFNLNRSSSVATVGNEKIGFSEFDTRYRQILSYYNQ

ISNGALTPENAEQLGIKNIALSSLVEDKLLLNFAKDLGIGVNENQILQKLANTREFQDPTGDFNKTIYYE

LLNANNLAPKDYETQLANEVITDKLNQIFNIPSKDEELKMLASSYFMQDALSIAKIDYDKKNIKINEEDL

KKLWNEHKEDYKTKKIYEISTYFLPVSNEKIDDKELEKFYNQDENKLKYKDFAGKVMDFQSAKNEVAKDY

ALMQLKNVANAKFLDLKNGKDNFQKDQNISESDVYYPIDLLNKAKNGDVLRPAPYNNGYIIVKLNKVDPI

RNKTFEEAREEVLPMYLSEQARKNLEEKAKNSLVNFKGDDIGFVSRDSSRESVKVSDKILNDSEFAYFLM

NVFNTDQNSSYVVINDNKAILYKINKQKLDMNSDKFEQYKTMLEQNLQNLKANELKQELVDELKKIYPIK

IYYKGN

>CAL34830.1 S-adenosyl-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILEIPHIPVLLNEVQEIFKNLKTGYFLDCTLGFGGHSEALLKNHPDLKFIACDQDQQALKFSKKRLKDF

RNRITFMQSNFSEVLEKISHKEELRGILADIGVSSFQLDNNERGFSVNSDFLDMRMNQNSKISAYEIINT

YTKEQLTSIFKDYGELHDAHFIAEKICLERSKNLIKSAKELYQIIGKGKQNHRKISKATLAFQAIRIEVN

QELKVLKDFLEHLENLKPKNCILAIISFHSLEDRIVKQFFKKWSKNCICNEKIMRCECGNNHSLGQIITK

KAISASKEELLKNSRSSCAKMRAFYFNNLDNK

>CAL34829.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEDDFIKERQNIRQKMLKFSRAINQGKPLDDDLRDEISSDDILRRRFKKKTPNKFLEELDEEYESKHTK

KSNIYLKEDLINVKLEEKQSLAKKIFSKMKERRKEENKKTKKNFLFSRKKANEIKNIQTKTQIQTKSNQA

TTQTKQEKKELTNSIEKIQKTETKIQKPLIIEKKLDVKNQPNIKKSLENLQKKITPQENKQELPKPSNQA

QEKQQNDEDAQKAKNILLEGFSNATKEDRNLNFNHLLFAALLVSFALFLFAPQIYIRNQIYYLSREIATL

RTEESVLNEENKDLKRRLENMRFQNQILDYLE

>CAL34828.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFKEFSLRFLFKVSEQPVLIRDLLEANALFNDGMLVDPSKLNFNFKILNSYIYFGVFCAVILLPLLLI

THYFLTKLDFHISIVSAVMVTACVFIGYDIFKVYTRKIISKKIIQKAWALHFPYFAYEKYSTMAGEFYKE

ALKEEIPKANLEQYVLDKIIHSK

>CAL34827.1 putative restriction/modification enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNYYQELKKYLNNNLFTSYSLEIDFPKIYNFNANQKAFRDILTKITKIYDKNKFIKQNEHQFEDEFISKV

LEILGWCFVRQDEKIIQGKLEKPDFLLFSNDKLKSKYENLDKETKKSSNDFTIILESKAYNIEIDNKKVK

DNPHFQILRYLGNLKKNYGFLTNGRFWRFYDNSILNSNKVFYEINLEKIIEDQNIEAFAYFYSVFSAFNF

TEKEDHLEITLQNNKLSKIKIEDDLKSIIYGTNGNESLFEFIGSRIYNKTKADLKLIYENSLYFIFRLLF

IAYFEDKFEIILEKHKYFKSKISLRTLLENLQEDESSSGGFGELENIFNIYNKGKGNFDMPVFNGGLFDE

SKTALLSTPKIFNDKDLKFILNQLLNFKDKNLSFKRDYKTLSVEHLGTIYEGLLSYFFEIANEDIYYVSY

KEKSKEIECYFDNYDFKILEKSKKVEKYTFYKKGQIYLKNTSNSRKASASFYTPQSIANFLIQSALKDKL

NNENILKFKILDNACGSGHFLVGVLNAITHIVLSDFDHFTNLKELYEEEKENILNHIKDFVQDYEVDESD

ILKRLLLKRIIYGVDLNPFSIELTKLSLWIDSFIFTTPLSFIEHHIKCGNALINSNLSDFKDLIKQNSSN

LFTNSITQEFEILQEVFEKLDNLKDTNEEQIKQSKQIYQNEITPKLNKLNLYLNYINTLHFVNKEELQIL

KALSQDDIQNLSQNEQAKAIISKYQKEFNFFNYELEFPEIVENQVFKGFDIIIGNPPWDKTKFSDSDFFP

QYKSDYRSLIASKKKEIQDNLLAKDYIKQNYEKQKAYINDLSEYYKKAYPLNKGSGDGNLFRLFVEKNLS

LLKQDGNLAYVLPSALMFEDGSLILRKEILENKTLEYFYSFENNKAIFIDVHRSYKFALMLIKNTQANHT

HKIKMMFYKTDINSLKNKDEILTLNLKDIKKLSPTHLALMELKDKQALEILRKSYNAFQNLSFDYIDFRR

ELDMTNDKDLFIEEFREGLLPLYEGKMIHQFDANFSQATYFLEKAKFDERLKSKELYRAKKATGKELNPK

LIKYDREFFRLGYRKIASDTNERTLIASLLPKNCGGADSTYSNIPKQYVLKDDVICMDIVPYERILFVLA

LFNSLVVDFIIRNMVQINVSKSYLERIPLPQPSDEEIQNNEIYKTLAKNALLLQLYNDQNRHFDELKQEF

NIKNEEIPKTKKAYDILRAKNDLLVKELYGLSDDEFSYMISTFKVLNEKQSEYITLLKTI

>CAL34826.1 acetate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILVLNSGSSSIKFKFFDNKVVKASGLVEKIGEQNSKVVLKNTLNNESFERELTINNHEEGLSIVNELF

KESGILADLNALDGCGHRIVHGGRNLSEHCLVDDYVLKEIDRVSIFAPLHNPAHLAGIKTMIKAAPSVAN

AAIFDTAFHRTMPDFAYMYALPYDFYDKHNIRRYGFHGTSHAYVSSRAAKFLQKDQNELNVISAHLGNGA

SVCAIEKGKSVDTSMGFTPLEGLVMGTRCGDLDPAILPFISHLKGLTIEEIDTLMNKKSGVYGICGYNDF

RDIEREIEQGNDKARLALDMFCYRLVKYIGSYFAVLPKTDAIIFTGGIGENDSLVRQKVCERLAHLGIEL

DFELNKQRISGERMINHANSKVKVLVIPTDEELEIARITEELIGKN

>CAL34825.1 putative phosphate acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMANLYLMRSRSDELNTIISTNLLKNYSKIYKNIAIYCPVIYIHRVPVLQGWLEEFNINQTVKSAYGFTF

REAMEEFSKDPHNFFNVILEEYEELKRKYDFVLVNSFCEFGILDGFDLSIKLAKNLNTPIAAIINDEDKL

IAQKYFDHALDGRNYVLINENFNFEEVQKLKEYDFITPHRFKYELIKQSIKNKKTVVLPESNDERILKAA

EILLKSKVVDLILLGDEEKIKQDATRLSLDLSAMQIMNPLNSEYNQKFTSILYEARKSKGMSLEEAKMLV

QDKTYFGTLLIHTGKADAMVSGASTTTAETIRPALQLIKTKEGISSVSGIFFMGLEDQVLAFADCAVNPS

PTAEQLATSAYVSAMTAKSFGLEPRIALLSYSSGDSGKGESVDLVKEALKIAKEKYPELNIDGPMQFDCA

YDPKTAAKKMPNSKIAGHANVYIFPDLNAANICYKAVQRTANALAIGPILQGLKKPVNDLSRGCLVDDIV

DTVILSAIQAQ

>CAL34824.1 putative flagellar L-ring protein precursor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVLFYVLPFAFFGCSATVDPQISMKPPAYVEELAPKQSNNVESAPGSLFGKGDNPLFSDKKAMNVNDL

VTVVIQESTTQSTQANKATSRTNTSNLGGGALTGSSGVVANALNKVNAYSNIGFQTNSSNNYTGTGSQSR

NESFNTTISTRVIKILSNGNYFIEGSRELLINGEKQIIQLSGVIRPYDIGQDNTIDSKYIADAKILYKTE

GEVDRSTRKPWGSKVIEAIWPF

>CAL34823.1 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEYKRFKTRQIKVGNVLIGGDAPISVQSMLFTKTRDIEGSLEQINRLYFAGANIVRLACLDMADARALKE

IKAKSPLPLIVDIHFNHNLAVYCAEFIDGVRINPGNIGSKENIKEVVKACKERGIPIRIGVNHGSIEKQF

SDKFGYGVDAMLESAMYNIKLLEDLDFFDIKISMKTSDAQKTIEAYERLRPLCDYPFHLGVTEAGTKFHS

TVKSSIALGNLLLKGIGDTMRVSMTGELEEEIRVARAILQDSGVQKSGVNIISCPTCGRIQSDLLSAIKI

VEEKTKHIKEPLNISVMGCVVNALGEAKGADVAIAFGKNQGLVIRHGEVVAKLKESELVDRFLAEVEDEV

KSRVVKE

>CAL34822.1 Invasion protein CipA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNYIYKLNTIKRGYMQNLLFYIKNNLTPTLAQILLQALKNSNNEKFFTFVLENIETICTWLNSNKFRDRY

LSTKHPYPPLINPNFIEIDSSRHCAELAWDLNLPLPKHYKFIYISPHGVGAAAFLRYLNQCCDVTCFASW

VLPPDSKERYCINYMCLNDNTIAQYAINISEINLPYFDKYLSLLDFNSKIICGVRDPIGLLKHSWGRDWS

KVLRNYPPEFNLTYDWRYYINYLTHQNHKIKIDINELQQGVFIISYLLKYFNKDNVYYLDMEEIRQSKAF

DTMNLLAINFNFTPPHKDKLDLFKIKEFRGYIRYLFPITLYANSKDINNTFYLNTPKNNKNFNIDRTSSI

PIILDRKHINHEKIDVIQEIIKNDLCNDMGVYIDKNDFKQLEQNNLLFSTIKHYLYDFLYQIKITIDETE

SKMMKEKDVIDYFIKNKSLIYTFLIYLKMN

>CAL34821.1 putative primosomal protein N' [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQRSDIRYYELAICGLYLDNLTFHSFDEIKPLTQVLVDLKTKKNLKAIVLKECQKPDFKTVEIKEITEYF

LTPLQFELANFIVYYYASKLGFVLGFFETSPKYECHKMFFKDTPKLSNQQQNALSFLQKENNSLLFADTG

SGKTEIYISLIKECLEQGKQALLLMPEIALTPQMQKRLEVYFKDNFFLWHSKISKKKKQEYLERFCKGEV

LLVAGARSALFLPFRNLGLIVVDEEHDNSYKASNQPFINARDLALFLGQKNNIQVILGSATPSLTSFYKQ

KSFRLKGTFFESKKHFLYDENELGITPMLLSELEKSLKHQKQAIVFLPTRANFRQIICKDCGETIKCPFC

SIAMSMHKKKNILKCHYCNYTSLIEQNCPSCKGEMLEARKIGTAELLELLQNALPLAKIAKFDSDEITSV

KKLNTILKNFNENKIDILIGTSMLAKGHDYHSVDLSVILGLDEYLLRPSFRASEETLALAMQVAGRAGRK

GEARVLLQTKNRAFFERYIENYDAFLKDELENRKDLYPPFKRLLRVLIEDKDQKSAQKLCEKFASQFRNI

KQVELVGYGICGVEMLYGKYRFYLLLRSENHKALVAIENYILQFKNASADIDPIDFV

>CAL34820.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKAFTLLELVFVILILGILSSLSLSFINTTKDEVKILKLKMDYEMLSSALALMRSQMRLKNLNFPEILD

NAQNNQAKEKLFYCLNDCDYSLLDTPIYSDFKSWIKIGKNHYRFALNAKEMVEFIYDSKEGLLKCIGSSR

CKDLI

>CAL34819.1 hypothetical protein Cj0682 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MADNLKQVIVNVNAKDFIVKCSEEFANFLEDDIALISGGTKKIELKRFVDAFVKKSYENYILERELKKLI

KAINEELPTK

>CAL34818.1 hypothetical protein Cj0681 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDEKIINTMTDKVNELIEKYNEVCEANEALRNELVSVKAQNEAKSNQIMRLEEELKSRNIESEDIYKKI

EAVLGR

>CAL34817.1 excinuclease ABC subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLELTSEFKPSPDQQEAIKGIVKSIKKGNKYQTLLGVTGSGKTFTMANVIKELNIPTLIMSHNKSLCAQL

YSEFKGFFSKNHVEYFISYYDYYQPEAYIPRTDVFIEKDSSTNEDLERLRLSATASLLSYEDVVCIASVS

ANYGLGNPNEYIGMVLIFELGMQISQKELLKKLVDMGYKRNDNFFDRADFRVQGDIIDIYPAYYEDEVVR

LEFFGDELDAMYHYNVLENKKGKDLKRFILYPTSQFSVGETRLKQAIKDIKAELNERLAYFEHENKLVEY

QRLKQRVEFDLEMLTSTGMCKGVENYARHLTGLKEGDTPYTLFDYFAIKDRKFLVIVDESHVSLPQFRGM

FAGDRSRKQTLVDYGFRLPSALDNRPLMFDEFIHKNCQFLFVSATPAPLELELSKENIFHQIMRPTGLLD

PLIELKDSDNQVEILFDEAKKVIQRNERVLVTVLTKKLAEELTRYYLELGIKVKYMHSDIDAIERNEIIR

GLRSGAFDMLIGINLLREGLDLPEVSLIAIMDADKEGFLRSTTSLIQTMGRAARNVNGKVLLFCKKITKS

MQEAMDTTNERRKLQMAYNKKYNITPTSVKRHIEESLKNEEDLGEIYRKGKKLEKMPASERAKLVKELRK

QMLEAAKALEFEKAAAIRDEINKLRDL

>CAL34816.1 truncated KdpD protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQRQSPEQILKKLEVKAKEEEKNKLVKLKIFLGYAAGSGKTYAMLSEARTLRDNGVDVVLGYIEPHDRPE

TMALAQGFESIANLEIPYKNIVLKEFDLDATLKRKPALVLVDELAHTNAKGLRNEKRFQDIEELLKAGID

VYTTLNIQHLESLNDLVANISKIEVKERIPDRIFDEADQVELVDIEPNKLLKRMQDGKIYKEKQAKLALE

NFFRQERLIALREIALRRLASRVNLRASEQRLINDDLAYHTGEHILVCINASNAKVIRAAARLALAFHAK

LSALYIKNPNIKEAKALEENIELAKSFDAKIISVYDDIARQIAEYSSLSNVSKIVLGKNKDKKSLKKRFL

KLSLKKHPILIYILSMKIKFLLLKYEVKKSFDFLGFLKITGVLLLATFIAFVFHKFNTQPSNIVMIFILA

VFASSFISDNKIFAFYSSLVSVLIYNFFFLEPIFSLKVHDSGNIITFTTMFIVGFLTAVFTRRLKLQSKE

LTKRAYRTAILLENSENLARVKSKQELWEQLGNQALKLLNLPIIIYPINKNNILSKPLLFFNDDKQMLKN

CFSADEIAIAQWVATNKERAGVCTNTLPNANAMYLPIEDGKKLKGL

>CAL34814.1 potassium-transporting ATPase B chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKQNKLITKEILNNAIKGAFLKFDPRFMVKNPVMFMVEVGSILTLILSIFPTLFNGNSDERIYNILIT

FILFIILFFANFAESIAEGRGKAQAATLRQSKKDSKARHIKSDGSEEMLNSSELKIGDIVLVKAGELIPN

DGEIIEGTASVDESAITGESAPVMREAGGDFSSVTGGTTVLTDFLKIKILVGAGESFLDKMINLVEGAAR

QKTPNEIALNTLLIVLSLSFLMVVVSLYPFMQFLGVSLPISWLVALLVCLIPTTIGGLLSAIGIAGMDRV

TRFNVIALSGKAVESCGDVDTMILDKTGTITFGNRLANEFYEVQGISKEEMIKACVLSSLKDETPEGKSI

VALAQKMGYELEGNDIKEFIEFSAQNRMSGVDLQDNTKIRKGAFDAIRAYISEMNGKIPSDLETKVMEIS

NLGGTPLVVCKNEKILGVIYLKDTVKPGLKERFDELRKMGIKTLMCTGDNPLTAATITKEAGLDGFIAEC

KPEDKIKAIKKEQAQGKIVAMTGDGTNDAPVLTQADVGIAMNSGTQAAKEAANMIDLDSNPTKILEVVEI

GKGLLITRGSLTTFSMTNDIAKYFAILPAMFSVVLPQMQILNIMHLATPKSAILSALIFNAIIIPLLIPI

AMRGVKFKPMKSEHLLLRNLSIYGLGGMIAPFIGIKIIDIPTAWILRILGV

>CAL34812.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKGYPMDIIFALLLLLAFGSLCFFICFCEIQTKDTRMIFLLVLSLILALYLFYALLYPEKF

>CAL34811.1 anaerobic C4-dicarboxylate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFLTSLSEAGQFAIQIIIVLICLFYGAKKGGIALGLLGGIGILMLVFAFHIKPGKPAIDVMLTILAVVV

ASATLQASGGLDVMLQIAERILRRNPKFLTILAPFVTCFLTILCGTGHVVYTIMPIIYDIAIKNGIRPER

PMVAASISSQMGIIASPVSVAVVSLTALLLNANHKLAGFDGYINLLQITIPSTLFGVLCIGIFSWFRGKD

LDKDEVFQEKLKDPEFKKYVYGDSKTLLGVKLPKSNWVAMWIFLGAIALVALLGVFDFLRPNWGQVVKNG

IPQVDALGNPKMDVLSMVSVIQMFMLLAGSLIIIFTKTDAKKIGSNEIFKSGMIALVAVFGISWMADTMF

AVHTPMMKAALGDIVKEHPWTYAVMLLLISKFVNSQAAAISAFVPLALGIGVEPGVIVAFAAACYGYYIL

PTYPSDLATIQFDRSGTTHIGKFVINHSFILPGLIGVITSCIAGYFIAMAAGYL

>CAL34810.1 RNA polymerase sigma-54 factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKQKITQAPKTKISQTLRSWLPILQANIEDLKENLDKFAEDNPFLNVQDSIQTHDKGKNYFDSFYKHNV

NSAFVDSKGLAKKSVYELLNEQILPPLFPTSKSQELAKKIIECLNEEGYFEHDEEFLKEYSLEEIERVRA

RFKFLDPVGVGAKDYKEAFLFALENMELDEDIDEFCRMLIMDFENIQNYTKEPLYKEALAVLKRFSTPPF

LEYFEDSRIIVPDIFVYKENGEIKVKINDDYYPEISIQTDGLEHDFLSHYIKEAKNLVDALAMRKATLYK

IGLMIVEYQYDFFMGKEIKPMTFKDLALDLERNASTISRAVANKYLSCERGLIPLRDFFAFALDEEGETS

NVGVKEFVANLVKNEDRNKPLSDSKILELIKEEFKVDIGRRTITKYRKHLNIASSTDRKKLYELEG

>CAL34809.1 ABC-transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKLEIVNLEKIIKKTKIIHGISLEVNSGEVVGLLGPNGAGKTTTFYMICGLISPSSGKVLLDGLDVTKD

PLNKRARSGIGYLPQESSIFKDLSVEDNLLLAAQIFYKDKKILHDKVEQMLELLSIEPIRLRKGLSLSGG

ERRRCEIARSLMCEPKFLLLDEPFAGVDPIAVAEIQTLIKELKRLGIGVLITDHNVRETLAICDRAYVIR

SGSLLASGNADEIATNKDVKKYYLGAEFKLLD

>CAL34808.1 putative ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEFILAKNEIKTMLQIMPKEGVVLLQGDLASGKTSLVQAWVKFLGLDVRVDSPTFSTMQKYENHDICIY

HYDIYQEGLEGLLANGLFENFFEKGLHLVEWGGENLKKTLMKFGISTIQIKISIKDDKRKYEIYE

>CAL34807.1 putative S4 domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRVDKFLNVVNITKRRAISEDMCKSGVVGINGVIVKASKEVKVDDIITLHFTEYTQKYKVLALPSTKSIP

KNAQNEYVVKL

>CAL34806.1 argininosuccinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNEVKKVVLAYSGGLDTSIILKWLQDEYNCEVVTFTADIGQGEELEPARKKALSLGIKEENIFIKDLRD

EFVKDYVFPMFRANAIYEGEYLLGTSIARPLIAKTQAQIALQTGADAVSHGATGKGNDQVRFELGYLAFS

PDLKIIAPWREWDLNSREKLLAYAQKHGIDISKKKGKSPYSMDANLLHISYEGLVLEDPAHAPEEDMWRW

SKSPKDAPNESEIIELDFQKGDLVAINGEKLSPAGLLTKLNELGCKHGIGRLDIVENRYVGMKSRGCYET

PGGTILLKAHRALESITLDREAAHLKDELMPKYASLIYNGYWFSPERMMLQALIDESQIHANGRVKLELY

KGNVMVIGRESANDSLFNAAYCTFEEDEVYNQKDAAGFIKLNALRFIIAGKNGRKF

>CAL34805.1 50S ribosomal protein L9 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVLLIKDVKALGKAGEIKEVKDGYGQNFLIAKGFAKAATNEVLRKYESDKKKEAENLRFEIANLEKLKE

ELSKITLEISKPVGANGSLFGGVTKDEIAHALKEQSHIEIDKKSLECDTLKSLGIHEVSVKLGHAIHAKF

NINIKAE

>CAL34804.1 ATP-dependent protease HslV [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFHATTILAYKGKNKSVIGGDGQVSFGNTVLKGNAVKIRKLNNGKVLAGFAGSTADAFNLFDMFENLLQS

SKGDLLKAAIDFSKEWRKDKYLRKLEAMMLVLDRNHIFLLSGTGDVVEPEDGQIAAIGSGGNYALSAARA

LAKHTDLDEEELVKSSLQIAGEICIYTNTNIKTYVIEDEK

>CAL34803.1 ATP-dependent Hsl protease ATP-binding subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLTPKEIVKFLDDYVIGQKKAKKIIAIALRNRYRRMQLSPELQDDIVPKNILMIGSTGVGKTEIARRLA

KMMGFPFIKIEASKYTEVGFVGRDVESMVRDLANAALNLVKNEQREKNKDKIDEFIENKILEKLLPPLPK

GISDEKQEEYKNSLEKMRTKLRNGDLDESTIEIEISQNMFDTNPNLPPEMGAMQDIVKVIGVGSKKVKKE

MKIKDAKNALKNEAGEKILDQESIKSEALKRAENEGIIFIDEIDKIAVSSGNSNRQDPSKEGVQRDLLPI

VEGSNVQTKIGTLKTDHILFIAAGAFHLSKPSDLIPELQGRFPLRVELDSLDDKALYEILTRPKNSLLKQ

YSQLLKTENLELEFDDEAIKEIAKIASRANEEMQDIGARRLHTVIEKLLEDLSFEADEYAGKKFVVDKKM

VEEKLGDIIENKDLARYIL

>CAL34802.1 GTP-binding protein Era homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSGFVSIIGRTNAGKSTLINSLLEEKIALVSHKQNATRRKIKAIVMHEKNQIIFIDTPGLHESGATLNQ

LLVQSAIKSMGDCDVILFVASVFDSTKDYENFLSLNPQVPHIITLNKVDLTDNATLLKKLSEYAKFSQHF

KAIIPYSSKKKSYKKGLLDEIVKYLDEHEYFYDPEFLSASSEKEIYRDFILESIYENLSDELPYSSEVLI

HRTKDTPNLLILEANIITDTNSHKGMLIGKEGATLKRIGKDARFKISKLAQKKVLLKLFVTVKKNWQKDE

EFLKKLLNDEN

>CAL34801.1 putative transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKINSLNKINFIKSTDLLYAQRTGISKEDELFNNLTADFKLSKPFDYQIAFFKHNEIYHCFLAPVYKLK

KSRFCFPEPLIFQALFDERFIEESDYCVLNLYDQTLYLYFYQEGKFINLKKIENFNPGNMDLFFKQNRFT

ELLKHYESKLLLYQDLNTIKHYFSSQIKCLNLNDILDKNSLLKLSSYSIKNLDQNCNFIKHNKIKISISF

KIILIFIFSFSLSMMILLFKDFIEYKQNKEIQNKNFIIQEEISKLKQDKQKLLTNIQDLNFTLSNKISST

QQQFHILSTITKEINLDKNKAIILNQIISWLNSNDLKITNLEFEQTKIILSFIDENHFKRALENLNSAFK

ILDKNEETFNIILEVIHE

>CAL34800.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKIEVFLQNLNPREKFLFISFICLCALFLAFKIHDHFLEDIFQKTLVEHNYLALNEAKIENSHLKEIET

KLTKQIKIEEEKLKYYKEKLHLFSYDKDFFNKKINNLSKNLIINEIKFSQENKNFIHYNYVSLSLNGNFK

DLLNFIQNLENLPIALKIDKIKLYNTQGLKLKLDLMFKFVNL

>CAL34798.1 putative aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSIYKQRVLELRRLMKENNIDAYLILSADPHLSEYLPEYYKNRVFISGFKGSVGTVLITQEEGFLWVDGR

YWLQAQKELEGSGILLQKQDAKNTFTKWLEKNLSEDQILGIDFALLPLSLQKDLKINCKANLKHIDLISP

LWKDRPTLPQEKIYEHELEYCSYSRKEKLALVRQKMKNLNATSHLISSLDDIAWLTNLRGNDVNYNPVFL

SHLLILEDKALLFVDQKKVNSELEKKLNLDGFWLKNYDEIIMELEELANTNLLIEPSKMTALLINSLDKS

VKIIQEINPSTHLKAAKNTKEIAHIQDAMIEDGVALCKFFAWLEEAIKNKELISELDIDVKASEFRAQSK

YYISDSFATIAGFNENAAYPHYKATKESFAYLKKDGLLLIDSGGQYKNGTTDITRVVPIGKANAEQIHDY

TLVLKAHIAISSAIFPKDITMPLLDAITRAPLWKEQIDYIHGTGHGVGYFLNVHEGPQVLSYLSPVLEKT

KAKEGMLTSIEPGIYKVGKWGIRLENLVIHTKVENPKNKDFGEFLYFKPVTLCPFEISCIDTKMLDEKEK

EWLNNYHKEVFEKLSPKLGDYPKALVWLEKRTKAIF

>CAL34797.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRMRLVVGFILLFFIFLLSRVYYLSIKSNVYYEELAKQNAIKTEFLPPVRGQITDRNGTLLAINDLGFSI

SIKPYLSIKKSNKGILDKELSELTNLFPDLNASKLAEIYKRNDSYYNQDFIKVVDFIPYDEIISHYSELN

LNKTIKIDPVVKRKYPFGKLASHIIGYVGKANLQDVQENEIAKLSNYTGKSGIERYYNDILQGEKGTRVY

KVNALNQEVEQLSYTPAMSNDIELTIDIELQSYLTSLFEGNAGAAIIMNVNDGSILAAGSFPEYDLNPFV

TGISFKDWDELSNSLDHPFTNKLINGYYPPGSVVKMGVGLSFLNSKNISPSTHYVCNGSIELGGRFFRCW

NRSGHGPVDLKHAIKYSCDVYFYNGSLQVGIDQISETLSRIGFGVKTGVDLPSEFVGTLPSKEWKMQRYR

QSWFQGDTLNTAIGQGNFLATPMQIARYTAQIAKSGEVIPHFLKSIENNNTTIENQMDENKKEIFTLFEK

SQLPYIRDAMYAVANEQGGTSYRYLHNLDVKVAAKTGTAQVVGFSQTDKNRVDEKQFEYYTRSHAWLTSY

APYSKPKYVVTVLLEHGGRNITSGATVAKIYQKMIELGYFK

>CAL34796.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRRNLSAYKAKFNGAYVFLGFFFLIYQILGSTFVYTPLLYGIFFCYMFCLLEERERTFSKLDFRWYFSLF

FLFFTDITYNFFIFSSWLAFFIFYYLCADWIKTNLKIGKFIPVVFVLCAYGIILFLDMILSYIGDEKIKI

LGWAYIVSVFIECCLAYVFFKGKI

>CAL34795.1 putative ATP/GTP binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIISAKFITSLVKFDENLSSNFSEVAFLGRSNVGKSSLINSLCKQKNLAKSSATPGKTQLINFFEVICRR

NEEKFNINFIDLPGFGYAKVSKNLKEIWNQNLDEFLKLRTSIKLFIHLIDSRHTHLEIDVNLNDYLKRFL

RPDQKILKVFTKCDKLNQSEKAKLKNEFKDSILVSNLNKFGLDSLEDIIINQTLGLDK

>CAL34794.1 putative OstA family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVARQIILLLVCVSVTWATQIEVKALNFYSDENKGESILSGNVEVIRGDDILNSEKLIIYTDKNRKPIRY

EAMQNARFKIVLKGKTYKGSGDKFIYNVIKDTYEINGHAYINELGSNQKLFGDKIIVDRKANIYRVESKD

QKPARFVFDLKDK

>CAL34793.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAIKIFGILIALFTITFTILSLQDPYSLNLQTNALNFKNIEAKNLKAYESNTSIIKAYYKANSWVRYADR

DEFNDFITLNLDFNLSANRLEFFNKDMSKVLFEGNVTYIGSNNVKIISQEVEYQPKDKILHTNTNFKALI

NGSIINGNTLNYDVKNKILNIQGVNAWLQDK

>CAL34792.1 putative HAD-superfamily hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTELIFLDVDGCLTDGKIIYTSNGEFIKEFNVKDGAAIEAWLKLGKKIAIITGRNCPCVEKRAKDLKIKI

LYQGIKDKLACAKEILQKLNLDFSQCAAIGDYFNDKALLESVGLSFKPKDGHKDLNVDIVLSKKGGKAAV

AQMIEILVEKNHLEEEWNKLWL

>CAL34791.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIKTITLKLSAVSLGALFFSGCLGTSFFSSLDNAQVYYPSNDFKSSPSSSGTKGTMKPYTINGKTYYPT

VVAVGETADGIASWYGPGFHGKKTSNGETYNQNALTAAHKTLPMNTILKVTNLNNNRQVTVRVNDRGPFV

NNRIIDLSKGAASQIDMIASGTAPVRLEVIGFGSSNSGNNIVHSNVNYGNSGEIANNGQIYEGGNFMVQI

GAFKNPAGAQTIAARYKTYRTYSSTIRTSSVDGLNRVFLTGFRSEDEARDFAASGAFAGAFVVRE

>CAL34790.1 putative secreted transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILLCFLICFNFLFAQINTPEFYERQMNVLRNLDINPSFISDLIFVQTQQDIKSKHAQTLIDSMQNFS

KVTPMIRKILAQQEVPDEILYLAMVESGLKTHSVSNAKAVGVWQFMQPTARNLGLRIDAYVDERRDPVKS

TYAATNYLKELKEEFGKWYLALLAYNCGNGKLRQAIKQAGSDDLSVLLNPDKKYLSLETRNFIRKILTLA

FLANDRDFLLDKDASLMNYALSNEFAKVDVPSSASLKEIAKNLNMDLATFKKYNPQFKHNFTPPGKGYYM

YIPLNKVAFFDKNFKAEKLAKVDTTIPMTRTYTVKSGDSLYKIAKNYNISVDEIREFNKIAKNHLSINQK

LIIPIKENKNANKNNYTKVVSR

>CAL34789.1 putative TatD-related deoxyribonuclease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFLNLDFQDGLRIVDTHCHLDSEAFKDDLDETLNRAFKNGIEKIIIPGADIKDLPYAATIAHKYKNIFFA

AGVHPYEIDNYDEKILRQYLCDEKCVAVGECGLDYFRFKSDLAEEIQKEKENQKKIFIAQLELAIEFKKP

VIIHSREANHDTYEILHGYSKDLVGGVLHCFNASEHLLTLFEEGFYFGIGGVLTFKNAKKLVEILPKIPK

DKLLLETDAPYLTPEPYRGKRNEPLLTQFVVNKMCEVLNLSRKELLEICFNNSEKLFFKGY

>CAL34788.1 two-component response regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKKILIIDDNKMLGKLLAKKIQMTLDYEVDIAFGFAEAKELMNNDYFLAFVDLCLPDAPNGEVVDYVIE

KKIPAIVLTASGDKATKEKFMDKDILDYIFKESETCIDEIISSIVKLNQYAKTKVIVAMSKLPERNEIKK

ILTQRQFNVLAAAHGEEAMSYLNDNNDVKLIIADVNMPVISGFELLTQVRERFSDDELGVILLGDHNDSF

EANSFKNGVNEYLFKPLSKESFNCRLDRCLSYMDDKKFLSTYNVLDPVSGVKNYNALIDGIDDYFNEIAT

KDEEFAFAFLDIDNLQMINDEYGREVGDEVIKICANEIVNETKGRDLVGRYSAEKICILLKNISQERAIK

IFSRIRVNIKKAGVLVNLDEVFFTASIGVVFGKSGDKIDSLADKASKILSQAKDNGKDRVEVCS

>CAL34787.1 putative DNA repair protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINRIFMKENLGFKKAELEISKGLTVFTGLSGAGKSVLFKGILSAFSLSESEAKIVEIEVDDKLDLESFG

IESEEENVFKLLKEKNTKYFINNQSIAKKSLQNLSKTFIKYLSAKENNEFGNEKFLNLLDALEMQENTNF

VSFLEDFKKDFNAYSQISNELNAILEEEKKVEELKELARAQIEKISSINPKIGEYEELLILKKKLSKKDK

LEEAWSKAERIFELEKVVIEALNLSEVDASFFSECLNELRVICENQKMEDLDFDVEALLDRIENLSYLIK

RYESIENALEVLKQKKYELEHYENLSFEKKELEKKFQELKQKLEEKAQILTQTRKKNLKKLEKCLNNYLK

DLYMKDASLTLKENEKISILGKDEIMLDINLAHLKNLSSGELNRLRLAFIATECNILNAGKGILFLDEID

ANLSGKEAMSIAKVLEELSKFYQIFAISHLPQLSSKAHNHFLVEKNGEESKVKKLDQEERIKELARMVSG

ELVSDEAIEFAKTLFKN

>CAL34786.1 putative inorganic polyphosphate/ATP-NAD kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNKIDYKNIKKIGLVTRPNVSLDKEILKLQSILSIYKVELVLLKESSEILDLPKYGLDDLFKISDFVIS

LGGDGTLISLCRKACEYDKAVLGIHAGHLGFLTDFKVDEAENFFQAFFQGEFRIEKPYLLSIFLEDRQGK

ILEKLAFNDVVISKNNQASMAHIEVFRKEKKFNEYFGDGLIVATPAGSTAYNLSANGPIVYTLAQAFILT

PVCSHSLTQRPIVLPKGFEIEIMAKDCMLCIDGQENYKMNDFKSIKVGLSDKNVALIHPKNRDYFQILKE

KLHWGN

>CAL34785.1 aspartyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRSHYNTDLGISHVGQSVKLCGWVNSYRDHGGVIFIDLRDRSGIIQLVCDPNDSKEAHEIASNARNEFVL

ITEGTIRPRGEGLVNPKLKTGEIEVVVSKLTIENESAVPPFAIADESVNEELRLKYRFLDLRNPKLYENF

ALRSKACIAARNSLANMGFLEVETPILTKATPEGARDYLVPSRVHQGEFYALPQSPQLFKQLLMCSGFDR

YFQIAKCFRDEDLRADRQPEFTQIDVEMSFCEQKDVIKVAETFLKDIFKACGKEIQTPFRQMQYKDAMEN

YGSDKPDLRFDLKFIDVIDIFTKSNNEIFANIAKDTKKNRIKAIRVPKGDTIFSKRQMQRFEEFVRKFGA

QGLAFIQVKKDGLKGPLCKFFSEEDLNELSKRCELEVGDVVFFGAGAKKTVLDYMGRFRIFLANELKLID

PNALEFLWVVDFPMFEQNDDGSYSAMHHPFTMPKNIDETDLEEISSIAYDVVLNGVELGGGSIRIHKNDI

QQKVFKLLNIDEEQQKEKFGFLLDALSFGAPPHGGIAIGLDRLIMLVTGANSIREVIAFPKTQRAQCLMT

DAPSPASNEAMRELGIKLRENIK

>CAL34784.1 adenylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKELFLIIGAPGSGKTTDASLIAQADATNITHYSTGDLLRAEVASGSELGKTIDSFISKGNLVPLDVVIN

TIVYALKAAPTKTIIIDGYPRSVEQMMEFDKVLSEQNEICLKGVIEVRVSEEVAKERVLGRNRGADDNEE

VFYNRMKVYTEPLNEILDFYQKKKLHFIIDGERTIEPIVADMKELIKKIQSI

>CAL34783.1 inorganic pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLSKIKIGDIPNKINAVIEIPYGSNIKYEIDKDSGAIMVDRVMASAIFYPANYGFIANTLADDGDPVDI

LVLNEYPIQAGAVIPCRLIGVLIMEDESGMDEKLLAVPNSKIDARYDNIKTYTDLPQATLNKIKNFFETY

KILEPNKWVKVQDFKDEKAAIEILEKAIKNYK

>CAL34782.1 putative peptide methionine sulfoxide reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNIVLGGGCFWCVEAVFERLKGVINTEVGYSGGKPNPSYESVCNGDGNIEVVKINYDEKQISLLEILTL

FFKIHDPTSIDKQGGDIGIQYRSIIFYENEEDKILAQNFIEEQQKIFSKKIVTKISRLQTYYKAENYHQH

YFINNPDQGYCQAVIAPKLQKIQSD

>CAL34781.1 NOL1/NOP2/sun family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNILSSFAQEKNVCVFANTLKTSIEELEKEFLKQNLKFKKINVYCYLFDAKDKAILSSMKAFNEAHFYI

QNYSSYLCALNLEVKAGQSVLDMCAAPGGKSINLANFMQNTGYLACNEMSRDRFFILQKNLKNYGVNAKV

FMKDGKNIGNLCPLKFDKILLDAPCSTFAKIGFDLEKSYKEIKNIAKTQKKLLHSALKALKIGGELVYST

CTFTKEENEEVIENALKSEFKLELLDIDLENVEAKAGQSEEFAEISKCRRILPSLDYDGFFIAKLRKLC

>CAL34780.1 putative holliday junction resolvase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRALALDVGLKRIGVALCIDKKIALPLDAVLRKNRNQAANEIKNLLKIHEISLLIVGIPKGGSSEEEMTR

RIKHFVSLLEFDKEICFVDESGTSKEALGYGVANTRKKDGKLDSLSAFIMIKDYFAL

>CAL34779.1 DNA processing protein A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MASEILPDEFLELFKDLKKPPKKLHYKGNLSLLKQDKIAIIGSRRMSVYTKNCVFSLASMLKNAHLCVVS

GGALGVDITASMAAMPNTIGIFANGLDQIYPRTNEKIIKQIYENALALSEYEDDYLPKNYDFLLRNRLVI

ALSKAVVVAQADIKSGSMQSAKLALELNKPLYVLPQRLGESTATNLLLKENKAKLICDFKEFVSEFASID

MNQDEFLEFCKKGVSVDEALKIYGQKVYEYELEGKISIEGLFIRVLA

>CAL34778.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKKLVQIQRYLIIAILFLLCIALALGILVKYQNSQDVSSVKPDYFIDKQEDLISLNKDHYEIGIFQEN

EFDNNKSVSILEQKIQEIDDLNTSLNEQNLSSVEQNLSLEQNQSLEQNFILKDTNLTQDQNLTFNEDIHL

NKISKKPKLAIIIDDMANASQVRGLKALNLKLNPSFFPPDKNHSETPKLALKFDFYMVHLPLAAINYNKP

ELDTLNPNDSKERIFKKIKQIKKDFKDLRYINNHTGSLFTSNEEAMKKLYEALKNQNIFFVDSKTIGNSK

ANKIAKELSIPYIQRDVFLDNEDDVNYVKKQLENAVKLAQKKGFVIAIGHPRKNTFKALEQSKDLLKGVD

LVYLSEIYGK

>CAL34777.1 ketol-acid reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAITVYYDKDCDLNLIKSKKVAIIGFGSQGHAHAMNLRDNGVNVTIGLREGSVSAVKAKNAGFEVVSVSE

ASKIADVIMILAPDEIQADIFNVEIKPNLSEGKAIAFAHGFNIHYGQIVVPKGVDVIMIAPKAPGHTVRN

EFTLGGGTPCLIAIHQDESKNAKNLALSYASAIGGGRTGIIETTFKAETETDLFGEQAVLCGGLSALIQA

GFETLVEAGYEPEMAYFECLHEMKLIVDLIYQGGIADMRYSISNTAEYGDYITGPKIITEETKKAMKGVL

KDIQNGVFAKDFILERRAGFARMHAERKNMNDSLIEKTGRNLRAMMPWISAKKLVDKDKN

>CAL34776.1 putative ribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEFLNSLSYGISSHEVNNEFKQIFRELLTNHIIKEHKNKYYLNNGFAFGVLDISSKGTGFLQCFDESFK

KDLLIENKNLKGANYKDIVAVKLLPLKKKRPSAKVILVLKRANETSLMITKRYGEAVLGMNIKTGLSTAL

KASQKSLKALPLGTILKIENENNNIIEVLGHIDDESVDEKISLALFNKNNEFSDACIKEALANGDSVDAS

MYENRMDLRALPFCTIDPIHAKDFDDAIYFDTQKREIYVAIADVSEYVYAYSAIDKEARNRGFSIYFPHI

AIPMLPRPLSENICSLKPHLDRLAYCFKITLNHENKVIKEELFEGIINSKRRFNYDEVDEILIQKPDLKE

LSWLYELFEITKNLRKMRLKNAFEFRTEELRMNLDENLSLKSTVFEKDTPSHNLIEDCMLLANKAAAKLI

DIGVFRNHLSADVRKIDKLLNELRELGIDVNFKPNLPELIRDIQALADELNLRAEVDKLIIKAQKKAEYS

SVNAGHFGLGFDKYSHFTSPIRRYSDLILHRLLKAKQKNDEKLFNYLLLNIESTCENLSTLEREADKVAF

DFMDRKFARWAAKNIGKKFKALVVQNDGVCIAKLDDEIKGADIILYDTRVNLLENVEVQIMEADIVMAKI

YAKITQRLIKEENV

>CAL34775.1 putative DNA polymerase III, delta subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYRKELQILLSKDSIPNFFFLYGADNFQSELYAEFIKEKYKPDETLKLFFEEYNFTRASDFLSAGSLFSE

KKLLEIKTSKKIPTKDLKVLVELCKNNTDNFFLLELYDESSKQSDIEKIFSPHFVRFFKANGAKEGVELL

SIKAKQLGVEITQNALFTLFTSFDENLYLAASELNKFSGLRVDEKTIEQYCYSLNTGSFESFFDKILKKQ

DFKSELEKILDNFNEIALINSLYNSFYRLFKIALYAKINGKIDFKELLGYTPPPQVGQNLSSQAFSLKIE

QYKEIFTLLLKSEYELKTNPKLVKKEFLISNLLKLARILKN

>CAL34774.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKTALTKTYTKDIQNSCLNSKKIVLSLATISFLASCTHATLTPEIKTYEETNRHAKARSGLQSRNSNNE

TINNLQTLTKTISDTGNTLVIESSGTITISNDGQQAVNFQPNSSTSTFLNKGTLIGGNNTASVQLGAANG

NNGVSIETFNNQGIIGNGSSKFGVTVFGGGSKDNPKSIINNFSNSGTIHSNTGESIYFGNAKISSFVNSG

TIKSKQGAGVNISQGTSIENFNNTGTGIIEGKRMGVNVRSTINTFVNDGLIAATNDGIQINANVKTLINK

GTIKGDAISIRSLGGTIETLTNEGIMYGKSAGIYMNRSLVKTLTNSGTINQNNSATWSAGIKLENGSIIE

NIINTGSIRSNAFGISVTGGKFGTLTIKDGGMVYGKYSAIGVGRSQTLGDLYIDGRSNNGTVSGIYSEEH

GILLENNSRTQKIELKNGGIIKGNIDGIRLINSASLSGEMILSGEGSRVEGGRGVGILNRSGKIEGSIKV

EDGATVTATSNRAIANSGSGSITGGITVSGKNTKLEGNIINTGNASIGSDIKIEGGAKVEGGLVNQGNGS

ISGSVQVSGGSSIDSITNEGNGAISGSITVYKDSKLDSITNTSTSSTGISGSITNNSDNKLEISNSGNIG

GKIESTGSADMVISNSNGGTISGGISSSGSGSTSISNSQGSTINNGITVSGSAQVEISNQGSVGKDENGN

TVTNNGSGSVGIKDWLVSTDKNTGKLNTVVIGGSRAFNVKVENITVDQSNVDLEELNDINNIISGVNQNN

IGNIGTNGSGEISLSFDPITGKLTTDFNLNASISGATFRSLISTTSRRSTFIDNVMGNSMQSFALASSSK

SQSIAMSEKGNLYADASDYIKSDLNNGSYGSNKEHSLFILPYTSSQNVELSLNEESKGHTKGTIIGYSTL

KDSGIYGVYAGYEDTKMGSTYFDINNRTYYAGLKYFNTLFTTEKGQEVYIKAQGKAALIKNDLTEKIGNN

EAKAEPNSYAYGVNTALGMNFISNKDIFSPEIGLAYEGGYTEAFSMKDTIGQATVKGGERTYANYLNLFS

TKTSLTWFRDWLPNLKTSVELGAKFNINPKVEAEARFGNIKVSDEFDLPRVQKFVSTSFIVPVNEAFYFS

LNYNGMFDKDGNTHTGFAQFNYLW

>CAL34773.1 hydrogenase expression/formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHELSIVESLIELCEENALNNKAYNVQEIYVKIGRLSGIEVDLFKRCFETFKENSNICKNAKLFIELAPL

EILCLKCDQTSILEENVFKCPKCQSIEYKIIQGEDLHLMRLVMK

>CAL34772.1 hydrogenase isoenzymes formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNISLAHGGGGEEMNELLTKLFKIFDNEILNANNDAAILGNLALSTDSFVLSPIFLDEEVNIGKLCVCG

SINDVLMVGAKPKYLSLGLILEEGFELEKLERILKSIKEECEKCGVMLVCGDTKVVPKGKADEIYINTTA

LGEIISKKESKNIKAGLSILLSGDIGRHGASVLIKRNELEADIKSDCKALNKEVLELLEKDIKVVAMRDA

TRGGLSAVLNEWAKQSGNDLLIFEEKIIVQDEVLGLCELFGYEAYELANEGTFILCVEKEDELKALEILK

KYNVNASIIGEVLEEKKARVILQNAYGAKRFLESPKGELLPRIC

>CAL34771.1 hydrogenase isoenzymes formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFIDEFRDKESILALKKLIEQELKNPINIMEICGGHTHSIMKYALPSILPKEINFIHGPGCPVCVMPRV

RIDTAIKLASMKDTIFCTLGDLLRVPGSEISLLDLRAKGADVRALYSPLEVLEIAKQNLNKNIIFFAIGF

ETTTPMSALLLQKVIEEKINNVFFHINHITVPAPVEAIMNDENVKINAFLGPSHVSVITGYGIYEPLAAK

FKTPIAVSGFEPVDILESVLNIIKQSNEGTFKVYNQYKRAVSKEGNVKAQNLVKKYFRVCDFEFRGLGLI

KDGGLELKEEFSAYDASKKFDCTVQSKNESKACICGQILRGLAKPYDCKVFGKACTPRSPIGSCMVSGEG

ACAAYYKYSKVNA

>CAL34770.1 hydrogenase isoenzymes formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCLSIPSEILEIDELNNALVQTLGVKRKVNLDLIDEPLKQGDYVLIHVGVAMEKIDKEAALESIKTYQEI

VEKMNSGEIKSDEGDLGLNEFHR

>CAL34769.1 hydrogenase isoenzymes formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCKDCGCSINSSHTHGHHHDHHHENPSLKEGKTIEVISKILSKNDEEAKHNRAHFNEANTLCINLMSSPG

SGKTTLLESTIKALKNELKIAVIEGDLETNNDALRVKNAGALAYQITTGQSCHLDAFMVHEALHHLAIDD

VDLLFIENVGNLVCPASYDLGEHLNVVLLSITEGSDKPQKYPVMFKKADIVLITKADLAHHFDFDIKEAT

RLIKELNPRADIITLDAKNGTNMELWYKVLKLKKELF

>CAL34768.1 carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCHLGYKIKISGLVQGVGFRPLVYELALKSKLFGEVRNDGFGVEIILACTQKECENFIENLKNHLPPLAR

IDQLIITQISISNYENFSITPSLENTKSTPMLSDFAFCKECKKEFFDEKNPRFLYPFITCTHCGPRFSII

KSLPYDRAHTSMQELLMCEFCKSEYEDPKNRRFHAQPISCPKCKINVFLKNPKGEILAKDQEAFMQSAKF

LKEGKILAIKGIGGFHLMCDAFNEEALKTLRLRKNRPKKPFALMCKDLQSAKELAFIDEKEEALLGGVLA

PIVILKAKKAFSLIAPDVDKIGIMLAYTPLHLLLFEYFKGSLVATSANLSGESIIKDEFNLCKKLDKVFD

FYLDYDREIINASDDSIAQVVNGETMFLRTSRGLNPFYLERNFNKKGTFLALGAELKNEFVIFYENKLLI

SPYIGDLKSLDVHERFFKLLEFFKQNYDLKFDAILCDKHPHFSYAKEFEERIKISHHYAHFCAAYFEYEE

NFAKDEKALAFICDGTGYGEDGKIWGGEVFVGNLKEYERIAHFENFTLINSDIKNIQNLALSLIFHYDLE

DKAKDFLAKIPKIKLKNLKKIYSHSNLQTSSLGRIIDAFGSIVFNLEKSSYEAQVGLMCEAFYDKNLDFS

YKLFVEKGQVNFKNLILGALQDEKTKAITGMFNALANFIIDFSKDYDLKVLLSGGVFQNKTLLEILKAKN

FDFFIPLKYPCNDSSIALGQMVHFLNLEK

>CAL34767.1 hypothetical protein Cj0621 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLDFDFIYNADNDIFEYLLRFYAKNYNYILSKEENTYHFSIDADEENLKTFCDSLNFMSHSVFLKKFDV

KAGQGFNPCIPEDKEFSRFSYITHLNSNAYQEKKLLNKNEWGVFCECEFSSNLSEFEKINEENFNTFLNL

AFDLLSQEKKIYLKDKNGIYEFSLFKNEFIGDFLLPCDIKAINSVFVCSNENLKLLASLEKPLMKLRLNA

MFRKNHNLDFSDFKIRLARDLFCFALGLKLFENEYKFLSVKKIEEYQKDFYISALDEQVVVLEGFEFINA

KARELIFSKEDKNMARISYLVSRYKEKAFILELSKDYEDILLINKELNLLKLCLPKHSKELYEEIKKDEI

GARLLENFNKEFPLLDENFELQNNFYSLLGLLGRVLNLGRNLQESASELLKIADESKMPRGVKIDYRLKE

DKSFDYTRTLRSAMSFMLAGVDSANIAYGAVESLAYFLRDTYDELREKKQSDLALISGSLFEHKSLLKNT

LKHLKNCQLSDVPLRI

>CAL34766.1 conserved hypothetical protein Cj0620 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARQSSSLKSFIYKDECYFYSKKCIKTLRLRLNEKGEFVLSIPYFCTFKSVYEFLDKSSSWMNEAKKRFE

KKVLKDDELIFLAKKYKIIFDENTKKTYFDKDKIICQNKAKLDLFLRQNAKKIFTFYLKKWSQKTGLFYT

HLSIKNMKTRWGSCNHNKAYVNLNLKLIQKSLRAIEYVILHEISHLKFPNHSKEFYTFIEHFMSDFRQRE

KEFLS

>CAL34765.1 putative MATE family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKQLSLTRLSFPIFWDLLSKYLTVIINTAMVSHYSNFLVGAMGAGNQILDLFITIFSFLSVGCSVLIA

QAIGAKDHVLARKVIHQSLFLNALLGFVCGVLILWHGEYLLYLLKIPQELLKDSEIYLHMLAICLFFDAI

GIVLAAIVRVYNMAYWVMFIGFLMDIVVICGNYYVLHYTKSELFGVGLSNIFARIVAIVALFAILFYKLK

IHLKIKEMIKLEKEVLKKVLNIGGFSAGENLLWIVQYTIAFAFVASLGEASLSVQTIYFQISMLIMLIGQ

AISIANEIIVGKLIGARYENIAYKHAWRALYFSVIASALVAFLNYLCQDFTMQILGLKEELKNLMIPLFA

LSIFLEISRTFNIVMVNSLRASGDAKFPFFSGLVFMMGVSLPVGYVLCFHFNLGILGVWIGFCADEFLRG

MVNSYRWKSKKWQGKALV

>CAL34764.1 hypothetical protein Cj0618 (617 family) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFGNSYGGYLANLCAKIAPWSIDFILDNSSFVNLFGNIFRLIGFGKEIDFTRYHGTYDDTLFKNIFLYLS

DKTYWNNNKFSKNYFSNARKIIREPLNKEHLIIQSLYPNPKYILYHSIFDERSPFKNKENFVHILKELNF

KVEFFAISQVDNKFIKNLNHGMGLSTKLFFKKHLLQILKEPLQDKICKKEVSYKCDELVYTFKEENHQII

LNITN

>CAL34763.1 hypothetical protein Cj0617 (617 family) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIINQIYSIDSCDDVELNIKRGSKLEFRLTYDDSKEIEAIVCIIPGGAEDMNSYIYIDDYLTRNYKVAVI

NINYHCIGNRPHLGSSFYLDDIDKFILDTSLKAINLKCINVYGINSYENLNNAFIRIDQEIQKLKLNQQL

HQNYKLKTHVSFLPFKNEYQNFGIMQAMDILNAIFYIKENSPFKLMRGGVLERFCLEIHMADI

>CAL34762.1 phosphate transport ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIAKTTNLNLFYGKKQALFDINMQIEQNKITALIGASGCGKSTFLRCFNRMNDKIAKIDGLVEIKGKDVK

NQDVVALRKNVGMVFQQPNVFVKSIYENISYAPKLHGMIKNKDEEEALVVDCLQKVGLFEEVKDKLKQNA

LALSGGQQQRLCIARALAIKPKLLLLDEPTSALDPISSGVIEELLKELSHNLSMIMVTHNMQQGKRVADY

TAFFHLGELIEFGESKEFFENPKQEKTKAYLSGAFG

>CAL34761.1 putative phosphate transport system permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLFKKRQKASKSFKRLCKMGLYINLIFLCIFLGSVAYLGFPAFKQTYIFVEANRNSPAYDLLSRAEQR

KIRTGQITEKSWLLANSEVDQYMKQKYNRLSEKQRTLVDDLMQKGEIELKFNSNFFLNGDSKSPENSGIL

SSVVGTLLVMLVCMVVSVPIGVAAAIYLEEFAPQNILTHFIEVCINNLASIPSILFGLLGLGVFINLFGM

PRSSALVGGLTLAIMSLPIIIVSTKAALKSVDINMKNAAYALGMTKVQMVKGIMLPLAMPMILTGSILTL

AGAIGETAPLMIIGMIAFIPDVASSIFDSTSVLPAQIYSWSAMPERAFLERTAAGIIVLLGLLVVLNLSA

ILLRKYFQGKLK

>CAL34760.1 putative phosphate transport system permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKEKIIKFALFLCAFVSVIVSFAIMLTILIEALKFFQKESVVTFLFSSQWAADAAFMNADGTSKQGVFG

ALSLFWGTFYISLIAMLTALPLGVMCAIYLGVFAGKKSKNYLKPILEIIAGIPTVVFGFFAAIVVAPFIV

WFFSLFGIQASFQSALGAGFIMGIMIVPIVASLSQDCIEAVSEKRINGAYALGMTKKEVVFAVILPEAIP

GIVAACLLGLSRALGETMIVVMAASLRPNLTLNFLEDMTTVTVKIVEALSGDQAFDSSLALSAFSLGLVL

FVITLIINMFSVYLINRFHKRKNL

>CAL34759.1 putative periplasmic phosphate binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILSLSVTSLALCGALNAVDLKIAGSSTVYPFTSFVAEEYASIKNTKTPIVESLGTGGGFKVFCEGTT

DISNASRPMKLSEFETCKKAGVTDIVGMMIGYDGIVLAQNKTNAPLNITKKELFLALAKEIPQNGKLIPN

PYTNWNQINKNLPNRKISVYGPPSSSGTRDTIEELVMSDVSKKIPEYKGEYKTIRQDGAYIPSGENDNLI

VSKLTIDKDAFGIFGYSFLVSNSDKINAANIDGVTPSEESIADEKYELARSLFIYINAKKNPKEAFDFAK

IYMSDDLAKSGGELEKIGLVPLSDDKLKASQKHVEDRKILNDELVKAGKVF

>CAL34758.1 ferritin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLSKEVVKLLNEQINKEMYAANLYLSMSSWCYENSLDGAGAFLFAHASEESDHAKKLITYLNETDSHVEL

QEVKQPEQNFKSLLDVFEKTYEHEQFITKSINTLVEHMLTHKDYSTFNFLQWYVSEQHEEEALFRGIVDK

IKLIGEHGNGLYLADQYIKNIALSRKK

>CAL34757.1 putative acyltransferase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTYFSLEFSILMIAFFAIYWTFKNDYKIQNILILIFSYIIYILINPYFALVLFIYTFFIHYFALLIFVRR

KRYIFATCMAFIILNLCFFKYFPSIKGSVDEILNFFGLEFLNIDLVLPIGISFYTFTSITYLVEVYQKRR

LESFLNLATFLSFFPTLLSGPIMRSSFFFEQAYQKREFKHANLIIILLVFGIVKKVLIANYLGIYAKSIL

DFPQSYNFIQLLSAIYAYAIQIYCDFSGYVDLVCAFALMLGFTLPPNFNMPYLAKNLKDFWARWHISLST

FIRDYIYIPLGGNRKGIPRTVANILIAFILSGMWHGNTLAFIVWGLLHGIGIVFIHLLTLSKFSLQKIPA

LGRFLTFQFVCFTWIFFYYSKNLEDAIEYFKACYYNFFQIPSYNDIYMLVAFGVLFMIYPLFINFKEYCI

KILNLTPFLLKPFIIAFILLLVFAFMPDGIPDFIYSSF

>CAL34756.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSVVRFFFILIIVLGLVVVVMNQSISSYIEQKYHFAFYPHNDLLKEANGFKIKLEQIRAILSNEPLPQTN

EETTNQENKSIDENLSKIDKVLNTLENDENTSHKETNPTLIQDANISFIDNTKLELQNGDEFLFIGDSLM

QGVAIALNRDLRNLNLKVTDLSKQNTGLSYKSYFDWSKATNEAFIKNSNIKYLVVLLGANDPWDIKKGGN

YHRFGSLSWIDIYTSRVDEIIKIAKKHKAKVFWFEIPPVKKEDLNKKIQVLNKIYSDEILKNKEIFINTK

LFFSVNDEYSAYIKDENNRSIKVRTDDGVHFTPSGAREMSKLLLEHIKLKEENASK

>CAL34755.1 possible periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLVNKFKVILLFFIIFTSSYAQNLNTNDTIDSILNQNKNHSALTSYVSKKDLKNLEKKLEKNQNIGIRIY

GDSHMAADFFPRVIRGYLIRSNSIGFAYPLQPKYQQNLNLVYSYKNFEILNSRNPANAGHNFPLGGIIAK

AKTKGAKINLDTTLDKKNFKIGFLFKAKQNTNAFSIKDAKNQSYELRTTQINKWSYKELELDLPLQISAL

QKDAELGGYFITNKDNNVFLDTIAINGAKSDLWLSWNQEVVKKELELLHNDLIILAYGSNDALFKGFEKQ

KFKNNLKKWISILKTYNKNAVIMLISPPTVVQKQGKNYKLAPDFFTIRKALYEVAKEEKTLIFDMHQFMQ

DSGGKNKWIEQKLSLNDVHLTIKGYELMAKKLLEDLKNIIDY

>CAL34754.1 putative outer membrane efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIILSIFLAFFLSACGVKLSLPKEVDLTQEQMKDLNLTYDWYRSYDNAKLNEFLNFVLLNNSDINIARK

TLLSALARADLIDYDLYPTLSGNLGFGADKDLNSGKQSKNFNNSLNLSYELDIYGKLRDSASASEFSAKA

SAYDLENLKISMINTALNDVFELAYFNDVDKLLRAYLSNLEQMKELYNYKYKLGKIEELDLLNIEQSLLR

AKQNLLSNDQNRNLLIKNLQDLLARQEGFAYIEYFKTLSLNDFKTLSPDFNIPLKALAYRADVRSKLNSL

KSAFKDYSSMQKSILPSISLGGALSGSDKKIDDSFKFEILSGNVKISLPFLDYGRVKQNIKISQFAYEQL

LISYEQVLQSAMNEFALNYKDYQSDTLLLQNLQNINIKQELITKAYYEKYILGKSELKDYLDANNTLNST

QQEFLRARFNLLKTINSYYQITALSFNNENLEFPKY

>CAL34753.1 ABC-type transmembrane transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFLKNICKNIGENAILKNVSLSIEKGEFVAIIGQSGSGKTSLLNIIGTLDTPSSGTYVFDEYEVTKLNN

DEKARLRREKIGFIFQRYNLLSLLSAKENVSLPAVYAGKNLQERSQNAKKLLNDLELAHKLDSKPNELSG

GQQQRVSIARALINGGELILADEPTGALDSKSGIMVLEILQKLNEQGHTIVLVTHDPKIAAQAKRVIEIK

DGEILSDTKKEKAQEKLILKTMPKEKKTLTLLKNQAFECFKIAYSSILAHKLRSILTMLGIIIGIASVVC

VVALGLGSQAKVLESIARLGTNTIEIRPGKGFGDLRSGKTRLNFSDLETLRSLEYLEAVDAHSNTSGVAT

YTNISLSARAEGVGVNNFAIEGLRIDAGRILNNDDVKNSTNVAVLDFNAKKNLFPDEKSENILGRVVLFN

SQPFKIIGVLQKDTDKPIEDNVVRFYIPYTTLMNKLTGDRNLREIIVKVKDDVSSTLAENAIIRILEIKR

GQKDFFTFNSDTFKQAITANKRTTTILTACVAVIALIVGGIGVMNIMLVSVSERTREIGIRMAIGARRED

IMMQFLIEAVMICTIGAILGVILSIFVIFAFNTLSTDFPMILNAYSVLLGLLSSMFIGVVFGFFPARNAA

NLNPISALSKE

>CAL34752.1 putative secretion protein HlyD [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKKIVLIILIAILGSVGAYFIFFNNDEKISYLTQKIQKKDISQTIEAVGKVYAKDQVDVGAQVSGQIIK

LYVDVGTHVKQGDLIAQIDKDKQQNDLDITKAQLESAKANLESKKVALEIANKQYQREQKLYAAKASSLE

NLETQKNNYYTLKANVAELNAQVVQLEITLKNAQKDLGYTTITAPMDGVVINVAVDEGQTVNANQNTPTI

VRIANLDEMEVRMEIAEADVSKIKVGTELDFSLLNDPQKTYHAKIASIDPADTEVSDSSTSSSSSSSSSS

SSSSSNAIYYYAKFYVANKDDFLRIGMSIQNEIVVASAKAVLAVPTYAIKSDPKGYYVEILENQKAVKKY

VKLGIKDSINTQILEGVNEDEELIVSSSADGLAPKMKLRF

>CAL34751.1 putative amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKLVENLALKYYDKVVDLRHQIHMHPELEFEEENTAHLVCKILDEFGIKYQKNIAKTGILAIIEGKKKS

QKKPKCVLLRADMDALPVQEKTNLSYASKIDGKMHACGHDGHTAGLLGAALILNELKDEFCGTIKFMFQP

AEEGSGGAKPMIESGVLENPYVDAVFGCHLWGPLLENTAQIVSGEMMAGTDIFDLEFIGRGGHGAHPHTC

IDPIIMTTQFVNNIQSVISRRLAPYEAGVITVGQICAGTTYNVIPTNAYLKGTVRFLNDKTQDILKSSLE

EVAAATAKSNGGDYKLKYTKEFPPLINDEKAVLIARKAFAKVLGEENIIVSSKPDMGAEDFAFLTRERMG

AYVFVGISKDLNHPALHHSSTFCWDDENLKVLMQGDVMMALEFLNL

>CAL34750.1 putative polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQENNSPKAQAVVKKNEIYVSVKRKKSTIEYEKDLKNLQIELLKFQNHVKAKGLKVLILIEGRDAAGKGG

AIKRLIEHLNPRGCRVVALEKPSDVEKTQWYFQRYIAHLPSAGEIVIFDRSWYNRAGVEPVMGFCTPQQH

KDFLREVPLFENMISNSDIIFFKFYFSVSKDEQKKRFEKRRSDPLKQYKLSPVDQKSQELWDKYTLAKYS

MLLASNTPTCPWTIISSDDKKKARLNLLRFILSKVEYPNKKTGDFSKIDAKLVRSGEEEIRKMEANLEKL

DSKKADEKIKDLD

>CAL34749.1 putative thiol:disulphide interchange protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRIFGIILLSFCLCFASILSLNEAFNVKSNSYNNSISIDIELGKDIYLYSNKLKLYINEKDISSLINLPQ

SSTRGNENVYYQKLNLALPNLLLERFAKNTTNLIKLEFQGCSEQGLCYNPQTWYFDLISKKDAFEISKPY

KAQKTDKKTKIESEESSIANFLATDNFFWILLSFFGYGLLLSLTPCILPMIPILSSLIVAKSNAKFSKKY

SFFLSFIYVFFMSLAYAIAGVIASFLGASIQGILQKPIILILFALIFIAFAFAMFGAFRFELPLRFQTFI

HKKSEKGKGVVGIAIMGFLSALIVGPCVAAPLAGALIYIANTGNALLGGSALFIMSFGMGIPLLFIGLGL

GFIKPGFWMEKVKIFFGFVMLAMAIWILSRIIEENYILIAYGILGVFFSVFMGIFEKSFTIISKIKKSIL

ILILAYSLSIFLGGLFGAKNFLNPLNFNTISASKHALSYDYINNFEQLKQEIQTNTKPIMLDFTASWCEN

CKLLDELTFSDERIIQKMQNYKLIKVDVSENNNEQIKTMKEFNVFGPPVLIFFENGKEKLKITGFISADD

LLKKIEP

>CAL34748.1 MOSC-domain containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIQSLQIGKIKNYKNFQSAFIKDTYLEETQIDFLGVLDDQIADKIHHGGYHKAIFTNSCQNYPIWERFL

NKKLNFGSMGENLSIDGLCEQNVCIGDIHQFSNAILQVSEPRKPCVKISKIHNNPNFTHEIFKTGLSGWY

YKVLQVGQIRKHENIKILEKNSTSLSVFELNQLFYSPHQILKQNPNLLDKLEKLNSLISQNWHETIHKRL

KNTYDISYMDSL

>CAL34747.1 putative sodium-dependent transmembrane transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQRQTWSSTLTYILTVAGATIGFGATWRFPYLVGENGGGAYVLVFCIAMIIIGIPVILVENVIGRKAMTN

SVDAFKQKWQSIGYMGLLGSFGIMAYYMVLGGWVLVYIWELTLGNFSLANVVSKEFTHQFFNDKIAFNPL

GVGIFTTVFVIINYIILKRGIIDGIEKSVKFLMPLLFICLIIVVGRNLTLDGAMAGVKFYLEPDFSKILS

PKLLIDVLGQVFFALSLGFGVMITLSSHLNKNENMAKTAIYTGVLNTIIAVLAGFMIFPALFSAGLAPDS

GPSLVFETLPIAFSHIHFGTIVCILFFVLLLIAALTTSLPIYQVIISVLEEKFKYSKNLSINLTLGFIFI

LGNLPCILTYGPWRDIVIIKGKNIFDSFDFISGNILFVLTAFFCCIYVGWILGKQESLKELSNNNTLKSS

WFGIWFYYVKYIVPLIILIIFIYGILN

>CAL34746.1 hypothetical protein Cj0600 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFIKTISPIQKINFNGFEFYIKRDDLLGEINGNKARKLAFYIHQRYPKNQSFVSYGGSQSNALAALSIF

AKQRSYKLVFACEKISTFLKNNPCGNYALALENGVDFVENIHSLSLKQFALSLCKKDDVFIEQGIANLEA

QYGYMELAQEIQMQSQSLKLDFDIFLPSGTGTSAAFLAKYSKFKVFTCACVGDIKYLKKQILTLDPSYDF

SNLEFLTSDKKYHFAKPYKEFYELYMDLKLKCNIEFDLLYDILGLSIALKQEWKKPLLYIHQGGILGNST

MLERYKFKKSV

>CAL34745.1 putative OmpA family membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNESKEDSNFWIAYADLMAGLLFVFILLIGAIVVKYVLTQSDLKEIKDNLNKQEARLEESKEELRNKEA

IVFKLSSDLNNASSALNLANSQKAELEANITNYKQLSKDLNSTLDNKDKQILILLGQLEKKDEELKNLQE

DFQKAKEKVQNLGLIRENLSKELQSKLDNNITIDEKIGSISLPAEVLFDKDSYVLKNEAKASLRKILSEY

FDAILEDPKIFSNIENIIIEGHTDSDGSYIYNLDLSQKRAYEVMNFIYTFYKSDKLQKLLMASGRSFSDP

VFVNGVEDKDKSRRIEIKFSIKNDNALKDVEKFFEFH

>CAL34744.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDIKSDEISELVLPEGKDARGSLVYFKIIFIPAFLYILILLGYFNVIDFKVELHTVIMTGVIFFTALIFA

RHSAEYAYSIFEQQKDEFKQALKRHIMRHFLAIGKDTKSNANFDDFAYTYIKGARNENFASIGSAIFPMM

GILGTFISIAFSMPNFSSSDTAALEQEIADLLSGVGTAFYVSIYGIFLALWWMFFEKYGKSKIDRLLNRQ

KNATSGFFWTKEELDQRYLTESLQHFEKIGAIFKQVSNDDFFAELDHAIDRKFGIFQDMLNVEEKAIRLS

SEHIKQTMGELSKAQRDQRDLGKLYSEMLNGIGLLNQNLKEINTRMSEQYNRLLDISSDKIHHLDKTLSA

FDEKIERFGKNFELYEKAMLESQEKVFEGFKASLFEGMHKFKEVYEEEKSIDAKIKMMDELKKEMKALDE

ETSQMMSKLSGDENQNKENETKQIEDFSESKTEENQDEIQAEISKQESNDELKNEDKENK

>CAL34743.1 fructose-bisphosphate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGVLDIVKAGVISGDELNKIYDYAKAEGFAIPAVNVVGTDSINAVLEAAKKVNSPVIIQFSNGGAKFYAG

KNCPNGEVLGAISGAKHVHLLAKAYGVPVILHTDHAARKLLPWIDGLIEANAQYKKTHGQALFSSHMLDL

SEESLEENLSTCEVYLQKLDALGVALEIELGCTGGEEDGVDNTGIDNSKLYTQPEDVALAYERLGKISDK

FSIAASFGNVHGVYKPGNVSLQPEILKNSQKFVKDKFALNSDKPINFVFHGGSGSELKDIKNAVSYGVIK

MNIDTDTQWAFWDGVREYELKNRAYLQGQIGNPEGDDKPNKKYYDPRVWLRSGEESMIKRLEIAFEDLNC

INKN

>CAL34742.1 major antigenic peptide PEB-cell binding factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFSLVAATLIAGVVLNVNAATVATVNGKSISDTEVSEFFAPMLRGQDFKTLPDNQKKALIQQYIMQDL

ILQDAKKQNLEKDPLYTKELDRAKDAILVNVYQEKILNTIKIDAAKVKAFYDQNKDKYVKPARVQAKHIL

VATEKEAKDIINELKGLKGKELDAKFSELAKEKSIDPGSKNQGGELGWFDQSTMVKPFTDAAFALKNGTI

TTTPVKTNFGYHVILKENSQAKGQIKFDEVKQGIENGLKFEEFKKVINQKGQDLLNSAKVEYK

>CAL34741.1 endonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRNLEIKELFLKHFDKPVTELKFSNLYELLVCVMLSAQCTDKRVNLITPDLFKAYPDIKSLANANLSSL

KTYIQTCSFFNNKAQNLIKMAKAVCENFDGEIPLDEQNLKSLAGVGQKTAHVVLIEWCGANFMAVDTHVF

RVSHRLGLSKAKTPEATEEDLTRTFKDNLNYLHQAMVLFGRYTCKAKKPLCKECFLNHLCKSKDKELK

>CAL34740.1 putative DNA/RNA non-specific endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIFIFLLTISLNIFALEPYKPSADFSSYFNNINCSQILDKFFYLNCYDYKLKGTKAVAYKVEASNLKDR

QIKKRPRFEDDTNIPKKYRTTWSNYKNSGYTRGHTAPNASFSFSKAAQNSVFLMSNITPQNAQINNKIWN

EIEQRERNLALEFQSIEVLNLVLYDKEPQYIKNRIAIPSFYVKIIKTPKFKECYQAPNHEVNDENIKQYQ

INCDKF

>CAL34739.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEINALTITTLYIIGISAEGMTGALAAGRHKMDLFGVIFIALVTAIGGGSIRDVLLGHYPLTWVKHPEYI

ILICFCALVATKIPRVVTKLETLFLTLDAIGLVVFSILGAQIAIDQNHGFIIAVAAAVITGVFGGILRDI

LCMRIPLVFQKEIYAGIAIIAGAIYYSLIIWLELNALVCTLLTLFIGVFARLLAIKYQWSLPIFSYNEEK

>CAL34738.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRRLSILLAILIVINITACDSKTENYYKNLPSEAKEKAKECKESGTLSEDCINALKVGVKPTNEEGKYSP

NTPKKSDNQILEALKQNDLKKEKTTKDINQSSENNESIIIPPIAETPSEIYPSKTTENNQSSIFSDDVNM

TQEK

>CAL34737.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTMKITLFLSLIGIFFAACEQTKSVEYYQNHPEEAKKRSLECRHKAIISQDCVNAYKIGFPKDEWEDENI

SNP

>CAL34736.1 putative SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKDELFKQSPKKQFEFDKSVASVFDDMINRSVPFYRENLELCGNLLAKILPTNASVCDLGCSSANFLIF

LANLRKDFKLFGVDNSASMLEVAKSKAKAYGLDISFFEANLCEFDFFTCDVFVANYTMQFIRPPKRQELL

DQIYKNLNSKGILIMSEKILYEDAFLSKNIIELYADYKEKQGYSKFEIAAKREALENVLIPYSQKENLNM

LEKAGFKKIESIFKWANFETFIAFKD

>CAL34735.1 putative riboflavin kinase/FMN adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNIFTTISKINITSLAIGCFDGMHLGHLKLVKCLDENGALLVINKFKGQFLCSNRQKEEISGKKVIEVD

FESIKSLDGRDFLSFLKKEFVNLKFIVVGYDFSFGKNRAYNAKDIESLSGIKTIIVDEFSIDGIGVHASL

IKDFLSKANLQKAKEFLGRDYSIKGKMIKGQGLGSKELFATINLDCEGYFLPQNGVYVTLLKSQRKTYKS

VSFLGVRSSDENFAIESHILEELGENFTQGEFFELEFISFLRENQKFQDLKKLKNQIAKDIEQARELLRK

NDER

>CAL34734.1 putative haemolysin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRFDFFVSKRLNISRNKALELIENEEILLNGKSFKASFDVKNFLENLKKTQDLNPEDILLANELKLDLLS

EIYVSRAALKLKKFLEENDIEIKHKNCLDIGSSTGGFVQILLENQALKITALDVGSNQLHPSLRVNEKII

LHENTDLRAFKSEEKFELVTCDVSFISLINLLYYIDNLALKEIILLFKPQFEVGKNIKRDKKGVLKDDKA

ILKARMDFEKACAKLGWLLKNTQKSSIKGKEGNVEYFYYYIKN

>CAL34733.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLLKNSSYILTLLSLFGFLLTWQRSAFSLFFLISIFLTLFWEFFLFLKLRKNIIKEATLIKGSLFYRVS

MGDFYLYIFSFFLAIFGLVSLFLNFLNLEKIDFVFIFIILPLLMIFLKKELHLQFVDNAYNDFRIVVIAS

FFTALFYAFYGLFFTYNELLNLELFSRKIIAYKSASFVYFDFLSEFLHFVSNLKFFIFSYFGYLGFRALN

FIFDFFNFFMFCSLLAFVFNFVLKIKIKIIVLFLCFIMVLGNYFLKEQRNNALKSEQEQILLWMNNFNFL

KDNNLSLIQKEKDLFEKDLKDLREIFKKNAFEIGIWWFSKEKEDLEKRINESLK

>CAL34732.1 DNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKEEYLEKVALANLWMRAYYEKDEPLASDEEYDALIRELRVFEEQNKDEISKDSPTQKIAPTIQSEFKK

IAHLKRMWSMEDVFDESELRAWAKRAKCEKNFFIEPKFDGASLNLLYENGKLVSGATRGDGEVGEDITLN

VFEIENIPKNIAYKERIEIRGEVVILKDDFEKINEKRALLNQSLFANPRNAASGSLRQLDTSITKERNLK

FYPWGVGENTLNFTKHSEVMQFIRELGFLKDDFVRLCANLDEVLKAYDELLALREKKPMMMDGMVVRVDD

LALCEELGYTVKFPKFMAAFKFPALEKTTRLIGVNLQVGRSGVITPVAVLEPVNLDGVVVKSATLHNFDE

IARLDVKINDFVSVIRSGDVIPKITKVFKERREGLEMEISRPKLCPTCQSELLDEGTLIKCQNIDCEDRL

VNSIIHFVSKKCLNIDGLGENIVELLYKHKKITTLESIFHLKFNDFEGLEGFKEKKINNLLNAIEQAREC

ELFRFITALGIEHIGEVAAKKLSLSFGKEWYKQSFEAYANLEGFGEQMALSLCEFTRVNRTRIDEFYKLL

NLKIEKLEIKSDGVIFGKTFVITGTLSRPRDEFKALIEKLGGKVSGSVSKKTDYVLFGEEAGSKLSKAKE

LEVKCIDESAFNELVKE

>CAL34731.1 dihydropteroate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFFKINPNTDFNLLCSFINPHKMGQKIMSEKTKIHFIFIKDISTPAANILKQDALRVGAELITHKEVIT

AKITHSNALLMASKEQIQKLVVKEKLQDFGLKNLALFLQKDFLKPKKAELMAVINVNEDSFNAKSRVSEE

DFEKRLNDFLALKPEYIDIGAVSSRPGSEYCGKEEEFKRLKKVLDLIYEKNYYEQAIFSLDSFDEYCLEY

ALNKGFKLINDITSLRNLNLAKLASKYGAKYCLMHMQNNPNNMQDNPFYEDLLDEMTLFFKEKLELLESF

GVKESILDVGIGFGKSAGHNMILIKHLEHFLQFNKPLLIGASRKSVINAYFQSEIKDRLAGTLYLHLKAF

ENGASIIRVHDLYEHKQLFALAQAMDNIGV

>CAL34730.1 hypothetical protein Cj0584 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFISKIIISEDFLGIKEEMINNFGIKKLRFFIPQNEFLLDDARAVEKESYIAETEEKIIVLMADSYRIEA

QNFLLKLLEEPPKNIKFLIVIPSKNLLLPTIKSRLICEKRKVEKEVKKLDLDLKRMDLRMLFDFLQKNEN

LDKNELMDQIALLAKECVKYKDFNAEELEFFYESYELAKLNSKSGVLLATLLLNYYTKK

>CAL34729.1 hypothetical protein Cj0583 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDFLSFTLENIRNGGAFMAWLESRRLEWAPLMAARLKYLLEGRTFVLMCDEQRSWYEEYFLKNINSKAT

RPMLPFVSLNSLCKKKVQSSEDIALLNDLLDISFPNGYVYFYIGSASDNKSLIAKSRDDSLLWLFDEQLQ

DSFYLNSKDKDLDIKLISLYQLFDVSLDAILFSKVQLG

>CAL34728.1 aspartokinase, alpha and beta subunits [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIVQKYGGTSVGTLERIEAVANRVIQSAQQGNQLVVVVSAMSGVTNTLIEQAEYFSKTPNGKDMDMLLS

SGERVTSALLSIALNEKGCPAISFSGRKAGIITDSVFTKARIHHIDTKAIKSELQNGKIVVIAGFQGVDE

EGNVTTLGRGGSDLSAVAVAGALNADLCEIYTDVDGVYTTDPRIEPKAKKLDKISYEEMLELASLGAKVL

QNRSVELAKKLNVNLVTRSSFNNNEGTMITKEDGMEQALVSGIALDKNQARVTLRNIEDKPGIAAEIFSV

LANENINVDMIIQNVGVDGATNLGFTVPQNELELAKNAMQKILSSKTTIESDSAVLKVSIVGVGMKSHSG

VASKAFKALADEGINIGMISTSEIKISMIVHEKYGELAVRALHECYGLDK

>CAL34727.1 putative NUDIX hydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENEKNYRPNVAAIVLSSSYPFECKIFIARRSDMDNIWQFPQGGIDKGESVKNALFRELKEEIGTDEVEI

IAEYPEWLSYDFPSKIVKKMYPYDGQIQKYFLVRLKHGATININTKHPEFDDYQFVSVKQIFEMINHFKK

NIYVRVIKYFEEKGYI

>CAL34726.1 putative oxygen-independent coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHFYIHIPFCESKCNYCAFTSLKKNDYEKAYFKALKEDIVFQLKQFNIQSNQIKTLFIGGGTPSCVNAYN

YEDIFKILYPLLDKNVEISCEANPNSATLNWLKNMKNLGVNRISFGVQSFHPKKLHFLGRIHNQEMIIKT

LENANKVGFKNINLDLIYDTKLDNKKMLEFELLHLKQIKDLITHLSAYNLTIESNTAFAKKEHFKKNAPN

LMKFFIKQLLELDFFQYEISNFSKTKAQICKHNLAYWQGKNYLACGLSAVGFYENKRFYTAKNLKNYIEN

PTFRSIEQLSSKDLNLEHLFLGLRSIVGIDETKLNQWQKDKINILLKEKKLFYKNKRYFNPNFLISDELA

LYLSS

>CAL34725.1 sec-independant protein translocase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSFGEIIVILVVAILVLGPDKLPEAIVQIAKILKAVKRNIDDAKSSIEKEIRINDLKEEAKKYKDEFSST

NENIRKKLSFEEFDDLKRDILDKTKVDLTFDSRDDKVKNNLSGQNLNTEEKPNLSKLETQDKNGKINV

>CAL34724.1 sec-independant protein translocase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFEELRPHLIELRKRLFISVACIVVMFIVCFALRSYILDILKAPLIAVLPEVAKHVNVIEVQEALFTAMK

VSFFAAFIFSLPVIFWQFWKFVAPGLYDNEKRLVVPFVSFASIMFAFGACFCYFVVVPLAFKFLINFGLN

EDFNPVITIGTYVDFFTKVVVAFGLAFEMPVIAFFFAKIGLIDDSFLKRHFRIAVLVIFVFSAFMTPPDV

LSQFLMAGPLCGLYGLSILIVQKVNPAPKDKESDE

>CAL34723.1 S-adenosylmethionine:tRNA ribosyltransferase-isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKDLLLSSYDYTLANELIANYPTNPKEDARLLVFDRKNKEIFHTTFKNLQDFLPNCAIFFNDTKVIKAR

IYGNKASGGKIELFLHQPFLNSHNPLFLAQIKGRIKKDEILYFKEDLKVRVVELLNDGLRKVQFFQNDKT

LDTSNLYNLLDKIGHIPLPPYIKREDEKSDLKDYQSIFAKNLGAVAAPTASLHFSETMLENLRKKHEIYH

LTLHVGAGTFKSVECENIQEHKMHSEFFNIPQQACEIIDSKQAILGVGTTVTRTIEYYTRTKTKNGFCDL

FLHPQNPPIRQNHLLTNFHLPKSTLIMLVSAFIGREQCLKLYELAIKEKYRFYSYGDAMLIL

>CAL34722.1 UDP-3-O-[3-hydroxymyristoyl] glucosamine N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLSEIAEFLSLEYKGEDIEISALNSLLKANFTELTYCDGEKNTKDIPHTGAAAILVSKEYENLVPKDTK

ALITQSPHLSFAFLSKLFAKPLISTAKEKVQNIAKSARIMPNVYIGDNVNIGENVIIMAGAYIGDNVSIG

DESIIHPNVVIYNDTKIGKKCHLLANCVIGSDGFGYAHNKNGEHYKIYHNGNVVLEDFVEVGACTTIDRA

VFDSTIIKAGTKVDNLVQIGHNCNIGQNCIIVAQTGISGSSELGRNVIMGGQSATSGHLKIGDFSTIAAR

GGVSKNLEGGRVYGGFPIMLQKDWLKLQAKIAINFKEKSQD

>CAL34721.1 acetolactate synthase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRRVLSVIVLNEHGVLSRIVGLFSGRGYNIDSLTVAPLENKEFSRINIVTSGNERTFEQIVKQLHKLIPT

YKVIESEEFIDKEMALVKIPLNENLGGLDAVLKAYNGTIANSNENFLFLMVADDANRIDNFLKTIKKYNP

SDIVRSGSVLMEIK

>CAL34720.1 acetolactate synthase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKELSGSAMICEALKEENVKIVFGYPGGAALNIYDEIYNQKYFKHILVRHEQAALHAADAYARMSGEVGV

AIVTSGPGFTNTITGLATAYSDSIPLVLISGQVANSLIGTDAFQEIDAVGISRPCVKHNYLVTCIEEFPR

ILKEAFYIARSGRPGPVHIDVPKDVSATLGLWEYSKEISMKTYKPVYKGNSKQIKKFAELLKEAKRPLFY

LGGGCISSNASEQIRELIKFTKIPAVETLMALGTLRSDDVFNLKMAGMHGSYAANMALSECDLLVSVGAR

FDDRITGKTSEFAKHATIVHVDIDPSSISKIINAHYPIVGDIKEVLKELLEELKKENFNTTFKEWHETLK

RYNELYPLSYEDSNEILKPQWVIEECAKMAPDARIITDVGQHQMWVAQFYPFNYPRQLATSGGQGTMGYS

LPAALGAKLAVGEEVVINFVGDGSVLMNIQELMTAYEYGIKAINIILNNAFLGMVRQWQSMFYKEHFSQT

DLSTQPDFIKIAQGFGCEGYEISNKEEFIQAFSQALKSDKTSLLNVKIDRFEDVLPMVPAGGAIYNMILP

KAKDRQ

>CAL34719.1 putative GatB/Yqey family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLKEQILNDIKEAMKQKDDFKRDSLRTLNAAFKQIEVDERIELDNERIYKIIASEIKKRKDVIELYLKA

NREDLAQKEQNEISLFEIYLPKQLSDEELTLALKQLIEELGVSSLKEQGLVMKEAKIKLGASVDGKRLNL

ALKELLQ

>CAL34718.1 GTP cyclohydrolase II / 3,4-dihydroxy-2-butanone 4-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFVSVEQAIKDLQAGKMLVMVDAEDRENEGDLIFPAQFSTQEKVNFMIKEARGVVCVALDETLAKKFEL

PLMVPKNTSNHETAFTITVDAKDATTGVSAYERNMTIQIFADDNAKASDFVRPGHINPLIAKKGGVLERT

GHTEGTVDLCKLAGLKGACVICEIVKDNGDMARREDLEIFCQKHDLNMIAVSDLIEYRLKHESLIKLEEK

SQSVLAGFKAEKFIFSDHNQTQHIAFCFKDIKKCENVKFHISGSDFELLTSDKFSKLLEQIKFLSENGGV

IVFMQGEKSSTTQYKNYGIGAQILRYFGIEEIKLLSQSCDKDYIGLEGFGLNLKACNFN

>CAL34717.1 putative transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEYDKLSIRLVQILSKFNNGESLSAQELAQEFNVDTRTIQRDLNERLTFMPIKKENGRYVLESFALGKL

SFKDIQNFATLSGIAELYPKLDQGFIVDLLSHRVNKVLMVKNEGFQKVDYELFKDLSVAILKHNVLNFFY

KEKERQIKPYKLVNYKGIWYLLGDENDKLKHFNLDKISKLRTKNENFIPNEKLEEQIQNDPNIWLGESKE

VILKLDKNAKEYFFRKEILSNYQIIDKDETSYTLSTQVSYEDEILHLVKQWIPYIKILAPIELKIRLEDI

LKSYLNNLSK

>CAL34716.1 putative ATP/GTP binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNHLLILYNPYYQEDVIKQHLSILQEKSQVAFGKIKSKLNDQEKQNSLEEIYQSTNEENFLQLFLSDYAN

LFVAKVVKISKNVDESLIPSYYKEKNLEVEDFFIISDLRELVREDFSRLRDKFLANFITPNDHTYAIYGN

HYTYPLPVRLKEECSYFLGDEKHYLSVYKSKEYLAMQENFIRFVFGKRIFYLLHSDSISNIIHAELELLQ

SENDLLNDFTSIIVKYSKTLEYEIYAFAKKVLLKACMKDPSLYDLAYNVQGKSFILKDFFTQKPNLGSIK

FLLRHENIQCHLGKSLTQFINYPFSKSLTIIQEIRNEAVHAKAPSLNEVKKLRNEILGIEGVSLLKRILT

HKEIS

>CAL34715.1 hypothetical protein Cj0569 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENKFKINYDQTTTNGRNGTNGKVDNLSMKNHHLKSIGHSPDIFGLFVSIVNQFTNTSTFVSNGKIITID

TNTFELQGGNFIAKIFCGFFNWFGHLASDWCGSSGGKERGAGIPMPFYNLFLLCDFGNFGQHRQTLAQIA

TQVFEQGYDLRHGVTMSIPVMINKMLIRFMYIIKAKFYHKKEWKECIPKDNIPELNKMLLIGSGTFLLID

TGGAWIKSKNPITNPVVFLSEINLINVIRFSTLILKEIYILYNNGKIDNKKLEKYLDDTCKILLIEAHNK

SKPFKEILK

>CAL34714.1 hypothetical protein Cj0568 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITYSNLSDVKKRIEDEFTHRNAECDKYDYLIAITCGAIAGIMDIFLVGNPKDSYLGKKVDKTVEKMTQK

FAQLCGWDKQKALDKNKDLTKSV

>CAL34713.1 hypothetical protein Cj0567 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKIQENTKIEKAILAEKQQIFLIQNKLSEIEKNIKE

>CAL34712.1 hypothetical protein Cj0566 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENICQFIIENIDKNSLNTKKIKLVFNMQEQEITTISKIFKVSSEHIIAFYDTSTSFNYFSKTTGICFTG

KEVIFKRKEDEVLMKINYEDFKEANKSLPEKTTTLQDIKFPISFHNLGTSYLSFDDFKKKNYIEENDELI

INFLHILTSKNNIESFKNESMFPQALEKTNESIKENYIKVIIKIILDQYGFLDEKRSIKIFALMNKINVA

SETRYKIQDFLHNKHSSFEDLLNIIKQESRFMQFKYILISLIKDLIDIDFEDNKIYNFLYENKDIFKIKD

LKEIYWVKEIIKKEYQIILDDNKEIQQIFNFISETATKNNISLNGLHLSGMTIGMSVSIMELLGFGELIK

LPLIDSSKKYHNKNKQQLRLFIIQEILKENQKTITQIIDIINNLIEQCNTNTQNLQELIKLLKLASKNNE

TFKEREKLLYCPETLSLITINNHLKEDDIQFIEQYYTYNQNTHKYERNDNLSSSDLEKLSNFFKLKNL

>CAL34710.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGIILGILSLIAGFVAIVLMCGLYFIAFMVFVGIAILIFLSMQPYPYNIIFCAIYLITILALVLWRKT

>CAL34709.1 hypothetical protein Cj0563 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFYTFFVILKQGEKMLKQIAFGSIALTATGYGIKKLYEKLSKPERKFDTHAIVPSCKDVINTEEYKLKRE

LEIEQKKNQIQEFLCECMECYSGFSKYFNSKEFLEFEQNFTSKNNHKTEFLLSSYKDQMIKVIDYAKKFK

CLSAFLETQSEKNDLAVVKMISESMERKTQRFYLQTKFQTFPQYIFPSVWSSPMWDKQWE

>CAL34708.1 replicative DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQQEYYDLDLERAILSSCIMSEEAYASIAGDISPKDFSLKAHQDIFKAVIACSNNKEPISVSFLRKHKKI

DEQILAEILATPSMIDLPAYVNELHEKSVKRQLLSFAHLLPTRINEDRAVSEIADEIGKEIFSITNRVNS

RDIKDVDMVISELFEEFKKQKTLENKGIIGLDTGFEGLNKMTKGFKGGELIIIAARPGMGKTTLCLNFID

KVLRQKKGVALFSLEMPATQIMQRMLSSKTSIPLQKILTADLNDDEWERLGDACNDYSQKKLYIYDSGYA

TIADVRAILRRLKSQDESIGLCVIDYIGLMMSNSNFNDRHLQVSEISRGLKLLARELDMPIIALSQLNRG

LEQRANKRPLMSDLRESGAIEQDADAILFVYRDEVYREQEEKERENKAKAEGKAYQRLFIPNPMQENAEI

IVGKNRNGPVGTIEVVFLKEKSCFVDKPIGYETTEFTG

>CAL34707.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYLFSCVLASILTQSATAVEFQEGFSGNLSIGVGARDIKSNISTLANSDYLSSHNADNSDSSFIPFIG

AELYYGNLIDNDRIFIKNYNGRDISGIALGYERAYLERFSTSFSVISSLREKAYANPYAIGNREETDVDR

YGFKISQLYESDFGKFTTSYLFSKNKYDKDTIAQSSLKREGYYHEIELNYNYSLLNLGLNYDYNDADGKA

QSYSRYGFSIGTNLAFANDYIFTPNLNLSKYEAVGTDPIFHKKQDGNIVKLNLKVVKNQFLGYNGLYGFA

NYGIEKRNSDIGFYDETYQIVLTGIGYKF

>CAL34706.1 putative MATE family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSSIFSTLSPFRLFVKYAVPNVISMAFISFYYIVDGIFVGKYLGSDALAALALIIPFIMMSFALADMIAI

GSAVQISMHLGLGKKNLARKIFSSSMLIIFIISCFIGILEYFLGPVLIDCLNVSDEIKTMTKECMFVFAL

FAPFTMLSFALDNYLRICGKTAYSMVMNVIIALSNIVLDYIFIVELGWGLFSAALATCLGLVLGGIFGIF

PFLFQNLELKISSLYMNLKIFKNILYNGSSEFFGNISGSLYSIFANFVLLKISDTQAVAAFSIVLYIDSF

IIMLIIAIGDAMQPALSYNYAKKDFSRIKAIIKVVFFAGGFLSLFSIVLILIFGENLITLFTKENNQEFK

TFAYTALMLFAFNYFFAWFNVLSGSFLTAFNKASFSLVLSLAQNLFIPLFFLLFLSCFMGLNGVWLSPFF

AEFCVLILAWIFLKRIFKDLSL

>CAL34705.1 putative pyridine nucleotide-disulphide oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIDLIVVGAGPTGIGCAVEAKLKNKEVLILEKSNNICQTLMQFYKDGKRVDKAYKGCEGTNHGHVPFE

DGTKESTIETFQNALKEHNIEVEFGSEVESVKNENGVFLVSTAKGVYECKNIIVAIGRMGKPNKPDYKLP

MTLTKIINFNANSVLGNEKILVVGGGNSAAEYAVDLANSNQVSLCYRKKEFTRLNDINLKDIHEAGNSGK

VELKLGIDINEVEDDNGKAKVNFTDGTSDIYDRIIYAIGGSTPLDFLQKCGINVDDKGVPLMDENKQSNV

KGIFVAGDIATKNGASIVTGLNDAVKILSVL

>CAL34704.1 gamma-glutamyl phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNLLENIKKNSQKLLNLTPKDKEKIILKLAQILRENFKIILEANKKDMANFTKSGAMKDRLLLDEKRIL

ALCEGLEKIAYIEDPIGKISKGWKNYAGLSIQKMSIPLGLICVIYEARPSLSAEIAALMIKSSNACVFKG

GSEAKFTNEAIFTLVNKVLKEFDLQDCFAMFTQRDEILQILAFDDLIDVIIPRGSSNMIQEIANNTKIPL

IKQNKGLCHAFVDQSANLDMALKIILNAKCQRVSVCNALETLLIHEKIAKNFISLLIPEFEKFKVKIHAH

ENALAYFNNSNLKIFKANENTFDTEWLDFALSVKLVKDCDEAIEHINKHSSLHSETIISNDASNIAKFQR

LINSSCIYANASTRFSDGGEFGFGGEVGISTSKLHARGPMGIEDICTYKYIINGEGQIRE

>CAL34703.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKIEILKQHFKEIAKLNSSEQVWQMPFFAALGVGIVLGLSVFFGKLNYGLIAMIGALSFLYVPSTPLYH

RMAVVMCCSFGIVSSFFLGILTHFLPAIFAFIPIGIMAMGSSILIRYYNIGAPGYFFFVFSCVLGAYSPF

EAKDFIFLVGLVFLGAMVANLMALLYSIVVIYGFKNALPSEIPPREYIGFDAVFVDSLIMGSFVAFSIFI

GTFLELERSYWIAISCTAIMQGVTLNSIWIKQIQRIIGTALGVCFAWWLLSKQFHDIELILLMMSLFFIG

QFLVNRNYALAMIFFTPYATYLSEAANFMSENADKLILARLIDVVIGSILGLLGGFVIYKPYLRVHFERI

AKYIFRIKQKA

>CAL34702.1 putative amidohydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIDTHAHIFLKKLNTVANARYKPDYDASFKDYKANLDHYDFNKGVLVQPSFLGIDNEFLLQSIEKDENI

KAIVVVDENIKFDELKKLKERKACGVRLNLIGKELPNFKSMVWTQFFENLSKLKMQIEIQRDLDNNLVDI

VENLIPYGCNIVIDHLARANANLTNLEDLICLKNSRIFFKISGFYRAKIDYANNEQAVKFAKKIYEILKE

HFPLSNFVFGSDWPHTNFEANINFSSALVAFNEVVVSKKEQEQILGDNACALFGF

>CAL34701.1 putative dicarboxylate carrier protein MatC [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIMVFLIISSIIVAIILGYITRHNVGIFAMIFAYIIGAFFMDLAPKKIIAFWPISIFFVIFAVSLFYNFA

TVNGTLEKLAGHLMYRFANHPYLLPFVIFVVSAIIAALGAGFYTVLAFMAPLTFLLCDKIGLSKIAGAMA

INYGALGGANFITSQSGIIFRGLMENSGIEANEAFANSSIIFAFTIILPIVVLSFFVFNAFKNNIKISVI

SKPDPFDYKQKTTLILMFMMIVVVLIFPVLNIIFPHNETISYFNKKIDIAMIAMIFVAIALFLKLADEKQ

VVALIPWGTLIMICGVGMLISIAVEAGAIKLFSDLVENEINVIFIPLIMCAIAAFMSLFSSTLGVVTPAL

FPIVPSIAASSGLSEALLFSCIVVGAQASAISPFSSGGSLILGSCPDKYKEKLFKDLLIKAVPIGFIAAI

LATIIMSFIL

>CAL34700.1 hypothetical protein Cj0554 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKFIKQFSFIALENIFRELPNKITHSFNDINDIKPPKLMYPIFYGSYDWHSSVHSHWLLVKILKDFSHF

APKDEIIKALDSQFSKEKAEGELKYLQNPAHKGFERPYGWGWFLKLTLEINLLAKENDKAEIWAKNLEGI

ADFFVKEFKEFLPKMDYPIRVGTHFNSSFALYFALEYARFKKDQELEYCIIQSAKKWFLNDKNMQALEPC

GDEFLSPVLMEAVLLSAVLHKNDFVKFFKAYLPNLEAKEPATLFTPVSVSDRSDGKIAHLDGLNLSRAWC

FKILSNFCDENLKILLRNNATEHFDKAIAHIEDDYLGSHWLGSFALLALDVDIL

>CAL34699.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MISLDLLYYIVGILFLVFGILSFSNQAKDIKSRISGGVFWISYSFTFLLAGVLPHFVMGCIVILLALIAG

FNLLKPAKIEVSKEEKEYEIKHANIYKNKLFIPALMVPLITLIGTFLFPYLSFFENKNATLMALIIGIII

SSVVACFMFKASPKRAVKDAAHTMDHISWAALLPQILATLGVVFVSTGMGDQVSKLLSSYISLDNAFIAV

AVYCIAMALFTIVMGNAFAAFPVITAAIALPILIIQMHANPAIIGAIGMLSGFCGTLMTPMAANFNIVPA

ALLNLDDKNGVIKAQFMSGLVLLVANIFLMYFLAFRF

>CAL34698.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEWLLLASIPLIVLGFALKINPFLVVTSVGIYAGLVSGFDFVKVVSDIGKSFVDNRYVAIIWLILPLLAV

LERKGLREQAKNLISKIKVASTGRILMCYFVFRQVTAALGLLSLGGHAQMIRPLIAPMAEAAAKLKFKNL

THKDSQKIKAFSAGTDNVAVFFGEDIFIAVHSILFIKAFYESNGIIVEPLHLSVWAIPTGILALIIHCSR

LYLFDKRLEKTYKGLSDDKS

>CAL34697.1 elongation factor P [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MASYSMGDLKKGLKIEIDGIPFKIVEYQHVKPGKGPAFVRIKIKSFIDGKVLEKTFHAGDKCEAPNLEDK

TMQYLYDDGENCQFMDTQTYEQVAISDDDVGEAKKWMLDGMMVDVLFHNGKAIGVEVPQVVELKIIETAP

NFKGDTQGSNKKPATLETGAVVQIPFHVLEGEVIRVDTVRGEYIERANK

>CAL34696.1 hypothetical protein Cj0550 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQWLSDFKLALIQEDVNKLENLLDELDMKAFIKNLAKESPSEDFLKENANDVFYQVQALLQEAVILIEQ

KKKTKAVEIQKFQKALTYFKS

>CAL34695.1 flagellar protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNNLAYNAYSQNQVGIESPQKLIEMLYEGILRFCARAKVAIRNEDIEQRVYFVKRTTAIFIELINTLNY

EKGGEVAHYLSGLYTREIQLLSLANLENNEDRINEVINVTKGLLEAWREVHNNETVAQ

>CAL34694.1 flagellar hook-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAFGSLSSLGFGSGVLTQDTIDKLKEAEQKARIDPYTKKIEENTTKQKDLTEIKTKLLSFQTAVSSLADA

TVFAKRKVVGSISDNPPASLTVNSGVALQSMNINVTQLAQKDVYQSKGLANDGGFVNAQLNGTADLTFFS

NGKEYTVTVDKNTTYRDLADKINEASGGEIVAKIVNTGEKGTPYRLTLTSKETGEDSAISFYAGKKDSNG

KYQKDINAEKIFDDLGWGLDVSASIDPDKDKKGYGIKDASLHIQTAQNAEFTLDGIKMFRSSNTVTDLGV

GMTLTLNKTGEINFDVQQDFEGVTKAMQDLVDAYNDLVTNLNAATDYNSETGTKGTLQGISEVNSIRSSI

LADLFDSQVVDGTTEDANGNKVNTKVMLSMQDFGLSLNDAGTLSFDSSKFEQKVKEDPDSTESFFSNITK

YEDINHTGEVIKTGSLSKYLNSNGGNTNGLEFKPGDFTIVFNNQTYDLSKNSDGTNFKLTGKTEEELLQN

LANHINSKGIEGLKVKVESYNQNNVTGFRLNFSGDGSSDFSIKGDANILKELGLSDVNITSKPIEGKGIF

SKLKATLQEMTGKDGSITKYDESLTNDIKSLNTSKDSTQAMIDTRYDTMANQWLQYESILNKLNQQLNTV

TNMINAANNSNN

>CAL34693.1 flagellar protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEISKANGQMDTALANISQRTSETQASLNIQTDRSQGQEGDDGQQRGVSEKLADITKKLNEQMDSLDTNV

RFGYSDKIGSMYISVTEKSTGREIRQIPSEEAMRLAEYFRDVIGMIFDKES

>CAL34692.1 putative 3-octaprenyl-4-hydroxybenzoate carboxy-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEFIQILKENDLLRVIEEPVDVDLEIAHLAYIEAKKGEKGKALLFKNPIDKKLNKQYKFPVLMNTFCNK

KALNLAFGRDYKEVAEEISKLIKLHIPTSFKAKMDFFMNLLSFKNIPPKRLKKNKALYDYEILNSLEELP

ILKTWEDDAGKFITMGQVYTQNLDKTQNNLGMYRLQMSDKNELLIHWQIHKDGANFYHEYKNAGFKKMPV

SIAIGGDPLYIWCSQAPLPKGIFELLLYGFIKKTPAKITPCENGIFVPYDSDVVIEGYVDLEEFKIEGPF

GDHTGFYTPAELFPVMKVEKIYAKKDAIYQATVVGKPPLEDKIMGLGTERIFLPLLQTSVPDLIDYNMPE

NGVFHNLILAKIDAKYPAHAQQIMHAFWGVGQMSFVKHAIFVDKNAPSLKDYDALIPYMLDRFNTKKILI

SEGICDQLDHASPNSCFGGKAGLDACEEIQVEELEILEDEKLLELFKTKVELLNLKQFYKESKSPIVCIL

LDKKEKIEQSFDKLLEFKKYFRILVFLDAENKLENSYMLVWRVVNNIDAKRDIFIKEERLGVDASAKGEA

EGYLRAWPKQTDCTKSVIEDLILRNILENNPDLFNKFEIF

>CAL34691.1 porphobilinogen deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLIIATRKSQLALWQSEHVAQILKNTHQIEVLLEGFKTKGDVLLDSPLAKIGGKGLFTKELEESMLRKE

AHLAVHSLKDVPSFFPQGLVLAAVSKREQSNDAMLSQNYKDFLSLPKGAKIGTTSLRRKMQLLLLRPDLE

IISLRGNVNSRIEKLKNNDFDAIILAMAGIKRLNLDKQVNFVYEFSKDELIPAASQGALGIESINDEKIL

ELLKCLNDENALIETSIEREFIATLEGGCQVPIGINAELLGDEICVRAVLGLPDGSEILKDKRMIKKNDF

KGFGESLAKEFIAKGAKELLKKAESMI

>CAL34690.1 putative integral memnbrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNYKLSLSPLFVLEIIASVLFIVFFGFGNFLFFILLSMIFGAVLLGIFWKNMLEFQMGGLKDMLTQFSFV

IAGFLLIFPGIITSVFGIFVFFFGIALKLITKSKYQYTKQEYQNSNEEIIDVEIIEDRK

>CAL34689.1 prolyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMRFTKFYAPSLKEAPKDASLPSHIFLTRAGFVEQIGSGLYNFLPLGKRVLDKIKNIVKEEMDKAGAQEV

NLSFITPASLWQESGRYNVFGKELLRFKDRKENEFVLGPTHEEAMLSLVKNKITSYKQLPLHLYQIGLKF

RDEARPRFGLLRCREFLMKDGYSFHANEEDLGREFELMYKTYSQILQRMGLDFRAVEADSGAIGGSGSKE

FMVLAKNGEDDILICENCDYAANVEAAKRAKKTCQDERPEANYASKFHTPNIKTIDSLAQFFKINAFYTI

KAVVKKAIYENESKLVVFFIRGSDDLQEVKAQNTCSALELVDASEEELKKAGLVAGFIGFVGLKDIDFYI

DFELENEKQMIMGANEKDYHLIGIDVVNLNKDRFKDLIEVKEGDCCVKCGAKLKQSKGIEVGHIFKLGQK

YSKAMNANFLDENGKSQPFYMGCYGIGVSRLLAVAIEANHDEKGCIWNKTLAPFVLEIIVSNLKDEKALE

FANKLYRDLTNLGLEVLLDDRNERFGVKMNDFELMGFPYALVIGKGLENNEIELIQREGLVKELIKTDEL

MEILKKKVL

>CAL34688.1 glutamyl-tRNA reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYYCISFTHKNTDIALREKLSFSNEAKKGEFLKIISTHENIEECLVISTCNRVEIVAFVKMACAEFIVKS

LALLCDVDKDILLEKADIFEDSGAIHHLFSVASSLDSLVVGETQIAGQLKDAFAFAVKNNFCGVHLSRAV

HSAFKCAAKVRNETQISKNSISVASVAVAKAKELADLTQKKAVVIGAGEMGELAAKHLIAAGAKVIILNR

DLQKAKDLCERLGVLSEYDSLENLKKYLNQYEFFFSATNAPNAIITNSLIEELSYKRYFFDIAVPRDIDI

NENENISVFAVDDLEIVVQKNLALREQEARMAYGIIGRETSEFFRYLNDLALMPIIKAIRLQAKEYADKQ

LEIALKKGYLKKSDKEEARKLIHQVFKAFLHTPTVNLKHLQGKMQSDTVINAMRYVFDLQNNLEGLNQYK

CEFDMENNDEIY

>CAL34687.1 polyprenyl synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKIDELIKQFLQELGYEPILNMLSNVKSGKKLRSKLLLAIADESEIAFKICAAIELIHLASLLHDDIID

ESELRRGARSVNAEFGTKNALMLGDILYSKAFYELSKMDARFASIISDAVVKLAIGELMDVDLGEKFNIN

KEAYLKMIYNKTAVLIEASARCGAILAGLYEKDFAEYGKNLGLAFQMIDDILDIKSDEKILGKPAMNDFK

EGKTTLPYIYLYENLQEQDRIYLQTLFKKDLNENEKEWLKTKFEEQKALEKAILEAKTYAKKARKAIEKY

DNNKLNDIIKAMIDREF

>CAL34686.1 putative exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKISPYLICIFFIFSNVLASEPTFDYTYKFILKKDERASVQIKEIGYEDKVQNFDFYWTLFDNTNIIVH

SKFRKYPRQFVMSLRRNLDWVTQTLIPDYTNPHIDRARLILEFSGYNKGLATFTVYIEDKESRLMVEFLD

PRKKALQNPPQNNQVVPMINFNEPQVKPLTSKENNNSN

>CAL34685.1 hypothetical protein Cj0539 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFFDEMFNKTPKEKFIEIIQNGNLGALEKVFEEFFADHIAMVELLEKQGLTEMDVKNFILENGDFIEER

QNDIYIELGAKILGHEG

>CAL34684.1 OORC subunit of 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYQLRFGGEGGQGVITAGEILAEAAIKEGRQAFKASTYTSQVRGGPTKVDIIIDDKEILFPYAVEGEVD

FMLSTADKGYKGFRGGVKEGGIIVVEPNLVHPESEDYKKWQIFEIPIITIAKDEVGNVATQSVVALAIAA

YMSKCIDLDVLKETMLHMVPAKTRDANAKAFDLGVKYATQAKPHS

>CAL34683.1 OORB subunit of 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAFNYDEYLRVDKMPTQWCWGCGDGVVLKCIIRAIEKLGWNMDDVCLVSGIGCSGRMSSYVNCNTVHTTH

GRAIAYATGIKLANPSKHVIVVSGDGDTLAIGGNHTIHGCRRNIDLTHIVINNFIYGLTNSQTSPTTPKG

FYTVTAQFGNIDPNFDACELTKAAGASFVARGNVIEANKLENLIYKALAHKGYSFVDVFSNCHINLGRKN

KMGEAVAMLDWIKNRVVDKAKFESMDFEERKDKFPTGILHEDNSQPEYCHAYEEVRRAAKEKRMVDLGAL

K

>CAL34682.1 OORA subunit of 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MREVIATGNVLIAKAAIDCGCKFFGGYPITPSSEIAHELSHMLPANDGTFIQMEDEISGISVAIGAAMSG

VKSMTASSGPGISLKAEQIGLAFIAEIPLVIVNVMRGGPSTGLPTRVAQGDLFQAKAPTHGDFASIAIAP

ASLEEAYTETIRAFNLAEKYMTPVFLLMDETVGHMNGKAVLPDLKDIKVYNRKKFEGDKKDYKPYAAGEN

EPATLNPFFTGYRYHVTGLHHGDIGFPTEDGVIVKKNMERLIGKIKNNQEDICTYEEYMLDDAEFLIIAY

GSVSRSAKEAIQRLREQGIKVGLFRPITLYPVAEKKIAEVVSKFKKVMVSELNMGQYLEEIERVTSRRDF

ISLHRANGRPITPSEIIAKVKENI

>CAL34681.1 OORD subunit of 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSMTAPKDTPVWVDEHRCKACNICVSYCPAGVLAMRDDVHAVLGQMIEVVHPESCIGCTECEIHCPDFAI

MVAKRDEFKFAKLTAEAKDRAVAVKNNKYKKLA

>CAL34680.1 succinyl-coA synthetase alpha chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSILVNKNTKVIVQGFTGKEATFHAEQCMAYGTNIVGGITPHKGGQTHLGKPVFDTVADAVKATKADVSL

IFVPAFAVGDSVIEAADAGIKLAVVITEHTPVKDMMFAKQYANKKGMKIIGPNCPGIITSEECKLGIMPG

FIFKKGCVGLISKSGTLTYEAANQVVQGGYGISTAVGIGGDPIIGLAYKELLSEFQKDDETKAIVMIGEI

GGSLEVEAAKFIKENISKPVVAFIAGATAPKGKRMGHAGAIVGSADESAAAKKEALKSYGIHVVDSPALI

GEEIQKILG

>CAL34679.1 succinyl-coA synthetase beta chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNIHEYQAKAIFVDNGIPTLKGKVAFSVDEAVANAKELGGSVWAVKAQIHAGGRGLGGGVKIAKNLDEVK

DYASKILGMNLVTHQTGPEGKLVQKLYIESGANIVKEYYLAILFNRMAEQITIIASSEGGMDIEKVAKES

PEKIAKVGIDPQIGFKMFHGLEVARVLGLDKDEGKKLISMIAKLYKLYMDKDMNMLEINPLIKTAEGDFY

ALDAKCSFDDSALYRHPEIAELRDTTEENPAEREAAEFGLSYVKLDGDVACMVNGAGLAMATMDIINYSG

AKPANFLDVGGGASPETVAKAFEIILRDKNVKVIFINIFGGIVRCDRIANGILEATKNVEVNIPIVVRLD

GTNAAEAKTILDNSNLKNIKAATNLKNGAELVKSLVG

>CAL34678.1 malate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKITVIGAGNVGSSVAYALILREIANEIVLVDINEDLLYAKELELTQSIAALNLNIDLLCTKDYTHTKNS

DIVLFSAGFARKDGQSREELLQLNTSIMLDCAKKIKDFTEDPLFIILTNPVDFLLNTLYESGIFSSKKII

AMAGVLDNARFKYELAKKLNVKMSRVDTRLIGFHNDDMVLVKSYASVKNKNISEFLNEEEFEDLENEVKT

GGAKVIKHLKTSAYLAPASACIRMLESIRSGEFLPMSVILHGEFGVQNKALGVMARLGLEGVIEIMKMDL

SLQEKDKLEKSLIKYQYKGE

>CAL34677.1 isocitrate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQITYTLTDESPALATYSFLPIVKAFLSRAHIGVKTSDISLSGRILATFSEYLKEEQRCEDALELLGELV

KRSDANLIKTPNISASIPQLKAAIKELQDKGYMLPNYPDEPKNDEELQIKTKYQKVLGSAVNPVLRQGNS

DRRSTKAVKDYAKNNPYRVVEFNPNSKTRVSYMKEGDFFSNEKAVLIDQDCVANIEFTSVDGKKEILKEG

LKLEKNEILDATFMDVQKLQEFYAKEIKASKDDDVLFSLHLKATMMKVSDPILFGYAVKVFFKELFIEFQ

DEFEKLGINPNNGLSELLSKIENSSKKDEILKKYSEILAKSADISMVNSDKGITNLHVPSDVIVDASMPA

MLKNGARLWDKEGKEKDTNAVIPDQTYATIYEAVIEDLHKNGTLNPSKLGSVSNVGLMAKKAQEYGSHDK

TFVAKEEGTFKIVSNGKVLLEHKVRKGDIYRANQAKFDAVLNWIDLGIERSELSGAEAIFWLDSKRASNK

IMITLVQNRLKEKGKNVAILTPKEACLRSLELIREGKDVISITGNVLRDYLTDLFPILELGTSAKMLSVV

PMLNGGAMFETGAGGSAPKQVEQLVEENHLRWDSLGEFLALQASLEFYANKCGNHKAKVLAECLDEAIGE

WLENNKAPSRKVKEDDNRTSHFYLAMYFANHLARQASDMELQSFFKDIALELSSNEEKIRAEFNDAQGVK

VDLGGYYKFDDEKANKIMRPSATFNAILEKIGQR

>CAL34676.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKKILYIVVFFVVLILALFIVLKNGIVISSIQFDFLKLEQLYIKLDKKLIVRAKNITINETQNSEISSQ

THSSDNASTEILKITKNLKYLYTFVKEIDIQNLNIKDNHVRILFKDNEFFIDNDLLFLKLTLQRQNKELI

ADIKKLLLKDYDLSIDGNLSINTKSEFYYFQGRASGELLDFNASISYKDKNLAYKIEDLNIRNITEIFKR

VNKRIELPQSLNLWVAYRAKGEFYHLDYLQGFIDFTKDNYYLDNISASGYVNNVKVRLDDKMNAIEIPKL

DLNLNKQKLDFVFNKAFYNGADLSSSKVYLYDLFDEKKVGIYLRIKSDNLKFDEKLAKALEDYHFSLPFY

QKSGKIKSDLELKIDFHDKGEISYSGILALENASISLADFNITKAFVKLNQNDLNIENASVKNGFLEADF

NAKFDLQKQQGNFNTQISRLYFDNAELLDLKNQNVEVKLDYSQNVNISIPQWNLILNFKDGLEANLNNPK

ILFSFSPLLKKLGFINAKNVYYKTLNFEDFNASVNDAYFKNNLLINGQTPYENDSFDIVKNKGIMEIHTQ

SDTASAKISSDNKEIHLKNLSYIYRKHSNSSNSTFDIATNTQNISFGGANVALILADSNKTLAFDRVEAD

LKGNALDLKGSRGNAKFDLYYSSNDLNLNVSNIDDNYLNEFLQKQAVQDGVFNLSIKGSGLEYFDGQIDF

KNTYVKDLKGINQLISFIDTVPSLLMFKSPTFNQKGLSLHDGKIIFNRKKDLLSVSAINLNGDSVDIYGL

GSANLRLNTVDFSLELKTLKSASEAISKVPILNYVILGKNQEISTNLKIDGSIDDPKFHTEILTDTLKTP

FNLIKNIIQLPANLLN

>CAL34675.1 putative aminodeoxychorismate lyase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTIPFLSTINKANISTTKNTTIYKIFFFIRNFFLIFILGIFYYLTQPLKSNSVVFIPQGSISQIITYLKQ

NKYQMSNIDKYILFFLGHPQSGWINIGTKDLNRAEFLHKLTIAKAALQTITLIPGETSVIFLEQAAKQLG

LDKDILLKEFQAQAPYDEGVFLPETYKIPKGITENLLIQMLLNHAEISNKKTSEKIFGDYNPKKWHQYII

IASVIQKEAANDNEMPIVASVIYNRLKKGMKLQMDGTLNYGIYSHVKVTPQRIRQDNSSYNTYKFTGLPK

EAVCNVSLAAIRAAIFPLKTDYLYFVRDKNTGVHIFSTNIDDHNKAINLQKGK

>CAL34674.1 flagellar basal-body rod protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINPFKSKELVTGALAGRNLRNQLINANLANVDTPFYKARDIEFETALVNRANEIFKKNDNKELQLAVTE

EEHQKPWKFPDPSKSTIYLRDGHLARNDANTVDLDVETTEMSKNTVMITALDGVLRRQSNIFSSILDASS

KLS

>CAL34673.1 flagellar basal-body rod protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYLSDFDISGYGLSAQRFRMNVISSNIANANTTRTAEGGPYRRREVIFKATDFDKLLNEQINKDNNFLK

YENPLNDPSSPEEAKPAIQSVVVDKVVRDDKDFRMKYDPSHPDANAEGYVAYPNVNPVIEMADLIEATRA

YQANVSAFTSAKTISQSAIDLLRG

>CAL34672.1 flagellar hook-basal body complex protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNINDLRLNNNISNTNKSQNSTGIGDEFAKMLKNEINDLNKAQESGEAAMTDIATGQVKDLHQAAIAIT

KAESSMKFMLEVRNKAISAYKEITRTQI

>CAL34671.1 putative penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEYKKNRVSKVAFAYCMALLFMIIFISSTFFLTSKRHIPNTEKDQYALALRGSIITKDNFTITSSKQIY

RAEIDLRSINKDKFDLFLKLFQIYSGISNDQVADIKKRMQNQKKRSYNFVLLQNLDSKQASYLKDLAKKL

YIQGFFKAFTNNSGRVETRGLNIIEHEEDRIYMSKDSFTPIIGYTKMILDPESGILKNIGVKGLEKYYDA

CLSPVQNEKIQGLKDIGGNIILNLNSLQQKKINGCDLYLNLSLKLQKSIEKAIDQRNEDLKANEIIVGVM

ESKTGRILALASSRRYDPQNRGKDLSVLNASAIEYGYEAGSVIKPFIFTTALRLGKIKMDEVINTYGGSY

KLGRFTIKDDHKMDKMTMEEVIRYSSNIGMIQIAKRLNNIEIVSGLKIFKFGEKSGIDLPYEQKGEIPNP

KRLRDIEKSVLSYGYGLKTTFIQLLAAYNVFNNDGFYITPRLAEKFYQNGRFTNLDDDVKKEKILSSEAA

KTMQNVLINVIEKGTGKKAITQGIIAGGKTGTARIAERQGYTSNRYNASFFGFANDLNHAYTIGVLVRHP

TKPYSYYAAQSALPMFKDVVDILINEEFLTPIQDNNQTSTNN

>CAL34670.1 hypothetical protein Cj0524 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MISLVKFSDTAIEALRKESEHLYNNTYAVVAHAIGFSRKDIQSDKSFKEILENKKWFSKNVDLDYLYQTR

IKVLFEAIIDFSTKAQVYINDETKNHKIFTFKMAAKNLAETTKNLKIIQANIKKYSSSSNEFLALEYNKI

RSNLGELLRSIEELRVVEDREKLYLIIKNLQKGKEILKEIDTLTLSNVEHLISVRKITTAEGISILNDTT

FAAKIAEELIGAVEVIFSKDISN

>CAL34669.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTGVIQSSTVIMAIIVAALLAQQISLENSLAATLGTSVGGVVTAVLASLSTNIEGKKLAFANCIFNFGI

AFLIVLIFPYFIHFLIFYPLR

>CAL34668.1 putative Na+/Pi cotransporter protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAILLIGMTNLGIGFKVFSGDLLEKILVKSTDTKIKSILFGTLSTLIMQFSILVSIVTISFLSAGLISLG

AGIGIIFGVNLGNTASSWLIVGLTNIKILMLAIPLLIIGVLFFFQKDSILKGLGNIFIGIGFFFLGVDYI

KSGFENFKHIIDLSRFDFAGFKGVFVF

>CAL34667.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLGIYLLIAALSFLALYFAVKKLTLNIDERTLLEPIKMDIYPKFCDLIDEKIREFKENIQNANLTLKNSN

QKDEFLEKLGDLSRELTFIQTMNLSNKNDSIWQNELFSFLKELENLLLEYLEKGEEEAENLREFLMDEFE

KLKG

>CAL34666.1 putative rhodanese-like domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIENISASLWTKQDLNAYQIFDVRTPLEWEEGILPNAQCVALYDNQGLLNAKFLDEFQSKRDESKKLAFI

CRSGHRSMVAAEFIAEKLGLESINLDGGMLALKGC

>CAL34665.1 hsp90 family heat shock protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQFQTEVNQLLQLMIHSLYSNKEIFLRELISNASDALDKLNFLSVSDDKYKSLKFEPKIEIKIDKDKKTL

SISDNGIGMDKDDLINNLGTIAKSGTKSFLENLSGDAKKDSQLIGQFGVGFYSAFMVASKIEVLSKKALD

DKAYLWSSDANGYEIDDANKEEQGTSITLYLKDDEFANAYKIESIIEKYSNHIQFPIFMEKEEFTPAKEG

EEEGKTELKISQINKANALWRMQKSSLKAEDYERFYEQNFHDSNKPLLYLHTKSEGKLEYNSLFFIPQNA

PFDLFRVDYQSGLKLYVKRVFISDDDKELLPTYLRFVRGIIDVEDLPLNVSREILQENQILKGIKEASVK

KILGELEKLKNNDKEKYLSFFKTFGKVLKEGLYGFGGEKDSLLKLMLYKSTKGENLRSLEEYKNDLQGEQ

KEIFYIAGNNESLLRTSPLLEEYKQKNIEVLLMDDEIDSLVTPMLEFEGLKFVSINQVEDKNELSDEEKN

TFAPLVAKFKELLKDQVEDVRLTSRLKDSPSCIVYDKNKPDFAMQQLLKQMGQEQNFKPILEINPKHAIF

TGLKNNESFSADIATLVLNMAKLSEGMGVDNPAEFNASLTKIINKAFS

>CAL34664.1 CrcB protein homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNTLLVVGFGGFIGAILRMLSINLVNKFFPYSISFGTLFVNVLGSFIIGLLFSYAQNKGLSPLLKSFIS

TGFLGAFTTFSTFSYQNLLLLQSGNYLHFALNIILNVFLCLFAAWLGFLIFK

>CAL34663.1 putative 1-acyl-SN-glycerol-3-phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIYKKIKALYFWIFFVLSVALVIFCFCFTKSQNTLWKIRKIWAKFQRYTISYKQEIIGTFNPQAQMILMN

HQSALDIIALEELYPKNLCWIAKKELGEIPIFKVAMKKPKLLCIDRKNPRDLVRVLKEAKERISEDRVLA

IFPEGTRSKNEKMLKFQSGAKILSEKLNLKVQPILIVDSAKILDTKSFSASSGVLKIICMDLVDTNDEKW

LENTRKKMQELLDQERAKLC

>CAL34662.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILLTLIFSIVVLFGRGEISVFSGQDENMQKELQKLPQEEQKIYQNIPPSDENNDFESNVDDPFVAKGS

LVLTNDEYPSRVYVGEVFPITIYARTTENIKFDFNISVEKTNLSFLNPDAKWEFINNEYKTTLWFEAKNS

NASLSKISIKLLRNNEAFQEADINLNPIKFENTLFNKDFSHLVASSLEIKKVKASYFDDANIIMMIELNA

TNTNLKSFFIEGIQKQGIENLKGDFNASSAFYYAILPLSKTNFEFSYFNKDSKKLENINLKLKISDDEIS

TQSDLNPVNKDLNIYKQYALWFLAVLFGVLFVWRKNYIILALAVVCFALSFLVDTNTQNAIIKAGSRAKI

LPTEPSTYFYTANADEKVEVLGKRQNYIKVLFSDGKIGWVNKDDLQKN

>CAL34661.1 phosphoribosylformylglycinamidine synthase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVAIIRFPGTNCEFDTTYAFEKLGVKTQIVWHEEKEFDADLVVLPGGFSYGDYLRCAAIAKLAPAMQGV

FNHAKKGGYILGICNGFQILLESGLLKGAMKHNNNLSFISKNQSLRVVSNDNAFLKNFKKDEIINLPIAH

GEGNYYADETTLKELQDKDLIILKYEPNPNGSVFDIAGICDENKKIFGLMPHPERACEKVLGNDVGLKML

KGFLLENFINFNF

>CAL34660.1 phosphoribosylformylglycinamidine (FGAM) synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEVIVNISLKNGVLDPQGKAVEKALHSLNFNSVKEVKIAKQIKISLDEKDEKLAKEQVKKMCEELLVNSV

IEDYELIIEKE

>CAL34659.1 phosphoribosylaminoimidazole-succinocarboxamide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKKEMLYEGKGKKLFKTDDENLLISEFKDDLTAFNAEKRGNESGKGALNCKISTEIFHLLEKNGIKTHL

VEIISDTEQVVKKCKIVPIEVIVRNVATGSLTKRLGIKDGTVLPFALVEFCLKDDALGDPFINDEHCLIL

NLVQNEAQISEIKNMARKINSILTPFFDNKNLRLIDFKIELGLTKDNELVLADEISPDSCRFWDKFSNEK

LDKDRFRQDLGNVKMAYEEVLKRILN

>CAL34658.1 putative secreted protease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMELILKTKRFFAGLAGFATTFILCLFLTSHLQAKVDQKEEQVQKRLEALDKLTKTLAIVEQYYVDDQNI

SDLVDKSLSGLLSNLDAHSSFLNEKDFNDMKIQTNGEFGGLGITVGMKDGALTVVSPIEGTPADKAGIKS

GDIILKINDEATLGINLNDAVDKMRGKPKTQITLTIFRKGATKPFDVTLTREIIKIESVYAKMIENENIL

YLRVTNFDKNVVDVASKELKKYPNVKGVILDLRNNPGGLLNQAIGLVNLFVDKGVIVSQKGRIASENQEY

KADPKNKISNASLVVLVNGGSASASEIVSGALQDLKRGVIVGENTFGKGSVQQIIPINKTEALRLTIARY

YLPSGRTIQAVGVKPDIEVFPGKVNTQEDGFSIKESDLKQHLESELEKIDKNKKEDKQENKDNKNLISQK

QINDDAQLKSAIDTIKILNIKQGQ

>CAL34657.1 conserved hypothetical protein Cj0510c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCQEKHTHTHSQKHLKAVCNRLSRTIGHLSAIKRMVENDKDCSEILIQLAAVKAEVNNTAKVVLKEHLAH

CMVHAVEENDIQSIEELNKAIDMFMK

>CAL34656.1 ATP-dependent Clp protease ATP-binding subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MANIQDFLTDNMLSNLESAASLAIHSKNNEVVPLHLLWALSVDSTSILNQILNKLNISKEALELEIKSRI

SKLATSSNVNRENIRFSNELINSLENAKGLMSANGDSYLSVDTWLISESQKSPIKEILAQFLDLREFQKE

LESLRAGRKMDSKTSDETLDSLNKFGIDLTLKASEGKLDPVIGREEEIERLMQILIRKTKNNPILLGEPG

VGKTAIVEALAQRIIKKDVPKSLQNKKVIALDMSALIAGAKYRGEFEDRLKAVVNEVIKSENIILFIDEI

HTIVGAGASEGSMDAANILKPALARGELHTIGATTLKEYRKYFEKDAALQRRFQPVNVGEPSVNEALAML

RGIKEKLEIHHNVTINDSALVAAAKLSKRYIADRFLPDKAIDLIDEAAAELKMQIESEPSSLRKVRKDIE

TLEVENEALKMENDEKNQKRLDEIAKELANLKEKQNALNSQFENEKSVFDGISAKKKEIDLLKNEASLAK

ARGEFQKAAELEYGKIPSLEKEVEILEDKWKKMSENGVLLKNQVDEDLVAGILSKWTGISVQKMLTSEKQ

KFLEVEKHLKESVIGQDKALSALARAIKRNKAGLNADNKPIGSFLFLGPTGVGKTQSAKALAKFLFDDEK

AMIRFDMSEFMEKHSVSRLLGAPPGYIGHEEGGELTEAVRRKPYSVLLFDEVEKAHKDVFNVLLGILDDG

RATDSKGVTVDFKNTIIILTSNIASNAIMNLSGKEQEDAVKNELKNFFKPEFLNRLDDIITFNPLGKDEA

YEIVKLLFKDLQMSLENKGIKASLSENAALLIAKDGFDPDFGARPLRRAIYDLIEDKLSDMILADELHEN

DSIIIDAKDDEIIIKKA

>CAL34655.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILKYIFSFFTLLFITGFIYVAYLFTSADTEGYTFKEYKPPLTTQIYDRNGKLVANIFEQHRFYAPYEE

LPPRLIEALVAIEDTSFFEHNGVNIDAIFRAAVKIIKSGGKTMEGASTLTQQFIKNTELTPERTIARKIR

EALLAYKMETILTKEQILERYLNFIFFGHGYYGVKTAALGYFHKNLNELSLKEIAMLVGMPKAPSSYDPT

KHLDLSISRANNVISRMYNLGWISKADYDTAIKEIPQVYDDTLTQNAAPYVVDEVIKQLSPNIKDLKTGG

YKIILNIDLDVQNMAQNALKFGYDEIVKRDKDANLSTLNGAMVVVNHQSGDVLALVGGVDYEKSNYNRAT

QSMRQPGSSFKPFVYQVAINLGYSPMSEIADISRIFEGGAGNNEDWKPKNEGGKFLGLITLKEALTRSRN

LATINLALDMGLDVLYSKLMEFGFKDIPPNLSIVLGSFGISPLEYSKFYTMFGNYGTIKDPQIIRQVQDK

TGKTIMEFNSNERKVSDEAQSFLVLDMMRNVVEKGTGRNARVKDIEIAGKTGTTNKSVDAWFCGLTPEIE

AIIWYGNDNNKPMRYTEGGARTAAPVFREFLTQYIEKFPDTTRKFSIPNGVYRGNYKGESAYYTTKSPLP

KANMKFNESEIIF

>CAL34654.1 Maf-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLILASSSISRANLLKTAKIDFRQVSFDYDENLNKNISPFLYVQKIVLEKERQFLSTLGKDFQNQNLLFA

DSIVCIDEKILTKAKDKKEAYEMLALQNGKYASILSAFLLVKPEKRVFSLSKTTLYFKNFDENALRDYVE

NDLYKGKAGCIMCEGFHQNFITQQVGNLSTALGLDIQTLKAYL

>CAL34653.1 alanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDIRKAYLDFFASKGHEITPSSPLVPDDATLLFTNAGMVPFKSIFTGEIPRPNPPRKTSCQTCIRAGGKH

NDLDNVGYTARHHTFFEMLGNFSFGDYFKEQAIAYAWEFVTEVLKLPKDRLYVTVHENDDEAFNLWQKHI

QKERIYKFGDKDNFWQMGDTGPCGPCSEIFYDQGQEHFNSSEDYMGGDGDRFLEIWNLVFMQYERSADGV

LSPLPKPSIDTGMGLERVTAIKEGKFSNFDSSLFMPIINEISKLCNKTYVYESGASFRVIADHIRSSVFL

LAQGVSFDKEGRGYVLRRILRRALRHGYLLGFKQAFMYKLVDVVCDLMGGHYTYLNEKKDFIKEQIRLEE

ERFLSTIENGIEIFNEELKNTKEIFSGEVAFKLYDTYGFPLDLTADMLREKNLKVDEEKFELFMNEQKAR

AKASWKGSGDKTASGDFKNLLEKFGENHFVGYEKAECESKILALLDEDFKEVSTLKDAGWVMLENTPFYA

TSGGQSADSGFIAKREVLDTQKFFNLNLSFIKAGEELKVNDIVHARIDTEKREQIARHHSATHLLHHALR

EILGSHVSQAGSLVESNKLRFDFTHHKALNKEELESIEKRVNKMIINSSEAILENMPLEEAKKSGAIALF

NEKYQGNVRVLTLGESKELCGGTHVKNTAQIGSFYIVKESGVSAGVRRIEAVVSKAALEFVKNQLEELSK

VKDELKNNDILSGIKKLKNEILSLKNELKNSSKTELDSKNIQGVEICVKRIDNGDIKAMIDDFKNKFAKA

VILLIQVKDEKITLAAGVKDVPLKAGALVKEAAQILGGNGGGRDDFATAGGKDLSKINEALKQSLETIEK

AL

>CAL34652.1 putative aminotransferase (degT family). Functional classification-Misc [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFINLQAQYLAYKDEINAEIESVLSSSSFIGGAKLNEFEQNLAHFLGVKHAIGCSSGTSALYLALRVLD

IGKDDEVIVPSFTFIATAEVVALVGAKPVFADINLSNYNLDFKAVQKAITSKTKAVIAVSMFGQMSDLRA

LEEILKDKNITLIEDGAQSFGASFKGEKSCSIAKISCTSFFPSKPLGAYGDGGAIFCHDDEIAKKIRILL

NHGQTQRYKHEFIGINGRLDTLQAAILNVKLKYLEKELDKRQKLAQIYNANLKNCQIPQINPNAFSAYAQ

YSVLVEDRASVLRKFEKANIPYAIHYPTPLHKQPCFSEFSNLELKNSEYASEHILSLPFSPFLSEEEQEQ

VICIFKD

>CAL34651.1 putative oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIGIIGLGKMGQNHLNELSKNSHFKLNALFDLCKNPNLNIFDDIFYDDLDKFLNQNNDIIIIATPTNSH

LTIAKKVFKQCKCVLIEKPLALNLKEIDEISNLAKEYSIKVGVGFCERFNPAVLALKKELENEEIISINI

QRFSPYPQRISDVGILQDLAVHDLDLLCFLSKQEITKTNLLKKYTQDQTRESESIILCGLEKCIASIHQS

WNSTQKLRKIHLITKNHFYEANLNDFSLLKDGNFIELTQQSPLFSEHEALLKLIDNQPNHLASTSDAYKV

QEILERFA

>CAL34650.1 putative ferrochelatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLVLFLNMGGATNLQDCEVFLKNMFNDPYILGIKNRFLRKFVAWIITKARVKAMQENYKKMGGKSPLNE

LTQSLCDKLNLKQDEFKFDFVNLYVPPFATEILQKYTLNASDEIILFPLYPHHSCTTVTSSLEVLQNEIS

KQKIQAKVKTIDIFYKNELYNEMIVSHILAKKSKFDAKILIFSAHSLPQSIIDKGDLYEKHVNDHVEILK

EKLKDHFDEFILAYQSKLGPVKWLEPNTSDVLANLNDKALIYPISFCIDCSETIFELGMEYKHLSKYNYD

LISCPNDSDEFMEFILKYLSDLN

>CAL34648.1 putative rhodanese-like domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLSEVEFVEFQKENFSLLIDARSPREFLHSHLIGALNFYALNDEEYQEIGTIYKKNQALAKAMGASYICQ

NTTKHILEITQNFRIGEKVGIYCSRGGLRSKSIAVILSELGFRVVRLKGGFKAYRTFVTHYFENEINFDF

FALCGNTGCGKTELLEQLPQAINLEKMANHLGSSFGDILGKQPTQKAFEAELFHNIQNLENFAFIESESR

KIGDIILPLKFYEKMQKAFKIYCFCSLENRVRRIQKIYQEKMTPLKFQQCVQKISPYISLNLRQDLLQSY

ERKEWQKLIVMLLEYYDKTYKKPDKIDLELNTDDILKAKEELLDHFKVQLLF

>CAL34647.1 putative histidine triad (HIT) family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQYLYAPWRSEYFEKVKSICPFCDCANKIKSDEELGVIFRAKHCFGVMNRYPYSAGHFMVIPYIHEEHIE

NLSDEIWQEMSYFVRLGVKILKEQIHANGVNIGMNLSKDAGAGIAFHCHYHLVPRWSGDTNFITTIGETR

VCGTNIEQVYQKLVLAFKNAQ

>CAL34646.1 indole-3-glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILDKIFEKTKEDLKERKLKLPYDMLGRSLASNPFFPKDVIKALKRVEKEVKIIAEVKKASPSKGVIRED

FDPLSIALNYEKNKAAAISVLTEPHFFKGSLEYLSLIRRYTQIPLLRKDFIFDEYQILEALVYGADFVLL

IAKMLSMKELKKLLEFARHLGLEALVEIHDKEDLSKAIFAGADIIGINHRNLEDFTMDMSLCEKLIPQIP

NSKIIIAESGLENKEFLEHLQNLGVDAFLIGEYFMREKDEGKALKALL

>CAL34645.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYRYLLFVLAAFFLAACGSSKINVVYPDYTKYKSNDFDLRVMKAYNYEYYKQYKEARDEFLSLYQDYNNT

NFLENAFLLTLANNLDKQAELDNLAKPYLNQNDNLKRLSALYALNSNDINNAQKLMKELLTKKDSDPRNL

ELYGDILVKKNDLKNATKYYRSAYNQVQNEEILFKLIGIYAILNDTLNIKNVLEFSRKTNGCTLKTCVLL

AKIYFDEKNIEALKSIYKELYQLTKNKSFVLALVELLNSQGKTEEALKISLQYDLDDDIKLALYQNLKRF

DDAKKMSLALYHKTKNKEYLLRAAVFEFEAANEAKKITPKVIDSVKEKFEQAIDKDSNALYLNYYGYLLI

DYDLDVKKGIELVKLALEKDPQNLYYLDSLAWGYYKLGDCKQAWEILKQTLDDKEFANSDESKAHIKAIK

ACIKP

>CAL34644.1 conserved hypothetical protein Cj0496 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIFDKNFSYAFDENACEKCGGKCCTGESGNIFASKEELEVLRKHLNLESKEFAEKYLRKVGFKMSFKEVE

CEDGFACIFFDTQKRNCSIYDFRPKQCRTFPFWEYFKTHQKELEKECIGICYLS

>CAL34643.1 putative methyltransferase domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDLITLAQLSQGYRYNSDSLILADFILKQGIKGAVFDVGAGCGIIGILLKKNIANLSLSLIDIQKENIE

LIEKNLKSNKIQGDIFHDDFNQFQIIKKFDFIVCNPPFYRQGAYKSEDQHKAISKFQEFLPLHSFLAKTN

SMLKPNGTLYFCYEALALDEICFILKDMKMKITKLCFVHTHQSKKARLVLIQVKKGSKSPCEILPPFFVY

ENEILSKQMQEIHLRFRLKSYDI

>CAL34642.1 putative exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKIAFFITFVISFLAAQSPVNFKEDNNITKERNIFKEQLPKRIKIPTH

>CAL34641.1 elongation factor G [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRSTPLKKVRNIGIAAHIDAGKTTTSERILFFTGMSHKIGEVHDGAATMDWMEQEKERGITITSAATTC

FWKDHQINLIDTPGHVDFTIEVERSMRVLDGAVAVFCSVGGVQPQSETVWRQANKYGVPRIVFVNKMDRI

GANFYNVEDQIRNRLKANPVPLQIPIGAEDNFKGVIDLVTMKALVWEDDTKPTDYVEKEIPAELKEKAEE

YRTKMIEAVSETSDELMEKYLGGEELSLEEIKTGIKAGCLSLSIVPMLCGTAFKNKGVQPLLDAVVAYLP

APDEVANIKGEYEDGTEVSVKSTDDGEFAGLAFKIMTDPFVGQLTFVRVYRGCLESGSYAYNSTKDKKER

IGRLLKMHSNKREEIKVLYAGEIGAVVGLKDTLTGDTLASEKDKVILERMDFPDPVISVAVEPKTKADQE

KMSIALNKLAQEDPSFRVSTDEESGQTIISGMGELHLEIIVDRMLREFKVEAEVGQPQVAYRETIRKTVE

QEYKYAKQSGGRGQYGHVFLRLEPLEPGSGYEFVNDIKGGVIPKEYIPAVDKGVQEALQNGVLAGYPVED

VKVTVYDGSYHEVDSSEMAFKLAASMGFKEGARKAGAVILEPMMKVEVETPEDYMGDVIGDLNKRRGQVN

SMDERGGNKIITAFCPLAEMFGYSTDLRSQTQGRATYSMEFDHYDEVPKNVADEIIKKRNG

>CAL34640.1 30S ribosomal protein S7 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRRRKAPVREVLPDPIYGNKVITKFINSLMYDGKKSTATTIMYGALEAIDKKGGEKKGIDIFNDAIENIK

PLLEVKSRRVGGATYQVPVEVRPARQQALAIRWIISFARKRSERTMIDKLAAELLDAANSKGASFKKKED

TYKMAEANKAFAHYRW

>CAL34639.1 30S ribosomal protein S12 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPTINQLVRKERKKVLEKSKSPALKNCPQRRGVCTRVYTTTPKKPNSALRKVAKVRLTSGFEVISYIGGE

GHNLQEHSIVLVRGGRVKDLPGVKYHIVRGALDTAGVAKRTVSRSKYGAKRPKAGAAK

>CAL34638.1 putative aldehyde dehydrogenase C-terminus [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEQGKTRVLASIEINFTADYMDYTAEWARRYEGEIIQSDRANEHIYLYKSAIGVIGGILPWNFPFFLIA

RKMAPALLTGNTIVIKPSSETPNNAFEFAKLVSQSSLPKGVFNLVAGKGSVVGYELSSNENIGMVSLTGS

VEAGTRVMEAAAKNIIKVSLELGGKAPAIVCKDADIDLAVEAIKASRICNNGQVCNCAERAYVHTSVYDE

FVDKFVKAMSKVSVGNTLKGDFDMGPLVNQAGVDNALAMLQRATAKGAIVECGGKITDTSGYYFPASVLT

NVKHEDEIMQKEIFAPILPIAKFDTLDEVIDMANDCEYGLTSSIYTQNLDIAMRASREIKFGETYINREN

FEAMQGFHAGFRKSGIGGADGKHGLEEYLATHVVYLQYNTNKQ

>CAL34637.1 putative aldehyde dehydrogenase N-terminus [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTTYLNYIDGKFIPHNGEFIEVLNPATKEVISRVASASLEDTKRAIEAAKKAQKVWEAKPAIERANHLKE

IAS

>CAL34636.1 conserved hypothetical protein Cj0488 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQRYGQIIKIKKEKIEEYKELHTKPYEGVCEMIKECNIQNYSIYLFGEYLFAYFEYIGADFEADMAKMAR

DESTQKWWKVTDPCQISLGYAGQKWLNMEEVFHLD

>CAL34635.1 putative amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKIFDAHLHLWDLEKIPISWIKDDEKLEQNYDFFRMKQEYKEFEFIGAMYVEVNSDDLEKEALFALEQK

KLHNLLFCLADFKHKEELSSFREVMHTSKKGAKRLFEADFEEKIEILKTFNIPFEACIKNEELGFLEKFL

SKNPNLKVVLNHLGSPKINRLNEYKKDLSFLKKFQNLYIKLSIPDGFSQETPKEFIFELFAFLKENFSEN

KFIFGSNYPVAKITPAKWAKLIIESKIFDDLDKIFYKNALLIYKGG

>CAL34634.1 putative sugar transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTDSKNIKIAIVLVTSLFFLWGVSYGLIDVMNKNFQNHLHISQHESGFLQFAYFGAYFIIALPAGYIANR

FSYKMGIIFGLALYAIGALLIIPATNLASFHLFLFAFFILACGIGSLETSANPYMTKLGDEKNASFRINA

AQSFNGLGQFVGPIIGGALFLSITKQEEGASKEQIQAALVANMGNVQLVYIGIAVIVILILIAFVANKLP

EGSAVSDDYKQKDDSKPIYVFKHRHFNLGLLAQFLYIANQVAAGAFFINYVVEHNEGLKDAQGAYYFSIA

LVAFMLGRIVSTPLMKIIKGEKILGFYSLINVLICFSLYFASGFFSIVLLIALFFFMSISFPTIFAVATK

NLPLNQVKLGGSLLVMSIVGGAIMPIIIGFINDHYGTGAGYLAMAPLFLYVAWYGFIGSKVRKNAKDF

>CAL34633.1 putative oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDLKIKNKVCIITGGAKGIGYGIAKLWASEGGIPVIFSRSMPKEHDKELKKLSSEYEFYEIDLKNYEQIE

KLVKKVAIKHGGIYALVNNAGTNDNLHIENTSTQDLIKSYENNLFHYYTMTKECLPYIKKEQGSILNIVS

KTGITGQGRTSAYASAKAAQMGFTREWACAFAKDNVRVNAIAPAEVMTPLYEKWLQNFPNPKEQYEKIAK

AIPLGHRFTTIEEIANTAVFTLSPLASHTTGQILMPDGGYVHLDRALNWDEN

>CAL34632.1 putative MFS (Major Facilitator Superfamily) transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKHANSIKLELVCKKISWRILPLIVLMFCLSMLDRTNISFVKSHIEIDAGIGEAAYALGAGIFFIGYAIF

EVPSNLFLHKLGAKIWLSRIMITWGLVTMAMIFIQGEISFYVLRFLLGLTEAGFSPGIILYLSYFFPAIY

RSKAYGIYQMGVPIAFVFGSLISGFILDYTPNIYFKNWQWMFLIEGGITVLVGIFCLFYLDSHPKDAKWL

DIKEKDILLKHIEISNTKAKDYSIKDIFKSILVWKFVFVYFCIQLSVYGVLFYLPSKIAQILQINVGFEV

GLLNAIPWIFVFIALPIFTSLADKKHSWNLHAILFLLLASLSMIASTFVTNLAAFLFFISLAAIGFIVIQ

PIFWNLPTQVLKGKGAAAAIALIGSLGNLGGFVAPTLKTYIENHFGVEFGLIVLALIAIL

>CAL34631.1 putative altronate hydrolase C-terminus [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKMKKIMGYRREDGKFGLRNKVIIIPSVHCANKVCENIARKCNGAVYINHQHGCSQLEFDALQTRDVLIG

HGSNANVFGVLIIGLGCEVIQAKAVAEKIKEAMPYKKVEYLVIQECGGSKNTIENGIKIVNEMLESAAKL

QKSEGDFSDLILGTECGGSDSYSGLSANPTLGSLSDFVIDEGGAVILAETTELIGCEAILAKRAKNDEIA

KKVYDKILAYENLVKSFHADIRGANPSPGNMAGGLSTIEEKSLGCVYKAGTRTLMDVIDYAKPVVSKGLT

FMNTPGNDIEQLSAMVAGGANICVFTTGRGTPTGSAIVPTIKMSSNTFCYENMNDAIDINAGSIIDGVKT

KEEVRDELIELIVRISDGELVKAELNEQNDFSAWRLATTC

>CAL34630.1 putative altronate hydrolase N-terminus [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKGYIIVNEKDNVATALRDFKKGEKVANIELLNDIASGHKFALKDIKKDEIIIKYAEAIASASCDISTGE

WVHIHNTAGIRGRGDKE

>CAL34629.1 putative dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGILKGTLPALLTPYKDDGSINEKEFIRYCEFGISKGLNGLFCNGSAGDSQALSVEEQVKLMKLTKKATK

NNIPIITGITSTIYENTFILAQKAYELGLDALLLAMPYYYKLSEDALFEYVKYLASEVKLPLYVYNIPLF

APALSLKFIEKVSKLDNVVGIKDSSGDALLLNHILDVVPSNFDVFVGREEFYVGALLAGVKGSMTSIGGV

FPELMSEIYKSINEKNIGRALLIQKSLLKAIRFGMSIAFPMGFALLLKARGFEFVNASIHPLSPATKEEL

NTRFDEAKELIKTIEKETGIKL

>CAL34628.1 putative transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHQPTLRVLNILELLAKEKLTLSAIAKKLNIPAGTLWPILQTLQEKKYIKCDLKNKSYYLDFKIIELGCN

IKNENNIFEIIKKHMKNIRNLTNQTCQMGILKDGNVLYLEKIDANNTVQLKSFIGTSYPAYATSLGKALL

SNKNKKELEKLYPKNFDKITENTLNNINELYQQIKQIKKEKIAIEIGEMNPQIECMAIGIEHKNKIIAAI

SISYLIYCSNKAFREKNKKILLEEKNKIEKVLKIYFNDLDTLY

>CAL34627.1 DNA-directed RNA polymerase beta' chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKFKVIEIKEDARPRDFEAFQLRLASPEKIKSWSYGEVKKPETINYRTLKPERDGLFCAKIFGPIRDYE

CLCGKYKKMRFKGVKCEKCGVEVANSKVRRSRMGHIELVTPVAHIWYVNSLPSRIGTLLGVKMKDLERVL

YYEAYIVENPGDAFYDNESTKKVEYCDVLNEEQYQNLMQRYENSGFKARMGGEVVRDLLANLDLVALLNQ

LKEEMGATNSEAKKKTIIKRLKVVENFLNSNLNANTDSDEAVPNRPEWMMITNLPVLPPDLRPLVALDGG

KFAVSDVNDLYRRVINRNTRLKKLMELDAPEIIIRNEKRMLQEAVDALFDNGRRANAVKGANKRPLKSLS

EIIKGKQGRFRQNLLGKRVDFSGRSVIVVGPKLRMDQCGLPKKMALELFKPHLLAKLEEKGYATTVKQAK

KMIENKTNEVWECLEEVVKGHPVMLNRAPTLHKLSIQAFHPVLVEGKAIQLHPLVCAAFNADFDGDQMAV

HVPLSQEAIAECKVLMLSSMNILLPASGKSVTVPSQDMVLGIYYLSLEKAGAKGSHKICTGIDEVMMALE

SKCLDIHASIQTMVDGRKITTTAGRLIVKSILPDFVPENSWNKVLKKKDIAALVDYVYKQGGLEITASFL

DRLKNLGFEYATKAGISISIADIIVPNDKQKAIDEAKKQVREIQNSYNLGLITSGERYNKIIDIWKSTNN

VLSKEMMKLVEKDKEGFNSIYMMADSGARGSAAQISQLAAMRGLMTKPDGSIIETPIISNFREGLNVLEY

FISTHGARKGLADTALKTANAGYLTRKLIDVAQNVKITIEDCGTHEGVEINEITADSSIIETLEERILGR

VLAEDVIDPITNSVLFAEGTLMDEEKAKILGESGIKSVNIRTPITCKAKKGICAKCYGINLGEGKLVKPG

EAVGIISAQSIGEPGTQLTLRTFHSGGTASTDLQDRQVSAQKEGFIRFYNLKTYKNKEGKNIVANRRNAA

VLLVEPKIKTPFKGVINIENIHEDVIVSIKDKKQEVKYILRKYDLAKPNELAGVSGSIDGKLYLPYQSGM

QVEENESIVEVIKEGWNVPNRIPFASEILVEDGEPVVQNIKAGEKGTLKFYILKGDGLDRVKNVKKGDIV

KEKGFFVVIADENDREAKRHYIPRESKIEFNDSEKIDDANTIIASAPKKERKVIAEWDAYNNTIIAEIDG

VVSFEDIEAGYSADEQIDEATGKRSLVINEYLPSGVRPTLVIAGKGDKAVRYHLEPKTVIFVHDGDKIAQ

ADILAKTPKAAAKSKDITGGLPRVSELFEARKPKNAAVIAEIDGVVRFDKPLRSKERIIIQAEDGTSAEY

LIDKSKHIQVRDGEFIHAGEKLTDGVVSSHDVLKILGEKALHYYLISEIQQVYRGQGVVISDKHIEVIVS

QMLRQVKVVDSGHTKFIEGDLVSRRKFREENERIIRMGGEPAIAEPVLLGVTRAAIGSDSVISAASFQET

TKVLTEASIAGKFDYLEDLKENVILGRMIPVGTGLYGEQNLKLKEQE

>CAL34626.1 DNA-directed RNA polymerase beta chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCDMLDNKLGNRLRVDFSNISKQIEIPNLLQLQKKSFDYFLNLDNGESGIEKVFKSIFPIHDPQNRLSLE

YVSSEIGKPKYTIRECMERGLTYSVNLKMKIRLTLHEKDEKTGEKVGVKDIKEQEIYIREIPLMTDRVSF

IINGVERVVVNQLHRSPGVIFKEEESSTVANKLVYTAQIIPDRGSWLYFEYDAKDVLYVRINKRRKVPVT

MLFRALGYKKQDIIKLFYPIQTIHVKKDKFLTEFNPNDFMDRIEYDIKDEKGKIVHQAGKRLTKKKAEQL

IKDGLKWIEYPVEILLNRYLANPIIDKESGEVLFDSLTLLDESKLAKIKEQKSFDIANDLANGVDAAIIN

SFAQDGETLKLLKQSENIDDENDLAAIRIYKVMRPGEPVVKDAAKAFVNDLFFNPERYDLTKVGRMKMNH

KLGLEVPEYVTVLTNEDIIKTAKYLIKVKNGKGHIDDRDHLGNRRIRSIGELLANELHLGLAKMQKAIRD

KFTSLNADLDKVMPYDLINPKMITTTIIEFFTGGQLSQFMDQTNPLSEVTHKRRLSALGEGGLVKERAGF

EVRDVHATHYGRICPVETPEGQNIGLINTLSTYAKVNELGFVEAPYRKVVNGKVTNEVVYLTATQEEGLF

IAPASTKVDAKGNIVEEFVEARQDGETILARREEVQLIDLCSGMVVGVAASLIPFLEHDDANRALMGSNM

QRQAVPLLTASAPIVGTGMEQIIARDAWEAVKAKRGGVVEKVDNKSIFILGEDDKGPFIDHYTMEKNLRT

NQNTNYIQHPIVKKGDIVKAGQIIADGPSMDQGELAIGKNALIAFMPWNGYNYEDAIVVSERIIREDTFT

SVHIYEKEIEARELKDGIEEITKDIPNVKEEDVAHLDESGIAKIGTHIKPGMILVGKVSPKGEVKPTPEE

RLLRAIFGEKAGHVVNKSLYATASLEGVVVDVKIFTKKGYEKDDRAIKSYDKEKMALEKEHHDRLLMMDR

EEMLRVCALLSKASLNSDQKIGDKNYKKGQTADISELEKINRFTLTTLIKAYSKEIQKEYDDLKNHFQNE

KKKLKAEHDEKLEILEKDDILPSGVIKLVKVYIATKRKLKVGDKMAGRHGNKGIVSTIVPEVDMPYLPNG

KSVDIALNPLGVPSRMNIGQILESHLGLVGLRLGDQIQEIFDRKQKDFLKELRAKILEICSIPRLANEKE

FIKSLSDEELLNYARDWSKGVKFSTPVFEGVNIEEFSKLFKMAKIDMDGKTELYDGRTGEKIAERVHVGC

MYMLKLHHLVDEKVHARSTGPYSLVTQQPVGGKALFGGQRFGEMEVWALEAYGAAHTLREMLTIKSDDVE

GRFSAYKALTKGENVPATGIPETFFVLTNELKSLALDVEIFDKDEDNE

>CAL34625.1 50S ribosomal protein L7/L12 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAISKEDVLEYISNLSVLELSELVKEFEEKFGVSAAPVMVAGGAVAGGAVAAAEEKTEFDIVLTDGGAKK

IEVIKIVRALTGLGLKEAKDAVEQTPSTLKEGVAKAEAEEAKKQLEEAGAKVELK

>CAL34624.1 50S ribosomal protein L10 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTRSEKVEIIAKLEEGFKASEAIVVCNYRGLSTKKLEELRNNARENNVKVQIVKNTLANIALNNSGKTGL

VLKDTNIYLWGEDQLSVSKVAAKFEENNDKFEIKTAHIEGEVADVAKVKALAKMPSRNELLAMLLQVWNA

PITNFTIGLNALKNKKESE

>CAL34623.1 50S ribosomal protein L1 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKIAKRLKELSQKIDSNKEYALSDAIDTIKTLKSAKFDETVEIALKLNVDPRHADQMVRGSVVLPAGTG

KKVRVAVIAKDAKADEAKNAGADIVGSDDLVEEIQKGNMNFDVLIATPNLMGLVGKVGRILGPKGLMPNP

KTGTVTMDVAQAVNNAKSGQVNFRVDKQGNIHAGLGKVSFSKEQLWDNVSTFVKAINKHKPAAAKGRYIK

NAALSLTMSPSVKLETQELLDMK

>CAL34622.1 50S ribosomal protein L11 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKVVGEIKLQIAATKANPSPPVGPALGQQGVNIMEFCKAFNERTKDMAGFNIPVVITVYADKSFTFIT

KQPPATDLIKKAAGISKGTDNPLKNKVGKLTRAQVLEIVDKKIADLNTKDRDQAAKIIAGSARSMGVEIV

D

>CAL34621.1 transcription antitermination protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSTHKWYAIQTYAGSEMAVKRAIENLVKDNGIEEQLKEIVVPTEDVIEFKNGKEKISERSLYSGYVFALL

DLNTELWHRIQSLPKVGRFIGESKKPTPLTEKDINLILEKVHNRAAPKPKISFEEGENVRITEGPFANFT

AIVEEYDMVRGLLKLNVSIFGRSTPVEILYSQVEKII

>CAL34620.1 preprotein translocase SecE subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKLITYFKLSKAELRKVIFPLKEQVRNAYITVFVVVAVISLFLALVDWLMSSIVSAIV

>CAL34619.1 50S ribosomal protein L33 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRIKVGLKCEECGDINYSTYKNSKNTTEKLELKKYCPRLKKHTLHKEVKLKS

>CAL34618.1 elongation factor TU [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKEKFSRNKPHVNIGTIGHVDHGKTTLTAAISAVLSRRGLAELKDYDNIDNAPEEKERGITIATSHIEY

ETDNRHYAHVDCPGHADYVKNMITGAAQMDGAILVVSAADGPMPQTREHILLSRQVGVPYIVVFMNKADM

VDDAELLELVEMEIRELLSSYDFPGDDTPIISGSALKALEEAKAGQDGEWSAKIMDLMAAVDSYIPTPTR

DTEKDFLMPIEDVFSISGRGTVVTGRIEKGVVKVGDTIEIVGIKDTQTTTVTGVEMFRKEMDQGEAGDNV

GVLLRGTKKEEVIRGMVLAKPKSITPHTDFEAEVYILNKDEGGRHTPFFNNYRPQFYVRTTDVTGSIKLA

DGVEMVMPGENVRITVSLIAPVALEEGTRFAIREGGKTVGSGVVSKIIK

>CAL34617.1 amino-acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSILKIENLQKYYGSHHALKDINLEVKAKEVVVILGPSGCGKSTLLRCINGLEEIASGNIYIDNEKIDKD

FKEWPRMRQKVGMVFQSYELFEHLSVEENILLGPMKVQKRKKDEVLKEAKIWLEKVGLLHKIHAYPRELS

GGQKQRIAIVRSLCMNPELMLFDEVTAALDPEIVREVLEVMLNLAKEGMTMLIVTHEMGFAKAVADKIIF

MDEGKIIEENDPKSFFKNPKSERAKKFLNLFDYHNIDKNNIGL

>CAL34616.1 amino-acid ABC transporter integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLELLNTDTLLRLWQGLFVTLEISFISIIITSIGGLFLGILMSFKNTYIYAFCRLGLEFVRVMPLLVWLF

VVYFGFPRWFGWDLSSVSAAIIVFSIWGCFEMMDLVRVSLQSIPKHQYESASSLGLNTVQSFAYVIIPQA

MRRLTPMSMNLLTRMIKSTTFAYLIGAVELVKVGQQIIEFHNRNDFAPFIIYGLIFFIFFILCYPITLYS

RKLEKKWS

>CAL34615.1 amino-acid ABC transporter integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFDFILAQAPAFLTAAWLTIKLSFFGIIFSLIIGLFCILMSYFKIKILENICKLYIEFSRNTPLLIQLF

FLYYALPKFNIHLEQIPPLDLICLSVEETLRPSFACAIVGLSFLGGSYMAESLRAGFEAIRKQQFEAGLS

LGFSKFGNLRYVILPQALAISMPSISANIIFLIKETSVVSIIALPDLVNLMKSLNSLTYKTDELLFLLFM

GYLCIILPLSFILLKFEKRLLHA

>CAL34614.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKDYLELLSSVGKLKKFQKNSILFYEGEEAKNFFILLKGKIRIYKSTASDKEITLHYFNPPNFIAEMPAF

KKLNYPANAVFEEDGEILEIDFINFQNLCSENKEFNFLLISSLFDKIKILEKKLSQNALDLRTRLLKYLL

ENEKNLDTISQKQIAIDLNVRAQSLSRVLKELKISELIDTKKGRIEILNKDMIMKELW

>CAL34613.1 group III truncated haemoglobin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFETINQESIAKLMEIFYEKVRKDKDLGPIFNNAIGTSDEEWKEHKAKIGNFWAGMLLGEGDYNGQPLK

KHLDLPPFPQEFFEIWLKLFEESLNIVYNEEMKNVILQRAQMIASHFQNMLYKYGGH

>CAL34612.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKESDFEFFKKLKIRSAIDLALLLPKKIENLNPSKNPKENEICTQKITIKSVSSRKNQLFGLGFCEEW

QENISFVFFHPRAWHFGICKVGKELIFNAKLSHFNHTWQFNNPKILTSFEGFSPKYQILGLKDTKIAAFI

HKYLNYENLKESGIEDKYIHFLLNLHAYDEKSFFMFENLQNFSKDLKYIEIYNFLKRLKAKKTHFKAHQI

NVFNIANWLKDLPFSLTKDQLNALKDIEKDLHSKEAKRRVIMGDVGCGKTLVLLGAALMVYPKQAILMAP

TSILAYQLYEEAKKFLPDFMNILFIKGGKKEKDLEQNIQKANLVIGTHALIHLESHNAVLVMIDEQHRFG

SAQREKIHSLNKQEFAPHFIQFSATPIPRTLSMIQSELLNFSFIKQMPFKKDITTYCIQNEGFSKLSEKI

KEEIAKNHQIIIIYPLLSASDKIPYLSLEQAKEYWQSHYEKVFVTHGKDKQKDEILERFRDEGNILLSTT

VVEVGISLPRLSMIVIVGAERLGLATLHQLRGRVGRVGLKSACYLYTKLKEIPSRLKEFASTLDGFKIAE

LDLKNRLSGDLLDGFMQHGNEFKFFDFSKDEEILEKVKKDLAKKLPN

>CAL34611.1 zinc protease-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQYLESRGIKIPFIFEKNSDFPIVVLKLVFRNCARSYDEIAGLAKMFSRILNEGVDDKFFKDLEFRAINL

EASSGFESLEINLSCLKENFDFALKSLEKLLLKPRIEEKTLQKLKINALGELASKNSDFDYLAKNLLNAQ

IFKCKEFQSPNDGDEKSIETLSLKDLQNFYKNFIHLSDLVVILGGDLEEKQAKEDLLKLLSKLQIGKKNT

PKKYELGKNIKDEILVRPESEQAYIYFATPFFADFKDKDLYLAKIALFVLGQGGFGSRIMEEIRVKRGLA

YSAYAMLDMNMSFSRVFGYLQTKNESAKEAKKIVKELFEDFIKNGMTQNELDQAKNFLIGSTPLRYESLS

KRLSMSFNEFYQGLNLGYYKEELKLMEKVKLETINAYIKKHQELLNISFASIQNEN

>CAL34610.1 putative radical SAM domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRLDKKEALDLLHHASLTELGEMAYKRKLELHPEKITTFVVDRNINYTNVCCIDCSFCAFYRHHKEDDA

YILSFEEIGKKIEELEAIGGTQILFQGGVHPKLKIEWYEELVSWIKEHYPNITVHGFSAVEIAYIAKASK

ISITEVLKRLQAKGLFSIPGAGAEVLSDRVRDIIAPNKCDTATWLEVHRQAHKIGMKSTATMMFGTVEND

EEIIDHFEHLRKLQDETGGFRAFILWSFQSDNTALIQKHPEIMKQSSNKYLRLLALVRLYLDNFKNLQSS

WVTQGSLIGQLALKFGANDLGSTMMEENVVSAAGASYRMNQDEMIRLIRSLGENPAKRNTAYEILERF

>CAL34609.1 putative MFS (Major Facilitator Superfamily) transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNYIELLKNNKNIRILASVQFIVYFGAWFSQTGVFTLLVELNAPTWATATSAMLAFLPGVLLAPINGVIV

EKNKPKKLLLSMISIELISIFCLIFVTSLSMLWLLFILIFIRLCVASIYFQAEMSLLAKILTPQELKLAN

EMHSVIWAISYTAGMASAGIFIYFLGVKTAFLFDCILILIGISFLVRLSIPDFHQKTQSRFFTMIKEGFF

YVLNNKIIFHLILLHAFIGLTAYETLVTLLAQHQYKEVLSAALVIGFLNAVRACSLAIGPMVLSKFINDK

NLFYMYLGQGLGIILWALTQFNFYISFLGLIGAGFFTSALWAYTYTMIQKNADKEYHGRVIAYTDMIYLS

FSAIISMLMGFLFEIGLSLELITGLLGMIFIFAAFYWKWFYKKYL

>CAL34608.1 transcription termination factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKIADIIESIANEKNLNLENVREKVATALINTAKRIYGQEYEFFVDPKNLNLYQKITIVADNDERLQNK

SESFIALSKAKSEAPDVEIGDELTYECSLENLGRTAVNTLHKELEYHIQKLLEQTIFEKYKNKVGQMVFG

TVVRVDNEENTFIEIDELRAFLPRKNRIKGEKFKIGDVVKAVIRRVYTDKGIKIELSRTSPKFLECLLEA

EVPEIKDGYVNIIGCARIPGERAKIILQANGTNIDPVGATVGVKGVRINAVSKELHNENIDCIEFTNESE

ILISRALAPAIVNSVKIEDKKAIVSLNSEQKSKAIGKNGINIRLASMLSGYEIELNELSSSQLNNAISNE

EAMKNLQDLFKI

>CAL34607.1 hypothetical protein Cj0459c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILKDLAMELKLARTLINEKPKNISLEKIEEAIEKEGQKFFYFDKDNTHKQLIALVNHFEKKGVSIYHR

TVKYGLDDNDFMYEVHIL

>CAL34606.1 putative tRNA 2-methylthioadenosine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSAKKLFIQTLGCAMNVRDSEHMIAELTQKENYALTEDIKEADLILINTCSVREKPVHKLFSEVGGFEKV

KKEGAKIGVCGCTASHLGNEIFKRAPYVDFVLGARNISKITQAIKTPKFMGVDIDYDESEFAFADFRNSI

YKSYINISIGCDKHCTYCIVPHTRGDEISIPFNIIYKEAQKAIEKGAKEIFLLGQNVNNYGKRFRNEHKK

MDFSDLLEELSTIEGLERIRFTSPHPLHMDDKFLEVFANNPKVCKSMHMPLQSGSSEILKAMKRGYTKEW

YLNRALKLRELCPNVSISTDIIVAFPGESEKDFEETVDVLEKVRFEQIFSFKYSKRPLTKAATMPNQIDE

EIASRRLSTLQNRHSEILDKIVKKQENKTFKVLFEELRAGNSIAGRTDNNFLVQVEGSEELLGQFKEVKI

TNAKRMVLYGEIV

>CAL34605.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGKSFKIHCLTYIIFILQWLIFLSCKKHYKGEKVDRKAGVILFWHGKLALMPFAFRHYRQKNKKAYVMIS

HHKDGEQIAKIIKLFGLDTVRGSTSRGASSALRAAFKVLEQNDDIVITPDGPRGPYHSISDGSIILAQKK

ELKIRILNYEANRFWKFKSWDKMILPKPFSKITYSLSEPLDILSLDKEKAKEFLMKQFDKISLADQFKE

>CAL34604.1 hypothetical protein Cj0456c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLFLLKKIFPQLFISIILEDKKNIVKASIYRGNKLISSNEKTFDKSENLLEYIKNLSKHFLFYHTALFLD

AKEQGLIPSTNIQDCEHFNIGKISLQHILLNNALVYTATEHVEYYSELFEEYRGLDFLYSPFALLYYNMQ

KEKQPDDQILLYGFKQGYLLAIIVAKGNTILYGDFKIFEQELGLELELPSEDNQEIENNNDDTEVTLDNF

NEALNNKFDLLDQENNLETLDNNDNFNLDELNQFSNDMELCRYIITSIEKFYNDDKYAGVFINGILLYSE

SDININAIDFLESETFLEIKTKQINTLDLMIELMRKEVK

>CAL34603.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTYSFIQPRKKPIFTLFDKIWLGLFGFSILFILLVYFTYTIKIALINSSIDDEKQQVIVLQNQTKQNEML

YEILFDQSQIAKNFNTQNQIVKESLRNLFDIIVKTDNITLESVE

>CAL34602.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGGIVLLVLANKFQELQMKDKSLEEIDLLKLIICALSFISVCTALILFLLLPTLKNYKQANLRENSQLAI

LKAAKSKFDFSEDKISTLRSENNKSLEQFEQNFNIGNFNIFLQKYFQNVKIQETKPEKQEKYLKNRLAIK

ATMNNPRRLYDFIDALKNYNNLIKLDYPLNLKAGEQGISIDLTLKVYSS

>CAL34601.1 thiamin biosynthesis protein ThiC [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTQMNYAKEGIFTKEMQIVAQKENLSKDFLLENIACGKIIIPANINHKSLDPNGIGFGLRTKVNVNLGV

SNDCVDYSEEMKKVELAHKFGIEAIMDLSNYGKTSRFRDELVNVSKAMIGTVPVYDAVGFLEKDLKQINA

KDFLDVVYHHAKSGVDFMTIHAGINSRAAHIFKQSKRLTNIVSRGGSVLYAWMMMKDAENPFFEYYDDLL

DICLKYDVTLSLGDALRPGSTHDASDGAQISELIELSLLTQRAWDVGIQVMIEGPGHMAINEIEANMQLE

KRLCKGAPFYVLGPLVTDIGAGYDHISGAIGGAVAAASGADMLCYVTPAEHLRLPNLEDVREGIVATKIA

AHAGDIAKLPKERARDDEMSKARQEIDWEKMFKLAIDGEKAKKMFNERRPDDLNSCSMCGKMCAMNTMNQ

ILKGEDVSLA

>CAL34600.1 exonuclease, dna polymerase III epsilon subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLQQIDQIISILNKQSKPYDWVMQEFAKVEELKNFDLDLETFELLGLGLTLNKDNIFTLKTRTTKIKDE

IFCIVDIESTGGVSKGEILEIGAVKIQNSKEIGRFQSFVKVKEIPKNITELTGITYEMVENASSLAKVLS

DFRLFLKDSIFVAHNVRFDYSFISKALNECGFGILLNRRICTIEFAQCCIESPKYKLEVLKEFLGVENMH

HRALDDALAAAEIFKYCLGKLPYHIKTTEELINFTKTARIKQK

>CAL34599.1 ribulose-phosphate 3-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYVAPSLLSANFLKLEEEVKAIEAAGADLLHIDVMDGHFVPNLTFGPCVIEKISTISKLPLDVHLMVKDV

SKFVDLFISLKPKFISFHMESEVHPIRLCEYIRSQGIHPAIVLNPHTPIDSIKHMLEFVDMVLLMSVNPG

FGGQKFLPLIHEKIKELRQMIDKKNAKVFIEVDGGVNGLNASDLEESGADILVAGSYIFSSNDYKTAISS

LKLEF

>CAL34598.1 50S ribosomal protein L28 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARVCQITGKGPMVGNNVSHANNKTKRRFLPNLRTVRVTLEDGTTRKMRIAASTLRTLKKQNSK

>CAL34597.1 conserved hypothetical protein Cj0449c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLHEYRELMSELKGKDAHFDKLFDRHNELDDMIKDAEEGRTSLSSMEISTLKKEKLHVKDELSQYLANYK

K

>CAL34596.1 putative MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFGSKINHSDLQKLEEENKNLTHKIEKFQSENLELKNKITSLEQAALESKLKTDLLNVLLTGVLKNITII

QGDMLENVNKAEVISSYSKTSLAEMDELNHIANSINASLGNITESANKTRDVAGTLHRSVDEITNVINLI

KDVSDQTNLLALNAAIEAARAGEHGRGFAVVADEVRKLAEKTQKATTEVEMNINLLKQNANEMYTQSEQV

EKISIDSNAHIMSFSEKFTHLVNEAHSTNSNAVGIASEAFVSLAKLDHIAFKLNGYKEIFSKSGKQLADH

TSCRLGKWLASTGKERFGQNKSFLKINEPHEKVHENMNNAITIANTEDISKDITQHSIINKCEVAENASL

DLFNVFKEMLDESDH

>CAL34595.1 putative NUDIX hydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAFKNLKELSFEKSNYIKPKRFAYESNGRLCTWDFIESKDSVSVLLYHKELESFIFVRQFRIPLWYHQMH

DKDYVKDDDMGYTIELCSGLVDKKLSLEEIAKEECIEELGYAPKNLEKIGDFYTGFGSGVSKQSFYFVEV

DEKDKISSGGGVDDEEIEAVYVKVQDFEKKCKNMIRTPLLDFAYMWFLKEKWGKLKII

>CAL34593.1 acetyl-coenzyme A carboxylase carboxyl transferase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MASYLDFEKNIQQIDEDIINAQIKGDTEAVSILKKNLEKEISKTYKNLSDFQRLQLARHPDRPYALDYIE

LILNDAHEIHGDRAFRDDPAIVCFMGYLGEKKIIVIGEQKGRGTKDKIARNFGMPHPEGYRKALRVAGLA

EKFQIPILFLIDTPGAYPGIGAEERGQSEAIARNLYELSDLKIPTIAIVIGEGGSGGALAIGVADKLAMM

KNSVFSVISPEGCAAILWNDPAKSEAATKAMKVTADDLKSQGLIDDVIDEPTNGAHRNKEAAAVAIADYV

KKSLNELENIDVRELSANRMQKILKLGAYQEA

>CAL34592.1 3-oxoacyl-[acyl-carrier-protein] synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRVVVTGIGMINALGLDKESSFKAICNGESGVNKITLFDATDFPVQIAAEVKNFDPLEVVDGKEVKKID

RFIQLGIKAAREAMQDAGFSEELDKEEFGIVSASGIGGLPNIEKNSIICSERGPRKISPFFIPSALVNML

GGLISIEHGLKGPNISCVTACAAGTHAIGEAYKSIALGNAKKMLVIGAEAAICPVGIGGFASMKALSTRN

EDPQHASRPFDKERDGFVMGEGAGALVFEEYEEAKKRGATIYAELIGFGESADAHHITSPTLDGPLRAMK

KALNMAGNPKVDYINAHGTSTPVNDKNETAAIKELFGNNIPLISSTKGQTGHCLGAAGAIEAVVSVMVLR

DGVVPPTINQLVKDDECDLDYIPNISRKVDLKVVMSNSFGFGGTNGCVVFKKVD

>CAL34591.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MATFDDVKAVVVEQLSIDADAVKMESKIIEDLGADSLDVVELIMALEEKFEVEIPDSDAEKLIKIEDVVN

YIDNLKK

>CAL34590.1 putative transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMLFSNLIKENQKIWNAYLHHDFVKKLEDKSLKQENFLFYLKQDYIYLLNYAKCYARLALNSNTAKELRF

AMKFQNYIVEGEMELHRAILSLGINADELDIKDESLVNIAYSRYMLSVGENGDFLDMLVALSACAIGYAK

IGAEIINRLKNENLKDHPYKEWILTYGSENFQNEAKEFEDFVNSYTSSVGAQKFQKLSEIFHTVTRLEVA

FWEHSLRMELNL

>CAL34589.1 putative succinate dehydrogenase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKEYAFFPGCVLSQAAKESKISLEAIAPILGWKLNEIKGWSCCGASQAQCVDPIATLVANARNIALAEE

MKMPMLTTCSTCMLTLTKAKNTLDKGAKERINIFLAQGGMKYQGSTPITSLLWELYEDLDNLKSKVKKPL

SNLKVALFYGCHSLRPEDAFGKKESSTNPKSFESVVEVLGAKIVPFEKRLDCCGFHASYPAEKSVKKMSS

QIVNNASENQADCVVTPCPLCQMQLDIYQERFQDYTNSKARLPIIHLSQLVGLALGLSKEMVGLDYNIID

ASKIA

>CAL34588.1 putative succinate dehydrogenase iron-sulfur protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CAL34587.1 succinate dehydrogenase flavoprotein subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGEFSRRDFIKTACISVGALAASSSGVYALDDSSKMDKDINLPSCDVLVIGSGGAGLCAAAAVRKENPKL

SVVVATKMMPSRNATCMAEGGINGVTDFSNGDSYKLHAYDTIKGGAYLVDQDAALKFCELAGKAIFNMDF

IGTLFSRNEQGGVAQRLMGGASKKRCNYSADKTGHILMHSCLDDAISSGVKFLMNHELLDIGVVDGKCEG

VVLRDIQSGGIYPVLCKALVIATGGYTRIFYNRTSTPFIATGDGVAAALRAGLGFEDPEMIQFHPTGVAN

GGTLITEAARGEGGYLLNNRGERFMKNYHEKMELAPRDVVARAIETEIREGRGYGEGLGAYVLCDVRHLG

KEKILKDLPKIRHTAMLFENIDLVDTPVPIRPTAHYSMGGIEVAKFEDMGTKIAGIYVGGEASCISIHGA

NRLGGNSLADAVVTGHLAGIGATNYAKDASFGKGAKTHELAQKWQVRFKEITNNGGNGQEMYELREELGS

QNWDNMGIFRTQEKLDLLAKKLEDIQARYEKIRIPNPNEVMNTAFTDYVELGNLILLSRCACLAARNRLE

SRGAHTREDYPKRDDKNFLKHSIVNLENDELKLSYKDVVVTEFSLDGRRVQ

>CAL34586.1 putative pyridoxamine 5'-phosphate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMDLKEIAQFLDDNAPAFLATLGTCGNPRVRPIQSPLLVGDKIYFCTANTKGLFKHIKNYNDIEFCSCAK

DGTFLRLRANAVFEPNLEVKKMMFKKYPYLVNLYETPQNPKFEVFYLDHLSARMQFMNGEFKLFKA

>CAL34585.1 3-oxoacyl-[acyl-carrier protein] reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFSGKNVLITGASKGIGASIAKTLAGFGLKVWINYRSKPELADALKDEIIASGGVAAVIKFDASKEDEF

ENGVKTIVESDGELSYLVNNAGVTNDKLALRMKLEDFSGVVDTNLSSAFLGCREALKTMSKKRFGAVVNI

ASIVGEMGNAGQVNYSASKGGMIAMTKSFAKEGASRNLRFNCVTPGFIKSDMTEVLSNEIKQTYQDNIPL

KRFAEPEEVANCVAFLLSDYASYVTGDVLKINGGLYM

>CAL34584.1 2,3-bisphosphoglycerate-independent phosphoglycerate mutase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQKCVLIITDGIGYNKNSKFNAFEAAKKPSYEKLFKEVPNSLLKTSGLAVGLPEGQMGNSEVGHMCIGS

GRIIYQNLVRINKAIENKELEKNENLKKLLAKCKRVHIIGLYSDGGVHSMDTHFKAMLEICAKNGNEVFA

HAITDGRDVSPKSGLNFIKDLKEFCENLGVHFATLCGRFYAMDRDKRWDRVKEYYECLLGKAYKVPNLLE

YLQKSYDENVTDEFIKAAQNENYKGMREEDGIIFINFRNDRMKQLVEVLNSKDFKEFEREKIFENLLTMS

VYDDKFKLPVLFEKEKIENTLAQVISKAGLSQLHTAETEKYAHVTFFFNGGKEELLENETRVLIPSPKVK

TYDEKPQMSAFEVCDAVKKGIEKGEDFIVVNFANGDMVGHTGDFNATIKAVEAVDTCLGEILECAKKHDY

AFIITSDHGNCEAMQDEKGNLLTNHTTFDVFVFVQARGVSKIKDNMGLSNIAASVLKILDLEIPKEMNEA

LF

>CAL34583.1 phospho-N-acetylmuramoyl-pentapeptide-transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYYLSDLSHYAFFTYISVRAGFAFFIALCLSLFLMPKFITWAKAKNASQPIYEYAPETHKTKCHTPTMGG

LIFISSAVIASLFCIKFDNIFAISALLCLILFCLIGLIDDLGKVLKKDNHSGLSPRMKLLAQIIAGLICI

LPLYFSSELSTELFIPFYKHPLFDMEIFAIAFWILVLISSSNAVNLTDGLDGLATVPGIFSLSTLGIFLY

LSGNLNYSEYLLLPKIQGLGEVVIICAALIGALMGFLWYNCYPAQVFMGDSGSLALGGFIGFLAVISKNE

ILLLLIGFVFVLETVSVILQVGSFKIFNKRVFKMAPIHHHFEKVGWVENKIIVRFWMIALLSNLLALASI

KLR

>CAL34582.1 UDP-N-acetylmuramoylalanine--D-glutamate ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKISLFGYGKTTRAIAENLVDKFGPFDIYDDHFTETKKDTLGNLLLNPNDFDDNLSDIEIPSPGFPPKHK

LIQKAKNLQSEYDFFYDIMPKSVWISGTNGKTTTTQMATHLLSHIGAVMGGNVGTPLAELNPYAKLWILE

TSSFTLHYTHKAKPEIYALLPISPDHLSWHGSFDNYVQDKLSVLKRMNECDVVILPKIYANTPTKAHKIS

YEDEKDLAVKFGIDTEKISFKSPFLLDAIMALAIEKILLDTLSYKLLNSFVMEKNKLEELKDSQNRLWVN

DTKATNESAVMAALSRYKDKKIHLIIGGDDKGVDLSNLFDFMKGFDIELYAIGISTEKMLDYAKKANLKA

YKCEVLSKAVNEISNHLRVNEVALLSPACASLDQFNSYAERGKVFKECVNKI

>CAL34581.1 putative periplasmic ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKAFSLLEFVFIILILGIVFNLGSLYLKKDNLLEGAIQILNDIQYTQSLAMMQEGIRVDELTIAKREWF

KSKWQIYFIKSAATGYDQTYTIFLDKNGDGNANLGKTEINIDREIAVDVINHNKLMNSGQSGVISKDDEK

TTQRFNLTKRFGIEKVEFKGSCSGFTRLVFDEMGRVYSPLKNANYAYEKTLAKNNSDCIIRLLS

>CAL34580.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKIKNYKLIIILLSLDLLALLYGTSTLSISADEADIYFGEQGKSLIFSHSLLYYISHFGTFIFGQNDFG

LRLPFLFFHFLSCLLLYLLALKYTKTKIDAFFSLLLFVLLPGTVASALLVNAASLVIFLTLAILCAYEYE

KKWLFYILLIIVLFVDKSFNILFLTFFFFGIYKRNAILFTLSLVLFGASISFYGFDTGGRPRGYFLDTLG

IFAACFSPLVFVYFFYTIYRLTFQKYKNLLWFLMSVTFVFCLLLSLRQKLFLDDFLPFCVICTPLLIKTL

MQSYRVRLLVFRLRYKIFIECSIIFLIFCYFLIVANQLLYYFINNPNRHFANNYHFAKELALELKKQDVL

ELATAPSLQKRLRFYGIKNSNKFYLKALKQADKHDMDKKIVKVKLGKYEKVYQILNYD

>CAL34579.1 conserved hypothetical protein Cj0429c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQTIDQIFQTQIDIKKSTFLSFLCPFKDFKFLIETLKKEHPKAVHFVYAYRVLNDFNQIVEDKSDDGEPK

GTSGMPTLNVLRGYDLINAALITVRYFGGIKLGTGGLVRAYSDAANAVINNSSLLSFELKKNTTIAIDLK

NLNRFEHFLKTYSFNFTKDFKDCKAILHIKLNEKEEQEFEIFCKNFAPFEIEKL

>CAL34578.1 hypothetical protein Cj0428 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQVNYRTISSYEYDAISGQYKQVDKQIEDYSSSGDSDFMDMLNKADEKSSGDALNSSSSFQSNAQNSNSN

LSNYAQMSNVYAYRFRQNEGELSMRAQSASVHNDLTQQGANEQSKNNTLLNDLLNAI

>CAL34577.1 hypothetical protein Cj0427 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMAKFRIQYSAGFGHYTQNHKGFGPTIYIEEVVEFDNGKDYFDYIDFYKTYSKSDDTYFHISFLEDRPLS

DKEITIRNEYRKMRDENCKKAKEEFIANNELDVEHLPTHHD

>CAL34576.1 putative ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVEVKNLTMRFANQLLFENVNLKLVRGQRYGLIGANGAGKSTFLKILSGEIESSSGEIVFDEGLKIAVLG

QDQFAFENYTIKDAVMCANKRLYEALKEKEKLYMSEEFTDEINERLGELEIITAEEDPNYDCETRCEKIL

SSLKIKDFDALMSTLQSADKFKVLLAQVLFLGADALFLDEPTNNLDLEAISWLENELLRHEGTLVVISHD

RHFLNKICTRILDVDFKQIRDFAGNYDDWYMASTLLAKQAELKRDKTLKEREELENFIRRFSANASKAKQ

ATSRAKALEKLELEEIKISSRRDPSIVFRTNREIGNEVLEIKGIGKAYDKQLFSNLELKIEKNDKIALIG

ANGVGKSTLAKIIAHAISPDSGSIHLGATIELGYFPQDTSNLICENLKLYEWLMSEKFKDLDEIRKCLGR

MLFSGSDQEKMAASLSGGEKHRLMLSRLMLERPNFLLLDEPDNHLDLESIIALGEALYNFKGVVLCISHD

RELVSAFANRIWHLENGKLTDFRGTYQEFLGENDG

>CAL34575.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKKVILFFLMGFALLQANSLDKCDNTAVVSNLKEKIPSEIFKNLYELSGLKAQGIDYEDYAKGLKEIAK

HDGMVNYTDMIEVNSISNFDLNFDSCMATINAALKGEQRKGLWSVVYKVSNINQVKITDITYINGDFQ

>CAL34574.1 putative acidic periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKFLSICSLIAMLLSGCGSDFPGQPSDVARVQQNKYPNGNLKKEIPYNKDSRIHGLKRAFYDNGQLRAE

ENYKNGKKDGISREYSRNGQLLEEVHFKDNRGYGDFASYYENGNMRAKGKLLGYNEDGMPEFEGNYKEYY

ENGTLMCDYNFDNKGKFDGVQKRYDENGALEDEENYKNGLKNGVFREYKKGEIVREEEYKNGILVAKPKN

>CAL34573.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEGASGGSIFVTILLFILYMLPAIIGLSRKHSNWLIISLLNLFFGWTIIVWLVCLIWSFTGSFKQTIIIK

EKNEK

>CAL34572.1 putative H-T-H containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTKKSKRDMAYELDIDVSTLYNWRKYKPNLYRIVMLGFKFDELLDNSKKTHEELLHIEQTIQDEIAKFK

>CAL34571.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFLLDFLISLSFIFEISALVLSFYFKNSKIFFLTLVLLGAKLPYFYTSFFQANLFVALFLPMIFTLFCVG

KHHVLILNKKNIASITTLIFIGILSIILPRNTTFNSAGLEFHFIALDFFKPVSELGFLFFLVGLILIFIK

TFKTKEYYLLIAFFTAYFQFLFQEGAGIRYFEFASLVFCFYLLNHAYRLAFFDTLTKLPNEKSLTRFTKG

KNNYIIALLHFNELKDTKESYTKLILKQIAKILKRFRAKIFIVENDFILIFNDKNQALNHLAFLESTLKN

TEFNLENENFKPDFKLIWQESEENLDKNLQSLRARLLD

>CAL34570.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVLLSSLVAVSLLSTGLFAKEYTLDKAHTDVGFKIKHLQISNVKGNFKDYSAVIDFDPASAEFKKLDV

TIKIASVNTENQTRDNHLQQDDFFKAKKYPDMTFTMKKYEKIDNEKGKMTGTLTIAGVSKDIVLDAEIGG

VAKGKDGKEKIGFSLNGKIKRSDFKFATSTSTITLSDDINLNIEVEANEK

>CAL34569.1 putative histidine triad (HIT) family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIYENDLIYIEKEEAQVPWLKIFTKEIYKEFSDCPLELQKELFEKILFCEKAMIEFYKPEKINIASFANY

VPRVHFHVMARFKEDAFFPECMWGKQQRETIKLDLPKFEEFVKFLNSKIF

>CAL34568.1 hypothetical protein Cj0418c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQISSSYNSYDYYSSKPSFDKTNQSDSTQKDEKNLSENKDDKEKNGEQTQMVNGVELSQKEVAQVRELQS

IDRNVKAHEAAHQAAGGGLAGAASFTYTRGPDNQMYATAGEVPISMQKGNTPEETIANARQIAAAAMAPA

DPSPQDYKVAANATKMEFEARAEAMKLKAEEAKEKEEENKEKDDKNSENSLEKTDKDSKNNDKNSNFDKD

FKNLVTRTYQQNSQNNDIKFSIAS

>CAL34567.1 hypothetical protein Cj0417 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNILHANSSHRFHKCMPKEVHQIYDTLKLMEQQEGTKKSRSQKRRAK

>CAL34566.1 hypothetical protein Cj0416 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITLSSFNRYFGNNPLQTLTKIRDESIENAKI

>CAL34565.1 putative GMC oxidoreductase subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAEVLKKVDVVTVGAGWTGGIVAAELTKAGLNVLSLERGHMQSTENFNYIHDEWRYGINYGLMQDCSKDT

VTFRHDPSGLALPYRKMGSFLLGNNVGGAGVHWNGWTFRFMPYDFEIQTLSKQRYGNKLGNDYTLQDWGV

TYKDMEPYYDRFEKTCGVSGEPNPLAEKMGAFRSSPYPQEPLENTKMLKRFESAAKSSNLHTYRLPASNS

KGGYTNPDGQDLAPCQYCAYCERFGCEYGAKASPLNTVIPKAMSTGKYTIRTYSNVTQILKKDGKVTGVK

FVDTRTMKEYIQPADIVVLTSYMFNNAKLLMVSNIGEQYDPKTGKGTLGRNYCYQMNMGTTAFFDEQFNT

FMGSGALGTTSDDFNGDNFDHSKEKFLHGAMIYSVQLGTRPIQSAPLPAGAPTWGAEFKKALNYNFTRAI

TVGGQGASLPHKNNYLSLDPTYKDAFGMPLLRLTYNFTDQDRALHKFITDKTAEVAKRMQGVKSIKKGAY

LKDYSVVPYQSTHNTGGTTMGADRETSVVNTYLQHWDADNLFVVGAGNFQHNSGYNPTDTVGALAYRCAE

GILKYHKSGKSLA

>CAL34564.1 putative oxidoreductase subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQDNIIDRRSFFKLGLLGGSVVAASTIGGGAVLKAAELTHSHQASQGKSNKIRGRMFFQTQTEFDTLSAA

CERIYPKDEQGEGAIGLGVPYFIDNQLASAYGYNDREYMQGPFMEGKAEQGYQTPMQRKDIFLEGVHALE

ENAQKRYKKSFSLLKGGDQDKILSDFEKGKIQTTGFKSSYFFTLLRDMTVAGVLADPIYGGNDNKNGWRM

MQYPGAQMSYVDKIASDEFFNIEPMGLADMES

>CAL34563.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRIFLTLFLFFNSLFALSELEEGLKLYEANKFDKAYEIFKSLCEKDISKACFSLAFMHESARGVSKDLNQ

AYKFYDKACKLGLANACSNMALLLQNQGYENEALLAFNKACTLGESLSCNNIALFYEKEKDGQMASSFYK

RSCDLKNARACYQLGSLYDKGELVKASVKSALAFYSKSCTLGFGEACYLLGRYNQLEKQDLTKAKRYFGM

ACDQKHQEACAAYKELNSKDIELY

>CAL34562.1 putative ATP/GTP binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQINLLNDFIKAYENTYSVSFDDSFKGRIQELCKELNEPFMHASYALENELKELVFSLDKNVNIAIIGQF

SSGKSSLLNLILGRDCLPTGVVPVTFKPTFLRYAKEYFLRVEFEDGSDIITNIEKLAFYTDQRNEVKQAK

SLHIFAPIPLLEKITLVDTPGLNANENDTLTTLDELKNIHGAIWLSLIDNAGKKSEEDAIKANLELLGEN

SICVLNQKDKLSAEELDNVLNYAKSVFLKYFNELIAISCKEAKDEQSYEKSNFQSLLDFLTQLDTTVLKE

KFVKRKILNLCEILEDENQLFVGIFDRLLNQFQSYEKHLLLAYENFLKEIEILNHQILEQLKSISERISS

EIFASVKEKDAYFYKESKGFLKKDLYTRYDYKAPYISSDDAFLAMFYNSDVMSKEFKKIKNELYKSFEEI

KMKLKDFINILEREILLFKAEFSNIQKDHIFQSDKNFSELRAFCNASDEYFLKDFKELLFKSILELDLFF

EKLNLKAFTNYENATKLSLAFFSRKINESRVLYELDSSEFVLFYPKKSEIYERVLNELNVYEFETLLINK

PILTKIAKNFLEQSQNLIQEKNKFLDLKKAELQKRRAQILNVRESIKED

>CAL34561.1 putative ATP/GTP binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKELFQKIWQNELQFLNFDAKFQDKSKLDTAECAIILSVNKDNYERYFLLKEFQELCKKIDLRVDIFSMQ

NAQICILNLFKSGFISKQDLLKALKILEKISKNTEIFDFILQEKVQSIDQKALFQNDFKELNTINLELQK

LSFDENLKSRLQKTLEKFQNLEFNIAITGVMNAGKSSLLNALLKEDFLGVSNIPETANLTVLSYGKSEEA

KIYFWDKKEWQNILESSHFNADLKEFIDKLDKSVNIEDFIKDKPLIQNIALCELKNFSSAKNKISALIKK

IEIKSHLEFLKNNISIVDTPGLDDVVVQREIVTNEYLRESDFLIHLMNASQSLTQKDADFLVHCLLNSRL

SKFLIVLTKADLLSKKDLEEVIVYTKESLKSRLVDLDENLVEKIDFLCVSAKMASDFYKGLASKESLQKS

GMQEFENYLFNELYAGEKSKIALRAYKKELHLELKNILSEYEMQNRLIKENKQGVSEENQKLLLELQKQN

TLLKEAQDEISNSIAKLKNIDSGIDNLVLLLAKKLKERLIDEFKYLKNNAQKLNLSRILNIVDITTKDGI

NDILREIKFENIKKIEELKTNLSLKYDFLKDDFDNGFEGFKDGISKNIDSIFQSEKFALLRLKIEKLSNL

KSDLYELETNLDTVIFDTFKEFKMSEILNSLNINGAFFEFLNDKLKHYEKNQKSKLESLEKVLQSLKNQD

ANILNSFEENLEKIEKLKQLEMGLLNAD

>CAL34560.1 fumarate reductase iron-sulfur protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CAL34559.1 fumarate reductase flavoprotein subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNIQYSDALVIGGGLAGLRAAIEVAKSGQSVTLLSICPVKRSHSAAVQGGMQASLANGAKGEGDNEDLHF

ADTVKGSDWGCDQEVARMFAQTAPKAVRELAAWGVPWTRVTKGPRTVVINAQKTVIEEKEEAHGLINARD

FGGTKKWRTCYIADATGHCMLYGVANEAIKHQVKIIDRMEAVRIIHDGKKCLGVIARDLTNGQLIAYIAR

GTMIATGGYGRIYKQTTNAVICEGTGAAIALETGLCRLSNMEAVQFHPTPIVPSGILLTEGCRGDGGILR

DVDGYRFMPDYEPEKKELASRDVVSRRMMEHIRKGKGVKSPYGDHLWLDISILGRAHVEKNLRDVQDICK

TFNGIDPADEGPKGWAPVLPMQHYSMGGIRTKPTGESQWLNGLFACGEAACWDMHGFNRLGGNSCAETVV

AGMIVGDYFADYCKNNGEVIDTNVVKDFLTKEYQYLKSLVDKEGKHNVFEIKNRMKEIMWDKVAIFRTGE

GLKEAVDELEKLYKDSQDVKVHCKELDCANPELEEAYRVPRMLKIALCVAYGALLRTESRGAHYREDYPK

RDDLNWMKRTNTFWVEGETLPRIEYEELDIMKMEIPPAFRGYGAKGNIIENPLSEKRQAEVDAIREKMEA

EGKGRYEIQNALMPYELQAKYKAPNQRIGVDYE

>CAL34558.1 fumarate reductase cytochrome B subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRELIEGYLGKSIEGKKSKMPAKLDFIQSASGLFLGLFMWVHMLFVSTILVSEDFFNSVVHFLELKFVYD

NPVMSYLTSFLAACVLVVFFVHALLAMRKFPINYRQYQILRTHSKKMNHSDTSLWWVQAFTGFIMFFLGS

AHLIFIVTNADKISGDMSGDRVVSHFMWLFYAVLLVCVELHGSIGLYRLCVKWGWFEGKNVKESRKKLKT

AKWIISIFFLVLGVLSLAAFIKIGYENYQNQTQTTAMIKNYNGANYEYTI

>CAL34557.1 prolipoprotein diacylglyceryl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFWQHIYSNFNVIAFSIFGLKVHWYGIMYVIALLLALLLAKFFVRKFQLDINEKHLDSYFIWVEIGVIL

GARLGYILIYDANTMYYITHPWQIFNPYINGEFVGIRGMSYHGAIIGFLIATLLFCKKYKTNPWIFLDLV

ALSVPLAYVFGRIGNFLNQELFGRITNVPWGIYVDGVLRHPSQLYEAFLEGIVVFIIVYLARFKQSFQGE

LILVYAGAYSLARFICEFYREPDFGIGFVLWGMSMGQILSFIMFITALLVYICIKFKKVNI

>CAL34556.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYILLASSMLILAACGGTSSNFVNVSMPNFKPQVPTKVEPIDSGVSIALVPINIEQNNNYSDYFENSV

LKIRIEKEIDLLKQNLEEQIKTIAQLKGYKIVTTNPDYTLKSSISIYTEEKNVQKTSNFMSGDYVKSNLG

INFKGKIDFIDAHNPQNSTNLSSSTKLDSLVALNYPIKNDDGVNMFKTTISTVPTQLNKGLEQPAFEIDK

SFLAFYKNTLNTLYNNLPKATDIGKTIPNTNSGFNSFDGDATFEESLPQTNSNQNNTIENAPTQNIPTNP

SSTNQNNQSKNQDGVEIFE

>CAL34555.1 shikimate 5-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFLAVIGDPISHSKSPRMHNNAIKALGLDSIYTRYHLRNANCLREDFFKLGLSGANITLPFKEKALDIA

DVKDDFARNIGSANTLCLKEDKIYAYNTDALGFLEAIKDFDNIKKALILGAGGTALALAYVLKQKGVEVY

IANRSKERFKDFLAYPTYLYKNLQDFDFDLVINSTSAGLKDENLPCDRELLDRILPKAKFAFEVIYGRET

PFYRLCKEYHLKIKDGLDMLLWQGVFAFELFFEIQDKREMIKNAMQQALILK

>CAL34554.1 putative transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENQKNEFDDIILEKSNKSEKVKKILLRVIALVILFLAIMIVMKLINGSGDENTQNQSVLPSEPIATQDN

NNDTSFESMPITDNTSAEDQFEALRKQFQDEQNTTQNTTTSSSNNNDTTNFAMPDQEVPAEPTATTSANT

TPQASTPKQEVTQTAKSKEEAKKQTAVKKEKESAKQTPKKEQNANDLFKNVDAKPVHPSGLASGIYVQIF

SVSNLDQKSKELASVKQKGYDYKLYKTTVGSKEITKVLIGPFEKADIAAELAKIRKDIAKDAFSFTLK

>CAL34553.1 hypothetical protein Cj0403 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MISPMDMSLIKIIGDHYYIRRDKIVNKITHRGRLFFDKFERVDAPLNLNVMREHAAKKIVVAHDLITKDN

KVENIVFDYNGFNAERFYHRAQLILREEGFINFTAYKTKTPGHLHLYIHKGHTALNEGYSLASKLSMMFA

SKMPVEWKVFPSMDVPREFNILILPYEVYQKERGSSWSKHM

>CAL34552.1 serine hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLEMFDKEIFDLTNKELERQCEGLEMIASENFTLPEVMEVMGSILTNKYAEGYPGKRYYGGCEFVDEIE

TLAIERCKKLFNCKFANVQPNSGSQANQGVYAALINPGDKILGMDLSHGGHLTHGAKVSSSGKMYESCFY

GVELDGRIDYEKVREIAKKEKPKLIVCGASAYARVIDFAKFREIADEIGAYLFADIAHIAGLVVAGEHPS

PFPYAHVVSSTTHKTLRGPRGGIIMTNDEELAKKINSAIFPGIQGGPLMHVIAAKAVGFKFNLSDEWKVY

AKQVRTNAQVLANVLMDRKFKLVSDGTDNHLVLMSFLDREFSGKDADLALGNAGITANKNTVPGEIRSPF

ITSGLRLGTPALTARGFKEKEMEIVSNYIADILDDVNNEKLQENIKQELKKLASNFIIYERAMF

>CAL34551.1 lysyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDNILEQQRIEKAKELKNLGINPYPHFLEKEMSLKTFKDKFSYILEQVEKRDESVNAVVAGRLKLLRIA

GKSIFANIEDEDTNLQIYFSKDSVGEELYTILKKNLEVGDIVLVKGFPFVTKTGEFSLHASEVKLATKAI

VPLPEKYHGLTDIEQRYRKRYVDMIMNVEVRKDFLVRSKVVSLIRHFFENKGFLEVETPMMHPIAGGANA

KPFVTFHNSLGVERFLRIAPELYLKRLIVGGFEAVFEINRCFRNEGMDLTHNPEFTTIEFYWAYHNYKDL

MDLTEELFALLLDKLNLGKTIEFDGKMINFSKPFERITYKDALCKYGGLDRDLIEDKEKILTKLKADGFE

ANEKLELGHLQAELFDNYVEEKLINPTFVIDFPISISPLSRRSDEDSQIAERFELFICGRELANGFNELN

DPLDQYERFLKQIEAKNAGDEEACEMDEDFVNALGYGMPPTAGQGIGIDRLVMLLTNKKSIRDVILFPAM

RPLKSELKEKE

>CAL34550.1 ferric uptake regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIENVEYDVLLERFKKILRQGGLKYTKQREVLLKTLYHSDTHYTPESLYMEIKQAEPDLNVGIATVYRT

LNLLEEAEMVTSISFGSAGKKYELANKPHHDHMICKNCGKIIEFENPIIERQQALIAKEHGFKLTGHLMQ

LYGVCGDCNNQKAKVKI

>CAL34549.1 colicin V production protein homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFYWFDAFILGFTLLLGLKGIINGLIKEIFGLLGIIGGVFIASKYATQAAEFIQSTFYKIENQSLAGFA

GFLAILIIFWIACLLAGNFLSKLIKLSGLGFLDRIGGFIFGGAKIFLIFAILVFCVARIDFLNDKLDNFA

KNSYTLNLLKETGSFIMNQPLTENSLDHASEKLQDIVSDLNNTQKGE

>CAL34548.1 Glu-tRNAGln amidotransferase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIDEKLLSKLEKLSALQITKNRNETIAQLSEIVNFVEKLNELDLDSQEITVSTIKGGAPLRIDEIRNSN

VIDEVLDCAPKKQEHFFVVPKIIE

>CAL34547.1 hypothetical protein Cj0397c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGLKDNLKAVKNELNTEEQFIENFIKGERFIRKYKFYISAVVIILVAWFAGNFIISKINDYKTKEANEIY

ANLIQDPSNKNLLEQLKNKNTNLYAIFLLKENINDFNNTTLQNELKQIYNNAQTNTLLKNIIALSLGDKS

IFLKNYDKLLEAYKLLEQNKIEEANVLLSQIKENSSLNQIAKNLKHYQGITQ

>CAL34546.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLTLFCLIFLCACGTKRQYFEPKQTDGDLSHNSNLKSKIVDWNLVSAKLSNNTTILKNNISIDKFK

LPKNYMLLAYQDGEYFTADNNGNLKIFDNSYNEIYNFQFDASVVGVASNGDDLALVLANNTIVLANRSLG

IKFSQTLTSAPAQDSRTANPIFLDNIIVYPTLDGKILILSRNNLQIIKDVVISAENFFNNVIHLSVIGDK

LIAATAKKIIVVSPARTLYLDADIKDVALSDDGIFILEKDGTIIKTDYNLRKIAEKKFEFAIFVKSNIYN

NYLYIFEKTGYLIKMNLNLDNAQVFKLSEAVDKISFMGNGKFYYGDKILDLL

>CAL34545.1 hypothetical protein Cj0395c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKILEQTIKALKLNLKPYDLSMLTRKKSYICAKDQNNILFMYTGKTKFLMKDALFLENLAQQININNKY

FFSMASLCSKAKNHLEMKGFNIYVAL

>CAL34544.1 putative transcriptional activator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLLCDIGNSNANFLDDNKYFTLNIDQFLEFKNEQKIFYINVNEHLKEHLKNQKNFINLEPYFLFDTIYQG

LGIDRIAACYTIEDGVVVDAGSAITIDIISNSIHLGGFILPGIANYKKIYSHISPRLKSEFNTQVSLDAF

PQKTMDALSYGVFKGIYLLIKDAAQNKKLYFTGGDGQFLANYFDHAIYDKLLIFRGMKKIIKENPNLLY

>CAL34543.1 putative malate:quinone oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQQEFDVLVIGAGISGAALFYELARYTNIKNIALIEKYNTAATLNSKGTSNSQTIHCGDIETNYTLEKA

RKVKRTADMIVKYGLMQNAQNNFMFSHQKMALAVGDIECDYMKKRYEEFKELYPYIKFFDKAKIKQIEPK

VVLGEDCNQDRPENICAMGVESGEVFTTVDFGKMSINLIEQAQKQNKNTFVAFNQEIIHIEKKDDIFILK

TSNHQEYHAKSVVVNAGAHSLYLAHKMNLGMDKSCWPVAGSFYLTKQKLLNGKVYMVQNPKLPFAALHGD

PDLLADMNTRFGPTALVIPKLERYHGLKSVPEFFEALKLDKTVLKVTFNMFKDATIRNYIFYNYLFELPF

VDKSLFVKDAKKIVPSLKASDIYYAKGFGGVRPQVIDKTKGELMLGEASITETPGIIFNMTPSPGATSCL

GNAERDAKLVCNYLGMEFNEDKFSSELL

>CAL34542.1 pyruvate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKKTKIVATVGPASEKEEILRQMIINGVNVFRLNFSHGTHEYHKKNLDTIRRVAKELHTRIGILQDISG

PKIRTGELKEPFELKKGDRLDFYRETILGEKIAQNHYKISINQKSILDMLKIDEYIYLYDGSIRAKVVNI

DNQKIETIIENDGFLNSNKGINFPNTKINIDVITQKDKNDLLWGIKNEVDFLAISFVQNAHDIDEVREIL

AQNNAKISIFAKIEKFDAVENIDEIIKSSDGIMVARGDLGIEVPYYKVPNIQKEIIQKANNASKPVITAT

QMLFSLAKSKTATRAEISDVANAVLDGTDAVMLSEESAVGIDPANAVDIMCQTIIETEKRYPYNKFNDFN

DLDNTDKIMRSSAHLATDLNADAIFSLTSSGKSAIKIARYRPNIEIIAVGHSEKTLNSLSIVWGVNPAIL

VNKSNELTELLKDSVRSSVEKGFMDEDKCYLLTAGFPTGVEGTSNLIRILNKEQIAYYLQ

>CAL34541.1 hypothetical protein Cj0391c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQVNTFSNIASMARTQVSNKKADDAKENTKDKNVQSANSSKDVDKNTLEKLNALGGKGITQIYLVQFQQQ

TMNAVIGSSNAQTGLDSLLNGANLDTAKSILTNIDFASLGYSSKNPLDMNTDELQQLVSEDGFFGVENTA

NRIADFVIKGGGDDVEKLKKGLEGMKKGFEQAEKMWGGELPQISQNTIDAALKKVSDRIDELGGKTLDLQ

A

>CAL34540.1 putative transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAEQEDIILEKPEDGLNQPRLDESLEGFKGQEGQAPEDEEFASLPEELPQENSESGFKFTRESAPEDVST

FEEVESQEPTPWYKDRKFMSLVGLSLGIICILVFTLFYLTFSEGKIKPDIIASKPLEQPVIMPDESYKYN

DMQRIDGMIQKANALYLKGEVEQALKVYEQVAVYNESLSNYNLGVSQMNENKFQEAFESFKKAIANGENQ

SVAAINAAVCALKLNDKEKFRYYIDLAQVYLPKEGKSKLYDYYLSLINYYKGYYPEALQMLQRTDVEPYS

DVAKYLSAKIYAKMDFDSKAIQQLNSQGNFESSLSLGLLYARIGEYAKAKVALSTAMKIERDFNQSLAAL

TLVDIKTGNYQDMLARLQNSYDNDKDRYKILDTYKIQVRLNKDLFNIAVAQNSFSKDLLKKQKDQFDLLF

YFAPYQVFDSKQAALYIKKANVTDFVDDSTDAGIYLNISKALSSTNVKIANIINYALNQKLRLANQEFQK

LIKDYPEHSILHYNLALTYAQMQNYELAYKHFSSSYHLNPKNYLAGAFAMFCAKLIDIDTTKLYNEILDN

IAADSNFKANMQKSMLFLVNNNYISMLPYLDETKKDTPLSLIFEAIVAKNNNLNNQVDVKIAKLRSELPE

DILANILYFNSLNSNLNIKEYAQNAQIHFKNLKLDYRSVFGGPNIAREFYVNLMHIAGLLNLERQKFKEL

INVSGAKDEGILQTLAYLDIFAQQYEEAYALYNSLIDDYGAKDTKTLFLAAVAAVGANNPNSAIALLQLS

KLTDKNNKESKAALGMLYQEVKNYEAAISQYKTLPNNFKSEFFTFDINNN

>CAL34539.1 seryl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLDLKNLQNNFDEVAKKLKNKKVDENILKKLAELFASLKKEKIALEEFQAFQNKFSKELATAEDKESLKA

KLSENKSKINEQSAKVNALENELEEIAHAIPNIPDECVPVGEDENENVELKKVLNPPSFDFTPKEHFELG

ESLNWLDFMRGVKISQSRFCVLKNEGALLSRALVNYMIDFNRSRGFEFVNVPFLVNGATMFGTGQLPKFK

EDMYKVDDEDLYLISTSEIPVTNLYSGEILASETLPIKMTCYSACFRKEAGSAGRDTRGIIRQHQFEKVE

LVSITKPEQSDSVFNEMLECASDLLSSLGLAHRHLMLCTGDLGFSAAKTVDLEVWLPGQNKYREISSVSN

CRDFQARRAKIRYKNEQGKNELVHTLNGSSLAVGRTLVAIMENYQDKEGKIHIPDVLKKYF

>CAL34538.1 tryptophanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRVLTGLQPSGDLHIGNYFGAIKQMVDAQEKSQMFMFIANYHAMTSSQDGEKLKQNSLKAAAAFLSLGID

PQKSVFWLQSDVKEVMELYWILSQFTPMGLLERAHSYKDKVAKGLSASHGLFSYPVLMAADILLFDTRIV

PVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKMSKSYQNTIDIFSSEKTLKKQ

ISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEAREK

YNELLEKPSHLKEILDFGATKARKIAQEKMQKIYEKIGL

>CAL34537.1 shikimate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKAKNIVFIGFMGSGKSTLARALAKDLDLVFLDSDFLIEQKFNQKVSEIFEQKRENFFREQEQKMADFF

SSCEKACIATGGGFVNVSNLEKAGFCIYLKADFEYLKKRLDKDEISKRPLFYDEIKAKKLYNERLSKYEQ

KANFILNIENKNIDELLSEIKKVIK

>CAL34536.1 putative GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQSIILIGKPNVGKSSLFNRMARQRIAITSDISGTTRDTNKTQIHIHSKKAMLIDSGGLDESDELFKNVK

KNTLKVAKESDIILYLVDGKLAPDDEDRQFFYSLKKLGKPIALVINKVDNKKDEERAWEFANFGVKEIFN

LSVTHNVGLDELYEWLEKFLHEEFLIPDEEENLEDFLEYYEEGKEFQFKEVDQNHIRVGIVGRVNVGKSS

LLNALVKQERSVVSSIAGTTIDPVNESVVHKDKVIEFVDTAGIRKRGKIQGLERFALNRTEKILSHSQIA

LLVLDAHEGFNELDERIAGLVAKHYLGVIIVLNKWDKSEMDFDKTVKELRLDRFKFLAYAPVISVSALSG

KRVHVLLDKILQIFENFTQKIQTSKLNTLIENATRAHPLPHDYGKLVKIYYAVQYDLAPPKIALIMNRPK

ALHFSYKRYLQNQIRKEFNFEGVPLVIASRKKGSKENDES

>CAL34535.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKVIKHNLGIYFMILACLDFALMGACAKILSKEMSSIEIMFFRNIIGIFFIVYLLKRSKAHKEGGYFWL

LVFRGVVGTLSLYMFFYNVSNITLGGAFAFQKTAPIFITLIAFVVFKENIGIKGWIGILIAFGGVLLIAQ

PWVHNLNHSGFDLKNSVIGITSGFLAALALTSVRELRKSYTTEQIAFSFILLGTLMPLISMISAEFFEPQ

HLDSLHLDFILAPFVMPSLTAWLIIAIMGTLGTIYQIHVTKAYGIAKQAGVVAGVSYLDVVFSMIVGIIL

GDNLPSTMVFLGIIGIIFGGLILVKNKGKK

>CAL34534.1 3-deoxy-8-phosphooctulonate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKMILIAGPCVIESKDLIFKVAEQLKNFNENPNIEFYFKSSFDKANRTSINSFRGPGLEEGLKILQSVK

DEFGMKILTDIHESNQANPVSEVADVLQIPAFLCRQTDLLVAAAKTKAKINIKKGQFLNPSDIKYSVKKV

LQTRGIEDEGYEAAQRNGVFVAERGASFGYGNLVVDMRSLVIMREFAPVIFDATHSVQMPGAAGGSSGGK

SEFVEPLARAAAAVGIDGFFFETHINPCEALCDGPNMLNLTRLKNCVNTLLEIQNIIKENK

>CAL34533.1 6,7-dimethyl-8-ribityllumazine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNIIEGKLNLDSNTKIAIINARFNHIITDRLVEGAKDAFLRHGGKEENLSLILVPGAFELPYALKKAIES

KKFDAICCVGAVIRGSTPHFDYVSAETTKGIANVSLNHNIPVSFGVLTTDTIEQAIERAGSKAGNKGFEA

MTTVIEMLNLSKEL

>CAL34532.1 transcription termination protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MATRHQVRQSVISLLYAFELNSQNNVFVDEILDEKKIRNEQKNFTLNLYNGILDNLNNIDETLNSFLNDN

QITALGHVERAILRLGAYELLFTDTPSAIVINEAIELAKELANDNSPKFINGVLDALIKAKK

>CAL34531.1 orotidine 5'-phosphate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEELKKVDDFKIFLDLKFHDIPNTMAD

ACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSALTSFDEENFFSIYRQKIEEAVINFS

KISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQKRVANLAMARENLSDYIVVGRPIY

KNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEEWIKTRPDKEHALKEFYAKCGIKY

>CAL34530.1 hypothetical protein Cj0380c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNYQQLECDYFNLYNQFLSVDFQISLFEKDHKGLIKDFIFFYYQILKQKDLSYLLEVRNKISLKVYNYMQ

EHSTSPKDLSLICLRENKHIEFFQIFYKALAYFVAFRKKLDGEQKIKNLISNINDCFGYHFLNSDFNNLQ

NFQKSDLFTLPEKHLKYFHFAMIHLCFMVLNPLNFKDSNRHLDKAINYLVDGTFEIYELIFKEYFLLFSK

DKELKDELRKLKKLEFKILMQETSKIKLLNHYKEFCEEIFYNIELEKITQN

>CAL34529.1 putative molybdenum containing oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLITPEKLYKQRRNFLKLGAGALISSSVLASKLSALNFTSDTNPNKLEISDEELATNYVNFYEFSTDKRK

AVSLAQNFNTQNWKIDISGEIEKPLTLSMEDILKFPLEERIYRFRCVETWSMVVPWVGFELRRLIEMAKP

TSEAKFVKFTTLLDKSQFPDQDALFPTIDYPYVEGLRMDEAMHPLTLLAVGMYKKALKPQNGAPIRLVVP

WKYGFKSIKSIVKIEFTKEQPKSTWESYAPSEYGFYANVNPNVSHPRWSQANERALGDFFTKPTLMFNGY

EKEVASLYKNMDLKVNF

>CAL34528.1 putative ferric reductase-like transmembrane protein. Functional classification-Membranes,lipoproteins and porins [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQTKYFKFLAYFSFIISLIYGFYHIIKAFDFVKEAYIYTGIFALIFLNLSLLFSLLKFKKTKNYPKILGI

FAAFWAILHFLNYFIFDRNAQILRLFDDISHRLLEAIGFIAFLIIFLMLLSSFKIFKKLSKIRKLGYLCL

ILASYHYFLTPKIPMFWEWSALIIALFYFIVRYTKTLKS

>CAL34527.1 putative AAA family ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKLKNFLILKNIEDTQIYKELKCAKNEALILRELCRNYVVSISSINAFTLLSTIFGNDKYLYLDALEDL

KKLIERGFVNQNSSFFKSLENNKTQTLTLALLQSELSLSEYFLEFLEAKPRLNFEKQEAYADYLEYLKDE

FARIQLYERLSFIQKSAYNSEIKNQIKLYERHIKERLKKSKFYNVLADIFKEYNLEHKEQIIFLALLKEE

YALSNESSISREMNSLLSLISENDLERHKNKKLLQENAPLLNLIECDEYLNAFGDISKSFFIIDEILQRI

INFEPKQSKKIKIESVLKDQDIFELIEPSTDINDIIMPENTKELLENILKQQDKKVLERLHSWGIKSNKN

IEAKIIFYGPAGTGKTMSALAMAKSMKKSVLSFDCSKILSKWVGESEQNVRKIFDTYKNIVQTCKQSPIL

LLNEADQFLSTRVDGSSGSDKMHNQMQNIFLEQIERFSGVIIATTNFLESLDSAFSRRFDYKIEFKKPDF

KDRLKIWEKFLPKKALFEKDFDINILSNYELSGAQILMVVKNTALKVAVSKDGVFKIQDFIESIQKELNS

SFDKSKIVGF

>CAL34526.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFFLLVFCFVNLALAKVYKGELHFYHLQDKEIFAIVYDNAPMTPLFDRDKNQTSSSFLIVDDINGNLEI

PLVKINDFWQDERKKYKINSSKMLTYDNKNFQGENLGTTTLELVETQDGIRIKRSLDFIGFNDDFKEFHP

VHKGVFSFEQIRQKPIFLQDGKISFEEWYYFYEDGMSRAILELNNFVYDINAHAFVKLNDLYNTENQKFQ

NLLHEKLKNTCDECFEDLQNLQFNNNFLLNNGKLKICYLPFEGHFLDENICVEFNEDELKEFKK

>CAL34525.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKHCLALCFVFFLCACSVKNQNFSSQSLMVLIASPMIKINDTAFLKKENNALNLEVYKLGQAFFELKIKD

KICINAVCYDKQVFNQKFFKNVYYDDILSDILKANPLWQGKNLEKTDCGFEQNLKAKNYEIFYQVCDNKV

SFFDKISHTKIILTHIQN

>CAL34524.1 conserved hypothetical protein Cj0374 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MASEHSFDISAALDKQELKNAFEQAKKELDSRYDLKGIKCEIDLSEKESIFKLSSSSEGKLDVLKDIVIS

KLIKRGINPKAIKELSRESGAMFRLNLKANDAIDSENAKKINKVIKDSKLKVNSSIRGEEIRVAAKQIDD

LQAVMKLVKELDLELNISFKNLK

>CAL34523.1 putative D-2-hydroxyacid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIVCLDAATLGDYDLSVFEKFGSLQIYTTTNKEQTIERLKDANVAMTNKVVIDKDVIDACKNLKLILET

ATGVNNIDIEYAKEKGIIVKNAAGYSTMSVVQHTFAFMFAFLNQVLYYDKWSKEGKWCESPIFTDYSRIL

NTLSGKKHGIIGLGTIGKEVAKISKAFGAEIYYYSTSGANKNADFVHLELKDLLKTCDIISIHAPLNEKT

KNLLAFEELKLLKDNAILINVGRGGIVNENDLAKIIDEKNIRVGLDVLEIEPMMKNHPLLSIKNKENLII

TPHVAWASKEALNALMDIVYNNLKEWIENGK

>CAL34522.1 putative glutathionylspermidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQLLQVDKLQKDYLENIGFSWHTDEDGSDYISNKLVCVKESEANAYYEAVNELYDMFIAAAQEVINNDRF

DELGIPFNLIDAIKMSWENEVHWHLYGRFDLAGGLDGKPIKLIEFNADTPTALFESAILQWALLKQNGMD

ESAQFNSIYESLMDNFKRLITLDESVEGFEEHYQGWKILFSSVAGSKEEEITTKLLAHIANEAGFQTNFS

FVDEVEFSEEGIFKEGENYEYWFKLIPWEDIAIEEGELAMLLTQIMRNQRAIILNPAYTLLFQSKGILKI

LWELYPNHPLLLETKDTPLEGKNYVKKPVFGREGANISIIKDGKTLHENVGPYGNNKAIYQEYVEFNSCE

NEYYQAGVFFAYEGCGLGFRKGGLVLDNYSKFVGHIIKD

>CAL34521.1 putative flagellar motility protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIKKIIQIGMIGGLAAVAGGALAGCGSNNDNADTLNQAANAQGAFVIIEETAPGQYKIKDQYPSDETR

VVLKDLNGTERILSKEEMDALIKEEAAKIDNGTSNLTKDNGQISSGGLSLGETLLASAAGAILGSWIGSK

LFNNQNFANQQRGAFSNQSAYQRSVNSFNKAGTTSSASSAKKSGFFGGGSKATSSSSSFGS

>CAL34520.1 30S ribosomal protein S21 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPGIKVHPNESFDEAYRKFKKQVDRNLVVTEVRARRFFEPMTEIRKKQKISARKKMLKRLYMLRRYESRL

>CAL34519.1 putative ferredoxin domain-containing integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQGHITNYTKKRYFVYLIASIIIFSLPFIRINENHFFLLSFDHSKLNLFFISFSTQEFYLMPFVLIFLFL

FIFFITTLGGRIWCAWSCPQTIFRVIYRDIIQTKFLKIRKNINNKQKEYERQYFKKFLGVIIFYFISLVA

VSNLLWYFIPPEDFFNYIQNPGEHLLLLGILFCASLLFTLDITYLQEKFCVYVCPYARIQSVMFDHDTMQ

VIYDEKRGGLIYDGHTKLHKKPPEGECIGCEACVSICPTHIDIRKGMQLECINCLECADACSKVQSKFNR

PSLINWTSAKAIETRSKVHYLRFRTIAYFIVLLIALLALIIMGSKKESMLLNINRSSELYNISNVKGELV

ISNAYTFLFQNTDSKPHEYYFTANLEGINDGIEIIRPNKPFKLKAGEQVKKIVVIRATKNLANNDKKDVI

FPLHIKAYAKDNEKISVFRKSIFVYPKSTLIKDKNELK

>CAL34518.1 transcriptional regulator CmeR [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNSNRTPSQKVLARQEKIKAVALELFLTKGYQETSLSDIIKLSGGSYSNIYDGFKSKEGLFFEILDDICK

KHFHLIYSKTQEIENGTLKEILTSFGLAFIEIFNQPEAVAFGKIIYSQVYDKDRHLANWIENNQQNFSYN

ILMGFFKQQNNSYMKKNAEKLAVLFCTMLKEPYHHLNVLINAPLKNKKEQKEHVEFVVNVFLNGINSSKA

>CAL34517.1 periplasmic fusion protein CmeA (multidrug efflux system CmeABC) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLFQKNTILALGVVLLLTACSKEEAPKIQMPPQPVTTMSAKSEDLPLSFTYPAKLVSDYDVIIKPQVSG

VIENKLFKAGDKVKKGQTLFIIEQDKFKASVDSAYGQALMAKATFENASKDFNRSKALFSKSAISQKEYD

SSLATFNNSKASLASARAQLANARIDLDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYAD

FFISDTDKLNLVRNTQNGKWDLDSIHANLNLNGETVQGKLYFIDSVIDANSGTVKAKAIFDNNNSTLLPG

AFATITSEGFIQKNGFKVPQIAVKQNQNDVYVLLVKNGKVEKSSVHISYQNNEYAIIDKGLQNGDKIILD

NFKKIQVGSEVKEIGAQ

>CAL34516.1 inner membrane efflux transporter CmeB (multidrug efflux system CmeABC) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFSKFFIERPVFASVVAIIISLAGAIGLTNLPIEQYPSLTPPTVKVSATYTGADAQTIASTVASPIEDAI

NGADNMIYMDSTSSSSGTMSLTVYFDIGTDPDQATIDVNNRISAATAKMPDAVKKLGVTVRKTSSTTLAA

ISMYSSDGSMSAVDVYNYITLNVLDELKRVPGVGDANAIGNRNYSLRIWLKPDLLNKFGITATDVISAVN

DQNAQYATGKIGEEPVTQKSPYVYSITMQGRLQNPSEFENIILRTNNDGSFLRLKDVADVEIGSQQYSSQ

GRLNGNDAVPIMINLQSGANALHTAELVQAKMQELSKNFPKGLTYKIPYDTTKFVIESIKEVVKTFVEAL

ILVIIVMYMFLKNFRATLIPMIAVPVSLLGTFAGLYVLGFSINLLTLFALILAIGIVVDDAIIVVENIDR

ILHENEQISVKDAAIQAMQEVSSPVISIVLVLCAVFVPVSFISGFVGEIQRQFALTLAISVTISGFVALT

LTPSLCALFLRRNEGEPFKFVKKFNDFFDWSTSVFSAGVAYILKRTIRFVLIFCIMLGAIFYLYKAVPSS

LVPEEDQGLMIGIINLPSASALHRTISEVDHISQEVLKTNGVKDAMAMIGFDLFTSSLKENAAAMFIGLK

DWKDRNVSADEIAMELNKKFAFDRNASSIFIGLPPIPGLSITGGFEMYVQNKSGKSYDEIQKDVNKLVAV

ANQRKELSRVRTTLDTTFPQYKLIIDRDKLKHYNLNMQDVFNTMNATIGTYYVNDFSMLGKNFQVNIRAK

GDFRNTQDALKNIFVRSNDGKMIPLDSFLTLQRSSGPDDVKRFNLFPAAQVQGQPAPGYTSGQAIEAIAQ

VAKETLGDDYSIAWSGSAYQEVSSKGTASYAFALGMIFVFLILAAQYERWLIPLAVVTAVPFAVFGSFLL

VYLRGFSNDIYFQTGLLLLIGLSAKNAILIVEFAMEERFKKGKGVFEAAVAAAKLRFRPIIMTSLAFTFG

VLPMIFATGAGSASRHSLGTGLIGGMIAASTLAIFFVPLFFYLLENFNEWLDKKRGKVHE

>CAL34515.1 outer membrane channel protein CmeC (multidrug efflux system CmeABC) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNKIISISAIASFTLLISACSLSPNLNIPEANYSIDNKLGALSWEKENNSSITKNWWKDFDDENLNKVVD

LALKNNNDLKLAFIHMEQAAAQLGIDFSSLLPKFDGSASGSRAKTAINAPSNRTGEVSYGNDFKMGLNLS

YEIDLWGKYRDTYRASKSGFKASEYDYEAARLSVISNTVQTYFNLVNAYENENALKEAYKSAKEIYRIND

EKFQVGAVGEYELAQARANLESMALQYNEAKLNKENYLKALKILTSNDLNDILYKNQSYQVFNLKEFDIP

TGISSTILLQRPDIGSSLEKLTQQNYLVGVARTAFLPSLSLTGLLGFESGDLDTLVKGGSKTWNIGGNFT

LPIFHWGEIYQNVNLAKLNKDEAFVNYQNTLITAFGEIRYALVARKTIRLQYDNAQASEQSYKRIYEIAK

ERYDIGEMSLQDYLEARQNWLNAAVAFNNIKYSYANSIVDVIKAFGGGFEQSEDTSKNIKEESKNLDMSF

RE

>CAL34514.1 hypothetical protein Cj0364 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKAKIVQNLNALFKQRAEFYSYFDENIAKINNTEVFDFKNAKNLNPEEVYKQFYHFDYAIRKLLPAIYK

AYEITDADLDKDF

>CAL34513.1 putative oxygen-independent coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLFQNLALKYSHTMMEKSLQKGFNVELLKQPEEKIPKQDKSYMLYAHVPFCHTFCPYCSFHKYYYDENL

AKVYFQNLREEIKIMKNKGFDFTSMYVGGGTTLIDEEELLKTLELCKKLFNIKEISCESDPNHIDPNKLS

MFKGIIDRLSCGIQSFDDETLKKVARYNKFGSSKELQEKISKALGILPIFSIDLIFNLPGQNEKQLLNDL

EIAKNLAPQQITTYPLMKSNLTKDNIAKSLGVSIKDNEFTYYQIIREFFKDYTQNNGWSFSLEKNKLNDE

YVSSHHEYLGVGSGAFSFLDGELLINAFNLNDYAKFIQEKQNANIAKACFDKKEIIKYVFLTGIFSGKIE

IDKFNKTLNCNLEKELFIELLGLKTSGAIIKDQNALIATEFGQYLFVVLMKDFYTGMDLVRAVFRDDKRL

KNKDYIDIMKENIDPLNSASMEFKAETN

>CAL34512.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTEWINDYYFWIKWVHYLAFVSWMAGLFYLPRLFVYHAEHKDNKGFVEVVKIQERKLYYYIQTPAMIVTL

ITGSLMLHAHKEVLMVGAGFMHVKLTCVTLLIIFHIHNYYCLKALANDTSTKSGKYFRIYNEFPTIMFII

IALMMVVRPF

>CAL34511.1 lipoprotein signal peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKTFKFIFYFWGAFVLVFALDQWVKSLTLAGFRWQSEYLDLTYALNTGVAFSMLSFLEHNLKYLHLALI

GVLFIYLFWQRTLLKTHSIAFGMMLGAGVSNLLDRFIHGGVVDMFFWHKWFNFAIFNVADVMINISVALI

LIQEIFKKRKKDDRMD

>CAL34510.1 phosphoglucosamine mutase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLFGTDGVRGKAGEFLDSFLAMRLAMAAGIYFKDKSITNNILVGKDTRRSGYMIENAIVSGLTSIGYNV

IQIGPMPTPAIAFLTEDMRCDAGIMISASHNPYYDNGIKFFDAHGNKLSEDIEKKIEEIYFDDKLIQASK

VDMEKIGQAKRIDDVIGRYIVSIKNSFPKDLTLKSLRVVLDVAHGAAYKVAPTVFKELGAEVIVMSDKPN

GLNINENCGALHPANLAAEVKRLRADVGFAFDGDADRLVVVDEKGEVANGDSLLGVLALYLKEQGKLQSS

VVATIMSNGALKEFLNKHGIELDTCNVGDKYVLEKLKANGGNFGGEQSGHIIFSDYAKTGDGLIAALQFS

ALMLSKKKSASSILGQVKPYPQLLTNLKIAEKKDLDKIKGLKELKKDLENKNINTLFRYSGTENLIRLLL

EARDIKLLEKEMKNVVEFFKKALNG

>CAL34509.1 putative cytochrome C551 peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVKSLLIASLVAFSSLNAASLIDEAKNSGLVALPKDQKGVDEILKQNGVKASEFTLEKAELGKKLYFEP

RLSKSGIISCNTCHNVGLGGTDGISTAIGHKWTANPHHLNSPTVYNAVLNNTQFWDGRAGTLADQAKGPI

QADPEMATPAKLAVEKISSLPEYVSEFKKIYGKSGVNFDNIADAIANFERTLITPSRFDKFLEGDEKALT

KEEQKGLKLFIDKGCVACHNGVNLGGNMQAFEVAGKYKFANLGDFKGDANGMVKTPTLRNVAETAPYFHN

GAIWNLKDAIKEMGSVQLGIKISDKEAKSIETFLKSLTGTKPAIVYPQLPISTEKTPKPEL

>CAL34508.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENLIIYAFIYLLGSIPFGLILAKFFAKTDIKKEGSKSIGATNVLRVVKEKNPKLAKKLAIATIILDFAK

AAIPLLTLKFLHYDQALLWSVAVLAILGHCFSIYLLFEGGKGIATGAGAMIVLLPLEVLTAFIVWVVIGK

IFKISSLASLAALLAFVVSSFIFNYDLEIHTHAPVFIIAFIIVYKHLPNIKRLIFKEECKVI

>CAL34507.1 putative dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQSHIKIKFHFKCIIGILDFERRKKQKIIIKLKAKANEFLNYAEVITKIKTWYKKEEFYTLEESLDFVSL

NLKKDFPNLTNLNIKIFKPHIIKNATVGVKLKKKY

>CAL34506.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRILVIEDEISLNKTIIDNLNEFGYQTDSSENFKDGEYFIGIRHYDLVLANWTLPDGDGAELVNTIKHKS

PRTSVMIMSSKTDKETEIKALKAGADDFVKKPLDFDILLARIEARLRLGGTNVIKIEDLVIDPDEEKITY

KGQDIELKGKPFEVLTHLARHSDQIVSKEQLLDAIWEEPELVTPNVIEVAINQIRQKMDKPLNISTIETV

RRRGYRFCFPKKS

>CAL34505.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLLITKDCVCCDACREECPDEAIYENSPIYVIDPDLCSECVNDFSEPACIVACPYECIIPDPDNVETIE

ELKLKHRDREF

>CAL34504.1 phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKTAVVDLGSNSIRMVIFEKTSRYGFYTTCEYKRKVRLGENAYNNGKILQEEAMQRAEDALAFFKQCA

LKHKCKKIFIVGTSALRDAPNSKNFIKRIKDNLSLNIRCIDGKSESYLGGLAALNLLSPFKDGTTLDIGG

GSSELCLIKNNRIISCISLDIGTVRLKELFYDTGKMDSLEEFIKPILEQIPKEFCNQNLIAIGGSLRAIS

NSIMQKNSYPLKNLHDFRYMLDEEKGHILKIFNSNLDSLINFGIKKDRFDTIKEGIFIFLKIAEKIKAKQ

VITSGVGIREGVYLQDLLRPKITFPPNFNPSLKCLQDKFLQSKQKNKTPHFALQIFTTLKNLHKLNDNYK

HTLLNAAKLCHIGEYLNFYFANEHSAHFVLGGLNYGFSHKEKALIASIIKLNGKKVNPYNLEPYKQLLPN

IHTISWLNFILCLAKTLSANEDKIDFAFANNTLYIYQENKILNLPKDELKKIAKPATIALAINQKI

>CAL34503.1 putative transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRLLVLFFLILPLYSVELISYNIYDRNDRVDLMLSFDNAYNGKISQKKEKNLTLLTFSDLTYSKDELKEL

NSQLVDKISISSKNNNTYIMLQNKQNINLELSSINDKFGVRIRAIEQGKANIESAPTTTANNSQELMPKP

KSTSLEGYDYTNYILVMLILVILLIVLWWFKKTMVYKNNNVSRDFTMIFQRFLDKNNQLVVFDHANKRYT

MIIGNSNVLLESIEIPEEQTIKHTEKTEKNFDSFFEENKKRIQNLIEQRQKGKKS

>CAL34502.1 flagellar motor switch protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDDIEFNIHHGLLQSYEDILDITVDFVSELGTTNMSVAELLKLEVGSVIDLEKPAGESVELYINKRIFG

KGEVMVYEKNLAIRINEILDSKTVLQYFKKEI

>CAL34501.1 hypothetical protein Cj0350 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKILEYSITHFCEHILRLRIEAAQDISGELYGASIPIMGKSEGECNFYLFFPKEFLKKIAEILINDEKF

KEDDWCDLTKECANQIIGYAKNLLNDAKGDDEYKLGIPEYLGKVDFSEIVLDEALTYKFENCYFRIGYCK

>CAL34500.1 tryptophan synthase alpha chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVDFRKFYKENANVAYTVLGYPNLQTSEAFLQRLDQSPIDILELGVAYSDPIADGEIIADAAKIALDQGV

DIHSVFELLARIKTKKALVFMVYYNLIFSYGLEKFVKKAKSLGICALIVPELSFEESDDLIKECERYNIA

LITLVSVTTPKERVKKLVKHAKGFIYLLASIGITGTKSVEEAILQDKVKEIRSFTNLPIFVGFGIQNNQD

VKRMRKVADGVIVGTSIVKCFKQGNLDIIMKDIEEIFKK

>CAL34499.1 tryptophan synthase beta chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAYYGDFGGQFLPESAMFALNELEGAFLKFSKDKLFKKELNELLKTYVGRPTPLYFARNLSKKYQHEI

YLKREDLNHTGAHKINNAIAQALLAKKMGKKKIIAETGAGQHGLATATAAALLGLECEIYMGATDVQRQA

LNVYKMELLGAKIHAVQSGLKTLKEATTAAIQAWVGDIKNIFYVVGSAVGPYPYPKMVMHFQSIIGKECK

MQLQKLNKKVDYIIAAVGGGSNAAGIFYDFIKDENVKLIGIEAGGLGIDTPYHAATLNKGKTGIIHGMKT

KVLQDDLGNILPVHSVSAGLDYPGIGPLHAFLFESKRAQYHAISDEECMQALKLLCKEEGIIAAIESSHA

LAFLEKLCPTLKKKSVIVVNLSGRGDKDMQMIRDYKKGVIYG

>CAL34498.1 N-(5'-phosphoribosyl)anthranilate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKLKICGIKDEKNAKDLAFLNIDFFGLIFAKSPRRVSLEQARNLSAIFHEKDKKVVGVFVDENLEQILR

CIKEAKLDGIQIYRTITKEEFEILKVQNVFVWQVISVENSLDLKSEIFANLVLFDAKGILKGGNGISFDW

TLLGSYTKDFILAGGIGLDNVHKAVKTGAKILDLNSKLEDEKGLKDINKIKQILKELKK

>CAL34497.1 anthranilate synthase component II [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILLIDNYDSFVFNVKSMLEQLSNDEILVRRNDAISLSEIKNLNPTHIILSPGPKHPSQSGICLEIFKAR

LNIPVLGICLGHQALALAFDSLVVKMQEPMHAKNSLIKQCRENELFSNLPSNFSVMRYHSLEVKQLSDEL

EILALDEKGVIMALGHKNLPYYGVQFHPESYFSEYGLQLFSNFLKQDIKKPQKQENPLSFYLQKMSENHF

LQSDDFEQICKIIMSKDYEILQVVALLILITEKSLNEKSLSAFVRQILRYSQTFSDESEMIDICGTGGDG

FKSINVSTTSAFILAALGVKVAKHGNRAISSSSGSTDVLEALNITTPNTLESVLKQLNNQGLSFLHAPFF

HPLVGELKEIRSRLGVRTVFNVLGPLLHPNLKLKYQLMGNYHAPVHRLLIEVLKNLGRKKALVVRGNDGM

DELSICDESKIYELCEGEILEYSICPEQFGFKRAFHSEIIGSSAYDNAKDLKDILSGRMQGAKFDLVVLN

AMFALYTANKASSPLVAKDMILEAIYSGKVIEYFKEYQAYAKA

>CAL34496.1 putative anthranilate synthase component I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFVKNVNFYYRQILEKFENSYFAEDLTKVIIGIDCDYLDANELSFSEFKAKYYEALSKNKICDFAGFFGV

FSANFVSLFEKIPLSSKKNYDFPLFLFANAKAYLIYEKNSKMFFKFGASKYFEYLKDDIEPMKKKQKNDF

EILNSLEDEKNDFLKMCEKAKEYLLSGDIFQVVLSKQLCIKHQVNAFDYYESLSALNPSAYMFYFPSKYG

VVLGSSPEFLLKIKKREIYLAPIAGTRNLENNCDLLALEKDLLSDEKELSEHKMLVDLARNDASKFGTQT

RVENLFSIIKNKFVMHIVSEVYANMKEDASIFDVIEAVFPAGTLSGAPKIRALEITSELEDCDRGIYGGA

VGFLNFNEDITLAILIRCAFFTQDKAYLASGAGIVLQSESQKEYAEICAKRKALLVAFENLKKENQ

>CAL34495.1 hypothetical protein Cj0344 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFQNIIKYKDFIIFILNLKQNLYLLIKINLDFKNFHKSLNF

>CAL34494.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEITDLPYLIIGIISGIASGLFGIGGGMIIVPSMFALGASAHHAIGISVLQMIFAAVFGSYINYKKKNLN

LKDGIMIGFGGLIGASFSGMLLKALSDVALTSVFLAVSCIFFIKYAFGIKENIVQNQRSVWVKNVILFIA

GAFTGIFAISLGIGGGLLIAPILAYFLGYDSKKVVSLSLFFVIFASVSGIISFSNSGVIDSEVIHKGILV

GIASMVGVFIGIKIIEKMHISAHRKILLCVYALSILGTTHSLLNKLNFINF

>CAL34493.1 excinuclease ABC subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNDTIKIIGARENNLKNIHLEIPKNKLIVFTGLSGSGKSTLAFGTLYAEGQRRYIESLSAYARQFLDKVG

KPDVDKIEGLTPAIAIDQKTTSKNPRSTVGTITEIYDYLRLLYARVGIQHCHRCGQKISSMSVSDIVSEI

LKFPKGAKIIIYSPLIREKKGTYADLLENLRNKGYVRAQIDGVLVRLDEEIELAKTKKHTIKLVIDRLEI

QEDLLSRLASDIEKGLQESFGEIEIEVLNHEEINLNKHYHFSEHSACFDCKISFVPLEPLSFSFNSPKGA

CEACDGLGIRYTLDMKKIIDENLSLENGAVKIMYGFNKSYYYKFLIAFCEQNEIPIKIPFMQLNEVQKRL

VLYGNAKTIEFLWKRNRLKRTFEGVVKMAYEMLKDEKDLAEYMSEKICKDCGGHRLKPESLAVKVAKKSL

GEILDMSIEDSTAFFADEKNFSYLSEQQKLISKPILKEINERLFFLYDVGLGYLSLGRDARTISGGEAQR

IRIASQIGSGLSGVMYVLDEPSIGLHERDTAKLIKTLRNLQQKGNTLIVVEHDKMTIEEADFIVDIGPKA

GKFGGEVVFSGTYKELLKSKSETALYMNGKKQISQLQNRTQKEWLELKNVNINNIQDLSVKFPLQNLVAI

TGVSGSGKSSLILQTLLPFAQEELNRAKKVKKLGGVQIEGLEKLDKVIYLDQSPIGRTPRSNPATYTGAM

DEIRNLFAATKEAKMRGYKAGRFSFNVKGGRCEKCSGDGEIKIEMHFLPDVMVVCDTCGGKRYNDATLEI

KYKGKNISEILNMSVLEASEFFTAVPKIKQKLDTLVKVGLDYLTLGQNATTLSGGEAQRIKLAKELSRSD

TGKTLYILDEPTTGLHFEDVNKLILVLQHLVDLKNSVFVIEHNLDVIKNADYIIDMGPEGGVKGGKVIST

GSVEKVAKEHKKTRSYTGYYLDLELKNTQKS

>CAL34492.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDFLYNDISYLGLFMVCFLSSTLLPLASEAFVLGFIKLDFNPNLVLIVATLGNTLGSLSTYALAYFGKE

KILEKYFSKSLKKLENFNANFAKFGSIFAFFTFLPLVGDLFALGLGFAKYSFLKTIFFILLGKLSRYTFI

IFIANSF

>CAL34491.1 putative nucleoside hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRLILDTDIGNAIAGANTDDGLALALILSSKEIKLEMLSTVCGNVPSLVAYSVAKDLFQRLNLNIPVYLG

ANEALKEPSKAWRQRLDESVKNFKLEYLWENIKSPEILENINPDAIFKMGELVSKNPKEISICAIGPLTN

IAMTMKIFKDFDINLKELFIMGGSFDMPYYTKDTNFGFDPEAASIVLNSRAKITLIPYNATMQTLLTHED

LKELQGKNILCDFIVETLGVWIDYASKTRGTKGTWIHDALTIACALDSSIADFDECYADVICDSSLARGM

SWRCFREPKMSMGVDLSTKNCVKILKNVDNARLLKLIKERLLKGVCYENYESITT

>CAL34490.1 putative MFS (Major Facilitator Superfamily) transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTNQQIDGIADKNFNTPEGRKVFKKAVFSCWLGTAMEYADFALYGLAAATIFSEVFFPEQTPVIALLLSF

VTYGIGFIARPIGALFFGHLGDKHGRKNVMMATIALMGISTTLIGFIPSYAVIGVWAPICLVALRFMQGF

GAGAELSGGTVMLAEYAPSKRRGLVSSVIALGSNSGTLLASFVWLLMVQMDEASFKEWGWRVPFMGSILI

ALFAVYIRFHVKETPVFEKQKNEMMKLRLNNEKHMKKDERSFWQRSRAFWTMVGLRIGENGPSYLAQGFI

VGYVTKILLLDKSVATTAVMIASLVGFLVIPLAGYLSDKFGRCITYRMFCLLLMIYAFPAFMLLDSKNEI

IVILTIIVGMSLASLGIFGVQAAWGVELFGVKNRYTKMAFAKELGSILSGGTAPMVASALLAYYGSWWPI

ATYFVLTAGIGFVTTFFAPETRGRDLNKIEDAI

>CAL34489.1 DNA polymerase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTLTIVDTFGFFFRLYYALKGFKNSQGQASGMISGFANFIYSLKNEYKSDYIVFALDSKGKTFRSEIDP

NYKQNRTPPPPELLEQIPICIKMIEKMGFISVSQEGYEADDIIASFVKTCENRDIFVRIITQDKDLYQLI

KDGKTSIYSPISKNDYDEAACLEKYGVKPNQIRDFLALCGDSSDNIPGVKGIGAKGAKTLLDEFGSIEGI

YENLTLVRNERSRNLLLEGKENAFLSKKLASLYDNLEVQNLIEKATYPDEEPLLKILEILEHYELNTLLK

KLRQNPDNKDKNLGFKATLVQDENKLFEILNTLDKESIIAFDTETTGLDTKEAKIVGFSFCMNENEAFYV

PLTHNYLGVGEQISLQSAKKAIEVIFNHFVIGHNLKYDFKIIQNNFDLNLPQKYADTMILAWLKNPSLRV

NMDDLALRLFNYETLHFESLVKKGENFASVELEKACKYAAEDAYITLRFYLYFLKNLETPLLELAKNCEF

DFIKIIMMMEENGIKLDTNALEILMKKFENEIKNLSEEIYTLCEDRFNLNSPKQMGDILFEKLKLPSGKK

GKTGYSTDEKVLNILLDKHPVIAKILDYRELAKLYSTYCEPLLKLALKDKNSRIYSSFLQTGTATGRLSS

KDPNLQNIPAHGQYAKDYKSCFVAKDGFSFISLDYSQIELRILAHFSEDEKLLNAFANDEDIHARTAIMI

FGESNYETRSVAKSINFGLIYGMGYKTLSQNLKIEANLAKSYIEKYFENFTSIKKYFEKVKNEAKQNGFI

VTLSGRKRYFDFENAKPMQIAMYERESINSILQGSAADVIKLAMLEINKELNEDKKLILQIHDELIFEVK

DDLCENFVKKTRDIMENIVKLKVKLKTSSSIAKNWGDLK

>CAL34488.1 putative flagellar motor proton channel [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDLSTILGMVLAVTSISVGDILEGGNPLHVVHLSSFLIVMPTAAFCAMTSTHKKIVKAAYKELKVVFKGS

GVNLPERIAQLIEFAIIARRDGLLALESRTSEIENEFLKNAMMMLVDGKSFEEIHESMEIQTEQLEEHYK

ECAEYWIVFGETCPTMGLVGAVFGLILALKLLDNPQAMAAGISGAFTATVTGIFGAYALFAPWGKKLKAN

GMDLVKEQIVITEAIKGIAEGANPRDLEAKLFNFLSHDDPRISQFDKG

>CAL34487.1 putative flagellar motor protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKKHKCPECPAGEKWAVPYADFLSLLLALFIALWAISKTNPAKVEALKTEFVKIFDYTSTQTVKEESKT

QEKYKGAAKEESDELKSLKQMTMTQQETIKRLQAALDQSDNQVALNLPSKVEFERGSAQIVSADIQDYLK

RMAELTTYLPPQAKIEIRGYTDNSDSIIRSYELAYQRAENVLKYFIEGGANLKNISIKSYGLNNPINGNP

QTLENNRVEIYFKVDTADTSTQKSVLELINKIGTKAP

>CAL34486.1 flagellar biosynthetic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAGEDQEKTEEPTSKKIEDARKEGNVPKSQDAAAIVTLIIGVTITLFMMSFMGERIVNLYRYYQSFIGVE

FDLRIIQAIMIKSIFEVLIILAPIVLSIMIAGVLGNIMQFGFIFTTKPIMPNLGKINPLKGLKNLFSLKK

IVESIKIILKVGIVFTIAFIVLLKFMQELPRVELYTMVAQLTWLRDRAIVLAAIVIVAFLIIAVLDVFLV

RFQYFKGLRMSKQEIKDEYKQMEGDPQVKGRIRRLQMEAARRRMVQDVAGADVVITNPTHYAVAIRYDTG

KEQAPRVVAKGVDFLALRIKQVAYENNVVVYENPPLARELYKACDVNDLIPREMFKAVAEVLGFVYNTNN

KSRLAGQVKKGN

>CAL34485.1 alkyl hydroperoxide reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIVTKKALDFTAPAVLGNNEIVQDFNLYKNIGPKGAVVFFYPKDFTFVCPSEIIAFDKRYQEFKNRGIEV

IGISGDNEFSHFAWKNTPVNQGGIGQVKFPLVADLTKQIARNFDVLYAEAVALRGSFLLDADGTVRHAVV

NDLPLGRNIDEMLRMVDTMLFTNEHGEVCPAGWNKGDEGMKANPKGVAEYLGKNEAKL

>CAL34484.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAVKITDICIACGSCIDECPVNAIVDDTNNPEGEDRYYVYANKCVECVGHNDQPACASACPTDGCIVWSA

VESGQPSRDNIGADMRSGDTPVFA

>CAL34483.1 nucleoside diphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMISGPV

VVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>CAL34482.1 hypothetical protein Cj0331c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIPFSKINTKEYPFKLNLENIIFEGNLVKINPKLVKINAIMQGFIYRPCDSCGTELELEIKENLELFAS

DGIFKDEANELSNTIEFFDGHIDLIEVAISELEAYLSDYFYCINCNN

>CAL34481.1 50S ribosomal protein L32 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAVPKRRVSKTRAAKRRTHYKVSLPMPIKDKDGSYKMPHRANPTTKEY

>CAL34480.1 putative fatty acid/phospholipid synthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINIAIDAMGGDFGEKPIIEGVLKALETKPFNAILVGNSKILKPLIPKKLEQYIQYEEASEIFSMNGNAT

DALKNKETTIYKAINLLKEKKVDAVVSAGHSGASMSLATLKLGRLKGISRPAIATLMPNIVNKTLLLDVG

ANTDCKAENLFQFAIMGEVYAREIMQIQKPRLALLSNGEEECKGNELTKESHQLMKKIPNFIGNAEGRDI

FNGEIDVLVCDGFDGNVILKACEGVATAIFQLLKNEVKQSFISKIGALLMKPSFKKLKKHTDWQEYGGAP

LLGVNGCVIISHGKSDSRAIKNAIFQAINFSQSHINKFIENELGKYNA

>CAL34479.1 3-oxoacyl-[acyl-carrier-protein] synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKASLKSIASYIPEKILSNADLEKMVDTTDEWITRRTGIKERRIASENENTSDLGTKAALKAIERANLK

PEDIDAILVATLSPDYFTMPSTACKIASNLGLVNISAFDISAACSGFIYLLEQAKALVESGLKKNVLIIG

AEKTSSIMDYNDRSICILFGDGAGAGVVSLDNENHILDVHTASNGNYGDLLMTQRSQKSSLCQTLSMQMK

GNEVFKIAVNTLSNDVVEILAKNNILAQEIDLFIPHQANLRIIKAVQEKLNLSDEKCVITVQKYGNTSAA

SIPMAMNDAYEEGRLKKGNLILLDAFGGGFTWGSALLKFGGENF

>CAL34478.1 putative endoribonuclease L-PSP family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKRFDECDRMSQIIVFDKYFKTAGQVAFEPSGDIKKQTKEALAELDALFEKIGANKGDLIQIQIWLANM

QDFDAMNEIYDAWIKNYPKPVRACVGSALAEGYLVEIQAFGKLREN

>CAL34477.1 phosphoserine aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKINFSAGPSTLPLEILEQAQKELCDYQGRGYSIMEISHRTKVFEEVHFGAQEKAKKLYELNDDYEVLF

LQGGASLQFAMIPMNLALNGVCEYANTGVWTKKAIKEAQILGVNVKTVASSEESNFDHIPRVEFSDNADY

AYICSNNTIYGTQYQNYPKTKTPLIVDASSDFFSRKVDFSNIALFYGGVQKNAGISGLSCIFIRKDMLER

SKNKQIPSMLNYLTHAENQSLFNTPPTFAIYMFNLEMDWLLNQGGLDKVHEKNSQKATMLYECIDLSNGF

YKGHADKKDRSLMNVSFNIAKNKDLEPLFVKEAEEAGMIGLKGHRILGGIRASIYNALNLDQVKTLCEFM

KEFQGKYA

>CAL34476.1 exodeoxyribonuclease VII large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTPTELNLKAKALLETHFDDIVLSGEISKITLHGSGHWYFDLKDERSSIACAMFKGANLKVGFKPAVGDF

LELCGSVSLYPESGRYQFIATSMKKAGFGDLEAQFLALKERLQKEGLFDPRFKKSLPKFPKKVGIITSKT

SAALQDMLKLIHQKEYFLAKIYIFDALTQGNNAPFSLIQALKKADDMDLDVLIIARGGGSREDLFCFNDE

NLAREIFKAKTPIISAIGHEIDYVISDFVADFRAPTPSAAIDTLFYSKLDIEQSLDLMEEKLMQLWNYKI

QNYENLLLNLSKFFKFNSLPKIIDEKIKQSHNIEKQLNHLLANQMRYNELKLDKLQNAYLQHENFFNKSK

KFICIRKNGKIANLEDLKSDDIVILSSQTSQKEAKIL

>CAL34475.1 ubiquinone/menaquinone biosynthesis methlytransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKQEKIIEMFNQIAPTYDKANRILSFGADVAWRKKACQRVMSLYLKKDLKIADIACGTGDMIEIWQESA

LKMEKNILNIKGIDPSSGMLNVAKEKFPNVEFIKAGAQNLPLESQSLDILSISYGIRNVVERQKALSEFA

RVLQKDGILVVLEFTKREKGGFIAACRDFYLKNILPSIGGIISKNKSAYEYLPNSIEGFLSKKEFILELK

NAGFEMLDYKSFSFGVSSMFIAKKL

>CAL34474.1 hypothetical protein Cj0323 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVYEIQKNFLLSDCTLLENLKKDNIPFRNSKFETFYTQITSNHSVKFQSFCNEFYKITKFNNSILEQNQE

EKISKKKFEKARKKIIGKSIKKERFEFKFCSLKSYIDIYEEPKICILKIFFPTLDSSNEFKIPKDFKIQK

ELHHDLNSKHIVLYGFEYQNFDIEKYFKIIEKNQNFSLDFPNYINAYDGFRIFLFYLFKKLKFYWTLSLE

RKDKQSLCEFLFYSRSLYIVLSSMNTILDKNLSNILALKFKDITKKTQDILASENSNQDLLLFLSDEKIQ

DLFNDFDFFIKENSFYEGDCKDRFFKQLVALELRKKIILFRKNILKNFDLELFENSFFELAIFLEYFYHF

LEIKNLNKLYEKYSKDRDKNIFSKIINNKNKFCKLLKKSSKNLKIYKG

>CAL34473.1 peroxide stress regulator [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MELLQMLKKHELKATPQRLCVLKILKRHEHPNIDELYIEIKKEYPSISLATVYKNLNTLQEQGLVVEINV

LNQKTCYDIYEEEHIHVVCTKCGGIEDLSFKDAKLYEYQEHLEKKIGNLVNHLSVCAYVDNCKKCH

>CAL34472.1 L-deoxy-D-xylulose-5-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKFAHTQEELEKLSLKELENLAASMREKIIQVVSKNGGHLSSNLGAVELSIAMHLVFDAKKDPFIFDV

SHQSYTHKLLSGKEEIFDTLRQINGLSGYTKPSEGDYFVAGHSSTSISLAVGACKAIALKGEKRIPVALI

GDGALSAGMAYEALNELGDSKFPCVILLNDNEMSISKPIGAISKYLSQAMATQFYQSFKKRIAKMLDILP

DSATYMAKRFEESFKLITPGLLFEELGLEYIGPIDGHNLGEIISALKQAKAMQKPCVIHAQTIKGKGYAL

AEGKHAKWHGVGAFDIDSGESVKKSDTKKSATEIFSKNLLDLASKYENIVGVTAAMPSGTGLDKLIEKYP

NRFWDVAIAEQHAVTSMAAMAKEGFKPFIAIYSTFLQRAYDQVIHDCAIMNLNVVFAMDRAGIVGEDGET

HQGVFDLSFLAPLPNFTLLAPRDEQMMQNIMEYAYLHQGPIALRYPRGSFILDKEFNPCEIKLGKAQWLV

KNNSEIAFLGYGQGVAKAWQVLRALQEMNNNANLIDLIFAKPLDEELLCELAKKSKIWFIFSENVKIGGI

ESLINNFLQKYDLHVKVVSFEYEDKFIEHGKTSEVEKNLEKDVNSLLTKVLKFYH

>CAL34471.1 putative flagellar assembly protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVNRSNVISGGASDQHVVEGYRFKVISEFDNHTGEKKHTQTPDEENTNISLNDEKPVEENQVIASTQAVM

ETQIPTFQPSFVEDLLKKTDEMSSNIIKLQMQIESQENEFNNRLNSELENAKEKFTKEGYEKAKEEFQKE

LSDFKDKYLKSIAKLDNACENLENFIEKNEKELADTAIDIAKEVILKELELNSSKIAYALAKDLIGELKG

ASAIELKVNAEDYEYLKEQFDQNAHIKISLDDAISKGSVVIISDAGNIESNLNSRLTKIKKMVNNE

>CAL34470.1 flagellar motor switch protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKLSEEQKMVYDDLSMPEKVAIFLIQLGEDATTSVFSHMEIDVITEISRYIAMAKNVDRSVATAVLEEF

YTLLQSNQYIKSGGLEYAKEILFRTFGPEIANKILEKLTKSMENNQNFAYLAQIKPQQLADFITKEHPQT

IALILAHMDSIHAAETLEYFSDELRAEVVIRMANLGDISPSIIKRVSAVLESKLESLTSYKVEVGGPRAV

AEVLNRLGQKASKSTITYIEQSDERLAETIKELMFTFDDIQKLSTQAIREILKVADKRDLMIGLKGASEE

LKQKFLANMSTRASEAFLEEMGFLGAVRVKDVEDAQRKVVEVVQKLAEQGLVQTGDADEMIE

>CAL34469.1 flagellar M-ring protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFKNMLHQIGQLYQNLTRKQRIVIAASIIVVVGFLVFLALFRGSGSNANNGYAVLVENVSPSSSAAIVA

KLEQNNIPYKLESENKILVPQDQVYRQRMFIASEGLIKDSRVGFEAFDTQAFGATNEEQKVKYQRAIEGE

LARTIETLEPIRSAVVHIAFPKDSVFTERQIPPTASVVVNVREGLKLTRKQIDGIKNIVSAAVPKLTKEN

VKISDQSGVPLDEQEAYEDDLVRAQIKFKSDQEKALEDKIIENLAPFAGGMDKVKVSVNIDFDFSKQESQ

SEIYDPNPIVRSEQTLNEERTGRKDPEIQGVPGAVSNIGPVEGLDNKGQIDTYKKNQVTTNNELSKTITN

TKKQFATVLRTSAAVTIDGKYQDVVDENGDVKSEYVPLTKEELASVESIVKNTINFSATRGDSVVVQNLP

FHRESIRVESKVKTFYNRFVEPFIPPVKYFIAAILLFIFYKKVIAPFTQKMLEDVAAQEEMQQGPNAVLD

DAEDALEKFNAARKKVEEQLGFGDNFNEDSIQYEVLLEKLRGLVSDKGEEIAALLQNLIQNDSEFGEKDM

>CAL34468.1 histidinol-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFNEFLNNLSNYEPGKDIEVIAKEYGVKEVIKLASNENPFGTPPKAIECLRQNANKAHLYPDDSMIELK

STLAQKYKVQNENIIIGAGSDQVIEFAIHSKLNSKNAFLQAGVTFAMYEIYAKQCGAKCYKTQSITHNLD

EFKKLYETHKDEIKLIFLCLPNNPLGECLDASEATEFIKGVNEDCLVVIDAAYNEFASFKDSKKHLEPCE

LIKEFDNVLYLGTFSKLYGLGGLRIGYGIANANIISAFYKLRAPFNVSNLALKAAVAAMDDDEFTEKTLE

NNFSQMELYKEFAKKHNIKIIDSYTNFITYFFDEKNSTDLSEKLLKKGIIIRNLKSYGLNAIRITIGTSY

ENEKFFTEFDKILR

>CAL34467.1 chorismate mutase/prephenate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPNLEEFRNKIDAVDDKILDLLNERMTYVKSIGELKQSSGGSIYRPERERAIINRLKNANLGLLDQNAIE

AIYQEIFAVSRNLEMPQTIAYLGPEGTYTHQAARSRFGAMSRYIALANIEDVFKELSNKEAKYGVVPIEN

NTEGAVGITLDCLGKYNELKIFGEIYMDIHHSFVGINENLKEIKRIYSHPQGYNQCRKFLESHELSAIEF

VPSKSTANAAYLASQDKYAAAICSRIAAKLYNVPVLFDKIEDNAANKTRFLILSDIKNPKMPNCKTSILA

HTAHKPGGLSFLLEQFKKENINLTKLESRPVKSKEFLHSFYIDFEGHIDDENVKKALKDIQEIVWLGSYL

SGEKDEI

>CAL34466.1 putative HAD-superfamily hydrolase, subfamily IIA [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFFLDVQGTLISDHDKSLIHGAKELIDFLNAKNLPYLIITNNTKKLDFLEKLQQKGLVIKENAYIDPFSV

LKHLLRPCKVAAFGADEFVKSLENLGFELDFVNPSAVLVASYDDFKFKDFATMIELARREVRFIAMHETS

IYKKDGRPYPGVGSIMAMLKNAIDFEYEVVGKPSIAFYKEALNLIRRQNSKIDFEDIKIISDDFRGDLLK

AKELGMKTLLVLSGKISDTKGLDTDLLDGVYPSVFEFLKDLKCQI

>CAL34465.1 diaminopimelate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDYKQLKQEFNTPFYIYNFDFIKERFLNLKEAFKARKSQIFYAVKANSNLSLLQMLANLDSGFDCVSIGE

VKRALKAGAKAYKIIFSGVGKTKEELRQALEYDILYINLESEAEMMLLESVAKELNLKARISIRVNPNVD

AKTHPYISTGLNENKFGVEIDIARKMYLYAKNSSFLEPVGVHFHIGSQLLDISPIHEAAAIVAKLVRELK

ALQIDLKFFDIGGGLGVAYEKNECEPDLYDYAQGILAQLHGLDLTIGMEPGRYLVAKSGEFVCSVLYEKQ

NKTKRFVVVDGAMNDLIRPSLYEAYHEIILPYNQGEESLCDVVGGICESGDFFAKARSLPSTQSDDIMVI

KNTGAYGFSMSSNYNTRNKVCELALEEGQVRLIRQRENFEDQIALEEKFLKA

>CAL34464.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWIFFRFISGIYLKNFFIIFFSLLGFYCGIDLLLNFKDLPKAANLDLLYVMFLSFSAVPYVLPISLIFAL

VVSLISMIRANEFVSLYALGLSRNYVILFPFLWALFFCCIYIGLNFTSFAYANDYKRNILKNGTIMNQSG

EVFLKFNNNFVYISKINNGQNSAQNIKIFNINDLNLSSFASAKNAHFEGESWILRDGNITLLPKNYELAN

DGLKIQDFSELKSLEGFKPKIIEGVASNSDYSISDALESFELFKAQNVNTDTLKINLYKFVFTPFFAPFL

MLIMYYFFPVIARFFNLAFVTFIAFVVTLMIWGVLFLLTRLSENSVIASEIGIVVPIIILGCLSAYMYYK

HR

>CAL34463.1 peptidyl-tRNA hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILVVGLGNIGVEYENTRHNVGFMLIDLLLKESNFTNLTNSKFKGELFKIGSSLLLLKPSTYMNNSGLSV

KAVNDFYKCERMIVIHDDIDINLGALRFKKGGSSGGHNGLKSIDTLCGNDYERVRIGVGKGENVISHVLG

KFKSEEEITLSKVLEHAKKALLELIENDDLSAISSKYSLKA

>CAL34462.1 putative 50S ribosomal protein L25 (general stress protein Ctc) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEGIVRESIGRKAAKALKRDGYLIANIYGKGLENINAAFKVNEFIKEVRKKTTLIFDVKVGSQTLSVVV

VDYQKDPVTAELKHVDLKVAQKGVISKYMVPVKITGTAIGLKNKGVLIQSKRRLKVKCAAENLPNFFELD

VSKLDVGDALLVRDIVVPAGVTMIDADRVAVVGVEKAR

>CAL34461.1 putative efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEKFNINIAWFLIILGGIIECFWVSGLKYSTEIWQYILTAIGVCISFTCFLKACERLEVSITYSVFVGI

GTIGVVLNEMFIFNEAVSIIKLVLIAILLLSIIALKWVSKEA

>CAL34460.1 putative efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEWFYLFLATACEIFGVVIMKELVSTKNKLYLLALIVCFGFSFTFLSLSMQNIAMSVAYAIWTGAGTAGG

VMIGVLFYKESKSFLKLFLIAVIITCTAGLKFLS

>CAL34459.1 putative dethiobiotin synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQIYVSGIHTDVGKTHFSAAFCANFNYDYFKLIQAGTPTDSEFIAKFSPKTKIFKEGIFLQTPASPHLGK

IKEKLDYKALDIILPKSKNLLIELAGGLFSPMDENYTMIDFVNIFKHPTILVAKYYLGSINHILLSIEAL

KQRNINLLALVMMGKKDILQDDFIKNYAKIPIINLDFFDENSILNKDFKEQMQEILQLKIP

>CAL34458.1 adenosylmethionine-8-amino-7-oxononanoate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNQILKNLDLKHIWHPCTQMKDHETLPLIPIKKAKGVWLYDFDDKAYMDCVSSWWVNLFGHCNEKIANA

IKKQVDELEHVILAGFTHEPIIKLSARLCEKVGRNFNKCFYADNGSSAIEVALKMSFHYHLNKGVKKSKF

LSLSNSYHGETLGALSVGDVALYKDTYKALLLECLSTPVPQGKDYTKELEILKDILEKNASEICAFILEP

LVQCAGNMHMYEARFIDEAIKLCHKFGVQVIFDEIAVGFGRTGTLFALHQCKQSPDFICLSKGITGGFMP

LSVVLTRDEIYNAFYDTYESQKAFLHSHSYTGNTLACAAANAVLDIFEDENILVKNQILSEFIKKEFSRL

EKFDFLGNFRTCGMISAFDILSTKYKRVGLFVFQKALEKGLLLRPLANTIYFMPPYIITKEQIVYVLESL

EQIFKEF

>CAL34457.1 8-amino-7-oxononanoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLEKILQDLEQNHNLRTLTPLKHENKFVYKQDHKLLNLVGNDYLYLASSKELKAEFLNTLKEQDLFFSS

SSSRSLSGNFEIYEKLESFLKTKFKDKEILHFNSGYHLNISCIAALSSVSKTLFLTDKFIHASMIDGLRL

GRADFFRFHHKDMNHLESLIQKHYENYENIIVLSEALFSMDGDFSDFKTLCELKRRYDKIKLYIDEAHSV

GCFDEEGLGLVKKLALENEVDFLVFTFGKALASMGACIICDEKYKKFFINKARAFIYSTALPPINVAWTQ

FIFKKMPYFKKEREKLELLSTFFKSKLQEKNHIVLGDAYIICLLLGENKKALEISQKLQKAGFFAPAIKE

PTVPKNTARIRFSLHAGLNTEELERIIELL

>CAL34456.1 conserved hypothetical protein Cj0305c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKYEFLCKNPDSKKLIVVFGGFASHSSHFSHLKSDKNVILFYDYENFDLNFDFKAFDELFLIAFSMGVCV

ANRLLKELNFKQKIAINGTNLGIDKSKGIHPAIFRKTLQNFKLENFKEALFKERKNLTKDFIFKDEKALK

IELEKLFDFALVKQEENLLWDKVYSSKKDEIFPPNALKNAFSKLIFLNEPHFAFFHFKTWDEL

>CAL34455.1 putative biotin synthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFLKAKDYEKHAKVQDFMGLKLCEILKNLRISHFEKVFEFGCGRGELSKKLQNFITFDEYLKNDILDFK

ENSSILIFDMNEIAKQDLSKEKFDLIVSNATLQWLDLKRIIPSLRDMLNQNGILLLSTFAEQNLKEIKQS

TGFGLNYFSLNELEQIFKVYFNEVKITQELIKLSFDNALDVFRHLKLSGVNSLGFYPLNKGFLKEFEEKF

QNKLTYHPVFILCKNDIK

>CAL34454.1 putative molybdate-binding lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFVVFFGILLFVSCLNAQNLSIFVASSASKAMSEVKDEFLKTHPEDKIELVFGASGKYYELLKQGREF

DLFFSADTKYAKAIYDDKNALIKPKVYVLGVLALYSLDENLLQGGVENLKEKANKITHLSIANPKVAPYG

VAAKEVLENLGLNELLKDKIVLGENISVPVLHVDSKNSDIAIVAYSLVSSINHPKGKAVIIDAKYFSPLE

QSYVITKYAKDKKLAFEFNEFIGSSKAKEIFKKYGFSTP

>CAL34453.1 putative molybdenum-pterin binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLIKGQICELLNQEDIVIVKILSKEVIFSVLMLELKSLENLKIGVSVELLFKEHELCFSASKTLLSVEN

SFLAKITKIKKGKLLYQVFFDFKGNELSSIITKEKALELEICENQEWLCFVKANDIVLRSHSA

>CAL34452.1 putative molybdenum transport system permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLDPAFLQTLYLTFKLAFITTFILFFIGVFLAYLLSFVRFPFKTILQSFISLPLILPPSVLGFYLLVTFS

ANSFLGQVLKEYFNLSLVFSFEGLVFASLIFSLPFMVNPLQSAFSSINPNLLDASYSLGKSKIYTLFRVI

LPNSKAGIFSACAMSFAHTVGEFGVVMMIGGHKQGETLVASIAIYDELEILNYSLAHQYAFILFIFSFLV

LFSLYFINKKMSFQ

>CAL34451.1 putative molybdenum transport ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIRIDINHPMNTAKGRLDLNFKKDIESGKITALFGESGAGKTTLLKIIAGLIKPKLGRIEVDNELWFDSS

KNFSLALQKRKIGFVFQDYALFPNMNIKENIAYAASSKAKVSELLALMKLENLAKIYPKHLSGGQAQRVA

LARALAREPKILLLDEPLSALDFKMRANLQDELTKILEYFKISTLLVSHDLAEIYKLSHRILELKNGKII

KDFPKNEFFTHSNISAKLRLSATLLEIKKSDILVVLTLLLNQDIIKITLSEEEFLKAYQDVKIGDTLLLS

IKAFNPIIVGKLDK

>CAL34450.1 putative periplasmic beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKITLFLLFLNLVFGQDKILNNWFKEYNTSGTFVFYDGKTWASNDFSRAMETFSPASTFKIFNALIALD

SGVIKTKKEIFYHYRGEKVFLSSWAQDMNLSSAIKYSNVLAFKEVARRIGIKTMQEYLNKLHYGNAKISK

IDTFWLDNSLKISAKEQAILLFRLSQNSLPFSQEAMNSVKEMIYLKNMENLELFGKTGFNDEQKIAWIVG

FVYLKDENKYKAFALNLDIDKFEDLYKREKILEKYLDELVKKVKNDG

>CAL34449.1 3-methyl-2-oxobutanoate hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRKSMISFLEKKAKNEKITMVSAYDYHSARILDNSDIDIILVGDSLAMTVLGMQDTLSVTMDEMLIFTKA

VSRGAKKSFVLADMPFMSYQSSDRDAILNASRFIKESHANGVKVEGGIEIASKIKLISQSGIPVVAHLGL

TPQAVNMLGGYRVQGKDLQSAQKIIDDAKAVQDAGACMLVLECVPVKLAQKISSILEIPTIGIGSGKYCD

GQVLVYHDLLGLNKDFKAKFVKHFDKIDPQVGVEKYRDEVKSGIFPSQEHSFDYLDDELLDKLY

>CAL34448.1 pantoate--beta-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQVITSVKEAKQIVKDWKSHQLSIGYVPTMGFLHDGHLSLVKHAKTQDKVIVSIFVNPMQFGPNEDFSSY

PRDLERDIKMCQDNGVDMVFIPDATQMYLKNFSTYVDMNTITDKLCGAKRPGHFRGVCTVLTKFFNILNP

DIVYMGQKDAQQCVVVRHMVDDLNFDLKIQICPIIREEDGLAKSSRNVYLSKEERKASLAISQSIFLAEK

LVREGEKNTSKIIQAMKDILEKEKLIKIDYIELVDFNTMENIENITDNVLGAVAAFVGKTRLIDNFLVQG

LK

>CAL34447.1 aspartate 1-decarboxylase precursor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNITLLKSKIHRASVTEARLDYIGSISIDEKLLQASGILEYEKVQVVNVNNGARFETYTIATQEEGVVCL

NGAAARLAEVGDKVIIMSYADFNEEEAKTFKPKVVFVDENNTATKITNYEKHGAIF

>CAL34446.1 putative acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLRKADIKDLNACLSLFEQSVKTLCAKDYTKDQICAWIKIDRQQWEEKFKYDEIFVYEKRGKIASFISVK

QEQKLLDLLFTHPDFVRQGLAQNLLDFILKTYLHNEIYTFASLSAKDFFLKNGFELIRENKVIKEGQNLK

KILMKKDVIYKN

>CAL34445.1 putative MoeB/ThiF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMNDRFTRIKWLVGEEKFQKISQTKVLVCGLGGVGGICVDALYRSGFKNLTLIDADKFEITNQNRQIHSE

NIGEEKAKVFERIYKVKGIVSKIDENFLKNFDLSEFDLIIDAIDDIPAKVALAHLIDFKKQIFISSTGGA

RKLDPTRIKTTSIFKTHGDALAKKFRYELRKSGFKGNFDVVFSDEEAHCKDLGSFMGVTASFGLALASLA

LRKVLAKKS

>CAL34444.1 multifunctional protein SurE homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEILITNDDGYESEGLKKLIKMLTKEFKAKITIVAPASEKSACSHSITLTKPLRFVKVGKRFYKLDDGT

PADCVYLALHALYKKRLPDLVISGINKGANVGEDITYSGTCAGAMEAVLQGIPAIALSQFYKKSEKELDY

KNALQITKKIIQNIFDKGFPLEKKEFLNINFPAKSKIKGIKICKAGKRVYNFEAHSNVNPRGVEYYWLAA

ANLDFEDEKNSDIALLKKGYATITPIMLDLTAYERMKKVKKWLKANDE

>CAL34442.1 major antigenic peptide PEB3 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIITLFGACALAFSMANADVNLYGPGGPHTALKDIANKYSEKTGVKVNVNFGPQATWFEKAKKDADIL

FGASDQSALAIASDFGKDFNVSKIKPLYFREAIILTQKGNPLKIKGLKDLANKKVRIVVPEGAGKSNTSG

TGVWEDMIGRTQDIKTIQNFRNNIVAFVPNSGSARKLFAQDQADAWITWIDWSKSNPDIGTAVAIEKDLV

VYRTFNVIAKEGASKETQDFIAYLSSKEAKEIFKKYGWRE

>CAL34441.1 lipid-A-disaccharide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTFLVCALEPSANLHLKEVLKAYKKDFGEFELHGIYDESLCKEFDLNSKPLYSSHEFSAMGFIEVLPLI

FKAKKAIKELANLSFTQKINGILCIDSPAFNIPFAKALKKAGSKIPRIYYILPQVWAWKKGRIPIIESHF

DILASILPFDNQFFNKSTYIGHPLLDEIKEFKNQEDINHTFSKKDDEKTIAFLPGSRRSEIRRLMPIFKE

LSQKFKGKKILCVPSFNLEKLEVYGDISEFKIESNTPKVLKKADFAFICSGTATLEAALVGTPFVLAYKA

KAIDIFIAKLFVKLKHIGLANIFCDFAGKEALNPEFLQDKVNVLNLYEAYNKYDYKAFFAKVDFLKEYLQ

FGSAKNLAKILNEI

>CAL34440.1 transcription elongation factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKEPMSQFGYDKLAAELKDLKDNQRPAVVIEIDTARSHGDLKENAEYHAAREKQALIESRIAELSDLLA

RAQVIDPSSYEHDSVKFGSSVVIMDLDTEKESKYTLVGICEGNLDKGYISIASPIAKAMLGKKEGDDFKV

RLPKGESEFEILSINYEPLKF

>CAL34439.1 hypothetical protein Cj0286c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIGEISATHEFAKPYIELLEELALKIEIIYLEGNHDFNLSCFFKRVKIFNLQEQPIKLNLHTSKGNNLV

LNSAFIKLAHGDIFLPPLLQFTLKTLRNHYLLVFLNFLNIITRNFISNKILQNQNKKNLFYQIKDFENLA

KKRYEKYENLGFWVCEGHYHQNHQINKENIKYLNLASFAYERSFFVVEYQQEIKFREQKLRGQNV

>CAL34438.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDENIVKTGSNEMELVDFRIFKQGHDKVYEGIYGVNVSKVREIIKIPSLTELPGVPDYIEGIFDLRGVV

IPVVNLAKWMQITEPESTMLKPRVIITEFSNILIGFIVHEAKRIRRINWKDIEPATFSTGSGALDKGKIT

GVTRIENDEVLLILDLESVVEDLGIYAPKTDIDFGKIEKFTGTALILDDSMTARKRVKEMMQQMGFQVVE

AKDGVEGINKLEELSQIYGESLNDTLKIIVSDVEMPQMDGFHFAARIKEDPRFKDIPIVFNSSLSNEFMN

EKGVQEAGGEGYLVKFNASDFFNEIAKVIKKHQSQEQG

>CAL34437.1 chemotaxis histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEDMQEILEDFLVEAFELVEQIDHDLVELESNPEDLELLNRIFRVAHTVKGSSSFLNFDVLTKLTHHMED

VLNKARHGELKITPDIMDVVLESIDRMKTLLNSIRDNGNDTAIGMDIEPICARLTAISEGESPVVATDSN

EKSIPQAELEAPKQEIATPEPEVDVNQLSDSEVEAEIERLLKVRKAEDQARRAQKKQTTNAAPKPTNNTA

NKPTESGEKKVPASGSNASSMDQTIRVEVKRLDHLMNLIGELVLGKNRLLKIYDDVEERYEGEKFLEELN

QVVSQLSIIITDVQLAVMKTRMQPIAKVFNKFPRVVRDLSRELGKQIELEITGEETELDKSIVEEIGDPI

MHMIRNSCDHGVEDPATRAANGKPEKGIVQLKAYNEGNHIVVEITDDGKGLDPNGLKAKAIEKNLITERE

ADQMTDKEAFALIFKPGFSTAAKVTNVSGRGVGMDVVKTNIEKLNGVIEIDSELGKGSSFKLKIPLTLAI

IQSLLVGTQEEFYAIPLASVLETVRVPIDDIYTIEGKNVLRLRDEVLSLVRLSDVFGVKQVLESGDQTYV

VVIGVAESKLGIIVDTLVGQEEIVIKSMGDYLQNIQGIAGATIRGDGRVTLIIDVGAMMDMAKEIKVDIK

AQLESSAKKPKEQPSDYKVLIVDDSKMDRTLMQKALEPLGVSLIEATNGVEALNIIKSGEHDIDAMLIDI

EMPRMDGYTLAGEIRKYSKYRNLPLIAVTSRTSKTDRLRGVEVGMTEYITKPYSPEYLENVVRKNLKLG

>CAL34436.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNEKLEQILQKQQTQMAGPDVDQREDDIIQLVGFVVGDEEYAIPILNIQEIIKPIEYTRVPSVPDYVLG

VFNMRGNVMPLIDLAQRFHLGSSKMTPQTRYIVLRGETNGTGVGGNAGFVIDRLTEAIKIHRNRIDPPPE

TLVKDKGMIYGIGKRDENILTILKVEALLKREF

>CAL34435.1 putative phosphoserine phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKLCVFDFDATLMDGETIDILATAHGKGNQTSEITRHAMTGELDFFESLQKRVSFLKGMSYKKVLELSS

TLPLMRGAHELIQYLKSKNIQIVIFSGGFHEGINPAMQKLGINLGFANYLHHKNDILTGLVGGEMMFSNS

KGLMLQRLKSFLNLKTDEVMCVGDGANDLAMFNESGLKIAFCAKEILRSQADICIDIKDLKEIIKVI

>CAL34434.1 putative transaldolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNFSLWCDFIENSFLDNEFLNLLSHGINGATSNPAIFKNAILNSPIYKDKILKLKEKKTKDIYEELAIS

DIQKAADKLAPLFYQKNDGFISIEIDPRLHDNTTLSLGEAKRLYSAIGKENIMIKIPATKASYEVMYELM

KNGISVNATLIFSLEQSQKCFEALNAGLVEFRKNNIALKEQNTRTPQAVISIFVSRFDRLLNPKAKEQNR

IGILNANLAYNNIYSKNEPNIRALFASTGVKGDDLPKDYYIKELLFENSVNTAPLDAIEAFKGKMHFKKP

LMNFEIYTELNQIISQSEREKACNDLLSDGLEQFCIAFEDILKAL

>CAL34433.1 hypothetical protein Cj0280 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIYLAQTDTTVGFLSKNLEEINALKGRDKNQPCLITSAKFCELKSLARIPKSFKNLVRRSKKTTFIYPNN

QAIRIVKECKHANFLSKNGYFYSSSANKHGKEFDEEWARSVADIILDEKFFENIPSKILKLSKNKMIKIR

>CAL34432.1 carbamoyl-phosphate synthase large chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPKRTDIKSILLIGSGPIVIGQACEFDYSGTQAAKTLKELGYRVVLINSNPATIMTDPEFADATYIEPIT

KESILSIIKKEKIDAILPTMGGQVALNVAMEVYESGLLGDVKFLGANPEAIKKGEDRQVFKECMKKIGMD

LPKSMYAYNYDEALKAVDEIDFPLMIRASYTLGGAGSGVVYNMDEFKELTNTALALSPIHEILIEESLLG

WKEYEMEVIRDRADNCIIVCSIENIDPMGVHTGDSITIAPALTLTDKEYQVMRNASFAILREIGVDTGGS

NVQFAINPKNGRMIVIEMNPRVSRSSALASKATGYPIAKVATLLAVGFSLDEIKNDITGTPASFEPVIDY

IVTKIPRFTFEKFPGANTTLGTAMKSVGEVMAIGRTFKESIQKALCSLERSLSGFDRVKFEDRNDLVFKI

RNANEKRLLYVAQAFREGFSVEELYELCKIDPWFLTQIKEIVDFEEQIDMDILNNKALLRKAKTMGFSDK

MIALLVNLKDNLELSQNDIYYVRMKQKIIAEFSEVDTCAGEFEALTPYLYSSINVSELTQSKNDAKDKKE

KKVMIIGGGPNRIGQGIEFDYACVHASFALKDMGIKTIMYNCNPETVSTDYDTSDILYFEPIDFEHLRAV

IEREKPDGVIVHFGGQTPLKFAKRLSAFGAKIIGTSARVIDMAEDRKKFAEFITKLGINQPKNSTATSVE

EAVLKASDIGYPVLVRPSYVLGGRAMRVVNDEAELRLYMQEAVDVSDKSPVLIDQFLDNATEIDVDAICD

GKDVYVAGIMEHIEEAGIHSGDSACSLPPCNIDEKMQEFIAQKTADIALNLGVVGLLNIQFALHNNELYM

IEVNPRASRTIPFVSKATGIPLAKVATRVMWQGNLKEALKFYDTFKVVNFDTKILRPKTPKYMSVKEAVF

PFAKLSGSDLELGPEMRSTGEVMGISKDFANSYAKSQIASFNHLPEQGVVFISLKDKDKKYTKKIAAEYV

KLGFKLMATGGTCKEILESGFECELVHKISEGRPNVEDKLKNGEIHLVINTSDSHSFKGDTKKIRENIIR

FKIPYFTNLRSALAGAKSIKAIQSKSCLDVKSLQEWLKS

>CAL34431.1 homolog of E. coli rod shape-determining protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNKIFYVLVLAFLVFISFYYGGLIKQNVLRVNDFVIGNFYNIKDYLGEKISEHFNQANQIQQLKARNKE

LEDIAVKVTSFANQLNRILEDQNSTKYLPQVSLTRVISYVQLNDYKKLWLDWSKIPVGKNRGLIYQGYTA

GIAINKNGRAMALLQGDDQCVFSVYIGKSKAPGLIQGEDGRIVVKFIPKWAKINTGDEILTSGLDNIFFS

DIPVGIVNRVNDEDMYQSVEVKPYVKISIPAYLYVVDNL

>CAL34430.1 homolog of E. coli rod shape-determining protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILDQLIGFFSSDMGIDLGTANTLVLVKDKGIVINEPSVVAVERERYDSKAKILAVGKEAKDMVGKTPGN

IEAIRPMKDGVIADFDMTEKMIRYFIEKTHRRKSFLRPRIIISVPYGLTQVERKAVRESALSAGAREVFL

IEEPMAAAIGASLPIQEPKGNLVVDIGGGTTEIGVISLGGLVISKSIRTAGDKLDMSIVNYVKEKYNLII

GERTGEEIKITIGSAIQLPKELSMVVKGRDQVSGLLSRIELTSEDVREAMREYLKEIADALKMVLEMMPP

DLASDIVENGVVLTGGGALIRGLDKYLSEIVRLPVYIADEPLLAVAKGTGKALEEISLLQQLTNEE

>CAL34429.1 ATP-dependent Clp protease ATP-binding subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFLSIGVKIMPRKCSFCNEVENPQRRILANENDDAFICEYCVEGAYSIIYGEEKEFKEPKQSHNTEFKD

ITPKELKAYLDRYVIGQDRAKKVFSVGVYNHYKRLFKAELQDDDTELFKSNILLVGPTGSGKTLLAQTLA

KFLDVPIAICDATSLTEAGYVGEDVENILTRLLQAADGDVQRAQKGIVFIDEIDKIARMSENRSITRDVS

GEGVQQALLKIIEGSLVNIPPRGGRKHPNQEFIQIDTSNILFVCGGAFDGLETILKRKLGDKVVGFFDDA

KEENKALLEKIEPDDLVHFGLIPELIGRLHVIASLNELNEEDMVRILTEPKNAIIKQYQKLFAIDGVNLK

FEEDALRAIAQLALERKTGARGLRSIIEEMMVDLMFELPEYKDYDIVITKEVVKDNAKALLIKRKIS

>CAL34428.1 acyl-[acyl-carrier-protein]--UDP-N-acetylglucosamine O-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIHPSAVIEEGAQLGDDVVIEAYAYVSKDAKIGNNVVIKQGARILSDTTIGDHSRVFSYAIVGDIPQD

ISYKEEQKSGVVIGKNATIREFATINSGTAKGDGFTRIGDNAFIMAYCHIAHDCLLGNNIILANNATLAG

HVELGDFTVVGGLTPIHQFVKVGEGCMIAGASALSQDIVPFCLAEGNRASIRSLNLVGIRRRFDKDEVDR

LSRAFKTLFRQGDLKENAKNLLENQESENVKKMCHFILETKRGIPVYRGKNNA

>CAL34427.1 (3R)-hydroxymyristoyl-[acyl carrier protein] dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIDVMQIQEILPHRYPFLLVDKITELKVKEVVLGYKNISISDHVFMGHFPGHPIYPGVLILEGMAQTGGV

LAFESMEDKVDPKSKVVYFTGIDGAKFRNPVRPGDRLDYEMSVVKNRGNMWIFKGQAFVDGNLVAEAELK

AMIVDK

>CAL34426.1 conserved hypothetical protein Cj0272 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLVHICCSVDSHYFIEELRKTYPDEKIIGYFYDPNIHPLSEYELRFLDVKRSCDKLGIKLYKGEYEYEKW

LNAVRGYEDEPEKGARCEICFDVRMGSSVKFAAKIGEKKLTTTLLTSPKKDLEQLKNALQKECEPYGVEF

LAPDFRKNGGTQRQFALAKKEMLYHQNYCGCIYGLKKQKQDKNFIDELMSSVNKQILPVSIEARIALYKK

VVLWEKKGIKFEILREKFLNYRLLSALIKLDKKPVKSHILFYSHFKNAYTRFSLDEENLKQNLKEGFYRS

TKDEIVLVEFWRFNAFFKNKWKNFEDFLKKPLSVQAEIKWRNKLFGTYNLSPIIILENILPSRYEVIAKS

EIYHDNQEVLVKI

>CAL34425.1 bacterioferritin comigratory protein homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLNIGDKAPQFELLNQDGVKIALKDFIGKKVILYFYPKDNTPGCTTEACDFSANYDKFGGKNAVIIGIS

PDSVASHEKFISKFDLKHILLSDSEKEVAKAYGALGLKKNYGKEYEGLIRSTFVIDETGKIAQIYSNVRV

KDHALKVLESL

>CAL34424.1 putative tautomerase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPLVNIKLAKPSLSKEQKAELIADITELLSTKYNKSKERVVVVLEDVENYDIGFGGESVEAIKAKASK

>CAL34423.1 branched-chain amino acid aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MISADKIWMDGKLVDFKDATLHFLTHSLHYGNAVFEGTRAYKTDKGLAIFRLEDHTKRLLESAKITLLNC

PFSQKELENAQIELLKANNFKSNVYIRPLIFLGDGVMGLYHIKAPVRVGIAAWEWGAYLGEEGLEKGIKV

KISSFARNSVKSCMGKAKASANYLNSQIAKFEAIEAGYEEALMLDEEGFIAEGTGECFFIVKDGVLITPP

NDFSLKSITQDTVLKIAHDLGITVLRQRISRDEVYTADEAFFTGTAAEITPINNIDARIIGNGLRGSVTK

KLQDAYFDVVYGRNEKYASMLTYI

>CAL34422.1 putative transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPADLNDYFNKKNGNSNNNGNNNRQNFNFKAPEFNFKGFGKFSPFVYGVIIIILFLIVAKPFMVINSGEM

GIKSTTGKYDPNPLEPGLHFFLPFVQKITIIDTRVRQINYASIEGSNENLSSGSGVINKNSISVLDSRGL

PVSIDVTVQYRLNPLQVPQTIATWSLNWENKIIDPVVRDVVRSVVGKYTAEELPTNRNTIATQIEEGIRK

TIEAQPNEPVELRAVQLREIILPSKVKEQIERVQIAKQEAERTKYEVERANQEALKKAALAEGEANATII

SAKGKAMAVKIEADAQAYSNKEIANSLNTPLLNLKQIETQKEFNEALKVNQDAKIFLTPGGAVPNIWVDT

KDAKKQSAANMN

>CAL34421.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKLREIVLFYTTHLYLVDYMLILLVFFLFTCVLLLCVFLRHRPIAALFIIAFDIIICFLVYIYGYKLID

NEVRTRKIAITDQKMIQSSNDLIVDFNITNNSKNNFKECKITAKIFADKIPNDNIIEEYKKKFIPFRQKS

REIKDLKKNATQVQRIAFENFNYENNYTIRLVSECF

>CAL34420.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHFTIFHIIAFIILLICFALICILIFLKVKQKEMALISYTIATIFTALLIYSIFLTINQFTTQADLSKLT

YTRDLRHESVIVSGKVQNLTKFEIKKCYLILSILNQQQVGGEIFNDKNIRNAKMQNTSVSYTIEIIDTLP

GNTYKEFRASVPFPPTFNNPEFYHTLKCI

>CAL34419.1 putative cytochrome C-type haem-binding periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFISFVVLATCLWAKNTAYTDEVVSLYLNKDDTKVIGRLLPTNPFEVLKSENNRVLLKIDGYVNPKA

PSVIYFNDSQRIIVAAFSKNTKLNFSQRITGKNGKWDKVSLEIWADKKEFVKDNKEMLNRAKELFVNNCG

ICHAIHKEKEFTANAWPAIFRSMADRTGIDKKDRWLVIEYLQKNAKDFKTK

>CAL34418.1 molybdopterin containing oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLDRRKFLKIGASLSALPLIPSLSAGKTVEASKVSLGLVKNGEVITAAHWGILKLTIKDGKIVKSEPWEK

VTKMDNPLQHYTADMVYKSRVKYPYVRKSYLENPDNPKPELRGKDEFVRVSYDEAIKLIAKELKKTRDSK

GASAIFGGSYGWKSSGNMQNSRILLHRFLNVTGGFVGATGDYSTGASQVIMPYVVGSIEVYEQQTSWENI

LSDSKYVVIWGADPLSTLRIAWTSNEQRGLAYFEKLKDSKIKVICIDPVKTTTAKFLNAKWIAPRPNTDV

ALMMGMASHLIAKKKVNYEFLDTYTTGFDKFKDYLEGKEDGVKKDTKWASKICGIDEKTIKNLAETFYDN

STMIMSGWGMQRAHHGEQPHWMLVTLCAMLGQIGTKGGGFGLSYHYSNGGVPTCKGGVIGGMTAGSLGIW

KNGKFKGLSKAEASSEGAEWLQNAASYSFPVARIADALLHPGKTIDHNGAKITYPDIDFIYWVGGNPLVH

HQNTNTNVKAWRKPRTVVVNEIYWTPTAKMADIVMPVTSSYERDDITMTGDYSNMHIAPMKQAVEPVGES

KDDYVIFSDICKIYGKDVFNAYTENGKKAKDFIKEYYNSALKQTQSFGEAFATPMPSFEEFWAKNEPITF

EPTAESLEWTRFSEFIEDPILNALGTDSGLIEIYSETIKNYNYDDCKAHPTWFEPIEWLGNASKEAPFHL

LTNHPRDRLHSQLCHTSLRDTYAIKDREPILINSKDAKKLGIKNGDVVRVFNKRGEVLAGAVVSDEIMQG

VVRLCEGAWYDPNENGLCKCGNANVLTMDIPTSKLANGNISHTGLVNIEKFKGELPKLTAFSAPKGAN

>CAL34417.1 zinc transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQFTFEQIFIAMLLTLFAGFSTAIGSIIAFFSRKDDLRVLSLGLGFSAGVMIYISFMEILPTALKDFKNH

YDSHWAELLGLACFFGGILISLLIDKLIPEDVNPHEPKEDLSELKICPLPQKGQNPPKFHPGEKLHQINT

KALKRTGIFTALAIAIHNFPEGFATFISSLDNLTLGIAIAIAVAIHNIPEGLAVSLPIYHATGDKKKAFI

YSALSGFAEPLGAFVGALILLPFIGDLTLAISFAVIAGIMVFISLDELLPAAKTYDKAHDSLYGLIAGMA

IMALSLNLLGQ

>CAL34416.1 putative methyl-accepting chemotaxis signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQSINSGKSVGISAKLTLWVGILVVLILAITSAISYFDSRNNTYELLKDTQLKTMQDVDAFFKSYAMSKR

NGIQILANELTNRPDMSDEELINLIKVIKKVNDYDLVYVGFDNTGKNYQSDDQILDLSKGYDTKNRPWYK

AAKEAKKLIVTEPYKSAASGEVGLTYAAPFYDRNGNFRGVVGGDYDLANFSTNVLTVGKSDNTFTEVLDS

EGTILFNDEVAKILTKTELSINIANAIKANPALIDPRNQDTLFTAKDHQGVDYAIMCNSAFNPLFRICTI

TENKVYTEAVNSILMKQVIVGIIAIIIALILIRFLISRSLSPLAAIQTGLTSFFDFINYKTKNVSTIEVK

SNDEFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLD

VLQARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQT

AVQSLTTSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAI

EAARAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQ

TTKDNVEIANESAIISSTVSDIANNILEDVKKKRF

>CAL34415.1 putative SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLWDKKAKTYARYQNTLNTIQKQTFEYLQNLKISFQDKSIIDIGCGTGVWTLHLAKEAKEILALDSANA

MLEILQEDAKKLNLNNIKCKNLSFETWMQNNPNVKFDLAFLSMSPALQNEKDYTNFLNLAKIKIYLGWAD

YRKSDFLDPIFKYFNTEFKGFYKKDLENYLLEKNIFFHKIVFDETRKVQRTKEEAIENALWHLSMNKITA

SKETVSSFVENNITETIESKIKLLIINNL

>CAL34414.1 small hydrophobic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKNLIIKFGRLILDAIAVISFVVALLYSLFMMFSIGFLAGLLSLIVSFIALFLSFFCNLSCYRYQRCSC

K

>CAL34413.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLKNPLDMHLHLRDNQMLELIAPLSARDFCAAVIMPNLIPPLCNLEDLKAYKMRILKACKDENFTPLMT

LFFKNYDEKFLYSAKDEIFGIKLYPAGITTNSNGGVSSFDIEYLKPTLEAMSDLNIPLLVHGETNDFVMD

RESNFAKIYEKLAKHFPRLKIVMEHITTKTLCELLKDYENLYATITLHHLIITLDDVIGGKMNPHLFCKP

IAKRYEDKEALCELAFSGYEKVMFGSDSAPHPKDTKECCGCAAGVFSAPVILPVLAELFKQNSSEENLQK

FLSDNTCKIYDLKFKEDKILTLEEKEWQVPNVYEDKYNQVVPYMAGEILKFQLKH

>CAL34412.1 putative bacterial regulatory protein, ArsR family [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFENLIREILGKKRFELLKFLCENADENGFIMIKISDLEEKLHQSKPTIIATFKFLEEKKLFKRLKNGF

YQLNIGDKNET

>CAL34411.1 diacylglycerol kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKPKYHFLNNARYALEGLFALFKNEMAFRIELCIIIPAIVFSFFLKISFLEHLLLISVLILILIVEALNS

AIEACVDLITNEWHEKAKIAKDCASAAVFFSVLLALFVWGFILYNIYL

>CAL34410.1 putative sulfatase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLRLTWFQFTFFNSLMIVLLNFNLFYFVYEKNTQNWLITFVFIVAYFALVHVICSLLFIKFFTKFFSILF

IISSFLSVYFISFYGVLIDSDMMQNVVQTDIKEVKDLLNLKLILFVVLALLLVFYVVKVKIDYYGSFKSH

IKIKIINIISGLIVVCAVLIPLSKTFLPFFRNYNEIRMYNTPFYQIYAVYRYYVRFVKAKPEFKTIANDA

YRENNHTKKLLVLVVGETARAANYSLGGYTKNDTNFYTKKDNVVFFDNFSSCGTATAVSLPCMFSISKRE

NYSSSEFQENAMDVLYKTGVDAVWFDNNSGGCKGVCDRLAYKQKLSSDLDENLLAPFKEKLNHLSDQNII

VLHLQGSHGPTYYKRYPSEFKKFTPTCDTNELSKCDSEALINTYDNTLLYTDYLLSEIIKLLKEQKSYES

SLFYLSDHGESLGENGIYLHGMPYAIAPSYQTHIPAIFWSNDKNLMNLAKEYKGLKLSQDNLFSTLLGYF

DVKTSVYEPEYDLLNPKLKANP

>CAL34409.1 exodeoxyribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLLSWNVNGLRAICDKNALDWIAQEQIDFIGFQEIKAHEDKFPKKIYEYPFKHMYFNSAKRAGYSGVMS

LCNFNSEVKKCEFFDDEEGRVLEHRFKNIALFNIYFPNGQKDEERLNFKMQFYADFLVYLDKLLKDGFEI

IICGDVNTAHKEIDLTHPKANANTSGFLPIERAWIDDLLKLGFIDTFREINGEIKEKYSWWSYRMKARER

NVGWRIDYFFISKGLKDKLKNAFIRDDIFGSDHAPVGIEIDI

>CAL34408.1 hypothetical protein Cj0254 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYFKKEGKMKNTLIIFENSLSNLGKDEASDLLEDLSFNLAYKQISHNPHETKKVLNSLLVEFLTILKKLD

FFDDENVTKVIKALVKASIVDAQNSLYEYISEAELLNKQIENQKNLIKNQISDNFFEFENILQECSFCDE

FSGGLNDAILFDIEMLGILKETAESAFLTTLEKAEDIELTSSEIAKNLVYNAICEAHFEKERILKISSII

LNTAFEIANESMAYAKDLCLGVIKGTRDGIVLAMEKFKASLTYANFEEDVSLKSKELIGIEDDFIALLKK

EIQLQNDPCKSIVENLLEHELDNLFAKFRRLAGESREQLILVLNDIKKNPKINDFNKLTQRKLNRFKQEI

FELEKIASEKYKDLNSKKAKKLGVRLWEKAKKFVKK

>CAL34407.1 hypothetical protein Cj0253 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVNLCDLKKEPQINYPTFWDYKVIFEVHVKASEIFEEILGQREYKFKHSNSSASGKYQSYLLNVYVDSKK

DRLDIFDKLKAKAKFVL

>CAL34406.1 molybdenum cofactor biosynthesis protein C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLSHLDEKNHPKMVDVSDKNITLRIATASGIIYMSQEAFDVIKNNTAKKGPVLQTAIVAAIMGVKKTSE

IIPMCHPLMLSKVETNIVEFVKECAFKLIVTVKCEGKTGVEMEALSGVSIGLLTIYDMIKAIDKSMRITD

IVLESKEGGKSGKFVRS

>CAL34405.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYEDEEDLNYDDYENEDEEYPQNHHKNYNYDDDDYEYDDDNNDDDFYEMD

>CAL34404.1 putative MFS (Major Facilitator Superfamily) transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKTLNQKDIKVLGLSSLGGTLEFYDFIIFVFFANYISTNFFPKDLSSFWQMFNTYGIFAAGYLARPLGG

VILAHFGDKFGRKRMFMISILLMVIPTFTLAFIPNYESIGFLCIVLLVFIRICQGIAIGGELPGAWVFVY

EHAPQGQKRTYLGILTASVVGGILLGSLVFLIMNKIYTQEELHEWAWRIPFFLGGIFGIISAYLRKFLRE

TPVFEQMKKDKALEKFPLKEVFKKAKMGIVLSMMITWVLTGCIVVMILLMPSYMAKILQINTSIQTYLQI

GGILLICLGCIISGILADKIGVIKSCVFFSVFFGIASLLYFNTLYRQNADFNLVACLYLLVCFFSGVMNF

CPLIMSEVFDAKIKFSGLSFSYNIAYAIAGGLTPQLAFFLHSFALNNLSNFWRFSLGLYVFFLAIIALLC

AFIFSYLNNTQRTYSQ

>CAL34403.1 hypothetical protein Cj0249 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKSLILPPNEFLDHYILNAEFHRFAGISKNAYKFWKNAEIGRYQGTRIIFLHRNCILEKHQQALRQCSG

LNGFVLASAFCSFTGLAPSHLVEKNNSSIYKLLELKEICGIKFVNLKKFYDFLGLNYHQHIYIEKCHFFS

PAPFEKRIKITESMCVGYY

>CAL34402.1 hypothetical protein Cj0248 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIGDMNELLLKSVEVLPPLPDTVSKLRKYVSEANSNIETMKVAEIISSDPLMTAKLLQLANSPYYGFTRE

ITTINQVITLLGVGNIINIVMADSIRDNFKIDVSPYGLNTQNFLKTCNEEATFIANWLNDEDKKLSHLLV

PCAMLLRLGIVIFSNFLIQNHKDKDFLAFLNKNENLALAENEFLGVDHISFLGFLLHRWNFDDVLIESIC

FVRTPHAAREKVKKSAYALAITDHLFAPHDGSSPFNAKAAVALLKEAKTQGINFDLNNLLSKLPNKAKEN

LNKED

>CAL34401.1 hypothetical protein Cj0247c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIENLCTNKIKLFSDIKDYTERKKLIEKEVLFINIPFEAHCINTLYYLIYDGLSQSESSLLELLYKHNPY

PCALVGGGSSGNMDFSGAFIFYNGEILKNQALSIHVQFKPKYRFNLMKSQNFNPQSNITFTILDVSLYDK

TVRELINKKPFRLKLYVIILTALLKNLKIKCKNILLL

>CAL34400.1 putative MCP-domain signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEYTFALKIGEDYLISPMEINPNKTLFSYCDIESAQELSLLKKTNFIEAIKKDYEKFSLNKPKPLGAIF

NDCILRRLHNKEHLNQIHFNDFPIVGFSSFGEIYGVGIAKSLVAIFFYEVENFNDFKPRYLKTFIQKYSD

FKYYYLNIRAQKLEMTNEINKIILNQLKQNTSEIDKNTSIFKEIFEELENIRRSLTTISESFTNFTNYLE

YNLYQSEEKMNLEKEVQSSLKNIDQLNSILDLISGIAEQTILLSLNAGIEAARAGKLGRGFAVVADEVRK

LSENTQMGLGEMEGAIKLVIQTIQSIAKSSNSSTQEMNFIRDKTNEFSKIISNLINSGKEISDKLEQRSN

VSEDFEKNVNQLKCYEDVLAKLNQY

>CAL34399.1 50S ribosomal protein L20 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MARVKTGVVRRRRHKKVLKLARGFYSGRRKHFRKAKEQLERSLVYAYRDRRRKKRDFRRLWIVRINAACR

LNDLSYSRFINGLKKAGIELDRKILADLAMNDAAAFAKIAEAAKKAL

>CAL34398.1 50s ribosomal protein L35 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPKMKSVKSAVKRFKVGKNKIKRGSAFRSHILTKKPAKRMRGLRTAKYVHSTNVKAVEKMLGI

>CAL34397.1 hypothetical protein Cj0243c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTINSANPYQNLTLSNPLQNSSALNLIKDSKALDQEGNENSLEQLSYIFNNTTYASEFGFRINEEGFFDK

DLNKIANIPESYDINIKSVRSIAKELAKQDENLNYNKIDLPYLLNSYHSSLKSINSEFLQDDNAYLSRDL

ISKLSSGFSTDNGEFLGQISRIYNNQEEIDLALSNITNLNTLMLDNKITNFHFDKAIENTSSNEILKPYL

TKNAEVSKSGLLMNFIYHDIKTQNEKEFNFFMKPATLELSSHQNLQKILKGETDIEDYIKKENEKKMSFD

LYLYINGVDKKTSTQDKLSVFFQQYINYQKDMDLREFANSSSIFQIYIDQNRNDFDALKKQYQNQSQDTQ

RLEEANQLRSSSIENFLDRRQKQANINKILNSYMSVMV

>CAL34396.1 putative iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTYNEKIISMNNDLLDHQHKELFEISKKLSLMNQRHVGTKELKIVLRELLIMINRHFSDEEAFMREIEYP

YINHHTRIHRKIILEIEEIIISEAKFVNIMTEKLNLVVQDFIFKHTAKEDSKIVKYYEEKFKK

>CAL34395.1 cysteine desulfurase (NifS protein homolog) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVYLDNNATTMLDPNAYELMLPFLKDMYGNPNSLHQYGSATHPALREALDKLYAGLGANDLDDIVVTSC

ATESINWVLKGVYFDHILDKERNEVIISSVEHPAVTAAAYFLKSLGVKVIELPVNEEGVSTVEDLRKVIS

DKTALVSVMWANNETGMIFDIKAMAELAHEFGALFHTDATQAVGKIKVNLTQVGVDFASFSAHKFHGPKG

VGGLFIKKGLKLTPLLHGGEHMGGRRSGTLNVPYIVAMGEALRIANTMLDFEDSHIRRLRDKLEDQILAL

PDTTVVGKREHRVPNTILASIKGVEGEAMLWDLNKNGIAASTGSACASEALESNPIMEAIGAEHDLAHTA

LRLSLSRFNTEEEIDYAAKQIKNATQRLRAISCTYAYNPNNYK

>CAL34394.1 NifU protein homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGKNSLIGGSIWDEYSQKVQDRMNNPQHMGEFSEEDAKARNAKLIVADFGAESCGDAVRLFWLVDEKTDK

IIDAKFKSFGCGTAIASSDTMVDLCIGKTVDEAVKITNLDVEFAMRDNPETPAVPPQKMHCSVMAYDVIK

QAAAHYKGISPEDFEDQIIVCECARVSLGTIKEVIKLNDLHSVEEITQYTKAGAFCKSCIKPGGHEKRDY

YLVDILAETRAEIDREKLKNTMKSDVAFDEMTVVGQLKAVESVLDAEIRPMLHNDGGDLEVIDIQKAEGA

AIDVYIRYLGACSGCSSGSGATLYAIETILQEELSPNIRVMPV

>CAL34393.1 putative mechanosensitive ion channel family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIIFSLCFFILHLGAQEFKFIDANISKEDEGIYALVEKYVDLNNQIKEFKKNNDENSSTFNGILSEFE

KDKKTILAKIPDMIVGQKINEEAVARFLKAKEKLLDVQKKNINKPYIYTDATLNLVYFNIVESFYSSLFE

VEKLFKNTASSEDLIATVDKAMENLQNSSNVNLDSFKSKITNPEELEKITLKERYISNAVDSYSEILKYL

RSNADLLESNYIFSLLELQVWIDRINEAIGVSFVNIGKIVISALVLVFFISLRRFFANIVYFFLVQLFYR

NKNDVDDIKVIFIENIKKPVGFLLIVYAISLCLTIATYPAPLSVNLSNFFHIVYAVLIAWLILRMLDGYG

VVLVSKLAQKSGKKEVVNLIIKILYFVIIIIALLYILAQLGFNISAIIASLGIGGLAVALAAKDIIANFF

ASILLLFDNSFNQGDWVEVSGIEGTVVETGLRKTTIRTFDNCLVFLPNSTIMGANIKNWSKRRMGRHVRM

YLGVGYDATPEKLEQCVKDLREFLHTSDLVAHDEDSALKYGDHTTKYRQNLVSINDLEGYKNACYVALSE

FADSSINIELYFYIKEIGGKDFREARQSLMLEFMRIIEKNGLTFAFPSRSIYIENLPPLDLQAKAIK

>CAL34392.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENLISGAIKFMQEDFKEHEELFESLKNKQNPHTLFIGCSDSRVIPNLITNTGPGELFVIRNIANIVPPY

RVGEDYLATTSAIEYALNSLHIKNIVVCGHSNCGGCNALYYSDEELNKIPNVKKWLTMLDPIKKDVMIFA

RDDLAMRSWLTEKLNLVNSLQNILTYPGVQEALDEGKIEVHAWYYIIETGEIYEYDFKAKIFTLIQDRKV

Q

>CAL34391.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLYDRDYSRSKEFENTRSSELSIFIKQTYQLFAASLLAATVGAYVGIFALASFFIQSQVTFWILFAVEI

GLLFALQWKKREAPLNLVLLFGFTFCSGLTLTPLLISVLALPAGGIIIAQAFALTTVAFAGLSVFAMNTK

KDFTVMGKALFIVLIVIVAASLLNLFFQSSIVNLAISAVAAILFSFYILYDTQNIIRGNYETPIEGAVAL

YLDFVNLFVSLLNILRSFNSR

>CAL34390.1 putative protein-export membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MITLLIILQFIIVVVICIAVLLQKSSSIGLGAYSGSNESLFGAKGPAGFLAKFTFVMGILLIANTIGLGY

LYNKASKDSLAEKIKVENNNTTIPSAPIVPTTPNTNSIAPSAPQLPSDVNSSK

>CAL34389.1 ribosome recycling factor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIMLNEIFNKQKTQSEKSLEALKKDFTTLRTGKVNIHILDHITVDYYGTQTPLNQVATVLASDASTISIT

PWEKPLLKTIESAIAAANIGVNPNNDGESVKLFFPPMTREQREENVKQAKAMGEKAKVSIRNIRKDANDA

VKKLEKDKAISEDEAKKAYDEVQKLTDTYTTKIDEGVKSKESELLKV

>CAL34388.1 putative orotate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLEQIYKDCGAYLEGHFLLSSGKHSQFYLQSAKVLEDPKLAAKLCDELAKIIASYKIEFDSICSPALGG

ILAGYELARACSKRFIFTERVNKEMTLRRGFEVKKGEKFIICEDIITTGGSALESAKIIESLGGIVVGFA

ALANRGFCAVENLKSPRKDNAKLPENLPLFTLGNFEFEIYDETNCPLCKKGNKAIKPGSRGN

>CAL34387.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTKAKISSRWLRFRALLIDIFLIYVPILYLFYFLLGSKEAFLNNHFITTLCTFLFGLIQAIFLTKKAQS

PGLKAYDLYLIDIKTGKKLSFLRILLRYVIFIISFGLLFGLFVSFVRKDRLNLHDILTQSCIATKA

>CAL34386.1 ribonucleoside-diphosphate reductase beta chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQRKRIYNPSSNETLGDRKVFDGNPHGILNFTKAKYTWALKLWDLMEANTWFPKEVDTTKDALDYRCNLT

AGEKRMYDLVWSQLISMDSFQTNNLADNINPYITAPEINAVLARQAYEEANHSKSYAVMVEAICDNTDLI

YEMEKHDETLREKNDFISSIYEELAGDVDDNKLLLAMVANQILEGVYFYSGFTAIYALARAGKMLGSAQM

IRFIQRDEITHLLLFQNMINSVRKERPDLFHDENINKIYDMFKKAGDLEIKWGKYITQNQIMGFTDDIIE

EYIHYLVDQRLSAINLDKLYNAKHPIKWVDDFSKFNDQKSNFFESKVTNYSKGSISFDDF

>CAL34385.1 putative transferase protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMTSKTSLALLCDFYEFTMSQGYFKNNKKDQICYFDIFFRKIPDSGSFAIFAGLEDILDFVENLSFDAED

IEFLRKQGIFDTEFLDFLANFKFKGEIYAMREGEVIFPNEPLLCIKATTIEAQLLETFLLLSLNHQSLIA

TKTNRIVRAAKDSKILEFGSRRAQGSEAALKGARAAFIGGCIGSACTLAGKIYNIPINGTMAHSWVQMFE

NELEAFKAYVKIYPKNPVFLIDTYDCLNSGLKNAIKVFKEFGIQEGGVRIDSGNLLELSLKIRQELDQAG

LQKCKIIVSNALDEWSIKKLKEQNAPIDIFGVGERLITASSDPIFSCVYKLAALEDQGIKPKIKISENNE

KSTLPHFKKLFRVYDKNTQKILFDELYVFDENPNQDENLERKELLELVYKEKRLLKKSSLNTIQDYTKEQ

ISKLDESFLDLDRFVKFEVKLSPKLQNITEDLLKTRF

>CAL34384.1 putative acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIKFKNHSPKLGQNVFVAEGAKIIGEIEIGDESSIWFNCVLRADVNFIKIGKRTNIQDLSTVHVWHREF

DEKGKLKDAGFPTIIGDDVTIGHNCVIHACVIKNRVLIGMNAVIMDNALIEEDSIVGAGSVVTKGKKFPP

RSLILGNPAKFVRELNDEEVSFLKQSALNYVDFKNEFLKDLQ

>CAL34383.1 protein-L-isoaspartate O-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNAFEQKRCQNMAEEIAQKVFINEELFNAFCQIPREIFSPLKAHAYRLDALPLANSQWISSPLTVAKMTM

ALDFKNADSILEIGCGSGYQAAILSKVIRRVFTIERIENLAKKAAQTFRELELFNINVKFDDGQNGWKNY

APYDRILFSAYATQIPEILLDQLSDDGILVAPILHNGKQFITRLRKNGTNLQKEILEECLFVPIVDGKE

>CAL34382.1 putative acetylornithine/succinyldiaminopimelate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKMDYKEQSHIIPTYKRFDIVLEKGQGVYLFDDKAKKYLDFSSGIGVCALGYNHAKFNAKIKAQVDKLLH

TSNLYYNENIAAAAKNLAKASALERVFFTNSGTESIEGAMKTARKYAFNKGVKGGQFIAFKHSFHGRTLG

ALSLTANEKYQKPFKPLISGVKFAKYNDISSVEKLVNEKTCAIILESVQGEGGINPANKDFYKALRKLCD

EKDILLIADEIQCGMGRSGKFFAYEHAQILPDIMTSAKALGCGLSVGAFVINQKVASNSLEAGDHGSTYG

GNPLVCAGVNAVFEIFKEEKILENVNKLTPYLEQSLDELINEFDFCKKRKGLGFMQGLSLDKSVKVAKVI

QKCQENALLLISCGENDLRFLPPLILQKEHIDEMSEKLRKALKSF

>CAL34381.1 acetylglutamate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIMQKYLEKANVLIEALPYIRKFNSKIILIKYGGSAMENEELKHCVMQDIALLKLVGLKPIIVHGGGKDI

SAMCEKLGVKSEFKNGLRVSDKATIEVASMVLNHINKNLVHSLQNLGVKAIGLCGKDGALLECVKKDENL

AFVGTIQKVNSKILEELLEKDFLPIIAPIGMDENFNTYNINADDAACAIAKALRAEKLAFLTDTAGLYED

FNDKNSLISKISLEQAKILAPKIEGGMHVKLKSCIDACENGVKKVHILDGRVKHSLLLEFFTDEGIGTLV

G

>CAL34380.1 putative acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIRAMQKSDYEAVYKLWCEIKGFGIRSIDDSKENIENFLDRNPNLSVVAVIDEEIVGSILCGHDGRTGG

FYHVCVHKDHRKKGIAHEMAKFCLEALKAQKINKIALIAFKNNDLGNEFWKHYGFTLREDANYYDLSLNE

YNQTSFNA

>CAL34379.1 N-acetyl-gamma-glutamyl-phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKVGILGASGYAGNELVRILLNHPKVEISYLGSSSSVGQNYQDLYPNTPLNLCFENKNLDELELDLLF

LATPHKFSAKLLNENLLKKMKIIDLSADFRLKNPKDYELWYKFTHPNQELLQNAVYGLCELYKEEIKKAS

LVANPGCYTTCSILSLYPLFKEKIIDFSSVIIDAKSGVSGAGRSAKVENLFCEVNENIKAYNLALHRHTP

EIEEHLSYAAKEKITLQFTPHLVPMQRGILISAYANLKEDLQEQDIRDIYTKYYQNNKFIRLLPPQSLPQ

TRWVKSSNFADINFSVDQRTKRVIVLGAIDNLIKGAAGQAVQNMNLMFDFDEDEGLKFFANL

>CAL34377.1 putative DNA modification methylase (adenine-specific methyltransferase) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKENPSFLKEQIITYLGNKRALLSFLNNGFKVAKKELGKDKFSFCDIFSGSGVVSRFAKAHSNYILANDL

EDYSKLINECYLANKDKDLLQNIKKYYKNLIQNLDFQKGFISELYAPKDDDDIKKNERVFYTFKNALYLD

TIRQKIENEIPKELRHFFIAPLIYEASVHSNTSGVFKGFYKGKDGIGKFGGEGQNALKRIKGEIELKMPI

FSNFSCEFEVMQKDANMLAKELDFFDVVYLDPPYNQHPYSSNYFMLNLIANYKKPEEISKISGIPKDWNR

STFNKSKFAQDALFELINDLKARVILLSYNCEGFVKKEIFLKRLSTLGKCRILEQKYNTFRASRNLKNRN

IHLHEQLYILVKN

>CAL34376.1 translation initiation factor IF-3 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKEKEVLLNEEIRADEIRCVGDDGKVYGIISSDEALEIANRLGLDLVMIAADAKPPVCKIMDYGKFRYQ

QEKKQKEAKKKQKVIDIKEIKLSVKIAQNDINYKVKHALEFLEQGKHVRFRVFLKGREMATPEAGVALLE

KIWTMIENEANRDKEPNFEGRYVNMLVTPKKA

>CAL34375.1 threonyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKEVIAYLDNETIIDSQSVKNTNLKEIYFDNSKESLEVIRHSCAHLMAQAIKSLYPEAKFFVGPVIEDG

FYYDFRVESKIGEEDLVKIEKKMKELAEAKIEISKYEITKSEALAKFQNDDLKQEVLLRIPDRAVSIYKQ

GEFEDLCRGPHVPNTKFLRFFKLTRVAGAYLGGDEKREMLTRIYGTAFADKESLKEYLTIIEEAKKRDHR

KLGTELKLFTFDDEIGGGLPIWLSNGARLRSKLEHMLYKIHRLRGYEPVRGPELLKADAWKISGHYANYK

ENMYFTQIDEQEYGIKPMNCVGHIKIYQSDVRSYRDLPLKFFEYGVVHRHEKSGVLHGLFRVREFTQDDA

HIFCMPSQIKEQVLEILAFVDNLMKLFDFSYEMEISTKPEKAIGDDEIWEIATKALKEALDEQGLKYGID

EGGGAFYGPKIDIKITDALKRKWQCGTIQVDFNLPSRFKLEYTDSDNEKKQPVMLHRAILGSFERFIGIL

TEHCAGEFPFFIAPTAVGIVPIGEAHIAYAKEIQKELLELNIDSEVYEKNESLSKKIRIAEKQKLPMILV

LGDDEVAKRSVALRDRRAKEQKNLSLDEFIKLVKEKMSEVHF

>CAL34374.1 undecaprenyl-diphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENLYALILGIIEGLTEFLPISSTGHMILGTTILGIDIDEFWKSFLIIIQLGSILAVIFVFWRKLFQGLD

IWLKLAVGFFPTGVIGLFVAKYLNALFNGWVVVGMLIFGGVVFILIELAHKNKQYRINSLEEISFKQAFC

IGIFQSLAMIPGTSRSGASIIGGLLLEFNRKVAAEFSFLLAIPTMIIATAYSIYKEPELLGNANSLIPLG

IGFITAFIVAVLVIKFFLKFISKFDFIPFGIYRIILGFVFFYLYYSGILNAGSEFKL

>CAL34373.1 putative oligopeptide transporter, OPT family [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMYKKQNLPELTLRGLILGSILTIIFTASNVYLGLKVGLTFSSSIPAVVISMAVLSLFKTSNILENNMVQ

TQASAAGTLSSVIFVIPGLFMCGYWSEFPLWQTFMICLCGGGLGVLFTIPLRRTMVVESKLAYPEGRAAA

EILKVANKDQSSKKGKQGIKEIALGSFIAAIFSLLSNGFKLAASESNFAFIWNKMAFGFSMGYSLALLGA

GYLVGLAGAIALFVGMFLAWGIFTPYLSNFEFDSTKNAVDLASSVWSSKVRLIGTGAIAIAALWTLIELL

KPVIEGIKEIVKNVKITNQEKNERTNIDLSLKSIFILFVLMVVGLFITFYSFVEDANLSIYYQMLFSFVG

TLVSVLIGFFVAAACGYMAGLVGSSSSPISGIGLIGVIISSIVFLVLGVELFQDPMLSKFAVALAIFTTS

VILATAAISNDNLQDLKTGHLVGATPWKQQVALLVGCVFGALAIVPVLNLLYQAYGFVGAMPREGMDASS

ALAAPQANLMSTIAQGIFHHNIEWGYMAFGVFVGILMIIIDKILKGTQKMSLPPLAVGIGIYLPPAVNIP

LVIGGILKYIVMQHLTKKYAKNSHKEEKLASCEQRGTLFASGLIVGESIFGVIIAGITVFSVSMGGSENP

LALNLANFHDSELFALIFFVGVVLYFIKRIVKKDA

>CAL34372.1 putative citrate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEIFLALLGFFSLGLIVWLLLKDYTTPALAFISVSISVACILLILERLGFGVGVALGVKGGVFDIKTLVV

FIKDGVKSVTDTAALFVFSILFFSVLNASGFFTKILNAFLSKMKANVYQVCILTVFIAAAVHLDGSGAST

FLIVIPALLPIYERLGIRKTSMLLIITSAMGVMNVIPWGGPTLRAATNIGMDANLLWHHIIPIQIVGLVL

SLLLAIWIAKIEIKRGAGAGNLSGINLNIEKSEHHNEKWFWLNLLVAIGVIGLLISGIIPSYICFMIGLA

IILPLNYPNLKTAKKVLDRASAGAMLMYITLIGAGILIGVFDKSGIMEKMGVLILNFVPDYLGAYIPLMV

GILAVPMAIIFCTDSYFYGVMPIVLSVTKAFGAEPLTIAIIMVIARNCATFISPVVPATLLGCGLAEVNI

KDHIKRSFFYIWGISIICLIFAEVAGII

>CAL34371.1 hypothetical protein Cj0202c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYGSSNPEDLAKNFTKDLYSGDTKSVMSYIDLSEAKSDEEKTFVSDKITQVVAENAAKAKRMGGVKDIQ

IEEKTINKDSAKIRVLVLFNNDNNQSSNVFLAKKDRKWLVLLK

>CAL34370.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFYLNKILYFFLILFLLIGILGFFINSNPSNQIIKKPYLPFLEIGDLVFRAGIGSESFLIENLSQSPYSH

IAMVVKTSPTILIHATTDDDKNAKNQVILSSMDDFLKLSHKIAIKRLKFDEKTKQKIVAKDLEHLGRKFI

ISTDKDAFYCTTFLEQSINSITPFHLQYTLIKAPFNEGLYLFPQTFFENNQSVLIYESQNF

>CAL34369.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKSILFASALLASSMLFADSLKLEGTIAQIYDNNKTLLIDSIYGGQMAIKVLPNTEIEMDDCGIFGTDK

DGTFKDLQVGNFLESKISYGTPATPNTQAIPVARKIEIQCYKKAY

>CAL34368.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKWIFIVFCFILGFIIHIFYIGYTNELLFNKFIKNSNPDYTITDIYFKKGFLTSKGSFTLNHSHTQLST

KINLKFNNYFFLNKIIKGNFTNPFDFLDEVLKNNKLGTFTLKLHDNNSKIFLNIKDINLSNEGGDTIING

GYIEVLMNKNLEIKNMKIHFDMINFSQFYTKFVLQNLNYEQFFNNPVQFYELNLFSDSQQEINFDYLVLD

NNKINSFYSKNQVNFNEENSAVNLNIQGKSNEIDLKSLLGQNLNFDKTKFNITINKFFNSNFNISHFIQK

NLDLKIQNLILEKNKQNISLQGNLNINNSYQAKLQVISSDEPDEIFPWTKDYGGLNQYFLKENNNFFLNL

SYDSLANPQLKINGSEFSNMDLN

>CAL34367.1 helicase-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLALTFRPENFDDILGQYELIEIFKKFTALQKLPHSIFFGTAGSGKTTFARVVAKEFGLDFYEFDGGNF

KLEELRKILDNYKNSLYKPLIFIDEIHRLSKTQQEMLLIPMENYRLILIGASTENPYFVLSSGIRSRSML

FEFKSLGAKELETLLLRVQEKMKFSIDKEAKDFLLKSADARAMLNLLEFVLVLDEKHISLENLKKLRNTI

NSEGVSSKDTHYILASAMIKSLRGSDVDAAIYYLARLIDAGESADFIARRLVIFSSEDVGNADPNALNLA

VSTLDAVKNIGYPEARIILAQCVVYLASTIKSNASYKAINEALNYVKNNEALEIPNYLNNNHQEKQNYLY

PHDFGGWVEQKYLGKNLKFYHSKGLGEEAKLLDNLYKLKNHKA

>CAL34366.1 dihydrodipicolinate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKIGIYGAKGRMGKQIEECLKSETQARISILYDKGGNLGELFEKSDVIIDFSSPSGTHELLNYARTMPK

PLVIGTTGLDEKILHLMQSASEVMPIFYATNMSLGVAVLNYLASKASQMLRNFDIEILEMHHRHKKDAPS

GTAMTLAQSVAKARNLELEKVRVSGRDGIIGERSKDEIAVMSLRGGDIVGRHTVGFYEDGEFLELNHTAT

SRATFAKGAIKIAIWLSKQEAKMYSINDFLGI

>CAL34365.1 amidophosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MCAVVGVINSKNASTYAYYALFAMQHRGQEASGISVSNGKNIKTIKAKGEVSQIFNPDNLKTLEGEIAIG

HNRYSTAGNSSLNDAQPIAATSVLGDIALAHNGNLVNKEEVRSRLIQDGAIFQTNMDTENVVHLIARSKQ

ESLKDRFIESLKECIGAYCFVLASKDKLYVVRDPHGVRPLSLGRLKDGGYIVASETCAFDLIEAEFIRDV

KPGEMLIFTQGNDKFESIELFSQTPRICAFEYIYFARPDSIVEGKSVYEVRKKMGEALAKKFAYKADFVV

PVPDSGVSAAIGFAQYLQIPLEMAIVRNHYVGRTFIEPTQELRNLKVKLKLNPMRKVLEGKEIVVIDDSL

VRGTTSKKIISLLRAAGASKIHLAIACPEIKFPDTYGIDTPTFEELISANKNAEEVREYVEADTLSFLSI

EELTQSIGDERKYSLISFDGDYFIK

>CAL34364.1 flagellum-specific ATP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLEKLRSKLGKENLSAIFGEITKISATSIEIRGLKTGVGDIVKLVSNENENLNTLAMVVEIKEQFSYLS

PFSFIEGFKIGDRAFISDAGMQIGVSDELLGRVVDPFMRPKDGKGAIEATKYMPIMRAPIDAMKRGLIEE

VFPVGVKTIDALLTCGVGQKLGIFAGSGVGKSTLMGMIVKNSKAPIKVVALIGERGREIPEFIQKNLGGK

LDDTVIIVATSDDSALMRKYGAFCAMSVAEYFKEQGKDVLFIMDSVTRFAMAQREIGLALGEPPTTKGYP

PSVLSLLPQLMERTGKEEGKGTITAFFTVLVDGDDMSDPIADQSRSILDGHIVLSRELTDFGIYPPINIQ

NSASRVMSDIISPEHKLWARKFKRLNSLLKENEVLLRIGAYQKGSDKELDEAISKKEFMQKFLGQNPEES

FEFNQTLELLSQIDTPNTPLPPTQNINVGSASATLPNPNLK

>CAL34363.1 GTP cyclohydrolase I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKKFEDCVKTMLEIIGENPNREGLIKTPNRVFKAYEFLTSGYTQNVKEILNDALFESSNNEMVLVRDIE

FYSLCEHHLLPFFGRAHVAYIPNKKVVGLSKIPRLVEVFARRLQIQEQLTEQIAQALMENVDAKGVGVVI

EARHMCVEMRGVQKANSTTTTSALRGIFLKNEKTREEFFSLINSAKQVRF

>CAL34362.1 trigger factor (peptidyl-prolyl cis /trans isomerase, chaperone) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEVKAKQLDSVNATASVKIPSGMIKSEVENLAKKASKSVKMDGFRPGKVPVSAVLKRYERELTQDAEQNL

FKSAVNSALQELKKENKELVGEPYFEKFDRKDGEIIAELILSFKPEIKLEGYEKLIPEYQTPKVSKKEID

EKKDELLKRFATPEAIKTKRALKEGDFAKFDFEGFVDDKAFEGGKAENYVLEIGSKQFIPGFEDGMVGMK

IGEEKDIKVTFPKEYGAAHLAGKDAVFKVKLHEIQELKIPELDDEMLKKLLPGEEKASVEVLDEKLKEQI

KNEKLFKLVNDELKGKFADALIEKYNFDLPKGIVEQETDMQMRAAFNTFSEKEIEELKASKEKYQEKRDS

FKEEAQKSVKLTFIIDELAKLRKIEVNDQELIQAIYFEAYRYGMNPKEHLENYKKQGALPAVKMALIEEK

LFNDIFIPKTEKSEKVSKKEKEDK

>CAL34361.1 ATP-dependent Clp protease proteolytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFIPYVIEKSSRGERSYDIYSRLLKDRIIMLSGEIHDELAASIVAQLLFLEAEDPTKDIYLYINSPGGVI

TSGFSIYDTMNYIKPDVCTICIGQAASMGAFLLSCGAEGKRFALPNSRIMIHQPLGGARGQATDIEIQAK

EILRLKTILNDILAKNTKQKVAKIAKDTERDFFMSAQEAKEYGLIDKVLEKSFK

>CAL34360.1 polypeptide deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVRKIITYPNPRLFLNSEIVNKFDTELHTLLDDMYETMIASNGVGLAAIQVDIPLRVLLVNIFDENDEQK

KEDLLEIINPEIIPLDEEMITCTEGCLSVPDFFEEVKRYNHILLKYQDRFGEFKELEAKGFLAVAIQHEN

DHLNGHLFIEKISFAKRQKFDKEFKKKKKNHKKEK

>CAL34359.1 conserved hypothetical protein Cj0190c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLKCISFHEGLDIIEVESTFTRGLPNLSIVGLASTAIKESVERIKATLLSCDFAFPAKKITINLSPSG

IPKKGSHFDLAIALLILLQNEELDDFFVVGELGLDGSIKSTNELFSLLLFLSAKIKKAKIVVPKSIAQKA

SMIPNLEVYGLENLNEAIEFFKEKNYENFRFSHNHPLFANPLQIENEIFLQNMDFKLDFKDIKGQEKAKR

ACMIAALGMHNILFEGSPGSGKSMCAKRLVYIMPPQSLSEILMQNAYMSLDSKDCEFTKIRAFRHPHHTS

TRASIFGGGTKNARIGEVALANGGVLFFDEFPHFNKQIIESLREPLEDHKIHISRVNSKITYETKFSFIA

AQNPCPCGNLFSKNLSCVCSENEIKKYKNHISAPIMDRIDLYVAMDEISKDDKTSISSKEMSEKILQAFI

FSKKRGQKEFNGKLKDEDLSRFCVLEKDAKDTLDLAISRYNLSLRSLNKILKVSRSIADLEQSLNISKTH

ILEALSFRARN

>CAL34358.1 conserved hypothetical protein Cj0189c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENKSIAIFIDAENIPAKYAKSIFDIASDYGEVIIKRIYGDWTQKNIQGWREQIAEYSLIAMQQFNFAAN

KNSSDMYLITEIMSIFYEKNIDIFVIVSSDSDYTSLIQKLRENKKQVIGMGLEKSIKSYVNAFSEFFYLD

KDESKKEDILSKDYLRALINITEQLIDEKGRAEYAQIRTNMNRKYSDFHPQNYGFKNFRALIQKFLPKMK

KFEEEREKNIYFLVKKDYESYY

>CAL34357.1 putative kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKAIIDNIKILEQNAINKGLDELILMENAGLNLAKLIKKEAKKIRIQRKIRKVKILFLLGGGNNASDGLV

ALRNLKHAKAYKIGFKENTLFKKQEQILQNYAFKFCKKEPNFKKFHIIIDCILGTGSNRCLDEKTSLIIQ

KVNQSKALKIACDIPTNLGFYPCFKADITFCMGALKEILLEDFAKEFVGRIKIANLGIRSKKFYPNSQAF

LLEKKDLKTIDRKINANKGNFGHIYIVANASAGTLAGLGALNFGAGLVSLVAQKSFSPLLMLKEKIENNA

SAIALGMGLENLDFLKDEILQNTPLILDANCFLSEALLWYLNRKDVVITPHPKEFIKLYKMCFDENLDIE

TLQKNRFFYARKFSQNYDCVLVLKGANPIIVQKEKLFVVNLGNQALAKGGSGDVLSGMIAAHLGFGFSAL

EAAKNATLAHGLVAKKYKFNKNSFDALKLIKGLKCL

>CAL34356.1 phosphoribosylglycinamide formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLVKLAVLFSGNGSNLENILEKLHKKTIGENTYEIVLCLCNKKDAFGIQRAKKFGLNTVIIDHKAYNTRE

EFDTILVQKIKESGANLTVLAGFMRILSPVFTKNIKAINLHPSLLPLFKGAHAIKESYESDMKVAGVSVH

WVSEELDGGMIIAQKAFEKRNLSFEEFEEKIHSLEHEILPLSVIEIFS

>CAL34355.1 putative TerC family integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFEWIFSIDAWITLATLSALEIVLGIDNIIFLAILVSKLPPEHRDKGRILGLAFAMITRILLLLSLFWVM

KLVTPLFSVLGNEISGRDLVLLLGGLFLIVKSIKEIKEQISHQEESQSHFKASNKLWIVVAEIAVIDIVF

SLDSVITAVGIAQDVTIMIIAVIIAVAVMLFASKPIADFVEKYPSIKILALAFLVLIGVVLVAESFDIHI

DKAYIYTAMAFALVVQILNILDQKKEKNG

>CAL34354.1 putative phnA domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKDANGIELNAGDSVSIIKDLKVKGASTTLKRGTTIKNIKLTSKEGEIEARVDKFGVIVLKTEFLKKI

>CAL34353.1 putative serine/threonine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRILLVLRGNYYAGQEEFIKNNKLQNYTLDLNALRLLSGSVKNIVSEYKILNVKNDEDLSKILLKLLEMR

MQKGEFSIINAYNETLKIYKDLAKQYRYKIYVIVFDSSLKQCQEKNLLEAKKNGYIIPYALLEKTQDLLK

KNPKKYPILDSRDWKKCLYQMPNLSKYKKIHHIGDLQGCYSVLKEYIKTIKEDEFYIFLGDYINRGIENG

KVIKFLLKICEKENVCLLEGNHERHLIKWANGELSNSKEFNENTLKDFRKEKLTPRDARKLYPHLKECLY

YKFQNKFIFCSHGGVNFIPSKPEKISFIPSHDFIYGVGGYEDSQKVANQFCNFTSDNLYQIFGHRNKEKL

PMKIAKRVFLCEGKIDDGGYLRVVTLDEKGFECV

>CAL34352.1 putative integral membrane protein with haemolysin domain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDPSQVLDLNQTSTASFDAGYSILMVVVALALVFLNGFFVLSEFSIVKVRRSKLEEMVKEKKAGAKKALE

VTSRLDTYLSACQLGITLSSLALGWIGEPAIAKMLEIPLINLGFSTVIIHTMAFIIAFSIITLLHVVLGE

LVPKSIAIAVADKAVLFIARPLHWFWMLFLPCIKIFDFLAAISLKLFGIKPAKESELTHSEEEIKIIASE

SQKGGVLDEFETEIIRNAVDFSDTVAKEIMTPRKDMICLNKQKSYEENMQIICEHKHTRFPYIDGSKDTI

LGMIHIRDIIQNELNHKSQNLDTFVKPLILVPENISISKVLVMMNKERSHTALVVDEYGGTAGILTMEDI

MEEIIGEIKSEHEEDSYKKLAENIYEFQGRCDIETVEEMLVINYDEDLEQVTIGGYVFNLLGRLPMVGDR

IEDELCYYEVKKMDGNSIERVKVVKKTNKDEE

>CAL34351.1 putative transmembrane transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIMFSSFFKSKKWALWAYLGLFLLLFFLYIQTSLNVAINSWYSDFYNVLQKPKIELLDSNSTQKIEENLE

NNATLIQEANQRAEQNFQKANFINKGALYYYQNLLEYFFNSRAMIEKPNYSASDFYALILVFLAIAIPYV

LIATINIYFASVYAFKWREAMTFSYLKFWKNKDDNIEGSSQRIQEDTYNFSKIVESLGLSFIKALMTLVA

FIPILWSLSDVVSKALFANLSENSFFYFLKNIDGLLVYIALLISLGGLVVSWFVGIKLPGLEYNNQKAEA

AFRKELVYAEDNRKEYAKNETMIELFTGLKFNYKRLFLHYGYFNIWLILFEQMIVIVPFLIMAPGLFAGA

IGLGIVMQINNAFDQVRSSFSIFITNWTTITQLRSIYKRLKEFEKNISYKS

>CAL34350.1 TonB transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSSVIFGFVLSLILHTLVLMFFLFSFYTQEKSSGVDFKQGAEFTSIMMVSEFPIGELKEVSIDQKKSNS

QDKNKKQDERISFNSQDKNAVLKVQKKIEKQDENQAQKEIANASENSKFKNESLSAPLQSNKDKTQTIVS

GNAKEQVKSYQALLMAHLTKFKKYPQEAIMQKQEGVVRIRVSIDESGNVLSKELKKSCPYAALNDEALSL

FKRASPLPKPPKEMLKNGDKISFVMPIDYNIKDYLGKK

>CAL34349.1 biopolymer transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIKTEMAHKEEELSEINITPFIDIMLVLLIVFMAVTPLITSSIKIELPKSSQQAEDKLKNPIILYLNTDN

TLAINDDKLSLENLSSALDIKTKGNKEEIIYFHIDKSVKYEDIMQVMQKLKENGYGKIALSSKKMD

>CAL34348.1 biopolymer transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKKCFYFVFLLLNLNAEANATDTNLSFDSSKIETEAPKIELSLSSLYQNADEVVKGVIYILVLFSILAW

AVFISKLMQFYFMKKNLDLSIQKIKELKNLNELDQTKDFAGVLSLEIQDELEKSEYKNDHIKERIELRLQ

NTISKQITASKNGLSLLASIGASAPFIGLFGTVWGIMNAFIGIANLGNASLAVVAPGIAEALFATAFGLI

AAIPAVLFYNYLTRKNLKLMHHLDELANFVYILFHRSYFNDKN

>CAL34347.1 putative TonB-denpendent outer membrane receptor [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLSLFCAVGLCFASFAFSEELEFDSLEISGSKIKNDEKPFVTPGATSTREGIGSDTQSIDSIVRSIPG

TYTNTDQAQGTVQVNIRGMSGFGRVNTMIDGVTQTFYGSASDDPARFHSQTGTSAFGAVIDTNFLIGVDV

TRGTFEGVGGANALMGSANFKTIGINDIVHDGNIFGFLGRFSYGSNGIGPSYMSAVAGKTELENNGYVGA

LFGYSAKRITQNYTVGGGGKIGSSMVDTDGDGIADTNIAPFDPDFLTQKPNSQLFKLEYVPNSFTNTIFS

YRRYQNELAGRKIHNDNYQLDFWHNPNEWLNVNTLIAYNQGIQTYGSKSTFAANDAIANTKAKNTATTFD

ISDTLEGEWHRFNLNIRFGANILLNDYKNTLNTSIQGVNSIPFQPRGKQNLFTYYLDNSLNYGIFTLDTN

VNLLDWNIKGHRPACDEVNFMCFPKAATDIDKNGLRLNASVMLSAAIHELITPFVSFARTNRAPNVQEMF

FSNNEGNGINSFLKPEQANTWQIGFNSFKHGLLKDDDRFGFKAVYYHTKIKDYIYNEQFYLEDPSKDPPS

SQFYMHLNSADDTIFKGVELELSYDLGFAYAKAMYSRQDTSSTISQTSGPLLGSFSASKIMELPKDYANV

ELGFRLNDKISFGGIAKYTGKAKRVNPNTDDWNKDPNNPYYPKPTTQDLPKIPIIVDLYWNIEWFKNLTM

RAEVQNLFDKNYMDALNAYNSLDNQLQYNGAGDPIYLFSNSARGRTFIVSFEYKY

>CAL34346.1 putative iron transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFYTILSILFISFMLSACAVLQKSSPLQENKDFYILDTHTQKKISFEDMILELLKADVILLGEKHDEVK

HKISQVMIFNALEGNLSSQNINFDVALEMLASTEQNHLDKAFKNKKTIKANELTNALNWDKVWKWKDYEQ

FVNVVFYSKSKILGANLSRSEITSIYNGAQPLKGYVSTTNEVKKQLFDIISLSHKLNPEENKELLDKLVE

IQQFKDRRMADVLVHHVNKVLLLAGSYHTSKKIGIPLHIQDFKSSKKIVVVNLSYGEIDLKDSDYVLIYK

GEE

>CAL34345.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSMKKIILFLLCVGFAFACSEHSHTDFKDLNKTEYNSQLKDKI

>CAL34344.1 putative iron-uptake ABC transport system,periplasmic iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFFMFLTAVSFLGASELNIYSARHYNADFEIIKKFEEKTGIKVNHTQAKASELIKRLSLEGSNSPAD

IFITADISNLTEAKNLGLLSPVSSKYLEEFIPAHLRDKDKEWFAITKRARIIAYNKNTNIDISKMKNYED

LAKAEFKGEIVMRSATAPYSKTLLASIIANDGNKEAKAWAKGVLENLATNPKGGDRDQARQVFAGEAKFA

VMNTYYIGLLKNSKNPKDVEVGNSLGIIFPNQDNRGTHINISGIAMTKSSKNQDAAKKFMEFMLSPEIQK

ILTDSNYEFPIRNDVELSQTVKDFGTFKEDQIPVSKIAENIKEAVKIYDEVGFR

>CAL34343.1 putative iron-uptake ABC transport system permease protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYKTLKYYKLGAILLALFLALPIFGIFAELFYILFQNFNTSDLTQFSSIKENLSHFFDYLFLKFIKDTFI

ISMGVLCLSLILGVSSAYLIANYDFYFCKILEKLLILPLAIPAYILAFVYVGIMDFQGFFHENFGFRIDF

FNHYGVIFVLAISLYPYIYLFAKTAFKSEAKEAYEVAKIMKYSEFRIFTRVALLSARPAIFSGALLVLME

TLSDYGASAYLGVDTFSAGIFKLWYDLNDSYSSSVLSGILMLFVFLIMYVDYYYKNKHHYSFNQNLALFI

KKRKLNPIKQILSCIYCFMIAFVGFILPFIWLVYWGLKDHKLFESQFYIISFQTIILALITALITTFLAY

FLMFSSRIVKNHFFNLFILKISSLGYSIPAAALGISIIVLFVFLDKFFHMSLLGNSLLVLVFAYIIRFLA

SAIYSLEGGYNKIHLNIDEASLNLRTSYFILFFKIHTPLMKHFLFLAFIIVFIDTIKELPLSRILAPFGF

ETLSVKAFWFASDERIYDAALPSLFIVFLSLMVVVWMDKITRKDDVRN

>CAL34342.1 putative iron-uptake ABC transport system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMLEIKNLSKNFGKIQALENINLHVKEGEFLSILGGSGSGKSTLLRIIAKLEQASSYDLFSCKGEVALMF

QNYALFPHLNVEKNILFALYDKKDKNQILNHLLKTFEIEDLRYKKIDEISGGQAQRVAFARAMARGCKLL

LLDEPFSNLDQNLKQDLRRELKKMIENQGITAIMVTHDIEDAYCMSDQIAFLEKGKILAHANPKELYFKP

DFKSAQILPDLNIIEEKLDLEDEFFAWIASKNYIFGYAELKIGNRFEAKILQKEFLGAFCRLKLLYKNII

FFILVSSSYDLEEKISFDIINF

>CAL34341.1 putative saccharopine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLLIIGAGGVSRVATVKCAMNSDTFSKITLASRTKSKCDEIAAFIKERLGVQIETAQIDADDSNAVVE

LIKKTEAQILLNVALPYQDLSLMDACIKAGIDYIDTANYEHPDLAKFEYKEQWARNDEFKQAGILGLLGS

GFDPGVTNVFCAYAQQNLFDEISYIDILDCNAGDHGYAFATNFNPEINLREVSAKGRYWENGKWIETQPM

EIKMEWDYPEVGVKDSYLLYHEELESLVKNIKGLKRIRFFMTFGQSYLTHMKCLENVGMLGIKPVIHQGK

EIIPIEFLKTLLPDPASLGPRTKGYTNIGCVIRGKKDGKDKQVYIYNVCNHEECYKETGAQAVSYTTGVP

AMIGTKLIAKGIWQGKGVFNMEEFDAKPFMEELNSQGLPWKIIEMTPSLGE

>CAL34340.1 hypothetical protein Cj0170 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEWILTLSQHSTQKGAKMDNSLSAYTQKYDKEGYGLQYPDGHVIRFYERILKYKLSKTSGKLLDFGCGN

GVHSKYFKNITGGGIEPYGIDIVPSLKKVWEKDPCLDSKNFHIISPNSSFKKLFNTKMDFIFANQSLYYL

TKQAFKEAVQEFYELCNEGAIIFATMMSDKGYSMYERGELMDNSLREVKGCPSGRLSGSSYIRFTKDIEE

LKEDFKPFKPLFWGDYELINLYNFEGSVEHFIYIGQK

>CAL34339.1 superoxide dismutase (Fe) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFELRKLPYDTNAFGDFLSAETFSYHHGKHHNTYVTNLNNLIKDTEFAGKDLVSIIKTSNGGVFNNAAQV

YNHDFYFDCIKPSTGCGCGGSCQSIDANLQAALEKEFGSLENFKAEFIKGATGVFGSGWFWLVYNTKNQK

LEFVGTSNAATPITEDKVPLLVVDVWEHAYYVDHRNARPAYLEKFYAHINWEFVAKAYEWALKEGMGSVS

FYANELHPVK

>CAL34338.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKVVLISALLGAFAANVFAANTPSDVNQTHTKAKADKKHEAKTHKKTKEQTPAQ

>CAL34337.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDFYSLIFLSCALGMDAFAVSLCKGFSVKKLHLKHYLIVGIYFGGFQALMPTIGYFIGITFASFIASIDH

WIAFILLSLIGLKMIKESLENENCDSNANQFGFKTMLALAIATSIDALAVGVSFAFLNVNLLLAIFLIGI

ITFILCIIALKIGNKFGIYLKNKAELLGGLVLIILGVKILIEHLFFD

>CAL34336.1 tRNA delta(2)-isopentenylpyrophosphate transferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFFEIALIGTTASGKTYIANTLAREFNAVVLSLDSLCVYKEINIASAKPSQDDLASIKYFGVNLLSVNEH

FNVELFIREYQKAKEFALARNLPLIIVGGTGFYLKTMIDGLSEKTLESKSSLNNDEIYALLLNIDPNYKI

EKNDTYRLKKWLGIYEQTREIPSEFLKRTQKTGVLKDIEIYELAWDKEILKKRIKTRTKEMLDNGLLDEA

KILFSKFDHKLKALNSIGLKECKEYLDGEISFKELENLITIHTTQLAKRQRTFNKKFQSKALEFDKALAT

LRMKFSIEK

>CAL34335.1 putative 4-hydroxybenzoate octaprenyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTFWIKFKDILELVVFKHSIFALPFLFSSMIVASKLANDTAWFGFKALILGIICAVSARNFAMATNRLM

DEDIDKDNPRCANRPNVSGKIGRKSVWIFIIINALIFISCSYFINTLAFYLSFPVLLVLAIYSAFKRFSS

LAHLVLGFCLGLAPIAGSVIIMGEIHIYSVILCLGVTFWTAGFDLLYSLQDMEYDKKIGLHSIPAKFGSK

ATLFISSFCHILAVLFWLLFVWEVWGVALGKIALIGVIISGIILALEHKIVHKNFAHIDRAFFTLNGYLS

IIFFIFIWIDLLWN

>CAL34334.1 hypothetical protein Cj0163c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MELALFKAGFEAHLECCEIENNRFLGEYLKLGAISQILKWKKLALRIDFDEGEKIIFDLLLSLKEDILRL

ENSLDKNKELIPLKQKGVIESLNFEYLNFLDTILEEDKEYYLRFDLNNQKIAIFIKAQSQTLAKIIKIKP

EDKMAFDAFVVEIQRNMIRNKKGQE

>CAL34333.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSDDVLYLVFIIVLLIAMLAYMNIKERENNAKIAKLQNVIEDITKELHYFRKELGVKDDSEEDEDYKTSL

LKEEIMIELDKQISSKITPVLRTLKTMEHIIEDFQNEQQNRLLNLEQKAQSMAKLTPNYDTEEQKIENLF

KEGKSIEQIAKDLRIGTGNVELVLKFKKLIK

>CAL34332.1 putative molybdenum cofactor biosynthesis protein A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLIDQFGRKINYLRISVTQRCNFRCLYCMPKIPFDYQPKENLLSFEELFLFVKAAIDEGIEKIRITGGEP

LLRKDLSIFIKMISDYKSDIDLAITTNGFLLKDFAKDLKNAGLKRLNISLDTLDHKKAKTLAQKDVLDSV

LSGIDEALNLDLKVKLNTVALKNLNDDELISLLEFAKSKKAQIRFIEFMENTHAYGKLQGLKRDEIIQIL

SQKYQIQLIKKDEKAPVSIYKADDYEFGIIDPHSHEFCDSCNRIRLSAEGLLIPCLYFDEALSIKEAVRK

GDIKAAVEILQEVLRNKPEKNKWSVVDNETSSRAFYQTGG

>CAL34331.1 putative radical SAM domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQLVESFLSIQGEGKYNGKLAIFMRFAGCNFNCLGFNVKISKNDKTLIGCDTIRAVFTKDFKESYETLNA

NELLKRVIKLKKDFDPIVVITGGEPLIHYENPEFIEFIQMLLKNKFEIHFESNGSIEIDFDRYPFYKECI

FALSVKLQNSGIKKDKRLNFKALKAFKNYAKDSFYKFVLDANTLDNSFLEINEILKEAPNQIFCMPMGEN

EQNLKKNAQKIAEFCIKNGYNYSDRIHIRLWNDKEGV

>CAL34330.1 putative 6-pyruvoyl tetrahydropterin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIIRKLFEFENAHIVRFCSSKRCKSSIHGHSYKVEVLLESKYLDNAGMVYDFGLLKTYIRQIIDSFDHAI

TLFKYDDAKYLEEMKKYSSRWICLPVNVSAENFCRVFFILIDALLKQTKMVNGEQGVTLQSIIVHETRTG

YAQGFREDAYSELMPKISLQDIEFSNGIKAEWNDIDFYNKLKNEEIFINPKEI

>CAL34329.1 putative haem-binding lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKAKILIALSFFLLVLSACSNDEKNISKTQNTDQEVVQIEQNDEKTELSDSNLPLPVDDEAQSSNDEHE

VNPSIINSLYKQKCATCHGEKGELKPKNSTAIKTLSNKIFIQKIKTIKDKNHSFLSDEQIQNLADFINKG

K

>CAL34328.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDQSYEFFLALHLYSLYASGFLMLFYLILTQGNFKTEFIFIRRIRLFLPIYYLFLALIIFTGCLLSAMKQ

FQMNVNIWVMIFSWILIFALAIFHFVCFKKARRFRKYATFRWISCLILPFEIFLLFLPFLIERYL

>CAL34327.1 conserved hypothetical protein Cj0156c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQFLYNKQAGEEFIQLQGENFNHLKVRRVKENSELNLRNLQDNFLYNYTITNLTRNSCTLKFLNKKSQNI

KQSELNLALAIIDIKILEKTLPFLNELGVKKLHLVFTNFSQRNFKIDLERFEKIIISSCEQCGRNTKMDL

IIHQSTQEFVQKFPNAIMVDFQGEQQSHFDEKELYFIGPEGGFNNDERLLFNRKISLKSSNILKSQTAII

AIASKILL

>CAL34326.1 50S ribosomal protein L31 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKEIHPEYVECKVSCACGNTFTTKSNKAELRVDICSNCHPFFTGSEKIVDAAGRVEKFKKKYAMQ

>CAL34325.1 putative tetrapyrrole methylase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLYFIPTPIGNLSDISFRALELLKTCDLVFCEDTRVSKSLISLLNTKFHTDIHISKFIALHSHNEKEVLA

SIDLKIFEKNVAYLSDAGMPGISDPGKALVEFAQENNITYEILPGANAALVALVSSAFCQKEFIFIGFLA

NKGKERQKDIEKILNFPYPSIIYESPKRILSLVEQIMILDNQREIFLIKEISKKFEKKFKGNAKELSEIL

KKSNLNGEWVVVLQSKEQNFLQNTLCEKDIMDLELSLKAKAKLLSKINGKNAKEIYQKLLLSQD

>CAL34324.1 putative rRNA methylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIVYGKQIFFYILEYHKDCINELYLAKECDKITFSKIAKSGFKIKKLDFKTAQAYAKGGNHQGFLLDIKE

SSFANLNEIKKNDFIVMLYGISDVGNIGAITRTAYALGVGALIFIGEKLAMEGVIRTSSGAALDLPIVIS

NDALSVINELKQVGFYFYASDGSGKEIHSVKISNGKKVLVLGSEGFGLSSKIVKKCDECVGIAMKNNFDS

LNVSAAFAILCDRMLNA

>CAL34323.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLNWKKIQELNLKEVAAKTQIELDFLEALVEKNFAVLSRFNVKGFVKILSREYELDFSDFNEEYEAYLNE

NNPTPQTKSKMITPKLDAYSQKSFNTWPFLIVLIVLVIIGSGIYYFDTLKTFFKDEQNNTSATVIDIIGQ

AQENLKSLGGNNVVVIDNNKAQETNRTESVLPSQNISLQENDKNISIENNISENNTTLLDEEKNTQIQED

TNTPKTDSLKEAHFKTSTKIWIGLIDLKSLKKTSFVKEKDFNISLDKDQLILTGAAALTMFDQENKEQKF

PAGISKRFLIKDGKITSISAAEFVKLNKGKEW

>CAL34322.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVKKIIILTFWVNISFAISSLELAKNLVNNPSKNSQLELLFSNNSYIDNNGNCDIAKISQILKTNSLIAL

TLSNPQSLRLNFKAKADEVMFFKILSDVLTDAGYIYFIPTDLILREGNIDYTIQVESQYVLDPGTLYNLL

KENSVYINNIKRIGVYDYEYDLNFSNAVLKTNTNVNLNTPKSLEKPLKDYVLDLKNATNLIIDANDLDNW

FPKIFFLDKNLNLIKAVKSENKNNHFSELIPNGAIYAIVSDMYSLDNIRRGLKITLKK

>CAL34321.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFDEIRFNTIERLPNYVFAEVNAIKMAARRAGEDIIDFSMGNPNGKTPQHIIDKLCESANKDKTSGYSTS

MGIYKLRLAICNWYKRKYNVNLDPENEVVATMGSKEGFVNLARAIINPGDVAIVPTPAYPIHTQAFIIAG

GNVAKMPLAYNEKFELDENQFFENLHKTLNESIPCPKYVVVNFPHNPTTVTCEKSFYERLIATAKKERFY

IISDIAYADLTYDDYKTPSILEIEGAKDVAVETYTLSKSYNMAGWRVGFVVGNKRLVSALKKIKSWFDYG

MYTPIQVAATIALDGDQTCVDEIRATYDKRMHILLEAFENAGWKLQKPRASMFVWAKLPESKRHLKSLEF

SKQLLQRASVAVSPGVGFGEAGDEYVRIALIENENRIRQAARNIKKYLKE

>CAL34320.1 homoserine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVAILGYGTVGSAVVKFLLENDKLIRARCGQSITPVIALARSPKKNALIPITHSVAEILNADVDVFVEL

MGGVDEAFKIVSEILKKKKAVVTANKAMLAYHRYELENLAKNLAFGYEASVAGGIPIIKVLKEGLSANNI

LAIKGILNGTSNYILSSMSQKNMSFKQALQIAQNLGYAEADPTFDIEGQDAAHKLLVLSSIAYNLKAKPE

DILIEGISEIAPEDMYFANEFEFTIKLLGIAKVRENKVELRVHPTMIDKEKMLAKVDGVMNAISINGDLL

GESLYYGAGAGGEATASAVISDLMDIARDQVKAPMLGFVNTLEYKLLSKDEIYTKYYLRVKVEDKIGILS

KITQLMSENNISIDSFLQKPKKNDENYSTLFFTTHLTYEKSIQNLLEILRKQDFIKTKPFMMRIE

>CAL34319.1 conserved hypothetical protein Cj0148c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGVKAYLDGILGEDKACKFLKKQGFEILKRNFHSKFGEIDIIAKKDEILHFIEVKFTQNDYEVSERLDRK

KLEKILKTIEFYHLKNGISSDFQIDLICIKNDVIQFCENISF

>CAL34318.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGKYIELTSDNFAQAKEGVALVDFWAPWCGPCRMLAPVIDELSNDFDGKAKICKVNTDEQGDLAAEFGVR

SIPTLIFFKNGEVVDQLVGAQSKQAISDKLNSLL

>CAL34317.1 thioredoxin reductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLDVAIIGGGPAGLSAGLYATRGGLKNVVMFEKGMPGGQITSSSEIENYPGVAQVMDGISFMAPWSEQCM

RFGLKHEMVGVEQILKNSDGSFTIKLEGGKTELAKAVIVCTGSAPKKAGFKGEDEFFGKGVSTCATCDGF

FYKNKEVAVLGGGDTALEEALYLANICSKIYLIHRRDEFRAAPSTVEKVKKNEKIELITSASVDEVYGDK

MGVAGVKVKLKDGSIRDLNVPGIFTFVGLNVRNEILKQDDSKFLCNMEEGGQVSVDLKMQTSVAGLFAAG

DLRKDAPKQVICAAGDGAVAALSAMAYIESLH

>CAL34316.1 putative TAT (Twin-Arginine Translocation) pathway signal sequence domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MERRLFLKGSALGSMVAFFASSNLSAAMLKDKDLLGFKAVSASTQDKVIVPQGYEAKVLISWGDPLFSKA

KPYDENKIIDMNAVKNAHLVFGDDNDGMSFFPLSKNRGILAVNNEYINPEIMFNHHGKNLSKEDILYEQA

SVGVSILEIEKKGDDWTVVLDSKYNRRIDANTKMQVSGAAKKEVLKNEKFVHGTFANCANGQTPWGTYIT

CEENFDDFFGSLDENLEFNDSLKRYGFNKTSLYGWEKFDERFDLAKNMDEANRFGWIVEINPFDAQSTPV

KRTSLGRFKHENAEIIVEKDGSVIVYMGDDEMNEFIYKFVSKHKYKKGADTSKILDEGILYVGQFNGNVG

DFKGQGKWIALEYGKNSLNEKNGFKSQAQVLINTRLAASIVGATPMDRCEWIASHKQSGSKEVFATLTNN

KNRQEPNAANPRTKNVYGQILKWMPKNSHKDDDFTWEIFALAGNPDNQQGLYKGSNNITSENKFNSPDGL

KFDRDGRLWIQTDGSYSNKDEYESMGNNCMLAANPKTGEIRRFLTGPIACELTGIAFSEDYTTMFVGIQH

PGEGLKGSTFPYGKTPRSSVMMIRKLDGGVIGS

>CAL34315.1 putative methyl-accepting chemotaxis signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKSVKLKVSLIANLIAVVCLIILGVVTFIFVKQAIFHEVVNAEINYVKTAKNSIESFKARNSLALESLAK

SILKHPIEQLDSQDALMHYVGKDLKNFRDAGRFLAVYIAQPNGELVVSDPDSDAKNLDFGTYGKADNYDA

RTREYYIEAVKTNKLYITPSYIDVTTNLPCFTYSIPLYKDGKFIGVLAVDILAADLQAEFENLPGRTFVF

DEENKVFVSTDKALLQKGYDISAIANLAKTKEDLEPFEYTRPKDGNERFAVCTKVSGIYTACVGEPIEQI

EAPVYKIAFIQTAIVIFTSIISVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFG

QISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARV

GSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLT

TSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAG

EHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNV

EIANESAIISSTVSDIANNILEDVKKKRF

>CAL34314.1 putative periplasmic solute binding protein for ABC transport system [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIILFILSLGIFYTFTQAKNLEQEQNTSSNLVSVSIAPQAFFVKKIAANTLDVNVILPPNSNEHNFEF

KPSTMKKLEKSDIYFTIGLEFEKVFTDKFKQNFPKLQVINMQKNIALIQTHDTHEHSHEHEHHEHGHFDP

HTWLDPILVQTMALNIYDTLIQKYPQNENLYKENLDKFLAELDSLNLQIASKLEKLKNREFVVYHPSWTY

FAKRYNLTQIPVEILGKEPKSKDLQKLITLMKDKNLKVIFVQNGFPENAAKTLAKECDAKIYKIDHLSYD

WENELLKTADAFSHNL

>CAL34313.1 putative ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLFFEISNLNYAYDNEIILKNINLSYDNKDFLSIIGPNGAGKSTLVKLILGLLKSKNEIHFKALQRKEIG

YVPQHTLANPNFCPRVLEIVLMGLVSKKIFGFYGKKDKEKAMQALKSVGMEKFWNKTIDSLSGGQRQRVF

IARALASECKMLILDEPTASVDNKSAIQIFELLISLHQKGMGILLICHDINLVLAYSDKIAHLNKELFLH

TNTKEKEKSSFLKHLYENHSHFCDVEMSLNTCFCNEENCDSKKLCEQEFTRRNLKKTEFKKENFCLKFSK

ENNA

>CAL34312.1 putative ABC transporter integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLEILNFTFFQNALLGAILVSIACGIIGTLVMINRLFSMAGGITHGAFGGIGIAFYFSLPILLSTGIFTL

FLAFLVAFLAKRYEHRSDSIIAVIWAFGMAVGIILIDLSPSYNTDLMAYLFGSILAVGTQDLWLMALVDS

VMVLLIFLFYRQFEALSFDVEFTKVRGINTSFFHYLLIALMAFCIVISIRLVGLILVMALLSIPSFIAEN

FTKRLGFIMILASFLSMIFCILGLILSYYLNLSSGACIIAIACFGFLVHLIGKFLKR

>CAL34311.1 hypothetical protein Cj0140 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNSIFSIIEHQAFSKEDLKEIFKEKAEGFYKELEDFAKNNENLLGFKNKNSLKAKNYVGIIQTKSGVLEI

LPKCTNLDSYKKEDSSSNHDKEKLRRCYELDNISKNNDFYEKDFKFNPKNLLINMLKTLKNSPFKKSQIS

SLQSSKIPLFEVFITMFLDEFDSVYKKGLMRSYLSCEENRAFLKGKLLFNEHIKQNLIHKERFFTSNDEF

VLDIAPNRLIKSTLNFLKSKTSLNKFRLIKAMQMLDEVEFSKNYEKDFSYKISRHFDYYENLLLWCKIFL

KNESFMPYHGKNEAFALLFPMEKIFEDYVAYMLKKVNSTQDIKVQNNGKYLISKNDENCFMLKPDLYIKN

KMILDTKWKIPNDSEDEKKQGIAQSDLYQMFAYACKFKIYDIKLVYPLCEKTQDLQRKIAEKFFVFKASE

HLYFKEQGQKDIKVQVFFAPLPF

>CAL34310.1 putative endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWNLDEKKLQEMLDGFLNFQEVWTLEKVKNMTLEEYTNIKKDNPNRDDFTFWIESKLDNLGSIWGGSAFK

FGIYRRNDESQKESSSGRLYSQNYAWIAKYGNNENEAFNNIKEKIIQIIQASQDNNLKTIEKIDFGDAIK

WKIAFHYQDVKNIKIVNIFSKNVLDLISLNEFKEKLKIYQIHKKLLENKNLSLVKMIENIAIPLWNKYGM

DSQNYIDKMKNLFSEYLNKKKLDKNTINKYIQVIENISKEFLKENLYSCDLFSFDQNINKLNKNEEFKLK

NSNGHNMYSSALNYYRAFLIDYYEQDIFITERVQSEESNMKIIPLNQILYGPPGTGKTYHTIDKALEILG

ENLESRDEKKAKFDEYVRKGQIVFTTFHQSYGYEEFVEGIKPIIDNDENSQEVKYDVKDGIFKELCDKSL

KNYILSMQNENEIDLDKLIFEFANYINQDFLNKGNEFPLENKVSIKKILLNFKDEYRSFSLGGSIKSPQS

LTIDIIKRDYLNFKNKKILSFKDIKPKYDSQSDYHGNAIYYFMFYNKLKEFENIQNEKFKIKKEILKSYI

IIIDEINRGNVSKIFGELITLIEPSKRIGEKEELKVTLPYSGEKFGVPKNVYIIGTMNTADRSITSLDTA

LRRRFEFVEMMPDVSKLSMDCEGINLQELLKAINTRIEYLLDREKTIGHAFFVSVENLEDLKKVFQNKII

PLLQEYFYNDYALINAVLNDNDMIFEDKKDDKYLQKIKNLDSVNSERSIYNIASFDDKIWDKIEIYQAIY

NDEIANKLKNENE

>CAL34309.1 conserved hypothetical protein Cj0138 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLEALCKEAGLSFYDDELVSENGRKIYRIYVQKEGGVNLDDCARLSEILSPIFDVESPVNGEYFLEVSS

PGLERKLSKIEHFAKSIGELVKITTNEKEKFEAKIIAVDDENITLENLENKEKTTINFNDIKKARTFVEW

>CAL34308.1 putative ribosome-binding factor A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNPSEIKKLRTESILKELIPEALANLDDENLKNLCVVDVECKKGRYDAFVYLDKMFFNVHEQEKILSSLK

KASRALQNYCMSEQGWYRCPNFHFKFDDRLEYQNHMDALFEKIKKDKNES

>CAL34307.1 translation initiation factor IF-2 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKIRIHEIAKELGYDSKEIIEKANELGLGIKTASNAVEPEIAAAIYEYIQTREIPEAFKKNIKTPTAKK

PKKENIKEQEKLNESEKKEPKKEEKLKQEVKKEELKIEKENAKEEEKQEIIDAHKPQSLASATLAKRRGL

VIVKKKKDEEEIQVKKEEVKNSNDISINNEERLSLKTMFSNADESLKKKKKEKKSFVASKKESTEKMNFL

DEHDFGDISLDDEDEVVLPDFSVKEQEKPQNINKKQPNFIRQAVGNSAGFGFEGGIQRRSRKKPSKKIEK

KEVEEVGSVAISKEIRVYEFADKIGKSTSEVISKLFMLGMMTTKNDFLDEDAIEILAAEFGIEINIINEA

DEFDYVKDYEEETDEKDLVTRAPVITIMGHVDHGKTSLLDYIRKSRVASGEAGGITQHVGAYMVEKNGRK

ITFIDTPGHEAFTAMRARGASITDIVIIVVAADDGVKPQTKEAINHAKAAGVPIIIAINKMDKEAANPDM

VKTQLAEMEIMPVEWGGSYEFVGVSAKTGMGIEDLLEIVLLQADILELKANPKSFAKASIIESSVQKGRG

AVATVIVQNGTLTVGSTVVAGEAYGKVRAMSDDQGKALKEIKPGECGVIVGLSEVADAGEILIAVKTDKE

AREYANKRHEYNRQKELSKSTKVSIDELGAKIKEGNLKALPVILKADVQGSLEALKASLEKLRNDEIKVN

IIHSGVGGITQSDIELASASENSIVLGFNIRPTGEVKERAKDKGVEIKTYNVIYNLLDDVKALLGGMMSP

IISEEQLGQAEIRQVINVPKIGQIAGCMVTEGVINRGAKIRLIRDGVVVYEGNVSSLKRFKDDAKEVAKG

YECGVGIEGCDDMRVGDYIESYKEVEEQASL

>CAL34306.1 conserved hypothetical protein Cj0135 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKHIPIRMCIVCKNRFEQNMLFRFKVVLGDIVPKAEHGRSGYLCQNCIEREDKVLQKAFSKICKNLNTK

ITQQGLKEIFLNGKD

>CAL34305.1 putative homoserine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILVPATSANLGPGFDCLGLSLKLFNETQIQKSGVFSISIGGEGSDNIFLKKNNIFVNIFYEIYEKLSG

KKDNFRFIFQNNIPLSRGLGSSSAVIVGAIASAYYMSGFKVEKECILDEALIYENHPDNIAPATLGGFVC

SLVEKNKVYSIKKEIDKDLAAVVVIPNLAMSTEQSRQALAKNLSFNDAVFNLSHASFLTACFLEKKYEFL

KFASQDKLHEINRMKNLPELFEVQKFALENKALMSTLSGSGSSFFSLAFKDDALALAKKIQTKFKDFRVQ

YLEFDDNGFEIC

>CAL34304.1 putative glycoprotease family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIGIYQDDKLIKTYKSEEKASEFLPKILDELLKEYDFTSLIYANGPGSYMGIKISYVSLSTLSIVKNIPL

FAVSAFELNGYKPISANKNFCFVYKEGEICLEQNIPAEFFLPKNLQELKLNNDNLPFYFLDAI

>CAL34303.1 UDP-3-O-[3-hydroxymyristoyl] n-acetylglucosamine deacetylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQLTLAKTVKGVGIGLHKGEPIEITLEPLEANSGIVFFRSDLNASYKASPENVINTQMATVLGDDRGFI

STIEHLMSAINAYGIDNVRIVLNANEAPVMDGSSISFCMMLDEAGVKELDAPKKIMVIKKPIEVRDGNKF

VRLTPTKEPRINYTIKFDNAVIGEQSYNFEFSKKNYIENIARARTFGFLKDVQALRSMNLALGGSLENTI

VVDENRILNPEGLRFKDEFVRHKILDAIGDLTLLGYRVFGDYTSYAGSHHLNHLLTKEVLKDKDAYEIVS

LEKTTQKAYEKVFA

>CAL34302.1 putative peptidase M23 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAKRKGKTYLSVLILVLIAILIFFISRLSIFEKNPPQILMPDVVYTDLKKPILVHIKDDESSIKNVQIIL

HKDDNTSAMVIADEKISNLKDITLQVALPKFGYKENVKSFVLEVIAKDSSFWNFFSGNEARKQIAVLVDN

TAPKINIISNSYQIEQGGAGAVVFKADDANLDKVYIETNKGKIFKATPYVKEGYYAALIAWDARDEEFRA

FVIATDKAGNISKERIRYYFVNRKYRVSNINLTDKFLDGKIENLANQYAPKDNNLNRYEKFKFVNETLRN

SNEKLIHEITSKVPEEKIDNFDLNLFLPLKNGMKVADFADHRYYSYNGQFVSDSYHMGLDLASVAQAPII

SNNAGKVVFAAENGIYGLNLIVYHGFGVYSLYGHCSSKNVDLDEMINKQSIIGKTGTSGLALGDHLHFGV

LVQGVETRPEQWQDKKWIENNIYNVLNDGKKIILGKN

>CAL34301.1 putative prephenate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIAIIGLGLMGGSLGLCLKENKLISCVYGMDLSKENEKDALQLGLIHELIEFKDLALCDMIFVATPVNA

IIEILQKLVDLPSNVTIIELGSTKRKIIESLPKNLIKQTLFAHPMTGTENSGPKAAFKELYKDAVCVLCD

SEIADDLHQKRAVEIFSHLGMKIVFMDSKAHDHHAAIISHLPHVISFSLANFVMKEEDKRNIVHLAGGSF

KGMSRIAKSSPQMWESIFLQNKDNLLSSIDFFQQELERCKQMIQLDKNDELREWMKQANTLREIL

>CAL34300.1 outer membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKHLISICALVAMANAATIKDIKFIGLNHLSNTSAINIAGLKIGEEINPAKINTAILNLYKQNYFENIA

VENNNGILEIIVTEKPTIAKVTITGIASNDRKQVESILGIKRGTLLDEGNIKEAIERIKAYYEAKSYFDT

IVEYKKKTLENTDGLELEFIVNRGENIIIDNVHLSGAKKFSYSDIEPAVVNKEKEFMGWMWGRNDGKLKV

FELSNDSSRIADEYMKKGYLDVQVSSPYLKTYTDTYQANLTYFIKEGKPYKIKSISIENPLFDDKQNAQT

VKDLRSSAGKTINIEDIRKDVKTIETQSADLGYAFVEVYPDIQKNDQTQEATVVFKVIPHDKVYIRNVII

SGNSRTVDRVIRRELYITEGNLYNRTDLSESKNALKRTSYFDDVNIKEEKVDDTHIDLIVDVKEASTGAI

SGGIGYGSSDGILLNASLSDTNIFGSGIKSSVSVDKSDDTLSGRISLVNPRVLDSQYSLGGTLYSNDYEW

DNYSEKNYGFDITIGRQFARYYNVSLTYNLEQSDIYHLSPTLLRTGYELGKSIKSSITPAITFNDTDDYY

LPRSGIIASTSLEYAGLGGDQEFISSSSKFNFYQGLQDYIGYDLIYRYKASFYKVWDEGYLPINQRIYLG

GIRSIRGFESRTVSPKNQWGDEIGGTIAFANSVELSFPLIDRIKLRGSVFFDYGMIGRKNLDEIKRMSTG

IGIEWITPIGPLQLVFAKPLNDKKGDDTNSFEFNLGTRF

>CAL34299.1 putative inositol monophosphatase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEFLDACLNANLQIRKYLNNIPQNDLKLCSKLGYDKNQGYELDLKCEQIFIKYLSCFGQIFSEESGLIG

KASPKQMILDPLDGSSNFVSKIPFYGTSIALMEKDQAKSAFVCNLVSQEIFAFNNKQAFKSNLSDPKYSP

LTPNLFSKIGIVEKISLYPELLDFLTKNQLKFRSLGATALSLAYASYFSFVLILGKTRIFDTAAALAIHQ

NLYIEKNENFLLLSQDKKIFDIILEFLKNN

>CAL34298.1 acetyl-coenzyme A carboxylase carboxyl transferase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFADIFSKIRRQQPSVKEAPNHWVKCQSCHALMYYKEIESCFNVCPKCNYHMRISADERIKLLSDEGSF

IEYDANLEAIDPLKFVDSKSYKKRLSEGESKTGRKSSVISGECEINGLKTQLVVFDFSFMGGSLGSVEGE

KIVRAIQRAITSKTSLVIVSASGGARMQESTYSLMQMSKTSAALKLLSKEKLPYISILTDPTMGGVSASF

AWLGDLIIAEPEALVGFAGARVIKQTIGADLPEGFQKAEFLLEHGLIDAIVERGEQKQYLSDVLKFFSGK

>CAL34297.1 conserved hypothetical protein Cj0126c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENNLQVNIFCIQKSDEFKTCSEKYSKLISKYATLKEINVFNKKIALAQNLNAIEAKKSYEEAFMPYKKG

YCIALDEKGKDLTSIEFAKLIQDKNELSFFIGGAYGLREEFNQSLDFRLSLSKLTLAHQFVKTLLLEQIY

RAFCINNNHPYHK

>CAL34296.1 hypothetical protein Cj0125c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKNEIQNFKNILEERKKAILENLQSNSNEIEALHNSVPSDSVDFSVIETGSQIDFAISTNLKEELIEIE

DSLDKIKNGTYGICESCDDEIDSQRLKVKPHARYCITCRQIAEQGKKHEN

>CAL34295.1 putative membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKLFLLASFIYIALIFAFAWHLELGSYTLNISTYTFELPIMIWLVIPLFIYMILAVLHIAFYGFLRYL

KFKHFFKDAAKFEAYTQDLLLEKDLKTTFQTKEFRSVAQLFKTIKTHEKIPHSNKINEILDLIDGLNKNE

FFNLSKFKLENNNVLYLQNEKNHLKNDANYAYNKLKNLNEIKDEFEEIAFNTLIEKASYEQIKNVKIPKK

PSEVLTLIKRFKEGNLELSVAEYEVLLSHNILSEKDYLNAAKLSTKLLNPDAILGIFNKIKNEKSEALRA

YLYLLAEFGLLDELREQIHNDDKKFNDFKAFLALREKNIKIDLNQLIQ

>CAL34294.1 putative tRNA-dihydrouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIDFSKKPLFLAPMAGFSDLPFRNVVKKFGADITISEMISSNALVYESSKTLHMLERAELENPYIVQIAG

GDKEVLKKAVQMLNEMDFVDGIDFNCGCPVNKVVKQCAGSALLENLELFKNLVGVIKENNKKSLTSVKFR

LGFNEKYPEKMAKICESLGVDFISIHGRTRKQLYSGKADYGSIASAKASVKIPVIANGDINAQNAKEVYK

ITKCDGLMIGRASVGNPWIFYEIKSGKSVDEKLKKEIILTHFDEMIKHYKDQGVSIFRKHLHEYSKGHKD

ASTFRDTVNRIDNVEEMRKKIEEFFSLT

>CAL34293.1 hypothetical protein Cj0122 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MIVFPLSSFNRYFGNNPLQTLTKIRDESIENGNPELTKKQREELGNDLIDLYKISKKFSDKIELVEGSIE

DKLRNNELPESEVKNLFQWMDENAKHPRWMHIDGVSYDEAYVKIFHTSKSIDEFKEKYLELQKKYFVDFN

NIDSSQKKLQETSEEDKKAFKPIQVESKSETYKDDNKMNELLRKLLETKFGTSDELEILFGMNFSNDNAG

EFNKILSQNTSAKIIDIKA

>CAL34292.1 conserved hypothetical protein Cj0121 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILSDEKCDFLESIASFLSPKDVELVFVDSKEMQEINLEQRKQDKTTDVLSFPLENIDESLPLGSVVINV

DLAKEKAKELGHSYEEEISLLFIHAMLHLLGFDHENDNGEMREKEKELIEHFNLPKSLIVRTLED

>CAL34291.1 hypothetical protein Cj0120 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQGFILHTQKVKDEDLIVYILSPKMLIKAYRFYGLRHSSILSGYKIDFALEENPSFLPRLKDVLHLGFLW

IMQRDKMLIWQEFIRLLYRHLKDVEELDSFYFDLLDECVKRFEKQNPKRVIVDAYLKILEFEGRLHKDFF

CFACDEKIQNSITLLRAFLPSHSQCALGFEFEEKKLKQFYSSKNCAIFDDEEIENLYHLIKEGL

>CAL34290.1 putative hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAFVLVDYQNDFIDGSLGFDKALKIKENILKALNQIDFNNTHLLLTYDTHDEHYLQSKEGLNLPVKHC

IKESLGWQMPKEFEPFLQKAHKIFYKNTFGSLELANFIQKSDYEELHFAGLVSHICVFCNIILAFGAKPN

ARIILHQNLSASFDENLEKSAFDILRAYGIEIV

>CAL34289.1 conserved hypothetical protein Cj0118 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINLSKKLIRQVAQANAKFGLIKDGDRVLLGLSGGKDSLALAHLLNRMQAHAPFKFELEAVTLSYGMGED

YSHLHAHCEEHGIKHSVLDSNIYEVSGDTIRENSSFCSYFSRMRRGALYTYALEKGFNKLAIAHHLDDAA

ESFFMNFIHNGALRTLAPIYQSKRGITVIRPLIFVRERQLRDNATQNELSVIGNEFCPGMKLSEKNVKFP

HAREEAKQLLANLEKDHPKLFTSLKTAFANLHTESFWLQKA

>CAL34288.1 5'-methylthioadenosine/S-adenosylhomocysteine nucleosidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKIAILGAMSEEITPLLETLKDYTKIEHANNTYYFAKYKNHELVLAYSKIGKVNSTLSASVMIEKFGAQ

ALLFTGVAGAFNPELEIGDLLYATKLAQYDLDITAFGHPLGFVPGNEIFIKTDEKLNNLALEVAKELNIK

LRAGIIATGDEFICDEAKKAKIREIFNADACEMEGASVALVCDALKVPCFILRAMSDKAGEKAEFDFDEF

VINSAKISANFVLKMCEKL

>CAL34287.1 malonyl CoA-acyl carrier protein transacylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNAAFIFPGQGSQSLGMGKDFYENSIKAKELLQNASDFCKIDFKHLLFEENEKLNQSEFTQPAIVLNSLM

AYSVLLEKKPDLSSKFALGHSLGEFSALAVNGAFDFLEALSLVNKRGLFMQEDCAKVEAGMMVVLGLDDE

KVEELCQKAQKENKQIFAANYNCDGQIVVAGLKPDLASYESVFKEAGAKRAMLLNMSVASHCPLLENASA

KLCVELEKVLKPNFKAVISNANAKIYTSKEEALELLKAQLISPVLYKQSIKACENEVDYFIEFGASVLKG

LNKKITSKETYALTNMNDIDEFLKVV

>CAL34286.1 FKBP-type peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAIEKNSVVSMFYELKDANTNEVLESNLYSQPISFILGKGQILESLEEEVMKLDCPSNADVVIKKEKGLG

EYDENAVQTLPKEQFAGIDLKVGMELFGEGENGETVRVTVKEIGENDVTIDYNHPYAGRDLLFSLNIVDA

RAASEDEILTGIIAGSHSCGCGSGHGHDHHHGHGHGGGGCCGGGGCGCH

>CAL34285.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFTVALLGATLLYAESSAFGAGDITSNSSYGLTSNEKLFKEKLDNLNNENIQTNARINEINERIEGL

QSTLEGINSQYAKSNSRLSQVEENNQNIENNFTSEIQKLKAYVEESRKIQEANNKQVKKVLAELSSLVDA

INANYVSKNELNDANLSVKTITPSVVVSTTDSNSTIENNNTQNTQDDKAKQIDESWKKKKNNEILELAIK

DVDKNAFEDSKAKLNFLITKQYKPARANFWLGEIEYKQKNYNNAIVYYKKSSSLSTKGDYFPKLLYHTAI

SLDKTGDTKTANGFYKALKTNYPNSPEAKASPNRK

>CAL34284.1 peptidoglycan associated lipoprotein (omp18) [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILFTSIAALAVVISGCSTKSTSVSGDSSVDSNRGSGGSDGWDIDSKISQLNDTLNKVYFDFDKFNIR

PDMQNVVSTNANIFNTEVSGVSITVEGNCDEWGTDEYNQALGLKRAKAVKEALIAKGVNADRIAVKSYGE

TNPVCTEKTKACDAQNRRAEFKLSR

>CAL34283.1 putative TolB precursor protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIVAIFLVFLGSLWAEDPVIDVVNSGVVLPKIIVKDNSNLSDENLKKSFYNIIVNDLKVSSNFEVVAN

ATETSNYIFEYTLNKNGNTLSLNVKIKAGGSDKSEQTYTLNGLEQYPFLAHKSVKASVNALGLAPVDWMD

HKILIARNSSSKKSQIIMADYTLTYQKVIVDGGLNLFPKWGNKEQTLFYYTAYDHDKPTLYRYDLNTNKA

SKILSSGGMVVASDVNVDGSKLLVTMAPKDQPDVYLYDLNTKNLTQLTNYSGIDVNGNFIGSDDSKVVFV

SDRLGYPNIFMQDLNSNSAEQVVFHGRNNSAVSTYKDFLVYSSREPNQAGVFNIYLMSINSDYIRQLTAN

GKNLFPRFSSDGGSIVFIKYLGAQSALGVIRVNANKTFYFPLRVGKIQSIDW

>CAL34282.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNYGLSNLNSFLLALAIYISIVILVFFRLVSEVEPAIQYTDIKDSFVDIELAEPSKQVITQSNTPKEIQ

KPTEQIDIEKLFAQTTNKTVKTEDIDQKASNFNELFGNIKEIQEEKTTKIQSSAKSGISSAPKPQASELV

KQLNDSLLQEESSTQGESTKAQKIGIYDEFLGKVVRIITQRWTQYYPNSEKISVKVKIFIDENGKFGYTS

VEKSGNPLYDAKVAEFLESQKGKFITYPPQNKNISITMNLRDEVKVKND

>CAL34281.1 putative exbD/tolR family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPFDDEKPELNITPLVDIMLVLLAILMVTAPSITYEEKINLPQGSQKNTSTPTVKSLIISINAKKEIFLN

QEKYDFISFADNLAQRKAQFNTEDPVFIRADKSLKYDDVISVLRSVKNLGFNKVALQTE

>CAL34280.1 putative MotA/TolQ/ExbB proton channel family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFEAIFHFFNSSSIITYIVLLWLSLYFILAFSILFARLTYLATWRNKEKESLETLLLGEKDLSRTDSIL

RKCNDTTSNHLEIYKNLASRRASAGLTWLSIIASTSPFIGLFGTVISILETFGGLGTQNSLSIIAPKISE

ALVATGCGILVAIPAYTFHLIIKRKAFELLSIIDSEIKVISSSK

>CAL34279.1 ATP synthase F1 sector epsilon subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNDLINFEIVTPLGVIYQGEVKSVTLPGSEGEFGVLKGHAALVSSLKSGVIDIEKADLNHELIAIDAGHA

KVDEDKICVLAKGAVWVCGSDESEIEKNLAQAKDLIKSMSSDNAALAATFSKLDNARMH

>CAL34278.1 ATP synthase F1 sector beta subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQGFISQVLGPVVDVDFNDYLPQINEAIVVNFESEGKKHKLVLEVAAHLGDNRVRTIAMDMTDGLVRGLK

AEALGAPISVPVGEKVLGRIFNVTGDLIDEGEEISFDKKWAIHRDPPAFEDQSTKSEIFETGIKVVDLLA

PYAKGGKVGLFGGAGVGKTVIIMELIHNVAFKHSGYSVFAGVGERTREGNDLYNEMKESNVLDKVALCYG

QMNEPPGARNRIALTGLTMAEYFRDEMGLDVLMFIDNIFRFSQSGSEMSALLGRIPSAVGYQPTLASEMG

KFQERITSTKKGSITSVQAVYVPADDLTDPAPATVFAHLDATTVLNRAIAEKGIYPAVDPLDSTSRMLDP

NIIGEEHYKVARGVQSVLQKYKDLQDIIAILGMDELSEEDKLVVERARKIEKFLSQPFFVAEVFTGSPGK

YISLEDTIAGFKGILEGKYDHLPENAFYMVGNIDEAIAKADKLKG

>CAL34277.1 ATP synthase F1 sector gamma subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSNLKEIKRKIKSVHNTQKTTNAMKLVSTAKLKKAEEAAKRSKIYAQKIDEILSEISFQINKIVHNEDDV

RLSLFHKKEQIKTVDLIFITADKGLCGGFNIKTLKTVSEMLKEYEAKNINIRLRAIGKTGIEYFNFQKIE

LLEKYFHLSSSPDYEKACEVIHAAVDDFLNGNTDEVILVHNGYKNMITQELKINHLIPVEPKSIEQTHNS

LLELEPEGTELLKDLMKTYFEYNMYYALIDSLAAEHSARMQAMDNATNNAKARVKQLNLAYNKARQESIT

TELIEIISGVESMK

>CAL34276.1 ATP synthase F1 sector alpha subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFKADEISSIIKERIENFDLNLEIEETGKIISVADGVAKVYGLKNIMAGEMVEFENGDKGMALNLEESS

VGIVILGKGEGLKEGASVKRLKKLLKVPVGEALIGRVVNALGEPIDAKGVINANEYRFVEEKAKGIMARK

SVHEPLHTGIKAIDALVPIGRGQRELIIGDRQTGKTTVAVDTIISQRGQGVICIYVAIGQKQSTVAQVVK

RLEEHGAMEYTIVVNAGASDPAALQYLAPYTGVTMGEFFRDNAKHALIVYDDLSKHAVAYREMSLILRRP

PGREAYPGDVFYLHSRLLERASKLNDELGAGSLTALPIIETQAGDVSAYIPTNVISITDGQIFLETDLFN

SGIRPAINVGLSVSRVGGAAQIKATKQVSGTLRLDLAQYRELQAFAQFASDLDEASRKQLERGQRMVELL

KQPPYSPLSVEKQVVLIFAGTKGFLDDIAVSRIKEFEDGIYPFIEAKHPDIFEQIRSKKALDSDLEEKLA

KAINEFKANHL

>CAL34275.1 ATP synthase F1 sector delta subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENIIARRYAKAIASRADINDFYQNLCILNSAFVLPKFKNIIESNEIKKERKMEFLDSFFDIKNSSFQNF

LRLLIENSRLECIPQIVKELERQKAFKENIFVGIVYSKEKLSQENLKDLEVKLNKKFDANIKLNNKISQD

DSVKIELEELGYELSFSMKALQNKLNEYILKII

>CAL34274.1 ATP synthase F0 sector B subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKLFFIIFLLPLYAFGASNGSGEYDIIPRTINFLIFVAILYYFVATPFKNFYKNRIVKISSKLDEIQKK

LLESKAKKLDTMKKLEEAKASAAAALITAKKEAEILVQNIKKETQDELDLLQKHFEEQKDYEFRKMEKEL

VSNTLNEIFSDPNMTLKQSEIIELMMKKVS

>CAL34273.1 ATP synthase F0 sector B' subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFEDMHPSIMLATMAIFLAMIVILNSMLYKPLLKFMDERNDSIKNDENKVKENSQEVLGVNDELEAIHIN

TREEIQKIKQSAIAAAKEEAEQILRSKKEELERKMASFYADLAVQKKELQEHLNIHLSELKQALQNNIKK

I

>CAL34272.1 parB family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGLNKDRGLSSLISDMDTVYSKELGFDKNQSTMIEIDQISPNPFQPRKNFDQEALDELANSIKEFGLIQP

IIVFKKNNKFILIAGERRLRAVKALGKKEILAFIADIDENKLRELALIENIQRENLNPIELANSYKDLMQ

VHKITQENLAELIHKSRTQITNTLRLLNLDIRTQELIASGKISQGHAKVLVGLDQKDEKMLVDSIIGQKL

NVRDTEKIVKKIKNNESLPNQEFEDEIKKLKQILNRFGFDCKNKNNDFVIHLENIDKIKKLIKMLEKL

>CAL34271.1 parA family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSEIITIANQKGGVGKTTTAVNLAASLAVAEKKVLLIDVDPQANATTGLGFNRNNYEYNIYHVFIGRKKL

SDIILKTELPQLHLAPSNIGLVGIEQELAKGENNEKKMLLKNQIQEVIDEYDFIIIDSPPALGSITINAF

AASDSVIIPIQCEFYALEGVAMVLNTIKIIKKTINSKLRVRGFLPTMYSSQNNLSKDVVDDLKQNFKKQL

FTINGNEDDFIVIPRNVKLAESPSFGKPIILYDIKSPGSVAYQNLAYSILG

>CAL34270.1 putative biotin--[acetyl-CoA-carboxylase] synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKGLKVKIVCVESIDSTHLFLCKQIRNGKIDENFAIYALEQINGVGSRENSWQSSKGNLHLSFCIKEED

LPKDLPLASVSIYFAYLLKEVLQEKGSKIWLKWPNDLYLDDKKAGGVISAKISNFIIGGMGLNLKFAPQN

TALCDIEISLKDLVSEFLQKVEKKILWKNIFSKYMLEFEKSRKFSVHHEGKVFSLENSFLYEDGSILLGD

KRVYSLR

>CAL34269.1 methionyl-tRNA formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIIFMGTPSYATCILKALVENENFKLVALFTQPDKAVGRKQILTPSDTKAFLSQNYPSIPIFTPSSLK

DKNIIREIKDLNPDFIVVAAYGKILPKAILDLAPCVNLHASLLPKYRGASPIQSAILNKDEKSGVCTMLM

EEGLDTGAILESLECDIKDKNSSEVFELLANLAAKIILSTLLNFDKITPKKQEESLATLCRKIKKEDGLI

NLQNARELYQKYLAFTPWPGVFLENGLKFLELELVDELKQNAKMGEILELEKESFLLACKQGVLRIKKLQ

ESGKKALDGRTYLNGKRLKSEDSLC

>CAL34268.1 glutamate 5-kinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRIVVKVGSHVISEENTLSFERLKNLVAFLAKLMEKYEVILVTSAAISAGHTKLDIDRKNLINKQVLAA

IGQPFLISVYNELLAKFNKLGGQILLTGKDFDSRKATKHAKNAIDMMINLGILPIINENDATAIEEIVFG

DNDSLSAYATHFFDADLLVILSDIDGFYDKNPSEFSDAKRLEKITHIKEEWLQATIKTGSEHGTGGIVTK

LKAAKFLLEHNKKMFLASGFDLSVAKTFLLEDKQIGGTLFE

>CAL34267.1 GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFIDSVKITLASGDGGKGAVSFRREKHVPLGGPDGGDGGNGGDIIFVCDNNTHTLVNFKGKRELRAQNGA

GGMGRNKNGKKGENLELIVPEGTQVIDAQTNEILLDLTKEGQRELFLKGGKGGLGNTHFKHATNQRPDYA

QPGIKGESRLVRLELKLIADVGLVGFPNVGKSTLISVVSNAKPEIANYEFTTLTPKLGLVDVNEYNSFVM

ADIPGIIEGASGGKGLGLAFLKHIERTSFLLFVLDPMRQMPLKEQFIVLRKELEKFSNELFGRKFGIMIS

KSDSVRLGEEFAEQIALNINELDNYLKEINNPQSFLIKVSSLEKTGLKELKFMLLEEIKTLRNNKKNLTI

>CAL34266.1 50S ribosomal protein L27 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAHKKGQGSTQNNRDSIGRRLGVKKFGGEFVRAGNIIIRQRGTATHAGNNVGMGKDHTIFALIDGFVKFE

RKDKDRKKVSVYPA

>CAL34265.1 50S ribosomal protein L21 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MYAIIKHSGKQYKVSVGDELKLDHFEAESKASIEVSEVLAINDKELKVGAPFVAGAKVVLEVINHGKDKK

VVIYKKRRRKDSKLKRGFRRQFTRVVVKDIKA

>CAL34264.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIKILFLGLFLSLSLNAKVITTTSTKSSTGEGTGLTREDAINNAIIEAIGKMSGVSINSLKKSNTSVS

TDNSGSNIQDNYSEQISKATKGRADTYEINSVEQDANGKYTANVTIFKTTTTKKYQAPGLSADNRRSITV

FDSTPDAAKRGIGSALQQKIISDLLQSRKFNVLDRDSSGYYEMEKALIKSGDAASDEVYKLKNMLATDYI

LLFSISGLEGKQKTSNLTGKSKTEIEVIVDYRVLLFATRQIKFSNTLSMKVNLKDNSLSANETALKQIAN

RIAGDILNAIYPLKVASVENNEVIFSQSLNQGDVYECFALGKVIKDTYTKENTGRVESKTGSIEITRTSP

KFSYAKITEGSVKVGDICRPLSNTGSGNGYTIGRDANYQTQEGGGVNLGF

>CAL34263.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKILFIGSLVMASLLYAQGSQPVEITQQDINTQNEMSDASTKDITPKSIEDFFEEFADNFGIEYGITKD

GKTFYTGKSTVAVNDTDPQFAQALQNAYQKAMLNLQSEFIRDAFGRIATSKIQNYEADNSTNAKEFDELP

KGDKVDQILNKLTQLAGAQLDKALKDLGIDTNSLSEDRKKTLLKQEFLNKTMTNAIGSMSGLVPVQTIVT

QRRGEYDVGVVAVISNKTRQLAKDMALARQSAIKGKGKAISEYLPKDTKGFLNEYGIRLVYDENGAPIIL

SYGNWGYVADPSNAKKTNILEDRAKETALTMADAAIIEFINTNLSLKDERTTGDTYEEIIKQSINVNDSS

TQEQTQNITNIIDKVNSKIKASASGKIRGIRTLKKWSYTSENGIEHVGAVRFYSYENLANTNEALNSKSN

ATKNEAKKSSSIQRSSNVVNSMDDF

>CAL34262.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKTKILGTALIGALLFSGCAQTAYTDGKASQVKKGDALTLGLDRQDFESAAETMINSMLSDPAFANIKP

GTRKVIAIGRVVNDTPQRIDTEKLTAKITSALRKSGKFVLTSAVAAGGALDSMSEDVRELRDNDEFNQKT

IAKKGTLVSPDFSLAGKIRQDNVKLSNGKTQVEYFFLLRLTDLTSGLVYWEDEQTIDKTGSSKSVTW

>CAL34261.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKNILFILMFLLSACAPSYQINSNQNTVILGSNLPKSLVKQFQKRINSNGYLEFEVILRSTFAKDVIYK

VDWLDKDGFVLRDVLNEDYQALRIPAGQEVILRKLASDTRANDFRLEIKAKN

>CAL34260.1 putative lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIKVGLIFSGIACLFLTACVNQVKQNTTFENTLTQKYCGDDFFNQNLEKIKKNDDVIYTGLNAGLIARN

CGDFNKSNVFFDAVEESYKYDVDLENVSPKAAKFIGTTLLNDNIVDYDGSLYERIMVNIYKALNYMEEDD

YENARVEFNRVLMRQDKAKEYFAKEIEKNRADLDKAKEDKNYDKNMNENSKVIEAQYDNLFKEFDTTKNF

INPYATYLASIFFFMDKDYRKAADLFREVAIIYPKNKTIKKEAKIFKEYATKIKVKKAKKYVFVVYENGF

GVVKDEFALTLPFIVDKKIISTNIALQTLKKREASFANLNINGQNTNDFVDLDNIVATEFKINMPAMIAK

ALAQTIIKTTLNVAVANNDSTGGWLSLATAVATAATNKADVRSWRGLPKSIAIATIENDGNLEIKDPQGN

ILFQKSLDKNKNALVIVRSFAPYLPASVAIMEK

>CAL34259.1 anaerobic C4-dicarboxylate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDIMIILQVIVLLGAIFIGIRLGGIAIGYAGGLGVVILGLVLGMKPGNIPWDVILIIAAAIAAISAMQQA

GGLDYMVRVTEKILRSSPKFINYLAPACGWLLTILAGTGNAVFSLMPVVVDVAKSQNIKPSVPLSLMVVS

SQIGITASPVSAAVVYMSGVLEPLGWNYPTLIGIWISTTFVACMLAAFIVSLITPMDLSKDSVYQERLKA

GLVKDAGAVLHGEDKPGAKLSVVIFLITVLAVVLYATAISSNIKWIDPVVVSRDAAIMSFLLTAATLITW

LCKVEPGKILDTSVFKSGMTACVCVFGVAWLGNTFVAGHEASIKEVAGDWVKQTPAMLAVAFFFASMLLY

SQAATAKAIVPVIITALGISAANPHDSYMLVACFAAVSALFVLPTYPTLLGAVQMDDTGTTRIGKFIFNH

SFFIPGVLAIAIAVALGFVLAPMLI

>CAL34258.1 aspartate ammonia-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGTRKEHDFIGELEISDEVYYGVQTFRAVENFDISHDRLKDFPRFVRALARVKKAAAMANHELGLLDKNI

QDAIIKACDKILEGGYYDQFVVDMIQGGAGTSTNMNANEVIANIGLELMGHKKGEYQYLHPNDHVNLSQS

TNDAYPTALHLALHDYLSDLAKAMEHLKKAYERKAEEFKDVLKMGRTQLQDAVPMTLGREFKTFAVMIGE

DIQRVLEARKLILEINLGGTAIGTGINSHPDYPKVVERKIREVTGFEYTVAEDLIEATQDTGAYVQISGV

LKRVATKLSKVCNDLRLLSSGPKCGLNEINLPKMQPGSSIMPGKVNPVIPEVVNQVCYFVIGADVTVTFA

CEGGQLQLNVFEPVVAYSLFNSVVMLEKAMYTLADKCIDGITANEKICSDFVYNSVGIVTALNPYIGYEN

SASIAKEAMNTGKRVADIALERGLLSKEQIDEILTPSNMLNPHMEAKK

>CAL34257.1 uracil-DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEEITINIDKIKINDDWKEFLRDEFQKKYFLEIKKQYLNAINQNIIIYPPANLIFNAFNLCPLKEIKIII

LGQDPYHQPNQAMGLSFSVPKNVKIPPSLNNIFKELQNDLNITPAKSGDLSSWAKQGVLLLNSILSVEAN

KAASHSSWGWQEFSDAIIHKLSNEKSGLVFMLWGNYAKNKEILIDNTKHLILKAAHPSPLARTGFLGCKH

FSKANEFLKKVGKIPIDWKIV

>CAL34256.1 putative amino acid recemase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTIGIIGGMSFESTITYYKTINQAINDKLKSLNSAKILLYSVNFEEIENLQSQDKWQEAAQILTQCAKK

LELAGANFIIIATNTMHKVFDEIQQNINIPILHIAKSSAKALKQENIQKIGLLGTKYTMTQDFYKKMLIE

ENISVITPSDEDIKIVNDIIFNELCKGEIKQDSKEKYLNIIKKLQEKGAKGVLLACTEIGLLISKNDTNI

KIFDTSLIHALDAANEALKDL

>CAL34255.1 cytochrome bd oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFFGLELEGLQIYWWLILSLLGGLLVFMFFVQGGQTLIDELSKDELEKTMLVNSLGRKWELGFTTLVLFG

GAAFAAFPLFYSTSFGGAYWAWLCILFCFILQAVAYEYRKKENNVYGSKTYEIFLKINGYLGVFLIGVAV

SSFFSGSEFILNEHNFVSWQNPLHGLELLLNPFNYLLGLALVFLARLLGAAYFMNNINDENIKIRAMKKL

MINSILFLPFFLGFLAWIFLKDGFSVDTNGVVSMSANLYLYNFLNQMIFAVLLVIGVILVLLGMVQGTKG

CSKAIFTLGLGTVLTVFALLSSIGLGQSAFYPSLSDLQSSLTLKNASSSYYTLSVMAYVSLLVPFVLAYI

IYVWNAMDKVKITREEIANDDHAY

>CAL34254.1 cytochrome bd oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNELSSVDWSRAQFALTALYHFLFVPLTLGLSFMIAIMETIYVKTKNERWKKITKFWLSLFAINFAIGVA

TGIIMEFEFGTNWANYSWFVGDIFGAPLAVEGIMAFFLEATFFAVMFFGWDKVSKGFHLLSTWCVAIGSN

LSAFWILVANGWMQYPVGMSFNPDTARNEMQSFFEVALSPVAISKFLHTIGSGYVISALFVMGISAWFML

KGRHIIEAKKSLVVGASFGLVCSIFLFFSGDESAYRVTQTQPMKLAAMEGVYQGEHRAGLVPFGILNPKK

TIDNNESVFLFDITIPYALSILGNRDPNSFVPGIEDLIYGNESKGIEPMQNRIDRGKIAIQTLKDYKLAK

ENNDTIAMANHKSILETHFKDFGYGYLEKPSDTIPPVALTFYSFHIMVALGSFFFLLFIVTLYLTMANDI

EKFRKVLWVCLLSIPLGYIAAEAGWIVAEVGRQPWAIQDLLPVHIAATQLGKVNVQISFWIFAVLFTALL

IAEVKIMLTQIKKGFDAHAGHTPLMGKGEK

>CAL34253.1 putative membrane protein. Functional classification-Membranes, lipoproteins and porins [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFYFVVFKGRIYMYLKHLYFSISQIFNFYKEGFKNLTLGKTLWKIIFIKLFVMFVILKLFVFDVNFNSIF

KSDKEKSTFVLKNLTLEGK

>CAL34252.1 cytolethal distending toxin A [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKIIVFILCCFMTFFLYACSSKFENVNPLGRSFGEFEDTDPLKLGLEPTFPTNQEIPSLISGADLVPIT

PITPPLTRTSNSANNNAANGINPRFKDEAFNDVLIFENRPAVSDFLTILGPSGAALTVWALAQGNWIWGY

TLIDSKGFGDARVWQLLLYPNDFAMIKNAKTNTCLNAYGNGIVHYPCDASNHAQMWKLIPMSNTAVQIKN

LGNGKCIQAPITNLYGDFHKVFKIFTVECAKKDNFDQQWFLTTPPFTAKPLYRQGEVR

>CAL34251.1 cytolethal distending toxin B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIICLFLSFNLAFANLENFNVGTWNLQGSSAATESKWSVSVRQLVSGANPLDILMIQEAGTLPRTATP

TGRHVQQGGTPIDEYEWNLGTLSRPDRVFIYYSRVDVGANRVNLAIVSRMQAEEVIVLPPPTTVSRPIIG

IRNGNDAFFNIHALANGGTDVGAIITAVDAHFANMPQVNWMIAGDFNRDPSTITSTVDRELANRIRVVFP

TSATQASGGTLDYAITGNSNRQQTYTPPLLAAILMLASLRSHIVSDHFPVNFRKF

>CAL34250.1 cytolethal distending toxin C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIITLFFMFITLAFATPTGDLKDFTEMVSIRSLETGIFLSAFRDTSKDPIDQNWNIKEIVLSDELKQK

DKLADELPFGYVQFTNPKESDLCLAILEDGTFGAKSCQDDLKDGKLETVFSIMPTTTSAVQIRSLVLESD

ECIVTFFNPNIPIQKRFGIAPCTLDPIFFAEVNELMIITPPLTAATPLE

>CAL34249.1 L-lactate permease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEQILTWQQIYDPFSNIWLSALVAFLPILCFLVCLVVLKLKGYQAGFLTVILATLVALFAYKMPWNLVGA

SFIQGFTNGMWPIAWIIIAAIFLYKLSIKSGSFEIIKKSVMSITPDHRIQVILIGFCFGSFLEGAIGFGG

PVAITAALLVGLGLRPLQAAGLCLIANTAPVAFGAVGIPIIAMANLVGIEQHSVSAMVGRMLVPLSLTIP

FFIVFLMDGFKGIKETFPAILVAALSFTTTQFLSSNHLGAELPDIISAVVSLAVTTVFLKFWKPKNIFRF

DNESNFTQDNTLSFNQILKAWSPFILLIVCIIIWTQPWFKALFDKDGILSYTSITLQFSNITTGILSPSI

TGIGEAKPLSLALGVDLINGKTVAQAGTAILLAAFLTIAILKIKAEDAAECFWVTLKEMAIPCITIGLVV

AFAFISKNSGMSTTLGLAFAHTGDAFSFFSPIIGWIGVFLTGSDTSANLLFGTLQQVSAQKLGISEALFL

AANSVGGVVGKMISPQSIAIACAAVGLVGKESDLFKFTLKYSVAFIILIGIWTCIIAFFLQGIIPEVIVK

>CAL34248.1 putative oxidoreductase iron-sulfur subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMKKVYFYATCLGSTAMQQSVLNAIKLLRREGIEVIFKKNQTCCAQPSFNSGYFDESREIALYNVDLFDK

DYPIVVPSGSCAGMMSHDYKELFKNRPEFSKIKTFSSRVIELSQYLDEVLKVDYEDKGVPIKVTWHSNCH

ALRVQKSIQASKNLIKKLKNVELVELQYEEECCGFGGTFSVKEPEISNAMVRSKIKDIQNSGAKYLISGD

GGCLLNIDGTMKRMGLDIKGIHLYDFLLKRLEGGRL

>CAL34247.1 putative iron-sulfur protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSQKIPHEQIVQIKLNDKQMQENLMTAMHTLQKNRLNVIDARFKDWQGLRAKAKQAKNNALMSLEERLLE

FEKNATKNGIKVHWASSDEDACEIVYEIMKEKNITKLLKGKSMASEEIGLNHYLEKKGLKAIETDLGELI

LQLNEEPPLHIVVPAIHRNRHEIGEIFKEKLGANLENDEPESLNAVAREHLRKDFEGLKLGLSGVNFAMS

REGAFWLIENEGNGRMCTTAPDIHIALCGIEKIMESFEDAATMVSLLTPSATGQFIPTYNNIITGPRKNG

DLDGPKEVHVILFDHNRSKMLAHEDYYEALRCIRCGACMNFCPVYDQIGGHAYQTTYPGPIGEVISPNIF

GIDHTGDILNFCSLCGRCSEVCPVQIPLADLIRKLRCDKIGQGKNPPLGANNVHHNALEAFAFKQFKNIA

TNGDKWRFSLSKAHYFNWTVQNFASILPVIKKWYAFKELPQIKMDLYKEVQKLEGVSYE

>CAL34246.1 conserved hypothetical protein Cj0073c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKIDEISSKSKANILEHLKKAYKETTFTRIESIDPVEHIQTTQDMLTEMKQKMSDNKYIVENATKDTLE

EKINEIVAKYSFKSMIYGADLNLNLEQIKAEKKICFDKEIENLRSEVFHSDFSIIHARAGVSSHGVALIP

SSKTQPRMLSLAPKLCIVLLKKENVVKSLSEALNLVKKENEILPTNILFIAGPSRTADIELITVFGVHGP

QIAHIIIY

>CAL34244.1 hypothetical protein Cj0070c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKFDYSYPILTKDTKCSFCENFFSIEYSSNLKTIEKECPFYNNKMDIKLKD

>CAL34243.1 hypothetical protein Cj0069 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKNIVFFEVKGGSDKGEDGYRKDTMPMVNALKAKGWNAEVIFFEVGKKDEIYKYVKENFDGYVSRINPG

NLKEENEYFDMLRKLCADKLVGMPHPDAMIGYGAKDALTKLADTDLVPSDTYAYYDIKTFKENFPKSLAK

GERVLKQNRGSTGEGIWRVSVEGNVSGDSLPLNTKIKCTEAKDNHVEHRELGEFMDFCEQYIIGDNGMLV

DMTFLPRIKEGEIRLLMLYNTPVNVVHKKPAEDADAFSATLFSGAKYRYDKPEDWKTLVDMFLGELPKVR

EKLGNYDLPLIWTADFILDTDEKGNDKYVLGEINCSCVGFTSHLELADEVASNIINIVSKTKA

>CAL34242.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQILKSFFKALGCGIKFINTYFKTFVLLLIVIWILIPSANSSSNLANLERIDLKGEIFDSSAVLEKIINA

KNDSNIKGVLFVIDSPGGAFAPSMELALAIKDLKIKKPVLVYASGTMASGSYLAGVGANKILANPASFIG

SIGVIMQGADLSGLANKLGIKEQTIQAGEFKSAGTFARAWNENERNFLQGLIDQSYDLFTGFVAKERALD

LNKKDQWANARVFLAAKAKELGLIDELSNYENAKKELEKLANVSNPVWKEEDKIDKFLNRLEGQTSSLIS

KSLIEIAYKTNSSFINAR

>CAL34241.1 putative amidohydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFIVAARYLFLCDEDFTILENQAFVFEDKILELGELDNLKKKYPKAKIIKTPKNSVILPAFINPHTHLEF

SANSTTLHFGEFLIWLKSVINSRSILNAQAKEELILQSIKKMQKSGIGTIGEISSFGSDLDPCLKASHKG

MRIVFFNEILGTNENQVEDKKQEFLKRFENSLKFKNDFFIPAISIHSPYSTHPSLAHFALDLAKKQNLLA

STHFLESKAENIWLRESKGGFKKWLENFTLHPKPLYTPKDFVKLFKGVRTLFTHCVYLKEYEWLDKNLHS

ITHCAFSNRLLSQKSLDLKTALKSGLNIHLGTDGLSSNISLSLLDEMRANLLIHKNFDLLELASKLLQMV

TLYPARALNLNLGELKKGKIADFNVFELGECDKKQAPLQFILNAKEVDKLFIKGKECKF

>CAL34240.1 3-dehydroquinate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIMIIQGPNVNMLGVREVGIYGAMKMEEIHEQMKLAASQNNVELDFFQSNFEGEIVDKIQECLGTVDGI

IINAAGYTHTSVAIRDAIAAVALPTIEVHISNVYRREEFRQKSLIAPVCSGTIVGFGPFGYHLALMGIIQ

ICEQIKNLRAMQQAQQTNK

>CAL34239.1 putative 2-amino-4-hydroxy-6-hydroxymethyldihydropteridine pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKIQGVKHFEKSRFFPFFSQNIRSFKYLALIGLGSNIEPEKKRFDMLFRVMMDDKRFKILSTSPMLINE

AFGFKEQKDFTNAVMLIQTNLHARALLKVLLYYEVKFKRKRTFKNAPRTLDLDLLYFSQKVKRDKWCEVP

HKGAKERVSVILPLGMI

>CAL34238.1 flagellar biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGQLIHTFTVEDTEQIIPKVKEDYGDKALIITNKQIRPKTLNRSALYEVMVAIEESDYEEHLKKQGKSLP

AKKSSPKPSSTSLAEEKIRSQIPQEDEDVVLDFSNTRLNTNLNTVKNNDLAKKTYQDFPQNKINPHQNKT

LGFDDFKEKLSEVSNEISKVTNTPLENYTPNPNYNKKIENFEKQFEKQINKLNDKIDLLADMMWDDKAEA

RKNLMIPPEFASIYKQAKESGMLENHLEAIMKATIENMPAAMKTNKDAVQRYFHSLLRNILPCRVESDIK

KQKIMMLVGPTGVGKTTTLAKLAFRYAYGDKRYKTGIITLDTYRIGAVEQLFQYAKMMKLPIIDSIEPKD

LDEAIKSLNNCEVILVDTIGNSQYDQSKLAKTKEFLMHSNAEIDVNLVVSANTKHEDLMEIYKNFSFLNI

DTLIITKFDETKVFGNIFSLVYETNIPLSFFSIGQEVPDDLEVANSDFLVHCILEGFNKGKNNE

>CAL34237.1 putative ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNQANKLRNLMSQNGTKKSQNTHFIAITSGKGGVGKSTISANLANVLANNGYKVGLFDADIGLANLDVI

LNVRIQKNLLHVLRGECSLEDILIEVKPNLWLIPGESGDEILKYNDKNIYERFLNQASILDELDFLIIDT

GAGIGGNILNFLEMADEVIVVTVPDPAAITDAYATIKTTSKTKENLLMLFNVVKNENEALKVFENIKKVA

DANIKNPLNLEFLGHLSASKDVSGSIKKRTLFSDENTASSDEIKALASKLLYRLERKVLDNVSNRSFSSF

FRKIIERF

>CAL34236.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRPENYVAFFTVCGFFIGLAFSIISIDEAFDILIFTCFITFMFYVFVHIAIMNFIDVKKISGRIFNKHDY

EKTSNNIINDLVIREKKMDIILEKLNEEREELKKNEFKERRRNAKRAA

>CAL34235.1 RNA polymerase sigma factor for flagellar operon [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNSKKDEEMLKEPPKAYAQMLKKEQDELVLSYMPALRAMAFRLKERLPSSIDVNDLISIGVEEMIKLSRR

YDKEQNDNFWGFARKRVNGSMLDYLRSLDVMSRNNRKIIKDIDAIMDEYFLEHECEPDDEYLAKKLDLDV

EKIKEVRTAHAISYTLPIDEQIELYNEDNTLEKIEKEELLEKIHEVLDDLKERDQLIIQLYYYEELSLKE

ISEILQISESRISQIHKKLLKKLRERLV

>CAL34234.1 flagellar motor switch protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAEILSQEEIDALLEVVDDNTDTPIASNSKDEKDERNIVVYDFKRPNRVSKEQLRTIKGIHDKLARNLAS

QISSMMRSIVETKLHSVDQMTYGEFLMSLPSPTSFNVFSIKPLDGNCVLEINPSIAFPMIDRLLGGQGDS

YEASRELTDIELNLLDSILRIIMQRLKESWATVTEIYPSIEAKESSPNVVQIVSQNEIVIMVVMEIIIGN

SSGMVNICYPVVHLESILSRLANRDIMMGETSAKKSRNKELKTLIGRAEVVYEAILGKTLINVHEFLELK

QGDILRLDREADDKAIVSIDKKDVFLAQIGLHRFRKSIKILELIRTDKDEIKEILEKYEEERKAKASVYD

EPEEEDEEI

>CAL34233.1 putative flagellar motor switch protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINDFLKMFTNECISTIEGLTGKSAEFSEYKEFDVNTSDTLKAPLVYAIFNIANGGKIGILAGAILMSAI

GEWMMGEEEITKNDKLGPDEMDAAKEAIQNIISAFSTTLGAQKDIPKMDFSIESCEFVPESVDFKDFKKL

FLYDVKIGDLEEQVSLAMDQTLHNILSGKPAETGNTSTDSNHNTEEKAIMLSEELKNINLIMDVRLPVRV

RIGNKKMLLKDVLTMDIGSVVELNQLANDPLEILIGDKRIAYGEVVIVDGNFGVQITEIGSKKERLEQLR

>CAL34232.1 putative peptidase C39 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKILKILLFLPILALSTKAEWVVKSYQEIKNERVIRQTYEQSCGASSLATLLNILDDQKKFDELELLKI

MSGQELYTDMVSFADLNDAVKKLGFQSNSYQINRENLDKLVNIPMLVKIEDDPRFPHFVIIINHKGNYLQ

VLDPSHGEYISSKSQFFSIWDRYNKGGYALIVAPKKELKPFKLNTPKSLHFDFSPFSLF

>CAL34231.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIFLTFMVLVNCVFASDELNIDSLFKKQIGLRSITSFSLLSTGNANSYSLYPNITIGGDPTIWNDTKQ

VFLTQTFIYTLTPKFDILISGGGSYARQEYTNFFTNAYSHKDRIGFDNLWLGFIYTGDSIADLIPQITFQ

TAVVQREKAINQTKNFYLKSQSLQASLRGYSDPVVYSIYTGFGYNQSRKFKTLKIEYGNSIYVGGDLSII

LSPKITLDLGAEQRFQMKQKINGYQNSEVRSIPTLSLGSTYSINSDTAVSVNASFGGSSASPDSIFGISL

WKKF

>CAL34230.1 hypothetical protein Cj0056c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKEVKGGYITYLKRLSDNEVIAFAKPDWNLELTLFQDSNGDQYYWNREGLVRFGGMCGIETTNCLVNSKH

SYINQKRLWETMSIVGDDPYRNFLGYTVKRNIGISNLGKRFVYFSYGVAVINEQSGSWYRVKSSPVFE

>CAL34229.1 conserved hypothetical protein Cj0055c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVGILSSKEEKLMINSLNSNLNYDYNTSNFKQDKNIDFKINKHGVAVITGEGALPYRGKKFEYNPKIFGL

DESISKKDMQEFNNFMKSNALKDPNKIEKSPLKDFNPAYTKWDPTTEKMMLGFFVSYSKMFHLGYDIIKK

ADEFYKEFDALISKDLSLNEFKTKYIDFKQRYDEFVKEYEMAMGDKMLLSSDDEIITQQSEKPFKAIQGE

SKNKETYKDDSTRNELVKKLLEGKFSTSKELELLFGMKFSDDDAGEFNKILSLNSTPKSIDIKA

>CAL34228.1 putative lysine decarboxylase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEKISQDLEKFANIPNLKNAVTFFGSARLKEDNFYYQQAKILAQKCVQNGFCVISGGGGGIMRAANEGA

FSQNNNTNSMSSVGFNIFLPHEQKLNDFVEYNITFESLAIRKMALIEKSLAFVIFPGGFGTLDELCEILT

LKQLEFKKDVPIILFGSEFWRGFDEFVRNSLLKLEVISKGDELKYKITDDLDFIINTLKEI

>CAL34227.1 tRNA (5-methylaminomethyl-2-thiouridylate)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKILVAMSGGVDSTVTAYKLKNLGHEVIGCYMKLHGKPNYHEENIKKVEKVANFLQIPYHILDLQEDFKN

KVYMPFVDTYKEGKTPNPCALCNRFIKLGKLLEFAKSLGCEKLATGHYARLENNLIKTAVDESKDQSYFL

ASADKEALKYLIFPLGEMKKEDVKKFASTIEVLKSFATQKESSEICFVEDTYVQVLDQFMDTKIPGEVLD

SSGKVVGKHEGYMHYTIGKRRGFEVRGAHEPHFVLKINPKQNQIIVGTKEELKISEFNLKNINLFIDAKE

LDCEVKIRYRSKSTPCKVEIYEDKSAKIILKDPVYGLASGQMAVFYDHDKVIASGFIE

>CAL34225.1 putative iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVKWSRDFSIKNMQLDKQHELIFEITNLANDLALNIQDNNTQHKNDLKQILVKLFQYIKIHFKDEEKFM

ESIDFPLIEEHKKSHQILVEKTKELLEHSNDIVKMSQELSILTKDWILDHFANEDLWIANFTKKTLHLQE

IHYTLEQYIKLKSIKQDLRAEKTYDYICNCSLRIHAVPQTIHQELVSKENTLKCEKCGQILVHLDYFDLN

QNFEKFNAIFEDALQNHHFTTQENDMRGGG

>CAL34224.1 hypothetical protein Cj0044c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFQVKTLETFNPFESLNHEQANTEQILDFRVIDFKLLCSSVKPAKTKTYERKDFDLFYADDFFVKNYNT

IVQKFLIEIYPKTQSFPFTVKLRSNSNLTHLKASINLTENFKYYPNLKFDILQNIYKIMIKQKFLILRLD

KNLFDKIDDFILSIQKSPSIKEIELEIAKGVDKIEHKSDEIIYHRDVNEECFDENINYDEGNYCKPIEKN

ELLFEYIYRILGKEGRNLRGEILHLNPIAFLDNPFIIKDESIYTEELEDRIKYFSANYGFLNKDHTGYCI

ANNLKLSQIGLKTTGSIKTNTDENINLEITNFDISDDAIKSGIVNVQASNIKVNGNVGATKLYGKNISIK

GLTHAKSEIFAQDIFITTHKGTLQADTVYIKNLENGTIIAKNVFVENCMGGKIEAENIYICNLLTDNTLY

PRKNLIITNNIKFKNNIVVSPLVSIENNSDTECENLKNLSLKIKSKLDDTISKMQNYYDYLIKNQIKIIK

LQKTKNPSAIEMKFSNLYHDIIKKYNHLSISYKKLVKLKYQIDAKLNFLNEMVYNVKIYIKAENIGEDNF

LKFYPNTNTNLELKHHINLKDYEKVLYLEKGQQVSYIKSSHNYSESDIEEIKIIFKKLEKDNS

>CAL34223.1 flagellar hook protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMNSFYNGISGVKSNSFGIDITANNIANVNTTGFKYSDAQFKDIFYTTITTQSTNPAQGGYGSGAASSQV

VFEQGSPVASDGEFDVALQGKGFFGVLGADGNAYYTRNGSFRRDANGYLVDSYGNFVLGTMNPAFTGINY

SDRVAGLMGDYLNTGTPVNNGFTVNSNNSFSIGTTASQGAIKVPVNMYLPPQVTQNVKWSGSLNTNTTTE

VVKVDLDPSKFNITKTEDGKYVVSGSVSKEDVFSAKAGDRIILNFTDDNGVKTSFEATLDENLNFKSNEL

DLKGLDENSIKLDTAQISTEQQKANKDILESPIYNADGSKSTLRVTLERVLPQEGDNIQYKAIAQIYDSN

GNAVGNPTEGNMVFDKNGALLQNNITSIANPNGGTINIDLGSPYDANKPGSGYSGIYIKQGVEKNVVTQQ

DGVAEGFFEQYNISDDGSIVAQFSNGKNAIVGKLALYNFINEQGLVAMGDNIFAATANSGDASFIMKDGQ

VVNTAKFKGGFLEQSNVDLSAELSNLIVTQKAFDASSKSITTSDQMIQKAINMKR

>CAL34222.1 putative flagellar hook assembly protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MISSSDWNLNTTATTSGTTSSGSTSGTTRTDSSSSSGIVSNPNATLDKDAFLKLLLIELQHQDPTDPMDS

DKMLTQTSQLSALEMQQNTNTTMQKMVETMQKLSDSFSTSMSTSALGAIGKMATVSDNKIKLTGADELIA

LKMYLPEDSDENGVTLEIYDSNNKLVFSEKSDAKSISQGLFTMEWPGRNNDGVYAGDGEYTVKMVYNNKN

GEKITANYGTYPIEGVVFKDGVAYAKMAGQEVPFDAIQEITDYKLGSSSSTGGSGSSGDSSGGSSDGDSS

GSGSTEDGDKEEKA

>CAL34221.1 putative flagellar hook-length control protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MMSNLAPQNDVLNLTPSKTSTTSSSFSKTSKNKEHESSDSKNSTQDDTESFLNSLLNSINETNEFLPDHM

KISQKEVVNEAMSRLQKGAFDESDKISIFESASFMQILSLLDKLKTDTADVKLANLSTQLSSLIKTEANF

NALKGASNLSELLDIAKDLGLNVKNIKVDRLLDLKATFPNLDKADFFKGAVDNVFKEIINNKISNVSKNL

NHNLENTTHTTSTHSMQKTNSKDSGSLLSQTLKNLDSILSSKESKHEKNDKVKSKIEEDTTDAKNTLKNI

KNDEFAKNLTEELNIKDKKNQDNLNKESKDLNKDFNKELNKNQEKNNLNQENIQDQNKNLKNNDQNLNLD

KNLNKEIVKDTQKLVSNLTQKDFNLNKEPKNNNKENKDIKQNFFDQKLNFENLNKTQVVQNKENNANFNN

NNTNNKETFTQEQTKTHSENVDKNSLDELNSLVKDLNKVTQNNARNITPKETLQYFSQDLKEAVDQYKAP

ITKLSITLNPNNLGEVEVTLIQRGNNLHINFNSNANAMNLFIQNQAEFKNSLVNMGFTGLEMNFSDQGKR

EQNQNQGKNRSGYGFKDALDGKNESEKVNLELVLAKYF

>CAL34220.1 hypothetical protein Cj0040 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKPLNEEIFVEFKSDLAERKNEVLLQVLELLETFRSDENEKMARISSELTEILENEENLEKILNAKNLE

ELLNILTALNEDKMIKVYEDSYLKEKFPNVMVDKFLK

>CAL34219.1 GTP-binding protein TypA homolog [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENIRNIAVIAHVDHGKTTMVDELLKQSGTFSEREQISERVMDSNDIEKERGITILSKNTAINYKGTKIN

IIDTPGHADFGGEVERVLKMIDGVLLLVDAQEGVMPQTKFVVKKALSLGLKPIVVINKIDKPAADPERVI

NEIFDLFVALDANDEQLDFAIVYAAAKNGYAKLDLNDESDNMEPLFKTILERVPAPSGSDENPLQLQVFT

LGYDNFVGKIGIARIFNGVVKKNQSVMLAKADGTKVNGRISKLIGFMGLEKMDIEEAGSGDIVAIAGFEA

LDVGDSVVDPNNPMPLDPLHIEEPTLSIVFSVNDGPLAGTEGKHVTSNKIAERLEAEMKTNIAMKYESTG

EGKFKVSGRGELQITILAENMRREGFEFCMGRPEVIVKVEDGVKTEPFEHLVIDVPEEFSGAVIEKLGKR

KAEMKTMAPTGDGQTRLEFEIPARGLIGFRSQFLTDTKGEGVMNHSFLEFRPFSGAVEKRNNGALISMEN

GVALGYSLFNLQERGVLFIEPQTKVYTGMIIGEHSRPNDLDVNPIKGKNLTNVRASGSDDAIKLVPPRKL

SLERALEWIEEDELVEVTPVNVRVRKRYLDPTQRKRMEKAKS

>CAL34218.1 putative poly(A) polymerase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDLKSLENNRLYILKRLGILKFLSIIEALLVGFLAFVFIRDALIAVILAVFVGVFFFRFTAKKLKLAQKE

LQINALNLFLRRFGAKFKKQSLSQKDFLKLGLTKDLKEFKSQNCFEFKDFKIYDIQFLDENKRFFCGILL

EISKANKNPSFENEEQIYIKLTDKNFTLNHIFSKENHYLITTLSNPFFIDIKKDLESNFKDLEENLNSIK

NKLFK

>CAL34217.1 putative cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKHILLLGLCLSLSLSAKSVSDYKVGEELSDKEGVEYFKELSKRPVQEWPNKNLSINDVPKGKQGDLIR

YGIELLSKTESTLGPYSKLKKTSNEVNCISCHMDNDGNGLPGTKKYVIPFLNILNNYPRLDIETMKIISV

EDRIRGMGGTDSHRFPNDSKEMKAILAYFKWLKEAYGIKDGVKLEGDFFAKMNFPNRPADPVRGKKLFEE

NCVACHGERGLGVKNDNYEQGSGHLYPSLLIYPDGGHMAMIPFLARFLKSAMPFGASADNPILSDEDALD

IAAYVNTGFVRMPITTTENRAGLDTAYSKSPSLKPEYFASPQQNLDPKEYIKVKYGPWKNPNHFPGE

>CAL34216.1 hypothetical protein Cj0036 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNLNQNEQIKCPSCGSFIDISTALYAQILDKAKQEMLKQKKEFDDEVNAKRAEYTKALNDLKTQKIEQE

KLINEQVSQKLLLEKQKFEQELLIQKQNFQKEFSEKFNKEHENEMKIMQEELEKKSKELSEFLSIKAENE

RLKREQKENEERLKFQAKEEAFKEFKEQESKNLEFEREKMRLEFQKSTQEQDLKYKELETNFKSVAQKLE

DAQRRIEQGSQQLQGEAAELLIEEYIQSEYLSDEVKEVPKGVNGADCLHIVKDNFGNICGSILYESKRTK

EFNKEWLDKLKLDSIAAKSDIAVLITKTMPKDKEKTHFKEGILICTFNEFKGVLAVLRESIINAYKLKNA

LQNKDEKNHILYEYLNSKEFNTQITFILKTYQNMKEELEVEKRALQNIWKKRERAIENLSFNSTAIVSSL

NAIFSDLQGGNLIGEEGIKSLENLAKDED

>CAL34215.1 putative efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQKHTKIHGFAKFKLIVILALMSSIAPLSTDMYLPALSHVEQSFQTNSFLTQLSIASFFIAFALGQLIYG

PLSDIFGRKIPALVGIFFFIVSSLFCVIIDDIYAFIALRFFEALGGCAGVVIARAIVNDLFEIKEAAGIF

ALMMVFSSLAPMLSPTFGGILLEYFSWHSIFATLFALGILLFLMILFGLKESAPHLKNKKFSHHEAMKSY

KFVLSDKRFLVYILCASFALAAMFAYITGSSFVFTQFFSLSEQKFALLFGANALGFVICANINARLVLKY

ESEKILAKALMIMFISTVILLVNAFFHPNFLLFELSIFTSIAMLGFIAPNTTTLAMARFKEHSGTASAVL

GTVQFGFAGLISFVVGAINANTPIILAFVMCACVLVANMIYFLIKIKEKK

>CAL34214.1 putative periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTNNIFMALAIVLASLILAFGFNKALSDFKTLERSVSVKGLSQKEVEADTLILPIKFTRSNNNLTNLYE

ELEQDKENIIKFLEKQGIKEDEISYNSPNIIDRLSDPYSNDTQAAYRYIGTANLLIYTQNVKLGKSILEN

ISSLAKFGIVTKIDDYDIEYLYTKLNDIKPQMIEEATLNARNAAIKFAQDSNSHLGKIKKASQGQFSISN

RDKNTPYIKTIRVVSTIEYYLKD

>CAL34213.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEELTKEQRQIIEEEIKKEIKKANTFLKPELINKIIQDIIGDIKGKINNKFKCPKNLEEILSSIPQKVYV

SLGKEEIKQILKLDFCCFVDNVFYIDSAPKIEPYEHNQNKTAIEEQRIIQCSYDDLLYLFKTYPLIFNHC

IFDYKIDKKTPIEQIKKLSFLNCNFKKEVYLNFQECLDSFQMDNCVFEDRVTIKGKFNDNVYFNNSIFKN

YADFHECEFEKTANFYGVRFNKTPNFSQAIFRGNLNAVNANLNFTFDDLQERIKQEYEDFNKNIENKKSL

DKFANDFRDSFRTFKNALIKDNNLLDASNFHKYELYCKEIELKQNWDKRGENVKNTTDLEKNVSRIRDFM

DFLLLGFYRKLCDHHTDFLKVFNNLILLIALYALFVFGFTWLHDDKLEDTRAILTLFGFFDKFRLYFDII

STIFVVFGCGFFVCKLDSYEKKNNVSKKQNINFIYIIGDFLNLIKSLLFASFIPCVFYVLFSLFGFFLNL

GKDFGYSLLINTLFVSLYICLVYTKSLFFGRYVVLIFSYIVFIIMLIKQPNVIHPLIGKIANESDKFFNY

PSLIVLNILYTILLALVLFSLQKTARKNSIVPS

>CAL34212.1 putative type IIS restriction/modification enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MHFTLLNEKDFFNPYYRKKQIMQNEFDIFSKALMQYLERLESSQSENEDYLVANALSPFLTMLNFKTHIK

TKQKGKSEIDLSISKDEFSKDLEVLIEAKKPNSKEFITHTKVNSKALHETILYYFRNREYSFSLKFIIIT

DFYKFYIFKISEFEELFYKNPSFKKLFEEFCNPNSLFKGNTEEFYKEVAKLIENSKENLKGFLIDLTFLK

DKQKSNFKNLASIYKTFHRDFLLSEFNPNDANSLNNAFYKELLYILGLYESKQNSKLIIAKSEESKEEQG

TFYTAINSKLKEENFETILKLLILWLNRILFLKLIESNLVRFNDDKNLKFLNFKKIPDFDKLSELFFEVL

AKEKSTRKKSEFTYLPYLNSSLFEKQSIENTLEISSLSNDLKLFYYKNTVLKDDKCKAKKGQVGLLEYLF

EFLDSFDFGSDDEQSEILSQKELISSSVLGNVFEKLNGYKEGSFYTPSFITSYMCKESITKVVLDKFNAQ

FDLDAKDISELRKSLRKEDKKAQKELLNSIKICDPAVGSGHFLVSALNVMLSIYDELNLFDEEFYLEVQN

DEILITGRKGEFIEYKRPSTPKDKTHLIQQELFHTKKDIIENNLFGVDINPNSCEITKLRLWIELLKHSF

YQSFDDGNYHDLKTLPNIDINIKCGNSLVSYFETGKSLNHYPNIKERMGKYKRIVKDYKEGFYTDKSHIN

QEIKNLKISFKNFCFADKFKKEMKSFNDKCEKYSKKYGNFLAVDDENLKFFVSANLTLFDFDEKEAIKEF

ANLKKEYDNIFNLESNHPFEWRFEFPEILDDDGNFKGFDLIIGNPPYIRQEELKELKPHLAKNYKVYKGT

SDIYTYFYELGFNVLKDRGGVLSYITSNKYTRAGYGEALREFLLKNVKFLEYTDLNGIKVFDSATVDTSI

LCFEKSKSKDNKFKYLALSNEILKTCAYDIGLYKDFAEFSQNSLSKESFTFSDENTSALKAKIERIGTPL

KEWYGLNINYGIKTGLNEAFIITTEKRNEILANCKDEAEKERTAKLIRKMLRGRDIKRYSYEWAGLWVIG

TFPSLKIDIEQYPALKQYLSQFLPHIEQSGEKGCRKKTSNKWFETQDNIAYYEEFEKEKIVWAEMTKEAC

FVYDNSNFFTNQTCYFFTHCDYKYLLAILNSRLIVYYMQYISSHLGQGAFRWIRQYIEKLPIPKINSKNE

KLADELINLVDEILKAKEQDKNANTQELENKINSLVYKLYNLTEEEIKIIEGK

>CAL34211.1 hypothetical protein Cj0030 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEKFIERLLEEDIKFEKDVNNGLSDINIFDALNIETKENYHSKFIAYLIDINKDHYQKNFAKVFLEKLGK

SLVNTKFENLNIEDIKSVETEACIKDNRRIDILITLSDKRYIIIENKIYAKDQKNQLKDYINFVRKNIKN

IKDCYKNILTIYLHQDECASPSDYSLGNFTIKTNLIKDKNENNVSYYLKMDYMWIKEWIDECIKIYEEKS

TKDQKFILDIQNIIFTLNQYKSILQWYIADEYTQRDDVLEFIFQDIIKMQNLKNAMILYRYNKNKSELKN

LNEEKYKKAKDIIQHKWSNICEYIIEEFFDSFEHKEIKIGDITFIGNKIEENRVNHGVFIFYPVDYKNES

IYPCIYIYFKKKYYDIIGLTFEISNDDEEDIENEKYKECLKLFKDVKEENVRKYQNHYYCDKLINNEKLE

GEYAFIYWLIENQNSKKDFIQILNDFFIKKPIQEAYKGINDILNS

>CAL34210.1 cytoplasmic L-asparaginase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNMCDEI

WLRLAKKIAKLFAEGIDGVVITHGTDTMEETAYFLNLTIKSDKPVVLVGAMRPSTAISADGPKNLYNAVA

LVVNKEAKNKGVMVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNAPFD

VSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVSSRV

VAGCVAVSDSDEKLGFISAEDLNPQKARVLLMLALTKTSDPKKIQEYFLKY

>CAL34209.1 putative single-stranded-DNA-specific exonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIINKNEIKKILASRFEKDLHTKLCDLPLPCCLKDAYKAANRIKEAVEKNEKVAIVGDYDVDGIISCVI

MAEFFDDIGFDYIIRIPNRFKDGYGLNAEIINELDVNLIITVDNGIAALEAAKLCKEKNIDLIITDHHMP

QDILPDAFAIINPKQKDCDFPEIEICGAQVAWYLIAALKEVCKLKYDMCKFLELLAIAIVADMMELRDLN

RALVRRGIDHINKSKRAAFRAIKHYYQKDKFALDNIGFLIAPLINSAGRMDDASISYEFLHTKDFNKALE

YLEQIVSFNESRKDEEKQLFEDSLNQIDENDSCIVVSGLNWHEGVLGIVASRLAKHFNKPAFVFSQNEEH

LKGSARSVGKIDILALISKTNSILSNYGGHKGAAGISLNSENFEQFKNKIKKECSQISESEFLDTDEILG

ILEPSEIDFEMLEILESFEPFGHKNPRPFFVLENLCVKNKKLLGKDEKHLKLVLTKENKTIEALFFNFDK

EPELNQNISLLGSISKNEFRGMVTPQFVVKEIL

>CAL34208.1 CTP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQTKYIFVTGGVLSSLGKGIAAASIATLLKNSGLKVSILKADPYINVDPGTMSPFEHGEVFVTDDGAET

DLDLGHYERFLDESLSQDNNFTTGRVYQSVIEKERRGEYLGKTIQVIPHIVGEIKDRIKKAGEGKDILIV

EIGGTVGDIEGLPFLEAIRALRLEVGKNNAMNIHLTLVPFIKAAGELKTKPTQHSVGELRRIGISPDMII

CRSEKALDRDLKDKIAISCGVEKNCVIESVDAASIYQIPLNFLKQDILSPIAEILDLKNLKPNMENWDSL

VKRVIAPSNEVKIAFVGKYVDLKESYKSLTEAIIHAGAALDTKVELKWVDSEKLENMESSEVFKDVSGIL

VAGGFGYRGVEGKIKAIQYARENKIPFLGICLGMQLALVEFARNVLKLKDVNSSEFNEKCQNPVVYLIDE

FMDTNGEKQIRTAKTPLGGTMRLGAYKCDIKEKSLLAKVYNEVKSVKERHRHRYEANPKYRADFEKYGLI

VSGESKGLIEAVELNCHPFFLAVQFHPEFTSRLEHVNPVICSFIKAAINYEDN

>CAL34207.1 thymidylate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQITLLFHTPLSVCSHATRTCWQSFEKGDCGGEKDKELIDRVGNKFKHASTLEHLNYTFYIQGISRACLQ

EVARHRHTSPSVKSTRYTLKELRNEAEFKIGDFENASRYLVLCGNEEVDNASIKALENLRTILQKSISLD

IAKYCLPESYKTELTLTINARSLQNFISLRSSKSALWEIRNLANALFEALPQEHKFIFEHCLHKDIE

>CAL34206.1 putative sodium:dicarboxylate family transmembrane symporter [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDKQFFQDFLMLSQAHTIATLAILCVVFYALKKMRDIKINFSLRMLFALLMGLGFGFALQYLANFPDAEE

ASNILWYSETKHWFAFVSSVFVAFIKMLVVPLVSICIIKVIIEIDKNIKISSLLGISLFWILFSTAIAAT

LGIFLGYSFDLGSNFAIYEGDKQIREIQTFSNIILGLIPSNIITAINKENIIAIVIFSFFIGISAKKISK

KEEYEQAFKSFHNFILTFYNIMMNMTATVIRFMPYAVVCMMANVLLSNGFEAIKTAGLFIMLIYIAMFIM

FGVHFLLLASQGLNPIKYAKKAFPVWLFAFSSRSSLGTLPMTTSTLQNKFGVNSAIANFVASIGTTTGLN

GCAGYFPALAAVFVAFATHTHIDFTFALMIVLVAVIGSLGIAGVPGSATMAASIMLAGIGFGNNFVMLSL

ILAIDPIIDMARTASNVSGAMTSALCTAKNLKALDKEIYNS

>CAL34205.1 ribonucleoside-diphosphate reductase alpha chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKVIKRNGRTEELDVSKIKKCTSDAVKDLEGVNLSELELDAKIQFRDGISTEEIQKTLIKTAVDKIDIDC

PNWTFVAARLFLFDLYKKVNGMNRYNHLREYFQKGEKEGRILLGLKEKYDLDDLNAYIKPERDMQFTYLG

IKTLYDRYLIKDSKGMPIELPQQMFMAIAMFLAQNEFNPQEWAKKFYDLISKFELMLATPTLSNARTTRH

QLSSCYIGSTPDNIEGIFDSYQEMALLSKFGGGIGWDWSKVRAMGGSIDGHKNAAGGIIPFLKITNDIAV

AVDQLGTRKGAIAVYIEPWHMDISDFIDLRKNSGEERRRAHELFPALWINDLFMKRVRANDKWTLFDPAD

TADLCDLYGEAFEKRYEEYEKDESITKEIVEAKELWKKILLNYFETGLPFLCFKDSANRANPNAHVGIIR

SSNLCTEIFQNTEPNYYQIKVVFENGDELHFDEEQKVVIDGGYEKPAKKISTLDSIEGNKVYIVEKYKND

GKTAVCNLASINLSKVYTKEDIERVVPTAIRMLDNVIDLNFYPHRKVKDTNLKSRAIGLGVMGEAQMLAE

AKIHWGSDEHLNKIDEIMEQISFEAINASSNLALEKGSYEDFEGSNWSKGIFPIDVASPKAKALTLREGL

FDQSECDWVKLREKVKKDGMRNGYLMAIAPTSSISILVGTTQTIEPVYKRKWFEQNLSGMIPVVVPNLSL

DTWQYYTPAYELDQKILVKAAAVRGKWIDQGQSLNIFLSLDKASGGYLNEIYQLAWELGVKSTYYLRSES

PDSEKVNVADRSIECEGCQ

>CAL34204.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MVERYSREIMAKKWDMQAKYDAWLKVELAAVKAWNKLGLIDDTDCEKILKNAKFDIARIDEIEKTTKHDV

IAFLTSVSESLGEESRFVHYAMTSSDCIDTAVALQIKESLELILEDVSLLLEAIKKRALEHKNTLMVGRS

HGIHGEPITFGLVLAIWYDEISHAKELLEHAKEVISYGKISGAMGNFAHAPLEFEEEVCKNLGLKAAPVS

NQVIQRDRYAQVISAIAILASSCEQIAVAIRHFQRTEVYEAEEYFSVGQKGSSAMPHKRNPVLSENITGL

CRVLRSFVTPALENVALWHERDISHSSVERFILPDAFITADFMLMRLTNLIDKLLVYPENMMKNLNLTGG

LVFSGRVLLELPFKGISREEAYKIVQRNAMKVWADLQNGKAAINEKNESLFLLALLSDEDLRKSLSEEDV

RKCFDYNYYTKNVDAIFKRTFK

>CAL34203.1 putative ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAYIKIKLSNNGKKAFQVLMENLKISINEAQKLIDKKRLFCDGILVEEKNKILNGLVELIVYENNPKGVE

IVFENEDFAILEKESGILSHPNGRHCKYSLSDEIWHLWGKEACVAHRLDKETSGLILIAKNKKAQIDLKS

LFEKKLVQKEYLALAHGKIEENFIVDKAINLTKNYDDVKTRMQICKEGKQAITEFEILEYFPKINATLLL

CKPLTGRQHQIRVHLHYKNHTILGDPLYGLSKQQIESILDEKLNPKERLKLTGALRLCLHSYRLKFQYKN

QNFDINSKINIKEIFNNSIK

>CAL34202.1 putative fumarylacetoacetate (FAA) hydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKFVNFIQGQKPNLGVLNSSGKIVSFDDLGIETNDMNEFIIHFDKFKHKLTDLDSKIAYEIPQENYLAPI

IEPRQDIICLGINFLDHAKESAKFKGEKFEEREYPVYFGKRCNQATAPFGDIPLHADVTSQLDYECELAF

ILSKDAYKIKAKDAKDYIFGYTIINEISARELQKRHKQFYRAKSLEGSTIMGPYITSVDEISYPPKLQLQ

SYVNDELRQNSNTQLFIFDIAYVLEELSAGMLLKAGSIISMGTPSGVGMGLNPPTFLKSGDKVRCVIENL

GELCNKIKNINY

>CAL34201.1 cytochrome C551 peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIIMILCLSYANIVFAVDMITPIPNSISYDKEKAKLGKSLYMDKSLSKDGKVSCNTCHRLDQHGVDGL

EFSIGVDNQLDKPFNTPTTFNSVFNFVQFWNGRAKDLAEQATVPFFNPKEMGLSPELLLQKVNSNENYVK

TFKKLYGEVTVENIALAVAEFEKTLITPNSPFDRYLSGDQNAISTQAKKGYEDFKANGCISCHQGQNIGG

NMFQKIGIFEEYPNQEDLGRYEITKREADKMVFKVPSLRNIAKTAPYFHDGSIPTLDACVQFMAYYQLGK

FLDQETVDNIVAFLESLTGEYHDK

>CAL34200.1 putative MCP-domain signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTNKKSSFLIKFIILSTLVLAFILVLLGIIFNNYSSSKDNKELINIVQQLEISDEKINSVFQNSFNFINY

DPSVQAIKKMQENFTKLKTFGIDINKAEEIFNAKLIQLNYFKSANSIAVNSKLYLFELAKNYFEELEQNH

ETNKNNYKTMSSMLSVLSTENILQKTTLNQLNNLMKEIKNDTKSENLQLFLKHYNMIVKQISIMQDNSSI

YENNSLMKELKQLNTFTQNTIEQSNLFKFYIALAVFGITLVLFVFFILLTLKKVIMPIHTLEKLSANLAS

KEANLHSRLNIDPKSELGQSAQYINSFISTVQNSIIEAIENAKSSHQNSQKLKNNSMMLENSSNSQHEQI

QGVKEITHVLDDHINLAGNLAQESIENMQDMHILMDKVELTLSELVNLINENNEKEQNIVANMDNLTQSA

DNIIEITNSIKDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVGQLADKTSKSLLNINATVNTIVQQI

NDNKALMDLIHDSMKETSSKTNDLQQELVNSMHKLESSIESTQTMKDKSMEVKDKMLILGTNIDKVNELA

NSVKDLSCEINNISQNVLNGASKLSEKLSSFQ

>CAL34199.1 disulphide bond formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEFLELLLVLIALILIIKKPEKENLAFGLVMVAWLLMVFFYVGHKTGALLTIMNL

>CAL34198.1 disulphide bond formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNEINKTKNFYTLMCLAGFLIILLPVGIANLIFGYMLGDSPCTLCWGQREAMIFIGVMALFIVRYGMKGK

YLAALLIMTAVGLYQSFAHYGNHAHRDLDQGFGLAVFGIHTYFWAEVVFWAVVLLLGVIFAFAPKFNAFE

AELNGEKFRKYTKFSFAAVLISAIIVASNVFQAFVSTGIPPYVGQGDPVRFSLNPKYIIWSKEGWNGLWQ

NISFLGKRDVKAPDYAFAPASEKLGIKFDNDINNAPFAKINDELKITNEQTINFDKAINTLDYINNEFVA

SSKWDVAFLDNNFSVKEGFELDPYFSASIDPIIGIIPYMNDKFILMGSNKSFLRFAKNPNASEEDIAKQY

ADFVKGNDKFKGQGESLGRGRLDTVRAKFNHVASMTTDGNYLYLATVPNNKDAKTFVISKVSLKDRVLSG

EFTPKANLKEGKTLGDLYVTSMTFKDGEIYALSKNHNVIAVIDPVKEEVVKTIAFPSSITNARSIFFKDG

KINILSYQDGANKLYTLN

>CAL34197.1 putative transcriptional regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKKALCIISGGMDSTLCAYLAKKEGYEIIALHFDYEQRTQEKEKECFKQICKALKVEKSYILDVSFIKD

IGGNALTDKSIDIPKNELCTSDTPPITYVPFRNGIFLSIAGSLAEKENCESIFIGVVEEDGSGYPDCTDE

FIQKAQEFINEGTSKNFKVCIKTPLVRLNKAKIVELALKENVPLELTWSCYESEDEACGECDSCLLRLRG

FEKAGFKDKIKYKS

>CAL34196.1 hypothetical protein Cj0015c [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MINIKLIEHIFKAASISRWNDYPRMANLVELDKQAHKFIIAYFIAKMEKDVDMRVIIEGGIFEFLSRVVV

TDIRPDVYHEIVRQKKAEVNAWVLSKIEPMIEDIEDGEFLKRFEAYLNGNAYAKERLILKAASYFATRWE

FNIVYQTSAFLNDIDEIKNKVEEELEDYYELIGARKIALNQKIAKIIDLSGRLRFQKRWAQTPRIPETAV

LGHMLVVAILGYFYSLKIKACDKRLENNFYCALFHDLPESLTRDIISPVKYGIDGLHDIINDYEMKLINE

RILPFVPEGLRAEFSYILGIREGRNGESNFVKNEFENRTYKNAKIELCSGSLSSFNENEFGAIDGKALKY

CDKIAAYIEAGLSISYGVKSKELESGFLGMHEFFKENPTIDGVNFFEICESLREYFKI

>CAL34195.1 putative integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKYFQKRYTLAFFIGILAGIFGAIVKWGWEVPFPPRNPNVFWPADALERVTPPKIFLEQLGLPTDWTYM

FSGMQMPLSIFIVHVGFSIIFGVAYCMIAEKWHRITMWQGAVFGFFVYLFAHVIIMPLIAEVPPLSEIPF

DEHLSEIFGHIVWLWGMEIVRRDIRNRITKEIEE

>CAL34194.1 dihydroxy-acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRSDAIKKGHLRAPNRSLLRACGLKDEDFDKPFIGVANSYIDIIPGHYFLNDYAKIIKDEIRKNGCVPFE

FNTIGVDDGIAMGHEGMLYSLPSRELIANSIETVMNAHQLDALICIPNCDKITPGMLMGALRVNVPTIFV

SGGPMASGVTKKGEKISLSSVFEAVGAYESKKISEEEFKDIECSACPSGGSCSGMFTANSMNTLCEAMGI

ALEGNGTILALSKEREELLRKAARRICEIALDERFKIRNIITQKAVRNAMVVDMAMGGSSNTVLHMLAIS

REAGVALDIKDLNFISSKVAHIAKIAPSLNSVYMDDIHKAGGVSAVMAEISSRQGHILELDALTITGESL

KERLKNAKIKDENIIRKVDNAYSKVGGLAILFGNLAKQGCVIKTAGIIGERKFKGKAVCFNSQDEAIKGI

IKGKVQKGNVCVIRYEGPKGGPGMQEMLSPTSLLMGMGLGADVALITDGRFSGATRGLSVGHISPEAAEG

GLIGLLKDGDEIEIDVDAYTIHANVSEEEIAKRKKEFALPQKEVSSRWLRMYQKLVSNASKGAVLDME

>CAL34193.1 non-haem iron protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRQYETYKCQKCGNEVEVQNVGGGKLSCCGEEMKCITTDLTAVNLMKAFAGESMARNKYDLFADVAEEEG

WHAVARHFREAAENEKWHARAEFKAYHEIVDGKPLEVTTKNLVTAAEGENYEHTTMYPNFAKIAEDEGKK

AIARLFTAIGKVEIEHEREYLALKKMLEEEEFFNSEVEELWVCEVCGHIHRGKKAPAACPLCKAPKEYFK

REFLG

>CAL34192.1 putative non-specific DNA binding protein. Functional classification-Synthesis and modification of macromolecules-DNA replication,restriction/modification, recombination and repair [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLLFLFFALTAFLFGAVNINTATLKELKSLNGIGEAKAKAILEYRKEANFTSIDDLKKVKGIGDKLFE

KIKNDITIE

>CAL34191.1 ribonuclease HII [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKTLFDTKELLNEFDINLIGIDEAGRGALAGPMMMAACKLNKQLDGLCDSKKLSEKKREELYEIIIKNSN

YLILAFSSEQIDALGLSTCLKKGLKLIKKHFKTENNFLYDGNTNLGINGIKTQIKADTSILQVSAASILA

KVSKDRVMNFLAKDFPCYEFEKNKAYGTKAHKEFIAKFGICKLHRKSFKLL

>CAL34190.1 glutamate synthase (NADPH) small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGNARGFLDFKRMDFKKIAPKERILNYKEFTIPLDKKEQEVQGGRCMDCGVAFCHTGVMSEGKDVGCPLN

NLIPEWNDLVYRSLWKEAYERLDLTNPFPEFTGRVCPAPCEDSCVCAINGVSVSIKNNELSIIENAFKEN

LVRVNKPKQYNGKKIAVIGSGPAGLACANTLNSLGYKVSVFERSDKIGGLLMYGIPDMKLDKSIVQRRVD

LLKKSGIEFKVNENIDSKDKVSKLLKEFDALVLCTGASKPIDLDIEGRKLKGVEFALDFLTQNTKTLLKT

GKGADMAKGKNVLVIGSGDTSVDCIAVATRQGAKSIVRFERSPKRPLQRSQNNPWPLKADIFTTDYGLEE

AIAVYGKDPREYQKMTKKFLGKTHVEGVEANDLKREFKEGKAINVEISNSKKTYKADLVLLAMGFSGCEE

AISKNFGVKLDEKNNISTENFQTTHKKIFACGDARKGQSLVVWAIKDGIECALSLHQNLAK

>CAL34189.1 conserved hypothetical protein Cj0008 [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MAGFQSPITINEAMQRIKNNEYLLPAFQREYVWEPWQIEELFDSLIRGYPISSMLFWKVKDESKTAWKFY

RFLEYYRESYHTHNDYFNTSNHKDFYAILDGQQRLTSLYFALFGNYDIHRSYNKWENNDRYFKICHFYFN

LTQSKKPENENIEYEFLWLDKLETKEQNIYIDKYQQKWFKCQYLYQYDSGRVRKIAKEFNLNENEEDRLD

LLHQKIFDKNLINFYLEEEQDPDKAVNIFIRINSNGEPLDYSDILFSIAIANWNKIDARTEINNLVDKIN

ENFDISKDLILKGFLYLFHNNIKFQINSFDKNFIESIEAKWEGIKNAFIETFRLLRSFGFEAKTLSSNNA

ILPILYFIYHKNLTNNIVDSVKCNENRAIIKKWLLRAIILKPFGGSSDTVLSNMRKAFIKDFKQNSGFFD

REIELFPLEEIEKEAKYIQTIDEEYLENNVIECRKNSPEAFAVLSLLYPNLDYKNNNFHKDHLHPESAYK

EYEKLYKATDNCISFNIYDSLPNLQMLDANENESKNNKPLKQWVNEKCNGNRKEFLGKHLIPDVDLSLEN

FNNFIEERKKIIIDKLKSILNKE

>CAL34188.1 glutamate synthase (NADPH) large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MDLENILENNQSIGLYHPKNEHDACGIAAVANIRGIASYKVICDALEILMNLEHRGGTGAEENSGDGAGI

LIQIPHDFFKTQELGFELPKKGDYAVAQMFLSPNTDAKEEAKEIFLQGLKDKKLEFLGFREVPFNPSDIG

ASALKAMPYFLQAFVKKPSKISAGLEFERVLYSTRRLIEKRAINVPKFYFSSFSSRTIVYKGMLLSTQLS

DFYLDFKDVNMKSAIALVHSRFSTNTFPSWERAHPNRYMVHNGEINTIRGNVDSIRAREGLMQSEYFENL

DEIFPIIAKLSSDSAMFDNTLEFLALNGRTLEEAFMMMVPEPWHKNENMESKKRAFYEYHSLLMEPWDGP

AAIVFTDGVIMGASLDRNGFRPSRYYLTKDDMLILSSETGALKLDEKNIKAKKRLEPGKLLLVDTARGRV

IADNEIKEHYANAKPYKKWLKNLVELEKQKSGVYKHQFLKEDEVLKLQKAFGWSYDELKMSVAAMAQNGK

EAIAAMGVDTPLAILSKTYQPLYNYFKQLFAQVTNPPLDAIREEIVTSTRIYLGSEGNLLKPDENNAKRV

KIALPVISNEELFEVKALNKFQVKEFSILYDYSKKTLEKALDELCVKIEDEVKKGVSIIILSDKGVDEKN

AYIPALLAVSGVHNHLVRKNLRTHTSLIIESGEPREIHHFACLLGYGATVINPYLVYESIQKLIANKDLN

LSYEKAVENFIKASSSGIVKIASKMGVSTLQSYNGSALFECLGLSSKVIDKYFTSTTSRIEGMDLEDFEK

ELIALHKHAFNDTHKALDSKGIHGFRSAKEEHLIDPLVIFNLQQACRNKDYKSFKKYSALVDEKQVNLRS

LMEFDFSEAISIDKVESVESIVKRFRTGAMSYGSISKEAHECLAQAMNKIGAKSNSGEGGEDEERYEIKE

GVDKNSAIKQVASGRFGVDLNYLSHAKEIQIKVAQGAKPGEGGQLMGFKVYPWIAKARHSTAGVTLISPP

PHHDIYSIEDLAQLIYDLKHANKDAKISVKLVSENGIGTVAAGVAKAGANLILVSGYDGGTGASPRTSIP

HAGIPWELGLAETHQTLILNKLRDRVRLETDGKLMNGRDLAIAALLGAEEFGFATAPLIVLGCTMMRVCH

LNTCPFGIATQDTELRDRFKGKVDDVINFMYFIAEELREYMARLGFERLDDMIGRVDKLRQKSVQGKAGK

LNLDKILKSLPTYNRTAVHFKDYKDNKLEKTIDYRILLPLCKNAVEKKEPIKLSLEVGNQSRTFATMLSS

EILKTYGKDALDEDSIHIKAIGNAGNSFGAFLLKGIKLEIIGDSNDYLGKGLSGGKIIAKISNEATFSPE

ENIIAGNACLYGATKGEVYLDGIAGERFCVRNSGALAVVLGTGVHGCEYMTGGQVVVLGDVGANFAAGMS

GGVVYIFGRHNEAHVNTELVDIKDLNAKDEKELKAVIEKHITYTDSKKAKDILEKFDKKDFFKVMPRDYE

KMLKMLDLCKNEKDPNLAAFLKITQK

>CAL34187.1 putative Na+/H+ antiporter family protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MILTLLTNPIIISVVLMTLLCLFRFNVLLSLLISALVAGVFSHLELVDTMNILISGMKENLKTALSYILL

GAIAAAISKTNLTAYLIKIVSHFISHKKYLLLLSIALISCFSQNLIPIHVAFIPLLIPPLLSLFNKLKID

RRAVACALTFGLTTPYMVLPVGFGLTFQDLLKDNLNANNVSASLNDVTNTMYFAAICMIAGLFLALFVFY

RKPREYQEVEIAKVDLENLEMTRKEWGVLAGLVLTLILQILTMNLPLSGLLGFVLMVILGGVEFSKVNEV

FDDGLKMMGFIAFVILVAAGYGEVLKESGSVVDLVNSVVPWMEQSKFLAVFFMLLIGLIITMGIGTSFGT

IPIIATLFCPICLELGFSTALIIFILGVAGALGDAGSPASETTMGTTVGLNADKQHDHIKDTCIPTFIFY

NGPLLILGSIIAMFL

>CAL34186.1 molydopterin containing oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKQNDQKENRRDFLKNIGLGLFGISVLSNFSFENFLGSKALAKELPDFKIEGKKDLIYHGEKPLTAETEI

YALDSDFTKPENFFVRNNGLPPSLETIKERLHKGWTLEIDGESIINKKSYTIEDLKKKFKTYTYALTVEC

GGNGRSEVIPSTKGTQWGYGAVACGRWTGVRLKDILKDCGIKNDAVYIGYYGIDTKLNGEETSPISRGVP

ISKALQDETLIAWAYEGKDIPLVNGYPLRLVCGGYPASTSGKWLYKISVRNKIHDGEKMEGSYKVPVNPV

KPGDFNYKGEMKIIESMPIRSVITNIKNGSEIKANKKFEVRGKAWAGELEVSEVYVSNDYGVTWTKAKVE

KPLNRLAWQKWSAQISIPTKGYYEIWARAIDSQGNSQPMVLAQWNPGGYINNACHRVNVYGV

>CAL34185.1 monohaem cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKIILILALFLSASWAQNLEINPDTGLIIDPDSPLVEANCLACHGSNLITNMHASRKAWLAAIRWMQDS

EGLWEIEPEDEEKILNYLEKYYGEKYDTRRRIPLAILLQNKTH

>CAL34184.1 DNA gyrase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQENYGASNIKVLKGLEAVRKRPGMYIGDTNIGGLHHMIYEVVDNSIDEAMAGHCDTIDVEITTEGSCIV

SDNGRGIPVDMHPTENMPTLTVVLTVLHAGGKFDKDTYKVSGGLHGVGVSVVNALSKKLVATVERNGEIY

RQEFSEGKVISEFGVIGKSKKTGTTIEFWPDDQIFEVTEFDYEILAKRFRELAYLNPKITINFKDNRVGK

HESFHFEGGISQFVTDLNKKEALTKAIFFSVDEEDVNVEVALLYNDTYSENLLSFVNNIKTPDGGTHEAG

FRMGLTRVISNYIEANASAREKDNKITGDDVREGLIAIVSVKVPEPQFEGQTKGKLGSTYVRPIVSKASF

EYLTKYFEENPIEAKAIMNKALMAARGREAAKKARELTRKKESLSVGTLPGKLADCQSKDPSESEIYLVE

GDSAGGSAKQGRERSFQAILPLRGKILNVEKARLDKILKSEQIQNMITAFGCGIGEDFDLSKLRYHKIII

MTDADVDGSHIQTLLLTFFFRFMNELVANGHIYLAQPPLYLYKKAKKQIYLKDEKALSEYLIETGIEGLN

YEGIGMNDLKDYLKIVAAYRAILKDLEKRFNVISVIRYMIENSNLVKGNNEELFSVIKQFLETQGHNILN

HYINENEIRAFVQTQNGLEELVINEELFTHPLYEEASYIFDKIKDRSLEFDKDILEVLEDVETNAKKGAT

IQRYKGLGEMNPEQLWETTMDPSVRRLLKITIEDAQSANDTFNLFMGDEVEPRRDYIQAHAKDVKHLDV

>CAL34183.1 DNA polymerase III, beta chain [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLSINKNTLESAVILCNAYVEKKDSSTITSHLFFHADEDKLLIKASDYEIGINYKIKKIRVESSGFATA

NAKSIADVIKSLNNEEVVLETIDNFLFVRQKSTKYKLPMFNHEDFPNFPNTEGKNQFDIDSSDLSRSLKK

ILPSIDTNNPKYSLNGAFLDIKTDKINFVGTDTKRLAIYTLEKANNQEFSFSIPKKAIMEMQKLFYEKIE

IFYDQNMLIAKNENFEFFTKLINDKFPDYEKVIPKTFKQELSFSTEDFIDSLKKISVVTEKMRLHFNKDK

IIFEGISLDNMEAKTELEIQTGVSEEFNLTIKIKHLLDFLTSIEEEKFTLSVNEPNSAFIVKSQGLSMII

MPMIL

>CAL34182.1 chromosomal replication initiator protein [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNPSQILENLKKELSENEYENYLSNLKFNEKQSKADLLVFNAPNELMAKFIQTKYGKKIAHFYEVQSGNK

AIINIQAQSAKQSNKSTKIDIAHIKAQSTILNPSFTFESFVVGDSNKYAYGACKAIAHKDKLGKLYNPIF

VYGPTGLGKTHLLQAVGNASLEMGKKVIYATSENFINDFTSNLKNGSLDKFHEKYRNCDVLLIDDVQFLG

KTDKIQEEFFFIFNEIKNNDGQIIMTSDNPPNMLKGITERLKSRFAHGIIADITPPQLDTKIAIIRKKCE

FNDINLSNDIINYIATSLGDNIREIEGIIISLNAYATILGQEITLELAKSVMKDHIKEKKENITIDDILS

LVCKEFNIKPSDVKSNKKTQNIVTARRIVIYLARALTALTMPQLANYFEMKDHTAISHNVKKITEMIEND

ASLKAKIEELKNKILVKSQS

>CBX86049.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNLSFKIFDISNTQRSKAKKVQGKKYEIFLNENEHSLITPKVSFKEILRYYYLYPKNAIPSFKLPFFKPD

LSGFSTPHITWLGHSSLFISFKEYKILIDPIFNTHASPISFINKAFKNAPVYNINDFNEIFAVIITHSHF

DHLDAKSVKALKDKAKFFITPLKVGNYLKSYGVSEKKIIELDWWSGIEFGDLKIMATPAQHSSSRGDGKN

KTLWASFVMEFLSVDKRVFFSADGGYFTHFKKIGEYFGSFDLACLESGQFNIAWPYSHSFPEQILKEAKD

LNAKAVMPIHWGRFLAGTHAWNEVVKFLYENLDLPLITPKMGEAYEVGAKFKQDFWWKEE

>CBX83513.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQYSIEINKNTEIFDIDKVAKQAAGAVLMRQGKSVVLATVAREEKQVEEDFLPLTVQYIEKAYAAGKIPG

GYVKRETKPSDAETLTARIIDRSLRPLFPKGYAYPTQIVVMVLSADPKVDLQVMSLNAASVALYLSDIPM

KAPVCGVRIGKIDGNFILNPNNEELQNSTLDLYVAGVKDELLMIEMRALPDQKENEIFIEAPYADVLTQT

TSQNMNELSEDEILEALNLAQKAILNGSNAYEEAFSKHKKNSQIELKNEIEHPEILAFIENNFQKQIKEA

INQMAKSERASELNKIAKEILNLEITKDWSEESVLNTLAKVKRKLIREQILNEGKRADGRSLNEVRPISI

ETNILPNAHGSCLFTRGQTQALVVATLGGENDSQMIDLLTEKNPISERFMVNYNFPGFSVGEASPIKAPG

RRELGHGNLAKRALYPSVDENYPYVIRLVSEILESNGSSSMATVCGGSLALKAAGVPSLKLVAGVAMGLI

FEDNKYAVLTDIMGLEDHDGDMDFKVAGSKDGVTALQMDIKLGGIDQEILKQALYQAKEGRIHILNIMEE

AAKEIIVNEEVLPKLELFSVDPSKIVDIIGQAGKTIKEIVEKFGVSIDLDREKGEVKIAGSQNEQIKAAK

DYIINITSSQKGTKKGPKDKDISGFELGQEFQGIVKKIAPFGAFVELKNGVDGLLHSSKIKHLNLSENQS

LKVKISEIKNGKISVDLCE

>CBX83052.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNYKKALFALALSAFCMGVTEFVMAGVLVDVEAYFSVDAKTAGYLTTLYAIGVVIGAPLITIPLSRFHR

HTQLLINLGIFALANFIIFFSQNFYLTAFARFIAGTQHGVFFVIATLAVSAITPDDKKSSALAIMVTGLT

VALVTGVPLGTFIGHYFGFKFIFLLIFIITSLAFFGVWHMMPKNLHPSPTNLKNLIPAFSHQNLLKTYTI

TICSCGAQFVLYTYLQKILVEISGFKVQDTAYILLLYGICAICGNLWGGKIVDKKGAIFSLRLILSIQVL

VFLSVFLTMHSKILIIFSVALIGFFAFSTIPALKMLSITKAKRHTYKVIDSTVSVNEAAFNVGIALASFL

GGIVLARLGIEFNALFSALFVSPALIFALLFAKDKLNYKKFQRKSFTKV

>CBX82696.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQMIKKMVLSETFPGILLIFFTFLALLCKNSSLSVIYTDFFHANFTVGFDHFQISKSLDLWINDGLIAIF

FLCIGLELKYEILRGQLKNIRAVSLPIFGALGGMITPALIFIAINYSHDFAMKGWAIPTATDIAFAVGIL

MLLGNKIPTSLKLFLLSLAIFDDLGAIVIIALFYTDQLSALAIIICLFCIFALLLLNYYHITHLSLYVLV

GVVLWIAMLKSGVHATLAGVIISLFIPLDTKNKKPYLHEVLKDLNPWVVYFILPLFAFANAGIDIRDMHL

GSVFSPVSLGIILGLFLGKQLGVFTFCFIAIKLKLAKLPENIKYGKFYGICILTGIGFTMSLFIDGLAYK

NSDIFEYADKLAILVASFLSAIVGFIYLKIVK

>CBX82695.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNIVHKLKTLVLNEAFGGVLLIVCTLLALLVQNGSFSEHYREFLNLKVGFSVGEFELNKPFLLWINDGL

ISIFFFAIGLELKKEFLHGDFKNPKNIVLPFMAALGGILIPAMLFALVNIGDAYTLKGWAIPTATDTAFA

LAILMMCGKHIPSSLKIFLLSLAIFDDVGAILIIAIFYTTKLSIAAFVIAGLAILVMLILNLLGITRKSF

YFICSVILWISVLKSGVHATLAGIVTAFFIPMQTKNGEAFLEEIYESLKFWIAFIILPLFAFANAGVNLS

NIDIGAIFSGVSIGIFLGLFVGKQVGVFLFSYLAIRFKFAALPQGSNLKQLYGVCILTGIGFTMSLFIDG

LAYEVSDIFNYADNLAILIASFCSGIWGFIYLKFFTTRS

>CBV26105.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>CBV26046.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPNLEEFRNKIDAVDDKILDLLNERMTYVKSIGELKQSSGGSIYRPERERAIINRLKNANLGLLDQNAIE

AIYQEIFAVSRNLEMPQTIAYLGPEGTYTHQAARSRFGAMSRYIALANIEDVFKELSNKEAKYGVVPIEN

NTEGAVGITLDCLGKYNELKIFGEIYMDIHHSFVGINENLKEIKRIYSHPQGYNQCRKFLESHELSAIEF

VPSKSTANAAYLASQDKYAAAICSRIAAKLYNVPVLFDKIEDNAANKTRFLILSDIKNPKMPNCKTSILA

HTAHKPGGLSFLLEQFKKENINLTKLESRPVKSKEFLHSFYIDFEGHIDDENVKKALKDIQEIVWLGSYL

SGEKDEI

>CBV24346.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWNLDEKKLQEMLDGFLNFQEVWTLEKVKNMTLEEYTNIKKDNPNRDDFTFWIESKLDNLGSIWGGSAFK

FGIYRRNDESQKESSSGRLYSQNYAWIAKYGNNENEAFNNIKEKIIQIIQASQDNNLKTIEKIDFGDAIK

WKIAFHYQDVKNIKIVNIFSKNVLDLISLNEFKEKLKIYQIHKKLLENKNLSLVKMIENIAIPLWNKYGM

DSQNYIDKMKNLFSEYLNKKKLDKNTINKYIQVIENISKEFLKENLYSCDLFSFDQNINKLNKNEEFKLK

NSNGHNMYSSALNYYRAFLIDYYEQDIFITERVQSEESNMKIIPLNQILYGPPGTGKTYHTIDKALEILG

ENLESRDEKKAKFDEYVRKGQIVFTTFHQSYGYEEFVEGIKPIIDNDENSQEVKYDVKDGIFKELCDKSL

KNYILSMQNENEIDLDKLIFEFANYINQDFLNKGNEFPLENKVSIKKILLNFKDEYRSFSLGGSIKSPQS

LTIDIIKRDYLNFKNKKILSFKDIKPKYDSQSDYHGNAIYYFMFYNKLKEFENIQNEKFKIKKEILKSYI

IIIDEINRGNVSKIFGELITLIEPSKRIGEKEELKVTLPYSGEKFGVPKNVYIIGTMNTADRSITSLDTA

LRRRFEFVEMMPDVSKLSMDCEGINLQELLKAINTRIEYLLDREKTIGHAFFVSVENLEDLKKVFQNKII

PLLQEYFYNDYALINAVLNDNDMIFEDKKDDKYLQKIKNLDSVNSERSIYNIASFDDKIWDKIEIYQAIY

NDEIANKLKNENE

>CBV02285.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>CBU99588.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPFIMELLKQNKLKLISFLLFSFITSAVGVLTLVFINDYLLKNAQNIPIFYFIVLLLIFFISSTIVELGL

SIFGQNFIFKMQRRVVKQILDTPLLRVAKVGKARILASLGSDVRNISFGLLRLPDFLQSSILILCTSVYL

CYLSPQIFALCVVWIMVIFITNNFLMMKVYQYFRKARENDDALQNNYQNILDGHKELLINRDRAKLYYED

EFENNARLKKKNSTLGNLFNNLSNNWTNVTLLALVGVEFYLALKFEWASVADATTIALSILFLRTPLVSM

IGSFPTLLLAKIALDKIAKLELDDYIEGFKKTHYISEWKKISFRNTQFAYEENFHLNPVNIELKKGELVF

LIGKNGSGKSTFCMLLTGLFKPSKGGIYVDDTLIDDKNLDEYRSLISAVFSDFHLFTKTLNKENFASEEK

IAFWLEFLELKNKTSVKDNELTLTKLSTGQKKRLAMLIALLEERDILVLDEWAADQDPVFRRFFYKKLLP

LLKEQGKTIFAITHDDAYFDSADRIFLAQNGEISELKGENIKELAKNLVEKFD

>CBU99587.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>CBV33215.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNSDRIYLSLYYILKFFVTFMPECILHFLALIVARIAFYLNKKHRKIINTNLQICFPQYTQKERDKLSL

KIYENFAQFGIDCLQNQNTTKEKILNKVNFINENFLIDALALNRPIIFTTAHYGNWEILSLAYAAKYGAI

SIVGKKLKSEIMYEILSQSRTQFDIELIDKKGGIRQMLSALKKGRTLGILTDQDCVENESVRLKFFNKEV

NYQMGASLIAQRSNALIIPVYAYKEDGKFCIEFFKVKDSQNASLEELTLYQAQSCEEMIKKRPWEYFFFH

RRFASYNKEIYKDAK

>CBV33023.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKVNFANLEKERLKFFCDNERCIDCNGCAVACDEAHELPIHIRRRRVITLNEGIQGKEVSTSISCMHCD

DAPCSIVCPVDCFYIRADGIVLHDKEICIGCGYCLYACPFGAPQFPKDSVFGNKGIMDKCTMCAGGPEAT

NSEKERELYGQNRIAEGKVPVCAAMCSTKALLVGESSKIEEIYHNRLMNRNYGIPNPSESLEWKIAYTGK

ERL

>CBV32876.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFVVFFGILLFVSCLNAQNLSIFVASSASKAMSEVKDEFLKTHPEDKIELVFGASGKYYELLKQGREF

DLFFSADTKYAKAIYDDKNALIKPKVYVLGVLALYSLDENLLQGGVENLKEKANKITHLSIANPKVAPYG

VAAKEVLENLGLNELLKDKIVLGENISVPVLHVDSKNSDIAIVAYSLVSSINHPKGKAVIIDAKYFSPLE

QSYVITKYAKDKKLAFEFNEFIGSSKAKEIFKKYGFSTP

>CBV32706.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFFGLELEGLQIYWWLILSLLGGLLVFMFFVQGGQTLIDELSKDELEKTMLVNSLGRKWELGFTTLVLFG

GAAFAAFPLFYSTSFGGAYWAWLCILFCFILQAVAYEYRKKENNVYGSKTYEIFLKINGYLGVFLIGVAV

SSFFSGSEFILNEHNFVSWQNPLHGLELLLNPFNYLLGLALVFLARLLGAAYFMNNINDENIKIRAMKKL

MINSILFLPFFLGFLAWIFLKDGFSVDTNGVVSMSANLYLYNFLNQMIFAVLLVIGVILVLLGMVQGTKG

CSKAIFTLGLGTVLTVFALLSSIGLGQSAFYPSLSDLQSSLTLKNASSSYYTLSVMAYVSLLVPFVLAYI

IYVWNAMDKVKITREEIANDDHAY

>CBV31207.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>CBV30324.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>CBV29575.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNILVTGADGFIGSHLCESLVKKGFKVRALSQYNSFNFWGHLEKSPFLKDMEVISGDLRDSFFCEKITK

NIDAIFHLGALIAIPYSYTAPQSYVDTNVNGTLNMLEAAKKNEISHFIHTSTSEVYGTAFYVPIDEKHPL

QPQSPYSASKIAADMMALSYYNSFNLNVNIARPFNTYGPRQSARAIIPTIITQILSGAKEIKLGDLSPKR

DLNFVLDTCEGFISLLNLKHFGEVYNIGSGVEYSMQEVLDLIQKILDSKVKIIQDEQRLRPKNSEVFRLC

CDANKLKKATNWQSKISLEEGLRQSIEYFKENLENYKSELYNV

>CBV22170.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>CBV21961.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>CBV19067.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFSKFFIERPVFASVVAIIISLAGAIGLTNLPIEQYPSLTPPTVKVSATYTGADAQTIASTVASPIEDAI

NGADNMIYMDSTSSSSGTMSLTVYFDIGTDPDQATIDVNNRISAATAKMPDAVKKLGVTVRKTSSTTLAA

ISMYSSDGSMSAVDVYNYITLNVLDELKRVPGVGDANAIGNRNYSLRIWLKPDLLNKFGITATDVISAVN

DQNAQYATGKIGEEPVTQKSPYVYSITMQGRLQNPSEFENIILRTNNDGSFLRLKDVADVEIGSQQYSSQ

GRLNGNDAVPIMINLQSGANALHTAELVQAKMQELSKNFPKGLTYKIPYDTTKFVIESIKEVVKTFVEAL

ILVIIVMYMFLKNFRATLIPMIAVPVSLLGTFAGLYVLGFSINLLTLFALILAIGIVVDDAIIVVENIDR

ILHENEQISVKDAAIQAMQEVSSPVISIVLVLCAVFVPVSFISGFVGEIQRQFALTLAISVTISGFVALT

LTPSLCALFLRRNEGEPFKFVKKFNDFFDWSTSVFSAGVAYILKRTIRFVLIFCIMLGAIFYLYKAVPSS

LVPEEDQGLMIGIINLPSASALHRTISEVDHISQEVLKTNGVKDAMAMIGFDLFTSSLKENAAAMFIGLK

DWKDRNVSADEIAMELNKKFAFDRNASSIFIGLPPIPGLSITGGFEMYVQNKSGKSYDEIQKDVNKLVAV

ANQRKELSRVRTTLDTTFPQYKLIIDRDKLKHYNLNMQDVFNTMNATIGTYYVNDFSMLGKNFQVNIRAK

GDFRNTQDALKNIFVRSNDGKMIPLDSFLTLQRSSGPDDVKRFNLFPAAQVQGQPAPGYTSGQAIEAIAQ

VAKETLGDDYSIAWSGSAYQEVSSKGTASYAFALGMIFVFLILAAQYERWLIPLAVVTAVPFAVFGSFLL

VYLRGFSNDIYFQTGLLLLIGLSAKNAILIVEFAMEERFKKGKGVFEAAVAAAKLRFRPIIMTSLAFTFG

VLPMIFATGAGSASRHSLGTGLIGGMIAASTLAIFFVPLFFYLLENFNEWLDKKRGKVHE

>CBV22742.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLFQKNTILALGVVLLLTACSKEEAPKIQMPPQPVTTMSAKSEDLPLSFTYPAKLVSDYDVIIKPQVSG

VIENKLFKAGDKVKKGQTLFIIEQDKFKASVDSAYGQALMAKATFENASKDFNRSKALFSKSAISQKEYD

SSLATFNNSKASLASARAQLANARIDLDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYAD

FFISDTDKLNLVRNTQNGKWDLDSIHANLNLNGETVQGKLYFIDSVIDANSGTVKAKAIFDNNNSTLLPG

AFATITSEGFIQKNGFKVPQIAVKQNQNDVYVLLVKNGKVEKSSVHISYQNNEYAIIDKGLQNGDKIILD

NFKKIQVGSEVKEIGAQ

>CBV16520.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPFIMELLKQNKLKLISFLLFSFITSAVGVLTLVFINDYLLKNAQNIPIFYFIVLLLIFFISSTIVELGL

SIFGQNFIFKMQRRVVKQILDTPLLRVAKVGKARILASLGSDVRNISFGLLRLPDFLQSSILILCTSVYL

CYLSPQIFALCVVWIMVIFITNNFLMMKVYQYFRKARENDDALQNNYQNILDGHKELLINRDRAKLYYED

EFENNARLKKKNSTLGNLFNNLSNNWTNVTLLALVGVEFYLALKFEWASVADATTIALSILFLRTPLVSM

IGSFPTLLLAKIALDKIAKLELDDYIEGFKKTHYISEWKKISFRNTQFAYEENFHLNPVNIELKKGELVF

LIGKNGSGKSTFCMLLTGLFKPSKGGIYVDDTLIDDKNLDEYRSLISAVFSDFHLFTKTLNKENFASEEK

IAFWLEFLELKNKTSVKDNELTLTKLSTGQKKRLAMLIALLEERDILVLDEWAADQDPVFRRFFYKKLLP

LLKEQGKTIFAITHDDAYFDSADRIFLAQNGEISELKGENIKELAKNLVEKFD

>CBV16519.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>CBV16114.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWNLDEKKLQEMLDGFLNFQEVWTLEKVKNMTLEEYTNIKKDNPNRDDFTFWIESKLDNLGSIWGGSAFK

FGIYRRNDESQKESSSGRLYSQNYAWIAKYGNNENEAFNNIKEKIIQIIQASQDNNLKTIEKIDFGDAIK

WKIAFHYQDVKNIKIVNIFSKNVLDLISLNEFKEKLKIYQIHKKLLENKNLSLVKMIENIAIPLWNKYGM

DSQNYIDKMKNLFSEYLNKKKLDKNTINKYIQVIENISKEFLKENLYSCDLFSFDQNINKLNKNEEFKLK

NSNGHNMYSSALNYYRAFLIDYYEQDIFITERVQSEESNMKIIPLNQILYGPPGTGKTYHTIDKALEILG

ENLESRDEKKAKFDEYVRKGQIVFTTFHQSYGYEEFVEGIKPIIDNDENSQEVKYDVKDGIFKELCDKSL

KNYILSMQNENEIDLDKLIFEFANYINQDFLNKGNEFPLENKVSIKKILLNFKDEYRSFSLGGSIKSPQS

LTIDIIKRDYLNFKNKKILSFKDIKPKYDSQSDYHGNAIYYFMFYNKLKEFENIQNEKFKIKKEILKSYI

IIIDEINRGNVSKIFGELITLIEPSKRIGEKEELKVTLPYSGEKFGVPKNVYIIGTMNTADRSITSLDTA

LRRRFEFVEMMPDVSKLSMDCEGINLQELLKAINTRIEYLLDREKTIGHAFFVSVENLEDLKKVFQNKII

PLLQEYFYNDYALINAVLNDNDMIFEDKKDDKYLQKIKNLDSVNSERSIYNIASFDDKIWDKIEIYQAIY

NDEIANKLKNENE

>CBV15007.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKKEISFIKSLFNKENIALHEPCFIGNEKKYLLECIDSGFVSSVGEFVTRFEEALKEKTKARFVIATNT

GTAALHIALLANGIDENCEVITQSISFVATANAIAYTGAKPVFLDIDENTLSLSPKALEHFLENQTYQKD

NLSYNKTTHKLIKACVIMHTFGLSAHIKAIKELCEKYHILLIEDAAEALGSTYENKALGTFGKCGILSFN

GNKIITGGCGGAILSDDENLAKLARHLSTTAKIPHPYEYDHDRIAYNYRLCNINAAILFAGLENLELFLE

NKRELAKIYKDFFKNHDKCKFIDEKSNEKSNFWLNTLLFKNENLRNIFLEECLKNNIFVRPVWKSLPSLK

AFQNCQSNELMNTKKLEKRLINLPSSVRIANKKE

>CBV15006.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>CBV15005.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>CBV15004.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFINLQAQYLAYKDEINAEIESVLSSSSFIGGAKLNEFEQNLAHFLGVKHAIGCSSGTSALYLALRVLD

IGKDDEVIVPSFTFIATAEVVALVGAKPVFADINLSNYNLDFKAVQKAITSKTKAVIAVSMFGQMSDLRA

LEEILKDKNITLIEDGAQSFGASFKGEKSCSIAKISCTSFFPSKPLGAYGDGGAIFCHDDEIAKKIRILL

NHGQTQRYKHEFIGINGRLDTLQAAILNVKLKYLEKELDKRQKLAQIYNANLKNCQIPQINPNAFSAYAQ

YSVLVEDRASVLRKFEKANIPYAIHYPTPLHKQPCFSEFSNLELKNSEYASEHILSLPFSPFLSEEEQEQ

VICIFKD

>CBV14559.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNILVTGADGFIGSHLCESLVKKGFKVRALSQYNSFNFWGHLEKSPFLKDMEVISGDLRDSFFCEKITK

NIDAIFHLGALIAIPYSYTAPQSYVDTNVNGTLNMLEAAKKNEISHFIHTSTSEVYGTAFYVPIDEKHPL

QPQSPYSASKIAADMMALSYYNSFNLNVNIARPFNTYGPRQSARAIIPTIITQILSGAKEIKLGDLSPKR

DLNFVLDTCEGFISLLNLKHFGEVYNIGSGVEYSMQEVLDLIQKILDSKVKIIQDEQRLRPKNSEVFRLC

CDANKLKKATNWQSKISLEEGLRQSIEYFKENLENYKSELYNV

>CBV13935.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>CBV13601.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>CBV05050.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>CBV03759.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKKEISFIKSLFNKENIALHEPCFIGNEKKYLLECIDSGFVSSVGEFVTRFEEALKEKTKARFVIATNT

GTAALHIALLANGIDENCEVITQSISFVATANAIAYTGAKPVFLDIDENTLSLSPKALEHFLENQTYQKD

NLSYNKTTHKLIKACVIMHTFGLSAHIKAIKELCEKYHILLIEDAAEALGSTYENKALGTFGKCGILSFN

GNKIITGGCGGAILSDDENLAKLARHLSTTAKIPHPYEYDHDRIAYNYRLCNINAAILFAGLENLELFLE

NKRELAKIYKDFFKNHDKCKFIDEKSNEKSNFWLNTLLFKNENLRNIFLEECLKNNIFVRPVWKSLPSLK

AFQNCQSNELMNTKKLEKRLINLPSSVRIANKKE

>CBV03758.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>CBV03757.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>CBV03756.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFINLQAQYLAYKDEINAEIESVLSSSSFIGGAKLNEFEQNLAHFLGVKHAIGCSSGTSALYLALRVLD

IGKDDEVIVPSFTFIATAEVVALVGAKPVFADINLSNYNLDFKAVQKAITSKTKAVIAVSMFGQMSDLRA

LEEILKDKNITLIEDGAQSFGASFKGEKSCSIAKISCTSFFPSKPLGAYGDGGAIFCHDDEIAKKIRILL

NHGQTQRYKHEFIGINGRLDTLQAAILNVKLKYLEKELDKRQKLAQIYNANLKNCQIPQINPNAFSAYAQ

YSVLVEDRASVLRKFEKANIPYAIHYPTPLHKQPCFSEFSNLELKNSEYASEHILSLPFSPFLSEEEQEQ

VICIFKD

>CBU97871.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPNLEEFRNKIDAVDDKILDLLNERMTYVKSIGELKQSSGGSIYRPERERAIINRLKNANLGLLDQNAIE

AIYQEIFAVSRNLEMPQTIAYLGPEGTYTHQAARSRFGAMSRYIALANIEDVFKELSNKEAKYGVVPIEN

NTEGAVGITLDCLGKYNELKIFGEIYMDIHHSFVGINENLKEIKRIYSHPQGYNQCRKFLESHELSAIEF

VPSKSTANAAYLASQDKYAAAICSRIAAKLYNVPVLFDKIEDNAANKTRFLILSDIKNPKMPNCKTSILA

HTAHKPGGLSFLLEQFKKENINLTKLESRPVKSKEFLHSFYIDFEGHIDDENVKKALKDIQEIVWLGSYL

SGEKDEI

>CBN69090.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRVVVTGIGMINALGLDKESSFKAICNGESGVNKITLFDATDFPVQIAAEVKNFDPLEVVDGKEVKKID

RFIQLGIKAAREAMQDAGFSEELDKEEFGIVSASGIGGLPNIEKNSIICSERGPRKISPFFIPSALVNML

GGLISIEHGLKGPNISCVTACAAGTHAIGEAYKSIALGNAKKMLVIGAEAAICPVGIGGFASMKALSTRN

EDPQHASRPFDKERDGFVMGEGAGALVFEEYEEAKKRGATIYAELIGFGESADAHHITSPTLDGPLRAMK

KALNMAGNPKVDYINAHGTSTPVNDKNETAAIKELFGNNIPLISSTKGQTGHCLGAAGAIEAVVSVMVLR

DGVVPPTINQLVKDDECDLDYIPNISRKVDLKVVMSNSFGFGGTNGCVVFKKVD

>CBN70698.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKRVVVTGIGMINALGLDKESSFKAICNGESGVNKITLFDATDFPVQIAAEVKNFDPLEVVDGKEVKKID

RFIQLGIKAAREAMQDAGFSEELDKEEFGIVSASGIGGLPNIEKNSIICSERGPRKISPFFIPSALVNML

GGLISIEHGLKGPNISCVTACAAGTHAIGEAYKSIALGNAKKMLVIGAEAAICPVGIGGFASMKALSTRN

EDPQHASRPFDKERDGFVMGEGAGALVFEEYEEAKKRGATIYAELIGFGESADAHHITSPTLDGPLRAMK

KALNMAGNPKVDYINAHGTSTPVNDKNETAAIKELFGNNIPLISSTKGQTGHCLGAAGAIEAVVSVMVLR

DGVVPPTINQLVKDDECDLDYIPNISRKVDLKVVMSNSFGFGGTNGCVVFKKVD

>CBM39486.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSLEMFDKEIFDLTNKELERQCEGLEMIASENFTLPEVMEVMGSILTNKYAEGYPGKRYYGGCEFVDEIE

TLAIERCKKLFNCKFANVQPNSGSQANQGVYAALINPGDKILGMDLSHGGHLTHGAKVSSSGKMYESCFY

GVELDGRIDYEKVREIAKKEKPKLIVCGASAYARVIDFAKFREIADEIGAYLFADIAHIAGLVVAGEHPS

PFPYAHVVSSTTHKTLRGPRGGIIMTNDEELAKKINSAIFPGIQGGPLMHVIAAKAVGFKFNLSDEWKVY

AKQVRTNAQVLANVLMDRKFKLVSDGTDNHLVLMSFLDREFSGKDADLALGNAGITANKNTVPGEIRSPF

ITSGLRLGTPALTARGFKEKEMEIVSNYIADILDDVNNEKLQENIKQELKKLASNFIIYERAMF

>CBG02594.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWNLDEKKLQEMLDGFLNFQEVWTLEKVKNMTLEEYTNIKKDNPNRDDFTFWIESKLDNLGSIWGGSAFK

FGIYRRNDESQKESSSGRLYSQNYAWIAKYGNNENEAFNNIKEKIIQIIQASQDNNLKTIEKIDFGDAIK

WKIAFHYQDVKNIKIVNIFSKNVLDLISLNEFKEKLKIYQIHKKLLENKNLSLVKMIENIAIPLWNKYGM

DSQNYIDKMKNLFSEYLNKKKLDKNTINKYIQVIENISKEFLKENLYSCDLFSFDQNINKLNKNEEFKLK

NSNGHNMYSSALNYYRAFLIDYYEQDIFITERVQSEESNMKIIPLNQILYGPPGTGKTYHTIDKALEILG

ENLESRDEKKAKFDEYVRKGQIVFTTFHQSYGYEEFVEGIKPIIDNDENSQEVKYDVKDGIFKELCDKSL

KNYILSMQNENEIDLDKLIFEFANYINQDFLNKGNEFPLENKVSIKKILLNFKDEYRSFSLGGSIKSPQS

LTIDIIKRDYLNFKNKKILSFKDIKPKYDSQSDYHGNAIYYFMFYNKLKEFENIQNEKFKIKKEILKSYI

IIIDEINRGNVSKIFGELITLIEPSKRIGEKEELKVTLPYSGEKFGVPKNVYIIGTMNTADRSITSLDTA

LRRRFEFVEMMPDVSKLSMDCEGINLQELLKAINTRIEYLLDREKTIGHAFFVSVENLEDLKKVFQNKII

PLLQEYFYNDYALINAVLNDNDMIFEDKKDDKYLQKIKNLDSVNSERSIYNIASFDDKIWDKIEIYQAIY

NDEIANKLKNENE

>CBG09220.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKLFQKNTILALGVVLLLTACSKEEAPKIQMPPQPVTTMSAKSEDLPLSFTYPAKLVSDYDVIIKPQVSG

VIENKLFKAGDKVKKGQTLFIIEQDKFKASVDSAYGQALMAKATFENASKDFNRSKALFSKSAISQKEYD

SSLATFNNSKASLASARAQLANARIDLDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYAD

FFISDTDKLNLVRNTQNGKWDLDSIHANLNLNGETVQGKLYFIDSVIDANSGTVKAKAIFDNNNSTLLPG

AFATITSEGFIQKNGFKVPQIAVKQNQNDVYVLLVKNGKVEKSSVHISYQNNEYAIIDKGLQNGDKIILD

NFKKIQVGSEVKEIGAQ

>CBG01487.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKKEISFIKSLFNKENIALHEPCFIGNEKKYLLECIDSGFVSSVGEFVTRFEEALKEKTKARFVIATNT

GTAALHIALLANGIDENCEVITQSISFVATANAIAYTGAKPVFLDIDENTLSLSPKALEHFLENQTYQKD

NLSYNKTTHKLIKACVIMHTFGLSAHIKAIKELCEKYHILLIEDAAEALGSTYENKALGTFGKCGILSFN

GNKIITGGCGGAILSDDENLAKLARHLSTTAKIPHPYEYDHDRIAYNYRLCNINAAILFAGLENLELFLE

NKRELAKIYKDFFKNHDKCKFIDEKSNEKSNFWLNTLLFKNENLRNIFLEECLKNNIFVRPVWKSLPSLK

AFQNCQSNELMNTKKLEKRLINLPSSVRIANKKE

>CBG01486.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>CBG01485.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>CBG01484.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFINLQAQYLAYKDEINAEIESVLSSSSFIGGAKLNEFEQNLAHFLGVKHAIGCSSGTSALYLALRVLD

IGKDDEVIVPSFTFIATAEVVALVGAKPVFADINLSNYNLDFKAVQKAITSKTKAVIAVSMFGQMSDLRA

LEEILKDKNITLIEDGAQSFGASFKGEKSCSIAKISCTSFFPSKPLGAYGDGGAIFCHDDEIAKKIRILL

NHGQTQRYKHEFIGINGRLDTLQAAILNVKLKYLEKELDKRQKLAQIYNANLKNCQIPQINPNAFSAYAQ

YSVLVEDRASVLRKFEKANIPYAIHYPTPLHKQPCFSEFSNLELKNSEYASEHILSLPFSPFLSEEEQEQ

VICIFKD

>CBG01039.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNILVTGADGFIGSHLCESLVKKGFKVRALSQYNSFNFWGHLEKSPFLKDMEVISGDLRDSFFCEKITK

NIDAIFHLGALIAIPYSYTAPQSYVDTNVNGTLNMLEAAKKNEISHFIHTSTSEVYGTAFYVPIDEKHPL

QPQSPYSASKIAADMMALSYYNSFNLNVNIARPFNTYGPRQSARAIIPTIITQILSGAKEIKLGDLSPKR

DLNFVLDTCEGFISLLNLKHFGEVYNIGSGVEYSMQEVLDLIQKILDSKVKIIQDEQRLRPKNSEVFRLC

CDANKLKKATNWQSKISLEEGLRQSIEYFKENLENYKSELYNV

>CBG08648.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>CBG16878.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>CBG08439.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>CBG16129.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRNILVTGADGFIGSHLCESLVKKGFKVRALSQYNSFNFWGHLEKSPFLKDMEVISGDLRDSFFCEKITK

NIDAIFHLGALIAIPYSYTAPQSYVDTNVNGTLNMLEAAKKNEISHFIHTSTSEVYGTAFYVPIDEKHPL

QPQSPYSASKIAADMMALSYYNSFNLNVNIARPFNTYGPRQSARAIIPTIITQILSGAKEIKLGDLSPKR

DLNFVLDTCEGFISLLNLKHFGEVYNIGSGVEYSMQEVLDLIQKILDSKVKIIQDEQRLRPKNSEVFRLC

CDANKLKKATNWQSKISLEEGLRQSIEYFKENLENYKSELYNV

>CBG00415.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>CBG00081.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>CBG12591.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>CBG12532.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPNLEEFRNKIDAVDDKILDLLNERMTYVKSIGELKQSSGGSIYRPERERAIINRLKNANLGLLDQNAIE

AIYQEIFAVSRNLEMPQTIAYLGPEGTYTHQAARSRFGAMSRYIALANIEDVFKELSNKEAKYGVVPIEN

NTEGAVGITLDCLGKYNELKIFGEIYMDIHHSFVGINENLKEIKRIYSHPQGYNQCRKFLESHELSAIEF

VPSKSTANAAYLASQDKYAAAICSRIAAKLYNVPVLFDKIEDNAANKTRFLILSDIKNPKMPNCKTSILA

HTAHKPGGLSFLLEQFKKENINLTKLESRPVKSKEFLHSFYIDFEGHIDDENVKKALKDIQEIVWLGSYL

SGEKDEI

>CBG19668.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSKVNFANLEKERLKFFCDNERCIDCNGCAVACDEAHELPIHIRRRRVITLNEGIQGKEVSTSISCMHCD

DAPCSIVCPVDCFYIRADGIVLHDKEICIGCGYCLYACPFGAPQFPKDSVFGNKGIMDKCTMCAGGPEAT

NSEKERELYGQNRIAEGKVPVCAAMCSTKALLVGESSKIEEIYHNRLMNRNYGIPNPSESLEWKIAYTGK

ERL

>CBG19521.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKFVVFFGILLFVSCLNAQNLSIFVASSASKAMSEVKDEFLKTHPEDKIELVFGASGKYYELLKQGREF

DLFFSADTKYAKAIYDDKNALIKPKVYVLGVLALYSLDENLLQGGVENLKEKANKITHLSIANPKVAPYG

VAAKEVLENLGLNELLKDKIVLGENISVPVLHVDSKNSDIAIVAYSLVSSINHPKGKAVIIDAKYFSPLE

QSYVITKYAKDKKLAFEFNEFIGSSKAKEIFKKYGFSTP

>CBG19351.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFFGLELEGLQIYWWLILSLLGGLLVFMFFVQGGQTLIDELSKDELEKTMLVNSLGRKWELGFTTLVLFG

GAAFAAFPLFYSTSFGGAYWAWLCILFCFILQAVAYEYRKKENNVYGSKTYEIFLKINGYLGVFLIGVAV

SSFFSGSEFILNEHNFVSWQNPLHGLELLLNPFNYLLGLALVFLARLLGAAYFMNNINDENIKIRAMKKL

MINSILFLPFFLGFLAWIFLKDGFSVDTNGVVSMSANLYLYNFLNQMIFAVLLVIGVILVLLGMVQGTKG

CSKAIFTLGLGTVLTVFALLSSIGLGQSAFYPSLSDLQSSLTLKNASSSYYTLSVMAYVSLLVPFVLAYI

IYVWNAMDKVKITREEIANDDHAY

>CBG10824.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MWNLDEKKLQEMLDGFLNFQEVWTLEKVKNMTLEEYTNIKKDNPNRDDFTFWIESKLDNLGSIWGGSAFK

FGIYRRNDESQKESSSGRLYSQNYAWIAKYGNNENEAFNNIKEKIIQIIQASQDNNLKTIEKIDFGDAIK

WKIAFHYQDVKNIKIVNIFSKNVLDLISLNEFKEKLKIYQIHKKLLENKNLSLVKMIENIAIPLWNKYGM

DSQNYIDKMKNLFSEYLNKKKLDKNTINKYIQVIENISKEFLKENLYSCDLFSFDQNINKLNKNEEFKLK

NSNGHNMYSSALNYYRAFLIDYYEQDIFITERVQSEESNMKIIPLNQILYGPPGTGKTYHTIDKALEILG

ENLESRDEKKAKFDEYVRKGQIVFTTFHQSYGYEEFVEGIKPIIDNDENSQEVKYDVKDGIFKELCDKSL

KNYILSMQNENEIDLDKLIFEFANYINQDFLNKGNEFPLENKVSIKKILLNFKDEYRSFSLGGSIKSPQS

LTIDIIKRDYLNFKNKKILSFKDIKPKYDSQSDYHGNAIYYFMFYNKLKEFENIQNEKFKIKKEILKSYI

IIIDEINRGNVSKIFGELITLIEPSKRIGEKEELKVTLPYSGEKFGVPKNVYIIGTMNTADRSITSLDTA

LRRRFEFVEMMPDVSKLSMDCEGINLQELLKAINTRIEYLLDREKTIGHAFFVSVENLEDLKKVFQNKII

PLLQEYFYNDYALINAVLNDNDMIFEDKKDDKYLQKIKNLDSVNSERSIYNIASFDDKIWDKIEIYQAIY

NDEIANKLKNENE

>CBG03000.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPFIMELLKQNKLKLISFLLFSFITSAVGVLTLVFINDYLLKNAQNIPIFYFIVLLLIFFISSTIVELGL

SIFGQNFIFKMQRRVVKQILDTPLLRVAKVGKARILASLGSDVRNISFGLLRLPDFLQSSILILCTSVYL

CYLSPQIFALCVVWIMVIFITNNFLMMKVYQYFRKARENDDALQNNYQNILDGHKELLINRDRAKLYYED

EFENNARLKKKNSTLGNLFNNLSNNWTNVTLLALVGVEFYLALKFEWASVADATTIALSILFLRTPLVSM

IGSFPTLLLAKIALDKIAKLELDDYIEGFKKTHYISEWKKISFRNTQFAYEENFHLNPVNIELKKGELVF

LIGKNGSGKSTFCMLLTGLFKPSKGGIYVDDTLIDDKNLDEYRSLISAVFSDFHLFTKTLNKENFASEEK

IAFWLEFLELKNKTSVKDNELTLTKLSTGQKKRLAMLIALLEERDILVLDEWAADQDPVFRRFFYKKLLP

LLKEQGKTIFAITHDDAYFDSADRIFLAQNGEISELKGENIKELAKNLVEKFD

>CBG02999.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>CBG19860.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNSDRIYLSLYYILKFFVTFMPECILHFLALIVARIAFYLNKKHRKIINTNLQICFPQYTQKERDKLSL

KIYENFAQFGIDCLQNQNTTKEKILNKVNFINENFLIDALALNRPIIFTTAHYGNWEILSLAYAAKYGAI

SIVGKKLKSEIMYEILSQSRTQFDIELIDKKGGIRQMLSALKKGRTLGILTDQDCVENESVRLKFFNKEV

NYQMGASLIAQRSNALIIPVYAYKEDGKFCIEFFKVKDSQNASLEELTLYQAQSCEEMIKKRPWEYFFFH

RRFASYNKEIYKDAK

>CBG17852.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>CBG05545.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFSKFFIERPVFASVVAIIISLAGAIGLTNLPIEQYPSLTPPTVKVSATYTGADAQTIASTVASPIEDAI

NGADNMIYMDSTSSSSGTMSLTVYFDIGTDPDQATIDVNNRISAATAKMPDAVKKLGVTVRKTSSTTLAA

ISMYSSDGSMSAVDVYNYITLNVLDELKRVPGVGDANAIGNRNYSLRIWLKPDLLNKFGITATDVISAVN

DQNAQYATGKIGEEPVTQKSPYVYSITMQGRLQNPSEFENIILRTNNDGSFLRLKDVADVEIGSQQYSSQ

GRLNGNDAVPIMINLQSGANALHTAELVQAKMQELSKNFPKGLTYKIPYDTTKFVIESIKEVVKTFVEAL

ILVIIVMYMFLKNFRATLIPMIAVPVSLLGTFAGLYVLGFSINLLTLFALILAIGIVVDDAIIVVENIDR

ILHENEQISVKDAAIQAMQEVSSPVISIVLVLCAVFVPVSFISGFVGEIQRQFALTLAISVTISGFVALT

LTPSLCALFLRRNEGEPFKFVKKFNDFFDWSTSVFSAGVAYILKRTIRFVLIFCIMLGAIFYLYKAVPSS

LVPEEDQGLMIGIINLPSASALHRTISEVDHISQEVLKTNGVKDAMAMIGFDLFTSSLKENAAAMFIGLK

DWKDRNVSADEIAMELNKKFAFDRNASSIFIGLPPIPGLSITGGFEMYVQNKSGKSYDEIQKDVNKLVAV

ANQRKELSRVRTTLDTTFPQYKLIIDRDKLKHYNLNMQDVFNTMNATIGTYYVNDFSMLGKNFQVNIRAK

GDFRNTQDALKNIFVRSNDGKMIPLDSFLTLQRSSGPDDVKRFNLFPAAQVQGQPAPGYTSGQAIEAIAQ

VAKETLGDDYSIAWSGSAYQEVSSKGTASYAFALGMIFVFLILAAQYERWLIPLAVVTAVPFAVFGSFLL

VYLRGFSNDIYFQTGLLLLIGLSAKNAILIVEFAMEERFKKGKGVFEAAVAAAKLRFRPIIMTSLAFTFG

VLPMIFATGAGSASRHSLGTGLIGGMIAASTLAIFFVPLFFYLLENFNEWLDKKRGKVHE

>CBF90033.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MFKKEISFIKSLFNKENIALHEPCFIGNEKKYLLECIDSGFVSSVGEFVTRFEEALKEKTKARFVIATNT

GTAALHIALLANGIDENCEVITQSISFVATANAIAYTGAKPVFLDIDENTLSLSPKALEHFLENQTYQKD

NLSYNKTTHKLIKACVIMHTFGLSAHIKAIKELCEKYHILLIEDAAEALGSTYENKALGTFGKCGILSFN

GNKIITGGCGGAILSDDENLAKLARHLSTTAKIPHPYEYDHDRIAYNYRLCNINAAILFAGLENLELFLE

NKRELAKIYKDFFKNHDKCKFIDEKSNEKSNFWLNTLLFKNENLRNIFLEECLKNNIFVRPVWKSLPSLK

AFQNCQSNELMNTKKLEKRLINLPSSVRIANKKE

>CBF90030.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>CBF90028.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>CBF90026.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFINLQAQYLAYKDEINAEIESVLSSSSFIGGAKLNEFEQNLAHFLGVKHAIGCSSGTSALYLALRVLD

IGKDDEVIVPSFTFIATAEVVALVGAKPVFADINLSNYNLDFKAVQKAITSKTKAVIAVSMFGQMSDLRA

LEEILKDKNITLIEDGAQSFGASFKGEKSCSIAKISCTSFFPSKPLGAYGDGGAIFCHDDEIAKKIRILL

NHGQTQRYKHEFIGINGRLDTLQAAILNVKLKYLEKELDKRQKLAQIYNANLKNCQIPQINPNAFSAYAQ

YSVLVEDRASVLRKFEKANIPYAIHYPTPLHKQPCFSEFSNLELKNSEYASEHILSLPFSPFLSEEEQEQ

VICIFKD

>CBF91530.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>CBF76948.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPNLEEFRNKIDAVDDKILDLLNERMTYVKSIGELKQSSGGSIYRPERERAIINRLKNANLGLLDQNAIE

AIYQEIFAVSRNLEMPQTIAYLGPEGTYTHQAARSRFGAMSRYIALANIEDVFKELSNKEAKYGVVPIEN

NTEGAVGITLDCLGKYNELKIFGEIYMDIHHSFVGINENLKEIKRIYSHPQGYNQCRKFLESHELSAIEF

VPSKSTANAAYLASQDKYAAAICSRIAAKLYNVPVLFDKIEDNAANKTRFLILSDIKNPKMPNCKTSILA

HTAHKPGGLSFLLEQFKKENINLTKLESRPVKSKEFLHSFYIDFEGHIDDENVKKALKDIQEIVWLGSYL

SGEKDEI

>CBF86710.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>CBF80651.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MPFIMELLKQNKLKLISFLLFSFITSAVGVLTLVFINDYLLKNAQNIPIFYFIVLLLIFFISSTIVELGL

SIFGQNFIFKMQRRVVKQILDTPLLRVAKVGKARILASLGSDVRNISFGLLRLPDFLQSSILILCTSVYL

CYLSPQIFALCVVWIMVIFITNNFLMMKVYQYFRKARENDDALQNNYQNILDGHKELLINRDRAKLYYED

EFENNARLKKKNSTLGNLFNNLSNNWTNVTLLALVGVEFYLALKFEWASVADATTIALSILFLRTPLVSM

IGSFPTLLLAKIALDKIAKLELDDYIEGFKKTHYISEWKKISFRNTQFAYEENFHLNPVNIELKKGELVF

LIGKNGSGKSTFCMLLTGLFKPSKGGIYVDDTLIDDKNLDEYRSLISAVFSDFHLFTKTLNKENFASEEK

IAFWLEFLELKNKTSVKDNELTLTKLSTGQKKRLAMLIALLEERDILVLDEWAADQDPVFRRFFYKKLLP

LLKEQGKTIFAITHDDAYFDSADRIFLAQNGEISELKGENIKELAKNLVEKFD

>CBF80649.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>CBC48660.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CBC48658.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CBC80809.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CBC80807.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CBC63605.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CBC63603.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CBC13932.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CBC13930.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CBC07318.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CBC07317.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CBC03581.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CBC03580.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CAY34309.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MENIRNIAVIAHVDHGKTTMVDELLKQSGTFSEREQISERVMDSNDIEKERGITILSKNTAINYKGTKIN

IIDTPGHADFGGEVERVLKMIDGVLLLVDAQEGVMPQTKFVVKKALSLGLKPIVVINKIDKPAADPERVI

NEIFDLFVALDANDEQLDFAIVYAAAKNGYAKLDLNDESDNMEPLFKTILERVPAPSGSDENPLQLQVFT

LGYDNFVGKIGIARIFNGVVKKNQSVMLAKADGTKVNGRISKLIGFMGLEKMDIEEAGSGDIVAIAGFEA

LDVGDSVVDPNNPMPLDPLHIEEPTLSIVFSVNDGPLAGTEGKHVTSNKIAERLEAEMKTNIAMKYESTG

EGKFKVSGRGELQITILAENMRREGFEFCMGRPEVIVKVEDGVKTEPFEHLVIDVPEEFSGAVIEKLGKR

KAEMKTMAPTGDGQTRLEFEIPARGLIGFRSQFLTDTKGEGVMNHSFLEFRPFSGAVEKRNNGALISMEN

GVALGYSLFNLQERGVLFIEPQTKVYTGMIIGEHSRPNDLDVNPIKGKNLTNVRASGSDDAIKLVPPRKL

SLERALEWIEEDELVEVTPVNVRVRKRYLDPTQRKRMEKAKS

>CAY36840.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNIAKKELFVAWFFLIAAIVFEVLGTSFLKMENQILGYIFMALFIAFSYFFMGKAIKKIQVGIAYAVWEL

LGIILILLVSFIVFKESLTLTQILGIVLSIVGIIMINIGEVKE

>CAY36839.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MEWFYLFLATACEIFGVVIMKELVSTKNKLYLLALIVCFGFSFTFLSLSMQNIAMSVAYAIWTGAGTAGG

VMIGVLFYKESKSFLKLFLIAVIITCTAGLKFLS

>CAY36369.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFWGIIKEDFSQPKAQDPAFNSCIELFFNYPGVWAVVNYRFAHFFYIRNFKRIARMISGISQFLTGVDL

HPGAELGRRIFIDHANGVVIGQTAIIEDDVLIYQGVTLGGTSLEKGTKRHPTIKKGVIIGSGAKVLGNIT

IGENAKIGSNAVVVKDIGANLTAVGIPAYIIEERKNKNIRAIDANCDDKLEKLEKKILELENLILKQPES

QK

>CAY05662.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MTLIAILCLYTALLSWISYAQIRFLEREKDKQAQILSEKDYQNAADIAIENEKFKLFSNFYNLIISIAWI

GFGFLYLKELLILNNTRFENTLFLLSFLIITSILNLPLSIYESFIKDKAHGFSNMTVKLFIKDTMKSLIL

TLIFGFLILYTLLFCYDFFGTFWWIAAFIFAFCIIVIINLIYPTLIAPIFNKMKKLDDENLLKKISSLMK

QCGFSANGVYVIDASKRDKRLNAYFGGLFKSKRVVLFDTLLKALNERELLAVLGHELGHFVHKDIIKALF

NGAITMFLLFFVFANLPEFVYLESHLEGVNGGVFALLFILANIFSFLISPMLNALSRKNEFAADQHGAKV

TSKEDMKNALIALARENKAFIKTSKIYTFFYLSHPSISDRIKALS

>CAY05076.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKKLTNDFGNIIADNQNSLSAGAKGPLLMQDYLLLEKLAHQNRERIPERTVHAKGSGAYGEIKITADLSA

YTKAKIFQKGEVTPLFLRFSTVAGEAGAADAERDVRGFAIKFYTKEGNWDLVGNNTPTFFIRDAYKFPDF

IHTQKRDPRTHLRSNNAAWDFWSLCPESLHQVTILMSDRGIPASYRHMHGFGSHTYSFINDKNERFWVKF

HFKTQQGIKNLTNQEAAELIAKDRESHQRDLYNAIENKDFPKWKVQVQILAEKDIEKLGFNPFDLTKIWP

HSFVPLMDIGEMILNKNPQNYFNEVEQAAFSPSNIVPGIGFSPDKMLQARIFSYPDAQRYRIGTNYHLLP

VNRAKSEVNTYNVAGAMNFDSYKNDAAYYEPNSYDNSPKEDKSYLEPDLVLEGVAQRYAPLDNDFYTQPR

ALFNLMNDDQKTQLFHNIAASMEGVDEKIITRALKHFEKISPDYAKGIKKALEK

>CAY08651.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFVSILMGSKSDYETMKEAAKTLESFGVKYELIISSAHRSPKRTKEYIANAEEKGVKVFIAAAGMAAHL

AGAVAAYTTKPVLGVPMSGSNLASMDSLFSTVQMPSGIPVGTLAIGKAGAINAAYLAMQILAIYDVDLAQ

KLKEDRLEKEKKLVSDSKEVEVLL

>CAW72563.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CAW72562.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CAW81200.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CAW81199.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CAW65086.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CAW65085.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CAW37709.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CAW37708.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CAW47694.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CAW47693.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CAW41749.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CAW41748.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CAV24838.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>CAV26047.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGTRKEHDFIGELEISDEVYYGVQTFRAVENFDISHDRLKDFPRFVRALARVKKAAAMANHELGLLDKNI

QDAIIKACDKILEGGYYDQFVVDMIQGGAGTSTNMNANEVIANIGLELMGHKKGEYQYLHPNDHVNLSQS

TNDAYPTALHLALHDYLSDLAKAMEHLKKAYERKAEEFKDVLKMGRTQLQDAVPMTLGREFKTFAVMIGE

DIQRVLEARKLILEINLGGTAIGTGINSHPDYPKVVERKIREVTGFEYTVAEDLIEATQDTGAYVQISGV

LKRVATKLSKVCNDLRLLSSGPKCGLNEINLPKMQPGSSIMPGKVNPVIPEVVNQVCYFVIGADVTVTFA

CEGGQLQLNVFEPVVAYSLFNSVVMLEKAMYTLADKCIDGITANEKICSDFVYNSVGIVTALNPYIGYEN

SASIAKEAMNTGKRVADIALERGLLSKEQIDEILTPSNMLNPHMEAKK

>CAV23649.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MGTRKEHDFIGELEISDEVYYGVQTFRAVENFDISHDRLKDFPRFVRALARVKKAAAMANHELGLLDKNI

QDAIIKACDKILEGGYYDQFVVDMIQGGAGTSTNMNANEVIANIGLELMGHKKGEYQYLHPNDHVNLSQS

TNDAYPTALHLALHDYLSDLAKAMEHLKKAYERKAEEFKDVLKMGRTQLQDAVPMTLGREFKTFAVMIGE

DIQRVLEARKLILEINLGGTAIGTGINSHPDYPKVVERKIREVTGFEYTVAEDLIEATQDTGAYVQISGV

LKRVATKLSKVCNDLRLLSSGPKCGLNEINLPKMQPGSSIMPGKVNPVIPEVVNQVCYFVIGADVTVTFA

CEGGQLQLNVFEPVVAYSLFNSVVMLEKAMYTLADKCIDGITANEKICSDFVYNSVGIVTALNPYIGYEN

SASIAKEAMNTGKRVADIALERGLLSKEQIDEILTPSNMLNPHMEAKK

>CAR80055.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQYSIEINKNTEIFDIDKVAKQAAGAVLMRQGKSVVLATVAREEKQVEEDFLPLTVQYIEKAYAAGKIPG

GYVKRETKPSDAETLTARIIDRSLRPLFPKGYAYPTQIVVMVLSADPKVDLQVMSLNAASVALYLSDIPM

KAPVCGVRIGKIDGNFILNPNNEELQNSTLDLYVAGVKDELLMIEMRALPDQKENEIFIEAPYADVLTQT

TSQNMNELSEDEILEALNLAQKAILNGSNAYEEAFSKHKKNSQIELKNEIEHPEILAFIENNFQKQIKEA

INQMAKSERASELNKIAKEILNLEITKDWSEESVLNTLAKVKRKLIREQILNEGKRADGRSLNEVRPISI

ETNILPNAHGSCLFTRGQTQALVVATLGGENDSQMIDLLTEKNPISERFMVNYNFPGFSVGEASPIKAPG

RRELGHGNLAKRALYPSVDENYPYVIRLVSEILESNGSSSMATVCGGSLALKAAGVPSLKLVAGVAMGLI

FEDNKYAVLTDIMGLEDHDGDMDFKVAGSKDGVTALQMDIKLGGIDQEILKQALYQAKEGRIHILNIMEE

AAKEIIVNEEVLPKLELFSVDPSKIVDIIGQAGKTIKEIVEKFGVSIDLDREKGEVKIAGSQNEQIKAAK

DYIINITSSQKGTKKGPKDKDISGFELGQEFQGIVKKIAPFGAFVELKNGVDGLLHSSKIKHLNLSENQS

LKVKISEIKNGKISVDLCE

>CAR79594.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQNYKKALFALALSAFCMGVTEFVMAGVLVDVEAYFSVDAKTAGYLTTLYAIGVVIGAPLITIPLSRFHR

HTQLLINLGIFALANFIIFFSQNFYLTAFARFIAGTQHGVFFVIATLAVSAITPDDKKSSALAIMVTGLT

VALVTGVPLGTFIGHYFGFKFIFLLIFIITSLAFFGVWHMMPKNLHPSPTNLKNLIPAFSHQNLLKTYTI

TICSCGAQFVLYTYLQKILVEISGFKVQDTAYILLLYGICAICGNLWGGKIVDKKGAIFSLRLILSIQVL

VFLSVFLTMHSKILIIFSVALIGFFAFSTIPALKMLSITKAKRHTYKVIDSTVSVNEAAFNVGIALASFL

GGIVLARLGIEFNALFSALFVSPALIFALLFAKDKLNYKKFQRKSFTKV

>CAR79137.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MQMIKKMVLSETFPGILLIFFTFLALLCKNSSLSVIYTDFFHANFTVGFDHFQISKSLDLWINDGLIAIF

FLCIGLELKYEILRGQLKNIRAVSLPIFGALGGMITPALIFIAINYSHDFAMKGWAIPTATDIAFAVGIL

MLLGNKIPTSLKLFLLSLAIFDDLGAIVIIALFYTDQLSALAIIICLFCIFALLLLNYYHITHLSLYVLV

GVVLWIAMLKSGVHATLAGVIISLFIPLDTKNKKPYLHEVLKDLNPWVVYFILPLFAFANAGIDIRDMHL

GSVFSPVSLGIILGLFLGKQLGVFTFCFIAIKLKLAKLPENIKYGKFYGICILTGIGFTMSLFIDGLAYK

NSDIFEYADKLAILVASFLSAIVGFIYLKIVK

>CAR79136.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNNIVHKLKTLVLNEAFGGVLLIVCTLLALLVQNGSFSEHYREFLNLKVGFSVGEFELNKPFLLWINDGL

ISIFFFAIGLELKKEFLHGDFKNPKNIVLPFMAALGGILIPAMLFALVNIGDAYTLKGWAIPTATDTAFA

LAILMMCGKHIPSSLKIFLLSLAIFDDVGAILIIAIFYTTKLSIAAFVIAGLAILVMLILNLLGITRKSF

YFICSVILWISVLKSGVHATLAGIVTAFFIPMQTKNGEAFLEEIYESLKFWIAFIILPLFAFANAGVNLS

NIDIGAIFSGVSIGIFLGLFVGKQVGVFLFSYLAIRFKFAALPQGSNLKQLYGVCILTGIGFTMSLFIDG

LAYEVSDIFNYADNLAILIASFCSGIWGFIYLKFFTTRS

>CAM82410.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819]

MNFIKTISPIQKINFNGFEFYIKRDDLLGEINGNKARKLAFYIHQRYPKNQSFVSYGGSQSNALAALSIF

AKQRSYKLVFACEKISTFLKNNPCGNYALALENGVDFVENIHSLSLKQFALSLCKKDDVFIEQGIANLEA

QYGYMELAQEIQMQSQSLKLDFDIFLPSGTGTSAAFLAKYSKFKVFTCACVGDIKYLKKQILTLDPSYDF

SNLEFLTSDKKYHFAKPYKEFYELYMDLKLKCNIEFDLLYDILGLSIALKQEWKKPLLYIHQGGILGNST

MLERYKFKKSV

>sp|Q0P9F1.1|CSRA\_CAMJE RecName: Full=Translational regulator CsrA

MLILSRKENESIIIGEGIEIKVVQTGKGYAKIGIEAPKSLMILRKELVQQVKDENLHSVVQNDIKLDDLS

KKLIK

>sp|Q0P9H9.1|FLIW\_CAMJE RecName: Full=Flagellar assembly factor FliW

MTLAVKCPILGFEETKNMEFSTIDEVFVRLKSLDGKDFSFVLINPYLIRPDYEFDIPTYYQELLSLTPES

NMKIFNIVAIAKSIEESTVNFLAPVVINLDNNTMVQVILDTVNYPDFFQADQIANYIKK

>sp|Q0P9F7.1|SSTT\_CAMJE RecName: Full=Serine/threonine transporter SstT; AltName: Full=Na(+)/serine-threonine symporter

MFSKIIQSYAKGNLIVQICIGIALGILIGISSKEISEIANLLGILFTSALKAIAPMLVFILILTSICTKD

FSQSGAKIKNIIILYIVGTFFASACAVLANFFFPVKLVLDGVQTATNSSPTHMSDIFKDLLFKIVDNPIN

ALSSGNYLGILTWAIAGGIALKHCSNEAKQVFIDINEGVLKIVKFVVKLAPFGIFGLVANSVAQTGAQGL

LSYVKLLILLVATMLFVTFVINALIVFFYTRKNPFPLIFICLRHSAFFAFFTRSSAANIPVNMALCAKLG

IDKEFYGISIPLGATINMAGAAVTIAILSLTAANTVGIEISLLQAFLLSIIATFAACGASGVAGGSLLLI

PLACSLFNIDYDIAMKVVAIGFIIGVIQDSVETALNSSTDVLFTAICSKNELNYNIK

>sp|Q0PAS0.1|ALF\_CAMJE RecName: Full=Fructose-bisphosphate aldolase; Short=FBP aldolase; Short=FBPA; AltName: Full=Fructose-1,6-bisphosphate aldolase

MGVLDIVKAGVISGDELNKIYDYAKAEGFAIPAVNVVGTDSINAVLEAAKKVNSPVIIQFSNGGAKFYAG

KNCPNGEVLGAISGAKHVHLLAKAYGVPVILHTDHAARKLLPWIDGLIEANAQYKKTHGQALFSSHMLDL

SEESLEENLSTCEVYLQKLDALGVALEIELGCTGGEEDGVDNTGIDNSKLYTQPEDVALAYERLGKISDK

FSIAASFGNVHGVYKPGNVSLQPEILKNSQKFVKDKFALNSDKPINFVFHGGSGSELKDIKNAVSYGVIK

MNIDTDTQWAFWDGVREYELKNRAYLQGQIGNPEGDDKPNKKYYDPRVWLRSGEESMIKRLEIAFEDLNC

INKN

>sp|Q0P8U2.1|HIS51\_CAMJE RecName: Full=Imidazole glycerol phosphate synthase subunit HisH 1; AltName: Full=IGP synthase glutamine amidotransferase subunit 1; AltName: Full=IGP synthase subunit HisH 1; AltName: Full=ImGP synthase subunit HisH 1; Short=IGPS subunit HisH 1

MIALIDYKAGNLNSVAKAFEKIGAINFIAKNPKDLQKADKLLLPGVGSFKEAMKNLKELGFIEALKEQVL

VQKKPILGICLGMQLFLERGYEGGVCEGLGFIEGEVVKFEEDLNLKIPHMGWNELEILKQVPLYQGIDNK

SDFYFVHSFYVKCKDEFVSAKAQYGHKFVASLQKDHIFATQFHPEKSQNLGLKLLENFARL

>sp|Q0PC43.1|RL21\_CAMJE RecName: Full=50S ribosomal protein L21

MYAIIKHSGKQYKVSVGDELKLDHFEAESKASIEVSEVLAINDKELKVGAPFVAGAKVVLEVINHGKDKK

VVIYKKRRRKDSKLKRGFRRQFTRVVVKDIKA

>sp|Q0P891.1|DPS\_CAMJE RecName: Full=DNA protection during starvation protein

MSVTKQLLQMQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEMAELFDSCAERVLQLGEKAITCQK

VLMENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLWMIG

ATLQGACKM

>sp|Q9PHX1.1|SYP\_CAMJE RecName: Full=Proline--tRNA ligase; AltName: Full=Prolyl-tRNA synthetase; Short=ProRS

MMRFTKFYAPSLKEAPKDASLPSHIFLTRAGFVEQIGSGLYNFLPLGKRVLDKIKNIVKEEMDKAGAQEV

NLSFITPASLWQESGRYNVFGKELLRFKDRKENEFVLGPTHEEAMLSLVKNKITSYKQLPLHLYQIGLKF

RDEARPRFGLLRCREFLMKDGYSFHANEEDLGREFELMYKTYSQILQRMGLDFRAVEADSGAIGGSGSKE

FMVLAKNGEDDILICENCDYAANVEAAKRAKKTCQDERPEANYASKFHTPNIKTIDSLAQFFKINAFYTI

KAVVKKAIYENESKLVVFFIRGSDDLQEVKAQNTCSALELVDASEEELKKAGLVAGFIGFVGLKDIDFYI

DFELENEKQMIMGANEKDYHLIGIDVVNLNKDRFKDLIEVKEGDCCVKCGAKLKQSKGIEVGHIFKLGQK

YSKAMNANFLDENGKSQPFYMGCYGIGVSRLLAVAIEANHDEKGCIWNKTLAPFVLEIIVSNLKDEKALE

FANKLYRDLTNLGLEVLLDDRNERFGVKMNDFELMGFPYALVIGKGLENNEIELIQREGLVKELIKTDEL

MEILKKKVL

>sp|Q9PNC0.1|SYR\_CAMJE RecName: Full=Arginine--tRNA ligase; AltName: Full=Arginyl-tRNA synthetase; Short=ArgRS

MKSIIFNEIKKILECDFALENPKDKNLAHFATPLAFSLAKELKKSPMLIASDLASKFQNHDCFESVEAVN

GYLNFRISKTFLNELANQALTNPNDFTKGEKKQESFLLEYVSANPTGPLHIGHARGAVFGDTLTRLARHL

GYKFNTEYYVNDAGNQIYLLGLSILLSVKESILHENVEYPEQYYKGEYIVDLAKEAFEKFGKEFFSEENI

PSLADWAKDKMLVLIKQNLEQAKIKIDSYVSERSYYDALNATLESLKEHKGIYEQEGKIWLASSQKGDEK

DRVIIREDGRGTYLAADIVYHKDKMSRGYGKCINIWGADHHGYIPRMKAAMEFLGFDSNNLEIILAQMVS

LLKDGEPYKMSKRAGNFILMSDVVDEIGSDALRYIFLSKKCDTHLEFDISDLQKEDSSNPVYYINYAHAR

IHQVFAKAGKKIDDVMKADLQSLNQDGVNLLFEALNLKAVLNDAFEARALQKIPDYLKNLAANFHKFYNE

NKVVGSANENDLLKLFSLVALSIKTAFSLMGIEAKNKMEH

>sp|Q9PN27.1|SYY\_CAMJE RecName: Full=Tyrosine--tRNA ligase; AltName: Full=Tyrosyl-tRNA synthetase; Short=TyrRS

MDIKKILAEVKRGCAELIDEERIENLIKNYYEKGENFFIKAGFDPTAPDLHLGHSVVLTKMAFLQKHGAI

VQFLIGDFTGQIGDPSGKSATRKKLDKEQVLINAKTYKTQVFKVLDKEKTQIKFNSTWLNELGAAGIVEL

TSTFSVARMLERDDFTKRFKEQSPISICEFLYPLLQGYDSVALKSDIEMGGTDQKFNLLMGRQLQRVYNI

GKEQAVIMMPLLEGLDGVNKMSKSLNNYIGVTEKANDMYAKILSISDELMFRYYELLSQKSLEEIAQIKK

DIEQGNLHPKKAKENLALEITERFHSKEEANNAKSEFDRIHSQNALPSDMAEFEIQGKIWLAKALVECGL

ESSTSAARRSISANAVSVNSQKVSDEQMYLEQGEYILQIGKRKFAKLKVKE

>sp|Q9PIS3.1|SYT\_CAMJE RecName: Full=Threonine--tRNA ligase; AltName: Full=Threonyl-tRNA synthetase; Short=ThrRS

MEKEVIAYLDNETIIDSQSVKNTNLKEIYFDNSKESLEVIRHSCAHLMAQAIKSLYPEAKFFVGPVIEDG

FYYDFRVESKIGEEDLVKIEKKMKELAEAKIEISKYEITKSEALAKFQNDDLKQEVLLRIPDRAVSIYKQ

GEFEDLCRGPHVPNTKFLRFFKLTRVAGAYLGGDEKREMLTRIYGTAFADKESLKEYLTIIEEAKKRDHR

KLGTELKLFTFDDEIGGGLPIWLSNGARLRSKLEHMLYKIHRLRGYEPVRGPELLKADAWKISGHYANYK

ENMYFTQIDEQEYGIKPMNCVGHIKIYQSDVRSYRDLPLKFFEYGVVHRHEKSGVLHGLFRVREFTQDDA

HIFCMPSQIKEQVLEILAFVDNLMKLFDFSYEMEISTKPEKAIGDDEIWEIATKALKEALDEQGLKYGID

EGGGAFYGPKIDIKITDALKRKWQCGTIQVDFNLPSRFKLEYTDSDNEKKQPVMLHRAILGSFERFIGIL

TEHCAGEFPFFIAPTAVGIVPIGEAHIAYAKEIQKELLELNIDSEVYEKNESLSKKIRIAEKQKLPMILV

LGDDEVAKRSVALRDRRAKEQKNLSLDEFIKLVKEKMSEVHF

>sp|Q9PIR8.2|ARGB\_CAMJE RecName: Full=Acetylglutamate kinase; AltName: Full=N-acetyl-L-glutamate 5-phosphotransferase; AltName: Full=NAG kinase; Short=NAGK

MQKYLEKANVLIEALPYIRKFNSKIILIKYGGSAMENEELKHCVMQDIALLKLVGLKPIIVHGGGKDISA

MCEKLGVKSEFKNGLRVSDKATIEVASMVLNHINKNLVHSLQNLGVKAIGLCGKDGALLECVKKDENLAF

VGTIQKVNSKILEELLEKDFLPIIAPIGMDENFNTYNINADDAACAIAKALRAEKLAFLTDTAGLYEDFN

DKNSLISKISLEQAKILAPKIEGGMHVKLKSCIDACENGVKKVHILDGRVKHSLLLEFFTDEGIGTLVG

>sp|Q9PIW1.1|MNTP\_CAMJE RecName: Full=Putative manganese efflux pump MntP

MDFYSLIFLSCALGMDAFAVSLCKGFSVKKLHLKHYLIVGIYFGGFQALMPTIGYFIGITFASFIASIDH

WIAFILLSLIGLKMIKESLENENCDSNANQFGFKTMLALAIATSIDALAVGVSFAFLNVNLLLAIFLIGI

ITFILCIIALKIGNKFGIYLKNKAELLGGLVLIILGVKILIEHLFFD

>sp|Q9PNJ9.1|LNT\_CAMJE RecName: Full=Apolipoprotein N-acyltransferase; Short=ALP N-acyltransferase

MKLKLNFLPYFSFIPKKLNTNSIIFKIIKVFFIAILLSNSIYLSFFENIFTQTISPFLAIWGLVLLLKSK

TSKQYFWIGFFVGILWFWWIGLSSIYFNLNYLVPIIPIIIGFIYGLLFRLCYLLKFDFLRLCGIFCISFI

HPLGFDWFNWGIFTVYGFFDPSYRGIICIFLIAYFIYEGYISRYYKIAIVLILFFSGFQYNEKQAQTLNL

NYKLINTNISQDQKFLQENLKSNSDILIQDILQAINEKKELVILPETAFAFDLKNTKYELMLKELSYKIT

IITGAFHVEKEHTYNSTYIFKKGNVYILNKHFLVPFGEEIPFFKDLTKKYFLKNIEEFSKGPIQSKYKLD

NQIITNAICYEATKEQNYQNSQIIIALSNNAWFNNSSEYKLQQLLMKFYASKYGVSVYHATNGKENIVIL

PKKLLSKDWKNLSKEIFNDKK

>sp|Q9PP76.1|PSD\_CAMJE RecName: Full=Phosphatidylserine decarboxylase proenzyme; Contains: RecName: Full=Phosphatidylserine decarboxylase alpha chain; Contains: RecName: Full=Phosphatidylserine decarboxylase beta chain

MSFSKESSRLFGFVAGIKFPKMIQKVINENYVKYFNINMSEFKAPCEYESLNALFTRTLQIPRKFEEGFI

SPSDGKILECGSTFLANEEHFAFSIKGHAYSVEELLKDSFEKDELKNGLDYVNIYLSPKDYHRYHSPCDM

QILSATYTSGVLYSVNEKHLERISNLYVKNERVSLKCQNEKGIFWLVFVGAQNVGKMRFNFDASIQTNAK

ISHNFTRKYENLNFKKGEELGNFELGSTIVLISQKGLLTFNLKVGQGIKFGEKIAD

>sp|Q9PPF4.1|SYH\_CAMJE RecName: Full=Histidine--tRNA ligase; AltName: Full=Histidyl-tRNA synthetase; Short=HisRS

MINALKGMKDLLDKDAYYYEKVIKICEEVAKNYGFTFINTPHLELCTLFKRSVGESSDIVGKEMYEFIDK

GENHVCMRPEGTAGVVRAYIEKKLDKNTSVKRWFYYGSMFRYERPQKGRLREFHQFGVESLGIPNVYEDA

SIILMLVEIFSRLGIDFKLQLNSLGCSQCLPKYRDRLVEFLDSKEGFCEDCLRRKNLNPIRVLDCKNEHC

QNLLENAPLLINNLCTSCQKDFETLQQILKDNGVKFELDSKLVRGLDYYSKTAFEFISDEIGAKAAIAGG

GRYDRLIEYLGGKSGYGIGFAMGIERIITILEQKEEKIQREGIYLCAMDEIYIQKLLHIATNLRKEYKVL

LSYEARKLAKHLENADKNNTEIFLCMGENEAQNESLFYKNLAKKEEKMIKISDLKKVL

>sp|Q9PP78.1|SYE1\_CAMJE RecName: Full=Glutamate--tRNA ligase 1; AltName: Full=Glutamyl-tRNA synthetase 1; Short=GluRS 1

MYRFAPSPTGDMHIGNLRAAIFNYICARQKNMDFILRIEDTDKARNIAGKEEEIKEILNLFSISWQHYYI

QSENLKFHRQMALKLVSEKKAFACFCTEEELEAKKELAKKQGKAYRYDGTCEKLADIDVLECEKPFVIRL

KKPTHTMKFTDFIKGELSFEPENIDSFVIMRTDKTPTYNFACAVDDMLENVTCIIRGEDHVSNTPKQEHI

RASLGYNKAMTYAHLPIILNEEGVKMSKREAHSSVKWLLESGILPSAIANYLIMLGNKTPCEIFTLEEAI

KWFDISKVSKAPARFDLKKLLQINREHIKMIKDDELNKILDLNKDLAQLAKFYTQETSTIKELKEKMQAI

FNAKDFGEFETEYKILKELLKDIELFENYEDFKNELLNKSNLKGKKFFMPLRIILTGNIHGPELSDLYPY

IKNFIHELARI

>sp|Q9PIB3.1|SYS\_CAMJE RecName: Full=Serine--tRNA ligase; AltName: Full=Seryl-tRNA synthetase; Short=SerRS; AltName: Full=Seryl-tRNA(Ser/Sec) synthetase

MLDLKNLQNNFDEVAKKLKNKKVDENILKKLAELFASLKKEKIALEEFQAFQNKFSKELATAEDKESLKA

KLSENKSKINEQSAKVNALENELEEIAHAIPNIPDECVPVGEDENENVELKKVLNPPSFDFTPKEHFELG

ESLNWLDFMRGVKISQSRFCVLKNEGALLSRALVNYMIDFNRSRGFEFVNVPFLVNGATMFGTGQLPKFK

EDMYKVDDEDLYLISTSEIPVTNLYSGEILASETLPIKMTCYSACFRKEAGSAGRDTRGIIRQHQFEKVE

LVSITKPEQSDSVFNEMLECASDLLSSLGLAHRHLMLCTGDLGFSAAKTVDLEVWLPGQNKYREISSVSN

CRDFQARRAKIRYKNEQGKNELVHTLNGSSLAVGRTLVAIMENYQDKEGKIHIPDVLKKYF

>sp|Q9PI55.1|THIC\_CAMJE RecName: Full=Phosphomethylpyrimidine synthase; AltName: Full=Hydroxymethylpyrimidine phosphate synthase; Short=HMP-P synthase; Short=HMP-phosphate synthase; Short=HMPP synthase; AltName: Full=Thiamine biosynthesis protein ThiC

MKTQMNYAKEGIFTKEMQIVAQKENLSKDFLLENIACGKIIIPANINHKSLDPNGIGFGLRTKVNVNLGV

SNDCVDYSEEMKKVELAHKFGIEAIMDLSNYGKTSRFRDELVNVSKAMIGTVPVYDAVGFLEKDLKQINA

KDFLDVVYHHAKSGVDFMTIHAGINSRAAHIFKQSKRLTNIVSRGGSVLYAWMMMKDAENPFFEYYDDLL

DICLKYDVTLSLGDALRPGSTHDASDGAQISELIELSLLTQRAWDVGIQVMIEGPGHMAINEIEANMQLE

KRLCKGAPFYVLGPLVTDIGAGYDHISGAIGGAVAAASGADMLCYVTPAEHLRLPNLEDVREGIVATKIA

AHAGDIAKLPKERARDDEMSKARQEIDWEKMFKLAIDGEKAKKMFNERRPDDLNSCSMCGKMCAMNTMNQ

ILKGEDVSLA

>sp|Q9PM77.1|HISX\_CAMJE RecName: Full=Histidinol dehydrogenase; Short=HDH

MQILVYDNLDEKQKEEALKRPAISAKDEISKIVSSIIKEVQEKGDKALIEQALKFDKAEISKIKITQEEI

TQASNRLDKDLQEAILVAYENIKKFHEAQIPHEIALETTKGVKCEVLTRPIEKVGLYIPGGLAPLFSTVL

MLAIPAKIAGCEKIVLASPAKINDAVLFCAKLCGVDEIYQMGGAGAIAALTYGTQSVLKVDKIFGPGNAF

VTEAKRQVSSDINGAAIDMQAGPSEVLVIADDLANEKFVASDLLSQAEHGADSQVILVCLSQDFAKKASD

EVQSQLELLPRKELASKSIANSRIIIAKDLNQALEISNLYAPEHLIIQTQNPRELLKGVKHAGSVFLGAY

SPESMGDYASGTNHVLPTYGLTKTHSSLGLADFSKRMTVQELSKEGFLALGKSVEILAQNEHLDAHKNAV

TFRLESLK

>sp|Q9PI71.1|GPMI\_CAMJE RecName: Full=2,3-bisphosphoglycerate-independent phosphoglycerate mutase; Short=BPG-independent PGAM; Short=Phosphoglyceromutase; Short=iPGM

MKQKCVLIITDGIGYNKNSKFNAFEAAKKPSYEKLFKEVPNSLLKTSGLAVGLPEGQMGNSEVGHMCIGS

GRIIYQNLVRINKAIENKELEKNENLKKLLAKCKRVHIIGLYSDGGVHSMDTHFKAMLEICAKNGNEVFA

HAITDGRDVSPKSGLNFIKDLKEFCENLGVHFATLCGRFYAMDRDKRWDRVKEYYECLLGKAYKVPNLLE

YLQKSYDENVTDEFIKAAQNENYKGMREEDGIIFINFRNDRMKQLVEVLNSKDFKEFEREKIFENLLTMS

VYDDKFKLPVLFEKEKIENTLAQVISKAGLSQLHTAETEKYAHVTFFFNGGKEELLENETRVLIPSPKVK

TYDEKPQMSAFEVCDAVKKGIEKGEDFIVVNFANGDMVGHTGDFNATIKAVEAVDTCLGEILECAKKHDY

AFIITSDHGNCEAMQDEKGNLLTNHTTFDVFVFVQARGVSKIKDNMGLSNIAASVLKILDLEIPKEMNEA

LF

>sp|Q9PIB4.1|SYW\_CAMJE RecName: Full=Tryptophan--tRNA ligase; AltName: Full=Tryptophanyl-tRNA synthetase; Short=TrpRS

MRVLTGLQPSGDLHIGNYFGAIKQMVDAQEKSQMFMFIANYHAMTSSQDGEKLKQNSLKAAAAFLSLGID

PQKSVFWLQSDVKEVMELYWILSQFTPMGLLERAHSYKDKVAKGLSASHGLFSYPVLMAADILLFDTRIV

PVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKMSKSYQNTIDIFSSEKTLKKQ

ISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEAREK

YNELLEKPSHLKEILDFGATKARKIAQEKMQKIYEKIGL

>sp|Q9PP85.1|SYM\_CAMJE RecName: Full=Methionine--tRNA ligase; AltName: Full=Methionyl-tRNA synthetase; Short=MetRS

MRYITTPIYYVNDVPHLGHAYTTIIADTLARFYRLQGHETRFLTGTDEHGQKIEEAAKLRNSTPQEYADK

ISFEFKKLWDEFEITYDIYARTTDTRHIEFIKAMFLKMWQKGDIYKDEYEGHYCISCESFFTQSQLINDC

SCPDCGKQTRILKEESYFFKLSKYQDKILQWYEEKDPILPKNKKNELINFVQNGLKDLSITRTSFDWGIK

LPQEINDDKHIIYVWLDALFIYVSSLDFQNKGENAKFWPAHVHLVGKDILRFHAIYWPAFLMSVDLPLPK

FIGAHGWWTKEGEKMSKSKGNVVKPKEVVDAYGSEAFRYFLLREVPFGNDGDFSENMLINRINAELSNEF

GNLLNRIIGMSTKYSQGNISKEGVLKFYNAELNQAKEHLNLAVEFLENLQCNRYLEELFKALSVANLAIS

KYEPWSLIKENKHEQANALVALCANILAKTSLLLSPTLPKSSQKVALALNFEISSANYTKMILDNELLDF

KANPCEALFPKVEKALLKQEIKEEPKKEESPKIKIDDFAKIEIKVAKVLDCQNIEGSEKLLKFQLELDDK

EIRQVLSGIAKYYKASDLIGKQVCVISNLKKAKIFGHESDGMILSAKSGDKLVLIAPEQLVQNGSLVG

>sp|Q9PPK3.1|SYGA\_CAMJE RecName: Full=Glycine--tRNA ligase alpha subunit; AltName: Full=Glycyl-tRNA synthetase alpha subunit; Short=GlyRS

MTFSQMILNLQNYWQEQGCAIMQPYDMPAGAGTFHPATFLRSLGKKPWAAAYVAPSRRPTDGRYGENPNR

LGAYYQFQVLIKPSPDNIQELYLKSLENLGFDLKSHDIRFVEDNWESPSLGAWGLGWEVWLDGMEVTQFT

YFQQVGGIAVDLVSAEITYGLERIAMYLQNVDNVYDIVWSEFNGEKIKYADVHKQSEYEFSKYNFEVSDV

KILNEQFENSYKECKNILEQGLALPAYDYCMLAAHTFNLLDARGAISVAQRQDYMLKIRELSKNCAEIYK

KNLNEAE

>sp|Q9PMK5.1|RF2\_CAMJE RecName: Full=Peptide chain release factor 2; Short=RF-2

MDNYEFSELLKTLKNKVGNIASIIKPENIQTRLKEIEELENSPSFWSDVKQAGIIGKEKTKITNLLKNYE

NAFNALNDASELFDLANSENDTETLEALFNDAPKLEDTITSLEISMLLSGENDGKNAIVSIHPGAGGTES

NDWASILYRMYLRFCEREGFKVETLDFQEGEEAGLKDVSFLVKGENAYGYLKAENGIHRLVRTSPFDSAG

RRHTSFSSVMVSPELDDDIEIEIEEKDIRIDYYRASGAGGQHVNKTESAVRITHFPTGIVVQCQNDRSQH

KNKATAFKMLKSRLYELELMKQQDSANTGEKSEIGWGHQIRSYVLFPYQQVKDNRSGEAFSQVDNILDGD

IKKMIEGVLIALKAE

>sp|Q9PP15.1|KPRS\_CAMJE RecName: Full=Ribose-phosphate pyrophosphokinase; Short=RPPK; AltName: Full=5-phospho-D-ribosyl alpha-1-diphosphate; AltName: Full=Phosphoribosyl diphosphate synthase; AltName: Full=Phosphoribosyl pyrophosphate synthase; Short=P-Rib-PP synthase; Short=PRPP synthase; Short=PRPPase

MRGYKIFSGSANVEFARQVSKYLSLPLSDAGVKRFSDGEISVQIDESVRGKDVFIIQSTCAPTNDNLMEL

LILTDALRRSSANSITAIIPYFGYARQDRKANPRVPITAKLVANLIQAAGIDRVATIDLHAGQIQGFFDI

PVDNLYGSIVFNDYIKAKHFKNAIIGSPDIGGVARARSVAKHLGLDIVIVDKRREKANESEVMNIIGDVK

DKEVILVDDIIDTAGTIVKAAEALKEKGAKSVMACCTHAVLSGKAYERIASGVLDELVVTDTIPLKEQLP

NIKVLSVTPVFAEVIRRVYHNESVNSLFI

>sp|Q9PHM7.1|SYDND\_CAMJE RecName: Full=Aspartate--tRNA(Asp/Asn) ligase; AltName: Full=Aspartyl-tRNA synthetase; Short=AspRS; AltName: Full=Non-discriminating aspartyl-tRNA synthetase; Short=ND-AspRS

MRSHYNTDLGISHVGQSVKLCGWVNSYRDHGGVIFIDLRDRSGIIQLVCDPNDSKEAHEIASNARNEFVL

ITEGTIRPRGEGLVNPKLKTGEIEVVVSKLTIENESAVPPFAIADESVNEELRLKYRFLDLRNPKLYENF

ALRSKACIAARNSLANMGFLEVETPILTKATPEGARDYLVPSRVHQGEFYALPQSPQLFKQLLMCSGFDR

YFQIAKCFRDEDLRADRQPEFTQIDVEMSFCEQKDVIKVAETFLKDIFKACGKEIQTPFRQMQYKDAMEN

YGSDKPDLRFDLKFIDVIDIFTKSNNEIFANIAKDTKKNRIKAIRVPKGDTIFSKRQMQRFEEFVRKFGA

QGLAFIQVKKDGLKGPLCKFFSEEDLNELSKRCELEVGDVVFFGAGAKKTVLDYMGRFRIFLANELKLID

PNALEFLWVVDFPMFEQNDDGSYSAMHHPFTMPKNIDETDLEEISSIAYDVVLNGVELGGGSIRIHKNDI

QQKVFKLLNIDEEQQKEKFGFLLDALSFGAPPHGGIAIGLDRLIMLVTGANSIREVIAFPKTQRAQCLMT

DAPSPASNEAMRELGIKLRENIK

>sp|Q9PLW0.1|LEU3\_CAMJE RecName: Full=3-isopropylmalate dehydrogenase; AltName: Full=3-IPM-DH; AltName: Full=Beta-IPM dehydrogenase; Short=IMDH

MKTYKVAVLAGDGIGPLVMKEALKILTFIAQKYNFSFEFNEAKIGGASIDAYGVALSDETLKLCEQSDAI

LFGSVGGPKWDNLPIDQRPERASLLPLRKHFNLFANLRPCKIYESLTHASPLKNEIIQKGVDILCVRELT

GGIYFGKQDLGKESAYDTEIYTKKEIERIARIAFESARIRKKKVHLIDKANVLASSILWREVVANVAKDY

QDINLEYMYVDNAAMQIVKNPSIFDVMLCSNLFGDILSDELAAINGSLGLLSSASLNDKGFGLYEPAGGS

APDIAHLNIANPIAQILSAALMLKYSFKEEQAAQDIENAISLALAQGKMTKDLNAKSYLNTDEMGDCILE

ILKENDNG

>sp|Q9PN97.1|LUXS\_CAMJE RecName: Full=S-ribosylhomocysteine lyase; AltName: Full=AI-2 synthesis protein; AltName: Full=Autoinducer-2 production protein LuxS

MPLLDSFKVDHTKMPAPAVRLAKVMKTPKGDDISVFDLRFCIPNKDIMSEKGTHTLEHLFAGFMRDHLNS

NSVEIIDISPMGCRTGFYMSLIGTPDEKSIAKAWEAAMKDVLSVSDQSKIPELNIYQCGTCAMHSLDEAK

QIAQKVLNLGISIINNKELKLENA

>sp|Q9PHW3.1|EFP\_CAMJE RecName: Full=Elongation factor P; Short=EF-P

MASYSMGDLKKGLKIEIDGIPFKIVEYQHVKPGKGPAFVRIKIKSFIDGKVLEKTFHAGDKCEAPNLEDK

TMQYLYDDGENCQFMDTQTYEQVAISDDDVGEAKKWMLDGMMVDVLFHNGKAIGVEVPQVVELKIIETAP

NFKGDTQGSNKKPATLETGAVVQIPFHVLEGEVIRVDTVRGEYIERANK

>sp|Q9PHT9.1|QUEA\_CAMJE RecName: Full=S-adenosylmethionine:tRNA ribosyltransferase-isomerase; AltName: Full=Queuosine biosynthesis protein QueA

MNKDLLLSSYDYTLANELIANYPTNPKEDARLLVFDRKNKEIFHTTFKNLQDFLPNCAIFFNDTKVIKAR

IYGNKASGGKIELFLHQPFLNSHNPLFLAQIKGRIKKDEILYFKEDLKVRVVELLNDGLRKVQFFQNDKT

LDTSNLYNLLDKIGHIPLPPYIKREDEKSDLKDYQSIFAKNLGAVAAPTASLHFSETMLENLRKKHEIYH

LTLHVGAGTFKSVECENIQEHKMHSEFFNIPQQACEIIDSKQAILGVGTTVTRTIEYYTRTKTKNGFCDL

FLHPQNPPIRQNHLLTNFHLPKSTLIMLVSAFIGREQCLKLYELAIKEKYRFYSYGDAMLIL

>sp|Q9PI05.1|SYA\_CAMJE RecName: Full=Alanine--tRNA ligase; AltName: Full=Alanyl-tRNA synthetase; Short=AlaRS

MDIRKAYLDFFASKGHEITPSSPLVPDDATLLFTNAGMVPFKSIFTGEIPRPNPPRKTSCQTCIRAGGKH

NDLDNVGYTARHHTFFEMLGNFSFGDYFKEQAIAYAWEFVTEVLKLPKDRLYVTVHENDDEAFNLWQKHI

QKERIYKFGDKDNFWQMGDTGPCGPCSEIFYDQGQEHFNSSEDYMGGDGDRFLEIWNLVFMQYERSADGV

LSPLPKPSIDTGMGLERVTAIKEGKFSNFDSSLFMPIINEISKLCNKTYVYESGASFRVIADHIRSSVFL

LAQGVSFDKEGRGYVLRRILRRALRHGYLLGFKQAFMYKLVDVVCDLMGGHYTYLNEKKDFIKEQIRLEE

ERFLSTIENGIEIFNEELKNTKEIFSGEVAFKLYDTYGFPLDLTADMLREKNLKVDEEKFELFMNEQKAR

AKASWKGSGDKTASGDFKNLLEKFGENHFVGYEKAECESKILALLDEDFKEVSTLKDAGWVMLENTPFYA

TSGGQSADSGFIAKREVLDTQKFFNLNLSFIKAGEELKVNDIVHARIDTEKREQIARHHSATHLLHHALR

EILGSHVSQAGSLVESNKLRFDFTHHKALNKEELESIEKRVNKMIINSSEAILENMPLEEAKKSGAIALF

NEKYQGNVRVLTLGESKELCGGTHVKNTAQIGSFYIVKESGVSAGVRRIEAVVSKAALEFVKNQLEELSK

VKDELKNNDILSGIKKLKNEILSLKNELKNSSKTELDSKNIQGVEICVKRIDNGDIKAMIDDFKNKFAKA

VILLIQVKDEKITLAAGVKDVPLKAGALVKEAAQILGGNGGGRDDFATAGGKDLSKINEALKQSLETIEK

AL

>sp|Q9PI04.1|Y507\_CAMJE RecName: Full=Maf-like protein Cj0507

MLILASSSISRANLLKTAKIDFRQVSFDYDENLNKNISPFLYVQKIVLEKERQFLSTLGKDFQNQNLLFA

DSIVCIDEKILTKAKDKKEAYEMLALQNGKYASILSAFLLVKPEKRVFSLSKTTLYFKNFDENALRDYVE

NDLYKGKAGCIMCEGFHQNFITQQVGNLSTALGLDIQTLKAYL

>sp|Q9PN35.1|RECR\_CAMJE RecName: Full=Recombination protein RecR

MVKGLEKFNELVESFANLPTIGKKTAIRLAYHLCINNQIDGMKLAHNIENAIRFIKPCEQCGALSENELC

EICSDKERNKNILCIVESPKDILTLEESQSYNGLYFVLDELNEEKLEKLKQIILKLNISELIFALTHSIN

SDATIFFIEDKFKGLNLTFSKIAQGIPSGVNLENVDLISLNKAMNFRTKI

>sp|Q9PIQ1.1|RL35\_CAMJE RecName: Full=50S ribosomal protein L35

MPKMKSVKSAVKRFKVGKNKIKRGSAFRSHILTKKPAKRMRGLRTAKYVHSTNVKAVEKMLGI

>sp|Q9PN58.1|PDXA\_CAMJE RecName: Full=4-hydroxythreonine-4-phosphate dehydrogenase; AltName: Full=4-(phosphohydroxy)-L-threonine dehydrogenase

MKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYEFNF

IKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKAWED

AGLKYKGHTDALRDFFKKNAIMMLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKKMGL

LGFNPHAGDYGVIGGEEEKIMEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPYPLV

ADTAFTKTGLKNCNRLVAMYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINTKSY

FEAAKFAINLHSKA

>sp|Q9PIH0.1|PLSX\_CAMJE RecName: Full=Phosphate acyltransferase; AltName: Full=Acyl-ACP phosphotransacylase; AltName: Full=Acyl-[acyl-carrier-protein]--phosphate acyltransferase; AltName: Full=Phosphate-acyl-ACP acyltransferase

MINIAIDAMGGDFGEKPIIEGVLKALETKPFNAILVGNSKILKPLIPKKLEQYIQYEEASEIFSMNGNAT

DALKNKETTIYKAINLLKEKKVDAVVSAGHSGASMSLATLKLGRLKGISRPAIATLMPNIVNKTLLLDVG

ANTDCKAENLFQFAIMGEVYAREIMQIQKPRLALLSNGEEECKGNELTKESHQLMKKIPNFIGNAEGRDI

FNGEIDVLVCDGFDGNVILKACEGVATAIFQLLKNEVKQSFISKIGALLMKPSFKKLKKHTDWQEYGGAP

LLGVNGCVIISHGKSDSRAIKNAIFQAINFSQSHINKFIENELGKYNA

>sp|Q9PNP6.1|THIG\_CAMJE RecName: Full=Thiazole synthase

MQENLKNDKLKIGKYEFDSRFILGSGKYSLELIKSAIEEAKAQIITLALRRANTGEIANILDYIPKNITL

LPNTSGARNADEALRIARLSRELGCGELIKIEVISDSRYLLPDNYETIKACELLAKEGFTPLPYMHADLY

AARAMRDAGAAAIMPLAAPIGSNKGLCAKEFIQILLNEIDLPIIVDAGIGSPSQACEAMQMGVSAVMVNT

AIAEAKDIALMARAFSLAVNAGRVAFLAGVASVSEAKASSPLTGFLRD

>sp|Q9PJ85.1|THYX\_CAMJE RecName: Full=Flavin-dependent thymidylate synthase; Short=FDTS; AltName: Full=FAD-dependent thymidylate synthase; AltName: Full=Thymidylate synthase ThyX; Short=TS; Short=TSase

MQITLLFHTPLSVCSHATRTCWQSFEKGDCGGEKDKELIDRVGNKFKHASTLEHLNYTFYIQGISRACLQ

EVARHRHTSPSVKSTRYTLKELRNEAEFKIGDFENASRYLVLCGNEEVDNASIKALENLRTILQKSISLD

IAKYCLPESYKTELTLTINARSLQNFISLRSSKSALWEIRNLANALFEALPQEHKFIFEHCLHKDIE

>sp|Q9PNK3.1|SYL\_CAMJE RecName: Full=Leucine--tRNA ligase; AltName: Full=Leucyl-tRNA synthetase; Short=LeuRS

MAYEASLIEKKWQKIWDENEYFEPKDDLNLPKKYILSMFPYPSGRIHMGHVRNYTIGDALARYYRKIGFN

VLHPIGFDSFGMPAENAAIKHKIHPKSWTYENIAYMKKELFSLGFSFSKKRMLATSDPLYTKFEQEFFIK

MFEKGLIYTKEANVNWCEQDQTVLANEQVEDGKCWRCGHEVVQKKMPGYYVKITAYAEELLKDLEELKDK

WPNQVLTMQENWIGKSEGLEFSLNLDEESKQKTKESSLEVFTTRADTIYGVSYIALAPEHKIVQNLLSQN

LLNQDVLNKIKVIQNQSPRERQSSEKEGYFLGIYAIHPLSGEKIPLWVANFVLADYGSGAVMAVPAHDER

DFEFATKYNLAIKQVIQTQENLPYMQKLGKLINSQEFDNLDCNEARLKIISQFEAKNIGKRVVNFKIRDW

GVSRQRYWGAPIPMIKCQSCGIVPQKLENLPITLPEDVQITGEGNPLDKHPTWKNCICPKCGKEAQKESD

TLDTFFESSWYFARFASDEKTWQEKALDEKSVKYWMSVDQYIGGIEHAILHLLYARFFQKALRDLGYLTQ

NEPFDRLLTQGMVLKDGAKMSKSKGNVVDPDEIIEKYGADTARLFILFAAPPAKELEWNDDAVEGAYRFI

CKLYDRAQNVKKGELVELKQENLNKEEKYARLKVYEALKKSFEVYHQSFAFNTLIAACMEALNALALCKN

EALEQEAFYIILNILEPIIPHVCFELSEELFKCKNFKKLELKEEVFVKDTLNLAVSINGKKRAEFEISSS

ASKEEILAFAKENTAKWLEGKSIVKEIYVEGKLVNLVIK

>sp|Q9PN59.1|PDXJ\_CAMJE RecName: Full=Pyridoxine 5'-phosphate synthase; Short=PNP synthase

MLLGVNIDHIAVLRQARMVNDPDLLEAAFIVARHGDQITLHVREDRRHAQDFDLENIIKFCKSPVNLECA

LNDEILNLALKLKPHRVTLVPEKREELTTEGGLCLNHAKLKQSIEKLQNANIEVSLFINPSLEDIEKSKI

LKAQFIELHTGHYANLHNALFSNISHTAFALKELDQDKKTLQAQFEKELQNLELCAKKGLELGLKVAAGH

GLNYKNVKPVVKIKEICELNIGQSIVARSVFTGLQNAILEMKELIKR

>sp|P41257.2|SYI\_CAMJE RecName: Full=Isoleucine--tRNA ligase; AltName: Full=Isoleucyl-tRNA synthetase; Short=IleRS

MDYKETLLLPSTTFAMRANLAELEPQRFKKWFEQNYAYEKMKENRKNAKKSFTLHDGPPYANGHIHIGHA

LNKILKETIIKTHYFKGESVRFTPGWDCHGLPIEQQVEVKLGEKKKSLSKKEIREFCRQHASEFVDIQRE

EFKDLGIIADWDKPYLTMKFEFEAAIYRTLCEIAKKGLLCERSKPVFWSWAAKSALAEAEVEYQDKEDYS

IFVAFDLDVKACEKLGVSKASAVIWTTTPWTLVANQAIALNPNENYVITKEGLIFASALLKSMVEKGLTS

GEIQKELNAKEFEKLEAINPLNGRKSVLIMGEHVLMDGGSGLVHTAPGHGEDDYYACLKYGIEVLMPVDD

SGCYDETLRAKGLLPSHLLEEFIGLHIFKANEKILELLGEKLLHSSKFIHSYPFCWRTHKPVIYRATKQW

FILMDEPKLQGKTLRECAKEQLLKTTFYPQSGVKRIGSMVENRPDWCISRQRDWGTPIAFFRDKNTKEVI

FDDELFDFVAAIFEKHGADAWWEFEIKDLIPTNSKYKAENLEKVYDILDVWFDSGSTFNAVLNSGLYDAG

EKRASMYLEGSDQHRGWFQSSLLVGTAINESAPYESILTHGFTTDEKGQKMSKSKGNVIASEYVAKTYGV

EILRLWILLSDYSSDLKISDNILKQVGEQYRKIRNTIRFLLANTNDLKDLEVKEFSFIDKWILSRATKVF

KASKEAFFAYEFAKGFSLLLNFLSADLSGIYLDISKDRLYCDSENAQRRKSAQVAMALMAKELLNLLAPN

LSYSVDEALEHANVLIKGDAKDVFDLSLTQDFDYDFGIDDTFLMSAREKFFEQIDILKKDKIIKSTLELN

LNISFNKFPNEELADWFMVSQISNENEEILAEFEVENEKFKITKASLCKCPRCWKLQSKNEETPCLRCEE

VLKGVQC

>sp|O52914.2|SYE2\_CAMJE RecName: Full=Glutamate--tRNA ligase 2; AltName: Full=Glutamyl-tRNA synthetase 2; Short=GluRS 2

MHEKLTTRFAPSPTGYLHIGGLRTALYNYLYARKNGGNFLLRIEDTDLKRNSKEATKAIIEAFKWCGLEH

DGEVTYQSERFDLYKEYVKKLLDEGKAYYCYMSKEELEELRAKQEAAKERPRYDGRYREFTGTPPQGIEP

VVRIKAPQSGEIVFEDGVKGEVRFKAEDIMDDFIIARSDGTPTYNFTVVIDDALMGVSDVIRGDDHLSNT

PKQIVLYEALGFKIPKFFHVAMIHGEDGKKLSKRHGATDVMEYKEMGILPQALLNFLVRLGWSHGDDEVF

SLEDLKKLFDPYHINKSASCYNAKKLEWLNAHYIKTLPFEEINRQLKDLGFDLSVYEKAGFLLDLLRERA

KTLHDIINGAKSIVNAPQNYDENAVQKFVNKNNLELLQAFANTLKDQKTGKDFEDFTNDFLEKKEAKLKD

LAQPIRIALTGSAVSPSIFEVLEFLGVDECKKRIDNFLKVRGK

>sp|Q9PPE4.1|SYV\_CAMJE RecName: Full=Valine--tRNA ligase; AltName: Full=Valyl-tRNA synthetase; Short=ValRS

MYDKNLEKEYYQICEERGYFEIDGNKTIQEKDKNFCIMMPPPNVTGVLHIGHALTFTLQDIMTRYKRMDG

YKVLYQPGLDHAGIATQNVVEKQLLTQGIKKEELGREEFIEKVWEWKEQSGGKILDQMRTLGITPAWSRL

RFTMDEGLVNAVKKAFVELYDKRLIVRGNYMINWCTHDGALSDIEVEYKENKGKLYHIKYFLKDSDEFLV

VATTRPETFFGDTAVMVHPDDERYAKFVDKEVILPISKKAIKIIADKHVEKEFGTGVVKVTPAHDMNDYE

VGLRHNLDFISVFDEKGILNEHCLEFQGLERLEAREKIVAKLESLGFIEKIEEYNNQIGYCYRCNNIVEP

YISKQWFVKKEIAQESIEKVALGESKFYPNHWINSFNAWMKDLRDWCISRQLWWGHQIPVYYCECSHEWA

SQHTPKTCPKCQSQNFKQDEDVLDTWFSSGLWAMSTLGWGNENWGKDKIWSEKDLKDFYPNSLLITGFDI

LFFWVARMMFQSTNVLHQLPFKDIYLHALVKDEQGRKMSKSLGNVIDPNESIKEYSADILRFTLALLAIQ

GRDIKLSNDKLLQVRNFTNKIYNAKNYLLLNESKFEDLENITLHSELAKYIYAKFQTCVKDVRENLDNYR

FNDAANTLYKFFWDDFCDWGIELSKAEKSSVKELGSIFKEALKLLNPFMPFISEYLYHKLSDTELKTSPS

IMISKYPKFKEQDKNIEKIFSLLIESIVSIRRAKSLIDLGNSKIEKAYIKFNDKKIKDEIKAYMNFIIML

AKCEQIEFSEEKLPKAICDVSENLEIFITLENVDLSGILTRLENQKNKLEKESFKLNSMLSNEKFIANAP

KEVVEQNKEALENLKIQLEKISVELQNLRG

>sp|Q9PP35.1|SYFB\_CAMJE RecName: Full=Phenylalanine--tRNA ligase beta subunit; AltName: Full=Phenylalanyl-tRNA synthetase beta subunit; Short=PheRS

MIITKSWLNDWLELEEISSDKIAKTLNSIGIEVDRVGALKAPDKVVVGYVKEKIKHENSDKLSICQVDIG

SETLQIVCGAANVDAGQFVAVATKGAIMSNGMEIKEAKLRGVDSCGMLCSSLELGFEKINEGIMLLDESI

GKLELGRPLNTYEIFNDELIEVELTPNRGDCLSIYGIARDLAAALNLNLKEPKPFKESENVLGIGRILRL

AAEKELNGLYNYRAIGLKEEIQTNLLLSLRLAQIEGLGKNSIENLLNYATHSTGVLFNAYDLSSFSEKDE

EFTINLSKQVHGETKVSYKDKLLSFSGIFQNNESRCKDDSKIIIIEANYTDPLVIADAKIYHKDQDEKML

YRSFRGSEPKLNLGMDFLLGIFEQIPNLVIYSSSQQILTDKELPIIPISIEGISDIIGQNVDKDEVLKIL

KKLGFELILSGEGLINVKAPLHRPDIKNLSDICEEVVRIIGIDNIASKGLEFIEKNRLNSAYKNYIEFLN

LRKRAVASGYFESLHYVLDNGEELKRLGFDSVKLKLINPITAELNTLRTTLLNHLLNAASLNAKNSKKII

KLFELGAVFNVNNQELNRIAFIHSGLKEEAKISNKAKPESVQFYDFLLDIKNIIGDFKLKSSKYNILSPY

EQADIYLSDIKVGFIGRLHLKIENERDLPKTYICELDLDLIRQDFKIAKPYSKFPAITRDLSVLIPKGFE

YNQIKNCIEELNLEILENFRLVDIYSDENLKEFYSITISFSFRDINKTLEDNQVNECMDKILNTLKNLGL

DLR

>sp|Q9PP34.1|SYFA\_CAMJE RecName: Full=Phenylalanine--tRNA ligase alpha subunit; AltName: Full=Phenylalanyl-tRNA synthetase alpha subunit; Short=PheRS

MQNFIEQIQKCENLNDLEAIRISVLGKKGILTEGFTKLKELEDEAKKEFAAKLNAQKEIFNEAYLAKFKD

LENLALEERMKQDALNFNYFDESITTGALHPVMSTMDKIIEYFIALNFSIEKGPLIEDDFHNFEALNLPK

SHPARDMQDTFYFDDKRLLRTQTSPVQIRTMLAQKPPIRMIAPGAVFRRDFDITHTPMFHQVEGLVVEEG

QKVSFANLKSVLEDFLRYMFGDVKVRFRPSFFPFTEPSAEVDISCVFCKGKGCRVCKHTGWLEVLGCGIV

DPNVYNFVGYENVSGYAFGLGVERFAMLLHQIPDLRSLFEGDLRLLEQFR

>sp|Q9PM75.1|HIS52\_CAMJE RecName: Full=Imidazole glycerol phosphate synthase subunit HisH 2; AltName: Full=IGP synthase glutamine amidotransferase subunit 2; AltName: Full=IGP synthase subunit HisH 2; AltName: Full=ImGP synthase subunit HisH 2; Short=IGPS subunit HisH 2

MKIIIIDTACANLASLKFCLDRLGFNATISRDLKELESADKLFLPGVGTAKEAMKNLEQFNLIDFIQNTK

KPLLGICLGMQILGNFSEELNQETLKLIDFTTQKFKAKEGFTFPHMGWNEVYSSHALFKGLEGAYFYFVH

SYCVGLGKYTIADCEYSQKFSASVMKDNFYGVQFHPERSSEAGEILISNFIKDIG

>sp|Q9PPB8.1|SYC\_CAMJE RecName: Full=Cysteine--tRNA ligase; AltName: Full=Cysteinyl-tRNA synthetase; Short=CysRS

MRLLDSVTKEKIKLDKKDISIYLCGPTVYDDAHLGHARSSVCFDLLRRVLLAQGNRVKFARNYTDIDDKI

LKKMAQSGQTLEEITEFYIKSYEEDMRVLNVLDPDFKPRATHYITAMLDLIKKLAKDGFVYTLEDGIYFD

TSKDEKYLSLSNRNLEENISRLSNEVQKRNESDFVLWKFDENFYESEFGKGRPGWHTECVAMIDSIFENT

LDIHAGGIDLLFPHHENEAAQCRCGCKRKLANIWLHNGFVKIDGEKMSKSLNNSFFIKDALKEFMGEALR

FYLLSSHYRSHFNYSLSDLENAKKRLDKFYRLKKRLDLGEISDFDVLNDIGIKSEIAKQILEILNDDLNV

SKALALLDDFISSANLELDKESKNKILKQNIKEALSELAKIFGFGFMDATLYFQWGVSKEEREEIEKLIL

ERTEAKKNKDFNTADAIREQLNSKKITLLDTPNGTIWEKINA

>sp|Q9PIW2.1|MIAA\_CAMJE RecName: Full=tRNA dimethylallyltransferase; AltName: Full=Dimethylallyl diphosphate:tRNA dimethylallyltransferase; Short=DMAPP:tRNA dimethylallyltransferase; Short=DMATase; AltName: Full=Isopentenyl-diphosphate:tRNA isopentenyltransferase; Short=IPP transferase; Short=IPPT; Short=IPTase

MFFEIALIGTTASGKTYIANTLAREFNAVVLSLDSLCVYKEINIASAKPSQDDLASIKYFGVNLLSVNEH

FNVELFIREYQKAKEFALARNLPLIIVGGTGFYLKTMIDGLSEKTLESKSSLNNDEIYALLLNIDPNYKI

EKNDTYRLKKWLGIYEQTREIPSEFLKRTQKTGVLKDIEIYELAWDKEILKKRIKTRTKEMLDNGLLDEA

KILFSKFDHKLKALNSIGLKECKEYLDGEISFKELENLITIHTTQLAKRQRTFNKKFQSKALEFDKALAT

LRMKFSIEK

>sp|P96747.2|FLAC\_CAMJE RecName: Full=Secreted flagellin C

MMISDATMMQQNYYLNNAQKASDKALENIAAVRAISGVDSANLAIADSLRSQSSTIDQGVANAYDAIGVL

QIADASLTNISQSADRLNELSVKMNNAALNDSQKGMLRTEATRIQESINDSFNNATYNGKNVFQTMNFVV

GSGTETTNLNPLATDGLSIDSQDSITNFMDQLGSLRSEIGSGINAITSNINASVQNSINSKAAENNLLNN

DMAKNVNDFNANYLKENAAAFVAAQSNMQLQSKIANLLQ

>sp|P56963.2|FLA1\_CAMJE RecName: Full=Flagellin A

MGFRINTNVAALNAKANADLNSKSLDASLSRLSSGLRINSAADDASGMAIADSLRSQANTLGQAISNGND

ALGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTVKATIGATQSSKIGLTRFETGGRISTSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALADEINKNADKTGVRATFTVETRGIAAVRAGATSDTFAINGVKIGKVDYKDGDANGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGQIDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TAITNLDQIRADIGSVQNQVTSTINNITVTQVNVKAAESQIRDVDFAAESANYSKANILAQSGSYAMAQA

NSVQQNVLRLLQ

>sp|P41258.2|SYK\_CAMJE RecName: Full=Lysine--tRNA ligase; AltName: Full=Lysyl-tRNA synthetase; Short=LysRS

MFDNILEQQRIEKAKELKNLGINPYPHFLEKEMSLKTFKDKFSYILEQVEKRDESVNAVVAGRLKLLRIA

GKSIFANIEDEDTNLQIYFSKDSVGEELYTILKKNLEVGDIVLVKGFPFVTKTGEFSLHASEVKLATKAI

VPLPEKYHGLTDIEQRYRKRYVDMIMNVEVRKDFLVRSKVVSLIRHFFENKGFLEVETPMMHPIAGGANA

KPFVTFHNSLGVERFLRIAPELYLKRLIVGGFEAVFEINRCFRNEGMDLTHNPEFTTIEFYWAYHNYKDL

MDLTEELFALLLDKLNLGKTIEFDGKMINFSKPFERITYKDALCKYGGLDRDLIEDKEKILTKLKADGFE

ANEKLELGHLQAELFDNYVEEKLINPTFVIDFPISISPLSRRSDEDSQIAERFELFICGRELANGFNELN

DPLDQYERFLKQIEAKNAGDEEACEMDEDFVNALGYGMPPTAGQGIGIDRLVMLLTNKKSIRDVILFPAM

RPLKSELKEKE

>pdb|6B2W|B Chain B, C. Jejuni C315S Agmatine Deiminase with Substrate Bound

ENLYFQGHMIKSIPEWSEQEYLMLSLPHEKSDWNPYLEEILQSYKEFVKVVSEFQKVLLIAPKQSDFENF

KDIKNVEFFKCDTNDTWIRDFGAIDIVENGRLKALDFTFNAWGNKFQSELDNAVNSKLFKEKFKEELKKV

DFILEGGSIDFNGEGVMLTSSHCLLNENRNSHLNKTQIDTKLKEIFGLKQIIWLENGFIKGDDTDHHIDT

LARFIDKNTIAHCICEDEEDEHYLPLQKMKEELKKTGFDLLELPIPKPLYYEERRLGATYANFVFINNAL

IVPFYKDKNDEIIAKRLSKALPNHKIIGVDARVFLRQNGSLHSSCQNRFKGLR

>pdb|6B2W|A Chain A, C. Jejuni C315S Agmatine Deiminase with Substrate Bound

ENLYFQGHMIKSIPEWSEQEYLMLSLPHEKSDWNPYLEEILQSYKEFVKVVSEFQKVLLIAPKQSDFENF

KDIKNVEFFKCDTNDTWIRDFGAIDIVENGRLKALDFTFNAWGNKFQSELDNAVNSKLFKEKFKEELKKV

DFILEGGSIDFNGEGVMLTSSHCLLNENRNSHLNKTQIDTKLKEIFGLKQIIWLENGFIKGDDTDHHIDT

LARFIDKNTIAHCICEDEEDEHYLPLQKMKEELKKTGFDLLELPIPKPLYYEERRLGATYANFVFINNAL

IVPFYKDKNDEIIAKRLSKALPNHKIIGVDARVFLRQNGSLHSSCQNRFKGLR

>pdb|6B10|B Chain B, C. Jejuni Agmatine Deiminase

ENLYFQGHMIKSIPEWSEQEYLMLSLPHEKSDWNPYLEEILQSYKEFVKVVSEFQKVLLIAPKQSDFENF

KDIKNVEFFKCDTNDTWIRDFGAIDIVENGRLKALDFTFNAWGNKFQSELDNAVNSKLFKEKFKEELKKV

DFILEGGSIDFNGEGVMLTSSHCLLNENRNSHLNKTQIDTKLKEIFGLKQIIWLENGFIKGDDTDHHIDT

LARFIDKNTIAHCICEDEEDEHYLPLQKMKEELKKTGFDLLELPIPKPLYYEERRLGATYANFVFINNAL

IVPFYKDKNDEIIAKRLSKALPNHKIIGVDARVFLRQNGSLHCSCQNRFKGLR

>pdb|6B10|A Chain A, C. Jejuni Agmatine Deiminase

ENLYFQGHMIKSIPEWSEQEYLMLSLPHEKSDWNPYLEEILQSYKEFVKVVSEFQKVLLIAPKQSDFENF

KDIKNVEFFKCDTNDTWIRDFGAIDIVENGRLKALDFTFNAWGNKFQSELDNAVNSKLFKEKFKEELKKV

DFILEGGSIDFNGEGVMLTSSHCLLNENRNSHLNKTQIDTKLKEIFGLKQIIWLENGFIKGDDTDHHIDT

LARFIDKNTIAHCICEDEEDEHYLPLQKMKEELKKTGFDLLELPIPKPLYYEERRLGATYANFVFINNAL

IVPFYKDKNDEIIAKRLSKALPNHKIIGVDARVFLRQNGSLHCSCQNRFKGLR

>pdb|6BMA|B Chain B, The crystal structure of indole-3-glycerol phosphate synthase from Campylobacter jejuni subsp. jejuni NCTC 11168

SNAMILDKIFEKTKEDLKERKLKLPYDMLGRSLASNPFFPKDVIKALKRVEKEVKIIAEVKKASPSKGVI

REDFDPLSIALNYEKNKAAAISVLTEPHFFKGSLEYLSLIRRYTQIPLLRKDFIFDEYQILEALVYGADF

VLLIAKMLSMKELKKLLEFARHLGLEALVEIHDKEDLSKAIFAGADIIGINHRNLEDFTMDMSLCEKLIP

QIPNSKIIIAESGLENKEFLEHLQNLGVDAFLIGEYFMREKDEGKALKALL

>pdb|6BMA|A Chain A, The crystal structure of indole-3-glycerol phosphate synthase from Campylobacter jejuni subsp. jejuni NCTC 11168

SNAMILDKIFEKTKEDLKERKLKLPYDMLGRSLASNPFFPKDVIKALKRVEKEVKIIAEVKKASPSKGVI

REDFDPLSIALNYEKNKAAAISVLTEPHFFKGSLEYLSLIRRYTQIPLLRKDFIFDEYQILEALVYGADF

VLLIAKMLSMKELKKLLEFARHLGLEALVEIHDKEDLSKAIFAGADIIGINHRNLEDFTMDMSLCEKLIP

QIPNSKIIIAESGLENKEFLEHLQNLGVDAFLIGEYFMREKDEGKALKALL

>pdb|4XMR|B Chain B, Crystal structure of the sensory domain of the Campylobacter jejuni chemoreceptor Tlp3 (CcmL) with isoleucine bound.

GIDPFTKTSLYESTLKNQTDLLKVTQSTVEDFRSTNQSFTRALEKDIANLPYQSLITEENIINNVGPILK

YYRHSINALNVYLGLNNGKVLLSQKSNDAKMPELRDDLDIKTKDWYQEALKTNDIFVTPAYLDTVLKQYV

ITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTPGNTFLFDQKNKIFAATNKELLNPSIDHSPVLNAYKL

NGDNNFFSYKLNNEERLGACTKVFAYTACITESADIINKPIYKA

>pdb|4XMR|A Chain A, Crystal structure of the sensory domain of the Campylobacter jejuni chemoreceptor Tlp3 (CcmL) with isoleucine bound.

GIDPFTKTSLYESTLKNQTDLLKVTQSTVEDFRSTNQSFTRALEKDIANLPYQSLITEENIINNVGPILK

YYRHSINALNVYLGLNNGKVLLSQKSNDAKMPELRDDLDIKTKDWYQEALKTNDIFVTPAYLDTVLKQYV

ITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTPGNTFLFDQKNKIFAATNKELLNPSIDHSPVLNAYKL

NGDNNFFSYKLNNEERLGACTKVFAYTACITESADIINKPIYKA

>pdb|4XMQ|B Chain B, Crystal structure of the sensory domain of the Campylobacter jejuni chemoreceptor Tlp3 (CcmL)

GIDPFTKTSLYESTLKNQTDLLKVTQSTVEDFRSTNQSFTRALEKDIANLPYQSLITEENIINNVGPILK

YYRHSINALNVYLGLNNGKVLLSQKSNDAKMPELRDDLDIKTKDWYQEALKTNDIFVTPAYLDTVLKQYV

ITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTPGNTFLFDQKNKIFAATNKELLNPSIDHSPVLNAYKL

NGDNNFFSYKLNNEERLGACTKVFAYTACITESADIINKPIYKA

>pdb|4XMQ|A Chain A, Crystal structure of the sensory domain of the Campylobacter jejuni chemoreceptor Tlp3 (CcmL)

GIDPFTKTSLYESTLKNQTDLLKVTQSTVEDFRSTNQSFTRALEKDIANLPYQSLITEENIINNVGPILK

YYRHSINALNVYLGLNNGKVLLSQKSNDAKMPELRDDLDIKTKDWYQEALKTNDIFVTPAYLDTVLKQYV

ITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTPGNTFLFDQKNKIFAATNKELLNPSIDHSPVLNAYKL

NGDNNFFSYKLNNEERLGACTKVFAYTACITESADIINKPIYKA

>pdb|4OC9|P Chain P, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|O Chain O, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|N Chain N, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|M Chain M, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|L Chain L, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|K Chain K, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|J Chain J, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|I Chain I, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|H Chain H, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|G Chain G, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|F Chain F, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|E Chain E, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|D Chain D, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|C Chain C, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|B Chain B, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4OC9|A Chain A, 2.35 Angstrom resolution crystal structure of putative O-acetylhomoserine (thiol)-lyase (metY) from Campylobacter jejuni subsp. jejuni NCTC 11168 with N'-Pyridoxyl-Lysine-5'-Monophosphate at position 205

GXNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLA

NVEGGAFGIPVASGXAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEK

VIDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSXYVSG

QGTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAW

LLLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDY

EHARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQ

AIES

>pdb|4NPX|A Chain A, Structure of hypothetical protein Cj0539 from Campylobacter jejuni

XHHHHHHSSGVDLWSHPQFEKGTENLYFQSNADEXFNKTPKEKFIEIIQNGNLGALEKVFEEFFADHIAX

VELLEKQGLTEXDVKNFILENGDFIEERQNDIYIELGAKILGHEG

>pdb|4NOI|B Chain B, 2.17 Angstrom Crystal Structure of DNA-directed RNA Polymerase Subunit Alpha from Campylobacter jejuni.

XHHHHHHSSGVDLGTENLYFQSNAXRNITTSAYTPTEFTIENISDTVAKISAWPFEIGYGITLAHPLRRL

LYTSTIGYAPTAIHIDGVAHEFDSXRGXLEDVALFIINLKKLRFKIKGDSNKEIVEFSFKGSKEIYGKDL

NNDQVEVVNKDAYLATINEDAELKFTLIVEKGIGYVPSEEIKELINDPKFIALDAFFTPVREATYDIEKV

LFEDNPDYEKVVLTVTTDGQITPNEAFQNALEAXYKQLSVFDKITNVRSVIKNQATSNELENTKLLQNIT

DLNLSARSYNCLEKAGVVYIGELALXSVSELAGLKNLGKKSLDEIKNIXESIGFPVGTSKLSDNKEILKN

KIAELKAQNEG

>pdb|4NOI|A Chain A, 2.17 Angstrom Crystal Structure of DNA-directed RNA Polymerase Subunit Alpha from Campylobacter jejuni.

XHHHHHHSSGVDLGTENLYFQSNAXRNITTSAYTPTEFTIENISDTVAKISAWPFEIGYGITLAHPLRRL

LYTSTIGYAPTAIHIDGVAHEFDSXRGXLEDVALFIINLKKLRFKIKGDSNKEIVEFSFKGSKEIYGKDL

NNDQVEVVNKDAYLATINEDAELKFTLIVEKGIGYVPSEEIKELINDPKFIALDAFFTPVREATYDIEKV

LFEDNPDYEKVVLTVTTDGQITPNEAFQNALEAXYKQLSVFDKITNVRSVIKNQATSNELENTKLLQNIT

DLNLSARSYNCLEKAGVVYIGELALXSVSELAGLKNLGKKSLDEIKNIXESIGFPVGTSKLSDNKEILKN

KIAELKAQNEG

>sp|Q9PMF9.3|SELD\_CAMJE RecName: Full=Selenide, water dikinase; AltName: Full=Selenium donor protein; AltName: Full=Selenophosphate synthase

MQYKNQNLTHFVKAAGUAAKLSPGGLKTILNFMQKTPALLSDIGNNEDASVYQISPDLALVQTLDFITPI

VDSAYHFGAIAAANALSDVFAMGAEVINALNIVGFDTCNHDLNILKELLEGANDKVKECNALVVGGHTIE

STELFFGLSVTGKVHPSKFIANNTSKIGDCIILTKPLGTGILSTALKAQMLNQKHLDIMLKNMIELNYKA

SQIALKFHPSAMSDVTGFGLLGHLKEMLNKNISFEIFESELPFLDGVKEYFNMGLIPAGAYKNLEFIKEL

TPDLNEEKLLLCDPQTSGGLLISISEKDSLECLKKLEDENIQAKIIAKVVNKQENDIIIS

>sp|P0C631.1|FUR\_CAMJE RecName: Full=Ferric uptake regulation protein; Short=Ferric uptake regulator

MLIENVEYDVLLERFKKILRQGGLKYTKQREVLLKTLYHSDTHYTPESLYMEIKQAEPDLNVGIATVYRT

LNLLEEAEMVTSISFGSAGKKYELANKPHHDHMICKNCGKIIEFENPIIERQQALIAKEHGFKLTGHLMQ

LYGVCGDCNNQKAKVKI

>sp|Q0PC33.1|ATPD\_CAMJE RecName: Full=ATP synthase subunit delta; AltName: Full=ATP synthase F(1) sector subunit delta; AltName: Full=F-type ATPase subunit delta; Short=F-ATPase subunit delta

MENIIARRYAKAIASRADINDFYQNLCILNSAFVLPKFKNIIESNEIKKERKMEFLDSFFDIKNSSFQNF

LRLLIENSRLECIPQIVKELERQKAFKENIFVGIVYSKEKLSQENLKDLEVKLNKKFDANIKLNNKISQD

DSVKIELEELGYELSFSMKALQNKLNEYILKII

>sp|Q0PA25.1|DSBI\_CAMJE RecName: Full=Putative protein-disulfide oxidoreductase DsbI

MSCIKMKDKCRNFSLSKWQDTRKPWLILIIVTIGLTCIAHFLFQEYLFMKPCEQCVYIRFDMLVMAIGGM

IALINPANNIIKIFSYSLAFYGIWLGLEHCLTLNHIHEVVHSENPFAGVDGCREIPIYPFNLPLYKWASS

WFLPTGECGMDTPVVPENAYNHLNAFQKFFIGTPPDFENGLYSNGWYLIPSLKFMNMAICCLIAFLCCFV

VLFAMFIAYVLDKNKPNAKIFALVIVALVLVLKFIGESKNPNQNIASLNQVVLRYS

>sp|Q0P8R5.1|TSAD\_CAMJE RecName: Full=tRNA N6-adenosine threonylcarbamoyltransferase; AltName: Full=N6-L-threonylcarbamoyladenine synthase; Short=t(6)A synthase; AltName: Full=t(6)A37 threonylcarbamoyladenosine biosynthesis protein TsaD; AltName: Full=tRNA threonylcarbamoyladenosine biosynthesis protein TsaD

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>sp|Q0P823.1|DAPD\_CAMJE RecName: Full=2,3,4,5-tetrahydropyridine-2,6-dicarboxylate N-succinyltransferase; AltName: Full=Tetrahydrodipicolinate N-succinyltransferase; Short=THDP succinyltransferase; Short=THP succinyltransferase; AltName: Full=Tetrahydropicolinate succinylase

MINTKEDFLLLIKQIEQKSGYKKPKAFGIARLDRGQLNKNKILQASFALINYEQNFGSAAIMLEAFMQRG

VEIDFNASEFVQTLKLEDIDFALSCFKPFLEEDGHQNIDLLKIIKDKFKDDEFSFVCLFEDKEPLSVESI

YLKLYLLSTKKVPLRSINLNGAFGLLSNVAWSDDKPIELEYLRANEMRLKMSNQYPKIDFVDKFPRFLAH

IIPEDNTRILESSKVRMGASLAAGTTIMPGASYVNFNAGTTGACMVEGRISSSAIVGEGSDVGGGASILG

VLSGTSGNAISVGKACLLGANSVTGIPLGDNCIVDAGIAVLEGTKFLLKDAEELAKLNPYFNFDKEIYKG

LELKGLNGLHFRQDSISGAMIVALNKKAVKLNEALH

>sp|Q0P7X3.1|NHAA2\_CAMJE RecName: Full=Na(+)/H(+) antiporter NhaA 2; AltName: Full=Sodium/proton antiporter NhaA 2

MQMIKKMVLSETFPGILLIFFTFLALLCKNSSLSVIYTDFFHANFTVGFDHFQISKSLDLWINDGLIAIF

FLCIGLELKYEILRGQLKNIRAVSLPIFGALGGMITPALIFIAINYSHDFAMKGWAIPTATDIAFAVGIL

MLLGNKIPTSLKLFLLSLAIFDDLGAIVIIALFYTDQLSALAIIICLFCIFALLLLNYYHITHLSLYVLV

GVVLWIAMLKSGVHATLAGVIISLFIPLDTKNKKPYLHEVLKDLNPWVVYFILPLFAFANAGIDIRDMHL

GSVFSPVSLGIILGLFLGKQLGVFTFCFIAIKLKLAKLPENIKYGKFYGICILTGIGFTMSLFIDGLAYK

NSDIFEYADKLAILVASFLSAIVGFIYLKIVK

>sp|Q0P9D1.1|PGLD\_CAMJE RecName: Full=UDP-N-acetylbacillosamine N-acetyltransferase; AltName: Full=Protein glycosylation D; AltName: Full=UDP-4-amino-4,6-dideoxy-N-acetyl-alpha-D-glucosamine N-acetyltransferase

MARTEKIYIYGASGHGLVCEDVAKNMGYKECIFLDDFKGMKFESTLPKYDFFIAIGNNEIRKKIYQKISE

NGFKIVNLIHKSALISPSAIVEENAGILIMPYVVINAKAKIEKGVILNTSSVIEHECVIGEFSHVSVGAK

CAGNVKIGKNCFLGINSCVLPNLSLADDSILGGGATLVKNQDEKGVFVGVPAKRM

>sp|Q0P8W3.1|PSEC\_CAMJE RecName: Full=UDP-4-amino-4,6-dideoxy-N-acetyl-beta-L-altrosamine transaminase; AltName: Full=Pseudaminic acid biosynthesis protein C

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>sp|Q0P7X4.1|NHAA1\_CAMJE RecName: Full=Na(+)/H(+) antiporter NhaA 1; AltName: Full=Sodium/proton antiporter NhaA 1

MNNIVHKLKTLVLNEAFGGVLLIVCTLLALLVQNGSFSEHYREFLNLKVGFSVGEFELNKPFLLWINDGL

ISIFFFAIGLELKKEFLHGDFKNPKNIVLPFMAALGGILIPAMLFALVNIGDAYTLKGWAIPTATDTAFA

LAILMMCGKHIPSSLKIFLLSLAIFDDVGAILIIAIFYTTKLSIAAFVIAGLAILVMLILNLLGITRKSF

YFICSVILWISVLKSGVHATLAGIVTAFFIPMQTKNGEAFLEEIYESLKFWIAFIILPLFAFANAGVNLS

NIDIGAIFSGVSIGIFLGLFVGKQVGVFLFSYLAIRFKFAALPQGSNLKQLYGVCILTGIGFTMSLFIDG

LAYEVSDIFNYADNLAILIASFCSGIWGFIYLKFFTTRS

>sp|Q0PA27.1|XERH\_CAMJE RecName: Full=Tyrosine recombinase XerH

MKYPLDCEENFEKSFLFWLAKYVKFKLNSLSNKELKNPQALAEVNFALTKGVKNIDELDALAKKARNAGL

SGVNTYFNPLKKVFEYLNFYKLYSLKQIDEELIVEVLASITGALSDASKKNYRIAVINFFDFLDKQNEED

EKAHIFDINLKNWAGIAGSKGVKLPEFMSKEELKKFLDAIENADFKNNTIRNKLIIKIIIFTGIRVSEAI

NIKMGDISEENDLYIIRIRAKGNKYRVVMIKKELIYDLLKNVSINYISKDALLFVNKKGTPLTQSYVSRI

VEQLLFRAGIRKQKNGAHMLRHTFATLLYKKQKDLVLVQEALGHASLNTSRIYTHFDNDKLKLAAQVAKE

LSDS

>sp|Q0P903.1|PNP\_CAMJE RecName: Full=Polyribonucleotide nucleotidyltransferase; AltName: Full=Polynucleotide phosphorylase; Short=PNPase

MQYSIEINKNTEIFDIDKVAKQAAGAVLMRQGKSVVLATVAREEKQVEEDFLPLTVQYIEKAYAAGKIPG

GYVKRETKPSDAETLTARIIDRSLRPLFPKGYAYPTQIVVMVLSADPKVDLQVMSLNAASVALYLSDIPM

KAPVCGVRIGKIDGNFILNPNNEELQNSTLDLYVAGVKDELLMIEMRALPDQKENEIFIEAPYADVLTQT

TSQNMNELSEDEILEALNLAQKAILNGSNAYEEAFSKHKKNSQIELKNEIEHPEILAFIENNFQKQIKEA

INQMAKSERASELNKIAKEILNLEITKDWSEESVLNTLAKVKRKLIREQILNEGKRADGRSLNEVRPISI

ETNILPNAHGSCLFTRGQTQALVVATLGGENDSQMIDLLTEKNPISERFMVNYNFPGFSVGEASPIKAPG

RRELGHGNLAKRALYPSVDENYPYVIRLVSEILESNGSSSMATVCGGSLALKAAGVPSLKLVAGVAMGLI

FEDNKYAVLTDIMGLEDHDGDMDFKVAGSKDGVTALQMDIKLGGIDQEILKQALYQAKEGRIHILNIMEE

AAKEIIVNEEVLPKLELFSVDPSKIVDIIGQAGKTIKEIVEKFGVSIDLDREKGEVKIAGSQNEQIKAAK

DYIINITSSQKGTKKGPKDKDISGFELGQEFQGIVKKIAPFGAFVELKNGVDGLLHSSKIKHLNLSENQS

LKVKISEIKNGKISVDLCE

>sp|Q0P7U6.1|BIOB\_CAMJE RecName: Full=Biotin synthase

MQIMLCAISNIASGNCSEDCKYCTQSAHVKTDIQKYRRKELSQIVLEAKMAKKNEALGFCLVTAGLGLDD

EKLEYVCEAAKAVQKEVPNLLLIACNGMASVEQLKELKKAGIFSYNHNLESSKEFFPQICTTHTWESRFQ

TNLNAKEAGLMLCCGGIYGMGESEEDRLSFRKSLQELQPFSTPINFFIANENLKLQVPRLSADEALKIVR

DTKEALPQSVVMVAGGREVVLRERQYEIFQAGAGAIVIGDYLTTKGEEPSQDIIKLKEMGFTFASECH

>sp|Q0P7S6.1|RL23\_CAMJE RecName: Full=50S ribosomal protein L23

MADITDIKTILYTEKSLNLQEQGVVVIQTSPKMTKTGLKAVLKEYFGVTPKSINSLRMDGKIKRFRGRLG

QRNNYKKFYVKLPEGVSLENTEA

>sp|Q0PC56.1|CDTA\_CAMJE RecName: Full=Cytolethal distending toxin subunit A; Short=CDT A; Flags: Precursor

MQKIIVFILCCFMTFFLYACSSKFENVNPLGRSFGEFEDTDPLKLGLEPTFPTNQEIPSLISGADLVPIT

PITPPLTRTSNSANNNAANGINPRFKDEAFNDVLIFENRPAVSDFLTILGPSGAALTVWALAQGNWIWGY

TLIDSKGFGDARVWQLLLYPNDFAMIKNAKTNTCLNAYGNGIVHYPCDASNHAQMWKLIPMSNTAVQIKN

LGNGKCIQAPITNLYGDFHKVFKIFTVECAKKDNFDQQWFLTTPPFTAKPLYRQGEVR

>sp|Q0PC30.1|ATPB\_CAMJE RecName: Full=ATP synthase subunit beta; AltName: Full=ATP synthase F1 sector subunit beta; AltName: Full=F-ATPase subunit beta

MQGFISQVLGPVVDVDFNDYLPQINEAIVVNFESEGKKHKLVLEVAAHLGDNRVRTIAMDMTDGLVRGLK

AEALGAPISVPVGEKVLGRIFNVTGDLIDEGEEISFDKKWAIHRDPPAFEDQSTKSEIFETGIKVVDLLA

PYAKGGKVGLFGGAGVGKTVIIMELIHNVAFKHSGYSVFAGVGERTREGNDLYNEMKESNVLDKVALCYG

QMNEPPGARNRIALTGLTMAEYFRDEMGLDVLMFIDNIFRFSQSGSEMSALLGRIPSAVGYQPTLASEMG

KFQERITSTKKGSITSVQAVYVPADDLTDPAPATVFAHLDATTVLNRAIAEKGIYPAVDPLDSTSRMLDP

NIIGEEHYKVARGVQSVLQKYKDLQDIIAILGMDELSEEDKLVVERARKIEKFLSQPFFVAEVFTGSPGK

YISLEDTIAGFKGILEGKYDHLPENAFYMVGNIDEAIAKADKLKG

>sp|Q0PB48.1|TRHBP\_CAMJE RecName: Full=Group 3 truncated hemoglobin ctb; Short=Cj-trHbP; Short=Truncated Hb

MKFETINQESIAKLMEIFYEKVRKDKDLGPIFNNAIGTSDEEWKEHKAKIGNFWAGMLLGEGDYNGQPLK

KHLDLPPFPQEFFEIWLKLFEESLNIVYNEEMKNVILQRAQMIASHFQNMLYKYGGH

>sp|Q0P9D3.1|PGLE\_CAMJE RecName: Full=UDP-N-acetylbacillosamine transaminase; AltName: Full=Protein glycosylation pathway protein E; AltName: Full=UDP-4-amino-4,6-dideoxy-N-acetyl-alpha-D-glucosamine transaminase; AltName: Full=UDP-4-keto-6-deoxy-GlcNAc C4 aminotransferase

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>sp|Q0P897.1|CAS9\_CAMJE RecName: Full=CRISPR-associated endonuclease Cas9

MARILAFDIGISSIGWAFSENDELKDCGVRIFTKVENPKTGESLALPRRLARSARKRLARRKARLNHLKH

LIANEFKLNYEDYQSFDESLAKAYKGSLISPYELRFRALNELLSKQDFARVILHIAKRRGYDDIKNSDDK

EKGAILKAIKQNEEKLANYQSVGEYLYKEYFQKFKENSKEFTNVRNKKESYERCIAQSFLKDELKLIFKK

QREFGFSFSKKFEEEVLSVAFYKRALKDFSHLVGNCSFFTDEKRAPKNSPLAFMFVALTRIINLLNNLKN

TEGILYTKDDLNALLNEVLKNGTLTYKQTKKLLGLSDDYEFKGEKGTYFIEFKKYKEFIKALGEHNLSQD

DLNEIAKDITLIKDEIKLKKALAKYDLNQNQIDSLSKLEFKDHLNISFKALKLVTPLMLEGKKYDEACNE

LNLKVAINEDKKDFLPAFNETYYKDEVTNPVVLRAIKEYRKVLNALLKKYGKVHKINIELAREVGKNHSQ

RAKIEKEQNENYKAKKDAELECEKLGLKINSKNILKLRLFKEQKEFCAYSGEKIKISDLQDEKMLEIDHI

YPYSRSFDDSYMNKVLVFTKQNQEKLNQTPFEAFGNDSAKWQKIEVLAKNLPTKKQKRILDKNYKDKEQK

NFKDRNLNDTRYIARLVLNYTKDYLDFLPLSDDENTKLNDTQKGSKVHVEAKSGMLTSALRHTWGFSAKD

RNNHLHHAIDAVIIAYANNSIVKAFSDFKKEQESNSAELYAKKISELDYKNKRKFFEPFSGFRQKVLDKI

DEIFVSKPERKKPSGALHEETFRKEEEFYQSYGGKEGVLKALELGKIRKVNGKIVKNGDMFRVDIFKHKK

TNKFYAVPIYTMDFALKVLPNKAVARSKKGEIKDWILMDENYEFCFSLYKDSLILIQTKDMQEPEFVYYN

AFTSSTVSLIVSKHDNKFETLSKNQKILFKNANEKEVIAKSIGIQNLKVFEKYIVSALGEVTKAEFRQRE

DFKK

>sp|Q9PJ21.1|ATPA\_CAMJE RecName: Full=ATP synthase subunit alpha; AltName: Full=ATP synthase F1 sector subunit alpha; AltName: Full=F-ATPase subunit alpha

MKFKADEISSIIKERIENFDLNLEIEETGKIISVADGVAKVYGLKNIMAGEMVEFENGDKGMALNLEESS

VGIVILGKGEGLKEGASVKRLKKLLKVPVGEALIGRVVNALGEPIDAKGVINANEYRFVEEKAKGIMARK

SVHEPLHTGIKAIDALVPIGRGQRELIIGDRQTGKTTVAVDTIISQRGQGVICIYVAIGQKQSTVAQVVK

RLEEHGAMEYTIVVNAGASDPAALQYLAPYTGVTMGEFFRDNAKHALIVYDDLSKHAVAYREMSLILRRP

PGREAYPGDVFYLHSRLLERASKLNDELGAGSLTALPIIETQAGDVSAYIPTNVISITDGQIFLETDLFN

SGIRPAINVGLSVSRVGGAAQIKATKQVSGTLRLDLAQYRELQAFAQFASDLDEASRKQLERGQRMVELL

KQPPYSPLSVEKQVVLIFAGTKGFLDDIAVSRIKEFEDGIYPFIEAKHPDIFEQIRSKKALDSDLEEKLA

KAINEFKANHL

>sp|Q9PPA2.1|GLMU\_CAMJE RecName: Full=Bifunctional protein GlmU; Includes: RecName: Full=UDP-N-acetylglucosamine pyrophosphorylase; AltName: Full=N-acetylglucosamine-1-phosphate uridyltransferase; Includes: RecName: Full=Glucosamine-1-phosphate N-acetyltransferase

MKTSILILAAGLGTRIKSQKPKVLQELCQKSMILHILKKAFALSDDVSVVLSHQKERVEKEILEYFPKTQ

ILEQDLQNYPGTAGALSGFEPKNERVLILCGDMPLVEQTSLEALLGNNAKLNLAVFKARDPKSYGRVVIK

NDSVEKIVEFKDANTQEKEINTCNAGVYVIDSRLLKELLPLIDNNNAAKEYYLTDIVKLAKEKDVMIKAV

FVDEDEFMGINDKFELSIAENFMQKKIKKYWMQQGVIFHLPQSTFIGADVEFVGECEVYENVRIEGKSKI

INSIIKSSSVIENSIVENSDVGPLAHLRPNCELKNTHIGNFVECKNAKLNTVKAGHLSYLGDCEIDSGTN

IGCGTITCNYDGVKKHKTIIGKNVFVGSDTQFIAPVKIEDEVIIAAGSTVSINVEKGALFINRAGHKMIK

DYYYKKFQK

>sp|Q9PPD9.1|NAPA\_CAMJE RecName: Full=Periplasmic nitrate reductase; Flags: Precursor

MNRRDFIKNTAIASAASVAGLSVPSSMLGAQEEDWKWDKAVCRFCGTGCGIMIARKDGKIVATKGDPAAP

VNRGLNCIKGYFNAKIMYGEDRLVMPLLRMNEKGEFDKKGKFQQVSWQRAFDEMEKQFKKAYNELGVTGI

GIFGSGQYTIQEGYAALKLAKAGFRTNNIDPNARHCMASAVVGFMQTFGVDEPSGCYDDIELTDTIITWG

ANMAEMHPILWSRVSDRKLSNLDKVKVVNLSTFSNRTSNIADIEIIFKPNTDLAIWNYIAREIVYNHPEA

MDMKFIKDHCVFATGYADIGYGMRNNPNHPKFKESEKDTVEKENVITLDDEEATSLSYLGVKAGDKFEMK

HQGVADKNWEISFDEFKKGLAPYTLEYTARVAKGDDNESLEDFKKKLQELANLYIEKNRKVVSFWTMGFN

QHTRGSWVNEQAYMVHFLLGKQAKPGSGAFSLTGQPSACGTAREVGTFSHRLPADMVVANPKHREISEKI

WKVPAKTINPKPGSPYLNIMRDLEDGKIKFAWVQVNNPWQNTANANHWIAAAREMDNFIVVSDCYPGISA

KVADLILPSAMIYEKWGAYGNAERRTQHWKQQVLPVGAAMSDTWQILEFAKRFKLKEVWKEQKVDNKLTL

PSVLEEAKAMGYSEDDTLFDVLFANKEAKSFNPNDAIAKGFDNTDVKGDERKIQGSDGKEFTGYGFFVQK

YLWEEYRKFGLGHGHDLADFDTYHKVRGLRWPVVNGKETQWRFNTKFDYYAKKAAPNSDFAFYGDFNKML

TNGDLIAPKDEKEHSIKNKAKIFFRPFMKAPERPSKEYPFWLATGRVLEHWHSGTMTMRVPELYRAVPEA

LCYMSEKDGEKLGLNQGDLVWVESRRGKVKARVDMRGRNKPPVGLVYVPWFDENVYINKVTLDATCPLSK

QTDFKKCAVKIYKA

>sp|Q9PI62.1|ACCA\_CAMJE RecName: Full=Acetyl-coenzyme A carboxylase carboxyl transferase subunit alpha; Short=ACCase subunit alpha; Short=Acetyl-CoA carboxylase carboxyltransferase subunit alpha

MASYLDFEKNIQQIDEDIINAQIKGDTEAVSILKKNLEKEISKTYKNLSDFQRLQLARHPDRPYALDYIE

LILNDAHEIHGDRAFRDDPAIVCFMGYLGEKKIIVIGEQKGRGTKDKIARNFGMPHPEGYRKALRVAGLA

EKFQIPILFLIDTPGAYPGIGAEERGQSEAIARNLYELSDLKIPTIAIVIGEGGSGGALAIGVADKLAMM

KNSVFSVISPEGCAAILWNDPAKSEAATKAMKVTADDLKSQGLIDDVIDEPTNGAHRNKEAAAVAIADYV

KKSLNELENIDVRELSANRMQKILKLGAYQEA

>sp|Q9PII8.1|RL25\_CAMJE RecName: Full=50S ribosomal protein L25; AltName: Full=General stress protein CTC

MLEGIVRESIGRKAAKALKRDGYLIANIYGKGLENINAAFKVNEFIKEVRKKTTLIFDVKVGSQTLSVVV

VDYQKDPVTAELKHVDLKVAQKGVISKYMVPVKITGTAIGLKNKGVLIQSKRRLKVKCAAENLPNFFELD

VSKLDVGDALLVRDIVVPAGVTMIDADRVAVVGVEKAR

>sp|Q9PLY3.1|RL5\_CAMJE RecName: Full=50S ribosomal protein L5

MMRLKEKYNQSIKPALVKEFDIKNPMLIPVIEKVVISVGAGELAKDQKVLQNVADTISLIAGQKAVITKA

KKSVAGFKVREGFPVGVMVTLRKENMYAFLDKLISIALPRVKDFRGLSRDGFDGRGNYNFGLDEQLMFPE

VEYDKILRTHGMNISIVTTAQNDKQAQKLLELIGVPFTKGK

>sp|Q9PJ06.1|YBEY\_CAMJE RecName: Full=Endoribonuclease YbeY

MILSDEKCDFLESIASFLSPKDVELVFVDSKEMQEINLEQRKQDKTTDVLSFPLENIDESLPLGSVVINV

DLAKEKAKELGHSYEEEISLLFIHAMLHLLGFDHENDNGEMREKEKELIEHFNLPKSLIVRTLED

>sp|Q9PLX2.1|RL4\_CAMJE RecName: Full=50S ribosomal protein L4

MSKVVVLNDKLEKAGELDLPSKYAEVNPHNLYLYVKSYLASLRANTAHTKGRSDVSGGGKKPWRQKGRGG

ARAGSTRTNVWVGGAVAFGPTNERNYFQKVNKKQKRLALERALADKAAKGVLFTADSLAIESGKTKDANA

VIKKLGVKDALIVKDLLDEKTLLAYRNLANCYVVDVTEVNAYLVSVFNAVIMEKSVLESITKEG

>sp|Q9PLY2.1|RL24\_CAMJE RecName: Full=50S ribosomal protein L24

MAVKLKIKKGDSVKVITGDDKGKTGKVLAVYPKTLKVVVEGCKIAKKAIKPSEKNPNGGFINKEMPMDIS

NVAKVQE

>sp|Q9PLX1.1|RL3\_CAMJE RecName: Full=50S ribosomal protein L3

MEYIVEKIGMSRTITNPSIAVTLLRVVNAKVCEVEGGKALVAYPKGKASNKCVAGQQKKYNLSAEYNRFA

TLEVANTEAGDLDETPLNEAKILKVSFNTKGRGYSGVMKRHNFAGGPASHGSRFHRRHGSIGNREWPGRV

QPGMKMAGHYGNTKVTIKNEVVSYDAENKILVVKGAVPGYNGAMGKIRIAK

>sp|Q9PLX4.1|RL2\_CAMJE RecName: Full=50S ribosomal protein L2

MAIKTYKPYTPSRRYITGLSSEDITAKPSVRSLLVKLPAHAGRNSYGRITSRHKEAGAKKLYRIIDFKRR

KFGIEGKVEAIEYDPYRNCRIALIAYKDGEKRYILQPRGLSVGDIVAAAESGLDIKPGNAMKLKNIPVGT

IVHNVELKPGKGGQMIRSAGAYAQLMGKEEKYVILRLASGEMRQVLAECMASIGEVGNEEWANVTIGKAG

RNRHRGIRPQTRGSAMNPVDHPHGGGEGKKNSGRHPVTPWGKPTKGAKTRRKKASDKLIISRRKGK

>sp|Q9PIZ1.1|IF2\_CAMJE RecName: Full=Translation initiation factor IF-2

MAKIRIHEIAKELGYDSKEIIEKANELGLGIKTASNAVEPEIAAAIYEYIQTREIPEAFKKNIKTPTAKK

PKKENIKEQEKLNESEKKEPKKEEKLKQEVKKEELKIEKENAKEEEKQEIIDAHKPQSLASATLAKRRGL

VIVKKKKDEEEIQVKKEEVKNSNDISINNEERLSLKTMFSNADESLKKKKKEKKSFVASKKESTEKMNFL

DEHDFGDISLDDEDEVVLPDFSVKEQEKPQNINKKQPNFIRQAVGNSAGFGFEGGIQRRSRKKPSKKIEK

KEVEEVGSVAISKEIRVYEFADKIGKSTSEVISKLFMLGMMTTKNDFLDEDAIEILAAEFGIEINIINEA

DEFDYVKDYEEETDEKDLVTRAPVITIMGHVDHGKTSLLDYIRKSRVASGEAGGITQHVGAYMVEKNGRK

ITFIDTPGHEAFTAMRARGASITDIVIIVVAADDGVKPQTKEAINHAKAAGVPIIIAINKMDKEAANPDM

VKTQLAEMEIMPVEWGGSYEFVGVSAKTGMGIEDLLEIVLLQADILELKANPKSFAKASIIESSVQKGRG

AVATVIVQNGTLTVGSTVVAGEAYGKVRAMSDDQGKALKEIKPGECGVIVGLSEVADAGEILIAVKTDKE

AREYANKRHEYNRQKELSKSTKVSIDELGAKIKEGNLKALPVILKADVQGSLEALKASLEKLRNDEIKVN

IIHSGVGGITQSDIELASASENSIVLGFNIRPTGEVKERAKDKGVEIKTYNVIYNLLDDVKALLGGMMSP

IISEEQLGQAEIRQVINVPKIGQIAGCMVTEGVINRGAKIRLIRDGVVVYEGNVSSLKRFKDDAKEVAKG

YECGVGIEGCDDMRVGDYIESYKEVEEQASL

>sp|Q9PMK3.1|TRUD\_CAMJE RecName: Full=tRNA pseudouridine synthase D; AltName: Full=tRNA pseudouridine(13) synthase; AltName: Full=tRNA pseudouridylate synthase D; AltName: Full=tRNA-uridine isomerase D

MNLEEENTIFKPLYSLKHSPINAYFSKNSDDFVVRERPLYEFSGKGEHLILHINKKDLTTNEALKILSEA

SGVKIRDFGYAGLKDKQGSTFQYLSMPKKFESFLSNFSHPKLKILEIFTHENKLRIGHLKGNSFFIRLKK

VLPSDALKLEQALMNLDKQGFANYFGYQRFGKFGDNYKEGLEILRGKKMKNVKMKEFLISAFQSELFNRY

LSKRVELSHFANDFSEKELIQIYKISKEEAKELKKQEQFFKLLKGEVLGHYPFGKCFLCEDLSAELGRFK

ARDISAMGLLIGAKAYETGEGLALNLENEIFKDTLEFKAKMQGSRRFMWGYLEELKWRYDEEKAHFCIEF

FLQKGSYATVVLEEILHKNLFE

>sp|Q9PNC3.1|Y1172\_CAMJE RecName: Full=Probable transcriptional regulatory protein Cj1172c

MGRAFEYRRASKEARWDKMSKLFPKLAKAIQVAAKEGGTDPDMNPKLRSAIATAKANNMPKDNIDAAIKR

ASGKDSADIKNIHYEGKAAHGALVIVECMSDNPTRTVANVKAIFSKNGGEVLQNGSLGFMFTRKAVFHLE

KFAGDLEELELDLIDAGLEELEQNEEELVISGDYTAFGELSSAIEAKGLVLKKAGLEYIPNNPVSFSEEQ

LSDIEKLLDKLEDDDDVQAVYTNID

>sp|Q9PMC8.1|Y1541\_CAMJE RecName: Full=UPF0271 protein Cj1541

MFKVDLNSDLGESFGAYKMGMDEEILKFVSSVNVACGFHAGDPCVMDETLNLAKQNGVCIGAHPSYPDLL

GFGRRNMQISFEEAKNYALYQLGALFGFAKAKGMKIQHFKAHGALYNMAAIDENLALALCEAVASFDENI

IFLGLSNSAMNEAAKKKGLRYANEVFADRAYNDDGTLVSRKLEGALIHDENLAIKRVIKMIKESKVTSIN

GKEIDLKADSICVHGDNAKALEFVKKIKENLKKEQIQICALENFI

>sp|Q9PNQ6.1|ATE\_CAMJE RecName: Full=Putative arginyl-tRNA--protein transferase; Short=Arginyltransferase; Short=R-transferase

MLEIGFCTLEDQCPYLKDKRSRIEYKYIENCPKEINNELIKRGWRRFGRYFSRPICKDCDECLSLRILVN

EYNFSRSERRVVNKNINTKVILRTPNLSNEHLFLYDKYHRFMEEKKNWKRYDLSFKQYYNLYVDGFMNFG

YELAFYIEDKLVCVDLIDILEDGISSIYCFYDPDFSYFSLGKFSLLNEIQIAKKMNLDYIYLGYFVKKCQ

SLSYKADYTPNEILKGTKELFENEVLWEK

>sp|Q9PNY2.1|PUR9\_CAMJE RecName: Full=Bifunctional purine biosynthesis protein PurH; Includes: RecName: Full=Phosphoribosylaminoimidazolecarboxamide formyltransferase; AltName: Full=AICAR transformylase; Includes: RecName: Full=IMP cyclohydrolase; AltName: Full=ATIC; AltName: Full=IMP synthase; AltName: Full=Inosinicase

MRALLSVSDKEGIVEFGKELENLGFEILSTGGTFKLLKENGIKVIEVSDFTKSPELFEGRVKTLHPKIHG

GILHKRSDENHIKQAKENEILGIDLVCVNLYPFKKTTIMSDDFDEIIENIDIGGPAMIRSAAKNYKDVMV

LCDPLDYEKVIETLKKGQNDENFRLNLMIKAYEHTANYDAYIANYMNERFNGGFGASKFIVGQKVFDTKY

GENPHQKGALYEFDAFFSANFKALKGEASFNNLTDINAALNLASSFDKAPAIAIVKHGNPCGFAIKENLV

QSYIHALKCDSVSAYGGVVAINGTLDEALANKINEIYVEVIIAANVDEKALAVFEGKKRIKIFTQESPFL

IRSFDKYDFKHIDGGFVYQNSDEVGEDELKNAKLMSQREASKEELKDLEIAMKIAAFTKSNNVVYVKNGA

MVAIGMGMTSRIDAAKAAIAKAKEMGLDLQGCVLASEAFFPFRDSIDEASKVGVKAIVEPGGSIRDDEVV

KAADEYGMALYFTGVRHFLH

>sp|Q9PIC8.1|Y374\_CAMJE RecName: Full=UPF0234 protein Cj0374

MASEHSFDISAALDKQELKNAFEQAKKELDSRYDLKGIKCEIDLSEKESIFKLSSSSEGKLDVLKDIVIS

KLIKRGINPKAIKELSRESGAMFRLNLKANDAIDSENAKKINKVIKDSKLKVNSSIRGEEIRVAAKQIDD

LQAVMKLVKELDLELNISFKNLK

>sp|Q9PLX7.1|RS3\_CAMJE RecName: Full=30S ribosomal protein S3

MGQKVNPIGLRLGINRNWESRWFPTKANLVENIGEDYKIRAFLKRKLYYAGISQILVERTAKKLRVTVVA

ARPGIIIGKKGSDVDNLRKELQDLIGKDVNINIKEERKAGASAQLAAESVATQLEKRIAFRRAMKKVIQG

AQKAGAKGIKVSVSGRLGGAEMARTEWYLEGRVPLHTLRAKIDYGFAEARTTYGNIGVKVWIFKGEVLHK

GMQPEKTEESAPAKKPRRTRRGK

>sp|Q9PNB3.1|RS2\_CAMJE RecName: Full=30S ribosomal protein S2

MVSMRDLLECGVHFGHQTRRWNPKMKKFIFGERKGIYVIDLQKTLRYFRYTYNIVRDAAAEGKTILFVGT

KKQAGGAIKEYAEKCGMPYVNHRWLGGMMTNFGTIRQSIRKLEVIEKMEEDGSIKLLTKKEALMLTRKKE

KLLAYLGGIRYMKTQPDMIFVIDTVKEKIAVQEANRLRIPVVAPLDTNCDPDLVTYPIPGNDDAIRSVQL

FCQEMAEAINEGKALREQDGEALVNEEKEITDEEKKEVLDEAMSEEDFGEEQE

>sp|Q9PN98.1|GATB\_CAMJE RecName: Full=Aspartyl/glutamyl-tRNA(Asn/Gln) amidotransferase subunit B; Short=Asp/Glu-ADT subunit B

MFEVVIGLEVHAQLNTKTKIFCSCATSFGEAPNTNVCPTCLALPGALPVLNEEAVKKAIAFGKAVNATIN

KKSVFNRKNYFYPDLPKAYQISQFDIPIVEKGELFINVKGENKRIGITRAHLEEDAGKNIHESNFSKVDL

NRAGTPLLEIVSEPELRSSDEAVAYLKKLHSIIRFLDISDANMQEGSFRCDANVSIRPKGDTKLYTRVEI

KNLNSFRFIQKAIEYEVKRQSEAWEDGTYEQEVVQETRLFDTTNLVTRSMRGKEEAAEYRYFPDPDLLPV

LLKDEFLDIKIPELPDEKKVRFIDKLGIKESDAEVLISSLEMSRFFESLISQNLNPKLCVNWLNTELMGL

LKGELTIENSPVDAQKLGVLIKRIEDGTISAKAAKDVLAFVFENTSVEIDEAIEKLGLKQVSDDSAIEAV

IEQILNANADKVAEYKSGKDKLFGFFVGQTMKEGKGAFNPAKVNEILKTKLG

>sp|Q9PP96.1|TRUA\_CAMJE RecName: Full=tRNA pseudouridine synthase A; AltName: Full=tRNA pseudouridine(38-40) synthase; AltName: Full=tRNA pseudouridylate synthase I; AltName: Full=tRNA-uridine isomerase I

MMKIKIIFSYDGSAFLGSATQPHKKGVQDALSGALSHLGIFSPLLMASRTDKGVHASYAVASVECGDYFT

NLEYLQKQLNKFSHPFIHIKKIEKVKDDFEVRFDVKSREYRYIFSHASYSPFMASYVHFYPKFDLGKANE

LLGFFVGKKDLKFFCKSGGDNKTTLREIFIARAYAYKDFSIFHFKANGFLRGQIRLSVASVLKVLEGKMS

EKELKEQIEAKKQYNHFLAPPNGLYLSRICY

>sp|Q9PNR1.1|LEPA\_CAMJE RecName: Full=Elongation factor 4; Short=EF-4; AltName: Full=Ribosomal back-translocase LepA

MSVKNIRNFSIIAHIDHGKSTLADRIISECGAISDRQMSSQVMDTMDIEKERGITIKAQSVRLNYKFNNE

NFVLNLIDTPGHVDFSYEVSRSLASCEGALLVVDASQGVEAQTIANVYIALENNLEIIPVINKIDLPNAD

VEKVKHEIEHIIGIDCKDAICVSAKTGVGIKELIETIITKIPAPKTDDEAPTKALIYDSWFDNYLGALAL

VRIYEGSIAKNDEVLVMSTDKKHIVQDLFYPHPLSPIKTQSLQSGEVGVVVLGLKTVGDVQVGDTITLVK

NKAKEAIGGFEKAKAFVFAGLYPIETDKFEDLRDALDKLKLNDSSITYEPETSLALGFGFRVGFLGLLHM

EVIKERLEREFNLDLIATAPTVTYEIYQTDGELIKIQNPSELPPVNKIDHIKEPYVKATIITPSEFLGNL

ITLLNRKRGVQVKMDYITPERVLLEYDVPLNEIVMDFYDKLKSLTKGYASFDYEPIEFRVGDLVKLDIKV

AGENVDALSIIVPNEKAQSKGRELVSAMKEIVPRQLFEVAIQASIGNKIIARETVKSMGKNVTAKCYGGD

ITRKRKLLEKQKEGKKRMKAIGKVNLPQEAFLSVLKID

>sp|Q9PLW2.1|LEUD\_CAMJE RecName: Full=3-isopropylmalate dehydratase small subunit; AltName: Full=Alpha-IPM isomerase; Short=IPMI; AltName: Full=Isopropylmalate isomerase

MQKFIIHKGIACPLEYANIDTDQIIPKQFLLAVSKQGFGKHLFHDLRYLDDKESVLNMDFNLNKKEYQNS

SILVSFENFGSGSSREHAPWALVDYGIRAIIAPSFADIFKNNALGNGLLTIELAKDEVLEIVDELKKSQD

KNIEISLLEKRVFFKDKIFSFDLDDFHRICLLEGLDNIALTLKHEAQIKAYEKNSKSFLV

>sp|Q9PIC0.1|NUSB\_CAMJE RecName: Full=Transcription antitermination protein NusB; AltName: Full=Antitermination factor NusB

MATRHQVRQSVISLLYAFELNSQNNVFVDEILDEKKIRNEQKNFTLNLYNGILDNLNNIDETLNSFLNDN

QITALGHVERAILRLGAYELLFTDTPSAIVINEAIELAKELANDNSPKFINGVLDALIKAKK

>sp|Q9PPC2.1|DDL\_CAMJE RecName: Full=D-alanine--D-alanine ligase; AltName: Full=D-Ala-D-Ala ligase; AltName: Full=D-alanylalanine synthetase

MKFAILFGGNSYEHEISIVSAVVLKKVINQNLEFIFCDEERRFYHIPSEKMNSKTFSTKAYKKEKELFIK

QGGFFSKGFLKENKLECECVINLIHGRDGEDGKIAALFEFYSIKFIGPRLEASVLSFNKELTKLYAKSVG

VKTLDYTILRKNQNSKEKLSFPCIIKPARLGSSIGISIVKDEKDLEYAKDVGFEFDNDLVVEEFKNNIKE

YNLAGCMINDEFVFSIIEEPKKKEFLDFEQKYLSFSGHNELIEADLSEELKEKLKDSFKKIYNPLFKGAL

IRCDFFILDNEIYLNEINPNPGSLANYLFKDFNTTLNALADQISLEKMIKINYNFLHSINGQKGKL

>sp|Q9PIL7.1|CARB\_CAMJE RecName: Full=Carbamoyl-phosphate synthase large chain; AltName: Full=Carbamoyl-phosphate synthetase ammonia chain

MPKRTDIKSILLIGSGPIVIGQACEFDYSGTQAAKTLKELGYRVVLINSNPATIMTDPEFADATYIEPIT

KESILSIIKKEKIDAILPTMGGQVALNVAMEVYESGLLGDVKFLGANPEAIKKGEDRQVFKECMKKIGMD

LPKSMYAYNYDEALKAVDEIDFPLMIRASYTLGGAGSGVVYNMDEFKELTNTALALSPIHEILIEESLLG

WKEYEMEVIRDRADNCIIVCSIENIDPMGVHTGDSITIAPALTLTDKEYQVMRNASFAILREIGVDTGGS

NVQFAINPKNGRMIVIEMNPRVSRSSALASKATGYPIAKVATLLAVGFSLDEIKNDITGTPASFEPVIDY

IVTKIPRFTFEKFPGANTTLGTAMKSVGEVMAIGRTFKESIQKALCSLERSLSGFDRVKFEDRNDLVFKI

RNANEKRLLYVAQAFREGFSVEELYELCKIDPWFLTQIKEIVDFEEQIDMDILNNKALLRKAKTMGFSDK

MIALLVNLKDNLELSQNDIYYVRMKQKIIAEFSEVDTCAGEFEALTPYLYSSINVSELTQSKNDAKDKKE

KKVMIIGGGPNRIGQGIEFDYACVHASFALKDMGIKTIMYNCNPETVSTDYDTSDILYFEPIDFEHLRAV

IEREKPDGVIVHFGGQTPLKFAKRLSAFGAKIIGTSARVIDMAEDRKKFAEFITKLGINQPKNSTATSVE

EAVLKASDIGYPVLVRPSYVLGGRAMRVVNDEAELRLYMQEAVDVSDKSPVLIDQFLDNATEIDVDAICD

GKDVYVAGIMEHIEEAGIHSGDSACSLPPCNIDEKMQEFIAQKTADIALNLGVVGLLNIQFALHNNELYM

IEVNPRASRTIPFVSKATGIPLAKVATRVMWQGNLKEALKFYDTFKVVNFDTKILRPKTPKYMSVKEAVF

PFAKLSGSDLELGPEMRSTGEVMGISKDFANSYAKSQIASFNHLPEQGVVFISLKDKDKKYTKKIAAEYV

KLGFKLMATGGTCKEILESGFECELVHKISEGRPNVEDKLKNGEIHLVINTSDSHSFKGDTKKIRENIIR

FKIPYFTNLRSALAGAKSIKAIQSKSCLDVKSLQEWLKS

>sp|Q9PJ98.1|ILVD\_CAMJE RecName: Full=Dihydroxy-acid dehydratase; Short=DAD

MRSDAIKKGHLRAPNRSLLRACGLKDEDFDKPFIGVANSYIDIIPGHYFLNDYAKIIKDEIRKNGCVPFE

FNTIGVDDGIAMGHEGMLYSLPSRELIANSIETVMNAHQLDALICIPNCDKITPGMLMGALRVNVPTIFV

SGGPMASGVTKKGEKISLSSVFEAVGAYESKKISEEEFKDIECSACPSGGSCSGMFTANSMNTLCEAMGI

ALEGNGTILALSKEREELLRKAARRICEIALDERFKIRNIITQKAVRNAMVVDMAMGGSSNTVLHMLAIS

REAGVALDIKDLNFISSKVAHIAKIAPSLNSVYMDDIHKAGGVSAVMAEISSRQGHILELDALTITGESL

KERLKNAKIKDENIIRKVDNAYSKVGGLAILFGNLAKQGCVIKTAGIIGERKFKGKAVCFNSQDEAIKGI

IKGKVQKGNVCVIRYEGPKGGPGMQEMLSPTSLLMGMGLGADVALITDGRFSGATRGLSVGHISPEAAEG

GLIGLLKDGDEIEIDVDAYTIHANVSEEEIAKRKKEFALPQKEVSSRWLRMYQKLVSNASKGAVLDME

>sp|Q9PII2.1|HIS8\_CAMJE RecName: Full=Histidinol-phosphate aminotransferase; AltName: Full=Imidazole acetol-phosphate transaminase

MKFNEFLNNLSNYEPGKDIEVIAKEYGVKEVIKLASNENPFGTPPKAIECLRQNANKAHLYPDDSMIELK

STLAQKYKVQNENIIIGAGSDQVIEFAIHSKLNSKNAFLQAGVTFAMYEIYAKQCGAKCYKTQSITHNLD

EFKKLYETHKDEIKLIFLCLPNNPLGECLDASEATEFIKGVNEDCLVVIDAAYNEFASFKDSKKHLEPCE

LIKEFDNVLYLGTFSKLYGLGGLRIGYGIANANIISAFYKLRAPFNVSNLALKAAVAAMDDDEFTEKTLE

NNFSQMELYKEFAKKHNIKIIDSYTNFITYFFDEKNSTDLSEKLLKKGIIIRNLKSYGLNAIRITIGTSY

ENEKFFTEFDKILR

>sp|Q9PJ28.1|FMT\_CAMJE RecName: Full=Methionyl-tRNA formyltransferase

MKKIIFMGTPSYATCILKALVENENFKLVALFTQPDKAVGRKQILTPSDTKAFLSQNYPSIPIFTPSSLK

DKNIIREIKDLNPDFIVVAAYGKILPKAILDLAPCVNLHASLLPKYRGASPIQSAILNKDEKSGVCTMLM

EEGLDTGAILESLECDIKDKNSSEVFELLANLAAKIILSTLLNFDKITPKKQEESLATLCRKIKKEDGLI

NLQNARELYQKYLAFTPWPGVFLENGLKFLELELVDELKQNAKMGEILELEKESFLLACKQGVLRIKKLQ

ESGKKALDGRTYLNGKRLKSEDSLC

>sp|Q9PIQ3.1|HEMTB\_CAMJE RecName: Full=Bacteriohemerythrin

MTYNEKIISMNNDLLDHQHKELFEISKKLSLMNQRHVGTKELKIVLRELLIMINRHFSDEEAFMREIEYP

YINHHTRIHRKIILEIEEIIISEAKFVNIMTEKLNLVVQDFIFKHTAKEDSKIVKYYEEKFKK

>sp|Q9PI16.1|EFG\_CAMJE RecName: Full=Elongation factor G; Short=EF-G

MSRSTPLKKVRNIGIAAHIDAGKTTTSERILFFTGMSHKIGEVHDGAATMDWMEQEKERGITITSAATTC

FWKDHQINLIDTPGHVDFTIEVERSMRVLDGAVAVFCSVGGVQPQSETVWRQANKYGVPRIVFVNKMDRI

GANFYNVEDQIRNRLKANPVPLQIPIGAEDNFKGVIDLVTMKALVWEDDTKPTDYVEKEIPAELKEKAEE

YRTKMIEAVSETSDELMEKYLGGEELSLEEIKTGIKAGCLSLSIVPMLCGTAFKNKGVQPLLDAVVAYLP

APDEVANIKGEYEDGTEVSVKSTDDGEFAGLAFKIMTDPFVGQLTFVRVYRGCLESGSYAYNSTKDKKER

IGRLLKMHSNKREEIKVLYAGEIGAVVGLKDTLTGDTLASEKDKVILERMDFPDPVISVAVEPKTKADQE

KMSIALNKLAQEDPSFRVSTDEESGQTIISGMGELHLEIIVDRMLREFKVEAEVGQPQVAYRETIRKTVE

QEYKYAKQSGGRGQYGHVFLRLEPLEPGSGYEFVNDIKGGVIPKEYIPAVDKGVQEALQNGVLAGYPVED

VKVTVYDGSYHEVDSSEMAFKLAASMGFKEGARKAGAVILEPMMKVEVETPEDYMGDVIGDLNKRRGQVN

SMDERGGNKIITAFCPLAEMFGYSTDLRSQTQGRATYSMEFDHYDEVPKNVADEIIKKRNG

>sp|Q9PIZ0.1|RBFA\_CAMJE RecName: Full=Ribosome-binding factor A

MNPSEIKKLRTESILKELIPEALANLDDENLKNLCVVDVECKKGRYDAFVYLDKMFFNVHEQEKILSSLK

KASRALQNYCMSEQGWYRCPNFHFKFDDRLEYQNHMDALFEKIKKDKNES

>sp|Q9PNB4.1|EFTS\_CAMJE RecName: Full=Elongation factor Ts; Short=EF-Ts

MTEITAAMVKELRESTGAGMMDCKNALSETNGDFDKAVQLLREKGLGKAAKKADRLAAEGLVSVKVSDDF

TSATVSEINSETDFVAKNDQFIALTKDTTAHIQSNSLQSVEELHSSTINGVKFEEYLKSQIATIGENLVV

RRFATLKAGANGVVNGYIHTNGRVGVVIAAACDSAEVASKSRDLLRQICMHIAAMRPSYLSYEDLDMTFV

ENEYKALVAELEKENEERRRLKDPNKPEHKIPQFASRKQLSDAILKEAEEKIKEELKAQGKPEKIWDNII

PGKMNSFIADNSQLDSKLTLMGQFYVMDDKKTVEQVIAEKEKEFGGKIKIVEFICFEVGEGLEKKTEDFA

AEVAAQL

>sp|Q9PN47.1|PUR2\_CAMJE RecName: Full=Phosphoribosylamine--glycine ligase; AltName: Full=GARS; AltName: Full=Glycinamide ribonucleotide synthetase; AltName: Full=Phosphoribosylglycinamide synthetase

MKIMILGSGAREYSIALALRRVDKNLEFYFAPGNGATESLGTNLNLKDPVVLATYAKEKGFDLCIVGSES

FLAEGVVDIFKQQGLAIFGPSKAAAMLETSKSFMKSFLKKYRIKTAKFLNTNDIEKAKNFIYSLTPPIVV

KADGLCAGKGVIIAKTHEEAIEETAKMLSGESFGDAGKLVVIEEFLDGYELSIFAVCDGNDFVLLPAAQD

HKKLLDNDQGPNTGGMGAYAPSSLANESLLRKVQKDIILPTLAGMKKEGAEFCGVLFIGAMIVGNKPYVL

EFNVRFGDPECEVLMPLIEDPLELILAATQRRLRHSKIKIKKEFAVGVVCASENYPYKSSPKSEITVNNI

PENSHISYAGVSLEDGKLMADGGRVLVCVGTGKSIEEAQKNAYKLCDNVNFKGKQYRKDIAHQVLK

>sp|Q9PPM1.1|ISPG\_CAMJE RecName: Full=4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase (flavodoxin); AltName: Full=1-hydroxy-2-methyl-2-(E)-butenyl 4-diphosphate synthase

MEYKRFKTRQIKVGNVLIGGDAPISVQSMLFTKTRDIEGSLEQINRLYFAGANIVRLACLDMADARALKE

IKAKSPLPLIVDIHFNHNLAVYCAEFIDGVRINPGNIGSKENIKEVVKACKERGIPIRIGVNHGSIEKQF

SDKFGYGVDAMLESAMYNIKLLEDLDFFDIKISMKTSDAQKTIEAYERLRPLCDYPFHLGVTEAGTKFHS

TVKSSIALGNLLLKGIGDTMRVSMTGELEEEIRVARAILQDSGVQKSGVNIISCPTCGRIQSDLLSAIKI

VEEKTKHIKEPLNISVMGCVVNALGEAKGADVAIAFGKNQGLVIRHGEVVAKLKESELVDRFLAEVEDEV

KSRVVKE

>sp|Q9PHU0.1|LPXD\_CAMJE RecName: Full=UDP-3-O-acylglucosamine N-acyltransferase

MKLSEIAEFLSLEYKGEDIEISALNSLLKANFTELTYCDGEKNTKDIPHTGAAAILVSKEYENLVPKDTK

ALITQSPHLSFAFLSKLFAKPLISTAKEKVQNIAKSARIMPNVYIGDNVNIGENVIIMAGAYIGDNVSIG

DESIIHPNVVIYNDTKIGKKCHLLANCVIGSDGFGYAHNKNGEHYKIYHNGNVVLEDFVEVGACTTIDRA

VFDSTIIKAGTKVDNLVQIGHNCNIGQNCIIVAQTGISGSSELGRNVIMGGQSATSGHLKIGDFSTIAAR

GGVSKNLEGGRVYGGFPIMLQKDWLKLQAKIAINFKEKSQD

>sp|Q46106.1|FTN\_CAMJE RecName: Full=Bacterial non-heme ferritin

MLSKEVVKLLNEQINKEMYAANLYLSMSSWCYENSLDGAGAFLFAHASEESDHAKKLITYLNETDSHVEL

QEVKQPEQNFKSLLDVFEKTYEHEQFITKSINTLVEHMLTHKDYSTFNFLQWYVSEQHEEEALFRGIVDK

IKLIGEHGNGLYLADQYIKNIALSRKK

>sp|Q9PMP8.1|ACPS\_CAMJE RecName: Full=Holo-[acyl-carrier-protein] synthase; Short=Holo-ACP synthase; AltName: Full=4'-phosphopantetheinyl transferase AcpS

MRVGCDIIAISRIEKIHSRHGKNFLDKFLNPKEQILIKNPATLAGLWAAKEAASKALGVGICELCSFFDI

EISKDEKNAPKLKYSQKITKDFNITQTSLSISHDNGFAIAIVAVV

>sp|Q9PIK3.1|PAND\_CAMJE RecName: Full=Aspartate 1-decarboxylase; AltName: Full=Aspartate alpha-decarboxylase; Contains: RecName: Full=Aspartate 1-decarboxylase beta chain; Contains: RecName: Full=Aspartate 1-decarboxylase alpha chain; Flags: Precursor

MNITLLKSKIHRASVTEARLDYIGSISIDEKLLQASGILEYEKVQVVNVNNGARFETYTIATQEEGVVCL

NGAAARLAEVGDKVIIMSYADFNEEEAKTFKPKVVFVDENNTATKITNYEKHGAIF

>sp|Q9PHN5.1|ILVC\_CAMJE RecName: Full=Ketol-acid reductoisomerase (NADP(+)); Short=KARI; AltName: Full=Acetohydroxy-acid isomeroreductase; Short=AHIR; AltName: Full=Alpha-keto-beta-hydroxylacyl reductoisomerase; AltName: Full=Ketol-acid reductoisomerase type 1; AltName: Full=Ketol-acid reductoisomerase type I

MAITVYYDKDCDLNLIKSKKVAIIGFGSQGHAHAMNLRDNGVNVTIGLREGSVSAVKAKNAGFEVVSVSE

ASKIADVIMILAPDEIQADIFNVEIKPNLSEGKAIAFAHGFNIHYGQIVVPKGVDVIMIAPKAPGHTVRN

EFTLGGGTPCLIAIHQDESKNAKNLALSYASAIGGGRTGIIETTFKAETETDLFGEQAVLCGGLSALIQA

GFETLVEAGYEPEMAYFECLHEMKLIVDLIYQGGIADMRYSISNTAEYGDYITGPKIITEETKKAMKGVL

KDIQNGVFAKDFILERRAGFARMHAERKNMNDSLIEKTGRNLRAMMPWISAKKLVDKDKN

>sp|Q9PPM0.1|FLGH\_CAMJE RecName: Full=Flagellar L-ring protein; AltName: Full=Basal body L-ring protein; Flags: Precursor

MKKVLFYVLPFAFFGCSATVDPQISMKPPAYVEELAPKQSNNVESAPGSLFGKGDNPLFSDKKAMNVNDL

VTVVIQESTTQSTQANKATSRTNTSNLGGGALTGSSGVVANALNKVNAYSNIGFQTNSSNNYTGTGSQSR

NESFNTTISTRVIKILSNGNYFIEGSRELLINGEKQIIQLSGVIRPYDIGQDNTIDSKYIADAKILYKTE

GEVDRSTRKPWGSKVIEAIWPF

>sp|Q9PMJ8.1|FLGI\_CAMJE RecName: Full=Flagellar P-ring protein; AltName: Full=Basal body P-ring protein; Flags: Precursor

MRVLTIFLLFMTSIFAVQIKDVANTVGVRDNQLIGYGLVVGLNGSGDGTSSKFTLQSISNLLQGMNIKVD

PNDIKSKNTAAVMVTAKLPAFAKSGDKLDITVSSMGDAKSLQGGTLLLTALRGIDGEIYAIAQGSISTGG

LTPRPGGTGSHSTAATVMGGANVEREIPQNFSQNNDLTLSLKVADFKTANNIERVLNTVFGEEVAKAIDS

RTVKLKKPEDLSNVDFMARVLEQDIAYKPQSKVIIDERTGTVIAGVDVEVEPVLITHKDITIKIDPNNNT

VANQNEIDMKDGGFVDPSSNTLRINNAKSTVANIARMLNKLGATPNDIIAIMENLKRAGAINADLEII

>sp|Q9PPJ5.1|RIMM\_CAMJE RecName: Full=Ribosome maturation factor RimM

MSEKDFVQVAKLGKTVGLKGYVKLHNLSDFSSQFKKDATFFIKNTKEMLKIKHYNANNSTVLFENYEDIE

KAKELTNLILFQSIEKSRQTCKLKKDEFFYFDILECEVFEEDKRLGKVVDILETGASYLFEIQSDEKWVE

KKYPKIFFIPYLDKFVKNIDIEKRQIFCTQDAFLILENS

>sp|Q9PI36.1|NUSG\_CAMJE RecName: Full=Transcription termination/antitermination protein NusG

MSTHKWYAIQTYAGSEMAVKRAIENLVKDNGIEEQLKEIVVPTEDVIEFKNGKEKISERSLYSGYVFALL

DLNTELWHRIQSLPKVGRFIGESKKPTPLTEKDINLILEKVHNRAAPKPKISFEEGENVRITEGPFANFT

AIVEEYDMVRGLLKLNVSIFGRSTPVEILYSQVEKII

>sp|Q9PIM2.1|FABZ\_CAMJE RecName: Full=3-hydroxyacyl-[acyl-carrier-protein] dehydratase FabZ; AltName: Full=(3R)-hydroxymyristoyl-[acyl-carrier-protein] dehydratase; Short=(3R)-hydroxymyristoyl-ACP dehydrase; AltName: Full=Beta-hydroxyacyl-ACP dehydratase

MIDVMQIQEILPHRYPFLLVDKITELKVKEVVLGYKNISISDHVFMGHFPGHPIYPGVLILEGMAQTGGV

LAFESMEDKVDPKSKVVYFTGIDGAKFRNPVRPGDRLDYEMSVVKNRGNMWIFKGQAFVDGNLVAEAELK

AMIVDK

>sp|Q9PPJ3.1|RL19\_CAMJE RecName: Full=50S ribosomal protein L19

MKNKYIEQFEAKQIEGKNVPDFRAGDTLKLAIRIKEGDKTRIQNFEGICIARRGNGVSETFIVRKIGANN

VGVERIFPIYSESLESITVLRRGRVRRARLFYLRDRRGKAARIKELKK

>sp|Q9PIM1.1|LPXA\_CAMJE RecName: Full=Acyl-[acyl-carrier-protein]--UDP-N-acetylglucosamine O-acyltransferase; Short=UDP-N-acetylglucosamine acyltransferase

MKKIHPSAVIEEGAQLGDDVVIEAYAYVSKDAKIGNNVVIKQGARILSDTTIGDHSRVFSYAIVGDIPQD

ISYKEEQKSGVVIGKNATIREFATINSGTAKGDGFTRIGDNAFIMAYCHIAHDCLLGNNIILANNATLAG

HVELGDFTVVGGLTPIHQFVKVGEGCMIAGASALSQDIVPFCLAEGNRASIRSLNLVGIRRRFDKDEVDR

LSRAFKTLFRQGDLKENAKNLLENQESENVKKMCHFILETKRGIPVYRGKNNA

>sp|Q9PN99.2|GPDA\_CAMJE RecName: Full=Glycerol-3-phosphate dehydrogenase [NAD(P)+]; AltName: Full=NAD(P)H-dependent glycerol-3-phosphate dehydrogenase

MRIAVIGAGKWGSALHLALKENHNCFISSLHQRDLEDFVSIKEALECEYLVFALSSQGMRAWLKENFINK

GQKILIASKGIEDQSCQFLDEIFLDFVPKENFCVLSGPSFAAEVMQKLPTALMISGINQELCKKFASFFP

DFIKTYIDNDVRGAEICGAYKNVLAIASGISDGLKLGNNARAALISRGLIEMHRFGKFFGTKEETFLGLS

GAGDLFLTATSVLSRNYRVGLKLAQNQKLDSILAELNEVAEGVKTAYAIEKLAKMKGIYTPIVNEVVAIF

KGKSVQEATQNLLKQND

>sp|Q9PPJ7.1|RS16\_CAMJE RecName: Full=30S ribosomal protein S16

MTVIRLTRMGRTKRPFYRIVVTDSRKRRDGGWIESIGYYNPMVEPEVIKVDAERLAYWKSVGAKLSDKVA

SITSK

>sp|Q9PIQ0.1|RL20\_CAMJE RecName: Full=50S ribosomal protein L20

MARVKTGVVRRRRHKKVLKLARGFYSGRRKHFRKAKEQLERSLVYAYRDRRRKKRDFRRLWIVRINAACR

LNDLSYSRFINGLKKAGIELDRKILADLAMNDAAAFAKIAEAAKKAL

>sp|Q9PNJ2.1|TRUB\_CAMJE RecName: Full=tRNA pseudouridine synthase B; AltName: Full=tRNA pseudouridine(55) synthase; Short=Psi55 synthase; AltName: Full=tRNA pseudouridylate synthase; AltName: Full=tRNA-uridine isomerase

MNKIFAAFKPRGLSSNAFLSTLKKKYKNKKAGYSGTLDPFAKGVLIVAFGQYTKLFRFLKKTPKTYKATL

WLGVYSLSLDDQNIKEIKNIKEFDLPNLQQIIDQMQGIISYTPPQFSAKRINGTRAYELAKKGIEVNLKP

CQMEVFDCKILSYNHPFLNIEITVSEGAYIRSYCELFARKLGINATLSSLERIKEGKFVYNNEKSLNVLK

YINLKPNFIKDLNKLENGAKIFVEELEFHDKGDYYIETEKYFSIINIKENTVKYLLNKVEKC

>sp|Q9PHM6.1|NADK\_CAMJE RecName: Full=NAD kinase; AltName: Full=ATP-dependent NAD kinase

MQNKIDYKNIKKIGLVTRPNVSLDKEILKLQSILSIYKVELVLLKESSEILDLPKYGLDDLFKISDFVIS

LGGDGTLISLCRKACEYDKAVLGIHAGHLGFLTDFKVDEAENFFQAFFQGEFRIEKPYLLSIFLEDRQGK

ILEKLAFNDVVISKNNQASMAHIEVFRKEKKFNEYFGDGLIVATPAGSTAYNLSANGPIVYTLAQAFILT

PVCSHSLTQRPIVLPKGFEIEIMAKDCMLCIDGQENYKMNDFKSIKVGLSDKNVALIHPKNRDYFQILKE

KLHWGN

>sp|Q9PHL1.1|ERA\_CAMJE RecName: Full=GTPase Era

MKSGFVSIIGRTNAGKSTLINSLLEEKIALVSHKQNATRRKIKAIVMHEKNQIIFIDTPGLHESGATLNQ

LLVQSAIKSMGDCDVILFVASVFDSTKDYENFLSLNPQVPHIITLNKVDLTDNATLLKKLSEYAKFSQHF

KAIIPYSSKKKSYKKGLLDEIVKYLDEHEYFYDPEFLSASSEKEIYRDFILESIYENLSDELPYSSEVLI

HRTKDTPNLLILEANIITDTNSHKGMLIGKEGATLKRIGKDARFKISKLAQKKVLLKLFVTVKKNWQKDE

EFLKKLLNDEN

>sp|Q9PMU0.1|PPK1\_CAMJE RecName: Full=Polyphosphate kinase; AltName: Full=ATP-polyphosphate phosphotransferase; AltName: Full=Polyphosphoric acid kinase

MQTSPDMFINRELSWLRFNSRVLDQCSKNLPLLEKLKFIAIYCTNLDEFYMIRVAGLKQLFSAGVNASSS

DEMTPLQQLKAIRKYLHQEKELLERYFNEITSELEKENLFIKHYENLDENLKQKCDEYFFSNIFPVIVPI

AVDATHPFPHLNNLSFSLAVKICDKAHPELVKFGMIRIPRVLPRFYEVSANIYVPIESIVHQHAEEIFPG

YKLLASAAFRVTRNADMVIEEEEADDFMMILEQGLKLRRKGAFVRLQIQKDADEQIVEFLNTHMKIFHKD

VYEYSILLNLPSLWQIAGNKTFTHLLSPLYTPKTLPPFDENLSIFDAVEKEDILIIQPFESFDPVYKFIK

EASKDPEVISIRMTLYRVEKNSNIVQALIDAASDGKQVTVMVELKARFDEENNLHWAKALENAGAHVIYG

ITGFKVHAKVSQVIRKQGDKLKFYMHLSTGNYNASSAKIYTDVSYFTSKAEFARDTTSFFHILSGFSKNR

RLQTLSMSPNQIKEKVLEMIRIETSKKNEGVIVAKMNSLVDSDIIQALYEASMEGVQIDLIIRGICCLKP

DEEYSKNIRVRSIIGKYLEHARVFYFKHSEPNYFISSADWMPRNLERRLELMTPIYDERSKAKLAQFLRL

QLSDNVLAYELKNNGEYEKIPSSEKIIDSQQTLEEYVSKIYKTLKKDTDQSRATHLASKLFKEN

>sp|Q9PN86.1|RNY\_CAMJE RecName: Full=Ribonuclease Y; Short=RNase Y

MIESLIALIAAIVGLGIGYLVAKKINDAKYEIFVEQAKAKAKAIEYEAELILKDAKNSILNAELEVKKKY

EEKTHKFQKDFNQKFDDLSKKEQKLQQEEEKLKEDKEYLCKSQKHIQNLQSDVDKLKNKYQEKLDDVLKI

LEHSTGLTQNEAKEIILKKVEENSREQIAHIVRKYEEEAKNEAKRKANFIIAQATSRFAGEFAAERLINV

INIKNDELKGRIIGKEGRNVKTLEMVLGVDIIIDDTPGAIIVSCFNLYRRAIATKVIELLVEDGRIQPAR

IEEIHEKVCKEFDSAILEEGETIVMDLGLNKIHPEIVKLIGKLKYRASYGQNALAHSLEVAHLAGIIAAE

CGGDENLARRAGILHDIGKALTHDFEGSHVDLGAELCKRYKEHPVVINAIYAHHGHEEATSIESAAVCAA

DTLSAARPGARREVLEAFLKRVSELEDIAKSKEGIKNAYAINAGREIRVIANAQLVNDDESVLLAKEIAA

EIQEKMQYPGEIKVNVIRELRAVEYAK

>sp|Q9PIP2.1|Y253\_CAMJE RecName: Full=Uncharacterized protein Cj0253

MVNLCDLKKEPQINYPTFWDYKVIFEVHVKASEIFEEILGQREYKFKHSNSSASGKYQSYLLNVYVDSKK

DRLDIFDKLKAKAKFVL

>sp|P45491.2|Y984\_CAMJE RecName: Full=Uncharacterized protein Cj0984

MKILFSPSESKNENCVKNPINENSFIFKELFPYRMEALKHYEEFIKNASLQNLQELFGIKNENEIDKFKH

DLKQAPTQEAILLYTGVSYEYLNFKALDKKSQAYILENTLIFSNLFGIVRANDTLPFYKFKQGAKIGNFA

IEKFYKEHFSKALDEYLENEEILDLRAGFYDKFYTPKKKFYTYKFVKNGKVISHFAKAYRGILLSISAKN

QVKNNKELLANLPSNLKLKEIQIKGLKEEIVLEILD

>sp|Q9PHT5.1|RPPH\_CAMJE RecName: Full=RNA pyrophosphohydrolase; AltName: Full=(Di)nucleoside polyphosphate hydrolase

MENEKNYRPNVAAIVLSSSYPFECKIFIARRSDMDNIWQFPQGGIDKGESVKNALFRELKEEIGTDEVEI

IAEYPEWLSYDFPSKIVKKMYPYDGQIQKYFLVRLKHGATININTKHPEFDDYQFVSVKQIFEMINHFKK

NIYVRVIKYFEEKGYI

>sp|Q9PJA1.1|RNH2\_CAMJE RecName: Full=Ribonuclease HII; Short=RNase HII

MKTLFDTKELLNEFDINLIGIDEAGRGALAGPMMMAACKLNKQLDGLCDSKKLSEKKREELYEIIIKNSN

YLILAFSSEQIDALGLSTCLKKGLKLIKKHFKTENNFLYDGNTNLGINGIKTQIKADTSILQVSAASILA

KVSKDRVMNFLAKDFPCYEFEKNKAYGTKAHKEFIAKFGICKLHRKSFKLL

>sp|Q9PN78.1|POLOX\_CAMJE RecName: Full=Polyphenol oxidase; AltName: Full=Multicopper oxidase Cj1217c

MGRSRKNFLSLLENDKVGIFCAFDKDYNVFRAKIHNENLFSHLGFKDIEKCVFMDQIHSHKVIIYDENLK

NLSCDGLISKEKNIALCVLSADCLPLILYHESGIIAALHSGRKGSFENILKECVDQITMQNSHLDKNKFH

LFILPGICAKNYEIDGEILEFAKKEFKEFVQDDKLDLKALVKFQAQNLGIENIKDCGICSFDDESFFSYR

RDKTTKRFVSVVYLKD

>sp|Q9PM85.1|IF1\_CAMJE RecName: Full=Translation initiation factor IF-1

MAKDDVIEIDGTVLEALPNANFKVELDNKHVILCHIAGKMRMHYIRIMPGDKVKVELTPYSLDKGRITFR

YK

>sp|Q46121.1|DBH\_CAMJE RecName: Full=DNA-binding protein HU; AltName: Full=HCj

MTKADFISLVAQTAGLTKKDATTATDAVISTITDVLAKGDSISFIGFGTFSTQERAAREARVPSTGKTIK

VPATRVAKFKVGKNLKEAVAKASGKKKK

>sp|Q46124.2|RPOB\_CAMJE RecName: Full=DNA-directed RNA polymerase subunit beta; Short=RNAP subunit beta; AltName: Full=RNA polymerase subunit beta; AltName: Full=Transcriptase subunit beta

MCDMLDNKLGNRLRVDFSNISKQIEIPNLLQLQKKSFDYFLNLDNGESGIEKVFKSIFPIHDPQNRLSLE

YVSSEIGKPKYTIRECMERGLTYSVNLKMKIRLTLHEKDEKTGEKVGVKDIKEQEIYIREIPLMTDRVSF

IINGVERVVVNQLHRSPGVIFKEEESSTVANKLVYTAQIIPDRGSWLYFEYDAKDVLYVRINKRRKVPVT

MLFRALGYKKQDIIKLFYPIQTIHVKKDKFLTEFNPNDFMDRIEYDIKDEKGKIVHQAGKRLTKKKAEQL

IKDGLKWIEYPVEILLNRYLANPIIDKESGEVLFDSLTLLDESKLAKIKEQKSFDIANDLANGVDAAIIN

SFAQDGETLKLLKQSENIDDENDLAAIRIYKVMRPGEPVVKDAAKAFVNDLFFNPERYDLTKVGRMKMNH

KLGLEVPEYVTVLTNEDIIKTAKYLIKVKNGKGHIDDRDHLGNRRIRSIGELLANELHLGLAKMQKAIRD

KFTSLNADLDKVMPYDLINPKMITTTIIEFFTGGQLSQFMDQTNPLSEVTHKRRLSALGEGGLVKERAGF

EVRDVHATHYGRICPVETPEGQNIGLINTLSTYAKVNELGFVEAPYRKVVNGKVTNEVVYLTATQEEGLF

IAPASTKVDAKGNIVEEFVEARQDGETILARREEVQLIDLCSGMVVGVAASLIPFLEHDDANRALMGSNM

QRQAVPLLTASAPIVGTGMEQIIARDAWEAVKAKRGGVVEKVDNKSIFILGEDDKGPFIDHYTMEKNLRT

NQNTNYIQHPIVKKGDIVKAGQIIADGPSMDQGELAIGKNALIAFMPWNGYNYEDAIVVSERIIREDTFT

SVHIYEKEIEARELKDGIEEITKDIPNVKEEDVAHLDESGIAKIGTHIKPGMILVGKVSPKGEVKPTPEE

RLLRAIFGEKAGHVVNKSLYATASLEGVVVDVKIFTKKGYEKDDRAIKSYDKEKMALEKEHHDRLLMMDR

EEMLRVCALLSKASLNSDQKIGDKNYKKGQTADISELEKINRFTLTTLIKAYSKEIQKEYDDLKNHFQNE

KKKLKAEHDEKLEILEKDDILPSGVIKLVKVYIATKRKLKVGDKMAGRHGNKGIVSTIVPEVDMPYLPNG

KSVDIALNPLGVPSRMNIGQILESHLGLVGLRLGDQIQEIFDRKQKDFLKELRAKILEICSIPRLANEKE

FIKSLSDEELLNYARDWSKGVKFSTPVFEGVNIEEFSKLFKMAKIDMDGKTELYDGRTGEKIAERVHVGC

MYMLKLHHLVDEKVHARSTGPYSLVTQQPVGGKALFGGQRFGEMEVWALEAYGAAHTLREMLTIKSDDVE

GRFSAYKALTKGENVPATGIPETFFVLTNELKSLALDVEIFDKDEDNE

>sp|Q46108.2|TIG\_CAMJE RecName: Full=Trigger factor; Short=TF; AltName: Full=PPIase

MEVKAKQLDSVNATASVKIPSGMIKSEVENLAKKASKSVKMDGFRPGKVPVSAVLKRYERELTQDAEQNL

FKSAVNSALQELKKENKELVGEPYFEKFDRKDGEIIAELILSFKPEIKLEGYEKLIPEYQTPKVSKKEID

EKKDELLKRFATPEAIKTKRALKEGDFAKFDFEGFVDDKAFEGGKAENYVLEIGSKQFIPGFEDGMVGMK

IGEEKDIKVTFPKEYGAAHLAGKDAVFKVKLHEIQELKIPELDDEMLKKLLPGEEKASVEVLDEKLKEQI

KNEKLFKLVNDELKGKFADALIEKYNFDLPKGIVEQETDMQMRAAFNTFSEKEIEELKASKEKYQEKRDS

FKEEAQKSVKLTFIIDELAKLRKIEVNDQELIQAIYFEAYRYGMNPKEHLENYKKQGALPAVKMALIEEK

LFNDIFIPKTEKSEKVSKKEKEDK

>sp|O87667.2|GYRB\_CAMJE RecName: Full=DNA gyrase subunit B

MQENYGASNIKVLKGLEAVRKRPGMYIGDTNIGGLHHMIYEVVDNSIDEAMAGHCDTIDVEITTEGSCIV

SDNGRGIPVDMHPTENMPTLTVVLTVLHAGGKFDKDTYKVSGGLHGVGVSVVNALSKKLVATVERNGEIY

RQEFSEGKVISEFGVIGKSKKTGTTIEFWPDDQIFEVTEFDYEILAKRFRELAYLNPKITINFKDNRVGK

HESFHFEGGISQFVTDLNKKEALTKAIFFSVDEEDVNVEVALLYNDTYSENLLSFVNNIKTPDGGTHEAG

FRMGLTRVISNYIEANASAREKDNKITGDDVREGLIAIVSVKVPEPQFEGQTKGKLGSTYVRPIVSKASF

EYLTKYFEENPIEAKAIMNKALMAARGREAAKKARELTRKKESLSVGTLPGKLADCQSKDPSESEIYLVE

GDSAGGSAKQGRERSFQAILPLRGKILNVEKARLDKILKSEQIQNMITAFGCGIGEDFDLSKLRYHKIII

MTDADVDGSHIQTLLLTFFFRFMNELVANGHIYLAQPPLYLYKKAKKQIYLKDEKALSEYLIETGIEGLN

YEGIGMNDLKDYLKIVAAYRAILKDLEKRFNVISVIRYMIENSNLVKGNNEELFSVIKQFLETQGHNILN

HYINENEIRAFVQTQNGLEELVINEELFTHPLYEEASYIFDKIKDRSLEFDKDILEVLEDVETNAKKGAT

IQRYKGLGEMNPEQLWETTMDPSVRRLLKITIEDAQSANDTFNLFMGDEVEPRRDYIQAHAKDVKHLDV

>sp|P42448.2|ENO\_CAMJE RecName: Full=Enolase; AltName: Full=2-phospho-D-glycerate hydro-lyase; AltName: Full=2-phosphoglycerate dehydratase

MLVIEDVRAYEVLDSRGNPTVKAEVTLSDGSVGAAIVPSGASTGSKEALELRDNDERFGGKGVLKAVANV

NETIADEILGLDAFNQTQLDDTLRELDGTNNYSNLGANATLGVSMATARAAAAALGMPLYRYLGGANASI

LPVPMCNIINGGAHANNNVDFQEFMIMPFGFTSFKEALRSVCEIYAILKKELANSGHSTALGDEGGFAPN

LANNTEPIDLLMTCIKKAGYENRVKIALDVASTEFFKDGKYHMEGKAFSSEALIERYVELCAKYPICSIE

DGLAENDFEGWIKLTEKLGNKIQLVGDDLFVTNEDILREGIIKKMANAVLIKPNQIGTITQTMRTVRLAQ

RNNYKCVMSHRSGESEDAFIADFAVALNTGQIKTGALARGERTAKYNRLLEIEFESDEYLGEKL

>sp|O69300.2|LON\_CAMJE RecName: Full=Lon protease; AltName: Full=ATP-dependent protease La

MQIEEIQNYPANLPVLVEDELFLYPFMITPIFINDSSNMKALDLAIKNDSMLFVAPSKLENGRNFDEIYN

CGVIGTIMRKVPLPDGRVKILFQGYAKGKIIEQISNKPLEAKIELIKEDFLEGTKKEALLEVLKEKVKNL

ANISHYFSPDLLRTIEEGFDASRICDLILNTVRIKKQVAYEFFVLTDLEQKLVKLIDLIAQEIEANKIQK

EIKNKVHSRIDKVNKEYFLKEQLRQIQKELGSDTQKEDEVREYQKRLELKKKFMHEDAYKEIKKQIEKFE

RIHQDNSEASMIQTYIETALDIPFEKISKKKLDIKEVSKQLNHDHYALNKPKERIEEYFAVRELLEKRKI

AEKDGAKVILCLYGPPGVGKTSLANSVSKALKRELIRIALGGLEDVNELRGHRRTYIGAMPGRITQGLIE

AKQINPVIVLDEIDKLNRSFRGDPSAVLLEILDPEQNSKFRDYYLNFNIDLSKVIFIATANDISNIPAPL

RDRMEFIELSSYTPSEKFHIMKKYLIPDELKKHGLKSNELSIDDETIELIISDYTRESGVRNLRRKVAEL

CRKSAKKLLLENIKKVIINTKNLNEFLDKKVFEIEKNNGENQVGQVNGLAWTSVGGDVLKVEAVKIKGKG

ELTLTGSLGDVMKESARIAFSMIKVLIDEGKIKIPKKIIIDPKVNVYDSYNIHIHVPDGATPKDGPSAGI

TISTAIASIFSDKKVKADVAMTGEIDLKGKVLPIGGLKEKLIAAYKADIKTALIPRKNYERDLKDIPSEV

RDNMEIIAVDTFSDVLEYTLV

>sp|P54413.2|CLPP\_CAMJE RecName: Full=ATP-dependent Clp protease proteolytic subunit; AltName: Full=Endopeptidase Clp

MFIPYVIEKSSRGERSYDIYSRLLKDRIIMLSGEIHDELAASIVAQLLFLEAEDPTKDIYLYINSPGGVI

TSGFSIYDTMNYIKPDVCTICIGQAASMGAFLLSCGAEGKRFALPNSRIMIHQPLGGARGQATDIEIQAK

EILRLKTILNDILAKNTKQKVAKIAKDTERDFFMSAQEAKEYGLIDKVLEKSFK

>sp|O69289.2|CH60\_CAMJE RecName: Full=60 kDa chaperonin; AltName: Full=GroEL protein; AltName: Full=Protein Cpn60

MAKEIIFSDEARNKLYEGVKKLNDAVKVTMGPRGRNVLIQKSFGAPSITKDGVSVAKEVELKDSLENMGA

SLVREVASKTADQAGDGTTTATVLAHAIFKEGLRNITAGANPIEVKRGMDKACEAIVAELKKLSREVKDK

KEIAQVATISANSDEKIGNLIADAMEKVGKDGVITVEEAKSINDELNVVEGMQFDRGYLSPYFITNAEKM

TVELSSPYILLFDKKITNLKDLLPVLEQIQKTGKPLLIIAEDIEGEALATLVVNKLRGVLNISAVKAPGF

GDRRKAMLEDIAILTGGEVISEELGRTLESATIQDLGQASSVIIDKDNTTIVNGAGEKANIDARVNQIKA

QIAETTSDYDREKLQERLAKLSGGVAVIKVGAATETEMKEKKDRVDDALSATKAAVEEGIVIGGGAALIK

AKAKIKLDLQGDEAIGAAIVERALRAPLRQIAENAGFDAGVVVNSVENAKDENTGFDAAKGEYVNMLESG

IIDPVKVERVALLNAVSVASMLLTTEATISEIKEDKPTMPDMSGMGGMGGMGGMM

>sp|P56970.1|CH10\_CAMJE RecName: Full=10 kDa chaperonin; AltName: Full=GroES protein; AltName: Full=Protein Cpn10

MNFQPLGKRVLVKRVEETKTTASGIIIPDNAKEKPLMGEVVAVSKEITDIANGDKIVFAKYGGTEIKLDN

NEYLVLNLDDILGILK

>sp|O69298.1|DNAK\_CAMJE RecName: Full=Chaperone protein DnaK; AltName: Full=HSP70; AltName: Full=Heat shock 70 kDa protein; AltName: Full=Heat shock protein 70

MSKVIGIDLGTTNSCVAVYERGESKVIPNKEGKNTTPSVVAFTDKGEVLVGDSAKRQAVTNPEKTIYSIK

RIMGLMINEDAAKEAKNRLPYHITERNGACAIEIAGKIYTPQEISAKVLMKLKEDAEAFLGESVTDAVIT

VPAYFNDAQRKATKEAGTIAGLNVLRIINEPTSAALAYGLDKKDSEKIVVYDLGGGTFDVTVLETGDNVV

EVLATGGNAFLGGDDFDNKLIDFLANEFKDETGIDLKNDVMALQRLKEAAENAKKELSSANETEINLPFI

TADASGPKHLVKKLTRAKFEGMIDSLVAETITKINEVVSDAGLKKDEIKEIVMVGGSTRVPLVQEEVKKA

FNKDLNKSVNPDEVVAIGAAIQGAVIKGDVKDVLLLDVTPLSLGIETLGGVMTKIIEKGTTIPTKKEQVF

STAEDNQSAVTINVLQGEREFSRDNKSLGNFNLEGIPPAPRGMPQIEVTFDIDANGILTVSAKDKATGKA

QEIKITGSSGLSEEEINNMVKDAELHKEEDKKRKEAVDARNAADSLAHQVEKSLSELGEKVAAADKENIQ

KALDDLRETLKNQNASKEEIESKMKALSEVSHKLAENMYKKDEPNTANDKKKKDDDVIDAEVE

>sp|O69303.1|EFTU\_CAMJE RecName: Full=Elongation factor Tu; Short=EF-Tu

MAKEKFSRNKPHVNIGTIGHVDHGKTTLTAAISAVLSRRGLAELKDYDNIDNAPEEKERGITIATSHIEY

ETDNRHYAHVDCPGHADYVKNMITGAAQMDGAILVVSAADGPMPQTREHILLSRQVGVPYIVVFMNKADM

VDDAELLELVEMEIRELLSSYDFPGDDTPIISGSALKALEEAKAGQDGEWSAKIMDLMAAVDSYIPTPTR

DTEKDFLMPIEDVFSISGRGTVVTGRIEKGVVKVGDTIEIVGIKDTQTTTVTGVEMFRKEMDQGEAGDNV

GVLLRGTKKEEVIRGMVLAKPKSITPHTDFEAEVYILNKDEGGRHTPFFNNYRPQFYVRTTDVTGSIKLA

DGVEMVMPGENVRITVSLIAPVALEEGTRFAIREGGKTVGSGVVSKIIK

>sp|Q03470.1|GYRA\_CAMJE RecName: Full=DNA gyrase subunit A

MENIFSKDSDIELVDIENSIKSSYLDYSMSVIIGRALPDARDGLKPVHRRILYAMQNDEAKSRTDFVKSA

RIVGAVIGRYHPHGDTAVYDALVRMAQDFSMRYPSITGQGNFGSIDGDSAAAMRYTEAKMSKLSHELLKD

IDKDTVDFVPNYDGSESEPDVLPSRVPNLLLNGSSGIAVGMATNIPPHSLNELIDGLLYLLDNKDASLEE

IMQFIKGPDFPTGGIIYGKKGIIEAYRTGRGRVKVRAKTHIEKKTNKDVIVIDELPYQTNKARLIEQIAE

LVKERQIEGISEVRDESNKEGIRVVIELKREAMSEIVLNNLFKSTTMESTFGVIMLAIHNKEPKIFSLLE

LLNLFLTHRKTVIIRRTIFELQKARARAHILEGLKIALDNIDEVIALIKNSSDNNTARDSLVAKFGLSEL

QANAILDMKLGRLTGLEREKIENELAELMKEIARLEEILKSETLLENLIRDELKEIRSKFDVPRITQIED

DYDDIDIEDLIPNENMVVTITHRGYIKRVPSKQYEKQKRGGKGKLAVTTYDDDFIESFFTANTHDTLMFV

TDRGQLYWLKVYKIPEGSRTAKGKAVVNLINLQAEEKIMAIIPTTDFDESKSLCFFTKNGIVKRTNLSEY

QNIRSVGVRAINLDENDELVTAIIVQRDEDEIFATGGEENLENQEIENLDDENLENEESVSTQGKMLFAV

TKKGMCIKFPLAKVREIGRVSRGVTAIKFKEKNDELVGAVVIENDEQEILSISAKGIGKRTNAGEYRLQS

RGGKGVICMKLTEKTKDLISVVIVDETMDLMALTSSGKMIRVDMQSIRKAGRNTSGVIVVNVENDEVVSI

AKCPKEENDEDELSDENFGLDLQ

>pdb|3O2R|D Chain D, Structural flexibility in region involved in dimer formation of nuclease domain of Ribonuclase III (rnc) from Campylobacter jejuni

MHHHHHHSSGVDLGTENLYFQSNAMKNIEKLEQSLTYEFKDKNLLIHALTHKSFXKKSYNNERLEFLGDA

VLDLVVGEYLFHKFAKDAEGDLSKLRAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDAL

EAIIGAIHLEAGFEFAKTIALRLIEKNFPQI

>pdb|3O2R|B Chain B, Structural flexibility in region involved in dimer formation of nuclease domain of Ribonuclase III (rnc) from Campylobacter jejuni

MHHHHHHSSGVDLGTENLYFQSNAMKNIEKLEQSLTYEFKDKNLLIHALTHKSFXKKSYNNERLEFLGDA

VLDLVVGEYLFHKFAKDAEGDLSKLRAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDAL

EAIIGAIHLEAGFEFAKTIALRLIEKNFPQI

>pdb|4MO2|A Chain A, Crystal Structure of UDP-N-acetylgalactopyranose mutase from Campylobacter jejuni

MYDYLIVGSGLFGSIFAYEATEKGYTCLVVEQREHIGGNCYTENIKNINVHKYGAHIFRTSDQNIWDYMN

QFCEFNHFINSPIAIYKDEIYNLPFNMNTFSKLWGIKTPNEARKIIEMQKQIIQHPPKNLEEQAISLVGT

DVYEKLIKGYTEKQWGRSCKDLPASIIRRLPVRYIYDNNYFNDPYQGIPKGGYTAIFDKMLKKSKVILNT

DFLKYKDKFKNKAKKIVFTGCIDAYYDYRYGALEYRSLKFEHKILNLDNFQGVAVVNYTDKEIPYTRIIE

HKHFEFGNTDTTVISEEYPLEWIKGIEPYYPINDEKNQALYEKYKQLAKHESNVYFGGRLGEYRYYDMQD

VVRSALLFCKNELKNKQG

>pdb|4MO2|B Chain B, Crystal Structure of UDP-N-acetylgalactopyranose mutase from Campylobacter jejuni

MYDYLIVGSGLFGSIFAYEATEKGYTCLVVEQREHIGGNCYTENIKNINVHKYGAHIFRTSDQNIWDYMN

QFCEFNHFINSPIAIYKDEIYNLPFNMNTFSKLWGIKTPNEARKIIEMQKQIIQHPPKNLEEQAISLVGT

DVYEKLIKGYTEKQWGRSCKDLPASIIRRLPVRYIYDNNYFNDPYQGIPKGGYTAIFDKMLKKSKVILNT

DFLKYKDKFKNKAKKIVFTGCIDAYYDYRYGALEYRSLKFEHKILNLDNFQGVAVVNYTDKEIPYTRIIE

HKHFEFGNTDTTVISEEYPLEWIKGIEPYYPINDEKNQALYEKYKQLAKHESNVYFGGRLGEYRYYDMQD

VVRSALLFCKNELKNKQG

>pdb|4N3O|B Chain B, 2.4 Angstrom Resolution Crystal Structure of Putative Sugar Kinase from Campylobacter jejuni.

SNAXKTIRTQTPLRLGLAGGGTDINLYCDKYTGYVLNATISLYIHCTLIKREDGKIIFDSPDTNSYCEYE

SKEFLGNDGKLDIFKSIYNRIVKDFTKKPLSFSLHTYSDVPSGSGLGGSSTLVVGVIKAFAEWLNLPLGE

YEIAKLAYEIEREDLGIVGGAQDQYAATFGGFNFXEFYNNKRVIVNPLRIKNWIASELEARTVLYFTNIT

REAKDIEEHKKGKLGDEKSLEAXHAIKQDAIKXKEALFRADFGTLAQILGKSWRSKKIISEIVSNDELER

IYKLAIDNGAYSGKTSGAGAGGFXFFFVDPTKKYNLIKALRKEQGYVQDFSFTKEGVKSWRI

>pdb|4N3O|A Chain A, 2.4 Angstrom Resolution Crystal Structure of Putative Sugar Kinase from Campylobacter jejuni.

SNAXKTIRTQTPLRLGLAGGGTDINLYCDKYTGYVLNATISLYIHCTLIKREDGKIIFDSPDTNSYCEYE

SKEFLGNDGKLDIFKSIYNRIVKDFTKKPLSFSLHTYSDVPSGSGLGGSSTLVVGVIKAFAEWLNLPLGE

YEIAKLAYEIEREDLGIVGGAQDQYAATFGGFNFXEFYNNKRVIVNPLRIKNWIASELEARTVLYFTNIT

REAKDIEEHKKGKLGDEKSLEAXHAIKQDAIKXKEALFRADFGTLAQILGKSWRSKKIISEIVSNDELER

IYKLAIDNGAYSGKTSGAGAGGFXFFFVDPTKKYNLIKALRKEQGYVQDFSFTKEGVKSWRI

>pdb|4IYL|A Chain A, 30S ribosomal protein S15 from Campylobacter jejuni

SNAMALDSAKKAEIVAKFAKKPGDTGSTEVQVALLTARIAELTEHLKIYKKDFSSRLGLLKLVGQRKRLL

SYLKRKDYNSYSKLITELNLRDK

>pdb|4GJ1|A Chain A, Crystal structure of 1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)methylideneamino] imidazole-4-carboxamide isomerase (hisA).

XTQIIPALDLIDGEVVRLVKGDYEQKKVYKYNPLKKFKEYEKAGAKELHLVDLTGAKDPSKRQFALIEKL

AKEVSVNLQVGGGIRSKEEVKALLDCGVKRVVIGSXAIKDATLCLEILKEFGSEAIVLALDTILKEDYVV

AVNAWQEASDKKLXEVLDFYSNKGLKHILCTDISKDGTXQGVNVRLYKLIHEIFPNICIQASGGVASLKD

LENLKGICSGVIVGKALLDGVFSVEEGIRCLAN

>pdb|3RU6|D Chain D, 1.8 Angstrom resolution crystal structure of orotidine 5'-phosphate decarboxylase (pyrF) from Campylobacter jejuni subsp. jejuni NCTC 11168

MHHHHHHSSGVDLGTENLYFQSNAMKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEE

LKKVDDFKIFLDLKFHDIPNTMADACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSAL

TSFDEENFFSIYRQKIEEAVINFSKISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQ

KRVANLAMARENLSDYIVVGRPIYKNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEE

WIKTRPDKEHALKEFYAKCGIKY

>pdb|3RU6|C Chain C, 1.8 Angstrom resolution crystal structure of orotidine 5'-phosphate decarboxylase (pyrF) from Campylobacter jejuni subsp. jejuni NCTC 11168

MHHHHHHSSGVDLGTENLYFQSNAMKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEE

LKKVDDFKIFLDLKFHDIPNTMADACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSAL

TSFDEENFFSIYRQKIEEAVINFSKISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQ

KRVANLAMARENLSDYIVVGRPIYKNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEE

WIKTRPDKEHALKEFYAKCGIKY

>pdb|3RU6|B Chain B, 1.8 Angstrom resolution crystal structure of orotidine 5'-phosphate decarboxylase (pyrF) from Campylobacter jejuni subsp. jejuni NCTC 11168

MHHHHHHSSGVDLGTENLYFQSNAMKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEE

LKKVDDFKIFLDLKFHDIPNTMADACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSAL

TSFDEENFFSIYRQKIEEAVINFSKISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQ

KRVANLAMARENLSDYIVVGRPIYKNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEE

WIKTRPDKEHALKEFYAKCGIKY

>pdb|3RU6|A Chain A, 1.8 Angstrom resolution crystal structure of orotidine 5'-phosphate decarboxylase (pyrF) from Campylobacter jejuni subsp. jejuni NCTC 11168

MHHHHHHSSGVDLGTENLYFQSNAMKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEE

LKKVDDFKIFLDLKFHDIPNTMADACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSAL

TSFDEENFFSIYRQKIEEAVINFSKISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQ

KRVANLAMARENLSDYIVVGRPIYKNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEE

WIKTRPDKEHALKEFYAKCGIKY

>pdb|3R0S|A Chain A, UDP-N-acetylglucosamine acyltransferase from Campylobacter jejuni

SNAXKKIHPSAVIEEGAQLGDDVVIEAYAYVSKDAKIGNNVVIKQGARILSDTTIGDHSRVFSYAIVGDI

PQDISYKEEQKSGVVIGKNATIREFATINSGTAKGDGFTRIGDNAFIXAYCHIAHDCLLGNNIILANNAT

LAGHVELGDFTVVGGLTPIHQFVKVGEGCXIAGASALSQDIVPFCLAEGNRASIRSLNLVGIRRRFDKDE

VDRLSRAFKTLFRQGDLKENAKNLLENQESENVKKXCHFILETKRGIPVYRGKNNA

>pdb|3Q3V|B Chain B, Crystal structure of Phosphoglycerate Kinase from Campylobacter jejuni.

SNAXSDIISIKDIDLAKKKVFIRCDFNVPQDDFLNITDDRRIRSAIPTIRYCLDNGCSVILASHLGRPKE

ISSKYSLEPVAKRLARLLDKEIVXAKDVIGEDAKTKAXNLKAGEILLLENLRFEKGETKNDENLAKELAS

XVQVYINDAFGVCHRAHSSVEAITKFFDEKHKGAGFLLQKEIDFASNLIKHPARPFVAVVGGSKVSGKLQ

ALTNLLPKVDKLIIGGGXAFTFLKALGYDIGNSLLEEELLEEANKILTKGKNLGVKIYLPVDVVAAPACS

QDVPXKFVPAQEIPNGWXGLDIGPASVRLFKEVISDAQTIWWNGPXGVFEIDKFSKGSIKXSHYISEGHA

TSVVGGGDTADVVARAGDADEXTFISTGGGASLELIEGKELPGVKALRSKENE

>pdb|3Q3V|A Chain A, Crystal structure of Phosphoglycerate Kinase from Campylobacter jejuni.

SNAXSDIISIKDIDLAKKKVFIRCDFNVPQDDFLNITDDRRIRSAIPTIRYCLDNGCSVILASHLGRPKE

ISSKYSLEPVAKRLARLLDKEIVXAKDVIGEDAKTKAXNLKAGEILLLENLRFEKGETKNDENLAKELAS

XVQVYINDAFGVCHRAHSSVEAITKFFDEKHKGAGFLLQKEIDFASNLIKHPARPFVAVVGGSKVSGKLQ

ALTNLLPKVDKLIIGGGXAFTFLKALGYDIGNSLLEEELLEEANKILTKGKNLGVKIYLPVDVVAAPACS

QDVPXKFVPAQEIPNGWXGLDIGPASVRLFKEVISDAQTIWWNGPXGVFEIDKFSKGSIKXSHYISEGHA

TSVVGGGDTADVVARAGDADEXTFISTGGGASLELIEGKELPGVKALRSKENE

>pdb|3PNU|B Chain B, 2.4 Angstrom Crystal Structure of Dihydroorotase (pyrC) from Campylobacter jejuni.

MHHHHHHSSGVDLGTENLYFQSNAMKLKNPLDMHLHLRDNQMLELIAPLSARDFCAAVIMPNLIPPLCNL

EDLKAYKMRILKACKDENFTPLMTLFFKNYDEKFLYSAKDEIFGIXLYPAGITTNSNGGVSSFDIEYLKP

TLEAMSDLNIPLLVHGETNDFVMDRESNFAKIYEKLAKHFPRLKIVMEHITTKTLCELLKDYENLYATIT

LHHLIITLDDVIGGKMNPHLFCKPIAKRYEDKEALCELAFSGYEKVMFGSDSAPHPKDTKECCGCAAGVF

SAPVILPVLAELFKQNSSEENLQKFLSDNTCKIYDLKFKEDKILTLEEKEWQVPNVYEDKYNQVVPYMAG

EILKFQLKH

>pdb|3PNU|A Chain A, 2.4 Angstrom Crystal Structure of Dihydroorotase (pyrC) from Campylobacter jejuni.

MHHHHHHSSGVDLGTENLYFQSNAMKLKNPLDMHLHLRDNQMLELIAPLSARDFCAAVIMPNLIPPLCNL

EDLKAYKMRILKACKDENFTPLMTLFFKNYDEKFLYSAKDEIFGIXLYPAGITTNSNGGVSSFDIEYLKP

TLEAMSDLNIPLLVHGETNDFVMDRESNFAKIYEKLAKHFPRLKIVMEHITTKTLCELLKDYENLYATIT

LHHLIITLDDVIGGKMNPHLFCKPIAKRYEDKEALCELAFSGYEKVMFGSDSAPHPKDTKECCGCAAGVF

SAPVILPVLAELFKQNSSEENLQKFLSDNTCKIYDLKFKEDKILTLEEKEWQVPNVYEDKYNQVVPYMAG

EILKFQLKH

>pdb|3PJ9|D Chain D, Crystal structure of a Nucleoside Diphosphate Kinase from Campylobacter jejuni

NSAMEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMIS

GPVVVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>pdb|3PJ9|C Chain C, Crystal structure of a Nucleoside Diphosphate Kinase from Campylobacter jejuni

NSAMEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMIS

GPVVVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>pdb|3PJ9|B Chain B, Crystal structure of a Nucleoside Diphosphate Kinase from Campylobacter jejuni

NSAMEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMIS

GPVVVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>pdb|3PJ9|A Chain A, Crystal structure of a Nucleoside Diphosphate Kinase from Campylobacter jejuni

NSAMEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMIS

GPVVVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>pdb|3PFI|B Chain B, 2.7 Angstrom resolution crystal structure of a probable holliday junction DNA helicase (ruvB) from Campylobacter jejuni subsp. jejuni NCTC 11168 in complex with adenosine-5'-diphosphate

SNAXDRIVEIEKYSFDETYETSLRPSNFDGYIGQESIKKNLNVFIAAAKKRNECLDHILFSGPAGLGKTT

LANIISYEXSANIKTTAAPXIEKSGDLAAILTNLSEGDILFIDEIHRLSPAIEEVLYPAXEDYRLDIIIG

SGPAAQTIKIDLPKFTLIGATTRAGXLSNPLRDRFGXQFRLEFYKDSELALILQKAALKLNKTCEEKAAL

EIAKRSRSTPRIALRLLKRVRDFADVNDEEIITEKRANEALNSLGVNELGFDAXDLRYLELLTAAKQKPI

GLASIAAALSEDENTIEDVIEPYLLANGYIERTAKGRIASAKSYSALKLNYEKTLFEE

>pdb|3PFI|A Chain A, 2.7 Angstrom resolution crystal structure of a probable holliday junction DNA helicase (ruvB) from Campylobacter jejuni subsp. jejuni NCTC 11168 in complex with adenosine-5'-diphosphate

SNAXDRIVEIEKYSFDETYETSLRPSNFDGYIGQESIKKNLNVFIAAAKKRNECLDHILFSGPAGLGKTT

LANIISYEXSANIKTTAAPXIEKSGDLAAILTNLSEGDILFIDEIHRLSPAIEEVLYPAXEDYRLDIIIG

SGPAAQTIKIDLPKFTLIGATTRAGXLSNPLRDRFGXQFRLEFYKDSELALILQKAALKLNKTCEEKAAL

EIAKRSRSTPRIALRLLKRVRDFADVNDEEIITEKRANEALNSLGVNELGFDAXDLRYLELLTAAKQKPI

GLASIAAALSEDENTIEDVIEPYLLANGYIERTAKGRIASAKSYSALKLNYEKTLFEE

>pdb|3OUZ|B Chain B, Crystal Structure of Biotin Carboxylase-ADP complex from Campylobacter jejuni

SNAXEIKSILIANRGEIALRALRTIKEXGKKAICVYSEADKDALYLKYADASICIGKARSSESYLNIPAI

IAAAEIAEADAIFPGYGFLSENQNFVEICAKHNIKFIGPSVEAXNLXSDKSKAKQVXQRAGVPVIPGSDG

ALAGAEAAKKLAKEIGYPVILKAAAGGGGRGXRVVENEKDLEKAYWSAESEAXTAFGDGTXYXEKYIQNP

RHIEVQVIGDSFGNVIHVGERDCSXQRRHQKLIEESPAILLDEKTRTRLHETAIKAAKAIGYEGAGTFEF

LVDKNLDFYFIEXNTRLQVEHCVSEXVSGIDIIEQXIKVAEGYALPSQESIKLNGHSIECRITAEDSKTF

LPSPGKITKYIPPAGRNVRXESHCYQDYSVPAYYDSXIGKLVVWAEDRNKAIAKXKVALDELLISGIKTT

KDFHLSXXENPDFINNNYDTNYLARH

>pdb|3OUZ|A Chain A, Crystal Structure of Biotin Carboxylase-ADP complex from Campylobacter jejuni

SNAXEIKSILIANRGEIALRALRTIKEXGKKAICVYSEADKDALYLKYADASICIGKARSSESYLNIPAI

IAAAEIAEADAIFPGYGFLSENQNFVEICAKHNIKFIGPSVEAXNLXSDKSKAKQVXQRAGVPVIPGSDG

ALAGAEAAKKLAKEIGYPVILKAAAGGGGRGXRVVENEKDLEKAYWSAESEAXTAFGDGTXYXEKYIQNP

RHIEVQVIGDSFGNVIHVGERDCSXQRRHQKLIEESPAILLDEKTRTRLHETAIKAAKAIGYEGAGTFEF

LVDKNLDFYFIEXNTRLQVEHCVSEXVSGIDIIEQXIKVAEGYALPSQESIKLNGHSIECRITAEDSKTF

LPSPGKITKYIPPAGRNVRXESHCYQDYSVPAYYDSXIGKLVVWAEDRNKAIAKXKVALDELLISGIKTT

KDFHLSXXENPDFINNNYDTNYLARH

>pdb|3O2R|C Chain C, Structural flexibility in region involved in dimer formation of nuclease domain of Ribonuclase III (rnc) from Campylobacter jejuni

MHHHHHHSSGVDLGTENLYFQSNAMKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAV

LDLVVGEYLFHKFAKDAEGDLSKLRAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALE

AIIGAIHLEAGFEFAKTIALRLIEKNFPQI

>pdb|3O2R|A Chain A, Structural flexibility in region involved in dimer formation of nuclease domain of Ribonuclase III (rnc) from Campylobacter jejuni

MHHHHHHSSGVDLGTENLYFQSNAMKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAV

LDLVVGEYLFHKFAKDAEGDLSKLRAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALE

AIIGAIHLEAGFEFAKTIALRLIEKNFPQI

>pdb|3O6D|A Chain A, Pyridoxal phosphate biosynthetic protein PdxJ from Campylobacter jejuni in complex with pyridoxine-5'-phosphate

SNAXLLGVNIDHIAVLRQARXVNDPDLLEAAFIVARHGDQITLHVREDRRHAQDFDLENIIKFCKSPVNL

ECALNDEILNLALKLKPHRVTLVPEKREELTTEGGLCLNHAKLKQSIEKLQNANIEVSLFINPSLEDIEK

SKILKAQFIELHTGHYANLHNALFSNISHTAFALKELDQDKKTLQAQFEKELQNLELCAKKGLELGLKVA

AGHGLNYKNVKPVVKIKEICELNIGQSIVARSVFTGLQNAILEXKELIKR

>pdb|3O6C|A Chain A, Pyridoxal phosphate biosynthetic protein PdxJ from Campylobacter jejuni

SNAXLLGVNIDHIAVLRQARXVNDPDLLEAAFIVARHGDQITLHVREDRRHAQDFDLENIIKFCKSPVNL

ECALNDEILNLALKLKPHRVTLVPEKREELTTEGGLCLNHAKLKQSIEKLQNANIEVSLFINPSLEDIEK

SKILKAQFIELHTGHYANLHNALFSNISHTAFALKELDQDKKTLQAQFEKELQNLELCAKKGLELGLKVA

AGHGLNYKNVKPVVKIKEICELNIGQSIVARSVFTGLQNAILEXKELIKR

>pdb|3N3W|B Chain B, 2.2 Angstrom Resolution Crystal Structure of Nuclease Domain of Ribonuclase III (rnc) from Campylobacter jejuni

MHHHHHHSSGVDLGTENLYFQSNAMKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAV

LDLVVGEYLFHKFAKDAEGDLSKLRAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALE

AIIGAIHLEAGFEFAKTIALRLIEKNFPQIDAKILIKDYKTKLQEITQGKIGQTPQYETVRAFGPDHLKQ

FEIALMLDGKELARAIAGSKKEAQQMAAKIALEKLGAL

>pdb|3N3W|A Chain A, 2.2 Angstrom Resolution Crystal Structure of Nuclease Domain of Ribonuclase III (rnc) from Campylobacter jejuni

MHHHHHHSSGVDLGTENLYFQSNAMKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAV

LDLVVGEYLFHKFAKDAEGDLSKLRAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALE

AIIGAIHLEAGFEFAKTIALRLIEKNFPQIDAKILIKDYKTKLQEITQGKIGQTPQYETVRAFGPDHLKQ

FEIALMLDGKELARAIAGSKKEAQQMAAKIALEKLGAL

>pdb|3M6L|A Chain A, Crystal structure of transketolase in complex with thiamine diphosphate, ribose-5-phosphate and calcium ion

SNAXNIQILQEQANTLRFLSADXVQKANSGHPGAPLGLADILSVLSYHLKHNPKNPTWLNRDRLVFSGGH

ASALLYSFLHLSGYDLSLEDLKNFRQLHSKTPGHPEISTLGVEIATGPLGQGVANAVGFAXAAKKAQNLL

GSDLIDHKIYCLCGDGDLQEGISYEACSLAGLHKLDNFILIYDSNNISIEGDVGLAFNENVKXRFEAQGF

EVLSINGHDYEEINKALEQAKKSTKPCLIIAKTTIAKGAGELEGSHKSHGAPLGEEVIKKAKEQAGFDPN

ISFHIPQASKIRFESAVELGDLEEAKWKDKLEKSAKKELLERLLNPDFNKIAYPDFKGKDLATRDSNGEI

LNVLAKNLEGFLGGSADLGPSNKTELHSXGDFVEGKNIHFGIREHAXAAINNAFARYGIFLPFSATFFIF

SEYLKPAARIAALXKIKHFFIFTHDSIGVGEDGPTHQPIEQLSTFRAXPNFLTFRPADGVENVKAWQIAL

NADIPSAFVLSRQKLKALNEPVFGDVKNGAYLLKESKEAKFTLLASGSEVWLCLESANELEKQGFACNVV

SXPCFELFEKQDKAYQERLLKGEVIGVEAAHSNELYKFCHKVYGIESFGESGKDKDVFERFGFSVSKLVN

FILSK

>pdb|3M7I|A Chain A, Crystal structure of transketolase in complex with thiamine diphosphate, ribose-5-phosphate(pyranose form) and magnesium ion

SNAXNIQILQEQANTLRFLSADXVQKANSGHPGAPLGLADILSVLSYHLKHNPKNPTWLNRDRLVFSGGH

ASALLYSFLHLSGYDLSLEDLKNFRQLHSKTPGHPEISTLGVEIATGPLGQGVANAVGFAXAAKKAQNLL

GSDLIDHKIYCLCGDGDLQEGISYEACSLAGLHKLDNFILIYDSNNISIEGDVGLAFNENVKXRFEAQGF

EVLSINGHDYEEINKALEQAKKSTKPCLIIAKTTIAKGAGELEGSHKSHGAPLGEEVIKKAKEQAGFDPN

ISFHIPQASKIRFESAVELGDLEEAKWKDKLEKSAKKELLERLLNPDFNKIAYPDFKGKDLATRDSNGEI

LNVLAKNLEGFLGGSADLGPSNKTELHSXGDFVEGKNIHFGIREHAXAAINNAFARYGIFLPFSATFFIF

SEYLKPAARIAALXKIKHFFIFTHDSIGVGEDGPTHQPIEQLSTFRAXPNFLTFRPADGVENVKAWQIAL

NADIPSAFVLSRQKLKALNEPVFGDVKNGAYLLKESKEAKFTLLASGSEVWLCLESANELEKQGFACNVV

SXPCFELFEKQDKAYQERLLKGEVIGVEAAHSNELYKFCHKVYGIESFGESGKDKDVFERFGFSVSKLVN

FILSK

>pdb|3GET|B Chain B, Crystal structure of putative histidinol-phosphate aminotransferase (NP\_281508.1) from Campylobacter jejuni at 2.01 A resolution

GXKFNEFLNNLSNYEPGKDIEVIAKEYGVKEVIKLASNENPFGTPPKAIECLRQNANKAHLYPDDSXIEL

KSTLAQKYKVQNENIIIGAGSDQVIEFAIHSKLNSKNAFLQAGVTFAXYEIYAKQCGAKCYKTQSITHNL

DEFKKLYETHKDEIKLIFLCLPNNPLGECLDASEATEFIKGVNEDCLVVIDAAYNEFASFKDSKKHLEPC

ELIKEFDNVLYLGTFSXLYGLGGLRIGYGIANANIISAFYKLRAPFNVSNLALKAAVAAXDDDEFTEKTL

ENNFSQXELYKEFAKKHNIKIIDSYTNFITYFFDEKNSTDLSEKLLKKGIIIRNLKSYGLNAIRITIGTS

YENEKFFTEFDKILR

>pdb|3GET|A Chain A, Crystal structure of putative histidinol-phosphate aminotransferase (NP\_281508.1) from Campylobacter jejuni at 2.01 A resolution

GXKFNEFLNNLSNYEPGKDIEVIAKEYGVKEVIKLASNENPFGTPPKAIECLRQNANKAHLYPDDSXIEL

KSTLAQKYKVQNENIIIGAGSDQVIEFAIHSKLNSKNAFLQAGVTFAXYEIYAKQCGAKCYKTQSITHNL

DEFKKLYETHKDEIKLIFLCLPNNPLGECLDASEATEFIKGVNEDCLVVIDAAYNEFASFKDSKKHLEPC

ELIKEFDNVLYLGTFSXLYGLGGLRIGYGIANANIISAFYKLRAPFNVSNLALKAAVAAXDDDEFTEKTL

ENNFSQXELYKEFAKKHNIKIIDSYTNFITYFFDEKNSTDLSEKLLKKGIIIRNLKSYGLNAIRITIGTS

YENEKFFTEFDKILR

>pdb|1VQR|D Chain D, Crystal Structure Of A Virulence Factor (cj0248) From Campylobacter Jejuni Subsp. Jejuni At 2.25 A Resolution

XGSDKIHHHHHHXIGDXNELLLKSVEVLPPLPDTVSKLRKYVSEANSNIETXKVAEIISSDPLXTAKLLQ

LANSPYYGFTREITTINQVITLLGVGNIINIVXADSIRDNFKIDVSPYGLNTQNFLKTCNEEATFIANWL

NDEDKKLSHLLVPCAXLLRLGIVIFSNFLIQNHKDKDFLAFLNKNENLALAENEFLGVDHISFLGFLLHR

WNFDDVLIESICFVRTPHAAREKVKKSAYALAITDHLFAPHDGSSPFNAKAAVALLKEAKTQGINFDLNN

LLSKLPNKAKENLNKED

>pdb|1VQR|C Chain C, Crystal Structure Of A Virulence Factor (cj0248) From Campylobacter Jejuni Subsp. Jejuni At 2.25 A Resolution

XGSDKIHHHHHHXIGDXNELLLKSVEVLPPLPDTVSKLRKYVSEANSNIETXKVAEIISSDPLXTAKLLQ

LANSPYYGFTREITTINQVITLLGVGNIINIVXADSIRDNFKIDVSPYGLNTQNFLKTCNEEATFIANWL

NDEDKKLSHLLVPCAXLLRLGIVIFSNFLIQNHKDKDFLAFLNKNENLALAENEFLGVDHISFLGFLLHR

WNFDDVLIESICFVRTPHAAREKVKKSAYALAITDHLFAPHDGSSPFNAKAAVALLKEAKTQGINFDLNN

LLSKLPNKAKENLNKED

>pdb|1VQR|B Chain B, Crystal Structure Of A Virulence Factor (cj0248) From Campylobacter Jejuni Subsp. Jejuni At 2.25 A Resolution

XGSDKIHHHHHHXIGDXNELLLKSVEVLPPLPDTVSKLRKYVSEANSNIETXKVAEIISSDPLXTAKLLQ

LANSPYYGFTREITTINQVITLLGVGNIINIVXADSIRDNFKIDVSPYGLNTQNFLKTCNEEATFIANWL

NDEDKKLSHLLVPCAXLLRLGIVIFSNFLIQNHKDKDFLAFLNKNENLALAENEFLGVDHISFLGFLLHR

WNFDDVLIESICFVRTPHAAREKVKKSAYALAITDHLFAPHDGSSPFNAKAAVALLKEAKTQGINFDLNN

LLSKLPNKAKENLNKED

>pdb|1VQR|A Chain A, Crystal Structure Of A Virulence Factor (cj0248) From Campylobacter Jejuni Subsp. Jejuni At 2.25 A Resolution

XGSDKIHHHHHHXIGDXNELLLKSVEVLPPLPDTVSKLRKYVSEANSNIETXKVAEIISSDPLXTAKLLQ

LANSPYYGFTREITTINQVITLLGVGNIINIVXADSIRDNFKIDVSPYGLNTQNFLKTCNEEATFIANWL

NDEDKKLSHLLVPCAXLLRLGIVIFSNFLIQNHKDKDFLAFLNKNENLALAENEFLGVDHISFLGFLLHR

WNFDDVLIESICFVRTPHAAREKVKKSAYALAITDHLFAPHDGSSPFNAKAAVALLKEAKTQGINFDLNN

LLSKLPNKAKENLNKED

>sp|Q0P9C4.1|PGLK\_CAMJE RecName: Full=Protein glycosylation K

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>sp|P0C630.1|AROA\_CAMJE RecName: Full=3-phosphoshikimate 1-carboxyvinyltransferase; AltName: Full=5-enolpyruvylshikimate-3-phosphate synthase; Short=EPSP synthase; Short=EPSPS

MKIYKLQTPVNAILENIAADKSISHRFAIFSLLTQEENKAQNYLLAQDTLNTLEIIKNLGAKIEQKDSCV

KIIPPKEILSPNCILDCGNSGTAMRLMIGFLAGISGFFVLSGDKYLNNRPMRRISKPLTQIGARIYGRNE

ANLAPLCIEGQKLKAFNFKSEISSAQVKTAMILSAFRADNVCTFSEISLSRNHSENMLKAMKAPIRVSND

GLSLEINPLKKPLKAQNIIIPNDPSSAFYFVLAAIILPKSQIILKNILLNPTRIEAYKILQKMGAKLEMT

ITQNDFETIGEIRVESSKLNGIEVKDNIAWLIDEAPALAIAFALAKGKSSLINAKELRVKESDRIAVMVE

NLKLCGVEARELDDGFEIEGGCELKSSKIKSYGDHRIAMSFAILGLLCGIEIDDSDCIKTSFPNFIEILS

NLGARIDY

>sp|P0C632.1|ISPH\_CAMJE RecName: Full=4-hydroxy-3-methylbut-2-enyl diphosphate reductase; Short=HMBPP reductase

MIIELAKNYGFCFGVKRAIKKAEQIKDAATIGPLIHNNEEISRLQKNFNVKTLENIQALSNEKKAIIRTH

GITKQDLEELRKKDIEIFDATCPFVTKPQQICEQMSKEGYEVVIFGDENHPEVKGVKSYVSTKAYVVLDK

KELQNIKLPNKIAVVSQTTKKPEHFMEIVNFLILKTKEVRVFNTICDATFKNQDAIKELSLKSDVMVVVG

GKNSANTKQLFLIAKTNCEDSYLIETEEELKKEWFLDKKHCGISAGASTPDWIIQKVIAKIENFRIN

>sp|Q0PAS7.2|CMOA\_CAMJE RecName: Full=Carboxy-S-adenosyl-L-methionine synthase; Short=Cx-SAM synthase

MKDELFKQSPKKQFEFDKSVASVFDDMINRSVPFYRENLELCGNLLAKILPTNASVCDLGCSSANFLIFL

ANLRKDFKLFGVDNSASMLEVAKSKAKAYGLDISFFEANLCEFDFFTCDVFVANYTMQFIRPPKRQELLD

QIYKNLNSKGILIMSEKILYEDAFLSKNIIELYADYKEKQGYSKFEIAAKREALENVLIPYSQKENLNML

EKAGFKKIESIFKWANFETFIAFKD

>sp|Q0PBE9.1|LSPA\_CAMJE RecName: Full=Lipoprotein signal peptidase; AltName: Full=Prolipoprotein signal peptidase; AltName: Full=Signal peptidase II; Short=SPase II

MAKTFKFIFYFWGAFVLVFALDQWVKSLTLAGFRWQSEYLDLTYALNTGVAFSMLSFLEHNLKYLHLALI

GVLFIYLFWQRTLLKTHSIAFGMMLGAGVSNLLDRFIHGGVVDMFFWHKWFNFAIFNVADVMINISVALI

LIQEIFKKRKKDDRMD

>sp|Q0PA50.1|F16PA\_CAMJE RecName: Full=Fructose-1,6-bisphosphatase class 1; Short=FBPase class 1; AltName: Full=D-fructose-1,6-bisphosphate 1-phosphohydrolase class 1

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>sp|Q0PA13.1|RS15\_CAMJE RecName: Full=30S ribosomal protein S15

MALDSAKKAEIVAKFAKKPGDTGSTEVQVALLTARIAELTEHLKIYKKDFSSRLGLLKLVGQRKRLLSYL

KRKDYNSYSKLITELNLRDK

>sp|Q0P9X8.1|PEB1A\_CAMJE RecName: Full=Major cell-binding factor; AltName: Full=CBF1; AltName: Full=PEB1; Flags: Precursor

MVFRKSLLKLAVFALGACVAFSNANAAEGKLESIKSKGQLIVGVKNDVPHYALLDQATGEIKGFEVDVAK

LLAKSILGDDKKIKLVAVNAKTRGPLLDNGSVDAVIATFTITPERKRIYNFSEPYYQDAIGLLVLKEKKY

KSLADMKGANIGVAQAATTKKAIGEAAKKIGIDVKFSEFPDYPSIKAALDAKRVDAFSVDKSILLGYVDD

KSEILPDSFEPQSYGIVTKKDDPAFAKYVDDFVKEHKNEIDALAKKWGL

>sp|Q0P8U0.1|PSEI\_CAMJE RecName: Full=Pseudaminic acid synthase; AltName: Full=Pseudaminic acid biosynthesis protein I

MQIGNFNTDKKVFIIAELSANHAGSLEMALKSIKAAKKAGADAIKIQTYTPDSLTLNSDKEDFIIKGGLW

DKRKLYELYESAKTPYEWHSQIFETAQNEGILCFSSPFAKEDVEFLKRFDPIAYKIASFEANDENFVRLI

AKEKKPTIVSTGIATEEELFKICEIFKEEKNPDLVFLKCTSTYPTAIEDMNLKGIVSLKEKFNVEVGLSD

HSFGFLAPVMAVALGARVIEKHFMLDKSIESEDSKFSLDFDEFKAMVDAVRQAESALGDGKLDLDEKVLK

NRVFARSLYASKDIKKGEMFSEENVKSVRPSFGLHPKFYQELLGKKASKDIKFGDALKQGDFQ

>sp|Q0P8G1.1|RIMO\_CAMJE RecName: Full=Ribosomal protein S12 methylthiotransferase RimO; Short=S12 MTTase; Short=S12 methylthiotransferase; AltName: Full=Ribosomal protein S12 (aspartate-C(3))-methylthiotransferase; AltName: Full=Ribosome maturation factor RimO

MSKLYLMSLGCNKNLVDSEIMLGHLSAYELCDEPSKADVLIVNTCGFIDSAKKESINAILDLHEQRKKDS

LLVVTGCLMQRYREELMKELPEVDLFTGVGDYERIDEMILKKTNLFSNSTYLQSENSKRIITGSNSHAFI

KIAEGCNQKCSFCAIPSFKGKLKSREISSIIAELKDLVARGYKDFSFIAQDTSSYLFDKGEKDGLIRLID

EVEKIKGIRAARILYLYPTSASEALIKRIIASEIFINYFDMPLQHISDNMLKIMKRGANSTRLKEMLNLM

KSAPNSFLRTGFIVGHPGESEADFEELCEFVKDFGFDRISVFAYSKEEDTAAFDMEQVPFKVINKRLKII

EKIVDEVIEKSFEKEVGQKRLVVCTGKSSEGEFFIAAKDLRWDREIDGEILINESECGNLEMGQIYECEI

LQNLDKKLLAKALRKVDAN

>sp|Q0P850.1|NUOB\_CAMJE RecName: Full=NADH-quinone oxidoreductase subunit B; AltName: Full=NADH dehydrogenase I subunit B; AltName: Full=NDH-1 subunit B

MAEHQVNYASGLPVVLTSVDKLVQWGRSNSLWALSYGLACCAIEMMAAGGSRYDFDRFGTIFRASPRHSE

VMIIAGTLCKKHAEFTRRLYDQMPDPKWVISMGSCANTGGMFNTYSTVQGVDRIIPVDIYVPGCAPRPES

FQFALMILQKKIRKEKASRKIAPKRLI

>sp|Q0P7T4.1|RL14\_CAMJE RecName: Full=50S ribosomal protein L14

MIQSFTRLAVADNSGAKELMCIKVLGGSKRRYATVGDVIVASVKKALPNGKVKKGQVVKAVIVRTKKEIH

RDNGSLIRFDENAAVILDNKREPIGTRIFGPVGREVRYGGFMKIVSLAPEVL

>sp|Q0PC20.1|MQMTN\_CAMJE RecName: Full=Aminodeoxyfutalosine nucleosidase; Short=AFL nucleosidase; Short=Aminofutalosine nucleosidase; AltName: Full=5'-methylthioadenosine/S-adenosylhomocysteine nucleosidase; Short=MTA/SAH nucleosidase; Short=MTAN; AltName: Full=6-amino-6-deoxyfutalosine N-ribosylhydrolase

MMKIAILGAMSEEITPLLETLKDYTKIEHANNTYYFAKYKNHELVLAYSKIGKVNSTLSASVMIEKFGAQ

ALLFTGVAGAFNPELEIGDLLYATKLAQYDLDITAFGHPLGFVPGNEIFIKTDEKLNNLALEVAKELNIK

LRAGIIATGDEFICDEAKKAKIREIFNADACEMEGASVALVCDALKVPCFILRAMSDKAGEKAEFDFDEF

VINSAKISANFVLKMCEKL

>sp|Q0PBW9.1|SODF\_CAMJE RecName: Full=Superoxide dismutase [Fe]

MFELRKLPYDTNAFGDFLSAETFSYHHGKHHNTYVTNLNNLIKDTEFAGKDLVSIIKTSNGGVFNNAAQV

YNHDFYFDCIKPSTGCGCGGSCQSIDANLQAALEKEFGSLENFKAEFIKGATGVFGSGWFWLVYNTKNQK

LEFVGTSNAATPITEDKVPLLVVDVWEHAYYVDHRNARPAYLEKFYAHINWEFVAKAYEWALKEGMGSVS

FYANELHPVK

>sp|Q0PAS1.1|CBF2\_CAMJE RecName: Full=Putative peptidyl-prolyl cis-trans isomerase Cbf2; Short=PPIase Cbf2; AltName: Full=Cell-binding factor 2; AltName: Full=Major antigen peb4A; AltName: Full=Rotamase Cbf2; Flags: Precursor

MKKFSLVAATLIAGVVLNVNAATVATVNGKSISDTEVSEFFAPMLRGQDFKTLPDNQKKALIQQYIMQDL

ILQDAKKQNLEKDPLYTKELDRAKDAILVNVYQEKILNTIKIDAAKVKAFYDQNKDKYVKPARVQAKHIL

VATEKEAKDIINELKGLKGKELDAKFSELAKEKSIDPGSKNQGGELGWFDQSTMVKPFTDAAFALKNGTI

TTTPVKTNFGYHVILKENSQAKGQIKFDEVKQGIENGLKFEEFKKVINQKGQDLLNSAKVEYK

>sp|Q0P9W3.1|ATPL\_CAMJE RecName: Full=ATP synthase subunit c; AltName: Full=ATP synthase F(0) sector subunit c; AltName: Full=F-type ATPase subunit c; Short=F-ATPase subunit c; AltName: Full=Lipid-binding protein

MKKVLFLLLACTAVAFAAETNAPVEQEAINVWIKAFSVLAAGLGLGVAALGGAIGMGNTAAATIAGTARN

PGLGPKLMTTMFIALAMIEAQVIYALVIALIALYANPFIVLQ

>sp|Q0P9V4.1|PIF1\_CAMJE RecName: Full=ATP-dependent DNA helicase pif1

MFDKLEKILAYDNVFLSGGAGVGKSFLTNELIKSYRKQKKLAIALGSSALSAFNIGGVTLHSFFCLGYCD

DMMKLSVLDRNQKQKEKLTKLKELLKTIELIIIDEISMVSANVFEMIGFRLKNSQFNGKILVVGDFFQLP

PVIKEKKETLFNHSYYAFSSFFWQDLNFKNIKLSQPKRTQNMEFYNHLSLIRQGFLDEKILSFFESLRID

YKELENLEDDYTLLCGINKKVNNINQEKLSKLETPLVCFKAQVKKEDKRIKDEELDSWIRSLNILEELNI

KIGARIIFCVNNWDKNYYNGEQGIIEDILYEEEKIYISIIKNNGMKILLEPYTFFMEELEQSGKDFVVNI

LASVTQFPIKLAYAITIHKSQGMSIEKLVCDIDHIFENGQLYVALSRATNPNTLKIYSTKKINFGFYFAN

ILKIDSNVIEFYKKHNFLDLEIQEQII

>sp|Q0P9D4.1|PGLF\_CAMJE RecName: Full=UDP-N-acetyl-alpha-D-glucosamine C6 dehydratase; Short=UDP-GlcNAc C6 dehydratase; AltName: Full=Protein glycosylation pathway protein F; AltName: Full=UDP-N-acetylglucosamine 4,6-dehydratase (configuration-retaining)

MIFYKSKRLAFFLTSDIVLILLSVYLAFSLRFSGDIPSIFYHGMMVSAIILLVLKLSFLFVFRIYKVAWR

FFSLNEARKIFIALLLAEFCFFLIFYFFSDFFNPFPRSAIVIDFVLSYMFIGTLRISKRMLVDFKPSRMK

EEETPCIVVGATSKALHLLKGAKEGSLGLFPVGVVDARKELIGTYCDKFIVEEKEKIKSYVEQGVKTAII

ALRLEQEELKKLFEELVAYGICDVKIFSFTRNEARDISIEDLLARKPKDLDDSAVAAFLKDKVVLVSGAG

GTIGSELCKQCIKFGAKHLIMVDHSEYNLYKINDDLNLYKEKITPILLSILDKQSLDEVLKTYKPELILH

AAAYKHVPLCEQNPHSAVINNILGTKILCDSAKENKVAKFVMISTDKAVRPTNIMGCTKRVCELYTLSMS

DENFEVACVRFGNVLGSSGSVIPKFKAQIANNEPLTLTHPDIVRYFMLVAEAVQLVLQAGAIAKGGELFV

LDMGKPVKIIDLAKKMLLLSNRNDLEIKITGLRKGEKLYEELLIDENDAKTQYESIFVAKNEKVDLDWLN

KEIENLQICEDISEALLKIVPEFKHNKEGV

>sp|Q0P952.1|ATP6\_CAMJE RecName: Full=ATP synthase subunit a; AltName: Full=ATP synthase F0 sector subunit a; AltName: Full=F-ATPase subunit 6

MKDLFLFSSLLDASHTFSYFFHIGLVALIAVIVAMMATRSMQLVPRGMQNLGEAFLEGVLSMGRDTMGSE

KGARKYLPLVATLGIIVFFSNIIGIIPGFHAPTASLNLTLSLAIIVFVYYHFEGIRAQGFVKYFAHFMGP

IKLLAPLMFPIEIVSHLSRVVSLSFRLFGNIKGDDLFLMVILALVPYIAPLPAYVLLTFMAFLQAFIFMI

LTYVYLAGATVVEEGH

>sp|Q0P8W4.1|PSEB\_CAMJE RecName: Full=UDP-N-acetylglucosamine 4,6-dehydratase (inverting); AltName: Full=Pseudaminic acid biosynthesis protein B; AltName: Full=UDP-GlcNAc-inverting 4,6-dehydratase

MFNKKNILITGGTGSFGKTYTKVLLENYKPNKIIIYSRDELKQFEMASVFNAPCMRYFIGDVRDKERLSA

AMRDVDFVIHAAAMKHVPIAEYNPMECIKTNIHGAQNVIDACFENGVKKCIALSTDKACNPVNLYGATKL

ASDKLFVAANNIAGNKQTRFGVTRYGNVVGSRGSVVPFFKKLISEGAKELPITDTRMTRFWISLEDGVKF

VLSNFERMHGGEIFIPKIPSMKITDLAHALAPNLSHKIIGIRAGEKLHEIMISSDDSHLTYEFENYYAIS

PSIKFVDKDNDFSINALGEKGQKVKDGFSYSSDNNPLWASEKELLEIINHTEGF

>sp|Q0PC41.1|OBG\_CAMJE RecName: Full=GTPase Obg; AltName: Full=GTP-binding protein Obg

MFIDSVKITLASGDGGKGAVSFRREKHVPLGGPDGGDGGNGGDIIFVCDNNTHTLVNFKGKRELRAQNGA

GGMGRNKNGKKGENLELIVPEGTQVIDAQTNEILLDLTKEGQRELFLKGGKGGLGNTHFKHATNQRPDYA

QPGIKGESRLVRLELKLIADVGLVGFPNVGKSTLISVVSNAKPEIANYEFTTLTPKLGLVDVNEYNSFVM

ADIPGIIEGASGGKGLGLAFLKHIERTSFLLFVLDPMRQMPLKEQFIVLRKELEKFSNELFGRKFGIMIS

KSDSVRLGEEFAEQIALNINELDNYLKEINNPQSFLIKVSSLEKTGLKELKFMLLEEIKTLRNNKKNLTI

>sp|Q0PA12.1|FTSK\_CAMJE RecName: Full=DNA translocase FtsK

MLAPGMGEWVYKANLFLFGEFAYYYPFFLFILNYVYYKRNYKLANFTRRELFGIGFAFFSSLLLFAVFYP

NSGYILELAYAIFSTILGHTGSGIFALLLLLFSLVLLFPKFAKEILKIELDFTYLLKVEQAFKSLLMRVF

GGENEKEDVGKSEPIVPKLNILQDSIYGNLQINKKGETNNLEQIIKDSNINASKNSITTAKENFEKLKNQ

ILDETIEIDKQSLKESRSFVHEHSQQVRNFAQKASKMSISLDEDFNFISEEEVDMIPERFLKPKKLEDIK

QIDTNKNLDEPSYKRKNIEIPVSNQEVKPKIFTKELELRENLIKKEKLEQEYKAYQNEILENKVKQEIKK

LEEYDAINSSDIIEGNKYSFNSPKTIKTETEESDKINENKNLDKADNIFEFAPIVEELNHPYIEPTPIKN

INEIVIEEKNTLDFIQNTETKIDNEKTNDQEIKLQKAVLAKEIAINQALLREIEQGEIEKPKDFTLPPLD

FLANPKEHKQEINESEIDKKIYNLLEKLRRFKIGGDVISTYVGPVVTTFEFRPSADVKVSRILNLQDDLT

MALMAKSIRIQAPIPGKDVVGIEVPNDEIQTIYLREILQSEVFKNAKSPLTIALGKDIVGNAFVTDLKKL

PHLLIAGTTGSGKSVGINSMLLSLLYRNSPKTLRLMMIDPKMLEFSIYNDIPHLLTPVITDPKKAVNALS

NMVAEMERRYRLMADAKTKNIENYNEKMKELGGEKLPFIVVIIDELADLMMTAGKDVEFYIGRLAQMARA

SGIHLIVATQRPSVDVVTGLIKANLPSRISYKVGQKIDSKVILDAMGAESLLGRGDCLFTPPGTSSIVRL

HAPFASEFEIEKIVDFLKDQQSVEYDESFLKDQQSVGVTTNESFDGEADELYEEAKRVILEDGKTSISYL

QRRLKIGYNRSANIIEQLTQNGILSEPDAKGQREIL

>sp|Q0P9V7.1|SECA\_CAMJE RecName: Full=Protein translocase subunit SecA

MFLNALKAVFGTKNDREVKKYFKRVAQINALEGNYQNLSDDELKAEFAKFKEQILSGEKNENDVLNDVFA

IVRETGKRTLNMRHFDVQLIGGMVLHDGKIAEMKTGEGKTLVATLPVVLNAMSGKGVHVVTVNDYLAKRD

AEQMSAIYNFLGFSVGVVLSSQNSDIEHKQAYDCDITYGTNNEFGFDYLRDNMKFSKAEKVQREHNFVIV

DEVDSILIDEARTPLIISGPTNRTLDGYIKANEVAKQMQKGEAVLPPAKPEGDFVVDEKNRNILITEAGI

AKAEKLFGVENLYSLDNAILAHQLDQALKAHNLFEKDVHYVLRNNEVIIVDEFTGRLSEGRRFSEGLHQA

LEAKENVKIQEESQTLADITFQNYFRMYNKLAGMTGTAQTEATEFSQIYSLDVISIPTNIPIKRQDKDDL

IYKTQNEKFKAVIEEIKKANAKGQPVLVGTASIERSEVFHNMLVKEKIPHHVLNAKNHEQEALIIQDAGK

KGAVTIATNMAGRGVDIKIDDEIRALGGLYIIGTERHESRRIDNQLRGRAGRQGDPGISRFYLSLEDNLL

RIFGGDRIKSIMDRLGIEEGESIESRIVTRAVENAQKKVESLHFESRKHLLEYDDVANEQRKTIYRYRNE

LLDENYDIRAKISQNIAEYSANVMNDYMLDESGSNVNFENLKAKILYECSTQISEKDFENLSVIEMQDKL

SQILENSYNEKMLRLEIKELRNIERILYLQVLDNAWREHLYQMDILKTGIGLRGYNQKDPLVEYKKESYN

LFLELVNRIKFDSIKLLFSVQFNQEEAQNLENKANEENEKLLQSSVEMGASEDNLGEAEFKKVPRNAPCP

CGSGKKFKECHGKSGPKQGILA

>sp|Q0P8T1.1|NEUBH\_CAMJE RecName: Full=N,N'-diacetyllegionaminic acid synthase

MKKTLIIAEAGVNHNGDLNLAKKLIEIAADSGADFVKFQSFKAKNCISTKAKKAPYQLKTTANDESQLQM

VQKLELDLKAHKELILHAKKCNIAFLSTPFDLESVDLLNELGLKIFKIPSGEITNLPYLKKIAKLNKKII

LSTGMANLGEIEEALNVLCKNGAKRQNITLLHCTTEYPAPFNEVNLKAMQSLKDAFKLDVGYSDHTRGIH

ISLAAVALGACVIEKHFTLDKNMSGPDHKASLEPQELKMLCTQIRQIQKAMGDGIKKASKSEQKNINIVR

KSLVAKKDIKKGEIFSEGNLTTKRPANGISAMRYEEFLGKIATKNYKEDELIRE

>sp|Q0P886.1|TUPB\_CAMJE RecName: Full=Tungstate uptake system permease protein TupB

MLKLLILKRIFLDYIFDGFKQALFLLFNADESVISAIKTTLLSSSISIVLALLIGFPLGFILGFFEFKLK

RFIKLIVDTSLSFPTVAVGLILYALISSRGPLGEFGLLFTIKALILGQFILALPIVIALFSNLIENMNKK

HFLLIKSFHLSPLKLVLTMIYELRFALISVVALAYGRIVAEVGVAMIVGGNIKYDTRTITTAISLETNKG

EFASGIALALVLILIAFCLNFITHKLKRT

>sp|Q0P7V6.1|RECA\_CAMJE RecName: Full=Protein RecA; AltName: Full=Recombinase A

MDDNKRKSLDAALKSLDKTFGKGTILRLGDKEVEQIDSIGTGSVGLDLALGIGGVPKGRIIEIYGPESSG

KTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDLI

VVDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTT

GGNALKFYASVRLDVRKVATLKQNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVK

LDIVDKSGAWFSYKDKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMISGSEDDEGEE

>sp|Q0PBX7.1|QUEE\_CAMJE RecName: Full=7-carboxy-7-deazaguanine synthase; Short=CDG synthase; AltName: Full=Queuosine biosynthesis protein QueE

MQLVESFLSIQGEGKYNGKLAIFMRFAGCNFNCLGFNVKISKNDKTLIGCDTIRAVFTKDFKESYETLNA

NELLKRVIKLKKDFDPIVVITGGEPLIHYENPEFIEFIQMLLKNKFEIHFESNGSIEIDFDRYPFYKECI

FALSVKLQNSGIKKDKRLNFKALKAFKNYAKDSFYKFVLDANTLDNSFLEINEILKEAPNQIFCMPMGEN

EQNLKKNAQKIAEFCIKNGYNYSDRIHIRLWNDKEGV

>sp|Q0PAT1.1|DNLJ\_CAMJE RecName: Full=DNA ligase; AltName: Full=Polydeoxyribonucleotide synthase [NAD(+)]

MKKEEYLEKVALANLWMRAYYEKDEPLASDEEYDALIRELRVFEEQNKDEISKDSPTQKIAPTIQSEFKK

IAHLKRMWSMEDVFDESELRAWAKRAKCEKNFFIEPKFDGASLNLLYENGKLVSGATRGDGEVGEDITLN

VFEIENIPKNIAYKERIEIRGEVVILKDDFEKINEKRALLNQSLFANPRNAASGSLRQLDTSITKERNLK

FYPWGVGENTLNFTKHSEVMQFIRELGFLKDDFVRLCANLDEVLKAYDELLALREKKPMMMDGMVVRVDD

LALCEELGYTVKFPKFMAAFKFPALEKTTRLIGVNLQVGRSGVITPVAVLEPVNLDGVVVKSATLHNFDE

IARLDVKINDFVSVIRSGDVIPKITKVFKERREGLEMEISRPKLCPTCQSELLDEGTLIKCQNIDCEDRL

VNSIIHFVSKKCLNIDGLGENIVELLYKHKKITTLESIFHLKFNDFEGLEGFKEKKINNLLNAIEQAREC

ELFRFITALGIEHIGEVAAKKLSLSFGKEWYKQSFEAYANLEGFGEQMALSLCEFTRVNRTRIDEFYKLL

NLKIEKLEIKSDGVIFGKTFVITGTLSRPRDEFKALIEKLGGKVSGSVSKKTDYVLFGEEAGSKLSKAKE

LEVKCIDESAFNELVKE

>sp|Q0P9X6.1|CHER\_CAMJE RecName: Full=Chemotaxis protein methyltransferase

MEKKITPSELELNEFIKIINEMSGIDLTDKKNILALKLNKFLEGTNTKNFSEFLGKLKSNRQLKQETLDF

VTIGETYFLRELAQLKEIIYYAKSLEKRVNILSAPCSSGEEVYSLALLAAQNFIKDMYILGVDINSSVIE

KAKLGKYQGRTLQRLSESEKRRFFLESEDKFYTINKNELCTCKFELCNVFEEKFSRLGKFDIIASRNMII

YFDHESKLKLMERFHRILNDKGRLYVGNADLIPETIYFKKIFSPRGVYYEKV

>sp|Q0P9K4.1|DAPE\_CAMJE RecName: Full=Succinyl-diaminopimelate desuccinylase; Short=SDAP desuccinylase; AltName: Full=N-succinyl-LL-2,6-diaminoheptanedioate amidohydrolase

MNAKEFLIELLKFKSVTPNDDGALNFIAMELSDFEAFFIEKEGIKNLLLTKKFKDEGEHLAFGGHVDVVP

AGEGWSNNAFAPVEKEGFIYARGAQDMKSGVAAFVDAAKNADFKGARLSLILTSDEEGEAIYGTKAVLEW

MQERDMLPDYAVVAEPTCVKKIGDSIKIGRRGSINGKLLIRGKQGHVAYPEKCINPVHDFAPVLKLLAGF

DLDPGSAEFSPSKIVITDIRGGMGVCNVTPNDLKLMFNVRNSPDTSLEDVKSYVEKICHGLNYELELKQS

SEAFLTNIDNKIVQKMNESVQKITHEVPELNTKGGTSDARYFAKYGVKVVEFGVCNDRIHAIDERVSIEE

FEKLCLVFKDLIENF

>sp|Q0P885.1|TUPA\_CAMJE RecName: Full=Tungstate-binding protein TupA; Flags: Precursor

MKKIISLALALALSASAAELKMATTTSTDNTGLLDALKPLYEKESGNTLKWVAVGTGAALKMGEDCNADV

LFVHSPKAEKEFMKKGFGVDRTPVMYNDFIIIADKSLASKFKGKNLKESLELIKNEKLTFISRGDKSGTD

NKEKSLWKNLGGVPEKQSWYQQSGQGMLASIKIAEEKKGVILTDRGTYIKYEANEKGKPNLVIVNEGDDS

LKNFYSVIATNPKHCKNVNYTEASKFIKWVTSDKTLNFIADFKLLNKPLFVIDAKTRKD

>sp|Q0PAB6.1|METN\_CAMJE RecName: Full=Methionine import ATP-binding protein MetN

MIKIKNLKKYYGKELVINDVSLEIKKGEIYAIVGHSGAGKSTLLRCINGLENYQEGSLKVFDQEIKDLSQ

KKSKELRMLRKDIGMIFQNFALMERKNVFENVAMPLRTHYTQCKFHAKLFNKEYMSEKEIAQKVNSLLEI

VGLDHKNKSYPRELSGGQKQRVAIARALALNPKILLSDEATSALDPNTTKNILELISKINAEFGITVVLV

THEMDVVKDIAQKALLLEHGQIIGSGAIDELFLRPNAKMKEFLGESDFLPEHGLNIKLYFPKEVAQNSVI

THMARTLNIDFNIVWGKIEKLNGKALGNLVININEKDKDKVLDYIEKSGVLWEVAS

>sp|Q0PA35.1|FOLD\_CAMJE RecName: Full=Bifunctional protein FolD; Includes: RecName: Full=Methylenetetrahydrofolate dehydrogenase; Includes: RecName: Full=Methenyltetrahydrofolate cyclohydrolase

MTLLDGKALSAKIKEELKEKNQFLKSKGIESCLAVILVGDNPASQTYVKSKAKACEECGIKSLVYHLNEN

ITQNELLALINTLNHDDSVHGILVQLPLPDHICKDLILESIISSKDVDGFHPINVGYLNLGLESGFLPCT

PLGVMKLLKAYEIDLEGKDAVIIGASNIVGRPMATMLLNAGATVSVCHIKTKDLSLYTRQADLIIVAAGC

VNLLRSDMVKEGVIVVDVGINRLESGKIVGDVDFEEVSKKSSYITPVPGGVGPMTIAMLLENTVKSAKNR

LN

>sp|Q0PBB6.1|COAX\_CAMJE RecName: Full=Type III pantothenate kinase; AltName: Full=PanK-III; AltName: Full=Pantothenic acid kinase

MLLCDIGNSNANFLDDNKYFTLNIDQFLEFKNEQKIFYINVNEHLKEHLKNQKNFINLEPYFLFDTIYQG

LGIDRIAACYTIEDGVVVDAGSAITIDIISNSIHLGGFILPGIANYKKIYSHISPRLKSEFNTQVSLDAF

PQKTMDALSYGVFKGIYLLIKDAAQNKKLYFTGGDGQFLANYFDHAIYDKLLIFRGMKKIIKENPNLLY

>sp|Q0P7T9.1|RL6\_CAMJE RecName: Full=50S ribosomal protein L6

MSRIGKQPIAIPAGVEVKLEGNLLKFKKGNLAKELDTKANVNVEIKDNNILFSPKGEDRQSRAYWGTYRA

LAYNIVVGLTQGFSKTLEINGVGYKAALKGKVLELSLGFSHPINYDIPEGIEIVVDKNTIAVKGSDKQVV

GQVAAQIREFRPPEPYKGKGVKYSDERIIRKAGKTSKK

>sp|Q0P832.1|RL17\_CAMJE RecName: Full=50S ribosomal protein L17

MRHKHGYRKLGRTSSHRAALLKNLTIALVNSGKIETTLPKAKELRGYVERLITRARLGDFNAHRAVFASL

QDKNATNKLVTEIAPKFKDRNGGYTRIIKTRIRRGDAAEMAFIEFVA

>sp|Q0P857.1|NUOI\_CAMJE RecName: Full=NADH-quinone oxidoreductase subunit I; AltName: Full=NADH dehydrogenase I subunit I; AltName: Full=NDH-1 subunit I

MKNYYLVDEKRKTPVSTWEKISQALRRSVKLELFVGLFVMMRELLKRNNSATIKYPFEKVKLDNRYRAVH

RLMRFIESENERCIGCGLCEKICISNCIRMETSLDENGRKKVENYSINLGRCIYCGFCAEVCPELAIVHG

TEYENAAEQRSYFGYKQDFLTPIDKLKNQVEFEGAGSLRKDANLWVKKTPNYYDVMIERALENQNTQEQG

ENK

>sp|Q9PJ20.1|ATPG\_CAMJE RecName: Full=ATP synthase gamma chain; AltName: Full=ATP synthase F1 sector gamma subunit; AltName: Full=F-ATPase gamma subunit

MSNLKEIKRKIKSVHNTQKTTNAMKLVSTAKLKKAEEAAKRSKIYAQKIDEILSEISFQINKIVHNEDDV

RLSLFHKKEQIKTVDLIFITADKGLCGGFNIKTLKTVSEMLKEYEAKNINIRLRAIGKTGIEYFNFQKIE

LLEKYFHLSSSPDYEKACEVIHAAVDDFLNGNTDEVILVHNGYKNMITQELKINHLIPVEPKSIEQTHNS

LLELEPEGTELLKDLMKTYFEYNMYYALIDSLAAEHSARMQAMDNATNNAKARVKQLNLAYNKARQESIT

TELIEIISGVESMK

>sp|Q9PLX8.1|RL16\_CAMJE RecName: Full=50S ribosomal protein L16

MLMPKRTKYRKMMKGRNRGYANRGTEFTFGEFALKATEAGRINSRQIEAARIALTRFVKRQGKTWIRVFP

DKPLTKKPLETRMGKGKGAVEEWVMNIKPGRIIYEMAGVSEEMAREALTLAMHKLPFKTKFVTRESQNEI

Y

>sp|Q9PIE2.1|GLMM\_CAMJE RecName: Full=Phosphoglucosamine mutase

MKLFGTDGVRGKAGEFLDSFLAMRLAMAAGIYFKDKSITNNILVGKDTRRSGYMIENAIVSGLTSIGYNV

IQIGPMPTPAIAFLTEDMRCDAGIMISASHNPYYDNGIKFFDAHGNKLSEDIEKKIEEIYFDDKLIQASK

VDMEKIGQAKRIDDVIGRYIVSIKNSFPKDLTLKSLRVVLDVAHGAAYKVAPTVFKELGAEVIVMSDKPN

GLNINENCGALHPANLAAEVKRLRADVGFAFDGDADRLVVVDEKGEVANGDSLLGVLALYLKEQGKLQSS

VVATIMSNGALKEFLNKHGIELDTCNVGDKYVLEKLKANGGNFGGEQSGHIIFSDYAKTGDGLIAALQFS

ALMLSKKKSASSILGQVKPYPQLLTNLKIAEKKDLDKIKGLKELKKDLENKNINTLFRYSGTENLIRLLL

EARDIKLLEKEMKNVVEFFKKALNG

>sp|Q9PN51.1|UVRC\_CAMJE RecName: Full=UvrABC system protein C; Short=Protein UvrC; AltName: Full=Excinuclease ABC subunit C

MTKENLENELKTLPNSTGVYQYFNQEGKLLYVGKAKNLKNRVRSYFAFTPNLHANPRNSLRIQKMIEETV

HLEFIATNSEADALILENSFIKQLHPKYNILLRDDKTYPYIYVDFEEEFPRFEITRKLVKKSKIKYFGPF

FKGARELLDALYLYYPLKQKASCKSPCIFYQISRCLAPCDKLISREKYLEILDEAIHALLNPSVLLKNLE

KQMLVLAQNENYEEAAKVRDQIAMIKDLEVKVEIDIAKLEDFEVFALAFKNSVLSTLRFVVQNGKIISAN

SKITPIKNDIQWDQNEIYKQLILENFSMDIPLLANVIYVYEEFEDRVLLEEILSQRFDKKISIKIPKIGE

KRRICDLAFQNALLNIEKEQKNHDFTIQKELKSYFELENLPNDIEIFDNSHLQGVANVGAMVTYRINSWD

KSKYRKFHLKHKNDYDQMREVLTRRALDFDKIPPPDLWLIDGGKALLDLAKEIIVSSGVNVDILAISKEK

IDAKAHRAKGGAKDKIHSLKGEFSLSINDKKLQFLQKLRDEAHRFAISFHQNTKKKQDLKSSKLANLGLS

SGVMQKLLAYYGNFESIYKADFKDLTMLVGRKAAQKIKEN

>sp|Q9PMK7.1|TILS\_CAMJE RecName: Full=tRNA(Ile)-lysidine synthase; AltName: Full=tRNA(Ile)-2-lysyl-cytidine synthase; AltName: Full=tRNA(Ile)-lysidine synthetase

MQIKDEILSLLKRGKNLLAFSYGSDSSVLFYLLMQEKIDFDLVMINYKTRKNSDLEELKAKELALKFHKK

IFIKHAPKFQSNFEKKARDFRYDFFEKICLEQGYDHLILAHHLNDQFEWFLMQLSRGAGLAEILGMQECE

KRSNYTLLRPLLFISKDEISSFLKEKDIFYFHDESNENEKYFRNYIRKNFSNAFVSEFHQGLKRSFSYLD

EDRKKLYDFENIKEIQGLLICPKNESLIARAVKMKGLLLSTAQRKELLKGDCVLGGKIALAYKNEQAIVF

EYETCQKLPKNFKEECRIAKIPRLLRAYLYNHKIDISSLSF

>sp|Q9PI02.1|CLPB\_CAMJE RecName: Full=Chaperone protein ClpB

MANIQDFLTDNMLSNLESAASLAIHSKNNEVVPLHLLWALSVDSTSILNQILNKLNISKEALELEIKSRI

SKLATSSNVNRENIRFSNELINSLENAKGLMSANGDSYLSVDTWLISESQKSPIKEILAQFLDLREFQKE

LESLRAGRKMDSKTSDETLDSLNKFGIDLTLKASEGKLDPVIGREEEIERLMQILIRKTKNNPILLGEPG

VGKTAIVEALAQRIIKKDVPKSLQNKKVIALDMSALIAGAKYRGEFEDRLKAVVNEVIKSENIILFIDEI

HTIVGAGASEGSMDAANILKPALARGELHTIGATTLKEYRKYFEKDAALQRRFQPVNVGEPSVNEALAML

RGIKEKLEIHHNVTINDSALVAAAKLSKRYIADRFLPDKAIDLIDEAAAELKMQIESEPSSLRKVRKDIE

TLEVENEALKMENDEKNQKRLDEIAKELANLKEKQNALNSQFENEKSVFDGISAKKKEIDLLKNEASLAK

ARGEFQKAAELEYGKIPSLEKEVEILEDKWKKMSENGVLLKNQVDEDLVAGILSKWTGISVQKMLTSEKQ

KFLEVEKHLKESVIGQDKALSALARAIKRNKAGLNADNKPIGSFLFLGPTGVGKTQSAKALAKFLFDDEK

AMIRFDMSEFMEKHSVSRLLGAPPGYIGHEEGGELTEAVRRKPYSVLLFDEVEKAHKDVFNVLLGILDDG

RATDSKGVTVDFKNTIIILTSNIASNAIMNLSGKEQEDAVKNELKNFFKPEFLNRLDDIITFNPLGKDEA

YEIVKLLFKDLQMSLENKGIKASLSENAALLIAKDGFDPDFGARPLRRAIYDLIEDKLSDMILADELHEN

DSIIIDAKDDEIIIKKA

>sp|Q6TG07.2|GMHBA\_CAMJE RecName: Full=D-glycero-alpha-D-manno-heptose-1,7-bisphosphate 7-phosphatase; AltName: Full=D,D-heptose 1,7-bisphosphate phosphatase; Short=HBP phosphatase

MKTKALFLDRDGVINIDKKYVYKIEDFEFCDGIFELCRYFLARNYLLFIATNQSGIARGYYKESDFFKLC

DYMLKEFAKQDIKIDKIYHCPHLEGCECRKPKAGMLLKAKDEFDLDMKNSIFIGDNLSDMQAGLNADIGT

LILVNEEKKEGDFFRQFKNLKEILNFFKEKDI

>sp|Q9PLX6.1|RL22\_CAMJE RecName: Full=50S ribosomal protein L22

MSKALIKFIRLSPTKARLIAREVQGMNAELAMASLKFMPNKGAKYIANAISSAVANGGFEANEVIVKSCR

VDAAAVLKRFRPRARGSASRIRKPTSHILVEVAKAEVKSEEKKTVAKKTTTTKAPAKKTTSTKKATVKKE

S

>sp|Q9PHY2.1|MDH\_CAMJE RecName: Full=Probable malate dehydrogenase

MKITVIGAGNVGSSVAYALILREIANEIVLVDINEDLLYAKELELTQSIAALNLNIDLLCTKDYTHTKNS

DIVLFSAGFARKDGQSREELLQLNTSIMLDCAKKIKDFTEDPLFIILTNPVDFLLNTLYESGIFSSKKII

AMAGVLDNARFKYELAKKLNVKMSRVDTRLIGFHNDDMVLVKSYASVKNKNISEFLNEEEFEDLENEVKT

GGAKVIKHLKTSAYLAPASACIRMLESIRSGEFLPMSVILHGEFGVQNKALGVMARLGLEGVIEIMKMDL

SLQEKDKLEKSLIKYQYKGE

>sp|Q9PI35.1|RL11\_CAMJE RecName: Full=50S ribosomal protein L11

MAKKVVGEIKLQIAATKANPSPPVGPALGQQGVNIMEFCKAFNERTKDMAGFNIPVVITVYADKSFTFIT

KQPPATDLIKKAAGISKGTDNPLKNKVGKLTRAQVLEIVDKKIADLNTKDRDQAAKIIAGSARSMGVEIV

D

>sp|Q9PM82.1|RS11\_CAMJE RecName: Full=30S ribosomal protein S11

MAKRKIVKKKVVKKNIAKGIVYISATFNNTMVTVTDEMGNAIAWSSAGGLGFKGSKKSTPYAAQQAVEDA

LNKAKEHGIKEVGIKVQGPGSGRETAVKSVGAMEGIKVTFLKDITPLAHNGCRPPKRRRV

>sp|Q9PP99.1|ISPT\_CAMJE RecName: Full=Isoprenyl transferase

MNELKHLAVVMDGNRRWARAKGFLAKLGYSQGVKTMQKLMEVCMEENISNLSLFAFSTENWKRPKDEIDF

IFELLDRCLDEALEKFEKNNVRLRAIGDLSRLEDKVREKITLVEEKTKHCDALCVNLAISYGARDEIIRA

AKRVIEKKLELNEENLTQNLDLPLDVDLMLRVGNAKRLSNFLLWQCSYAEIYFSETLFPSLTKREFKRII

KEFRNRERTFGK

>sp|Q9PHU4.1|RIBB\_CAMJE RecName: Full=3,4-dihydroxy-2-butanone 4-phosphate synthase; Short=DHBP synthase

MKFVSVEQAIKDLQAGKMLVMVDAEDRENEGDLIFPAQFSTQEKVNFMIKEARGVVCVALDETLAKKFEL

PLMVPKNTSNHETAFTITVDAKDATTGVSAYERNMTIQIFADDNAKASDFVRPGHINPLIAKKGGVLERT

GHTEGTVDLCKLAGLKGACVICEIVKDNGDMARREDLEIFCQKHDLNMIAVSDLIEYRLKHESLIKLEEK

SQSVLAGFKAEKFIFSDHNQTQHIAFCFKDIKKCENVKFHISGSDFELLTSDKFSKLLEQIKFLSENGGV

IVFMQGEKSSTTQYKNYGIGAQILRYFGIEEIKLLSQSCDKDYIGLEGFGLNLKACNFN

>sp|Q9PMQ6.1|TPIS\_CAMJE RecName: Full=Triosephosphate isomerase; Short=TIM; Short=TPI; AltName: Full=Triose-phosphate isomerase

MIFAANLKCNHTRASFKIYAKILNKTMGVKCDDIIVFPPSIAFLENENNFIQGAQNFYPCVNGAFTGELG

KEHLDEFGIKCVLIGHSERRALGDEEFIKAKFDFAKEHGYKIVFCIGENLDTKNSGKTLEFLKKQLEIID

LNYEKLIIAYEPIYSIGTGVSAQSTDIAKVLEFLASLTKVPLLYGGSVNENNIKEILSVNHCGGVLIGSA

ALKVENFIKLIKG

>sp|Q9PHY8.1|FLIE\_CAMJE RecName: Full=Flagellar hook-basal body complex protein FliE

MNNINDLRLNNNISNTNKSQNSTGIGDEFAKMLKNEINDLNKAQESGEAAMTDIATGQVKDLHQAAIAIT

KAESSMKFMLEVRNKAISAYKEITRTQI

>sp|O69302.2|SSB\_CAMJE RecName: Full=Single-stranded DNA-binding protein; Short=SSB

MFNKVVLVGNLTRDIEMRYAQSGSAIGASAIAVTRRFTANGEKREETCFIDISFYGRTAEVANQYLTKGS

KVLIEGRLRFEQWSDQNGQNRSKHSIQVENMEMLGNSNAPQQGGNFGNNSFSNNNYSGNYENQSYDPYMS

ENQNFNKAKANPAPQRNQSPQHEEKLKEIDIDAYDSDDTNLPF

>sp|Q9PMD2.1|ACSA\_CAMJE RecName: Full=Acetyl-coenzyme A synthetase; Short=AcCoA synthetase; Short=Acs; AltName: Full=Acetate--CoA ligase; AltName: Full=Acyl-activating enzyme

MLNQNNQELFKPSKEFSRNARIKNLCEYYDLCDEAKEDFEGFWKRQAFEKIEWFSPFSRVLNEDKAPFYK

WFEGGTLNVSYQCLDRHMKTRRNKAALIFEGEMGDYEVYTYRRLLHETCKAANLLKKFGVKKGDRVVIYM

PMIPETAIVMLACARIGAIHSVVFGGFSPEALRDRIIDAGAKLVVTADGAFRRGKPYMLKPAVDKALSEG

CESVEKVLIVIRNNEPIEYIKGRDYVYNELVKNESYKCEPEIMDSEDLLFLLYTSGSTGKPKGVMHASAG

YILWAQMTMEWVFDIKDYDNYWCSADVGWITGHTYVVYGPLACGATTIMHEGTPTYPNSGRWWRMIEEYQ

ISKFYTSPTAIRMLHADAPNEPRKYDLSTLEVLGTVGEPINPSAWKWFYDEIGGTKSPIVDTWWQTETGG

HMITPLPGATPLKPGCATLPLPGIFAEVIDEEGNKKDEGEDGLLCITKPWPSMIRGIWGNDERYIESYFS

QAKKDGKAVYFSGDGAFYDKNGYITITGRTDDVVNVAGHRIGTAEIESAIAKHPSVAESAVVSILDTIKG

ESLFAFVVLSPASSCDLGGAIETLKELNDILRVEIGPIAKIEKILYTPGLPKTRSGKIMRRILRTIARGE

EIKQDISTLEDSKVVETIVKLAKAEFE

>sp|Q9PIY9.1|RIMP\_CAMJE RecName: Full=Ribosome maturation factor RimP

MNLEALCKEAGLSFYDDELVSENGRKIYRIYVQKEGGVNLDDCARLSEILSPIFDVESPVNGEYFLEVSS

PGLERKLSKIEHFAKSIGELVKITTNEKEKFEAKIIAVDDENITLENLENKEKTTINFNDIKKARTFVEW

>sp|Q9PNI5.1|LFTR\_CAMJE RecName: Full=Leucyl/phenylalanyl-tRNA--protein transferase; AltName: Full=L/F-transferase; AltName: Full=Leucyltransferase; AltName: Full=Phenyalanyltransferase

MKSSNLYSKLLNAPKNAPVFLSQNLEADFIVKAYTFGLFPWTSKPVTWWCPDPRCILIPNQIHIQKNMKK

FINLYQIKLDYDFLKLITLCRDTRSQSWIDDEFITTYYKLFTQGYAHSLELYENNELIGGIYGLILGKVF

FGESMVSIKKNASKVAMIKLCDLLKPYDFIIDCQVYNQHLEFMGAHNISRKEFLNILKEKCNQESGFKNF

KDLIT

>sp|Q9PNU6.1|OTCA\_CAMJE RecName: Full=Ornithine carbamoyltransferase, anabolic; Short=OTCase

MKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAMIFEKNSTRTRMAFELAITELGGKALFLSSN

DLQLSRGEPVKDTARVIGAMVDFVMMRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWNK

MQNGIAKVAFIGDSNNMCNSWLITAAILGFEISIAMPKNYKISPEIWEFAMKQALISGAKISLGYDKFEA

LKDKDVVITDTWVSMGEENEKERKIKEFEGFMIDEKAMSVANKDAILLHCLPAYRGYEVSEEIFEKHADV

IFEEARNRLYVVKALLCFLDNQRGRE

>sp|Q9PM83.1|RS13\_CAMJE RecName: Full=30S ribosomal protein S13

MARIAGVDLPKKKRIEYGLTYIYGIGLFTSRKILDKVGISYDKRVHELSEDEAAAIRKEIQENYMVEGDL

RKQVAMDIKALMDLGSFRGLRHRKGLPVRGQKTKTNARTRKGKRKTVGAKS

>sp|Q9PJ01.1|RLMH\_CAMJE RecName: Full=Ribosomal RNA large subunit methyltransferase H; AltName: Full=23S rRNA (pseudouridine1915-N3)-methyltransferase; AltName: Full=23S rRNA m3Psi1915 methyltransferase; AltName: Full=rRNA (pseudouridine-N3-)-methyltransferase RlmH

MENNLQVNIFCIQKSDEFKTCSEKYSKLISKYATLKEINVFNKKIALAQNLNAIEAKKSYEEAFMPYKKG

YCIALDEKGKDLTSIEFAKLIQDKNELSFFIGGAYGLREEFNQSLDFRLSLSKLTLAHQFVKTLLLEQIY

RAFCINNNHPYHK

>sp|Q9PM01.1|MURB\_CAMJE RecName: Full=UDP-N-acetylenolpyruvoylglucosamine reductase; AltName: Full=UDP-N-acetylmuramate dehydrogenase

MIIDFKKYSSVRIGNEFEVLVLDQICDFDGFLIGGANNLLVSPKPKNIGILGDGFNFIQILDRNKDFIHL

RIGCKTKSSKMYRFAKENNLKGFEYLSKIPGTLGGLLKMNAGLKGECISQNLIKIATSQGEILRANINFD

YRFCPLNTHFFWAEFKLNFGFDTLKDEALKNARSNQPSGASFGSIFKNPKNDFAGRLIEAVGLKGFSKGD

AMLSDKHANFLINKKNASFEDAFFLIELARKKVFEEFGTNLENEVIII

>sp|Q9PI73.1|MURD\_CAMJE RecName: Full=UDP-N-acetylmuramoylalanine--D-glutamate ligase; AltName: Full=D-glutamic acid-adding enzyme; AltName: Full=UDP-N-acetylmuramoyl-L-alanyl-D-glutamate synthetase

MKISLFGYGKTTRAIAENLVDKFGPFDIYDDHFTETKKDTLGNLLLNPNDFDDNLSDIEIPSPGFPPKHK

LIQKAKNLQSEYDFFYDIMPKSVWISGTNGKTTTTQMATHLLSHIGAVMGGNVGTPLAELNPYAKLWILE

TSSFTLHYTHKAKPEIYALLPISPDHLSWHGSFDNYVQDKLSVLKRMNECDVVILPKIYANTPTKAHKIS

YEDEKDLAVKFGIDTEKISFKSPFLLDAIMALAIEKILLDTLSYKLLNSFVMEKNKLEELKDSQNRLWVN

DTKATNESAVMAALSRYKDKKIHLIIGGDDKGVDLSNLFDFMKGFDIELYAIGISTEKMLDYAKKANLKA

YKCEVLSKAVNEISNHLRVNEVALLSPACASLDQFNSYAERGKVFKECVNKI

>sp|Q9PLW7.1|RSMA\_CAMJE RecName: Full=Ribosomal RNA small subunit methyltransferase A; AltName: Full=16S rRNA (adenine(1518)-N(6)/adenine(1519)-N(6))-dimethyltransferase; AltName: Full=16S rRNA dimethyladenosine transferase; AltName: Full=16S rRNA dimethylase; AltName: Full=S-adenosylmethionine-6-N', N'-adenosyl(rRNA) dimethyltransferase

MVKAKKQYGQNFLIDKSVLAKIIQAIPKEMNNIIEIGPGLGDLTQELLKISQVKAYEIDNDLIPILKKKF

QKELECGKFNLIHQDASEAFNPSLDEKPYFLVANLPYYVASHIILKALEDKNCLGLIVMAQREMAEKFCA

KEGNSEFSSLGVLSAMICERKILFDVDPQCFNPPPKVMSAVMSLIKTKDFDELCEIENFKNFLKDCFKAP

RKQLLGNLKTYKAKVLEVLSTLGLKENIRPHEICVDLYLKIYDKLKDEYGRKQRDK

>sp|Q9PPJ4.1|TRMD\_CAMJE RecName: Full=tRNA (guanine-N(1)-)-methyltransferase; AltName: Full=M1G-methyltransferase; AltName: Full=tRNA [GM37] methyltransferase

MKFSFVSLFPNLMEFYFQDSILARAKEKKLFKLNFYNPRDFSKNSYHKVDDYKIGGGAGLLMQAEPMYEV

LRSIQEKKENPYFIFLNPSGKTFNQKDAKRLSKKEHIVFVCGRYEGIDERVLEIFANEVFSIGDFILTGG

ELPALVMCDAILRNVNGVLGNMESLEEESFENNLLEAPAFSKPFIFEKKNKKFYTPSEFLKGNHARIASL

KTTLASCKTKFFRPDLFLEHERKK

>sp|Q9PM81.1|RS4\_CAMJE RecName: Full=30S ribosomal protein S4

MARYRGPVEKLERRFGVSLALKGERRLAGKSALDKRPYAPGQHGARKGKISEYGLQLREKQKAKFMYGVS

EKQFRRLFAEAARREGNTGVLLIQLLEQRLDNIVYRMGFATTRRFARQLVTHGHVLVNGKRVDIPSFRVE

AGAKIEIIEKSKNNPQITRAIELTAQTGIVAWVDVEKDKRFGIFTRKPEREEVVIPVEERFIVELYSK

>sp|Q9PIB6.1|DER\_CAMJE RecName: Full=GTPase Der; AltName: Full=GTP-binding protein EngA

MQSIILIGKPNVGKSSLFNRMARQRIAITSDISGTTRDTNKTQIHIHSKKAMLIDSGGLDESDELFKNVK

KNTLKVAKESDIILYLVDGKLAPDDEDRQFFYSLKKLGKPIALVINKVDNKKDEERAWEFANFGVKEIFN

LSVTHNVGLDELYEWLEKFLHEEFLIPDEEENLEDFLEYYEEGKEFQFKEVDQNHIRVGIVGRVNVGKSS

LLNALVKQERSVVSSIAGTTIDPVNESVVHKDKVIEFVDTAGIRKRGKIQGLERFALNRTEKILSHSQIA

LLVLDAHEGFNELDERIAGLVAKHYLGVIIVLNKWDKSEMDFDKTVKELRLDRFKFLAYAPVISVSALSG

KRVHVLLDKILQIFENFTQKIQTSKLNTLIENATRAHPLPHDYGKLVKIYYAVQYDLAPPKIALIMNRPK

ALHFSYKRYLQNQIRKEFNFEGVPLVIASRKKGSKENDES

>sp|Q9PIK9.1|GREA\_CAMJE RecName: Full=Transcription elongation factor GreA; AltName: Full=Transcript cleavage factor GreA

MQKEPMSQFGYDKLAAELKDLKDNQRPAVVIEIDTARSHGDLKENAEYHAAREKQALIESRIAELSDLLA

RAQVIDPSSYEHDSVKFGSSVVIMDLDTEKESKYTLVGICEGNLDKGYISIASPIAKAMLGKKEGDDFKV

RLPKGESEFEILSINYEPLKF

>sp|Q9PJ53.1|AROQ\_CAMJE RecName: Full=3-dehydroquinate dehydratase; Short=3-dehydroquinase; AltName: Full=Type II DHQase

MKIMIIQGPNVNMLGVREVGIYGAMKMEEIHEQMKLAASQNNVELDFFQSNFEGEIVDKIQECLGTVDGI

IINAAGYTHTSVAIRDAIAAVALPTIEVHISNVYRREEFRQKSLIAPVCSGTIVGFGPFGYHLALMGIIQ

ICEQIKNLRAMQQAQQTNK

>sp|Q9PJ40.1|UNG\_CAMJE RecName: Full=Uracil-DNA glycosylase; Short=UDG

MEEITINIDKIKINDDWKEFLRDEFQKKYFLEIKKQYLNAINQNIIIYPPANLIFNAFNLCPLKEIKIII

LGQDPYHQPNQAMGLSFSVPKNVKIPPSLNNIFKELQNDLNITPAKSGDLSSWAKQGVLLLNSILSVEAN

KAASHSSWGWQEFSDAIIHKLSNEKSGLVFMLWGNYAKNKEILIDNTKHLILKAAHPSPLARTGFLGCKH

FSKANEFLKKVGKIPIDWKIV

>sp|Q9PNN7.1|MURC\_CAMJE RecName: Full=UDP-N-acetylmuramate--L-alanine ligase; AltName: Full=UDP-N-acetylmuramoyl-L-alanine synthetase

MMQNIHFIGIGGIGISALARFLREKGFKISGSDLKESKITKELEKEGVKVSIPHHKDNILNKDLVIYSAA

IKEENPEFKYAKELGIKCLSRKEALPLILEDKRVFAVAGAHGKSTTSSILASLLDDASVIIGAILKEFGS

NMIYKESQNLVFEADESDSSFLNSNPYLAIVTNAEAEHLDHYGNEVSKLHHAYTQFLDVAKIRVINAEDE

FLKNYKNESIKLYPSKDIKNCTMCIENFKPFTSFELKDLGEFKVFGMGYHLALDASLAILAALNFLDIET

IRTRLKNYQGIKKRFDILHADENLVLIDDYGHHPTEIKATLSAAQEYVKLGGYKKITAIFEPHRYTRLAT

NLKEFAKAFEGVDELVILPVYAAGEEPIELDLKAVFPKALFVEDIKREGKFLVASKGQVFEEGLIIGFGA

GDISNKLRQKNE

>sp|Q9PIF2.1|TRPB\_CAMJE RecName: Full=Tryptophan synthase beta chain

MKKAYYGDFGGQFLPESAMFALNELEGAFLKFSKDKLFKKELNELLKTYVGRPTPLYFARNLSKKYQHEI

YLKREDLNHTGAHKINNAIAQALLAKKMGKKKIIAETGAGQHGLATATAAALLGLECEIYMGATDVQRQA

LNVYKMELLGAKIHAVQSGLKTLKEATTAAIQAWVGDIKNIFYVVGSAVGPYPYPKMVMHFQSIIGKECK

MQLQKLNKKVDYIIAAVGGGSNAAGIFYDFIKDENVKLIGIEAGGLGIDTPYHAATLNKGKTGIIHGMKT

KVLQDDLGNILPVHSVSAGLDYPGIGPLHAFLFESKRAQYHAISDEECMQALKLLCKEEGIIAAIESSHA

LAFLEKLCPTLKKKSVIVVNLSGRGDKDMQMIRDYKKGVIYG

>sp|Q9PNL3.1|THIE\_CAMJE RecName: Full=Thiamine-phosphate synthase; Short=TP synthase; Short=TPS; AltName: Full=Thiamine-phosphate pyrophosphorylase; Short=TMP pyrophosphorylase; Short=TMP-PPase

MKNKLDLSLYLVATKGSKSEECFLNTLENAIKGGVSIIQLREKELNAREFYKLGLKVQKLCKSYKIPFLI

NDRVDIALALDADGVHLGQEDLEAKLARKLLGDEKIIGLSLKKLEQLEFIQGVNYLGCGAIKATPTKESS

LLSLELLSQICDKSPIGVVAIGGIDKEALVELKGINLSGVAVVRAIMDAKDAFLAAKELKRKIYENLSLK

>sp|Q9PLY5.1|RS8\_CAMJE RecName: Full=30S ribosomal protein S8

MINDIISDSLTRIRNAGMRKLETTKLLHSKVVEALVGIFQAKGYIESFNVIEEDKKKFINVVLKYDEKGK

SVINELKRISKPGRRVYKGKDEIKRFKNGYGTIVVSTSHGVLANDEAYKAGVGGEILCTIW

>sp|Q9PIW6.1|MOAA\_CAMJE RecName: Full=GTP 3',8-cyclase; AltName: Full=Molybdenum cofactor biosynthesis protein A

MLIDQFGRKINYLRISVTQRCNFRCLYCMPKIPFDYQPKENLLSFEELFLFVKAAIDEGIEKIRITGGEP

LLRKDLSIFIKMISDYKSDIDLAITTNGFLLKDFAKDLKNAGLKRLNISLDTLDHKKAKTLAQKDVLDSV

LSGIDEALNLDLKVKLNTVALKNLNDDELISLLEFAKSKKAQIRFIEFMENTHAYGKLQGLKRDEIIQIL

SQKYQIQLIKKDEKAPVSIYKADDYEFGIIDPHSHEFCDSCNRIRLSAEGLLIPCLYFDEALSIKEAVRK

GDIKAAVEILQEVLRNKPEKNKWSVVDNETSSRAFYQTGG

>sp|Q9PIS0.1|ARGC\_CAMJE RecName: Full=N-acetyl-gamma-glutamyl-phosphate reductase; Short=AGPR; AltName: Full=N-acetyl-glutamate semialdehyde dehydrogenase; Short=NAGSA dehydrogenase

MKIKVGILGASGYAGNELVRILLNHPKVEISYLGSSSSVGQNYQDLYPNTPLNLCFENKNLDELELDLLF

LATPHKFSAKLLNENLLKKMKIIDLSADFRLKNPKDYELWYKFTHPNQELLQNAVYGLCELYKEEIKKAS

LVANPGCYTTCSILSLYPLFKEKIIDFSSVIIDAKSGVSGAGRSAKVENLFCEVNENIKAYNLALHRHTP

EIEEHLSYAAKEKITLQFTPHLVPMQRGILISAYANLKEDLQEQDIRDIYTKYYQNNKFIRLLPPQSLPQ

TRWVKSSNFADINFSVDQRTKRVIVLGAIDNLIKGAAGQAVQNMNLMFDFDEDEGLKFFANL

>sp|Q9PIP3.1|MOAC\_CAMJE RecName: Full=Cyclic pyranopterin monophosphate synthase; AltName: Full=Molybdenum cofactor biosynthesis protein C

MKLSHLDEKNHPKMVDVSDKNITLRIATASGIIYMSQEAFDVIKNNTAKKGPVLQTAIVAAIMGVKKTSE

IIPMCHPLMLSKVETNIVEFVKECAFKLIVTVKCEGKTGVEMEALSGVSIGLLTIYDMIKAIDKSMRITD

IVLESKEGGKSGKFVRS

>sp|Q9PN30.1|MNMC\_CAMJE RecName: Full=tRNA 5-methylaminomethyl-2-thiouridine biosynthesis bifunctional protein MnmC; Short=tRNA mnm(5)s(2)U biosynthesis bifunctional protein; Includes: RecName: Full=tRNA (mnm(5)s(2)U34)-methyltransferase; Includes: RecName: Full=FAD-dependent cmnm(5)s(2)U34 oxidoreductase

MKKAKLIFKDNTPFSLDFDDFYFNFKDGLNESKFVYTHSFEWKNQENFIIAESGFGIGLNFFLTLKRFLE

TTPSKRPKKLFYISVEAFYIEKEQLREIYQKLEFYEEFKELLEQFLKFYPKAKEGIYRFYFEDCFLDLVF

EDIAVLKELDFKADVWYLDGFSPNKNSQMFDENLIFEVARLSKKNTQICTFSSASFLQKNLKKYGFRVEK

TKGFRKREMIKAYLENELEFKDKEAYFSRTFSSLKNKKVAIIGAGISSAVLAYELSLRGFEIDIFEKHLE

LGKGASGNESGILSSLILKPKVNLGEFSELSFIEASRFYRQILDLEFKGVVEFAHNDLMQERFDTQRENV

LFKISKNQAFLEEGGVIFPKKLVKNLFEKSKACIYFNHEFQAYKFENGCFSLKFKNDVVKSDYAVLIYAM

GADAKDFVFYDEMKLSKVRGQVTHLKPFLDTPFPLSSKAYICPVKDDLQVIGASYDRLNASLESKEEDDK

QNIENIADFMDKNTKLEIIGSKVGFRSYSSDRFMIVGNAYDEAFYKEEYKALLWTKNKEQKPAKMSCNLY

FNFAHGSRGFSTSVLAARYLCALINNEPLCLEKKYIHAIHPARFLIRKLKKGL

>sp|Q9PM40.1|RNC\_CAMJE RecName: Full=Ribonuclease 3; AltName: Full=Ribonuclease III; Short=RNase III

MKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAVLDLVVGEYLFHKFAKDAEGDLSKL

RAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALEAIIGAIHLEAGFEFAKTIALRLIE

KNFPQIDAKILIKDYKTKLQEITQGKIGQTPQYETVRAFGPDHLKQFEIALMLDGKELARAIAGSKKEAQ

QMAAKIALEKLGAL

>sp|Q9PN24.1|PYRH\_CAMJE RecName: Full=Uridylate kinase; Short=UK; AltName: Full=Uridine monophosphate kinase; Short=UMP kinase; Short=UMPK

MQERKRVLVKFSGEALAGENGFGIENSILKFIASEIKELIKNQIEVGIVIGGGNIIRGVSAAKGGLIKRT

SGDHMGMLATVINAIAIQEALESSGLEVRVQSAIQMEAFCETYIMRRAQRHLEKGRVVVFAAGTGNPYFT

TDTTAILRAVEIDADMVIKATKVNGVYDKDPKQFDDAVFLNTLSYDEAMQDNIKVMDDTAIALAKDNKLP

IVVCNMFEEGNLLKIIQGDTSLCSTVKNN

>sp|Q9PP65.1|MURA\_CAMJE RecName: Full=UDP-N-acetylglucosamine 1-carboxyvinyltransferase; AltName: Full=Enoylpyruvate transferase; AltName: Full=UDP-N-acetylglucosamine enolpyruvyl transferase; Short=EPT

MTYLEIEGTNHLSGNVTISGAKNAALPLIVSSILAKNEVKINNVPNVADIKTLISLLENLGAKVNFQNNS

ALLNTNTLNQTIAKYDIVRKMRASILTLGPLLARFGHCEVSLPGGCAIGQRPIDLHLLALEKMGANIQIK

QGYVVASGNLKGNEILFDKITVTGSENIIMAAALAKGKTKLLNVAKEPEVVQLCEVLKDAGLEIKGIGTD

ELEIYGSDGELLEFKEFSVIPDRIEAGTYLCAGAITNSKITLDKVNATHLSAVLAKLHQMGFETLITEDS

ITLLPAKEIKPVEIMTSEYPGFPTDMQAQFMALALKANGTSIIDERLFENRFMHVSELLRMGADIKLNGH

IATIVGGKELNAADVMATDLRASSALILAALAAKGTSKVHRIYHLDRGYENLEEKFKDLGAKITRLEE

>sp|Q9PNJ6.1|PYRB\_CAMJE RecName: Full=Aspartate carbamoyltransferase; AltName: Full=Aspartate transcarbamylase; Short=ATCase

MRHLITTKDFNKVEIMELFKEASDFLDEKPRTFLEGKSITTIFFENSTRTLSSFESAARRLGARVLRLDV

SRSSSSKGETLYDTAANLDAMSPNAIVVRHANSGVPLILAKHMHCPVVNGGDGKHAHPTQALLDLFTIYN

HFQGNVEGKKICIVGDIKNSRVAASNIELLSRFNLDITLVAPPHFMPNTHLKKHYKLDENIIANSDIIMS

LRTQTERHNKTVYASLKDYANDFCIQKSLVKDKKLILLHPGPVNRNIDISDEMMSNERTLVLKQVKNGVA

IRMAVLKKLILENEG

>sp|Q9PNI9.1|SSRP\_CAMJE RecName: Full=SsrA-binding protein; AltName: Full=Small protein B

MKIIARNKKALFDYSIIERFEAGIVLKGSEVVALRAGRANLKDSFVRIIKNEIFLLNSHISLLHTTHSFY

KHEERGARKLLMHRKQIDKLLGKVSIEGYTIVALDLYFNTKNKVKATLALAKGKNLHDKRETLKKKQADL

EARAAMKNYK

>sp|Q9PM39.1|RNH\_CAMJE RecName: Full=Ribonuclease HI; Short=RNase HI

MKHIEIYTDGSCLNNPGFGGWAYILRYKEYQKEGFGAEANTTNNRMELMAIIESLKALKEPCEISLFTDS

NLMVQSINEWLEGWIKKDFKGKKNIDLWKEYIKVAKSHKIKAFWVKAHNGHLENERCDTLAREAALKIAR

ENDEKH

>sp|Q9PLW1.1|LEUC\_CAMJE RecName: Full=3-isopropylmalate dehydratase large subunit; AltName: Full=Alpha-IPM isomerase; Short=IPMI; AltName: Full=Isopropylmalate isomerase

MTMAKTLYEKVFDAHVVYEGKNELPILYIDRHLIHEVTSPQAFSGLKMAKRRMARADLTLATIDHDVSTK

SMDLNACSDMAKEQITTLMQNTKEFGVRLLGLGDKNQGIVHIVGPELGFTLPGVTLVCGDSHTATHGAFG

ALAFGIGTSEVEHVMATQTLKQAKLKTMKIECKGQFQKGVYTKDLILYLIAQYGTAKGTGYAIEFCGELI

RNLSMEARMTLCNMAIEFGAKVGMIAPDEITFEYIKGKEFAPKGEEFQKYCEYWKSLRSDEGAKYDASIT

LDVSKIKPQISYGTNPSQVIGIDEKIPKISDFKNQSEQKSLLDALYYVNLEQDQVIEGVKIDIVFIGSCT

NGRLEDLKIAADILKGRKIHKNVKALIVPGSMQVRKEAENLGLDKIFIEAGCEWRYAGCSMCLGMNDDKA

NSGQRVASTSNRNFVGRQGKGSITHLMSPASAAACAIEGVICDNRKYLGV

>sp|Q9PI64.1|ACP\_CAMJE RecName: Full=Acyl carrier protein; Short=ACP

MATFDDVKAVVVEQLSIDADAVKMESKIIEDLGADSLDVVELIMALEEKFEVEIPDSDAEKLIKIEDVVN

YIDNLKK

>sp|Q9PIR0.2|RRF\_CAMJE RecName: Full=Ribosome-recycling factor; Short=RRF; AltName: Full=Ribosome-releasing factor

MLNEIFNKQKTQSEKSLEALKKDFTTLRTGKVNIHILDHITVDYYGTQTPLNQVATVLASDASTISITPW

EKPLLKTIESAIAAANIGVNPNNDGESVKLFFPPMTREQREENVKQAKAMGEKAKVSIRNIRKDANDAVK

KLEKDKAISEDEAKKAYDEVQKLTDTYTTKIDEGVKSKESELLKV

>sp|Q9PHZ9.1|PUR7\_CAMJE RecName: Full=Phosphoribosylaminoimidazole-succinocarboxamide synthase; AltName: Full=SAICAR synthetase

MTKKEMLYEGKGKKLFKTDDENLLISEFKDDLTAFNAEKRGNESGKGALNCKISTEIFHLLEKNGIKTHL

VEIISDTEQVVKKCKIVPIEVIVRNVATGSLTKRLGIKDGTVLPFALVEFCLKDDALGDPFINDEHCLIL

NLVQNEAQISEIKNMARKINSILTPFFDNKNLRLIDFKIELGLTKDNELVLADEISPDSCRFWDKFSNEK

LDKDRFRQDLGNVKMAYEEVLKRILN

>sp|Q9PLV9.1|LEU1\_CAMJE RecName: Full=2-isopropylmalate synthase; AltName: Full=Alpha-IPM synthase; AltName: Full=Alpha-isopropylmalate synthase

MKDNKIIIFDTTLRDGEQALGSSLGINQKLQIALALENLGVDVIEAGFPVSSQGDFKAVQKIASKVKNST

ICALSRALDKDIDMAYEALKVAKHFRIHTFIATSTLHMQDKLKKDFDEILSMAKRAIIRARSYTDDVEFS

CEDAGRTPIDNLCFMVENAIKAGAKTINIPDTVGYTLPSEFANIIKILFNKVPNIDKAIISVHCHNDLGM

ATGNSLSAILQGARQIECTINGLGERAGNCALEEVVMAIKTRKDYLKGFYTDIKCENIFKTSKLVSAITN

ESIPSHKAIVGSNAFSHSSGIHQDGVLKNRQTYEIISPSAIGIHENRMLMTARSGRAMIKTCLENLGYDE

NTYNLDDVYERFLRLADKKGQVYDYDLEALMFLSYESEEENEFVLEKLSVISGNIPTACVCMRIKEELKT

EACTGNGPVEAVFNCIARITNLKPALKAYSINAKSSGVDAQGQVDVDLEFKGRKFHGKGLSTDVIEASAQ

AFVSAYNAIYRSLKVEERKMA

>sp|Q9PMT4.3|GLMS\_CAMJE RecName: Full=Glutamine--fructose-6-phosphate aminotransferase [isomerizing]; AltName: Full=D-fructose-6-phosphate amidotransferase; AltName: Full=GFAT; AltName: Full=Glucosamine-6-phosphate synthase; AltName: Full=Hexosephosphate aminotransferase; AltName: Full=L-glutamine--D-fructose-6-phosphate amidotransferase

MCGIVGYIGNNEKKQIILNGLKELEYRGYDSAGMAVMQEGELSFFKAVGKLENLANKCTDFESQGYGFAI

GHTRWATHGKPTEINAHPHLGQYSCVIHNGIIENYKEIKDKLEKEGVSFLSQTDTEVIVQLFEFYARNLG

VFEAWQKTIKELRGAFATLLVTKKDPNHVYFAKNAAPLIIGKNANKEWYFSSGDAPLIGSCDEVMYLEDL

SLGYASKDELVVYENDILKSLCFSKLSGDKAYAKKDGFRFFMEKEIYEQSRVMSEVLMGRIQGDEVVFDE

LNNEDLSQVDEITLCACGTSYHAAMASAYLFERIAKVKAKVEIASEFRYREAIIKKDSLFIVISQSGETA

DTLEALKIAKEQGAKTFAICNVDNSNIVRLAHLSLLTRAGIEKGVASTKAFATQVLTLWMLAIFMAQKRN

LNVSAEIKALLHTPNCVSVKQALHEKIHRLSKRYLDGHGFFFIGRDVFYPLALEGALKLKELSYLHAEGY

PAGEMKHGPIALADSKLYTIALMPKHMLYEKTKSNVEELIARDSTVLSISPLEFDLSDDFIKTNEQDHYM

CEFFEMMVITQLLAMEISIRLGNDVDMPRNLAKSVTVE

>sp|Q9PMG8.1|CARA\_CAMJE RecName: Full=Carbamoyl-phosphate synthase small chain; AltName: Full=Carbamoyl-phosphate synthetase glutamine chain

MKAYIYLENDIFLSAKAFGKSGTFFGELVFNTSLTGYQEIISDPSYAGQFIVFSMPEIGIVGTNENDNES

KEIFASGVLMRELSSSFSNFRAKESLQDYLEKHGKIGIYELDTRYLVKMIRNNGNLRAVISTEISNKEDL

KIALEKSAKIDEVNFVKEVSTKKNYSHKQGVWNASFQKFNDAKRSEKKVAVIDYGVKTNILNELVEVGFE

VEVYPYNVKADELITLYKKGEIQGVFLSNGPGEPRILKQEIAEIKKLAEAKIPMLGICLGHQLLSNAFGY

ETYKMKFGQHGANHPVINLDTKTVEITAQNHNYNVPEELAQVAHITHRNLFGDNVEGVRYKDYPIISVQH

HPESSSGPHESKYIFKEFMNLM

>sp|Q9PM76.1|HIS7\_CAMJE RecName: Full=Histidine biosynthesis bifunctional protein HisB; Includes: RecName: Full=Histidinol-phosphatase; Includes: RecName: Full=Imidazoleglycerol-phosphate dehydratase; Short=IGPD

MSQKILFIDRDGTLIEEPKSDFQIDTLEKLRFEKDAIPTLLKLKKFGFKFVMVSNQDGLGTPSFPKENFE

IAHEKMLDILKSCGIEFQDIFICPHFENENCACRKPKTAMLEEYIKHELYDKEQSFVIGDRESDMILASN

LGVRGLKYGELSWKEIENEILSSFRSASYQRTTKETDIKVKVCLNGGKVSIKTGIDFFDHMLEQIAVHGG

IGLEISCKGDLEIDEHHSVEDVALALGACIKKALGDKIGIARYGFALPMDECLASCAMDFCNRPHLVYKA

KFKKSHLGALSTEMIEHFFYSLSYAMGVSLHLKVKGKNDHHKAEGLFKAFAKALKMAVKIESENLASSKG

VI

>sp|Q9PHM9.1|IPYR\_CAMJE RecName: Full=Inorganic pyrophosphatase; AltName: Full=Pyrophosphate phospho-hydrolase; Short=PPase

MNLSKIKIGDIPNKINAVIEIPYGSNIKYEIDKDSGAIMVDRVMASAIFYPANYGFIANTLADDGDPVDI

LVLNEYPIQAGAVIPCRLIGVLIMEDESGMDEKLLAVPNSKIDARYDNIKTYTDLPQATLNKIKNFFETY

KILEPNKWVKVQDFKDEKAAIEILEKAIKNYK

>sp|Q9PMQ5.1|PGK\_CAMJE RecName: Full=Phosphoglycerate kinase

MSDIISIKDIDLAKKKVFIRCDFNVPQDDFLNITDDRRIRSAIPTIRYCLDNGCSVILASHLGRPKEISS

KYSLEPVAKRLARLLDKEIVMAKDVIGEDAKTKAMNLKAGEILLLENLRFEKGETKNDENLAKELASMVQ

VYINDAFGVCHRAHSSVEAITKFFDEKHKGAGFLLQKEIDFASNLIKHPARPFVAVVGGSKVSGKLQALT

NLLPKVDKLIIGGGMAFTFLKALGYDIGNSLLEEELLEEANKILTKGKNLGVKIYLPVDVVAAPACSQDV

PMKFVPAQEIPNGWMGLDIGPASVRLFKEVISDAQTIWWNGPMGVFEIDKFSKGSIKMSHYISEGHATSV

VGGGDTADVVARAGDADEMTFISTGGGASLELIEGKELPGVKALRSKENE

>sp|Q9PNA7.1|MNMG\_CAMJE RecName: Full=tRNA uridine 5-carboxymethylaminomethyl modification enzyme MnmG; AltName: Full=Glucose-inhibited division protein A

MFDVIVIGGGHAGVEASAAAARMGKKTLLLTTLIEQIGAASCNPAIGGLAKGHLVKELDAMGGLMGEITD

EAGIQFRILNESKGVAVQGSRAQIDMDKYRIIARNKLLKLPNLEISQEQASVLIVENDEVKGVKTNLENI

YFAKKVILTTGTFLNGLIHVGENKLQAGRVGELASVNLGNYLQTLGLKMGRLKTGTCPRVDAKSIDFSVL

EIQDGDVNPKAFSFRSRNFNPTQLPCYIARTNTTTHEIIKNNFYRAPLFTGQIEGVGPRYCPSIEDKINR

FSDKESHHLFIEPQTIDATEYYINGFSTSLPYEVQTQMLRSVEGFENAKITRFGYAIEYDYIEPTELKHT

LELKKIKNLYCAGQINGTTGYEEAAAQGFMAGINASLSIDMKEPLILRRDEAYIGVLIDDLVVKGTKEPY

RMFTSRAEFRLLLREENAILRLGKYGYDLGLLSEQDFTYIQNIANNLQKGLEFLLSKEFTPNNQNNAFLE

SLGEDKISSIVNLQKIVARASFDIEKLKKLDPIFETMDHYSLREILNEAKYYHYISMQKAQVEKMKNLSE

LKIPENFDFKSVSGLSNEVVEKLNHHKPPTIFAASQISGITPAALDILQIYIKMQKKKA

>sp|Q9PIM0.1|CLPX\_CAMJE RecName: Full=ATP-dependent Clp protease ATP-binding subunit ClpX

MEFLSIGVKIMPRKCSFCNEVENPQRRILANENDDAFICEYCVEGAYSIIYGEEKEFKEPKQSHNTEFKD

ITPKELKAYLDRYVIGQDRAKKVFSVGVYNHYKRLFKAELQDDDTELFKSNILLVGPTGSGKTLLAQTLA

KFLDVPIAICDATSLTEAGYVGEDVENILTRLLQAADGDVQRAQKGIVFIDEIDKIARMSENRSITRDVS

GEGVQQALLKIIEGSLVNIPPRGGRKHPNQEFIQIDTSNILFVCGGAFDGLETILKRKLGDKVVGFFDDA

KEENKALLEKIEPDDLVHFGLIPELIGRLHVIASLNELNEEDMVRILTEPKNAIIKQYQKLFAIDGVNLK

FEEDALRAIAQLALERKTGARGLRSIIEEMMVDLMFELPEYKDYDIVITKEVVKDNAKALLIKRKIS

>sp|Q9PNM6.1|Y1068\_CAMJE RecName: Full=Putative zinc metalloprotease Cj1068

MRSLLLLIVILILGIKFYSIEFLATVLVISFLIFFHELGHFLAARSLGVKVEVFSIGFGKSLIEREFKGT

NYRLSTLPLGGYVKLKGQDDMRPGFENLDKDSYSILSPLKKIYILFAGPFFNLILAFFLYIIIGNLGLNK

LAPQIGNIAPNSAAQEIGLQKNDTILEINGIRIQTFDEISKHLSLDPLKILINREGKNLEFILTPKIGQG

YNDFGQIVEKPQLGVSPNGTSTLVKHQGLESFKYAAQESFQASTLIIKGIVKLISGEVEAKNLGGIITMT

EITSKAAQNSFTLLLFITALISINLGILNLLPIPMLDGGHILFNLYEMIFRRKVPQRTFEYLSYTGMAIL

LSLMLFATYNDISRIIGE

>sp|Q9PLU8.1|RUVC\_CAMJE RecName: Full=Crossover junction endodeoxyribonuclease RuvC; AltName: Full=Holliday junction nuclease RuvC; AltName: Full=Holliday junction resolvase RuvC

MNLKILGIDPGSRNCGYAIIEADKGKNILIEAGLIKIKPSTLQYQITELCEGLDLIFKNHSFDEVAIEDI

FFAYNPKTVLKLAQFRGALSLKILQIHGDFAEYTPLQVKKAVTGKAKATKEQVAFMVKRLLGLSKDIKPL

DITDAIAVALTHAANLRVRV

>sp|Q9PIB8.1|KDSA\_CAMJE RecName: Full=2-dehydro-3-deoxyphosphooctonate aldolase; AltName: Full=3-deoxy-D-manno-octulosonic acid 8-phosphate synthase; AltName: Full=KDO-8-phosphate synthase; Short=KDO 8-P synthase; Short=KDOPS; AltName: Full=Phospho-2-dehydro-3-deoxyoctonate aldolase

MKKMILIAGPCVIESKDLIFKVAEQLKNFNENPNIEFYFKSSFDKANRTSINSFRGPGLEEGLKILQSVK

DEFGMKILTDIHESNQANPVSEVADVLQIPAFLCRQTDLLVAAAKTKAKINIKKGQFLNPSDIKYSVKKV

LQTRGIEDEGYEAAQRNGVFVAERGASFGYGNLVVDMRSLVIMREFAPVIFDATHSVQMPGAAGGSSGGK

SEFVEPLARAAAAVGIDGFFFETHINPCEALCDGPNMLNLTRLKNCVNTLLEIQNIIKENK

>sp|Q9PNT0.1|TGT\_CAMJE RecName: Full=Queuine tRNA-ribosyltransferase; AltName: Full=Guanine insertion enzyme; AltName: Full=tRNA-guanine transglycosylase

MEFKLKHKDGMARVCEITTAHSTFLTPVFMPVGTVGAVKSLDANDMKNELDAKIILANTYHMYLRPTSKV

VKDFGGLHGFTKFDRSFLTDSGGFQAFSLSKNSKHFNEGIEFKSHIDGSRHLFTPKSVLDTQYDFNSDIM

MILDDLVALPATKERVKISVDRTILWAKEAITYHKNMQNKGIGIGQNIFGIIQGGTDYEERKRCALSLNE

MPFDGLAIGGLSVGEENALMYETVQNLNPYLDENRPRYLMGVGTPEDLVENVERGVDMFDCVMPTRNARN

GTFFTSFGKFNIKKAEFINDHEVIDSTCSCYTCRNFSRGYLNHLFKAKELTFFRLASLHNLHYYLELARK

MREAILNNSFTQFKRNFYHLRGK

>sp|Q9PPC1.1|RUVA\_CAMJE RecName: Full=Holliday junction ATP-dependent DNA helicase RuvA

MVVGIEGIITKKEPTFIIVKCASGLSYGIFISLFCSAKIQTQEKHEFFITQIIKEDSNKFYGFLDKDEQK

MFEMLLKVNGVGANTAMAVCSSLDVNSFYKALSLGDESVLKKVPGIGPKSAKRIIVELSDTKTKLENVSD

DKSEALAALLTLGFKQEKIISVLVSAQATGTSELIKEALKKLG

>sp|Q9PHN0.1|MSRA\_CAMJE RecName: Full=Peptide methionine sulfoxide reductase MsrA; Short=Protein-methionine-S-oxide reductase; AltName: Full=Peptide-methionine (S)-S-oxide reductase; Short=Peptide Met(O) reductase

MKNIVLGGGCFWCVEAVFERLKGVINTEVGYSGGKPNPSYESVCNGDGNIEVVKINYDEKQISLLEILTL

FFKIHDPTSIDKQGGDIGIQYRSIIFYENEEDKILAQNFIEEQQKIFSKKIVTKISRLQTYYKAENYHQH

YFINNPDQGYCQAVIAPKLQKIQSD

>sp|Q9PP92.1|TRMA\_CAMJE RecName: Full=tRNA/tmRNA (uracil-C(5))-methyltransferase; AltName: Full=tRNA (uracil(54)-C(5))-methyltransferase; AltName: Full=tRNA(m5U54)-methyltransferase; Short=RUMT; AltName: Full=tmRNA (uracil(341)-C(5))-methyltransferase

MSLENFGNFLTLDEKHSFIKKYFKEFYTKDFKLFASKDKHYRTRAELSFYHENDTLFYAMFDPKSKKKYI

IEYLDFADEKICAFMPRLLEYLRQDNKLKEKLFGVEFLTTKQELSITLLYHKNIEDIKSNLENLSNILHI

NLIARSKGKKLIFKTENLRQTLNIQDRKIFYEFNNDCFIQPNTAINEKMITWVCEILNTQKRMDLLELYC

GYGNFTLALAPFFFKILATEISKSNINFALKNCELNNTTNIHFARLSSEELSLAIKKEREFFRLKDIRLD

DFNFSHVLVDPPRAGLDKSVIDLIKKYGNIIYISCNPMTLKENLKELSLTHRVEEFALFDQFVNTPHLEC

GVFLSKV

>sp|Q9PIC3.1|MSRP\_CAMJE RecName: Full=Protein-methionine-sulfoxide reductase catalytic subunit MsrP; Flags: Precursor

MLITPEKLYKQRRNFLKLGAGALISSSVLASKLSALNFTSDTNPNKLEISDEELATNYVNFYEFSTDKRK

AVSLAQNFNTQNWKIDISGEIEKPLTLSMEDILKFPLEERIYRFRCVETWSMVVPWVGFELRRLIEMAKP

TSEAKFVKFTTLLDKSQFPDQDALFPTIDYPYVEGLRMDEAMHPLTLLAVGMYKKALKPQNGAPIRLVVP

WKYGFKSIKSIVKIEFTKEQPKSTWESYAPSEYGFYANVNPNVSHPRWSQANERALGDFFTKPTLMFNGY

EKEVASLYKNMDLKVNF

>sp|Q9PIS4.1|UPPP\_CAMJE RecName: Full=Undecaprenyl-diphosphatase; AltName: Full=Bacitracin resistance protein; AltName: Full=Undecaprenyl pyrophosphate phosphatase

MENLYALILGIIEGLTEFLPISSTGHMILGTTILGIDIDEFWKSFLIIIQLGSILAVIFVFWRKLFQGLD

IWLKLAVGFFPTGVIGLFVAKYLNALFNGWVVVGMLIFGGVVFILIELAHKNKQYRINSLEEISFKQAFC

IGIFQSLAMIPGTSRSGASIIGGLLLEFNRKVAAEFSFLLAIPTMIIATAYSIYKEPELLGNANSLIPLG

IGFITAFIVAVLVIKFFLKFISKFDFIPFGIYRIILGFVFFYLYYSGILNAGSEFKL

>sp|Q9PMT7.1|RUVB\_CAMJE RecName: Full=Holliday junction ATP-dependent DNA helicase RuvB

MDRIVEIEKYSFDETYETSLRPSNFDGYIGQESIKKNLNVFIAAAKKRNECLDHILFSGPAGLGKTTLAN

IISYEMSANIKTTAAPMIEKSGDLAAILTNLSEGDILFIDEIHRLSPAIEEVLYPAMEDYRLDIIIGSGP

AAQTIKIDLPKFTLIGATTRAGMLSNPLRDRFGMQFRLEFYKDSELALILQKAALKLNKTCEEKAALEIA

KRSRSTPRIALRLLKRVRDFADVNDEEIITEKRANEALNSLGVNELGFDAMDLRYLELLTAAKQKPIGLA

SIAAALSEDENTIEDVIEPYLLANGYIERTAKGRIASAKSYSALKLNYEKTLFEE

>sp|Q9PLY4.1|RS14Z\_CAMJE RecName: Full=30S ribosomal protein S14 type Z

MAKKSMIAKAARKPKFKVRAYTRCQICGRPHSVYRDFGICRVCLRKMGNEGLIPGLKKASW

>sp|Q9PIK6.1|SURE\_CAMJE RecName: Full=5'-nucleotidase SurE; AltName: Full=Nucleoside 5'-monophosphate phosphohydrolase

MKEILITNDDGYESEGLKKLIKMLTKEFKAKITIVAPASEKSACSHSITLTKPLRFVKVGKRFYKLDDGT

PADCVYLALHALYKKRLPDLVISGINKGANVGEDITYSGTCAGAMEAVLQGIPAIALSQFYKKSEKELDY

KNALQITKKIIQNIFDKGFPLEKKEFLNINFPAKSKIKGIKICKAGKRVYNFEAHSNVNPRGVEYYWLAA

ANLDFEDEKNSDIALLKKGYATITPIMLDLTAYERMKKVKKWLKANDE

>sp|Q9PIC1.1|PYRF\_CAMJE RecName: Full=Orotidine 5'-phosphate decarboxylase; AltName: Full=OMP decarboxylase; Short=OMPDCase; Short=OMPdecase

MKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEELKKVDDFKIFLDLKFHDIPNTMAD

ACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSALTSFDEENFFSIYRQKIEEAVINFS

KISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQKRVANLAMARENLSDYIVVGRPIY

KNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEEWIKTRPDKEHALKEFYAKCGIKY

>sp|Q9PHM1.1|RLPA\_CAMJE RecName: Full=Endolytic peptidoglycan transglycosylase RlpA; Flags: Precursor

MQIKTITLKLSAVSLGALFFSGCLGTSFFSSLDNAQVYYPSNDFKSSPSSSGTKGTMKPYTINGKTYYPT

VVAVGETADGIASWYGPGFHGKKTSNGETYNQNALTAAHKTLPMNTILKVTNLNNNRQVTVRVNDRGPFV

NNRIIDLSKGAASQIDMIASGTAPVRLEVIGFGSSNSGNNIVHSNVNYGNSGEIANNGQIYEGGNFMVQI

GAFKNPAGAQTIAARYKTYRTYSSTIRTSSVDGLNRVFLTGFRSEDEARDFAASGAFAGAFVVRE

>sp|Q9PNN2.1|GATA\_CAMJE RecName: Full=Glutamyl-tRNA(Gln) amidotransferase subunit A; Short=Glu-ADT subunit A

MITLKEALKYSKEELENLKKELNEKAKKEKKLGAYIEQFLDKDLSVSGEGVPVAIKDNISVKGWELTSAS

KILQGYIAPYDASAIVNLKANGFSPFGRCNMDEFAMGSSTASSCYGKTLNPLNFERVPGGSSGGSAAAVA

GGLALASLGSDTGGSVRQPAAFCGCVGFKPSYGRVSRYGLASYSSSLDQIGVLTQNVEDAAILYDAIAGY

DKMDSTSANIEFIKTVPNLNANKKLKIAVIENYVNDADSEVKNALLKTIDMLKANGHEIVYKNLLDSKFD

IAAYYIIATAEASANLSRYDGVRYGKRSENIQNLKEMYVNTRSEGFGEEVKRRILLGTFVLSSGYYDAYY

IKAQKARAFIKAKYEEILQDCDLIFMPVTPTTAFKFDTQKSPMQTYLEDVYTISVNLAGLGGISVPVAKD

KEGLNISAQLICKAYDEQTLLDGALSLEQMIKN

>sp|Q9PHX2.1|HEM1\_CAMJE RecName: Full=Glutamyl-tRNA reductase; Short=GluTR

MYYCISFTHKNTDIALREKLSFSNEAKKGEFLKIISTHENIEECLVISTCNRVEIVAFVKMACAEFIVKS

LALLCDVDKDILLEKADIFEDSGAIHHLFSVASSLDSLVVGETQIAGQLKDAFAFAVKNNFCGVHLSRAV

HSAFKCAAKVRNETQISKNSISVASVAVAKAKELADLTQKKAVVIGAGEMGELAAKHLIAAGAKVIILNR

DLQKAKDLCERLGVLSEYDSLENLKKYLNQYEFFFSATNAPNAIITNSLIEELSYKRYFFDIAVPRDIDI

NENENISVFAVDDLEIVVQKNLALREQEARMAYGIIGRETSEFFRYLNDLALMPIIKAIRLQAKEYADKQ

LEIALKKGYLKKSDKEEARKLIHQVFKAFLHTPTVNLKHLQGKMQSDTVINAMRYVFDLQNNLEGLNQYK

CEFDMENNDEIY

>sp|Q9PN07.1|DCD\_CAMJE RecName: Full=dCTP deaminase; AltName: Full=Deoxycytidine triphosphate deaminase

MGLKADNWIRKMALEHKMIEPFCEANIGKGVVSYGLSSYGYDIRVGREFKIFTNVNSTVVDPKNFVEENV

VDFEGDVCIVPANSFALARTIEYFKMPDNVLAICLGKSTYARCGIIVNVTPFEPGFEGHITIEISNTTPL

PAKIYANEGIAQVLFLQGDEKCDTTYKDKKGKYQAQTGITLPRILK

>sp|Q9PJ18.1|ATPE\_CAMJE RecName: Full=ATP synthase epsilon chain; AltName: Full=ATP synthase F1 sector epsilon subunit; AltName: Full=F-ATPase epsilon subunit

MNDLINFEIVTPLGVIYQGEVKSVTLPGSEGEFGVLKGHAALVSSLKSGVIDIEKADLNHELIAIDAGHA

KVDEDKICVLAKGAVWVCGSDESEIEKNLAQAKDLIKSMSSDNAALAATFSKLDNARMH

>sp|Q9PN13.1|UPP\_CAMJE RecName: Full=Uracil phosphoribosyltransferase; AltName: Full=UMP pyrophosphorylase; AltName: Full=UPRTase

MKNIHCINHPLIEHKLGILRAKETKPFQFRMLIDEISSFLLFEASKDFSLKEIEISTPIQKTTVKKLDEK

IMICPILRAALGMLESVFKMIPDASVGFLGFVRNEETLKADFYFQKLPKDAKKRTAIVIDPMFATGGTAI

DACNFLKSQGVKKIKFISILAAPQGLKKFSQMHDDVEVFVACIDEGLNEKGYIIPGLGDAGDRVFNTL

>sp|Q9PIG7.1|NDK\_CAMJE RecName: Full=Nucleoside diphosphate kinase; Short=NDK; Short=NDP kinase; AltName: Full=Nucleoside-2-P kinase

MEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMISGPV

VVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>sp|Q9PIA5.1|GATC\_CAMJE RecName: Full=Glutamyl-tRNA(Gln) amidotransferase subunit C; Short=Glu-ADT subunit C

MQIDEKLLSKLEKLSALQITKNRNETIAQLSEIVNFVEKLNELDLDSQEITVSTIKGGAPLRIDEIRNSN

VIDEVLDCAPKKQEHFFVVPKIIE

>sp|Q9PHW6.1|FLID\_CAMJE RecName: Full=Flagellar hook-associated protein 2; Short=HAP2; AltName: Full=Filament cap protein; AltName: Full=Flagellar cap protein

MAFGSLSSLGFGSGVLTQDTIDKLKEAEQKARIDPYTKKIEENTTKQKDLTEIKTKLLSFQTAVSSLADA

TVFAKRKVVGSISDNPPASLTVNSGVALQSMNINVTQLAQKDVYQSKGLANDGGFVNAQLNGTADLTFFS

NGKEYTVTVDKNTTYRDLADKINEASGGEIVAKIVNTGEKGTPYRLTLTSKETGEDSAISFYAGKKDSNG

KYQKDINAEKIFDDLGWGLDVSASIDPDKDKKGYGIKDASLHIQTAQNAEFTLDGIKMFRSSNTVTDLGV

GMTLTLNKTGEINFDVQQDFEGVTKAMQDLVDAYNDLVTNLNAATDYNSETGTKGTLQGISEVNSIRSSI

LADLFDSQVVDGTTEDANGNKVNTKVMLSMQDFGLSLNDAGTLSFDSSKFEQKVKEDPDSTESFFSNITK

YEDINHTGEVIKTGSLSKYLNSNGGNTNGLEFKPGDFTIVFNNQTYDLSKNSDGTNFKLTGKTEEELLQN

LANHINSKGIEGLKVKVESYNQNNVTGFRLNFSGDGSSDFSIKGDANILKELGLSDVNITSKPIEGKGIF

SKLKATLQEMTGKDGSITKYDESLTNDIKSLNTSKDSTQAMIDTRYDTMANQWLQYESILNKLNQQLNTV

TNMINAANNSNN

>sp|Q9PM64.1|RS20\_CAMJE RecName: Full=30S ribosomal protein S20

MANHKSAEKRARQTIKKTERNRFYRTRLKNITKAVREAAANGNKNAANEALKVANKSIHAMVSRGFIKKQ

TASRRVSRLALLVNKIA

>sp|Q9PLX0.1|RS10\_CAMJE RecName: Full=30S ribosomal protein S10

MERIRLKLKAYDHRVLDRTVAAIVEAVKRTGADIRGPIPMPTKIKRYTVLKSPHINKDSREQFEIRIHAR

MLDIVAATPDTVDSLTKLDLAPEVSVEVRAMGK

>sp|Q9PHK8.1|RL9\_CAMJE RecName: Full=50S ribosomal protein L9

MKVLLIKDVKALGKAGEIKEVKDGYGQNFLIAKGFAKAATNEVLRKYESDKKKEAENLRFEIANLEKLKE

ELSKITLEISKPVGANGSLFGGVTKDEIAHALKEQSHIEIDKKSLECDTLKSLGIHEVSVKLGHAIHAKF

NINIKAE

>sp|Q9PHZ3.1|HTPG\_CAMJE RecName: Full=Chaperone protein HtpG; AltName: Full=Heat shock protein HtpG; AltName: Full=High temperature protein G

MQFQTEVNQLLQLMIHSLYSNKEIFLRELISNASDALDKLNFLSVSDDKYKSLKFEPKIEIKIDKDKKTL

SISDNGIGMDKDDLINNLGTIAKSGTKSFLENLSGDAKKDSQLIGQFGVGFYSAFMVASKIEVLSKKALD

DKAYLWSSDANGYEIDDANKEEQGTSITLYLKDDEFANAYKIESIIEKYSNHIQFPIFMEKEEFTPAKEG

EEEGKTELKISQINKANALWRMQKSSLKAEDYERFYEQNFHDSNKPLLYLHTKSEGKLEYNSLFFIPQNA

PFDLFRVDYQSGLKLYVKRVFISDDDKELLPTYLRFVRGIIDVEDLPLNVSREILQENQILKGIKEASVK

KILGELEKLKNNDKEKYLSFFKTFGKVLKEGLYGFGGEKDSLLKLMLYKSTKGENLRSLEEYKNDLQGEQ

KEIFYIAGNNESLLRTSPLLEEYKQKNIEVLLMDDEIDSLVTPMLEFEGLKFVSINQVEDKNELSDEEKN

TFAPLVAKFKELLKDQVEDVRLTSRLKDSPSCIVYDKNKPDFAMQQLLKQMGQEQNFKPILEINPKHAIF

TGLKNNESFSADIATLVLNMAKLSEGMGVDNPAEFNASLTKIINKAFS

>sp|Q9PN90.1|RADA\_CAMJE RecName: Full=DNA repair protein RadA; AltName: Full=Branch migration protein RadA

MAKNKALFECQACGNQQSKWLGKCPDCGAWDSFVELKAEQIKVLKELAQVSMKTSEAVCIEDVELEHFTR

YSTDDNELDLVLGGGLVEGSLVLIGGSPGVGKSTLLLKIASNLAKQGKKVLYVSGEESKAQIKLRADRLE

ANTPNLFLLTELCLENILEELHKKDYSILIVDSIQTLYSNKITSAAGSITQVREITFELMRVSKAYNIST

FIIGHITKEGAIAGPRVLEHMVDVVLYFEGDATKEIRLLRGFKNRFGGTNEVGIFEMTAKGLISAKDLAN

RFFTRGKAISGSALGVVMEGSRALVLEVQALVCESSYPKRSATGYEKNRLDMLLALLERKLEIPLGHYDV

FVNISGGVKVSETAADLAVVAAIISSFKNRPLSKDSIFIGELSLNGEIREVFSLDTRLKEAKMQKFKNAI

VPSKPLEDIGLKCFVAKELSQVLEWM

>sp|Q9PIT8.1|DEF\_CAMJE RecName: Full=Peptide deformylase; Short=PDF; AltName: Full=Polypeptide deformylase

MVRKIITYPNPRLFLNSEIVNKFDTELHTLLDDMYETMIASNGVGLAAIQVDIPLRVLLVNIFDENDEQK

KEDLLEIINPEIIPLDEEMITCTEGCLSVPDFFEEVKRYNHILLKYQDRFGEFKELEAKGFLAVAIQHEN

DHLNGHLFIEKISFAKRQKFDKEFKKKKKNHKKEK

>sp|Q9PJ29.1|PROB\_CAMJE RecName: Full=Glutamate 5-kinase; AltName: Full=Gamma-glutamyl kinase; Short=GK

MKRIVVKVGSHVISEENTLSFERLKNLVAFLAKLMEKYEVILVTSAAISAGHTKLDIDRKNLINKQVLAA

IGQPFLISVYNELLAKFNKLGGQILLTGKDFDSRKATKHAKNAIDMMINLGILPIINENDATAIEEIVFG

DNDSLSAYATHFFDADLLVILSDIDGFYDKNPSEFSDAKRLEKITHIKEEWLQATIKTGSEHGTGGIVTK

LKAAKFLLEHNKKMFLASGFDLSVAKTFLLEDKQIGGTLFE

>sp|Q9PI17.1|RS7\_CAMJE RecName: Full=30S ribosomal protein S7

MRRRKAPVREVLPDPIYGNKVITKFINSLMYDGKKSTATTIMYGALEAIDKKGGEKKGIDIFNDAIENIK

PLLEVKSRRVGGATYQVPVEVRPARQQALAIRWIISFARKRSERTMIDKLAAELLDAANSKGASFKKKED

TYKMAEANKAFAHYRW

>sp|Q9PMS2.1|SELA\_CAMJE RecName: Full=L-seryl-tRNA(Sec) selenium transferase; AltName: Full=Selenocysteine synthase; Short=Sec synthase; AltName: Full=Selenocysteinyl-tRNA(Sec) synthase

MNKFRTFPQINTLIEDESLKSYPFYIKAFFCKKVVAKLKENFFQDEISKDKLLLEIKKEIKTFYRKDLQS

VINASGVVIHTNLGRSVIHEELYEACKDIICNYSNVEFDLENGKRGSRYALVLEKLKMLFECEDALVVNN

NAAAVFLVLNSLCYDKEVISSRGELVEIGGSFRVPEVIKAAGVKLCEVGTSNKTHLKDYEQAINENTALI

LKTHKSNFALMGFHSEVNIKDLHELAKEKELLSYYDLGSGWCENLNEKLIKNEPKIRKLVQECDILSFSG

DKLFGSVQAGIILGKKELIEKLKQNQLLRMLRVDKLTLSFLNESLKAYLQKDYEKIITLKLLNDDLSFIE

KKALRVQKELKFQTQLKKSKSLVGGGSMPDKSLDTYILTFQGDALKLQTRFRKENIIGRIENDEFVLDFR

TIRENELQKLILTINQMENL

>sp|Q9PIB9.1|RISB\_CAMJE RecName: Full=6,7-dimethyl-8-ribityllumazine synthase; Short=DMRL synthase; Short=LS; Short=Lumazine synthase

MNIIEGKLNLDSNTKIAIINARFNHIITDRLVEGAKDAFLRHGGKEENLSLILVPGAFELPYALKKAIES

KKFDAICCVGAVIRGSTPHFDYVSAETTKGIANVSLNHNIPVSFGVLTTDTIEQAIERAGSKAGNKGFEA

MTTVIEMLNLSKEL

>sp|Q9PNY0.1|PURL\_CAMJE RecName: Full=Phosphoribosylformylglycinamidine synthase subunit PurL; Short=FGAM synthase; AltName: Full=Formylglycinamide ribonucleotide amidotransferase subunit II; Short=FGAR amidotransferase II; Short=FGAR-AT II; AltName: Full=Glutamine amidotransferase PurL; AltName: Full=Phosphoribosylformylglycinamidine synthase subunit II

MDKETIKAHKISDEEYAQILEILGREPNLLELGVISAMWSEHCSYKSSKKYLNGFPTKAPWVIQGPGENA

GVIDIGQGMAAVFKVESHNHPSFIEPFAGAATGVGGILRDVFTMGARVVAGLNSLKFGDIHDEKCGKHQK

YLVKGVVNGISHYGNCMGVPTIGGECAFDECFNGNILVNAFALGVCKSEDIFYAKAEGVGNPVIYVGSKT

GRDGLGGAVMASDSFNEESKSLRPTVQIGDPFSEKLLMEACLELFKTDYIVGIQDMGAAGLTSSSFEMAG

RSGSGMKLYLDKTPMRESGMTPYELMLSESQERMLICAKKGYEDKVIEIFKKWDLDAVVMGEVTNTGKME

LFWHDELVGLIPIEPLSEKAPILSRPTSEPKYLSEIKNYKFELKSSVQELFIQMLQNENINNKAFIYDQF

DSSVQTNTIKADGRLGASVIRIKENGASVAMAIECNSRLNYVNSKIGAALAVASAGRKVACTGAKPLAIS

DCLNYGNPQNPEVMWQFAQGCEGIKEACKELNTPVVSGNVSLYNETEGVSIYPSPTIVSVGVLEDANKTL

KASFEKENLSVYLLGESLGEFSGSMVMKIQDKKVSGSLKELDYKAELALWDLLYKANQNSLLECANSVGI

GGIAMTLAKMFAISSVGANLTSDFDDEKMIFDESASRAIIGLSKENEEAFLNLAKEFGVKAYKLGVSTSQ

KHFKLDSIELSKAELDKLYFESFKEQIQ

>sp|Q9PIT2.1|DAPB\_CAMJE RecName: Full=4-hydroxy-tetrahydrodipicolinate reductase; Short=HTPA reductase

MIKIGIYGAKGRMGKQIEECLKSETQARISILYDKGGNLGELFEKSDVIIDFSSPSGTHELLNYARTMPK

PLVIGTTGLDEKILHLMQSASEVMPIFYATNMSLGVAVLNYLASKASQMLRNFDIEILEMHHRHKKDAPS

GTAMTLAQSVAKARNLELEKVRVSGRDGIIGERSKDEIAVMSLRGGDIVGRHTVGFYEDGEFLELNHTAT

SRATFAKGAIKIAIWLSKQEAKMYSINDFLGI

>sp|Q9PLZ2.1|TOP1\_CAMJE RecName: Full=DNA topoisomerase 1; AltName: Full=DNA topoisomerase I; AltName: Full=Omega-protein; AltName: Full=Relaxing enzyme; AltName: Full=Swivelase; AltName: Full=Untwisting enzyme

MKKNLIIVESPAKAKTIGNFLGKDYEVIASKGHIRDLPKSSFGIKIEDDEFIPEYRITSDHSALVKELKS

KAKDAKEVYLATDEDREGEAIAYHIAKAIGKDENTLPRIVFHEITKSAIENALKNPRKLNMHSVNAQQTR

RLLDRIVGYKLSPLLGQKIQRGLSAGRVQSAALKIIVDREKEIRAFVPLEYFSIDMIFQKDLDAELVEFD

KAKIEKLTITNKDRAKLILEACKNEVYSISDIESKERKIAPPPPFMTSTLQQSASNRLGFNPKKTMMIAQ

KLYEGVNTHEGVMGVITYMRTDSLNLAKEAVENARKFIQANFGKDYLPSKANVYTTKTKGAQEAHEAIRP

TNLSFTPEIAAKFLDKDELKLYTLIYNRFLACQMSPAISQTQNVFVKNDRVVFKISGRKILFDGYYKVYG

DMDKDKILPNFKIGQNLKVQNLEMNSHFTEPPSRYSEAGLVKKLESLGIGRPSTYAPTISILTSRDYVTI

DKKQLIPSDVAFNVTEVLEKNFSDIVDSKFTSNLENTLDEIAEDKADWQETLKEFYYPFMRKIEEGKTKI

ASQKTVTKLGESCPDCGGELAIRKGRFGEFVACLNFPKCKYSRNLKSESKNESENTAAKAKANGTGITCP

SCQKGEIVERFSKRGKFYGCSAYPKCNFISKYKPSEEKCEECGETLVIKELKKGTFLECLKCKIKKEMKD

>sp|Q9PPA9.1|LPXK\_CAMJE RecName: Full=Tetraacyldisaccharide 4'-kinase; AltName: Full=Lipid A 4'-kinase

MNEEKNYELWLDNYFFKPNFWQKCLAFILLPLSVLYAFFAILNTFFRKKIVFKKPVISVGNLSFGGNGKT

PLCKAIAREFDGVFIVLRGYKRKSKGLFVVKNQNEILCTLTQSGDEAMEYAFEENIKGVIVSEDRVKGIE

KAFELGAKIVVLDDAFSKFHIKKFDILLESKIKPYFNFTLPSGAYRLPKFYEKRADFIALEGRDFVRYSF

VKENPKAVLVTAIAKPFRLYEHFIKARACYFFKDHYEFKKEELENLLKKHNCDTLMLTFKDFVKVKDFGF

KCQIIELNIELKDSLREKIKTYIKEFEQ

>sp|Q9PIZ5.1|LPXC\_CAMJE RecName: Full=UDP-3-O-acyl-N-acetylglucosamine deacetylase; Short=UDP-3-O-acyl-GlcNAc deacetylase; AltName: Full=UDP-3-O-[R-3-hydroxymyristoyl]-N-acetylglucosamine deacetylase

MKQLTLAKTVKGVGIGLHKGEPIEITLEPLEANSGIVFFRSDLNASYKASPENVINTQMATVLGDDRGFI

STIEHLMSAINAYGIDNVRIVLNANEAPVMDGSSISFCMMLDEAGVKELDAPKKIMVIKKPIEVRDGNKF

VRLTPTKEPRINYTIKFDNAVIGEQSYNFEFSKKNYIENIARARTFGFLKDVQALRSMNLALGGSLENTI

VVDENRILNPEGLRFKDEFVRHKILDAIGDLTLLGYRVFGDYTSYAGSHHLNHLLTKEVLKDKDAYEIVS

LEKTTQKAYEKVFA

>sp|Q9PPF3.1|KTHY\_CAMJE RecName: Full=Thymidylate kinase; AltName: Full=dTMP kinase

MYVVFEGIDCVGKSTQISLLKEIYKDAIFTLEPGGTELGKHLREILLNKTHPINKRAELLLFLADRAQHF

EEILKTNQNKLIISDRSFISGMAYAKDFENDLLFALNSFALENFFPQKIIFLKGDANLIQERLSQKELDS

IEKRGIEYFLSVQDKLEKVLHFLKEKISVEILTLDAKESKEKLHQQIKEFLQ

>sp|Q9PHR3.1|DSBD\_CAMJE RecName: Full=Thiol:disulfide interchange protein DsbD; AltName: Full=Protein-disulfide reductase; Short=Disulfide reductase; Flags: Precursor

MRIFGIILLSFCLCFASILSLNEAFNVKSNSYNNSISIDIELGKDIYLYSNKLKLYINEKDISSLINLPQ

SSTRGNENVYYQKLNLALPNLLLERFAKNTTNLIKLEFQGCSEQGLCYNPQTWYFDLISKKDAFEISKPY

KAQKTDKKTKIESEESSIANFLATDNFFWILLSFFGYGLLLSLTPCILPMIPILSSLIVAKSNAKFSKKY

SFFLSFIYVFFMSLAYAIAGVIASFLGASIQGILQKPIILILFALIFIAFAFAMFGAFRFELPLRFQTFI

HKKSEKGKGVVGIAIMGFLSALIVGPCVAAPLAGALIYIANTGNALLGGSALFIMSFGMGIPLLFIGLGL

GFIKPGFWMEKVKIFFGFVMLAMAIWILSRIIEENYILIAYGILGVFFSVFMGIFEKSFTIISKIKKSIL

ILILAYSLSIFLGGLFGAKNFLNPLNFNTISASKHALSYDYINNFEQLKQEIQTNTKPIMLDFTASWCEN

CKLLDELTFSDERIIQKMQNYKLIKVDVSENNNEQIKTMKEFNVFGPPVLIFFENGKEKLKITGFISADD

LLKKIEP

>sp|Q9PPM7.1|UVRB\_CAMJE RecName: Full=UvrABC system protein B; Short=Protein UvrB; AltName: Full=Excinuclease ABC subunit B

MLELTSEFKPSPDQQEAIKGIVKSIKKGNKYQTLLGVTGSGKTFTMANVIKELNIPTLIMSHNKSLCAQL

YSEFKGFFSKNHVEYFISYYDYYQPEAYIPRTDVFIEKDSSTNEDLERLRLSATASLLSYEDVVCIASVS

ANYGLGNPNEYIGMVLIFELGMQISQKELLKKLVDMGYKRNDNFFDRADFRVQGDIIDIYPAYYEDEVVR

LEFFGDELDAMYHYNVLENKKGKDLKRFILYPTSQFSVGETRLKQAIKDIKAELNERLAYFEHENKLVEY

QRLKQRVEFDLEMLTSTGMCKGVENYARHLTGLKEGDTPYTLFDYFAIKDRKFLVIVDESHVSLPQFRGM

FAGDRSRKQTLVDYGFRLPSALDNRPLMFDEFIHKNCQFLFVSATPAPLELELSKENIFHQIMRPTGLLD

PLIELKDSDNQVEILFDEAKKVIQRNERVLVTVLTKKLAEELTRYYLELGIKVKYMHSDIDAIERNEIIR

GLRSGAFDMLIGINLLREGLDLPEVSLIAIMDADKEGFLRSTTSLIQTMGRAARNVNGKVLLFCKKITKS

MQEAMDTTNERRKLQMAYNKKYNITPTSVKRHIEESLKNEEDLGEIYRKGKKLEKMPASERAKLVKELRK

QMLEAAKALEFEKAAAIRDEINKLRDL

>sp|Q9PNX9.1|MNME\_CAMJE RecName: Full=tRNA modification GTPase MnmE

MSDTIAAIATAHGVGSISIVRLSGERALEFALKLSHKTKLTPRHATFTKLFNQNNEIIDEAIMIYFKAPY

SFTGEDIVEFQTHGGFSVSEVLLEELVSLGARLALAGEFSKRACLNGKMTPLKALNIQDLILSKSALAAK

IIARNMQGNLGELLEKIRTDLVKTLAFVETSIDYADDDLPSDLLEQISTMCEENSKILKEIYTLSQSKKG

LIEGFKIAIVGKPNVGKSSLLNALLSYERAIVSDIAGTTRDTIEENFKLGTHLLRIIDTAGIRESKDVIE

QIGVALSKKSLEDADIILAVFDASRVQDKEDEKIFDLLANTDKKIFWILNKSDLENVFKNTQNKNFIKLS

AQKDITLLKEELQNYLNSFDSEGIMVSSLDLINACKISSEAIFRAKGLLEESSLEFFAFELNLAINELAR

FTKDFQRDEILDEMFGNFCLGK

>sp|Q9PI32.1|RL7\_CAMJE RecName: Full=50S ribosomal protein L7/L12

MAISKEDVLEYISNLSVLELSELVKEFEEKFGVSAAPVMVAGGAVAGGAVAAAEEKTEFDIVLTDGGAKK

IEVIKIVRALTGLGLKEAKDAVEQTPSTLKEGVAKAEAEEAKKQLEEAGAKVELK

>sp|Q9PLX9.1|RL29\_CAMJE RecName: Full=50S ribosomal protein L29

MKYTEIKDKTAAELATMLKEKKVLLFTLKQKLKTMQLTNPKEISQVKKDIARINTAINALR

>sp|Q9PI58.1|RL28\_CAMJE RecName: Full=50S ribosomal protein L28

MARVCQITGKGPMVGNNVSHANNKTKRRFLPNLRTVRVTLEDGTTRKMRIAASTLRTLKKQNSK

>sp|Q9PII7.1|PTH\_CAMJE RecName: Full=Peptidyl-tRNA hydrolase; Short=PTH

MILVVGLGNIGVEYENTRHNVGFMLIDLLLKESNFTNLTNSKFKGELFKIGSSLLLLKPSTYMNNSGLSV

KAVNDFYKCERMIVIHDDIDINLGALRFKKGGSSGGHNGLKSIDTLCGNDYERVRIGVGKGENVISHVLG

KFKSEEEITLSKVLEHAKKALLELIENDDLSAISSKYSLKA

>sp|Q9PIZ3.1|KHSE\_CAMJE RecName: Full=Homoserine kinase; Short=HK; Short=HSK

MKILVPATSANLGPGFDCLGLSLKLFNETQIQKSGVFSISIGGEGSDNIFLKKNNIFVNIFYEIYEKLSG

KKDNFRFIFQNNIPLSRGLGSSSAVIVGAIASAYYMSGFKVEKECILDEALIYENHPDNIAPATLGGFVC

SLVEKNKVYSIKKEIDKDLAAVVVIPNLAMSTEQSRQALAKNLSFNDAVFNLSHASFLTACFLEKKYEFL

KFASQDKLHEINRMKNLPELFEVQKFALENKALMSTLSGSGSSFFSLAFKDDALALAKKIQTKFKDFRVQ

YLEFDDNGFEIC

>sp|Q9PIS2.1|IF3\_CAMJE RecName: Full=Translation initiation factor IF-3

MSKEKEVLLNEEIRADEIRCVGDDGKVYGIISSDEALEIANRLGLDLVMIAADAKPPVCKIMDYGKFRYQ

QEKKQKEAKKKQKVIDIKEIKLSVKIAQNDINYKVKHALEFLEQGKHVRFRVFLKGREMATPEAGVALLE

KIWTMIENEANRDKEPNFEGRYVNMLVTPKKA

>sp|Q9PIH4.1|EX7L\_CAMJE RecName: Full=Exodeoxyribonuclease 7 large subunit; AltName: Full=Exodeoxyribonuclease VII large subunit; Short=Exonuclease VII large subunit

MTPTELNLKAKALLETHFDDIVLSGEISKITLHGSGHWYFDLKDERSSIACAMFKGANLKVGFKPAVGDF

LELCGSVSLYPESGRYQFIATSMKKAGFGDLEAQFLALKERLQKEGLFDPRFKKSLPKFPKKVGIITSKT

SAALQDMLKLIHQKEYFLAKIYIFDALTQGNNAPFSLIQALKKADDMDLDVLIIARGGGSREDLFCFNDE

NLAREIFKAKTPIISAIGHEIDYVISDFVADFRAPTPSAAIDTLFYSKLDIEQSLDLMEEKLMQLWNYKI

QNYENLLLNLSKFFKFNSLPKIIDEKIKQSHNIEKQLNHLLANQMRYNELKLDKLQNAYLQHENFFNKSK

KFICIRKNGKIANLEDLKSDDIVILSSQTSQKEAKIL

>sp|Q9PJB0.1|DNAA\_CAMJE RecName: Full=Chromosomal replication initiator protein DnaA

MNPSQILENLKKELSENEYENYLSNLKFNEKQSKADLLVFNAPNELMAKFIQTKYGKKIAHFYEVQSGNK

AIINIQAQSAKQSNKSTKIDIAHIKAQSTILNPSFTFESFVVGDSNKYAYGACKAIAHKDKLGKLYNPIF

VYGPTGLGKTHLLQAVGNASLEMGKKVIYATSENFINDFTSNLKNGSLDKFHEKYRNCDVLLIDDVQFLG

KTDKIQEEFFFIFNEIKNNDGQIIMTSDNPPNMLKGITERLKSRFAHGIIADITPPQLDTKIAIIRKKCE

FNDINLSNDIINYIATSLGDNIREIEGIIISLNAYATILGQEITLELAKSVMKDHIKEKKENITIDDILS

LVCKEFNIKPSDVKSNKKTQNIVTARRIVIYLARALTALTMPQLANYFEMKDHTAISHNVKKITEMIEND

ASLKAKIEELKNKILVKSQS

>sp|Q9PPF2.1|COAD\_CAMJE RecName: Full=Phosphopantetheine adenylyltransferase; AltName: Full=Dephospho-CoA pyrophosphorylase; AltName: Full=Pantetheine-phosphate adenylyltransferase; Short=PPAT

MTCLYPGTFDPITNGHLDVIKRALKIFDEVIVAIAKSEHKKPCYDLEKRKELALLATQNLKNVKIIAFDN

LLVDLAKELKVNTIIRGLRAVSDFEYELQIGYANHALWEDMETIYLMPSLKHAFISSSIVRSIVAHGGDV

SSLVPKEILPFLKDQSCM

>sp|Q9PN25.1|RPOZ\_CAMJE RecName: Full=DNA-directed RNA polymerase subunit omega; Short=RNAP omega subunit; AltName: Full=RNA polymerase omega subunit; AltName: Full=Transcriptase subunit omega

MDKRIEEVAAKALEKMGNDRYRLSLVVAKRAEQLANGATPLVDFDKNKNKLADIALYEIAENKITLEGLV

ETNR

>sp|Q9PPF1.1|UBIX\_CAMJE RecName: Full=Flavin prenyltransferase UbiX

MKVLLGISGSSSVNLGLKLLKNLENQCELYCILTQGAKLNFKTENQANLEEICQENFKYTHFLDDKNLSL

SVASGSFGIEKTIIAPCSISSLAKIHAGFADTLLMRAAAVALKERKKLILGVREMPFSTLNLEHMLKLSQ

MGVIIAPPIIASYSKANNLEQMENFIAGKWLDLLEIKHNLYEKWQNF

>sp|Q9PMU9.1|MOBA\_CAMJE RecName: Full=Molybdenum cofactor guanylyltransferase; Short=MoCo guanylyltransferase; AltName: Full=GTP:molybdopterin guanylyltransferase; AltName: Full=Mo-MPT guanylyltransferase; AltName: Full=Molybdopterin guanylyltransferase; AltName: Full=Molybdopterin-guanine dinucleotide synthase; Short=MGD synthase

MQLNELNCVILCGGKSSRMGQDKSKLILKNQNLTQFQVDKFSKIFKNVYVSAKEDKFENHFSLIKDSLEF

EVYSPMLALYSILSNFKNEFVFVLSVDSPKVGENELLKMLPFLEQNYKIIIAKTPLHKHPLCGFYHSSLA

QTCKNFLEKNEQKIGLLFSEIKTKFVEFEDEDAFLNLNFYEEYEKFKSKLK

>sp|Q9PMV3.1|DXR\_CAMJE RecName: Full=1-deoxy-D-xylulose 5-phosphate reductoisomerase; Short=DXP reductoisomerase; AltName: Full=1-deoxyxylulose-5-phosphate reductoisomerase; AltName: Full=2-C-methyl-D-erythritol 4-phosphate synthase

MILFGSTGSIGVNALKLAALKNIPISALACGDNIALLNEQIARFKPKFVSIKDSKNKHLVKHDRVFIGQE

GLEQILTECQDKLLLNAIVGFAGLKSTLKAKELGKNIALANKESLVVAGSFLKGAKFLPVDSEHAALKFL

LEGKKNIAKLYITASGGAFYRYKIKDLNQVSVKDALKHPNWNMGAKITIDSATMANKLFEIIEAYHLYDF

KEIDALIEPRSLVHAMCEFKNGASTAYFSKADMKLAISDAIFEKQDTPILEAVDFSKMPALKFHPISTKK

YPIFKLKNTFLKEPNLGVIINAANEVGVYNFLENKSGFLDIAKCIFKALDHFGVPKISSIEEVFEYDFKT

REYLRS

>sp|Q9PII5.1|DCDA\_CAMJE RecName: Full=Diaminopimelate decarboxylase; Short=DAP decarboxylase; Short=DAPDC

MDYKQLKQEFNTPFYIYNFDFIKERFLNLKEAFKARKSQIFYAVKANSNLSLLQMLANLDSGFDCVSIGE

VKRALKAGAKAYKIIFSGVGKTKEELRQALEYDILYINLESEAEMMLLESVAKELNLKARISIRVNPNVD

AKTHPYISTGLNENKFGVEIDIARKMYLYAKNSSFLEPVGVHFHIGSQLLDISPIHEAAAIVAKLVRELK

ALQIDLKFFDIGGGLGVAYEKNECEPDLYDYAQGILAQLHGLDLTIGMEPGRYLVAKSGEFVCSVLYEKQ

NKTKRFVVVDGAMNDLIRPSLYEAYHEIILPYNQGEESLCDVVGGICESGDFFAKARSLPSTQSDDIMVI

KNTGAYGFSMSSNYNTRNKVCELALEEGQVRLIRQRENFEDQIALEEKFLKA

>sp|Q9PM34.2|Y1642\_CAMJE RecName: Full=Nucleoid-associated protein Cj1642

MDFSKMGELLNQVQEKAKNIELELANREFSAKSGAGLVKVSANGKGEIIDVSIDDSLLEDKESLQILLIS

AINDVLAMVAQNRSSMANDVLGGFGGMKL

>sp|Q9PHW9.1|HEM3\_CAMJE RecName: Full=Porphobilinogen deaminase; Short=PBG; AltName: Full=Hydroxymethylbilane synthase; Short=HMBS; AltName: Full=Pre-uroporphyrinogen synthase

MKLIIATRKSQLALWQSEHVAQILKNTHQIEVLLEGFKTKGDVLLDSPLAKIGGKGLFTKELEESMLRKE

AHLAVHSLKDVPSFFPQGLVLAAVSKREQSNDAMLSQNYKDFLSLPKGAKIGTTSLRRKMQLLLLRPDLE

IISLRGNVNSRIEKLKNNDFDAIILAMAGIKRLNLDKQVNFVYEFSKDELIPAASQGALGIESINDEKIL

ELLKCLNDENALIETSIEREFIATLEGGCQVPIGINAELLGDEICVRAVLGLPDGSEILKDKRMIKKNDF

KGFGESLAKEFIAKGAKELLKKAESMI

>sp|O85213.2|DNAJ\_CAMJE RecName: Full=Chaperone protein DnaJ

MEISYYEILEITQNADKETIKKAYRKMALKYHPDRNQGDKEAEDKFKLVNEAYEVLSNDEKRAIYDRYGK

DALKGGGFGSSSSGFGGFEDLGDIFSSFFGEGFGSSRRRKSSNDEKIPSDFIVNLKLSFKEAVFGCKKNI

DFTYKCSCKTCNGTGAKDGKLQTCPKCQGRGQVGVSQGFITFAQTCPDCQGIGEKASEKCSDCKGLGYNE

SKDSVELNIPEGVDTGMKLRVNAKGNILKNGTRGDMYVKIIAAEDDTFIRDDDDIYIEFPVFFTQAILGE

SIKVPTIRGEATLNLPKGAKDGQRFVLEKEGVKDVHSSRMGNQIVQISIKFPTSLNDEQKELLEKLSESF

GIKDGMHQEQKGLFEKITNWFKS

>sp|P45490.2|Y987\_CAMJE RecName: Full=Uncharacterized protein Cj0987c

MEKSLLFHFRRIGVEFIIFSVYAVFSISWAATGSLMPLISNDLALNTQQATLITSMIVVAKIFGASFTAF

LVYKFGLKKGYFLGCILMSSGIFLSFVDSYSGILIIRFLTGLGSACALVCLVPIAQQWFEKKALHFVISF

NITSNLVGITLGLVLAESISNYFGNWRDSLSFYAWINLILLILWLFVGKDENKKEEKKNNAKDLIYALKS

RVTWGMIIFYIGPILFLNSLFTFLPTFYAQYAGFSKELADFAKKEIPALANFAIIFGPYLGLFFKRKNIS

FKIMLLSGGACIFICGFCMLFLQNLVLIQIFAVLSGIFYSM

>sp|Q9PPK2.1|GCH1L\_CAMJE RecName: Full=GTP cyclohydrolase 1 type 2 homolog

MKLSEIYNFLDQLSPFNIQESWDNSGILLGDRDSEISTVYLSLDIDENIIKEASENSLIITHHPLIFKGL

KDLYDKTYPRAFIKEMIYKNISLISMHTNYDLSHLNTYFTEEILGFKISFKDKFLIYVENSMSFEALCDW

VKKKLNLQILRVSDCGKKDIKRIAICTGSGGDLISKVDADCFLSGDFKYHQALEALSNQISLIDLGHFES

ERYFSQCLAKDLKNLPLQVIITVSKNPFQYF

>sp|Q9PM80.1|RPOA\_CAMJE RecName: Full=DNA-directed RNA polymerase subunit alpha; Short=RNAP subunit alpha; AltName: Full=RNA polymerase subunit alpha; AltName: Full=Transcriptase subunit alpha

MRNITTSAYTPTEFTIENISDTVAKISAWPFEIGYGITLAHPLRRLLYTSTIGYAPTAIHIDGVAHEFDS

MRGMLEDVALFIINLKKLRFKIKGDSNKEIVEFSFKGSKEIYGKDLNNDQVEVVNKDAYLATINEDAELK

FTLIVEKGIGYVPSEEIKELINDPKFIALDAFFTPVREATYDIEKVLFEDNPDYEKVVLTVTTDGQITPN

EAFQNALEAMYKQLSVFDKITNVRSVIKNQATSNELENTKLLQNITDLNLSARSYNCLEKAGVVYIGELA

LMSVSELAGLKNLGKKSLDEIKNIMESIGFPVGTSKLSDNKEILKNKIAELKAQNEG

>sp|Q9PJ25.1|PARB\_CAMJE RecName: Full=Probable chromosome-partitioning protein ParB

MGLNKDRGLSSLISDMDTVYSKELGFDKNQSTMIEIDQISPNPFQPRKNFDQEALDELANSIKEFGLIQP

IIVFKKNNKFILIAGERRLRAVKALGKKEILAFIADIDENKLRELALIENIQRENLNPIELANSYKDLMQ

VHKITQENLAELIHKSRTQITNTLRLLNLDIRTQELIASGKISQGHAKVLVGLDQKDEKMLVDSIIGQKL

NVRDTEKIVKKIKNNESLPNQEFEDEIKKLKQILNRFGFDCKNKNNDFVIHLENIDKIKKLIKMLEKL

>sp|Q9PNJ0.1|ISPE\_CAMJE RecName: Full=4-diphosphocytidyl-2-C-methyl-D-erythritol kinase; Short=CMK; AltName: Full=4-(cytidine-5'-diphospho)-2-C-methyl-D-erythritol kinase

MKAYAKANIFLKLTGFDSRKYHLLESRFILLKDVFDELELVDKESDSKKEFEIISNFKCENNIIQKAYLL

LSRRYNNELKELFSKKSLKLTKNIPVCAGLGGGSSDCASFLLLINETLNLKLNLQELINLSIQLGSDIAF

FLSGFHSANVSSCGEIIEEFEDDIPNLKWTFPQISCQTKAVYDEFDRGIFDFQKNNNQAQIYKKLSTKEL

LQNFKNKELNDLFTPCATLYPKMKSYLQEDFFLSGSGSSVFKVDR

>sp|Q9PM68.1|ISPDF\_CAMJE RecName: Full=Bifunctional enzyme IspD/IspF; Includes: RecName: Full=2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase; AltName: Full=4-diphosphocytidyl-2C-methyl-D-erythritol synthase; AltName: Full=MEP cytidylyltransferase; Short=MCT; Includes: RecName: Full=2-C-methyl-D-erythritol 2,4-cyclodiphosphate synthase; Short=MECDP-synthase; Short=MECPP-synthase; Short=MECPS

MSEMSLIMLAAGNSTRFNTKVKKQFLRLGNDPLWLYATKNLSSFYPFKKIVVTSSNITYMKKFTKNYEFI

EGGDTRAESLKKALELIDSEFVMVSDVARVLVSKNLFDRLIENLDKADCITPALKVADTTLFDNEALQRE

KIKLIQTPQISKTKLLKKALDQNLEFTDDSTAIAAMGGKIWFVEGEENARKLTFKEDLKKLDLPTPSFEI

FTGNGFDVHEFGENRPLLLAGVQIHPTMGLKAHSDGDVLAHSLTDAILGAAGLGDIGELYPDTDMKFKNA

NSMELLKQAYDKVREIGFELINIDICVMAQSPKLKDFKQAMQSNIAHTLDLDEFRINVKATTTEKLGFIG

RKEGMAVLSSVNLKYFDWTRL

>sp|Q9PLV2.1|METAA\_CAMJE RecName: Full=Homoserine O-acetyltransferase; Short=HAT; AltName: Full=Homoserine transacetylase; Short=HTA

MPLIIPENIPAYELLKEHAFIMGLRRAKHQDIRPQEILIVNLMPKKIETENQILSLLANSPLQVNITLLA

TTSYVGKNTPFTHLEKFYKGLEEVKKHKFDGAIVTGAPVEQMDFEKVAYWEELLEIFDFLKQNVTSSMYI

CWGAMAALKYFYGVDKISLDKKIFGVYKHDKVSPDLLLTNLDEKVLMPHSRHSSMDEEQILALQKQGKLK

ILLRNKKIGSALLRDEKNIFILGHLEYFKETLHQEYVRDNFIQKAKNYYDKKGNIKYNWRSNANTIFANW

LNYDVYQSTPFVL

>sp|Q9PM41.1|AROC\_CAMJE RecName: Full=Chorismate synthase; Short=CS; AltName: Full=5-enolpyruvylshikimate-3-phosphate phospholyase

MNTFGTRLKFTSFGESHGVAVGCIIDGMPAGVKFDEEFLQNELDKRKGGSKFATPRKESDKAQVLSGVFE

GYTTGHPIAIVVFNENAHSKDYDNLKDLFRPAHADFTYFYKYGIRDHRGGGRSSARESVARVAGGAVAAM

LLREFDICVQSGVFGVGTFVSNLKEEEFDFEFAKKSEIFCLDPKLESDFKNEILNARNSKDSVGAAVFTK

VSGMLIGLGEVLYDKLDSKLAHALMGINAVKAVEIGEGINASKMRGSCNNDALKDGKFLSNHSGGILGGI

SNGENLILKTYFKPTPSIFAKQESIDKFGNNLKFELKGRHDPCVGVRGSVVASAMVRLVLADCLLLNASA

NLNNLKNAYGLK

>sp|Q9PM24.1|MURI\_CAMJE RecName: Full=Glutamate racemase

MKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDTIIKFCLEALDFFEQFQIDMLIIAC

NTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIATKATIKSEEYQKRLLSQGYTNINAL

ATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLLGRSLSKYFGDKTKLIHSGDAIVEF

LKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>sp|Q9PHN2.1|YQGF\_CAMJE RecName: Full=Putative pre-16S rRNA nuclease

MRALALDVGLKRIGVALCIDKKIALPLDAVLRKNRNQAANEIKNLLKIHEISLLIVGIPKGGSSEEEMTR

RIKHFVSLLEFDKEICFVDESGTSKEALGYGVANTRKKDGKLDSLSAFIMIKDYFAL

>sp|Q9PPE0.1|TPX\_CAMJE RecName: Full=Thiol peroxidase; Short=Tpx; AltName: Full=Peroxiredoxin tpx; Short=Prx; AltName: Full=Thioredoxin peroxidase

MSIVNFKGNPVKLKGNSVEVGADAPKVNLKAKDLSVIEIGAAGKTQIILSVPSLDTPVCATEAREFNKKV

ASYNGAEVIVVSMDLPFAMGRFCSTEGIENLSVASDFVAKEFGEKYGVLINEGALEGLLARAVFVIKEGK

VAYKELVNEITEMPDIAKLDAFFGGSSCCGGCGCH

>sp|Q9PM84.1|RL36\_CAMJE RecName: Full=50S ribosomal protein L36

MKVRPSVKKMCDKCKVVRRKGVVRIICENPKHKQRQG

>sp|Q9PMA7.1|NUOL\_CAMJE RecName: Full=NADH-quinone oxidoreductase subunit L; AltName: Full=NADH dehydrogenase I subunit L; AltName: Full=NDH-1 subunit L

MQNLALISLFSPFVAFLFASCFALSEKKQFVGIICSLLVALSAFCSLYLLFCNEAFNVSLFEWFAGVNFG

FDIDAISLTMMSVVGIVATCVHFYSIFYMAHDEGFNKFFAYLGLFVFSMLFLVMSDNFLGLFVGWEGVGL

CSWLLIGFWYKNDTYSFAANEAFIMNRIADLGMLLGIFWLYLQAGTLKYDEVFSMAQSLDHNALILIATC

LFIGAMGKSAQFPFHTWLADAMAGPTPVSALIHAATMVTAGVYLVIRASTLYDLVPEVSYIIALLGAFVA

IFAASMALVVRDLKRIIAYSTLSQLGYMFVAAGLGAYGIALFHLATHAFFKSLLFLGAGNVMHAMNDKLD

IKKMGGLFKPLKITAILMCIGSLALAGIYPFAGFFSKDLILGYSFISFHHGIFLVLLIAAFLTAFYSFRL

LMLVFFTPARHDEHPHEASKIALLAMSPLMVLAIIAGFFEHSFFEYLSTKLVFIDAQNQIVMICASVAAI

LGAILAIFAYKNSWFKESIEENKIHKLLSNDYFIPQFYHQFIVSKYESLCAILKHCDLYIFDRIVEKIAL

YSQNISQKMIMPNSLNLMLRFLVAAFVILLILVWMV

>sp|Q9PHK9.1|HSLV\_CAMJE RecName: Full=ATP-dependent protease subunit HslV

MFHATTILAYKGKNKSVIGGDGQVSFGNTVLKGNAVKIRKLNNGKVLAGFAGSTADAFNLFDMFENLLQS

SKGDLLKAAIDFSKEWRKDKYLRKLEAMMLVLDRNHIFLLSGTGDVVEPEDGQIAAIGSGGNYALSAARA

LAKHTDLDEEELVKSSLQIAGEICIYTNTNIKTYVIEDEK

>sp|Q9PPG2.1|HRCA\_CAMJE RecName: Full=Heat-inducible transcription repressor HrcA

MMKSRDKKDLILESIIQTYLLDNAPIGSNELNSNLCIPASTIRVYLKRLSDEGLITQLHISSGRIPTILT

MQNYWQNFWEKEQDKNIHIKNESFLKELSKEFEIYCLVYGGRSLVLKEVLDLNTKFIVLDFEDEELVLKY

EKEAWNFLQSLIGLDLSSIEKIALRVHFIDLVEKIASLRQNLICYRSNEERAYQIYQNDEFVKLLDCQIH

RHFKESLEFEPLFKEGFMGLKVDAQFLGEDVNIILAGSVYTDYKKILQYIKEAA

>sp|Q9PHT7.1|TATB\_CAMJE RecName: Full=Sec-independent protein translocase protein TatB

MSFGEIIVILVVAILVLGPDKLPEAIVQIAKILKAVKRNIDDAKSSIEKEIRINDLKEEAKKYKDEFSST

NENIRKKLSFEEFDDLKRDILDKTKVDLTFDSRDDKVKNNLSGQNLNTEEKPNLSKLETQDKNGKINV

>sp|Q9PIK2.1|PANC\_CAMJE RecName: Full=Pantothenate synthetase; Short=PS; AltName: Full=Pantoate--beta-alanine ligase; AltName: Full=Pantoate-activating enzyme

MQVITSVKEAKQIVKDWKSHQLSIGYVPTMGFLHDGHLSLVKHAKTQDKVIVSIFVNPMQFGPNEDFSSY

PRDLERDIKMCQDNGVDMVFIPDATQMYLKNFSTYVDMNTITDKLCGAKRPGHFRGVCTVLTKFFNILNP

DIVYMGQKDAQQCVVVRHMVDDLNFDLKIQICPIIREEDGLAKSSRNVYLSKEERKASLAISQSIFLAEK

LVREGEKNTSKIIQAMKDILEKEKLIKIDYIELVDFNTMENIENITDNVLGAVAAFVGKTRLIDNFLVQG

LK

>sp|Q9PNZ0.1|LOLA\_CAMJE RecName: Full=Outer-membrane lipoprotein carrier protein; Flags: Precursor

MKKTFLIFFIFIGQLFALDLNFNTFSSNFTQIVKSKNSTLSYSGHFILSKDQAYWSYDTPSKKEIYINKN

QVTIVEHDLEQVIFSHLDNIPNLNEIFKKASLIDKDKLVAKYDNINYTIKLNQEQIQSISYKDEFENDVI

INLNNQIKNPKINSDVFKAKIPQNYDIVR

>sp|Q9PM37.1|DNAG\_CAMJE RecName: Full=DNA primase

MITKESIENLSQRLNIVDIIENYIEVKKQGSSFVCICPFHADKNPSMHINPIKGFYHCFACKAGGDAFKF

VMDYEKLSFADAVEKVASLSNFTLSYTKEKQENKKELKSILPSLNAYFKDNLKHHKEVLTYLYQRALNDK

DIAKFELGFAGASEDSIRLLQNQKIPLEDAMSVGALKKDENNEFYASFIWRITFPIYDHKDLLVGFGGRT

LNPNVPAKYVNSPQNILFDKSRIFYAFNIAKENIAKKKEIIVCEGYMDAIAFHKAGFNNAVAVLGTALTE

HHLPLIRRYDAKVILCFDNDEAGLKAATRSAFLLSTNKIDGKVAILQGGKDPAELVAKNESTKLHNILDE

GIELGEFYIRRLISTHSIISALDKQKALETIQKFTFNLEPLVANSYTSLVSNLLKVDEKFIVLSQNSKKT

IQTPLISQNKYNFPKEKIHIAELELIAFLKQHPDICNDFKQISDSVCFKHKILLDKILEKKGYEDSDIRE

FESKNIRKNLNYSEFLLGICKVNLAFLNNVKIKNSTLALKKQLFTLIDKNLNLLIKNLNTAELNNFLKEY

LSFLKYEKNEEILQQSFRNLNGIFGNKNFTAYDLGFSIQNNDEPF

>sp|Q9PJ54.1|HPPK\_CAMJE RecName: Full=2-amino-4-hydroxy-6-hydroxymethyldihydropteridine pyrophosphokinase; AltName: Full=6-hydroxymethyl-7,8-dihydropterin pyrophosphokinase; Short=PPPK; AltName: Full=7,8-dihydro-6-hydroxymethylpterin-pyrophosphokinase; Short=HPPK

MLKIQGVKHFEKSRFFPFFSQNIRSFKYLALIGLGSNIEPEKKRFDMLFRVMMDDKRFKILSTSPMLINE

AFGFKEQKDFTNAVMLIQTNLHARALLKVLLYYEVKFKRKRTFKNAPRTLDLDLLYFSQKVKRDKWCEVP

HKGAKERVSVILPLGMI

>sp|Q9ZAH3.2|RS6\_CAMJE RecName: Full=30S ribosomal protein S6

MKHYEVLFILKPTLTEEEVNTKLEFVKEVLTKNSAEIETVVPMGTRKLAYKIKKYERGTYFVIYFKAPTN

LIAELERVLRITEEVIRFLIVKYENKKEIAAWEKLSHGIKQSKKEIKPLDAPEIQ

>sp|Q59291.2|DHAS\_CAMJE RecName: Full=Aspartate-semialdehyde dehydrogenase; Short=ASA dehydrogenase; Short=ASADH; AltName: Full=Aspartate-beta-semialdehyde dehydrogenase

MSKKQKIAIVGATGAVGEELLNVLDELDFPVESILPLASAKSVGSEVEFKGKAYKVKELTENVFKENPID

IAFFSAGGSVSEKYAKFAVESGAVVIDNTSHFRMEKDVPLVVPECNPEDIKDWKKTGIIANPNCSTIQMV

QVLKPLNDAFNLKRVDVSTYQAASGAGKEGMQELVEAMQSFFAFKLDEFEPQTFPYTLALNLIPQIDVFM

DNDYTKEELKMVNETQKILHKNLEVSATCVRVPVLRSHSEAITMHFEKEIDVKKAKEILKKAPSVIVIDD

PKNKKYPMPLMTSDTNETYVGRIRADVYDKKILHLWCVADQIRVGAATNAVRIAQKWLELKNK

>sp|P45493.2|HIPO\_CAMJE RecName: Full=Hippurate hydrolase; AltName: Full=Benzoylglycine amidohydrolase; AltName: Full=Hippuricase

MNLIPEILDLQGEFEKIRHQIHENPELGFDELCTAKLVAQKLKEFGYEVYEEIGKTGVVGVLKKGNSDKK

IGLRADMDALPLQECTNLPYKSKKENVMHACGHDGHTTSLLLAAKYLASQNFNGALNLYFQPAEEGLGGA

KAMIEDGLFEKFDSDYVFGWHNMPFGSDKKFYLKKGAMMASSDSYSIEVIGRGGHGSAPEKAKDPIYAAS

LLIVALQSIVSRNVDPQNSAVVSIGAFNAGHAFNIIPDIATIKMSVRALDNETRKLTEEKIYKICKGIAQ

ANDIEIKINKNVVAPVTMNNDEAVDFASEVAKELFGEKNCEFNHRPLMASEDFGFFCEMKKCAYAFLENE

NDIYLHNSSYVFNDKLLARAASYYAKLALKYLK

>sp|O69290.2|MURE\_CAMJE RecName: Full=UDP-N-acetylmuramoyl-L-alanyl-D-glutamate--2,6-diaminopimelate ligase; AltName: Full=Meso-A2pm-adding enzyme; AltName: Full=Meso-diaminopimelate-adding enzyme; AltName: Full=UDP-MurNAc-L-Ala-D-Glu:meso-diaminopimelate ligase; AltName: Full=UDP-MurNAc-tripeptide synthetase; AltName: Full=UDP-N-acetylmuramyl-tripeptide synthetase

MKLKLENSFITDNTLECEKECFFLQTTQNAKFHAQALEKGAKIIDVNECKKLLKIDEKIQIIGITGTNGK

TTTAAAIYSILLDLGYKCGLCGTRGAFINDEQIDEKSLTTSPILKTLEYLQIATQKKCDFFIMEVSSHAL

VQNRIEGLNFAAKIFTNITQDHLDFHGTFENYKEAKELFFTDESLKFINKDALAIKFNVRNAFTYGIENP

ALYQIKAYSLEEGISTIVTNKNQTFHIDSPLLGLFNLYNLLVASACVNELVKPDLKDLEKAISGFGGVCG

RVEQVAKGVIVDFAHTPDGIEKVLDTLKNKKLIVVFGAGGDRDKTKRPLMGKIVEHFAKIAIITSDNPRS

EEPKTIMEEILSGFTKKEKVLMIEDRKEAIKKALELKENDDLVVILGKGDETTQEIKGIKYPFSDKVVVN

EILKNQG

>sp|O52908.2|FLHF\_CAMJE RecName: Full=Flagellar biosynthesis protein FlhF; AltName: Full=Flagella-associated GTP-binding protein

MGQLIHTFTVEDTEQIIPKVKEDYGDKALIITNKQIRPKTLNRSALYEVMVAIEESDYEEHLKKQGKSLP

AKKSSPKPSSTSLAEEKIRSQIPQEDEDVVLDFSNTRLNTNLNTVKNNDLAKKTYQDFPQNKINPHQNKT

LGFDDFKEKLSEVSNEISKVTNTPLENYTPNPNYNKKIENFEKQFEKQINKLNDKIDLLADMMWDDKAEA

RKNLMIPPEFASIYKQAKESGMLENHLEAIMKATIENMPAAMKTNKDAVQRYFHSLLRNILPCRVESDIK

KQKIMMLVGPTGVGKTTTLAKLAFRYAYGDKRYKTGIITLDTYRIGAVEQLFQYAKMMKLPIIDSIEPKD

LDEAIKSLNNCEVILVDTIGNSQYDQSKLAKTKEFLMHSNAEIDVNLVVSANTKHEDLMEIYKNFSFLNI

DTLIITKFDETKVFGNIFSLVYETNIPLSFFSIGQEVPDDLEVANSDFLVHCILEGFNKGKNNE

>sp|Q46104.2|ARLY\_CAMJE RecName: Full=Argininosuccinate lyase; Short=ASAL; AltName: Full=Arginosuccinase

MKNEMWSGRFSGASDELLKEFNASLNVDKTLFNEDIQGSIAHATMLESCGILKKEELDAIIKGLEQVRSE

IEQGKFIFDIKDEDIHMAVEKRLSEIIGSEIGGRLHTARSRNDQVATDFKLFVKKSHIELIKLLKELIQT

MLEHAKVHKKTIMPSFTHLQHAQPVSFSFYILAYAFMLMRDIKRLQNSLELADFSPLGSCACAGTSYAIN

RELSAKILGFKDIMPNAMDGVSDRDFALDLLYDIAVIFTHTSRLCEEMILFSSSEFSFITISDSFSTGSS

IMPQKKNPDVCELIRGKTGRVYGNLISLLTIMKALPLAYNKDMQEDKEGIFDSVKTAKDSLIILNAMLKE

IQINKENMLNACKKGHLLATDLADYLVREKNIPFRKAHFIVGNVVAQAEAQGIDISEIKDLSKIDPVFDE

KAMELLNFEFSLNSKQSEGSSSIASVEKQIQILEGFIQNL

>sp|P71128.2|CYSM\_CAMJE RecName: Full=Cysteine synthase B; Short=CSase B; AltName: Full=O-acetylserine (thiol)-lyase B; Short=OAS-TL B; AltName: Full=O-acetylserine sulfhydrylase B

MKVHEKVSELIGNTPIIHLKKFGINVFAKCEFLNPSHSIKDRAAFEMIKDALDSKKINQDTTIVEATSGN

TGISLAMICADLGLKFIAVMPESMSLERRKMITLFGARLELTPANLGMKGAVDKANEILLNTPNSFMVSQ

FENISNKNAHRKNTALEILRDLDNELDIFVAGFGTGGTISGVGEILKEKLEKVHIVGVEPLNSPLLSKGE

AGSHKIQGIGANFIPAILNKEVIDEVITVSNEDAINTAKELAKSGLMVGISSGANVFAASMLAKKFPDKR

ILTMLNDTAERYLSTDLFA

>sp|P56954.1|MQO\_CAMJE RecName: Full=Probable malate:quinone oxidoreductase; AltName: Full=MQO; AltName: Full=Malate dehydrogenase [quinone]

MSQQEFDVLVIGAGISGAALFYELARYTNIKNIALIEKYNTAATLNSKGTSNSQTIHCGDIETNYTLEKA

RKVKRTADMIVKYGLMQNAQNNFMFSHQKMALAVGDIECDYMKKRYEEFKELYPYIKFFDKAKIKQIEPK

VVLGEDCNQDRPENICAMGVESGEVFTTVDFGKMSINLIEQAQKQNKNTFVAFNQEIIHIEKKDDIFILK

TSNHQEYHAKSVVVNAGAHSLYLAHKMNLGMDKSCWPVAGSFYLTKQKLLNGKVYMVQNPKLPFAALHGD

PDLLADMNTRFGPTALVIPKLERYHGLKSVPEFFEALKLDKTVLKVTFNMFKDATIRNYIFYNYLFELPF

VDKSLFVKDAKKIVPSLKASDIYYAKGFGGVRPQVIDKTKGELMLGEASITETPGIIFNMTPSPGATSCL

GNAERDAKLVCNYLGMEFNEDKFSSELL

>sp|Q59296.1|CATA\_CAMJE RecName: Full=Catalase

MKKLTNDFGNIIADNQNSLSAGTKGPLLMQDYLLLEKLAHQNRERIPERTVHAKGSGAYGEIKITADLSA

YTKAKIFQKGEITPLFLRFSTVAGEAGAADAERDVRGFAIKFYTKEGNWDLVGNNTPTFFIRDAYKFPDF

IHTQKRDPRTHLRSNNAAWDFWSLCPESLHQVTILMRDRGIPASYRHMHGFGSHTYSFINDKNERFWVKF

HFKTQQGIKNLTNQEAAELIAKDRESHQRDLYNAIENKDFPKWKVQVQILAEKDIEKLGFNPFDLTKIWP

HSLVPLMDIGEMILNKNPQNYFNEVEQAAFSPSNIVPGIGFSPDKMLQARIFSYPDAQRYRIGTNYHLLP

VNRAKSEVNTYNVAGAMNFDSYKNDAAYYEPNSYDNSPKEDKSYLEPDLVLEGVAQRYAPLDNDFYTQPR

ALFNLMNDDQKTQLFHNIATSMEGVDEKIITRALEHFEKISPDYAKGIKKAFPIVSRIRAWRNHGHRCFL

CEIVIRSQFHTTYEPEA

>sp|O69301.1|RS18\_CAMJE RecName: Full=30S ribosomal protein S18

MAEKRKYSRKYCKYTEAKVEFIDYKDTAMLKHALSERFKIMPRRLTGTSKKYQEMVEVAIKRARHVALIP

YIVDRKEVINNPFEGL

>pdb|2G5G|X Chain X, Cofacial Heme Binding To Chan Of Campylobacter Jejuni

GSHMAVLQKSSPLQENKDFYILDTHTQKKISFEDXILELLKADVILLGEKHDEVKHKISQVXIFNALEGN

LSSQNINFDVALEXLASTEQNHLDKAFKNKKTIKANELTNALNWDKVWKWKDYEQFVNVVFYSKSKILGA

NLSRSEITSIYNGAQPLKGYVSTTNEVKKQLFDIISLSHKLNPEENKELLDKLVEIQQFKDRRXADVLVH

HVNKVLLLAGSYHTSKKIGIPLHIQDFKSSKKIVVVNLSYGEIDLKDSDYVLIYKGEE

>pdb|5CJJ|B Chain B, The Crystal Structure Of Phosphoribosylglycinamide Formyltransferase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

SNAXLVKLAVLFSGNGSNLENILEKLHKKTIGENTYEIVLCLCNKKDAFGIQRAKKFGLNTVIIDHKAYN

TREEFDTILVQKIKESGANLTVLAGFXRILSPVFTKNIKAINLHPSLLPLFKGAHAIKESYESDXKVAGV

SVHWVSEELDGGXIIAQKAFEKRNLSFEEFEEKIHSLEHEILPLSVIEIFS

>pdb|5CJJ|A Chain A, The Crystal Structure Of Phosphoribosylglycinamide Formyltransferase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

SNAXLVKLAVLFSGNGSNLENILEKLHKKTIGENTYEIVLCLCNKKDAFGIQRAKKFGLNTVIIDHKAYN

TREEFDTILVQKIKESGANLTVLAGFXRILSPVFTKNIKAINLHPSLLPLFKGAHAIKESYESDXKVAGV

SVHWVSEELDGGXIIAQKAFEKRNLSFEEFEEKIHSLEHEILPLSVIEIFS

>pdb|5T2Y|B Chain B, Crystal Structure Of C. Jejuni Pgld In Complex With 5-methyl-4- (methylamino)-2-phenethylthieno[2,3-d]pyrimidine-6-carboxylic Acid

GSAMARTEKIYIYGASGHGLVCEDVAKNMGYKECIFLDDFKGMKFESTLPKYDFFIAIGNNEIRKKIYQK

ISENGFKIVNLIHKSALISPSAIVEENAGILIMPYVVINAKAKIEKGVILNTSSVIEHECVIGEFSHVSV

GAKCAGNVKIGKNCFLGINSCVLPNLSLADDSILGGGATLVKNQDEKGVFVGVPAKRM

>pdb|5T2Y|A Chain A, Crystal Structure Of C. Jejuni Pgld In Complex With 5-methyl-4- (methylamino)-2-phenethylthieno[2,3-d]pyrimidine-6-carboxylic Acid

GSAMARTEKIYIYGASGHGLVCEDVAKNMGYKECIFLDDFKGMKFESTLPKYDFFIAIGNNEIRKKIYQK

ISENGFKIVNLIHKSALISPSAIVEENAGILIMPYVVINAKAKIEKGVILNTSSVIEHECVIGEFSHVSV

GAKCAGNVKIGKNCFLGINSCVLPNLSLADDSILGGGATLVKNQDEKGVFVGVPAKRM

>sp|Q9PPI1.1|CORA\_CAMJE RecName: Full=Magnesium transport protein CorA

MLYIYIKTQNALVQRINFNLDSQELPQNILWIDLLHPSAAEIAFISSEFNLEFPTKEEREEIELSAKYWE

DNATITINAHFLVRDLKSDEEDRNLIKLRTEIVTFATAKNILFTIRYNEFSTFEEIQARILASPKNFEDG

FDIIDKMFEVRVEKDADLLEWIDKEARRLRTSVLEKKDEYSYDEMLKDISSLQELNMRVRDSLFDKRRAM

TSLLKSDKIDKDIKQNLTIVLKDLNSLVEFSVSQLNILDNIQTILASQINIEQNKVIKIFTVATVAMMPP

TLIGTVYGMNFKFMPELELHYAYPIVLGVMVISIILPLVVFKKKGWL

>sp|Q9PIH5.1|UBIE\_CAMJE RecName: Full=Ubiquinone/menaquinone biosynthesis C-methyltransferase UbiE; AltName: Full=2-methoxy-6-polyprenyl-1,4-benzoquinol methylase; AltName: Full=Demethylmenaquinone methyltransferase

MQKQEKIIEMFNQIAPTYDKANRILSFGADVAWRKKACQRVMSLYLKKDLKIADIACGTGDMIEIWQESA

LKMEKNILNIKGIDPSSGMLNVAKEKFPNVEFIKAGAQNLPLESQSLDILSISYGIRNVVERQKALSEFA

RVLQKDGILVVLEFTKREKGGFIAACRDFYLKNILPSIGGIISKNKSAYEYLPNSIEGFLSKKEFILELK

NAGFEMLDYKSFSFGVSSMFIAKKL

>sp|Q9PNT2.1|AROB\_CAMJE RecName: Full=3-dehydroquinate synthase; Short=DHQS

MQVEVKLKENAYKVYIDELEELEFDSKVFILSNPKISGLHLKTLLSKIKAKEIFIATVKDGEEYKNLSTM

EEILNQMFNSKLDRKSVLISFGGGVISDMGGFAASIYQRGIDFINIPTTLLACVDAAVGGKTGVNNNFGK

NLIGTFYQPKAVYCESFFLKTLSSRELAAGMAEFIKMAAMFDYSILDFIEKIDEKSFLNATCENEIFTQI

IAKSIELKSRVVEQDEKESRLRMLLNYGHTFAHVIENFTDYKLYLHGEAVAIGMVMANQLALNLGLLDKM

QSQRIKDILLKFGLPISYKINNVDEFYEAFFMDKKSSNKKINFVLASPLGKGLIKGDISKEDIIATLREF

Q

>sp|Q9PMQ3.1|NADD\_CAMJE RecName: Full=Probable nicotinate-nucleotide adenylyltransferase; AltName: Full=Deamido-NAD(+) diphosphorylase; AltName: Full=Deamido-NAD(+) pyrophosphorylase; AltName: Full=Nicotinate mononucleotide adenylyltransferase; Short=NaMN adenylyltransferase

MKIALFGGSFDPPHNGHNSVVLEALEKLDIDKLIIMPTYINPFKQSFSADEKQRFLWVKKLWGHLPKVEI

CDFEIRQKRPVPSIESVKYLYKLYNPSKFYLLIGADHLEKLHLWHDFEKLNSLVEFVIANRNDIGIPKNF

KDLKTNKKIASSFIRDTLNTNEVCEEIKDEVKKYYEKLQKN

>pdb|4ZO4|D Chain D, Dephospho-coa Kinase From Campylobacter Jejuni.

SNAXKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKID

RKILGEIVFNNKEAKKILENFTHPKIRAKILEQXQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPK

ELSLKRIXQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNX

>pdb|4ZO4|C Chain C, Dephospho-coa Kinase From Campylobacter Jejuni.

SNAXKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKID

RKILGEIVFNNKEAKKILENFTHPKIRAKILEQXQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPK

ELSLKRIXQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNX

>pdb|4ZO4|B Chain B, Dephospho-coa Kinase From Campylobacter Jejuni.

SNAXKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKID

RKILGEIVFNNKEAKKILENFTHPKIRAKILEQXQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPK

ELSLKRIXQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNX

>pdb|4ZO4|A Chain A, Dephospho-coa Kinase From Campylobacter Jejuni.

SNAXKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKID

RKILGEIVFNNKEAKKILENFTHPKIRAKILEQXQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPK

ELSLKRIXQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNX

>sp|P0C635.1|CHEY\_CAMJE RecName: Full=Chemotaxis protein CheY homolog

MKLLVVDDSSTMRRIIKNTLTRLGHDDVLEAEHGVEAWDLLTKNEDVKVLITDWNMPEMNGLELVKKVRA

EKKYEDMPIIMVTTEGGKAEVITALKAGVNNYIVKPFTPQVLKEKLEDVLGTGSGEGAAE

>sp|Q9PMN3.1|GMHA2\_CAMJE RecName: Full=Phosphoheptose isomerase 2; AltName: Full=Sedoheptulose 7-phosphate isomerase 2

MENLNSYIKGHFADSILVKEQILKDENLITLIKNASLEVIKAYKNGNKTLLAGNGGSAADAQHIAGEFVS

RFYFDRPGIASIALTTDTSILTAIGNDYGYENLFARQVQAQGVKGDVFIGISTSGNSKNILKALEFCKQK

EIISIGLSGASGGAMNELCDYCIKVPSTCTPRIQEAHILIGHIICAIVEEELFGKGFSCKQ

>sp|Q9PNE6.1|GMHA1\_CAMJE RecName: Full=Phosphoheptose isomerase 1; AltName: Full=Sedoheptulose 7-phosphate isomerase 1

MINLVEKEWQEHQKIVQASEILKGQIAKVGELLCECLKKGGKILICGNGGSAADAQHFAAELSGRYKKER

KALAGIALTTDTSALSAIGNDYGFEFVFSRQVEALGNEKDVLIGISTSGKSPNVLEALKKAKELNMLCLG

LSGKGGGMMNKLCDHNLVVPSDDTARIQEMHILIIHTLCQIIDESF

>sp|Q9PNQ2.1|MURG\_CAMJE RecName: Full=UDP-N-acetylglucosamine--N-acetylmuramyl-(pentapeptide) pyrophosphoryl-undecaprenol N-acetylglucosamine transferase; AltName: Full=Undecaprenyl-PP-MurNAc-pentapeptide-UDPGlcNAc GlcNAc transferase

MTIALTGGGTGGHLAIVRCLLESAIKKNIECVYIGSQNGQDKAWFENEVRFKEKFFLSSKGVVNQSKFDK

ISSLLHTLKLSKDCREIFKKYHIQAVFSVGGYSAAPASFAALFSHLPLFIHEQNSKSGSLNMLLKPFATK

FFSAFEKEISPYPVADKFFDNARIRKELKNIIFLGGSQGAQFINELALNLAPKLQEQNIKIIHQCGKNDF

EKCKKHYQSLNIQADIFDFSLNLEEKMKNADLAISRAGASTLFELCANTLPTIFIPYPYAAKNHQYFNAK

FLQDQALCQIFMQNSINLDEFFKSILKLNLENISTRLQNITQKNGADMLIQKALFDNLTFIR

>sp|Q9PMD4.1|G6PI\_CAMJE RecName: Full=Probable glucose-6-phosphate isomerase; Short=GPI; AltName: Full=Phosphoglucose isomerase; Short=PGI; AltName: Full=Phosphohexose isomerase; Short=PHI

MLNNTLFFKQSEIHTISSYANRINDEVKSGDIGYYHLIDTSLNLIDESLQFIQDKEYVKNIVLVGMGGSS

CGVKALRDMLFNEKSNQRELFILDNTSSHSFNKTLEKIKLEESLFLIISKTGSTIEVVSLFKLLIEHFKL

DMQELKKYFVFITDKDSKLHQEGENLGIKCFFIPANVGGRFSILSAVGIVPLCFCGYNAKALLEGAKACF

EDFFTHKKDEILQKAYHYCTHKNANINVLFSYSDAFKGFNEWYIQLIAESLGKKQGYKRIGLTPIALIGA

RDQHSFLQLIMDGPKNKTVTFLKIKDAQKAPIIPDIHFKFLDSLSNKVNLHELLNAQCDATMHALIAENL

SVDVIELEKLDAWHAGYLMYYYELFTSTCGVMLGINTYDQPGVEVGKLILKNILNS

>sp|O69294.1|FUMC\_CAMJE RecName: Full=Fumarate hydratase class II; Short=Fumarase C; AltName: Full=Aerobic fumarase; AltName: Full=Iron-independent fumarase

MEYRVEHDTMGEVKVPNDKYWGAQTERSFENFKIGCEKMPKVLIYAFANLKKSLALVNNKLGKLDDAKKN

AIVQACDEIIAGKFDDNFPLAIWQTGSGTQSNMNMNEVIANRATEIMGGDFRKEKLVHPNDHVNMSQSSN

DTFPTAMSIVAVEQVEKKLIPALDELIATFEKKVKEFDGIIKIGRTHLQDATPLTLAQEFSGYLSMLLHS

KEQIIASLPTLRELAIGGTAVGTGLNAHPELSQKVSEELTQLIGTKFISSPNKFHALTSHDAINFTHGAM

KGLAANLMKIANDIRWLASGPRCGLGELIIPENEPGSSIMPGKVNPTQCEAVTMVAVQVMGNDVAIGFAA

SQGNFELNVFKPVIIYNFLQSLDLLADSMHSFNIHCAVGIEPNRAKIDHNLHNSLMLVTALNPHIGYENA

AKVAKNAHKKGISLKESTMELGLVSEEDFNKFVDPTKMIGPKA

>sp|P45489.2|Y990\_CAMJE RecName: Full=Uncharacterized protein Cj0990c

MMMKIVFKGKSSEYEIQRSCFCVDAFVIKDKIEERDGVDFITSNVDLLEFSDDSFTFEEIVKHFNICDTE

DMIIVEDFDMKSNKDNQNQEDDIEHNILKSEKIIHENTKQTSMQFKNLKFFSRIFKNENFLSDFKESKQE

VVTIKKHEKLEIFKNLSQEDQEISFVKIEILNYDSNEDSLSFNLDIFPSGMSYKYGILKGSMHIILQGKT

SSTMLFPFLKSMIYKNKSENSSEKIFTLMINQKKHYKLIANLS

>pdb|4R7J|A Chain A, Crystal Structure Of Inosine 5'-monophosphate Dehydrogenase With The Internal Deletion Containing Cbs Domain From Campylobacter Jejuni

SNAMKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISAAMDTVTEHRAAIMMARLGGLG

VIHKNMDIASQVREVKRVKKSESGGIKDLKKRKEYPDANKDNFGRLRVGAAIGVGQMDRVDALVEAGVDV

VVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAAKALCEAGVDAVKVGIGPGSICTTRIVSGVG

VPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVGASSVMIGSLLAGTDESPGELFTYQGRQYKS

YRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYVGSIRSVVHQLLGGLRSSMGYVGAKDIEDFQ

KRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>pdb|4MZ1|C Chain C, Crystal Structure Of The Inosine 5'-monophosphate Dehydrogenase, With A Internal Deletion Of Cbs Domain From Campylobacter Jejuni Complexed With Inhibitor Compound P12

SNAMKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISAAMDTVTEHRAAIMMARLGGLG

VIHKNMDIASQVREVKRVKKSESGGIKDLKKRKEYPDANKDNFGRLRVGAAIGVGQMDRVDALVEAGVDV

VVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAAKALCEAGVDAVKVGIGPGSICTTRIVSGVG

VPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVGASSVMIGSLLAGTDESPGELFTYQGRQYKS

YRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYVGSIRSVVHQLLGGLRSSMGYVGAKDIEDFQ

KRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>pdb|4MZ1|B Chain B, Crystal Structure Of The Inosine 5'-monophosphate Dehydrogenase, With A Internal Deletion Of Cbs Domain From Campylobacter Jejuni Complexed With Inhibitor Compound P12

SNAMKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISAAMDTVTEHRAAIMMARLGGLG

VIHKNMDIASQVREVKRVKKSESGGIKDLKKRKEYPDANKDNFGRLRVGAAIGVGQMDRVDALVEAGVDV

VVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAAKALCEAGVDAVKVGIGPGSICTTRIVSGVG

VPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVGASSVMIGSLLAGTDESPGELFTYQGRQYKS

YRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYVGSIRSVVHQLLGGLRSSMGYVGAKDIEDFQ

KRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>pdb|4MZ1|A Chain A, Crystal Structure Of The Inosine 5'-monophosphate Dehydrogenase, With A Internal Deletion Of Cbs Domain From Campylobacter Jejuni Complexed With Inhibitor Compound P12

SNAMKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISAAMDTVTEHRAAIMMARLGGLG

VIHKNMDIASQVREVKRVKKSESGGIKDLKKRKEYPDANKDNFGRLRVGAAIGVGQMDRVDALVEAGVDV

VVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAAKALCEAGVDAVKVGIGPGSICTTRIVSGVG

VPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVGASSVMIGSLLAGTDESPGELFTYQGRQYKS

YRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYVGSIRSVVHQLLGGLRSSMGYVGAKDIEDFQ

KRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>sp|Q9PIR7.2|ARGD\_CAMJE RecName: Full=Acetylornithine aminotransferase; Short=ACOAT

MDYKEQSHIIPTYKRFDIVLEKGQGVYLFDDKAKKYLDFSSGIGVCALGYNHAKFNAKIKAQVDKLLHTS

NLYYNENIAAAAKNLAKASALERVFFTNSGTESIEGAMKTARKYAFNKGVKGGQFIAFKHSFHGRTLGAL

SLTANEKYQKPFKPLISGVKFAKYNDISSVEKLVNEKTCAIILESVQGEGGINPANKDFYKALRKLCDEK

DILLIADEIQCGMGRSGKFFAYEHAQILPDIMTSAKALGCGLSVGAFVINQKVASNSLEAGDHGSTYGGN

PLVCAGVNAVFEIFKEEKILENVNKLTPYLEQSLDELINEFDFCKKRKGLGFMQGLSLDKSVKVAKVIQK

CQENALLLISCGENDLRFLPPLILQKEHIDEMSEKLRKALKSF

>sp|Q0P7R8.1|RLMN\_CAMJE RecName: Full=Dual-specificity RNA methyltransferase RlmN; AltName: Full=23S rRNA (adenine(2503)-C(2))-methyltransferase; AltName: Full=23S rRNA m2A2503 methyltransferase; AltName: Full=Ribosomal RNA large subunit methyltransferase N; AltName: Full=tRNA (adenine(37)-C(2))-methyltransferase; AltName: Full=tRNA m2A37 methyltransferase

MKELVNILDFLPEELGEKIKPMFRVKQIYQWIYQKYANNFSDMSSLPKDLRLELARNFHFSPVKCVKNEQ

SKDGSIKYLFELIDGLRVESVLLPMKEEKIDAEGKRISHARYTICVSSQVGCKSGCSFCLTAKGGLKRNL

SAGEIVGQILWIKKQNNIPYERRVNIVYMGMGEPLDNLKNVSKAVKILAQNEGLAISPRRQTISTSGLAK

QIKELGQMNLGVLLAISLHAVNDELRTELMPINKAYNIAAIMDAVREFPIDQRKRVMFEYLLIDGINDKL

EHAKELVKLLNGIKAKVNLILFNPHEGSLYKRPSLENAIKFQDLLSNKGVTCTIRESKGLDISAACGQLK

ERAKEQ

>sp|Q0P9C5.1|PGLH\_CAMJE RecName: Full=GalNAc-alpha-(1-\_4)-GalNAc-alpha-(1-\_3)-diNAcBac-PP-undecaprenol alpha-1,4-N-acetyl-D-galactosaminyltransferase; AltName: Full=Protein glycosylation H

MMKISFIIATLNSGGAERALVTLANALCKEHEVSIIKFHAGESFYKLENEVKVTSLEQFRFDTLYHKIAS

RFKKFFALRKALKESKSDVFISFLDTTNIACIAAKIGLKTPLIISEHSNEAYLKPKIWRFLRRVSYPFCD

ALSVLGSSDKVYYERFVKRVKLLLNPCHFSDEISFDSSFEKENLVLFIGRLDHNKNPVMFLKAIAHLDKN

LQENYKFVIAGDGQLRQELEYKVKSLGIKVDFLGRVENVKALYEKAKVLCLCSFVEGLPTVLIESLYFEV

CRISSSYYNGAKDLIKDNHDGLLVGCDDEIALAKKLELVLNDENFRKELVNNAKQRCKDFEISHIKEEWL

KLIAEVKNA

>sp|Q9PML1.1|Y1449\_CAMJE RecName: Full=UPF0306 protein Cj1449c

MDERILEFIKNEQLLSWAMIDEKGVYTASAFYAFDEKNLAFIIASHEDTKHIRLASENSSIALNIAKESK

IAFLKGVQAKAEFKMASKEQMKIYFSKFPFAKFDKSAKIYALELFWLKFTNNALGLSKKLEFYKK

>sp|Q9PMS6.1|IXTPA\_CAMJE RecName: Full=dITP/XTP pyrophosphatase; AltName: Full=Non-canonical purine NTP pyrophosphatase; AltName: Full=Non-standard purine NTP pyrophosphatase; AltName: Full=Nucleoside-triphosphate diphosphatase; AltName: Full=Nucleoside-triphosphate pyrophosphatase; Short=NTPase

MKIILATSNKHKVLELKEILKDFEIYAFDEVLMPFEIEENGKTFKENALIKARAVFNALDEKQKKDFIAL

SDDSGICVDVLEGNPGIYSARFSGKGDDKSNRDKLVNEMIKKGFKQSKAYYVAAIAMVGLMGEFSTHGTM

HGKVIDTEKGENGFGYDSLFIPKGFDKTLAQLSVDEKNNISHRFKALELAKIILKILNKG

>sp|Q9PPI9.1|DPO3A\_CAMJE RecName: Full=DNA polymerase III subunit alpha

MSQFTHLHLHTEYSLLDGANKLKELALTLKEQGATSVAMTDHGNMFGAIDFYQTMKAQGLKPIIGIEAYL

HNHDELDDKSSRQRFHLCLYAKNEIGYQNLMYLSSQSYIKGLYYYPRINKKLLEDYSEGLICSSACLQGE

VNWHLNTYSERNVRFGAKGYEAAKEAALWYKKVFKDDFYFEIMRHGIGDQRMIDDDIIRLSKELNIKIIA

TNDTHYTFKERAAAHEVFMCIAMGKKLNDPDRMRHSVHEFYVKSPEQMSELFADIPEAIENTQEIAQKCN

LELNLGNPTPPNFKFTREYAKDHNIILPEETKEFSFDNDDMVFEELCKKGLEERLKFIDESKHEEYKQRL

EVEINIIKNMKFSGYMLIVHDFIKVAKDKGIPVGPGRGSAAGSLVSYCLRITDLDPIPYSLLFERFLNPE

RVSMPDIDVDFCQDRRAEVIDYVIDKYGADKVAQVITFGKLLAKGVIRDVARVCDMSIQDADELAKLVPE

ELKITLDAAYEKEPKIKEFIDRHPKGLEVWEYARALEGLNRNAGMHAAGVVISNESLWKKTPLFRQSKND

ERHLVTQYSKDHLEDVDLIKFDFLGLKTLTVINNAIKLIKKRYNKDIIWETIDVNDSKVYKTIQSGNTLG

IFQIESGGMQSLNARLKPERFEDIIAVLALYRPGPMESGMLDDFIDRKHGLKSIEYPFDSLEKVLEPTYG

VIVYQEQVMQIVQIIGGFSLGGADVVRRAMGKKDPEKMKKLKTDFADGAEKQGYDRAKAEDLWELIVKFA

GYGFNKSHSAAYALITFQTAYLKTYYPSEFMAALLTSEENNVDKIAVYIDEMKKMNIKLLPPSINKAIRE

FSALEQDGKDAIIYGLGAIKSVGIPAVENLLEARQDGEFKDINDFLGKIDPTKINRRTLESLIKAGAFDE

FGFTRKALFDNMENLSEASRKMAEVRKNAASSLFGEEELTSGVQVNFTPKNEEFEVMEKLGYEKEILGIY

VSGHPLDRFYEQINAIDYVKSLDFESLKNNGEILSIGKIEDFKSMMSKNNKRYGRIEILDYYSSFDATVF

ESNVEEIENIIKDENLKNNAYGFVLGFKAEGGEKPSFFLKAIKDLQSLEDGEIKAIKKFGAKKDFKNKEE

NHFTAEPKEFEKNIIELDLTRLNRELIYEIHEIARNAHNPNEKNNKKLVLKVISAGSCLLYHTDFIISDS

IVEEISNKYA

>sp|Q9PMR0.1|FEOA\_CAMJE RecName: Full=Putative Fe(2+) transport protein A

MTLNELKDGQKAIIVNLNAHKELKNRLLSFGFIKNKNLKKIHSSLKNATIMVELDTSCVILRSDEAKTIE

VNLI

>sp|P24531.2|GLYA\_CAMJE RecName: Full=Serine hydroxymethyltransferase; Short=SHMT; Short=Serine methylase

MSLEMFDKEIFDLTNKELERQCEGLEMIASENFTLPEVMEVMGSILTNKYAEGYPGKRYYGGCEFVDEIE

TLAIERCKKLFNCKFANVQPNSGSQANQGVYAALINPGDKILGMDLSHGGHLTHGAKVSSSGKMYESCFY

GVELDGRIDYEKVREIAKKEKPKLIVCGASAYARVIDFAKFREIADEIGAYLFADIAHIAGLVVAGEHPS

PFPYAHVVSSTTHKTLRGPRGGIIMTNDEELAKKINSAIFPGIQGGPLMHVIAAKAVGFKFNLSDEWKVY

AKQVRTNAQVLANVLMDRKFKLVSDGTDNHLVLMSFLDREFSGKDADLALGNAGITANKNTVPGEIRSPF

ITSGLRLGTPALTARGFKEKEMEIVSNYIADILDDVNNEKLQENIKQELKKLASNFIIYERAMF

>sp|P0C633.1|MAPA\_CAMJE RecName: Full=Outer membrane lipoprotein MapA; Flags: Precursor

MFKKFLIFIVPILFLSACATKQDTFAQVNQISKNSQCSSCESPGGFEAKIKGLLYISDVGIQCCANKRTL

DTGIALKKVYLHRFYDLKEGQKVLNAKGKKLFVDVNFNAVFYTYLKQELEARGIVVLDNNDQNSPYVSKI

DLEFISYGATQDAIGLHSKLVGVLQVSDINKNKKFTIRTKQDVQGFDDLKETTFYTHLLIKQMANKAASL

ISEL

>sp|Q0P9S6.2|CMOB\_CAMJE RecName: Full=tRNA U34 carboxymethyltransferase

MQENLLEKQFLNHPLYAKIQELKALNLACNFSLGDSVNLSTNSQAKDEILAIAKELKPWRKGPFKIDDLF

IDTEWQSFIKFNILKPFMNEISQKCVADIGCNNGYYMFKMLEFNPAKLIGFDPSIKYRLQFELINALAKT

PIKYELLGVEDLPSYSLKFDVIFCLGVIYHRSDPIKMLKDLKAGLNKNGVVFLDTMYIEDEREIALVPNK

TYSKIPNIYFVPSISALKNWCERAGFKEFEVLATKKTDENEQRKTEWIDSFSLENFLDPKDKNLTIEGYE

APKRVYIRIKI

>sp|Q0P9D0.1|PGLC\_CAMJE RecName: Full=Undecaprenyl phosphate N,N'-diacetylbacillosamine 1-phosphate transferase; AltName: Full=Protein glycosylation C

MYEKVFKRIFDFILALVLLVLFSPVILITALLLKITQGSVIFTQNRPGLDEKIFKIYKFKTMSDERDEKG

ELLSDELRLKAFGKIVRSLSLDELLQLFNVLKGDMSFVGPRPLLVEYLPLYNKEQKLRHKVRPGITGWAQ

VNGRNAISWQKKFELDVYYVKNISFLLDLKIMFLTALKVLKRSGVSKEGHVTTEKFNGKN

>sp|Q0P9C8.1|PGLB\_CAMJE RecName: Full=Undecaprenyl-diphosphooligosaccharide--protein glycotransferase; AltName: Full=Protein glycosylation B

MLKKEYLKNPYLVLFAMIVLAYVFSVFCRFYWVWWASEFNEYFFNNQLMIISNDGYAFAEGARDMIAGFH

QPNDLSYYGSSLSTLTYWLYKITPFSFESIILYMSTFLSSLVVIPIILLANEYKRPLMGFVAALLASVAN

SYYNRTMSGYYDTDMLVIVLPMFILFFMVRMILKKDFFSLIALPLFIGIYLWWYPSSYTLNVALIGLFLI

YTLIFHRKEKIFYIAVILSSLTLSNIAWFYQSAIIVILFALFALEQKRLNFMIIGILGSATLIFLILSGG

VDPILYQLKFYIFRSDESANLTQGFMYFNVNQTIQEVENVDFSEFMRRISGSEIVFLFSLFGFVWLLRKH

KSMIMALPILVLGFLALKGGLRFTIYSVPVMALGFGFLLSEFKAILVKKYSQLTSNVCIVFATILTLAPV

FIHIYNYKAPTVFSQNEASLLNQLKNIANREDYVVTWWDYGYPVRYYSDVKTLVDGGKHLGKDNFFPSFS

LSKDEQAAANMARLSVEYTEKSFYAPQNDILKSDILQAMMKDYNQSNVDLFLASLSKPDFKIDTPKTRDI

YLYMPARMSLIFSTVASFSFINLDTGVLDKPFTFSTAYPLDVKNGEIYLSNGVVLSDDFRSFKIGDNVVS

VNSIVEINSIKQGEYKITPIDDKAQFYIFYLKDSAIPYAQFILMDKTMFNSAYVQMFFLGNYDKNLFDLV

INSRDAKVFKLKI

>sp|Q0P899.1|CAS2\_CAMJE RecName: Full=CRISPR-associated endoribonuclease Cas2

MIEDKFMRVLLMFDVPTKSKKEQKLASKFRNNLIKLGYFMLQFSVYMRICKGLSSAKSSIENVKKILPPY

GNVRALIITEKQFDKMELLLGGIVFNEKVNNETNLTLFDIDSHGEFKYKNSNNEEIQINKKQEKYHQQNL

FEF

>sp|Q0PB55.1|MIAB\_CAMJE RecName: Full=tRNA-2-methylthio-N(6)-dimethylallyladenosine synthase; AltName: Full=(Dimethylallyl)adenosine tRNA methylthiotransferase MiaB; AltName: Full=tRNA-i(6)A37 methylthiotransferase

MSAKKLFIQTLGCAMNVRDSEHMIAELTQKENYALTEDIKEADLILINTCSVREKPVHKLFSEVGGFEKV

KKEGAKIGVCGCTASHLGNEIFKRAPYVDFVLGARNISKITQAIKTPKFMGVDIDYDESEFAFADFRNSI

YKSYINISIGCDKHCTYCIVPHTRGDEISIPFNIIYKEAQKAIEKGAKEIFLLGQNVNNYGKRFRNEHKK

MDFSDLLEELSTIEGLERIRFTSPHPLHMDDKFLEVFANNPKVCKSMHMPLQSGSSEILKAMKRGYTKEW

YLNRALKLRELCPNVSISTDIIVAFPGESEKDFEETVDVLEKVRFEQIFSFKYSKRPLTKAATMPNQIDE

EIASRRLSTLQNRHSEILDKIVKKQENKTFKVLFEELRAGNSIAGRTDNNFLVQVEGSEELLGQFKEVKI

TNAKRMVLYGEIV

>sp|Q0P9X7.1|PEB1C\_CAMJE RecName: Full=Probable ABC transporter ATP-binding protein PEB1C

MIELKNVNKYYGTHHVLKNINLSVKEGEKLVIIGPSGSGKSTTIRCMNGLEEVSSGEVVVNNLVLNHKNK

IEICRKYCAMVFQHFNLYPHMTVLQNLTLAPMKLQKKSKKEAEETAFKYLKVVGLLDKANVYPATLSGGQ

QQRVAIARSLCTKKPYILFDEPTSALDPETIQEVLDVMKEISHQSNTTMVVVTHEMGFAKEVADRIIFME

DGAIVEENIPSEFFSNPKTERARLFLGKILKN

>sp|Q0P9C7.1|PGLJ\_CAMJE RecName: Full=N-acetylgalactosamine-N,N'-diacetylbacillosaminyl-diphospho-undecaprenol 4-alpha-N-acetylgalactosaminyltransferase; AltName: Full=Protein glycosylation J

MQKLGIFIYSLGSGGAERVVATLLPILSLKFEVHLILMNDKISYEIPECQIHFLECSKPSENPILKFLKL

PFLALKYKKLCRNLGIDTEFVFLNRPNYIALMARMFGNKTRLVINECTTPSVMYMKNNFNSLVNKFLISL

LYPKADLILPNSKGNLEDLVQNFSISPKKCEILYNAIDLENIGQKALEDIALKDKFILSVGRLDKGKNHA

LLIRAYARLKTDLKLVILGEGVLKDELLALIKELNLEEKVLLLGFDNNPYKYMAKCEFFAFASVFEGFSN

VLIESLACSCAVVCTDHKSGARELFGDDEFGLLVEVDNENSMFQGLKTMLEDDKLRKAYKNKAKTRAKAF

DKVKIARDALKYLLG

>sp|Q0P8U6.1|PSEF\_CAMJE RecName: Full=Pseudaminic acid cytidylyltransferase; AltName: Full=Pseudaminic acid biosynthesis protein F

MKNLCIIPARGGSKRIPRKNIIDFLGKPLISYSIENALNSGIFDEVVLSSDDEEIIEVALKYGAKAPFVR

DKNLSDDYASSTAVVQNAIEILQSQNQIYDHVCCLYATAPLLNKDILKQAYEKFIQNQSKFLFAATEFEY

PIQRAFYLNENNQVYMFDEKHYKSRSQDLTKAYHDAGAFYFGTSKAWLEEDFIFKPHSSVFVLPRNLVCD

IDTIQDLEFAKILYKVNHESAF

>sp|Q0P8T0.1|NEUCH\_CAMJE RecName: Full=GDP/UDP-N,N'-diacetylbacillosamine 2-epimerase (hydrolyzing)

MSKRKICIVSATRAEWYLLRNLCHEIQNDKDLSLQIIATGAHLSPEFGLTYKEIEKEFKITKKIPILLAN

DDKISLCKSMSLAFSAFSDAFEDLKPDMVVILGDRYEMLSVASVCLLMHIPLVHLCGGELTLGAIDDSIR

HSISKMSHLHFVSHEIYKKRLLQLGEEEKRVFNIGSLASTIIKNMNFLNKKDLEKALEMKLDKELYLITY

HPLTLNVKNTQKEIKTLLKKLDTLKNASLIFTKANADENGLLINEILQNYCQKNSHKAKLFDNLGSQKYL

SLMKIAKAMIGNSSSGISESPFFKTPCINIGDRQKGRLRTQNIIDSEINDLDQAFEKLESKEFKQNLKNF

KNPYDNGKNPNKIIKTCLKNVNLDTILHKNFIDL

>sp|Q0P9C6.1|PGLI\_CAMJE RecName: Full=GalNAc(5)-diNAcBac-PP-undecaprenol beta-1,3-glucosyltransferase; AltName: Full=Protein glycosylation I

MPKLSVIVPTFNRQVLLEKAIKSIQNQDFKDLEIIVSDDNSSDDTKSVVQNLQKDDDRIKYFLNQNYKQG

PNGNKNNGLDQASGEFVTFLDDDDELLSGALSTLMQKANEGYAHVFGNCLIEKEGNLSKEFSGKGLEKDS

EISKKDFLMAKFSGEFFSVFKKSLLENKRFNEEFYGNEATLWVNLYKEKSFYIHKAFRIYRIFRQDSVTL

GASKNAYRVYLGYLELAKILENELRMSKDKDYKKTCASYYKMAAYYAKLAKNYKALYKCLFKSLSIKINA

PALILLILSIIPNNMIEKLSKIRVALCKN

>sp|Q0P8U3.1|HIS62\_CAMJE RecName: Full=Putative imidazole glycerol phosphate synthase subunit hisF2; AltName: Full=IGP synthase cyclase subunit; AltName: Full=IGP synthase subunit hisF2; AltName: Full=ImGP synthase subunit hisF2; Short=IGPS subunit hisF2

MLKTRIIPCVLLKNSQLVKSIEFKDFRTIGHLTSTMRIYNARNVDELIILDIDASKSGEIDFESIEDLAK

ECFMPLTIGGGIKTLEDIQKILNLGADKISINSKALEDMDFISKAGNRFGSQCIVCSIDVKRKGDQFCVY

DRGNLLEKSPLELALEYEKKGAGELLLTSVDFEGKAKGYDLELLKIFQNKLKIPLIINGGLSKPSDGVEA

LNLGADALAGAYIFHFSKYTPKDVKEELARQGFAVRLL

>sp|Q0P8S7.1|NEUAH\_CAMJE RecName: Full=CMP-N,N'-diacetyllegionaminic acid synthase

MAEILCTICARGGSKGVKNKNIRKINKLEMIAYSIIQAQNSKLFKHIVISTDSDEIASVAQKYGAEVFFK

REAHLANDRTAKLPVMRDALLRSEEHFKTCFETLIDLDASAPLRSSLDIKKAYESFVENDNSNLITAVPA

RRNPYFNLVEIQNNKVVKSKEGNFTTRQSAPKCYDMNASIYIFKRDYLLENDSVFGKNTGLFVMDESTAF

DIDSELDFKIVEFLISLKNLSPKDF

>sp|Q0P9C9.1|PGLA\_CAMJE RecName: Full=N,N'-diacetylbacillosaminyl-diphospho-undecaprenol alpha-1,3-N-acetylgalactosaminyltransferase; AltName: Full=Protein glycosylation A

MRIGFLSHAGASIYHFRMPIIKALKDRKDEVFVIVPQDEYTQKLRDLGLKVIVYEFSRASLNPFVVLKNF

FYLAKVLKNLNLDFIQSAAHKSNTFGILAAKWAKIPYRFALVEGLGSFYIDQGFKANLVRFVINSLYKLS

FKFAHQFIFVNESNAEFMRNLGLKENKICVIKSVGINLKKFFPIYVESEKKELFWKNLNIDKKPIVLMIA

RALWHKGVKEFYESATMLKDKANFVLVGGRDENPSCASLEFLNSGAVHYLGARSDIVELLQNCDIFVLPS

YKEGFPVSVLEAKACGKAIVVSDCEGCVEAISNAYDGLWAKTKNAKDLSEKISLLLEDEKLRLNLAKNAA

QDALQYDENIIAQRYLKLYDRVIKNV

>sp|Q0P8U5.1|PSEG\_CAMJE RecName: Full=UDP-2,4-diacetamido-2,4,6-trideoxy-beta-L-altropyranose hydrolase; AltName: Full=Pseudaminic acid biosynthesis protein G

MKVLFRSDSSSQIGFGHIKRDLVLAKQYSDVSFACLPLEGSLIDEIPYPVYELSSESIYELINLIKEEKF

ELLIIDHYGISVDDEKLIKLETGVKILSFDDEIKPHHCDILLNVNAYAKASDYEGLVPFKCEVRCGFSYA

LIREEFYQEAKENREKKYDFFICMGGTDIKNLSLQIASELPKTKIISIATSSSNPNLKKLQKFAKLHNNI

RLFIDHENIAKLMNESNKLIISASSLVNEALLLKANFKAICYVKNQESTATWLAKKGYEVEYKY

>sp|Q0P8U4.1|PSEH\_CAMJE RecName: Full=Acetyltransferase PseH; AltName: Full=Pseudaminic acid biosynthesis protein H

MIKLKNFAELNSQEIKLIFKWRNHPDISQFMKTKHIDFEEHLRFIRNLHQDSNKKYFLVFQDEQIIGVID

FVNITTKSCEFGLYAIPDLKGVGQVLMNEIKKYAFEILKVDTLKAYVFKDNHKALKLYQQNHFTIYDEDK

DFYYVCLKQSHCKALPS

>sp|Q9PMA3.1|NUOH\_CAMJE RecName: Full=NADH-quinone oxidoreductase subunit H; AltName: Full=NADH dehydrogenase I subunit H; AltName: Full=NDH-1 subunit H

MSDFAFFALETLIKCIIIIAIFASLAGLATYAERKVLAYFQRRIGPDMVGPFGLIQLVADMIKLFTKEDI

IPSNSQKFIFAIAPLISAICAFVSLAAIPMLPEFTLFGRVIQPIVADINVALLFVIGTSGLCFYAVFLGG

LASNNKWSILGAARGLVSIISYESVGALALIAIIMLVGSFSLVDINNYQSDGFFSWLIFKQPLAFVLFII

ALFIETNRTPLCLTENDAEIVAGYGTEYSGLRWGMFFIGEYTSMIAGAILVTLLFLGGFNSFWIIPGWIM

MIVKSSFIFFWYFWARAAFPQLRPDQVMKMCYLILIPLAVLNLLITALTVLL

>sp|Q9PIF1.1|TRPA\_CAMJE RecName: Full=Tryptophan synthase alpha chain

MVDFRKFYKENANVAYTVLGYPNLQTSEAFLQRLDQSPIDILELGVAYSDPIADGEIIADAAKIALDQGV

DIHSVFELLARIKTKKALVFMVYYNLIFSYGLEKFVKKAKSLGICALIVPELSFEESDDLIKECERYNIA

LITLVSVTTPKERVKKLVKHAKGFIYLLASIGITGTKSVEEAILQDKVKEIRSFTNLPIFVGFGIQNNQD

VKRMRKVADGVIVGTSIVKCFKQGNLDIIMKDIEEIFKK

>sp|Q9PIH3.1|SERC\_CAMJE RecName: Full=Phosphoserine aminotransferase; AltName: Full=Phosphohydroxythreonine aminotransferase; Short=PSAT

MRKINFSAGPSTLPLEILEQAQKELCDYQGRGYSIMEISHRTKVFEEVHFGAQEKAKKLYELNDDYEVLF

LQGGASLQFAMIPMNLALNGVCEYANTGVWTKKAIKEAQILGVNVKTVASSEESNFDHIPRVEFSDNADY

AYICSNNTIYGTQYQNYPKTKTPLIVDASSDFFSRKVDFSNIALFYGGVQKNAGISGLSCIFIRKDMLER

SKNKQIPSMLNYLTHAENQSLFNTPPTFAIYMFNLEMDWLLNQGGLDKVHEKNSQKATMLYECIDLSNGF

YKGHADKKDRSLMNVSFNIAKNKDLEPLFVKEAEEAGMIGLKGHRILGGIRASIYNALNLDQVKTLCEFM

KEFQGKYA

>sp|Q9PLY7.1|RL18\_CAMJE RecName: Full=50S ribosomal protein L18

MRANVLKRKLTLRIKRKKRIRAKISGCENFPRISVFKSNRTLYIQAIDDVKAVTLAAVDGRKLGVKANKE

GAKKIAAEFAKTLKVKKIEQAVFDRNGYVYHGVIAALAESLRENGIRL

>sp|Q9PI72.1|MRAY\_CAMJE RecName: Full=Phospho-N-acetylmuramoyl-pentapeptide-transferase; AltName: Full=UDP-MurNAc-pentapeptide phosphotransferase

MYYLSDLSHYAFFTYISVRAGFAFFIALCLSLFLMPKFITWAKAKNASQPIYEYAPETHKTKCHTPTMGG

LIFISSAVIASLFCIKFDNIFAISALLCLILFCLIGLIDDLGKVLKKDNHSGLSPRMKLLAQIIAGLICI

LPLYFSSELSTELFIPFYKHPLFDMEIFAIAFWILVLISSSNAVNLTDGLDGLATVPGIFSLSTLGIFLY

LSGNLNYSEYLLLPKIQGLGEVVIICAALIGALMGFLWYNCYPAQVFMGDSGSLALGGFIGFLAVISKNE

ILLLLIGFVFVLETVSVILQVGSFKIFNKRVFKMAPIHHHFEKVGWVENKIIVRFWMIALLSNLLALASI

KLR

>sp|Q6TG09.2|HLDE\_CAMJE RecName: Full=Bifunctional protein HldE; Includes: RecName: Full=D-beta-D-heptose 7-phosphate kinase; AltName: Full=D-beta-D-heptose 7-phosphotransferase; AltName: Full=D-glycero-beta-D-manno-heptose-7-phosphate kinase; Includes: RecName: Full=D-beta-D-heptose 1-phosphate adenylyltransferase; AltName: Full=D-glycero-beta-D-manno-heptose 1-phosphate adenylyltransferase

MLEFLSQQKPKILIIGDFMVDNYTWCDCSRISPEAPVLIAKTLKEDKRLGGAANVYANLKSLGADVFALG

VVGDDESGKFLQENLKGEFLIQKGRKTPFKNRIMAHNQQVLRLDEEDISEILLENELIALFDEKIKDFKA

VVLSDYAKGVLTPKVCKAVIEKAKVLNIPVLVDPKGSDFNKYSGATLLTPNKKEALEALKFENLEGENLE

KGIKKLKEDFSLRYSIITLSEAGIALFDEGLKIAPAKALEVYDVTGAGDSVIAVLAFCLANEIEIFKACE

LANEAAAVVVSKIGSVSVSFDEIKSFKRVDFEKKIKSKEELLVLLKQNNKKIVFTNGCFDIVHFGHIKYL

DKAKRLGDVLIVGLNSDASVKRLKGESRPVNSEFQRACMLAAFYFVDFVVIFDEDTPLELISFLKPDILV

KGADYKDKLVVGADIVSRVELIDFEEGFSTSKIIEKIKDKK

>sp|Q9PID1.1|Y371\_CAMJE RecName: Full=UPF0323 lipoprotein Cj0371; Flags: Precursor

MKKIKKIIQIGMIGGLAAVAGGALAGCGSNNDNADTLNQAANAQGAFVIIEETAPGQYKIKDQYPSDETR

VVLKDLNGTERILSKEEMDALIKEEAAKIDNGTSNLTKDNGQISSGGLSLGETLLASAAGAILGSWIGSK

LFNNQNFANQQRGAFSNQSAYQRSVNSFNKAGTTSSASSAKKSGFFGGGSKATSSSSSFGS

>sp|Q9PI98.1|LGT\_CAMJE RecName: Full=Prolipoprotein diacylglyceryl transferase

MEFWQHIYSNFNVIAFSIFGLKVHWYGIMYVIALLLALLLAKFFVRKFQLDINEKHLDSYFIWVEIGVIL

GARLGYILIYDANTMYYITHPWQIFNPYINGEFVGIRGMSYHGAIIGFLIATLLFCKKYKTNPWIFLDLV

ALSVPLAYVFGRIGNFLNQELFGRITNVPWGIYVDGVLRHPSQLYEAFLEGIVVFIIVYLARFKQSFQGE

LILVYAGAYSLARFICEFYREPDFGIGFVLWGMSMGQILSFIMFITALLVYICIKFKKVNI

>sp|Q9PIM5.3|Y270\_CAMJE RecName: Full=Probable tautomerase Cj0270

MPLVNIKLAKPSLSKEQKAELIADITELLSTKYNKSKERVVVVLEDVENYDIGFGGESVEAIKAKASK

>sp|Q9PNH7.1|PRMA\_CAMJE RecName: Full=Ribosomal protein L11 methyltransferase; Short=L11 Mtase

MQKKYYELFFIVEEQYKNLFLDFAFDLGIEAIEEKDNGVYIRSHESLEEFSWALEIFAQKLTTTFNLNHK

IISNLSLVEKENKDWIQEYKKGIKPILVDNVYIHTTWQEEKKNCINIKINPALAFGSGHHESTYSCVKFL

QKFSKSKLRALDLGCGSGILGIIMAKFGCNVEICDTDELAIDSSLENARLNGVDFHKAWCGSIDKANGLY

NLIVANIIADVILILEKDIKNHLEDNAILILSGILDKYSTRIKEKFQDLELIDEMQINEWCSFVYKNNKK

G

>sp|Q9PNX7.1|YIDC\_CAMJE RecName: Full=Membrane protein insertase YidC; AltName: Full=Foldase YidC; AltName: Full=Membrane integrase YidC; AltName: Full=Membrane protein YidC

MNNSNNIFQQKRILLAVVISFLFFVIYDYFFIPKQPLKIEQNITQKNQQNTSINNTPNIQNATTNTPSAA

LVSQDSVISKVQSKHFEAQIDSFGRISAFYLKDRKYQNEKGEFINLVSKENSPYPLEMRFSDPSINSEAF

KIPYVANASNLFVDENGSQVLKLTQNLSGLKIEKDITFYPKGNYEIEVKLSKNANYFISPGYRPNIAVDS

YTVHGALVMDNKETIETYKDGDVEKDESANNVVMTSAFDRYYATFFYNFDKPLNVAISKDANQNPIVFAY

SDNEFKAGGYIGSKEHVILRSIDPRLEAVVEYGWFTFIAKPMFEFLNFLHQYIGNWGWAIVVMTLIVRII

LFPLTYKSMISMNKLKDLAPKMKDIRERYKGDPQKMNMHMMELYKKHGANPMSGCLPILLQIPIFFAIYR

VLLNAIELKAAPWAFWIHDLSVMDPYFILPILMGATMFLQQLITPMTIQDPMQAKIMKFLPVIFTFFFIT

FPAGLTLYWFVNNLCSLVQQWVINKIFAKEHHKKTSGA

>sp|Q9PHQ1.1|PSTB\_CAMJE RecName: Full=Phosphate import ATP-binding protein PstB; AltName: Full=ABC phosphate transporter; AltName: Full=Phosphate-transporting ATPase

MIAKTTNLNLFYGKKQALFDINMQIEQNKITALIGASGCGKSTFLRCFNRMNDKIAKIDGLVEIKGKDVK

NQDVVALRKNVGMVFQQPNVFVKSIYENISYAPKLHGMIKNKDEEEALVVDCLQKVGLFEEVKDKLKQNA

LALSGGQQQRLCIARALAIKPKLLLLDEPTSALDPISSGVIEELLKELSHNLSMIMVTHNMQQGKRVADY

TAFFHLGELIEFGESKEFFENPKQEKTKAYLSGAFG

>sp|Q9PMZ6.1|FABHL\_CAMJE RecName: Full=Putative 3-oxoacyl-[acyl-carrier-protein] synthase 3; AltName: Full=3-oxoacyl-[acyl-carrier-protein] synthase III; AltName: Full=Beta-ketoacyl-ACP synthase III; Short=KAS III

MKTRFDKAKISGICVSVPEHKICIDDELESVFSNDIKTLKRMKKVIGLNTRYICDENTCVSDLGKHAANT

LLQGLNIDKNSLDALIVVTQSPDFFMPSTACYLHQLLNLSSKTVAFDLGQACAGYLYGLFVAHSLIQSGL

GKILLICGDTLSKFIHPKNMNLAPIFGDGVSATLIEKTDFNEAFFELGSDGKYFDKLIIPKGAMRIPKAD

IFNDDSLMQTEEFRQLENLYMDGANIFNMALECEPKSFKEILEFSKVDEKDIAFHLFHQSNAYLVDCIKE

ELKLNDDKVPNFIMEKYANLSACSLPTLLCELDTPKEFKASLSAFGAGLSWGSAVLNFKDLYTKNILIYT

KEK

>sp|Q9PI34.1|RL1\_CAMJE RecName: Full=50S ribosomal protein L1

MAKIAKRLKELSQKIDSNKEYALSDAIDTIKTLKSAKFDETVEIALKLNVDPRHADQMVRGSVVLPAGTG

KKVRVAVIAKDAKADEAKNAGADIVGSDDLVEEIQKGNMNFDVLIATPNLMGLVGKVGRILGPKGLMPNP

KTGTVTMDVAQAVNNAKSGQVNFRVDKQGNIHAGLGKVSFSKEQLWDNVSTFVKAINKHKPAAAKGRYIK

NAALSLTMSPSVKLETQELLDMK

>sp|Q9PJ14.1|TOLB\_CAMJE RecName: Full=Protein TolB; Flags: Precursor

MKKIVAIFLVFLGSLWAEDPVIDVVNSGVVLPKIIVKDNSNLSDENLKKSFYNIIVNDLKVSSNFEVVAN

ATETSNYIFEYTLNKNGNTLSLNVKIKAGGSDKSEQTYTLNGLEQYPFLAHKSVKASVNALGLAPVDWMD

HKILIARNSSSKKSQIIMADYTLTYQKVIVDGGLNLFPKWGNKEQTLFYYTAYDHDKPTLYRYDLNTNKA

SKILSSGGMVVASDVNVDGSKLLVTMAPKDQPDVYLYDLNTKNLTQLTNYSGIDVNGNFIGSDDSKVVFV

SDRLGYPNIFMQDLNSNSAEQVVFHGRNNSAVSTYKDFLVYSSREPNQAGVFNIYLMSINSDYIRQLTAN

GKNLFPRFSSDGGSIVFIKYLGAQSALGVIRVNANKTFYFPLRVGKIQSIDW

>sp|Q9PHK7.1|ASSY\_CAMJE RecName: Full=Argininosuccinate synthase; AltName: Full=Citrulline--aspartate ligase

MKNEVKKVVLAYSGGLDTSIILKWLQDEYNCEVVTFTADIGQGEELEPARKKALSLGIKEENIFIKDLRD

EFVKDYVFPMFRANAIYEGEYLLGTSIARPLIAKTQAQIALQTGADAVSHGATGKGNDQVRFELGYLAFS

PDLKIIAPWREWDLNSREKLLAYAQKHGIDISKKKGKSPYSMDANLLHISYEGLVLEDPAHAPEEDMWRW

SKSPKDAPNESEIIELDFQKGDLVAINGEKLSPAGLLTKLNELGCKHGIGRLDIVENRYVGMKSRGCYET

PGGTILLKAHRALESITLDREAAHLKDELMPKYASLIYNGYWFSPERMMLQALIDESQIHANGRVKLELY

KGNVMVIGRESANDSLFNAAYCTFEEDEVYNQKDAAGFIKLNALRFIIAGKNGRKF

>sp|Q9PIF3.1|TRPF\_CAMJE RecName: Full=N-(5'-phosphoribosyl)anthranilate isomerase; Short=PRAI

MLKLKICGIKDEKNAKDLAFLNIDFFGLIFAKSPRRVSLEQARNLSAIFHEKDKKVVGVFVDENLEQILR

CIKEAKLDGIQIYRTITKEEFEILKVQNVFVWQVISVENSLDLKSEIFANLVLFDAKGILKGGNGISFDW

TLLGSYTKDFILAGGIGLDNVHKAVKTGAKILDLNSKLEDEKGLKDINKIKQILKELKK

>sp|Q9PIE4.1|PLSY\_CAMJE RecName: Full=Glycerol-3-phosphate acyltransferase; AltName: Full=Acyl-PO4 G3P acyltransferase; AltName: Full=Acyl-phosphate--glycerol-3-phosphate acyltransferase; AltName: Full=G3P acyltransferase; Short=GPAT; AltName: Full=Lysophosphatidic acid synthase; Short=LPA synthase

MENLIIYAFIYLLGSIPFGLILAKFFAKTDIKKEGSKSIGATNVLRVVKEKNPKLAKKLAIATIILDFAK

AAIPLLTLKFLHYDQALLWSVAVLAILGHCFSIYLLFEGGKGIATGAGAMIVLLPLEVLTAFIVWVVIGK

IFKISSLASLAALLAFVVSSFIFNYDLEIHTHAPVFIIAFIIVYKHLPNIKRLIFKEECKVI

>sp|Q9PPL8.1|ACKA\_CAMJE RecName: Full=Acetate kinase; AltName: Full=Acetokinase

MKILVLNSGSSSIKFKFFDNKVVKASGLVEKIGEQNSKVVLKNTLNNESFERELTINNHEEGLSIVNELF

KESGILADLNALDGCGHRIVHGGRNLSEHCLVDDYVLKEIDRVSIFAPLHNPAHLAGIKTMIKAAPSVAN

AAIFDTAFHRTMPDFAYMYALPYDFYDKHNIRRYGFHGTSHAYVSSRAAKFLQKDQNELNVISAHLGNGA

SVCAIEKGKSVDTSMGFTPLEGLVMGTRCGDLDPAILPFISHLKGLTIEEIDTLMNKKSGVYGICGYNDF

RDIEREIEQGNDKARLALDMFCYRLVKYIGSYFAVLPKTDAIIFTGGIGENDSLVRQKVCERLAHLGIEL

DFELNKQRISGERMINHANSKVKVLVIPTDEELEIARITEELIGKN

>sp|Q9PPB0.1|NADE\_CAMJE RecName: Full=NH(3)-dependent NAD(+) synthetase

MDWQKITEKMCDFIQEKVKNSQSQGVVLGLSGGIDSALVATLCKRALKENVFALLMPTQISNKANLEDAL

RLCADLNLEYKIIEIQSILDAFIKQSENTTLVSLGNFAARIRMSLLYDYSALKNSLVIGTSNKSELLLGY

GTIYGDLACAFNPIGSLYKSEIYALAKYLNLHENFIKKAPSADLWENQSDEADLGFSYTKIDEGLKALET

NDEKLLRTLDPSLIAMLKNRMQKNAFKGKMPEILEI

>sp|Q9PP06.1|APT\_CAMJE RecName: Full=Adenine phosphoribosyltransferase; Short=APRT

MIKLTQEEQKYLLDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFI

FASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKVELHKDAFKNIQNARVLLVDDLIATGGTAIA

SYELIQKAGAKCVEACFLINLKDLNGANKLEKLTSVYSVLEI

>sp|Q9PJ84.1|PYRG\_CAMJE RecName: Full=CTP synthase; AltName: Full=Cytidine 5'-triphosphate synthase; AltName: Full=Cytidine triphosphate synthetase; Short=CTP synthetase; Short=CTPS; AltName: Full=UTP--ammonia ligase

MKQTKYIFVTGGVLSSLGKGIAAASIATLLKNSGLKVSILKADPYINVDPGTMSPFEHGEVFVTDDGAET

DLDLGHYERFLDESLSQDNNFTTGRVYQSVIEKERRGEYLGKTIQVIPHIVGEIKDRIKKAGEGKDILIV

EIGGTVGDIEGLPFLEAIRALRLEVGKNNAMNIHLTLVPFIKAAGELKTKPTQHSVGELRRIGISPDMII

CRSEKALDRDLKDKIAISCGVEKNCVIESVDAASIYQIPLNFLKQDILSPIAEILDLKNLKPNMENWDSL

VKRVIAPSNEVKIAFVGKYVDLKESYKSLTEAIIHAGAALDTKVELKWVDSEKLENMESSEVFKDVSGIL

VAGGFGYRGVEGKIKAIQYARENKIPFLGICLGMQLALVEFARNVLKLKDVNSSEFNEKCQNPVVYLIDE

FMDTNGEKQIRTAKTPLGGTMRLGAYKCDIKEKSLLAKVYNEVKSVKERHRHRYEANPKYRADFEKYGLI

VSGESKGLIEAVELNCHPFFLAVQFHPEFTSRLEHVNPVICSFIKAAINYEDN

>sp|Q9PMD8.1|DAPF\_CAMJE RecName: Full=Diaminopimelate epimerase; Short=DAP epimerase; AltName: Full=PLP-independent amino acid racemase

MKFYKYCASGNDFVITNADRKEDRSALAKELCNRYEGIGADGFIVILPHEKYDFEWEFYNNDGSRAAMCG

NGSRAAAHFAHHINKINPNMSFLTGAGIIKAKVNQDKVEVSLGKIKSVQNTFEELGKTWQLCNTGVPHLV

HFCQNLDEFDTMLCQKMRQKYNANVNFVKILDENHLKVRTYERGVEDETLACGTGMGACFYLAFLNKKVQ

NKVKITPKSGEEVGFAYKNEELFFEGKVKYCFEANYNFF

>sp|Q9PI11.1|TRPC\_CAMJE RecName: Full=Indole-3-glycerol phosphate synthase; Short=IGPS

MILDKIFEKTKEDLKERKLKLPYDMLGRSLASNPFFPKDVIKALKRVEKEVKIIAEVKKASPSKGVIRED

FDPLSIALNYEKNKAAAISVLTEPHFFKGSLEYLSLIRRYTQIPLLRKDFIFDEYQILEALVYGADFVLL

IAKMLSMKELKKLLEFARHLGLEALVEIHDKEDLSKAIFAGADIIGINHRNLEDFTMDMSLCEKLIPQIP

NSKIIIAESGLENKEFLEHLQNLGVDAFLIGEYFMREKDEGKALKALL

>sp|Q9PIR1.1|PYRE\_CAMJE RecName: Full=Orotate phosphoribosyltransferase; Short=OPRT; Short=OPRTase

MNLEQIYKDCGAYLEGHFLLSSGKHSQFYLQSAKVLEDPKLAAKLCDELAKIIASYKIEFDSICSPALGG

ILAGYELARACSKRFIFTERVNKEMTLRRGFEVKKGEKFIICEDIITTGGSALESAKIIESLGGIVVGFA

ALANRGFCAVENLKSPRKDNAKLPENLPLFTLGNFEFEIYDETNCPLCKKGNKAIKPGSRGN

>sp|Q9PM71.1|HIS2\_CAMJE RecName: Full=Histidine biosynthesis bifunctional protein HisIE; Includes: RecName: Full=Phosphoribosyl-AMP cyclohydrolase; Short=PRA-CH; Includes: RecName: Full=Phosphoribosyl-ATP pyrophosphatase; Short=PRA-PH

MQNFKELNEKIAWQKVDNLLPVIIQDAKTCEVLMLGFMNNEALEKSLESGKVVFFSRTKQRLWMKGEESG

NFLNIIDLSLDCDNDTLLILANPVGPTCHTGDISCFEKISKNADFVFLARLEKLINARKNADENTSYTAK

LFKSGTKRIAQKVGEEGVETALAATVKDKEELICEAADLMYHLSVLLADANLSFSDVISKLKERHKA

>sp|Q9PMG4.1|PURA\_CAMJE RecName: Full=Adenylosuccinate synthetase; Short=AMPSase; Short=AdSS; AltName: Full=IMP--aspartate ligase

MSKADIIVGIQWGDEGKGKVVDKLCENYDFVCRSAGGHNAGHTIWVNGVRYALHLMPSGVLHPRCINIIG

NGVVVSPEVLIAEMAQFENLKGRLYISDRAHLNLKHHSLIDIAKEKLKGKNAIGTTGKGIGPSYADKINR

TGHRVGELLEPQRLCEALIKDFEANKTFFEMLEIEIPSAEELLADLKRFNEILTPYITDTTRMLWKALDE

DKRVLLEGAQGSMLDIDHGTYPYVTSSSTISAGTLTGLGLNPKEAGNIIGIVKAYATRVGNGAFPTEDKG

EDGEKIAQIGKEIGVSTGRKRRCGWFDAVAVRYTARLNGLDALSLMKLDVLDGFEKIKICRAYEYKGMEI

DYIPSDLENVQPIYEEMDGWDKVFGIKDYDLLPENAKKYIARLEELAGVKVKYISTSPERDDTIIL

>sp|Q9PM74.1|HIS4\_CAMJE RecName: Full=1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)methylideneamino] imidazole-4-carboxamide isomerase; AltName: Full=Phosphoribosylformimino-5-aminoimidazole carboxamide ribotide isomerase

MTQIIPALDLIDGEVVRLVKGDYEQKKVYKYNPLKKFKEYEKAGAKELHLVDLTGAKDPSKRQFALIEKL

AKEVSVNLQVGGGIRSKEEVKALLDCGVKRVVIGSMAIKDATLCLEILKEFGSEAIVLALDTILKEDYVV

AVNAWQEASDKKLMEVLDFYSNKGLKHILCTDISKDGTMQGVNVRLYKLIHEIFPNICIQASGGVASLKD

LENLKGICSGVIVGKALLDGVFSVEEGIRCLAN

>sp|Q9PNU3.1|RSMG\_CAMJE RecName: Full=Ribosomal RNA small subunit methyltransferase G; AltName: Full=16S rRNA 7-methylguanosine methyltransferase; Short=16S rRNA m7G methyltransferase

MIFKDYDFLQNYDLKNFEEKVKIYKELLSKFNRIHNLTHLKNIDENIFDSIKILDFYDFSKAKNIADIGS

GAGFPVVFLAFLLQSNFHLFEPNPKKAAFLRTLKIECELPNLHIYKEKVQEYKNTFKADIITSRALMDVK

PLLEICKNLKDENTVFILWKGSEIYQELENIKDYEIFENNLRRYCILK

>sp|Q9PIN2.1|ZUPT\_CAMJE RecName: Full=Zinc transporter ZupT

MQFTFEQIFIAMLLTLFAGFSTAIGSIIAFFSRKDDLRVLSLGLGFSAGVMIYISFMEILPTALKDFKNH

YDSHWAELLGLACFFGGILISLLIDKLIPEDVNPHEPKEDLSELKICPLPQKGQNPPKFHPGEKLHQINT

KALKRTGIFTALAIAIHNFPEGFATFISSLDNLTLGIAIAIAVAIHNIPEGLAVSLPIYHATGDKKKAFI

YSALSGFAEPLGAFVGALILLPFIGDLTLAISFAVIAGIMVFISLDELLPAAKTYDKAHDSLYGLIAGMA

IMALSLNLLGQ

>sp|Q9PJ31.1|RL27\_CAMJE RecName: Full=50S ribosomal protein L27

MAHKKGQGSTQNNRDSIGRRLGVKKFGGEFVRAGNIIIRQRGTATHAGNNVGMGKDHTIFALIDGFVKFE

RKDKDRKKVSVYPA

>sp|Q9PM63.1|RF1\_CAMJE RecName: Full=Peptide chain release factor 1; Short=RF-1

MLASKLDPFFKRFEELNSLLSSSDILNDISKMTTLSKEQKNLEPIVLKAKEYLKTLDNIEENKALLNDPE

LGELAKEELKTLEELKPKLEEEIKILLLPKDPNDERNIFLEIRAGTGGDEASLFVGDLVKAYARYAENRG

YKLEIVSSSEGSVGGFKEIIMLVKGTGAYSRLKYEGGTHRVQRVPQTESQGRVHTSAITVAVMPEVDDIE

IEINPNDLKVDVMRSSGHGGQSVNTTDSAVRITHIPTGIVVVNQDGKSQHKNKESAMKVLKARLYEMQES

ERLAKESEARKSQVGSGDRSERIRTYNFPQNRISDHRINLTLYRLDAIMQDGLFDEIIEPLITHHQAQAL

QEQNL

>sp|Q9PPL4.1|RSMH\_CAMJE RecName: Full=Ribosomal RNA small subunit methyltransferase H; AltName: Full=16S rRNA m(4)C1402 methyltransferase; AltName: Full=rRNA (cytosine-N(4)-)-methyltransferase RsmH

MILEIPHIPVLLNEVQEIFKNLKTGYFLDCTLGFGGHSEALLKNHPDLKFIACDQDQQALKFSKKRLKDF

RNRITFMQSNFSEVLEKISHKEELRGILADIGVSSFQLDNNERGFSVNSDFLDMRMNQNSKISAYEIINT

YTKEQLTSIFKDYGELHDAHFIAEKICLERSKNLIKSAKELYQIIGKGKQNHRKISKATLAFQAIRIEVN

QELKVLKDFLEHLENLKPKNCILAIISFHSLEDRIVKQFFKKWSKNCICNEKIMRCECGNNHSLGQIITK

KAISASKEELLKNSRSSCAKMRAFYFNNLDNK

>sp|Q9PM78.1|HIS1\_CAMJE RecName: Full=ATP phosphoribosyltransferase; Short=ATP-PRT; Short=ATP-PRTase

MQENTRLRIAIQKSGRLSKESIELLSECGVKMHIHEQSLIAFSTNLPIDILRVRDDDIPGLIFDGVVDLG

IIGENVLEENELERQSLGENPSYKLLKKLDFGYCRLSLALPQENKFQNLKDFEGLRIATSYPQLLKRFMK

ENGINYKNCTLTGSVEVAPRANLADAICDLVSSGATLQANNLKEVKVIYESRACLIQKENALSKEKQALV

DKIMLRVAGVMQARESKYIMLHAPKEKLDKIQALLPGVERPTILPLAHDEKNVALHMVSKENLFWETMEA

LKEEGASSILVLPIEKMLK

>sp|Q9PP26.1|ALR\_CAMJE RecName: Full=Alanine racemase

MSLIKIDQKAYEYNLRHIAKKIGSFQRLICVFKDNAYGHGAKLLAPLAKNLGVSFVAVKSEEEAREIEEF

FENILILSHRPHGNENSRFIYALNDISQVKNYKQDIKIHLKIDTGMHRNGICVENLEHAINLIQGSDLKL

TGMFTHFASADEMDGSFFVQKENFQKAKKIVKKYFSNLLFHSYNSAALFRGKIPEDEYCRVGLVQFGYGD

SNLKRVLSLYAHRLSQRILQKGQSIGYGGIFTAAKDMEVATYDLGYADGLFRYNGRGELVLGNGKAMLGK

MSMDSFSCENSGEEICVFKDADIWADFFHTINYEILVKLNPNIQRVLV

>sp|Q9PP01.1|PCKA\_CAMJE RecName: Full=Phosphoenolpyruvate carboxykinase (ATP); Short=PCK; Short=PEP carboxykinase; Short=PEPCK

MKKFDKLGLDNIKEIFHNLSYDELNAHEKANNEGLSTDNDTFCVDTGIFTGRSPKDKYFVKQDPSSKYIA

WGKVNQPITKELFDKLLTKAKQELSGKKIYVQDVFCGASLQSRKAVRFVTEIAWQAHFVKNMFIRPSQEE

LENFKADFIVYNACKCINEDYKQDGLNSEVFVIFNVEENIAVIGGTWYGGEMKKGIFSMMNYWLPLENKL

SMHCSANVGEKDDVALFFGLSGTGKTTLSTDPKRRLIGDDEHGWDDEGVFNFEGGCYAKTINLDPEHEPE

IYGAIKRNALLENVVLRADKSVDYADASKTENTRVSYPIEHIENHEPSLKAGHPKNIIFLSADAFGILPP

VSKLSKEQAMYYFLSGYTAKVAGTERGITEPQATFSACFGEPFMPLHPTVYARLLGEKIEKHEVNVYLVN

TGWSGGSYGVGKRMSIKATRACINAILDGSITKCEFENFEVFDLAIPKALEGVESVLLNPINTWLDKNAY

IATRDKLAHMFIQNFKRYEDVKEGIEFSKFGPKI

>sp|Q9PIK1.1|PANB\_CAMJE RecName: Full=3-methyl-2-oxobutanoate hydroxymethyltransferase; AltName: Full=Ketopantoate hydroxymethyltransferase; Short=KPHMT

MRKSMISFLEKKAKNEKITMVSAYDYHSARILDNSDIDIILVGDSLAMTVLGMQDTLSVTMDEMLIFTKA

VSRGAKKSFVLADMPFMSYQSSDRDAILNASRFIKESHANGVKVEGGIEIASKIKLISQSGIPVVAHLGL

TPQAVNMLGGYRVQGKDLQSAQKIIDDAKAVQDAGACMLVLECVPVKLAQKISSILEIPTIGIGSGKYCD

GQVLVYHDLLGLNKDFKAKFVKHFDKIDPQVGVEKYRDEVKSGIFPSQEHSFDYLDDELLDKLY

>sp|Q9PIX2.1|RL31\_CAMJE RecName: Full=50S ribosomal protein L31

MKKEIHPEYVECKVSCACGNTFTTKSNKAELRVDICSNCHPFFTGSEKIVDAAGRVEKFKKKYAMQ

>sp|Q9PIQ8.1|Y236\_CAMJE RecName: Full=Uncharacterized protein Cj0236c

MSLYDRDYSRSKEFENTRSSELSIFIKQTYQLFAASLLAATVGAYVGIFALASFFIQSQVTFWILFAVEI

GLLFALQWKKREAPLNLVLLFGFTFCSGLTLTPLLISVLALPAGGIIIAQAFALTTVAFAGLSVFAMNTK

KDFTVMGKALFIVLIVIVAASLLNLFFQSSIVNLAISAVAAILFSFYILYDTQNIIRGNYETPIEGAVAL

YLDFVNLFVSLLNILRSFNSR

>sp|Q9PM72.1|HIS61\_CAMJE RecName: Full=Imidazole glycerol phosphate synthase subunit hisF1; AltName: Full=IGP synthase cyclase subunit; AltName: Full=IGP synthase subunit hisF1; AltName: Full=ImGP synthase subunit hisF1; Short=IGPS subunit hisF1

MLTKRIIACLDVKDGRVVKGTQFKNHKDMGDIIELARYYSQNGIDELVFYDIAASARKERISREWVSEVA

KNINISFCVAGGIKSEEDAAELLANGADKISINSPALNDPSLITRLAKSFGVQCVVVGIDSFKDENGNLK

VFQYTGDEKTSKHSGKSTLEWVKKVQDLGAGEIVLNMMNQDGVKNGYDLEQLEAVYKICKVPLIASGGAG

KMEHFLEAFKLGIDGALAASVFHQKLIDIKELKIYLKNQGLSIRI

>sp|Q9PHZ7.1|PURQ\_CAMJE RecName: Full=Phosphoribosylformylglycinamidine synthase subunit PurQ; Short=FGAM synthase; AltName: Full=Formylglycinamide ribonucleotide amidotransferase subunit I; Short=FGAR amidotransferase I; Short=FGAR-AT I; AltName: Full=Glutaminase PurQ; AltName: Full=Phosphoribosylformylglycinamidine synthase subunit I

MKVAIIRFPGTNCEFDTTYAFEKLGVKTQIVWHEEKEFDADLVVLPGGFSYGDYLRCAAIAKLAPAMQGV

FNHAKKGGYILGICNGFQILLESGLLKGAMKHNNNLSFISKNQSLRVVSNDNAFLKNFKKDEIINLPIAH

GEGNYYADETTLKELQDKDLIILKYEPNPNGSVFDIAGICDENKKIFGLMPHPERACEKVLGNDVGLKML

KGFLLENFINFNF

>sp|Q9PPB4.1|DAPA\_CAMJE RecName: Full=4-hydroxy-tetrahydrodipicolinate synthase; Short=HTPA synthase

MDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAVETC

KGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLYNVP

GRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNGGKGVISVT

SNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFRLPLCSPSK

ENFAKIEEVMKKYKIKGF

>sp|Q9PI18.1|RS12\_CAMJE RecName: Full=30S ribosomal protein S12

MPTINQLVRKERKKVLEKSKSPALKNCPQRRGVCTRVYTTTPKKPNSALRKVAKVRLTSGFEVISYIGGE

GHNLQEHSIVLVRGGRVKDLPGVKYHIVRGALDTAGVAKRTVSRSKYGAKRPKAGAAK

>sp|Q9PNX4.1|RL34\_CAMJE RecName: Full=50S ribosomal protein L34

MKRTYQPHGTPRKRTHGFRVRMKTKNGRKVINARRAKGRKRLAV

>sp|Q9PIK8.1|LPXB\_CAMJE RecName: Full=Lipid-A-disaccharide synthase

MKTFLVCALEPSANLHLKEVLKAYKKDFGEFELHGIYDESLCKEFDLNSKPLYSSHEFSAMGFIEVLPLI

FKAKKAIKELANLSFTQKINGILCIDSPAFNIPFAKALKKAGSKIPRIYYILPQVWAWKKGRIPIIESHF

DILASILPFDNQFFNKSTYIGHPLLDEIKEFKNQEDINHTFSKKDDEKTIAFLPGSRRSEIRRLMPIFKE

LSQKFKGKKILCVPSFNLEKLEVYGDISEFKIESNTPKVLKKADFAFICSGTATLEAALVGTPFVLAYKA

KAIDIFIAKLFVKLKHIGLANIFCDFAGKEALNPEFLQDKVNVLNLYEAYNKYDYKAFFAKVDFLKEYLQ

FGSAKNLAKILNEI

>sp|Q9PN20.1|TRMB\_CAMJE RecName: Full=tRNA (guanine-N(7)-)-methyltransferase; AltName: Full=tRNA (guanine(46)-N(7))-methyltransferase; AltName: Full=tRNA(m7G46)-methyltransferase

MPNFKSKKIKEINLPYSKDDVEFLWLAKNDNVSLIYTKVQEESFFLQIKKAQNGFVIKGDKHTKPSKIGY

LQKALKIFKEGFCEDIINEAFGLKNNALIEKTPFIVDNFDELLSRLQGKIYIEIGFGSGRHLLYQAKENP

NVLILGVEIYNPALTQVAKLAKAQNVNNILLIQSDARLLLSVLKSKSVEKIFLHFPVPWDKKPHRRVIGK

DFCKECARVLVQNGRFELRTDSFEYFNFTLEQFLTFPAPKFSLRKNENLEISSKYEDRWKKQEKNIYDLW

VWNFNQECKNYELNEFNLSSVEFSKEDLKKIEQNFKNITIKKDDFFLHFESIYKQDENLLLKVAFGAFNK

PEHCYLHLDKTIDFAFKEPFKIQENIKAINELKEILKVQFKI

>sp|Q9PP70.1|GSA\_CAMJE RecName: Full=Glutamate-1-semialdehyde 2,1-aminomutase; Short=GSA; AltName: Full=Glutamate-1-semialdehyde aminotransferase; Short=GSA-AT

MTNKKAFKETCKFIAGGVNSPVRAFANVQSEPKFISHGKGAYIFDIDGNSYIDYVQSWGPLLFGHCDKDI

QKACQKALHKGSSFGAPTLLETELAKLVLSDFPHLEKIRFVSSGTEATMSAIRLARGFTKKDKILKFEGC

YHGHSDSLLVSAGSGAATFNSPSSLGVLEDVAKHTLVAKYNDINSVKELFEKNKDIACVIIEPIAGNMGL

VPAKQDFLEELAKICKNNQTLLIFDEVMSGYRASYLGSYGINHIQADIITFGKVIGGGLPAAAFASRAEI

MDILSPLGGVYQAGTLSGNPLAMAAGIASLTKAKKKTKLYDKLGKLAKKLTQGMKKLADEKGLPLQACHV

GSMFGYFFTKDPVSNYQDALKSDLALFSKFHKNMLENGIYLAPSQFETGFICSKMDDKIIDTTLEAVRES

FKRI

>sp|Q9PMD9.1|COAE\_CAMJE RecName: Full=Dephospho-CoA kinase; AltName: Full=Dephosphocoenzyme A kinase

MKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKIDRKI

LGEIVFNNKEAKKILENFTHPKIRAKILEQMQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPKELS

LKRIMQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNM

>sp|Q9PID2.1|RS21\_CAMJE RecName: Full=30S ribosomal protein S21

MPGIKVHPNESFDEAYRKFKKQVDRNLVVTEVRARRFFEPMTEIRKKQKISARKKMLKRLYMLRRYESRL

>sp|Q9PI33.1|RL10\_CAMJE RecName: Full=50S ribosomal protein L10

MTRSEKVEIIAKLEEGFKASEAIVVCNYRGLSTKKLEELRNNARENNVKVQIVKNTLANIALNNSGKTGL

VLKDTNIYLWGEDQLSVSKVAAKFEENNDKFEIKTAHIEGEVADVAKVKALAKMPSRNELLAMLLQVWNA

PITNFTIGLNALKNKKESE

>sp|Q9PP77.1|Y846\_CAMJE RecName: Full=Uncharacterized metallophosphoesterase Cj0846

MIFLIFSFIVLLIFGLANVYIYKRLIKKITLFKYFYKIFSFIFIVLFLAQAVFLIFRRDEYLSDTWYEIL

AMFYAPTYCLFFMTLAWDFVKLILALMGKRDKTYNLILRLIFELSLIVLSVFLIYASINNALKTPEVKSV

DVEIPNLKKDLKIVMLTDIHLGKNLHENFLDKLITKVNLQSPDMVVIVGDLIDTNPKDLKNYISKLNDFN

STYGTFYALGNHEYYHGINEVLDLLRKHTNMKILVNQNLDLGFIDIAGLGDLAGLDRGLYAPDLARIKVD

LNTSKASILLTHQPKTALLYDLSDFDLVLSGHTHGGQIFPFMFLVKLQQGFVHGLYDLGEKTKLYVSSGA

GFWGPSLRVFAPSEIVILNLKGKK

>sp|Q9PIG9.3|RL32\_CAMJE RecName: Full=50S ribosomal protein L32

MAVPKRRVSKTRAAKRRTHYKVSLPMPIKDKDGSYKMPHRANPTTKEY

>sp|Q9PN49.1|GUAA\_CAMJE RecName: Full=GMP synthase [glutamine-hydrolyzing]; AltName: Full=GMP synthetase; AltName: Full=Glutamine amidotransferase

MKKADILVLDFGSQYTQLIARRLREQGVYAEILPFNVSLADIKAKEPKGIILSGGPASVYATDAYFCDKG

IFDLNLPVLGICYGMQLMAHHYKATVAPAGHKEYGKANIEIKKDNALFKNLPKKQTVWMSHSDKVENLPQ

GFEVLATSENSPFCVFGNEDKKFFALQFHPEVQHSEFGKNILKNFAKYACNCESIWNMGSFAKTQAEKIR

EEVGNDKVLCAVSGGVDSSVVAALLASAIKEQIIVVFVDNGLLRSGEKEQVEFMFKNTLGIDLISIDASE

IFLSRLVNVTDPEQKRKIIGNTFIEVFEEEAKKHKDVKYLAQGTLYTDIIESSVVGASKTIKSHHNVGGL

PEKMNLKLIEPLKEIFKDEVRALGLELGLSKEVVYRHPFPGPGLAIRIMGEVNRASLELLRKADVILLEE

LKSTGWYDKTWQAFCVLLNVKSVGVMGDNRTYDNAVCIRVVDASDGMTATFSHLPYEILENISRRIINEV

EGINRVVYDISSKPPATIEWE

>sp|Q9PNB8.1|KGUA\_CAMJE RecName: Full=Guanylate kinase; AltName: Full=GMP kinase

MKLQGFVLLISGPSGAGKSTLLKKLFDEFEDELYFSISSTTRKPREGEKNGIHYHFISHEEFQKGIDSDH

FLEWARVHENFYGTSLKHTQNALDNGKIVVFDIDVQGFKIARKKMADKIVSVFITTKNKDELKKRLIKRN

TDTIIQLEKRLQNASDEMKELSEYDYLIINDELKQSYEALRAILIAHKFRTKGQNLGQIQNIWNEGE

>sp|Q9PI08.1|HEMH\_CAMJE RecName: Full=Ferrochelatase; AltName: Full=Heme synthase; AltName: Full=Protoheme ferro-lyase

MKLVLFLNMGGATNLQDCEVFLKNMFNDPYILGIKNRFLRKFVAWIITKARVKAMQENYKKMGGKSPLNE

LTQSLCDKLNLKQDEFKFDFVNLYVPPFATEILQKYTLNASDEIILFPLYPHHSCTTVTSSLEVLQNEIS

KQKIQAKVKTIDIFYKNELYNEMIVSHILAKKSKFDAKILIFSAHSLPQSIIDKGDLYEKHVNDHVEILK

EKLKDHFDEFILAYQSKLGPVKWLEPNTSDVLANLNDKALIYPISFCIDCSETIFELGMEYKHLSKYNYD

LISCPNDSDEFMEFILKYLSDLN

>sp|Q9PHL7.1|ENGB\_CAMJE RecName: Full=Probable GTP-binding protein EngB

MIISAKFITSLVKFDENLSSNFSEVAFLGRSNVGKSSLINSLCKQKNLAKSSATPGKTQLINFFEVICRR

NEEKFNINFIDLPGFGYAKVSKNLKEIWNQNLDEFLKLRTSIKLFIHLIDSRHTHLEIDVNLNDYLKRFL

RPDQKILKVFTKCDKLNQSEKAKLKNEFKDSILVSNLNKFGLDSLEDIIINQTLGLDK

>sp|Q9PIH8.1|DXS\_CAMJE RecName: Full=1-deoxy-D-xylulose-5-phosphate synthase; AltName: Full=1-deoxyxylulose-5-phosphate synthase; Short=DXP synthase; Short=DXPS

MSKKFAHTQEELEKLSLKELENLAASMREKIIQVVSKNGGHLSSNLGAVELSIAMHLVFDAKKDPFIFDV

SHQSYTHKLLSGKEEIFDTLRQINGLSGYTKPSEGDYFVAGHSSTSISLAVGACKAIALKGEKRIPVALI

GDGALSAGMAYEALNELGDSKFPCVILLNDNEMSISKPIGAISKYLSQAMATQFYQSFKKRIAKMLDILP

DSATYMAKRFEESFKLITPGLLFEELGLEYIGPIDGHNLGEIISALKQAKAMQKPCVIHAQTIKGKGYAL

AEGKHAKWHGVGAFDIDSGESVKKSDTKKSATEIFSKNLLDLASKYENIVGVTAAMPSGTGLDKLIEKYP

NRFWDVAIAEQHAVTSMAAMAKEGFKPFIAIYSTFLQRAYDQVIHDCAIMNLNVVFAMDRAGIVGEDGET

HQGVFDLSFLAPLPNFTLLAPRDEQMMQNIMEYAYLHQGPIALRYPRGSFILDKEFNPCEIKLGKAQWLV

KNNSEIAFLGYGQGVAKAWQVLRALQEMNNNANLIDLIFAKPLDEELLCELAKKSKIWFIFSENVKIGGI

ESLINNFLQKYDLHVKVVSFEYEDKFIEHGKTSEVEKNLEKDVNSLLTKVLKFYH

>sp|P80672.3|PORA\_CAMJE RecName: Full=Major outer membrane protein; AltName: Full=Porin; Flags: Precursor

MKLVKLSLVAALAAGAFSAANATPLEEAIKDVDVSGVLRYRYDTGNFDKNFVNNSNLNNSKQDHKYRAQV

NFSAAIADNFKAFVQFDYNAADGGYGANGIKNDQKGLFVRQLYLTYTNEDVATSVIAGKQQLNLIWTDNA

IDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGADLLEHSNISTTSNQAPFKVDSVGNLYGAAAVGSY

DLAGGQFNPQLWLAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKTHANGNLFALKGS

IEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNET

VRVGADFVYGGTKTEAANHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQA

LYKF

>sp|Q9PNI7.1|CLPS\_CAMJE RecName: Full=ATP-dependent Clp protease adapter protein ClpS

MPKTQTLEQTKLSEPKMYKVILLNDDVTTMDFVIEILMNIFHQNLEKASQTMLEIHHNGSGICGIYTQEI

ALSKQKKVMDAAKLANFPLQAKVEEE

>sp|Q9PIL5.1|TAL\_CAMJE RecName: Full=Transaldolase

MKNFSLWCDFIENSFLDNEFLNLLSHGINGATSNPAIFKNAILNSPIYKDKILKLKEKKTKDIYEELAIS

DIQKAADKLAPLFYQKNDGFISIEIDPRLHDNTTLSLGEAKRLYSAIGKENIMIKIPATKASYEVMYELM

KNGISVNATLIFSLEQSQKCFEALNAGLVEFRKNNIALKEQNTRTPQAVISIFVSRFDRLLNPKAKEQNR

IGILNANLAYNNIYSKNEPNIRALFASTGVKGDDLPKDYYIKELLFENSVNTAPLDAIEAFKGKMHFKKP

LMNFEIYTELNQIISQSEREKACNDLLSDGLEQFCIAFEDILKAL

>sp|Q9PI38.1|RL33\_CAMJE RecName: Full=50S ribosomal protein L33

MRIKVGLKCEECGDINYSTYKNSKNTTEKLELKKYCPRLKKHTLHKEVKLKS

>sp|Q9PN94.1|METE\_CAMJE RecName: Full=5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase; AltName: Full=Cobalamin-independent methionine synthase; AltName: Full=Methionine synthase, vitamin-B12 independent isozyme

MKNSIISYPRIGANRELKFAIEKYFKNQSSKEELLKSAKDLRIRHWQEIQKAGIDFIPSNDFSLYDNVLD

AAVLFNIVHTKYKNLNLDALDEYFAQSRGYQGENGDVTALAMKKWFNTNYHYLVPECDNADIIALTGDKI

FKEYLEAKELGIESKPVLIGIFTLFKLIAFKDEKTQKLAKEKLLNAYIELFDKLNELKVTWLELDEPYLV

YDLSKEDIALFEEFYQELLNHKKDLKILLQSYFGDLRDIYPKLLESKFDALGLDFIEGKQSLALVQQYGF

AKDKILFGGLINGKNIYANDYAKSLKLIKELQKYTQNIILNTSCSLLHVPYSTEFESKLDSSYLKLFAFA

KEKLQELKDLKEILNSSEENPLFRANQELFKNIPERLDEKVKARLKALKKEDFTRTPSFKERALIQKEFL

KLPLLPTTTIGSFPQSADVRSNRLAFKQEKISAQNYTEFNQQKIKECIQIQEEIGLDVLVHGEFERNDMV

EYFGENLKGFLFTQNGWVQSYGTRCVKPPVIWGDVSRTKPITLAWSKFAQSLSQKIVKGMLTGPVTILNW

SFPREDISLKESTEQIALAIRDEVLDLENAGIKIIQIDEAALREKLPLRKSDWHSEYLDWAIPAFNLVHS

GVKAKTQIHTHMCYSEFSDILKEIDAMDADVISFEASRSNLSLLDTLKAIRFKTEVGPGVYDIHSPRVPS

VEELSLTIEKILNKLPKEQIWINPDCGLKTRAYEEVITSLKNLVTATQKIREQL

>sp|Q9PHS3.1|Y593\_CAMJE RecName: Full=UPF0126 membrane protein Cj0593c

MEINALTITTLYIIGISAEGMTGALAAGRHKMDLFGVIFIALVTAIGGGSIRDVLLGHYPLTWVKHPEYI

ILICFCALVATKIPRVVTKLETLFLTLDAIGLVVFSILGAQIAIDQNHGFIIAVAAAVITGVFGGILRDI

LCMRIPLVFQKEIYAGIAIIAGAIYYSLIIWLELNALVCTLLTLFIGVFARLLAIKYQWSLPIFSYNEEK

>sp|Q9PHM5.1|RECN\_CAMJE RecName: Full=DNA repair protein RecN; AltName: Full=Recombination protein N

MINRIFMKENLGFKKAELEISKGLTVFTGLSGAGKSVLFKGILSAFSLSESEAKIVEIEVDDKLDLESFG

IESEEENVFKLLKEKNTKYFINNQSIAKKSLQNLSKTFIKYLSAKENNEFGNEKFLNLLDALEMQENTNF

VSFLEDFKKDFNAYSQISNELNAILEEEKKVEELKELARAQIEKISSINPKIGEYEELLILKKKLSKKDK

LEEAWSKAERIFELEKVVIEALNLSEVDASFFSECLNELRVICENQKMEDLDFDVEALLDRIENLSYLIK

RYESIENALEVLKQKKYELEHYENLSFEKKELEKKFQELKQKLEEKAQILTQTRKKNLKKLEKCLNNYLK

DLYMKDASLTLKENEKISILGKDEIMLDINLAHLKNLSSGELNRLRLAFIATECNILNAGKGILFLDEID

ANLSGKEAMSIAKVLEELSKFYQIFAISHLPQLSSKAHNHFLVEKNGEESKVKKLDQEERIKELARMVSG

ELVSDEAIEFAKTLFKN

>sp|Q9PM99.1|NUOD\_CAMJE RecName: Full=NADH-quinone oxidoreductase subunit D; AltName: Full=NADH dehydrogenase I subunit D; AltName: Full=NDH-1 subunit D

MQIPSKLKPYYENIAFEQEDSKMIINLGPQHPSAHGNLRLILELDGEQVVKARPCIGYMHRGMEKMAENM

IYQEFIPTTDRMDYIAASANNYAYCAAVEKLCGLEIPRRAAVIRMILLELNRITSHLLWLATHALDIGAM

SVFLYCFREREYVLDLIEKYCGARLTHSSMRIGGVMLDLPENYLEEMLAFCDKFPNDLKDYEDLLDDNRI

WRLRTENVGVVTKEQALNWGCTGVMLRGSGIKYDIRKEEPYLLYNEVEFGVPYATQGDSYARYKVYMQEF

RESLKILRQCAMLYKDTSPEILATHPEYVSASKEQILTQNYSLMQHFVLITQGLKPPKGEVYVPTESPKG

ELGFFIHSDGTGRPYRLKARTPSYWHCAFFEEMLVGTYLADVVAIMGNVNIVLGEIDR

>sp|Q9PHL0.1|HSLU\_CAMJE RecName: Full=ATP-dependent protease ATPase subunit HslU; AltName: Full=Unfoldase HslU

MNLTPKEIVKFLDDYVIGQKKAKKIIAIALRNRYRRMQLSPELQDDIVPKNILMIGSTGVGKTEIARRLA

KMMGFPFIKIEASKYTEVGFVGRDVESMVRDLANAALNLVKNEQREKNKDKIDEFIENKILEKLLPPLPK

GISDEKQEEYKNSLEKMRTKLRNGDLDESTIEIEISQNMFDTNPNLPPEMGAMQDIVKVIGVGSKKVKKE

MKIKDAKNALKNEAGEKILDQESIKSEALKRAENEGIIFIDEIDKIAVSSGNSNRQDPSKEGVQRDLLPI

VEGSNVQTKIGTLKTDHILFIAAGAFHLSKPSDLIPELQGRFPLRVELDSLDDKALYEILTRPKNSLLKQ

YSQLLKTENLELEFDDEAIKEIAKIASRANEEMQDIGARRLHTVIEKLLEDLSFEADEYAGKKFVVDKKM

VEEKLGDIIENKDLARYIL

>sp|Q9PNB9.1|TATA\_CAMJE RecName: Full=Sec-independent protein translocase protein TatA

MGGWSSPSHWLIILLIVVLLFGAKKIPELAKGLGKGIKTFKDEMNNDDEVAKNTQKIEENKNTTNNTNAD

ASIDETKKA

>sp|Q9PHT8.1|TATC\_CAMJE RecName: Full=Sec-independent protein translocase protein TatC

MFEELRPHLIELRKRLFISVACIVVMFIVCFALRSYILDILKAPLIAVLPEVAKHVNVIEVQEALFTAMK

VSFFAAFIFSLPVIFWQFWKFVAPGLYDNEKRLVVPFVSFASIMFAFGACFCYFVVVPLAFKFLINFGLN

EDFNPVITIGTYVDFFTKVVVAFGLAFEMPVIAFFFAKIGLIDDSFLKRHFRIAVLVIFVFSAFMTPPDV

LSQFLMAGPLCGLYGLSILIVQKVNPAPKDKESDE

>sp|Q9PHM8.1|KAD\_CAMJE RecName: Full=Adenylate kinase; Short=AK; AltName: Full=ATP-AMP transphosphorylase; AltName: Full=ATP:AMP phosphotransferase; AltName: Full=Adenylate monophosphate kinase

MKELFLIIGAPGSGKTTDASLIAQADATNITHYSTGDLLRAEVASGSELGKTIDSFISKGNLVPLDVVIN

TIVYALKAAPTKTIIIDGYPRSVEQMMEFDKVLSEQNEICLKGVIEVRVSEEVAKERVLGRNRGADDNEE

VFYNRMKVYTEPLNEILDFYQKKKLHFIIDGERTIEPIVADMKELIKKIQSI

>sp|Q9PIH1.1|FABH\_CAMJE RecName: Full=3-oxoacyl-[acyl-carrier-protein] synthase 3; AltName: Full=3-oxoacyl-[acyl-carrier-protein] synthase III; AltName: Full=Beta-ketoacyl-ACP synthase III; Short=KAS III

MLKASLKSIASYIPEKILSNADLEKMVDTTDEWITRRTGIKERRIASENENTSDLGTKAALKAIERANLK

PEDIDAILVATLSPDYFTMPSTACKIASNLGLVNISAFDISAACSGFIYLLEQAKALVESGLKKNVLIIG

AEKTSSIMDYNDRSICILFGDGAGAGVVSLDNENHILDVHTASNGNYGDLLMTQRSQKSSLCQTLSMQMK

GNEVFKIAVNTLSNDVVEILAKNNILAQEIDLFIPHQANLRIIKAVQEKLNLSDEKCVITVQKYGNTSAA

SIPMAMNDAYEEGRLKKGNLILLDAFGGGFTWGSALLKFGGENF

>sp|Q9PNX5.1|RNPA\_CAMJE RecName: Full=Ribonuclease P protein component; Short=RNase P protein; Short=RNaseP protein; AltName: Full=Protein C5

MKNFDKFSTNEEFSSVYKVGKKWHCEGVIIFYLNSYEKKIAVVASKKVGKAVVRNRSKRILRALFAKFER

YLQDGKYIFVAKNEITELSFSRLEKNLKWGLKKLECFK

>sp|Q9PI30.1|RPOC\_CAMJE RecName: Full=DNA-directed RNA polymerase subunit beta'; Short=RNAP subunit beta'; AltName: Full=RNA polymerase subunit beta'; AltName: Full=Transcriptase subunit beta'

MSKFKVIEIKEDARPRDFEAFQLRLASPEKIKSWSYGEVKKPETINYRTLKPERDGLFCAKIFGPIRDYE

CLCGKYKKMRFKGVKCEKCGVEVANSKVRRSRMGHIELVTPVAHIWYVNSLPSRIGTLLGVKMKDLERVL

YYEAYIVENPGDAFYDNESTKKVEYCDVLNEEQYQNLMQRYENSGFKARMGGEVVRDLLANLDLVALLNQ

LKEEMGATNSEAKKKTIIKRLKVVENFLNSNLNANTDSDEAVPNRPEWMMITNLPVLPPDLRPLVALDGG

KFAVSDVNDLYRRVINRNTRLKKLMELDAPEIIIRNEKRMLQEAVDALFDNGRRANAVKGANKRPLKSLS

EIIKGKQGRFRQNLLGKRVDFSGRSVIVVGPKLRMDQCGLPKKMALELFKPHLLAKLEEKGYATTVKQAK

KMIENKTNEVWECLEEVVKGHPVMLNRAPTLHKLSIQAFHPVLVEGKAIQLHPLVCAAFNADFDGDQMAV

HVPLSQEAIAECKVLMLSSMNILLPASGKSVTVPSQDMVLGIYYLSLEKAGAKGSHKICTGIDEVMMALE

SKCLDIHASIQTMVDGRKITTTAGRLIVKSILPDFVPENSWNKVLKKKDIAALVDYVYKQGGLEITASFL

DRLKNLGFEYATKAGISISIADIIVPNDKQKAIDEAKKQVREIQNSYNLGLITSGERYNKIIDIWKSTNN

VLSKEMMKLVEKDKEGFNSIYMMADSGARGSAAQISQLAAMRGLMTKPDGSIIETPIISNFREGLNVLEY

FISTHGARKGLADTALKTANAGYLTRKLIDVAQNVKITIEDCGTHEGVEINEITADSSIIETLEERILGR

VLAEDVIDPITNSVLFAEGTLMDEEKAKILGESGIKSVNIRTPITCKAKKGICAKCYGINLGEGKLVKPG

EAVGIISAQSIGEPGTQLTLRTFHSGGTASTDLQDRQVSAQKEGFIRFYNLKTYKNKEGKNIVANRRNAA

VLLVEPKIKTPFKGVINIENIHEDVIVSIKDKKQEVKYILRKYDLAKPNELAGVSGSIDGKLYLPYQSGM

QVEENESIVEVIKEGWNVPNRIPFASEILVEDGEPVVQNIKAGEKGTLKFYILKGDGLDRVKNVKKGDIV

KEKGFFVVIADENDREAKRHYIPRESKIEFNDSEKIDDANTIIASAPKKERKVIAEWDAYNNTIIAEIDG

VVSFEDIEAGYSADEQIDEATGKRSLVINEYLPSGVRPTLVIAGKGDKAVRYHLEPKTVIFVHDGDKIAQ

ADILAKTPKAAAKSKDITGGLPRVSELFEARKPKNAAVIAEIDGVVRFDKPLRSKERIIIQAEDGTSAEY

LIDKSKHIQVRDGEFIHAGEKLTDGVVSSHDVLKILGEKALHYYLISEIQQVYRGQGVVISDKHIEVIVS

QMLRQVKVVDSGHTKFIEGDLVSRRKFREENERIIRMGGEPAIAEPVLLGVTRAAIGSDSVISAASFQET

TKVLTEASIAGKFDYLEDLKENVILGRMIPVGTGLYGEQNLKLKEQE

>sp|P51594.2|GCH1\_CAMJE RecName: Full=GTP cyclohydrolase 1; AltName: Full=GTP cyclohydrolase I; Short=GTP-CH-I

MQKKFEDCVKTMLEIIGENPNREGLIKTPNRVFKAYEFLTSGYTQNVKEILNDALFESSNNEMVLVRDIE

FYSLCEHHLLPFFGRAHVAYIPNKKVVGLSKIPRLVEVFARRLQIQEQLTEQIAQALMENVDAKGVGVVI

EARHMCVEMRGVQKANSTTTTSALRGIFLKNEKTREEFFSLINSAKQVRF

>sp|O69297.2|GRPE\_CAMJE RecName: Full=Protein GrpE; AltName: Full=HSP-70 cofactor

MSEQKQEFENENAENSEHLQDENLQNIEDVEQNKLQKDYDELKDKYMRANAEFENIKKRMEKEKLSAMAY

ANESFAKDLLDVLDALEAAVNVECQDEISLKIKEGVQNTLDLFLKKLEKHGVALIKDEKEFDPNLHEAMF

HVDSENHQSGEVVQVLQKGYKIADRVIRPTKVSVAK

>sp|P53000.2|PROA\_CAMJE RecName: Full=Gamma-glutamyl phosphate reductase; Short=GPR; AltName: Full=Glutamate-5-semialdehyde dehydrogenase; AltName: Full=Glutamyl-gamma-semialdehyde dehydrogenase; Short=GSA dehydrogenase

MRNLLENIKKNSQKLLNLTPKDKEKIILKLAQILRENFKIILEANKKDMANFTKSGAMKDRLLLDEKRIL

ALCEGLEKIAYIEDPIGKISKGWKNYAGLSIQKMSIPLGLICVIYEARPSLSAEIAALMIKSSNACVFKG

GSEAKFTNEAIFTLVNKVLKEFDLQDCFAMFTQRDEILQILAFDDLIDVIIPRGSSNMIQEIANNTKIPL

IKQNKGLCHAFVDQSANLDMALKIILNAKCQRVSVCNALETLLIHEKIAKNFISLLIPEFEKFKVKIHAH

ENALAYFNNSNLKIFKANENTFDTEWLDFALSVKLVKDCDEAIEHINKHSSLHSETIISNDASNIAKFQR

LINSSCIYANASTRFSDGGEFGFGGEVGISTSKLHARGPMGIEDICTYKYIINGEGQIRE

>sp|Q46125.1|HISJ\_CAMJE RecName: Full=Probable histidine-binding protein; Short=HBP; AltName: Full=p29; Flags: Precursor

MKKFLTAFLVAFTGLFLVACQNTKTENNASNEANTTLTLKVGTAPNYKPFNFKQDSKLTGFDTDLIEEIA

KKNGIEIVWVETNFDGLIPALKSGKIDMIASAMSATDERRQSVDFTKPYYMSKNLYLKLKNNDSLQTKND

LEGKKIGVQLGTLQENTAKAIKNAQVQSNKDLNIAVLALKNNKIDAIVADQDTAKGFLAENPELVSFYQE

TDGGEGFSFAFDKNKQKDIIEIFNKGIDEAKTDGFYDTLIKKYELE

>sp|P0C634.1|QUEC\_CAMJE RecName: Full=7-cyano-7-deazaguanine synthase; AltName: Full=7-cyano-7-carbaguanine synthase; AltName: Full=PreQ(0) synthase; AltName: Full=Queuosine biosynthesis protein QueC

MSKKALCIISGGMDSTLCAYLAKKEGYEIIALHFDYEQRTQEKEKECFKQICKALKVEKSYILDVSFIKD

IGGNALTDKSIDIPKNELCTSDTPPITYVPFRNGIFLSIAGSLAEKENCESIFIGVVEEDGSGYPDCTDE

FIQKAQEFINEGTSKNFKVCIKTPLVRLNKAKIVELALKENVPLELTWSCYESEDEACGECDSCLLRLRG

FEKAGFKDKIKYKS

>sp|Q0P9Q9.1|Y993\_CAMJE RecName: Full=UPF0763 protein Cj0993c

MKELEKYSTCLKRIDEFSQNLGIKKKDRTIFKMKQSENENEKCLVLENGSFDSPEPWFVIDENDEIHTLL

SLQSLKNILESLKQSQKENFELRLEKAIYQQIPVDFNDVWTVAMDEIKQKAQNGTMEVSIDLEKLISKIK

QEHPNLFVDMQAMIERVNQNERL

>sp|Q0P887.1|TUPC\_CAMJE RecName: Full=Tungstate uptake system ATP-binding protein TupC

MIEISNLFFNYQNKEVLKIKNLKLDTSKISILMGANGSGKSTFLRILKFLEGDFSKNISYFGNFKPNNKQ

KREIYLLFPEPILLNRSVRANFLFTLKTYGIKEDIEERIKESLMFLNLDESLLSKHPNELSSGQSQKIAF

AIALSVRAKYYLLDEPSAFLDKNTTLLFKKTILKMHENFNTGFLIASHDKHFLDSLAQKKLYLHSGEILE

FENTNVFELENQGVKFCNFIDFSNCKKYKDFKKPPSKIAIDPYKISFFNSKNIPKNNYDFILEKCYIIAL

RSRKSDVFIRVSCMDKILEFALEKQEFLRFDLKLYEELSLYFYEDAICFLN

>sp|Q0PAR0.1|MACB\_CAMJE RecName: Full=Macrolide export ATP-binding/permease protein MacB

MIFLKNICKNIGENAILKNVSLSIEKGEFVAIIGQSGSGKTSLLNIIGTLDTPSSGTYVFDEYEVTKLNN

DEKARLRREKIGFIFQRYNLLSLLSAKENVSLPAVYAGKNLQERSQNAKKLLNDLELAHKLDSKPNELSG

GQQQRVSIARALINGGELILADEPTGALDSKSGIMVLEILQKLNEQGHTIVLVTHDPKIAAQAKRVIEIK

DGEILSDTKKEKAQEKLILKTMPKEKKTLTLLKNQAFECFKIAYSSILAHKLRSILTMLGIIIGIASVVC

VVALGLGSQAKVLESIARLGTNTIEIRPGKGFGDLRSGKTRLNFSDLETLRSLEYLEAVDAHSNTSGVAT

YTNISLSARAEGVGVNNFAIEGLRIDAGRILNNDDVKNSTNVAVLDFNAKKNLFPDEKSENILGRVVLFN

SQPFKIIGVLQKDTDKPIEDNVVRFYIPYTTLMNKLTGDRNLREIIVKVKDDVSSTLAENAIIRILEIKR

GQKDFFTFNSDTFKQAITANKRTTTILTACVAVIALIVGGIGVMNIMLVSVSERTREIGIRMAIGARRED

IMMQFLIEAVMICTIGAILGVILSIFVIFAFNTLSTDFPMILNAYSVLLGLLSSMFIGVVFGFFPARNAA

NLNPISALSKE

>sp|Q9PLY0.1|RS17\_CAMJE RecName: Full=30S ribosomal protein S17

MAFKREIQGVVVKIAGEKTASVLVERKVVHPRYRKIVKRFKKYLIHDERNEVKVGDTVVAVECRPLSKRK

SFRLKSVLATGVE

>sp|Q9PLV4.1|QUEF\_CAMJE RecName: Full=NADPH-dependent 7-cyano-7-deazaguanine reductase; AltName: Full=7-cyano-7-carbaguanine reductase; AltName: Full=NADPH-dependent nitrile oxidoreductase; AltName: Full=PreQ(0) reductase

MRYGEKEIKEFDVENMEIWPNDAKNDYIIKITLPEFMCCCPRSGYPDFATIYLEYMPDKFVVELKAIKLY

INTFMYRNVSHEASINEIYNTLKDKLKPKWIKVVGDFNPRGNVHTVIECRSDMVVPK

>sp|Q9PMQ9.1|FEOB\_CAMJE RecName: Full=Fe(2+) transporter FeoB; AltName: Full=Ferrous iron transport protein B homolog

MKKIKIALVGQPNVGKSLLINALCKANMKVGNFSGVTIEKASAKTFYKNYEFEVIDLPGTYSLDGYSEEE

KITRHFLNQNDYDVIVNVLDATNLERNLILSAELLSLNKKMLLALNMCDEAKKEGIELDTSILSQEFQSQ

VVEISAKTKENLELLLQKIIILFESKFIPRSQFYTPLCEKSPEKEDLLYFINELSKKIITHKKEERNLTK

KIDALLIHKFFGLPIFLFLMWLLFQLTFSLGQIPMDYIESGFNTLGEFVKNNISNTFIASALADGIIAGV

GAVILFLPNIMILFLGIALLETTGYMSRVAFLLDGILHKFGLHGKSFIPLITGFGCSVPAFMATRTLKNK

RDRLLTLFVINFMSCGARLPVYVLFIGAFFPSEKAGNYLFGIYILGAILGLCAAKFLRMTAFRGLDEPFV

MEMPKYRMPNWHLVWFMVYNKAKMYLKKAGTFILLASLLIWFASNFPKSEENLNDFNAQERAIEQSYLGQ

FGKGIEPIFQPLELDWKLSVSLISGLAAKEVMISTMGVLYSLGKDVDETNNDLKGIIAKNIPIPSAVAFI

LFVMIYNPCFAATIVFSKESGKLKYTLFLFLFTCTSAYIVAFIGLHIAKILLN

>sp|Q9PNU1.1|Y999\_CAMJE RecName: Full=UPF0324 membrane protein Cj0999c

MKTSFLAHSVAIVRSNFKGLLFTACIVIFAMYLSSVQSIKDTTHLAATAFAIIIGVLLSPWFFKYQHHFQ

AGVHFSAKKLLRLGIVLYGFNITLTELLSVGLKGFLLSAIVIFFVFIIALFVGTKIFKLDKETSMLVGAG

SAICGAAAVLALESSLKSDPFKGILAVGTVVIFGLVFMFLYPIAFSLNLFPFFDQNAMGVFMGATLHEVA

NVAGAAEMAKDMAGFEQGASNVAVIIKMMRVILLVPFLLIVTYFFAKNQHSSSGKTAKSITIPYFAFAFL

GMIVLNTYLASKESILGIATSDIISLGKTLCTLCIVFAMAALGLQIDFKKFLKSGSRVFGLAFVLGLVLI

FGGYFLTLAFKGILW

>sp|Q9JN05.2|NPD\_CAMJE RecName: Full=NAD-dependent protein deacylase; AltName: Full=Regulatory protein SIR2 homolog

MKNIMILSGAGLSAPSGLKTFRDNDGLWEEYDVMEVCSATGFRKNPKKVLDFYDARRAQLQNVKPNHAHE

KIAQLKEKWGKNLFVITQNVDDLLERAGCKDVVHLHGFLPELRCLKCEGIFNIGYEKFTDKQCPKCKSKD

LRHNIVMFEEQAPAYATLYSLLHQTSLFISIGTSGAVLPVGQYASMCEKSILNIYEKDVNLERYFDKIYI

EDIISAIDKIALDIENFMKDGNV

>sp|Q9PIX9.1|Y148\_CAMJE RecName: Full=UPF0102 protein Cj0148c

MGVKAYLDGILGEDKACKFLKKQGFEILKRNFHSKFGEIDIIAKKDEILHFIEVKFTQNDYEVSERLDRK

KLEKILKTIEFYHLKNGISSDFQIDLICIKNDVIQFCENISF

>sp|Q9PLY8.1|RS5\_CAMJE RecName: Full=30S ribosomal protein S5

MEKYNREEFEEVIVDIGRVTKVVKGGRRFRFTALVIVGNRKGLVGVGYGKAKEVPDAIRKAVDDAFKNIV

EVKTKGSTIAHDVEVKYNASRILLKPASEGTGVIAGGSTRPIVELAGIKDILTKSLGSNNSANVVRATIK

ALTMLKG

>sp|Q9PP04.1|AMPA\_CAMJE RecName: Full=Probable cytosol aminopeptidase; AltName: Full=Leucine aminopeptidase; Short=LAP; AltName: Full=Leucyl aminopeptidase

MKFELNDKKLDAIKADFELVFIQDKNLKIFNKEKDFFKLNNYKGEGALLDLNNKKLYLELKSLAYEDIRL

SLCTAYKTLEKLNIKSVKLPSIIGDCVVRSFASLVEGVLFGAYKFDKYKSEKKTSTLEKFIISNEELNGK

KFNKDEAKIGLERGEILANATNFTKNIVNEIPEIYTPLKMAEDAQNLAKENKNIICKIYDEKFLAKEKMN

AFLAVNHASVHPPRLIHLSYKAKNAKKRVVFVGKGLTYDSGGLSLKPADFMLTMKADKSGAAAAMGIIKA

VAELALDLEVHCILGATENMIGGNAYKPDDVLISREGVSIEVRNTDAEGRLVLADCLSFAQDLKPDLLID

MATLTGACVVGLGEFTSAIMGNNEELQNDFYLSSKKSGEYTTILHFNPHLRELIKSNIADVSNTASSRYG

GAITAGLFLDKFIRKEYKDKWLHLDIAGPAYTEKSWGYSSFGAGGAGVRMCVNYLIQILRKAK

>sp|Q9PN54.1|DCUP\_CAMJE RecName: Full=Uroporphyrinogen decarboxylase; Short=UPD; Short=URO-D

MIFIDACFKKPTPYTPIWMMRQAGRYLPEYMEVRKQAGDFLSLCKDYKKASEVSLQPIDILDVDAAIIFS

DILVVPLEMGMNLRFEKGEGPVFGNPISTLEDLEKLDDQNAHKKLNYVYDALKLTREKLSQNKALIGFCG

SPWTIATYMIEGSGSKNYAKCKKMLYQNPELLHKILNKLTQVLKLYLEEQIKAGANAIQIFDSWASALEY

DKFFEFSFNYMLEISNFIKSKYPNIPVILFPKGISGYLDRIDGNFDVFGVDWSTPLDLARDKLSHKYTLQ

GNMEPCRLYDKNAIKEGVEKILKTMQNKAHIFNLGHGILPDIPVENAKYFIKLVQESSAK

>sp|Q9PHY1.1|SUCC\_CAMJE RecName: Full=Succinate--CoA ligase [ADP-forming] subunit beta; AltName: Full=Succinyl-CoA synthetase subunit beta; Short=SCS-beta

MNIHEYQAKAIFVDNGIPTLKGKVAFSVDEAVANAKELGGSVWAVKAQIHAGGRGLGGGVKIAKNLDEVK

DYASKILGMNLVTHQTGPEGKLVQKLYIESGANIVKEYYLAILFNRMAEQITIIASSEGGMDIEKVAKES

PEKIAKVGIDPQIGFKMFHGLEVARVLGLDKDEGKKLISMIAKLYKLYMDKDMNMLEINPLIKTAEGDFY

ALDAKCSFDDSALYRHPEIAELRDTTEENPAEREAAEFGLSYVKLDGDVACMVNGAGLAMATMDIINYSG

AKPANFLDVGGGASPETVAKAFEIILRDKNVKVIFINIFGGIVRCDRIANGILEATKNVEVNIPIVVRLD

GTNAAEAKTILDNSNLKNIKAATNLKNGAELVKSLVG

>sp|Q9PLX5.1|RS19\_CAMJE RecName: Full=30S ribosomal protein S19

MARSLKKGPFVDDHVMKKVIAAKKANDNKPIKTWSRRSTITPDMIGLTFNVHNGKSFIPVYITENHIGYK

LGEFAPTRTFKGHKGSVQKKIGK

>sp|Q9PMI3.1|RS9\_CAMJE RecName: Full=30S ribosomal protein S9

MATTYATGKRKTAIAKVWVKPGSGKISVNGVDLNTWLGGHEAIKLKVVQPLLVTKQETSMDIKATTLGGG

YSAQAEALRHGISRALAAMDADFRALLKPKGLLTRDSRTVERKKYGRRKARRSPQFSKR

>sp|Q9PHZ4.1|CRCB\_CAMJE RecName: Full=Putative fluoride ion transporter CrcB

MLNTLLVVGFGGFIGAILRMLSINLVNKFFPYSISFGTLFVNVLGSFIIGLLFSYAQNKGLSPLLKSFIS

TGFLGAFTTFSTFSYQNLLLLQSGNYLHFALNIILNVFLCLFAAWLGFLIFK

>sp|Q9PMJ7.1|Y1463\_CAMJE RecName: Full=Uncharacterized protein Cj1463

MKVDNFLNTYSMNSALLDRAAKARSLESSIKINDNDIVTKSKEDKALKEQTNAFEAFFLKQVLDVSLKSQ

NSLFGKDASDEIYSSMYNDTMSKALSGGMGFSKLLYDFLKERG

>sp|Q9PNX6.1|YIDD\_CAMJE RecName: Full=Putative membrane protein insertion efficiency factor

MICLKILRFYQKFLSPLKPAACRYYPSCSEYALWQFQKKNFFLAFFSTFFRILRCNPFFKGGFDYPRVSK

NFYPINLCFKPIFLAEKQLCFLYIPYKNKSFYLIKIIFKRTNQ

>sp|Q9PHP0.1|HYPA\_CAMJE RecName: Full=Probable hydrogenase nickel incorporation protein HypA

MHELSIVESLIELCEENALNNKAYNVQEIYVKIGRLSGIEVDLFKRCFETFKENSNICKNAKLFIELAPL

EILCLKCDQTSILEENVFKCPKCQSIEYKIIQGEDLHLMRLVMK

>sp|Q9PJ66.1|MNMA\_CAMJE RecName: Full=tRNA-specific 2-thiouridylase MnmA

MKILVAMSGGVDSTVTAYKLKNLGHEVIGCYMKLHGKPNYHEENIKKVEKVANFLQIPYHILDLQEDFKN

KVYMPFVDTYKEGKTPNPCALCNRFIKLGKLLEFAKSLGCEKLATGHYARLENNLIKTAVDESKDQSYFL

ASADKEALKYLIFPLGEMKKEDVKKFASTIEVLKSFATQKESSEICFVEDTYVQVLDQFMDTKIPGEVLD

SSGKVVGKHEGYMHYTIGKRRGFEVRGAHEPHFVLKINPKQNQIIVGTKEELKISEFNLKNINLFIDAKE

LDCEVKIRYRSKSTPCKVEIYEDKSAKIILKDPVYGLASGQMAVFYDHDKVIASGFIE

>sp|Q9PIJ1.1|BIOD\_CAMJE RecName: Full=ATP-dependent dethiobiotin synthetase BioD; AltName: Full=DTB synthetase; Short=DTBS; AltName: Full=Dethiobiotin synthase

MQIYVSGIHTDVGKTHFSAAFCANFNYDYFKLIQAGTPTDSEFIAKFSPKTKIFKEGIFLQTPASPHLGK

IKEKLDYKALDIILPKSKNLLIELAGGLFSPMDENYTMIDFVNIFKHPTILVAKYYLGSINHILLSIEAL

KQRNINLLALVMMGKKDILQDDFIKNYAKIPIINLDFFDENSILNKDFKEQMQEILQLKIP

>sp|P45492.2|Y983\_CAMJE RecName: Full=Uncharacterized lipoprotein Cj0983; Flags: Precursor

MKKGIFLSIGIAVLFSACGNSIDEKTVKKYENQLNQTVKQEIASLSQDSGIKIEFSDFKCNADGDFIACL

SPNFKTLTKDNNDEYQELFQAKNIKIRSNEIYKGKANASISIKEYYNDLFKNQKSIQSNLVFEDFKLGEK

VVSDINASLFQQDPKISSFINKLSSDSYTLSFDNSINKQENNYLDNLDIKFYNAKLNFNTNLNINLKEDL

LNYLDSKGIKFNTQTLVMDKQAINELLNIANYEQASDFSNTIQKYIILNNFKIDSTLKTEGVFSSYIATA

KENLQTLKAQSQNEEQALIFDKALAILNNITQNDDYKLNLDLKFKNIPVSDYSTQGIDSIEKLSINNQDA

TEALKIILPFIMFSMLMGGASF

>sp|P56964.2|FLB1\_CAMJE RecName: Full=Flagellin B

MGFRINTNIGALNAHANSVVNARELDKSLSRLSSGLRINSAADDASGMAIADSLRSQAATLGQAINNGND

AIGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTIKATIGATQSSKIGLTRFETGGRISSSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALAEEINKSADKTGVRATFTVETRGIAAVRAGTTSDTFAINGVTIGQVAYEDGDGNGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGRFDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TATTNLDQIRADIGSVQNQLQVTINNITVTQVNVKAAESTIRDVDFAAESANFSKYNILAQSGSYAMSQA

NAVQQNVLKLLQ

>pdb|4MZ8|D Chain D, Crystal Structure Of The Inosine 5'-monophosphate Dehydrogenase, With An Internal Deletion Of Cbs Domain From Campylobacter Jejuni Complexed With Inhibitor Compound C91

MHHHHHHSSGVDLGTENLYFQSNAMKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISA

AMDTVTEHRAAIMMARLGGLGVIHKNMDIASQVREVKRVKKSESGGIKDLKKRKEYPDANKDNFGRLRVG

AAIGVGQMDRVDALVEAGVDVVVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAAKALCEAGVD

AVKVGIGPGSICTTRIVSGVGVPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVGASSVMIGSL

LAGTDESPGELFTYQGRQYKSYRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYVGSIRSVVHQ

LLGGLRSSMGYVGAKDIEDFQKRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>pdb|4MZ8|C Chain C, Crystal Structure Of The Inosine 5'-monophosphate Dehydrogenase, With An Internal Deletion Of Cbs Domain From Campylobacter Jejuni Complexed With Inhibitor Compound C91

MHHHHHHSSGVDLGTENLYFQSNAMKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISA

AMDTVTEHRAAIMMARLGGLGVIHKNMDIASQVREVKRVKKSESGGIKDLKKRKEYPDANKDNFGRLRVG

AAIGVGQMDRVDALVEAGVDVVVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAAKALCEAGVD

AVKVGIGPGSICTTRIVSGVGVPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVGASSVMIGSL

LAGTDESPGELFTYQGRQYKSYRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYVGSIRSVVHQ

LLGGLRSSMGYVGAKDIEDFQKRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>pdb|4MZ8|B Chain B, Crystal Structure Of The Inosine 5'-monophosphate Dehydrogenase, With An Internal Deletion Of Cbs Domain From Campylobacter Jejuni Complexed With Inhibitor Compound C91

MHHHHHHSSGVDLGTENLYFQSNAMKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISA

AMDTVTEHRAAIMMARLGGLGVIHKNMDIASQVREVKRVKKSESGGIKDLKKRKEYPDANKDNFGRLRVG

AAIGVGQMDRVDALVEAGVDVVVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAAKALCEAGVD

AVKVGIGPGSICTTRIVSGVGVPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVGASSVMIGSL

LAGTDESPGELFTYQGRQYKSYRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYVGSIRSVVHQ

LLGGLRSSMGYVGAKDIEDFQKRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>pdb|4MZ8|A Chain A, Crystal Structure Of The Inosine 5'-monophosphate Dehydrogenase, With An Internal Deletion Of Cbs Domain From Campylobacter Jejuni Complexed With Inhibitor Compound C91

MHHHHHHSSGVDLGTENLYFQSNAMKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISA

AMDTVTEHRAAIMMARLGGLGVIHKNMDIASQVREVKRVKKSESGGIKDLKKRKEYPDANKDNFGRLRVG

AAIGVGQMDRVDALVEAGVDVVVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAAKALCEAGVD

AVKVGIGPGSICTTRIVSGVGVPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVGASSVMIGSL

LAGTDESPGELFTYQGRQYKSYRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYVGSIRSVVHQ

LLGGLRSSMGYVGAKDIEDFQKRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>pdb|4R53|D Chain D, Dihydrodipicolinate Synthase From C. Jejuni With Vacant Active Site And Vacant Allosteric Site

HHHHHHASMDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTC

IEIAVETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDI

PVLLYNVPGRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNG

GKGVISVTSNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFR

LPLCSPSKENFAKIEEVMKKYKIKGF

>pdb|4R53|C Chain C, Dihydrodipicolinate Synthase From C. Jejuni With Vacant Active Site And Vacant Allosteric Site

HHHHHHASMDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTC

IEIAVETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDI

PVLLYNVPGRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNG

GKGVISVTSNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFR

LPLCSPSKENFAKIEEVMKKYKIKGF

>pdb|4R53|B Chain B, Dihydrodipicolinate Synthase From C. Jejuni With Vacant Active Site And Vacant Allosteric Site

HHHHHHASMDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTC

IEIAVETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDI

PVLLYNVPGRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNG

GKGVISVTSNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFR

LPLCSPSKENFAKIEEVMKKYKIKGF

>pdb|4R53|A Chain A, Dihydrodipicolinate Synthase From C. Jejuni With Vacant Active Site And Vacant Allosteric Site

HHHHHHASMDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTC

IEIAVETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDI

PVLLYNVPGRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNG

GKGVISVTSNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFR

LPLCSPSKENFAKIEEVMKKYKIKGF

>pdb|5TYH|A Chain A, Pgld From Campylobacter Jejuni Nctc 11168 In Complex With 5-(2- Furanyl)-1h-pyrazole-3-carboxylic Acid

GSAMARTEKIYIYGASGHGLVCEDVAKNMGYKECIFLDDFKGMKFESTLPKYDFFIAIGNNEIRKKIYQK

ISENGFKIVNLIHKSALISPSAIVEENAGILIMPYVVINAKAKIEKGVILNTSSVIEHECVIGEFSHVSV

GAKCAGNVKIGKNCFLGINSCVLPNLSLADDSILGGGATLVKNQDEKGVFVGVPAKRM

>pdb|5X2H|A Chain A, Crystal Structure Of Campylobacter Jejuni Cas9 In Complex With Sgrna And Target Dna (agaaaca Pam)

SSGSGHMARILAFDIGISSIGWAFSENDELKDCGVRIFTKVENPKTGESLALPRRLARSARKRLARRKAR

LNHLKHLIANEFKLNYEDYQSFDESLAKAYKGSLISPYELRFRALNELLSKQDFARVILHIAKRRGYDDI

KNSDDKEKGAILKAIKQNEEKLANYQSVGEYLYKEYFQKFKENSKEFTNVRNKKESYERCIAQSFLKDEL

KLIFKKQREFGFSFSKKFEEEVLSVAFYKRALKDFSHLVGNCSFFTDEKRAPKNSPLAFMFVALTRIINL

LNNLKNTEGILYTKDDLNALLNEVLKNGTLTYKQTKKLLGLSDDYEFKGEKGTYFIEFKKYKEFIKALGE

HNLSQDDLNEIAKDITLIKDEIKLKKALAKYDLNQNQIDSLSKLEFKDHLNISFKALKLVTPLMLEGKKY

DEACNELNLKVAINEDKKDFLPAFNETYYKDEVTNPVVLRAIKEYRKVLNALLKKYGKVHKINIELGGGS

GGYIARLVLNYTKDYLDFLPLSDDENTKLNDTQKGSKVHVEAKSGMLTSALRHTWGFSAKDRNNHLHHAI

DAVIIAYANNSIVKAFSDFKKEQESNSAELYAKKISELDYKNKRKFFEPFSGFRQKVLDKIDEIFVSKPE

RKKPSGALHEETFRKEEEFYQSYGGKEGVLKALELGKIRKVNGKIVKNGDMFRVDIFKHKKTNKFYAVPI

YTMDFALKVLPNKAVARSKKGEIKDWILMDENYEFCFSLYKDSLILIQTKDMQEPEFVYYNAFTSSTVSL

IVSKHDNKFETLSKNQKILFKNANEKEVIAKSIGIQNLKVFEKYIVSALGEVTKAEFRQREDFKK

>pdb|5X2G|A Chain A, Crystal Structure Of Campylobacter Jejuni Cas9 In Complex With Sgrna And Target Dna (agaaacc Pam)

SSGSGHMARILAFDIGISSIGWAFSENDELKDCGVRIFTKVENPKTGESLALPRRLARSARKRLARRKAR

LNHLKHLIANEFKLNYEDYQSFDESLAKAYKGSLISPYELRFRALNELLSKQDFARVILHIAKRRGYDDI

KNSDDKEKGAILKAIKQNEEKLANYQSVGEYLYKEYFQKFKENSKEFTNVRNKKESYERCIAQSFLKDEL

KLIFKKQREFGFSFSKKFEEEVLSVAFYKRALKDFSHLVGNCSFFTDEKRAPKNSPLAFMFVALTRIINL

LNNLKNTEGILYTKDDLNALLNEVLKNGTLTYKQTKKLLGLSDDYEFKGEKGTYFIEFKKYKEFIKALGE

HNLSQDDLNEIAKDITLIKDEIKLKKALAKYDLNQNQIDSLSKLEFKDHLNISFKALKLVTPLMLEGKKY

DEACNELNLKVAINEDKKDFLPAFNETYYKDEVTNPVVLRAIKEYRKVLNALLKKYGKVHKINIELGGGS

GGYIARLVLNYTKDYLDFLPLSDDENTKLNDTQKGSKVHVEAKSGMLTSALRHTWGFSAKDRNNHLHHAI

DAVIIAYANNSIVKAFSDFKKEQESNSAELYAKKISELDYKNKRKFFEPFSGFRQKVLDKIDEIFVSKPE

RKKPSGALHEETFRKEEEFYQSYGGKEGVLKALELGKIRKVNGKIVKNGDMFRVDIFKHKKTNKFYAVPI

YTMDFALKVLPNKAVARSKKGEIKDWILMDENYEFCFSLYKDSLILIQTKDMQEPEFVYYNAFTSSTVSL

IVSKHDNKFETLSKNQKILFKNANEKEVIAKSIGIQNLKVFEKYIVSALGEVTKAEFRQREDFKK

>pdb|5UJS|B Chain B, 2.45 Angstrom Resolution Crystal Structure Of Udp-n-acetylglucosamine 1-carboxyvinyltransferase From Campylobacter Jejuni.

MHHHHHHSSGVDLGTENLYFQSNAMTYLEIEGTNHLSGNVTISGAKNAALPLIVSSILAKNEVKINNVPN

VADIKTLISLLENLGAKVNFQNNSALLNTNTLNQTIAKYDIVRKMRASILTLGPLLARFGHCEVSLPGGC

AIGQRPIDLHLLALEKMGANIQIKQGYVVASGNLKGNEILFDKITVTGSENIIMAAALAKGKTKLLNVAK

EPEVVQLCEVLKDAGLEIKGIGTDELEIYGSDGELLEFKEFSVIPDRIEAGTYLCAGAITNSKITLDKVN

ATHLSAVLAKLHQMGFETLITEDSITLLPAKEIKPVEIMTSEYPGFPTDMQAQFMALALKANGTSIIDER

LFENRFMHVSELLRMGADIKLNGHIATIVGGKELNAADVMATDLRASSALILAALAAKGTSKVHRIYHLD

RGYENLEEKFKDLGAKITRLEE

>pdb|5UJS|A Chain A, 2.45 Angstrom Resolution Crystal Structure Of Udp-n-acetylglucosamine 1-carboxyvinyltransferase From Campylobacter Jejuni.

MHHHHHHSSGVDLGTENLYFQSNAMTYLEIEGTNHLSGNVTISGAKNAALPLIVSSILAKNEVKINNVPN

VADIKTLISLLENLGAKVNFQNNSALLNTNTLNQTIAKYDIVRKMRASILTLGPLLARFGHCEVSLPGGC

AIGQRPIDLHLLALEKMGANIQIKQGYVVASGNLKGNEILFDKITVTGSENIIMAAALAKGKTKLLNVAK

EPEVVQLCEVLKDAGLEIKGIGTDELEIYGSDGELLEFKEFSVIPDRIEAGTYLCAGAITNSKITLDKVN

ATHLSAVLAKLHQMGFETLITEDSITLLPAKEIKPVEIMTSEYPGFPTDMQAQFMALALKANGTSIIDER

LFENRFMHVSELLRMGADIKLNGHIATIVGGKELNAADVMATDLRASSALILAALAAKGTSKVHRIYHLD

RGYENLEEKFKDLGAKITRLEE

>pdb|4OEV|B Chain B, Crystal Structure Of Nikz From Campylobacter Jejuni In Complex With Ni(ii) Ion

KIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKSWDISKDGLVYDIFLRDD

VLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLFKPYPAFLDALSIGMLPK

HLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLIIKHIFDPSIASAELKNG

KIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALNYAVDKESIVKNLLHDYA

FVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEFEIWAMSNDPLRVSLAGI

LQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQDSALNDEGWNFGHYHDKK

VDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGIKTRTLGHHGVGFTWNVY

EWSK

>pdb|4OEV|A Chain A, Crystal Structure Of Nikz From Campylobacter Jejuni In Complex With Ni(ii) Ion

KIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKSWDISKDGLVYDIFLRDD

VLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLFKPYPAFLDALSIGMLPK

HLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLIIKHIFDPSIASAELKNG

KIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALNYAVDKESIVKNLLHDYA

FVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEFEIWAMSNDPLRVSLAGI

LQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQDSALNDEGWNFGHYHDKK

VDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGIKTRTLGHHGVGFTWNVY

EWSK

>pdb|4OEU|B Chain B, Crystal Structure Of Nikz From Campylobacter Jejuni In Complex With Ni(l-his)

KIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKSWDISKDGLVYDIFLRDD

VLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLFKPYPAFLDALSIGMLPK

HLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLIIKHIFDPSIASAELKNG

KIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALNYAVDKESIVKNLLHDYA

FVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEFEIWAMSNDPLRVSLAGI

LQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQDSALNDEGWNFGHYHDKK

VDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGIKTRTLGHHGVGFTWNVY

EWSK

>pdb|4OEU|A Chain A, Crystal Structure Of Nikz From Campylobacter Jejuni In Complex With Ni(l-his)

KIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKSWDISKDGLVYDIFLRDD

VLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLFKPYPAFLDALSIGMLPK

HLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLIIKHIFDPSIASAELKNG

KIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALNYAVDKESIVKNLLHDYA

FVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEFEIWAMSNDPLRVSLAGI

LQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQDSALNDEGWNFGHYHDKK

VDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGIKTRTLGHHGVGFTWNVY

EWSK

>pdb|4OET|B Chain B, Crystal Structure Of Nikz From Campylobacter Jejuni, Unliganded Form

KIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKSWDISKDGLVYDIFLRDD

VLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLFKPYPAFLDALSIGMLPK

HLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLIIKHIFDPSIASAELKNG

KIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALNYAVDKESIVKNLLHDYA

FVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEFEIWAMSNDPLRVSLAGI

LQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQDSALNDEGWNFGHYHDKK

VDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGIKTRTLGHHGVGFTWNVY

EWSK

>pdb|4OET|A Chain A, Crystal Structure Of Nikz From Campylobacter Jejuni, Unliganded Form

KIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKSWDISKDGLVYDIFLRDD

VLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLFKPYPAFLDALSIGMLPK

HLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLIIKHIFDPSIASAELKNG

KIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALNYAVDKESIVKNLLHDYA

FVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEFEIWAMSNDPLRVSLAGI

LQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQDSALNDEGWNFGHYHDKK

VDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGIKTRTLGHHGVGFTWNVY

EWSK

>pdb|4WY9|A Chain A, Crystal Structure Of The Periplasmic Sensory Domain Of The Campylobacter Jejuni Chemoreceptor Tlp1

TKQVSQNITKNTEDILASITKEYATQTQGIFGEMIALNKSISGTLTEMFRSTSKEDLDIDNITNIITNTF

DNSAYSNFTYLYLIDPPEYFKEESKFFNTQSGKFVMLYADEEKDNKGGIKAIQASDEIANLQVVQDILKK

AKYGENKVYIGRPIKMNLEGQDFDAVNVAIPIFDRKNQVVGVIGMTLDFSDIATYLLDPKGQKYDGELRV

LLNSDGFMAIHPNKNLVLKNLKDINPNKGAQETYKAISEGKNGVFNYIASDGDDSYAAINSFKVQDSSWA

VLVTAPKYSVFKPLKKL

>pdb|4M19|D Chain D, Dihydrodipicolinate Synthase From C. Jejuni With Pyruvate Bound To The Active Site And Lysine Bound To Allosteric Site

HHHHHHASMDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTC

IEIAVETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDI

PVLLYNVPGRTGCEISTDTIIKLFRDCENIYGVXEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNG

GKGVISVTSNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFR

LPLCSPSKENFAKIEEVMKKYKIKGF

>pdb|4M19|C Chain C, Dihydrodipicolinate Synthase From C. Jejuni With Pyruvate Bound To The Active Site And Lysine Bound To Allosteric Site

HHHHHHASMDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTC

IEIAVETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDI

PVLLYNVPGRTGCEISTDTIIKLFRDCENIYGVXEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNG

GKGVISVTSNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFR

LPLCSPSKENFAKIEEVMKKYKIKGF

>pdb|4M19|B Chain B, Dihydrodipicolinate Synthase From C. Jejuni With Pyruvate Bound To The Active Site And Lysine Bound To Allosteric Site

HHHHHHASMDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTC

IEIAVETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDI

PVLLYNVPGRTGCEISTDTIIKLFRDCENIYGVXEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNG

GKGVISVTSNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFR

LPLCSPSKENFAKIEEVMKKYKIKGF

>pdb|4M19|A Chain A, Dihydrodipicolinate Synthase From C. Jejuni With Pyruvate Bound To The Active Site And Lysine Bound To Allosteric Site

HHHHHHASMDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTC

IEIAVETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDI

PVLLYNVPGRTGCEISTDTIIKLFRDCENIYGVXEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNG

GKGVISVTSNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFR

LPLCSPSKENFAKIEEVMKKYKIKGF

>pdb|4LY8|D Chain D, Dihydrodipicolinate Synthase From C. Jejuni With Pyruvate Bound To The Active Site

HHHHHHGSMDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTC

IEIAVETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDI

PVLLYNVPGRTGCEISTDTIIKLFRDCENIYGVXEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNG

GKGVISVTSNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFR

LPLCSPSKENFAKIEEVMKKYKIKGF

>pdb|4LY8|C Chain C, Dihydrodipicolinate Synthase From C. Jejuni With Pyruvate Bound To The Active Site

HHHHHHGSMDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTC

IEIAVETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDI

PVLLYNVPGRTGCEISTDTIIKLFRDCENIYGVXEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNG

GKGVISVTSNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFR

LPLCSPSKENFAKIEEVMKKYKIKGF

>pdb|4LY8|B Chain B, Dihydrodipicolinate Synthase From C. Jejuni With Pyruvate Bound To The Active Site

HHHHHHGSMDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTC

IEIAVETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDI

PVLLYNVPGRTGCEISTDTIIKLFRDCENIYGVXEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNG

GKGVISVTSNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFR

LPLCSPSKENFAKIEEVMKKYKIKGF

>pdb|4LY8|A Chain A, Dihydrodipicolinate Synthase From C. Jejuni With Pyruvate Bound To The Active Site

HHHHHHGSMDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTC

IEIAVETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDI

PVLLYNVPGRTGCEISTDTIIKLFRDCENIYGVXEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNG

GKGVISVTSNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFR

LPLCSPSKENFAKIEEVMKKYKIKGF

>pdb|3TPF|F Chain F, Crystal Structure Of Anabolic Ornithine Carbamoyltransferase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

GXKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAXIFEKNSTRTRXAFELAITELGGKALFLSS

NDLQLSRGEPVKDTARVIGAXVDFVXXRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWN

KXQNGIAKVAFIGDSNNXCNSWLITAAILGFEISIAXPKNYKISPEIWEFAXKQALISGAKISLGYDKFE

ALKDKDVVITDTWVSXGEENEKERKIKEFEGFXIDEKAXSVANKDAILLHCLPAYRGYEVSEEIFEKHAD

VIFEEARNRLYVVKALLCFLDNQRGRE

>pdb|3TPF|E Chain E, Crystal Structure Of Anabolic Ornithine Carbamoyltransferase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

GXKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAXIFEKNSTRTRXAFELAITELGGKALFLSS

NDLQLSRGEPVKDTARVIGAXVDFVXXRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWN

KXQNGIAKVAFIGDSNNXCNSWLITAAILGFEISIAXPKNYKISPEIWEFAXKQALISGAKISLGYDKFE

ALKDKDVVITDTWVSXGEENEKERKIKEFEGFXIDEKAXSVANKDAILLHCLPAYRGYEVSEEIFEKHAD

VIFEEARNRLYVVKALLCFLDNQRGRE

>pdb|3TPF|D Chain D, Crystal Structure Of Anabolic Ornithine Carbamoyltransferase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

GXKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAXIFEKNSTRTRXAFELAITELGGKALFLSS

NDLQLSRGEPVKDTARVIGAXVDFVXXRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWN

KXQNGIAKVAFIGDSNNXCNSWLITAAILGFEISIAXPKNYKISPEIWEFAXKQALISGAKISLGYDKFE

ALKDKDVVITDTWVSXGEENEKERKIKEFEGFXIDEKAXSVANKDAILLHCLPAYRGYEVSEEIFEKHAD

VIFEEARNRLYVVKALLCFLDNQRGRE

>pdb|3TPF|C Chain C, Crystal Structure Of Anabolic Ornithine Carbamoyltransferase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

GXKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAXIFEKNSTRTRXAFELAITELGGKALFLSS

NDLQLSRGEPVKDTARVIGAXVDFVXXRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWN

KXQNGIAKVAFIGDSNNXCNSWLITAAILGFEISIAXPKNYKISPEIWEFAXKQALISGAKISLGYDKFE

ALKDKDVVITDTWVSXGEENEKERKIKEFEGFXIDEKAXSVANKDAILLHCLPAYRGYEVSEEIFEKHAD

VIFEEARNRLYVVKALLCFLDNQRGRE

>pdb|3TPF|B Chain B, Crystal Structure Of Anabolic Ornithine Carbamoyltransferase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

GXKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAXIFEKNSTRTRXAFELAITELGGKALFLSS

NDLQLSRGEPVKDTARVIGAXVDFVXXRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWN

KXQNGIAKVAFIGDSNNXCNSWLITAAILGFEISIAXPKNYKISPEIWEFAXKQALISGAKISLGYDKFE

ALKDKDVVITDTWVSXGEENEKERKIKEFEGFXIDEKAXSVANKDAILLHCLPAYRGYEVSEEIFEKHAD

VIFEEARNRLYVVKALLCFLDNQRGRE

>pdb|3TPF|A Chain A, Crystal Structure Of Anabolic Ornithine Carbamoyltransferase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

GXKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAXIFEKNSTRTRXAFELAITELGGKALFLSS

NDLQLSRGEPVKDTARVIGAXVDFVXXRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWN

KXQNGIAKVAFIGDSNNXCNSWLITAAILGFEISIAXPKNYKISPEIWEFAXKQALISGAKISLGYDKFE

ALKDKDVVITDTWVSXGEENEKERKIKEFEGFXIDEKAXSVANKDAILLHCLPAYRGYEVSEEIFEKHAD

VIFEEARNRLYVVKALLCFLDNQRGRE

>pdb|4NZP|A Chain A, The Crystal Structure Of Argininosuccinate Synthase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

SNAMKNEVKKVVLAYSGGLDTSIILKWLQDEYNCEVVTFTADIGQGEELEPARKKALSLGIKEENIFIKD

LRDEFVKDYVFPMFRANAIYEGEYLLGTSIARPLIAKTQAQIALQTGADAVSHGATGKGNDQVRFELGYL

AFSPDLKIIAPWREWDLNSREKLLAYAQKHGIDISKKKGKSPYSMDANLLHISYEGLVLEDPAHAPEEDM

WRWSKSPKDAPNESEIIELDFQKGDLVAINGEKLSPAGLLTKLNELGCKHGIGRLDIVENRYVGMKSRGC

YETPGGTILLKAHRALESITLDREAAHLKDELMPKYASLIYNGYWFSPERMMLQALIDESQIHANGRVKL

ELYKGNVMVIGRESANDSLFNAAYCTFEEDEVYNQKDAAGFIKLNALRFIIAGKNGRKF

>pdb|4EHI|B Chain B, An X-ray Crystal Structure Of A Putative Bifunctional Phosphoribosylaminoimidazolecarboxamide Formyltransferase/imp Cyclohydrolase

XHHHHHHSSGVDLGTENLYFQSNAXRALLSVSDKEGIVEFGKELENLGFEILSTGGTFKLLKENGIKVIE

VSDFTKSPELFEGRVKTLHPKIHGGILHKRSDENHIKQAKENEILGIDLVCVNLYPFKKTTIXSDDFDEI

IENIDIGGPAXIRSAAKNYKDVXVLCDPLDYEKVIETLKKGQNDENFRLNLXIKAYEHTANYDAYIANYX

NERFNGGFGASKFIVGQKVFDTKYGENPHQKGALYEFDAFFSANFKALKGEASFNNLTDINAALNLASSF

DKAPAIAIVKHGNPCGFAIKENLVQSYIHALKCDSVSAYGGVVAINGTLDEALANKINEIYVEVIIAANV

DEKALAVFEGKKRIKIFTQESPFLIRSFDKYDFKHIDGGFVYQNSDEVGEDELKNAKLXSQREASKEELK

DLEIAXKIAAFTKSNNVVYVKNGAXVAIGXGXTSRIDAAKAAIAKAKEXGLDLQGCVLASEAFFPFRDSI

DEASKVGVKAIVEPGGSIRDDEVVKAADEYGXALYFTGVRHFLH

>pdb|4EHI|A Chain A, An X-ray Crystal Structure Of A Putative Bifunctional Phosphoribosylaminoimidazolecarboxamide Formyltransferase/imp Cyclohydrolase

XHHHHHHSSGVDLGTENLYFQSNAXRALLSVSDKEGIVEFGKELENLGFEILSTGGTFKLLKENGIKVIE

VSDFTKSPELFEGRVKTLHPKIHGGILHKRSDENHIKQAKENEILGIDLVCVNLYPFKKTTIXSDDFDEI

IENIDIGGPAXIRSAAKNYKDVXVLCDPLDYEKVIETLKKGQNDENFRLNLXIKAYEHTANYDAYIANYX

NERFNGGFGASKFIVGQKVFDTKYGENPHQKGALYEFDAFFSANFKALKGEASFNNLTDINAALNLASSF

DKAPAIAIVKHGNPCGFAIKENLVQSYIHALKCDSVSAYGGVVAINGTLDEALANKINEIYVEVIIAANV

DEKALAVFEGKKRIKIFTQESPFLIRSFDKYDFKHIDGGFVYQNSDEVGEDELKNAKLXSQREASKEELK

DLEIAXKIAAFTKSNNVVYVKNGAXVAIGXGXTSRIDAAKAAIAKAKEXGLDLQGCVLASEAFFPFRDSI

DEASKVGVKAIVEPGGSIRDDEVVKAADEYGXALYFTGVRHFLH

>pdb|3HBM|A Chain A, Crystal Structure Of Pseg From Campylobacter Jejuni

XKVLFRSDSSSQIGFGHIKRDLVLAKQYSDVSFACLPLEGSLIDEIPYPVYELSSESIYELINLIKEEKF

ELLIIDHYGISVDDEKLIKLETGVKILSFDDEIKPHHCDILLNVNAYAKASDYEGLVPFKCEVRCGFSYA

LIREEFYQEAKENRKKKYDFFICXGGTDIKNLSLQIASELPKTKIISIATSSSNPNLKKLQKFAKLHNNI

RLFIDHENIAKLXNESNKLIISASSLVNEALLLKANFKAICYVKNQESTATWLAKKGYEVEYKYLEHHHH

HH

>pdb|4GIO|B Chain B, Crystal Structure Of Campylobacter Jejuni Cj0090

CAPSYQINSNQNTVILGSNLPKSLVKQFQKRINSNGYLEFEVILRSTFAKDVIYKVDWLDKDGFVLRDVL

NEDYQALRIPAGQEVILRKLASDTRANDFRLEIKAKN

>pdb|4GIO|A Chain A, Crystal Structure Of Campylobacter Jejuni Cj0090

CAPSYQINSNQNTVILGSNLPKSLVKQFQKRINSNGYLEFEVILRSTFAKDVIYKVDWLDKDGFVLRDVL

NEDYQALRIPAGQEVILRKLASDTRANDFRLEIKAKN

>pdb|3UHP|B Chain B, Crystal Structure Of Glutamate Racemase From Campylobacter Jejuni Subsp. Jejuni

MHHHHHHSSGVDLGTENLYFQSNAMKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDT

IIKFCLEALDFFEQFQIDMLIIACNTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIAT

KATIKSEEYQKRLLSQGYTNINALATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLL

GRSLSKYFGDKTKLIHSGDAIVEFLKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>pdb|3UHP|A Chain A, Crystal Structure Of Glutamate Racemase From Campylobacter Jejuni Subsp. Jejuni

MHHHHHHSSGVDLGTENLYFQSNAMKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDT

IIKFCLEALDFFEQFQIDMLIIACNTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIAT

KATIKSEEYQKRLLSQGYTNINALATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLL

GRSLSKYFGDKTKLIHSGDAIVEFLKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>pdb|3UHO|B Chain B, Crystal Structure Of Glutamate Racemase From Campylobacter Jejuni Subsp. Jejuni

MHHHHHHSSGVDLGTENLYFQSNAMKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDT

IIKFCLEALDFFEQFQIDMLIIACNTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIAT

KATIKSEEYQKRLLSQGYTNINALATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLL

GRSLSKYFGDKTKLIHSGDAIVEFLKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>pdb|3UHO|A Chain A, Crystal Structure Of Glutamate Racemase From Campylobacter Jejuni Subsp. Jejuni

MHHHHHHSSGVDLGTENLYFQSNAMKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDT

IIKFCLEALDFFEQFQIDMLIIACNTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIAT

KATIKSEEYQKRLLSQGYTNINALATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLL

GRSLSKYFGDKTKLIHSGDAIVEFLKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>pdb|3UHF|B Chain B, Crystal Structure Of Glutamate Racemase From Campylobacter Jejuni Subsp. Jejuni

MHHHHHHSSGVDLGTENLYFQSNAMKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDT

IIKFCLEALDFFEQFQIDMLIIACNTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIAT

KATIKSEEYQKRLLSQGYTNINALATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLL

GRSLSKYFGDKTKLIHSGDAIVEFLKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>pdb|3UHF|A Chain A, Crystal Structure Of Glutamate Racemase From Campylobacter Jejuni Subsp. Jejuni

MHHHHHHSSGVDLGTENLYFQSNAMKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDT

IIKFCLEALDFFEQFQIDMLIIACNTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIAT

KATIKSEEYQKRLLSQGYTNINALATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLL

GRSLSKYFGDKTKLIHSGDAIVEFLKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>pdb|3UY4|A Chain A, Crystal Structure Of Pantoate--Beta-Alanine Ligase From Campylobacter Jejuni Complexed With Amp And Vitamin B5

SNAXQVITSVKEAKQIVKDWKSHQLSIGYVPTXGFLHDGHLSLVKHAKTQDKVIVSIFVNPXQFGPNEDF

SSYPRDLERDIKXCQDNGVDXVFIPDATQXYLKNFSTYVDXNTITDKLCGAKRPGHFRGVCTVLTKFFNI

LNPDIVYXGQKDAQQCVVVRHXVDDLNFDLKIQICPIIREEDGLAKSSRNVYLSKEERKASLAISQSIFL

AEKLVREGEKNTSKIIQAXKDILEKEKLIKIDYIELVDFNTXENIENITDNVLGAVAAFVGKTRLIDNFL

VQGLK

>pdb|3TSN|D Chain D, 4-Hydroxythreonine-4-Phosphate Dehydrogenase From Campylobacter Jejuni

SNAXKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYE

FNFIKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKA

WEDAGLKYKGHTDALRDFFKKNAIXXLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKK

XGLLGFNPHAGDYGVIGGEEEKIXEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPY

PLVADTAFTKTGLKNCNRLVAXYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINT

KSYFEAAKFAINLHSKA

>pdb|3TSN|C Chain C, 4-Hydroxythreonine-4-Phosphate Dehydrogenase From Campylobacter Jejuni

SNAXKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYE

FNFIKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKA

WEDAGLKYKGHTDALRDFFKKNAIXXLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKK

XGLLGFNPHAGDYGVIGGEEEKIXEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPY

PLVADTAFTKTGLKNCNRLVAXYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINT

KSYFEAAKFAINLHSKA

>pdb|3TSN|B Chain B, 4-Hydroxythreonine-4-Phosphate Dehydrogenase From Campylobacter Jejuni

SNAXKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYE

FNFIKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKA

WEDAGLKYKGHTDALRDFFKKNAIXXLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKK

XGLLGFNPHAGDYGVIGGEEEKIXEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPY

PLVADTAFTKTGLKNCNRLVAXYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINT

KSYFEAAKFAINLHSKA

>pdb|3TSN|A Chain A, 4-Hydroxythreonine-4-Phosphate Dehydrogenase From Campylobacter Jejuni

SNAXKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYE

FNFIKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKA

WEDAGLKYKGHTDALRDFFKKNAIXXLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKK

XGLLGFNPHAGDYGVIGGEEEKIXEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPY

PLVADTAFTKTGLKNCNRLVAXYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINT

KSYFEAAKFAINLHSKA

>pdb|3TZL|B Chain B, Crystal Structure Of Tryptophanyl-Trna Synthetase From Campylobacter Jejuni Complexed With Adp And Tryptophane

SNAXRVLTGLQPSGDLHIGNYFGAIKQXVDAQEKSQXFXFIANYHAXTSSQDGEKLKQNSLKAAAAFLSL

GIDPQKSVFWLQSDVKEVXELYWILSQFTPXGLLERAHSYKDKVAKGLSASHGLFSYPVLXAADILLFDT

RIVPVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKXSKSYQNTIDIFSSEKTL

KKQISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEA

REKYNELLEKPSHLKEILDFGATKARKIAQEKXQKIYEKIGL

>pdb|3TZL|A Chain A, Crystal Structure Of Tryptophanyl-Trna Synthetase From Campylobacter Jejuni Complexed With Adp And Tryptophane

SNAXRVLTGLQPSGDLHIGNYFGAIKQXVDAQEKSQXFXFIANYHAXTSSQDGEKLKQNSLKAAAAFLSL

GIDPQKSVFWLQSDVKEVXELYWILSQFTPXGLLERAHSYKDKVAKGLSASHGLFSYPVLXAADILLFDT

RIVPVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKXSKSYQNTIDIFSSEKTL

KKQISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEA

REKYNELLEKPSHLKEILDFGATKARKIAQEKXQKIYEKIGL

>pdb|3THA|B Chain B, Tryptophan Synthase Subunit Alpha From Campylobacter Jejuni.

SNAXVDFRKFYKENANVAYTVLGYPNLQTSEAFLQRLDQSPIDILELGVAYSDPIADGEIIADAAKIALD

QGVDIHSVFELLARIKTKKALVFXVYYNLIFSYGLEKFVKKAKSLGICALIVPELSFEESDDLIKECERY

NIALITLVSVTTPKERVKKLVKHAKGFIYLLASIGITGTKSVEEAILQDKVKEIRSFTNLPIFVGFGIQN

NQDVKRXRKVADGVIVGTSIVKCFKQGNLDIIXKDIEEIFKK

>pdb|3THA|A Chain A, Tryptophan Synthase Subunit Alpha From Campylobacter Jejuni.

SNAXVDFRKFYKENANVAYTVLGYPNLQTSEAFLQRLDQSPIDILELGVAYSDPIADGEIIADAAKIALD

QGVDIHSVFELLARIKTKKALVFXVYYNLIFSYGLEKFVKKAKSLGICALIVPELSFEESDDLIKECERY

NIALITLVSVTTPKERVKKLVKHAKGFIYLLASIGITGTKSVEEAILQDKVKEIRSFTNLPIFVGFGIQN

NQDVKRXRKVADGVIVGTSIVKCFKQGNLDIIXKDIEEIFKK

>pdb|3R7T|A Chain A, Crystal Structure Of Adenylosuccinate Synthetase From Campylobacter Jejuni

SNAXSKADIIVGIQWGDEGKGKVVDKLCENYDFVCRSAGGHNAGHTIWVNGVRYALHLXPSGVLHPRCIN

IIGNGVVVSPEVLIAEXAQFENLKGRLYISDRAHLNLKHHSLIDIAKEKLKGKNAIGTTGKGIGPSYADK

INRTGHRVGELLEPQRLCEALIKDFEANKTFFEXLEIEIPSAEELLADLKRFNEILTPYITDTTRXLWKA

LDEDKRVLLEGAQGSXLDIDHGTYPYVTSSSTISAGTLTGLGLNPKEAGNIIGIVKAYATRVGNGAFPTE

DKGEDGEKIAQIGKEIGVSTGRKRRCGWFDAVAVRYTARLNGLDALSLXKLDVLDGFEKIKICRAYEYKG

XEIDYIPSDLENVQPIYEEXDGWDKVFGIKDYDLLPENAKKYIARLEELAGVKVKYISTSPERDDTIIL

>pdb|3PLX|B Chain B, The Crystal Structure Of Aspartate Alpha-Decarboxylase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

XISIDEKLLQASGILEYEKVQVVNVNNGARFETYTIATQEEGVVCLNGAAARLAEVGDKVIIMSYADFNE

EEAKTFKPKVVFVDENNTATKITNYEKHGAIF

>pdb|3PLX|A Chain A, The Crystal Structure Of Aspartate Alpha-Decarboxylase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

SNAMNITLLKSKIHRASVTEARLDYIG

>pdb|3OUU|B Chain B, Crystal Structure Of Biotin Carboxylase-Beta-Gamma-Atp Complex From Campylobacter Jejuni

SNAXEIKSILIANRGEIALRALRTIKEXGKKAICVYSEADKDALYLKYADASICIGKARSSESYLNIPAI

IAAAEIAEADAIFPGYGFLSENQNFVEICAKHNIKFIGPSVEAXNLXSDKSKAKQVXQRAGVPVIPGSDG

ALAGAEAAKKLAKEIGYPVILKAAAGGGGRGXRVVENEKDLEKAYWSAESEAXTAFGDGTXYXEKYIQNP

RHIEVQVIGDSFGNVIHVGERDCSXQRRHQKLIEESPAILLDEKTRTRLHETAIKAAKAIGYEGAGTFEF

LVDKNLDFYFIEXNTRLQVEHCVSEXVSGIDIIEQXIKVAEGYALPSQESIKLNGHSIECRITAEDSKTF

LPSPGKITKYIPPAGRNVRXESHCYQDYSVPAYYDSXIGKLVVWAEDRNKAIAKXKVALDELLISGIKTT

KDFHLSXXENPDFINNNYDTNYLARH

>pdb|3OUU|A Chain A, Crystal Structure Of Biotin Carboxylase-Beta-Gamma-Atp Complex From Campylobacter Jejuni

SNAXEIKSILIANRGEIALRALRTIKEXGKKAICVYSEADKDALYLKYADASICIGKARSSESYLNIPAI

IAAAEIAEADAIFPGYGFLSENQNFVEICAKHNIKFIGPSVEAXNLXSDKSKAKQVXQRAGVPVIPGSDG

ALAGAEAAKKLAKEIGYPVILKAAAGGGGRGXRVVENEKDLEKAYWSAESEAXTAFGDGTXYXEKYIQNP

RHIEVQVIGDSFGNVIHVGERDCSXQRRHQKLIEESPAILLDEKTRTRLHETAIKAAKAIGYEGAGTFEF

LVDKNLDFYFIEXNTRLQVEHCVSEXVSGIDIIEQXIKVAEGYALPSQESIKLNGHSIECRITAEDSKTF

LPSPGKITKYIPPAGRNVRXESHCYQDYSVPAYYDSXIGKLVVWAEDRNKAIAKXKVALDELLISGIKTT

KDFHLSXXENPDFINNNYDTNYLARH

>pdb|3P2O|B Chain B, Crystal Structure Of Fold Bifunctional Protein From Campylobacter Jejuni

SNAXTLLDGKALSAKIKEELKEKNQFLKSKGIESCLAVILVGDNPASQTYVKSKAKACEECGIKSLVYHL

NENITQNELLALINTLNHDDSVHGILVQLPLPDHICKDLILESIISSKDVDGFHPINVGYLNLGLESGFL

PCTPLGVXKLLKAYEIDLEGKDAVIIGASNIVGRPXATXLLNAGATVSVCHIKTKDLSLYTRQADLIIVA

AGCVNLLRSDXVKEGVIVVDVGINRLESGKIVGDVDFEEVSKKSSYITPVPGGVGPXTIAXLLENTVKSA

KNRLN

>pdb|3P2O|A Chain A, Crystal Structure Of Fold Bifunctional Protein From Campylobacter Jejuni

SNAXTLLDGKALSAKIKEELKEKNQFLKSKGIESCLAVILVGDNPASQTYVKSKAKACEECGIKSLVYHL

NENITQNELLALINTLNHDDSVHGILVQLPLPDHICKDLILESIISSKDVDGFHPINVGYLNLGLESGFL

PCTPLGVXKLLKAYEIDLEGKDAVIIGASNIVGRPXATXLLNAGATVSVCHIKTKDLSLYTRQADLIIVA

AGCVNLLRSDXVKEGVIVVDVGINRLESGKIVGDVDFEEVSKKSSYITPVPGGVGPXTIAXLLENTVKSA

KNRLN

>pdb|3NZP|B Chain B, Crystal Structure Of The Biosynthetic Arginine Decarboxylase Spea From Campylobacter Jejuni, Northeast Structural Genomics Consortium Target Br53

XXDYGIDIWGNENFIIKNGKVCINYEKKPAIIDIVKELRDDGYKGPLLLRFPHLIQKQIENIYGNFNKAR

KEFGYKGGFNAVYPLKVNQYPGFVKNLVKLGKDYNYGLEAGSKAELLLAXAYNNEGAPITVNGFKDRELI

NIGFIAAEXGHNITLTIEGLNELEAIIDIAKERFKPKPNIGLRVRLHSAGVGIWAKSGGINSKFGLTSTE

LIEAVNLLKENKLLEQFTXIHFHLGSQITEIHPLKKALNEAGNIYTELRKXGAKNLKAINLGGGLAVEYS

QFKNEKSRNYTLREYANDVVFILKNIAEQKKDLEPDIFIESGRFVAANHAVLIAPVLELFSQEYAENKLI

LKKQNPKLIDELYDLYKSIKPSNALEYLHDSIDHLESILTLFDLGYVDLQDRSNAEILTHLITKKAILLL

GDKQNPADLLAIQDEVQERYLVNFSLFQSXPDFWGLEQNFPIXPLDRLDEEPTRSASIWDITCDSDGEIS

YSKDKPLFLHDVDVEKENYFLGFFLVGAYQEVLGXKHNLFTHPTEAIISINEKGYEVEGIIEAQSILDTL

EDLDYDIHAIXDILNERISNSKLVNDKQKKHILGELYLFLNDNGYLKSIGVLEHHHHHH

>pdb|3NZP|A Chain A, Crystal Structure Of The Biosynthetic Arginine Decarboxylase Spea From Campylobacter Jejuni, Northeast Structural Genomics Consortium Target Br53

XXDYGIDIWGNENFIIKNGKVCINYEKKPAIIDIVKELRDDGYKGPLLLRFPHLIQKQIENIYGNFNKAR

KEFGYKGGFNAVYPLKVNQYPGFVKNLVKLGKDYNYGLEAGSKAELLLAXAYNNEGAPITVNGFKDRELI

NIGFIAAEXGHNITLTIEGLNELEAIIDIAKERFKPKPNIGLRVRLHSAGVGIWAKSGGINSKFGLTSTE

LIEAVNLLKENKLLEQFTXIHFHLGSQITEIHPLKKALNEAGNIYTELRKXGAKNLKAINLGGGLAVEYS

QFKNEKSRNYTLREYANDVVFILKNIAEQKKDLEPDIFIESGRFVAANHAVLIAPVLELFSQEYAENKLI

LKKQNPKLIDELYDLYKSIKPSNALEYLHDSIDHLESILTLFDLGYVDLQDRSNAEILTHLITKKAILLL

GDKQNPADLLAIQDEVQERYLVNFSLFQSXPDFWGLEQNFPIXPLDRLDEEPTRSASIWDITCDSDGEIS

YSKDKPLFLHDVDVEKENYFLGFFLVGAYQEVLGXKHNLFTHPTEAIISINEKGYEVEGIIEAQSILDTL

EDLDYDIHAIXDILNERISNSKLVNDKQKKHILGELYLFLNDNGYLKSIGVLEHHHHHH

>pdb|3NX3|B Chain B, Crystal Structure Of Acetylornithine Aminotransferase (Argd) From Campylobacter Jejuni

XKXDYKEQSHIIPTYKRFDIVLEKGQGVYLFDDKAKKYLDFSSGIGVCALGYNHAKFNAKIKAQVDKLLH

TSNLYYNENIAAAAKNLAKASALERVFFTNSGTESIEGAXKTARKYAFNKGVKGGQFIAFKHSFHGRTLG

ALSLTANEKYQKPFKPLISGVKFAKYNDISSVEKLVNEKTCAIILESVQGEGGINPANKDFYKALRKLCD

EKDILLIADEIQCGXGRSGKFFAYEHAQILPDIXTSAKALGCGLSVGAFVINQKVASNSLEAGDHGSTYG

GNPLVCAGVNAVFEIFKEEKILENVNKLTPYLEQSLDELINEFDFCKKRKGLGFXQGLSLDKSVKVAKVI

QKCQENALLLISCGENDLRFLPPLILQKEHIDEXSEKLRKALKSF

>pdb|3NX3|A Chain A, Crystal Structure Of Acetylornithine Aminotransferase (Argd) From Campylobacter Jejuni

XKXDYKEQSHIIPTYKRFDIVLEKGQGVYLFDDKAKKYLDFSSGIGVCALGYNHAKFNAKIKAQVDKLLH

TSNLYYNENIAAAAKNLAKASALERVFFTNSGTESIEGAXKTARKYAFNKGVKGGQFIAFKHSFHGRTLG

ALSLTANEKYQKPFKPLISGVKFAKYNDISSVEKLVNEKTCAIILESVQGEGGINPANKDFYKALRKLCD

EKDILLIADEIQCGXGRSGKFFAYEHAQILPDIXTSAKALGCGLSVGAFVINQKVASNSLEAGDHGSTYG

GNPLVCAGVNAVFEIFKEEKILENVNKLTPYLEQSLDELINEFDFCKKRKGLGFXQGLSLDKSVKVAKVI

QKCQENALLLISCGENDLRFLPPLILQKEHIDEXSEKLRKALKSF

>pdb|3NXK|H Chain H, Crystal Structure Of Probable Cytoplasmic L-Asparaginase From Campylobacter Jejuni

SNAXKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNXC

DEIWLRLAKKIAKLFAEGIDGVVITHGTDTXEETAYFLNLTIKSDKPVVLVGAXRPSTAISADGPKNLYN

AVALVVNKEAKNKGVXVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNA

PFDVSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVS

SRVVAGCVAVSDSDEKLGFISAEDLNPQKARVLLXLALTKTSDPKKIQEYFLKY

>pdb|3NXK|G Chain G, Crystal Structure Of Probable Cytoplasmic L-Asparaginase From Campylobacter Jejuni

SNAXKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNXC

DEIWLRLAKKIAKLFAEGIDGVVITHGTDTXEETAYFLNLTIKSDKPVVLVGAXRPSTAISADGPKNLYN

AVALVVNKEAKNKGVXVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNA

PFDVSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVS

SRVVAGCVAVSDSDEKLGFISAEDLNPQKARVLLXLALTKTSDPKKIQEYFLKY

>pdb|3NXK|F Chain F, Crystal Structure Of Probable Cytoplasmic L-Asparaginase From Campylobacter Jejuni

SNAXKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNXC

DEIWLRLAKKIAKLFAEGIDGVVITHGTDTXEETAYFLNLTIKSDKPVVLVGAXRPSTAISADGPKNLYN

AVALVVNKEAKNKGVXVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNA

PFDVSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVS

SRVVAGCVAVSDSDEKLGFISAEDLNPQKARVLLXLALTKTSDPKKIQEYFLKY

>pdb|3NXK|E Chain E, Crystal Structure Of Probable Cytoplasmic L-Asparaginase From Campylobacter Jejuni

SNAXKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNXC

DEIWLRLAKKIAKLFAEGIDGVVITHGTDTXEETAYFLNLTIKSDKPVVLVGAXRPSTAISADGPKNLYN

AVALVVNKEAKNKGVXVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNA

PFDVSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVS

SRVVAGCVAVSDSDEKLGFISAEDLNPQKARVLLXLALTKTSDPKKIQEYFLKY

>pdb|3NXK|D Chain D, Crystal Structure Of Probable Cytoplasmic L-Asparaginase From Campylobacter Jejuni

SNAXKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNXC

DEIWLRLAKKIAKLFAEGIDGVVITHGTDTXEETAYFLNLTIKSDKPVVLVGAXRPSTAISADGPKNLYN

AVALVVNKEAKNKGVXVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNA

PFDVSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVS

SRVVAGCVAVSDSDEKLGFISAEDLNPQKARVLLXLALTKTSDPKKIQEYFLKY

>pdb|3NXK|C Chain C, Crystal Structure Of Probable Cytoplasmic L-Asparaginase From Campylobacter Jejuni

SNAXKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNXC

DEIWLRLAKKIAKLFAEGIDGVVITHGTDTXEETAYFLNLTIKSDKPVVLVGAXRPSTAISADGPKNLYN

AVALVVNKEAKNKGVXVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNA

PFDVSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVS

SRVVAGCVAVSDSDEKLGFISAEDLNPQKARVLLXLALTKTSDPKKIQEYFLKY

>pdb|3NXK|B Chain B, Crystal Structure Of Probable Cytoplasmic L-Asparaginase From Campylobacter Jejuni

SNAXKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNXC

DEIWLRLAKKIAKLFAEGIDGVVITHGTDTXEETAYFLNLTIKSDKPVVLVGAXRPSTAISADGPKNLYN

AVALVVNKEAKNKGVXVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNA

PFDVSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVS

SRVVAGCVAVSDSDEKLGFISAEDLNPQKARVLLXLALTKTSDPKKIQEYFLKY

>pdb|3NXK|A Chain A, Crystal Structure Of Probable Cytoplasmic L-Asparaginase From Campylobacter Jejuni

SNAXKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNXC

DEIWLRLAKKIAKLFAEGIDGVVITHGTDTXEETAYFLNLTIKSDKPVVLVGAXRPSTAISADGPKNLYN

AVALVVNKEAKNKGVXVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNA

PFDVSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVS

SRVVAGCVAVSDSDEKLGFISAEDLNPQKARVLLXLALTKTSDPKKIQEYFLKY

>pdb|3MXT|A Chain A, Crystal Structure Of Pantoate-Beta-Alanine Ligase From Campy Jejuni

SNAXQVITSVKEAKQIVKDWKSHQLSIGYVPTXGFLHDGHLSLVKHAKTQDKVIVSIFVNPXQFGPNEDF

SSYPRDLERDIKXCQDNGVDXVFIPDATQXYLKNFSTYVDXNTITDKLCGAKRPGHFRGVCTVLTKFFNI

LNPDIVYXGQKDAQQCVVVRHXVDDLNFDLKIQICPIIREEDGLAKSSRNVYLSKEERKASLAISQSIFL

AEKLVREGEKNTSKIIQAXKDILEKEKLIKIDYIELVDFNTXENIENITDNVLGAVAAFVGKTRLIDNFL

VQGLK

>pdb|3M34|A Chain A, Crystal Structure Of Transketolase In Complex With Thiamin D And Calcium Ion

SNAXNIQILQEQANTLRFLSADXVQKANSGHPGAPLGLADILSVLSYHLKHNPKNPTWLNRDRLVFSGGH

ASALLYSFLHLSGYDLSLEDLKNFRQLHSKTPGHPEISTLGVEIATGPLGQGVANAVGFAXAAKKAQNLL

GSDLIDHKIYCLCGDGDLQEGISYEACSLAGLHKLDNFILIYDSNNISIEGDVGLAFNENVKXRFEAQGF

EVLSINGHDYEEINKALEQAKKSTKPCLIIAKTTIAKGAGELEGSHKSHGAPLGEEVIKKAKEQAGFDPN

ISFHIPQASKIRFESAVELGDLEEAKWKDKLEKSAKKELLERLLNPDFNKIAYPDFKGKDLATRDSNGEI

LNVLAKNLEGFLGGSADLGPSNKTELHSXGDFVEGKNIHFGIREHAXAAINNAFARYGIFLPFSATFFIF

SEYLKPAARIAALXKIKHFFIFTHDSIGVGEDGPTHQPIEQLSTFRAXPNFLTFRPADGVENVKAWQIAL

NADIPSAFVLSRQKLKALNEPVFGDVKNGAYLLKESKEAKFTLLASGSEVWLCLESANELEKQGFACNVV

SXPCFELFEKQDKAYQERLLKGEVIGVEAAHSNELYKFCHKVYGIESFGESGKDKDVFERFGFSVSKLVN

FILSK

>pdb|3M5W|B Chain B, Crystal Structure Of Tryptophanyl-Trna Synthetase From Campylobacter Jejuni

SNAXRVLTGLQPSGDLHIGNYFGAIKQXVDAQEKSQXFXFIANYHAXTSSQDGEKLKQNSLKAAAAFLSL

GIDPQKSVFWLQSDVKEVXELYWILSQFTPXGLLERAHSYKDKVAKGLSASHGLFSYPVLXAADILLFDT

RIVPVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKXSKSYQNTIDIFSSEKTL

KKQISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEA

REKYNELLEKPSHLKEILDFGATKARKIAQEKXQKIYEKIGL

>pdb|3M5W|A Chain A, Crystal Structure Of Tryptophanyl-Trna Synthetase From Campylobacter Jejuni

SNAXRVLTGLQPSGDLHIGNYFGAIKQXVDAQEKSQXFXFIANYHAXTSSQDGEKLKQNSLKAAAAFLSL

GIDPQKSVFWLQSDVKEVXELYWILSQFTPXGLLERAHSYKDKVAKGLSASHGLFSYPVLXAADILLFDT

RIVPVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKXSKSYQNTIDIFSSEKTL

KKQISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEA

REKYNELLEKPSHLKEILDFGATKARKIAQEKXQKIYEKIGL

>pdb|3L84|A Chain A, High Resolution Crystal Structure Of Transketolase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

XNIQILQEQANTLRFLSADXVQKANSGHPGAPLGLADILSVLSYHLKHNPKNPTWLNRDRLVFSGGHASA

LLYSFLHLSGYDLSLEDLKNFRQLHSKTPGHPEISTLGVEIATGPLGQGVANAVGFAXAAKKAQNLLGSD

LIDHKIYCLCGDGDLQEGISYEACSLAGLHKLDNFILIYDSNNISIEGDVGLAFNENVKXRFEAQGFEVL

SINGHDYEEINKALEQAKKSTKPCLIIAKTTIAKGAGELEGSHKSHGAPLGEEVIKKAKEQAGFDPNISF

HIPQASKIRFESAVELGDLEEAKWKDKLEKSAKKELLERLLNPDFNKIAYPDFKGKDLATRDSNGEILNV

LAKNLEGFLGGSADLGPSNKTELHSXGDFVEGKNIHFGIREHAXAAINNAFARYGIFLPFSATFFIFSEY

LKPAARIAALXKIKHFFIFTHDSIGVGEDGPTHQPIEQLSTFRAXPNFLTFRPADGVENVKAWQIALNAD

IPSAFVLSRQKLKALNEPVFGDVKNGAYLLKESKEAKFTLLASGSEVWLCLESANELEKQGFACNVVSXP

CFELFEKQDKAYQERLLKGEVIGVEAAHSNELYKFCHKVYGIESFGESGKDKDVFERFGFSVSKLVNFIL

SK

>pdb|3LER|D Chain D, Crystal Structure Of Dihydrodipicolinate Synthase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

SNAXDKNIIIGAXTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAV

ETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLY

NVPGRTGCEISTDTIIKLFRDCENIYGVXEASGNIDKCVDLLAHEPRXXLISGEDAINYPILSNGGKGVI

SVTSNLLPDXISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAXYLAGLIESLEFRLPLCS

PSKENFAKIEEVXKKYKIKGF

>pdb|3LER|C Chain C, Crystal Structure Of Dihydrodipicolinate Synthase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

SNAXDKNIIIGAXTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAV

ETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLY

NVPGRTGCEISTDTIIKLFRDCENIYGVXEASGNIDKCVDLLAHEPRXXLISGEDAINYPILSNGGKGVI

SVTSNLLPDXISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAXYLAGLIESLEFRLPLCS

PSKENFAKIEEVXKKYKIKGF

>pdb|3LER|B Chain B, Crystal Structure Of Dihydrodipicolinate Synthase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

SNAXDKNIIIGAXTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAV

ETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLY

NVPGRTGCEISTDTIIKLFRDCENIYGVXEASGNIDKCVDLLAHEPRXXLISGEDAINYPILSNGGKGVI

SVTSNLLPDXISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAXYLAGLIESLEFRLPLCS

PSKENFAKIEEVXKKYKIKGF

>pdb|3LER|A Chain A, Crystal Structure Of Dihydrodipicolinate Synthase From Campylobacter Jejuni Subsp. Jejuni Nctc 11168

SNAXDKNIIIGAXTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAV

ETCKGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLY

NVPGRTGCEISTDTIIKLFRDCENIYGVXEASGNIDKCVDLLAHEPRXXLISGEDAINYPILSNGGKGVI

SVTSNLLPDXISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAXYLAGLIESLEFRLPLCS

PSKENFAKIEEVXKKYKIKGF

>pdb|3KWO|D Chain D, Crystal Structure Of Putative Bacterioferritin From Campylobacter Jejuni

SNAXSVTKQLLQXQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEXAELFDSCAERVLQLGEKAIT

CQKVLXENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLW

XIGATLQGACKX

>pdb|3KWO|C Chain C, Crystal Structure Of Putative Bacterioferritin From Campylobacter Jejuni

SNAXSVTKQLLQXQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEXAELFDSCAERVLQLGEKAIT

CQKVLXENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLW

XIGATLQGACKX

>pdb|3KWO|B Chain B, Crystal Structure Of Putative Bacterioferritin From Campylobacter Jejuni

SNAXSVTKQLLQXQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEXAELFDSCAERVLQLGEKAIT

CQKVLXENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLW

XIGATLQGACKX

>pdb|3KWO|A Chain A, Crystal Structure Of Putative Bacterioferritin From Campylobacter Jejuni

SNAXSVTKQLLQXQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEXAELFDSCAERVLQLGEKAIT

CQKVLXENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLW

XIGATLQGACKX

>pdb|3HBN|A Chain A, Crystal Structure Pseg-Udp Complex From Campylobacter Jejuni

XKVLFRSDSSSQIGFGHIKRDLVLAKQYSDVSFACLPLEGSLIDEIPYPVYELSSESIYELINLIKEEKF

ELLIIDHYGISVDDEKLIKLETGVKILSFDDEIKPHHCDILLNVNAYAKASDYEGLVPFKCEVRCGFSYA

LIREEFYQEAKENRKKKYDFFICXGGTDIKNLSLQIASELPKTKIISIATSSSNPNLKKLQKFAKLHNNI

RLFIDHENIAKLXNESNKLIISASSLVNEALLLKANFKAICYVKNQESTATWLAKKGYEVEYKYLEHHHH

HH

>WP\_010891882.1 MULTISPECIES: alkaline phosphatase family protein [Campylobacter]

MMSKAILVVLDGLNCKSASINMGYLNALCKENLGKFYSLECELPSMSRPLYECLLTGVKPVLSGIINNKL

SFSKQTSIFDLCKEQGLKAGGAAYHWVFELYNKKEFIPSLHRHIEDENLTLPYGHFYYEDDYLDSHLFAD

GEHLRNKYNLDFTLIHSMNIDDAGHKFGSHSIEYANKTKKVDILISEYLPTWLEQGINVIITSDHGMTEG

KSHGGLSEDEILVPFFTFGSAFSYENAKIKQDEICGSICEILGLKHDKRYNDEILKAKK

>WP\_010891872.1 MULTISPECIES: RsmB/NOP family class I SAM-dependent RNA methyltransferase [Campylobacter]

MQNILSSFAQEKNVCVFANTLKTSIEELEKEFLKQNLKFKKINVYCYLFDAKDKAILSSMKAFNEAHFYI

QNYSSYLCALNLEVKAGQSVLDMCAAPGGKSINLANFMQNTGYLACNEMSRDRFFILQKNLKNYGVNAKV

FMKDGKNIGNLCPLKFDKILLDAPCSTFAKIGFDLEKSYKEIKNIAKTQKKLLHSALKALKIGGELVYST

CTFTKEENEEVIENALKSEFKLELLDIDLENVEAKAGQSEEFAEISKCRRILPSLDYDGFFIAKLRKLC

>WP\_002873647.1 class Ib ribonucleoside-diphosphate reductase assembly flavoprotein NrdI [Campylobacter jejuni]

MSKKKLVQIQRYLIIAILFLLCIALALGILVKYQNSQDVSSVKPDYFIDKQEDLISLNKDHYEIGIFQEN

EFDNNKSVSILEQKIQEIDDLNTSLNEQNLSSVEQNLSLEQNQSLEQNFILKDTNLTQDQNLTFNEDIHL

NKISKKPKLAIIIDDMANASQVRGLKALNLKLNPSFFPPDKNHSETPKLALKFDFYMVHLPLAAINYNKP

ELDTLNPNDSKERIFKKIKQIKKDFKDLRYINNHTGSLFTSNEEAMKKLYEALKNQNIFFVDSKTIGNSK

ANKIAKELSIPYIQRDVFLDNEDDVNYVKKQLENAVKLAQKKGFVIAIGHPRKNTFKALEQSKDLLKGVD

LVYLSEIYGK

>WP\_002873342.1 rod shape-determining protein MreC [Campylobacter jejuni]

MNKIEVFLQNLNPREKFLFISFICLCALFLAFKIHDHFLEDIFQKTLVEHNYLALNEAKIENSHLKEIET

KLTKQIKIEEEKLKYYKEKLHLFSYDKDFFNKKINNLSKNLIINEIKFSQENKNFIHYNYVSLSLNGNFK

DLLNFIQNLENLPIALKIDKIKLYNTQGLKLKLDLMFKFVNL

>WP\_002873165.1 MULTISPECIES: ComEC family protein [Campylobacter]

MSLWNSFSYSFKEFHYLFFSVVVIFIFNILLEYNNFLNFKNQKHYLIDNALLTHQYIKYNKKNKKYWVLK

LQTENFTFYTTSFKDLNLSKNQFLSLRIITHNINFKDYLSKSFYAPSYDFEKLKEKEYNPIISYFLNQHT

NEKIKEFYGALFFALPISLELRNDVNYYGIAHLIAISGYHIGLLFSLIFFILAPIYSFFQKRYFPYRNLR

LDLSILIFALLLAYACLIGFVPSFVRSLIMAFWVFYLLCKNIKIINFVTLFCSILLCISLYPRLLFSIGF

LFSILGVFYIFLYMHHFANKFNNLINIILLNIWTFFAMVLPVLYFFPLISYQQILGIILSGIFVIFYPLV

LFLHLINYGDLLNFILDEFFKFKIYGTNIHIPFWIFISYLIASLISVRFKYLAFLCIFANFIPFIMIVI

>WP\_002872671.1 MULTISPECIES: vitamin B12 ABC transporter permease BtuC [Campylobacter]

MFFKHILSLKVLIALLLFFGMISLFIGVISINVKDILNLNSTQLEIITLTRIPRLIAILLTGMSLSICGL

IMQQLTQNKFVSPTTAGTMDCAKFGILISLIFFTGASFFTQAIIASIFALLGSFIFIQILRKIKLKDVIF

VPLIGLMFGGIISAITTFFAYALNYIQNIQGWLQGSMANVMQGNYELLYISLPLFILAYFLAHKITIVGM

GEDIALNLGISYNGILFLGLMIVSIITSLVIVSVGIIPFLGLIIPNLVALYLGDNLRKNLIYIALCGALF

LLVCDIISRLVIFPFEMPLSITTGVLGSLIFIFLLLKRKVYA

>WP\_002858299.1 MULTISPECIES: SDR family NAD-dependent epimerase/dehydratase [Campylobacter]

MSKKVLITGGAGYIGSVLTPILLEKGYEVCVIDNLMFDQISLLSCFHNKNFTFINGDAMDENLIRQEVAK

ADIIIPLAALVGAPLCKRNPKLAKMINYEAVKMISDFASPSQIFIYPNTNSGYGIGEKDAMCTEESPLRP

ISEYGIDKVHAEQYLLDKGNCVTFRLATVFGISPRMRLDLLVNDFTYRAYRDKFIVLFEEHFRRNYIHVR

DVVKGFIHGIENYDKMKGQAYNMGLSSANLTKRQLAETIKKYIPDFYIHSANIGEDPDKRDYLVSNTKLE

ATGWKPDNTLEDGIKELLRAFKMMKVNRFANFN

>WP\_002852990.1 ATP-dependent metallopeptidase FtsH/Yme1/Tma family protein [Campylobacter jejuni]

MKNKKIILASFMVLCMLLGILYFKNEPKYIDENLYQSLLSQNLIQKAVIDKDEIWLKAEGENYVIIKDGI

DIKTLLSKVPVEVKKDNTLWVFFVLLIFIIALFISLGYFARKKELAKYPISNKNQNHTQAQNSNINLESS

HIKPVISNITFNDVAGVDEVKMELSELVDFLQNPKKYKEFGVKMPKGVLMVGPPGVGKTLIAKAVAGEAG

VPFFYQSGSSFVEIYVGMGAKRVRELFSKAKMMAPSIVFIDEIDAVGKARGEMSNVERDSTLNQLLTQMD

GFEDNSGVIVIAATNKIELMDPALLRSGRFDRRIFLSLPDFKDRLKILEIYMKDKNNNINLNKIAKASVG

FSGAGLETLVNEAAINALRRNSALVEESDFYAVLNKVLLGKKKILSFNNEEKKIQATYQAAKALSAYYFD

IGFEKITLIEDRFKEYEHNIRSKSELINRIKVYLAGSRAMRLIYNESYTNSQDDFLKIKELLDYMLSFDM

LKESNLSEQKKEMDEFLNSMKDKILKLSELLLEKEKIEYDDVKDIMQV

>WP\_002851735.1 MULTISPECIES: flagellar protein export ATPase FliI [Campylobacter]

MNLEKLRSKLGKENLSAIFGEITKISATSIEIRGLKTGVGDIVKLVSNENENLNTLAMVVEIKEQFSYLS

PFSFIEGFKIGDRAFISDAGMQIGVSDELLGRVVDPFMRPKDGKGAIEATKYMPIMRAPIDAMKRGLIEE

VFPVGVKTIDALLTCGVGQKLGIFAGSGVGKSTLMGMIVKNSKAPIKVVALIGERGREIPEFIQKNLGGK

LDDTVIIVATSDDSALMRKYGAFCAMSVAEYFKEQGKDVLFIMDSVTRFAMAQREIGLALGEPPTTKGYP

PSVLSLLPQLMERTGKEEGKGTITAFFTVLVDGDDMSDPIADQSRSILDGHIVLSRELTDFGIYPPINIQ

NSASRVMSDIISPEHKLWARKFKRLNSLLKENEVLLRIGAYQKGSDKELDEAISKKEFMQKFLGQNPEES

FEFNQTLELLSQIDTPNTPLPPTQNINVGSASATLPNPNLK

>WP\_002875419.1 MULTISPECIES: copper-exporting P-type ATPase CopA [Campylobacter]

MEELRIKIGKMTCVNCSNAIERACKKIDGVKDASVSYVNSSGVFLLEDQKKRKDIIAKIKNLGFEILEDE

QSLNAYKAKKHLELRKNLLLSIVLSVIIMYFEMFVKSSFSQNIQMALSFFGIFYCGRDFFSHAFLGFKSK

NLDMNTLVALGTLSAFVYSFLVYLQIFKEEDLYFSGAMMIISFVLLGKYLESKAKFKAQDYQRILENIDT

KKTKILLEDESIKEISSSFVKSGDVLLVKEGESIVADGVVLLGSAELDMSFLNGEFLPVLKKEGDEVQAG

AVVLNGALRIKANKKAMDSTLEQIKNLVFEAGSIKSPLANLADQISKYFVGGIIFFAFLVFVFWVLKADL

NTAFLHSCAVLLISCPCALGLATPIALVVASANAAKNFILIKNPAALEKLALVKYAFFDKTGTLTKENLS

IFKHNLSKDDFDKLCQIESLSSHPIAKALHKDHFFDLKGEGRVIVGSGIKYKEDNDNYLVGNAQFLHENE

IDTKESDIFFDTFKEYVRVYFAKNKKCLGGVLLSNALKDGAKELVLNLKKQNLKTFILSGDHVKNVEKIA

KELQIDEFHAQLKSEEKLQIIQKFKKTLFVGDGINDAAALSAASVSMSFSKANELAKKTGDFILIKDDLS

AIFKCFKLAKKTRGIIKLNLFWAFIYNVLCIPIAAGFIPFISLSPHIAALAMCFSSITVVLNSLRLKRI

>WP\_002874287.1 DNA-protecting protein DprA [Campylobacter jejuni]

MASEILPDEFLELFKDLKKPPKKLHYKGNLSLLKQDKIAIIGSRRMSVYTKNCVFSLASMLKNAHLCVVS

GGALGVDITASMAAMPNTIGIFANGLDQIYPRTNEKIIKQIYENALALSEYEDDYLPKNYDFLLRNRLVI

ALSKAVVVAQADIKSGSMQSAKLALELNKPLYVLPQRLGESTATNLLLKENKAKLICDFKEFVSEFASID

MNQDEFLEFCKKGVSVDEALKIYGQKVYEYELEGKISIEGLFIRVLA

>WP\_002858054.1 MULTISPECIES: UDP-N-acetylglucosamine 4,6-dehydratase (configuration-retaining) [Campylobacter]

MIFYKSKRLAFFLTSDIVLILLSVYLAFSLRFSGDIPSIFYHGMMVSAIILLVLKLSFLFVFRIYKVAWR

FFSLNEARKIFIALLLAEFCFFLIFYFFSDFFNPFPRSAIVIDFVLSYMFIGTLRISKRMLVDFKPSRMK

EEETPCIVVGATSKALHLLKGAKEGSLGLFPVGVVDARKELIGTYCDKFIVEEKEKIKSYVEQGVKTAII

ALRLEQEELKKLFEELVAYGICDVKIFSFTRNEARDISIEDLLARKPKDLDDSAVAAFLKDKVVLVSGAG

GTIGSELCKQCIKFGAKHLIMVDHSEYNLYKINDDLNLYKEKITPILLSILDKQSLDEVLKTYKPELILH

AAAYKHVPLCEQNPHSAVINNILGTKILCDSAKENKVAKFVMISTDKAVRPTNIMGCTKRVCELYTLSMS

DENFEVACVRFGNVLGSSGSVIPKFKAQIANNEPLTLTHPDIVRYFMLVAEAVQLVLQAGAIAKGGELFV

LDMGKPVKIIDLAKKMLLLSNRNDLEIKITGLRKGEKLYEELLIDENDAKTQYESIFVAKNEKVDLDWLN

KEIENLQICEDISEALLKIVPEFKHNKEGV

>WP\_002851949.1 MULTISPECIES: RNA polymerase-binding protein DksA [Campylobacter]

MKKNEIQNFKNILEERKKAILENLQSNSNEIEALHNSVPSDSVDFSVIETGSQIDFAISTNLKEELIEIE

DSLDKIKNGTYGICESCDDEIDSQRLKVKPHARYCITCRQIAEQGKKHEN

>WP\_002851178.1 MULTISPECIES: formate dehydrogenase accessory sulfurtransferase FdhD [Campylobacter]

MDPLFTTQILKYKGDESFTCNDTLVREIKLEIFINDEKVGALMATPVDEQALAIGYLMSENIIAKVSDIE

SIETKDDGMSVHIKAKIDKENLAKLNAEGVVISGCGRAHTANIDPEAIEASKISSDAKFSKDEILKQMST

FYTQCELYEKTGCVHTAKLFVDEKTFFIGEDIAQHNTIDKALGKACLAGVDLSQCFLMVSGRLSSEMVAK

AVMHKIPVLVSRTAPTCLGVMIARKFDLTLCGFARENKINIYSGEFRIHG

>WP\_010891928.1 DUF115 domain-containing protein [Campylobacter jejuni]

MNLLEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELKVYKVVLFDCVAKDLEIQI

AMIFDQQSILEYLSLYEMFISSHYYLKYYETSILSLNELCIKSASVAIRNADITCFLPLLTHGQFLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENLKQSIIALECATHPNIVRSLNAENCMIVLRNKALYQRFNLNDFGYIDTGTHVSHF

SYTLALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRI

KLEYLFACNEQKAKFYNATEGGARINFTEELSFKECCEKFLTKEKPQFELPKSLTKNRSDKLLVKFKEKI

QKDQDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDETLRGAFAYRGK

MIADVLKLHIQDKTHFITAYIKAYHEWLLYFIEKLEQKYKSLSKV

>WP\_010891926.1 MULTISPECIES: DUF115 domain-containing protein [Campylobacter]

MREENNFNKNLKALSGFEYNNLRKKLEDLKELREFTFTQGKDNLDINIIKKRNLKKMYQDPIKELEKNLE

YFKDFTRYPVLFFYGFGNGILYKILLQNQALKRIIIFEKELELIFLALNFIDFSKDLSLGRLIILHHDDI

NLPKMDKVFRLIGDLFYRSYNLHIANDFYEHYKEDILKLNKLNMQIIKNHNLMHGNDPKDALQGIEQFVY

NLPSMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGIKPDYV

CMLERDEIVAECFNNDFKDFDKDIIFLVASLVHKKTISYLKKNKRKYILIIKGQPFARCLGLDDYGYINA

GMSVSHMAYELAENLGHNNIILIGQDLAYAKDGQTHSQGFIHANLHNGDYERDLDRFSTTAYGGNGKVQS

SEIWTLFRQIFENFIAFSKSKTYNCTEGGARIESAIEKPFKELCEDLLKNKKDKKFKKLQVLNTKEQVKL

GLKIYQKIKKNMNLSLNFKKECKKVQKQIHNLTHGKNKLSLEQINQNIDKIKEKLSNKKYLFLQEILGPT

LHHEQSILTPLYLKDIKDESDKQNKLFAWVYAHEALIENIIELLEVQDKRLKIAILPLLDFLEKKKAL

>WP\_010891924.1 DUF115 domain-containing protein [Campylobacter jejuni]

MGLMMTFTPTQKELFNKNIEALSNLFLKESLKEIKSSKFELILGKDNLDINLKDTSDNTFLYENVIDELN

SMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQSARLMIL

QTSSLDIELFSNFCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLVQDFKDSILSHGNDPLDALQG

IEQFVYNLPQMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHN

IKPDYVLSLERIPLTSEFFNNDFGEFDKDILFVLKSYVHPHTTKYLQKNNRNFMLVSTYASFINYLKLDD

FGYFNMGFSVANMNFLLAIHLKHKNIVLIGQDLAYAKDGLSHTKDYSNLDKHEGHFQRDKNKYTTQAYGD

NGKVESSFVWTLFRHNFEQDVANAKKNYYITTYNCTEGGARIEGTIEKPFLWACENLLHKDLNKPFEKLE

PLSLNKQNEFLLKAYYKVYQSIKHCRDFSNKFIKSYDKIKNSFMSLQNSQENETLIKEIIKDIDKIKTQI

DELYNTQKDLMQILGPLLTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIK

NILPLEEKLKERKLDKWMERVRR

>WP\_002864554.1 MetQ/NlpA family ABC transporter substrate-binding protein [Campylobacter jejuni]

MRKGEKMTLFTKAFCVATLFTGFAWANEELKVGSSITPHADILRFIKSALQKQGYDLKIYEFNDGVIPNV

MVENGELDANYFQHEPYLKEFNQRQGTHLVKVASIHIEPMAVYSKKHKEFHPKEGQSISIPNNPTNESRA

LRIVVSKGLIEVKDNELITPLDITKNPKKLKFVELKDAQLTRSLDDVDYSLINSNFAILAGLNPVKDGLY

TESKYSEYGNIIAVKEGNENLPKIKALVKALQSNEVKKFIEEKYQGALIPTF

>WP\_002852410.1 MULTISPECIES: MetQ/NlpA family ABC transporter substrate-binding protein [Campylobacter]

MKIKSLFIASILTLSLNANALETITVAATPVPHAEILEQVKPDLEKQGYKLEIKEFTDYVLPNLAVDNGE

ADANFFQHTPYLEEFNKNKGTKLIKVAAIHIEPMAVYSKKYKSLDDIKEGVKIAIPNDPTNESRALDIIA

KKGLVKFKDKALKTPLDIIDNPKKIKFVELKPAQLPRALNDVDFAVINSNYALSANLNPAKDSVFIEDKE

SPYANILVVRVGHENDPKIKALIQALQSDKIKQFIIEKYNGSVLPAF

>WP\_002852093.1 MULTISPECIES: acetolactate synthase, large subunit, biosynthetic type [Campylobacter]

MKELSGSAMICEALKEENVKIVFGYPGGAALNIYDEIYNQKYFKHILVRHEQAALHAADAYARMSGEVGV

AIVTSGPGFTNTITGLATAYSDSIPLVLISGQVANSLIGTDAFQEIDAVGISRPCVKHNYLVTCIEEFPR

ILKEAFYIARSGRPGPVHIDVPKDVSATLGLWEYSKEISMKTYKPVYKGNSKQIKKFAELLKEAKRPLFY

LGGGCISSNASEQIRELIKFTKIPAVETLMALGTLRSDDVFNLKMAGMHGSYAANMALSECDLLVSVGAR

FDDRITGKTSEFAKHATIVHVDIDPSSISKIINAHYPIVGDIKEVLKELLEELKKENFNTTFKEWHETLK

RYNELYPLSYEDSNEILKPQWVIEECAKMAPDARIITDVGQHQMWVAQFYPFNYPRQLATSGGQGTMGYS

LPAALGAKLAVGEEVVINFVGDGSVLMNIQELMTAYEYGIKAINIILNNAFLGMVRQWQSMFYKEHFSQT

DLSTQPDFIKIAQGFGCEGYEISNKEEFIQAFSQALKSDKTSLLNVKIDRFEDVLPMVPAGGAIYNMILP

KAKDRQ

>WP\_002851842.1 MULTISPECIES: cytochrome c [Campylobacter]

MQKAKILIALSFFLLVLSACSNDEKNISKTQNTDQEVVQIEQNDEKTELSDSNLPLPVDDEAQSSNDEHE

VNPSIINSLYKQKCATCHGEKGELKPKNSTAIKTLSNKIFIQKIKTIKDKNHSFLSDEQIQNLADFINKG

K

>WP\_002826913.1 MULTISPECIES: NYN domain-containing protein [Campylobacter]

MENKSIAIFIDAENIPAKYAKSIFDIASDYGEVIIKRIYGDWTQKNIQGWREQIAEYSLIAMQQFNFAAN

KNSSDMYLITEIMSIFYEKNIDIFVIVSSDSDYTSLIQKLRENKKQVIGMGLEKSIKSYVNAFSEFFYLD

KDESKKEDILSKDYLRALINITEQLIDEKGRAEYAQIRTNMNRKYSDFHPQNYGFKNFRALIQKFLPKMK

KFEEEREKNIYFLVKKDYESYY

>WP\_002858665.1 MULTISPECIES: YigZ family protein [Campylobacter]

MQTIDQIFQTQIDIKKSTFLSFLCPFKDFKFLIETLKKEHPKAVHFVYAYRVLNDFNQIVEDKSDDGEPK

GTSGMPTLNVLRGYDLINAALITVRYFGGIKLGTGGLVRAYSDAANAVINNSSLLSFELKKNTTIAIDLK

NLNRFEHFLKTYSFNFTKDFKDCKAILHIKLNEKEEQEFEIFCKNFAPFEIEKL

>WP\_002857891.1 capsular polysaccharide biosynthesis protein [Campylobacter jejuni]

MKYYSISKKLIANVRNFYTISLYKKNLKIKKDDLFFGWGRKKSGLKAMNLAKKYKAKFILLEDGFIRSLN

LGVENSPSFSMVKDDIGIYYDATMPSKLENLLNTCEFKDEEIKQAKKAIELIKKYKISKYNNNLDIPDNY

FQKDEKRVLIITQTANDASLEFGLAKDFKTLDMIKDAIKENPKSTIYIKIHPDVLSGKKQSDLDLNSLPK

ECILITENFNPIALLEFFDKVYTKTSGMGFEALMQECECICYGMPFYAGWGLTKDKLECKRRMQKRSLEE

VFYAAYILYAEYFNPYLNQKSNIFDTIQTLAKYKDIEKVNSNKLFMLGFTLWKRHFIKPFFKAKDNEIIF

LNSLKSLARYKLKENDKFFIWGKRIDYNALKTTLIKKAQDENLLHFTPKISLVEDGFIRSISLGSDLTRP

FSLIVDDKGLYIDPNKASKLEELLQNEIFDENMLNRAKNIIKILLENRFSKYNGLKHEDLKINAKIGQKI

ILIPAQVEDDASMILGGFGLSTLDLLKEVRAKNQDAYIIFKPHPDVLSGNRVGLKDETLILEFCDEIVKD

CSIDSAIKIADEIHTITSTSGFDALLRAKKVFTYGMPFYAGWGLTKDKYRCERRIRKLSLEELVAGALII

YPRYINPKTKTLCEIEVCLDIMLNLQKAYFSKKYIKLAIDFKTFMLRKIRRFYEFLAKK

>WP\_002856595.1 MULTISPECIES: acetyl-CoA carboxylase biotin carboxylase subunit [Campylobacter]

MNQIHKILIANRAEIAVRVIRACRDLHIKSVAVFTEPDRECLHVKIADEAYRIGTDAIRGYLDVARIVEI

AKACGADAIHPGYGFLSENYEFAKACEDAGIIFIGPKSEVIHKMGNKNIARKLMAKNGIPIVPGTEKLNS

YSMEEIKIFAEKIGYPVILKASGGGGGRGIRVVHKEQDLENAFESCKREALTYFNNDEVFMEKYVVNPRH

IEFQILGDNYGNIIHLCERDCSIQRRHQKVIEIAPCPGISDNLRKTMGVTAVAAAKAVGYTNAGTIEFLL

DDYNRFYFMEMNTRIQVEHPITEEITGIDLIVRQIRIAAGEILDLEQSDIKPRGFAIEARITAENVWKNF

IPSPGKIGEYYPALGPSVRVDSHIYKDYTVPPYYDSMLAKLIIKATSYDLAVNKLERALKEFVIDDIRTT

IPFLIAITKTREFRRGYLDTSFIETHMQELLEKTEDRHQENKEEVIAAIAATLKKIRESRE

>WP\_002852580.1 MULTISPECIES: copper chaperone PCu(A)C [Campylobacter]

MKKILLLGALFAVNLWAVNDIEVKNAFVKQTPPHAQNSAIFLTIFNNTNKDIALISAKSDISEVSELHTH

IHKDGKMMMQKIPEIIIKAHSSTELKSGGYHIMLLKLKKPIIKDTKVNLDLKFNNHKTIELKNIDSKEF

>WP\_002852483.1 MULTISPECIES: MetQ/NlpA family ABC transporter substrate-binding protein [Campylobacter]

MNLFKIIILACILNLSSLFAQNITIGATPNPFGSLLELMKDDFKNKGYELKIVEFSDYILPNRALEEKEL

DANLYQHKPFLEEYNLKKGSNLIATTPVLIAPVGVYSKKIKNLENLKEGARVAIPNDATNESRALELLEK

AKLIELNKNTLKTPLDINKNPKKLKFIELKAAQLPRALDDVDIAIINSNFALGAGLNPSKDTIFREDKNS

PYVNYVVVRSEGKNSEKTKVIDEILRSDKFKAIINEHYKDILIPAF

>WP\_002852318.1 MULTISPECIES: U32 family peptidase [Campylobacter]

MIIPEIVAPAGNFTKLKIALAYGADAVYAGVNNFSLRSRTAREFNYESFEEAIKYTHERGKKIYVTLNGF

HLSSQIEGLKRHILKLREMKPDAFIVASVGAMRLVKELAPEISLHVSTQANILNYLDAQVYKDMGAKRVV

IARELGLKDAKALKENCDIELEAFVHGSMCFAYSGRCLISSVQSGRMSNRGSCANDCRFNYELYAKNPEN

GTLFRLEEDENGTHIFNSKDLNLCSYIEKIMQENCISAFKIEGRTKSEYYVALTTRTYKMAIQDALEGKF

ESSKYEKEIATLKNRGFTDGYLVSRPLEKTDTQNHNTSIEEGSHQVHAISEDGRFFKCKGKIVLNTPYEI

LTPLGDVIQTCDNELGKIYQKEGKYFIEFKKLIAKNNKEFSEIHSGNEHEIQLPNKISALSFLRKEI

>WP\_002893866.1 TerC family protein [Campylobacter jejuni]

MFEWIFSIDAWITLATLSALEIVLGIDNIIFLAILVSKLPPEHRDKGRILGLAFAMITRILLLLSLFWVM

KLVTPLFSVLGNEISGRDLVLLLGGLFLIVKSIKEIKEQISHQEESQSHFKASNKLWIVVAEIAVIDIVF

SLDSVITAVGIAQDVTIMIIAVIIAVAVMLFASKPIADFVEKYPSIKILALAFLVLIGVVLVAESFDIHI

DKAYIYTAMAFALVVQILNILDQKKEKNG

>WP\_002852406.1 MULTISPECIES: MetQ/NlpA family ABC transporter substrate-binding protein [Campylobacter]

MNIKKIFLSVLFTISLSFGADKTIIIGATPTPYAEILNFSKPLFQEKGWKLIVKEFNDYNIPNIALNEKD

LDANLYQHKPFLDDFNTHKGTKLSSLGAIVLVPMAIYSNSIKDIKDIPNGAKIAIPNDATNESRALDLLA

KANLIEFKSQSTLKTPIDISKNPKKLKFIELKAAQLPRALNDTDLAIITTNYALGAGLNPLKDGIFMEDK

DSLYAIVLATRKGEETSQKSLVIKEILTSDKIKNFIIEKYKGSVIPTF

>WP\_002851810.1 MULTISPECIES: flagellar motor switch protein FliN [Campylobacter]

MINDFLKMFTNECISTIEGLTGKSAEFSEYKEFDVNTSDTLKAPLVYAIFNIANGGKIGILAGAILMSAI

GEWMMGEEEITKNDKLGPDEMDAAKEAIQNIISAFSTTLGAQKDIPKMDFSIESCEFVPESVDFKDFKKL

FLYDVKIGDLEEQVSLAMDQTLHNILSGKPAETGNTSTDSNHNTEEKAIMLSEELKNINLIMDVRLPVRV

RIGNKKMLLKDVLTMDIGSVVELNQLANDPLEILIGDKRIAYGEVVIVDGNFGVQITEIGSKKERLEQLR

>WP\_002858741.1 MULTISPECIES: prephenate dehydratase [Campylobacter]

MPNLEEFRNKIDAVDDKILDLLNERMTYVKSIGELKQSSGGSIYRPERERAIINRLKNANLGLLDQNAIE

AIYQEIFAVSRNLEMPQTIAYLGPEGTYTHQAARSRFGAMSRYIALANIEDVFKELSNKEAKYGVVPIEN

NTEGAVGITLDCLGKYNELKIFGEIYMDIHHSFVGINENLKEIKRIYSHPQGYNQCRKFLESHELSAIEF

VPSKSTANAAYLASQDKYAAAICSRIAAKLYNVPVLFDKIEDNAANKTRFLILSDIKNPKMPNCKTSILA

HTAHKPGGLSFLLEQFKKENINLTKLESRPVKSKEFLHSFYIDFEGHIDDENVKKALKDIQEIVWLGSYL

SGEKDEI

>WP\_002851155.1 MULTISPECIES: ATP-binding protein [Campylobacter]

MKVLNFFYENHPKFEVSYERKNQISKPNIIIKGPRFCGKKTLIFNFLSQFKASEILFLDLYDTRFEKQSL

ERLADFLNENLQIKILCLYNLDFIPNLEKINIPIILSTNIKDLNVNGFEELELDYFDFEEFISVSKKNLP

INNLVGLFLQSGRSKFGEKNILLRQSFTLLELEILKYLALNLGQQISISKIFIELKKRLKTSKDSVYQAI

KKLENTYVIYTLKHDEKKLQKIYFKDFGLRNNLCISKDFSHLFENLVLSELFKFKEEFFYNKYFNFYSQI

SKIAYISSPTLDIDLIKLRAKKILPKALELGIFHVIFITLSSEDNFFEQGVKFEVISFDKFSLGF

>WP\_002851617.1 MULTISPECIES: peptidoglycan-associated lipoprotein Pal [Campylobacter]

MKKILFTSIAALAVVISGCSTKSTSVSGDSSVDSNRGSGGSDGWDIDSKISQLNDTLNKVYFDFDKFNIR

PDMQNVVSTNANIFNTEVSGVSITVEGNCDEWGTDEYNQALGLKRAKAVKEALIAKGVNADRIAVKSYGE

TNPVCTEKTKACDAQNRRAEFKLSR

>WP\_002816247.1 MULTISPECIES: adenosylmethionine--8-amino-7-oxononanoate transaminase [Campylobacter]

MQNQILKNLDLKHIWHPCTQMKDHETLPLIPIKKAKGVWLYDFDDKAYMDCVSSWWVNLFGHCNEKIANA

IKKQVDELEHVILAGFTHEPIIKLSARLCEKVGRNFNKCFYADNGSSAIEVALKMSFHYHLNKGVKKSKF

LSLSNSYHGETLGALSVGDVALYKDTYKALLLECLSTPVPQGKDYTKELEILKDILEKNASEICAFILEP

LVQCAGNMHMYEARFIDEAIKLCHKFGVQVIFDEIAVGFGRTGTLFALHQCKQSPDFICLSKGITGGFMP

LSVVLTRDEIYNAFYDTYESQKAFLHSHSYTGNTLACAAANAVLDIFEDENILVKNQILSEFIKKEFSRL

EKFDFLGNFRTCGMISAFDILSTKYKRVGLFVFQKALEKGLLLRPLANTIYFMPPYIITKEQIVYVLESL

EQIFKEF

>WP\_010891948.1 MULTISPECIES: bifunctional diaminohydroxyphosphoribosylaminopyrimidine deaminase/5-amino-6-(5-phosphoribosylamino)uracil reductase RibD [Campylobacter]

MSNFKIQGRQMKEFYMNLALNEAWKYQFLTYPNPAVGCVILDKNEKILAIKAHEKAGLAHAELNAIAHAF

KSLRPEISLPKEANALHEFICKNHQGVFKDSIAFVTLEPCSHQGKTPPCAKLFSELGFKKIFISVKDENK

IASGGAEFLKKQGIEVEFDILKEEGKKLLKPFLKWQKGQFKLFKLALSMNGSPFGKIVSNELSRTYAHEI

RAVIDLLVVGGETIRKDCPILDARLCKAKAPNLCILSRQNIDNFDKNIPLFKVPNRQIYTQIPSEAKFLM

YEGGENFLKIFKDEIDMFLIFQSSSLNDEKNVTIPLNFKPLYRNFLGSDTYGIYEL

>WP\_002858520.1 NADP-dependent isocitrate dehydrogenase [Campylobacter jejuni]

MQITYTLTDESPALATYSFLPIVKAFLSRAHIGVKTSDISLSGRILATFSEYLKEEQRCEDALELLGELV

KRSDANLIKTPNISASIPQLKAAIKELQDKGYMLPNYPDEPKNDEELQIKTKYQKVLGSAVNPVLRQGNS

DRRSTKAVKDYAKNNPYRVVEFNPNSKTRVSYMKEGDFFSNEKAVLIDQDCVANIEFTSVDGKKEILKEG

LKLEKNEILDATFMDVQKLQEFYAKEIKASKDDDVLFSLHLKATMMKVSDPILFGYAVKVFFKELFIEFQ

DEFEKLGINPNNGLSELLSKIENSSKKDEILKKYSEILAKSADISMVNSDKGITNLHVPSDVIVDASMPA

MLKNGARLWDKEGKEKDTNAVIPDQTYATIYEAVIEDLHKNGTLNPSKLGSVSNVGLMAKKAQEYGSHDK

TFVAKEEGTFKIVSNGKVLLEHKVRKGDIYRANQAKFDAVLNWIDLGIERSELSGAEAIFWLDSKRASNK

IMITLVQNRLKEKGKNVAILTPKEACLRSLELIREGKDVISITGNVLRDYLTDLFPILELGTSAKMLSVV

PMLNGGAMFETGAGGSAPKQVEQLVEENHLRWDSLGEFLALQASLEFYANKCGNHKAKVLAECLDEAIGE

WLENNKAPSRKVKEDDNRTSHFYLAMYFANHLARQASDMELQSFFKDIALELSSNEEKIRAEFNDAQGVK

VDLGGYYKFDDEKANKIMRPSATFNAILEKIGQR

>WP\_002864147.1 MULTISPECIES: aminotransferase class V-fold PLP-dependent enzyme [Campylobacter]

MYLQISDLKKELILKKGILHFDFTASALALKCVEKEILKILPTYANTHSDSSLNSFKTQQTYEQARKDIK

KSLSLDENFALIACGTGSSSAIKKFQELIGIYIPPLVKERYFTQIDKNTLPLVIVGPYEHHSNELSFREG

LCECIRIPLDKNGEIDFDFLEKTLQKNKKRKIIASFSLASNVTGILSDYKRISEMVRKFKGIVAFDASSF

IPYKNISCQYYDALFISSHKLIGGIGGSGLLAIKKDLCGNKPSFAAGGTVGYVSRTSQCYLCNEEALEEG

GTPGILQLIRASLAFKIKDSIGVKNIEKKEEILKDYFFEKLKTIPNLILYAKNLKTRLPIFAFNIKGISP

FDIAYELSKKYHIETRAGCACAGPYGHDLLGLKDNQKLKTKPGWLRISLHYTHEKEDIDYFFNALNKTIV

KLSH

>WP\_002855690.1 MULTISPECIES: alpha/beta hydrolase [Campylobacter]

MKKILFLFCSFFLAFAKPSLEIPKLSKQAKQNFILENVKFNYNGTIYKIFIAKNKNENSNYKYKIIYLLD

GNAFFPLFLNLFNTPVKENLLIIGIGYDNNLAFDTQKRTKDYTPTTNLNKQGGGSKEFRNFLITQLIPYI

NKMYPIDFSHQILFGHSFGGLFAIDTLLYDSKIFSHYFIISPSLWWDNSEFLPNIIKLQTCPKIYIGLGS

LETNSSIIKGVAKLNAQKLSEKISKETNCKTHFKLFKNETHGSVISKAMLWMKKLLDLN

>WP\_002852232.1 MULTISPECIES: trimeric intracellular cation channel family protein [Campylobacter]

MEINALTITTLYIIGISAEGMTGALAAGRHKMDLFGVIFIALVTAIGGGSIRDVLLGHYPLTWVKHPEYI

ILICFCALVATKIPRVVTKLETLFLTLDAIGLVVFSILGAQIAIDQNHGFIIAVAAAVITGVFGGILRDI

LCMRIPLVFQKEIYAGIAIIAGAIYYSLIIWLELNALVCTLLTLFIGVFARLLAIKYQWSLPIFSYNEEK

>WP\_002864198.1 MULTISPECIES: ribosome recycling factor [Campylobacter]

MIMLNEIFNKQKTQSEKSLEALKKDFTTLRTGKVNIHILDHITVDYYGTQTPLNQVATVLASDASTISIT

PWEKPLLKTIESAIAAANIGVNPNNDGESVKLFFPPMTREQREENVKQAKAMGEKAKVSIRNIRKDANDA

VKKLEKDKAISEDEAKKAYDEVQKLTDTYTTKIDEGVKSKESELLKV

>WP\_002852522.1 MULTISPECIES: bifunctional aconitate hydratase 2/2-methylisocitrate dehydratase [Campylobacter]

MSFMQEYNKLVEERAALGIPPLPLNANQTRELCKLLENENNEELANLLENRVNPGVDDAALVKCEFLDSI

LKGKISAPNIDKKRALRMLGTMLGGYNVKVLIDALKDENIAKDAAEVLKNIIFVHDNFHTIAELSKNNPH

AKEVLQSWANADWFNKKEKLPQVIKCIVFKVAGETNTDDLSPAGDAFTRSDIPLHANAMLKVRQTGSLEK

IKELKKSGREVVYVGDVVGTGSSRKSAINSIQWHLGKEIEGVPNKHSGGIIMGSTIAPIFFNTAQDSGAL

PIICDVTNLEMGDEFEIHPYEGKIIKNGSTIAEFTLSPNTLLDEVRAGGRIPLIIGRGLCTKAREFLGME

SENIFTKPEQPKSSSGGYTLAQKMLGRACGVEGVRPGMYIEPITLTVGSQDTTGPMTRDEIKELASLGFN

ADFVMQSFCHTAAYPKVSDSNLHKTLPNFMTSRGGVSLKPGDGVIHSWLNRFVLPDTVGTGGDSHTRFPI

GISFPAGSGLVAFAAVTGSMPLNVPESVLVRFSGELQAGVTLRDLVNAIPYYAIKQGQLTVEKKNKKNIF

AGKILEIEGLPNLKVEQAFELSDASAERSAAACSVDLSIESVSEYIKSNISLIEAMIEVGYENKATLARR

AEKMREWLKNPTLLRADKDAKYAYIIDINLNNIKEPILACPNDPDDVATLSEILADDKRPKNIDEVFVGS

CMTNIGHYRALGEILKDKGILKTRLWVVPPTKMDKAQLINEGYYSIFGAAGARIEVPGCSLCMGNQARVN

DGAVVFSTSTRNFDNRMGMGAKVYLGSAELAAVCAILGKIPSKEEYLQIVSEKLSNEHKANIYRYLNFNE

IENFKLEN

>WP\_002858625.1 GatB/YqeY domain-containing protein [Campylobacter jejuni]

MTLKEQILNDIKEAMKQKDDFKRDSLRTLNAAFKQIEVDERIELDNERIYKIIASEIKKRKDVIELYLKA

NREDLAQKEQNEISLFEIYLPKQLSDEELTLALKQLIEELGVSSLKEQGLVMKEAKIKLGASVDGKRLNL

ALKELLQ

>WP\_002852995.1 MULTISPECIES: magnesium transporter CorA family protein [Campylobacter]

MLELHENLKKILQAKNLETFYSEIYGQKIFVYVGLNLETWLFNDEKIYKLQDGEFKLSSIEEFSNFIKSI

LEDFKVQNTHFQNLLEHKEGIILKGGFVKNFYKKSFVLRQKINKNLKQINLLSEAFNLLLSEQAQYKKHL

KILNLSISILSKNTKEHLARIDTLYTLTNAIKNEKMNKSIYLLSILSSIFLPLNLIVGFFGMNTNNLFFK

DSPYGTLYIFSLICCILIVGFIFYYSKKTKEFDLDEGKKAKKQTK

>WP\_002852587.1 MULTISPECIES: thiol:disulfide interchange protein DsbA/DsbL [Campylobacter]

MRNFFCKFVLALVFYSSFALANNSFITLNPSLPSSENSVIEAFSYKCIHCYNHHKFGTLEKLREAFPNLH

FKLYPVSLMNGEFSKEMNELFTFAQYKDEQNGKDASYSDSLSHKLADVYFVSYFLNKQRNFSNLDEFYDI

GLKAMNVNKNEVLNFLNTPKAKEILSEFQRANDIAKTYGTPAFVVNGKYQINPSAINSMQDLEDLVKKLS

NMK

>WP\_002851929.1 MULTISPECIES: PhoX family phosphatase [Campylobacter]

MERRLFLKGSALGSMVAFFASSNLSAAMLKDKDLLGFKAVSASTQDKVIVPQGYEAKVLISWGDPLFSKA

KPYDENKIIDMNAVKNAHLVFGDDNDGMSFFPLSKNRGILAVNNEYINPEIMFNHHGKNLSKEDILYEQA

SVGVSILEIEKKGDDWTVVLDSKYNRRIDANTKMQVSGAAKKEVLKNEKFVHGTFANCANGQTPWGTYIT

CEENFDDFFGSLDENLEFNDSLKRYGFNKTSLYGWEKFDERFDLAKNMDEANRFGWIVEINPFDAQSTPV

KRTSLGRFKHENAEIIVEKDGSVIVYMGDDEMNEFIYKFVSKHKYKKGADTSKILDEGILYVGQFNGNVG

DFKGQGKWIALEYGKNSLNEKNGFKSQAQVLINTRLAASIVGATPMDRCEWIASHKQSGSKEVFATLTNN

KNRQEPNAANPRTKNVYGQILKWMPKNSHKDDDFTWEIFALAGNPDNQQGLYKGSNNITSENKFNSPDGL

KFDRDGRLWIQTDGSYSNKDEYESMGNNCMLAANPKTGEIRRFLTGPIACELTGIAFSEDYTTMFVGIQH

PGEGLKGSTFPYGKTPRSSVMMIRKLDGGVIGS

>WP\_002851661.1 MULTISPECIES: peptidylprolyl isomerase [Campylobacter]

MAIEKNSVVSMFYELKDANTNEVLESNLYSQPISFILGKGQILESLEEEVMKLDCPSNADVVIKKEKGLG

EYDENAVQTLPKEQFAGIDLKVGMELFGEGENGETVRVTVKEIGENDVTIDYNHPYAGRDLLFSLNIVDA

RAASEDEILTGIIAGSHSCGCGSGHGHDHHHGHGHGGGGCCGGGGCGCH

>WP\_002890722.1 MULTISPECIES: RNA-binding S4 domain-containing protein [Campylobacter]

MRVDKFLNVVNITKRRAISEDMCKSGVVGINGVIVKASKEVKVDDIITLHFTEYTQKYKVLALPSTKSIP

KNAQNEYVVKL

>WP\_002859067.1 MULTISPECIES: endolytic transglycosylase MltG [Campylobacter]

MTIPFLSTINKANISTTKNTTIYKIFFFIRNFFLIFILGIFYYLTQPLKSNSVVFIPQGSISQIITYLKQ

NKYQMSNIDKYILFFLGHPQSGWINIGTKDLNRAEFLHKLTIAKAALQTITLIPGETSVIFLEQAAKQLG

LDKDILLKEFQAQAPYDEGVFLPETYKIPKGITENLLIQMLLNHAEISNKKTSEKIFGDYNPKKWHQYII

IASVIQKEAANDNEMPIVASVIYNRLKKGMKLQMDGTLNYGIYSHVKVTPQRIRQDNSSYNTYKFTGLPK

EAVCNVSLAAIRAAIFPLKTDYLYFVRDKNTGVHIFSTNIDDHNKAINLQKGK

>WP\_002858611.1 MULTISPECIES: phosphoribosylformylglycinamidine synthase, purS protein [Campylobacter]

MEVIVNISLKNGVLDPQGKAVEKALHSLNFNSVKEVKIAKQIKISLDEKDEKLAKEQVKKMCEELLVNSV

IEDYELIIEKE

>WP\_002843095.1 MULTISPECIES: multidrug efflux system transcriptional regulator CmeR [Campylobacter]

MNSNRTPSQKVLARQEKIKAVALELFLTKGYQETSLSDIIKLSGGSYSNIYDGFKSKEGLFFEILDDICK

KHFHLIYSKTQEIENGTLKEILTSFGLAFIEIFNQPEAVAFGKIIYSQVYDKDRHLANWIENNQQNFSYN

ILMGFFKQQNNSYMKKNAEKLAVLFCTMLKEPYHHLNVLINAPLKNKKEQKEHVEFVVNVFLNGINSSKA

>WP\_002853623.1 MULTISPECIES: acetyl-CoA carboxylase biotin carboxyl carrier protein [Campylobacter]

MTKEEIKELVNLFAEANISKIKIKEQDGFEIELERDMCCDVPAPVCPPVPAPQPINVSVVNEAQPSQSVK

SNKPSINSPMVGTFYQAPSPGAAPFVKVGSTVKKGDTIAIIEAMKIMNEIEAEFDCRIAEILVADGQPVE

FGMPLFAVEKL

>WP\_002851874.1 MULTISPECIES: YraN family protein [Campylobacter]

MGVKAYLDGILGEDKACKFLKKQGFEILKRNFHSKFGEIDIIAKKDEILHFIEVKFTQNDYEVSERLDRK

KLEKILKTIEFYHLKNGISSDFQIDLICIKNDVIQFCENISF

>WP\_002858205.1 MULTISPECIES: multicopper oxidase CueO [Campylobacter]

MNRRNFLKFNALTLASMGVAYANPMHDMHSMHKNHSINHDLDTSFINFAPKNLKLLDPKQFPQGEILKAL

PLLKNESKEKNIFRATLEIKENHIELIKGKKTLFYTYNGLVPAPKIEVFEGDKLEILVKNKLKEATTIHW

HGVPVPPDQDGSPHDPILAGEERIYRFEIPQDSAGTYWYHPHPHYTASKQVFMGLAGAFVIKAKKDALSH

LKEKDLMISDLRLDENAQIPNNNLNDWLNGREGEFVLINGQFKPKIKLATNERIRIYNATAARYLNLRIQ

GAKFILVGTDGGLIEKAIYKEELFLSPASRVEVLIDAPKDGNFKLESAYYDRDKMMVKEESNTLFLANIN

LKKEKLELPKNLKIFKPLEEPKEFKEIIMSEDHMQMHGMMGKSENELKIALASMFLINGKSYDLKRIDLS

SKLGVVEDWIVINKSHMDHPFHIHGTQFELISSKLNGKVQKAEFRAFRDTINVRPNEELRLKMKQDFKGL

RMYHCHILEHEDLGMMGNLEVKE

>WP\_002858100.1 MULTISPECIES: isopenicillin N synthase family oxygenase [Campylobacter]

MNLPILDLQAYEKDKSTFLKNLREIASKIGFFYLINTSIDKNLNEKLFKLGKEFFNLSRSSKELISMVHS

PQFRGYTSEGFEYTAGSKDYREQLDIGTERDALNWNLNSPLWQRLEGPNLWPSEIPELKKTFLTWHKQTK

KACLKLLKAFAQALDLPNNAFDKLYGENSYEHCKIIHYPKSSKNITQGVGSHKDGGLITFVFQEKQSGFE

AFIDGKWLSIPPLENSVVVNIGEFLELATNGYLKATIHRVNLSPKERFSIAYFLGVQLDKDIPIFKLNPE

LAKESKGVDTDPKNPLLRNVASNYFKRMIRSHPDVASIYHSDLIEKFSFA

>WP\_002857605.1 MULTISPECIES: Ppx/GppA family phosphatase [Campylobacter]

MAKKTAVVDLGSNSIRMVIFEKTSRYGFYTTCEYKRKVRLGENAYNNGKILQEEAMQRAEDALAFFKQCA

LKHKCKKIFIVGTSALRDAPNSKNFIKRIKDNLSLNIRCIDGKSESYLGGLAALNLLSPFKDGTTLDIGG

GSSELCLIKNNRIISCISLDIGTVRLKELFYDTGKMDSLEEFIKPILEQIPKEFCNQNLIAIGGSLRAIS

NSIMQKNSYPLKNLHDFRYMLDEEKGHILKIFNSNLDSLINFGIKKDRFDTIKEGIFIFLKIAEKIKAKQ

VITSGVGIREGVYLQDLLRPKITFPPNFNPSLKCLQDKFLQSKQKNKTPHFALQIFTTLKNLHKLNDNYK

HTLLNAAKLCHIGEYLNFYFANEHSAHFVLGGLNYGFSHKEKALIASIIKLNGKKVNPYNLEPYKQLLPN

IHTISWLNFILCLAKTLSANEDKIDFAFANNTLYIYQENKILNLPKDELKKIAKPATIALAINQKI

>WP\_002856815.1 MULTISPECIES: S41 family peptidase [Campylobacter]

MMELILKTKRFFAGLAGFATTFILCLFLTSHLQAKVDQKEEQVQKRLEALDKLTKTLAIVEQYYVDDQNI

SDLVDKSLSGLLSNLDAHSSFLNEKDFNDMKIQTNGEFGGLGITVGMKDGALTVVSPIEGTPADKAGIKS

GDIILKINDEATLGINLNDAVDKMRGKPKTQITLTIFRKGATKPFDVTLTREIIKIESVYAKMIENENIL

YLRVTNFDKNVVDVASKELKKYPNVKGVILDLRNNPGGLLNQAIGLVNLFVDKGVIVSQKGRIASENQEY

KADPKNKISNASLVVLVNGGSASASEIVSGALQDLKRGVIVGENTFGKGSVQQIIPINKTEALRLTIARY

YLPSGRTIQAVGVKPDIEVFPGKVNTQEDGFSIKESDLKQHLESELEKIDKNKKEDKQENKDNKNLISQK

QINDDAQLKSAIDTIKILNIKQGQ

>WP\_002853555.1 Ppx/GppA family phosphatase [Campylobacter jejuni]

MLGIDLGSNTLRAVQMDEKLNKLKEYEFVIGAAKNLNQSGEISKEAIQRLKNTLSILAKEQDLSKARAVA

TAAFRKASNTNEIFAHLKKEFGIDFKLIDAKSEAKISVLGMQSGLRRLKIWGEFAYCDLGGASCELSFGK

SFKSFDFGIISFYEKNYHSYYKSCISYKKLIKKYPKFIINIKDKKLKIHFLIANPYLKHLAFRAFDEVAM

IKKELRSLGAKTVVLNSGVPTTLSALKQNISYEKYEATKVNGKKLCHKDFLNYAIKLFHMEEKKAIKEVG

TMRKNYLSAGCLLFYALFDKHKLLVIDEGLREGVCLASMKNIKF

>WP\_002852904.1 MULTISPECIES: M23 family peptidase [Campylobacter]

MVKNKFTITITDINGSRHFYLNQIIKKIVFYIIAFIVLFLVFSGFYIKYLDSKLSDISEKREELLKKSKE

LELSNSQMQKSIEEKTQQYAAIEDKIASFEEALGLEAENNLTISARLDNLQLTNEQQLGILGQIPNGWPI

ENKGITGNFGWREHPLLKRREFHPGIDLRAEIGTPIYAPASGVVEFSGYSDNGYGYNVILLHNFGFKTVF

AHMMRKEVVKAGQFVNKGQLIGYSGNTGLSTGPHLHYEVRFINKTLEPLYFLNLQRKNMNDFFNQERRVP

WQSLIKAVSAQHPALAQKQQ

>WP\_002851675.1 MULTISPECIES: pyridoxal phosphate-dependent aminotransferase [Campylobacter]

MFDEIRFNTIERLPNYVFAEVNAIKMAARRAGEDIIDFSMGNPNGKTPQHIIDKLCESANKDKTSGYSTS

MGIYKLRLAICNWYKRKYNVNLDPENEVVATMGSKEGFVNLARAIINPGDVAIVPTPAYPIHTQAFIIAG

GNVAKMPLAYNEKFELDENQFFENLHKTLNESIPCPKYVVVNFPHNPTTVTCEKSFYERLIATAKKERFY

IISDIAYADLTYDDYKTPSILEIEGAKDVAVETYTLSKSYNMAGWRVGFVVGNKRLVSALKKIKSWFDYG

MYTPIQVAATIALDGDQTCVDEIRATYDKRMHILLEAFENAGWKLQKPRASMFVWAKLPESKRHLKSLEF

SKQLLQRASVAVSPGVGFGEAGDEYVRIALIENENRIRQAARNIKKYLKE

>WP\_002851417.1 MULTISPECIES: NlpC/P60 family protein [Campylobacter]

MRHIFFIITIIFFISGCSFYQNLNYRPSYNTNKEARLKVIANEWKKTPYVLGGTSKKGADCSGFTQSALA

QLNIRIPRTTKTQLGSGRKVSKSKLQTGDLVFFKTGRGPNGMHVGIYMSKGKFIHLSTKDGVKEVELNSS

YWKARYIGARRY

>WP\_010891887.1 MULTISPECIES: nitrate reductase cytochrome c-type subunit [Campylobacter]

MMKKKLVLLGSAAVVFFAACAMNSGVSSEQIGLRKASLENENKVNLVEANFTTLQPGESTRFERSYENAP

PLIPHAIEDLLPITKDNNMCLSCHDKAIAADAGATPLPASHYYDFRHNKTTGDMISDSRFNCTQCHVPQS

DAKPLVGNSFKPEFKNEQLKSRSNLIDVINEGVK

>WP\_010891852.1 coproporphyrinogen III oxidase family protein [Campylobacter jejuni]

MNLFQNLALKYSHTMMEKSLQKGFNVELLKQPEEKIPKQDKSYMLYAHVPFCHTFCPYCSFHKYYYDENL

AKVYFQNLREEIKIMKNKGFDFTSMYVGGGTTLIDEEELLKTLELCKKLFNIKEISCESDPNHIDPNKLS

MFKGIIDRLSCGIQSFDDETLKKVARYNKFGSSKELQEKISKALGILPIFSIDLIFNLPGQNEKQLLNDL

EIAKNLAPQQITTYPLMKSNLTKDNIAKSLGVSIKDNEFTYYQIIREFFKDYTQNNGWSFSLEKNKLNDE

YVSSHHEYLGVGSGAFSFLDGELLINAFNLNDYAKFIQEKQNANIAKACFDKKEIIKYVFLTGIFSGKIE

IDKFNKTLNCNLEKELFIELLGLKTSGAIIKDQNALIATEFGQYLFVVLMKDFYTGMDLVRAVFRDDKRL

KNKDYIDIMKENIDPLNSASMEFKAETN

>WP\_002878575.1 MULTISPECIES: DUF4910 domain-containing protein [Campylobacter]

MDKLDFRSQDFSQTGKAMYELACELFPIPRSITGQGFRDSLEILNKTLGGGILKFHSIKSGTKVFDWIVP

DEWNVKEAYIITPKGEKICDFKKHNLHLLNYSEAIDQEIELEELQDHLYSIEEMPDAIPYVTSYYKRRWG

FCLTHNERKKLKKGKYKVYIDAKHDENGVLDYADFILPSTQNSKDEILISTYLCHPSMANNELSGPVVSI

FLAKWLLGLKERRYNYRFVIIPETIGSIVYLSKHLECLKKHVKAGFVLSCLGDDHTYSLIHTVKENTLSD

KVALHTLKNKENFKAFSFLDRGSDERQYNAPLVNLGIVGVCRTRYGDYDGYHNSKDDLNFISEKGLMGGL

QSMQEMILNLEINAVYENTIVCEPNLGKRGLYHTLSTTNDIPLACNFLAYCDGENDIIDIANILNMQAYE

FKELLEKIKFYGLVK

>WP\_002864382.1 histidinol-phosphate aminotransferase family protein [Campylobacter jejuni]

MLIKLNDYEKNITQKIKDLKNASGSHSPSIFTMAEQIPELNIKIDSCFLSNPYATALFLRYLKEELIDGQ

KLRSVLEFYPSQNSIIAKTVADFIGIDPKNVFIGNGAIEIIQAVMHNFVGKKIIVNIPTFSSYYEFAKSE

TNVVYYQLSKEDNYNLNIEHYLNFVKNENPDSVVLINPNNPDGGYINYEKLRYILSELKYVKNIIIDESF

IHFAYENKDYNGINIEYLFKEFHNTIIIKSMSKDFGVAGIRIGYAIMSEDKIRGLLKNGYLWNSSGLSEY

FLRLYVRKNFFDEYDKVRREYIQETQTFFRKLSGIKQFKVYPSMANFALVELLDGSSSTDFVAKMLIKYG

IYMRTCNDKIGLEGEFIRIASRTLEENDMVLKSICDVFKE

>WP\_002864240.1 MULTISPECIES: DUF814 domain-containing protein [Campylobacter]

MKYTELLQLQTFFSRFKKIDFIKRINDNILELSFDRERFIFDLTRAMSAIYTAKFNAKNYNAPFDFMLKK

YFSNAFIKEVKVLEGNRILCFSVKANKAYKSYESKIYFEFTGKNTNVILTDEKDLIIEALRHIDKSYRVV

KPNVILESLKPYKMDENFEEIKDFADYFSRKFTSIYESKIKQIKNLKLAQVDKKIQNLQELFSSLDEENS

LLLKALEYRKRADVLFANLSVLKDYEREFKLDDFEGKELEFKLEFNPKQSANLYYKNAKKLEQKAKNLNI

QRQNLKEKLDFTLSLKELLLQAKSEIELEILLPKKNSKKNQDHKQEDLVANFYFNEFKICVGKNEKGNEF

LLKNAKKDDLWLHVRDIPSAHTLIVSNKQKISLDVIEFAARLCVSFSKLKKGSYWVDYTLKNFVKVQQKA

FVNYTNFKSINITKD

>WP\_002858757.1 MULTISPECIES: prepilin peptidase [Campylobacter]

MIFFIIILGACLGSFCTSLASRIIEKKLFFISRSFCFSCDTKLKYYEIIPIFSYIFLKAKCQTCKCHLSI

SLLINEILGAILLILVYSLSQNFYDFLFLSLFLFNLFLLSLIDIKLKAVPQILLWSAFLFAFFYAFRESE

ILHFLIFKEFSGGFLLNAFSFGGFVFLLKSLVFFLMNFQKKDEILENLGDADIIIMSCIGGILGFEYGFL

VLFIASILTLPFFIFFRIKAIKEQELAMIPFLNIAFVAVLFYKNLGLF

>WP\_002858697.1 MULTISPECIES: LptF/LptG family permease [Campylobacter]

MWIFFRFISGIYLKNFFIIFFSLLGFYCGIDLLLNFKDLPKAANLDLLYVMFLSFSAVPYVLPISLIFAL

VVSLISMIRANEFVSLYALGLSRNYVILFPFLWALFFCCIYIGLNFTSFAYANDYKRNILKNGTIMNQSG

EVFLKFNNNFVYISKINNGQNSAQNIKIFNINDLNLSSFASAKNAHFEGESWILRDGNITLLPKNYELAN

DGLKIQDFSELKSLEGFKPKIIEGVASNSDYSISDALESFELFKAQNVNTDTLKINLYKFVFTPFFAPFL

MLIMYYFFPVIARFFNLAFVTFIAFVVTLMIWGVLFLLTRLSENSVIASEIGIVVPIIILGCLSAYMYYK

HR

>WP\_002858535.1 3'-5' exonuclease [Campylobacter jejuni]

MSLQQIDQIISILNKQSKPYDWVMQEFAKVEELKNFDLDLETFELLGLGLTLNKDNIFTLKTRTTKIKDE

IFCIVDIESTGGVSKGEILEIGAVKIQNSKEIGRFQSFVKVKEIPKNITELTGITYEMVENASSLAKVLS

DFRLFLKDSIFVAHNVRFDYSFISKALNECGFGILLNRRICTIEFAQCCIESPKYKLEVLKEFLGVENMH

HRALDDALAAAEIFKYCLGKLPYHIKTTEELINFTKTARIKQK

>WP\_002858442.1 thiamine biosynthesis protein ThiF [Campylobacter jejuni]

MMRVKFNGKELDTDFKTSLEFFENISKNENDVWIINGFATKENIALNENDELFCIEKNTLPPKDALDAMM

RARHTPKLHDKLKNGRVAVCGLGGLGSHIAINLARSGVGYLKLIDFDVIEPSNLNRQAYRVSDLGKFKTE

ALKEQISEINPYISVEICTLKIDEDNLESLFKDIDIVCEAFDSAIAKAMIAQNFHRFYKDGILICASGLA

GYGDSNSIQTRKIAKNFYVCGDLVNGAKLGNGLMAPRVNICAGHQSNLVLELLANKE

>WP\_002858372.1 MULTISPECIES: YeeE/YedE family protein [Campylobacter]

MNSFKQKYLINFWDNSRSMIALGILSAVYFGIFGGVWAVTGEMTRWGGEFLELLGMNLDGYSYYQKQNLN

GTPLTRTDGIMLIGMFIGCLVAALLANKVKFRLPASNIRIFQAIVGGILSGYGARLAFGCNLANFFTGLP

YFSLHTWLFTVFMVLGIYLGVKICNTSFFKPKAKLERVNKENLPLNKQSLRTKLYFNLGILLFIAFLVWV

FYLVFTNGNISTQNKQSLLALALIFGFVFGFVISRGQICFTSCFRDLFLFGRDNAIKGALIGMIIASLIA

FAFILQGHTSKLIELSPAVAVGAFLFGFGIVFAGGCECGWTYRAFEGQSHFIIVGIANIIGTMILALSYN

FLPKAFKEGIKINLLTEFGNLNGFFINLILFILMFVFVVFYKKHFFKNQLKG

>WP\_002858082.1 MULTISPECIES: histidinol-phosphate aminotransferase family protein [Campylobacter]

MQANKNIQKLTPYLSIPHKIWNSSQSNILKLDWNEATIPPSPYVIESIKKFLVNGNLNWYPNTKNLYLLD

KIAEYTKQINSSFVELFEGSDSAHECIIDVFLDKCDKIGIVSPTYDNFRSRANGVGIETISFTLDDNFNL

DFDSLEYFIHEKRIKLLYLCNPNNPTGKSYNIQKIKSLIINNPNVMFIIDEAYYEFTSQSVCDLVEQCNN

LIITRTFSKAFALASFRIGYIISHPENIESINKLRNPKSVPMLSQIAANAALEDLQYMRDYVDEVSCARM

EFVKFLNTLTTGGGGIFNDSVANFVLIQNENISLFVGFLEKEGIFIRNYSHLISKNCRISIGTRNQMSYV

AEKIQEFAKKQGGFHLV

>WP\_002852796.1 MULTISPECIES: ATP-dependent zinc metalloprotease FtsH [Campylobacter]

MNNNTQNNKGNPQGNNFFNKNPIFIFAIFAIIMIIIFKGFFDGNGSFGGALNGNEVNKNVPYSELKKLIE

SGQINQVSIGQTTIKAISSSHNTVYTAKKVNDPELVSLLDSKNIAYGAYSETNWFTDILFSWVLPVFIFF

GIWMFLASRMQKNMGSSILGIGSSKKLVNSEKPKVKFSDVAGVEEAKEEVKEIVDFLKYPERYIKLGAKI

PKGLLLVGPPGTGKTLLAKAVAGEADVPFFSVSGSSFIEMFVGVGASRVRDLFENAKKEAPAIVFIDEID

AIGKSRAASGMMGGNDEREQTLNQLLAEMDGFGTESSPVIVLAATNRPEVLDAALLRPGRFDRQVLVDKP

DFKGRCDILKVHMKDVKISPKVKVEDIARLTAGLAGADLANIINEAALLAGRDSKKYVEQNDLVEAVERA

IAGLEKKSRRINEKEKKIVTYHECGHALIAETTKGAKRVSKVSVIPRGLAALGYTLNTPEENKFLMQKHE

LIAEVDVLLGGRAAEEVFIGEISTGASNDLERATDIIKAMISMYGMSEIAGLMVLEKQRNTFLSGGQTIK

DYSEKMAESLDDYVKKTLDERYKDVKDTLNTYKGAIETMVAALYEEETIEGNKVREIIKEFEDQNSLPTR

LQELEEVKTEVKVEE

>WP\_002852758.1 MULTISPECIES: cytochrome bc complex cytochrome b subunit [Campylobacter]

MAQIRKANGLVDWLDQRLAVHKLLDVLMVKYWIPKQINFLWAMGVILTTLFAVLFVTGLLLVMYYKPDTA

LAFDSVNKTIMQEVDYGWLWRHMHGVAASVVFLIIYIHMLTGIYYGSYKKGREMIWVSGMLLFVVFSAEA

FSGYMLPWGQMSYWAAQVITNLFGGIPFIGPELVIWIRGDYAVSDPTLTRFFMLHVCLLPIVIIAIIAFH

FYSLRIPHVNNEISEELDFDLEAEKYMAGDTKGSKVIPFWPGFLSKDFMYISFFMIFFFYLVCFKFEFAM

DPINFDPANALKTPAHIYPEWYFLWSYEVLRGFFFDIAGIKAFDIGLAAFGIAQVIFFLLPWLDRSDVVK

PAHERPLFFIWFWILLIDLIVLTVYGKLPPTGVNAWVGFYASIVFLLLLIVVLPVITIMERKGAKQ

>WP\_002852624.1 MULTISPECIES: LptF/LptG family permease [Campylobacter]

MKLSLRYVLNQFLSTNLSIFFVLFAIVSMVFFIQLAKLTSSIEISFLDLLKLYGFMLPRILIFTLPISFF

ISLTLALFRLSKENESIVLFTLGFSPMILAKFFLKIASLISAFMLVVALVMIPIVFELQDNFVNYKSTQV

KFNYKTGEFGQKFLDWMIFIEKQDSDKYENIIMYRPKHKADDKEQLIIAKEAHVQRKDDSFAFSLNQGKM

YNFEQGQSIFSGEFDTLVVNTQFNTDNLQTKKFYEYWNDLNENLQRAREFVIYTTIALFPLASTLFALCF

GLVTYRYEKGYVYLGMFGVIAIYFGLLSSFSQPPILACLGIFSLSLFVSAYCFKKMILSRY

>WP\_002852262.1 MULTISPECIES: coproporphyrinogen III oxidase family protein [Campylobacter]

MHFYIHIPFCESKCNYCAFTSLKKNDYEKAYFKALKEDIVFQLKQFNIQSNQIKTLFIGGGTPSCVNAYN

YEDIFKILYPLLDKNVEISCEANPNSATLNWLKNMKNLGVNRISFGVQSFHPKKLHFLGRIHNQEMIIKT

LENANKVGFKNINLDLIYDTKLDNKKMLEFELLHLKQIKDLITHLSAYNLTIESNTAFAKKEHFKKNAPN

LMKFFIKQLLELDFFQYEISNFSKTKAQICKHNLAYWQGKNYLACGLSAVGFYENKRFYTAKNLKNYIEN

PTFRSIEQLSSKDLNLEHLFLGLRSIVGIDETKLNQWQKDKINILLKEKKLFYKNKRYFNPNFLISDELA

LYLSS

>WP\_002851902.1 MULTISPECIES: ATP-binding protein [Campylobacter]

MKKLKCISFHEGLDIIEVESTFTRGLPNLSIVGLASTAIKESVERIKATLLSCDFAFPAKKITINLSPSG

IPKKGSHFDLAIALLILLQNEELDDFFVVGELGLDGSIKSTNELFSLLLFLSAKIKKAKIVVPKSIAQKA

SMIPNLEVYGLENLNEAIEFFKEKNYENFRFSHNHPLFANPLQIENEIFLQNMDFKLDFKDIKGQEKAKR

ACMIAALGMHNILFEGSPGSGKSMCAKRLVYIMPPQSLSEILMQNAYMSLDSKDCEFTKIRAFRHPHHTS

TRASIFGGGTKNARIGEVALANGGVLFFDEFPHFNKQIIESLREPLEDHKIHISRVNSKITYETKFSFIA

AQNPCPCGNLFSKNLSCVCSENEIKKYKNHISAPIMDRIDLYVAMDEISKDDKTSISSKEMSEKILQAFI

FSKKRGQKEFNGKLKDEDLSRFCVLEKDAKDTLDLAISRYNLSLRSLNKILKVSRSIADLEQSLNISKTH

ILEALSFRARN

>WP\_002854237.1 MULTISPECIES: protoporphyrinogen oxidase HemJ [Campylobacter]

MTEWINDYYFWIKWVHYLAFVSWMAGLFYLPRLFVYHAEHKDNKGFVEVVKIQERKLYYYIQTPAMIVTL

ITGSLMLHAHKEVLMVGAGFMHVKLTCVTLLIIFHIHNYYCLKALANDTSTKSGKYFRIYNEFPTIMFII

IALMMVVRPF

>WP\_002857889.1 MULTISPECIES: FkbM family methyltransferase [Campylobacter]

MKKEQLEVLKEALNGLIYQIDNHQQARKPIADVERIISELQVLNHWNKQENVYNALHLIQGAIADPQGLG

RLNLLLDNARIPKQYYDIFYKMLYVDKYGGGDGYRPVCIDCGGHAGLITDIILHCGGQSYIFEPNIYLNY

FLRKKYENNINVKLFQKAVSDRNYETDFIMFGNRILSQGNRIVESVQDSQTEKTYKVQVIDLCEFIENEI

LTQHKRIYFLKLDIEGMEFEIMKKIIEKKIYKKIDYIACETHEYMFDDSEKKIGELKQLINKCNIQNILL

DWI

>WP\_002852246.1 MULTISPECIES: hydroxyisourate hydrolase [Campylobacter]

MFSIKKTLLILASVPMFLSATEYQLSTHVLDITSGQPAPKVKVELYKLEANQQWKKVSEEFTEENGRIGD

LLPYEKAENRAFGIYKLKFFTKDYYTSHKINTFYPFVEVSFELSKDQKHYHVPITLSPFGYSTYRGS

>WP\_010891920.1 MULTISPECIES: ferrous iron transporter A [Campylobacter]

MMKRFRLSFYLSFLTLLLSACSVSQMNSLASSKEPAVNESLPKVESLKSLSDMSNIAFEWEPLYNENIKG

FYLYRSSDENPDFKLVGTIKDKFQTHYVDTKLEPGTKYRYMMKSFNEQGQISEDGKVIEVSTAPRLEAVP

FVQAVTNLPNRIKLIWRPHPDFRVDSYIIERTKGDDKEFKKIAEVKNRLNAEYIDSDLKPNENSSYRIIA

VSFNGIKSGSSQVVSSTSKALPPQVEHLSASTDGSSKIILTWDAPTYEDFSYYKVYSTSSSFLPFSVLAK

TDKNSYEDIVEGAGKSKYYKVTMVDKDGLESPMPKDGVEGKTLGNPLAPSIILAQSTSEGINLEWSDNDT

RAVEYEVRRYGGEQNAVFKGIKEKRLKDVKALPGVEYSYEVIAIDSAGLRSEPSSKVKAAQ

>WP\_010891825.1 MULTISPECIES: RluA family pseudouridine synthase [Campylobacter]

MAYIKIKLSNNGKKAFQVLMENLKISINEAQKLIDKKRLFCDGILVEEKNKILNGLVELIVYENNPKGVE

IVFENEDFAILEKESGILSHPNGRHCKYSLSDEIWHLWGKEACVAHRLDKETSGLILIAKNKKAQIDLKS

LFEKKLVQKEYLALAHGKIEENFIVDKAINLTKNYDDVKTRMQICKEGKQAITEFEILEYFPKINATLLL

CKPLTGRQHQIRVHLHYKNHTILGDPLYGLSKQQIESILDEKLNPKERLKLTGALRLCLHSYRLKFQYKN

QNFDINSKINIKEIFNNSIK

>WP\_002892710.1 MULTISPECIES: 30S ribosomal protein S2 [Campylobacter]

MVSMRDLLECGVHFGHQTRRWNPKMKKFIFGERKGIYVIDLQKTLRYFRYTYNIVRDAAAEGKTILFVGT

KKQAGGAIKEYAEKCGMPYVNHRWLGGMMTNFGTIRQSIRKLEVIEKMEEDGSIKLLTKKEALMLTRKKE

KLLAYLGGIRYMKTQPDMIFVIDTVKEKIAVQEANRLRIPVVAPLDTNCDPDLVTYPIPGNDDAIRSVQL

FCQEMAEAINEGKALREQDGEALVNEEKEITDEEKKEVLDEAMSEEDFGEEQE

>WP\_002858282.1 MULTISPECIES: RluA family pseudouridine synthase [Campylobacter]

MQTFLVDENSRLDVFLAKKLNQSRNQVALLIEKDCVQVNDKIQDKNSFKLKNGDIISIASLKLCNEIKPQ

FEVDFDIDVLYEDEDLLVLNKPSNLVVHGASSVKNATLVDWLIEKKYTLSNLGGEIRAGLVHRLDKDTSG

AILIAKNNFTHQKLSEQLADKSMGRIYLALIDLPLKEDKIIVEKFLMRSPSNAIKKIAIDKENKFSKNAK

SAFINVVKTENLTLMAAKLFTGRTHQIRAHLASLNRYILGDSLYGYKGKYDCRIMLHAYFLYFIHPKTKE

QIFVKAPLMEDFKNIMFEQINLGENDEKISLEFLLEFFNSFA

>WP\_002857950.1 MULTISPECIES: DUF2920 domain-containing protein [Campylobacter]

MLINQTFEIDSCDDVELGIKRTSKLEYRISYDDEKDIKAIVFIVGGFGANANISFLDFDREYIAKNFDVV

VVHVFYHCFCARQSIDQKYNPKLIPNQDDLERVNGILKNINLGHLSVNKDNFEQIIPLIEQKVNKMKQAG

LVDESQKIELSCDFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGVCLPFLACILGREMNQGEFYFEGSGYRLYCFVYKYWNRNMNSSYYFGDENYLIRAVLN

SNHLQIQSNLNKNTIFVSYHSIQDMGAPVQNKIELYKCYQELGYDATLHLIKDENDIDGRFVKSLEHGLR

MTDRALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFVFKDLEDKFELEMIN

>WP\_002852134.1 MULTISPECIES: RluA family pseudouridine synthase [Campylobacter]

MQEKAYKLLALQEKISNREAKDLIDKGCVFSYGKKVVVARALMSDKARFNVIKAKNPQIIFEDDKIIAIN

KPYAYVSEDLEKKFNAKLLNRLDKETSGVILLCKDEDFRKLCIEEFKKHRVYKSYIAVLDGVLAEEVEVN

EPIFTIKVKGGALSKVSKDGLSALSIITPIMMQSKKTLAKIVIQTGRTHQIRVHAKFIKHGVVGDEKYAK

ISSDRMYLHSYEIKIFNYHFRANLDSGFAKFGFDIKNLDF

>WP\_010891826.1 type II asparaginase [Campylobacter jejuni]

MKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNMCDEI

WLRLAKKIAKLFAEGIDGVVITHGTDTMEETAYFLNLTIKSDKPVVLVGAMRPSTAISADGPKNLYNAVA

LVVNKEAKNKGVMVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNAPFD

VSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVSSRV

VAGCVAVSDSDEKLGFISAEDLNPQKARVLLMLALTKTSDPKKIQEYFLKY

>WP\_010891934.1 MULTISPECIES: hypothetical protein [Campylobacter]

MAELKFKTKAQNLKNLQTKLKKAKVLPLVLTSLEELISNEDKVLQDIQTLKANRLIIRSSSLSEDSMKNS

NAGAFLSLANIKADSKDELLKALYEVANSMPSKSDEILVQPMLENITLCGVGFSVDKDNFSPYFCLQYDE

NGSNSSITDGSSKSAKTYYHYRNYLEFKDIRLQKIIELIKELEVLYDCHFLDVEFAFAIQDDKEELFCLQ

VRPLVMHEKNNLFHSLPKEALYRFYKRFESLKESRSRVLGDKAIFGVMPDWNPAEIIGLRPKRLAFSLYK

EIITDNIWAYQRDNYGYRDLRSHPLIHSFLGIPYVDVRLSFNSFIPKKLDENIAQKLVNFYLDKLNKNHE

LHDKIEFNIVYSCYDFNSSKKLEELLNHGFNENEIKRLEFSLLELTNKIINPRSGFYLKDIQKAYKLKER

YDGIINSNFSLIDKIYWLIEECKRYGTLPFAGVARAAFVAMQLLNSLVEIDFITKEEKDDFLNSLNTVSK

NLSKQTNHLNFHNKDQFLKDFGHLRAGTYNILSPRYDEDFELYFDADQKDSKVYLQDKAFVFSKEKTRAL

NALLKEHGLEINACEFFDFLKQAIEGRELVKFEFTRLLSKAIVYIEELGKYYDIEKEDLAHLDIKSILNL

YSSLYSINPKEQFIEEINRNKKEYELTQAIKLPSLLCNADEIFSFYNHSIIPNFITQKSITAFTAKENDK

DLEGKIVLIYAADPGYDYLFTKNIAGLITCYGGANSHMAIRASELGMPAVIGVGEENFEKYLKAKKINIE

CESEQIFCL

>WP\_010891911.1 MULTISPECIES: galNAc-alpha-(1-\_4)-GalNAc-alpha-(1-\_3)-diNAcBac-PP-undecaprenol alpha-1,4-N-acetyl-D-galactosaminyltransferase [Campylobacter]

MMKISFIIATLNSGGAERALVTLANALCKEHEVSIIKFHAGESFYKLENEVKVTSLEQFRFDTLYHKIAS

RFKKFFALRKALKESKSDVFISFLDTTNIACIAAKIGLKTPLIISEHSNEAYLKPKIWRFLRRVSYPFCD

ALSVLGSSDKVYYERFVKRVKLLLNPCHFSDEISFDSSFEKENLVLFIGRLDHNKNPVMFLKAIAHLDKN

LQENYKFVIAGDGQLRQELEYKVKSLGIKVDFLGRVENVKALYEKAKVLCLCSFVEGLPTVLIESLYFEV

CRISSSYYNGAKDLIKDNHDGLLVGCDDEIALAKKLELVLNDENFRKELVNNAKQRCKDFEISHIKEEWL

KLIAEVKNA

>WP\_010891910.1 MULTISPECIES: membrane protein [Campylobacter]

MKKVFLWEYLQKGCKLHFNNNLVVHYIVNPSPLGWIVINLLTICLICYIFPLKNSLKHKKLFSLKANVNS

KNSRIIKYTGIAAFLGGLIGIWYNFEGFYQLLFFFELENENLKTLWSLQVSVSSVITGMLLLLIYVINLA

MVCENGIYIVSKFNLFYMYFIKREDLEIVKIEKMKFLNQVEVCFVIKTKNKILLKCFESIYKKEDLEKLK

NWYENKL

>WP\_010891905.1 LTA synthase family protein [Campylobacter jejuni]

MRKILLQIFIFSVLFIATFAINRILMQNSFIPTGLISDKNEIFLMYLLGVFHDIRFLSAAFLPFLLCGFL

SLIFSNIKINNKLVIYSKNFYFIFSSVYIIVLSCLCIGFSYVKYYYYEIYKTKFDIFMFTLKDDNTKTIL

SIIYHDYPILKILALMLIFGVFVFFLNLKILNLKLKPVNLRLFPLIALNLILIIVYVIALRGPFKHVAIN

VQNYSFSEYSVVNDTMLNPIMAFSWALKQYKEEAALKVITPLKAQELKEKLFDYLHQSPINLKAEKNHPS

VFVNLMESFGLNLADFTNTEHNFLGSLDKHFKQDFLFKRFLSSSNGTIPSFANLFFVSPFSNISTSKFQK

TYLDLTPIAVYKKAGYKVIFVSAGNGSWQNIKNYLSILGVDEIIDENILMKEYNGAKDSENGYGIADEFL

YKKVYDLLQKNPHKTLIIALTISNHPPYKIPQNDLPKLQNIPQTLLNMLPYEKDKQDNIIKAYTYANNEF

GKFLDKVKQSPFKNSVIIAATGDHRVREMSMDLNSQKAFAYSVPFYLYIPKDLQDNIYYDKDRVGSHKDI

FPTLYALSLNNVKYLSVGGRNMLARPSDEKLEFGINDAVWIDKKGIYSGGKGYYFESNDTLKDMNKAFNL

DGYTKDFDKFYRELNLYQLAERLGISK

>WP\_010891899.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLKIPYFSFLKLDFEIYHLNTSKNFYGFFILYFSFFIFKLIYKFSKSNKKIYKKIIKLKKIIKDNKYLIF

LCYILINI

>WP\_010891864.1 MULTISPECIES: SLC13 family permease [Campylobacter]

MIMVFLIISSIIVAIILGYITRHNVGIFAMIFAYIIGAFFMDLAPKKIIAFWPISIFFVIFAVSLFYNFA

TVNGTLEKLAGHLMYRFANHPYLLPFVIFVVSAIIAALGAGFYTVLAFMAPLTFLLCDKIGLSKIAGAMA

INYGALGGANFITSQSGIIFRGLMENSGIEANEAFANSSIIFAFTIILPIVVLSFFVFNAFKNNIKISVI

SKPDPFDYKQKTTLILMFMMIVVVLIFPVLNIIFPHNETISYFNKKIDIAMIAMIFVAIALFLKLADEKQ

VVALIPWGTLIMICGVGMLISIAVEAGAIKLFSDLVENEINVIFIPLIMCAIAAFMSLFSSTLGVVTPAL

FPIVPSIAASSGLSEALLFSCIVVGAQASAISPFSSGGSLILGSCPDKYKEKLFKDLLIKAVPIGFIAAI

LATIIMSFIL

>WP\_010891849.1 MULTISPECIES: ATP-dependent Clp protease ATP-binding subunit ClpX [Campylobacter]

MEFLSIGVKIMPRKCSFCNEVENPQRRILANENDDAFICEYCVEGAYSIIYGEEKEFKEPKQSHNTEFKD

ITPKELKAYLDRYVIGQDRAKKVFSVGVYNHYKRLFKAELQDDDTELFKSNILLVGPTGSGKTLLAQTLA

KFLDVPIAICDATSLTEAGYVGEDVENILTRLLQAADGDVQRAQKGIVFIDEIDKIARMSENRSITRDVS

GEGVQQALLKIIEGSLVNIPPRGGRKHPNQEFIQIDTSNILFVCGGAFDGLETILKRKLGDKVVGFFDDA

KEENKALLEKIEPDDLVHFGLIPELIGRLHVIASLNELNEEDMVRILTEPKNAIIKQYQKLFAIDGVNLK

FEEDALRAIAQLALERKTGARGLRSIIEEMMVDLMFELPEYKDYDIVITKEVVKDNAKALLIKRKIS

>WP\_010891834.1 MULTISPECIES: hypothetical protein [Campylobacter]

MVGILSSKEEKLMINSLNSNLNYDYNTSNFKQDKNIDFKINKHGVAVITGEGALPYRGKKFEYNPKIFGL

DESISKKDMQEFNNFMKSNALKDPNKIEKSPLKDFNPAYTKWDPTTEKMMLGFFVSYSKMFHLGYDIIKK

ADEFYKEFDALISKDLSLNEFKTKYIDFKQRYDEFVKEYEMAMGDKMLLSSDDEIITQQSEKPFKAIQGE

SKNKETYKDDSTRNELVKKLLEGKFSTSKELELLFGMKFSDDDAGEFNKILSLNSTPKSIDIKA

>WP\_002869557.1 MULTISPECIES: phosphatidate cytidylyltransferase [Campylobacter]

MFNTTRIISALVMIGAIIIIALIDQFFINFIVFAVLLYLSFSEAKKLFALENISIIPLAIAFILGSLSHK

ALLFGILVLLLVVGYLVYKKASLKPALIYIYPSLPILALWQVYLDQGMFALFWLIIIVAACDSGAYFIGK

LMGKTPFSPTSPNKTLEGVIGGLICASVIGTILGVFVYSFWLSLLCSFFVAIFAVIGDLLESYFKREAGV

KDSGDLIPGHGGVLDRIDAVIIAAFVMVALL

>WP\_002868637.1 MULTISPECIES: DUF535 domain-containing protein [Campylobacter]

MNKKFSYPIPNFTDRRKSIIFWRYLRFQARKILYFPQVRLLEKTLNKEKNKHLKDFFSQRPYACYNATRR

FCDKSFKANERVKTLIYDVDKGLACFKFLPEEQIIFSFDEDFELFLGYNYNVCEEGFWAFSLKFKKYTIL

QCNFCFTLENNLLLSCIQGHKYKDFNILEINKILTKKCHGLRPVALLIECSKMLCEILKLQATLGVHEKN

QIRSQKGKEKGYFVDYQKIWLENGGELIKINKHKYYKLHHSQKNLEEIPSQKRSMYKKRFAMLEEIKTNL

DKTLSIQD

>WP\_002868636.1 MULTISPECIES: Lon protease [Campylobacter]

MQIEEIQNYPANLPVLVEDELFLYPFMITPIFINDSSNMKALDLAIKNDSMLFVAPSKLENGRNFDEIYN

CGVIGTIMRKVPLPDGRVKILFQGYAKGKIIEQISNKPLEAKIELIKEDFLEGTKKEALLEVLKEKVKNL

ANISHYFSPDLLRTIEEGFDASRICDLILNTVRIKKQVAYEFFVLTDLEQKLVKLIDLIAQEIEANKIQK

EIKNKVHSRIDKVNKEYFLKEQLRQIQKELGSDTQKEDEVREYQKRLELKKKFMHEDAYKEIKKQIEKFE

RIHQDNSEASMIQTYIETALDIPFEKISKKKLDIKEVSKQLNHDHYALNKPKERIEEYFAVRELLEKRKI

AEKDGAKVILCLYGPPGVGKTSLANSVSKALKRELIRIALGGLEDVNELRGHRRTYIGAMPGRITQGLIE

AKQINPVIVLDEIDKLNRSFRGDPSAVLLEILDPEQNSKFRDYYLNFNIDLSKVIFIATANDISNIPAPL

RDRMEFIELSSYTPSEKFHIMKKYLIPDELKKHGLKSNELSIDDETIELIISDYTRESGVRNLRRKVAEL

CRKSAKKLLLENIKKVIINTKNLNEFLDKKVFEIEKNNGENQVGQVNGLAWTSVGGDVLKVEAVKIKGKG

ELTLTGSLGDVMKESARIAFSMIKVLIDEGKIKIPKKIIIDPKVNVYDSYNIHIHVPDGATPKDGPSAGI

TISTAIASIFSDKKVKADVAMTGEIDLKGKVLPIGGLKEKLIAAYKADIKTALIPRKNYERDLKDIPSEV

RDNMEIIAVDTFSDVLEYTLV

>WP\_002868507.1 MULTISPECIES: CCA tRNA nucleotidyltransferase [Campylobacter]

MQISKISLKNNPDLQFIAEFLKPYTKRAYLVGGSVRDLFLGLKICDYDIELYDIKPKDFEKIMQKLGAQG

FGKSFFVYKFKNYDLALARTENKISYGHKGFEVQICNDEKLGAKRRDFTINSMMINLFNDEFLDFYGGLK

DLGVGFLRHIDKQSFQEDSLRVLRAVVFASRFNFKITSESLKLMQSMDITDLSKDRINAELCKFFKSPRL

DVGYRYLQELGLEKQVFGFESVFKSSEFQNLLRQSREFVKSDALFLYLYLNFFNLEKDIFFKRTKLKKEY

LKYANQAFYLDDISDFELAKIAFEMPLKEWLGLWSKKRIEQAKRLGLYENKFESKILAKDFINAGFCGKI

LGLKLQEARENELKEYIKGLAK

>WP\_002865739.1 MULTISPECIES: 30S ribosomal protein S6 [Campylobacter]

MKHYEVLFILKPTLTEEEVNTKLEFVKEVLTKNSAEIETVVPMGTRKLAYKIKKYERGTYFVIYFKAPTN

LIAELERVLRITEEVIRFLIVKYENKKEIAAWEKLSHGIKQSKKEIKPLDAPEIQ

>WP\_002865500.1 MULTISPECIES: MFS transporter [Campylobacter]

MENFNRTLLVCWFGVFTTSMGLSQIAPILPFYIKELGHVDTSEIAFYSGLAFGITPLFMAVFSPLWAFLG

AKYGYKNMLLRASFGMSVLTLWLSFAHSALEVVFVRGLTGIISGFTSAAVVFIAVIAPKEKVAYALGTLS

TASISGSLLGPLFGGFVAEFFSISAVFDVVAFLIACSFVTIYFFIHGRKIQKEAKKNTQKVKENKTLIIV

LFITTFVIQFGTFGVMPILSIYVEQIHQGGNLALWAGIVVAASGISNLFFAPKLGKIADKIGPSKIIFGA

LIFCGICFYLQAVASNVYTLIFVRLLIGVGLGGLLPCVNALLKKSVSAKNLSVIFGFNQTCQFLGNFCGA

FGGGLMASHFSVEFVFTFVCLIFIINAFIFLAFEKKYIFSNQGL

>WP\_002865484.1 MULTISPECIES: dihydroneopterin aldolase [Campylobacter]

MSCIKMKDKCRNFSLSKWQDTRKPWLILIIVTIGLTCIAHFLFQEYLFMKPCEQCVYIRFDMLVMAIGGM

IALINPANNIIKIFSYSLAFYGIWLGLEHCLTLNHIHEVVHSENPFAGVDGCREIPIYPFNLPLYKWASS

WFLPTGECGMDTPVVPENAYNHLNAFQKFFIGTPPDFENGLYSNGWYLIPSLKFMNMAICCLIAFLCCFV

VLFAMFIAYVLDKNKPNAKIFALVIVALVLVLKFIGESKNPNQNIASLNQVVLRYS

>WP\_002865087.1 MULTISPECIES: ribonucleoside-diphosphate reductase subunit alpha [Campylobacter]

MKVIKRNGRTEELDVSKIKKCTSDAVKDLEGVNLSELELDAKIQFRDGISTEEIQKTLIKTAVDKIDIDC

PNWTFVAARLFLFDLYKKVNGMNRYNHLREYFQKGEKEGRILLGLKEKYDLDDLNAYIKPERDMQFTYLG

IKTLYDRYLIKDSKGMPIELPQQMFMAIAMFLAQNEFNPQEWAKKFYDLISKFELMLATPTLSNARTTRH

QLSSCYIGSTPDNIEGIFDSYQEMALLSKFGGGIGWDWSKVRAMGGSIDGHKNAAGGIIPFLKITNDIAV

AVDQLGTRKGAIAVYIEPWHMDISDFIDLRKNSGEERRRAHELFPALWINDLFMKRVRANDKWTLFDPAD

TADLCDLYGEAFEKRYEEYEKDESITKEIVEAKELWKKILLNYFETGLPFLCFKDSANRANPNAHVGIIR

SSNLCTEIFQNTEPNYYQIKVVFENGDELHFDEEQKVVIDGGYEKPAKKISTLDSIEGNKVYIVEKYKND

GKTAVCNLASINLSKVYTKEDIERVVPTAIRMLDNVIDLNFYPHRKVKDTNLKSRAIGLGVMGEAQMLAE

AKIHWGSDEHLNKIDEIMEQISFEAINASSNLALEKGSYEDFEGSNWSKGIFPIDVASPKAKALTLREGL

FDQSECDWVKLREKVKKDGMRNGYLMAIAPTSSISILVGTTQTIEPVYKRKWFEQNLSGMIPVVVPNLSL

DTWQYYTPAYELDQKILVKAAAVRGKWIDQGQSLNIFLSLDKASGGYLNEIYQLAWELGVKSTYYLRSES

PDSEKVNVADRSIECEGCQ

>WP\_002864548.1 MULTISPECIES: inorganic phosphate transporter [Campylobacter]

MQKDNLIAFVIFIISTIAFVIWGFGYISQHQLILFILASIFGIFMAFNIGGNDVANSFGTSVGAKTVTIK

QALIIAAVFELSGAIFAGAEVTKTIRSGIVIFPNSLDPMLFVIIMLAALLSSGVWIFIATKKGLPVSTTH

SIVGGIVGASIMMGLLKFDGIQTLSMVKWSEILRIAISWIASPLLGGIVAYIIYSYIDKKILKPSEKLND

DLKNIKKERKKFKEEYFLNLKTKSQEEQIKELSAIALDEEEQENNFYRNKMKEFKDQEKDIDIYSILKTH

MPIIACIAAAIISAMFLFKGLNNVSTLDILQNFWIIGIIGTISYVVTFAIVKIVKKTELNKTTDRIFSWF

QIFTASSFAFSHGANDIANAIGPFAAILDVLKNGTINATSPVPFAALAMFGVALVVGLWFLGKEVITTVG

SKLATIRPTTGFSAELGASIVILLATQFGIPVSSTHILIGAILGIGVYNKNANWIMMKPIGLAWIITLPA

AGIMAALVFLGFKLSLGI

>WP\_002864511.1 MULTISPECIES: hypothetical protein [Campylobacter]

MFYTFFVILKQGEKMLKQIAFGSIALTATGYGIKKLYEKLSKPERKFDTHAIVPSCKDVINTEEYKLKRE

LEIEQKKNQIQEFLCECMECYSGFSKYFNSKEFLEFEQNFTSKNNHKTEFLLSSYKDQMIKVIDYAKKFK

CLSAFLETQSEKNDLAVVKMISESMERKTQRFYLQTKFQTFPQYIFPSVWSSPMWDKQWE

>WP\_002864507.1 MULTISPECIES: MATE family efflux transporter [Campylobacter]

MSSIFSTLSPFRLFVKYAVPNVISMAFISFYYIVDGIFVGKYLGSDALAALALIIPFIMMSFALADMIAI

GSAVQISMHLGLGKKNLARKIFSSSMLIIFIISCFIGILEYFLGPVLIDCLNVSDEIKTMTKECMFVFAL

FAPFTMLSFALDNYLRICGKTAYSMVMNVIIALSNIVLDYIFIVELGWGLFSAALATCLGLVLGGIFGIF

PFLFQNLELKISSLYMNLKIFKNILYNGSSEFFGNISGSLYSIFANFVLLKISDTQAVAAFSIVLYIDSF

IIMLIIAIGDAMQPALSYNYAKKDFSRIKAIIKVVFFAGGFLSLFSIVLILIFGENLITLFTKENNQEFK

TFAYTALMLFAFNYFFAWFNVLSGSFLTAFNKASFSLVLSLAQNLFIPLFFLLFLSCFMGLNGVWLSPFF

AEFCVLILAWIFLKRIFKDLSL

>WP\_002864506.1 MULTISPECIES: FUSC family protein [Campylobacter]

MNKIEILKQHFKEIAKLNSSEQVWQMPFFAALGVGIVLGLSVFFGKLNYGLIAMIGALSFLYVPSTPLYH

RMAVVMCCSFGIVSSFFLGILTHFLPAIFAFIPIGIMAMGSSILIRYYNIGAPGYFFFVFSCVLGAYSPF

EAKDFIFLVGLVFLGAMVANLMALLYSIVVIYGFKNALPSEIPPREYIGFDAVFVDSLIMGSFVAFSIFI

GTFLELERSYWIAISCTAIMQGVTLNSIWIKQIQRIIGTALGVCFAWWLLSKQFHDIELILLMMSLFFIG

QFLVNRNYALAMIFFTPYATYLSEAANFMSENADKLILARLIDVVIGSILGLLGGFVIYKPYLRVHFERI

AKYIFRIKQKA

>WP\_002864463.1 MULTISPECIES: type II/IV secretion system protein [Campylobacter]

MESRMDKIFQAYIDNEISLDEICTKFNITSWDFFNKLANFCNLHFVDLDEDNDFIYEGIPFSLLLKFKFL

LIKNNDGFMIIRSKPCSLELLEQVKTFMICEKIDTAIADELKIAKILNQIRIQEEIKRLSIKLRLEWQEN

HKRDDQSCISQIFDFLLHEILSFHASDIHIEARNNDALIRFRVDGILREFAIFEKDIYEALVFHVKFLAC

LNLAESRKTQDGSFELDFENERYDFRVSCLPLIYGESVVIRILKHDKEILDLYKLNLGNKNLEILKKILH

RPNGMILLTGPTGSGKSTTLYACLNELKSIEKKIISAEDPIEYKIPLVQQILLNSKVGVEFNSVLRAILR

QDPDIIMIGEIRDEESLDIALKASLTGHLLLSTLHTNDALSTIDRLLDMQAKSYLIASALSLVIAQRLVR

KLCPWCKQKSKKHYIEFEGEFFEPKGCERCHHSGFFGRELIAECLEINEDLACAIRENQDKTILMELAKK

YGFQTMFEQGLKKAKEGLTSIDELLRVVR

>WP\_002864285.1 MULTISPECIES: restriction endonuclease [Campylobacter]

MITKDNLKQVLENLGFKNKNENYVKTINNYTLLIDYKNQSINYPKEIKIHDKTTSNFSHPENFVVFECVH

RLLEKGYKAEYLELEPKWNLGRDKKGGKADILVKDNENNPYLIIECKTTDSKNSEFIKEWNRMQEDGGQL

FSYFQQEKGVKYLCLYTSDFSDKLEYKNYIIQAYDNEEYLKEKELQNSYKKSNNNIELFKTWKESYELQY

FKQGIFEENVNAYKILEITPTFDNLKELKEEGKYHEFAKILRKHNISGKENAFDKLVNIFLCKIYDETFN

KNNLKFGYFGVMADTYANMQDRLMWLYKEAMKEFLGEKITFVSNEDIEKDFKQLKIKTLKEVMQNYIKEL

KFYSNNDFAFLEVHNKELFLKNALVLKEIVELFANYKLTQNSTNQFLGNLFELFLQKGMKQDEGQFFTPI

QICEFIMYSLPLQEMLSKSSKALRVIDYACGAGHFLNTYANELKRYLTEDELKEHYKNIYGIEKEYRLSK

VSKVSSAMYGQNEINILYADALASFELANTNNLEGEKAKPQIESNSFDLLIANPPYSVKGFLETLSDKSK

NTYKLFNDDINIETNNSIECFFCERANQILNDNAKAAIILPSSILNKDSIYKNTREILFQNFDFIAIVEL

GNQTFGATGTNTIILFLRKKETFKQENHLISQDYSLIKERIEAENLKDNENFYQNYLSAYCDFRKFDKEL

YSNFLNGNLDSKLAELEAFKDYRNAFRQTSDYKKLKESKIYKESKDKQDLEDKAFLAYTQAIEKDKLLYF

CLSLNQEVLIIKSPSDIKEQKKFLGYEWSNRKGDEGLKELHEPYLSPLFERGNPQNETKLNTLICKAFLK

TLSDIPKDLQGYASKARLIDMMDFEKVEFNKAISLNVKSRDELNPFKNSKYELVRLGEVCDLNKIRNQAS

ATEIEKMNLNSGNVKLLPSSKNYEWWTDEKTAGQFINEGEVITLGVARYANIKKHKGKFVSANNHILSVK

DKSKIIFDFLYILLEICGQKLYKQGQQYPQFDTNIFYSFKIPLPPLEIQKQIVAECEKIEEQHNTLSLSI

KEYQKLIKAMLQKSGIIEDNQEYELNSILENLQKLESKLDFNLLLSLIEEQISHSEVLVEETQSKERKQD

FNAFKNFSKTIQELLQTLSTPPKDGWKRISLKNEQYMELNPSKKEISKLDENMLVSFIEMASVSDKGYIQ

SKIDRSLNEVRKGYTYFIENDILIAKITPCMENGKCAIAKNLTNNIGFGSTEFHIFRAKTGLDSSFLFYN

LNQQNIREKAALAMTGASGHKRVPISFYENLTIPLPPLEIQEKIVQNIELVEQQIDLLNLKLEFLEKEKE

KILQKYLFS

>WP\_002864166.1 MULTISPECIES: L-fucose:H+ symporter permease [Campylobacter]

MTDSKNIKIAIVLVTSLFFLWGVSYGLIDVMNKNFQNHLHISQHESGFLQFAYFGAYFIIALPAGYIANR

FSYKMGIIFGLALYAIGALLIIPATNLASFHLFLFAFFILACGIGSLETSANPYMTKLGDEKNASFRINA

AQSFNGLGQFVGPIIGGALFLSITKQEEGASKEQIQAALVANMGNVQLVYIGIAVIVILILIAFVANKLP

EGSAVSDDYKQKDDSKPIYVFKHRHFNLGLLAQFLYIANQVAAGAFFINYVVEHNEGLKDAQGAYYFSIA

LVAFMLGRIVSTPLMKIIKGEKILGFYSLINVLICFSLYFASGFFSIVLLIALFFFMSISFPTIFAVATK

NLPLNQVKLGGSLLVMSIVGGAIMPIIIGFINDHYGTGAGYLAMAPLFLYVAWYGFIGSKVRKNAKDF

>WP\_002864146.1 MULTISPECIES: hypothetical protein [Campylobacter]

MITQTMQSKESKESKENSKISFANAFLKQNASKLNEIQNANSQTLARSEALNSTNTTNTSNNTNFSISSK

TSSPNYDISSEFKNSIYTLKYKQVDISNTSTNTAYGYSVDKDGYMGSDFNKAAGLPEDFKIHKSTLDEIE

RKAENNSYTSDIKKYLGIDKYYTNIDMAETIKQYYNQFNQIVNYAFNDTNKTSFTEADINSMPKGISELS

SDKTIGIMPKNYDKLTITNYYNTQEQYNEAEQLGMFGHINIGLQPLNFTPQSMQTQNLDKDTAIDTFNPD

MSVYPQNEDGSYSKEALFMSFLKSTGVSPREGSATLNPIAKSYAEAMAKESFDGSLASLDDIMTGKVDFA

SLLKGYAQEGWLDADIYAMDKGVAWQNTSIGYGGAWFDREFNQVKANGWKASSESINSYVGSIMDRLNNL

MGQTRV

>WP\_002864120.1 MULTISPECIES: ShlB/FhaC/HecB family hemolysin secretion/activation protein [Campylobacter]

MLEQSPYKEDANSKNYNNTLKVKDGVIIIDHSNTSDDNNSKTINTKKNTQKNQPNLSNDNTLKTKTPNSN

TPSLKNTSKEESIHKVSFSFHITNKNINFKDLGLDEQVLQEALNDYKKESISVQDLQDIANIISYYVQVS

GYPAATAYIPQQELKDQIQINITLGVLGKYVVQNNSSVRDYAIESKLPNHKGEIITTKLVEDAVYKVNEM

YGIQTLASLKAGDNPGETDVVIETTPSDSFVSVLFYGDNYGIKESGRYRDGASMSFNNIAHQGDSLNAYL

QRSDEAQTNYSISYTTFLGNLKITPSYSKRNYALGGAYKNANFIGTSENLGIDLKYPLWITTYNSFYLTS

SYYHKKLSNSRLNIMTIDKSSDTISFSIEGVYNGISNDSFSYSANVSYGNVKDGGTTILGMSSKTDGDGF

GKFAKLNVNLNNAYFFNDTFTHLFSLNYQQVVNGATLDSSETISLGDPYGVRAYNNGDGEGDNAVVASFG

LRMATPLKDFYITPFYNIGYSWYENDSKLYRASETNYMDAYGLQLLYNKTGNFYVKLDLARALKKYKLDD

DYSSKAYVSFGKYF

>WP\_002864082.1 MULTISPECIES: sodium:proton antiporter [Campylobacter]

MILTLLTNPIIISVVLMTLLCLFRFNVLLSLLISALVAGVFSHLELVDTMNILISGMKENLKTALSYILL

GAIAAAISKTNLTAYLIKIVSHFISHKKYLLLLSIALISCFSQNLIPIHVAFIPLLIPPLLSLFNKLKID

RRAVACALTFGLTTPYMVLPVGFGLTFQDLLKDNLNANNVSASLNDVTNTMYFAAICMIAGLFLALFVFY

RKPREYQEVEIAKVDLENLEMTRKEWGVLAGLVLTLILQILTMNLPLSGLLGFVLMVILGGVEFSKVNEV

FDDGLKMMGFIAFVILVAAGYGEVLKESGSVVDLVNSVVPWMEQSKFLAVFFMLLIGLIITMGIGTSFGT

IPIIATLFCPICLELGFSTALIIFILGVAGALGDAGSPASETTMGTTVGLNADKQHDHIKDTCIPTFIFY

NGPLLILGSIIAMFL

>WP\_002858833.1 MULTISPECIES: DNA gyrase subunit B [Campylobacter]

MQENYGASNIKVLKGLEAVRKRPGMYIGDTNIGGLHHMIYEVVDNSIDEAMAGHCDTIDVEITTEGSCIV

SDNGRGIPVDMHPTENMPTLTVVLTVLHAGGKFDKDTYKVSGGLHGVGVSVVNALSKKLVATVERNGEIY

RQEFSEGKVISEFGVIGKSKKTGTTIEFWPDDQIFEVTEFDYEILAKRFRELAYLNPKITINFKDNRVGK

HESFHFEGGISQFVTDLNKKEALTKAIFFSVDEEDVNVEVALLYNDTYSENLLSFVNNIKTPDGGTHEAG

FRMGLTRVISNYIEANASAREKDNKITGDDVREGLIAIVSVKVPEPQFEGQTKGKLGSTYVRPIVSKASF

EYLTKYFEENPIEAKAIMNKALMAARGREAAKKARELTRKKESLSVGTLPGKLADCQSKDPSESEIYLVE

GDSAGGSAKQGRERSFQAILPLRGKILNVEKARLDKILKSEQIQNMITAFGCGIGEDFDLSKLRYHKIII

MTDADVDGSHIQTLLLTFFFRFMNELVANGHIYLAQPPLYLYKKAKKQIYLKDEKALSEYLIETGIEGLN

YEGIGMNDLKDYLKIVAAYRAILKDLEKRFNVISVIRYMIENSNLVKGNNEELFSVIKQFLETQGHNILN

HYINENEIRAFVQTQNGLEELVINEELFTHPLYEEASYIFDKIKDRSLEFDKDILEVLEDVETNAKKGAT

IQRYKGLGEMNPEQLWETTMDPSVRRLLKITIEDAQSANDTFNLFMGDEVEPRRDYIQAHAKDVKHLDV

>WP\_002858781.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKILILSLAASFLNAEILVYGPGGPAPVLKELALKFEEKTKEKVIVTAGPTPAWVDKAKENADLIFSGN

TSMMDDFAKKIPSLSLENLSVLNVRPSGIIVRPNNPKNIKNFEDILKDGINVMVVDGAGQVGLYEDMALK

SAKRENLVKLRKNIKIYAKNSKAAVDEWNNNPNIDALIIWSHWAKALGDDKALFIKDKNAVIYRAAEIAP

TKKGLENKKALEFVDFIKSQEAQKVWKKYTWKEVK

>WP\_002858721.1 MULTISPECIES: excinuclease ABC subunit UvrA [Campylobacter]

MNDTIKIIGARENNLKNIHLEIPKNKLIVFTGLSGSGKSTLAFGTLYAEGQRRYIESLSAYARQFLDKVG

KPDVDKIEGLTPAIAIDQKTTSKNPRSTVGTITEIYDYLRLLYARVGIQHCHRCGQKISSMSVSDIVSEI

LKFPKGAKIIIYSPLIREKKGTYADLLENLRNKGYVRAQIDGVLVRLDEEIELAKTKKHTIKLVIDRLEI

QEDLLSRLASDIEKGLQESFGEIEIEVLNHEEINLNKHYHFSEHSACFDCKISFVPLEPLSFSFNSPKGA

CEACDGLGIRYTLDMKKIIDENLSLENGAVKIMYGFNKSYYYKFLIAFCEQNEIPIKIPFMQLNEVQKRL

VLYGNAKTIEFLWKRNRLKRTFEGVVKMAYEMLKDEKDLAEYMSEKICKDCGGHRLKPESLAVKVAKKSL

GEILDMSIEDSTAFFADEKNFSYLSEQQKLISKPILKEINERLFFLYDVGLGYLSLGRDARTISGGEAQR

IRIASQIGSGLSGVMYVLDEPSIGLHERDTAKLIKTLRNLQQKGNTLIVVEHDKMTIEEADFIVDIGPKA

GKFGGEVVFSGTYKELLKSKSETALYMNGKKQISQLQNRTQKEWLELKNVNINNIQDLSVKFPLQNLVAI

TGVSGSGKSSLILQTLLPFAQEELNRAKKVKKLGGVQIEGLEKLDKVIYLDQSPIGRTPRSNPATYTGAM

DEIRNLFAATKEAKMRGYKAGRFSFNVKGGRCEKCSGDGEIKIEMHFLPDVMVVCDTCGGKRYNDATLEI

KYKGKNISEILNMSVLEASEFFTAVPKIKQKLDTLVKVGLDYLTLGQNATTLSGGEAQRIKLAKELSRSD

TGKTLYILDEPTTGLHFEDVNKLILVLQHLVDLKNSVFVIEHNLDVIKNADYIIDMGPEGGVKGGKVIST

GSVEKVAKEHKKTRSYTGYYLDLELKNTQKS

>WP\_002858701.1 MULTISPECIES: threonine--tRNA ligase [Campylobacter]

MEKEVIAYLDNETIIDSQSVKNTNLKEIYFDNSKESLEVIRHSCAHLMAQAIKSLYPEAKFFVGPVIEDG

FYYDFRVESKIGEEDLVKIEKKMKELAEAKIEISKYEITKSEALAKFQNDDLKQEVLLRIPDRAVSIYKQ

GEFEDLCRGPHVPNTKFLRFFKLTRVAGAYLGGDEKREMLTRIYGTAFADKESLKEYLTIIEEAKKRDHR

KLGTELKLFTFDDEIGGGLPIWLSNGARLRSKLEHMLYKIHRLRGYEPVRGPELLKADAWKISGHYANYK

ENMYFTQIDEQEYGIKPMNCVGHIKIYQSDVRSYRDLPLKFFEYGVVHRHEKSGVLHGLFRVREFTQDDA

HIFCMPSQIKEQVLEILAFVDNLMKLFDFSYEMEISTKPEKAIGDDEIWEIATKALKEALDEQGLKYGID

EGGGAFYGPKIDIKITDALKRKWQCGTIQVDFNLPSRFKLEYTDSDNEKKQPVMLHRAILGSFERFIGIL

TEHCAGEFPFFIAPTAVGIVPIGEAHIAYAKEIQKELLELNIDSEVYEKNESLSKKIRIAEKQKLPMILV

LGDDEVAKRSVALRDRRAKEQKNLSLDEFIKLVKEKMSEVHF

>WP\_002858696.1 MULTISPECIES: TolC family protein [Campylobacter]

MNKIISISAIASFTLLISACSLSPNLNIPEANYSIDNKLGALSWEKENNSSITKNWWKDFDDENLNKVVD

LALKNNNDLKLAFIHMEQAAAQLGIDFSSLLPKFDGSASGSRAKTAINAPSNRTGEVSYGNDFKMGLNLS

YEIDLWGKYRDTYRASKSGFKASEYDYEAARLSVISNTVQTYFNLVNAYENENALKEAYKSAKEIYRIND

EKFQVGAVGEYELAQARANLESMALQYNEAKLNKENYLKALKILTSNDLNDILYKNQSYQVFNLKEFDIP

TGISSTILLQRPDIGSSLEKLTQQNYLVGVARTAFLPSLSLTGLLGFESGDLDTLVKGGSKTWNIGGNFT

LPIFHWGEIYQNVNLAKLNKDEAFVNYQNTLITAFGEIRYALVARKTIRLQYDNAQASEQSYKRIYEIAK

ERYDIGEMSLQDYLEARQNWLNAAVAFNNIKYSYANSIVDVIKAFGGGFEQSEDTSKNIKEESKNLDMSF

RE

>WP\_002858680.1 MULTISPECIES: M23 family peptidase [Campylobacter]

MAKRKGKTYLSVLILVLIAILIFFISRLSIFEKNPPQILMPDVVYTDLKKPILVHIKDDESSIKNVQIIL

HKDDNTSAMVIADEKISNLKDITLQVALPKFGYKENVKSFVLEVIAKDSSFWNFFSGNEARKQIAVLVDN

TAPKINIISNSYQIEQGGAGAVVFKADDANLDKVYIETNKGKIFKATPYVKEGYYAALIAWDARDEEFRA

FVIATDKAGNISKERIRYYFVNRKYRVSNINLTDKFLDGKIENLANQYAPKDNNLNRYEKFKFVNETLRN

SNEKLIHEITSKVPEEKIDNFDLNLFLPLKNGMKVADFADHRYYSYNGQFVSDSYHMGLDLASVAQAPII

SNNAGKVVFAAENGIYGLNLIVYHGFGVYSLYGHCSSKNVDLDEMINKQSIIGKTGTSGLALGDHLHFGV

LVQGVETRPEQWQDKKWIENNIYNVLNDGKKIILGKN

>WP\_002858629.1 MULTISPECIES: gamma-glutamyl-phosphate reductase [Campylobacter]

MRNLLENIKKNSQKLLNLTPKDKEKIILKLAQILRENFKIILEANKKDMANFTKSGAMKDRLLLDEKRIL

ALCEGLEKIAYIEDPIGKISKGWKNYAGLSIQKMSIPLGLICVIYEARPSLSAEIAALMIKSSNACVFKG

GSEAKFTNEAIFTLVNKVLKEFDLQDCFAMFTQRDEILQILAFDDLIDVIIPRGSSNMIQEIANNTKIPL

IKQNKGLCHAFVDQSANLDMALKIILNAKCQRVSVCNALETLLIHEKIAKNFISLLIPEFEKFKVKIHAH

ENALAYFNNSNLKIFKANENTFDTEWLDFALSVKLVKDCDEAIEHINKHSSLHSETIISNDASNIAKFQR

LINSSCIYANASTRFSDGGEFGFGGEVGISTSKLHARGPMGIEDICTYKYIINGEGQIRE

>WP\_002858543.1 MULTISPECIES: hydrolase [Campylobacter]

MQYLYAPWRSEYFEKVKSICPFCDCANKIKSDEELGVIFRAKHCFGVMNRYPYSAGHFMVIPYIHEEHIE

NLSDEIWQEMSYFVRLGVKILKEQIHANGVNIGMNLSKDAGAGIAFHCHYHLVPRWSGDTNFITTIGETR

VCGTNIEQVYQKLVLAFKNAQ

>WP\_002858523.1 MULTISPECIES: ferrochelatase [Campylobacter]

MKLVLFLNMGGATNLQDCEVFLKNMFNDPYILGIKNRFLRKFVAWIITKARVKAMQENYKKMGGKSPLNE

LTQSLCDKLNLKQDEFKFDFVNLYVPPFATEILQKYTLNASDEIILFPLYPHHSCTTVTSSLEVLQNEIS

KQKIQAKVKTIDIFYKNELYNEMIVSHILAKKSKFDAKILIFSAHSLPQSIIDKGDLYEKHVNDHVEILK

EKLKDHFDEFILAYQSKLGPVKWLEPNTSDVLANLNDKALIYPISFCIDCSETIFELGMEYKHLSKYNYD

LISCPNDSDEFMEFILKYLSDLN

>WP\_002858510.1 MULTISPECIES: MOSC domain-containing protein [Campylobacter]

MKIQSLQIGKIKNYKNFQSAFIKDTYLEETQIDFLGVLDDQIADKIHHGGYHKAIFTNSCQNYPIWERFL

NKKLNFGSMGENLSIDGLCEQNVCIGDIHQFSNAILQVSEPRKPCVKISKIHNNPNFTHEIFKTGLSGWY

YKVLQVGQIRKHENIKILEKNSTSLSVFELNQLFYSPHQILKQNPNLLDKLEKLNSLISQNWHETIHKRL

KNTYDISYMDSL

>WP\_002858496.1 MULTISPECIES: tRNA 2-selenouridine(34) synthase MnmH [Campylobacter]

MLSEVEFVEFQKENFSLLIDARSPREFLHSHLIGALNFYALNDEEYQEIGTIYKKNQALAKAMGASYICQ

NTTKHILEITQNFRIGEKVGIYCSRGGLRSKSIAVILSELGFRVVRLKGGFKAYRTFVTHYFENEINFDF

FALCGNTGCGKTELLEQLPQAINLEKMANHLGSSFGDILGKQPTQKAFEAELFHNIQNLENFAFIESESR

KIGDIILPLKFYEKMQKAFKIYCFCSLENRVRRIQKIYQEKMTPLKFQQCVQKISPYISLNLRQDLLQSY

ERKEWQKLIVMLLEYYDKTYKKPDKIDLELNTDDILKAKEELLDHFKVQLLF

>WP\_002858473.1 MULTISPECIES: TatD family deoxyribonuclease [Campylobacter]

MFLNLDFQDGLRIVDTHCHLDSEAFKDDLDETLNRAFKNGIEKIIIPGADIKDLPYAATIAHKYKNIFFA

AGVHPYEIDNYDEKILRQYLCDEKCVAVGECGLDYFRFKSDLAEEIQKEKENQKKIFIAQLELAIEFKKP

VIIHSREANHDTYEILHGYSKDLVGGVLHCFNASEHLLTLFEEGFYFGIGGVLTFKNAKKLVEILPKIPK

DKLLLETDAPYLTPEPYRGKRNEPLLTQFVVNKMCEVLNLSRKELLEICFNNSEKLFFKGY

>WP\_002858469.1 MULTISPECIES: methylenetetrahydrofolate reductase [NAD(P)H] [Campylobacter]

MCSFSFEVFPPRKDENIKNLHAILDDLGQLSPNFISVTFGAGGSINSQNTLEVASLIQEEYQIPSIVHLP

CIHSSKEKITQILQKCKEKNLNQILALRGDICENLKKSKDFSYASDLISFIKKQEYFEIYAACYPEKHNE

SKNFIEDIHHLKTKVNAGTDKLITQLFYDNEDFYTFKQNCALADIDIPIYAGIMPITNKRQVLKISQLCG

AKIPPKFVKILEKYENNTLALEDAGIAYACDQIVDLITSGVDGIHLYTMNKSKAAIKIYEAVKHLLKEEL

HA

>WP\_002858427.1 MULTISPECIES: uracil phosphoribosyltransferase [Campylobacter]

MKNIHCINHPLIEHKLGILRAKETKPFQFRMLIDEISSFLLFEASKDFSLKEIEISTPIQKTTVKKLDEK

IMICPILRAALGMLESVFKMIPDASVGFLGFVRNEETLKADFYFQKLPKDAKKRTAIVIDPMFATGGTAI

DACNFLKSQGVKKIKFISILAAPQGLKKFSQMHDDVEVFVACIDEGLNEKGYIIPGLGDAGDRVFNTL

>WP\_002858421.1 MULTISPECIES: glutamine--fructose-6-phosphate aminotransferase [Campylobacter]

MCGIVGYIGNNEKKQIILNGLKELEYRGYDSAGMAVMQEGELSFFKAVGKLENLANKCTDFESQGYGFAI

GHTRWATHGKPTEINAHPHLGQYSCVIHNGIIENYKEIKDKLEKEGVSFLSQTDTEVIVQLFEFYARNLG

VFEAWQKTIKELRGAFATLLVTKKDPNHVYFAKNAAPLIIGKNANKEWYFSSGDAPLIGSCDEVMYLEDL

SLGYASKDELVVYENDILKSLCFSKLSGDKAYAKKDGFRFFMEKEIYEQSRVMSEVLMGRIQGDEVVFDE

LNNEDLSQVDEITLCACGTSYHAAMASAYLFERIAKVKAKVEIASEFRYREAIIKKDSLFIVISQSGETA

DTLEALKIAKEQGAKTFAICNVDNSNIVRLAHLSLLTRAGIEKGVASTKAFATQVLTLWMLAIFMAQKRN

LNVSAEIKALLHTPNCVSVKQALHEKIHRLSKRYLDGHGFFFIGRDVFYPLALEGALKLKELSYLHAEGY

PAGEMKHGPIALADSKLYTIALMPKHMLYEKTKSNVEELIARDSTVLSISPLEFDLSDDFIKTNEQDHYM

CEFFEMMVITQLLAMEISIRLGNDVDMPRNLAKSVTVE

>WP\_002858387.1 MULTISPECIES: nucleotidyltransferase [Campylobacter]

MLNKELEIFKKNLSSYTQSCRKFFLKQGAFSLYHSKNMDNFIKKAYDIVLKDYFDDFSPPSDNIPFCVLA

SKAYANNSLCFNESISLIFVYKDIKAFHLKPMIKAFIEILNDAHLQIDSVILEFNGLYNASNELKTSIIQ

TRFICGSRILFKGIKIKFESIIKENKNDFAKLLLENFKEFDIPFIKQEFNILKDFGGLNHLRSLESLLVL

FKTSPKNYALNFIDEKKLSELRLAGDFLLSLKSAMNLLSAKDEDEFLLINVHDLSELMYKKAKKHFGANE

LLVQKALQSMHTIGFYTHFLAKQIQDGLNHTLKQEYKFKTLVEVLEYLLKLEDKHVIFDLNLVFALGRLK

YGKKDIEKALILFEKIFYKRHSFCVLKLLLDSGILKDLCKPFWTVRFLSDEEGNYSFDEQVFLMLSEFEK

YEDELEILQKLKTDEKMILKLVILLSAIESENEISLAGIYRAYCSKFDLKNEILEWGLKIFKNNNALKDL

VEKEDIYNPIVVSSLVSKLENLENLELLYTLTWLKAKALNYNAFYFRVLDKLLENAKQGFEDENLLEESA

RRVKKELTLKRSKIFLEQDEILQDKIIHIKSNLFIIKNTFEDIVMISKLAKENDFKFWFSNETNLSLQIV

APLHFNIAIILSSLTNLNLIFMNFFELFDDKIYLRFEYDNIISDEQKLKLCELLNSNLSGFNLKKIKKPI

IKKDELKLDLNYSKMYAKLGLNTKDQQGLMAYLMNVFNELELVLCAAKIQTIRQRTRNIFIFQKNEKLEH

SEQKLVNLLISE

>WP\_002858284.1 MULTISPECIES: glutamate--tRNA ligase [Campylobacter]

MHEKLTTRFAPSPTGYLHIGGLRTALYNYLYARKNGGNFLLRIEDTDLKRNSKEATKAIIEAFKWCGLEH

DGEVTYQSERFDLYKEYVKKLLDEGKAYYCYMSKEELEELRAKQEAAKERPRYDGRYREFTGTPPQGIEP

VVRIKAPQSGEIVFEDGVKGEVRFKAEDIMDDFIIARSDGTPTYNFTVVIDDALMGVSDVIRGDDHLSNT

PKQIVLYEALGFKIPKFFHVAMIHGEDGKKLSKRHGATDVMEYKEMGILPQALLNFLVRLGWSHGDDEVF

SLEDLKKLFDPYHINKSASCYNAKKLEWLNAHYIKTLPFEEINRQLKDLGFDLSVYEKAGFLLDLLRERA

KTLHDIINGAKSIVNAPQNYDENAVQKFVNKNNLELLQAFANTLKDQKTGKDFEDFTNDFLEKKEAKLKD

LAQPIRIALTGSAVSPSIFEVLEFLGVDECKKRIDNFLKVRGK

>WP\_002858259.1 MULTISPECIES: DUF4261 domain-containing protein [Campylobacter]

MTIDLNHNFTSFVLLDEVDFNFSELKSILEDKFNIKIADENFTKEGVIFSYENMLVTLNLINNPIPNHEV

EYYANFNFMWKDALEQTKKHKAHLLIAVLSQDQSKLEQAKMFTKIAALCLDNKHALGFYTGAVVLEPSFY

IENAKMLDDNRLPVYNWIYVSVYPSENGVNAYTYGLRNFDKLELEVCDLNIEEKELFFCIYDIVLHILTY

DINLKDKDILKFEDGKEIKFIKSQGISVENESLKIIF

>WP\_002858257.1 MULTISPECIES: UDP-N-acetylenolpyruvoylglucosamine reductase [Campylobacter]

MIIDFKKYSSVRIGNEFEVLVLDQICDFDGFLIGGANNLLVSPKPKNIGILGDGFNFIQILDRNKDFIHL

RIGCKTKSSKMYRFAKENNLKGFEYLSKIPGTLGGLLKMNAGLKGECISQNLIKIATSQGEILRANINFD

YRFCPLNTHFFWAEFKLNFGFDTLKDEALKNARSNQPSGASFGSIFKNPKNDFAGRLIEAVGLKGFSKGD

AMLSDKHANFLINKKNASFEDAFFLIELARKKVFEEFGTNLENEVIII

>WP\_002858130.1 MULTISPECIES: transketolase [Campylobacter]

MNIQILQEQANTLRFLSADMVQKANSGHPGAPLGLADILSVLSYHLKHNPKNPTWLNRDRLVFSGGHASA

LLYSFLHLSGYDLSLEDLKNFRQLHSKTPGHPEISTLGVEIATGPLGQGVANAVGFAMAAKKAQNLLGSD

LIDHKIYCLCGDGDLQEGISYEACSLAGLHKLDNFILIYDSNNISIEGDVGLAFNENVKMRFEAQGFEVL

SINGHDYEEINKALEQAKKSTKPCLIIAKTTIAKGAGELEGSHKSHGAPLGEEVIKKAKEQAGFDPNISF

HIPQASKIRFESAVELGDLEEAKWKDKLEKSAKKELLERLLNPDFNKIAYPDFKGKDLATRDSNGEILNV

LAKNLEGFLGGSADLGPSNKTELHSMGDFVEGKNIHFGIREHAMAAINNAFARYGIFLPFSATFFIFSEY

LKPAARIAALMKIKHFFIFTHDSIGVGEDGPTHQPIEQLSTFRAMPNFLTFRPADGVENVKAWQIALNAD

IPSAFVLSRQKLKALNEPVFGDVKNGAYLLKESKEAKFTLLASGSEVWLCLESANELEKQGFACNVVSMP

CFELFEKQDKAYQERLLKGEVIGVEAAHSNELYKFCHKVYGIESFGESGKDKDVFERFGFSVSKLVNFIL

SK

>WP\_002858075.1 MULTISPECIES: ammonia-forming cytochrome c nitrite reductase subunit c552 [Campylobacter]

MKKNILRLGIVVLVLLIAGVLWLNNDINQKKEDEANKNAIAANADFSLLSDDDPNFEKWGKVFPEQLKMY

LTVEKEEPKATEFGGNLAYSKLIRFPQLTILWAGYPFSLDFNEERGHFWVQVDQMKTARNNKDFLNAHGL

AAFKGQPAACMNCHSGWTPWLIKNVAKGDFTAFNSTNYWTMIKNIPAVDGIVENSPEHAGPHGGKRMGVT

CADCHNPNDMSLRLTRPAAINALVSRGYEKDPVQGVKATREEMRTLVCSQCHVEYYFKPTGEKVKVMGET

IVDDSSKKWWNGTQKNYDEYEFWRDGNKVKEIETDGIVLTFPWSEWKKGQPFRIEMLDDYYDKVRGVFGA

DFTHKLTGAQIIKIQHPESELYSGGVHAANGVSCVDCHMPYVREGAKKVTQHNITSPLRDINSACKSCHK

QSEDYLKAQVLDIQNSVAHDQRTAEYAIVSLIMDTKKLRDELGNMEKFQSDGKADAKKISEELKEVLELH

RKAQMRADFVNAENSTGFHNPREASRMLLQAVDMARMGQTKLVEIAAANGIKDFKTSNLGFEDIQKFNPG

ELYYKVDVNNHKAGERYYADEKDVNGNPPKELLEHDKELAPYNYQVIDKK

>WP\_002858041.1 MULTISPECIES: ADP-glyceromanno-heptose 6-epimerase [Campylobacter]

MKIAITGGAGFIGSQLALNLQEKHEILIIDKMRSSATFENGNLQSFGHFKNLLEFDGELFAGDINDEKVL

KKIEDFKPEIIFHQAAISDTTVFDQTKVLQTNLNTFKDFIELSIDLNAKLIYASSASVYGDAKSPQTVGK

DEEPKNPYAFSKLMMDKLAKKYYDKAHLVGLRYFNVYGKGEFYKNKTASMVLQFGHQILAGKNPRLFEGS

DQIYRDFTYIKDVISANLIALDSKCGVYNVGSGKARTFQDIVDILQKELKTDLPCEYIPNPYVKSYQFHT

EAKLDQTWNYQPKFSLEEGIKDYLGEIKRLFEKEVNA

>WP\_002858028.1 MULTISPECIES: UDP-N-acetylglucosamine 4,6-dehydratase (inverting) [Campylobacter]

MFNKKNILITGGTGSFGKTYTKVLLENYKPNKIIIYSRDELKQFEMASVFNAPCMRYFIGDVRDKERLSA

AMRDVDFVIHAAAMKHVPIAEYNPMECIKTNIHGAQNVIDACFENGVKKCIALSTDKACNPVNLYGATKL

ASDKLFVAANNIAGNKQTRFGVTRYGNVVGSRGSVVPFFKKLISEGAKELPITDTRMTRFWISLEDGVKF

VLSNFERMHGGEIFIPKIPSMKITDLAHALAPNLSHKIIGIRAGEKLHEIMISSDDSHLTYEFENYYAIS

PSIKFVDKDNDFSINALGEKGQKVKDGFSYSSDNNPLWASEKELLEIINHTEGF

>WP\_002858026.1 MULTISPECIES: ornithine carbamoyltransferase [Campylobacter]

MKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAMIFEKNSTRTRMAFELAITELGGKALFLSSN

DLQLSRGEPVKDTARVIGAMVDFVMMRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWNK

MQNGIAKVAFIGDSNNMCNSWLITAAILGFEISIAMPKNYKISPEIWEFAMKQALISGAKISLGYDKFEA

LKDKDVVITDTWVSMGEENEKERKIKEFEGFMIDEKAMSVANKDAILLHCLPAYRGYEVSEEIFEKHADV

IFEEARNRLYVVKALLCFLDNQRGRE

>WP\_002858001.1 MULTISPECIES: acetyl-CoA carboxylase biotin carboxylase subunit [Campylobacter]

MEIKSILIANRGEIALRALRTIKEMGKKAICVYSEADKDALYLKYADASICIGKARSSESYLNIPAIIAA

AEIAEADAIFPGYGFLSENQNFVEICAKHNIKFIGPSVEAMNLMSDKSKAKQVMQRAGVPVIPGSDGALA

GAEAAKKLAKEIGYPVILKAAAGGGGRGMRVVENEKDLEKAYWSAESEAMTAFGDGTMYMEKYIQNPRHI

EVQVIGDSFGNVIHVGERDCSMQRRHQKLIEESPAILLDEKTRTRLHETAIKAAKAIGYEGAGTFEFLVD

KNLDFYFIEMNTRLQVEHCVSEMVSGIDIIEQMIKVAEGYALPSQESIKLNGHSIECRITAEDSKTFLPS

PGKITKYIPPAGRNVRMESHCYQDYSVPAYYDSMIGKLVVWAEDRNKAIAKMKVALDELLISGIKTTKDF

HLSMMENPDFINNNYDTNYLARH

>WP\_002857964.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKITIAHSPDADDIFMYMAIKFGWIGNDFAYENTALDIQTLNEFALKNEFDATAISFGLYPLIASEYAL

LRTAVSFGEGYGPKLIKKKDTHLKRNFKVALSGANTTNALIFRMKYPEARIIYKNFLDIENAVLSGEVDA

GVLIHESILNFDQSLYVEAELWDIWLEFAKENLPLPLGGMALRRSLPLSDAIKIERDLTNAVKIADANRK

ILAPMLMERKLIRVDEEKLDTYLNLYANKNSISMNQTQLLAVDTLFKLGYDYKFYDKIIHVNDFLIPSEY

EEARNS

>WP\_002857963.1 MULTISPECIES: protein translocase subunit SecD [Campylobacter]

MRNSKINYRLIIFIAVFIFGVAFSLPSFLQSERGAKINLGLDLQGGLYMLLGVDNEEAVKSKIKSIASSL

SYSFNKENILNDGLNTHDDILEFTLLDNADIAKVENLLKEIKGINIQSENMHYKISFTSKEVKNIENFAL

LQAVETIRNRLDQFGLAEPTVAKQGDDKILVELAGIKTKEDELRAKERITKAAHLQLMEVDDSKMGQAST

MSDAEAASYGLILVPDSRNPNLKYTLKSIPILDGSMLTDARVGLSDKSNYPVINFTLNAEGSKKFADYTG

ANVGKRLAIVLDNKVYSAPSINERIGGGSGQISGAFTQEEARDVAVALRSGALLAPVKLLEQRSIGPSLG

ADSIKMSMIALIGASVFIVVFMMMYYGVAGIFANIAMLVNVLVVVAVMAMFGATLTLPGMAGLVLTVGMA

VDANVIINERIRELLRDGVNIRVSIEQGYKNAMSAIIDSNITSLVTSVALYAYGTGAVKGFAVTLGIGIV

VSMITAILGTHGMFDYFMQRIEKNNNTRFWFGYRRR

>WP\_002857949.1 MULTISPECIES: molybdopterin synthase sulfur carrier subunit [Campylobacter]

MVKVEFLGPINKENLELEVKNLKELKEILQKDESLKEWLELCAVSLNDEIIFNENTKLKDGDKIALLPPV

CGG

>WP\_002857898.1 MULTISPECIES: M23 family peptidase [Campylobacter]

MKALWILLSLTLWLFGAQNLELIKGQALFLELDKKDFLSLKNNDKNIPTFAHPKNQEKILAIFSLPYKNP

PQNTKLIAFYKDKKEEIFIKTLEGNYKSEKLQIENKKIFPPKTIQERITKELKEANAIYSSYTPKALFNG

AFNIPLNSFITSDFGKARTFNEKVASYHSGTDFRATTGTPIYAANSGVVKIAKDRYFAGNSVVIDHGFGI

YSQYYHLSKIDVKIGQKIKKGELIGLSGATGRVSGPHLHFGILAGGKQVDPLDFVSKFNAIFQ

>WP\_002857880.1 MULTISPECIES: iron permease [Campylobacter]

MKIFKIIFLIISIFLSSSAFARVDDYINEANLIKDMLKQSIETYKKGDNLGAKKLSEDAYFQHFENMEGS

IGRNIGRKAITMERKFVNLRRMYKDEAPLTQINALIDSLYYDLDEVAPILQNGYRLKAEASDINYDKAKA

EKSSLEANAKREADAEALIAQMMGVDKKDLAQSSLTTQAPIPINNDTSKLTDDNASTDLQAAAAMDVRLQ

FILDNISTKFSQAANAFKEKNYQTSKDFLNDALFSDYRNTKVEILVNKFTKAGNDQKIQQAIRTLIRQIN

DAKIDEKGLRDGLDNIEEQIFDVFLQIPNSELSSLQISGFNDETKGKDYAKVSNDIKLALDEILKNYDGF

SASIVDDLQGIYLDIFEASGMENKIGAVDSGLKLKIESLFSKSVALIKASTDKKELEATFNDLEQLIASS

VDKIQDSTPYSLFIWALGIILREGLEALIIVVAIVSYLVQSGNKNRLNIAYSALFTGVILSFVTAFGVSW

LFKENAGQSRELIEGITMLIAVLLLFYVGFWLLSNAQNKKWTSFIKQGAIDAISNNSAKTLWITVFLAVY

REGAETVLFYQALLFDAKTSTDFGAVFGGLGLGILILIVLYFLLKAGAIRIPVKQFFYITSYIIFYMVFV

FTGKGIAELIEGKVIIPSLIPMNFEPILWLGIYPYYETLIPQFIVLIMLIIGILITKQISKKGVKS

>WP\_002857636.1 MULTISPECIES: MotA/TolQ/ExbB proton channel family protein [Campylobacter]

MLKKCFYFVFLLLNLNAEANATDTNLSFDSSKIETEAPKIELSLSSLYQNADEVVKGVIYILVLFSILAW

AVFISKLMQFYFMKKNLDLSIQKIKELKNLNELDQTKDFAGVLSLEIQDELEKSEYKNDHIKERIELRLQ

NTISKQITASKNGLSLLASIGASAPFIGLFGTVWGIMNAFIGIANLGNASLAVVAPGIAEALFATAFGLI

AAIPAVLFYNYLTRKNLKLMHHLDELANFVYILFHRSYFNDKN

>WP\_002856753.1 MULTISPECIES: hydroxymethylbilane synthase [Campylobacter]

MKLIIATRKSQLALWQSEHVAQILKNTHQIEVLLEGFKTKGDVLLDSPLAKIGGKGLFTKELEESMLRKE

AHLAVHSLKDVPSFFPQGLVLAAVSKREQSNDAMLSQNYKDFLSLPKGAKIGTTSLRRKMQLLLLRPDLE

IISLRGNVNSRIEKLKNNDFDAIILAMAGIKRLNLDKQVNFVYEFSKDELIPAASQGALGIESINDEKIL

ELLKCLNDENALIETSIEREFIATLEGGCQVPIGINAELLGDEICVRAVLGLPDGSEILKDKRMIKKNDF

KGFGESLAKEFIAKGAKELLKKAESMI

>WP\_002856709.1 MULTISPECIES: amino acid ABC transporter permease [Campylobacter]

MNQKNIRIFVFFVIIILWGYFSFPIEILKIQDPSGVASYGYTENAKAYLKSYLITLLLTACAVIIGVIIG

FSLAILRFSKFKTLNFIIDEYIDIIRGTPVILQLMIFAFVIFTFIDNLYAAILALGLNSSAYIAEIVRSG

INSVDKGQMEAARAMGLDYKTSMKEIILPQATKNILPALANEFISLFKETSVVGFISVIDITMQSQSLQA

VLYNPKPIIFTGLVYYVSVKIFSYFAKKLELRMNKND

>WP\_002856503.1 MULTISPECIES: UDP-4-amino-4,6-dideoxy-N-acetyl-beta-L-altrosamine aminotransferase [Campylobacter]

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>WP\_002856473.1 MULTISPECIES: imidazole glycerol phosphate synthase subunit HisH [Campylobacter]

MIALIDYKAGNLNSVAKAFEKIGAINFIAKNPKDLQKADKLLLPGVGSFKEAMKNLKELGFIEALKEQVL

VQKKPILGICLGMQLFLERGYEGGVCEGLGFIEGEVVKFEEDLNLKIPHMGWNELEILKQVPLYQGIDNK

SDFYFVHSFYVKCKDEFVSAKAQYGHKFVASLQKDHIFATQFHPEKSQNLGLKLLENFARL

>WP\_002853963.1 MULTISPECIES: HAD family hydrolase [Campylobacter]

MFIFFLKKLYYNVFMKTKALFLDRDGVINIDKKYVYKIEDFEFCDGIFELCRYFLARNYLLFIATNQSGI

ARGYYKESDFFKLCDYMLKEFAKQDIKIDKIYHCPHLEGCECRKPKAGMLLKAKDEFDLDMKNSIFIGDN

LSDMQAGLNADIGTLILVNEEKKEGDFFRQFKNLKEILNFFKEKDI

>WP\_002853398.1 MULTISPECIES: (Fe-S)-binding protein [Campylobacter]

MKFSQISDACVKCGKCIPVCTIHEENRDEITSPRGFLDLLTAYKEGSLELDKEAKKVFESCFLCTNCVEV

CPSKLRVDNAIEEVRYDIAKKFGIAWYKKLIFFFLRRRKILDLVAKLGYVFQSCAFKIQNENENTGMKAR

FSMPFVKKGRLLTSFNKKSFLNSNPKFINNDGEKTIGFFVGCLANYFYIDTANAVLKITKELKINVDLMK

EQVCCGAPQFFTGDFKSVEVLAKKNIEYFEKKLEKLDAIIVPEATCSAMLKIDYEHFFIMQNDLDWAKRA

KCVSSKIYMASEYFYKFTSLEEILKTKNKFNYSITYHDPCHARKMQGVFKEPRELLKTNYHFVEMSNSNT

CCGFGGVSMQTDYYDRALSVGLKKAQMIDESKASVVSAECSACRMQISNALEQNSSKVVFASPLELIAKA

L

>WP\_002853394.1 MULTISPECIES: hippurate hydrolase [Campylobacter]

MNLIPEILDLQGEFEKIRHQIHENPELGFDELCTAKLVAQKLKEFGYEVYEEIGKTGVVGVLKKGNSDKK

IGLRADMDALPLQECTNLPYKSKKENVMHACGHDGHTTSLLLAAKYLASQNFNGALNLYFQPAEEGLGGA

KAMIEDGLFEKFDSDYVFGWHNMPFGSDKKFYLKKGAMMASSDSYSIEVIGRGGHGSAPEKAKDPIYAAS

LLIVALQSIVSRNVDPQNSAVVSIGAFNAGHAFNIIPDIATIKMSVRALDNETRKLTEEKIYKICKGIAQ

ANDIEIKINKNVVAPVTMNNDEAVDFASEVAKELFGEKNCEFNHRPLMASEDFGFFCEMKKCAYAFLENE

NDIYLHNSSYVFNDKLLARAASYYAKLALKYLK

>WP\_002853346.1 MULTISPECIES: peroxide stress protein YaaA [Campylobacter]

MKILFSPSESKNENCVKNPINENSFIFKELFPYRMEALKHYEEFIKNASLQNLQELFGIKNENEIDKFKH

DLKQAPTQEAILLYTGVSYEYLNFKALDKKSQAYILENTLIFSNLFGIVRANDTLPFYKFKQGAKIGNFA

IEKFYKEHFSKALDEYLENEEILDLRAGFYDKFYTPKKKFYTYKFVKNGKVISHFAKAYRGILLSISAKN

QVKNNKELLANLPSNLKLKEIQIKGLKEEIVLEILD

>WP\_002853297.1 MULTISPECIES: adenine phosphoribosyltransferase [Campylobacter]

MIKLTQEEQKYLLDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFI

FASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKVELHKDAFKNIQNARVLLVDDLIATGGTAIA

SYELIQKAGAKCVEACFLINLKDLNGANKLEKLTSVYSVLEI

>WP\_002853261.1 MULTISPECIES: apolipoprotein acyltransferase [Campylobacter]

MKIALIQQKFHLNKEQTIKKTCEFIEEASKQGAELVCLGELHQSEYFCQSENVDFFDYANDYEKDVKFWA

NIARKNQIVLIASLFEKRSAGLYHNTAVVFEKDGSIAGKYRKMHIPDDPCFYEKFYFTPGDLGFEPINTS

LGKLGVLICWDQWYPEAARIMALKGAEILIYPTAIGWFDKDKDEEKQRQLNAWLGVQKGHAIANGLYVVA

INRVGFEKDVSGVEEGIRFWGNSFVFGPQGEELCLLDSQNECVKIIEIDKKRSENVRRWWPFLRDRRIEY

FTDLTKRFID

>WP\_002853255.1 MULTISPECIES: carbon starvation protein A [Campylobacter]

MTQLSTKILWLFVAALGAICFGYLALQNGESVSAIYLVVAAVCIYMIGYRFYGSFVAYKVLELDKNRATP

ALVENDGRDFVPTNKAVLFGHHFAAIAGAGPLVGPILAAQMGYLPSMLWILVGGVLAGAVHDFVVLFIST

RRKGRSLGEMIKDEMGKFTGGVAMVAIFGIMLIIIAILAMVVVKALAESPWGLFTIAMTIPIAIFMGIYM

RFIRPGRVGEASIIGFVLLILAIHYGSVIAADPYWAKIFTLEAPTLAIVMMAYGFIASVLPVWFLLAPRD

YLSTFLKIGVIVVMAVAIVLVAPDLQMPKANTQYFDGTGPVFAGGVFPFLFITIACGAISGFHALISSGT

TPKMLENETHTLAVGYGSMLAESAVAIMALICACILHPGLYFAINSSSALIGTDVVNVAQTISSWGFSIT

PEEITTLTTNIGEYTILSRTGGAPTFAIGVALILHELFGGVDLMAFWYHFAILFEALFILTAVDAGTRAC

RFMVQDILGNVYKPLGDIHNYPAGLLATALSVAGWGYFLYQGAIDPKGGIYTLWPLFGVSNQMLAGMALL

LATTILVKMGKARYTWVTLVPAVFVLVATLYGGIQKIMPYEEGNKIANAVSHVAAVSIQSQKIKDLEFKL

NNTKDEKEISTIRKEISIATQNKVGNLLNAILCVFFMIATLLVIISCIGICLGKIKIPLKETKYIKIDEF

QKI

>WP\_002853243.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKIILLLGLSLASLGALSFDELIYKDEVKPSFDCSKIKYDGKSDDELMICNKIGVRNEFDNKKLALVDN

IYSSLYQNISKKADKKMKKDFKAISKKMLKERKICIKNMQNTKAGENPLLSLLNASDCMQEAYIKVLLEL

MQRAKKDTKTKEVLEQIFKNKVDKYENLLTQSLNTNKDLQDFIDSLAKEDLIDSRAKFKL

>WP\_002853238.1 MULTISPECIES: MFS transporter [Campylobacter]

MQNYKKALFALALSAFCMGVTEFVMAGVLVDVEAYFSVDAKTAGYLTTLYAIGVVIGAPLITIPLSRFHR

HTQLLINLGIFALANFIIFFSQNFYLTAFARFIAGTQHGVFFVIATLAVSAITPDDKKSSALAIMVTGLT

VALVTGVPLGTFIGHYFGFKFIFLLIFIITSLAFFGVWHMMPKNLHPSPTNLKNLIPAFSHQNLLKTYTI

TICSCGAQFVLYTYLQKILVEISGFKVQDTAYILLLYGICAICGNLWGGKIVDKKGAIFSLRLILSIQVL

VFLSVFLTMHSKILIIFSVALIGFFAFSTIPALKMLSITKAKRHTYKVIDSTVSVNEAAFNVGIALASFL

GGIVLARLGIEFNALFSALFVSPALIFALLFAKDKLNYKKFQRKSFTKV

>WP\_002853234.1 MULTISPECIES: DnaJ family protein [Campylobacter]

MNSLYETLGVSKNASADEIKKAYRRLARKYHPDINKEKGAEEKFKEINAAYEILSDEKKRAQYDQYGDSM

FGGQSFHDFSRNTGGVNLDDILKDLFGGGFGGRSRGGFNGFSSKGFSSGFGGFGGFEEEILDSNLELHIP

FEKAVKGGEHSFNFQGETIKFKIPHGIKEGEKLRIRSKGKQSRNGARGDLIIIVKIEESPIYTREDDDLY

QKVDISLKTALFGGKINIKTLKEGKEEAIINITPNSKNNQKIRLKGYGVQNRKSDIYGDMYLILNVVLPN

LDTLDEKFIELLKEKLP

>WP\_002853233.1 MULTISPECIES: uroporphyrinogen decarboxylase [Campylobacter]

MIFIDACFKKPTPYTPIWMMRQAGRYLPEYMEVRKQAGDFLSLCKDYKKASEVSLQPIDILDVDAAIIFS

DILVVPLEMGMNLRFEKGEGPVFGNPISTLEDLEKLDDQNAHKKLNYVYDALKLTREKLSQNKALIGFCG

SPWTIATYMIEGSGSKNYAKCKKMLYQNPELLHKILNKLTQVLKLYLEEQIKAGANAIQIFDSWASALEY

DKFFEFSFNYMLEISNFIKSKYPNIPVILFPKGISGYLDRIDGNFDVFGVDWSTPLDLARDKLSHKYTLQ

GNMEPCRLYDKNAIKEGVEKILKTMQNKAHIFNLGHGILPDIPVENAKYFIKLVQESSAK

>WP\_002853222.1 MULTISPECIES: radical SAM protein [Campylobacter]

MKILFGPVSSRRFGRSLGIDLSPSKKQCNFDCVYCELDPKKAQEKQDEIISIDKIISEVKAMLEKNVEFD

FLTLTANGEPSLYPYLNELILSLRSIAKDKKLLILSNGTAVLDEDKFNALLKLDVVKFSLDSAVAKTFYR

IDRALKNIDLEKMIEKMADFRARFNGDLIMEILVVKDLNDNEEEFEALNQALKKIMPLRVDLSTIDRPPA

YAVKKVSEEKLLELSKLIDSTPVLLAKRHYEGEKLSFNEEELLKMLHLRSQSEIDIEVKFDEQSKTLLNQ

LIKEKKVKILDLAGVKFYKV

>WP\_002853219.1 MULTISPECIES: sensor histidine kinase [Campylobacter]

MAKKVIRQILLIYLTTTGIFLTIFFALWYQKLYEELVVLKGATLRENHRNIVISILNSRFTPIDISAKNI

AQSTALKFAIFDAKKIVFSNIDFDLRKAKIELKGRGICDNKVFFLASMSADHYFLRHASNEEVNTNDGLQ

ILIQGEDVGKDLFWIRTKVFSFAIMAFCILGLISYILVKIALKPLEDKISTLNRFIKDSTHELNTPLSVI

LMSIEQLEHQNLGDNTKFTRIKLAAKSLSQVYSDLVFYNFPNTLETEKQKFDLRILLEERLEYFKVFFEQ

KKITLKLDLNQANIFAPKSQISKLIDNLISNAIKYNKKGGVISIILKANFLSIADTGCGISKSNLNHIFD

RYTRFNTDQGGFGIGLSLVKKVCDDNDIKIICESVENQGSVFKLNW

>WP\_002853189.1 MULTISPECIES: GMP synthase (glutamine-hydrolyzing) [Campylobacter]

MKKADILVLDFGSQYTQLIARRLREQGVYAEILPFNVSLADIKAKEPKGIILSGGPASVYATDAYFCDKG

IFDLNLPVLGICYGMQLMAHHYKATVAPAGHKEYGKANIEIKKDNALFKNLPKKQTVWMSHSDKVENLPQ

GFEVLATSENSPFCVFGNEDKKFFALQFHPEVQHSEFGKNILKNFAKYACNCESIWNMGSFAKTQAEKIR

EEVGNDKVLCAVSGGVDSSVVAALLASAIKEQIIVVFVDNGLLRSGEKEQVEFMFKNTLGIDLISIDASE

IFLSRLVNVTDPEQKRKIIGNTFIEVFEEEAKKHKDVKYLAQGTLYTDIIESSVVGASKTIKSHHNVGGL

PEKMNLKLIEPLKEIFKDEVRALGLELGLSKEVVYRHPFPGPGLAIRIMGEVNRASLELLRKADVILLEE

LKSTGWYDKTWQAFCVLLNVKSVGVMGDNRTYDNAVCIRVVDASDGMTATFSHLPYEILENISRRIINEV

EGINRVVYDISSKPPATIEWE

>WP\_002853187.1 MULTISPECIES: hypothetical protein [Campylobacter]

MILAGIIFIFNLILAYLSIDISKLDSVTEQLKIGMFSSIFVLSLTLFIFAFRQNRNINKIYQKIFCMQND

FLNFQKKIDVDSALDLLKEKFETTSQNLTKISHEKDRYLHLLEENLYQLINISNAMRCLNEGYNKEINSL

ILNALNSQKDQIRLELNEALEHHKSIIGTSHGKVLQFEASVAIVNNDELENFLLANLLSYFGIESTCFKN

LSFDVNDFHLIFIKDKIFNKNVKKNYDFIVMGRHKNTHYEYFLTLPFEKKDLENILQNKLDKVCTLKFKT

PYQNNVLLFKQNDFDATLFFNIIEKQCDKNICINSFSQLKQELSKETYRLILLDYELIKFDLEQMRNLLS

AYKKQHPQSHIIFFSKEKVRDFDCVSEVLSDVSRNDLITLLRKYLPKA

>WP\_002853182.1 MULTISPECIES: polyribonucleotide nucleotidyltransferase [Campylobacter]

MQYSIEINKNTEIFDIDKVAKQAAGAVLMRQGKSVVLATVAREEKQVEEDFLPLTVQYIEKAYAAGKIPG

GYVKRETKPSDAETLTARIIDRSLRPLFPKGYAYPTQIVVMVLSADPKVDLQVMSLNAASVALYLSDIPM

KAPVCGVRIGKIDGNFILNPNNEELQNSTLDLYVAGVKDELLMIEMRALPDQKENEIFIEAPYADVLTQT

TSQNMNELSEDEILEALNLAQKAILNGSNAYEEAFSKHKKNSQIELKNEIEHPEILAFIENNFQKQIKEA

INQMAKSERASELNKIAKEILNLEITKDWSEESVLNTLAKVKRKLIREQILNEGKRADGRSLNEVRPISI

ETNILPNAHGSCLFTRGQTQALVVATLGGENDSQMIDLLTEKNPISERFMVNYNFPGFSVGEASPIKAPG

RRELGHGNLAKRALYPSVDENYPYVIRLVSEILESNGSSSMATVCGGSLALKAAGVPSLKLVAGVAMGLI

FEDNKYAVLTDIMGLEDHDGDMDFKVAGSKDGVTALQMDIKLGGIDQEILKQALYQAKEGRIHILNIMEE

AAKEIIVNEEVLPKLELFSVDPSKIVDIIGQAGKTIKEIVEKFGVSIDLDREKGEVKIAGSQNEQIKAAK

DYIINITSSQKGTKKGPKDKDISGFELGQEFQGIVKKIAPFGAFVELKNGVDGLLHSSKIKHLNLSENQS

LKVKISEIKNGKISVDLCE

>WP\_002853178.1 MULTISPECIES: hemerythrin [Campylobacter]

MLPKWDNSYSVHNAKIDEQHKKLFKLAAKVEVVSDRSVSKNEVKELLAEFFNYMKDHFNDEEKYMQLIGY

PNLEEHRKIHKEIIQTMINLIKDIKSTNDLKEKLYIVAKKWLLEHILYEDMKVEKWRSSSLSTDDGGDVS

FEAAEDEDNEHPQFYLYTCNCPGKIHDVPYSIHQKIELQGRKFTCKTCKQAIKFYKKYS

>WP\_002853175.1 MULTISPECIES: DNA-deoxyinosine glycosylase [Campylobacter]

MSEFLTHPFEPFFDKDSKILILGSFPSIKSRQDGFYYQHPRNRFWPILETLFNAKLENITEQQAFLRKKH

IALWDVLQSCKIKNSDDKTISYAKANDLNLILSQTKIQAIFTTGQSAYRFFVKFHPRLEAIALPSTSPAN

LNFSFEQLLQNYEIIKKFTK

>WP\_002853163.1 MULTISPECIES: pyridoxine 5'-phosphate synthase [Campylobacter]

MLLGVNIDHIAVLRQARMVNDPDLLEAAFIVARHGDQITLHVREDRRHAQDFDLENIIKFCKSPVNLECA

LNDEILNLALKLKPHRVTLVPEKREELTTEGGLCLNHAKLKQSIEKLQNANIEVSLFINPSLEDIEKSKI

LKAQFIELHTGHYANLHNALFSNISHTAFALKELDQDKKTLQAQFEKELQNLELCAKKGLELGLKVAAGH

GLNYKNVKPVVKIKEICELNIGQSIVARSVFTGLQNAILEMKELIKR

>WP\_002853162.1 MULTISPECIES: 4-hydroxythreonine-4-phosphate dehydrogenase [Campylobacter]

MKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYEFNF

IKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKAWED

AGLKYKGHTDALRDFFKKNAIMMLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKKMGL

LGFNPHAGDYGVIGGEEEKIMEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPYPLV

ADTAFTKTGLKNCNRLVAMYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINTKSY

FEAAKFAINLHSKA

>WP\_002853155.1 MULTISPECIES: glutamate synthase large subunit [Campylobacter]

MDLENILENNQSIGLYHPKNEHDACGIAAVANIRGIASYKVICDALEILMNLEHRGGTGAEENSGDGAGI

LIQIPHDFFKTQELGFELPKKGDYAVAQMFLSPNTDAKEEAKEIFLQGLKDKKLEFLGFREVPFNPSDIG

ASALKAMPYFLQAFVKKPSKISAGLEFERVLYSTRRLIEKRAINVPKFYFSSFSSRTIVYKGMLLSTQLS

DFYLDFKDVNMKSAIALVHSRFSTNTFPSWERAHPNRYMVHNGEINTIRGNVDSIRAREGLMQSEYFENL

DEIFPIIAKLSSDSAMFDNTLEFLALNGRTLEEAFMMMVPEPWHKNENMESKKRAFYEYHSLLMEPWDGP

AAIVFTDGVIMGASLDRNGFRPSRYYLTKDDMLILSSETGALKLDEKNIKAKKRLEPGKLLLVDTARGRV

IADNEIKEHYANAKPYKKWLKNLVELEKQKSGVYKHQFLKEDEVLKLQKAFGWSYDELKMSVAAMAQNGK

EAIAAMGVDTPLAILSKTYQPLYNYFKQLFAQVTNPPLDAIREEIVTSTRIYLGSEGNLLKPDENNAKRV

KIALPVISNEELFEVKALNKFQVKEFSILYDYSKKTLEKALDELCVKIEDEVKKGVSIIILSDKGVDEKN

AYIPALLAVSGVHNHLVRKNLRTHTSLIIESGEPREIHHFACLLGYGATVINPYLVYESIQKLIANKDLN

LSYEKAVENFIKASSSGIVKIASKMGVSTLQSYNGSALFECLGLSSKVIDKYFTSTTSRIEGMDLEDFEK

ELIALHKHAFNDTHKALDSKGIHGFRSAKEEHLIDPLVIFNLQQACRNKDYKSFKKYSALVDEKQVNLRS

LMEFDFSEAISIDKVESVESIVKRFRTGAMSYGSISKEAHECLAQAMNKIGAKSNSGEGGEDEERYEIKE

GVDKNSAIKQVASGRFGVDLNYLSHAKEIQIKVAQGAKPGEGGQLMGFKVYPWIAKARHSTAGVTLISPP

PHHDIYSIEDLAQLIYDLKHANKDAKISVKLVSENGIGTVAAGVAKAGANLILVSGYDGGTGASPRTSIP

HAGIPWELGLAETHQTLILNKLRDRVRLETDGKLMNGRDLAIAALLGAEEFGFATAPLIVLGCTMMRVCH

LNTCPFGIATQDTELRDRFKGKVDDVINFMYFIAEELREYMARLGFERLDDMIGRVDKLRQKSVQGKAGK

LNLDKILKSLPTYNRTAVHFKDYKDNKLEKTIDYRILLPLCKNAVEKKEPIKLSLEVGNQSRTFATMLSS

EILKTYGKDALDEDSIHIKAIGNAGNSFGAFLLKGIKLEIIGDSNDYLGKGLSGGKIIAKISNEATFSPE

ENIIAGNACLYGATKGEVYLDGIAGERFCVRNSGALAVVLGTGVHGCEYMTGGQVVVLGDVGANFAAGMS

GGVVYIFGRHNEAHVNTELVDIKDLNAKDEKELKAVIEKHITYTDSKKAKDILEKFDKKDFFKVMPRDYE

KMLKMLDLCKNEKDPNLAAFLKITQK

>WP\_002853084.1 MULTISPECIES: glutamate synthase subunit beta [Campylobacter]

MGNARGFLDFKRMDFKKIAPKERILNYKEFTIPLDKKEQEVQGGRCMDCGVAFCHTGVMSEGKDVGCPLN

NLIPEWNDLVYRSLWKEAYERLDLTNPFPEFTGRVCPAPCEDSCVCAINGVSVSIKNNELSIIENAFKEN

LVRVNKPKQYNGKKIAVIGSGPAGLACANTLNSLGYKVSVFERSDKIGGLLMYGIPDMKLDKSIVQRRVD

LLKKSGIEFKVNENIDSKDKVSKLLKEFDALVLCTGASKPIDLDIEGRKLKGVEFALDFLTQNTKTLLKT

GKGADMAKGKNVLVIGSGDTSVDCIAVATRQGAKSIVRFERSPKRPLQRSQNNPWPLKADIFTTDYGLEE

AIAVYGKDPREYQKMTKKFLGKTHVEGVEANDLKREFKEGKAINVEISNSKKTYKADLVLLAMGFSGCEE

AISKNFGVKLDEKNNISTENFQTTHKKIFACGDARKGQSLVVWAIKDGIECALSLHQNLAK

>WP\_002853041.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKILVSVLSSCLLASALSAVSFKEDSLKISFEGYKTKDMIGTKGEFKNVEYKFSKNIKDLASYLKGAKA

TIKPSNAFMGEGNDIITNNITKVFFPALLGDTDIKVVFQDVIAGENKGVISAKITMDKKSTIVPLTYTIK

DNKFEAKGQLDLHTFKNGSKALKALSDVAAGHGGISWPLVDISFNADLAE

>WP\_002853035.1 MULTISPECIES: ribosomal RNA small subunit methyltransferase G [Campylobacter]

MIFKDYDFLQNYDLKNFEEKVKIYKELLSKFNRIHNLTHLKNIDENIFDSIKILDFYDFSKAKNIADIGS

GAGFPVVFLAFLLQSNFHLFEPNPKKAAFLRTLKIECELPNLHIYKEKVQEYKNTFKADIITSRALMDVK

PLLEICKNLKDENTVFILWKGSEIYQELENIKDYEIFENNLRRYCILK

>WP\_002852976.1 MULTISPECIES: LysR family transcriptional regulator [Campylobacter]

MKIKDIEIFLDLLNTQSPTHTANNFSITQPNVSIVIKNLENKFDGILFERLGKKLLPTPKALELGKNWLK

IIQAYYQSLEKLNDESMLLGEIKIASTQSISEHFLAPILFDFKAEFKNIEIRSQTQNSKECLNLLKNGNI

EFAIIEAELDPALVEYENLEINFWQDDELIVATSDKKLNEKEFYIDELLEQKWILREVGSGLRDKFLNEI

GASSKKLNIFLELDRMAAIKELVLQKKAISIFSKKSIEKELKNSTLYEIKLKNIDLKRKFYTLKRKNYNF

NRALEKFEKIFKS

>WP\_002852925.1 MULTISPECIES: porphobilinogen synthase [Campylobacter]

MFKRFRRLRLNENLRSMVRENSLSVNDLIYPLFVVNGTGIKKEISSMPDVFQMSLDEILKECQNVVNLGI

KAIILFGVLENEKKDSCGSDALDDEGLVARSIREIKKNFPDLFIISDLCFCEYTDHGHCGIIDPKIKSVD

NDATLEISAKQALVHARAGVDMIAPSGMMDGVITTLRKALDKEGFENLPIMAYSTKFASSYYGPFRDVAE

SAPSYGDRKSYQMDFANGKEALEESLEDEAQGADILMVKPALAYLDVVKEISLHSNLPLCIYNVSGEYAM

LKAAKNAGVIDYEKVLYETIIAFKRAGAKLIITYHAKELAKMLKGEK

>WP\_002852780.1 MULTISPECIES: undecaprenyl-diphosphooligosaccharide--protein glycotransferase [Campylobacter]

MLKKEYLKNPYLVLFAMIVLAYVFSVFCRFYWVWWASEFNEYFFNNQLMIISNDGYAFAEGARDMIAGFH

QPNDLSYYGSSLSTLTYWLYKITPFSFESIILYMSTFLSSLVVIPIILLANEYKRPLMGFVAALLASVAN

SYYNRTMSGYYDTDMLVIVLPMFILFFMVRMILKKDFFSLIALPLFIGIYLWWYPSSYTLNVALIGLFLI

YTLIFHRKEKIFYIAVILSSLTLSNIAWFYQSAIIVILFALFALEQKRLNFMIIGILGSATLIFLILSGG

VDPILYQLKFYIFRSDESANLTQGFMYFNVNQTIQEVENVDFSEFMRRISGSEIVFLFSLFGFVWLLRKH

KSMIMALPILVLGFLALKGGLRFTIYSVPVMALGFGFLLSEFKAILVKKYSQLTSNVCIVFATILTLAPV

FIHIYNYKAPTVFSQNEASLLNQLKNIANREDYVVTWWDYGYPVRYYSDVKTLVDGGKHLGKDNFFPSFS

LSKDEQAAANMARLSVEYTEKSFYAPQNDILKSDILQAMMKDYNQSNVDLFLASLSKPDFKIDTPKTRDI

YLYMPARMSLIFSTVASFSFINLDTGVLDKPFTFSTAYPLDVKNGEIYLSNGVVLSDDFRSFKIGDNVVS

VNSIVEINSIKQGEYKITPIDDKAQFYIFYLKDSAIPYAQFILMDKTMFNSAYVQMFFLGNYDKNLFDLV

INSRDAKVFKLKI

>WP\_002852744.1 MULTISPECIES: apolipoprotein N-acyltransferase [Campylobacter]

MKLKLNFLPYFSFIPKKLNTNSIIFKIIKVFFIAILLSNSIYLSFFENIFTQTISPFLAIWGLVLLLKSK

TSKQYFWIGFFVGILWFWWIGLSSIYFNLNYLVPIIPIIIGFIYGLLFRLCYLLKFDFLRLCGIFCISFI

HPLGFDWFNWGIFTVYGFFDPSYRGIICIFLIAYFIYEGYISRYYKIAIVLILFFSGFQYNEKQAQTLNL

NYKLINTNISQDQKFLQENLKSNSDILIQDILQAINEKKELVILPETAFAFDLKNTKYELMLKELSYKIT

IITGAFHVEKEHTYNSTYIFKKGNVYILNKHFLVPFGEEIPFFKDLTKKYFLKNIEEFSKGPIQSKYKLD

NQIITNAICYEATKEQNYQNSQIIIALSNNAWFNNSSEYKLQQLLMKFYASKYGVSVYHATNGKENIVIL

PKKLLSKDWKNLSKEIFNDKK

>WP\_002852714.1 MULTISPECIES: aspartate carbamoyltransferase [Campylobacter]

MRHLITTKDFNKVEIMELFKEASDFLDEKPRTFLEGKSITTIFFENSTRTLSSFESAARRLGARVLRLDV

SRSSSSKGETLYDTAANLDAMSPNAIVVRHANSGVPLILAKHMHCPVVNGGDGKHAHPTQALLDLFTIYN

HFQGNVEGKKICIVGDIKNSRVAASNIELLSRFNLDITLVAPPHFMPNTHLKKHYKLDENIIANSDIIMS

LRTQTERHNKTVYASLKDYANDFCIQKSLVKDKKLILLHPGPVNRNIDISDEMMSNERTLVLKQVKNGVA

IRMAVLKKLILENEG

>WP\_002852712.1 MULTISPECIES: flagellar type III secretion system protein FliR [Campylobacter]

MEFVNYLGDKNVVTFMLLLARMGGLIVFFPFFSHNSIPMVIKSTIVLFLTMYLYPLARLESLHLDSFFVL

QLISEVIFGMIAGLMLQIIFAIIMMAGEQIAFTMGFTMASILDPSSGTSMPITSQILNLLALMFFLAFDG

HHLMLLFLSHSLGYISLGGFYPHENLMHYLNMGMFNIFIIGFTMSFPILGISLLADVIFGLLMKTMPQFN

LLVIGYPIKIALGFVVLIAILLVMMQYFKNLILELFTHMQTLFFF

>WP\_002852617.1 MULTISPECIES: alanine racemase [Campylobacter]

MSLIKIDQKAYEYNLRHIAKKIGSFQRLICVFKDNAYGHGAKLLAPLAKNLGVSFVAVKSEEEAREIEEF

FENILILSHRPHGNENSRFIYALNDISQVKNYKQDIKIHLKIDTGMHRNGICVENLEHAINLIQGSDLKL

TGMFTHFASADEMDGSFFVQKENFQKAKKIVKKYFSNLLFHSYNSAALFRGKIPEDEYCRVGLVQFGYGD

SNLKRVLSLYAHRLSQRILQKGQSIGYGGIFTAAKDMEVATYDLGYADGLFRYNGRGELVLGNGKAMLGK

MSMDSFSCENSGEEICVFKDADIWADFFHTINYEILVKLNPNIQRVLV

>WP\_002852611.1 MULTISPECIES: cysteine--tRNA ligase [Campylobacter]

MRLLDSVTKEKIKLDKKDISIYLCGPTVYDDAHLGHARSSVCFDLLRRVLLAQGNRVKFARNYTDIDDKI

LKKMAQSGQTLEEITEFYIKSYEEDMRVLNVLDPDFKPRATHYITAMLDLIKKLAKDGFVYTLEDGIYFD

TSKDEKYLSLSNRNLEENISRLSNEVQKRNESDFVLWKFDENFYESEFGKGRPGWHTECVAMIDSIFENT

LDIHAGGIDLLFPHHENEAAQCRCGCKRKLANIWLHNGFVKIDGEKMSKSLNNSFFIKDALKEFMGEALR

FYLLSSHYRSHFNYSLSDLENAKKRLDKFYRLKKRLDLGEISDFDVLNDIGIKSEIAKQILEILNDDLNV

SKALALLDDFISSANLELDKESKNKILKQNIKEALSELAKIFGFGFMDATLYFQWGVSKEEREEIEKLIL

ERTEAKKNKDFNTADAIREQLNSKKITLLDTPNGTIWEKINA

>WP\_002852607.1 MULTISPECIES: integrase [Campylobacter]

MKYPLDCEENFEKSFLFWLAKYVKFKLNSLSNKELKNPQALAEVNFALTKGVKNIDELDALAKKARNAGL

SGVNTYFNPLKKVFEYLNFYKLYSLKQIDEELIVEVLASITGALSDASKKNYRIAVINFFDFLDKQNEED

EKAHIFDINLKNWAGIAGSKGVKLPEFMSKEELKKFLDAIENADFKNNTIRNKLIIKIIIFTGIRVSEAI

NIKMGDISEENDLYIIRIRAKGNKYRVVMIKKELIYDLLKNVSINYISKDALLFVNKKGTPLTQSYVSRI

VEQLLFRAGIRKQKNGAHMLRHTFATLLYKKQKDLVLVQEALGHASLNTSRIYTHFDNDKLKLAAQVAKE

LSDS

>WP\_002852593.1 MULTISPECIES: 2-Cys peroxiredoxin [Campylobacter]

MSIVNFKGNPVKLKGNSVEVGADAPKVNLKAKDLSVIEIGAAGKTQIILSVPSLDTPVCATEAREFNKKV

ASYNGAEVIVVSMDLPFAMGRFCSTEGIENLSVASDFVAKEFGEKYGVLINEGALEGLLARAVFVIKEGK

VAYKELVNEITEMPDIAKLDAFFGGSSCCGGCGCH

>WP\_002852576.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKIYHLSHTDLDGYACQFIVNFYFKSVKFYNSNYGKEINENFNSIIGDIEKDENFGKAIILITDLNLNLN

QCEEFEKICKEKNTKIFLLDHHQSGEECAQKYSWYLLDSKRCATKIVYDFFSKICTPVLELSKFVDVVNA

VDIWLSEDENFELGKVFLGLIANAKEINRVMFKESQIDYMFFLLDKAWKFIGKENANILLDNATHFIKKD

YFARKNDDTLSNLISYFVVEKLSELKENFSIEYEGHKGILTSNIGNTSVIGNDFLVKNPDYDFFIDVSSR

KTLSFRANGKIDVSLMAKNLVGGGGHKNASGGLFATFKDGANYNYIKAQIIDLIKSKELKKENNESKQ

>WP\_002852570.1 MULTISPECIES: sodium:alanine symporter family protein [Campylobacter]

MNLDIMLDFANKASDIIANKIVPNTDIIMVVLLIVCGLYYSFLTRFVQFRMLSSVFKILTEKNEGHAKEH

ISPFQALMISTASRVGIGNIAGISLALATGGAGALFWMWVMAFFGGASAFAESTLAQVYKSKDDTGGFKG

GPAYYIKKALGSHFFGAFFAFILIITYAYGFNGLQSQTMTSSFKVYYDMFNPNAAVDFASSSWPMIIGIV

LTIFGAWMFFSHHTKIGKISSLIVPFMALAYVLLAVIAVLMNFDKIPSVIHMILQSAFDFKAIFGGFAGS

ALVIGIKRGLFSNEAGMGSAPNAAAAALTSHPAKQGVIQAFSVLIDVVVCTSSGFLVLFSMAYLGLGENK

IDGGMPLVQEAMREYYGSFGIHFITIAIVLFAITSLIGNYYYAQANVKYLTNSKFVMNLFRITAVAMIFI

GSQMNLKLAWNLADLTMAFMATTNIISLLLLGGIVNKVLKDFNTQQKSGIDPKFNASKLGIKNAECWD

>WP\_002852506.1 MULTISPECIES: hypothetical protein [Campylobacter]

MNLKIFSIIVGILIAVIVILGGTYYYLFEYSKPKNYTLNTNTYTEQKSYTNNYDNPYSPSIQTNNSSSNV

NTNNNTIQKQETNPLLDENQSLNNDTFNISISENNQSLNNDTNTSNNINTNENKQILDTDKEKLKQENKQ

AKIEALKKEISKQQKILERERAIKKELQSNKSNKNKYLNTAREYLSIGKNSRLEPELSTENMKVYILDGK

FLSQYRINLLKDMLSIIQDNAKDYYLSIFVKMLPKGEMKLTIYNKEIIFSDMKKAYKYISLDRLSPYLNN

PKELNEHVAREEILERLKLQIKKDGKGSDFSKHIKSLKTGLNTAQYFFPFCEIIEISSIK

>WP\_002852456.1 MULTISPECIES: murein biosynthesis integral membrane protein MurJ [Campylobacter]

MKSLVFKNFIINALGILFSRILGLARDVLIALFLGAGLYSDIFFVALKMPAFFRRIFAEGAFGQSFLPNF

VKAKKKGAFCVSVMMQFSLIVFLFCLLVSFFSSFFTKLFAFGFNADTIALAAPLVAINFWYLFFIFLVTF

LGAILNYRQKFFITSFSAALFNLSIVIAAFFVDKNAPQNTLYYFSYATVLSGVAQLILHLLVLKNNPVIR

AMTLSIKFKKTKAKLQGFYGNFFHGVLGSSATQFSSLLDTTIASFLMSGSISYLYYANRVFQLPLALFAI

ALTQVSFPKILKHLKSDQENLALKFMQRALALLSILLIASSIVGSVFALEISKLLFERGNFTHEDSVITA

YVLIAYLIGLLPFGLQKLFSLWLYAKFKQKTAAWIAVKSLIISALCSMAFIFLIKDESLKVIAVALSSSI

SAFYLLGANIKEFGFKKFFALISIKICLLVIVALIVFTILLILIKPYILSFFIGIFTSFKGVF

>WP\_002852450.1 MULTISPECIES: tRNA (cytidine(34)-2'-O)-methyltransferase [Campylobacter]

MFNIVLVHPRIPQNTGSIGRMCFNAGFKLHIVKPIVFDISQKAVRRAGLDYWDKLEPIIWENLEEFLNEN

MIYKNRFFFATTKSQKAYFDAEFQKNDFLFFGSESYGLPMELMQLNWENAITIPMKSYGRSLNLATSVGI

ISYEALRQNFRNFAS

>WP\_002852419.1 MULTISPECIES: ATP-dependent helicase [Campylobacter]

MPLSKLNNEQYLAATADFGHNLVIASAGTGKTSTIVARISYLLSKGVAPQKIMLLTFTNKASKEMIGRLG

KFFDKNITSKILAGTFHSTAYTLLRNADKNIALKQASELKTLLKSVYEKRTFRHLSDIKPYQSSYLYDLY

SLFQNKAHNQDFYTWFCQNYEDQSIYAEIYEDILKEYDNEKKRFNYVDFNDLLINLKDLLKEEKYEFDEI

LVDEYQDTNTLQSSLIEAFHSKSLFCVGDYDQSIYAFNGADINIIGGFKDRFKDAKIFSLNKNYRSSRSI

LALANKVILNNERLYPKELIVTRNDEFKAPSLLTFEELFDQYQNIAKMILTSGVSLEEIAVIFRNNSSAD

GVEVALREQGIASVRKGSGSFFESLEVKAFSSMLALVVNPKDIMAFIHLVQYTKGVGGVLAKEIFDALLK

LGHGNLIKGFLDPDKNVNLQNHQKRNYQLGLFADLEELASETRFKFESEFDAHPILRLSKINDLCARNLE

KIYLFLKKAMEIKHSLTLVNLICENSFYREICEELATKRATNKAGQVDLLRKSENLEKIETKFNVLKELT

KNYSDIYKYYNFLTLGASEMSSGKGVNLLSVHASKGLEFDLVFVIDLAQGRFPNQKLMGMGGSLEEERRL

FYVAVTRAKNILYLSYAKYDKNKKTSFAPSRFLIEAGLCKGELTID

>WP\_002852402.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLYKRKNIKFKNFVDLHKNLSLSKLFDFYSVFEGFEKLNILNFEDDVFTNIERILLDDYLKIKSYFALDE

TSSYALTLLAKNNRKRFSINRKIQHFKALSTLKYLLETGIIKLEYSKEAKKIKDKRQKIKKELRSYVVQD

KIIFSNHFTRFFFYFLKPNEKLILQNRYKEVLECIKEKFELYQSFCFEQLSRELLEKKFNINGVQSYWDK

NLELDLYYQDENLCFVGEVKFKNKKICKNILNLLKSKAKSLNLAPNYYIIISKNGFSKEIDKICEQNLLL

LDLNDFKILLEE

>WP\_002851919.1 MULTISPECIES: chromosome partitioning protein ParB [Campylobacter]

MGLNKDRGLSSLISDMDTVYSKELGFDKNQSTMIEIDQISPNPFQPRKNFDQEALDELANSIKEFGLIQP

IIVFKKNNKFILIAGERRLRAVKALGKKEILAFIADIDENKLRELALIENIQRENLNPIELANSYKDLMQ

VHKITQENLAELIHKSRTQITNTLRLLNLDIRTQELIASGKISQGHAKVLVGLDQKDEKMLVDSIIGQKL

NVRDTEKIVKKIKNNESLPNQEFEDEIKKLKQILNRFGFDCKNKNNDFVIHLENIDKIKKLIKMLEKL

>WP\_002851910.1 MULTISPECIES: nicotinate phosphoribosyltransferase [Campylobacter]

MMTSKTSLALLCDFYEFTMSQGYFKNNKKDQICYFDIFFRKIPDSGSFAIFAGLEDILDFVENLSFDAED

IEFLRKQGIFDTEFLDFLANFKFKGEIYAMREGEVIFPNEPLLCIKATTIEAQLLETFLLLSLNHQSLIA

TKTNRIVRAAKDSKILEFGSRRAQGSEAALKGARAAFIGGCIGSACTLAGKIYNIPINGTMAHSWVQMFE

NELEAFKAYVKIYPKNPVFLIDTYDCLNSGLKNAIKVFKEFGIQEGGVRIDSGNLLELSLKIRQELDQAG

LQKCKIIVSNALDEWSIKKLKEQNAPIDIFGVGERLITASSDPIFSCVYKLAALEDQGIKPKIKISENNE

KSTLPHFKKLFRVYDKNTQKILFDELYVFDENPNQDENLERKELLELVYKEKRLLKKSSLNTIQDYTKEQ

ISKLDESFLDLDRFVKFEVKLSPKLQNITEDLLKTRF

>WP\_002851820.1 MULTISPECIES: orotate phosphoribosyltransferase [Campylobacter]

MNLEQIYKDCGAYLEGHFLLSSGKHSQFYLQSAKVLEDPKLAAKLCDELAKIIASYKIEFDSICSPALGG

ILAGYELARACSKRFIFTERVNKEMTLRRGFEVKKGEKFIICEDIITTGGSALESAKIIESLGGIVVGFA

ALANRGFCAVENLKSPRKDNAKLPENLPLFTLGNFEFEIYDETNCPLCKKGNKAIKPGSRGN

>WP\_002851630.1 MULTISPECIES: [acyl-carrier-protein] S-malonyltransferase [Campylobacter]

MNAAFIFPGQGSQSLGMGKDFYENSIKAKELLQNASDFCKIDFKHLLFEENEKLNQSEFTQPAIVLNSLM

AYSVLLEKKPDLSSKFALGHSLGEFSALAVNGAFDFLEALSLVNKRGLFMQEDCAKVEAGMMVVLGLDDE

KVEELCQKAQKENKQIFAANYNCDGQIVVAGLKPDLASYESVFKEAGAKRAMLLNMSVASHCPLLENASA

KLCVELEKVLKPNFKAVISNANAKIYTSKEEALELLKAQLISPVLYKQSIKACENEVDYFIEFGASVLKG

LNKKITSKETYALTNMNDIDEFLKVV

>WP\_002851523.1 MULTISPECIES: dephospho-CoA kinase [Campylobacter]

MKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKIDRKI

LGEIVFNNKEAKKILENFTHPKIRAKILEQMQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPKELS

LKRIMQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNM

>WP\_002851372.1 MULTISPECIES: thiamine-phosphate kinase [Campylobacter]

MNKEDFIIKAFLNKKNGDDGAIIDDWCFSKDLFFENVHFKREWFSLEQIATKAMLVNISDAISMNAVPKY

ALLGLALPKNLSENEIKALQKGFLKTARKFNIKIIGGDTISNDKIDISLTIISKINDKAVFRKGLKKGHL

LAYTGKLGRSLKGLEILQNGGTLKPNHVFIKPKLRASFFYEIAPLISCAMDISDGLSKDLSRLLALNKCG

ISWFKKLDDYALYSGEEYEILFAFDEKERQNIEIIAKKHGVKLNIFGKAVKGKYEFRGREHHF

>WP\_002851338.1 MULTISPECIES: 23S rRNA (adenine(2030)-N(6))-methyltransferase RlmJ [Campylobacter]

MNDEFISVKDFFNHNEKRKKFLQKQEIKPPKEKTKKTKETKLYTNIESGKYKGKKLLLPSLTTTRSTKSI

VKSCVFNVIREDLRSKIFIEAFGGSALIAAEALSNYALKAYAIELDIKAYKIALENAKNIDPNLEVIHAN

TFEILPKLIENSKNEIILYLDPPFDIREGFSDIYEKIYHFLENLDLKTLNLIIFEYHSTIKTPEKIQNFQ

KVKEKKFGSTSLSFYSS

>WP\_002851328.1 MULTISPECIES: paralyzed flagella protein PflA [Campylobacter]

MRILFLILLSFLNAFAFELVLNTGRENNQAFAVLHASNDLEFTCQKFITEAKVHFECDIVGMVDNKLKDQ

SFSAFDLKFIQEAQKIKMIILPKIQARMFDTSQNIYIDKELSSSSSHKSKAFTFIFTPELAPIKDYDGLD

FNINFPHESLPYVGALDLNSDPVVIPQSADINTYLRIKKEYDKANYNQVVIDAQNAINRYRGSIFTSEFI

LYKLRAQNKLYTQDPSMRDQQILEKMIDDAKNWTRTFTSDKNFSEVLHIMLRTYIALAQRADVEYTMSIL

DNEQPNNYFTQLSKLDYADYIYNLNEKEKAVNIYENTYFNTKNLDLAARAAMSLAKNLLSNEQVNKAIEY

INTILKANPEYFGKDIPRSLELAKLFNQKGQFDISASIYEDAFAKMSKLDPSYEETLKDLALVLSHANRS

SDAKKYLDLYMDDYLDGKYLDEIKKASDEVFFALGDNNASFLHQRYTDLMKQYANKDENIANKALDEDVA

LYYKEGNFSAILAYKDLIESKKIPNATQFLEKAAINDLKNAIKADNCINAANIFMRFSAYDIGQKIENKK

QMLACLIRTSNVEQALDYIDKNYNEDSIFYGLQKASILFDNKQYPQVIKISKDIANSRILKSDDENFKAY

YLQFLSLLRLNDYNQAIKILQILESFPMNFSMVEAYDALLSYANDHNMQTTILTYAPKAIDYQNFKGINL

FSPNLEFIYLDALTKINKNEESLAVLTDLLKLKLSDEDRARALYIQALTYERMQNIQAEKESLKQCLEIK

SASNWQNLCKSKNQILNQ

>WP\_002851320.1 MULTISPECIES: phosphoribosylformylglycinamidine cyclo-ligase [Campylobacter]

MKISYEDAGVSIDNGNTFVEAIKPLVKETFNDNVVGGIGSFAGAFRMPSGFKKPVILGATDGVGTKLRLA

IDAKKYDTIGQDLVAMCVNDLICNFATPLFFLDYYATAKLEVEVAKAVVSGIAKGCKMANCALIGGETAE

MPGMYAKDDFDLAGFAVGMAEEDEIDRSKFVKNGDILLALSSSGLHSNGYSLARKVLFESLKLKFDDKIE

GKNLIDILLEPTRIYVRDFLTLKPYISALAHITGGGLVENLPRVLPRGMGATIRKHHLKTPEIFYTIGQA

VEESEMYRSFNMGVGLVMVVDPSNVSKILENSDAFIIGEICINEGIVLE

>WP\_002851309.1 MULTISPECIES: pilus (MSHA type) biogenesis protein MshL [Campylobacter]

MIRLILILINILFCHYLYALDCQKRLFDISINEKLSIQESLDELAKYCSFSIIVKDKIAKEKLETLQNSV

NIHQMSLDEIFNFFIKEHDLSYDFDGKILRISGINTKIFKISYITSIREGQSITKASVDAKPRQSEYSGS

FDDAEDNMIKSMEKFDFWQNIEKEIIVLLKNSHEDYEAKTPIINPNAGLIIVTGTNSQLKSVKNYLQKLE

NRLKKQVIIDVSILAVSLNESHSSGINWQNFNIGLNSQVNNENSFIQFQNGQGFVKNLGLRANLNFDSII

NFLSQNGKTSVLSNPKLMALNNQQAIISVGDTINYQVKESSKGTENGTTVSESYNNYSIFVGILLNILPE

ISDDGKIMLRINPSLSDFKYPEDNKRQKEPRTIAPDTIQKKLSSVVQVENNQTLILGGLISHDKSNEKNS

INFLSKIPILGSLFKGEVLNSKATEIVFIITPSIVDSVNAPSLKDLGFKHYE

>WP\_002851294.1 MULTISPECIES: TonB-dependent receptor [Campylobacter]

MHPNKKAFKLSLFALLLITNLNAQESNKAINLQKVVVSTTGFEQDADSNLRNVISIEGKDLQNKGYVSLE

QALERISSISFVNFGLGRNIDMRGQGNKSNIAVKVMIDGHAINVLDNSHGVTPLDSINLDNVERIEIIPG

GGSVLYGSGTRGGVINIITKKQKSDAFAINLKSSAYDHGGLGGNLGINGAKQINENLAFSFDIQSFNLDG

YQEGYNEKGYFINTKTYIDINDNSDLTLGYNYFKSKNTSSGYLTKAQAQSDPTQKGKSDNITQINRPEIS

LDYHYYFDDIWEFNLEAFWQNQKINYLKDVSTMSYMNMSLPVYQNGSGFEDTLTGISLKNKLNYANNSYF

IFGYEFANHDAKRKSLVYYSVPSVINYHRMTTLIDMTKQSHSIFALDSHNFNEFFTLSGGARYEFSSYNT

DRSYRNEMSMNGRPPSPTIIDSTTLFDTNKNANNFAFEITPNFKYSDTGKLYIKYERGFVSPSPAQFVNK

DKNSQKYYSANLNPEIFDTFELGIDDFWWDFYGFNLTLFYTLSKDEISYLGNPHSTSGSWWKYYNIDQTR

RLGVELSLSQNFLDDDLIFRESLTYLDAKISKGVNDGMRIPYVSKIKATAGLEYAWNKNFSNFIDLTYFS

RAKDGGTIDENTGKMSKNSWIRDYFLTDIGMKYNYKKLQILAGIRNLFDKRYYTYQDSINDQYLVGNGRN

YYVEFKYAF

>WP\_002851293.1 MULTISPECIES: ABC transporter permease [Campylobacter]

MLKRLVFSIFIAFFSTFLCFVLLHFSKGSIAYANGVNSQSKEFVQRIEQNLGLDKPLLEQYKIWLFKALK

GDLGVSFLSGESVLKLIKERIFNTFILGFSALMLLFLLSVFLALLGYYYKESFIDKIITFLAFNFFALPP

FVLALLFVLIFGIFWKILPVMGSSDIGFEDDFLNRLEHLILPVLVLVLSHLALFLRIARNFINESFSQIF

IQNLYARALREKDIYFLVLKYSLSPIVAYFGGSALSFMMGTYVVESVFAYKGLGSLLFKSIIFKDYPIVL

ALIFFSVLLAAFFTFLSDIVARILNPRLRRLDFV

>WP\_002851272.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKISLECKDLIIEKTLELFLKDHLVMKKNCDFIISDEKIHTAKPLFIISKNSPFLSIPFSKETLFESLNE

FDNALKAAALQLALEQKRLLEEKIDAIALEFKKDYENKIDLAIKDLKNKLVKALNDE

>WP\_002851268.1 MULTISPECIES: DNA topoisomerase 1 [Campylobacter]

MKKNLIIVESPAKAKTIGNFLGKDYEVIASKGHIRDLPKSSFGIKIEDDEFIPEYRITSDHSALVKELKS

KAKDAKEVYLATDEDREGEAIAYHIAKAIGKDENTLPRIVFHEITKSAIENALKNPRKLNMHSVNAQQTR

RLLDRIVGYKLSPLLGQKIQRGLSAGRVQSAALKIIVDREKEIRAFVPLEYFSIDMIFQKDLDAELVEFD

KAKIEKLTITNKDRAKLILEACKNEVYSISDIESKERKIAPPPPFMTSTLQQSASNRLGFNPKKTMMIAQ

KLYEGVNTHEGVMGVITYMRTDSLNLAKEAVENARKFIQANFGKDYLPSKANVYTTKTKGAQEAHEAIRP

TNLSFTPEIAAKFLDKDELKLYTLIYNRFLACQMSPAISQTQNVFVKNDRVVFKISGRKILFDGYYKVYG

DMDKDKILPNFKIGQNLKVQNLEMNSHFTEPPSRYSEAGLVKKLESLGIGRPSTYAPTISILTSRDYVTI

DKKQLIPSDVAFNVTEVLEKNFSDIVDSKFTSNLENTLDEIAEDKADWQETLKEFYYPFMRKIEEGKTKI

ASQKTVTKLGESCPDCGGELAIRKGRFGEFVACLNFPKCKYSRNLKSESKNESENTAAKAKANGTGITCP

SCQKGEIVERFSKRGKFYGCSAYPKCNFISKYKPSEEKCEECGETLVIKELKKGTFLECLKCKIKKEMKD

>WP\_002851259.1 MULTISPECIES: tRNA pseudouridine(13) synthase TruD [Campylobacter]

MNLEEENTIFKPLYSLKHSPINAYFSKNSDDFVVRERPLYEFSGKGEHLILHINKKDLTTNEALKILSEA

SGVKIRDFGYAGLKDKQGSTFQYLSMPKKFESFLSNFSHPKLKILEIFTHENKLRIGHLKGNSFFIRLKK

VLPSDALKLEQALMNLDKQGFANYFGYQRFGKFGDNYKEGLEILRGKKMKNVKMKEFLISAFQSELFNRY

LSKRVELSHFANDFSEKELIQIYKISKEEAKELKKQEQFFKLLKGEVLGHYPFGKCFLCEDLSAELGRFK

ARDISAMGLLIGAKAYETGEGLALNLENEIFKDTLEFKAKMQGSRRFMWGYLEELKWRYDEEKAHFCIEF

FLQKGSYATVVLEEILHKNLFE

>WP\_002851255.1 MULTISPECIES: hypothetical protein [Campylobacter]

MCFSTLFAQDNFEEYFKLIDKENRINFNTLQNPFVNPTFEKLRHIKITAIMLDKVKIYDRWYKKGDMIDD

AIIYEINTKEIKFQYDNLEIAIQINKNDKINININ

>WP\_002851210.1 MULTISPECIES: FAD-binding oxidoreductase [Campylobacter]

MANFKAFYKEAKYIFKDRIFNDYARCYAYGIDASCYFYIPKIVIIAKNEDEIKQIIQLANTYKTPITFRA

AGTSLSGQSSCDGVLVVIKFAFKKIKINKDANEITLGCGVVGIHANESLAFLKKKIGPDPATINSALIGG

IINNNSSGMCCGTKDNSYKTLRSIRVILANGSMLDTSDALSVARFKDENKKLINELREIKEEINANKELK

DLIIKKFKIKNTTGYSLNAFVDYDDEIDILAHLLIGSEGTLGFVSEVKLAVLDDLEFKACALLFFDNINN

AANTIKEFAKVDFVSSAEIMDYASLKAASTYDELRDILADIKEGNTCVLIQSEHSNELKLDENINKIKEI

SKLAYKSYFSKNKAEYDLWWKIRKALLPIAASLRKAGSTVITEDVCFNIEDLADGIKSIQELFYKYGFGD

NGIIFGHALAGNIHFIITPDLNNKLEFDNFSNLVKEMSNIVASYGGSIKAEHGTGRMVAPFVEVEWGKQA

YLINKKIKSIFDKDSLFNPDVIISDDKDIYKKNIKQVSWIDEKLNTCMECGFCERFCPSNEYTITPRQRI

AILREIKRLESLNDDESKAKLKDIKKYYNHLVDSSCAACGVCSFSCPLGINFADFSLKYRKNNIGFISKI

LGNLAYKNHEKTLKIAKFSLSIANKFDNLSLDNKLEKASNFLSIIPRTRAYLPKVNDYELKSHKRVCNVV

YFTSCLNKSFKPNEKMHDKRSLQEVFESLCKKANIGIIYAPNDLCCGKAYENFQDIQDKNIQKINDFLSN

IDSPIVLDHSACSAKLISDHSKYEIYDLSEYLLKFIAPKLRIDKINENVGLYIMCAARKLGLNENIIKLT

KLCTNGKVLIDNDTYCCGFAGYKGFFKPQLNISATKGFKKFYAKTNIKRGFSTSSTCEIGLSDATGISWQ

HIAYLLDECSEAI

>WP\_002851201.1 MULTISPECIES: NADH-quinone oxidoreductase subunit N [Campylobacter]

MLNNFLNLELLNISLSYPFLFLITTAIVLLLCSGFWKFHRSFYIGISSLSLIVSAFLILNNANAQGLEAK

AFLATLNNDIVSFYASLVILCFSFLYLLMQKEENQGEFYALFLFMIASLLLMVSSSNLVLIFIGLESSSL

ALYTLIAMRGSDNAISSAIKYFSVAAVGAGFFVMAVAFIYLKTGTLDLSANLALKNEFQKDPMLLGAGVM

IFVLCAIKLSLAPFHFWLKDVYYAAHTNLVAFISVVPKVAMLVVVIRLFDFLNNTGFEYIIIVLAIFSML

IGAFAALSQNNIKKMFAYSSVVHSSLVLVACIPLLKEQNFDGILLAIFGYWTLFAFANYAVFMILSNYEN

NSYESLNGLLVKKPLIAFCLSISVLSLAGIPPFGVFWGKFMILNTAILNGYWYLALFVALSSVIMLYAYL

KILIHALFMKNDRVHNIKFSFIQNFILAFCVCVSTFVILLML

>WP\_002851170.1 MULTISPECIES: peptide ABC transporter substrate-binding protein [Campylobacter]

MLRWFVLLFLLFLNLEAKIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKS

WDISKDGLVYDIFLRDDVLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLF

KPYPAFLDALSIGMLPKHLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLI

IKHIFDPSIASAELKNGKIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALN

YAVDKESIVKNLLHDYAFVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEF

EIWAMSNDPLRVSLAGILQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQD

SALNDEGWNFGHYHDKKVDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGI

KTRTLGHHGVGFTWNVYEWSK

>WP\_002851151.1 MULTISPECIES: peptide ABC transporter ATP-binding protein [Campylobacter]

MLKVCNLSKFYELKKHWYLKKERHIIFDNVNFSLNENDNLIILGKSGAGKSTLARILCFLEDPSEGEVWY

ENLNLHKLDKNKQRLLRKQIQYCFQDQKMALNPYKKIKNLIQDGLENFNLQKNDDLILEFFDFFSLKKQI

LEQKSYELSGGEATRVGLIRALVLNPKLLILDEITSAFDIKTSKEILTFLYDYQQKNNISYIFITHQSDL

FYKFNHKKLKL

>WP\_002851146.1 MULTISPECIES: 50S ribosomal protein L4 [Campylobacter]

MSKVVVLNDKLEKAGELDLPSKYAEVNPHNLYLYVKSYLASLRANTAHTKGRSDVSGGGKKPWRQKGRGG

ARAGSTRTNVWVGGAVAFGPTNERNYFQKVNKKQKRLALERALADKAAKGVLFTADSLAIESGKTKDANA

VIKKLGVKDALIVKDLLDEKTLLAYRNLANCYVVDVTEVNAYLVSVFNAVIMEKSVLESITKEG

>WP\_002851142.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKLELRIFRFDKTKDYEAYYKPYIYDNYENFASFYDLLLQVQNDDIYFDFDKDEDTYIVVNKQIIPLFT

PLEKIAKEFDFNLCIEPLSTKRAIKDLIIDKNDFLDKYKYLEKFGDEEDKKLYAKYDYLYYATEILDYLP

EYMGDGVFYLASKMIEKYPEKKIEILKTLADKEKGIFYHLESKNEILETTIKNLQNEILNLGLFDKNILH

FDLPKTNAFDNEIKELKEIKHNFKDFNIAFYGFNACDTLKSKLKAKFISYENSIKNNGFSLLNLNPTLSY

KIAADIVLDAYDSGADFMVVKEEKDFYLFDTCAKKLMQTSKRDFEDFYILSRFEFLALIEGIQAPSLKNH

TLKVSLI

>WP\_002851096.1 MULTISPECIES: Crp/Fnr family transcriptional regulator [Campylobacter]

MKDYLELLSSVGKLKKFQKNSILFYEGEEAKNFFILLKGKIRIYKSTASDKEITLHYFNPPNFIAEMPAF

KKLNYPANAVFEEDGEILEIDFINFQNLCSENKEFNFLLISSLFDKIKILEKKLSQNALDLRTRLLKYLL

ENEKNLDTISQKQIAIDLNVRAQSLSRVLKELKISELIDTKKGRIEILNKDMIMKELW

>WP\_002853400.1 MULTISPECIES: acyl-CoA thioesterase [Campylobacter]

MKMRVYYEDTDAGGVVYHSNYLKFCERARSEIFFNKKVDIFDASKGHFLLAKANCNFLKPAKLGDMIEIK

TKILEVKNASVEILQEIYKDEILLFKMELTLAFIKNEKPARMDMQLKKLFEELF

>WP\_002852117.1 MULTISPECIES: DNA/RNA non-specific endonuclease [Campylobacter]

MKIFIFLLTISLNIFALEPYKPSADFSSYFNNINCSQILDKFFYLNCYDYKLKGTKAVAYKVEASNLKDR

QIKKRPRFEDDTNIPKKYRTTWSNYKNSGYTRGHTAPNASFSFSKAAQNSVFLMSNITPQNAQINNKIWN

EIEQRERNLALEFQSIEVLNLVLYDKEPQYIKNRIAIPSFYVKIIKTPKFKECYQAPNHEVNDENIKQYQ

INCDKF

>WP\_002851599.1 MULTISPECIES: (Fe-S)-binding protein [Campylobacter]

MMKKVYFYATCLGSTAMQQSVLNAIKLLRREGIEVIFKKNQTCCAQPSFNSGYFDESREIALYNVDLFDK

DYPIVVPSGSCAGMMSHDYKELFKNRPEFSKIKTFSSRVIELSQYLDEVLKVDYEDKGVPIKVTWHSNCH

ALRVQKSIQASKNLIKKLKNVELVELQYEEECCGFGGTFSVKEPEISNAMVRSKIKDIQNSGAKYLISGD

GGCLLNIDGTMKRMGLDIKGIHLYDFLLKRLEGGRL

>WP\_002853412.1 MULTISPECIES: DUF2603 domain-containing protein [Campylobacter]

MKELEKYSTCLKRIDEFSQNLGIKKKDRTIFKMKQSENENEKCLVLENGSFDSPEPWFVIDENDEIHTLL

SLQSLKNILESLKQSQKENFELRLEKAIYQQIPVDFNDVWTVAMDEIKQKAQNGTMEVSIDLEKLISKIK

QEHPNLFVDMQAMIERVNQNERL

>WP\_002853271.1 MULTISPECIES: AEC family transporter [Campylobacter]

MFVFIPLFTIFILLAGGYFAKRIGVLKQKQARTFLDFAIIFALPCLIFDKAYHLNFDFSLIIFIFIGLFS

CILAAFFAILIGKVFHFSKVTLVSMFLLSCFGNTIFVGMPIVAGIFNDPQFSAEVIFYDALATTLPISLF

GPFILSLGNGEKVSLLANVKKILSFPPFLALLFGFLCKLITLPEFIFSPIRLFGASATPVALFAIGLGLG

FMAIKTSYKPTIVVIFAKMILAPLFFVFCLKIFNLELKDSTIVAIIESAAPTMTLAGAMVMKAKLDSNLA

VSAVAFGVLFAFVSMPILIWTLL

>WP\_002853046.1 MULTISPECIES: type II secretion system protein [Campylobacter]

MKKAFILIESISAITIISLIFIGIFYYYIQLYKNYENLNIFERLYKLQEELYEKPIFKTIILQTSALKPI

VLQEQFVNDGIFQFQKLYFQDQNYSVYFKE

>WP\_002852959.1 MULTISPECIES: ComF family protein [Campylobacter]

MRCINCGAFALLCFCELCELELSEFSLNVRKLDNNFKVYSFYKYHEIQHLLHSKHYFYGYFVYKMLAKLS

FAKFKDFFDPRMTINVIALDDKVEDMLYSHSAILARYLKTKFVKPVFNVLKAQNSVKYSGKSLEFRQKHK

RNYKLLKTIHEPVILVDDIVTTGSSLLEAKKVLEENKISVLFALVLADAKV

>WP\_002851668.1 MULTISPECIES: BAX inhibitor (BI)-1/YccA family protein [Campylobacter]

MSLYDRDYSRSKEFENTRSSELSIFIKQTYQLFAASLLAATVGAYVGIFALASFFIQSQVTFWILFAVEI

GLLFALQWKKREAPLNLVLLFGFTFCSGLTLTPLLISVLALPAGGIIIAQAFALTTVAFAGLSVFAMNTK

KDFTVMGKALFIVLIVIVAASLLNLFFQSSIVNLAISAVAAILFSFYILYDTQNIIRGNYETPIEGAVAL

YLDFVNLFVSLLNILRSFNSR

>WP\_002852206.1 MULTISPECIES: bifunctional riboflavin kinase/FAD synthetase [Campylobacter]

MLNIFTTISKINITSLAIGCFDGMHLGHLKLVKCLDENGALLVINKFKGQFLCSNRQKEEISGKKVIEVD

FESIKSLDGRDFLSFLKKEFVNLKFIVVGYDFSFGKNRAYNAKDIESLSGIKTIIVDEFSIDGIGVHASL

IKDFLSKANLQKAKEFLGRDYSIKGKMIKGQGLGSKELFATINLDCEGYFLPQNGVYVTLLKSQRKTYKS

VSFLGVRSSDENFAIESHILEELGENFTQGEFFELEFISFLRENQKFQDLKKLKNQIAKDIEQARELLRK

NDER

>WP\_002858567.1 succinate dehydrogenase/fumarate reductase iron-sulfur subunit [Campylobacter jejuni]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>WP\_002858238.1 ribosome silencing factor [Campylobacter jejuni]

MQERIDLIVKILDEKKAENIKTIDMSEQEYFVKYVIIAATLGERHALSLIDELKTRLKAKGEEFLNIDSS

EEWSVIDLGDILIHLLTPEHRGIYNIEELLENLKKGRV

>WP\_002852054.1 MULTISPECIES: YggS family pyridoxal phosphate-dependent enzyme [Campylobacter]

MTLEQILEKTKNVRLVAASKYVDASIIEKLFDQGIVEFGENQVQALAQKKENLDEKKLDIKWHFIGTLQS

NKINLLIKQKPILWHSCNGIKIAKAMDKRLDYKLNTLLEINSANENSKSGLDPNQAVEEYLQIQEECSNL

NLCGVMSIGSHSQDKENIIKSFETTFKIYEILQKHGAKICSMGMSNDFEIAIKCGSNLVRLGSILFKNLK

>WP\_002851405.1 MULTISPECIES: cytochrome-c oxidase, cbb3-type subunit I [Campylobacter]

MHPGNVLNYDYTVARYFMFATILFGIVGMAIGTLIAFQMAYPNLNYLAGEYATFSRLRPLHTSGVIFGFM

LSGIWATWYYIGQRVLKVSMAESRFLMAVGKLHFWLYMLTMVLAVISLFMGVTTSKEYAELEWPLDILVV

LVWVLWGVSIFGLIGIRREKTLYISLWYYIATFLGIAMLYLFNNMEVPTYFVTGMGKWWHSVSMYAGTND

ALVQWWYGHNAVAFVFTVGIIAQIYYFLPKESGQPIFSYKLSLFAFWGLMFVYLWAGGHHLIYSTVPDWM

QTMGSVFSVVLILPSWGSAINILLTMKGEWSQLRESPLIKFMILASTFYMFSTLEGPILSIKSVNALAHF

TDWIPGHVHDGTLGWVGFMTMAALYHMTPRVFKRELYSKSLMEAQFWIQTTGIVLYFASMWIAGITQGMM

WRATDEYGNLLYSFIDTVVAIVPYYWIRAIGGLLYLIGFFMFTYNIYKTIACGRVLDKEPKSASPMAA

>WP\_002851187.1 MULTISPECIES: cytochrome-c oxidase, cbb3-type subunit II [Campylobacter]

MFSWLEKNPFFFAVAVFVVIAYAGIVEVLPNFAENARPIEGKKPYTVLQLAGRAVYIKDSCNACHSQLIR

PFKSETDRYGMYSVSGEFAYDRPFLWGSKRTGPDLARVGNYRTADWHENHMWDPTSVVPDSIMPSYKHMF

KNNADIETAYAEALTVKKVFNVPYDAENGTKLGSWEDAQAEVKAEAQAIVDQMKNQEVKDAFAKGEIKEI

VALIAYLNSLK

>WP\_002797819.1 MULTISPECIES: type II CRISPR-associated endonuclease Cas1 [Campylobacter]

MSYDEAFKTLLISSNAKLNLELNHLVIKQDENIAKLFLKDINIIVLESLQISISSALFNAFAKYKIILLT

CDETHSINGVFTPFLGHFQSAKIAKEQMNVSAQKKAILWQKIIKNKILNQAFILKKHNKIEQSNELINLA

KKVSLNDSKNIEAVAAALYFKTLFGTSFSRDELCFENSALNYGYAIIRACIIRAVCISGLLPWLGIKHDN

IYNSFALCDDLIEVFRASVDDCVLKLKGESEFLSKDDKRALIGNLQSKINFDGQNYPLNRAINHYVANFK

NALLYEDELKIVKFDD

>WP\_002864630.1 MULTISPECIES: YkgJ family cysteine cluster protein [Campylobacter]

MIFDKNFSYAFDENACEKCGGKCCTGESGNIFASKEELEVLRKHLNLESKEFAEKYLRKVGFKMSFKEVE

CEDGFACIFFDTQKRNCSIYDFRPKQCRTFPFWEYFKTHQKELEKECIGICYLS

>WP\_002858695.1 MULTISPECIES: sulfite exporter TauE/SafE family protein [Campylobacter]

MEITDLPYLIIGIISGIASGLFGIGGGMIIVPSMFALGASAHHAIGISVLQMIFAAVFGSYINYKKKNLN

LKDGIMIGFGGLIGASFSGMLLKALSDVALTSVFLAVSCIFFIKYAFGIKENIVQNQRSVWVKNVILFIA

GAFTGIFAISLGIGGGLLIAPILAYFLGYDSKKVVSLSLFFVIFASVSGIISFSNSGVIDSEVIHKGILV

GIASMVGVFIGIKIIEKMHISAHRKILLCVYALSILGTTHSLLNKLNFINF

>WP\_002858675.1 MULTISPECIES: 6-carboxytetrahydropterin synthase [Campylobacter]

MIIRKLFEFENAHIVRFCSSKRCKSSIHGHSYKVEVLLESKYLDNAGMVYDFGLLKTYIRQIIDSFDHAI

TLFKYDDAKYLEEMKKYSSRWICLPVNVSAENFCRVFFILIDALLKQTKMVNGEQGVTLQSIIVHETRTG

YAQGFREDAYSELMPKISLQDIEFSNGIKAEWNDIDFYNKLKNEEIFINPKEI

>WP\_002851494.1 MULTISPECIES: citrate synthase [Campylobacter]

MSNSVTITDNRNGKSYEFPIYDGTTGPSVVDMSSFYKQTGMFSYDEGLTSTATCKSKITYIDGENGILMH

RGYPIEWLAENKLYLDVVHLLLYKELPDATRLEAFRYEMKKRSFIHEGMHRLFDSFPDNAHPMAVLQGAV

SSLSAFYPDHLNMNVKEEYMEMAARIVAKIPTIVATAYRYKHGFPMAYPNLDRGFTENFLYMLRTYPYDH

VELKPIEVKALDTVFMLHADHEQNASTSTVRAVGSTHAHPYACIAAGIGALWGHAHGGANEGVIRMLEQI

GSVDRVDEFIKRAKDKNDPFRLMGFGHRVYKNFDPRAKVLKKLRDQLIDELGIDTNLIKVATRIEEIALS

DDYFVQRGLYPNVDFHSGLILKALGIPNEMFATLFVIGRTPGWIAQWIEQKEQESLKIVRPRQLYLGETS

KI

>WP\_002777281.1 MULTISPECIES: QacE family quaternary ammonium compound efflux SMR transporter [Campylobacter]

MNIAKKELFVAWFFLIAAIVFEVLGTSFLKMENQILGYIFMALFIAFSYFFMGKAIKKIQVGIAYAVWEL

LGIILILLVSFIVFKESLTLTQILGIVLSIVGIIMINIGEVKE

>WP\_002864205.1 GDP-L-fucose synthase [Campylobacter jejuni]

MQTNSKIYIAGHKGTAGTALVENLQKRGFNNLVLKTRQELDLVNQQAVAKFFKEEKPEYVFLTAVLPCGA

ANVAQRADFIYENLMIQNNVIHNSFLNNVKKLVFFGSGYMYPENAKNPLKEEYLFQGDLEYGAYSFGAAK

IAGAIMCESYNIQYGTNFITLVLNNLYGTKANFDFGKSRVLPALLRKFHLAKLLSEGNITQILQDLKMNN

FEEAKEYLHNFGISKKSVEIWGTGKVRREFIHSDDLADVAIYTMQNIDFKDLIKDRKSKNTHINIGTGID

YSIKEVALMVKNIVGFSGELVFNTSRPDSTMDRLMDCSKIHSLGWKHKIELKDGIKMMYEWYKTQN

>WP\_002858662.1 MULTISPECIES: anthranilate phosphoribosyltransferase [Campylobacter]

MILLIDNYDSFVFNVKSMLEQLSNDEILVRRNDAISLSEIKNLNPTHIILSPGPKHPSQSGICLEIFKAR

LNIPVLGICLGHQALALAFDSLVVKMQEPMHAKNSLIKQCRENELFSNLPSNFSVMRYHSLEVKQLSDEL

EILALDEKGVIMALGHKNLPYYGVQFHPESYFSEYGLQLFSNFLKQDIKKPQKQENPLSFYLQKMSENHF

LQSDDFEQICKIIMSKDYEILQVVALLILITEKSLNEKSLSAFVRQILRYSQTFSDESEMIDICGTGGDG

FKSINVSTTSAFILAALGVKVAKHGNRAISSSSGSTDVLEALNITTPNTLESVLKQLNNQGLSFLHAPFF

HPLVGELKEIRSRLGVRTVFNVLGPLLHPNLKLKYQLMGNYHAPVHRLLIEVLKNLGRKKALVVRGNDGM

DELSICDESKIYELCEGEILEYSICPEQFGFKRAFHSEIIGSSAYDNAKDLKDILSGRMQGAKFDLVVLN

AMFALYTANKASSPLVAKDMILEAIYSGKVIEYFKEYQAYAKA

>WP\_002858414.1 UDP-glucose 4-epimerase GalE [Campylobacter jejuni]

MKILISGGAGYIGSHTLRQFLKTDHEICVLDNLSKGSKIAIEDLQKTRAFKFFEQDLSDFQGVKALFERE

KFDAIVHFAASIEVFESMQNPLKYYMNNTVNTTNLIETCLQTGVNKFIFSSTAATYGEPQTPVVSETSPL

APINPYGRSKLMSEEVLRDASMANPEFKHCILRYFNVAGACMDYTLGQRYPKATLLIKVAAECAAGKRDK

LFIFGDDYDTKDGTCIRDFIHVDDISSAHLAALDYLKENESNVFNVGYGHGFSVKEVIEAMKKVSGVDFK

VELAPRRAGDPSVLISDASKIRNLTSWQPKYDDLELICKSAFDWEKQC

>WP\_002855252.1 MULTISPECIES: LPS export ABC transporter ATP-binding protein [Campylobacter]

MSKLEIVNLEKIIKKTKIIHGISLEVNSGEVVGLLGPNGAGKTTTFYMICGLISPSSGKVLLDGLDVTKD

PLNKRARSGIGYLPQESSIFKDLSVEDNLLLAAQIFYKDKKILHDKVEQMLELLSIEPIRLRKGLSLSGG

ERRRCEIARSLMCEPKFLLLDEPFAGVDPIAVAEIQTLIKELKRLGIGVLITDHNVRETLAICDRAYVIR

SGSLLASGNADEIATNKDVKKYYLGAEFKLLD

>WP\_002852644.1 MULTISPECIES: molybdopterin-guanine dinucleotide biosynthesis protein B [Campylobacter]

MKQLIIAFSGPSNSGKTTLITKIADNFLQQNLKVLIIKHDPADKAQFDFNGKDSFKFFQSGAEVMVLSPT

RTTFFSHENRDILKALKLSPDFDICLVEGLKTLDLPRISVFCKEIDESYFIFSNAIASYEKISHPYLTWL

DLNDIQAICQYILKNAKNLQGEL

>WP\_002852457.1 MULTISPECIES: signal peptidase I [Campylobacter]

MEILKKLYKFSQSWTGTVVIVLLVIFFFIQAFVIPSGSMKNTLLVGDFLFVKKFSYGIPTPHIPWLEIPV

LPDFNKDGHLIKAQGPQRGDIVVFRNPRNEKEHFVKRCVGTGGDRIVYANKTLYVRMHEGDEFMKEHYPN

DLVTLGGQIYVKEPYKQKGIHYDPKKDIESDILRFLSIGDFAMSPAYIKELGNHIGFSGGNAYVFDVPEN

EYFMMGDNRDYSYDSRFWGSVPYRLIVGKPWFVYFSWDKDKNVRWERIGRFVDTLENDEQYIHDHDDEDK

LS

>WP\_002851928.1 MULTISPECIES: branched-chain-amino-acid transaminase [Campylobacter]

MISADKIWMDGKLVDFKDATLHFLTHSLHYGNAVFEGTRAYKTDKGLAIFRLEDHTKRLLESAKITLLNC

PFSQKELENAQIELLKANNFKSNVYIRPLIFLGDGVMGLYHIKAPVRVGIAAWEWGAYLGEEGLEKGIKV

KISSFARNSVKSCMGKAKASANYLNSQIAKFEAIEAGYEEALMLDEEGFIAEGTGECFFIVKDGVLITPP

NDFSLKSITQDTVLKIAHDLGITVLRQRISRDEVYTADEAFFTGTAAEITPINNIDARIIGNGLRGSVTK

KLQDAYFDVVYGRNEKYASMLTYI

>WP\_002851175.1 MULTISPECIES: DNA ligase [Campylobacter]

MRFVFLICCACLVFANEILLLSKFDKQDFNSKDFNAYLMSEKLDGVRGIWDGKYLKTRQNYKIKTPDFFT

KNFPPFAIDGELWIARNKFDEISALIRSGDSNLTLWKEVTYNIFDVPNACEEFQISTCTLKNRLAVLEEY

LQKYPSAYIKIISQIPVENQNNLNQFYESIIKNQGEGIVIRKNLSPYEKGRSKNATKLKPYDDAECELVG

FRKGKGKFENQVGALLCKMPNGQIIKIGSGLKDEDRKNPPKIGSIVTYKFNGLTKNSLPRFPVFLRIRDE

NP

>WP\_002776169.1 MULTISPECIES: flagella export chaperone FliS [Campylobacter]

MQNNLAYNAYSQNQVGIESPQKLIEMLYEGILRFCARAKVAIRNEDIEQRVYFVKRTTAIFIELINTLNY

EKGGEVAHYLSGLYTREIQLLSLANLENNEDRINEVINVTKGLLEAWREVHNNETVAQ

>WP\_002852324.1 MULTISPECIES: prepilin-type N-terminal cleavage/methylation domain-containing protein [Campylobacter]

MNKAFTLLELVFVILILGILSSLSLSFINTTKDEVKILKLKMDYEMLSSALALMRSQMRLKNLNFPEILD

NAQNNQAKEKLFYCLNDCDYSLLDTPIYSDFKSWIKIGKNHYRFALNAKEMVEFIYDSKEGLLKCIGSSR

CKDLI

>WP\_002858490.1 MULTISPECIES: fluoride efflux transporter CrcB [Campylobacter]

MLNTLLVVGFGGFIGAILRMLSINLVNKFFPYSISFGTLFVNVLGSFIIGLLFSYAQNKGLSPLLKSFIS

TGFLGAFTTFSTFSYQNLLLLQSGNYLHFALNIILNVFLCLFAAWLGFLIFK

>WP\_002857947.1 MULTISPECIES: HAD-IB family hydrolase [Campylobacter]

MSKEILALFDFCETLTNFQTLDRYLPLAGSKNINYTQSKNLARRERFQRENLPYPRYEWLIDLDVDLAEE

IAQEFVYTDVMANLNQNVMDRLFWHQDEGHTIVIVSGGLTIYIKEFARIYNIENIVAVDLEIYKNKLTGN

IDGIHTMQERKLYKLAQKFNLKQFDLKNSYAYSDCVSDIPLLSLVGNPNVIECGKDLQWARILGFNILLK

Y

>WP\_002810914.1 MULTISPECIES: HAD-IB family hydrolase [Campylobacter]

MKLVLFDLDDTLIQGDSAKLWLKFCVEKGFLPQEYLEKIVFYQKQYQEKKFDMDEFMTFFLQSVKGKNED

RISSLVDEFIKIYIKPYEKAKELIIKYQDQRCIIISATAEFLVRKIASFLGVRESIAIKCERVGDKFSGK

AYGIYSFKEGKVLRLKEYLGKDYEKWMKDSYFFSDSINDLPLLESVSKAFVCNGDEKILKIAKERKYEIL

TF

>WP\_010891939.1 sodium/proline symporter PutP [Campylobacter jejuni]

MIKERLMEVVQINTPIAVMFVVYALLMLYIGFYFYKQNKNSEDYFLGGRTMGPVISALSAGASDMSGWLL

MGLPGALYVSGFIDSYIAIGLTIGASLNWIFVAKRLRIYTSVIANSLTIPDYFETRFDDDKHILRIVCAV

VILIFFTFYVSSGLVSGAKLFESTFGIRYDYALTTGTIIIVAYTFLGGYKAVCWTDMIQGLLMMMALIIV

PLVMLYHLGGFGEAMNIVREIKPQALSMGEGVGIVSIISALAWGLGYFGQPHILVRFMSIRSTKDIPMAT

FIGIAWMAVCLLSACMIGILGIAYVHKFELSLQDPEKIFIVMSQLLFNPWIAGILLSAILAAIMSTASSQ

LLVSSSTIAEDFYKKIFREDAPSHIVLNLGKLGVLLVAVIAFLISTDKNSSVLSIVSYAWAGFGASFGSV

MLFSLFWSRMTRVGAILGMITGAATVVLWKNFANSGLYEIVPGFLVASVVIIIASLFTNVRSGTKAAYEK

MLKEF

>WP\_010891824.1 FAA hydrolase family protein [Campylobacter jejuni]

MKFVNFIQGQKPNLGVLNSSGKIVSFDDLGIETNDMNEFIIHFDKFKHKLTDLDSKIAYEIPQENYLAPI

IEPRQDIICLGINFLDHAKESAKFKGEKFEEREYPVYFGKRCNQATAPFGDIPLHADVTSQLDYECELAF

ILSKDAYKIKAKDAKDYIFGYTIINEISARELQKRHKQFYRAKSLEGSTIMGPYITSVDEISYPPKLQLQ

SYVNDELRQNSNTQLFIFDIAYVLEELSAGMLLKAGSIISMGTPSGVGMGLNPPTFLKSGDKVRCVIENL

GELCNKIKNINY

>WP\_002858112.1 MULTISPECIES: TlpA family protein disulfide reductase [Campylobacter]

MKIKKILLLVAISCLFVACSNDKEKQQNDVNLSTEASINQSDDMNFKLNLIDGGSISVKKENAVLNFNDE

DKVTLFVFFTTWCTPCIAEIPHLNKLQEKYNNDFNIVGVLLEDKSNDEIQKFIEQHKISYKVANGENNYL

LAKALGGVNGIPTMFLYNKHSKLINQYLGLIPEEMLEIDIQKAIL

>WP\_002852711.1 MULTISPECIES: TlpA family protein disulfide reductase [Campylobacter]

MKKISALFLISLAFFLNACSKEEEIQNDFMFEEYHKGDKIVLNSVNGGSKTLIRTDKGFVVEGEEGKVLM

FDFFGTFCTPCKEEALDLSKLWKNNSSKFIIIGLTHFEDVSDETVKKFAGDYGAYYFLSNGSSNDRIIAQ

ILKDIDYQNMEQLPFKVVLKNGIYQKISDYWNNNTPTNFYLGKIPTELMQEDLNKIYKGK

>WP\_002851267.1 MULTISPECIES: TlpA family protein disulfide reductase [Campylobacter]

MKKSLLILSILFLLNACSFENSKDTGKVGEKSAEISAKDTLGKAVKLADDNTSLKVLVFFQNGCPSCLKE

LPSLDEFIQNHPNKISVYAINSIDNANVVKVLAEQFDFKNVKVLKDDLKITNDRYAVFATPTTIIIKDGM

IKDRILGEKPWEFFESKLISLL

>WP\_002859425.1 MULTISPECIES: flagellar basal body M-ring protein FliF [Campylobacter]

MDFKNMLHQIGQLYQNLTRKQRIVIAASIIVVVGFLVFLALFRGSGSNANNGYAVLVENVSPSSSAAIVA

KLEQNNIPYKLESENKILVPQDQVYRQRMFIASEGLIKDSRVGFEAFDTQAFGATNEEQKVKYQRAIEGE

LARTIETLEPIRSAVVHIAFPKDSVFTERQIPPTASVVVNVREGLKLTRKQIDGIKNIVSAAVPKLTKEN

VKISDQSGVPLDEQEAYEDDLVRAQIKFKSDQEKALEDKIIENLAPFAGGMDKVKVSVNIDFDFSKQESQ

SEIYDPNPIVRSEQTLNEERTGRKDPEIQGVPGAVSNIGPVEGLDNKGQIDTYKKNQVTTNNELSKTITN

TKKQFATVLRTSAAVTIDGKYQDVVDENGDVKSEYVPLTKEELASVESIVKNTINFSATRGDSVVVQNLP

FHRESIRVESKVKTFYNRFVEPFIPPVKYFIAAILLFIFYKKVIAPFTQKMLEDVAAQEEMQQGPNAVLD

DAEDALEKFNAARKKVEEQLGFGDNFNEDSIQYEVLLEKLRGLVSDKGEEIAALLQNLIQNDSEFGEKDM

>WP\_002858551.1 MULTISPECIES: 3-oxoacyl-ACP reductase FabG [Campylobacter]

MKFSGKNVLITGASKGIGASIAKTLAGFGLKVWINYRSKPELADALKDEIIASGGVAAVIKFDASKEDEF

ENGVKTIVESDGELSYLVNNAGVTNDKLALRMKLEDFSGVVDTNLSSAFLGCREALKTMSKKRFGAVVNI

ASIVGEMGNAGQVNYSASKGGMIAMTKSFAKEGASRNLRFNCVTPGFIKSDMTEVLSNEIKQTYQDNIPL

KRFAEPEEVANCVAFLLSDYASYVTGDVLKINGGLYM

>WP\_002855629.1 MULTISPECIES: flavodoxin FldA [Campylobacter]

MSVAVIYGSAMGNTEGAANTIASKLGISDVFNISDIDAAKMNSYDKLICGTSTWGSGDLQDDWDGFDFSG

LSLGGKTVAVFGMGDSESYSDTFCGGMGKLAQNLKDAGANLVGEVSTDGYTFEASDAVVDGKFVGLALDN

DNQEDQTESRIDAWVEQIKPYFA

>WP\_002851791.1 MULTISPECIES: acetyl-CoA carboxylase carboxyltransferase subunit beta [Campylobacter]

MNFADIFSKIRRQQPSVKEAPNHWVKCQSCHALMYYKEIESCFNVCPKCNYHMRISADERIKLLSDEGSF

IEYDANLEAIDPLKFVDSKSYKKRLSEGESKTGRKSSVISGECEINGLKTQLVVFDFSFMGGSLGSVEGE

KIVRAIQRAITSKTSLVIVSASGGARMQESTYSLMQMSKTSAALKLLSKEKLPYISILTDPTMGGVSASF

AWLGDLIIAEPEALVGFAGARVIKQTIGADLPEGFQKAEFLLEHGLIDAIVERGEQKQYLSDVLKFFSGK

>WP\_010891885.1 MULTISPECIES: biosynthetic arginine decarboxylase [Campylobacter]

MMDYGIDIWGNENFIIKNGKVCINYEKKPAIIDIVKELRDDGYKGPLLLRFPHLIQKQIENIYGNFNKAR

KEFGYKGGFNAVYPLKVNQYPGFVKNLVKLGKDYNYGLEAGSKAELLLAMAYNNEGAPITVNGFKDRELI

NIGFIAAEMGHNITLTIEGLNELEAIIDIAKERFKPKPNIGLRVRLHSAGVGIWAKSGGINSKFGLTSTE

LIEAVNLLKENKLLEQFTMIHFHLGSQITEIHPLKKALNEAGNIYTELRKMGAKNLKAINLGGGLAVEYS

QFKNEKSRNYTLREYANDVVFILKNIAEQKKDLEPDIFIESGRFVAANHAVLIAPVLELFSQEYAENKLI

LKKQNPKLIDELYDLYKSIKPSNALEYLHDSIDHLESILTLFDLGYVDLQDRSNAEILTHLITKKAILLL

GDKQNPADLLAIQDEVQERYLVNFSLFQSMPDFWGLEQNFPIMPLDRLDEEPTRSASIWDITCDSDGEIS

YSKDKPLFLHDVDVEKENYFLGFFLVGAYQEVLGMKHNLFTHPTEAIISINEKGYEVEGIIEAQSILDTL

EDLDYDIHAIMDILNERISNSKLVNDKQKKHILGELYLFLNDNGYLKSIGV

>WP\_002859277.1 MULTISPECIES: NAD(P)H-dependent glycerol-3-phosphate dehydrogenase [Campylobacter]

MMRIAVIGAGKWGSALHLALKENHNCFISSLHQRDLEDFVSIKEALECEYLVFALSSQGMRAWLKENFIN

KGQKILIASKGIEDQSCQFLDEIFLDFVPKENFCVLSGPSFAAEVMQKLPTALMISGINQELCKKFASFF

PDFIKTYIDNDVRGAEICGAYKNVLAIASGISDGLKLGNNARAALISRGLIEMHRFGKFFGTKEETFLGL

SGAGDLFLTATSVLSRNYRVGLKLAQNQKLDSILAELNEVAEGVKTAYAIEKLAKMKGIYTPIVNEVVAI

FKGKSVQEATQNLLKQND

>WP\_002852597.1 MULTISPECIES: quinone-dependent dihydroorotate dehydrogenase [Campylobacter]

MAYEMIKLLLFKLNPEHAHALVEYSLRALSASFPGALSFLAHKYIVDDESLRQNLLGLDFNNPVGLAGGF

DKNATMIRPLSALGFGFLEVGTFTPKPQEGNEKPRLFRLVKQESIQNAMGFNNEGAEKIALRLAKTYPFV

LPLGVNIGKNKITPNDKALEDYFTLFRDFKDLCDYFIVNISSPNTKNLRELQNDDFLNTLLEEAKKITSK

PILIKIAPDMKIDDALNLCENAIKKGADGFILANTSVDYSLLDNNRTFGGISGRLITEKSGIFFKEVTKI

LFGKTLLIASGGIDSADIAYERIKNGANLVQVYTALIFKGPSLVKNINQNLIELLRKDGFLHISEAVGVN

LK

>WP\_002851847.1 MULTISPECIES: cytolethal distending toxin subunit B family protein [Campylobacter]

MKKIICLFLSFNLAFANLENFNVGTWNLQGSSAATESKWSVSVRQLVSGANPLDILMIQEAGTLPRTATP

TGRHVQQGGTPIDEYEWNLGTLSRPDRVFIYYSRVDVGANRVNLAIVSRMQAEEVIVLPPPTTVSRPIIG

IRNGNDAFFNIHALANGGTDVGAIITAVDAHFANMPQVNWMIAGDFNRDPSTITSTVDRELANRIRVVFP

TSATQASGGTLDYAITGNSNRQQTYTPPLLAAILMLASLRSHIVSDHFPVNFRKF

>WP\_002851780.1 MULTISPECIES: protein-L-isoaspartate(D-aspartate) O-methyltransferase [Campylobacter]

MNAFEQKRCQNMAEEIAQKVFINEELFNAFCQIPREIFSPLKAHAYRLDALPLANSQWISSPLTVAKMTM

ALDFKNADSILEIGCGSGYQAAILSKVIRRVFTIERIENLAKKAAQTFRELELFNINVKFDDGQNGWKNY

APYDRILFSAYATQIPEILLDQLSDDGILVAPILHNGKQFITRLRKNGTNLQKEILEECLFVPIVDGKE

>WP\_002851490.1 MULTISPECIES: NADH-quinone oxidoreductase subunit NuoK [Campylobacter]

MIEKYFFVAILMFVIGLVGILKRQNLIMLFISSEILLNSANLALVAASKMHNDLNGQVFALFIMGVAACE

VAVGVALCVLWYRRKGTLELKSLKEVEA

>WP\_002853043.1 MULTISPECIES: putative sulfate exporter family transporter [Campylobacter]

MKTSFLAHSVAIVRSNFKGLLFTACIVIFAMYLSSVQSIKDTTHLAATAFAIIIGVLLSPWFFKYQHHFQ

AGVHFSAKKLLRLGIVLYGFNITLTELLSVGLKGFLLSAIVIFFVFIIALFVGTKIFKLDKETSMLVGAG

SAICGAAAVLALESSLKSDPFKGILAVGTVVIFGLVFMFLYPIAFSLNLFPFFDQNAMGVFMGATLHEVA

NVAGAAEMAKDMAGFEQGASNVAVIIKMMRVILLVPFLLIVTYFFAKNQHSSSGKTAKSITIPYFAFAFL

GMIVLNTYLASKESILGIATSDIISLGKTLCTLCIVFAMAALGLQIDFKKFLKSGSRVFGLAFVLGLVLI

FGGYFLTLAFKGILW

>WP\_002776342.1 MULTISPECIES: HypC/HybG/HupF family hydrogenase formation chaperone [Campylobacter]

MCLSIPSEILEIDELNNALVQTLGVKRKVNLDLIDEPLKQGDYVLIHVGVAMEKIDKEAALESIKTYQEI

VEKMNSGEIKSDEGDLGLNEFHR

>WP\_002780456.1 MULTISPECIES: enoyl-[acyl-carrier-protein] reductase FabI [Campylobacter]

MIMKGKKGLIVGVANNKSIAYGIAKACFDQGAELAFTFLNDALKKRVEPIAQEFNSNFVYELDVNNNEHL

DSIAEKIKKDLGEIDFVVHAVAFAPKEALENSFLETSKEAFDIAMQTSVYSLLSLTRAVLPILKDKGSIL

TLSYLGGVKYVPHYNVMGVAKAALESSVRYLARDLGVKGIRVNAISAGPIKTLAASGIGDFRMILKYNEI

NSPLKRNVSIEDVGNSAMYLLSDLANGVTGEIHYVDAGYNIMGMGDVEKNEEGQTVLCWDNQKG

>WP\_002858396.1 redox-regulated ATPase YchF [Campylobacter jejuni]

MSLSVGIVGLPNVGKSTTFNALTKAQNAQSANYPFCTIEPNKAMVEVPDLRLNELAKIVKPERIMHSLIE

FVDIAGLVKGASKGEGLGNKFLSNIRETEVILHIVRCFDEENITHVEGGVDPLRDVEIINTELILADIEQ

LSKKIEKLTKEAKANQKGAKESLELANSLLDHLNKGLAASSYPEKESEIYQALIKELRLLSAKEVIYGAN

VDENGISEDNDYVKALKEYAKKNDHEVIKLCAKIEEELVGLSDEESHEFLSSLGVNESGLDQIIRTAFAK

LGLISYFTAGVVEVRSWTIKKGWKAPKAASVIHNDFEKGFIKAEVISYEDYIQYKGENGAKEAGKLRLEG

KDYIVLDGDVMHFKFNV

>WP\_002858024.1 MULTISPECIES: bifunctional histidinol-phosphatase/imidazoleglycerol-phosphate dehydratase [Campylobacter]

MSQKILFIDRDGTLIEEPKSDFQIDTLEKLRFEKDAIPTLLKLKKFGFKFVMVSNQDGLGTPSFPKENFE

IAHEKMLDILKSCGIEFQDIFICPHFENENCACRKPKTAMLEEYIKHELYDKEQSFVIGDRESDMILASN

LGVRGLKYGELSWKEIENEILSSFRSASYQRTTKETDIKVKVCLNGGKVSIKTGIDFFDHMLEQIAVHGG

IGLEISCKGDLEIDEHHSVEDVALALGACIKKALGDKIGIARYGFALPMDECLASCAMDFCNRPHLVYKA

KFKKSHLGALSTEMIEHFFYSLSYAMGVSLHLKVKGKNDHHKAEGLFKAFAKALKMAVKIESENLASSKG

VI

>WP\_002858501.1 MULTISPECIES: flagellar hook-basal body protein [Campylobacter]

MQNGYYQATGGMVTQFNKLDVITNNLANINTSGYKRDDVVIADFKRIFKETQDELPIENHTRDASRFVNT

TIDGIPQVSQEYTDFSLGSLKATNNPLDLAMTREDAFYLVQTKDGEVRLTKDGNFQLDDEGYLVNKQGYK

VLSSDYFNNPQNAGIRIPNGAVQISVDKNGSIEVDGAQNARLFVAQVDDIRALQKDGDNVYKIDDLTRIR

DLKNSNAIRQGFSQGSNVNPVTEMVGLIEANRMVEMYQKVMTAHMDDLNQEAINKLAAVK

>WP\_010891944.1 MULTISPECIES: methyl-accepting chemotaxis protein [Campylobacter]

MLKITKIKRKIMNSIKIKLSLIANLIAIFALIVLGIVSFYFTKTSLYESTLKNQTDLLKVTQSTVEDFRS

TNQSFTRALEKDIANLPYQSLITEENIINNVGPILKYYRHSINALNVYLGLNNGKVLLSQKSNDAKMPEL

RDDLDIKTKDWYQEALKTNDIFVTPAYLDTVLKQYVITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTP

GNTFLFDQKNKIFAATNKELLNPSIDHSPVLNAYKLNGDNNFFSYKLNNEERLGACTKVFAYTACITESA

DIINKPIYKAAFIQAIVVIIVVVFSVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSND

EFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQ

ARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQ

SLTTSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAA

RAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTK

DNVEIANESAIISSTVSDIANNILEDVKKKRF

>WP\_010891886.1 MULTISPECIES: quinol dehydrogenase ferredoxin subunit NapH [Campylobacter]

MMKYLIARRIVQLGILALFSFKATDFILQGNLSSSRLFNTIPLSDPFAVLQIILASWSIDLMALIGALII

FFIYGLLLGRVFCSWVCPVNLITDFAAFVRNKLTLNNKFLILPKNLRYFVLVLVLVLSFVFSLPVFESFS

YIGMIHRGIIFATSSWIFVAFILFCIDTFLSPRAICSHFCPLGAFYAFISRFALLKIKHDSDKCTKCYEC

IRICPEKQVLWMVGKESTSVKSGECIRCARCIEVCNDDALNFNIFDLRNK

>WP\_009881974.1 MULTISPECIES: methyl-accepting chemotaxis protein [Campylobacter]

MQSINSGKSVGISAKLTLWVGILVVLILAITSAISYFDSRNNTYELLKDTQLKTMQDVDAFFKSYAMSKR

NGIQILANELTNRPDMSDEELINLIKVIKKVNDYDLVYVGFDNTGKNYQSDDQILDLSKGYDTKNRPWYK

AAKEAKKLIVTEPYKSAASGEVGLTYAAPFYDRNGNFRGVVGGDYDLANFSTNVLTVGKSDNTFTEVLDS

EGTILFNDEVAKILTKTELSINIANAIKANPALIDPRNQDTLFTAKDHQGVDYAIMCNSAFNPLFRICTI

TENKVYTEAVNSILMKQVIVGIIAIIIALILIRFLISRSLSPLAAIQTGLTSFFDFINYKTKNVSTIEVK

SNDEFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLD

VLQARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQT

AVQSLTTSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAI

EAARAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQ

TTKDNVEIANESAIISSTVSDIANNILEDVKKKRF

>WP\_009881803.1 MULTISPECIES: methyl-accepting chemotaxis protein [Campylobacter]

MKSVKLKVSLIANLIAVVCLIILGVVTFIFVKQAIFHEVVNAEINYVKTAKNSIESFKARNSLALESLAK

SILKHPIEQLDSQDALMHYVGKDLKNFRDAGRFLAVYIAQPNGELVVSDPDSDAKNLDFGTYGKADNYDA

RTREYYIEAVKTNKLYITPSYIDVTTNLPCFTYSIPLYKDGKFIGVLAVDILAADLQAEFENLPGRTFVF

DEENKVFVSTDKALLQKGYDISAIANLAKTKEDLEPFEYTRPKDGNERFAVCTKVSGIYTACVGEPIEQI

EAPVYKIAFIQTAIVIFTSIISVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFG

QISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARV

GSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLT

TSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAG

EHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNV

EIANESAIISSTVSDIANNILEDVKKKRF

>WP\_002853093.1 MULTISPECIES: DUF655 domain-containing protein [Campylobacter]

MKKLLFLFFALTAFLFGAVNINTATLKELKSLNGIGEAKAKAILEYRKEANFTSIDDLKKVKGIGDKLFE

KIKNDITIE

>WP\_002853058.1 MULTISPECIES: DUF1751 domain-containing protein [Campylobacter]

MLTIFLIFLNILCYFLISYDYYNILGLNILFFNGAYWQLLSSMFLHGNLTHLILNMIVLFQFGRMLETYL

GALCFIFIYFIGGLLCSLLSVFYVYFDFKYFGENINVIGASGAICVLMGFYAVIDKNSTKGLIVAILLMS

FVPLLMGVNVAWYGHIFGFMCGYILAKIKEVK

>WP\_002852142.1 MULTISPECIES: flagellar basal-body rod protein FlgG [Campylobacter]

MMRSLHTAATGMVAQQTQIDVTSNNIANVNTAGFKKSRAEFADLMYQVMKYAGTSTSATTLSPSGIEVGV

GVRPTAVTKVFTEGNLKSTSTDGLDMAIAGNGFFQIQLPDGTIGYTRNGQFTKDNEGNIVNSDGYRLLPE

MTIPEGATAINVATDGTVSVMLPGEQQETQIGQVELVQFINPAGLHSMGDNLYLETGASGAPVAGIAGQD

GLGTIRHGFIELSNVQLVEEMTDLITGQRAYEAGSKAITTSDDMLGIVNQLKR

>WP\_002851290.1 MULTISPECIES: flagellar biosynthetic protein FliQ [Campylobacter]

MDESTLVALGVQTFKITLLLSLPMLLAGLIAGLVISIFQATTQINEMTLSFVPKIILVVVILIFLMPWMT

TTMIDFTENILNQIPTFIK

>WP\_002858614.1 DegT/DnrJ/EryC1/StrS aminotransferase family protein [Campylobacter jejuni]

MNFINLQAQYLAYKDEINAEIESVLSSSSFIGGAKLNEFEQNLAHFLGVKHAIGCSSGTSALYLALRVLD

IGKDDEVIVPSFTFIATAEVVALVGAKPVFADINLSNYNLDFKAVQKAITSKTKAVIAVSMFGQMSDLRA

LEEILKDKNITLIEDGAQSFGASFKGEKSCSIAKISCTSFFPSKPLGAYGDGGAIFCHDDEIAKKIRILL

NHGQTQRYKHEFIGINGRLDTLQAAILNVKLKYLEKELDKRQKLAQIYNANLKNCQIPQINPNAFSAYAQ

YSVLVEDRASVLRKFEKANIPYAIHYPTPLHKQPCFSEFSNLELKNSEYASEHILSLPFSPFLSEEEQEQ

VICIFKD

>WP\_002854361.1 MULTISPECIES: MotA/TolQ/ExbB proton channel family protein [Campylobacter]

MNFEAIFHFFNSSSIITYIVLLWLSLYFILAFSILFARLTYLATWRNKEKESLETLLLGEKDLSRTDSIL

RKCNDTTSNHLEIYKNLASRRASAGLTWLSIIASTSPFIGLFGTVISILETFGGLGTQNSLSIIAPKISE

ALVATGCGILVAIPAYTFHLIIKRKAFELLSIIDSEIKVISSSK

>WP\_002851706.1 MULTISPECIES: aspartate/glutamate racemase family protein [Campylobacter]

MKTIGIIGGMSFESTITYYKTINQAINDKLKSLNSAKILLYSVNFEEIENLQSQDKWQEAAQILTQCAKK

LELAGANFIIIATNTMHKVFDEIQQNINIPILHIAKSSAKALKQENIQKIGLLGTKYTMTQDFYKKMLIE

ENISVITPSDEDIKIVNDIIFNELCKGEIKQDSKEKYLNIIKKLQEKGAKGVLLACTEIGLLISKNDTNI

KIFDTSLIHALDAANEALKDL

>WP\_002853664.1 MULTISPECIES: TrkA family potassium uptake protein [Campylobacter]

MKNLNYGIIGLGKFGSVVADELIAGGHTVIVADKDEEALKSIQNPPSYAYILDSTNISALKEAGFHDVEV

VIVSIGENVEKSILTLMALKDIGVKNIIAKATSNIHGQILSKLGATKVIYPEKESAKRLVKEFLTKDADY

EVFDLSANTIRAIKINIDEKLAGNSLKHVAQNMKVISYKKLNSDWEILPDLETTTVYSGDVVILLGTVKE

LREFEH

>WP\_002852518.1 MULTISPECIES: ABC transporter permease [Campylobacter]

MNEENISIVSAFFSRISQFFNEFSWQDIKEVSLSSITSFNENYENILKPALNETIYMSLMAVLFGFLLAI

IPGILLAIWDKNGIKENKIAYSILDFITNILRAFPFLILIVVLLPLSKIIVGTSIGTNAAIVPLAIGIAP

YLAKMLESAFKEIDKGIIEAAKSYGASNIQIIFKVIFSEALPAIISGITLTLIFTIGFSALAGTVGGGGL

GDVAIRYGYERFNKEVMIQTVVILLILVQLVQILGNLFYTWAKNSKTTYIIATLLILLGVSIVININNDE

NFFWQVIVFILFLGSLLYKGFKK

>WP\_002852622.1 MULTISPECIES: type II toxin-antitoxin system Phd/YefM family antitoxin [Campylobacter]

MLSFKQDEIYTATEVVRNFSPIMEKLKKSESGKIVILKNNKFEAVMLSMKEFERLQNAMQLLENIYKNQK

A

>WP\_002867890.1 MULTISPECIES: TIGR00730 family Rossman fold protein [Campylobacter]

MNEKISQDLEKFANIPNLKNAVTFFGSARLKEDNFYYQQAKILAQKCVQNGFCVISGGGGGIMRAANEGA

FSQNNNTNSMSSVGFNIFLPHEQKLNDFVEYNITFESLAIRKMALIEKSLAFVIFPGGFGTLDELCEILT

LKQLEFKKDVPIILFGSEFWRGFDEFVRNSLLKLEVISKGDELKYKITDDLDFIINTLKEI

>WP\_002858705.1 MULTISPECIES: sulfite oxidase heme-binding subunit YedZ [Campylobacter]

MQTKYFKFLAYFSFIISLIYGFYHIIKAFDFVKEAYIYTGIFALIFLNLSLLFSLLKFKKTKNYPKILGI

FAAFWAILHFLNYFIFDRNAQILRLFDDISHRLLEAIGFIAFLIIFLMLLSSFKIFKKLSKIRKLGYLCL

ILASYHYFLTPKIPMFWEWSALIIALFYFIVRYTKTLKS

>WP\_002857920.1 MULTISPECIES: sensor histidine kinase [Campylobacter]

MTKNYSIHTKLIILFVVTFFLVCVLFIVLLKIEGNTYNEEESLKQENLIKNLLISYENTSGVEIGAYLGN

SGFNAIQNPNLVKAIRNNGQSLFKAGGELCTLSSLKYHSNLYFDVQCKDFDGLYEENTSDRVYNLLLIGF

FSFSLLVVFMYFSVLKSLEPLKKLRRQVAEVANGEQPDFLDYQEDEVGKIAFEFQKAFKKNQELIQSRQL

FLRTIMHELKTPIGKGRIISEMIKEDRQKERLIAIFLRMDSLINEFAKIENLFSKNYNLHFKPSRFSTIL

EEAKEHLMIDDFNKVVKVDIRYDALINVDMEIFSVILKNLIDNALKYSNNGTCELFCCKECFTIKNPGKP

LAEPIEHYLEAFTREKHNQVKGMGLGLYIVSEVCKLHNFDLIYFYDDGKHCFKIFFGDKEK

>WP\_002853241.1 MULTISPECIES: sensor histidine kinase [Campylobacter]

MNKSSIFYTITFIFIFAGVSVILGFLWLIEYDQQNYTRELNTKYSLIANARLLNFAGVISEKEFEEQTKN

YNKMDEITEAKQIRKILFRGDVLARVEVNNGLIEIISYNRQVYLNIIYDGKVYLYKDQDYQTYRYFIIKA

IAVAVICILVLLYIYIFKKLKPLKRLKKQIDKFAQGKLGDIEDVSTGVDEISQVSEAFYQAIVQIRKLNQ

SRQFFLRNIMHELKTPITKGLLTLEMIEDNKYKERLNGVFTRLEILINEFAAIEQITSGAAFINRKKYNI

LDVLDEAKEIAMRDDSNIRIFMEESFFVNVDFKLFTTAIKNMIDNGIKHSEDGFVQIDIIDDYICFKNRG

PELNNTLEYYTQAFTQGSKQKSSFGLGLYIVNTILETHGMKLDYLYEDGVNLFYFRNLKSVIVKE

>WP\_002852536.1 MULTISPECIES: sensor histidine kinase [Campylobacter]

MLKTKNIFIVFFVVLALIFGFIFYTFTNSYLNFLLIKQYEQKIKSLDDVLKFSLLEHLNDANIKDFAKDT

RADFIILNNDMKISSVKNPDFFSNLKEGEILNFNSKKILTKSFIYKGYKYIIIVYPRFLDLELFWTKMAI

GFGVCLLFVFILMLLLGRRIEKNFNKILDFLDSIGDHKVVILEKGIFKEFNLLNEKLLKTKDKILKNTQK

NKKQSDKITLKNTQLASVISAISHELKNPLSVIDLSLEMLKDEKLEDKKLKKELLEKISRQSVKLNALTH

KLNFVFNLNSEALQMQEFDLFSLCEKITKNPGFERVALQGKSTKVKADEFLIEQVIINLLSNALKYSQKK

VILTARDQKIIVQDFGKGIEEDKIKLITKKFYKIDVKSDNSFGLGLFLVKKILNIHKSYLEISSTLGYGS

SFSFKLSQG

>WP\_002852488.1 MULTISPECIES: sensor histidine kinase [Campylobacter]

MNESILKSLDSNEKETLQKGLESLIEQTYVIENEYKTLNENYNSLRAMVDEIIEVLPSALWILDKEKNII

LQNQEALKNPKLLSIISLDKIRDELEFEGRFYAVKIIAHNEKTIVSATDISDEKRNERLASMGSVAAHLA

HEIRNPIGSISLLASTLFARSELKNKHIVLEIQKAIARVERIVNSTLLFTKGVHINALNFNLLELKEECE

SAINSYNFTSQIDFEISFLDKQICADKALLGLVLQNLIYNAIDAIEESECEKPMIKILASYDNEKICIRV

YDNGCEIKDEKLVFEAFKTTKLKGNGLGLSLSKEIINAHKGELSFQSDPKNFYFTLPLV

>WP\_002851893.1 16S rRNA (cytidine(1402)-2'-O)-methyltransferase [Campylobacter jejuni]

MLYFIPTPIGNLSDISFRALELLKTCDLVFCEDTRVSKSLISLLNTKFHTDIHISKFIALHSHNEKEVLA

SIDLKIFEKNVAYLSDAGMPGISDPGKALVEFAQENNITYEILPGANAALVALVSSAFCQKEFIFIGFLA

NKGKERQKDIEKILNFPYPSIIYESPKRILSLVEQIMILDNQREIFLIKEISKKFEKKFKGNAKELSEIL

KKSNLNGEWVVVLQSKEQNFLQNTLCEKDIMDLELSLKAKAKLLSKINGKNAKEIYQKLLLSQD

>WP\_002851800.1 MULTISPECIES: thioredoxin [Campylobacter]

MGKYIELTSDNFAQAKEGVALVDFWAPWCGPCRMLAPVIDELSNDFDGKAKICKVNTDEQGDLAAEFGVR

SIPTLIFFKNGEVVDQLVGAQSKQAISDKLNSLL

>WP\_010891915.1 DUF3373 domain-containing protein [Campylobacter jejuni]

MKTRFSLILSACLLSSSLFAKNTDDEITKLQKQLAQIQAELAQIRKEREAQVKQNEAVKAELADLNDRAD

ETEFQAALSKVKFGLEFSTAVSNTNYKVSGQDYSANNKWMNELHLNMNADINDKTKFYGRLSMAKNWSQM

GWSGTPYDLDAGRNTRSSGPVLYVDRAYLDYYITPEWIATVGRQPGTDGPGSNLRNNALRQSTYPALAIN

ALGDAAVITYKPESLQDHKVAIRAAYGKTYQWDEESGKVRDWMSDQKDADANLYYAAVEGELPIEGMGDN

LIIFNVAHMTDFALPIPGSMLLGDDDEVVNLGNLTLANIHFENYKAFGTNFNWFASLGYSNGSNNEINPL

LSTALQSKGYGNGKFNEKDGYAVHVGGRYDFTKALKVGYEFFWGSRYWYTMSRPSINDPLNIRMTRGTAH

DFYVIYQLDRYQFLRLSYTNIQNIWGNRGLPFGGAKKDKARADNIMLMYNVKF

>WP\_010891888.1 MULTISPECIES: tetratricopeptide repeat-containing protein [Campylobacter]

MMKNTVTEASIYEAQGLKDEALEIYKNILKEDPNNQNAIDAVRRLSGFRSKHKDLNTQMLDFFINMKSDE

EINEFKRWLIKI

>WP\_010891875.1 K(+)-transporting ATPase subunit F [Campylobacter jejuni]

MRKGYPMDIIFALLLLLAFGSLCFFICFCEIQTKDTRMIFLLVLSLILALYLFYALLYPEKF

>WP\_010891873.1 aminopeptidase P family protein [Campylobacter jejuni]

MSIYKQRVLELRRLMKENNIDAYLILSADPHLSEYLPEYYKNRVFISGFKGSVGTVLITQEEGFLWVDGR

YWLQAQKELEGSGILLQKQDAKNTFTKWLEKNLSEDQILGIDFALLPLSLQKDLKINCKANLKHIDLISP

LWKDRPTLPQEKIYEHELEYCSYSRKEKLALVRQKMKNLNATSHLISSLDDIAWLTNLRGNDVNYNPVFL

SHLLILEDKALLFVDQKKVNSELEKKLNLDGFWLKNYDEIIMELEELANTNLLIEPSKMTALLINSLDKS

VKIIQEINPSTHLKAAKNTKEIAHIQDAMIEDGVALCKFFAWLEEAIKNKELISELDIDVKASEFRAQSK

YYISDSFATIAGFNENAAYPHYKATKESFAYLKKDGLLLIDSGGQYKNGTTDITRVVPIGKANAEQIHDY

TLVLKAHIAISSAIFPKDITMPLLDAITRAPLWKEQIDYIHGTGHGVGYFLNVHEGPQVLSYLSPVLEKT

KAKEGMLTSIEPGIYKVGKWGIRLENLVIHTKVENPKNKDFGEFLYFKPVTLCPFEISCIDTKMLDEKEK

EWLNNYHKEVFEKLSPKLGDYPKALVWLEKRTKAIF

>WP\_010891851.1 hybrid sensor histidine kinase/response regulator [Campylobacter jejuni]

MEDMQEILEDFLVEAFELVEQIDHDLVELESNPEDLELLNRIFRVAHTVKGSSSFLNFDVLTKLTHHMED

VLNKARHGELKITPDIMDVVLESIDRMKTLLNSIRDNGNDTAIGMDIEPICARLTAISEGESPVVATDSN

EKSIPQAELEAPKQEIATPEPEVDVNQLSDSEVEAEIERLLKVRKAEDQARRAQKKQTTNAAPKPTNNTA

NKPTESGEKKVPASGSNASSMDQTIRVEVKRLDHLMNLIGELVLGKNRLLKIYDDVEERYEGEKFLEELN

QVVSQLSIIITDVQLAVMKTRMQPIAKVFNKFPRVVRDLSRELGKQIELEITGEETELDKSIVEEIGDPI

MHMIRNSCDHGVEDPATRAANGKPEKGIVQLKAYNEGNHIVVEITDDGKGLDPNGLKAKAIEKNLITERE

ADQMTDKEAFALIFKPGFSTAAKVTNVSGRGVGMDVVKTNIEKLNGVIEIDSELGKGSSFKLKIPLTLAI

IQSLLVGTQEEFYAIPLASVLETVRVPIDDIYTIEGKNVLRLRDEVLSLVRLSDVFGVKQVLESGDQTYV

VVIGVAESKLGIIVDTLVGQEEIVIKSMGDYLQNIQGIAGATIRGDGRVTLIIDVGAMMDMAKEIKVDIK

AQLESSAKKPKEQPSDYKVLIVDDSKMDRTLMQKALEPLGVSLIEATNGVEALNIIKSGEHDIDAMLIDI

EMPRMDGYTLAGEIRKYSKYRNLPLIAVTSRTSKTDRLRGVEVGMTEYITKPYSPEYLENVVRKNLKLG

>WP\_010891838.1 MULTISPECIES: metal ABC transporter permease [Campylobacter]

MLEILNFTFFQNALLGAILVSIACGIIGTLVMINRLFSMAGGITHGAFGGIGIAFYFSLPILLSTGIFTL

FLAFLVAFLAKRYEHRSDSIIAVIWAFGMAVGIILIDLSPSYNTDLMAYLFGSILAVGTQDLWLMALVDS

VMVLLIFLFYRQFEALSFDVEFTKVRGINTSFFHYLLIALMAFCIVISIRLVGLILVMALLSIPSFIAEN

FTKRLGFIMILASFLSMIFCILGLILSYYLNLSSGACIIAIACFGFLVHLIGKFLKR

>WP\_002875425.1 MULTISPECIES: lipopolysaccharide heptosyltransferase II [Campylobacter]

MKIFIHLPTWLGDTVMASPALYTIKEHFKDAQFILYGSFVSTALFKEFPNSKIIIENKLSRYKQALSLRK

ELGKIDLSFAFRSAFSSKIILHILKTKQRYFFDKNKYKEEHQVLKYLYFIENSLSIKAHFKDLKLPFKLK

FQNPLILRNGKKILGLNPGASFGSAKRWDASYFAKVALNFSQSHDILIFGAGKAEQELCNEIYQILKEQN

IKVKNLCNKTTIKTLCQNIAFCDLFITNDSGPMHLSAVYKVKTVAIFGPTKFTQTSPWQNENAKLVHLDL

ACMPCMQKTCPLKHHKCMKDLKPEKVIEQAKNLLKNSHL

>WP\_002872006.1 succinate--CoA ligase subunit alpha [Campylobacter jejuni]

MSILVNKNTKVIVQGFTGKEATFHAEQCMAYGTNIVGGITPHKGGQTHLGKPVFDTVADAVKATKADVSL

IFVPAFAVGDSVIEAADAGIKLAVVITEHTPVKDMMFAKQYANKKGMKIIGPNCPGIITSEECKLGIMPG

FIFKKGCVGLISKSGTLTYEAANQVVQGGYGISTAVGIGGDPIIGLAYKELLSEFQKDDETKAIVMIGEI

GGSLEVEAAKFIKENISKPVVAFIAGATAPKGKRMGHAGAIVGSADESAAAKKEALKSYGIHVVDSPALI

GEEIQKILG

>WP\_002869215.1 MULTISPECIES: EamA/RhaT family transporter [Campylobacter]

MTRTKYLYILLVIAMFLWGSSWPTSKILANYTDTSIITFWRFFFVVLGSFFVLNFLKIPLKIEKTALKWV

LIAGVLNGLYAFVFFIAIKHGLAGKGGVLVTTMIPIFSYLIFMIAIFFQKNKKSTHKITKSEILGLFLGL

LSGFCLLNLGSLEDLFGKFNILFLTCSFIWALMAVFNHKAKGAHPLAINFYINLISILMFSWILFDVKSY

EIFHFEFKFWISMFVVAFLSTIIGTSIYYYGIHILGSVKANSFVLITPASALICSYFILDEVPNALTLLG

CALAIGAIYFINIYGKKA

>WP\_002869004.1 MULTISPECIES: peptidylprolyl isomerase [Campylobacter]

MIKTIDTSKVNEYKFALIETEKGTMKLKLFGDEAPQTVCNFATLANEGFYKDLNFHRVIPNFVIQGGCPH

GNGIGGPGYEIICECDDQEHKHERGTLSMAHAGRDTGGSQFFICHSPQAHLDGVHTVFGQIDPKDEESLE

VLDSIRQGDKILDIKICDKI

>WP\_002864838.1 class I SAM-dependent methyltransferase [Campylobacter jejuni]

MLEKTLIKSILKKWDYGDFRVVFWDKEEFFIGNKPAKFSLIFKEKIPFLELFGDTSLVFARHYMQAKLDI

EGDYDEMAKVLYYFSNQQFFKTKKDVLSKITQKQESKNIKSHYDIGNDFYKLWLDDTMSYSCAYFKEPNN

TLYEAQINKIEHTLKKLDLKEGEKLLDIGCGWGWLSIMAAQKYGVKVVGITISEEQCKKAKERVKELGLE

DKIEIRLQNYQDLEFENYFDKVVSVGMFEHVGKENLGLYFMKVKQVLKPGGSMLLHSILAMFEGKTNAWI

DKYIFPGGYLPSLREVVSAMSEWDFHLLLAESLRMHYAKTLDLWDENFNKVLDKVREKYDEEFIRMWDLY

LRSCASAFRVGSVDLFQFLITKEINNNLSLTKDYIYK

>WP\_002860798.1 MULTISPECIES: gfo/Idh/MocA family oxidoreductase [Campylobacter]

MKVLIIGFGSIGKKHFLALKNLNHEVSLLSLSAKKEEFKNTPIYRSLKECDLNEFDLFIIANITTEHFNT

LKTLDELVKDKTILVEKPLFEKSQNFTSSKNHIYVAYLQRFNPVIVALKRLLKGEKIYFASLVCNSYLPH

WRALDYRQNYSAKKELGGGVLLDLSHEIDLAFFLFKDLELIYSQNAKISELDITSDDFAFLALKNSQEAK

IHIELDYFAKFNKREIIIHTLEKSFKADLINNKIEIYHKNQSQKILNFENDTIKTLQNLHHAVFEKDKEL

CDLKQALKVLELCDEVRKKNG

>WP\_002858709.1 MULTISPECIES: cysteine desulfurase, NifS family [Campylobacter]

MKVYLDNNATTMLDPNAYELMLPFLKDMYGNPNSLHQYGSATHPALREALDKLYAGLGANDLDDIVVTSC

ATESINWVLKGVYFDHILDKERNEVIISSVEHPAVTAAAYFLKSLGVKVIELPVNEEGVSTVEDLRKVIS

DKTALVSVMWANNETGMIFDIKAMAELAHEFGALFHTDATQAVGKIKVNLTQVGVDFASFSAHKFHGPKG

VGGLFIKKGLKLTPLLHGGEHMGGRRSGTLNVPYIVAMGEALRIANTMLDFEDSHIRRLRDKLEDQILAL

PDTTVVGKREHRVPNTILASIKGVEGEAMLWDLNKNGIAASTGSACASEALESNPIMEAIGAEHDLAHTA

LRLSLSRFNTEEEIDYAAKQIKNATQRLRAISCTYAYNPNNYK

>WP\_002858657.1 MULTISPECIES: UDP-2,3-diacylglucosamine diphosphatase [Campylobacter]

MLIGEISATHEFAKPYIELLEELALKIEIIYLEGNHDFNLSCFFKRVKIFNLQEQPIKLNLHTSKGNNLV

LNSAFIKLAHGDIFLPPLLQFTLKTLRNHYLLVFLNFLNIITRNFISNKILQNQNKKNLFYQIKDFENLA

KKRYEKYENLGFWVCEGHYHQNHQINKENIKYLNLASFAYERSFFVVEYQQEIKFREQKLRGQNV

>WP\_002858609.1 MULTISPECIES: insulinase family protein [Campylobacter]

MQYLESRGIKIPFIFEKNSDFPIVVLKLVFRNCARSYDEIAGLAKMFSRILNEGVDDKFFKDLEFRAINL

EASSGFESLEINLSCLKENFDFALKSLEKLLLKPRIEEKTLQKLKINALGELASKNSDFDYLAKNLLNAQ

IFKCKEFQSPNDGDEKSIETLSLKDLQNFYKNFIHLSDLVVILGGDLEEKQAKEDLLKLLSKLQIGKKNT

PKKYELGKNIKDEILVRPESEQAYIYFATPFFADFKDKDLYLAKIALFVLGQGGFGSRIMEEIRVKRGLA

YSAYAMLDMNMSFSRVFGYLQTKNESAKEAKKIVKELFEDFIKNGMTQNELDQAKNFLIGSTPLRYESLS

KRLSMSFNEFYQGLNLGYYKEELKLMEKVKLETINAYIKKHQELLNISFASIQNEN

>WP\_002858549.1 MULTISPECIES: peptide chain release factor N(5)-glutamine methyltransferase [Campylobacter]

MTIKNALMEAKSSLKGYENEAVFILCEYLKKDKAWLFLNQDIKIDHEPYFELIKRFKSGEPFEYIFEKVD

FWGLEFKIKKGILIPRYDSEILLFQILNLCKKNTFNGILEIGFGSGILSIVLAKELGLKITACDINPKAL

ELALENAQLHKVDHLIDFKLCNFKQIKENYDFIFSNPPYIKNSYPIDIWVQKEPKEALFGGEKGYEILEE

IIHFSLDKKVKFLACEFGYDQKEILEKILYQNNFIVDFFKDEQGYNRAFIAKFTNMRYDKK

>WP\_002858132.1 endonuclease III domain-containing protein [Campylobacter jejuni]

MTGAQIFTKLLNLDLNYHDFDWLENQGLSEFELLISVVLTQNTNWKNVLKALENLKKENIASLEQINTLS

NLELATLIKPSGFYNTKAKRLKGLVESIINTYENLENFKTNVSRKWLLNIKGLGFESVDGILNYLCKREI

LVVDSYSLRLAFHLGYEFENYEELREFFQSGIESEQENLCKILGRKCELYELYQIFHALIVAFAKQSFKG

QKLSPKGEEWIKILKEDL

>WP\_002858077.1 MULTISPECIES: lipopolysaccharide heptosyltransferase I [Campylobacter]

MKIAIVRLSALGDIIQSAVVLQFIKNFKKDIEIHWFVDEKFEGILKNHPLINKLYALPLKDKKILKSLKI

LLKARKNNYNAVIDLQGLIKSAIVSRILSRNNFGFDKNSLKESFAHNFYNQKLELDYNENVFVRYLSLTS

FMLNTDFNVKNLAFKQDIFSVDENLKQLLNNKLKLDKNEKNILIHVGSSVENKIYPKTKLAILCKLLINE

FQQTKIWLAWGNVKEYEFAKEVLNLSGIDETHIELAPKFNLEELMAFTKMMNLIIGNDSGPTHLAFALNK

ASITIFGATPSYRNAFQTHINKIIDAGKKIQNAKHIDKSDFCITRIEEEDIFKLAKGLLNEK

>WP\_002858057.1 MULTISPECIES: bifunctional (p)ppGpp synthetase/guanosine-3',5'-bis(diphosphate) 3'-pyrophosphohydrolase [Campylobacter]

MKPIDEELLLEQLIDNVKNCKDLEAAKALLFEICGHDAILEKAVDYCIFCHEGQFRKSGEPYAVHPILVA

TLVGFLSENKSNILAALLHDVIEDTNCTEEELREQFGSEVLKLVLGLTKIIEIREDNLISSKSKKSLTKS

ALTFRNMLLASIEDVGVLIVKLCDRLHNMLTLDILREDKQKRISEETLVVYAPIAHRLGISSIKNYLEDL

SFKYLMPDEYKLIDNYINSNNQEMQLGLNEFISKIELLFLSNGFRQGSFEIQKRIKHSYSIYLKMQRKGI

GIEEVLDLLGVRILVEKVSDCYLALGILHTHFNPLVSRFKDYIALPKQNGYQTIHTTLFDAKSIIEAQIR

TFDMHKIAEFGIAAHWKYKEDGSVVAPRLDWLTDISMQSINNLENAEDYNAIELYEYAKDSLYVEDVAVY

SPKGEIFTLPRGATVLDFAYEVHTKVGLHAKSAYVNRIKVPLLTELKNGDIVRVVTSNDKFYRCSWIDSV

KTGKAKASIREFCKQKIREINLASSINMLSFIFGVDKNRIETWIEKENLVRRIRQVATDSAYLKDIVNGL

KKYAKKSYWFDKYEIKEQKIGNFTLYCNHKIANVDFDFCCHPKRGDAVLAFVKGGNAIVHHKLCDRADKM

IDNNQDMVFIKWDSNIPKSYKLIFSLENKKGVLAEFLAFLAKMQINLLTINLSSDLNSAVDYFEITMEIP

DNINPDSVKDRLKSRCKILDFTSLNDAYKES

>WP\_002857879.1 MULTISPECIES: class I SAM-dependent methyltransferase [Campylobacter]

MKQGDFTKVAKHYHNRPAYSPFLLEKLVACINDKNKNLKDLNIVEVGAGTGKLTKMLGEMFGCQISAVEP

NDNMREEGQKFTQNLSNISWHKGSGEETCMSNNQADWVIMASSFHWTDPKKSLPEFNRILTGGGYFTAIW

NPRHIVEGSVFDEIEKEIKHIVPDLARVSSGTQNVKKWEEILVSTGDFIDCFFMECDYKEFWDKERYLGA

WHSVNDIQAQAGEKRWKEILEMIEAKISHMQSIEIPYKIRAWTARKA

>WP\_002857188.1 MULTISPECIES: EamA/RhaT family transporter [Campylobacter]

MGVFLVLLGGIFWAISGVLAEYLFKNNYSVDWVCFYRLLSTGLILIFLSFKAQKILVFTNLKESLSICMF

GFFGLLLTQFGYFKAIYYTDAGTATMIQYCAPLIIMLYLCFKNKKFPKLIEIFALILIIFALFLLATKGD

IEAVVLNYWGIFWAVIGAFGVAFYSLSAREVILKYGLFWIMGWASLFASFVFLLILQFDKGLIHYAFNLK

AFFSMGGIVFIGTIGAFCLYLKGVEYIGALRASMIASIEPVAAALMSFLFLKTRYSLLDIFAFVLIILSV

ILNAKKTKVS

>WP\_002854561.1 MULTISPECIES: thioredoxin-dependent thiol peroxidase [Campylobacter]

MSLNIGDKAPQFELLNQDGVKIALKDFIGKKVILYFYPKDNTPGCTTEACDFSANYDKFGGKNAVIIGIS

PDSVASHEKFISKFDLKHILLSDSEKEVAKAYGALGLKKNYGKEYEGLIRSTFVIDETGKIAQIYSNVRV

KDHALKVLESL

>WP\_002854323.1 MULTISPECIES: RidA family protein [Campylobacter]

MIKRFDECDRMSQIIVFDKYFKTAGQVAFEPSGDIKKQTKEALAELDALFEKIGANKGDLIQIQIWLANM

QDFDAMNEIYDAWIKNYPKPVRACVGSALAEGYLVEIQAFGKLREN

>WP\_002853489.1 MULTISPECIES: carbon-nitrogen hydrolase family protein [Campylobacter]

MSKIAALQFPTLALSESRLDYYLKASKDNGANLVVLGEYVINSFFTELLHMPKNMIKEQSEAKKESLIKL

AKKYELEIIAPYVSVEAKSYKKLCLKVTPNGVKSYEQQILMPYEHWNEEKFFSNKTPSELKIFTFNYEKL

KCALLFGFETHFDIFWQQIMAKKIDLVIVPSACTFESKQRWEELLKTRAFLNSTSILRVNRIGKTKDEWN

FYGDTLFINAFGEIESKLGSEEEMLIIEPKKSDEARKLWGFDKILKNF

>WP\_002853146.1 MULTISPECIES: single-stranded-DNA-specific exonuclease RecJ [Campylobacter]

MKIINKNEIKKILASRFEKDLHTKLCDLPLPCCLKDAYKAANRIKEAVEKNEKVAIVGDYDVDGIISCVI

MAEFFDDIGFDYIIRIPNRFKDGYGLNAEIINELDVNLIITVDNGIAALEAAKLCKEKNIDLIITDHHMP

QDILPDAFAIINPKQKDCDFPEIEICGAQVAWYLIAALKEVCKLKYDMCKFLELLAIAIVADMMELRDLN

RALVRRGIDHINKSKRAAFRAIKHYYQKDKFALDNIGFLIAPLINSAGRMDDASISYEFLHTKDFNKALE

YLEQIVSFNESRKDEEKQLFEDSLNQIDENDSCIVVSGLNWHEGVLGIVASRLAKHFNKPAFVFSQNEEH

LKGSARSVGKIDILALISKTNSILSNYGGHKGAAGISLNSENFEQFKNKIKKECSQISESEFLDTDEILG

ILEPSEIDFEMLEILESFEPFGHKNPRPFFVLENLCVKNKKLLGKDEKHLKLVLTKENKTIEALFFNFDK

EPELNQNISLLGSISKNEFRGMVTPQFVVKEIL

>WP\_002853122.1 O-acetylhomoserine aminocarboxypropyltransferase/cysteine synthase [Campylobacter jejuni]

MNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLAN

VEGGAFGIPVASGMAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEKV

IDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSKYVSGQ

GTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAWL

LLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDYE

HARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQA

IES

>WP\_002852985.1 MULTISPECIES: AraC family transcriptional regulator [Campylobacter]

MNKILSLPEDLKQLKGVNYKKIKSCTFAKYTQTDTSHSTFVNVGSHLLTFVRKGYKILHTASKDYKINSY

ETLFLKAGSYTLSNVGLSKGVYEAYLFFFDNAFLIELIYKYKDFFKLDQKFQNYEIFWVKNDKILQGILE

SFSPHFEENTQILDPIVSLKFEEIFLHLLLNKNIYFISFLSGILKEFRLDLSQLFEYCGREFLSVNEMSN

FAKLDLATFSKEFKKCFGQSPKKWLDEKRLQKAKILLKFSKKNINEIANECAFSSVAWFIERFKEKYEQT

PKQYQKTKNLYFLSKN

>WP\_002852645.1 MULTISPECIES: alpha/beta hydrolase [Campylobacter]

MAQTQLSYKNKTYQISYEILGDLSLPQILILHGWGADKKLMKQSFCPFLKDFCQIYMDLAGFGNSSVEEI

LNTQDYANITELFLKQKKLNVCFFMGHSFGGKVSTLLAKEKDTLILLSSAGILAKKSLKVRFKIRIFKIL

KLFGLGKFYRYFASKDGANLSPIMYETFKKVVDEDFSEIFAKQKAKSLIFWGKSDEATPLYCGEKMHQFL

KNSTFYPLEGDHFFFLKHSAFIAQKIKEI

>WP\_002852643.1 MULTISPECIES: phosphoglycerate dehydrogenase [Campylobacter]

MKKKIIVCDAILDKGVDILRKAEDIELIEAAKFPKDELMQMLSDIEVAITRSSTDVDVNFLNHAKKLKAL

VRAGVGVDNVDIPECSKRGVIVMNVPTANTIAAVELTMAHLLTSARSFVNAHNFLKIERKWEREKWYGIE

LMNKTLGVIGFGNIGSRVAIRAKAFGMKILAYDPYISASKITDLDMEQAKNLDEILEKSDFITIHTPKTK

ETNGMIGKQEIAKMKDGIRLINCARGGLYTEEALYEGLKSGKIAWLGIDVFDKEPATNHPLLDFENISVT

SHLGANTLESQDNIAREACEQALSAARGVAYPNALNLPIKTEDLPPFVAPYIELVSKMAFLAVQIDKNPI

KSIKLEAEGIIGEYANSMLTFAAVGALGGILGEKINYVNAEFVAKEKGVELSCETLPNSGYNNKLSVKII

TENSNISVSGTVFNENEQRIVGLNGFKTDFKPKGKMIIFKNKDIPGVIAKISSVLAAKNINIADFRLGRD

GFGYALAVVLIDEKVQKEVLDELKQLEACVFVQYVEI

>WP\_002852436.1 MULTISPECIES: insulinase family protein [Campylobacter]

MIAYEKIQLKNKLEVYALPVNKNSDVISVDIFYKVGSRNEIMGKSGIAHMLEHLNFKSTKNLKAGEFDEI

VKGFGGVDNASTGFDYTHYYIKCAKKNLDKALELFAELMANLNLKDEEFQPERAVVLEERRWRTDNNPLG

YLYFRLFNHAFMYHPYHWTPIGFFKDIENWSIEDIKEFHSIYYQPKNAILLVSGDIESKEVFELSKKHFE

KIKNTKTIPKIHTKEPKQDGVKRIYLHKNSDTELLALAYKIPNFKHKDIPALNALSELLGSGKSSLMSEI

LIDKLNLINDYYAYVNDCIDENLFIFICNCNPNVNAEKVEKELLKIIDKLKMGKISQKDLQRVKNNVKSD

FIFSLNNASAVANIYGSYLARGDINPLLNYEKDIQNLELKDLISCAKKYFIQENSTTVILRKDSNG

>WP\_002852433.1 MULTISPECIES: MBL fold metallo-hydrolase [Campylobacter]

MQIIKQACGVYETNCYILFTPKGEFIIDPGTDALLFIKKHVKNPLAILNTHGHYDHIWDNAKVKKEYNIP

IYIHKNDAFMLHDDFNQGYDSSDADFLVDNEDILNICGVDFKFHFLPGHTPGCTMIEIVGKNIMFSGDFL

FYRSIGRWDFPYSDANLMKQSLEKVMTYKEDFKLLPGHGQETTLKEEQVHLPSWLRYF

>WP\_002852311.1 MULTISPECIES: efflux RND transporter periplasmic adaptor subunit [Campylobacter]

MKKKIVLIILIAILGSVGAYFIFFNNDEKISYLTQKIQKKDISQTIEAVGKVYAKDQVDVGAQVSGQIIK

LYVDVGTHVKQGDLIAQIDKDKQQNDLDITKAQLESAKANLESKKVALEIANKQYQREQKLYAAKASSLE

NLETQKNNYYTLKANVAELNAQVVQLEITLKNAQKDLGYTTITAPMDGVVINVAVDEGQTVNANQNTPTI

VRIANLDEMEVRMEIAEADVSKIKVGTELDFSLLNDPQKTYHAKIASIDPADTEVSDSSTSSSSSSSSSS

SSSSSNAIYYYAKFYVANKDDFLRIGMSIQNEIVVASAKAVLAVPTYAIKSDPKGYYVEILENQKAVKKY

VKLGIKDSINTQILEGVNEDEELIVSSSADGLAPKMKLRF

>WP\_002852255.1 K(+)-transporting ATPase subunit B [Campylobacter jejuni]

MSKKQNKLITKEILNNAIKGAFLKFDPRFMVKNPVMFMVEVGSILTLILSIFPTLFNGNSDERIYNILIT

FILFIILFFANFAESIAEGRGKAQAATLRQSKKDSKARHIKSDGSEEMLNSSELKIGDIVLVKAGELIPN

DGEIIEGTASVDESAITGESAPVMREAGGDFSSVTGGTTVLTDFLKIKILVGAGESFLDKMINLVEGAAR

QKTPNEIALNTLLIVLSLSFLMVVVSLYPFMQFLGVSLPISWLVALLVCLIPTTIGGLLSAIGIAGMDRV

TRFNVIALSGKAVESCGDVDTMILDKTGTITFGNRLANEFYEVQGISKEEMIKACVLSSLKDETPEGKSI

VALAQKMGYELEGNDIKEFIEFSAQNRMSGVDLQDNTKIRKGAFDAIRAYISEMNGKIPSDLETKVMEIS

NLGGTPLVVCKNEKILGVIYLKDTVKPGLKERFDELRKMGIKTLMCTGDNPLTAATITKEAGLDGFIAEC

KPEDKIKAIKKEQAQGKIVAMTGDGTNDAPVLTQADVGIAMNSGTQAAKEAANMIDLDSNPTKILEVVEI

GKGLLITRGSLTTFSMTNDIAKYFAILPAMFSVVLPQMQILNIMHLATPKSAILSALIFNAIIIPLLIPI

AMRGVKFKPMKSEHLLLRNLSIYGLGGMIAPFIGIKIIDIPTAWILRILGV

>WP\_002852196.1 penicillin-binding protein 2 [Campylobacter jejuni]

MRMRLVVGFILLFFIFLLSRVYYLSIKSNVYYEELAKQNAIKTEFLPPVRGQITDRNGTLLAINDLGFSI

SIKPYLSIKKSNKGILDKELSELTNLFPDLNASKLAEIYKRNDSYYNQDFIKVVDFIPYDEIISHYSELN

LNKTIKIDPVVKRKYPFGKLASHIIGYVGKANLQDVQENEIAKLSNYTGKSGIERYYNDILQGEKGTRVY

KVNALNQEVEQLSYTPAMSNDIELTIDIELQSYLTSLFEGNAGAAIIMNVNDGSILAAGSFPEYDLNPFV

TGISFKDWDELSNSLDHPFTNKLINGYYPPGSVVKMGVGLSFLNSKNISPSTHYVCNGSIELGGRFFRCW

NRSGHGPVDLKHAIKYSCDVYFYNGSLQVGIDQISETLSRIGFGVKTGVDLPSEFVGTLPSKEWKMQRYR

QSWFQGDTLNTAIGQGNFLATPMQIARYTAQIAKSGEVIPHFLKSIENNNTTIENQMDENKKEIFTLFEK

SQLPYIRDAMYAVANEQGGTSYRYLHNLDVKVAAKTGTAQVVGFSQTDKNRVDEKQFEYYTRSHAWLTSY

APYSKPKYVVTVLLEHGGRNITSGATVAKIYQKMIELGYFK

>WP\_002852144.1 MULTISPECIES: KH domain-containing protein [Campylobacter]

MVENFLREYAKLIADYPEQIDTQKIELSENFFEIVLFAHKVDTGKLIGKNGKMINAIKTVISAYKSKDAS

SYRVTVKALE

>WP\_002852073.1 MULTISPECIES: YafY family transcriptional regulator [Campylobacter]

MKEYDKLSIRLVQILSKFNNGESLSAQELAQEFNVDTRTIQRDLNERLTFMPIKKENGRYVLESFALGKL

SFKDIQNFATLSGIAELYPKLDQGFIVDLLSHRVNKVLMVKNEGFQKVDYELFKDLSVAILKHNVLNFFY

KEKERQIKPYKLVNYKGIWYLLGDENDKLKHFNLDKISKLRTKNENFIPNEKLEEQIQNDPNIWLGESKE

VILKLDKNAKEYFFRKEILSNYQIIDKDETSYTLSTQVSYEDEILHLVKQWIPYIKILAPIELKIRLEDI

LKSYLNNLSK

>WP\_002851821.1 MULTISPECIES: exodeoxyribonuclease III [Campylobacter]

MKLLSWNVNGLRAICDKNALDWIAQEQIDFIGFQEIKAHEDKFPKKIYEYPFKHMYFNSAKRAGYSGVMS

LCNFNSEVKKCEFFDDEEGRVLEHRFKNIALFNIYFPNGQKDEERLNFKMQFYADFLVYLDKLLKDGFEI

IICGDVNTAHKEIDLTHPKANANTSGFLPIERAWIDDLLKLGFIDTFREINGEIKEKYSWWSYRMKARER

NVGWRIDYFFISKGLKDKLKNAFIRDDIFGSDHAPVGIEIDI

>WP\_002851817.1 MULTISPECIES: DUF1425 domain-containing protein [Campylobacter]

MKKNILFILMFLLSACAPSYQINSNQNTVILGSNLPKSLVKQFQKRINSNGYLEFEVILRSTFAKDVIYK

VDWLDKDGFVLRDVLNEDYQALRIPAGQEVILRKLASDTRANDFRLEIKAKN

>WP\_002851484.1 MULTISPECIES: L-serine ammonia-lyase [Campylobacter]

MSNLSIFKIGVGPSSSHTLGPMLAGNLFCKKVAKKLDEIDRVEVTLYGSLSLTGKGHLSDKAVIWGLNGL

EAKNLSAAIQDEVNKNAIENAQIDFCGEKKLSFNYEKDLIFSKDFLPLHENGMKIKAYDCKGGLVDEETY

YSVGGGFVLTAAELEKKGKNSNQNKKKKLDIELNNAKEALELCDKRDWDLAELSYRYELQFHTKEEICAY

CLEIWEVMQEVYYNGTHPNEDYLPGKLHLKRRAKGLKERVAMTADPMGIIDFISLYAIAIAEENASGAKV

VTAPTNGACAVIPAVMLYLKNHTIGFSDEKVIEFLLTAMLIGSFYKKNASISGAEAGCQAEIGSASSMAA

AAMATVLGANAFKACNAAEMAMEHHLGLTCDPVAGLVQIPCIERNAFGAIKAISAARMAMTRKSTPMVSL

DEVIETMYETGKDMNYKYKETSLGGLATNLKTVC

>WP\_002851382.1 MULTISPECIES: pyruvate:ferredoxin (flavodoxin) oxidoreductase [Campylobacter]

MGKIMKTMDGNEAAAYAAYAFTEVAGIYPITPSSPMADYTDMWAAAGKKNLFGVPVKIVEMQSEAGAAGS

VHGSLQAGALTTTYTASQGLLLKIPNMYKIAGQLLPCVIHVAARSLAAQALSIFGDHQDIYAARQIGFAM

LCSHSVQETMDLAGVAHLAAIKGRVPFLHFFDGFRTSHEIQKVEVMDYAHFDRLLDREALLEFRNNALNP

ENPKTRGTAQNDDIYFQTREVSNRFYDALPDVVNEYMQEISKITGREYKPFTYYGHKEPECVIVAMGSVT

QALEEVVDYLNAKGEKVGILKVYLYRPFSLKYFFDVMPKSVKKIAVLDRTKEPGSLGEPLYLDVKSAFYG

RENAPVIVGGRYGLSSKDVDPAQMIAVFENLKLDNPKDGFTVGIIDDVTHTSLSTGEKISLGDESTIECL

FYGLGADGTVGANKNSIKIIGDKTDFYAQAYFAYDSKKSGGYTRSHLRFSKKPIRSTYLVSTPHFIACSV

AAYLEIYDVLAGIRKGGTFLLNSIWNAEETIRQLPDAVKKTLAEKEVNFYIINATKLARDIGLGNRTNTI

MQSAFFKLAKIIPYEDAQKYMKELAYKSYSKKGDAIVEMNYKAIDVGADGLVKVEVDPNWKNLELKEKEQ

TNAYKGTEFVEKIVKPMNAAKGDDLPVSAFLGYEDGSFEHGTTEYEKRGVGVMVPRWIEANCIQCNQCAS

VCPHAVIRPFLINDEEMANAPRGVKDHALEAKGTKGEKLSFKIQVSPLDCTGCELCVHECPTKEKSLVMV

PLQEEMDFGEQENADYLFKEITYKDDILNKETTKGAQFAQPLFEFHGACPGCGETPYITLITRLFGERMI

VANATGCSSIYGGSAPSTPYRKSVKNGHGPAWGNSLFEDNAEFGLGMKIATENTRHRIEHIMNESMQEVP

NALSALFKDWIANKDNGAMSVEIKDKMIPILEQNKNIKAVQDILELKQYLSKKSHWIFGGDGWAYDIGYG

GLDHVLASGENVNILVLDTEVYSNTGGQSSKSSRTGAVAQFAAAGKPIQKKDLGQIAMTYGYIFVAQVNS

TANYTHLIKAITAAEAYDGPSLVICYSPCIAHGIKGGLGYSGEQGELATKCGYWPLYTFDPRLEEQGKNP

LTLTGKEPDWDLYEQFLMNEVRYNSLKKANPEHAAELFERNKKDAQRRYRQLKRIAMADYSNEVES

>WP\_002826528.1 MULTISPECIES: carbamoyltransferase HypF [Campylobacter]

MCHLGYKIKISGLVQGVGFRPLVYELALKSKLFGEVRNDGFGVEIILACTQKECENFIENLKNHLPPLAR

IDQLIITQISISNYENFSITPSLENTKSTPMLSDFAFCKECKKEFFDEKNPRFLYPFITCTHCGPRFSII

KSLPYDRAHTSMQELLMCEFCKSEYEDPKNRRFHAQPISCPKCKINVFLKNPKGEILAKDQEAFMQSAKF

LKEGKILAIKGIGGFHLMCDAFNEEALKTLRLRKNRPKKPFALMCKDLQSAKELAFIDEKEEALLGGVLA

PIVILKAKKAFSLIAPDVDKIGIMLAYTPLHLLLFEYFKGSLVATSANLSGESIIKDEFNLCKKLDKVFD

FYLDYDREIINASDDSIAQVVNGETMFLRTSRGLNPFYLERNFNKKGTFLALGAELKNEFVIFYENKLLI

SPYIGDLKSLDVHERFFKLLEFFKQNYDLKFDAILCDKHPHFSYAKEFEERIKISHHYAHFCAAYFEYEE

NFAKDEKALAFICDGTGYGEDGKIWGGEVFVGNLKEYERIAHFENFTLINSDIKNIQNLALSLIFHYDLE

DKAKDFLAKIPKIKLKNLKKIYSHSNLQTSSLGRIIDAFGSIVFNLEKSSYEAQVGLMCEAFYDKNLDFS

YKLFVEKGQVNFKNLILGALQDEKTKAITGMFNALANFIIDFSKDYDLKVLLSGGVFQNKTLLEILKAKN

FDFFIPLKYPCNDSSIALGQMVHFLNLEK

>WP\_002793545.1 MULTISPECIES: IclR family transcriptional regulator [Campylobacter]

MHQPTLRVLNILELLAKEKLTLSAIAKKLNIPAGTLWPILQTLQEKKYIKCDLKNKSYYLDFKIIELGCN

IKNENNIFEIIKKHMKNIRNLTNQTCQMGILKDGNVLYLEKIDANNTVQLKSFIGTSYPAYATSLGKALL

SNKNKKELEKLYPKNFDKITENTLNNINELYQQIKQIKKEKIAIEIGEMNPQIECMAIGIEHKNKIIAAI

SISYLIYCSNKAFREKNKKILLEEKNKIEKVLKIYFNDLDTLY

>WP\_002780599.1 MULTISPECIES: QacE family quaternary ammonium compound efflux SMR transporter [Campylobacter]

MYIFIIVLSALLDIVANLLLKKSDGFKHKIWGLAAIVNAILAFFLLSFSLKYVPLSIAYSTWGAIGIIGT

CLGGWILYKEKLNKIGILGIIIVIIAVFLLNY

>WP\_010891922.1 DUF115 domain-containing protein [Campylobacter jejuni]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGGYNENLLYQDP

IKELQTMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQNA

RLMVLENDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAENFKNIILRNGNDPK

DALQGIEQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPI

LAKHGIKPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNLVITQKVLAFPYYIN

LKDFSYAAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYESQMYEHILTEAYGG

NGKVETHSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFEKLE

PLSLNKQNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLAIRKIDEFKNKLENI

KQMQDLYEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNILP

LEEKLKERKLDKWMERVRR

>WP\_002867452.1 MULTISPECIES: putative selenoprotein [Campylobacter]

MNFKKFKYYYEKAERFFHPLVGLSSYDKYLEHMKQKHPGKIPKTRGEFFKECLDKKYNSGGLNKC

>WP\_002858324.1 putative lipid II flippase FtsW [Campylobacter jejuni]

MVADKRLFYLSCILITIGIVFSYSLTAFTVLFLDYSEFHFFIRQLFFGISGILIMFFISRLDPDKALSKK

IILAILIVSFIFIIILPFLPSVLATASGGAKRWIRLGPLSISPVEFFKIGLIYFLAWSYTRRIDDSKKAI

RHEALILLPYCILASIVIGYIYITQNDLGQSVISFFLILALAFFAGASKRLFAFGTLIIMMIGIMVIFSN

QRRIQRIASWWGNIQDAFLPMLPDWLANALRVSSNSEPYQISHSLNAIAHGGMFGEGLGLGTFKLGFLSE

VHTDFVLSGITEEIGLLGLGVICYIYLWMILRIFRIAGRCEAKQDFIFCSGIALLLLFSFFMNAFGIISL

TPLKGVAVPLLSYGGSSMWAICIGIGYVLMISKKVKL

>WP\_002853079.1 MULTISPECIES: DUF1440 domain-containing protein [Campylobacter]

MKKYFQKRYTLAFFIGILAGIFGAIVKWGWEVPFPPRNPNVFWPADALERVTPPKIFLEQLGLPTDWTYM

FSGMQMPLSIFIVHVGFSIIFGVAYCMIAEKWHRITMWQGAVFGFFVYLFAHVIIMPLIAEVPPLSEIPF

DEHLSEIFGHIVWLWGMEIVRRDIRNRITKEIEE

>WP\_002816243.1 MULTISPECIES: DUF452 domain-containing protein [Campylobacter]

MKYEFLCKNPDSKKLIVVFGGFASHSSHFSHLKSDKNVILFYDYENFDLNFDFKAFDELFLIAFSMGVCV

ANRLLKELNFKQKIAINGTNLGIDKSKGIHPAIFRKTLQNFKLENFKEALFKERKNLTKDFIFKDEKALK

IELEKLFDFALVKQEENLLWDKVYSSKKDEIFPPNALKNAFSKLIFLNEPHFAFFHFKTWDEL

>WP\_010891929.1 DUF115 domain-containing protein [Campylobacter jejuni]

MTILEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELCSGKIYLVDIEEERVDIQL

LILFDMKDMFEYLSLYEMFVNNVYYKKFYEDVWHKADELCEKNIKVVIRNLNSSLCIGFECYSHLLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENKTSLNMLSCATHPSLVHFLDNKSVVLRDDPLYQRFNLNDFGYIDTGTHVSHFSYT

LALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRIKLE

YLFACNEQKAKFYNATEGGARINFTEELSFKECCEKLLTKEKPQFELPKSLTKNRSDKLLVKFKEKIQKD

QDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDGILKAVMYERGLKIS

LVYKENIIDNASFISAYIKAYHEWLLYFMEKLEQRINIIIDSFKELP

>WP\_010891829.1 DUF2130 domain-containing protein [Campylobacter jejuni]

MQNLNQNEQIKCPSCGSFIDISTALYAQILDKAKQEMLKQKKEFDDEVNAKRAEYTKALNDLKTQKIEQE

KLINEQVSQKLLLEKQKFEQELLIQKQNFQKEFSEKFNKEHENEMKIMQEELEKKSKELSEFLSIKAENE

RLKREQKENEERLKFQAKEEAFKEFKEQESKNLEFEREKMRLEFQKSTQEQDLKYKELETNFKSVAQKLE

DAQRRIEQGSQQLQGEAAELLIEEYIQSEYLSDEVKEVPKGVNGADCLHIVKDNFGNICGSILYESKRTK

EFNKEWLDKLKLDSIAAKSDIAVLITKTMPKDKEKTHFKEGILICTFNEFKGVLAVLRESIINAYKLKNA

LQNKDEKNHILYEYLNSKEFNTQITFILKTYQNMKEELEVEKRALQNIWKKRERAIENLSFNSTAIVSSL

NAIFSDLQGGNLIGEEGIKSLENLAKDED

>WP\_002890476.1 MULTISPECIES: DUF455 domain-containing protein [Campylobacter]

MQKEFFQELQDILYEKNITIKFHSFQNFYEDFKSHKFIFNHEHQSIFKKNTSQQITLFHPTRIRRPKFLN

STHALAKIIHSVAHIEFNAINLALDASYRFKNLPLQFYYDWLEVADEEIKHFKLLNSALEELGYKYGDFP

VHDNLESALEATKDSLSFRMGIVHRGLEAKGLDANPFVVQKLQSSNHSIKNLLMEYLEIILNDEIKHVKK

GDTWWKFANQNKYNFIELCKTFKQFSLAGKKLNIQARIKAGFTQEECEVIEKFYS

>WP\_002864471.1 MULTISPECIES: DUF4006 domain-containing protein [Campylobacter]

MMENNNRCVFSLSGVTGMLIATVLLLVILAVLTIWGLKAQQEVMQKPYSLKDVQSVKMFGSKEQDHRSIK

EAQ

>WP\_002858603.1 MULTISPECIES: DUF2891 domain-containing protein [Campylobacter]

MEKFIKQFSFIALENIFRELPNKITHSFNDINDIKPPKLMYPIFYGSYDWHSSVHSHWLLVKILKDFSHF

APKDEIIKALDSQFSKEKAEGELKYLQNPAHKGFERPYGWGWFLKLTLEINLLAKENDKAEIWAKNLEGI

ADFFVKEFKEFLPKMDYPIRVGTHFNSSFALYFALEYARFKKDQELEYCIIQSAKKWFLNDKNMQALEPC

GDEFLSPVLMEAVLLSAVLHKNDFVKFFKAYLPNLEAKEPATLFTPVSVSDRSDGKIAHLDGLNLSRAWC

FKILSNFCDENLKILLRNNATEHFDKAIAHIEDDYLGSHWLGSFALLALDVDIL

>WP\_002858582.1 MULTISPECIES: DUF4149 domain-containing protein [Campylobacter]

MKAVNLFLLASIIGVELILGIVVAPTIFFPQNLIGEGVLSHFQSGLMMTQIFIKMGYLLIFVSVVNFLYE

IYSLIKDEMKFQIKFSKFMLSLLILILSLIFVFYFTNTIIELQNLGENATKTQEFISIHNASEVVIKIIL

IMQVFLYFLSFKIAKK

>WP\_002853237.1 MULTISPECIES: DUF4230 domain-containing protein [Campylobacter]

MEMILFVLVMILLVLLFVVLFRQYKSPKIEEKSTQSFSDIMQLKSIGELSVFQVFSKEIVTKKDSAFNGI

WKNLLGWSLSERQIALIFEFEITFLYDLRDKNFDILPLGDDAYKIIMPECRYKHSIIDMKFYDEKNAKFL

PFLLPDSINSTGISFSESDKNKLIKEAKDEVKDLSLNLIQNLESKIHKSAKDTLEAIAKGFGAKRVEFEF

KDNTQKLDVS

>WP\_002852798.1 MULTISPECIES: cbb3-type cytochrome oxidase assembly protein CcoS [Campylobacter]

MNSIIMMMIGVSILAFFIILATLLWGIKNKQFDDDYKFTTLNDDEDSLRDAIELERRKKEALDKKRLS

>WP\_002852251.1 MULTISPECIES: DUF3972 domain-containing protein [Campylobacter]

MQTYLELEEFCKLVHLNEDVVKGMMANGALNFKEEEGKIYIEAHQGTFSVVPSSAKSQTAMVNSMTLAGE

SFVEKTIGTILNLHEKVLDAKDETLEALKNENKFLKDALYSMQELYDEDRKTIETLNNELKHAREEIEFL

KRKYKLMWSKTAEIFGAKTEPDLEMNKNLEKPIENMEQ

>WP\_002851269.1 MULTISPECIES: DUF507 domain-containing protein [Campylobacter]

MRIKLPHIPYIANKMMLDIANSSFVEIKDQLEKLKVCIIEVLEKDILNERKLDERVKELLEQQEDEMELM

QVDRKNMFWLVKKKLAPEFNVILDSEDRHNHLAHQILEELVENDYINFIVSENRVKNLIFSSIESYLKIY

EKLEDEVYEKISNYKTKPIPGSEEYDLIFEKLYQEELRKKGMF

>WP\_010891925.1 DUF115 domain-containing protein [Campylobacter jejuni]

MREELFLKNTQALFEVDEFLACTLRSLKYLTFALIQDENGINFKKDDIFLYENPNKELLENLTLFKTEYN

KYPVLFFYGFGNGMFYKTLCKNKQHKHIIIFEDNLEILTLAFHLFDFSEELKKEQLILFYTPNINTAQLT

TLFTYEIIQKSVKIFNLFIHNDFYQQFYSTQIQNINTQLIEMIRFIVLNKGNDPHDSLVGIKHTLDNLPK

MLNHGIFQEFLKERRAKVENAIIVSTGPSLIKQLPLLKKYANKATIFCADSSYPILAKHGIKPDYVCMLE

RDDIVSKCFDNDFGDFNKGILFILASVVHKEVLDFLEKDQRAYMLVHRPLNFAASLKLDEYGYLGVGHSV

SNMIYELAGALRFENIIFIGQDLAYGEDGSSHPKEHIHGSQGEEIRGEKYTLAYGGKGKVRTQLTWNLFR

QAFEKDIFWAKEKLNITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFDFPKFLDKKLAKEKLEKT

KKYLQKSILESKEFIKKTQTQLQKLRYTLEKNDKNFQTLEKIKNDLLNLFKEFKKLKLFNELCQAIYFHN

ECEILKFEVLNTNKQKENLIDFLKIQHNWFIQGLGYLDTQNKTIEKSLENWNFDDIIKK

>WP\_002868906.1 DUF459 domain-containing protein [Campylobacter jejuni]

MSVVRFFFILIIVLGLVVVVMNQSISSYIEQKYHFAFYPHNDLLKEANGFKIKLEQIRAILSNEPLPQTN

EETTNQENKSIDENLSKIDKVLNTLENDENTSHKETNPTLIQDANISFIDNTKLELQNGDEFLFIGDSLM

QGVAIALNRDLRNLNLKVTDLSKQNTGLSYKSYFDWSKATNEAFIKNSNIKYLVVLLGANDPWDIKKGGN

YHRFGSLSWIDIYTSRVDEIIKIAKKHKAKVFWFEIPPVKKEDLNKKIQVLNKIYSDEILKNKEIFINTK

LFFSVNDEYSAYIKDENNRSIKVRTDDGVHFTPSGAREMSKLLLEHIKLKEENASK

>WP\_002859481.1 MULTISPECIES: DUF1882 domain-containing protein [Campylobacter]

MISPMDMSLIKIIGDHYYIRRDKIVNKITHRGRLFFDKFERVDAPLNLNVMREHAAKKIVVAHDLITKDN

KVENIVFDYNGFNAERFYHRAQLILREEGFINFTAYKTKTPGHLHLYIHKGHTALNEGYSLASKLSMMFA

SKMPVEWKVFPSMDVPREFNILILPYEVYQKERGSSWSKHM

>WP\_002859353.1 MULTISPECIES: DUF448 domain-containing protein [Campylobacter]

MKKHIPIRMCIVCKNRFEQNMLFRFKVVLGDIVPKAEHGRSGYLCQNCIEREDKVLQKAFSKICKNLNTK

ITQQGLKEIFLNGKD

>WP\_002858607.1 MULTISPECIES: DUF979 domain-containing protein [Campylobacter]

MISLDLLYYIVGILFLVFGILSFSNQAKDIKSRISGGVFWISYSFTFLLAGVLPHFVMGCIVILLALIAG

FNLLKPAKIEVSKEEKEYEIKHANIYKNKLFIPALMVPLITLIGTFLFPYLSFFENKNATLMALIIGIII

SSVVACFMFKASPKRAVKDAAHTMDHISWAALLPQILATLGVVFVSTGMGDQVSKLLSSYISLDNAFIAV

AVYCIAMALFTIVMGNAFAAFPVITAAIALPILIIQMHANPAIIGAIGMLSGFCGTLMTPMAANFNIVPA

ALLNLDDKNGVIKAQFMSGLVLLVANIFLMYFLAFRF

>WP\_002858432.1 DUF2920 domain-containing protein [Campylobacter jejuni]

MLINQSFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSTLADFTKDDLKLIEKVLRKYNIPCDQLANNTVVSHCEYLSEIMTELKMLN

RLPYDFEERLSATFIPSRGEYQNFGIMAAIDHINALKDLVKRFPKLADLPKIYGGGSYGGYLALLIAKIA

PWYVDGVIDNSGSAVPPLNYIIGRELEFKSKDTNGDMYMQGDHFFVSCFLKTHWTRKENSPYFFNNENYF

IRTLLNKDHLILQSQKNKNIIYVSYHSKEDPLTPANFKELTMQILKILGYDVSLNLIDENKIDGKFIKNL

DHGCGIPDKALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFTFKDVENQLKLIIN

>WP\_002858318.1 DUF1090 domain-containing protein [Campylobacter jejuni]

MKKILILLTLCAFAFGASECDRKIDRINKEISFSKAHNDTARTLSLELALKQVQNDCAKDPMFYDKKLEA

KKLKEQEVEKIEKELDALKEQKDYMSKAEYKAKKEALKEQKEKIKK

>WP\_002857894.1 DUF2318 domain-containing protein [Campylobacter jejuni]

MSIYFVHFLISVLPLSILMAFITPNKKYIFKSFFVVFLGFLFGYFAFFIAAQFLKTENLIFNFDFVFIGL

LLVSFIFYFWKKIEILNFILLGILSFCTALHYYFLSQDFPIFTSSLIDSEGISSLGFIALALLVCILIFF

FLKWQKNFNQKTSFMLFLLLILIESDKALANILLTLMRNSIIETHAFLVSFVGKSNYFGVFGIYVYLIFI

TFLAFLSLKIRKKNISKKQILDINYRKNEAKTSLINRYFSSVFISCVVSFCIVLYFFMVSSKPLTIDEPK

EILPDKNGKFIFDIALLRDNKLHRFAYISAEGKVIRFFLINKREDKDSPVAVFDACMICGDMGYIKKDGQ

LICISCNVRIFLPSVGKSGGCNPIPLKYEYDGNKITIDVKDVIAGSNYFSQIKEIEVQDPVSKTKVINTQ

APFSYSYKGVTYYFSNQNNYEEFKKDPTKYVEENEAQFLIQRRNDVG

>WP\_002855201.1 MULTISPECIES: DUF465 domain-containing protein [Campylobacter]

MLHEYRELMSELKGKDAHFDKLFDRHNELDDMIKDAEEGRTSLSSMEISTLKKEKLHVKDELSQYLANYK

K

>WP\_002853192.1 MULTISPECIES: ribbon-helix-helix domain-containing protein [Campylobacter]

MKRNVKTYSFRMPLELKERLDNLSKNLSKPKSTIVKEAIEAYLNEVEDFSFAVNALEELKDGDYQKASKK

IDKIVKNLKQTK

>WP\_002837607.1 MULTISPECIES: L-rhamnose mutarotase [Campylobacter]

MQRYGQIIKIKKEKIEEYKELHTKPYEGVCEMIKECNIQNYSIYLFGEYLFAYFEYIGADFEADMAKMAR

DESTQKWWKVTDPCQISLGYAGQKWLNMEEVFHLD

>WP\_010891921.1 DUF2920 domain-containing protein [Campylobacter jejuni]

MLINQTFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSAYKYFQEEDIENIKNLLNQFHFSYGEINNDNALFLANSLVKHVENLKMQN

KLDHNFKLNFTSTFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGSALPPLNYILGREMEHSYGDYYEDFPHNRIIFFLKTHWTRKENSPYFFNNENYFIRTL

LNKDHLILQSQKNKNIIYVSYHSDKDPLTPANFKQQTMQILKILGYDVSLNLIDENKIDGKFIKNLDHGC

GIPDKALFRKELPLMLEKLQKRKSFMQENSISYPCGNKVFIFKDVGDKFELVIKD

>WP\_002868592.1 MULTISPECIES: DUF2165 domain-containing protein [Campylobacter]

MFKARNLDAQSFHNAKIFWDYFFNLCILWFFAFQVVVAEWFGMWMSKVWKGLPDTIRLVTYMFLALIFIS

LKNDD

>WP\_002868591.1 MULTISPECIES: DUF2165 domain-containing protein [Campylobacter]

MQQKCFCISKMIRFSKIIILLTVVSLAGIVVFGNVTDYNSNFQFVSHVMSMDTKPDLFR

>WP\_002864247.1 MULTISPECIES: DUF2920 domain-containing protein [Campylobacter]

MIVSKAYEIDSCDDVELGIKRESKLEFKLWYDDEKTPEALVFVVQGMGDDISSIQYVGDYMVRQFNTAVV

GVNYHCIGNRPQTGSSFFMDDIDKLILKASCEAADIKLPYDVDKIQDYKAMSEIFHFVNNQIVEGKQKGN

FTPNYFLNLHVSLQPTKNEYQNFGIMQAQDLLNVALYLKKHAPFDTMGGGIPIIMIGGSHGGYLAHLAAK

IAPWLVDGVLDNSAYAKFLWRVVGFGKEIDFMQYSEFATFDFFHHIKTHCSTKTFWTSNSSSPRFFSPAR

RKIRNLLEEDHLLKQSKCLKTCFISYHSLYDEYVSLKEKTMFYEELEKLGFDVTLHSITKESQVDGKFIK

NLNHGMGIPVKLLIKKELPLMLEKIKQNSKKDYKEKCISYPCEDLLYQFSEKDDKMSLKIDKI

>WP\_002856730.1 MULTISPECIES: DUF969 domain-containing protein [Campylobacter]

MEWLLLASIPLIVLGFALKINPFLVVTSVGIYAGLVSGFDFVKVVSDIGKSFVDNRYVAIIWLILPLLAV

LERKGLREQAKNLISKIKVASTGRILMCYFVFRQVTAALGLLSLGGHAQMIRPLIAPMAEAAAKLKFKNL

THKDSQKIKAFSAGTDNVAVFFGEDIFIAVHSILFIKAFYESNGIIVEPLHLSVWAIPTGILALIIHCSR

LYLFDKRLEKTYKGLSDDKS

>WP\_002855637.1 MULTISPECIES: DUF2325 domain-containing protein [Campylobacter]

MSVLVIGADEITPIRAVLHDLGAKKIEHWDARNENRVNRKPIPCDTECIVMLTSFLNHNTMKKIKNEAKK

RKIPLVCAKRSVSCVYCEYCKIFNLNKEFSCYKG

>WP\_002854834.1 MULTISPECIES: DUF2018 domain-containing protein [Campylobacter]

MDFFDEMFNKTPKEKFIEIIQNGNLGALEKVFEEFFADHIAMVELLEKQGLTEMDVKNFILENGDFIEER

QNDIYIELGAKILGHEG

>WP\_010891937.1 glycosyltransferase family 2 protein [Campylobacter jejuni]

MKTVGVVIPIYNVEKYLRECLDSVVNQTYKNLQVVLVNDGSTDENSLNIAKEYTLKDERFILFDKENGGQ

STARNVGIEFFSKEYDFKNITQELKENSLVEFKLDNEDNPYNIYKIYKSSNFFKNKDELLNFKAPDIDYI

IFLDSDDYWELNCIEECVPKMDGVEVVWFDSCSIFEEGFKKQWSSLLKLYDLHEGVIKSKVWLEYSINKK

IYNFYFTWSGMIDFIYLKNIKLKFIDYIIHQDHHFGMLLFAKCKYIYIFPSSMHTYRIRSNSTINLSDSE

LQIHIPRYMQSIYDSFNINIKEAKEYYSSMSMFYVLKNCFNDKILMENRYNAYLLEKAFFKFICERCLRI

FLLKRDPCCIKIQIKKILKQYKNYRYVHLTNFYGAFIYFKIFKINIIKKYIRYLFFR

>WP\_010891935.1 glycosyltransferase family 2 protein [Campylobacter jejuni]

MMNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISD

KKSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYIFAYGKTEYVNVLRNS

CEDIYNYKVNWNKDIRIFLGSDGINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFIN

EAFYMLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKL

DFLKRFSQDFRKILKDKELDENLFGNINMQRINKIIENPVIYYYFSRGARARLQNQLVYRLGKVVVEAKS

FNKIIKLPFLMLKICLEHNFEHKVYRSIVQFRPDLKLLPLECYLDYHEALVIKEHLSYKFGKLILLSFKG

WYKGKIFILPFMLKKRYKEYKNKMI

>WP\_010891855.1 toxin-antitoxin system YwqK family antitoxin [Campylobacter jejuni]

MTKFLSICSLIAMLLSGCGSDFPGQPSDVARVQQNKYPNGNLKKEIPYNKDSRIHGLKRAFYDNGQLRAE

ENYKNGKKDGISREYSRNGQLLEEVHFKDNRGYGDFASYYENGNMRAKGKLLGYNEDGMPEFEGNYKEYY

ENGTLMCDYNFDNKGKFDGVQKRYDENGALEDEENYKNGLKNGVFREYKKGEIVREEEYKNGILVAKPKN

>WP\_002864642.1 MULTISPECIES: polyprenyl synthetase family protein [Campylobacter]

MQKIDELIKQFLQELGYEPILNMLSNVKSGKKLRSKLLLAIADESEIAFKICAAIELIHLASLLHDDIID

ESELRRGARSVNAEFGTKNALMLGDILYSKAFYELSKMDARFASIISDAVVKLAIGELMDVDLGEKFNIN

KEAYLKMIYNKTAVLIEASARCGAILAGLYEKDFAEYGKNLGLAFQMIDDILDIKSDEKILGKPAMNDFK

EGKTTLPYIYLYENLQEQDRIYLQTLFKKDLNENEKEWLKTKFEEQKALEKAILEAKTYAKKARKAIEKY

DNNKLNDIIKAMIDREF

>WP\_002859789.1 MULTISPECIES: energy transducer TonB [Campylobacter]

MKTFISNHKNQSSFITLFVFTPLFFVFLYSKDFLHIQPNETIKENKFNMAIKHFVQNSSDMKPTQPTQTI

QEPSNVQPKEPVQEIKKIKPRKEKPIAKPKKIIPPANAKAISQPKKDTNMQQQTPQASSYQSVSLTSNSE

LLKEIKSAIDEALIYPRQARKMRMSGEVLVEFTWTKEKKLENLKILKPSKYDFLNKSALETIRIASKKFP

QYEKTFHIKIPLVYKLS

>WP\_002858655.1 MULTISPECIES: mechanosensitive ion channel family protein [Campylobacter]

MKKIIFSLCFFILHLGAQEFKFIDANISKEDEGIYALVEKYVDLNNQIKEFKKNNDENSSTFNGILSEFE

KDKKTILAKIPDMIVGQKINEEAVARFLKAKEKLLDVQKKNINKPYIYTDATLNLVYFNIVESFYSSLFE

VEKLFKNTASSEDLIATVDKAMENLQNSSNVNLDSFKSKITNPEELEKITLKERYISNAVDSYSEILKYL

RSNADLLESNYIFSLLELQVWIDRINEAIGVSFVNIGKIVISALVLVFFISLRRFFANIVYFFLVQLFYR

NKNDVDDIKVIFIENIKKPVGFLLIVYAISLCLTIATYPAPLSVNLSNFFHIVYAVLIAWLILRMLDGYG

VVLVSKLAQKSGKKEVVNLIIKILYFVIIIIALLYILAQLGFNISAIIASLGIGGLAVALAAKDIIANFF

ASILLLFDNSFNQGDWVEVSGIEGTVVETGLRKTTIRTFDNCLVFLPNSTIMGANIKNWSKRRMGRHVRM

YLGVGYDATPEKLEQCVKDLREFLHTSDLVAHDEDSALKYGDHTTKYRQNLVSINDLEGYKNACYVALSE

FADSSINIELYFYIKEIGGKDFREARQSLMLEFMRIIEKNGLTFAFPSRSIYIENLPPLDLQAKAIK

>WP\_002858598.1 MULTISPECIES: penicillin-binding protein 2 [Campylobacter]

MQEYKKNRVSKVAFAYCMALLFMIIFISSTFFLTSKRHIPNTEKDQYALALRGSIITKDNFTITSSKQIY

RAEIDLRSINKDKFDLFLKLFQIYSGISNDQVADIKKRMQNQKKRSYNFVLLQNLDSKQASYLKDLAKKL

YIQGFFKAFTNNSGRVETRGLNIIEHEEDRIYMSKDSFTPIIGYTKMILDPESGILKNIGVKGLEKYYDA

CLSPVQNEKIQGLKDIGGNIILNLNSLQQKKINGCDLYLNLSLKLQKSIEKAIDQRNEDLKANEIIVGVM

ESKTGRILALASSRRYDPQNRGKDLSVLNASAIEYGYEAGSVIKPFIFTTALRLGKIKMDEVINTYGGSY

KLGRFTIKDDHKMDKMTMEEVIRYSSNIGMIQIAKRLNNIEIVSGLKIFKFGEKSGIDLPYEQKGEIPNP

KRLRDIEKSVLSYGYGLKTTFIQLLAAYNVFNNDGFYITPRLAEKFYQNGRFTNLDDDVKKEKILSSEAA

KTMQNVLINVIEKGTGKKAITQGIIAGGKTGTARIAERQGYTSNRYNASFFGFANDLNHAYTIGVLVRHP

TKPYSYYAAQSALPMFKDVVDILINEEFLTPIQDNNQTSTNN

>WP\_002858576.1 penicillin-binding protein 1A [Campylobacter jejuni]

MKILKYIFSFFTLLFITGFIYVAYLFTSADTEGYTFKEYKPPLTTQIYDRNGKLVANIFEQHRFYAPYEE

LPPRLIEALVAIEDTSFFEHNGVNIDAIFRAAVKIIKSGGKTMEGASTLTQQFIKNTELTPERTIARKIR

EALLAYKMETILTKEQILERYLNFIFFGHGYYGVKTAALGYFHKNLNELSLKEIAMLVGMPKAPSSYDPT

KHLDLSISRANNVISRMYNLGWISKADYDTAIKEIPQVYDDTLTQNAAPYVVDEVIKQLSPNIKDLKTGG

YKIILNIDLDVQNMAQNALKFGYDEIVKRDKDANLSTLNGAMVVVNHQSGDVLALVGGVDYEKSNYNRAT

QSMRQPGSSFKPFVYQVAINLGYSPMSEIADISRIFEGGAGNNEDWKPKNEGGKFLGLITLKEALTRSRN

LATINLALDMGLDVLYSKLMEFGFKDIPPNLSIVLGSFGISPLEYSKFYTMFGNYGTIKDPQIIRQVQDK

TGKTIMEFNSNERKVSDEAQSFLVLDMMRNVVEKGTGRNARVKDIEIAGKTGTTNKSVDAWFCGLTPEIE

AIIWYGNDNNKPMRYTEGGARTAAPVFREFLTQYIEKFPDTTRKFSIPNGVYRGNYKGESAYYTTKSPLP

KANMKFNESEIIF

>WP\_002858489.1 MULTISPECIES: rhodanese-like domain-containing protein [Campylobacter]

MIENISASLWTKQDLNAYQIFDVRTPLEWEEGILPNAQCVALYDNQGLLNAKFLDEFQSKRDESKKLAFI

CRSGHRSMVAAEFIAEKLGLESINLDGGMLALKGC

>WP\_002858381.1 MULTISPECIES: ankyrin repeat domain-containing protein [Campylobacter]

MTTLSLEEEKRFEELCKMAFNFARNNECENLKIMIEAGLNVNLKTHKGDSLLMLAAYNNSYESAKMLLEK

GAKVDEKNDRGQTPLAGVCFKGYLPMCELLVKYGANIDENNGLGMTPYTFAIMFGRKDVAEFLLKKSKNN

FLKKISLKILKFIKKF

>WP\_002858356.1 MULTISPECIES: type I restriction endonuclease subunit R [Campylobacter]

MSKAKTSEFDLEQFVISSLLEHGWCYEKPVRATDEVLLETSLVNALCRLNPQLDLSKANEIYKELKSKNH

LSLLDSNENFHYKLVNGVNINTTKDGESRADIINLIDFNNASNNEFIATNQLSITEAKENKIPDVVLYIN

GIPLVLMELKSPSDENATINSAYNQINTYKQTIPSIFTYNAFCVISDGYFARAGSISADFSRFMAWKSSD

GINYAPNKSLEIKTLIDGMLNPKTLLDIICNFIVFEKEQIRDLNGILSIKTTKKIACYHQYYAVNKAISR

TITASSKDGDKKGGVVWHTQGSGKSLSMVFYSAKAIKALNNPTILLITDRNDLDDQLFGTFASCANLLRQ

EPKQANDKEHLKELLRVASGGVVFTTIQKFSPENDNVFECLSLRDNIIVIADEAHRTQYGFDAKVVEEKS

KSGDVLGQKIVYGFAKYLRDALPNATYIGFTGTPIESHDINTPAVFGNYIDIYDISRAVEDGATVSIYYE

SRLAKIELSEEGKRLVNELDEKLENQDSQKAKATKLEALVGSTSRLKQIAKDIVKHFETRSSKLGGKGMI

VSISRSVAIKLYDEIIKIRPSWHSDELSSGAIKVVMTSSSSDGVEFSKHHTSKIQKQFLANRMRNIDDEL

KLVIVVDMWLTGFDVPSLHTLYIDKPMKGHNLMQAIARVNRVYKDKPSGLVVDYLGIASDLKKALSFYSE

SGGKGDIITTQEDAVKVMIEKLEIVEQMLPNDYEKYFELDTGAKLEYILDVEEHILSNEDGKNRFIKEFA

ALDKAYTIAMPHEKALSIKNKIAFMYAIKARFLKFAKENENENLLNQALIKQVVDKAIVSSKVVDIFDAS

GIKKPDISILSDEFLLEVKNMKRKNLAFEMLKKILNDEIKAREKLSLTKAKKLAQMLSDAIKKYNNKLIS

SSEALDELINMSKSIVSMEDEAKKLGLKDYEYAFYSALACNDEYEKILGNEKLLALVSEILQIIKNNVSI

DWMIKENVRARLRVAVKRVLNKYGYPPDMQQLAIDGVLAQAEILAKELANE

>WP\_002858320.1 glycosyltransferase family 2 protein [Campylobacter jejuni]

MKTVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYKLKNKTQTIKENSLIEFNIEGNNPYEIYTVYKSYKAFNNEQDLTNFTYPIIDYII

FLDSDDYWELNCIEECVPRMDGVDVVWFDSIEYHDIEKSYFKHHSRLKDINIKKECRINPIEWLKLLRQN

KIKDFAFAWSGIIDFDYIKDKKMKFKDAIFAEDHLFGILLFSQAKNIYVYPKVFYYYRIRANSLTNQDKK

ITKDNILPYFKDIFIAFEENATLAKEYFKYVSWVETSLELVRFVENYHDKKISSLLKDTILYFYIKNAFK

IKKFDKDPLCIKEKLQLLKPYKISKIRYKVMKFLISLRN

>WP\_002858096.1 MULTISPECIES: glycosyltransferase family 2 protein [Campylobacter]

MPQLSIIIPLFNSCNFISRALQSCINQTLKDIEILIIDDKSKDNSLNMVLEFAKKDPRIKIFQNEENLGT

FASRNLGVLHSSSDFIMFLDSDDFLTLDACKIALKEMKKGFDLLCFDAFVHRVKTKQFYRFKQDEFFNQK

EFLEFLSKQRHFCWSVWAKCFRKDIILKSFEKIKIDERLSYGEDVLFCYVYFMFCEKIAVFKTCIYHYEF

NPNGRYENKNKEILWQNYQDKKKSNELVKKLCLNFKNNDFHKKLFEVLEKEEFDLQRRVDEARN

>WP\_002858039.1 MULTISPECIES: glycosyltransferase family 2 protein [Campylobacter]

MSQISIILPTYNVEKYIARALESCINQTFKDIEIIVVDDCGNDKSIDIAKEYASKDDRIKIIHNEENLKL

LRARYEGAKVATSPYIMFLDSDDYLELNACEECIKILDMGGGGKIDLLCFEAFITNAKKSIKKLNIKQGK

YNNKEFTMQILKTKNPFWTMWAKIIKKDIYLKAFNMLNLKKEIKINMAEDALLYYPLTILSNEIFYLTQP

LYTQHVNSNSITNNINSLEANIQEHKIVLNVLKSIKNKKTPLYFLIIYLLKIQLLKYEQNFNKRNINLIY

YKINILYQKYQFKWKKFLYNLIP

>WP\_002858013.1 glycosyltransferase family 2 protein [Campylobacter jejuni]

MKKVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYETQYIEKENELNVFKIIGDNPQNIYKIYKYKNALASDKLEISKIDYIIFLDSDNY

WELNCIEECVVRMQNVDVLWFDHACIYDDGIEDKGQKTRMNVFNFTQECTITPRDYAKQAIKVGSRDISF

SWGGMIDFSFLKQLKLKFINKIINEDIHFGMVLFASADSIYILPKRLYLCRLRANSISNHDKKVTKANVS

EYFKDLYEFFGENAKEAKNYLKAASRMITALELIEFFKDQKNENSQAIKEAFLPFYVKKALMIKKFKKDP

LNLKEKLPIIKPFIQTKIPYDLWKIWQKIKGILDKINFAK

>WP\_002857912.1 MULTISPECIES: class I SAM-dependent methyltransferase [Campylobacter]

MKENIEKLFQAIAQKNPIHSKYLKKIEFSQEDEEEFDKLISYYIQDGISIKEQCDCYLLILNDTLEETKF

FIENGAYRYSSFDEVKDKVYFNESYMKQYMIGLALSSFVWIAHIKVRKYFSQYLQNFTPKTTYFEIGPGH

GEYFARAVKSGKFSAFYGLDISPTSCELTQKMVKQQVGGLITKCDFLCQDFFTYDFDKKADLIVIGEVLE

HVEKPLEFLKRSKELLSDGGEIFATIPINAPAIDHIYLFSHPDEVKDLIEKSGLKFKAYECFMANDYSLE

KALKFKNAITMAVVLNA

>WP\_002856493.1 MULTISPECIES: N-acetyl sugar amidotransferase [Campylobacter]

MKFCKKCVMPDTKPDLHFDEEGVCDACRSQEAKNQNINWQEREKEFFELIKKYKKHPVYDCVIGVSGGKD

STFQVVKMLELGLNPLCVCFEPSVPTKIGRKNLDNLNHLGVDLIHIKRDPKVYQKLAREAFIRTGDNEWQ

NHLGIFTSVPRIAVNFGVPLIIWGESPQIEYGGPASSKNKNILGREWLEEFGGLLGNRASDMLGVNGITE

KDLFLYTYPSDEELQRVGVTGLFLGYYFKWDYKKILEISKKYGFLTLDHPVETTYENFENLDCYSNHVHD

YLKYCKYGFGRATDNACLDIRLGYISREEGVRLAQKYDGKPPKKAIKKYLEFSGFSEEEFQKIVDSFTNK

KIFKRDENGKFIRDYDGSLVRKDECVLK

>WP\_002853186.1 MULTISPECIES: LPS-assembly protein LptD [Campylobacter]

MWRKFSLLLGTSIALNAAQVDIYALDAKKEGDILTANNDVIIFSDFYFITANKAIYNEKTGDVELFGDVN

ILRGQNERSHSDYAKINLNSNQADFSNFFFSNNNLEVWFQSKTSHLNDKVFESKVSAVSSCNVEDPDWEI

RFSKGWLNRETNFVHLYNARLYVKNTPVFYLPYFGFSADTHRQSGLLIPKIVLKSSEGLYYEQPIYIATQ

ENWDLELDPQIRTNRGFGLYSTLRFLDSPYSTGELNFGAFRENSSYFHDENLKNQTHYGIELKYSRDDLI

KSLLSDNFQEGLWIDATYLNDVDYLNLGSRDYRDLNSLVTSKINYFLADENNFYGAYARYYIDTSKLSNN

TTLQEYPSFQYHRFLNNLFDERLRYSFDASFHNFYRPAGSYANELNLDLPISYHNAFFGDFLHFTFTERF

YASFVNYSNDPERNHEHYFRNTHDFNLYTDLSKAYENFFHTLNLGVNYILPGAKSGKITQDYLEEYDKEN

EHTSLYTVQYFYNNEGQKKLKHRISLDYLNKQNEFYELENLLTYYFNENINLNSEVLYSYEQSRFTNVIS

QIEVNTNSKFNWMFSHAYQNDEYGKYSFIGTRANYIATPNYNLFGGIWFDTQRAHANMWELGYTYQRKCW

NYSLMYRERIDPQLTSGGITAKNQSGVYFIFNFYPLGGVKYDFSLAESENKI

>WP\_002852845.1 MULTISPECIES: M23 family peptidase [Campylobacter]

MKKLLLLFIFVVQSFAALSVEELTWDNGDTLLKFLQRNSIPMSLYYGLDREDQELASDIAYKIKYQVLKD

ENNNIEQVLIPISDDLQIHIYKDKDGQYTLAFTPVSYQKEDRILHLTIKSSAYQDVYEESGSSTLARAMV

RAFRGSINFRNIQKGDEVTLYYEQKRRMGKLWGDINIKMAMVEINKSAREVFSYNDIFYDRDGKELESFL

LTKPVNYTRISSPFTTARYHPILKRYRAHLGIDYAAPTGTPVKSAGKGVVTFIGTKGGYGNVIQIKHDSG

YMTLYAHLSRFAKIKNGQKVNQGQVIAYVGSTGMSTGPHLHFGVYLNNKAINPASVVKIAKSELSGKAKE

NFKHIIAGYEQVVKEALASNQPNPPKEEDFENYIEF

>WP\_002852557.1 MULTISPECIES: WD40 repeat domain-containing protein [Campylobacter]

MKKFLFILSLFCVLSYAYELKLNANITALKLDKQNLYIGTDKGEILQYNIKDKSLKELLSLPKIKNYYGD

DFAKIYNIDIFKHTLLILSEGDFGAKNLSFYKENLQIKKLEENSIIKAFFINENTYLLISIGSEIELIDK

SLKNIKKFNFSHSSLNDAVLNEDKSRLIAGFESGEVELFDLKNWKMLKNYDKMHKDNIYQVDFKNNVILS

CGTDRRIGVVKNEEQNFLQKDFLIYTCALSPSGEFAVYSDNEAGVSEVFSTSDFKPVKTFNNENLMSEFI

IFLNNKDFIVSGFGDSIMFRSIDE

>WP\_002852552.1 MULTISPECIES: methylated-DNA--[protein]-cysteine S-methyltransferase [Campylobacter]

MFKVYYKMPLCYLSLHSDGKFLTRVDFCDNKRSEKNCSLLDLAKYELDLYFTHKLRKFSIPVLIQGTDFE

SKVYKALMEIPYGKIATYKDIAEKINHPKAFRAVGNANSKNQIPIFIPCHRVIASNGIGGYNGGLEIKRF

LLENEGVNLK

>WP\_002852534.1 MULTISPECIES: cupin domain-containing protein [Campylobacter]

MKIIQWNGAEFSPKEVKINVLIDNEKGKEIQILLAKDSVMKEHKAPFAIHVQVLSGKIWFEVEKEKFELN

ALDMISLEANVAHSLGGLENSIIRLSLNKSDSVQRVNAVLKKP

>WP\_002852328.1 TlyA family RNA methyltransferase [Campylobacter jejuni]

MRFDFFVSKRLNISRNKALELIENEEILLNGKSFKASFDVKNFLENLKKTQDLNPEDILLANELKLDLLS

EIYVSRAALKLKKFLEENDIEIKHKNCLDIGSSTGGFVQILLENQALKITALDVGSNQLHPSLRVNEKII

LHENTDLRAFKSEEKFELVTCDVSFISLINLLYYIDNLALKEIILLFKPQFEVGKNIKRDKKGVLKDDKA

ILKARMDFEKACAKLGWLLKNTQKSSIKGKEGNVEYFYYYIKN

>WP\_002851985.1 MULTISPECIES: MinD/ParA family protein [Campylobacter]

MNNQANKLRNLMSQNGTKKSQNTHFIAITSGKGGVGKSTISANLANVLANNGYKVGLFDADIGLANLDVI

LNVRIQKNLLHVLRGECSLEDILIEVKPNLWLIPGESGDEILKYNDKNIYERFLNQASILDELDFLIIDT

GAGIGGNILNFLEMADEVIVVTVPDPAAITDAYATIKTTSKTKENLLMLFNVVKNENEALKVFENIKKVA

DANIKNPLNLEFLGHLSASKDVSGSIKKRTLFSDENTASSDEIKALASKLLYRLERKVLDNVSNRSFSSF

FRKIIERF

>WP\_002851961.1 energy transducer TonB [Campylobacter jejuni]

MKSSVIFGFVLSLILHTLVLMFFLFSFYTQEKSSGVDFKQGAEFTSIMMVSEFPIGELKEVSIDQKKSNS

QDKNKKQDERISFNSQDKNAVLKVQKKIEKQDENQAQKEIANASENSKFKNESLSAPLQSNKDKTQTIVS

GNAKEQVKSYQALLMAHLTKFKKYPQEAIMQKQEGVVRIRVSIDESGNVLSKELKKSCPYAALNDEALSL

FKRASPLPKPPKEMLKNGDKISFVMPIDYNIKDYLGKK

>WP\_002851568.1 MULTISPECIES: energy transducer TonB [Campylobacter]

MKTLFLNHKYQASYITFIVFIPLLFVIFHSNDFFKMEIKNEDSFSLAIKQFTQTNPTNETKPTESIIEPI

KPKPQPKVIKKTPEKMQKKIKKTPPHPIPNKTPIAPTQEVKTFAKTTDTNVKPKITQLTQGKDNHPVLKE

IQKAIQQAQFYPRQAKKMRMQGTVKVEFLWKENKTLADLKIIEISGYDLLDKSALESIRKASLNFPHYNG

DLRITLPIIYDFKTLRG

>WP\_002851455.1 MULTISPECIES: NAD(P)-dependent alcohol dehydrogenase [Campylobacter]

MQYKILENNRIASKGYAMLSKDAKFTPFEFSRHAIGDNDILIKILYAGICHSDIHTARSEWGEATYPCVP

GHEIAGEVIAVGKNVSKFKVGDYAGVGCMVNSCGECDACKRSQEQFCENGKTIFTYNSCDVFHGNENTYG

GYSNNIVVSEKFAVCVPKDAPMEKVAPLLCAGITTYSPLKFSNIKEGSSVAVAGFGGLGMMAVKYAVKMG

AKVSVFARNENKKADALAMGVSSFYTSCDKNAVKERFDLIISTIPTPYNPAIYLDLLKFGGEMAIVGLPP

HEVAPSISVITFVHKAGKKVYGSLIGGIAETQEMLDFSLKHGIYPETELITPQEIDKAYENLTSGKAKFR

YVIDMTKE

>WP\_002851379.1 MULTISPECIES: polyprenyl synthetase family protein [Campylobacter]

MNLKELFIHHLEKNLPKVESFHPFFNEALALMLKAGGKHFRAQLLLSVVQSNKPELLNQALDVALALEFI

HTYSLIHDDLPAMDNADFRRGIPTLHKSYDETTAILVGDALNTEAFLVLSHAHLKDEIKIKLIKTLAFNA

GLNGMVIGQAIDCFFEDKRLSLNELEFLHTHKTARLIAAALKMGCEICELNNEESNQIYKLGLKLGLIFQ

INDDIIDVTTSQEQSGKPTNNDIHKNSFVNLLGLEQAIKTKENLLSECEQDLEKLNEKLAQMIQNLIIQY

L

>WP\_002851154.1 MULTISPECIES: restriction endonuclease subunit S [Campylobacter]

MNNWKKCKLGDIAEITMGQSPKSEFYNFDNIGMPFLQGNRTFGRKYPYFDTYCTEYKKIAKKGEILFSVR

APVGDINFANNDICIGRGLCSMNAKNGENEFLYYLLHNLRSVIINNESGSVFGSVNKNDLQTIEILLPLL

EEQRQIATILSSIDDKIELLHEQNKTLEELAQTLFLNWFKDREFNSTISDFISMQNGFAFKSKDFIDYGN

NGVIKIKNISNGIVDIVNTDKISQNTINEVNNKFNINSGDILFAMTGAEIGKMGIVPSTNKKLWLNQRVG

MVKERFLGARFLAYIHLTSEFGYDYVINSATGSAQENISATDIENCPFVKLTSEEIVSYSKQLNDFFEKI

IFNLGEIQTLENMRDILIPKLLNGEIKITN

>WP\_002805291.1 MULTISPECIES: flagellar hook protein FlgE [Campylobacter]

MMNSFYNGISGVKSNSFGIDITANNIANVNTTGFKYSDAQFKDIFYTTITTQSTNPAQGGYGSGAASSQV

VFEQGSPVASDGEFDVALQGKGFFGVLGADGNAYYTRNGSFRRDANGYLVDSYGNFVLGTMNPAFTGINY

SDRVAGLMGDYLNTGTPVNNGFTVNSNNSFSIGTTASQGAIKVPVNMYLPPQVTQNVKWSGSLNTNTTTE

VVKVDLDPSKFNITKTEDGKYVVSGSVSKEDVFSAKAGDRIILNFTDDNGVKTSFEATLDENLNFKSNEL

DLKGLDENSIKLDTAQISTEQQKANKDILESPIYNADGSKSTLRVTLERVLPQEGDNIQYKAIAQIYDSN

GNAVGNPTEGNMVFDKNGALLQNNITSIANPNGGTINIDLGSPYDANKPGSGYSGIYIKQGVEKNVVTQQ

DGVAEGFFEQYNISDDGSIVAQFSNGKNAIVGKLALYNFINEQGLVAMGDNIFAATANSGDASFIMKDGQ

VVNTAKFKGGFLEQSNVDLSAELSNLIVTQKAFDASSKSITTSDQMIQKAINMKR

>WP\_002852470.1 MULTISPECIES: bifunctional phosphopantothenoylcysteine decarboxylase/phosphopantothenate--cysteine ligase CoaBC [Campylobacter]

MKTILLAISGSIAFYKSYELISLFKKEGFRVKVLLSNGLLKFASKMSFEALVDEVLCEENESWQNSNNHI

AFSKDVDLVLFTPASVNSINKLAFGIADNLFIQTLIAANKPLIIAPAANTNMFHHFSTQNSLKILKENKA

LIIEPICKVLACKDEGVGALAEVKDIFNITKRELLKEKFWCNKSVVITGGGTRERIDDVRCVSNFSSGKM

AKAIADAFYFLGARVKLLSSVEFDTPYELCKFESSKDLKELLDKNLSHDFLIMTAAVSDFIPQSVKGKIK

KNEHLQGLNLHLSLNEDLLKTCKFQGKKIGFKMEFDSQNALENAKKSLKDKQLDMVCLNIIDQKNYFGSD

QNELYFITLNNENKSTLQSKEKLAFELVKWCEKL

>WP\_002857391.1 MULTISPECIES: molybdate ABC transporter permease subunit [Campylobacter]

MLDPAFLQTLYLTFKLAFITTFILFFIGVFLAYLLSFVRFPFKTILQSFISLPLILPPSVLGFYLLVTFS

ANSFLGQVLKEYFNLSLVFSFEGLVFASLIFSLPFMVNPLQSAFSSINPNLLDASYSLGKSKIYTLFRVI

LPNSKAGIFSACAMSFAHTVGEFGVVMMIGGHKQGETLVASIAIYDELEILNYSLAHQYAFILFIFSFLV

LFSLYFINKKMSFQ

>WP\_002791314.1 MULTISPECIES: 50S ribosomal protein L25 [Campylobacter]

MLEGIVRESIGRKAAKALKRDGYLIANIYGKGLENINAAFKVNEFIKEVRKKTTLIFDVKVGSQTLSVVV

VDYQKDPVTAELKHVDLKVAQKGVISKYMVPVKITGTAIGLKNKGVLIQSKRRLKVKCAAENLPNFFELD

VSKLDVGDALLVRDIVVPAGVTMIDADRVAVVGVEKAR

>WP\_002858467.1 MULTISPECIES: UDP-4-amino-4,6-dideoxy-N-acetyl-beta-L-altrosamine N-acetyltransferase [Campylobacter]

MIKLKNFAELNSQEIKLIFKWRNHPDISQFMKTKHIDFEEHLRFIRNLHQDSNKKYFLVFQDEQIIGVID

FVNITTKSCEFGLYAIPDLKGVGQVLMNEIKKYAFEILKVDTLKAYVFKDNHKALKLYQQNHFTIYDEDK

DFYYVCLKQSHCKALPS

>WP\_002858306.1 MULTISPECIES: imidazole glycerol phosphate synthase cyclase subunit [Campylobacter]

MLKTRIIPCVLLKNSQLVKSIEFKDFRTIGHLTSTMRIYNARNVDELIILDIDASKSGEIDFESIEDLAK

ECFMPLTIGGGIKTLEDIQKILNLGADKISINSKALEDMDFISKAGNRFGSQCIVCSIDVKRKGDQFCVY

DRGNLLEKSPLELALEYEKKGAGELLLTSVDFEGKAKGYDLELLKIFQNKLKIPLIINGGLSKPSDGVEA

LNLGADALAGAYIFHFSKYTPKDVKEELARQGFAVRLL

>WP\_002853140.1 MULTISPECIES: N-acetyltransferase [Campylobacter]

MQNTIIQKAVNKDLNSILEITKDALNAMKTMNFHQWDENYPNEIVFQEDIQAQELYVFKENDEILGFICI

NEKFKPEFYKQVIFNKNYDDKAFYLHRLAVKQNAKGKGVAQKLLNFCENFALENHKASLRADTHSKNFPM

NSLFKKLDFNFCGNFDIPNYQDPFLAYEKILNQKAF

>WP\_010891848.1 molybdopterin guanine dinucleotide-containing S/N-oxide reductase [Campylobacter jejuni]

MLDRRKFLKIGASLSALPLIPSLSAGKTVEASKVSLGLVKNGEVITAAHWGILKLTIKDGKIVKSEPWEK

VTKMDNPLQHYTADMVYKSRVKYPYVRKSYLENPDNPKPELRGKDEFVRVSYDEAIKLIAKELKKTRDSK

GASAIFGGSYGWKSSGNMQNSRILLHRFLNVTGGFVGATGDYSTGASQVIMPYVVGSIEVYEQQTSWENI

LSDSKYVVIWGADPLSTLRIAWTSNEQRGLAYFEKLKDSKIKVICIDPVKTTTAKFLNAKWIAPRPNTDV

ALMMGMASHLIAKKKVNYEFLDTYTTGFDKFKDYLEGKEDGVKKDTKWASKICGIDEKTIKNLAETFYDN

STMIMSGWGMQRAHHGEQPHWMLVTLCAMLGQIGTKGGGFGLSYHYSNGGVPTCKGGVIGGMTAGSLGIW

KNGKFKGLSKAEASSEGAEWLQNAASYSFPVARIADALLHPGKTIDHNGAKITYPDIDFIYWVGGNPLVH

HQNTNTNVKAWRKPRTVVVNEIYWTPTAKMADIVMPVTSSYERDDITMTGDYSNMHIAPMKQAVEPVGES

KDDYVIFSDICKIYGKDVFNAYTENGKKAKDFIKEYYNSALKQTQSFGEAFATPMPSFEEFWAKNEPITF

EPTAESLEWTRFSEFIEDPILNALGTDSGLIEIYSETIKNYNYDDCKAHPTWFEPIEWLGNASKEAPFHL

LTNHPRDRLHSQLCHTSLRDTYAIKDREPILINSKDAKKLGIKNGDVVRVFNKRGEVLAGAVVSDEIMQG

VVRLCEGAWYDPNENGLCKCGNANVLTMDIPTSKLANGNISHTGLVNIEKFKGELPKLTAFSAPKGAN

>WP\_002858646.1 MULTISPECIES: efflux RND transporter periplasmic adaptor subunit [Campylobacter]

MKLFQKNTILALGVVLLLTACSKEEAPKIQMPPQPVTTMSAKSEDLPLSFTYPAKLVSDYDVIIKPQVSG

VIENKLFKAGDKVKKGQTLFIIEQDKFKASVDSAYGQALMAKATFENASKDFNRSKALFSKSAISQKEYD

SSLATFNNSKASLASARAQLANARIDLDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYAD

FFISDTDKLNLVRNTQNGKWDLDSIHANLNLNGETVQGKLYFIDSVIDANSGTVKAKAIFDNNNSTLLPG

AFATITSEGFIQKNGFKVPQIAVKQNQNDVYVLLVKNGKVEKSSVHISYQNNEYAIIDKGLQNGDKIILD

NFKKIQVGSEVKEIGAQ

>WP\_002858463.1 MULTISPECIES: efflux RND transporter periplasmic adaptor subunit [Campylobacter]

MKKILFLLLVFNCAFGEEIYASFNVEASKQSKLALESIGLVQKIPVEIGQKVSKGELLLALDQESEKIAL

QNAQNSYQLALVEYENTKSRMQKIKAVENVIDKQSYEDMKAKFDAANLNLNKAKINIAYYKNIMAKKELR

APYDAIIANKFIQVGEGVGGVAQPLIEIFSYPQSKLILSFDEKYKDKVRLGDDFFYKIDQNGTELKGKIN

LIYPSIEVKTRKIYAEVQTTNLTPGLFGEGRIITKD

>WP\_002851196.1 MULTISPECIES: KpsF/GutQ family sugar-phosphate isomerase [Campylobacter]

MNTLEIAKEVFEKEAQAILDLATNLDENFNQAVNLMLNTKGRCIVSGMGKSGHIGAKIAATLASTGTPSF

FIHPGEALHGDLGMLTSEDVLIAISNSGETEEILKIIPAIKKREIPLIVMCGKKNSTLVKQGDIFLNIAV

EKEACPLQLAPMSSTTATLVMGDALAAALMKVRNFKPDDFALFHPGGSLGRKLLTKVKDLMVSSNLPIVH

PDTEFNDLVDVMTSGKLGLCVVLENEKLVGIITDGDLRRALKASDKPRFDFKAKEIMSINPKVVDADAMA

SEAEGIMLKHKIKEIIVGKEEKVVGIIQLYAIGNV

>WP\_002855829.1 MULTISPECIES: agamatine deiminase [Campylobacter]

MIKSIPEWSEQEYLMLSLPHEKSDWNPYLEEILQSYKEFVKVVSEFQKVLLIAPKQSDFENFKDIKNVEF

FKCDTNDTWIRDFGAIDIVENGRLKALDFTFNAWGNKFQSELDNAVNSKLFKEKFKEELKKVDFILEGGS

IDFNGEGVMLTSSHCLLNENRNSHLNKTQIDTKLKEIFGLKQIIWLENGFIKGDDTDHHIDTLARFIDKN

TIAHCICEDEEDEHYLPLQKMKEELKKTGFDLLELPIPKPLYYEERRLGATYANFVFINNALIVPFYKDK

NDEIIAKRLSKALPNHKIIGVDARVFLRQNGSLHCSCQNRFKGLR

>WP\_002858734.1 MULTISPECIES: Asp-tRNA(Asn)/Glu-tRNA(Gln) amidotransferase GatCAB subunit C [Campylobacter]

MQIDEKLLSKLEKLSALQITKNRNETIAQLSEIVNFVEKLNELDLDSQEITVSTIKGGAPLRIDEIRNSN

VIDEVLDCAPKKQEHFFVVPKIIE

>WP\_002858123.1 MULTISPECIES: Asp-tRNA(Asn)/Glu-tRNA(Gln) amidotransferase GatCAB subunit B [Campylobacter]

MFEVVIGLEVHAQLNTKTKIFCSCATSFGEAPNTNVCPTCLALPGALPVLNEEAVKKAIAFGKAVNATIN

KKSVFNRKNYFYPDLPKAYQISQFDIPIVEKGELFINVKGENKRIGITRAHLEEDAGKNIHESNFSKVDL

NRAGTPLLEIVSEPELRSSDEAVAYLKKLHSIIRFLDISDANMQEGSFRCDANVSIRPKGDTKLYTRVEI

KNLNSFRFIQKAIEYEVKRQSEAWEDGTYEQEVVQETRLFDTTNLVTRSMRGKEEAAEYRYFPDPDLLPV

LLKDEFLDIKIPELPDEKKVRFIDKLGIKESDAEVLISSLEMSRFFESLISQNLNPKLCVNWLNTELMGL

LKGELTIENSPVDAQKLGVLIKRIEDGTISAKAAKDVLAFVFENTSVEIDEAIEKLGLKQVSDDSAIEAV

IEQILNANADKVAEYKSGKDKLFGFFVGQTMKEGKGAFNPAKVNEILKTKLG

>WP\_002853884.1 MULTISPECIES: Asp-tRNA(Asn)/Glu-tRNA(Gln) amidotransferase GatCAB subunit A [Campylobacter]

MITLKEALKYSKEELENLKKELNEKAKKEKKLGAYIEQFLDKDLSVSGEGVPVAIKDNISVKGWELTSAS

KILQGYIAPYDASAIVNLKANGFSPFGRCNMDEFAMGSSTASSCYGKTLNPLNFERVPGGSSGGSAAAVA

GGLALASLGSDTGGSVRQPAAFCGCVGFKPSYGRVSRYGLASYSSSLDQIGVLTQNVEDAAILYDAIAGY

DKMDSTSANIEFIKTVPNLNANKKLKIAVIENYVNDADSEVKNALLKTIDMLKANGHEIVYKNLLDSKFD

IAAYYIIATAEASANLSRYDGVRYGKRSENIQNLKEMYVNTRSEGFGEEVKRRILLGTFVLSSGYYDAYY

IKAQKARAFIKAKYEEILQDCDLIFMPVTPTTAFKFDTQKSPMQTYLEDVYTISVNLAGLGGISVPVAKD

KEGLNISAQLICKAYDEQTLLDGALSLEQMIKN

>WP\_010891947.1 MULTISPECIES: radical SAM/SPASM domain-containing protein [Campylobacter]

MLHILINFINFGKMFTLGNIMKFKKIYIELSDICGLKCDFCPSQKGIRGVMSEEKFQNLAYEISNKAELF

TFHLLGDPLLLPNLENYLKIAKDEAMKLEITTSGFYLNSKNQALLLGYENIHQINISLMSFLSQSKISLE

QYFKPILELCKKHLEQKSLSFINLRLWNLDANFKAPKSNLKIYEFLAKEFEAKIDANLSKNRLQRHILLH

QNKLFKWPNLKDEPLYKKGKCHALKEQIGILSDGSLVPCCLDTKADINLGNVFENNFDKLFRSPRIKMMK

KAFEEDKRIEKLCQTCEFFKARLGD

>WP\_010891933.1 MULTISPECIES: phosphomannomutase/phosphoglucomutase [Campylobacter]

MNLKEKMLDVIFREYDIRGLYDKELNEKSVKAIGFCLGQTMLNRGCKNVSVGYDARYSANELFNYLVSGL

NKAGIKIYDIGLVPTPLGYFSLYEGLKFDANVMITGSHNPKDYNGFKITINKESFFGVELKEFSKEVYKH

LDDDIEENLEVEKYDILNLYVKFMCEQFSFLKDFNYKFGVDCTNGAAGVVIKPLIKALNLKAHVMFAEPD

GQFPNHAPDPTEEENLSAIREFLNQNQDYSLAFAFDGDADRMVALSKTHVFCGDELCYLFAKDIPNPRIL

GEVKCSKNLFDEVAKFGTIFMGKTGHSNIKKMMKEKDIDLAAEVSGHIFFKHRYFGYDDGIYAFLRALEL

VYKGFDLESMIKALPKLYTTPEIKIPVNEEEKFKLVEEFQKEIEKGALKGVKSLCEIDGARIDFGDGWAL

LRASNTSPYLITRFEATSLERAKELESMVFTLFNDIKARFKN

>WP\_010891901.1 MULTISPECIES: AcrB/AcrD/AcrF family protein [Campylobacter]

MFKLAINRPITVLMFFLALMIFGLISAFSMSVNLFPNVSIPLIKITSKINGDLNFVESKVTKEIENALSE

IDGVKTITSAAYDNFSVSVVEFKLGKNLEVAANDVRDKIGTLSLPSKPEIEKISSDSGSAISLFLYSKDK

LQLMREINDKIKPFLQRVEGVGKIEAKGFLEPQIRIELKPNQLRKYNLNALDVANIIKSQNFKQALGELN

NNQDNYIIKGYFEATNLEELSNLRIKTGVFLSDIANISSLYEDEKQSALYEGKEGVLLELGKITNYNTLE

MIKNVKNALPILEKQIPKDISINMLYDKSLNIHKHLSQVIFDMVLGIFLTLVIVFLFLRNLSTTLIACIA

IPTSIISTFFIIDLLGYDLNRLTFIALTLSIGIFIDDAIVVIENIAKKLKTYPPLQAAFLGINEIGFSVL

SISIVLLCVFIPISYMNSISGLFFNALGISVASGIVISFLVSVFLIPSIGARFLNPKENKFYEKTEAFFE

KIEQKYENLLYKILQNKVKFILATLVFIGLSFALATRIGLDFLPMEDDSEIQVLLESKKDLSLEAMKEKS

LNLLEKIKNDSNVKYAFLLVGYDDAKDATKAKIYVKLKNLDERNLRQSAIVSLYRQKFQDESLKIKILEL

PKIEGAGIDDPVQFLILGDDLNTLKEAASQAKEILGTNARIVDISDNANATKDEVALHINKEKAKLLDVN

PQYIAGVLGYSFSQLSVGSMDRGNSKDDIILSFAPEFKKDIEALKRISIKNNQGINLELSSVVDFIYSKD

LKTINRYNKNRSVKITAGVNDLSLGAVQKLLLDNMDKILNNNPSLSYAFSGFINLLGETVQGFAMAVALA

FVLIYLVLAALYESFILPLIIMITMPLAFGGASIGLFITGHNFSLFVLIAIILLFGMVGKNAILLVDVAN

KKCHEGLDPDKALLIAGKSRLRAILMTTFAMIFAMLPLALSRGAGYEANSPMAIAIIFGLISSTLLTLLV

VPALFKFCFKLDSKLRKIYEREKLN

>WP\_010891866.1 TolC family protein [Campylobacter jejuni]

MKIILSIFLAFFLSACGVKLSLPKEVDLTQEQMKDLNLTYDWYRSYDNAKLNEFLNFVLLNNSDINIARK

TLLSALARADLIDYDLYPTLSGNLGFGADKDLNSGKQSKNFNNSLNLSYELDIYGKLRDSASASEFSAKA

SAYDLENLKISMINTALNDVFELAYFNDVDKLLRAYLSNLEQMKELYNYKYKLGKIEELDLLNIEQSLLR

AKQNLLSNDQNRNLLIKNLQDLLARQEGFAYIEYFKTLSLNDFKTLSPDFNIPLKALAYRADVRSKLNSL

KSAFKDYSSMQKSILPSISLGGALSGSDKKIDDSFKFEILSGNVKISLPFLDYGRVKQNIKISQFAYEQL

LISYEQVLQSAMNEFALNYKDYQSDTLLLQNLQNINIKQELITKAYYEKYILGKSELKDYLDANNTLNST

QQEFLRARFNLLKTINSYYQITALSFNNENLEFPKY

>WP\_010891842.1 MULTISPECIES: ABC transporter ATP-binding protein [Campylobacter]

MMLEIKNLSKNFGKIQALENINLHVKEGEFLSILGGSGSGKSTLLRIIAKLEQASSYDLFSCKGEVALMF

QNYALFPHLNVEKNILFALYDKKDKNQILNHLLKTFEIEDLRYKKIDEISGGQAQRVAFARAMARGCKLL

LLDEPFSNLDQNLKQDLRRELKKMIENQGITAIMVTHDIEDAYCMSDQIAFLEKGKILAHANPKELYFKP

DFKSAQILPDLNIIEEKLDLEDEFFAWIASKNYIFGYAELKIGNRFEAKILQKEFLGAFCRLKLLYKNII

FFILVSSSYDLEEKISFDIINF

>WP\_010891841.1 class I SAM-dependent methyltransferase [Campylobacter jejuni]

MLEWILTLSQHSTQKGAKMDNSLSAYTQKYDKEGYGLQYPDGHVIRFYERILKYKLSKTSGKLLDFGCGN

GVHSKYFKNITGGGIEPYGIDIVPSLKKVWEKDPCLDSKNFHIISPNSSFKKLFNTKMDFIFANQSLYYL

TKQAFKEAVQEFYELCNEGAIIFATMMSDKGYSMYERGELMDNSLREVKGCPSGRLSGSSYIRFTKDIEE

LKEDFKPFKPLFWGDYELINLYNFEGSVEHFIYIGQK

>WP\_010891832.1 DUF342 domain-containing protein [Campylobacter jejuni]

MNFQVKTLETFNPFESLNHEQANTEQILDFRVIDFKLLCSSVKPAKTKTYERKDFDLFYADDFFVKNYNT

IVQKFLIEIYPKTQSFPFTVKLRSNSNLTHLKASINLTENFKYYPNLKFDILQNIYKIMIKQKFLILRLD

KNLFDKIDDFILSIQKSPSIKEIELEIAKGVDKIEHKSDEIIYHRDVNEECFDENINYDEGNYCKPIEKN

ELLFEYIYRILGKEGRNLRGEILHLNPIAFLDNPFIIKDESIYTEELEDRIKYFSANYGFLNKDHTGYCI

ANNLKLSQIGLKTTGSIKTNTDENINLEITNFDISDDAIKSGIVNVQASNIKVNGNVGATKLYGKNISIK

GLTHAKSEIFAQDIFITTHKGTLQADTVYIKNLENGTIIAKNVFVENCMGGKIEAENIYICNLLTDNTLY

PRKNLIITNNIKFKNNIVVSPLVSIENNSDTECENLKNLSLKIKSKLDDTISKMQNYYDYLIKNQIKIIK

LQKTKNPSAIEMKFSNLYHDIIKKYNHLSISYKKLVKLKYQIDAKLNFLNEMVYNVKIYIKAENIGEDNF

LKFYPNTNTNLELKHHINLKDYEKVLYLEKGQQVSYIKSSHNYSESDIEEIKIIFKKLEKDNS

>WP\_010891831.1 flagellar hook-length control protein FliK [Campylobacter jejuni]

MMSNLAPQNDVLNLTPSKTSTTSSSFSKTSKNKEHESSDSKNSTQDDTESFLNSLLNSINETNEFLPDHM

KISQKEVVNEAMSRLQKGAFDESDKISIFESASFMQILSLLDKLKTDTADVKLANLSTQLSSLIKTEANF

NALKGASNLSELLDIAKDLGLNVKNIKVDRLLDLKATFPNLDKADFFKGAVDNVFKEIINNKISNVSKNL

NHNLENTTHTTSTHSMQKTNSKDSGSLLSQTLKNLDSILSSKESKHEKNDKVKSKIEEDTTDAKNTLKNI

KNDEFAKNLTEELNIKDKKNQDNLNKESKDLNKDFNKELNKNQEKNNLNQENIQDQNKNLKNNDQNLNLD

KNLNKEIVKDTQKLVSNLTQKDFNLNKEPKNNNKENKDIKQNFFDQKLNFENLNKTQVVQNKENNANFNN

NNTNNKETFTQEQTKTHSENVDKNSLDELNSLVKDLNKVTQNNARNITPKETLQYFSQDLKEAVDQYKAP

ITKLSITLNPNNLGEVEVTLIQRGNNLHINFNSNANAMNLFIQNQAEFKNSLVNMGFTGLEMNFSDQGKR

EQNQNQGKNRSGYGFKDALDGKNESEKVNLELVLAKYF

>WP\_002869083.1 MULTISPECIES: low molecular weight phosphotyrosine protein phosphatase [Campylobacter]

MKKILFICLGNICRSPMAEFIMKDLVKKANLEKEFFINSAGTSGEHDGEGMHYGTKNKLAQLNIEHKNFT

SKKLTQKLCDESDFLITMDNSNFKNVLKNFTNTQNKVLKITDFSPSLNYDEVPDPWYSGNFDETYKILSL

ACKNLLVFLSK

>WP\_002868907.1 MULTISPECIES: MBOAT family protein [Campylobacter]

MTYFSLEFSILMIAFFAIYWTFKNDYKIQNILILIFSYIIYILINPYFALVLFIYTFFIHYFALLIFVRR

KRYIFATCMAFIILNLCFFKYFPSIKGSVDEILNFFGLEFLNIDLVLPIGISFYTFTSITYLVEVYQKRR

LESFLNLATFLSFFPTLLSGPIMRSSFFFEQAYQKREFKHANLIIILLVFGIVKKVLIANYLGIYAKSIL

DFPQSYNFIQLLSAIYAYAIQIYCDFSGYVDLVCAFALMLGFTLPPNFNMPYLAKNLKDFWARWHISLST

FIRDYIYIPLGGNRKGIPRTVANILIAFILSGMWHGNTLAFIVWGLLHGIGIVFIHLLTLSKFSLQKIPA

LGRFLTFQFVCFTWIFFYYSKNLEDAIEYFKACYYNFFQIPSYNDIYMLVAFGVLFMIYPLFINFKEYCI

KILNLTPFLLKPFIIAFILLLVFAFMPDGIPDFIYSSF

>WP\_002865311.1 MULTISPECIES: methyl-accepting chemotaxis protein [Campylobacter]

MTNKKSSFLIKFIILSTLVLAFILVLLGIIFNNYSSSKDNKELINIVQQLEISDEKINSVFQNSFNFINY

DPSVQAIKKMQENFTKLKTFGIDINKAEEIFNAKLIQLNYFKSANSIAVNSKLYLFELAKNYFEELEQNH

ETNKNNYKTMSSMLSVLSTENILQKTTLNQLNNLMKEIKNDTKSENLQLFLKHYNMIVKQISIMQDNSSI

YENNSLMKELKQLNTFTQNTIEQSNLFKFYIALAVFGITLVLFVFFILLTLKKVIMPIHTLEKLSANLAS

KEANLHSRLNIDPKSELGQSAQYINSFISTVQNSIIEAIENAKSSHQNSQKLKNNSMMLENSSNSQHEQI

QGVKEITHVLDDHINLAGNLAQESIENMQDMHILMDKVELTLSELVNLINENNEKEQNIVANMDNLTQSA

DNIIEITNSIKDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVGQLADKTSKSLLNINATVNTIVQQI

NDNKALMDLIHDSMKETSSKTNDLQQELVNSMHKLESSIESTQTMKDKSMEVKDKMLILGTNIDKVNELA

NSVKDLSCEINNISQNVLNGASKLSEKLSSFQ

>WP\_002865172.1 ABC transporter permease [Campylobacter jejuni]

MILFKFLIILAPLIFLFLCALFAPFLALFDILSTHLENLHQAPNFTYILGTDFLGRDLFSRLLFALRNSL

IIGVGGSLLSIIFALCYLFLARCFFYVFCMRILEFFLALPAFLLMMFFQSMITSDVFLMIFLIALIHWCF

IARIIESELKRLENLDFYKANIVLGRTKFRAFFKDLIPALKTLIFTLFIFNIVHAIATEATLSFFGLGLG

FEIPTLGTLLSESSKAVFIGAWWMILFPLLSLLLLFLPLLWLGNFLQKIWGIRS

>WP\_002865171.1 MULTISPECIES: ABC transporter ATP-binding protein [Campylobacter]

MKVRNLNISSKNNLLLKDINLDIKTGKTLMILGQSGVGKSLLGKALVRLLDSNFTISFDELSFHNSCIFN

FNKEELRNFRSKVALVLQDAELSLYPYLDIGNLCHLVLKTHTKLKQKERKDYAFSYFQKLGFENLDRLWH

SYANELSLGMARRVSLALALLNQPQILICDEITASLDKENASKIISILKELKNTTALVCITHDLNLVNSL

ADEILMLEKNSSNLYSLNEFLRYYNA

>WP\_002865086.1 L-cystine transporter [Campylobacter jejuni]

MDKQFFQDFLMLSQAHTIATLAILCVVFYALKKMRDIKINFSLRMLFALLMGLGFGFALQYLANFPDAEE

ASNILWYSETKHWFAFVSSVFVAFIKMLVVPLVSICIIKVIIEIDKNIKISSLLGISLFWILFSTAIAAT

LGIFLGYSFDLGSNFAIYEGDKQIREIQTFSNIILGLIPSNIITAINKENIIAIVIFSFFIGISAKKISK

KEEYEQAFKSFHNFILTFYNIMMNMTATVIRFMPYAVVCMMANVLLSNGFEAIKTAGLFIMLIYIAMFIM

FGVHFLLLASQGLNPIKYAKKAFPVWLFAFSSRSSLGTLPMTTSTLQNKFGVNSAIANFVASIGTTTGLN

GCAGYFPALAAVFVAFATHTHIDFTFALMIVLVAVIGSLGIAGVPGSATMAASIMLAGIGFGNNFVMLSL

ILAIDPIIDMARTASNVSGAMTSALCTAKNLKALDKEIYNS

>WP\_002864474.1 MULTISPECIES: DNA-binding response regulator [Campylobacter]

MSQECKELIILVVEDEVKARESMINILSERFSKVIGAQNGDEGLKKFKKFKPDLVITDIAMPIMDGLDMA

REIKEISDDVPIVVLSAYSEKERLLRSIDIGIDKYLIKPVDIEELFKVLDYLIGEKIEANMLVKISEEYQ

FNKTKRTLIYSGGEIVLTKKELAFISLLLKQPGALVLHEDIKKNVWIGEHVSDTAVRTFIKRVRDKVGED

FIKNVPSLGYKININK

>WP\_002864161.1 MULTISPECIES: tRNA1(Val) (adenine(37)-N6)-methyltransferase [Campylobacter]

MSDLITLAQLSQGYRYNSDSLILADFILKQGIKGAVFDVGAGCGIIGILLKKNIANLSLSLIDIQKENIE

LIEKNLKSNKIQGDIFHDDFNQFQIIKKFDFIVCNPPFYRQGAYKSEDQHKAISKFQEFLPLHSFLAKTN

SMLKPNGTLYFCYEALALDEICFILKDMKMKITKLCFVHTHQSKKARLVLIQVKKGSKSPCEILPPFFVY

ENEILSKQMQEIHLRFRLKSYDI

>WP\_002860212.1 MULTISPECIES: MarC family protein [Campylobacter]

MGSELYLMFFAAITLLAILNPFGNLTQFLAMSDGLPLMLRKKLFRTILYTAFTIVLVFLLSGPLFMNYIF

RVSLDDLRVSGGLVLIIMAIKNLLFSTKIATKDFSSYQDMDDKEILRQSLIPMAFPMLVGPGTLASVIVI

AEDGGLDVALGGVMIAFIFMFILFHFAATIEKIVGKLILHVFSRIAQVFIVAMGFKMIIVGLKDIFNL

>WP\_002858785.1 MULTISPECIES: amino acid ABC transporter ATP-binding protein [Campylobacter]

MIEVKNLQKKYGELEVLKNINTTISKGDVIAIIGPSGGGKSTFLRCINRLELADSGEILINKQNILDKEI

DINKIRQKVSMVFQHFNLFANKNVMENLCLTPIKTGILSQEEAIKKAKLLLAKVGLADKENIMPHKLSGG

QKQRIAIARSLMMNPDVILFDEPTSALDPEMIGEVLSIMKDVAKEGLTMLVVTHEMGFARNVANRIFFMD

KGKIAVDASPKEVFENPSNERLREFLNKVLNH

>WP\_002858782.1 MULTISPECIES: ABC transporter ATP-binding protein [Campylobacter]

MHNEMNLKEVLIRFKPFYKRYWKQFAIAIFGMILASGGTAGSFYALEPILNYIFVEKNEALLYTVPFLLV

LMYFFKNLGTYLQSFYVSFIGTDMLRVLRARVLKNVLRLDMDFFKRYRSGELVSRCTNDINALQSIVSNI

IPDFFRELLTAIGLLAVVLYQSPTLAFFALVILPLAIFPLVWFAKKLKKYARNIQETNSDLLSYLGEIFS

NIELIKANDNEKKESDKFAKHNDTLCKLNLKSARIDALTSPLMDMMGSVGVAVVIIVGGREVINGSMSVG

SFISFVSALFAIYTPLKRLSSLYGKLQGAVAASERTFYLLDLEPQIKGGSKELKNIEKISFENVEFAYEN

PHKSVLKGVNFDFVKGQMLALVGTSGGGKSSIINLLMYFYEKQKGKILLNQEDISTFTIESLHAKIGLVT

QNIYLFNDSFAANIAYSEELEEEKVIQALKLANAYEFVKEMGGIWAEVKEHGKNLSGGQKQRIAIARALY

KNPDVLIFDEATSALDNESEKAIVKTIENLKQDRLILVVAHRLSTIENADKIVVLDKGKVLAIGKDEELL

QTCSLYQKFKSKEKTKPSFS

>WP\_002858736.1 MULTISPECIES: sel1 repeat family protein [Campylobacter]

MRIFLTLFLFFNSLFALSELEEGLKLYEANKFDKAYEIFKSLCEKDISKACFSLAFMHESARGVSKDLNQ

AYKFYDKACKLGLANACSNMALLLQNQGYENEALLAFNKACTLGESLSCNNIALFYEKEKDGQMASSFYK

RSCDLKNARACYQLGSLYDKGELVKASVKSALAFYSKSCTLGFGEACYLLGRYNQLEKQDLTKAKRYFGM

ACDQKHQEACAAYKELNSKDIELY

>WP\_002858720.1 ATP-binding protein [Campylobacter jejuni]

MEKLKNFLILKNIEDTQIYKELKCAKNEALILRELCRNYVVSISSINAFTLLSTIFGNDKYLYLDALEDL

KKLIERGFVNQNSSFFKSLENNKTQTLTLALLQSELSLSEYFLEFLEAKPRLNFEKQEAYADYLEYLKDE

FARIQLYERLSFIQKSAYNSEIKNQIKLYERHIKERLKKSKFYNVLADIFKEYNLEHKEQIIFLALLKEE

YALSNESSISREMNSLLSLISENDLERHKNKKLLQENAPLLNLIECDEYLNAFGDISKSFFIIDEILQRI

INFEPKQSKKIKIESVLKDQDIFELIEPSTDINDIIMPENTKELLENILKQQDKKVLERLHSWGIKSNKN

IEAKIIFYGPAGTGKTMSALAMAKSMKKSVLSFDCSKILSKWVGESEQNVRKIFDTYKNIVQTCKQSPIL

LLNEADQFLSTRVDGSSGSDKMHNQMQNIFLEQIERFSGVIIATTNFLESLDSAFSRRFDYKIEFKKPDF

KDRLKIWEKFLPKKALFEKDFDINILSNYELSGAQILMVVKNTALKVAVSKDGVFKIQDFIESIQKELNS

SFDKSKIVGF

>WP\_002858712.1 MULTISPECIES: DedA family protein [Campylobacter]

MFDFLYNDISYLGLFMVCFLSSTLLPLASEAFVLGFIKLDFNPNLVLIVATLGNTLGSLSTYALAYFGKE

KILEKYFSKSLKKLENFNANFAKFGSIFAFFTFLPLVGDLFALGLGFAKYSFLKTIFFILLGKLSRYTFI

IFIANSF

>WP\_002858600.1 MULTISPECIES: amino acid ABC transporter ATP-binding protein [Campylobacter]

MSILKIENLQKYYGSHHALKDINLEVKAKEVVVILGPSGCGKSTLLRCINGLEEIASGNIYIDNEKIDKD

FKEWPRMRQKVGMVFQSYELFEHLSVEENILLGPMKVQKRKKDEVLKEAKIWLEKVGLLHKIHAYPRELS

GGQKQRIAIVRSLCMNPELMLFDEVTAALDPEIVREVLEVMLNLAKEGMTMLIVTHEMGFAKAVADKIIF

MDEGKIIEENDPKSFFKNPKSERAKKFLNLFDYHNIDKNNIGL

>WP\_002858512.1 MULTISPECIES: amino acid ABC transporter permease [Campylobacter]

MDFDFILAQAPAFLTAAWLTIKLSFFGIIFSLIIGLFCILMSYFKIKILENICKLYIEFSRNTPLLIQLF

FLYYALPKFNIHLEQIPPLDLICLSVEETLRPSFACAIVGLSFLGGSYMAESLRAGFEAIRKQQFEAGLS

LGFSKFGNLRYVILPQALAISMPSISANIIFLIKETSVVSIIALPDLVNLMKSLNSLTYKTDELLFLLFM

GYLCIILPLSFILLKFEKRLLHA

>WP\_002858502.1 gfo/Idh/MocA family oxidoreductase [Campylobacter jejuni]

MKIGIIGLGKMGQNHLNELSKNSHFKLNALFDLCKNPNLNIFDDIFYDDLDKFLNQNNDIIIIATPTNSH

LTIAKKVFKQCKCVLIEKPLALNLKEIDEISNLAKEYSIKVGVGFCERFNPAVLALKKELENEEIISINI

QRFSPYPQRISDVGILQDLAVHDLDLLCFLSKQEITKTNLLKKYTQDQTRESESIILCGLEKCIASIHQS

WNSTQKLRKIHLITKNHFYEANLNDFSLLKDGNFIELTQQSPLFSEHEALLKLIDNQPNHLASTSDAYKV

QEILERFA

>WP\_002858500.1 M48 family peptidase [Campylobacter jejuni]

MARQSSSLKSFIYKDECYFYSKKCIKTLRLRLNEKGEFVLSIPYFCTFKSVYEFLDKSSSWMNEAKKRFE

KKVLKDDELIFLAKKYKIIFDENTKKTYFDKDKIICQNKAKLDLFLRQNAKKIFTFYLKKWSQKTGLFYT

HLSIKNMKTRWGSCNHNKAYVNLNLKLIQKSLRAIEYVILHEISHLKFPNHSKEFYTFIEHFMSDFRQRE

KEFLS

>WP\_002857924.1 MULTISPECIES: nitronate monooxygenase [Campylobacter]

MNLQPLQIGKHTIKYPIFQGGMGLGISWDRLASAVSLNGGLGIISSVGTGYYEERKYASKELNAKPYGSE

NFYSRKGLQALINNARKVCGDAPLGCNILCASNDYARIARDACEVGFNVIVSGAGLPTNLPEFTADFPDV

ALVPIISSAKALKIICKRWQSRYNRLPDAVVLEGPKSGGHQGFTYEQCLDPNYQLEKLIAPVVEEAKNWG

SFPVIAAGGIWDKKDIENAISLGASGVQMGTRFIGTFECDASEEFKSVLLASKEEDIELIKSPVGYPARG

VRTNLLNLVDKRMGPKINCISNCVAPCGRGKEATKVGYCIADRLFDAWSGKKETGLFFTGANGYRLDKLI

SVKELMEKLVNGE

>WP\_002856586.1 MULTISPECIES: aminoglycoside N(3)-acetyltransferase [Campylobacter]

MKYLLEFENKKYSTYDFIETFYKLGLQKGDTLCVHTELFNFGFPLLSRNEFLQTILDCFFEVIGKEGTLI

MPTFTYSFCKNEVYDKINSKTKMGALNEYFRKQTGVKRTNDPIFSFAIKGAKEELFLKDTTSCFGENCVY

EVLTKENGKYMTFGGQGHTLTHYAEEQFNVFYRYHKIFSGILIDENNISYNKTISYYVRKLDISSEPNLI

NIINIVNNTKNFKKNNFAGDHINIYNAKEYIEILWKKLDINQTILIENYDTIY

>WP\_002856055.1 MULTISPECIES: DedA family protein [Campylobacter]

MQDMIDTLIKYGYIVLFFYSLGGGMVGILAAGVLSSQGKMDLSFCIALAFIANTIGSTLLFILGKYYKKD

IMPYFKKHRRKIALAMIKTKQHGIILLVTQKFIYGLKTFIPIAAGMAKYNFIKFFIINTLASLAWAIVLG

FTAYTFGYVIEAIFDKLSLYPYAAPLFLLFLAGIIWLYLSKFSKK

>WP\_002855678.1 MULTISPECIES: cation:proton antiporter [Campylobacter]

MHQSVIDTQALIDLKILIVIALCLLFSPHIAKILRLPLSATEIILGAIIAHFGFIGKSENFALLANVGFY

YLMFIAGMEVNLRAFFNMDKEIAKKSFFYIFLLYALSSFIVWIFGLSLVFVIIIPVMSVGLLSLLFKDFG

KECYWLNIAMIVATLAEVISIVLLTIAGAFLREGTGIIDVAQSILYLNIFLGLCLLGFKMLGVLFWWYPQ

LKVVLMPWEDKNEKDIRFCMAIFILIIVAMVITKLEIVLGSFIAGSFIATFFDHKKDLEHKLSTFGHGFL

IPIFFIHIGSTFDLKMILDYKIVLQAFLLMFVMVGLRILCASVFLKRIGFKNMILFGLSHSMPLTLLIAT

ATLGYSGKVIDEKLYSALILTALFEAIIVMSMIKFLSNSKK

>WP\_002854219.1 MULTISPECIES: peroxiredoxin [Campylobacter]

MIVTKKALDFTAPAVLGNNEIVQDFNLYKNIGPKGAVVFFYPKDFTFVCPSEIIAFDKRYQEFKNRGIEV

IGISGDNEFSHFAWKNTPVNQGGIGQVKFPLVADLTKQIARNFDVLYAEAVALRGSFLLDADGTVRHAVV

NDLPLGRNIDEMLRMVDTMLFTNEHGEVCPAGWNKGDEGMKANPKGVAEYLGKNEAKL

>WP\_002853490.1 MULTISPECIES: CinA family protein [Campylobacter]

MKHLLYLIGDELTINEKFKNYIYRTYEEKFKEINEIRIQNKTDKDLPFLLENLLNQYDFITLFTSPLHYA

TVAKILATLNDDNLILKDDTLVPDKAEFSKNSFVCNFSNSKINVVKINPSEKLPDLLGHIKLNFAYFCIF

GMDDESAILLLQTLTKSYEISIKSTKFLDNLVLIKATCANFGKLDGFLNSVKNLFGQKVFLGKDPIHFIS

SKLLEKKLKISFAESCTGGLCASTLTKISGVSEIFEGSIVSYSNRIKHEWLGISESVLENNGEYSERCVY

FMLKGIFKTANPDFALAISGVVGEKDEGKIKSGTIYIGAMFRDGTFIQETLYLDGDREFMQEQAVLATFC

LLLKLKPEIFEI

>WP\_002853249.1 MULTISPECIES: DedA family protein [Campylobacter]

MEEFLKNLLYQYKDLAYIIIFLWCILEGELALILAGIFAHQGHVNLGFVIFIAGLGGFVGDQIYFYIGRY

NKCYIQKKLKTQRRKFAVAHLLLQRFGWPIIFIQRYMYGFRTIIPMSIGITRYSAKKFAIINLFSAWVWA

SITILLAWYFGEQIWKMVTWAEEHWYYAAIIIIAFLSLLLFGFKQMEKAILKDKRKKS

>WP\_002853205.1 MULTISPECIES: DNA-binding response regulator [Campylobacter]

MAAKILLLEDDLSLSEIIEEFLNDEGYEVFLCDNAQEALDMAYERYFDLWILDVKVPLGDGFSLLKELRK

SGKQTPAIFMTSLNTTNDLKQGFDAGCDDYIKKPFELAELSIRVKALLKRAFSHKNEDFEDLGDGFRFEF

TTQILYHNNKALTLPSKEIKLLSLLLKNKNNFLSTERIFEELWDYDEEPSELSLRAYVKNLRKILGKEKI

INQRGRGYCYG

>WP\_002853190.1 MULTISPECIES: nickel-dependent hydrogenase large subunit [Campylobacter]

MSQKIIVDPITRIEGHLRVEVVVDDNNVVKEAYAGSTLWRGIETIVKGRDPRDAGFMTQRICGVCTFSHY

KAGIVAVENALGITPPLNALLTRTLMNAALFLHDHIVHFYQLHGLDWADVVSALSADVKKASDEAFKYTS

NPYATGADKLLEVQQRLKTFVDKGNLGPFANAYYGHPTYRLSPEQNLIVLSHYLECLRIQRIIAQCMAIF

GAKNPHPQSLTVGGVTCVMDLLDPARMGEYMVKFQEVQDFVNRAYYPDLVMAGKAYAHEASVLNDIGVNN

LYTFKEFQIGRDEWLFESGIIKNGDLSKVYEVEEDKITEEATHSWYADNEPLHPYDGKTNPNYTGLVDGE

SVDHHGNNVHSKVFDTKGKYSWIKAPRYEGNPMQVGPLANVVVNYAKGNQNVVPVVDEFLKETGLPLNAV

FSTLGRTAARCIEAKIVANNALKAFNNLVENLKVDQSTCAPYVIDNSKEYKGRYMGHVPRGTLSHWCRIK

NGVIENWQAVVPSTWNASPKDANGVGGSYEQCLIGLKIADVKQPLEIIRKIHSYDPCIACAVHVMDTKGN

NLSEYKVNVNL

>WP\_002853160.1 MULTISPECIES: HAD family hydrolase [Campylobacter]

MINVFFDMDGTLIDSANAISCAVNEIRQDLNLAPLSREIIMQTINTPNIDWAKELYNIENFHHSSFKEGY

EKYFVKHYEQSVVLFEGVKELLEFLKSKNCFLAIATNAPQSSLSNILKKHDIIPYFDKILGVSLGIEPKP

HPMMLELLKSEAPYKTSVFIGDSQKDKECAKNANLPYFHAKWYQKNLKENEFSNASELKGFLQKYL

>WP\_002853125.1 MULTISPECIES: HD family hydrolase [Campylobacter]

MINIKLIEHIFKAASISRWNDYPRMANLVELDKQAHKFIIAYFIAKMEKDVDMRVIIEGGIFEFLSRVVV

TDIRPDVYHEIVRQKKAEVNAWVLSKIEPMIEDIEDGEFLKRFEAYLNGNAYAKERLILKAASYFATRWE

FNIVYQTSAFLNDIDEIKNKVEEELEDYYELIGARKIALNQKIAKIIDLSGRLRFQKRWAQTPRIPETAV

LGHMLVVAILGYFYSLKIKACDKRLENNFYCALFHDLPESLTRDIISPVKYGIDGLHDIINDYEMKLINE

RILPFVPEGLRAEFSYILGIREGRNGESNFVKNEFENRTYKNAKIELCSGSLSSFNENEFGAIDGKALKY

CDKIAAYIEAGLSISYGVKSKELESGFLGMHEFFKENPTIDGVNFFEICESLREYFKI

>WP\_002853121.1 MULTISPECIES: DUF262 domain-containing protein [Campylobacter]

MAGFQSPITINEAMQRIKNNEYLLPAFQREYVWEPWQIEELFDSLIRGYPISSMLFWKVKDESKTAWKFY

RFLEYYRESYHTHNDYFNTSNHKDFYAILDGQQRLTSLYFALFGNYDIHRSYNKWENNDRYFKICHFYFN

LTQSKKPENENIEYEFLWLDKLETKEQNIYIDKYQQKWFKCQYLYQYDSGRVRKIAKEFNLNENEEDRLD

LLHQKIFDKNLINFYLEEEQDPDKAVNIFIRINSNGEPLDYSDILFSIAIANWNKIDARTEINNLVDKIN

ENFDISKDLILKGFLYLFHNNIKFQINSFDKNFIESIEAKWEGIKNAFIETFRLLRSFGFEAKTLSSNNA

ILPILYFIYHKNLTNNIVDSVKCNENRAIIKKWLLRAIILKPFGGSSDTVLSNMRKAFIKDFKQNSGFFD

REIELFPLEEIEKEAKYIQTIDEEYLENNVIECRKNSPEAFAVLSLLYPNLDYKNNNFHKDHLHPESAYK

EYEKLYKATDNCISFNIYDSLPNLQMLDANENESKNNKPLKQWVNEKCNGNRKEFLGKHLIPDVDLSLEN

FNNFIEERKKIIIDKLKSILNKE

>WP\_002853086.1 MULTISPECIES: rRNA pseudouridine synthase [Campylobacter]

MRINKFISHNTRYSRREADELIKQGLVKINNKIALLSDEVKFDDKVFVKGKRVQKRTQFSVIIYHKQKGE

IVSKKDDRGRKTIYDTLPRQFSTWLSVGRLDYASEGLLLLTDSPVIADALMHSDLEREYYLKVKGTVSKQ

VIEAMQNGLEIKNEKKGAHAKTKITSMSFAPFIDFEIFGSSGGYTKLRVVINEGKNRELRRFFGHFDLEV

MDLKRVAFGALDLGMLKAGKHRYLENGEYEKLRDFLKFNEIRY

>WP\_002853070.1 MULTISPECIES: NAD(P)/FAD-dependent oxidoreductase [Campylobacter]

MKKSIAIIGGSIAGLSAALFFASAKNEELDFDITVFDEGKADLKAAAIYNVPFFPKGAKADEIYTHIKAQ

IASMLEVKYIDSKVVSISGEKGDFTVNDEQGLGIKADYIIVATGANKSDIKELEDFVIPHELMPKPNKFC

FKHHGRQIIKEGIYAAGLASGVTTMVACAMGSANEAACAILSDIKGAVSVYHDTPTTRV

>WP\_002853038.1 sigma-54-dependent Fis family transcriptional regulator [Campylobacter jejuni]

MNLVIVEDDINMRKSLEIALAEYEEFNIKSYKSATEALKKIDDNTDLIITDINMPGIDGIEFVKACENKY

DFIIMTGNATLSRAIEAVRLGVKDFLTKPFDVDTLVEAIKRAKIIREKTADKKSKKNEKKEENKDFFSTS

PNLEKTLNLSQKAAKTDASVMFFGESGVGKEVFSRYIHTHSKRSNKPFIAINMAAIPANLIESELFGFEK

GAFTDANATKIGLFEMANEGTLFLDEIGEMPYEIQAKLLRALQEKEITRLGSTKSIKIDVRIISATNANL

DEKIKNGEFRSDLYYRLNTVPINIPPLRERKEEILGIAQKVLEDTCKEYDFKEKQLSQEAKNALLEYDFP

GNIRELISVVQRACILSENDEISSEDLFLEARSIKKDVKNLEKELICEVLLSVDYDKDQASQILGMDIKI

LNEKIKKYQIKDK

>WP\_002852947.1 MULTISPECIES: TolC family protein [Campylobacter]

MFEKYLKSAIFLALYPLAMLASNLHEFIALSQNNESYLIKQMQSEQANLDKEQAFRNYLPSLSLNSAYVA

NNKDRFIIDPQESLFAKVSLNFLLFDGGAREANLRALESREKLSLLDKEQNKNYLALNAITLYFNTLSLE

KILLANQQKVSFLKSTFERLQKFYDAGLSPKDELESIKAKYHLSLLELSQNELKLANIQKEIKILSDTDF

KVQGNAFLENPQQEKSQNYEVMIAKEQINLAKESVNLAKAEYFPKFYIQDNFNFYKNNYNPKVPAPFANL

ADQFLEKYSQGNQFILGMEWKIFDFNARAKEVEKERLNVQIANANARFSERKNKEELNYLDKSLKVLQEQ

ILALNLSLNAANLAFESVDKKYQAGLVSYVEYLQALEVKFKAQSDLELAKNEFEITKANYYFNAGIDLNS

KVKE

>WP\_002852725.1 MULTISPECIES: YihY/virulence factor BrkB family protein [Campylobacter]

MKNFFTILLNLRDKEILNYAAALSFYTVLSLIPILFVCFSVFTQISSFKAYYEKAKQVIFAFLIPTQQDV

VATYIDTFLKNSVNLGIVGLIAMAFTSLAFFSGYDFVINRITKNEPKGLWQSISSYWTLLTLVPLGLGLS

FYISGFIQQTLDDYKIGFNFFEILPFVIIWGLFFISYSSSVHKGTLKSLALVSFGAGTIWYIGKNLFVYY

VVYNKTYASVYGSFSTILFFFIWIYISWIIYLFGLKLYYFLNHNHNEGNKIRKNTKKS

>WP\_002852601.1 MULTISPECIES: pyridoxal phosphate-dependent aminotransferase [Campylobacter]

MLTKRSQVLEESITLAITALANELKAKGEDIISFSAGEPDFDTPQTIKNAAISAIEKGCGKYTAVAGIPE

VLKAIQTKFKKDNNLDYETNEIITNVGAKHSLFECIECLVEKDDEVIIPSPYWVSYPEMVKFAGGKPVFI

EGLEENGFKITAEQLKKAITAKTKVLMLNSPSNPVGSIYSKEELTQIAKVLEGTQITVLSDEMYEKLRYD

GFDFVAFASVSKDALKRTVTINGLSKCGAMPGWRFGYMASKNKALISAVKRLQGQSTSNICSITQHAAIP

ALNGECDKDIEKMRQAFEKRRNLALDILKQIPNISVYKPEGAFYLFVNIQKIEKDSMKFCQKLLEQEKVA

VVPGVGFGMDGYFRLSYATSDELIKKGLERIANFIKNYK

>WP\_002852508.1 MULTISPECIES: DJ-1 family protein [Campylobacter]

MSKKVLIPLAQGFEEAEFIGIADVLKRAKELNPDLEVVIASLNSELLVKGANSISIKADCSIEDVDIENL

DAIALAGGFEGMMNLKNSNVILNIIKQLHSKNKIVAAICASPIVLNEAGVLEGEFACYPSCEVGLNGNRV

NKAVVVNKNVITSAGPATAILFGLELAKKLCGDEIYQKLYEGMLLPLTK

>WP\_002852439.1 MULTISPECIES: MBL fold metallo-hydrolase [Campylobacter]

MNLSFKIFDISNTQRSKAKKVQGKKYEIFLNENEHSLITPKVSFKEILRYYYLYPKNAIPSFKLPFFKPD

LSGFSTPHITWLGHSSLFISFKEYKILIDPIFNTHASPISFINKAFKNAPVYNINDFNEIFAVIITHSHF

DHLDAKSVKALKDKAKFFITPLKVGNYLKSYGVSEKKIIELDWWSGIEFGDLKIMATPAQHSSSRGDGKN

KTLWASFVMEFLSVDKRVFFSADGGYFTHFKKIGEYFGSFDLACLESGQFNIAWPYSHSFPEQILKEAKD

LNAKAVMPIHWGRFLAGTHAWNEVVKFLYENLDLPLITPKMGEAYEVGAKFKQDFWWKEE

>WP\_002851789.1 MULTISPECIES: tRNA threonylcarbamoyladenosine biosynthesis protein TsaB [Campylobacter]

MIGIYQDDKLIKTYKSEEKASEFLPKILDELLKEYDFTSLIYANGPGSYMGIKISYVSLSTLSIVKNIPL

FAVSAFELNGYKPISANKNFCFVYKEGEICLEQNIPAEFFLPKNLQELKLNNDNLPFYFLDAI

>WP\_002851778.1 MULTISPECIES: chemotaxis protein CheV [Campylobacter]

MFDENIVKTGSNEMELVDFRIFKQGHDKVYEGIYGVNVSKVREIIKIPSLTELPGVPDYIEGIFDLRGVV

IPVVNLAKWMQITEPESTMLKPRVIITEFSNILIGFIVHEAKRIRRINWKDIEPATFSTGSGALDKGKIT

GVTRIENDEVLLILDLESVVEDLGIYAPKTDIDFGKIEKFTGTALILDDSMTARKRVKEMMQQMGFQVVE

AKDGVEGINKLEELSQIYGESLNDTLKIIVSDVEMPQMDGFHFAARIKEDPRFKDIPIVFNSSLSNEFMN

EKGVQEAGGEGYLVKFNASDFFNEIAKVIKKHQSQEQG

>WP\_002851750.1 class I SAM-dependent methyltransferase [Campylobacter jejuni]

MNLWDKKAKTYARYQNTLNTIQKQTFEYLQNLKISFQDKSIIDIGCGTGVWTLHLAKEAKEILALDSANA

MLEILQEDAKKLNLNNIKCKNLSFETWMQNNPNVKFDLAFLSMSPALQNEKDYTNFLNLAKIKIYLGWAD

YRKSDFLDPIFKYFNTEFKGFYKKDLENYLLEKNIFFHKIVFDETRKVQRTKEEAIENALWHLSMNKITA

SKETVSSFVENNITETIESKIKLLIINNL

>WP\_002851723.1 MULTISPECIES: HlyC/CorC family transporter [Campylobacter]

MDPSQVLDLNQTSTASFDAGYSILMVVVALALVFLNGFFVLSEFSIVKVRRSKLEEMVKEKKAGAKKALE

VTSRLDTYLSACQLGITLSSLALGWIGEPAIAKMLEIPLINLGFSTVIIHTMAFIIAFSIITLLHVVLGE

LVPKSIAIAVADKAVLFIARPLHWFWMLFLPCIKIFDFLAAISLKLFGIKPAKESELTHSEEEIKIIASE

SQKGGVLDEFETEIIRNAVDFSDTVAKEIMTPRKDMICLNKQKSYEENMQIICEHKHTRFPYIDGSKDTI

LGMIHIRDIIQNELNHKSQNLDTFVKPLILVPENISISKVLVMMNKERSHTALVVDEYGGTAGILTMEDI

MEEIIGEIKSEHEEDSYKKLAENIYEFQGRCDIETVEEMLVINYDEDLEQVTIGGYVFNLLGRLPMVGDR

IEDELCYYEVKKMDGNSIERVKVVKKTNKDEE

>WP\_002851697.1 MULTISPECIES: ParA family protein [Campylobacter]

MSEIITIANQKGGVGKTTTAVNLAASLAVAEKKVLLIDVDPQANATTGLGFNRNNYEYNIYHVFIGRKKL

SDIILKTELPQLHLAPSNIGLVGIEQELAKGENNEKKMLLKNQIQEVIDEYDFIIIDSPPALGSITINAF

AASDSVIIPIQCEFYALEGVAMVLNTIKIIKKTINSKLRVRGFLPTMYSSQNNLSKDVVDDLKQNFKKQL

FTINGNEDDFIVIPRNVKLAESPSFGKPIILYDIKSPGSVAYQNLAYSILG

>WP\_002851545.1 MULTISPECIES: NAD(P)-dependent oxidoreductase [Campylobacter]

MKIAILCASGKVGKEISKEALKRNLEPVCFVRNSSKMNEFLPQAKIVQRDLFELDSKDLIDFDIIIDAFG

EWENLSLHKKHIECLSVILQGSKAKLFVVGGAGSLYMDENHTTRLMDMPDFPKEYLDIAKASAEVLEFLR

NEKGFKWVYVSPSAIFSPDLPKSNHYKIIGEKFEVNANNESKISYSDYASAMIDIVLNSCYENTRIGVIS

L

>WP\_002851542.1 MULTISPECIES: HAD family hydrolase [Campylobacter]

MNKTILFDLDGTLIDSTDAILNSFQGAFKALGLTSKNNEEIKNLIGYPLEQMFRMLYPDKVNLSKEFVLA

YREIYAQIYLEQTTLLPKAKEALELGSEIADLGIVTTKGGKFTPILLDYLGVKKFFKTLITLEDVTNPKP

SSEPIILALKGLNKTQENAYMIGDTILDIQAAISANITPLALTCGYGNENELKAHSMVFLNAYEAVNYIA

RLN

>WP\_002851467.1 MULTISPECIES: SAM-dependent DNA methyltransferase [Campylobacter]

MAKKKEIKLEDALWKSADKLRKNIDAAEYKHIVLGLIFLRYISDSFMQKYEELLKEQDDGADPEDADEYL

ADNIFFVPEKSRYNYIRDNAKNPKIGKMLDEAMDEIEKHNDTLKGVLPKVYAKDNLDSKCLGELIDLIGN

IAFDTGKSTDVLGHVFEYFLGEFALAEGKQGGQFYTPKCVVELLVTMLEPYKGRVFDPCCGSGGMFVQSE

EFVKSHQGRLDDISIYGQESNQTTYKLAKMNLAIRKIESSQVIWNNEGSFLNDAHKDLKADFIIANPPFN

DSDWSGELLENDGRWKYGVPPASNANYAWIQHFLYHLSPNGGVAGFVLAKGALTSNTTNEAAIRKALIED

DLIDCIVNLPAKLFLNTGIPASLWFIRRQKLPKTVKKTLFIDARDLGTRINRRNKTLNKDDINQIANIYK

AWKNGTDYEDIKGFCKSVSIDEIRELSYVLTPGRYVGLADSDDEFDFDTRFNELLAKLKSQIKTEQELSE

IILKNLEKIK

>WP\_002851460.1 MULTISPECIES: iron ABC transporter permease [Campylobacter]

MLNLNTHSKILVIIGLLVAYIIASFTALCLGDENLNPKELFSYIFSQDEILRQIIIDGRLPRIIMAILIG

MLLASSGAITQNVFSNPIADPYIIGIASAATFGAVLAYLLKLNDYYYGILGFVCSAFFALGVFKISSKAS

IATLLIIGIAASSFLGAFTSFFTYLIGEDSFKIVAWLMGNIGNASWFRVGILILPLIFCLFYFYAHKNEL

NILLSGDDEARNLGVNAQKLKINLLIVSSLAVSFAVAFSGLIGFVGLIIPHTIRLLLKNYNNALVIPLCT

AFGGLFLLICDTLARTLLAPVQIPIGILTAFFGAPIFLYLALSARRFL

>WP\_002851227.1 MULTISPECIES: flavodoxin family protein [Campylobacter]

MKNILLLNGAKEFGNSKGQLNLTLHNHALEILKTLGYEVDQTHIDQGYDPKEEIQKFIKADAVIYQMPAW

WMGEPWIVKKYIDEVFGLGAGVLFKNDGRTHENPSKNYGKGGLDHGKKYMFSLTWNAPLEAFNDKNEFFE

GKGVDMVYWHLHKAHEFIGMKALPTFMCNDVVKNPQVEKYLNEYELHLKKIF

>WP\_002851177.1 MULTISPECIES: MRP family ATP-binding protein [Campylobacter]

MKEQILEKLKTVKYPGFEKDIVSFNFVKDIKIQDDGVFIDIEIVSANPEVANEIRKNTIEALSSLALKNI

ELNIITPKIPEEKSNSRSGKNIAPQVKNFIMVSSGKGGVGKSTTTVNLAISMAKMGKRVGILDADIYGPN

IPRMLGETKTQPEVVGQRLKPILTHGVYMMSMGVLIEEGQGLMWRGAMIMKAIEQLLADVIWPELDVLFL

DMPPGTGDAQITSAQSIPIAAGVCVSTPQTVSLDDSKRALDMFNKLHIPIAGVIENMSGFLCPDNGKEYD

IFGKGTAEDMAKAYKSEVLAQIPIEMIVREGGDEGKPVSFYHPESVSSKRYLMAAEKIWSFIEKINNEGG

ADNSAIQPVMNGKSACSH

>WP\_002851168.1 MULTISPECIES: MCE family protein [Campylobacter]

MENRANYFFVGLFVFGVFFASLGFILWLGGYSKEESFKYYEIHTQESVAGLGIKAPVRLLGVEVGSVEEI

SIYNQDELGVNIRIKVKNNTPIKEDTFATLQLQGITGLKFIQLQGGSKNSKDLVSMQGKLPVIPFKESFL

ATIDRQSEHIFSLVKTADDKSKELLSEKNLKNLEILLQNLAELSANLNANSKNLSLNLSNASLKIGKMAD

NISLSAQNFNSSLKNIKESTMILKNFIKKADEKLNTYDDIKASLMQNLELFKRVLIESNILIENLQNSPA

DLIFKETKPKLGPGEK

>WP\_002851145.1 MULTISPECIES: UDP-glucose/GDP-mannose dehydrogenase family protein [Campylobacter]

MKIVIVGIGYVGLANAILFSKNNENEVVLLDIDENKIQSINNHKSPIKDKLIEKFFVQNISKLHATSNIK

EAYFNADFAVIATPTDYDEQLNFFDTRSIENVLKDIKNINSKINVIIKSTVPIGYTKTIKQKFNMSNIVF

SPEFLREGSALYDSLYPSRIIIGDKSVLGKTIGDLFLKNIEKKNVDIFYMDSDEAESVKLFSNTYLAMRV

GFFNEVDSYARKHNLNSADIIKGISADDRIGKYYNNPSFGYGGYCLPKDTKQLLANFYNIPNSLIKAIVE

TNEIRKKFITQLILEKKPNILGIYRLIMKQNSDNFRNSVIIDIIKYLQEYNSNIELIIYEPLVKEKKFLN

IKVENDFNVFGAKVDLIIANRFDDKLKEIKDKVFSADVFYTDI

>WP\_002851136.1 MULTISPECIES: ABC transporter ATP-binding protein [Campylobacter]

MLKIHNLSFAYHQKDLLKNIHLELKNQAFIGILGPNGSGKSTLLKLILKNLSPNKGVISLFNTNIKDFSL

KEFAKICGFVPQKSELNTPLKVIDVLLMSKYPNLKHAFSSYSKEDILEIKEFAKDLRLENFLERSILSLS

GGEFQRMLLARALLKKPKILFLDEPTSALDLNYAIELLNLCEKLVKEKNIAVVAILHDLNLASIFCDKIL

FLKEGEIKYFGTSKELFTQEILKEIYDLNCEIIYKNSKPYILALKEKK

>WP\_002826355.1 MULTISPECIES: chemotaxis protein CheW [Campylobacter]

MSNEKLEQILQKQQTQMAGPDVDQREDDIIQLVGFVVGDEEYAIPILNIQEIIKPIEYTRVPSVPDYVLG

VFNMRGNVMPLIDLAQRFHLGSSKMTPQTRYIVLRGETNGTGVGGNAGFVIDRLTEAIKIHRNRIDPPPE

TLVKDKGMIYGIGKRDENILTILKVEALLKREF

>WP\_002782235.1 MULTISPECIES: N-acetyl sugar amidotransferase [Campylobacter]

MIYCDHCVMPNTRPGINFTKDKEGKNICSACINHKNKENIDYKARFKELEVLCDKYRRMNGKFEYDCAIA

VSGGKDSHFQVHIMKEKLGMNPILFSVEDNFTMTEAGKKNLKNLSETFGCHIISLKPDIKTQKKVMLKTF

EKYGKPTWFIDRLIYSYPFAMALKFNTPLLVYGENVSYEYGGSDTEETPSAKEIFLNGVASDLNINEFID

DEIKEENLQLFFNPNKDKLDKLNPIYLSYFVKWNSYSNYIFAKSRGFTDLEGEWDRTMCAENFDQVDSIG

YILHAWMKYPKFGHACASDYAARFVRYGLLSRKEAIELVQKRDHKLDNKCVEDFCNFIGISKTTFWKIVE

KHYNMDLFYKNDFGEFKLKNKLQ

>WP\_002851411.1 MULTISPECIES: 50S ribosomal protein L18 [Campylobacter]

MRANVLKRKLTLRIKRKKRIRAKISGCENFPRISVFKSNRTLYIQAIDDVKAVTLAAVDGRKLGVKANKE

GAKKIAAEFAKTLKVKKIEQAVFDRNGYVYHGVIAALAESLRENGIRL

>WP\_002851088.1 MULTISPECIES: 2-oxoglutarate:acceptor oxidoreductase [Campylobacter]

MSMTAPKDTPVWVDEHRCKACNICVSYCPAGVLAMRDDVHAVLGQMIEVVHPESCIGCTECEIHCPDFAI

MVAKRDEFKFAKLTAEAKDRAVAVKNNKYKKLA

>WP\_002858700.1 orotidine-5'-phosphate decarboxylase [Campylobacter jejuni]

MKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEELKKVDDFKIFLDLKFHDIPNTMAD

ACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSALTSFDEENFFSIYRQKIEEAVINFS

KISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQKRVANLAMARENLSDYIVVGRPIY

KNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEEWIKTRPDKEHALKEFYAKCGIKY

>WP\_010891941.1 MULTISPECIES: formate dehydrogenase [Campylobacter]

MSSVGENIKLTRRSFLKMAALSSLATPLLARSETLREASADELKEAYEGSKKVKTVCTACSVGCGIIAEV

QNGVWVRQEIAQDHPVSSGGHCCKGSDMIDMVRSHVRLKYPMKKENGEWKRISYEQALSEIGEKLAAYRK

ENPESVMFLGSAKLNNEQAYYIRKFAAFFGTNNVDHQARIUHSATVAGVANTFGYGAMTNHLGDIQRSKC

IIIIGANPAVNHPVGFRHFLKAKEKGAKLIVVDPRFTKSAAKADIYARIRPGTDIAFMYGMLKIIFDEGL

EDTKYLDERVFGIDKIREEAAKWTVEEVENVTGISKELLVQITHEVAKNKPTTLIWAMGLTQHTVGTSNT

RLAPIVQMVLGNIGKFGGGVNILRGHDNVQGASDMACLSENLPGYYPLNEATWRYYAKIWGVDYEWLLGN

FVSKDWMHKTGLSLARWWAAALNGKDGNDAIDNAGTPLKALVVMGNGITSTAQQVKVKEGLEALELLVLA

DPFVNEAGIIAERKDGIYLLPAATQFETSGSVTATNRSGQWRFKVVDPLYESMEDQEILFELAKKLGFYE

DFTKTLRDEKGEIVWPENATREIAKAVRSIGLNGWSPERLKKHTLYWDKFDEVTLEGKDEVAGEYYGLPW

PCWSDKHPGSPVLYNTDIEVAKGGMGFRNNFGLEYEGESLLAKNAPLNSPIDTGYPQITKDNIEKVLGIT

LSAQEKEKMGSTWSYDDSNIIATKCIEKGIVPYGNAKARAVVWTFKDKIPLHREPLHSPRNDLVQKYPSF

EDQKALYRVDTKFVSVQQAKDYSKEFPLNLVTARLVNLNGAGMENRASMYLTRLTPEMFCEINPELAKEQ

DIKAGDMIWVHSPEGTKIHVRVKVNPGVAKDMIFLPFHFTGVMQGVDLTHNFPEGTKPYASGESANTVTN

YGYDIMCQIPETKGGLCRISKDGK

>WP\_002864416.1 MULTISPECIES: NADH-quinone oxidoreductase subunit C [Campylobacter]

MMRKYSDKKNAQTQNYYKDRFYHAPHTVKSDVNESVFKEDFEVLKTQVEILNSFVELDFWVIEIKKEDNV

KTLQMLKTLGYLSFTEASAIDFIADKNGFEVFYQLLNLEKKLRVRIKTFVGVKERLQSVAHVFKGANWSE

REIYDMFGIFIINHPNLKRILMPDDWFGHPLLKTYPLKGDEFARWYEIDKIFGKEYREVVGEEQRDSGFA

DDKDTLNFARLYHEVPKGGQKKEISFKQEYQEDEGVAFVKKVKRDEAKILEKRR

>WP\_002860322.1 MULTISPECIES: tRNA cyclic N6-threonylcarbamoyladenosine(37) synthase TcdA [Campylobacter]

MMNDRFTRIKWLVGEEKFQKISQTKVLVCGLGGVGGICVDALYRSGFKNLTLIDADKFEITNQNRQIHSE

NIGEEKAKVFERIYKVKGIVSKIDENFLKNFDLSEFDLIIDAIDDIPAKVALAHLIDFKKQIFISSTGGA

RKLDPTRIKTTSIFKTHGDALAKKFRYELRKSGFKGNFDVVFSDEEAHCKDLGSFMGVTASFGLALASLA

LRKVLAKKS

>WP\_002851139.1 selenide, water dikinase SelD [Campylobacter jejuni]

MQKTPALLSDIGNNEDASVYQISPDLALVQTLDFITPIVDSAYHFGAIAAANALSDVFAMGAEVINALNI

VGFDTCNHDLNILKELLEGANDKVKECNALVVGGHTIESTELFFGLSVTGKVHPSKFIANNTSKIGDCII

LTKPLGTGILSTALKAQMLNQKHLDIMLKNMIELNYKASQIALKFHPSAMSDVTGFGLLGHLKEMLNKNI

SFEIFESELPFLDGVKEYFNMGLIPAGAYKNLEFIKELTPDLNEEKLLLCDPQTSGGLLISISEKDSLEC

LKKLEDENIQAKIIAKVVNKQENDIIIS

>WP\_002852657.1 MULTISPECIES: 50S ribosomal protein L11 methyltransferase [Campylobacter]

MQKKYYELFFIVEEQYKNLFLDFAFDLGIEAIEEKDNGVYIRSHESLEEFSWALEIFAQKLTTTFNLNHK

IISNLSLVEKENKDWIQEYKKGIKPILVDNVYIHTTWQEEKKNCINIKINPALAFGSGHHESTYSCVKFL

QKFSKSKLRALDLGCGSGILGIIMAKFGCNVEICDTDELAIDSSLENARLNGVDFHKAWCGSIDKANGLY

NLIVANIIADVILILEKDIKNHLEDNAILILSGILDKYSTRIKEKFQDLELIDEMQINEWCSFVYKNNKK

G

>WP\_002852578.1 MULTISPECIES: flagella basal body P-ring formation protein FlgA [Campylobacter]

MKIIFLTFFIVINYIQAASLEEIKTALAKEFRNNFPKIIISQIDLKITSLPKDFDQYEFLRIANGRFNQA

QGFLRAEFKTPQNIQKNVFFRYFIQANLEVLKSERAIKRGDKLGAFDYKSVLIDFDKVPLNALTLDDVDN

LVAKSNINKNAILRANMFKTTALIRRNDPIIGVLSEANVDVLIELVALQSANMGERIRAKNKEGKVMQGI

VVGKNRMIIQ

>WP\_002851299.1 30S ribosomal protein S12 methylthiotransferase RimO [Campylobacter jejuni]

MSKLYLMSLGCNKNLVDSEIMLGHLSAYELCDEPSKADVLIVNTCGFIDSAKKESINAILDLHEQRKKDS

LLVVTGCLMQRYREELMKELPEVDLFTGVGDYERIDEMILKKTNLFSNSTYLQSENSKRIITGSNSHAFI

KIAEGCNQKCSFCAIPSFKGKLKSREISSIIAELKDLVARGYKDFSFIAQDTSSYLFDKGEKDGLIRLID

EVEKIKGIRAARILYLYPTSASEALIKRIIASEIFINYFDMPLQHISDNMLKIMKRGANSTRLKEMLNLM

KSAPNSFLRTGFIVGHPGESEADFEELCEFVKDFGFDRISVFAYSKEEDTAAFDMEQVPFKVINKRLKII

EKIVDEVIEKSFEKEVGQKRLVVCTGKSSEGEFFIAAKDLRWDREIDGEILINESECGNLEMGQIYECEI

LQNLDKKLLAKALRKVDAN

>WP\_002859745.1 MULTISPECIES: translational GTPase TypA [Campylobacter]

MENIRNIAVIAHVDHGKTTMVDELLKQSGTFSEREQISERVMDSNDIEKERGITILSKNTAINYKGTKIN

IIDTPGHADFGGEVERVLKMIDGVLLLVDAQEGVMPQTKFVVKKALSLGLKPIVVINKIDKPAADPERVI

NEIFDLFVALDANDEQLDFAIVYAAAKNGYAKLDLNDESDNMEPLFKTILERVPAPSGSDENPLQLQVFT

LGYDNFVGKIGIARIFNGVVKKNQSVMLAKADGTKVNGRISKLIGFMGLEKMDIEEAGSGDIVAIAGFEA

LDVGDSVVDPNNPMPLDPLHIEEPTLSIVFSVNDGPLAGTEGKHVTSNKIAERLEAEMKTNIAMKYESTG

EGKFKVSGRGELQITILAENMRREGFEFCMGRPEVIVKVEDGVKTEPFEHLVIDVPEEFSGAVIEKLGKR

KAEMKTMAPTGDGQTRLEFEIPARGLIGFRSQFLTDTKGEGVMNHSFLEFRPFSGAVEKRNNGALISMEN

GVALGYSLFNLQERGVLFIEPQTKVYTGMIIGEHSRPNDLDVNPIKGKNLTNVRASGSDDAIKLVPPRKL

SLERALEWIEEDELVEVTPVNVRVRKRYLDPTQRKRMEKAKS

>WP\_002851218.1 MULTISPECIES: sulfurtransferase-like selenium metabolism protein YedF [Campylobacter]

MKIDCRNLSCPQPIVETKNALEKLQENEILEIVLNSIISKNNVVKFLNSLNLNPVVDENAQEFCIKVQKK

NFDSSEVNIHDYNVLFLKTDKVGEGELGQNLLVGFLSTLKNLDHAPSKILCVNESVLINVDENHKAHLAM

KELENLGIEIISCGACLEFFNKSKELKIGNIGNAYEILNELFGKAKIITL

>WP\_002852866.1 MULTISPECIES: twin-arginine translocase TatA/TatE family subunit [Campylobacter]

MGGWSSPSHWLIILLIVVLLFGAKKIPELAKGLGKGIKTFKDEMNNDDEVAKNTQKIEENKNTTNNTNAD

ASIDETKKA

>WP\_002852171.1 MULTISPECIES: twin-arginine translocase subunit TatC [Campylobacter]

MFEELRPHLIELRKRLFISVACIVVMFIVCFALRSYILDILKAPLIAVLPEVAKHVNVIEVQEALFTAMK

VSFFAAFIFSLPVIFWQFWKFVAPGLYDNEKRLVVPFVSFASIMFAFGACFCYFVVVPLAFKFLINFGLN

EDFNPVITIGTYVDFFTKVVVAFGLAFEMPVIAFFFAKIGLIDDSFLKRHFRIAVLVIFVFSAFMTPPDV

LSQFLMAGPLCGLYGLSILIVQKVNPAPKDKESDE

>WP\_002852097.1 MULTISPECIES: twin-arginine translocase subunit TatB [Campylobacter]

MSFGEIIVILVVAILVLGPDKLPEAIVQIAKILKAVKRNIDDAKSSIEKEIRINDLKEEAKKYKDEFSST

NENIRKKLSFEEFDDLKRDILDKTKVDLTFDSRDDKVKNNLSGQNLNTEEKPNLSKLETQDKNGKINV

>WP\_002851869.1 MULTISPECIES: signal peptide peptidase SppA [Campylobacter]

MQILKSFFKALGCGIKFINTYFKTFVLLLIVIWILIPSANSSSNLANLERIDLKGEIFDSSAVLEKIINA

KNDSNIKGVLFVIDSPGGAFAPSMELALAIKDLKIKKPVLVYASGTMASGSYLAGVGANKILANPASFIG

SIGVIMQGADLSGLANKLGIKEQTIQAGEFKSAGTFARAWNENERNFLQGLIDQSYDLFTGFVAKERALD

LNKKDQWANARVFLAAKAKELGLIDELSNYENAKKELEKLANVSNPVWKEEDKIDKFLNRLEGQTSSLIS

KSLIEIAYKTNSSFINAR

>WP\_010891943.1 MULTISPECIES: transcriptional regulator [Campylobacter]

MIRTVMDFKFVLRLLEANQFENEVVEYKKNNKDFIVLGKNISALSNTAALLGIDKAYIIFGIEDGTLNIV

GTNFKPKQEKKGNEELESWLHKVLKPNIEFKIHEITEKEIRLVVFEIEATKISPIKFEEKAYIRIGSNRK

ELDKYPEKEKKLWQVLSGFSFENEIAKSNLNIQDIYDLLDYSKCFDMLDISYDNYSSDEYIIEKLIEHGL

VKNLNDSFAITNLGAILFAKDLTKFKGLNRKRIRFIRYQGKNKIHTLEELEGRKGYAIGFQGLISYIMQY

VPKNEVIENAIRKDTTLYPEIAIRELVANAIIHQDFTINGRNPMIEMYSDRIEITNNGKSLIDIKRLIDM

PSKSRNDKLANLMRIMGICEERGSGVDKVIDSVEAYQLPAPDFINNEDYFQAILFSHMPLEDMTKQDRIR

ATYQHCCLKWASREAMTNASLRARFKIGDKQHSKASKIISDTLEAGLIKQQDPENKSTKHVKYVPFFV

>WP\_010891942.1 MULTISPECIES: ABC transporter permease [Campylobacter]

MLKLLILKRIFLDYIFDGFKQALFLLFNADESVISAIKTTLLSSSISIVLALLIGFPLGFILGFFEFKLK

RFIKLIVDTSLSFPTVAVGLILYALISSRGPLGEFGLLFTIKALILGQFILALPIVIALFSNLIENMNKK

HFLLIKSFHLSPLKLVLTMIYELRFALISVVALAYGRIVAEVGVAMIVGGNIKYDTRTITTAISLETNKG

EFASGIALALVLILIAFCLNFITHKLKRT

>WP\_010891906.1 MULTISPECIES: bifunctional folylpolyglutamate synthase/dihydrofolate synthase [Campylobacter]

MQRLMNNIMKVENFLAQKSINYDKIDRFLMFRMYEKYKKYFKNIPIIQLIGTNGKGSTGRYLTQLLENLN

YKIGHYTSPHIFSFNERFYLDGKIANDEELEQAHIRLEEIFKQDLQKLSYFEYATFLAMILFQKCDFIVL

EAGVGGEYDATSIFERRMSIFTRIGFDHIQILGNSLEDIARTKLKVMAPIALISDEQEQNVLNLAKKIAF

LKKANLQVSSLNPFLKEKFEIYCKKFVLPYFLKHNLKLALKACEILTSQEKTLEALKKLQELNLQGRCQE

ISPNFFVDVGHNPMAAKAMLDKFQGEKINLIYNAYLDKDIFQILNTLKPIIDTIQIYKYKSAERKLADDE

IYSIASKLGMQCKEFVKLEENKKNLVFGSFMLVENFLKEWCGKK

>WP\_010891903.1 endonuclease MutS2 [Campylobacter jejuni]

MMNDTKEELISKLDLNSYLEEFKALFARDKEIFLQGDSNLHFKRIHELCEVEFPTMPELSNLDKALVHLS

KQGILHLDEIFEFVKIFRYFEKLKKIKLGTNLGSWLQKIEFVSGALELCLNFDEKGELKESLDERLVNLN

AALRLKNESIIAEFKKFCYTKALMPYLIDTQIHLINNLEALLVRGGFNHAIKAKIIGRSSGGGFYIVPLS

VENLQNDIEKIKNQKEEIYYEYAKNFSAFLAKNLPFLKFINTAFDLFDHYSARVLLAKKRDFEFVLCDQS

TDLVLKNFAHPALKNPKSVSLEFKKQVLIITGVNAGGKSMLLKSMLSAAFLAKHLLPMHIKASESKIGTF

KEFDAIIEDPQNVKNDISTFAGRMLHFSRLFSKKNLLLGIDEIELGTDFEEAACLYSVLISKLIANNLKI

IITTHHKRLAMLLAKNEQVELIAALYDEELSRPKYEFLKGTIGKSYAFETALRYQIPPNLVSEAKKLYGE

DKENLEELVGKNINLELELKAKLENVEKKEQKVDEILLSLKEQKEKNEQEFRTSLRNLEFKFHKAIEEAK

KTIQLKDIKDKQRSLNKTNELKKEIILPSMEQNEELRVGDFVKYEKIKGKIISISKNDAMVESDGIKLRV

PLKLLKKSTPTPKISPKTSISVAKPTNLSVSLDLHGLRSDEAISRLDKFISDALLAGFDEVLVYHGIGTG

KLAFAVREFLKTHKSVKGFNDAPINQGGFGAKVVRL

>WP\_010891900.1 MULTISPECIES: hypothetical protein [Campylobacter]

MMMKIVFKGKSSEYEIQRSCFCVDAFVIKDKIEERDGVDFITSNVDLLEFSDDSFTFEEIVKHFNICDTE

DMIIVEDFDMKSNKDNQNQEDDIEHNILKSEKIIHENTKQTSMQFKNLKFFSRIFKNENFLSDFKESKQE

VVTIKKHEKLEIFKNLSQEDQEISFVKIEILNYDSNEDSLSFNLDIFPSGMSYKYGILKGSMHIILQGKT

SSTMLFPFLKSMIYKNKSENSSEKIFTLMINQKKHYKLIANLS

>WP\_010891897.1 MULTISPECIES: hypothetical protein [Campylobacter]

MEKFCFKLSIVTFLSINAFAATQANTTDNRNFNIPEHYFNDNELYDKTNSTYKKLQGINYYAKSSKQYIN

NITLIYNNPKPNITNINDLNFKHYLLTPDMREDEVLSFKARHGVNTAGHSIKTVRVLPFLITAKTDHADA

SYNKLILEQGELSSVFYLKPKDTHIKNPSNSKSNQRMNFLMSSTFTHYGNASYNQTILQKDAHISMGVEN

TYDLALNGAPYLIGAIATYGDSTNNSLNIEAGSSVEFFTSLPKKDKNGNNTFDERITHLVGGLAYQGNVK

NNKIFIKDANMIIHGPSKAYASLAAAHISAGYIDSGTDKNFQASKNLLDIDGFNLDMYMNHDKQPLAYNS

VLFADFWGGKTEQGQALDNTINLKDIKNLKKDKNNENIFAQALFNFYAGASNNGEANYNTLNIELKHPLE

IANNFLGYNQHSFYGGFATKGANHNTINIKNDLTTTDLSQSYKDALNIVAARTLEGSADYNKVYINNSMS

TLPVYIYTAKKNILNNQDFYPSSANNNEVVIKDFASFRNLTVLTEAKEASYNTINYNNVQSITDVSNIDK

GSKIIIRALDKANHNTIDIKNYSSNAADNAYLIMAYNEAAYNKIIINDTLFGVASDKREGILSIIAGLSN

NAHDNTLIINNLNLDEYKNNNSIFIAPSAITGLSEAKSYNNTLYIGGNLNIFKNTFIDILAGALVHYEDN

YSASNAAAPSDISLSKNNRLILNTKVEARIINNFEHYYLIVSNKINTTPLLKSYDAPINISS

>WP\_010891894.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLEFPKNKVVFMEILDFILIVIFVFLMIVLVIGFNHQMMQKNKEREERFKKYKKGEQNE

>WP\_010891874.1 MULTISPECIES: membrane protein [Campylobacter]

MMKINSLNKINFIKSTDLLYAQRTGISKEDELFNNLTADFKLSKPFDYQIAFFKHNEIYHCFLAPVYKLK

KSRFCFPEPLIFQALFDERFIEESDYCVLNLYDQTLYLYFYQEGKFINLKKIENFNPGNMDLFFKQNRFT

ELLKHYESKLLLYQDLNTIKHYFSSQIKCLNLNDILDKNSLLKLSSYSIKNLDQNCNFIKHNKIKISISF

KIILIFIFSFSLSMMILLFKDFIEYKQNKEIQNKNFIIQEEISKLKQDKQKLLTNIQDLNFTLSNKISST

QQQFHILSTITKEINLDKNKAIILNQIISWLNSNDLKITNLEFEQTKIILSFIDENHFKRALENLNSAFK

ILDKNEETFNIILEVIHE

>WP\_010891857.1 MULTISPECIES: pyridoxamine 5'-phosphate oxidase [Campylobacter]

MMDLKEIAQFLDDNAPAFLATLGTCGNPRVRPIQSPLLVGDKIYFCTANTKGLFKHIKNYNDIEFCSCAK

DGTFLRLRANAVFEPNLEVKKMMFKKYPYLVNLYETPQNPKFEVFYLDHLSARMQFMNGEFKLFKA

>WP\_010891845.1 MULTISPECIES: oligopeptide transporter, OPT family [Campylobacter]

MMYKKQNLPELTLRGLILGSILTIIFTASNVYLGLKVGLTFSSSIPAVVISMAVLSLFKTSNILENNMVQ

TQASAAGTLSSVIFVIPGLFMCGYWSEFPLWQTFMICLCGGGLGVLFTIPLRRTMVVESKLAYPEGRAAA

EILKVANKDQSSKKGKQGIKEIALGSFIAAIFSLLSNGFKLAASESNFAFIWNKMAFGFSMGYSLALLGA

GYLVGLAGAIALFVGMFLAWGIFTPYLSNFEFDSTKNAVDLASSVWSSKVRLIGTGAIAIAALWTLIELL

KPVIEGIKEIVKNVKITNQEKNERTNIDLSLKSIFILFVLMVVGLFITFYSFVEDANLSIYYQMLFSFVG

TLVSVLIGFFVAAACGYMAGLVGSSSSPISGIGLIGVIISSIVFLVLGVELFQDPMLSKFAVALAIFTTS

VILATAAISNDNLQDLKTGHLVGATPWKQQVALLVGCVFGALAIVPVLNLLYQAYGFVGAMPREGMDASS

ALAAPQANLMSTIAQGIFHHNIEWGYMAFGVFVGILMIIIDKILKGTQKMSLPPLAVGIGIYLPPAVNIP

LVIGGILKYIVMQHLTKKYAKNSHKEEKLASCEQRGTLFASGLIVGESIFGVIIAGITVFSVSMGGSENP

LALNLANFHDSELFALIFFVGVVLYFIKRIVKKDA

>WP\_010891843.1 MULTISPECIES: transporter [Campylobacter]

MIMFSSFFKSKKWALWAYLGLFLLLFFLYIQTSLNVAINSWYSDFYNVLQKPKIELLDSNSTQKIEENLE

NNATLIQEANQRAEQNFQKANFINKGALYYYQNLLEYFFNSRAMIEKPNYSASDFYALILVFLAIAIPYV

LIATINIYFASVYAFKWREAMTFSYLKFWKNKDDNIEGSSQRIQEDTYNFSKIVESLGLSFIKALMTLVA

FIPILWSLSDVVSKALFANLSENSFFYFLKNIDGLLVYIALLISLGGLVVSWFVGIKLPGLEYNNQKAEA

AFRKELVYAEDNRKEYAKNETMIELFTGLKFNYKRLFLHYGYFNIWLILFEQMIVIVPFLIMAPGLFAGA

IGLGIVMQINNAFDQVRSSFSIFITNWTTITQLRSIYKRLKEFEKNISYKS

>WP\_002904001.1 MULTISPECIES: shikimate kinase [Campylobacter]

MMKAKNIVFIGFMGSGKSTLARALAKDLDLVFLDSDFLIEQKFNQKVSEIFEQKRENFFREQEQKMADFF

SSCEKACIATGGGFVNVSNLEKAGFCIYLKADFEYLKKRLDKDEISKRPLFYDEIKAKKLYNERLSKYEQ

KANFILNIENKNIDELLSEIKKVIK

>WP\_002869860.1 MULTISPECIES: ribosomal RNA large subunit methyltransferase H [Campylobacter]

MENNLQVNIFCIQKSDEFKTCSEKYSKLISKYATLKEINVFNKKIALAQNLNAIEAKKSYEEAFMPYKKG

YCIALDEKGKDLTSIEFAKLIQDKNELSFFIGGAYGLREEFNQSLDFRLSLSKLTLAHQFVKTLLLEQIY

RAFCINNNHPYHK

>WP\_002864793.1 MULTISPECIES: ribonuclease J [Campylobacter]

MNMDENKEINKNEQNPNSNSKNNKRYKYKNRRKKLADSLQNENDTPKIDQNSNKENSENSENKTEKKKKK

NRNLPSKLTGNEDWQIALAECIEANRISHENRLHPLKYNNSSEHKIRITPLGGLGEIGGNISVFETNKDA

IIVDIGMSFPDGTMHGVDIIIPDFDYVRKIKDKIRGIVITHAHEDHIGAVPYFFKEFQFPIYATPLALGM

ISNKFEEHGLKAERKWFRPVEKRRVYEIGEFDIEWIHITHSIIDASALAIKTKAGTIIHTGDFKIDQTPI

DGYPTDLGRLAHYGEEGVLCLLSDSTNSYKEGYTKSESSVGPTFDQIFARTKGRVIMSTFSSNIHRVYQA

ITYGLKYGRKVCVIGRSMERNLYTTMELGYIKLDRKIFIDADEVSKYKDNEVLIVTTGSQGETMSALYRM

ATDEHKFIKIKPTDQVIISAKAIPGNEASVSAVLDYLLKAGAKVAYQEFSEIHVSGHASIEEQKLMLTLT

KPKFFLPVHGEYNHITKHKETAMKCGIPERNIYLMSDGDQVELCQKYVKRIKTVKTGKVFVDNQINKQIA

DDVVIDRQKLADSGIVVIIAQIDKATKTLINKPRVFSYGLVADKHDHAFSKDMAEVLGQFFINVKDEVLN

DPRFLENQIRQVLRKHIFRKIKKYPTIVPTIFVM

>WP\_002864194.1 MULTISPECIES: acetylglutamate kinase [Campylobacter]

MIMQKYLEKANVLIEALPYIRKFNSKIILIKYGGSAMENEELKHCVMQDIALLKLVGLKPIIVHGGGKDI

SAMCEKLGVKSEFKNGLRVSDKATIEVASMVLNHINKNLVHSLQNLGVKAIGLCGKDGALLECVKKDENL

AFVGTIQKVNSKILEELLEKDFLPIIAPIGMDENFNTYNINADDAACAIAKALRAEKLAFLTDTAGLYED

FNDKNSLISKISLEQAKILAPKIEGGMHVKLKSCIDACENGVKKVHILDGRVKHSLLLEFFTDEGIGTLV

G

>WP\_002864183.1 MULTISPECIES: thiaminase II [Campylobacter]

MMLFSNLIKENQKIWNAYLHHDFVKKLEDKSLKQENFLFYLKQDYIYLLNYAKCYARLALNSNTAKELRF

AMKFQNYIVEGEMELHRAILSLGINADELDIKDESLVNIAYSRYMLSVGENGDFLDMLVALSACAIGYAK

IGAEIINRLKNENLKDHPYKEWILTYGSENFQNEAKEFEDFVNSYTSSVGAQKFQKLSEIFHTVTRLEVA

FWEHSLRMELNL

>WP\_002864121.1 MULTISPECIES: tRNA 5-methoxyuridine(34)/uridine 5-oxyacetic acid(34) synthase CmoB [Campylobacter]

MSRIKMQENLLEKQFLNHPLYAKIQELKALNLACNFSLGDSVNLSTNSQAKDEILAIAKELKPWRKGPFK

IDDLFIDTEWQSFIKFNILKPFMNEISQKCVADIGCNNGYYMFKMLEFNPAKLIGFDPSIKYRLQFELIN

ALAKTPIKYELLGVEDLPSYSLKFDVIFCLGVIYHRSDPIKMLKDLKAGLNKNGVVFLDTMYIEDEREIA

LVPNKTYSKIPNIYFVPSISALKNWCERAGFKEFEVLATKKTDENEQRKTEWIDSFSLENFLDPKDKNLT

IEGYEAPKRVYIRIKI

>WP\_002860721.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLKMIKIQKVKSLLDLVKKLKNKQSLKIKNQTNTKENLNKTHYLTI

>WP\_002860253.1 MULTISPECIES: guanylate kinase [Campylobacter]

MKLQGFVLLISGPSGAGKSTLLKKLFDEFEDELYFSISSTTRKPREGEKNGIHYHFISHEEFQKGIDSDH

FLEWARVHENFYGTSLKHTQNALDNGKIVVFDIDVQGFKIARKKMADKIVSVFITTKNKDELKKRLIKRN

TDTIIQLEKRLQNASDEMKELSEYDYLIINDELKQSYEALRAILIAHKFRTKGQNLGQIQNIWNEGE

>WP\_002859764.1 MULTISPECIES: DUF4492 domain-containing protein [Campylobacter]

MFYFVVFKGRIYMYLKHLYFSISQIFNFYKEGFKNLTLGKTLWKIIFIKLFVMFVILKLFVFDVNFNSIF

KSDKEKSTFVLKNLTLEGK

>WP\_002859753.1 MULTISPECIES: RNA polymerase sigma factor FliA [Campylobacter]

MNSKKDEEMLKEPPKAYAQMLKKEQDELVLSYMPALRAMAFRLKERLPSSIDVNDLISIGVEEMIKLSRR

YDKEQNDNFWGFARKRVNGSMLDYLRSLDVMSRNNRKIIKDIDAIMDEYFLEHECEPDDEYLAKKLDLDV

EKIKEVRTAHAISYTLPIDEQIELYNEDNTLEKIEKEELLEKIHEVLDDLKERDQLIIQLYYYEELSLKE

ISEILQISESRISQIHKKLLKKLRERLV

>WP\_002859649.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLEFTLNFNDYGLKMGILTKLELDYEIDDIEKFLQFFRTMCDRFEPLIIKLGSDSVRYKEAIKELETLAH

NTAWAARRLNLEEVTDFCVFCEEMMAQANRFNGPASDEFTDWMLLMSDQFEKYCRSYENDDSVLAVFNPL

IVNVPNIISK

>WP\_002859498.1 MULTISPECIES: hypothetical protein [Campylobacter]

MMAKFRIQYSAGFGHYTQNHKGFGPTIYIEEVVEFDNGKDYFDYIDFYKTYSKSDDTYFHISFLEDRPLS

DKEITIRNEYRKMRDENCKKAKEEFIANNELDVEHLPTHHD

>WP\_002859102.1 MULTISPECIES: lipoprotein [Campylobacter]

MTMKITLFLSLIGIFFAACEQTKSVEYYQNHPEEAKKRSLECRHKAIISQDCVNAYKIGFPKDEWEDENI

SNP

>WP\_002859101.1 MULTISPECIES: carboxy-S-adenosyl-L-methionine synthase CmoA [Campylobacter]

MMKDELFKQSPKKQFEFDKSVASVFDDMINRSVPFYRENLELCGNLLAKILPTNASVCDLGCSSANFLIF

LANLRKDFKLFGVDNSASMLEVAKSKAKAYGLDISFFEANLCEFDFFTCDVFVANYTMQFIRPPKRQELL

DQIYKNLNSKGILIMSEKILYEDAFLSKNIIELYADYKEKQGYSKFEIAAKREALENVLIPYSQKENLNM

LEKAGFKKIESIFKWANFETFIAFKD

>WP\_002859022.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKILKDLAMELKLARTLINEKPKNISLEKIEEAIEKEGQKFFYFDKDNTHKQLIALVNHFEKKGVSIYHR

TVKYGLDDNDFMYEVHIL

>WP\_002858707.1 MULTISPECIES: membrane protein [Campylobacter]

MFYLNKILYFFLILFLLIGILGFFINSNPSNQIIKKPYLPFLEIGDLVFRAGIGSESFLIENLSQSPYSH

IAMVVKTSPTILIHATTDDDKNAKNQVILSSMDDFLKLSHKIAIKRLKFDEKTKQKIVAKDLEHLGRKFI

ISTDKDAFYCTTFLEQSINSITPFHLQYTLIKAPFNEGLYLFPQTFFENNQSVLIYESQNF

>WP\_002853395.1 MULTISPECIES: membrane protein insertion efficiency factor YidD [Campylobacter]

MICLKILRFYQKFLSPLKPAACRYYPSCSEYALWQFQKKNFFLAFFSTFFRILRCNPFFKGGFDYPRVSK

NFYPINLCFKPIFLAEKQLCFLYIPYKNKSFYLIKIIFKRTNQ

>WP\_002852989.1 MULTISPECIES: hypothetical protein [Campylobacter]

MVIFCAALALLLFLGVIAYLITSDGKKTIKKQKTSQKQHVAEKTKKFDTDLDKMIIAASDVKLTDIELKE

LAKLYVQTHKLGSKTSKELDEAAKKKLEFVSALAANINASAQTVSYLNKELKKIYGSYKKEIDAYEHMGL

AKRKIKEDK

>WP\_002852636.1 MULTISPECIES: tRNA pseudouridine(38-40) synthase TruA [Campylobacter]

MMKIKIIFSYDGSAFLGSATQPHKKGVQDALSGALSHLGIFSPLLMASRTDKGVHASYAVASVECGDYFT

NLEYLQKQLNKFSHPFIHIKKIEKVKDDFEVRFDVKSREYRYIFSHASYSPFMASYVHFYPKFDLGKANE

LLGFFVGKKDLKFFCKSGGDNKTTLREIFIARAYAYKDFSIFHFKANGFLRGQIRLSVASVLKVLEGKMS

EKELKEQIEAKKQYNHFLAPPNGLYLSRICY

>WP\_002852264.1 MULTISPECIES: membrane protein [Campylobacter]

MSLLKNSSYILTLLSLFGFLLTWQRSAFSLFFLISIFLTLFWEFFLFLKLRKNIIKEATLIKGSLFYRVS

MGDFYLYIFSFFLAIFGLVSLFLNFLNLEKIDFVFIFIILPLLMIFLKKELHLQFVDNAYNDFRIVVIAS

FFTALFYAFYGLFFTYNELLNLELFSRKIIAYKSASFVYFDFLSEFLHFVSNLKFFIFSYFGYLGFRALN

FIFDFFNFFMFCSLLAFVFNFVLKIKIKIIVLFLCFIMVLGNYFLKEQRNNALKSEQEQILLWMNNFNFL

KDNNLSLIQKEKDLFEKDLKDLREIFKKNAFEIGIWWFSKEKEDLEKRINESLK

>WP\_002852169.1 MULTISPECIES: primosomal protein N' [Campylobacter]

MQRSDIRYYELAICGLYLDNLTFHSFDEIKPLTQVLVDLKTKKNLKAIVLKECQKPDFKTVEIKEITEYF

LTPLQFELANFIVYYYASKLGFVLGFFETSPKYECHKMFFKDTPKLSNQQQNALSFLQKENNSLLFADTG

SGKTEIYISLIKECLEQGKQALLLMPEIALTPQMQKRLEVYFKDNFFLWHSKISKKKKQEYLERFCKGEV

LLVAGARSALFLPFRNLGLIVVDEEHDNSYKASNQPFINARDLALFLGQKNNIQVILGSATPSLTSFYKQ

KSFRLKGTFFESKKHFLYDENELGITPMLLSELEKSLKHQKQAIVFLPTRANFRQIICKDCGETIKCPFC

SIAMSMHKKKNILKCHYCNYTSLIEQNCPSCKGEMLEARKIGTAELLELLQNALPLAKIAKFDSDEITSV

KKLNTILKNFNENKIDILIGTSMLAKGHDYHSVDLSVILGLDEYLLRPSFRASEETLALAMQVAGRAGRK

GEARVLLQTKNRAFFERYIENYDAFLKDELENRKDLYPPFKRLLRVLIEDKDQKSAQKLCEKFASQFRNI

KQVELVGYGICGVEMLYGKYRFYLLLRSENHKALVAIENYILQFKNASADIDPIDFV

>WP\_002851877.1 MULTISPECIES: hypothetical protein [Campylobacter]

MMKSLILPPNEFLDHYILNAEFHRFAGISKNAYKFWKNAEIGRYQGTRIIFLHRNCILEKHQQALRQCSG

LNGFVLASAFCSFTGLAPSHLVEKNNSSIYKLLELKEICGIKFVNLKKFYDFLGLNYHQHIYIEKCHFFS

PAPFEKRIKITESMCVGYY

>WP\_002851502.1 MULTISPECIES: hypothetical protein [Campylobacter]

MGALMDLEKLRLARSLYYQCLGELFVFSFSEERLSKLQEYLKTMQECLFDENLKSNFDILLKHLDDENSI

QAFFKEYDLLFLSLKNSIPTTFSYIEEGFENSNPLLCVRQILVKSKIRRNEKFFKESEDSVGFCLLLMSE

FLRQNEDDLAKELFEKVINKSIDEFLGDVFMNKNANLYKEIASIASAFMEFERLCFEVEKPAKINSKKVQ

NDLSRSEFLRREANKQRRTREKSQGIS

>WP\_002851307.1 MULTISPECIES: CcoQ/FixQ family Cbb3-type cytochrome c oxidase assembly chaperone [Campylobacter]

MEHLSIVFDVIKNLITFDLATVQKHEWEIFQGYGFFALVMFLSIVLYAYWYHLYRTEKKGERNYENYANL

ALKDDIDDSVLESKRSA

>WP\_002837605.1 MULTISPECIES: amidohydrolase [Campylobacter]

MQKIFDAHLHLWDLEKIPISWIKDDEKLEQNYDFFRMKQEYKEFEFIGAMYVEVNSDDLEKEALFALEQK

KLHNLLFCLADFKHKEELSSFREVMHTSKKGAKRLFEADFEEKIEILKTFNIPFEACIKNEELGFLEKFL

SKNPNLKVVLNHLGSPKINRLNEYKKDLSFLKKFQNLYIKLSIPDGFSQETPKEFIFELFAFLKENFSEN

KFIFGSNYPVAKITPAKWAKLIIESKIFDDLDKIFYKNALLIYKGG

>WP\_002857955.1 2-iminoacetate synthase ThiH [Campylobacter jejuni]

MQDYMQHLPHMQEIKSEILNKVLTQVQSYDESQFSAKDVKNALNQTHLSIEHLKALLSSAAEDFIEELAF

KSAKVKQKYFGNSISLFTPLYLSNYCNSKCVYCGFQKGNKIARAKLNEAEIHEEMQAIAKSGLEEILMLT

GEGREFASVEYIANACKIAREYFKVVGVEIYPMNEDEYKILHEKGCDYVTVFQETYNPLKYSKIHLAGEK

RIFPYRFNAQERALKAGMRGVAFAALLGIDDFRKDALATALHAHFLQQAYSHAEISISVPRLRPIINNAK

IHPKDVSEKRLLQVLCAYRLFLPFAGITISSRERIGFRDEVIKLGATKMSAGVSVGIGEHKGEKKGDEQF

EISDDRSVDEILAMLKRSNLQAVMSDSIYVG

>WP\_002852404.1 MULTISPECIES: periplasmic nitrate reductase subunit alpha [Campylobacter]

MNRRDFIKNTAIASAASVAGLSVPSSMLGAQEEDWKWDKAVCRFCGTGCGIMIARKDGKIVATKGDPAAP

VNRGLNCIKGYFNAKIMYGEDRLVMPLLRMNEKGEFDKKGKFQQVSWQRAFDEMEKQFKKAYNELGVTGI

GIFGSGQYTIQEGYAALKLAKAGFRTNNIDPNARHCMASAVVGFMQTFGVDEPSGCYDDIELTDTIITWG

ANMAEMHPILWSRVSDRKLSNLDKVKVVNLSTFSNRTSNIADIEIIFKPNTDLAIWNYIAREIVYNHPEA

MDMKFIKDHCVFATGYADIGYGMRNNPNHPKFKESEKDTVEKENVITLDDEEATSLSYLGVKAGDKFEMK

HQGVADKNWEISFDEFKKGLAPYTLEYTARVAKGDDNESLEDFKKKLQELANLYIEKNRKVVSFWTMGFN

QHTRGSWVNEQAYMVHFLLGKQAKPGSGAFSLTGQPSACGTAREVGTFSHRLPADMVVANPKHREISEKI

WKVPAKTINPKPGSPYLNIMRDLEDGKIKFAWVQVNNPWQNTANANHWIAAAREMDNFIVVSDCYPGISA

KVADLILPSAMIYEKWGAYGNAERRTQHWKQQVLPVGAAMSDTWQILEFAKRFKLKEVWKEQKVDNKLTL

PSVLEEAKAMGYSEDDTLFDVLFANKEAKSFNPNDAIAKGFDNTDVKGDERKIQGSDGKEFTGYGFFVQK

YLWEEYRKFGLGHGHDLADFDTYHKVRGLRWPVVNGKETQWRFNTKFDYYAKKAAPNSDFAFYGDFNKML

TNGDLIAPKDEKEHSIKNKAKIFFRPFMKAPERPSKEYPFWLATGRVLEHWHSGTMTMRVPELYRAVPEA

LCYMSEKDGEKLGLNQGDLVWVESRRGKVKARVDMRGRNKPPVGLVYVPWFDENVYINKVTLDATCPLSK

QTDFKKCAVKIYKA

>WP\_002858025.1 MULTISPECIES: protein translocase subunit SecF [Campylobacter]

MQFFSEKKIYDFMRMRFAAISLSFILFFGSIYLLWDRGLQYGIDFSGGTLVQLKYENAAPITQIREILEN

QGTFQNLSVTEFGSNEEVTIRFLGSNDNVSNDIGEHISTLLKDTGKFEVRRADVVGPKVGDELRNKGLMA

IAVSLIAILIYIALRFEWRFALAAIISEIHDVVITLGAISLFKIDVNLDTLAAVLTVLGYSLNDTIIIFD

RIREGIKTSKKTELAPIINESVSATLSRTVLTSGLTLATVVILYFFGGEMIQGFSLALIVGIIAGTLSSI

FVASPTLLWFKFSVLEFRNKEIEKAKRKQDKERNRAMYEKGTV

>WP\_002852215.1 MULTISPECIES: 3-deoxy-7-phosphoheptulonate synthase class II [Campylobacter]

MWAKNSWKNYPIKQQPIYPDQEEMNRVLARLEKLPPLVFAGEVRNLQKSLARVCKKEAFLLQGGDCAESF

ENFGAVNIRDMFKILLQMAIVLTFAGGCPVIKIGRIAGQFAKPRSSDFEELDGISLPSYRGDIINGFEFS

EQARIPDPHRMLEAYYQSAITLNLLRGFAKGGLADLHEVHRWNLGFLKKSELHKQYTDISEKISQALAFM

EACGINTSNTPSLREVSVYTSHEALLLPYEEALTRVDSLSGEIYDCSAHMLWIGERTRALDEAHVHFLSG

VKNPLGVKIGPSASADDIIALANVLNPNNEEGRLNIIIRMGADKIINNLPKIFSKLKSEGLNLVYSIDPM

HGNTVKAGNFKTREFDKIMQEVRSFFEIAISEGVYPGGVHLEMTGKDVTECTGGASNVTAQSLEDRYETQ

CDPRLNADQALELAFLIADLVKKTRK

>WP\_002851837.1 MULTISPECIES: bifunctional ADP-dependent NAD(P)H-hydrate dehydratase/NAD(P)H-hydrate epimerase [Campylobacter]

MKAIIDNIKILEQNAINKGLDELILMENAGLNLAKLIKKEAKKIRIQRKIRKVKILFLLGGGNNASDGLV

ALRNLKHAKAYKIGFKENTLFKKQEQILQNYAFKFCKKEPNFKKFHIIIDCILGTGSNRCLDEKTSLIIQ

KVNQSKALKIACDIPTNLGFYPCFKADITFCMGALKEILLEDFAKEFVGRIKIANLGIRSKKFYPNSQAF

LLEKKDLKTIDRKINANKGNFGHIYIVANASAGTLAGLGALNFGAGLVSLVAQKSFSPLLMLKEKIENNA

SAIALGMGLENLDFLKDEILQNTPLILDANCFLSEALLWYLNRKDVVITPHPKEFIKLYKMCFDENLDIE

TLQKNRFFYARKFSQNYDCVLVLKGANPIIVQKEKLFVVNLGNQALAKGGSGDVLSGMIAAHLGFGFSAL

EAAKNATLAHGLVAKKYKFNKNSFDALKLIKGLKCL

>WP\_002851725.1 MULTISPECIES: cyclic pyranopterin monophosphate synthase MoaC [Campylobacter]

MKLSHLDEKNHPKMVDVSDKNITLRIATASGIIYMSQEAFDVIKNNTAKKGPVLQTAIVAAIMGVKKTSE

IIPMCHPLMLSKVETNIVEFVKECAFKLIVTVKCEGKTGVEMEALSGVSIGLLTIYDMIKAIDKSMRITD

IVLESKEGGKSGKFVRS

>WP\_002780603.1 MULTISPECIES: YebC/PmpR family DNA-binding transcriptional regulator [Campylobacter]

MGRAFEYRRASKEARWDKMSKLFPKLAKAIQVAAKEGGTDPDMNPKLRSAIATAKANNMPKDNIDAAIKR

ASGKDSADIKNIHYEGKAAHGALVIVECMSDNPTRTVANVKAIFSKNGGEVLQNGSLGFMFTRKAVFHLE

KFAGDLEELELDLIDAGLEELEQNEEELVISGDYTAFGELSSAIEAKGLVLKKAGLEYIPNNPVSFSEEQ

LSDIEKLLDKLEDDDDVQAVYTNID

>WP\_002852800.1 MULTISPECIES: laccase [Campylobacter]

MGRSRKNFLSLLENDKVGIFCAFDKDYNVFRAKIHNENLFSHLGFKDIEKCVFMDQIHSHKVIIYDENLK

NLSCDGLISKEKNIALCVLSADCLPLILYHESGIIAALHSGRKGSFENILKECVDQITMQNSHLDKNKFH

LFILPGICAKNYEIDGEILEFAKKEFKEFVQDDKLDLKALVKFQAQNLGIENIKDCGICSFDDESFFSYR

RDKTTKRFVSVVYLKD

>WP\_002851143.1 MULTISPECIES: bifunctional phosphoribosyl-AMP cyclohydrolase/phosphoribosyl-ATP diphosphatase [Campylobacter]

MQNFKELNEKIAWQKVDNLLPVIIQDAKTCEVLMLGFMNNEALEKSLESGKVVFFSRTKQRLWMKGEESG

NFLNIIDLSLDCDNDTLLILANPVGPTCHTGDISCFEKISKNADFVFLARLEKLINARKNADENTSYTAK

LFKSGTKRIAQKVGEEGVETALAATVKDKEELICEAADLMYHLSVLLADANLSFSDVISKLKERHKA

>WP\_002799196.1 MULTISPECIES: prepilin-type cleavage/methylation domain-containing protein [Campylobacter]

MKKAFTILELVFVIVILGILAAIALPKMSSSKDEAEVSKSLNNLKTLINDISIYTLKNDHLSSIKTMSNV

SGVENVDLSNFNGIKEVNFRVGDDKECLKLVFINKADFILMGISSNEASKNAIINAANQSHEDLENIDFT

SSSSNKACVILSKNENFKNLASKTYLLIGGM

>WP\_002856115.1 MULTISPECIES: undecaprenyldiphospho-muramoylpentapeptide beta-N- acetylglucosaminyltransferase [Campylobacter]

MTIALTGGGTGGHLAIVRCLLESAIKKNIECVYIGSQNGQDKAWFENEVRFKEKFFLSSKGVVNQSKFDK

ISSLLHTLKLSKDCREIFKKYHIQAVFSVGGYSAAPASFAALFSHLPLFIHEQNSKSGSLNMLLKPFATK

FFSAFEKEISPYPVADKFFDNARIRKELKNIIFLGGSQGAQFINELALNLAPKLQEQNIKIIHQCGKNDF

EKCKKHYQSLNIQADIFDFSLNLEEKMKNADLAISRAGASTLFELCANTLPTIFIPYPYAAKNHQYFNAK

FLQDQALCQIFMQNSINLDEFFKSILKLNLENISTRLQNITQKNGADMLIQKALFDNLTFIR

>WP\_002852530.1 MULTISPECIES: bifunctional UDP-N-acetylglucosamine diphosphorylase/glucosamine-1-phosphate N-acetyltransferase GlmU [Campylobacter]

MKTSILILAAGLGTRIKSQKPKVLQELCQKSMILHILKKAFALSDDVSVVLSHQKERVEKEILEYFPKTQ

ILEQDLQNYPGTAGALSGFEPKNERVLILCGDMPLVEQTSLEALLGNNAKLNLAVFKARDPKSYGRVVIK

NDSVEKIVEFKDANTQEKEINTCNAGVYVIDSRLLKELLPLIDNNNAAKEYYLTDIVKLAKEKDVMIKAV

FVDEDEFMGINDKFELSIAENFMQKKIKKYWMQQGVIFHLPQSTFIGADVEFVGECEVYENVRIEGKSKI

INSIIKSSSVIENSIVENSDVGPLAHLRPNCELKNTHIGNFVECKNAKLNTVKAGHLSYLGDCEIDSGTN

IGCGTITCNYDGVKKHKTIIGKNVFVGSDTQFIAPVKIEDEVIIAAGSTVSINVEKGALFINRAGHKMIK

DYYYKKFQK

>WP\_002851397.1 MULTISPECIES: bifunctional 2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase/2-C-methyl-D-erythritol 2,4-cyclodiphosphate synthase [Campylobacter]

MSEMSLIMLAAGNSTRFNTKVKKQFLRLGNDPLWLYATKNLSSFYPFKKIVVTSSNITYMKKFTKNYEFI

EGGDTRAESLKKALELIDSEFVMVSDVARVLVSKNLFDRLIENLDKADCITPALKVADTTLFDNEALQRE

KIKLIQTPQISKTKLLKKALDQNLEFTDDSTAIAAMGGKIWFVEGEENARKLTFKEDLKKLDLPTPSFEI

FTGNGFDVHEFGENRPLLLAGVQIHPTMGLKAHSDGDVLAHSLTDAILGAAGLGDIGELYPDTDMKFKNA

NSMELLKQAYDKVREIGFELINIDICVMAQSPKLKDFKQAMQSNIAHTLDLDEFRINVKATTTEKLGFIG

RKEGMAVLSSVNLKYFDWTRL

>WP\_002824771.1 MULTISPECIES: N utilization substance protein B [Campylobacter]

MATRHQVRQSVISLLYAFELNSQNNVFVDEILDEKKIRNEQKNFTLNLYNGILDNLNNIDETLNSFLNDN

QITALGHVERAILRLGAYELLFTDTPSAIVINEAIELAKELANDNSPKFINGVLDALIKAKK

>WP\_010891952.1 MULTISPECIES: crossover junction endodeoxyribonuclease RuvC [Campylobacter]

MNLKILGIDPGSRNCGYAIIEADKGKNILIEAGLIKIKPSTLQYQITELCEGLDLIFKNHSFDEVAIEDI

FFAYNPKTVLKLAQFRGALSLKILQIHGDFAEYTPLQVKKAVTGKAKATKEQVAFMVKRLLGLSKDIKPL

DITDAIAVALTHAANLRVRV

>WP\_010891847.1 MULTISPECIES: hypothetical protein [Campylobacter]

MYFKKEGKMKNTLIIFENSLSNLGKDEASDLLEDLSFNLAYKQISHNPHETKKVLNSLLVEFLTILKKLD

FFDDENVTKVIKALVKASIVDAQNSLYEYISEAELLNKQIENQKNLIKNQISDNFFEFENILQECSFCDE

FSGGLNDAILFDIEMLGILKETAESAFLTTLEKAEDIELTSSEIAKNLVYNAICEAHFEKERILKISSII

LNTAFEIANESMAYAKDLCLGVIKGTRDGIVLAMEKFKASLTYANFEEDVSLKSKELIGIEDDFIALLKK

EIQLQNDPCKSIVENLLEHELDNLFAKFRRLAGESREQLILVLNDIKKNPKINDFNKLTQRKLNRFKQEI

FELEKIASEKYKDLNSKKAKKLGVRLWEKAKKFVKK

>WP\_002864504.1 MULTISPECIES: flagellar hook-associated protein 2 [Campylobacter]

MAFGSLSSLGFGSGVLTQDTIDKLKEAEQKARIDPYTKKIEENTTKQKDLTEIKTKLLSFQTAVSSLADA

TVFAKRKVVGSISDNPPASLTVNSGVALQSMNINVTQLAQKDVYQSKGLANDGGFVNAQLNGTADLTFFS

NGKEYTVTVDKNTTYRDLADKINEASGGEIVAKIVNTGEKGTPYRLTLTSKETGEDSAISFYAGKKDSNG

KYQKDINAEKIFDDLGWGLDVSASIDPDKDKKGYGIKDASLHIQTAQNAEFTLDGIKMFRSSNTVTDLGV

GMTLTLNKTGEINFDVQQDFEGVTKAMQDLVDAYNDLVTNLNAATDYNSETGTKGTLQGISEVNSIRSSI

LADLFDSQVVDGTTEDANGNKVNTKVMLSMQDFGLSLNDAGTLSFDSSKFEQKVKEDPDSTESFFSNITK

YEDINHTGEVIKTGSLSKYLNSNGGNTNGLEFKPGDFTIVFNNQTYDLSKNSDGTNFKLTGKTEEELLQN

LANHINSKGIEGLKVKVESYNQNNVTGFRLNFSGDGSSDFSIKGDANILKELGLSDVNITSKPIEGKGIF

SKLKATLQEMTGKDGSITKYDESLTNDIKSLNTSKDSTQAMIDTRYDTMANQWLQYESILNKLNQQLNTV

TNMINAANNSNN

>WP\_002860103.1 MULTISPECIES: ABC transporter ATP-binding protein [Campylobacter]

MMKKELIKINNLNKEFGKVKALNNINLSVYEGEWLAIMGPSGSGKSTLLNILSLMDTPSSGEYILDNENL

EQMDEEQKITLRREKIGLVFQQFHLIPYLNALENVMLSQYYHSSVDEEDAKMVLEKVGLSHRLTHLPSQL

SGGEQQRVCIARALINNPELLLADEPTGNLDEANEQIVLQTLQKLKNEGKTIVLITHNPDLAKFADRTLI

LQHGVLK

>WP\_002859787.1 MULTISPECIES: aminodeoxyfutalosine nucleosidase [Campylobacter]

MMKIAILGAMSEEITPLLETLKDYTKIEHANNTYYFAKYKNHELVLAYSKIGKVNSTLSASVMIEKFGAQ

ALLFTGVAGAFNPELEIGDLLYATKLAQYDLDITAFGHPLGFVPGNEIFIKTDEKLNNLALEVAKELNIK

LRAGIIATGDEFICDEAKKAKIREIFNADACEMEGASVALVCDALKVPCFILRAMSDKAGEKAEFDFDEF

VINSAKISANFVLKMCEKL

>WP\_002859376.1 MULTISPECIES: lipoprotein [Campylobacter]

MSMKKIILFLLCVGFAFACSEHSHTDFKDLNKTEYNSQLKDKI

>WP\_002858525.1 MULTISPECIES: hypothetical protein [Campylobacter]

MNYKLSLSPLFVLEIIASVLFIVFFGFGNFLFFILLSMIFGAVLLGIFWKNMLEFQMGGLKDMLTQFSFV

IAGFLLIFPGIITSVFGIFVFFFGIALKLITKSKYQYTKQEYQNSNEEIIDVEIIEDRK

>WP\_002851173.1 MULTISPECIES: diaminopimelate epimerase [Campylobacter]

MKFYKYCASGNDFVITNADRKEDRSALAKELCNRYEGIGADGFIVILPHEKYDFEWEFYNNDGSRAAMCG

NGSRAAAHFAHHINKINPNMSFLTGAGIIKAKVNQDKVEVSLGKIKSVQNTFEELGKTWQLCNTGVPHLV

HFCQNLDEFDTMLCQKMRQKYNANVNFVKILDENHLKVRTYERGVEDETLACGTGMGACFYLAFLNKKVQ

NKVKITPKSGEEVGFAYKNEELFFEGKVKYCFEANYNFF

>WP\_002856258.1 MULTISPECIES: Holliday junction branch migration DNA helicase RuvB [Campylobacter]

MDRIVEIEKYSFDETYETSLRPSNFDGYIGQESIKKNLNVFIAAAKKRNECLDHILFSGPAGLGKTTLAN

IISYEMSANIKTTAAPMIEKSGDLAAILTNLSEGDILFIDEIHRLSPAIEEVLYPAMEDYRLDIIIGSGP

AAQTIKIDLPKFTLIGATTRAGMLSNPLRDRFGMQFRLEFYKDSELALILQKAALKLNKTCEEKAALEIA

KRSRSTPRIALRLLKRVRDFADVNDEEIITEKRANEALNSLGVNELGFDAMDLRYLELLTAAKQKPIGLA

SIAAALSEDENTIEDVIEPYLLANGYIERTAKGRIASAKSYSALKLNYEKTLFEE

>WP\_002852492.1 MULTISPECIES: Holliday junction branch migration protein RuvA [Campylobacter]

MVVGIEGIITKKEPTFIIVKCASGLSYGIFISLFCSAKIQTQEKHEFFITQIIKEDSNKFYGFLDKDEQK

MFEMLLKVNGVGANTAMAVCSSLDVNSFYKALSLGDESVLKKVPGIGPKSAKRIIVELSDTKTKLENVSD

DKSEALAALLTLGFKQEKIISVLVSAQATGTSELIKEALKKLG

>WP\_002852281.1 MULTISPECIES: Holliday junction resolvase RuvX [Campylobacter]

MRALALDVGLKRIGVALCIDKKIALPLDAVLRKNRNQAANEIKNLLKIHEISLLIVGIPKGGSSEEEMTR

RIKHFVSLLEFDKEICFVDESGTSKEALGYGVANTRKKDGKLDSLSAFIMIKDYFAL

>WP\_002858400.1 MULTISPECIES: UDP-N-acetylglucosamine 2-epimerase (hydrolyzing) [Campylobacter]

MKKIVFVSGTRADFSKIKSLMMKVENSNEFELFIFVTGMHMSKKFGSTYMEIEKCGFKNIYKYINHDKYY

QMDKALSSTIDGFSKFIHEIEPDLIVVHGDRVEPLAAAIVGSLNNILVAHIEGGELSGTIDESLRHAISK

LAHIHLVNDEIAKKRLIQMGEDEKSIFIIGSPDLELLNNTISLDEAKKYYDIKFKNYAIAIFHPITTEIN

SLYKQSEEFVNALIKSEKNYIVIYPNNDLGFELILQNYERLKNNERFKIFPSLRFEYFISLLKNANFIIG

NSSCIIKEALYLNINGILVGSRQDGRTDINKTIRVNAEEKDILEAILNTSKCTNITNKRLEILNSSEQFY

RLLKNNILFTINKQKIFMDKK

>WP\_002858369.1 MULTISPECIES: UDP-N-acetylglucosamine 2-epimerase (hydrolyzing) [Campylobacter]

MSKRKICIVSATRAEWYLLRNLCHEIQNDKDLSLQIIATGAHLSPEFGLTYKEIEKEFKITKKIPILLAN

DDKISLCKSMSLAFSAFSDAFEDLKPDMVVILGDRYEMLSVASVCLLMHIPLVHLCGGELTLGAIDDSIR

HSISKMSHLHFVSHEIYKKRLLQLGEEEKRVFNIGSLASTIIKNMNFLNKKDLEKALEMKLDKELYLITY

HPLTLNVKNTQKEIKTLLKKLDTLKNASLIFTKANADENGLLINEILQNYCQKNSHKAKLFDNLGSQKYL

SLMKIAKAMIGNSSSGISESPFFKTPCINIGDRQKGRLRTQNIIDSEINDLDQAFEKLESKEFKQNLKNF

KNPYDNGKNPNKIIKTCLKNVNLDTILHKNFIDL

>WP\_002853111.1 MULTISPECIES: thymidylate synthase (FAD) [Campylobacter]

MQITLLFHTPLSVCSHATRTCWQSFEKGDCGGEKDKELIDRVGNKFKHASTLEHLNYTFYIQGISRACLQ

EVARHRHTSPSVKSTRYTLKELRNEAEFKIGDFENASRYLVLCGNEEVDNASIKALENLRTILQKSISLD

IAKYCLPESYKTELTLTINARSLQNFISLRSSKSALWEIRNLANALFEALPQEHKFIFEHCLHKDIE

>WP\_002852828.1 riboflavin synthase [Campylobacter jejuni]

MFNGLIREIAKVQSYQNNTLSLKAKYCPNLGDSIAVNGACLSVTKLYEGGFEVELSRESRTHIVIENLKD

KVHIEPALRYGDRIDGHLMQGHIDFIGTLEKIQKDENGVDFYISLPKEAMKFMAEKGSIGVDGVSLTINE

ILKNGIRLTIIPITFKETLFKDYQVGRKINIESDLLARYIYAQLQGKNKGLSWEEVERISYLY

>WP\_002858617.1 MULTISPECIES: UDP-N-acetylmuramoyl-L-alanine--D-glutamate ligase [Campylobacter]

MKISLFGYGKTTRAIAENLVDKFGPFDIYDDHFTETKKDTLGNLLLNPNDFDDNLSDIEIPSPGFPPKHK

LIQKAKNLQSEYDFFYDIMPKSVWISGTNGKTTTTQMATHLLSHIGAVMGGNVGTPLAELNPYAKLWILE

TSSFTLHYTHKAKPEIYALLPISPDHLSWHGSFDNYVQDKLSVLKRMNECDVVILPKIYANTPTKAHKIS

YEDEKDLAVKFGIDTEKISFKSPFLLDAIMALAIEKILLDTLSYKLLNSFVMEKNKLEELKDSQNRLWVN

DTKATNESAVMAALSRYKDKKIHLIIGGDDKGVDLSNLFDFMKGFDIELYAIGISTEKMLDYAKKANLKA

YKCEVLSKAVNEISNHLRVNEVALLSPACASLDQFNSYAERGKVFKECVNKI

>WP\_002853622.1 MULTISPECIES: ABC transporter permease [Campylobacter]

MKFFKTHLSLILPLLFMMFAFEFILITNATLKHYEELVNKDYNIIVVSKTELDQNVVKTKVPFFAGLESL

DPKDLIDRLKNDVSEKNLKVLKDSLPKFYTLKLNSLPDQNELNSIKNQLLNIVGVSKVETFSKTHDKIYS

LLILMKFVFWLFLFIIILLAFVLFLKQMRIWLYEHTDRIEIMCLFGAPFWFRSFMLYKVVVVDCFIAFVI

LLAFFTQIFDLSIIQESLKAVDIIFPPINFILHLTLIFLATLFICLLCVNTVMFKVKR

>WP\_002853329.1 MULTISPECIES: ABC transporter permease [Campylobacter]

MNKSVLKYLLFKYLRFDKEQPFINLSMLLAFLGVCVGLCVLLVAMAIMNGFDKEFEKRFFVMNYPITILP

KFYAPVNDEFIDELRKTFPNLLFSPYLSTQVVVKGDNRFEGGVLFGVNFNDEKKINEVVAKALKDENLSG

FDILVGSALTDEFGLHKNDKLSLIFSNLNPSGFSLVPQTKRFDVKARFTSGLAFYDKAYMYTDVDALKKV

LGIPKNPNYDGIHVYSDNAFKDVEKIKSYLKDDYAVVGWWEQNKNFFSALELEKRALFIVLMLIILVASL

NIVSSLLMIVMNRRSEIALLLALGASKNEVKKSFFALGMLIGGGGMIVGVVLAFFALWLLGNFDIVTLPV

DVYGTSKLPLDLSLMDFSLTIVGALIIIALSSFYPAKKATQINILDTLRNE

>WP\_002852401.1 MULTISPECIES: RidA family protein [Campylobacter]

MSNYPKAIGPYSAYREVNGLLFISGQLPINPASGEIESSDIKEQTKQSLKNIGAILEENGISYDKVIKTT

CFLADINDFVAFNEIYAEFFKAPYPARSAFAVKDLPKKAKVEIEIIAQKG

>WP\_002864195.1 aspartate aminotransferase family protein [Campylobacter jejuni]

MKMDYKEQSHIIPTYKRFDIVLEKGQGVYLFDDKAKKYLDFSSGIGVCALGYNHAKFNAKIKAQVDKLLH

TSNLYYNENIAAAAKNLAKASALERVFFTNSGTESIEGAMKTARKYAFNKGVKGGQFIAFKHSFHGRTLG

ALSLTANEKYQKPFKPLISGVKFAKYNDISSVEKLVNEKTCAIILESVQGEGGINPANKDFYKALRKLCD

EKDILLIADEIQCGMGRSGKFFAYEHAQILPDIMTSAKALGCGLSVGAFVINQKVASNSLEAGDHGSTYG

GNPLVCAGVNAVFEIFKEEKILENVNKLTPYLEQSLDELINEFDFCKKRKGLGFMQGLSLDKSVKVAKVI

QKCQENALLLISCGENDLRFLPPLILQKEHIDEMSEKLRKALKSF

>WP\_002856518.1 MULTISPECIES: NCS2 family permease [Campylobacter]

MSFFKLKENNTSFKTEVIAGLTTFLAMVYIIPVNSSIVGNTGMPIEALITATALITIVASAFNAFFANTP

VAMSVGMGLNAYFTFAVCLGQNIAWQSALGAVFISSIIFLILSFTHFRLWVIRNIPKDLRLAICAGIGCF

IAFLGLSQMGVIMHNKDTLVSIGNFKSPHVLFGIFTLALIIFFWAIKLRGAFILGVLASSIIAWIFHLDN

ASFPVQIFSWPNFSMENGLGAIFLQLDIKSALNITMIPIILTFFITQLFDSIGTITGVGERGKIFDDPKN

GEKKLSKTLMADATGSALGAMTGTSTVTAFVESTTGVESGGRTGLTALVVAICFAFTLFLLPLFKAIPAN

AIYPVLVMVGILMFMEVKNIDFKDSAIAVASFFTIIMMPFTYSITTGFAFGFLSYLLVRIFKREWDKINL

GIIVLSLLSLGNFLLMALQ

>WP\_002852934.1 MULTISPECIES: histidine phosphatase family protein [Campylobacter]

MKKIYIIRHAKASKSEDIDDFERKLTKSGKEDLKKLFKNLASHEIHPDLVLSSPAVRTAKTAKKIAKFYN

FDKNRICFDERLYLCNVENLLKILQDIDDEFNEVFLVGHNPSLMELGELLSSLCLASFPTSSILCLEFDI

KEFKNLKKHSGKLVFFEHVRKLKEEKDLGF

>WP\_002852810.1 FAD-binding oxidoreductase [Campylobacter jejuni]

MKKEFEQYFKRFLGEENAYFDEIHKRAYSYDATKKHYLPDGVLFPRNEEDIARILKFCNENNIIVIPRGS

GSGFTGGALAVNGGVVLAFEKHMNKILEIDLENLVAVVQPGVINIHLQKEVAKYGLFYPPDPASMEYSSL

GGNVSENAGGMRAAKYGITKDYVMALRAVLPSGEIIRAGKRTIKDVAGYNLAGILIASEGSLAVLSELTL

KLIPLPKFKKTAFAIFPSVKSAMNAVYKSLASGVSPVSMEFLDNLSIRAVESKFNKGLPIEAGAILIADV

DGNVKEAIDEDLRNLEHYFLEAGASEFKIAKDEQETADIWFARRNCSQSIAMYGTLKLNEDITVPRSKLP

TLLEGIDEISKKYGFKIPCFGHTGDGNVHTNVMVPDKNDKEQVKKGYEAVEEIFKLTVKLGGTLSGEHGI

GLSKAPFMNLAFSEAEMNLMRNIKKAFDPNNILNPFKMGL

>WP\_002851141.1 MULTISPECIES: MerR family transcriptional regulator [Campylobacter]

MAYTIKKVEKETKISAHTLRFWAKKGLFPFVQKDENSVKYFSKSDIEWVKWIEWLRISGMPIEQVKHYIK

LCSLGIKTAKERQEMLKQTKKKLQNQIKTLKESEKVLSKKIKIYEEMLANEVDGFNPESKDYQPCDKLHK

FKG

>WP\_002789842.1 MULTISPECIES: ketoacyl-ACP synthase III [Campylobacter]

MKTRFDKAKISGICVSVPEHKICIDDELESVFSNDIKTLKRMKKVIGLNTRYICDENTCVSDLGKHAANT

LLQGLNIDKNSLDALIVVTQSPDFFMPSTACYLHQLLNLSSKTVAFDLGQACAGYLYGLFVAHSLIQSGL

GKILLICGDTLSKFIHPKNMNLAPIFGDGVSATLIEKTDFNEAFFELGSDGKYFDKLIIPKGAMRIPKAD

IFNDDSLMQTEEFRQLENLYMDGANIFNMALECEPKSFKEILEFSKVDEKDIAFHLFHQSNAYLVDCIKE

ELKLNDDKVPNFIMEKYANLSACSLPTLLCELDTPKEFKASLSAFGAGLSWGSAVLNFKDLYTKNILIYT

KEK

>WP\_002864829.1 DedA family protein [Campylobacter jejuni]

MQEIISFIVETASAWGYLGIIILMTLESCFIPFPSEVVMIPAGYLAHKGELDITLCILSGTLGSVLGALI

NYYICFFWGKNFVLKWGKYFGINEAKFAKFEEFFNKHGEFSTFTCRLLPGIRQYISMPAGLVKMKLINFI

LFTALGSAIWVAILVFLGYYIGQNEELIKTYLTQILIIIIVFVILASLIYIKIKKPFKKA

>WP\_002864776.1 MULTISPECIES: SPOR domain-containing protein [Campylobacter]

MENQKNEFDDIILEKSNKSEKVKKILLRVIALVILFLAIMIVMKLINGSGDENTQNQSVLPSEPIATQDN

NNDTSFESMPITDNTSAEDQFEALRKQFQDEQNTTQNTTTSSSNNNDTTNFAMPDQEVPAEPTATTSANT

TPQASTPKQEVTQTAKSKEEAKKQTAVKKEKESAKQTPKKEQNANDLFKNVDAKPVHPSGLASGIYVQIF

SVSNLDQKSKELASVKQKGYDYKLYKTTVGSKEITKVLIGPFEKADIAAELAKIRKDIAKDAFSFTLK

>WP\_002853161.1 MULTISPECIES: RDD family protein [Campylobacter]

MKENLQDRLERENLKIASFGKRVLAFLIDDMVISLIVFIIFYDRLIQAKDLFETTQIVGNFYLGFILLHF

SYQAIFTYLYGASLGKILCKIIILDENLLDKPNLIQSCIRSAVRQVSAMAFMLGFAWALSNDLRKAWEDY

LARTIVVDVA

>WP\_002852501.1 MULTISPECIES: YggT family protein [Campylobacter]

MVIDSFIISIFQVLQIVINIYTWIIIITALLSWVNPDPYNPIVQILYKLSYPAYALVRKIPTRIGNIDLA

PLIIVLALQFLGIFLGNILRSIL

>WP\_010891853.1 EamA family transporter [Campylobacter jejuni]

MLKVIKHNLGIYFMILACLDFALMGACAKILSKEMSSIEIMFFRNIIGIFFIVYLLKRSKAHKEGGYFWL

LVFRGVVGTLSLYMFFYNVSNITLGGAFAFQKTAPIFITLIAFVVFKENIGIKGWIGILIAFGGVLLIAQ

PWVHNLNHSGFDLKNSVIGITSGFLAALALTSVRELRKSYTTEQIAFSFILLGTLMPLISMISAEFFEPQ

HLDSLHLDFILAPFVMPSLTAWLIIAIMGTLGTIYQIHVTKAYGIAKQAGVVAGVSYLDVVFSMIVGIIL

GDNLPSTMVFLGIIGIIFGGLILVKNKGKK

>WP\_002857976.1 MULTISPECIES: SAM-dependent methyltransferase [Campylobacter]

MQKLVEQVWDYTKHAKFYSYRPNYAPKTIDMLISLVGKKDIKVADIGAGTGNLSIMLLERGCKVVSVEPN

DAMREIGIERTKDQKIDWVRATGLNSTLQNSEFDWVTFGSSFNVMDRNEALEEAHRLLKSEGYFSCMWNH

RDLNDPVQKIAEDTIVEFVPNYTRGTRREDQRPIIESRKDLFDNIVYIEEDFYFHQSIENYINAWKSVKN

PYWDLETDEGNELFNKISNKISQRLPKEFSIKYTTRCWSAKKI

>WP\_002890843.1 MULTISPECIES: tRNA (uridine(54)-C5)-methyltransferase TrmA [Campylobacter]

MSLENFGNFLTLDEKHSFIKKYFKEFYTKDFKLFASKDKHYRTRAELSFYHENDTLFYAMFDPKSKKKYI

IEYLDFADEKICAFMPRLLEYLRQDNKLKEKLFGVEFLTTKQELSITLLYHKNIEDIKSNLENLSNILHI

NLIARSKGKKLIFKTENLRQTLNIQDRKIFYEFNNDCFIQPNTAINEKMITWVCEILNTQKRMDLLELYC

GYGNFTLALAPFFFKILATEISKSNINFALKNCELNNTTNIHFARLSSEELSLAIKKEREFFRLKDIRLD

DFNFSHVLVDPPRAGLDKSVIDLIKKYGNIIYISCNPMTLKENLKELSLTHRVEEFALFDQFVNTPHLEC

GVFLSKV

>WP\_002889661.1 MULTISPECIES: membrane protein [Campylobacter]

MRLLVLFFLILPLYSVELISYNIYDRNDRVDLMLSFDNAYNGKISQKKEKNLTLLTFSDLTYSKDELKEL

NSQLVDKISISSKNNNTYIMLQNKQNINLELSSINDKFGVRIRAIEQGKANIESAPTTTANNSQELMPKP

KSTSLEGYDYTNYILVMLILVILLIVLWWFKKTMVYKNNNVSRDFTMIFQRFLDKNNQLVVFDHANKRYT

MIIGNSNVLLESIEIPEEQTIKHTEKTEKNFDSFFEENKKRIQNLIEQRQKGKKS

>WP\_002875342.1 MULTISPECIES: 5-formyltetrahydrofolate cyclo-ligase [Campylobacter]

MEKTDFRALQKIRLFKHSKLNFKQDYKIFKECLKIIKLFKAKNILIFIPLHYEPNLIKFRHILNKNYKLF

VPFMQDKSLKIVKLRLPFIKKRFGVLEPIDSFFKAKIDLAIVPVIGVDKNLKRIGHGQGFYDRFFENLNY

KPHIIFIQSIDALSQNNLTQKHDISGKLYINPYKKYYKKERKNDRITYRTYSRYSRTRYRIFSCKKNQ

>WP\_002869116.1 MULTISPECIES: membrane protein [Campylobacter]

MSRVFLYFLIILILALITFALREKLGKKTKPFFGILLVIFIVLAVFFEFENTQKSHLRTDIIVAFNQNKN

ILCKDINVSKAYFNYEFGTGSFISKDNNQSFNSLIIDIKDCRLNDE

>WP\_002868908.1 MULTISPECIES: phosphate ABC transporter substrate-binding protein [Campylobacter]

MKKILSLSVTSLALCGALNAVDLKIAGSSTVYPFTSFVAEEYASIKNTKTPIVESLGTGGGFKVFCEGTT

DISNASRPMKLSEFETCKKAGVTDIVGMMIGYDGIVLAQNKTNAPLNITKKELFLALAKEIPQNGKLIPN

PYTNWNQINKNLPNRKISVYGPPSSSGTRDTIEELVMSDVSKKIPEYKGEYKTIRQDGAYIPSGENDNLI

VSKLTIDKDAFGIFGYSFLVSNSDKINAANIDGVTPSEESIADEKYELARSLFIYINAKKNPKEAFDFAK

IYMSDDLAKSGGELEKIGLVPLSDDKLKASQKHVEDRKILNDELVKAGKVF

>WP\_002868225.1 MULTISPECIES: hypothetical protein [Campylobacter]

MSKALEYLIVIGLVAAAAITAWSVLTVNHLHIG

>WP\_002866314.1 MULTISPECIES: SIMPL domain-containing protein [Campylobacter]

MKTNNIFMALAIVLASLILAFGFNKALSDFKTLERSVSVKGLSQKEVEADTLILPIKFTRSNNNLTNLYE

ELEQDKENIIKFLEKQGIKEDEISYNSPNIIDRLSDPYSNDTQAAYRYIGTANLLIYTQNVKLGKSILEN

ISSLAKFGIVTKIDDYDIEYLYTKLNDIKPQMIEEATLNARNAAIKFAQDSNSHLGKIKKASQGQFSISN

RDKNTPYIKTIRVVSTIEYYLKD

>WP\_002865088.1 MULTISPECIES: adenylosuccinate lyase [Campylobacter]

MVERYSREIMAKKWDMQAKYDAWLKVELAAVKAWNKLGLIDDTDCEKILKNAKFDIARIDEIEKTTKHDV

IAFLTSVSESLGEESRFVHYAMTSSDCIDTAVALQIKESLELILEDVSLLLEAIKKRALEHKNTLMVGRS

HGIHGEPITFGLVLAIWYDEISHAKELLEHAKEVISYGKISGAMGNFAHAPLEFEEEVCKNLGLKAAPVS

NQVIQRDRYAQVISAIAILASSCEQIAVAIRHFQRTEVYEAEEYFSVGQKGSSAMPHKRNPVLSENITGL

CRVLRSFVTPALENVALWHERDISHSSVERFILPDAFITADFMLMRLTNLIDKLLVYPENMMKNLNLTGG

LVFSGRVLLELPFKGISREEAYKIVQRNAMKVWADLQNGKAAINEKNESLFLLALLSDEDLRKSLSEEDV

RKCFDYNYYTKNVDAIFKRTFK

>WP\_002864662.1 MULTISPECIES: prephenate dehydrogenase [Campylobacter]

MKIAIIGLGLMGGSLGLCLKENKLISCVYGMDLSKENEKDALQLGLIHELIEFKDLALCDMIFVATPVNA

IIEILQKLVDLPSNVTIIELGSTKRKIIESLPKNLIKQTLFAHPMTGTENSGPKAAFKELYKDAVCVLCD

SEIADDLHQKRAVEIFSHLGMKIVFMDSKAHDHHAAIISHLPHVISFSLANFVMKEEDKRNIVHLAGGSF

KGMSRIAKSSPQMWESIFLQNKDNLLSSIDFFQQELERCKQMIQLDKNDELREWMKQANTLREIL

>WP\_002864659.1 MULTISPECIES: translation initiation factor IF-2 [Campylobacter]

MAKIRIHEIAKELGYDSKEIIEKANELGLGIKTASNAVEPEIAAAIYEYIQTREIPEAFKKNIKTPTAKK

PKKENIKEQEKLNESEKKEPKKEEKLKQEVKKEELKIEKENAKEEEKQEIIDAHKPQSLASATLAKRRGL

VIVKKKKDEEEIQVKKEEVKNSNDISINNEERLSLKTMFSNADESLKKKKKEKKSFVASKKESTEKMNFL

DEHDFGDISLDDEDEVVLPDFSVKEQEKPQNINKKQPNFIRQAVGNSAGFGFEGGIQRRSRKKPSKKIEK

KEVEEVGSVAISKEIRVYEFADKIGKSTSEVISKLFMLGMMTTKNDFLDEDAIEILAAEFGIEINIINEA

DEFDYVKDYEEETDEKDLVTRAPVITIMGHVDHGKTSLLDYIRKSRVASGEAGGITQHVGAYMVEKNGRK

ITFIDTPGHEAFTAMRARGASITDIVIIVVAADDGVKPQTKEAINHAKAAGVPIIIAINKMDKEAANPDM

VKTQLAEMEIMPVEWGGSYEFVGVSAKTGMGIEDLLEIVLLQADILELKANPKSFAKASIIESSVQKGRG

AVATVIVQNGTLTVGSTVVAGEAYGKVRAMSDDQGKALKEIKPGECGVIVGLSEVADAGEILIAVKTDKE

AREYANKRHEYNRQKELSKSTKVSIDELGAKIKEGNLKALPVILKADVQGSLEALKASLEKLRNDEIKVN

IIHSGVGGITQSDIELASASENSIVLGFNIRPTGEVKERAKDKGVEIKTYNVIYNLLDDVKALLGGMMSP

IISEEQLGQAEIRQVINVPKIGQIAGCMVTEGVINRGAKIRLIRDGVVVYEGNVSSLKRFKDDAKEVAKG

YECGVGIEGCDDMRVGDYIESYKEVEEQASL

>WP\_002864655.1 MULTISPECIES: ABC transporter substrate-binding protein [Campylobacter]

MKKIILFILSLGIFYTFTQAKNLEQEQNTSSNLVSVSIAPQAFFVKKIAANTLDVNVILPPNSNEHNFEF

KPSTMKKLEKSDIYFTIGLEFEKVFTDKFKQNFPKLQVINMQKNIALIQTHDTHEHSHEHEHHEHGHFDP

HTWLDPILVQTMALNIYDTLIQKYPQNENLYKENLDKFLAELDSLNLQIASKLEKLKNREFVVYHPSWTY

FAKRYNLTQIPVEILGKEPKSKDLQKLITLMKDKNLKVIFVQNGFPENAAKTLAKECDAKIYKIDHLSYD

WENELLKTADAFSHNL

>WP\_002864546.1 MULTISPECIES: tRNA uridine-5-carboxymethylaminomethyl(34) synthesis enzyme MnmG [Campylobacter]

MFDVIVIGGGHAGVEASAAAARMGKKTLLLTTLIEQIGAASCNPAIGGLAKGHLVKELDAMGGLMGEITD

EAGIQFRILNESKGVAVQGSRAQIDMDKYRIIARNKLLKLPNLEISQEQASVLIVENDEVKGVKTNLENI

YFAKKVILTTGTFLNGLIHVGENKLQAGRVGELASVNLGNYLQTLGLKMGRLKTGTCPRVDAKSIDFSVL

EIQDGDVNPKAFSFRSRNFNPTQLPCYIARTNTTTHEIIKNNFYRAPLFTGQIEGVGPRYCPSIEDKINR

FSDKESHHLFIEPQTIDATEYYINGFSTSLPYEVQTQMLRSVEGFENAKITRFGYAIEYDYIEPTELKHT

LELKKIKNLYCAGQINGTTGYEEAAAQGFMAGINASLSIDMKEPLILRRDEAYIGVLIDDLVVKGTKEPY

RMFTSRAEFRLLLREENAILRLGKYGYDLGLLSEQDFTYIQNIANNLQKGLEFLLSKEFTPNNQNNAFLE

SLGEDKISSIVNLQKIVARASFDIEKLKKLDPIFETMDHYSLREILNEAKYYHYISMQKAQVEKMKNLSE

LKIPENFDFKSVSGLSNEVVEKLNHHKPPTIFAASQISGITPAALDILQIYIKMQKKKA

>WP\_002864538.1 MULTISPECIES: hydrogenase nickel incorporation protein HypA [Campylobacter]

MHELSIVESLIELCEENALNNKAYNVQEIYVKIGRLSGIEVDLFKRCFETFKENSNICKNAKLFIELAPL

EILCLKCDQTSILEENVFKCPKCQSIEYKIIQGEDLHLMRLVMK

>WP\_002864468.1 MULTISPECIES: helicase [Campylobacter]

MSQFEPFLALEASAGSGKTFALSVRFVALILKGARINEILALTFTKKAANEMQKRIIETFLNLEKENKTS

ECNELCKLLGKDKEELISLRDAKKEEFLRTELKISTFDAFFGKILRVFALNLGLSSDFTMSEERLDVREI

FLKLLKKDELKDLAYYINLVDEKENFFNELEKFYENAYFQNRPKILNPTKAYINKAYSELRSYCLGLTHV

KNYKNLCDNFKSEVLDLSVFMQSSFMTKFESTKYLQDLESTNLHFSAKRMEFINALNTYAIELENYKIAN

LMNLLNHYSEAKNIFHKDKNTLNFQDVSKKVYELITSEFKDMIYFRLDGFISHLLIDEFQDTSVIQYQIL

RPLIAELVSGEGVKKNRTFFYVGDKKQSIYRFRKGKKELFDLLKQEFSQIKSDNLNTNYRSKELLVDFVN

ETFKEKIKDYKEQFALESKKGGFVRIVESKEQKVKNQAQEIKEKTLETLFEQINFLRSKNISYDDICILC

WKNSDADMVLDFLREQNIPAFTQSNVLLENKASVRLVLEYAKYCIFGDEFYLVFLKELLGFEPRKITLDF

SKNAMENVLFLIKELKLDLNDIALIQFIEYAKTKENFLKLLFEPCALKIVSEQNMGISIMSVHKSKGLEF

DHVILLDSLSKNNSNNEDIMLEYDINQGWQLHIKDKIRELTKEPIYTLFKENITRANYEDDINKLYVAFT

RAKESLIIIKRNEESVNGNYPSYFKGGFLNIHSQERGFLESKEQILSVKKESIQTLQKFEKITLQEIQSE

ERLDSKELYFGNAFHFFMQNLKLPKGENFQILTQRCKSKFRHFLDESDFEKLFKRIEILLKNIQFQNLIG

DGKLLKEQALSFNGEIKQLDLLALKDEEAFIIDYKTGLAMQDKHKEQVGTYKIAISEILQKDKVRAFIVY

CLENEIQILEI

>WP\_002864246.1 MULTISPECIES: tRNA (adenosine(37)-N6)-threonylcarbamoyltransferase complex transferase subunit TsaD [Campylobacter]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>WP\_002860510.1 MULTISPECIES: membrane protein [Campylobacter]

MEHKKALFCIFAIIHLFFWIIFSSLNHFKLDTFLSYEIAFFSVLLIIFASYLNYKKVIIKKSKNYEKDFN

FISSLFIKKKQNLSKIIHFKVLKDDLKPNVKEKIHFFAMFFTLFKLMAYVILVAGFLFLHRQDKLDIFAY

ICGISSLLVCVFIFILYIKKYESKKNY

>WP\_002858743.1 MULTISPECIES: ATP-binding protein [Campylobacter]

MQINLLNDFIKAYENTYSVSFDDSFKGRIQELCKELNEPFMHASYALENELKELVFSLDKNVNIAIIGQF

SSGKSSLLNLILGRDCLPTGVVPVTFKPTFLRYAKEYFLRVEFEDGSDIITNIEKLAFYTDQRNEVKQAK

SLHIFAPIPLLEKITLVDTPGLNANENDTLTTLDELKNIHGAIWLSLIDNAGKKSEEDAIKANLELLGEN

SICVLNQKDKLSAEELDNVLNYAKSVFLKYFNELIAISCKEAKDEQSYEKSNFQSLLDFLTQLDTTVLKE

KFVKRKILNLCEILEDENQLFVGIFDRLLNQFQSYEKHLLLAYENFLKEIEILNHQILEQLKSISERISS

EIFASVKEKDAYFYKESKGFLKKDLYTRYDYKAPYISSDDAFLAMFYNSDVMSKEFKKIKNELYKSFEEI

KMKLKDFINILEREILLFKAEFSNIQKDHIFQSDKNFSELRAFCNASDEYFLKDFKELLFKSILELDLFF

EKLNLKAFTNYENATKLSLAFFSRKINESRVLYELDSSEFVLFYPKKSEIYERVLNELNVYEFETLLINK

PILTKIAKNFLEQSQNLIQEKNKFLDLKKAELQKRRAQILNVRESIKED

>WP\_002858730.1 MULTISPECIES: lipid-A-disaccharide synthase [Campylobacter]

MKTFLVCALEPSANLHLKEVLKAYKKDFGEFELHGIYDESLCKEFDLNSKPLYSSHEFSAMGFIEVLPLI

FKAKKAIKELANLSFTQKINGILCIDSPAFNIPFAKALKKAGSKIPRIYYILPQVWAWKKGRIPIIESHF

DILASILPFDNQFFNKSTYIGHPLLDEIKEFKNQEDINHTFSKKDDEKTIAFLPGSRRSEIRRLMPIFKE

LSQKFKGKKILCVPSFNLEKLEVYGDISEFKIESNTPKVLKKADFAFICSGTATLEAALVGTPFVLAYKA

KAIDIFIAKLFVKLKHIGLANIFCDFAGKEALNPEFLQDKVNVLNLYEAYNKYDYKAFFAKVDFLKEYLQ

FGSAKNLAKILNEI

>WP\_002858683.1 MULTISPECIES: acetyltransferase [Campylobacter]

MLRKADIKDLNACLSLFEQSVKTLCAKDYTKDQICAWIKIDRQQWEEKFKYDEIFVYEKRGKIASFISVK

QEQKLLDLLFTHPDFVRQGLAQNLLDFILKTYLHNEIYTFASLSAKDFFLKNGFELIRENKVIKEGQNLK

KILMKKDVIYKN

>WP\_002858679.1 MULTISPECIES: hypothetical protein [Campylobacter]

MVYEIQKNFLLSDCTLLENLKKDNIPFRNSKFETFYTQITSNHSVKFQSFCNEFYKITKFNNSILEQNQE

EKISKKKFEKARKKIIGKSIKKERFEFKFCSLKSYIDIYEEPKICILKIFFPTLDSSNEFKIPKDFKIQK

ELHHDLNSKHIVLYGFEYQNFDIEKYFKIIEKNQNFSLDFPNYINAYDGFRIFLFYLFKKLKFYWTLSLE

RKDKQSLCEFLFYSRSLYIVLSSMNTILDKNLSNILALKFKDITKKTQDILASENSNQDLLLFLSDEKIQ

DLFNDFDFFIKENSFYEGDCKDRFFKQLVALELRKKIILFRKNILKNFDLELFENSFFELAIFLEYFYHF

LEIKNLNKLYEKYSKDRDKNIFSKIINNKNKFCKLLKKSSKNLKIYKG

>WP\_002858566.1 MULTISPECIES: molecular chaperone HtpG [Campylobacter]

MQFQTEVNQLLQLMIHSLYSNKEIFLRELISNASDALDKLNFLSVSDDKYKSLKFEPKIEIKIDKDKKTL

SISDNGIGMDKDDLINNLGTIAKSGTKSFLENLSGDAKKDSQLIGQFGVGFYSAFMVASKIEVLSKKALD

DKAYLWSSDANGYEIDDANKEEQGTSITLYLKDDEFANAYKIESIIEKYSNHIQFPIFMEKEEFTPAKEG

EEEGKTELKISQINKANALWRMQKSSLKAEDYERFYEQNFHDSNKPLLYLHTKSEGKLEYNSLFFIPQNA

PFDLFRVDYQSGLKLYVKRVFISDDDKELLPTYLRFVRGIIDVEDLPLNVSREILQENQILKGIKEASVK

KILGELEKLKNNDKEKYLSFFKTFGKVLKEGLYGFGGEKDSLLKLMLYKSTKGENLRSLEEYKNDLQGEQ

KEIFYIAGNNESLLRTSPLLEEYKQKNIEVLLMDDEIDSLVTPMLEFEGLKFVSINQVEDKNELSDEEKN

TFAPLVAKFKELLKDQVEDVRLTSRLKDSPSCIVYDKNKPDFAMQQLLKQMGQEQNFKPILEINPKHAIF

TGLKNNESFSADIATLVLNMAKLSEGMGVDNPAEFNASLTKIINKAFS

>WP\_002858561.1 MULTISPECIES: membrane protein [Campylobacter]

MKNESKEDSNFWIAYADLMAGLLFVFILLIGAIVVKYVLTQSDLKEIKDNLNKQEARLEESKEELRNKEA

IVFKLSSDLNNASSALNLANSQKAELEANITNYKQLSKDLNSTLDNKDKQILILLGQLEKKDEELKNLQE

DFQKAKEKVQNLGLIRENLSKELQSKLDNNITIDEKIGSISLPAEVLFDKDSYVLKNEAKASLRKILSEY

FDAILEDPKIFSNIENIIIEGHTDSDGSYIYNLDLSQKRAYEVMNFIYTFYKSDKLQKLLMASGRSFSDP

VFVNGVEDKDKSRRIEIKFSIKNDNALKDVEKFFEFH

>WP\_002858557.1 MULTISPECIES: hypothetical protein [Campylobacter]

MDKIQENTKIEKAILAEKQQIFLIQNKLSEIEKNIKE

>WP\_002858555.1 MULTISPECIES: peptide-methionine (S)-S-oxide reductase [Campylobacter]

MKNIVLGGGCFWCVEAVFERLKGVINTEVGYSGGKPNPSYESVCNGDGNIEVVKINYDEKQISLLEILTL

FFKIHDPTSIDKQGGDIGIQYRSIIFYENEEDKILAQNFIEEQQKIFSKKIVTKISRLQTYYKAENYHQH

YFINNPDQGYCQAVIAPKLQKIQSD

>WP\_002858544.1 MULTISPECIES: malate dehydrogenase [Campylobacter]

MKITVIGAGNVGSSVAYALILREIANEIVLVDINEDLLYAKELELTQSIAALNLNIDLLCTKDYTHTKNS

DIVLFSAGFARKDGQSREELLQLNTSIMLDCAKKIKDFTEDPLFIILTNPVDFLLNTLYESGIFSSKKII

AMAGVLDNARFKYELAKKLNVKMSRVDTRLIGFHNDDMVLVKSYASVKNKNISEFLNEEEFEDLENEVKT

GGAKVIKHLKTSAYLAPASACIRMLESIRSGEFLPMSVILHGEFGVQNKALGVMARLGLEGVIEIMKMDL

SLQEKDKLEKSLIKYQYKGE

>WP\_002858539.1 MULTISPECIES: macrolide ABC transporter permease/ATP-binding protein MacB [Campylobacter]

MIFLKNICKNIGENAILKNVSLSIEKGEFVAIIGQSGSGKTSLLNIIGTLDTPSSGTYVFDEYEVTKLNN

DEKARLRREKIGFIFQRYNLLSLLSAKENVSLPAVYAGKNLQERSQNAKKLLNDLELAHKLDSKPNELSG

GQQQRVSIARALINGGELILADEPTGALDSKSGIMVLEILQKLNEQGHTIVLVTHDPKIAAQAKRVIEIK

DGEILSDTKKEKAQEKLILKTMPKEKKTLTLLKNQAFECFKIAYSSILAHKLRSILTMLGIIIGIASVVC

VVALGLGSQAKVLESIARLGTNTIEIRPGKGFGDLRSGKTRLNFSDLETLRSLEYLEAVDAHSNTSGVAT

YTNISLSARAEGVGVNNFAIEGLRIDAGRILNNDDVKNSTNVAVLDFNAKKNLFPDEKSENILGRVVLFN

SQPFKIIGVLQKDTDKPIEDNVVRFYIPYTTLMNKLTGDRNLREIIVKVKDDVSSTLAENAIIRILEIKR

GQKDFFTFNSDTFKQAITANKRTTTILTACVAVIALIVGGIGVMNIMLVSVSERTREIGIRMAIGARRED

IMMQFLIEAVMICTIGAILGVILSIFVIFAFNTLSTDFPMILNAYSVLLGLLSSMFIGVVFGFFPARNAA

NLNPISALSKE

>WP\_002858532.1 MULTISPECIES: replicative DNA helicase [Campylobacter]

MQQEYYDLDLERAILSSCIMSEEAYASIAGDISPKDFSLKAHQDIFKAVIACSNNKEPISVSFLRKHKKI

DEQILAEILATPSMIDLPAYVNELHEKSVKRQLLSFAHLLPTRINEDRAVSEIADEIGKEIFSITNRVNS

RDIKDVDMVISELFEEFKKQKTLENKGIIGLDTGFEGLNKMTKGFKGGELIIIAARPGMGKTTLCLNFID

KVLRQKKGVALFSLEMPATQIMQRMLSSKTSIPLQKILTADLNDDEWERLGDACNDYSQKKLYIYDSGYA

TIADVRAILRRLKSQDESIGLCVIDYIGLMMSNSNFNDRHLQVSEISRGLKLLARELDMPIIALSQLNRG

LEQRANKRPLMSDLRESGAIEQDADAILFVYRDEVYREQEEKERENKAKAEGKAYQRLFIPNPMQENAEI

IVGKNRNGPVGTIEVVFLKEKSCFVDKPIGYETTEFTG

>WP\_002858522.1 MULTISPECIES: succinate dehydrogenase flavoprotein subunit [Campylobacter]

MGEFSRRDFIKTACISVGALAASSSGVYALDDSSKMDKDINLPSCDVLVIGSGGAGLCAAAAVRKENPKL

SVVVATKMMPSRNATCMAEGGINGVTDFSNGDSYKLHAYDTIKGGAYLVDQDAALKFCELAGKAIFNMDF

IGTLFSRNEQGGVAQRLMGGASKKRCNYSADKTGHILMHSCLDDAISSGVKFLMNHELLDIGVVDGKCEG

VVLRDIQSGGIYPVLCKALVIATGGYTRIFYNRTSTPFIATGDGVAAALRAGLGFEDPEMIQFHPTGVAN

GGTLITEAARGEGGYLLNNRGERFMKNYHEKMELAPRDVVARAIETEIREGRGYGEGLGAYVLCDVRHLG

KEKILKDLPKIRHTAMLFENIDLVDTPVPIRPTAHYSMGGIEVAKFEDMGTKIAGIYVGGEASCISIHGA

NRLGGNSLADAVVTGHLAGIGATNYAKDASFGKGAKTHELAQKWQVRFKEITNNGGNGQEMYELREELGS

QNWDNMGIFRTQEKLDLLAKKLEDIQARYEKIRIPNPNEVMNTAFTDYVELGNLILLSRCACLAARNRLE

SRGAHTREDYPKRDDKNFLKHSIVNLENDELKLSYKDVVVTEFSLDGRRVQ

>WP\_002858521.1 MULTISPECIES: inorganic pyrophosphatase [Campylobacter]

MNLSKIKIGDIPNKINAVIEIPYGSNIKYEIDKDSGAIMVDRVMASAIFYPANYGFIANTLADDGDPVDI

LVLNEYPIQAGAVIPCRLIGVLIMEDESGMDEKLLAVPNSKIDARYDNIKTYTDLPQATLNKIKNFFETY

KILEPNKWVKVQDFKDEKAAIEILEKAIKNYK

>WP\_002858506.1 MULTISPECIES: 3-deoxy-D-manno-octulosonate 8-phosphate phosphatase [Campylobacter]

MTELIFLDVDGCLTDGKIIYTSNGEFIKEFNVKDGAAIEAWLKLGKKIAIITGRNCPCVEKRAKDLKIKI

LYQGIKDKLACAKEILQKLNLDFSQCAAIGDYFNDKALLESVGLSFKPKDGHKDLNVDIVLSKKGGKAAV

AQMIEILVEKNHLEEEWNKLWL

>WP\_002858487.1 MULTISPECIES: dihydrodipicolinate synthase family protein [Campylobacter]

MGILKGTLPALLTPYKDDGSINEKEFIRYCEFGISKGLNGLFCNGSAGDSQALSVEEQVKLMKLTKKATK

NNIPIITGITSTIYENTFILAQKAYELGLDALLLAMPYYYKLSEDALFEYVKYLASEVKLPLYVYNIPLF

APALSLKFIEKVSKLDNVVGIKDSSGDALLLNHILDVVPSNFDVFVGREEFYVGALLAGVKGSMTSIGGV

FPELMSEIYKSINEKNIGRALLIQKSLLKAIRFGMSIAFPMGFALLLKARGFEFVNASIHPLSPATKEEL

NTRFDEAKELIKTIEKETGIKL

>WP\_002858481.1 MULTISPECIES: adenylate kinase [Campylobacter]

MKELFLIIGAPGSGKTTDASLIAQADATNITHYSTGDLLRAEVASGSELGKTIDSFISKGNLVPLDVVIN

TIVYALKAAPTKTIIIDGYPRSVEQMMEFDKVLSEQNEICLKGVIEVRVSEEVAKERVLGRNRGADDNEE

VFYNRMKVYTEPLNEILDFYQKKKLHFIIDGERTIEPIVADMKELIKKIQSI

>WP\_002858465.1 MULTISPECIES: membrane protein [Campylobacter]

MFAKLLKFFISRPKSTFFGTLFICLFLSFFAFKLSVDASAESLLLEDDADLKTFREISKHYKSDNFLLLA

FKPYDEKPFSNENLAKLKKLHEELEKAPLVERVFSIINAPLLQSSQNTDLKELLKNIPNIESQDINRTKA

QNEILNSPFYKNNIISKDGKVTGLIIYLKPDTVYNNLIEKRDLATDEKEKDQIRLAIKEHQDKQKVITKQ

SLDTIKSIVRNYEKNKDTLYLGGVSMIADDMIAYIKSDLVLYGVSLVFLLGLALYYFFRSWRFVFLPLFI

CFISLSAASGVFALLNFQITVISSNYVALVLIITLSVVVHLITHFIESTQNHPKAKVERIVLETLLAKAN

PSLYAIVTTMIGFFSLILSNIEPIIKLGIMMSIGIGLALIFSYLFLASILVLLKPKNYHKKEFKFNLLAF

CAKTALDPKKRRMIYEISVLAIILALIGISKLRVENSFVNYFKDGSEIKKGLLVIDKNLGGTLPLEVIIR

FPNNKNDQNASDTLDSFESEFENLATQETYWFDSKKTRIAKKVHEFLENKEFVGSVLSLNSLLTLGKNIN

DGKELDDFALAFLNENLPAKFKQDLLSPFVSIENNELRFSMRIVDSDPNLRRNEFLIDLKKQLNELVKND

GVEVQITGIMVLYNNMLQSLFSSQFDTLIFVILAIFILFIIVFRDLKFSVAAILVNVIPLSVVFALMGLL

GIPLDMMSITIAAIAIGIGVDDAIHYIYRFREEIKNKSLEEAIMISHLSIGSALYYTTISIVLGFSVMMS

SNFIPTIYFGILTVFVMILLLSGSLFLLPSFLITIYSKKTKFPNQHKEHILKQ

>WP\_002858452.1 MULTISPECIES: serine protease [Campylobacter]

MKKFFCLTLVCKLFALSEFELHHIDKVHKLGYSGDTIIIGVADDAFNQDHISLKDKILKSTYPTDTAGKQ

LIPDLKKSTHGSHVAGIAVGAKIGDSKPYGVAYGAKFYGAGVFPNGSYTQIPDIYNFFKDVSIINNSWGI

NFYPYFNLKASNSGLVDCTQTNQGTSYNICNTPLEYVMKADKVANDMMRLSKDKGVLNVFAAGNEGILSP

ALHAILPSYDESLRAWLAVGALDANEITLESDGTLIIKSQGLADFSNGFKGATNFSLVAAGVNINNVDSS

TNDKFTKKSGTSMAAPMVSGTAALVKQNFPFLDGKQIADILLSTANKNYKAPKFTVKQVTDGTNQPKFLI

VYISQDPPGIEDEIKRDLKQLYNGIQVQVNGQWIDYSDYIWDNRDSAQSQKLNTSTISSINGVVRVEKEE

LFGQGILDAQKALKGLSILDANRLSDQDVLKYEQEPNTAYYTINTAGYDAEFSNDISQRKWDESTHLSSA

INKPTHLANLNIGLSKEGEGILIISGQNTYEGATLIKQGELKLKGKVKNNAYVEQKAILSGNGIVGQNLN

NKGIVRPGNEDLNDLTVQGTYTQEGVDSKLQLDFGNYKNSKLIAKTYDIKSGNLEYIPLPKYYILNKPVK

INLGDLEKSLSSFNHVLIQNTYALNFDFVLSDDLVSINKTLIKPNLKPNAYEIPNTSLGNALRQLRSRAD

LSQTYQEFFASLDNGIDVKTKLNRIEGSGYLSTFSNHNQSNLMQNNMLFTLHPLNINNFAQNNNILLAST

YLPRIFSNEEYFWHLTPSYKYYKDKDFSGQKTGANISLGENFSSGFLAYALSLSSAKFNFNNGSDLKSYN

MDLLLNYNHDLDFIKILSGLGIGVGFNTLNRFVVEQPIEGKYKTLQTSAQLGVTKDIILGQDFIFNPLMY

FTHSFFYQEDFKENKSPFAKNYESLKHHSINANLGFNLAKNIEQDDYQASFSTFVIFEKRIYGRTLENKA

SFVDFPIAFIQKYKLKDNILSQGFNSEFLYKNNVFWQFMLMNRFSHNAYELHLMSSVGKRF

>WP\_002858413.1 MULTISPECIES: dehydrogenase [Campylobacter]

MKTIRTQTPLRLGLAGGGTDINLYCDKYTGYVLNATISLYIHCTLIKREDGKIIFDSPDTNSYCEYESKE

FLGNDGKLDIFKSIYNRIVKDFTKKPLSFSLHTYSDVPSGSGLGGSSTLVVGVIKAFAEWLNLPLGEYEI

AKLAYEIEREDLGIVGGAQDQYAATFGGFNFMEFYNNKRVIVNPLRIKNWIASELEARTVLYFTNITREA

KDIEEHKKGKLGDEKSLEAMHAIKQDAIKMKEALFRADFGTLAQILGKSWRSKKIISEIVSNDELERIYK

LAIDNGAYSGKTSGAGAGGFMFFFVDPTKKYNLIKALRKEQGYVQDFSFTKEGVKSWRI

>WP\_002858393.1 MULTISPECIES: lipoprotein [Campylobacter]

MSKFALILSFFIALFMSACTNATFTQSFIQTSNEGIFIRSQKQQSFKISFQNPSQLQTTLDRDLALKLKN

LGLKEVKENADYEILINLVDMKKHSYAQKITTSARFFYDFDPLESDGEWMVENYYTMQVNLQINSKNHNS

QKTSLLARTAYLGNKERCQLSLENKIINQIVSFFYF

>WP\_002858390.1 MULTISPECIES: ATP synthase subunit A [Campylobacter]

MKDLFLFSSLLDASHTFSYFFHIGLVALIAVIVAMMATRSMQLVPRGMQNLGEAFLEGVLSMGRDTMGSE

KGARKYLPLVATLGIIVFFSNIIGIIPGFHAPTASLNLTLSLAIIVFVYYHFEGIRAQGFVKYFAHFMGP

IKLLAPLMFPIEIVSHLSRVVSLSFRLFGNIKGDDLFLMVILALVPYIAPLPAYVLLTFMAFLQAFIFMI

LTYVYLAGATVVEEGH

>WP\_002858310.1 MULTISPECIES: DNA-binding protein [Campylobacter]

MDEGQKQQFIKLTYFLGEVLGEQYEIVFHVITEDGAYIAAIANSHISGRSLDSPLTAFASELMQNKKYLE

KDFLCDYKALVGKSKLIRGSTFFIKNHDKLVGILCINHDTSIMRDLICKMIDLEKIGDMGDILGNISFSQ

NDSSIETLSHSIEDILVQSVDSSYLNSDYQLSITQKEEIAEKLYEKGIFNIKGAVPIVAKFLKISEPSVY

RYLKKFKK

>WP\_002858210.1 MULTISPECIES: UDP-galactopyranose mutase [Campylobacter]

MYDYLIVGSGLFGSIFAYEATEKGYTCLVVEQREHIGGNCYTENIKNINVHKYGAHIFRTSDQNIWDYMN

QFCEFNHFINSPIAIYKDEIYNLPFNMNTFSKLWGIKTPNEARKIIEMQKQIIQHPPKNLEEQAISLVGT

DVYEKLIKGYTEKQWGRSCKDLPASIIRRLPVRYIYDNNYFNDPYQGIPKGGYTAIFDKMLKKSKVILNT

DFLKYKDKFKNKAKKIVFTGCIDAYYDYRYGALEYRSLKFEHKILNLDNFQGVAVVNYTDKEIPYTRIIE

HKHFEFGNTDTTVISEEYPLEWIKGIEPYYPINDEKNQALYEKYKQLAKHESNVYFGGRLGEYRYYDMQD

VVRSALLFCKNELKNKQG

>WP\_002858190.1 MULTISPECIES: dTDP-4-dehydrorhamnose 3,5-epimerase [Campylobacter]

MAIEFDIQESKILKGVYIITPNKFRDLRGEIWTAFTDEYLSKLVPDGIKFKHDKFINSHFNVLRGIHGDV

KTYKLVTCVYGEVHQVVVDCRKDSPTYLKWEKFIISYKNQQLILLPPNMGNSHYVSSKEAVYYYKLAYEG

EYMDAPDQFTYAWNDERIGIDWPTNTPILSDRDILATKNKG

>WP\_002858136.1 MULTISPECIES: NADH-quinone oxidoreductase subunit M [Campylobacter]

MLNYLIFFPLISAFVVLLLNRGGVKVFSVVVSFMILALNLDIFADFLQGVSFDYNLSFKILKFFSFHVGV

DSIALVLILLSSLMIFLSFLFLKLEQKALISCIFFLEFAIMGLFSAKDGLLFYVFWEFSLLPLLYIMGVY

GKDFRAGVKFFIYAFAGSILMLVALIYQAYLNYQLLNIFTFDLEIWKNNASAVNFTEQLLLFGAFFIAFA

IKAPLFPLHTWAPKVYANSPILVSVMLVVFKMAPFGFLLFCLPLFPDASVYFMPLIVALCIVSIVYNALI

AYRAENIKELIAYSSISHLGVMILGIFSLNALGISGAVFYMFAHGIVTGALFLMVELLYQRYHTYDISFY

HSLAKKAPLFSIFFMLILLASVSLPLTVSFVGEFLILLGIAKINLFYALLAGLVIILGAIYMFAVFRKIF

FMQKQSFIEGFSLLFREIVALVCIVVMIFGLGLMPNILLKPIQKDVDNLIKTMNIRAVEQNTLDFLSKIG

EANVK

>WP\_002858134.1 MULTISPECIES: protein translocase subunit SecA [Campylobacter]

MFLNALKAVFGTKNDREVKKYFKRVAQINALEGNYQNLSDDELKAEFAKFKEQILSGEKNENDVLNDVFA

IVRETGKRTLNMRHFDVQLIGGMVLHDGKIAEMKTGEGKTLVATLPVVLNAMSGKGVHVVTVNDYLAKRD

AEQMSAIYNFLGFSVGVVLSSQNSDIEHKQAYDCDITYGTNNEFGFDYLRDNMKFSKAEKVQREHNFVIV

DEVDSILIDEARTPLIISGPTNRTLDGYIKANEVAKQMQKGEAVLPPAKPEGDFVVDEKNRNILITEAGI

AKAEKLFGVENLYSLDNAILAHQLDQALKAHNLFEKDVHYVLRNNEVIIVDEFTGRLSEGRRFSEGLHQA

LEAKENVKIQEESQTLADITFQNYFRMYNKLAGMTGTAQTEATEFSQIYSLDVISIPTNIPIKRQDKDDL

IYKTQNEKFKAVIEEIKKANAKGQPVLVGTASIERSEVFHNMLVKEKIPHHVLNAKNHEQEALIIQDAGK

KGAVTIATNMAGRGVDIKIDDEIRALGGLYIIGTERHESRRIDNQLRGRAGRQGDPGISRFYLSLEDNLL

RIFGGDRIKSIMDRLGIEEGESIESRIVTRAVENAQKKVESLHFESRKHLLEYDDVANEQRKTIYRYRNE

LLDENYDIRAKISQNIAEYSANVMNDYMLDESGSNVNFENLKAKILYECSTQISEKDFENLSVIEMQDKL

SQILENSYNEKMLRLEIKELRNIERILYLQVLDNAWREHLYQMDILKTGIGLRGYNQKDPLVEYKKESYN

LFLELVNRIKFDSIKLLFSVQFNQEEAQNLENKANEENEKLLQSSVEMGASEDNLGEAEFKKVPRNAPCP

CGSGKKFKECHGKSGPKQGILA

>WP\_002858133.1 MULTISPECIES: ribonuclease Y [Campylobacter]

MIESLIALIAAIVGLGIGYLVAKKINDAKYEIFVEQAKAKAKAIEYEAELILKDAKNSILNAELEVKKKY

EEKTHKFQKDFNQKFDDLSKKEQKLQQEEEKLKEDKEYLCKSQKHIQNLQSDVDKLKNKYQEKLDDVLKI

LEHSTGLTQNEAKEIILKKVEENSREQIAHIVRKYEEEAKNEAKRKANFIIAQATSRFAGEFAAERLINV

INIKNDELKGRIIGKEGRNVKTLEMVLGVDIIIDDTPGAIIVSCFNLYRRAIATKVIELLVEDGRIQPAR

IEEIHEKVCKEFDSAILEEGETIVMDLGLNKIHPEIVKLIGKLKYRASYGQNALAHSLEVAHLAGIIAAE

CGGDENLARRAGILHDIGKALTHDFEGSHVDLGAELCKRYKEHPVVINAIYAHHGHEEATSIESAAVCAA

DTLSAARPGARREVLEAFLKRVSELEDIAKSKEGIKNAYAINAGREIRVIANAQLVNDDESVLLAKEIAA

EIQEKMQYPGEIKVNVIRELRAVEYAK

>WP\_002858067.1 MULTISPECIES: serine/threonine transporter SstT [Campylobacter]

MFSKIIQSYAKGNLIVQICIGIALGILIGISSKEISEIANLLGILFTSALKAIAPMLVFILILTSICTKD

FSQSGAKIKNIIILYIVGTFFASACAVLANFFFPVKLVLDGVQTATNSSPTHMSDIFKDLLFKIVDNPIN

ALSSGNYLGILTWAIAGGIALKHCSNEAKQVFIDINEGVLKIVKFVVKLAPFGIFGLVANSVAQTGAQGL

LSYVKLLILLVATMLFVTFVINALIVFFYTRKNPFPLIFICLRHSAFFAFFTRSSAANIPVNMALCAKLG

IDKEFYGISIPLGATINMAGAAVTIAILSLTAANTVGIEISLLQAFLLSIIATFAACGASGVAGGSLLLI

PLACSLFNIDYDIAMKVVAIGFIIGVIQDSVETALNSSTDVLFTAICSKNELNYNIK

>WP\_002858051.1 MULTISPECIES: lipid A biosynthesis lauroyl acyltransferase [Campylobacter]

MKNSDRIYLSLYYILKFFVTFMPECILHFLALIVARIAFYLNKKHRKIINTNLQICFPQYTQKERDKLSL

KIYENFAQFGIDCLQNQNTTKEKILNKVNFINENFLIDALALNRPIIFTTAHYGNWEILSLAYAAKYGAI

SIVGKKLKSEIMYEILSQSRTQFDIELIDKKGGIRQMLSALKKGRTLGILTDQDCVENESVRLKFFNKEV

NYQMGASLIAQRSNALIIPVYAYKEDGKFCIEFFKVKDSQNASLEELTLYQAQSCEEMIKKRPWEYFFFH

RRFASYNKEIYKDAK

>WP\_002857991.1 MULTISPECIES: phosphoheptose isomerase [Campylobacter]

MENLNSYIKGHFADSILVKEQILKDENLITLIKNASLEVIKAYKNGNKTLLAGNGGSAADAQHIAGEFVS

RFYFDRPGIASIALTTDTSILTAIGNDYGYENLFARQVQAQGVKGDVFIGISTSGNSKNILKALEFCKQK

EIISIGLSGASGGAMNELCDYCIKVPSTCTPRIQEAHILIGHIICAIVEEELFGKGFSCKQ

>WP\_002857981.1 MULTISPECIES: capsule polysaccharide transporter [Campylobacter]

MRFSTKIKKEFSGKNVLLLQGPVGNFFHHLAVKMRKNQTKVFKLNFNGGDFFFYPSGTRCKCDEKDLENF

YRDFFQNKKIDAILMYNDCRIIHAKAIKVAKELGIEIWIFEEGYLRPYCITLEKDGVNANSSLPRDKNFY

LSQNIFTKESIKEIPGGFKFMAFDAFLYWLFAFILAPFFNNKLHHRTLYPFEFLFWFRSLYRKYLYKITE

KKLNEKIYNLEKKYFLAILQVYSDTQIKYHYKKSIEHFIEETILSFANHARAKSYLVFKHHPMDRGYKNY

FKLINDLSRKYHVEGRVLYVHDTHLPVLLRKALGCITINSTVGLSAILEGCPTKVCGNAFYNFEGLSYPK

KLQFFWREAHAYKPNPVLVCNFKKYLLQTNQFNGNFYKNFFLDK

>WP\_002857930.1 MULTISPECIES: selenocysteine-specific translation elongation factor [Campylobacter]

MKSVIIGTAGHIDHGKTSLIKALNGFEGDSLKEEQERQITINLSFSNLKLKDKNISFIDVPGHKDLVKTM

VSGAFGFSVCLFVVDINEGLKEQSLEHLEILKILDIKNIILVLSKCDLCENIEQKSVEILEELKNLDYPI

LKVFHTSIKNNQGIEELKNYLYTIENKENDEELIFHYYIDRVFSLKGIGTVVTGSLNEGSITLNEKIICL

DTQKELIVKNIQNHDTNLEQIKACNRVALSLNCDYKELKKGYLLSKKGYFKAFKECDALVKAKNLQNSKM

IFCVGSRQIECKINILKKLENDEFFVHFSFDKNVFLSFDEAFILLQNNRVIGGGKVLNPLSEPLKKEQKN

KFLMFLKNKDFKAAFSFLKDAHKYGFGLLSSYQRFKLSHQKALKLAKELNQVFVDEKNLNVYHLQSLEEI

KNFIKFILEKNPYAMLSAHSLALRITWASENFCELGLKEMSNLLDFQNGIYFKKGIDFEKLQEKNNNQMY

EILKKQGIKPEAPYNLYDFLELDRKSGDNILKKLTQKGLVVRLSHNLFIEKQALEKLMQECLNLLKNQSL

DVQSMKEYFNLSRKYAIAYLEYLDKFPQVSKEAEKRFLTNI

>WP\_002857908.1 MULTISPECIES: D-glycero-D-manno-heptose 1-phosphate guanosyltransferase [Campylobacter]

MQAIILCGGLGTRLKSIIKDIPKPMAPINDKPFLEFIFEYLKKQGIKEVILAVSYKYEVIKEYFKDEFLG

IKIKYSIEKEPLGTGGAIKETLKFVKNEAYVLNGDTFFDIDLSKLKLNESKICLALKQMNDFDRYGTVNV

DEQDLVISFEEKVFKKQGLINGGIYLLTKDIFNDFALQEKFSFEEFLQENYKKLKARACIFDDYFIDIGV

PEDYYHFLINN

>WP\_002857319.1 MULTISPECIES: ATP-binding protein [Campylobacter]

MKELFQKIWQNELQFLNFDAKFQDKSKLDTAECAIILSVNKDNYERYFLLKEFQELCKKIDLRVDIFSMQ

NAQICILNLFKSGFISKQDLLKALKILEKISKNTEIFDFILQEKVQSIDQKALFQNDFKELNTINLELQK

LSFDENLKSRLQKTLEKFQNLEFNIAITGVMNAGKSSLLNALLKEDFLGVSNIPETANLTVLSYGKSEEA

KIYFWDKKEWQNILESSHFNADLKEFIDKLDKSVNIEDFIKDKPLIQNIALCELKNFSSAKNKISALIKK

IEIKSHLEFLKNNISIVDTPGLDDVVVQREIVTNEYLRESDFLIHLMNASQSLTQKDADFLVHCLLNSRL

SKFLIVLTKADLLSKKDLEEVIVYTKESLKSRLVDLDENLVEKIDFLCVSAKMASDFYKGLASKESLQKS

GMQEFENYLFNELYAGEKSKIALRAYKKELHLELKNILSEYEMQNRLIKENKQGVSEENQKLLLELQKQN

TLLKEAQDEISNSIAKLKNIDSGIDNLVLLLAKKLKERLIDEFKYLKNNAQKLNLSRILNIVDITTKDGI

NDILREIKFENIKKIEELKTNLSLKYDFLKDDFDNGFEGFKDGISKNIDSIFQSEKFALLRLKIEKLSNL

KSDLYELETNLDTVIFDTFKEFKMSEILNSLNINGAFFEFLNDKLKHYEKNQKSKLESLEKVLQSLKNQD

ANILNSFEENLEKIEKLKQLEMGLLNAD

>WP\_002857286.1 MULTISPECIES: accessory colonization factor AcfC [Campylobacter]

MKKIITLFGACALAFSMANADVNLYGPGGPHTALKDIANKYSEKTGVKVNVNFGPQATWFEKAKKDADIL

FGASDQSALAIASDFGKDFNVSKIKPLYFREAIILTQKGNPLKIKGLKDLANKKVRIVVPEGAGKSNTSG

TGVWEDMIGRTQDIKTIQNFRNNIVAFVPNSGSARKLFAQDQADAWITWIDWSKSNPDIGTAVAIEKDLV

VYRTFNVIAKEGASKETQDFIAYLSSKEAKEIFKKYGWRE

>WP\_002856962.1 MULTISPECIES: molybdopterin molybdenumtransferase MoeA [Campylobacter]

MKNIFETLKDLENQISCLDESELISLEKAKDRILAKDLYARKNLPSFDNAALDGYAFNYTDINEALEIKG

TIFAGDKNFYTVAKNECYKIMTGAKMPKNADTILMLEDECIEENKLIIKKVPKQYNAYRYKGEELKKGEI

LLQKGTKLNDKHIALLASQGLYKIEVIRKIRIGIFSSGNELKEPWQECDEESIYNANALPLLTMLQNASY

LGIIKDDFKSTKEALENTNFDLLITSGGASVGEADFMEKALDELGFTPLFKGLKARPARPTKLYRKGENF

VLILPGNPMAAYLSCFIFAKKIINLLSGNLDNPLTFYGKMGMDLKLKSGRNNLILGNLEKGIFTPFNENK

FGSGMILPLIKSEFLLISEENTGELKKGDEITLLKI

>WP\_002856044.1 MULTISPECIES: AI-2E family transporter [Campylobacter]

MQNGKFFLISFILVILFLLLYLFKGFLLVIIIASLMAVATSNINAKFLNLTKGHKFLASILTTTCMVLLF

FAPFVYAMIELAKALKNFDINLVTQTLDYVKNYQFTLPESFNFLEPKIKEFLASIDLNSISKQILSYASS

FTKSGAKFLIDMVLICVFYFFANLYGTELVIYLKSIIPIDKKELDDVLSEVGNVMAVVLYSMVIVAIFQG

ALFGLITIFYGYDGILMGVIFAVSSLIPAIGGALIYMPVSLYEFASNNLNSALVIFIYSVIVISFIADTL

IKPLIIKWINKKLVKTPTKINELLIFLAMIAGISTFGFWGIILGPAILTFFVSTLRMYVILKDKNLI

>WP\_002855880.1 MULTISPECIES: signal transduction histidine kinase [Campylobacter]

MKEIVLSENALITSKTDLKGNIIYANNDFLKYAGYKVDELLYKSHNIVRHEDMPRTVFKCLWDYIQKGDE

IFAFVKNKAKDGNFYWVFANVSASFDTNGNIINYYSVRRAPNRKSLSIIEEVYKILLEKEQKSGINAGVS

ALMDIVSSYKMTYNELIFNLQENN

>WP\_002855633.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLFGFDDKQEFIPQIYRYLNNQELMLTFLTQYNASVDSALKIPLLYAKNTKSLKMIFGNFLHNIMHVSFG

KIQNINIKLNTYAFYFQKRKSLIFNTKISKNVDLLRLLRIYLYGICFDAQILFSSYVYDKVSFQNNGKNI

DQDGDLIIIDKKFAILPLCKEINTHNLEIENEIYELLNLIKENNFEKFYIVCPRNKNFTHFIEIKHFLCD

LNKTMLKLVPYKISNQIIRRK

>WP\_002855039.1 MULTISPECIES: membrane protein [Campylobacter]

MAIKIFGILIALFTITFTILSLQDPYSLNLQTNALNFKNIEAKNLKAYESNTSIIKAYYKANSWVRYADR

DEFNDFITLNLDFNLSANRLEFFNKDMSKVLFEGNVTYIGSNNVKIISQEVEYQPKDKILHTNTNFKALI

NGSIINGNTLNYDVKNKILNIQGVNAWLQDK

>WP\_002854063.1 MULTISPECIES: malate dehydrogenase [Campylobacter]

MNLKEEALKYHLGGKIDIVPSKPMATSYDLSLAYSPGVAEPCLEIAKDNELAYTYTNKANLVAIVSDGSA

VLGLGNIGAQASKPVMEGKACLFKKFANVNAYDIEINVHSIEEIVNFCKALAPTVGGINLEDIAAPKCFE

IEAALQDLGIPVMHDDQHGTAIISTAGLMNAMEISGKKFKDIKVVVSGAGAAGIASAKMYRNLGVENIIL

VDSKGVISKDRNDLTPQKLEFAVDSKEKTLKEVLKGADVFLGLSAPKILDDEMVLSMAKDPVIFALANPI

PEVMPEDVARLRKDAIVGTGRSDYPNQINNVLGFPFIFRGALDVRASKITENMKVAAAKALADLAKLPVS

DAVKKAYNLSTLEFGRDYVIPKPFDERVKAAVSTAVAAAAVKDGVAKVKNFDEKAYFESLK

>WP\_002853752.1 MULTISPECIES: NAD(P)H-dependent oxidoreductase [Campylobacter]

MKKELEIFSTRYSCRNFKNEKLKKEDLNSILEIARLSPSSLGLEPWKFIVVQDEKRKEELSKICNQQKHV

KDCAALIIIISRLDFLDYFEEKLRKRDMSETEMQKRLDTYMPFLKSLNQEQKISYAREQAHIALASILYS

ANALNIASCTIGGFDKEKLDSYLSLDIQKERSSLVVALGYCNDKKNPQKNRFSFDEVVKFI

>WP\_002853339.1 MULTISPECIES: bifunctional phosphoribosylaminoimidazolecarboxamide formyltransferase/inosine monophosphate cyclohydrolase [Campylobacter]

MRALLSVSDKEGIVEFGKELENLGFEILSTGGTFKLLKENGIKVIEVSDFTKSPELFEGRVKTLHPKIHG

GILHKRSDENHIKQAKENEILGIDLVCVNLYPFKKTTIMSDDFDEIIENIDIGGPAMIRSAAKNYKDVMV

LCDPLDYEKVIETLKKGQNDENFRLNLMIKAYEHTANYDAYIANYMNERFNGGFGASKFIVGQKVFDTKY

GENPHQKGALYEFDAFFSANFKALKGEASFNNLTDINAALNLASSFDKAPAIAIVKHGNPCGFAIKENLV

QSYIHALKCDSVSAYGGVVAINGTLDEALANKINEIYVEVIIAANVDEKALAVFEGKKRIKIFTQESPFL

IRSFDKYDFKHIDGGFVYQNSDEVGEDELKNAKLMSQREASKEELKDLEIAMKIAAFTKSNNVVYVKNGA

MVAIGMGMTSRIDAAKAAIAKAKEMGLDLQGCVLASEAFFPFRDSIDEASKVGVKAIVEPGGSIRDDEVV

KAADEYGMALYFTGVRHFLH

>WP\_002853321.1 MULTISPECIES: lipoprotein [Campylobacter]

MKKMLQIALAATFFAGCASTSLTSSTSKGNNELVQNQLFKIEKIIVNGKTFDPKNAEESPNISFENNKFY

GYSGCNRFFGSYQTKADTLQIEGDRVASTQMLCHPMDVMDFENSFLSNFKGTFKISNENGKLVLSNDEMK

IFFK

>WP\_002853317.1 MULTISPECIES: cytosol aminopeptidase [Campylobacter]

MKFELNDKKLDAIKADFELVFIQDKNLKIFNKEKDFFKLNNYKGEGALLDLNNKKLYLELKSLAYEDIRL

SLCTAYKTLEKLNIKSVKLPSIIGDCVVRSFASLVEGVLFGAYKFDKYKSEKKTSTLEKFIISNEELNGK

KFNKDEAKIGLERGEILANATNFTKNIVNEIPEIYTPLKMAEDAQNLAKENKNIICKIYDEKFLAKEKMN

AFLAVNHASVHPPRLIHLSYKAKNAKKRVVFVGKGLTYDSGGLSLKPADFMLTMKADKSGAAAAMGIIKA

VAELALDLEVHCILGATENMIGGNAYKPDDVLISREGVSIEVRNTDAEGRLVLADCLSFAQDLKPDLLID

MATLTGACVVGLGEFTSAIMGNNEELQNDFYLSSKKSGEYTTILHFNPHLRELIKSNIADVSNTASSRYG

GAITAGLFLDKFIRKEYKDKWLHLDIAGPAYTEKSWGYSSFGAGGAGVRMCVNYLIQILRKAK

>WP\_002853313.1 MULTISPECIES: sodium-dependent transporter [Campylobacter]

MRTYFSKIGFVLTVAGGAVGLGNAWKFPTLSAENGGFVFVLLYLFFTLTIGFSIFLAEVAMGRLSKSDLA

NAYSNLAIKYGNRWRYGGVFMLGGIFVLSFYLVIMGWVLKYTVVSLYYLPKTLDEAASNFQNLITTNLTS

SVFFFTLSFFLTLLIVSKGLIKGIEKLNVVIMPSLFLMLVFMLFYCMGFKQGFANAFSYLFYPDFLHFKF

SSIAEALGLAFFTLCLGIGCIVTYSSALDKKTNFIKSSVYIVLINLLISFIMGLIVFTFIFEFGADPHTQ

GVGIVFISLMSLFNQLGALGYIFAFCFFLALFFAGITSAVSMIEPLTFYMINNYQISRVKALFLIGLFVF

VFGICCILSLNLNFFSMFSFFGKDFFTLLDKLTSNFLLPLGAIVCSIFVGFFMNKKQIYKIFSKFISRKI

FLIWLFFIRFISPIAIILVMCYQIFV

>WP\_002853302.1 MULTISPECIES: outer-membrane lipoprotein carrier protein LolA [Campylobacter]

MKKTFLIFFIFIGQLFALDLNFNTFSSNFTQIVKSKNSTLSYSGHFILSKDQAYWSYDTPSKKEIYINKN

QVTIVEHDLEQVIFSHLDNIPNLNEIFKKASLIDKDKLVAKYDNINYTIKLNQEQIQSISYKDEFENDVI

INLNNQIKNPKINSDVFKAKIPQNYDIVR

>WP\_002853235.1 MULTISPECIES: serine endoprotease DegQ [Campylobacter]

MKKIFLSLSLASALFAASINFNESTATANRVNPAAGNAVLSYHDSIKDAKKSVVNISTSKTITRANRPSP

LDDFFNDPYFKQFFDFDFSQRKGKNDKEVVSSLGSGVIISKDGYIVTNNHVVDDADTITVNLPGSDIEYK

AKLIGKDPKTDLAVIKIEANNLSAITFTNSDDLMEGDVVFALGNPFGVGFSVTSGIISALNKDNIGLNQY

ENFIQTDASINPGNSGGALVDSRGYLVGINSAILSRGGGNNGIGFAIPSNMVKDIAKKLIEKGKIDRGFL

GVTILALQGDTKKAYKNQEGALITDVQKGSSADEAGLKRGDLVTKVNDKVIKSPIDLKNYIGTLEIGQKI

SLSYERDGENKQASFILKGEKENPKGVQSDLIDGLSLRNLDPRLKDRLQIPKDVNGVLVDSVKEKSKGKN

SGFQEGDIIIGVGQSEIKNLKDLEQALKQVNKKEFTKVWVYRNGFATLLVLK

>WP\_002853198.1 MULTISPECIES: isomerase [Campylobacter]

MPFVNIRITKENGEPTTEQKQELIAGVTDLLAKVLNKNKSSTVVIIDEIDTDNYGLGGKSITQARKEKS

>WP\_002853180.1 MULTISPECIES: hypothetical protein [Campylobacter]

MTKNEEKALRVKYLRNLEKFFNGAISALKKEDFDKTKFEERMLKNAKFFEKNPAVNLNSTYAKNLEFFVN

ACLDFSKEKSELLNLANALDKQKKQGEKKEKHKNYLKDYE

>WP\_002853131.1 MULTISPECIES: molybdopterin containing oxidoreductase [Campylobacter]

MKQNDQKENRRDFLKNIGLGLFGISVLSNFSFENFLGSKALAKELPDFKIEGKKDLIYHGEKPLTAETEI

YALDSDFTKPENFFVRNNGLPPSLETIKERLHKGWTLEIDGESIINKKSYTIEDLKKKFKTYTYALTVEC

GGNGRSEVIPSTKGTQWGYGAVACGRWTGVRLKDILKDCGIKNDAVYIGYYGIDTKLNGEETSPISRGVP

ISKALQDETLIAWAYEGKDIPLVNGYPLRLVCGGYPASTSGKWLYKISVRNKIHDGEKMEGSYKVPVNPV

KPGDFNYKGEMKIIESMPIRSVITNIKNGSEIKANKKFEVRGKAWAGELEVSEVYVSNDYGVTWTKAKVE

KPLNRLAWQKWSAQISIPTKGYYEIWARAIDSQGNSQPMVLAQWNPGGYINNACHRVNVYGV

>WP\_002853081.1 MULTISPECIES: rubrerythrin [Campylobacter]

MRQYETYKCQKCGNEVEVQNVGGGKLSCCGEEMKCITTDLTAVNLMKAFAGESMARNKYDLFADVAEEEG

WHAVARHFREAAENEKWHARAEFKAYHEIVDGKPLEVTTKNLVTAAEGENYEHTTMYPNFAKIAEDEGKK

AIARLFTAIGKVEIEHEREYLALKKMLEEEEFFNSEVEELWVCEVCGHIHRGKKAPAACPLCKAPKEYFK

REFLG

>WP\_002853029.1 MULTISPECIES: tRNA guanosine(34) transglycosylase Tgt [Campylobacter]

MEFKLKHKDGMARVCEITTAHSTFLTPVFMPVGTVGAVKSLDANDMKNELDAKIILANTYHMYLRPTSKV

VKDFGGLHGFTKFDRSFLTDSGGFQAFSLSKNSKHFNEGIEFKSHIDGSRHLFTPKSVLDTQYDFNSDIM

MILDDLVALPATKERVKISVDRTILWAKEAITYHKNMQNKGIGIGQNIFGIIQGGTDYEERKRCALSLNE

MPFDGLAIGGLSVGEENALMYETVQNLNPYLDENRPRYLMGVGTPEDLVENVERGVDMFDCVMPTRNARN

GTFFTSFGKFNIKKAEFINDHEVIDSTCSCYTCRNFSRGYLNHLFKAKELTFFRLASLHNLHYYLELARK

MREAILNNSFTQFKRNFYHLRGK

>WP\_002852957.1 MULTISPECIES: membrane protein [Campylobacter]

MKKIIILTFFVVFAFGDVNRTIINNINEKINTLNTVISASIWNIRYENFIKYQDINDELIILNLNLKKTS

DIHQQEELKRKIANLEEQLNLLKEYKDLNFAQSLSAPDNIETLSKLTNPLAIIGAFSHIKKLKGEKEEYI

FKFNDFKNLVDKIREKNSELKELVELKPSVENIEALKASDKKLEEFEQALNFASVSYSVYEKKIDEELSR

VSAEIKVQSLRAVNILVAIVIVIAIAFMLKFIAKKYIKDSERYYTATKIINFININIIFLILLFAYIENI

TYLVTILGFASAGLAIAMKDMFMSMLGWCVIIFGGSFRVGDRVKVFQNDTTYIGDIIDISFLRITLYEEL

TLETYNKNRRSGRIIFIPNNYVFTNLLANYTHHGMKTVLDGIDISVTFDSNLDKAQEIVENIVTRHAKGY

TELARKNIARLQHEYSIKNPKVEPRFFMFFEHWGMRISAWYMTNAYAALVLRSTISKEIIKEFNKHKDIK

IAYPSQNLYLGNLNQNHFEQHHENMYFHARNKD

>WP\_002852895.1 MULTISPECIES: leucyl/phenylalanyl-tRNA--protein transferase [Campylobacter]

MKSSNLYSKLLNAPKNAPVFLSQNLEADFIVKAYTFGLFPWTSKPVTWWCPDPRCILIPNQIHIQKNMKK

FINLYQIKLDYDFLKLITLCRDTRSQSWIDDEFITTYYKLFTQGYAHSLELYENNELIGGIYGLILGKVF

FGESMVSIKKNASKVAMIKLCDLLKPYDFIIDCQVYNQHLEFMGAHNISRKEFLNILKEKCNQESGFKNF

KDLIT

>WP\_002852877.1 MULTISPECIES: UDP-N-acetylbacillosamine aminotransferase [Campylobacter]

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>WP\_002852826.1 MULTISPECIES: membrane protein [Campylobacter]

MEKPDIQRLTNFLIIYTKTLLGAGTYTARVAKCVGRIAEVYGYEININFFFHHITLNVVDMDDNSIQRTY

VIPNHHAHVNFKLIFDLSALSWAIYDHKYDLEKAKVVFGQISQQKKHSYLLNLLFVSMANSAFCRLFGGD

FGAGNLVFFATFVGLLLRYILTKAKIDLRIQYILCSFISSWFVFFGLDMGYTNTSDVALGSSILYLIPGV

FFINSVIDILKDHILMGLSRIISVAILICCIALGIYMTLSISDFGILR

>WP\_002852822.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLETILKNENFIHTMQKHCYEVISHLIEENIEFSIVANTNFIDFNPELPKELDIKQNPYALFALGGYTFE

SIQLNKDFIQFHAGFGNDDFDSFVKVDLGAITQIQVENSILFVNFSLYKREDSKNLQKSKNIFLNNPKNK

DIFKK

>WP\_002852766.1 MULTISPECIES: undecaprenyl phosphate N,N'-diacetylbacillosamine 1-phosphate transferase [Campylobacter]

MYEKVFKRIFDFILALVLLVLFSPVILITALLLKITQGSVIFTQNRPGLDEKIFKIYKFKTMSDERDEKG

ELLSDELRLKAFGKIVRSLSLDELLQLFNVLKGDMSFVGPRPLLVEYLPLYNKEQKLRHKVRPGITGWAQ

VNGRNAISWQKKFELDVYYVKNISFLLDLKIMFLTALKVLKRSGVSKEGHVTTEKFNGKN

>WP\_002852599.1 MULTISPECIES: flagellar biosynthesis protein FlhA [Campylobacter]

MAKNKIVDLVFPFLGPLIAPVLKAKSLTIVGFLVCILAIIIVPLPSPILDFFLALSIALSVLIILISIYI

PKPTDLTTFPTLILIITLFRLSLNIATTRMILSEGQNGPEAVSEIIAAFGEFVVGGNMVIGVIVFCILVL

INFMVVTKGSTRVSEVQARFTLDAMPGKQMAIDADLNAGLIDEQTARARRQEVIAEANFYGAMDGSSKFI

KGDAVAGIIITIINIIGGFLIGSFQHDMALSDAASTYTILTIGDGLVSQIPGLITSTATAIIITRASKDE

ENFAEGTLTQLLSEYRTLLIVGFVLFIFALVPGLPTLSLGFMALVFLSLGYLTKQVKEGKIDITTVKKSK

PSAAAASQSGAGGTTAAPAKKSEEEILKEEEHKINDILKVEILELELGYGLIKLAENELTERIRSMRRSI

AESLGFLMPKIRIRDNLRLKPNEYSFKLKGVSIASAEIYPDKYLAMDSGFITEEIEGIATKEPAFNSDAL

WIDANLKDEATLNGYIVIDPASVISTHMSELIKAHASELLTRQEVQNLLDKVKNDYPIIVEGALGVAPVS

LIQKILKDLLKHHIPIKDMLTILESVSDIAEVSKSFDMIIEHVRASLARMITNMYLDDKGNLDIFILDSA

SSAVLMENVQFRDGSYHLPLSVAQTGTLVDTLRAEVAAVANGRIKPFILCVEPQLRKFIADICYNFSINI

VVLSFAEIAENTNFNTEGIIRIEL

>WP\_002852510.1 MULTISPECIES: formyltetrahydrofolate deformylase [Campylobacter]

MISVLKICTKDQKGLIYRISDVIFKYHINIVKNDEFVGEGMFFFRALLEGEFDKEAFIGTLEAMLGQEAL

IELCEKRKKDIVVFATKESHCLGDLLIKHYSNELEANIKAVISNHNSLKDLVEKFEIPYHFISAENLDRK

EQENQILKCLEQYKFDYLVLAKYMRILSPDFVRHFEGKIINIHHSFLPAFIGANPYKQAFERGVKIIGAT

AHFVNNNLDEGPIITQAVSPVNHEFTWQDMQQAGRNIEKDVLSKALDLAFEDRIFIHNNKTIIF

>WP\_002852364.1 MULTISPECIES: membrane protein [Campylobacter]

MRRNLSAYKAKFNGAYVFLGFFFLIYQILGSTFVYTPLLYGIFFCYMFCLLEERERTFSKLDFRWYFSLF

FLFFTDITYNFFIFSSWLAFFIFYYLCADWIKTNLKIGKFIPVVFVLCAYGIILFLDMILSYIGDEKIKI

LGWAYIVSVFIECCLAYVFFKGKI

>WP\_002852321.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKYFNIFKIFTNKTNAKFGLGVCSVVLSSSVCFAAVQAASKDGKIFYISEHSFKDNQVYDPQAEIFKKI

NGKNFYASKSKYPISNLTMIYNNPKSGNKNLSKLEILTPDTSKEEIITAFSTLGTVSSDTQAVPSSFMPF

IVTAYAQNTNATNNKLILENGELSSVYFCKPSIGDCGVPNNSQKGDRFKYLITAAFTDRGEGFNNQTILK

ENSYINNGCRKYLHLALKWSSLYFRICSF

>WP\_002852258.1 MULTISPECIES: GTP-binding protein [Campylobacter]

MIISAKFITSLVKFDENLSSNFSEVAFLGRSNVGKSSLINSLCKQKNLAKSSATPGKTQLINFFEVICRR

NEEKFNINFIDLPGFGYAKVSKNLKEIWNQNLDEFLKLRTSIKLFIHLIDSRHTHLEIDVNLNDYLKRFL

RPDQKILKVFTKCDKLNQSEKAKLKNEFKDSILVSNLNKFGLDSLEDIIINQTLGLDK

>WP\_002852252.1 MULTISPECIES: organic solvent tolerance protein OstA [Campylobacter]

MVARQIILLLVCVSVTWATQIEVKALNFYSDENKGESILSGNVEVIRGDDILNSEKLIIYTDKNRKPIRY

EAMQNARFKIVLKGKTYKGSGDKFIYNVIKDTYEINGHAYINELGSNQKLFGDKIIVDRKANIYRVESKD

QKPARFVFDLKDK

>WP\_002852245.1 MULTISPECIES: thiol:disulfide interchange protein DsbD [Campylobacter]

MRIFGIILLSFCLCFASILSLNEAFNVKSNSYNNSISIDIELGKDIYLYSNKLKLYINEKDISSLINLPQ

SSTRGNENVYYQKLNLALPNLLLERFAKNTTNLIKLEFQGCSEQGLCYNPQTWYFDLISKKDAFEISKPY

KAQKTDKKTKIESEESSIANFLATDNFFWILLSFFGYGLLLSLTPCILPMIPILSSLIVAKSNAKFSKKY

SFFLSFIYVFFMSLAYAIAGVIASFLGASIQGILQKPIILILFALIFIAFAFAMFGAFRFELPLRFQTFI

HKKSEKGKGVVGIAIMGFLSALIVGPCVAAPLAGALIYIANTGNALLGGSALFIMSFGMGIPLLFIGLGL

GFIKPGFWMEKVKIFFGFVMLAMAIWILSRIIEENYILIAYGILGVFFSVFMGIFEKSFTIISKIKKSIL

ILILAYSLSIFLGGLFGAKNFLNPLNFNTISASKHALSYDYINNFEQLKQEIQTNTKPIMLDFTASWCEN

CKLLDELTFSDERIIQKMQNYKLIKVDVSENNNEQIKTMKEFNVFGPPVLIFFENGKEKLKITGFISADD

LLKKIEP

>WP\_002852217.1 MULTISPECIES: 1-aminocyclopropane-1-carboxylate deaminase [Campylobacter]

MNFIKTISPIQKINFNGFEFYIKRDDLLGEINGNKARKLAFYIHQRYPKNQSFVSYGGSQSNALAALSIF

AKQRSYKLVFACEKISTFLKNNPCGNYALALENGVDFVENIHSLSLKQFALSLCKKDDVFIEQGIANLEA

QYGYMELAQEIQMQSQSLKLDFDIFLPSGTGTSAAFLAKYSKFKVFTCACVGDIKYLKKQILTLDPSYDF

SNLEFLTSDKKYHFAKPYKEFYELYMDLKLKCNIEFDLLYDILGLSIALKQEWKKPLLYIHQGGILGNST

MLERYKFKKSV

>WP\_002852184.1 MULTISPECIES: polyphosphate kinase 2 [Campylobacter]

MQENNSPKAQAVVKKNEIYVSVKRKKSTIEYEKDLKNLQIELLKFQNHVKAKGLKVLILIEGRDAAGKGG

AIKRLIEHLNPRGCRVVALEKPSDVEKTQWYFQRYIAHLPSAGEIVIFDRSWYNRAGVEPVMGFCTPQQH

KDFLREVPLFENMISNSDIIFFKFYFSVSKDEQKKRFEKRRSDPLKQYKLSPVDQKSQELWDKYTLAKYS

MLLASNTPTCPWTIISSDDKKKARLNLLRFILSKVEYPNKKTGDFSKIDAKLVRSGEEEIRKMEANLEKL

DSKKADEKIKDLD

>WP\_002852087.1 MULTISPECIES: lytic transglycosylase [Campylobacter]

MKKILLCFLICFNFLFAQINTPEFYERQMNVLRNLDINPSFISDLIFVQTQQDIKSKHAQTLIDSMQNFS

KVTPMIRKILAQQEVPDEILYLAMVESGLKTHSVSNAKAVGVWQFMQPTARNLGLRIDAYVDERRDPVKS

TYAATNYLKELKEEFGKWYLALLAYNCGNGKLRQAIKQAGSDDLSVLLNPDKKYLSLETRNFIRKILTLA

FLANDRDFLLDKDASLMNYALSNEFAKVDVPSSASLKEIAKNLNMDLATFKKYNPQFKHNFTPPGKGYYM

YIPLNKVAFFDKNFKAEKLAKVDTTIPMTRTYTVKSGDSLYKIAKNYNISVDEIREFNKIAKNHLSINQK

LIIPIKENKNANKNNYTKVVSR

>WP\_002852070.1 MULTISPECIES: sodium-dependent transporter [Campylobacter]

MQRQTWSSTLTYILTVAGATIGFGATWRFPYLVGENGGGAYVLVFCIAMIIIGIPVILVENVIGRKAMTN

SVDAFKQKWQSIGYMGLLGSFGIMAYYMVLGGWVLVYIWELTLGNFSLANVVSKEFTHQFFNDKIAFNPL

GVGIFTTVFVIINYIILKRGIIDGIEKSVKFLMPLLFICLIIVVGRNLTLDGAMAGVKFYLEPDFSKILS

PKLLIDVLGQVFFALSLGFGVMITLSSHLNKNENMAKTAIYTGVLNTIIAVLAGFMIFPALFSAGLAPDS

GPSLVFETLPIAFSHIHFGTIVCILFFVLLLIAALTTSLPIYQVIISVLEEKFKYSKNLSINLTLGFIFI

LGNLPCILTYGPWRDIVIIKGKNIFDSFDFISGNILFVLTAFFCCIYVGWILGKQESLKELSNNNTLKSS

WFGIWFYYVKYIVPLIILIIFIYGILN

>WP\_002852023.1 MULTISPECIES: DUF493 domain-containing protein [Campylobacter]

MVNLCDLKKEPQINYPTFWDYKVIFEVHVKASEIFEEILGQREYKFKHSNSSASGKYQSYLLNVYVDSKK

DRLDIFDKLKAKAKFVL

>WP\_002851965.1 MULTISPECIES: hypothetical protein [Campylobacter]

MAYEDEEDLNYDDYENEDEEYPQNHHKNYNYDDDDYEYDDDNNDDDFYEMD

>WP\_002851931.1 MULTISPECIES: uracil-DNA glycosylase [Campylobacter]

MEEITINIDKIKINDDWKEFLRDEFQKKYFLEIKKQYLNAINQNIIIYPPANLIFNAFNLCPLKEIKIII

LGQDPYHQPNQAMGLSFSVPKNVKIPPSLNNIFKELQNDLNITPAKSGDLSSWAKQGVLLLNSILSVEAN

KAASHSSWGWQEFSDAIIHKLSNEKSGLVFMLWGNYAKNKEILIDNTKHLILKAAHPSPLARTGFLGCKH

FSKANEFLKKVGKIPIDWKIV

>WP\_002851930.1 MULTISPECIES: lipid A/FlgG phosphoethanolamine transferase EptC [Campylobacter]

MLRLTWFQFTFFNSLMIVLLNFNLFYFVYEKNTQNWLITFVFIVAYFALVHVICSLLFIKFFTKFFSILF

IISSFLSVYFISFYGVLIDSDMMQNVVQTDIKEVKDLLNLKLILFVVLALLLVFYVVKVKIDYYGSFKSH

IKIKIINIISGLIVVCAVLIPLSKTFLPFFRNYNEIRMYNTPFYQIYAVYRYYVRFVKAKPEFKTIANDA

YRENNHTKKLLVLVVGETARAANYSLGGYTKNDTNFYTKKDNVVFFDNFSSCGTATAVSLPCMFSISKRE

NYSSSEFQENAMDVLYKTGVDAVWFDNNSGGCKGVCDRLAYKQKLSSDLDENLLAPFKEKLNHLSDQNII

VLHLQGSHGPTYYKRYPSEFKKFTPTCDTNELSKCDSEALINTYDNTLLYTDYLLSEIIKLLKEQKSYES

SLFYLSDHGESLGENGIYLHGMPYAIAPSYQTHIPAIFWSNDKNLMNLAKEYKGLKLSQDNLFSTLLGYF

DVKTSVYEPEYDLLNPKLKANP

>WP\_002851840.1 MULTISPECIES: zinc transporter ZupT [Campylobacter]

MQFTFEQIFIAMLLTLFAGFSTAIGSIIAFFSRKDDLRVLSLGLGFSAGVMIYISFMEILPTALKDFKNH

YDSHWAELLGLACFFGGILISLLIDKLIPEDVNPHEPKEDLSELKICPLPQKGQNPPKFHPGEKLHQINT

KALKRTGIFTALAIAIHNFPEGFATFISSLDNLTLGIAIAIAVAIHNIPEGLAVSLPIYHATGDKKKAFI

YSALSGFAEPLGAFVGALILLPFIGDLTLAISFAVIAGIMVFISLDELLPAAKTYDKAHDSLYGLIAGMA

IMALSLNLLGQ

>WP\_002851834.1 MULTISPECIES: ATP synthase subunit gamma [Campylobacter]

MSNLKEIKRKIKSVHNTQKTTNAMKLVSTAKLKKAEEAAKRSKIYAQKIDEILSEISFQINKIVHNEDDV

RLSLFHKKEQIKTVDLIFITADKGLCGGFNIKTLKTVSEMLKEYEAKNINIRLRAIGKTGIEYFNFQKIE

LLEKYFHLSSSPDYEKACEVIHAAVDDFLNGNTDEVILVHNGYKNMITQELKINHLIPVEPKSIEQTHNS

LLELEPEGTELLKDLMKTYFEYNMYYALIDSLAAEHSARMQAMDNATNNAKARVKQLNLAYNKARQESIT

TELIEIISGVESMK

>WP\_002851763.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKNIVFFEVKGGSDKGEDGYRKDTMPMVNALKAKGWNAEVIFFEVGKKDEIYKYVKENFDGYVSRINPG

NLKEENEYFDMLRKLCADKLVGMPHPDAMIGYGAKDALTKLADTDLVPSDTYAYYDIKTFKENFPKSLAK

GERVLKQNRGSTGEGIWRVSVEGNVSGDSLPLNTKIKCTEAKDNHVEHRELGEFMDFCEQYIIGDNGMLV

DMTFLPRIKEGEIRLLMLYNTPVNVVHKKPAEDADAFSATLFSGAKYRYDKPEDWKTLVDMFLGELPKVR

EKLGNYDLPLIWTADFILDTDEKGNDKYVLGEINCSCVGFTSHLELADEVASNIINIVSKTKA

>WP\_002851728.1 MULTISPECIES: transaldolase [Campylobacter]

MKNFSLWCDFIENSFLDNEFLNLLSHGINGATSNPAIFKNAILNSPIYKDKILKLKEKKTKDIYEELAIS

DIQKAADKLAPLFYQKNDGFISIEIDPRLHDNTTLSLGEAKRLYSAIGKENIMIKIPATKASYEVMYELM

KNGISVNATLIFSLEQSQKCFEALNAGLVEFRKNNIALKEQNTRTPQAVISIFVSRFDRLLNPKAKEQNR

IGILNANLAYNNIYSKNEPNIRALFASTGVKGDDLPKDYYIKELLFENSVNTAPLDAIEAFKGKMHFKKP

LMNFEIYTELNQIISQSEREKACNDLLSDGLEQFCIAFEDILKAL

>WP\_002851719.1 MULTISPECIES: tRNA 2-thiocytidine(32) synthetase TtcA [Campylobacter]

MINLSKKLIRQVAQANAKFGLIKDGDRVLLGLSGGKDSLALAHLLNRMQAHAPFKFELEAVTLSYGMGED

YSHLHAHCEEHGIKHSVLDSNIYEVSGDTIRENSSFCSYFSRMRRGALYTYALEKGFNKLAIAHHLDDAA

ESFFMNFIHNGALRTLAPIYQSKRGITVIRPLIFVRERQLRDNATQNELSVIGNEFCPGMKLSEKNVKFP

HAREEAKQLLANLEKDHPKLFTSLKTAFANLHTESFWLQKA

>WP\_002851687.1 MULTISPECIES: inositol monophosphatase [Campylobacter]

MKEFLDACLNANLQIRKYLNNIPQNDLKLCSKLGYDKNQGYELDLKCEQIFIKYLSCFGQIFSEESGLIG

KASPKQMILDPLDGSSNFVSKIPFYGTSIALMEKDQAKSAFVCNLVSQEIFAFNNKQAFKSNLSDPKYSP

LTPNLFSKIGIVEKISLYPELLDFLTKNQLKFRSLGATALSLAYASYFSFVLILGKTRIFDTAAALAIHQ

NLYIEKNENFLLLSQDKKIFDIILEFLKNN

>WP\_002851616.1 MULTISPECIES: MFS transporter [Campylobacter]

MSKTLNQKDIKVLGLSSLGGTLEFYDFIIFVFFANYISTNFFPKDLSSFWQMFNTYGIFAAGYLARPLGG

VILAHFGDKFGRKRMFMISILLMVIPTFTLAFIPNYESIGFLCIVLLVFIRICQGIAIGGELPGAWVFVY

EHAPQGQKRTYLGILTASVVGGILLGSLVFLIMNKIYTQEELHEWAWRIPFFLGGIFGIISAYLRKFLRE

TPVFEQMKKDKALEKFPLKEVFKKAKMGIVLSMMITWVLTGCIVVMILLMPSYMAKILQINTSIQTYLQI

GGILLICLGCIISGILADKIGVIKSCVFFSVFFGIASLLYFNTLYRQNADFNLVACLYLLVCFFSGVMNF

CPLIMSEVFDAKIKFSGLSFSYNIAYAIAGGLTPQLAFFLHSFALNNLSNFWRFSLGLYVFFLAIIALLC

AFIFSYLNNTQRTYSQ

>WP\_002851486.1 MULTISPECIES: sulfate adenylyltransferase [Campylobacter]

MKSARKNKNIIIDQNEFGILSLIKEGLLGTCTHLMNEKEVNEIIKSGKFKGESFPYPLSFAPKNAEEALN

DIKSGDRIDLMLDEKVVGHIDFKSQFKNNKNFSDIFSPNTCSLEDMGTTCISGKIEIYNSQIEKIKENFQ

QIKNNLNAQKITAIVSSFDPLHRAHERMFRWTIDKADLVVIFLVESFDVNGFEFELKEAYLKKFIQNYLP

PDRIFIFPLKNINIFHAHLNPGLESIIAKSLGCTKLVVGQNHTGLGMFYDDNQPKTILDDFSKDYGIEVI

VLPEFVFCDQCRMIVSTRSCPHGCHHHLHYNSQSLKDLLRAGIIPPAIFIRKEVSSVILTSLFPNRLKNM

QKIYNELFPTDGILEYKNDEEFYQKLLEIHQMSYMV

>WP\_002851445.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKIDTSASLTHSLTNNVDKKELSVLKKEDQDKIPVQDLSSLNSDGVKVVFENKQGELIALNLSDENYSSL

QKNFGSYMNYVARNDGSIRLNGEVNQFVSNWFESVKDNFGSLNSNLNNKQQSVKLNFNTSTLQQSMQNLG

FKTSDEKISDDANIEEKLNFFIDKDVNKDGKVDDSDVKEPSMREILSDIKEASGGGANAMKTIDPQKINK

KDDKENNIKEKEDEDLLQKAQEKGLSALSADEQAKLEASNPEEFEKLKQKSLQELSQNLSKDFQNKIENQ

EAQIVDKRV

>WP\_002851400.1 MULTISPECIES: biotin synthase [Campylobacter]

MQIMLCAISNIASGNCSEDCKYCTQSAHVKTDIQKYRRKELSQIVLEAKMAKKNEALGFCLVTAGLGLDD

EKLEYVCEAAKAVQKEVPNLLLIACNGMASVEQLKELKKAGIFSYNHNLESSKEFFPQICTTHTWESRFQ

TNLNAKEAGLMLCCGGIYGMGESEEDRLSFRKSLQELQPFSTPINFFIANENLKLQVPRLSADEALKIVR

DTKEALPQSVVMVAGGREVVLRERQYEIFQAGAGAIVIGDYLTTKGEEPSQDIIKLKEMGFTFASECH

>WP\_002851310.1 MULTISPECIES: NADH-quinone oxidoreductase subunit L [Campylobacter]

MQNLALISLFSPFVAFLFASCFALSEKKQFVGIICSLLVALSAFCSLYLLFCNEAFNVSLFEWFAGVNFG

FDIDAISLTMMSVVGIVATCVHFYSIFYMAHDEGFNKFFAYLGLFVFSMLFLVMSDNFLGLFVGWEGVGL

CSWLLIGFWYKNDTYSFAANEAFIMNRIADLGMLLGIFWLYLQAGTLKYDEVFSMAQSLDHNALILIATC

LFIGAMGKSAQFPFHTWLADAMAGPTPVSALIHAATMVTAGVYLVIRASTLYDLVPEVSYIIALLGAFVA

IFAASMALVVRDLKRIIAYSTLSQLGYMFVAAGLGAYGIALFHLATHAFFKSLLFLGAGNVMHAMNDKLD

IKKMGGLFKPLKITAILMCIGSLALAGIYPFAGFFSKDLILGYSFISFHHGIFLVLLIAAFLTAFYSFRL

LMLVFFTPARHDEHPHEASKIALLAMSPLMVLAIIAGFFEHSFFEYLSTKLVFIDAQNQIVMICASVAAI

LGAILAIFAYKNSWFKESIEENKIHKLLSNDYFIPQFYHQFIVSKYESLCAILKHCDLYIFDRIVEKIAL

YSQNISQKMIMPNSLNLMLRFLVAAFVILLILVWMV

>WP\_002851300.1 MULTISPECIES: capsule polysaccharide transporter [Campylobacter]

MEENKTLLEKIKDLSIFDSFKIVWFIMIFVVIYYTLIAAPRYVSTMILDVRSTSGESAQTSGILSLLSST

STASEDLNYLKGYIESSDMLKILDEKIKLKNLYQEQHIDLPFKIWDSSSIESYLKYYQARVKVHTDETTK

LLKVEVEGFTPKSAHLIAQAIMQESEKFINEISHKAAREQMAFAENEVQKYKERYQKAQNDLIAFQNKYG

VFDPLKQAETKASLVAQIEANLAQKEAKLLTLQSYMNDAAPEVVALKAEIEAIKKQLLREKSKISANNSS

QKLNDLAAKFQDLTIEATFAQKAYEAALKAYESARIEALRKIKQLVIIQSPDIPESAKYPERIYDILTAF

IVLSLIFGIVKFIKMIIEEHKY

>WP\_002851275.1 MULTISPECIES: NADH-quinone oxidoreductase subunit A [Campylobacter]

MSHIDASHPYFGIFLMLVLASVIFFGLVFLASKIGNNFAAKNRKKLGLGIYECGPIPVKQANKINSQFFI

IALIFILLDIEVVFLFPWALIFKDLGWFGFLEVFVFIVLLGVGFLYAYKKGAFAWQSIK

>WP\_002851253.1 MULTISPECIES: NADH-quinone oxidoreductase subunit B [Campylobacter]

MAEHQVNYASGLPVVLTSVDKLVQWGRSNSLWALSYGLACCAIEMMAAGGSRYDFDRFGTIFRASPRHSE

VMIIAGTLCKKHAEFTRRLYDQMPDPKWVISMGSCANTGGMFNTYSTVQGVDRIIPVDIYVPGCAPRPES

FQFALMILQKKIRKEKASRKIAPKRLI

>WP\_002851245.1 MULTISPECIES: hypothetical protein [Campylobacter]

MFDKIHYYYFNANYEKCLNLSEQFLKESPKFALEFATLSSYKLSLFQKALYYAQELFSLNPTSFNGLMLA

KSYIENLRLDEALNLLQTLLTRKDDLEDELKLELAFIYKLSNKLEESEQIFKELLSKDMYNLNLWKNYAE

IYFKHDFTKALNAHEHLCHFMQDLIDKLQKGIIAEQTNLNLVKLEDRLHSKTKENLTISKIEDFLTHQIL

PQKAYLLFKLFRISDSLELFQSLQEANQHHAQFWQNYAKVLEFNSNYQEAYHAYKKCLSLDSHATYQFDL

AYLLMRMGVDDNFEEGKKYYESRLFYAHNETFSTYHYNESLKAFNKFGVDAFKNKEVLVFCEQGFGDTIM

YARCLEKLCKIASKVLFAPQSAMYEMFKNQIKFLNQNDDIFKNVKVLKNLPTNFDYAIPICSLPFFIDIK

LDEILRLKTPILPQKKPHNQRKKLGIFYATPNAENSDLLRNVKFEFLFDVLKDLDYEIISFQMQLKEELP

KVIEDRSKLIKNWNDTLNYLYDIDCMLSIDSAIAHLSLAMDIPTIVLLHPRFDWRWGKFENPKSYFWPKA

KCFIIKEQEETKRNLQKLIKDILN

>WP\_002851183.1 MULTISPECIES: MFS transporter [Campylobacter]

MNDKTYKFHPNDTKMDKKIIQITEKSGFKAAVFSMAAMTMLGSVVISSALPAINRHFEELLTQSGATLAS

SFTLAHLDILVRLVLTIPAIFVVILSPFAGILMDKFGKLKFILPAMVVWTLSGISGFFLNDIYAILTSRA

IFGMATAFIMTGASALLGDYYSRGGFNRRENALSLQGFFCAVGGAVFISIAGFVSSYSWRYPFLVYGLGI

LITLMAIIYLFEPRKFKFYNHTKIETKTNYWQFFPIYFIGFFIMVVYYISPTQLPYYIEEHLGLDPKYIG

ISMSVSALCYGFFSLSYRYIIKFLSIKTIYVLTLFIVSCSFLLLFLVDSFFTVLIALALLGMGGGIMLVN

NTAYLFSICPENARSRAYGILASCIFLGQFLSPIISQPIVRQMGLVDAFLIWSIVIFIVCIVFLFLKQKP

RIN

>WP\_002851179.1 MULTISPECIES: ABC transporter ATP-binding protein [Campylobacter]

MIKLINLTKSYPLFSGGRHYVFKNFTFEFPENCSIGLMGYNGAGKSTLMRLLSGAELPDSGKIITNKKLS

WPLGLNGAFQGSLTARDNAKFVARVYGYKGKELQEKVKFVEDFAELGKFFDEPMKTYSSGMSARIAFGLS

MAFDFDYYLIDEAGAVGDPAFREKSVKLYRERLSKSKVIMVSHNVAEIKEWCDKIIYMKNGQITVYDDVD

EGIAVYQGKV

>WP\_002851537.1 MULTISPECIES: Tat pathway signal protein [Proteobacteria]

MKNRREFLKKSAFALGAAGVLGSTTLALAKDEERKDLVKGKSKKKEVLFQRSANWENYYIKAE

>WP\_002851332.1 MULTISPECIES: 50S ribosomal protein L17 [Proteobacteria]

MRHKHGYRKLGRTSSHRAALLKNLTIALVNSGKIETTLPKAKELRGYVERLITRARLGDFNAHRAVFASL

QDKNATNKLVTEIAPKFKDRNGGYTRIIKTRIRRGDAAEMAFIEFVA

>WP\_002858478.1 MULTISPECIES: transcription termination/antitermination protein NusA [Campylobacter]

MEKIADIIESIANEKNLNLENVREKVATALINTAKRIYGQEYEFFVDPKNLNLYQKITIVADNDERLQNK

SESFIALSKAKSEAPDVEIGDELTYECSLENLGRTAVNTLHKELEYHIQKLLEQTIFEKYKNKVGQMVFG

TVVRVDNEENTFIEIDELRAFLPRKNRIKGEKFKIGDVVKAVIRRVYTDKGIKIELSRTSPKFLECLLEA

EVPEIKDGYVNIIGCARIPGERAKIILQANGTNIDPVGATVGVKGVRINAVSKELHNENIDCIEFTNESE

ILISRALAPAIVNSVKIEDKKAIVSLNSEQKSKAIGKNGINIRLASMLSGYEIELNELSSSQLNNAISNE

EAMKNLQDLFKI

>WP\_002858043.1 bifunctional hydroxymethylpyrimidine kinase/phosphomethylpyrimidine kinase [Campylobacter jejuni]

MKAKGSELIPVLTIAGSDCSGGAGIQADLKTFSAHNLFGMSVVLSVVAENTARVISVHDIPTQSVDEQML

AVFEDIVPKATKIGMIGSCELMSCVAKNLSEFKPQNIVIDPVMFAKNGYALMPQENCDFFKQTIVKFADI

LTPNIPEAEFLCGFKIANEEQMIKAAKHLCSLGAKAVLLKGGHSEINANDVFYDGKEIYILKGERIETKN

THGTGCTLSSAIASNLAKGKDLFHAVSEAKEYVRNAIYYSLNLGKGCGPTNHFFKFLDEK

>WP\_002854660.1 MULTISPECIES: succinate dehydrogenase/fumarate reductase cytochrome b subunit [Campylobacter]

MRELIEGYLGKSIEGKKSKMPAKLDFIQSASGLFLGLFMWVHMLFVSTILVSEDFFNSVVHFLELKFVYD

NPVMSYLTSFLAACVLVVFFVHALLAMRKFPINYRQYQILRTHSKKMNHSDTSLWWVQAFTGFIMFFLGS

AHLIFIVTNADKISGDMSGDRVVSHFMWLFYAVLLVCVELHGSIGLYRLCVKWGWFEGKNVKESRKKLKT

AKWIISIFFLVLGVLSLAAFIKIGYENYQNQTQTTAMIKNYNGANYEYTI

>WP\_002858971.1 MULTISPECIES: NifU family protein [Campylobacter]

MMPFSDEELINPVKASLEKSLPMLERDGGGLEFLGIKNGIVYVHLIGACKGCASSGTTLKYGLERQLKID

IHPEITIINLNGGADEFAKL

>WP\_002853404.1 MULTISPECIES: N-acetyltransferase [Campylobacter]

MSEFKIIDLRQEDLDILQEMIIEFAKYEDMLDFLQCTKEKLEHSLLKNKFARAFLLKENEKTIGYMIYFY

TFSSFWGSGGIYLEDIYIREDFRKKGYGKAVFKFLGEICKKENLKRLDWVCLNDNILGINFYESLNAKHL

KQWRNYRLSGENLEKLCDL

>WP\_002851934.1 MULTISPECIES: N-acetyltransferase [Campylobacter]

MLIRAMQKSDYEAVYKLWCEIKGFGIRSIDDSKENIENFLDRNPNLSVVAVIDEEIVGSILCGHDGRTGG

FYHVCVHKDHRKKGIAHEMAKFCLEALKAQKINKIALIAFKNNDLGNEFWKHYGFTLREDANYYDLSLNE

YNQTSFNA

>WP\_002777060.1 MULTISPECIES: N-acetyltransferase [Campylobacter]

MKEIKLKEDLEKIYPLIKQLRNNLSLKDFLDKIQLATQTQHYKLFAYENEGSYKAACGVMPFNVLYHNHC

LYICDFVVDEALRGKGIGQAFLKKIQIWAKDQGYEELELSSSFFRTQAHEFYIQKMGFEKSGFVFKKNIK

L

>WP\_002853384.1 MULTISPECIES: membrane protein insertase YidC [Campylobacter]

MNNSNNIFQQKRILLAVVISFLFFVIYDYFFIPKQPLKIEQNITQKNQQNTSINNTPNIQNATTNTPSAA

LVSQDSVISKVQSKHFEAQIDSFGRISAFYLKDRKYQNEKGEFINLVSKENSPYPLEMRFSDPSINSEAF

KIPYVANASNLFVDENGSQVLKLTQNLSGLKIEKDITFYPKGNYEIEVKLSKNANYFISPGYRPNIAVDS

YTVHGALVMDNKETIETYKDGDVEKDESANNVVMTSAFDRYYATFFYNFDKPLNVAISKDANQNPIVFAY

SDNEFKAGGYIGSKEHVILRSIDPRLEAVVEYGWFTFIAKPMFEFLNFLHQYIGNWGWAIVVMTLIVRII

LFPLTYKSMISMNKLKDLAPKMKDIRERYKGDPQKMNMHMMELYKKHGANPMSGCLPILLQIPIFFAIYR

VLLNAIELKAAPWAFWIHDLSVMDPYFILPILMGATMFLQQLITPMTIQDPMQAKIMKFLPVIFTFFFIT

FPAGLTLYWFVNNLCSLVQQWVINKIFAKEHHKKTSGA

>WP\_002851172.1 MULTISPECIES: nucleoid-associated protein, YbaB/EbfC family [Campylobacter]

MFENMDFSKMGELLNQVQEKAKNIELELANREFSAKSGAGLVKVSANGKGEIIDVSIDDSLLEDKESLQI

LLISAINDVLAMVAQNRSSMANDVLGGFGGMKL

>WP\_010891913.1 copper-translocating P-type ATPase [Campylobacter jejuni]

MIMKCEHCKLDYKQAQMIEYKGKFFCCKGCESVWEILHESGLDEFYEKLGNQTLSPVNFQNEMKNYDEFI

TKTKEGFSEIYLMIHGIECAACVWLNEKILTKQEGILELDINHLNHKARIVFDEQSISLVQILRLIESIG

YKASAYDASKASKKADLLKREFYSKLVVAIACVMNIMWIAVAKYAGFFSGMDKDTKDILNFAEFILCSPV

LFYTGSHFYKSAFKTLKMHSLNMDVLVISGASLAYVYSLWAMFFRVGEVYFDSVAMIICFVFIGKYLEMF

SKKRALDTIDGLNDFLQNEVLVFNGKEFVSKEVQKVCLGDRILLKTGDKILIDGICKSGEMSVDTSSLNG

ENTPKLIQKEDEIFSACIVLDGSVEYEATKFYKDSKLSQIIQLLELASSKKAKLESLVNSLLAYFSRTVL

LIAFICFAFWFFYKEESFEISLVNAIAVLIIACPCALALATPVSNLVALGRALKKHILFKSSSVIEDLSK

CDCVVFDKTGILTKIELELKEVFLDKALDLNELYNFVKLSKHPISQNIVLYLKQKGAKDLNLDFKKHSSI

QAKGLSAELNEGLLLGGSSKFLQEKGIVAKEFDNTHFIFAKEGKILAFFEFDSVLREGAKELIAYLKKEK

KELMILSGDHQKAVEKIAKKLEIQNYQASCLPEDKMKTIENLSKNYKVLFVGDGVNDALALKYASVSMTL

REGSDLAIESSDVLLLKNDLLSLKKAIKLSKNTFKIIKQNLAFSLFYNACTIPLAFLGMINPLFAAISMS

FSSIIVVLNALRIKE

>WP\_002864528.1 phosphate ABC transporter, permease protein PstA [Campylobacter jejuni]

MKKLFKKRQKASKSFKRLCKMGLYINLIFLCIFLGSVAYLGFPAFKQTYIFVEANRNSPAYDLLSRAEQR

KIRTGQITEKSWLLANSEVDQYMKQKYNRLSEKQRTLVDDLMQKGEIELKFNSNFFLNGDSKSPENSGIL

SSVVGTLLVMLVCMVVSVPIGVAAAIYLEEFAPQNILTHFIEVCINNLASIPSILFGLLGLGVFINLFGM

PRSSALVGGLTLAIMSLPIIIVSTKAALKSVDINMKNAAYALGMTKVQMVKGIMLPLAMPMILTGSILTL

AGAIGETAPLMIIGMIAFIPDVASSIFDSTSVLPAQIYSWSAMPERAFLERTAAGIIVLLGLLVVLNLSA

ILLRKYFQGKLK

>WP\_002858560.1 MULTISPECIES: 2-oxoglutarate synthase subunit alpha [Campylobacter]

MREVIATGNVLIAKAAIDCGCKFFGGYPITPSSEIAHELSHMLPANDGTFIQMEDEISGISVAIGAAMSG

VKSMTASSGPGISLKAEQIGLAFIAEIPLVIVNVMRGGPSTGLPTRVAQGDLFQAKAPTHGDFASIAIAP

ASLEEAYTETIRAFNLAEKYMTPVFLLMDETVGHMNGKAVLPDLKDIKVYNRKKFEGDKKDYKPYAAGEN

EPATLNPFFTGYRYHVTGLHHGDIGFPTEDGVIVKKNMERLIGKIKNNQEDICTYEEYMLDDAEFLIIAY

GSVSRSAKEAIQRLREQGIKVGLFRPITLYPVAEKKIAEVVSKFKKVMVSELNMGQYLEEIERVTSRRDF

ISLHRANGRPITPSEIIAKVKENI

>WP\_002851984.1 MULTISPECIES: cytochrome d ubiquinol oxidase subunit II [Campylobacter]

MFFGLELEGLQIYWWLILSLLGGLLVFMFFVQGGQTLIDELSKDELEKTMLVNSLGRKWELGFTTLVLFG

GAAFAAFPLFYSTSFGGAYWAWLCILFCFILQAVAYEYRKKENNVYGSKTYEIFLKINGYLGVFLIGVAV

SSFFSGSEFILNEHNFVSWQNPLHGLELLLNPFNYLLGLALVFLARLLGAAYFMNNINDENIKIRAMKKL

MINSILFLPFFLGFLAWIFLKDGFSVDTNGVVSMSANLYLYNFLNQMIFAVLLVIGVILVLLGMVQGTKG

CSKAIFTLGLGTVLTVFALLSSIGLGQSAFYPSLSDLQSSLTLKNASSSYYTLSVMAYVSLLVPFVLAYI

IYVWNAMDKVKITREEIANDDHAY

>WP\_002851883.1 MULTISPECIES: hypothetical protein [Campylobacter]

MQLVESFLSIQGEGKYNGKLAIFMRFAGCNFNCLGFNVKISKNDKTLIGCDTIRAVFTKDFKESYETLNA

NELLKRVIKLKKDFDPIVVITGGEPLIHYENPEFIEFIQMLLKNKFEIHFESNGSIEIDFDRYPFYKECI

FALSVKLQNSGIKKDKRLNFKALKAFKNYAKDSFYKFVLDANTLDNSFLEINEILKEAPNQIFCMPMGEN

EQNLKKNAQKIAEFCIKNGYNYSDRIHIRLWNDKEGV

>WP\_002851396.1 MULTISPECIES: flagellar hook-associated protein FlgK [Campylobacter]

MGIFGTLYTGVTGLKASEVQIATTGNNISNANATFYTRQRVVQTTNGYITTGGVQVGTGTAVESIVRLHD

EYSYYKLKGASTQLEYTKYMASTLQEIAQRFPDLQNTGILQDLENYNKAWNDFASNPNENATKIALVKAS

QTLTESVNNTFATLDKIQKKVNDDIKNTVDEINRIGEEIATINKQIYGQEALPTEHANELRDRRDELELT

LSKLVSAVASKNEINQDNRLDTTITDPGHQYNLSIEGFSIVDGINFHPLKLDYDDKNKSYSIYYETPDEK

VRDLTAKISGGQLGAQLDLRGRNYSKSEGKYEDGIIQGYMDSLDTFAKTMINETNNLYASSAKSSVTSDY

LSGLKGDIPLVNYDRTIQPGSFDIVIYDDKGDKKLTKTITIDVNTTMNDIMRQINANTDDNDNKNSNDDV

DDHINASFSYDAKTGDGLFQINAKSGFKVAIEDKGTNFAGAFSIGGFFSGTDASDMKVKDSILNDPSTVR

ASSNGVDSGNDMANKIIQLQYKKVNFYNEDGTIDNLTMEEYYRKLTGKIASDGENNNVVNSSNETLYNSV

YSEYQSKSGVNTNEELAALIQYQSSYGAAAKIVSTVDQMLDTLLGLKS

>WP\_002853397.1 MULTISPECIES: tRNA uridine-5-carboxymethylaminomethyl(34) synthesis GTPase MnmE [Campylobacter]

MSDTIAAIATAHGVGSISIVRLSGERALEFALKLSHKTKLTPRHATFTKLFNQNNEIIDEAIMIYFKAPY

SFTGEDIVEFQTHGGFSVSEVLLEELVSLGARLALAGEFSKRACLNGKMTPLKALNIQDLILSKSALAAK

IIARNMQGNLGELLEKIRTDLVKTLAFVETSIDYADDDLPSDLLEQISTMCEENSKILKEIYTLSQSKKG

LIEGFKIAIVGKPNVGKSSLLNALLSYERAIVSDIAGTTRDTIEENFKLGTHLLRIIDTAGIRESKDVIE

QIGVALSKKSLEDADIILAVFDASRVQDKEDEKIFDLLANTDKKIFWILNKSDLENVFKNTQNKNFIKLS

AQKDITLLKEELQNYLNSFDSEGIMVSSLDLINACKISSEAIFRAKGLLEESSLEFFAFELNLAINELAR

FTKDFQRDEILDEMFGNFCLGK

>WP\_002853221.1 MULTISPECIES: bifunctional tRNA (5-methylaminomethyl-2-thiouridine)(34)-methyltransferase MnmD/FAD-dependent 5-carboxymethylaminomethyl-2-thiouridine(34) oxidoreductase MnmC [Campylobacter]

MKKAKLIFKDNTPFSLDFDDFYFNFKDGLNESKFVYTHSFEWKNQENFIIAESGFGIGLNFFLTLKRFLE

TTPSKRPKKLFYISVEAFYIEKEQLREIYQKLEFYEEFKELLEQFLKFYPKAKEGIYRFYFEDCFLDLVF

EDIAVLKELDFKADVWYLDGFSPNKNSQMFDENLIFEVARLSKKNTQICTFSSASFLQKNLKKYGFRVEK

TKGFRKREMIKAYLENELEFKDKEAYFSRTFSSLKNKKVAIIGAGISSAVLAYELSLRGFEIDIFEKHLE

LGKGASGNESGILSSLILKPKVNLGEFSELSFIEASRFYRQILDLEFKGVVEFAHNDLMQERFDTQRENV

LFKISKNQAFLEEGGVIFPKKLVKNLFEKSKACIYFNHEFQAYKFENGCFSLKFKNDVVKSDYAVLIYAM

GADAKDFVFYDEMKLSKVRGQVTHLKPFLDTPFPLSSKAYICPVKDDLQVIGASYDRLNASLESKEEDDK

QNIENIADFMDKNTKLEIIGSKVGFRSYSSDRFMIVGNAYDEAFYKEEYKALLWTKNKEQKPAKMSCNLY

FNFAHGSRGFSTSVLAARYLCALINNEPLCLEKKYIHAIHPARFLIRKLKKGL

>WP\_002852319.1 MULTISPECIES: tRNA (adenosine(37)-N6)-threonylcarbamoyltransferase complex ATPase subunit type 1 TsaE [Campylobacter]

MKEFILAKNEIKTMLQIMPKEGVVLLQGDLASGKTSLVQAWVKFLGLDVRVDSPTFSTMQKYENHDICIY

HYDIYQEGLEGLLANGLFENFFEKGLHLVEWGGENLKKTLMKFGISTIQIKISIKDDKRKYEIYE

>WP\_002858746.1 MULTISPECIES: anthranilate synthase component I [Campylobacter]

MFVKNVNFYYRQILEKFENSYFAEDLTKVIIGIDCDYLDANELSFSEFKAKYYEALSKNKICDFAGFFGV

FSANFVSLFEKIPLSSKKNYDFPLFLFANAKAYLIYEKNSKMFFKFGASKYFEYLKDDIEPMKKKQKNDF

EILNSLEDEKNDFLKMCEKAKEYLLSGDIFQVVLSKQLCIKHQVNAFDYYESLSALNPSAYMFYFPSKYG

VVLGSSPEFLLKIKKREIYLAPIAGTRNLENNCDLLALEKDLLSDEKELSEHKMLVDLARNDASKFGTQT

RVENLFSIIKNKFVMHIVSEVYANMKEDASIFDVIEAVFPAGTLSGAPKIRALEITSELEDCDRGIYGGA

VGFLNFNEDITLAILIRCAFFTQDKAYLASGAGIVLQSESQKEYAEICAKRKALLVAFENLKKENQ

>WP\_002858492.1 flagellar basal body rod protein FlgB [Campylobacter jejuni]

MINPFKSKELVTGALAGRNLRNQLINANLANVDTPFYKARDIEFETALVNRANEIFKKNDNKELQLAVTE

EEHQKPWKFPDPSKSTIYLRDGHLARNDANTVDLDVETTEMSKNTVMITALDGVLRRQSNIFSSILDASS

KLS

>WP\_010891858.1 hypothetical protein [Campylobacter jejuni]

MGGIVLLVLANKFQELQMKDKSLEEIDLLKLIICALSFISVCTALILFLLLPTLKNYKQANLRENSQLAI

LKAAKSKFDFSEDKISTLRSENNKSLEQFEQNFNIGNFNIFLQKYFQNVKIQETKPEKQEKYLKNRLAIK

ATMNNPRRLYDFIDALKNYNNLIKLDYPLNLKAGEQGISIDLTLKVYSS

>WP\_002916328.1 hypothetical protein [Campylobacter jejuni]

MGVENIYTLPLNGVPYISGSVAFDGEAKDNKLILESNTKIDLHNSQYFSDEEGKDIYDERITRLMGAFGI

NSNLQNNKVLIDSANIVLHGPDGEYTARSTFEILGALADVNNLKKYNVSKNSVIIKNLNLDLMVNSQNKI

TFYDAVLFGEIYGGRTLQGNAEKNSIEVYHFNSLDHLNKNIKTHASLNLYGGYSNDGEANGNKIVFRLKK

PLKISDNFYGKNYYNLYGCFATEGANFNVFDIQNDLTYEKVPQNYSDKFTVYAARTLSGKANNNTLSIKD

SVISLPLYAFITSETTLDGIDYIADESNNNEVNFENIKSSKNLSLMINAKNVSNNKINYNLIQSLTEASS

LGKGSKIILKATQNANNNLIKLKDCSSAAVESSCIIKADKESAFNKIINNNTAFSTASDKRQGYVGLIAG

VSANSHDNIMELVNLNIDEYKNQDAIFLAPSGTSDISNFKSYNNTLYLGGELNFFKDVNIDLLSGSVFHE

VNKKGKIITQILPHQEDFSKNNRLIIDTQDVKSEVVNNFENFTFILPNKIKNPILTIEKLINLPANGSME

ILTKNKPTKGKYILIQSDVGIYDGDNGLLNQQELENLLEKMKNNKNKFNYNKIEKLAKSTLKNVNFSFEV

SDDAKIIYINIL

>WP\_002864119.1 hypothetical protein [Campylobacter jejuni]

MTKGQENAQKTYDTAVNAYNEAVKACNTALSGITGNNGDKVIAGLKQAIDKVSSDLQQATIALQIATAST

NSSLENSNKTLASASINGTSHLTVNENIVQTISQYPL

>WP\_002860516.1 MULTISPECIES: hypothetical protein [Campylobacter]

MQINNSLNSLSQYVKVNSNEENQNSKNQEQNALAQDPAVEVNISKEAKEKSNTSNQNNSQAPAQALNAQN

NTQQDSSSNSEDKLTELTQKLAEIQAKIVELTAKMSKANEDQIKSIESQIATLNAQASTIQAQIQELQSQ

QA

>WP\_002860136.1 MULTISPECIES: hypothetical protein [Campylobacter]

MTMLDIFEIIFITTVVIIGFGGIVFVVTKEKK

>WP\_002859309.1 MULTISPECIES: hypothetical protein [Campylobacter]

MGKRNNIKMTKNASAVINELMDKPHYKPLKTLFFCKDFLSSFPLAKQRLIAKIYVKNHILNIITLHPAAY

QELNHDDSKIYIKFLIKAYGQKYPLSGFVDIKDIKIFSQKYTYAANKNKNDEKLSKNSYLELSKGEFKNC

FKDKKLFKKFEDLRELIKKGSNLD

>WP\_002858752.1 MULTISPECIES: hypothetical protein [Campylobacter]

MQVNYRTISSYEYDAISGQYKQVDKQIEDYSSSGDSDFMDMLNKADEKSSGDALNSSSSFQSNAQNSNSN

LSNYAQMSNVYAYRFRQNEGELSMRAQSASVHNDLTQQGANEQSKNNTLLNDLLNAI

>WP\_002858727.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKIPFSKINTKEYPFKLNLENIIFEGNLVKINPKLVKINAIMQGFIYRPCDSCGTELELEIKENLELFAS

DGIFKDEANELSNTIEFFDGHIDLIEVAISELEAYLSDYFYCINCNN

>WP\_002858698.1 MULTISPECIES: hypothetical protein [Campylobacter]

MIKILEQTIKALKLNLKPYDLSMLTRKKSYICAKDQNNILFMYTGKTKFLMKDALFLENLAQQININNKY

FFSMASLCSKAKNHLEMKGFNIYVAL

>WP\_002858686.1 MULTISPECIES: hypothetical protein [Campylobacter]

MQVNTFSNIASMARTQVSNKKADDAKENTKDKNVQSANSSKDVDKNTLEKLNALGGKGITQIYLVQFQQQ

TMNAVIGSSNAQTGLDSLLNGANLDTAKSILTNIDFASLGYSSKNPLDMNTDELQQLVSEDGFFGVENTA

NRIADFVIKGGGDDVEKLKKGLEGMKKGFEQAEKMWGGELPQISQNTIDAALKKVSDRIDELGGKTLDLQ

A

>WP\_002858595.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLGIYLLIAALSFLALYFAVKKLTLNIDERTLLEPIKMDIYPKFCDLIDEKIREFKENIQNANLTLKNSN

QKDEFLEKLGDLSRELTFIQTMNLSNKNDSIWQNELFSFLKELENLLLEYLEKGEEEAENLREFLMDEFE

KLKG

>WP\_002858150.1 MULTISPECIES: hypothetical protein [Campylobacter]

MIPNTNEIAKQTLIALKERKLKPTPENYTEIFEELSLKYGITSSNKAKLDKYKTLLLPIYQQELNSKTIR

SLEELISFLISVLNRQSGKQFSEFFDFLYTISKTLQISKDKKIRDLAKVTSIRISKTMDSESIYLLTKKW

KELERNYDENDLEEQARKYGISKYDDYDSVIKKLLVKLEERSYEHFSELLCLGLNPSLVEDLKIQGFIQN

LTQKPFVIGEENFKNELMEFINHRIMVDNMYVQKNLNFFNDNLKKIYELLVLLNKSNEKNMDFINTLKPD

ENGEVKLSFEDLKLKFKQLGEKITSLNNQIEFTQSLEEREAWSVLKELDKMDENFNKYKVNYSLALFSIV

NYRFIMEKYGMGSLNEIFVRFKKILKDSCSEFDELWMIDEKSYLIVSPGKSKDEITQLVNTNLKTIENFR

FIYKQDIITPKIHVAYLDKQSKPSINILDELIKQIAAVNEQHNES

>WP\_002857906.1 hypothetical protein [Campylobacter jejuni]

MDFLDSLKSIKKEMQANTNTSKLAKKSSKSGASVKNLEKLAKDIREKNQETNIDKEMQEIFLKQEKLQDE

FSEFIKNADIKKI

>WP\_002856137.1 MULTISPECIES: hypothetical protein [Campylobacter]

MTAYLHIGTTNTGNQEKQGFLMQNEEKLLQKAYIYPKSLRVANRHWALVDMVLELVQKEDILKKESVLSH

ITNERLLRAIENFKSESALHKDKKFIFSAEGIVWDFSTKKHVEILEKIMRELGFTQIYIIVYFRDTLGYL

NSHCSQDHKNNMGYYSADFAPQDHPRKYIFDYEWICKTHAEVFGEENLIVRLLREDYVGGTLLKDFVYHL

GLEWDESFVLKQTKNESFNLLGMELMSRLNQKDLKQDNLNSLLFMARRKFEGSKEKRLKFAVQKDIAKAY

VDYFASSLEWVKNKYFPHKNSLFTPVNWEEYEQNYTLTHMLSKDWDDVADFIAQIIVSKNEIISSLKEQL

ELARKD

>WP\_002854947.1 MULTISPECIES: hypothetical protein [Campylobacter]

MADNLKQVIVNVNAKDFIVKCSEEFANFLEDDIALISGGTKKIELKRFVDAFVKKSYENYILERELKKLI

KAINEELPTK

>WP\_002854718.1 MULTISPECIES: hypothetical protein [Campylobacter]

MFQNIIKYKDFIIFILNLKQNLYLLIKINLDFKNFHKSLNF

>WP\_002853370.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKEFTKDGKLSAFKGNPKTISPVIKSNAGNVINLETITVGERVAMAGNQVSNMKYGGTDYGKFIFTNKKE

QSNTVYLNVYSNDTFVIRGPASNTIKKKTL

>WP\_002853267.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLIIGHKLLKNLDFSFIESVEEVKDNKVYCIVYDEKLISYLSQNDFEFAILVQNKDEIFLANALGAKFLL

CNDKKLAKFASKVAEFYVFDSRVLMIVDKLENFKKFYKLKIDGIILKDNIDNFPKN

>WP\_002853236.1 MULTISPECIES: hypothetical protein [Campylobacter]

MHGKIAIYMDSTGRGTVTNSANTFFDFNRQIWNDKKSMPSVGMLVEFRTLSSEKKAEDGKLVQTSKTITG

IKPSKFQEFKEGDFITEHDFWKTDNDDELEDLQNSRRSAYITELYRTTDFDTIEKIPLSFTIPQAIQKYF

AHEILSVETLQANLQDEKEIPCILDYLILKRFLFKAYDTLIFMDNSIDQTQFSALKSIMMHLENSYKQMM

ADQKPNITKIFNETFLSLQCHYQALVATIDTRKNRLASLEAQMKTLQSEINLKSNATDADPEKLKARQER

LAKLQKEAEYYRTTLKRLDAIREDFYKKNYNIFENAFKLSREKLFKKIVTGLNLCATIMDVKIWHLSLKS

SGVKNSYFTMSNIENSFCSLSFAEHYLSRLNKSALNPFDQKLLVYIQKITKEQRKKFLVVTSDLDLLCKL

KIENFSQNPYYLVKYAPKKVNYQSLMRDNTFDIVYIDEKHVWENVADIILQGKHFDKSGKTKFKLI

>WP\_002853224.1 MULTISPECIES: hypothetical protein [Campylobacter]

MVVDNTQKTSNAIFSTTTKVKEKNTSADEFQATLNEVKNKEEKEDKKTNSSKFTNEDIDLGAVREDFRSY

AWQKMREDQYKKNEETLLNKLFTTIDAGNATNNTKA

>WP\_002853105.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLKELLEIKKEMEPVIHEANVKLNVLAREVIVRKKEYEIYGPMVDRVYLDNAIYVKVMSSGRDVKTDNVT

IKNGFYMVFVAPEKESTKDIKNKLKVAYEGLDNKFIATLIRSCQRFKEIINKTQATLAKASKMNVVVKTN

LGEASAALKFNITIEYTKENQKLTRENSKSAGSFRDTKTYINLVVEKNTDSQICEKLLDDVEKYFIGGG

>WP\_002852929.1 MULTISPECIES: hypothetical protein [Campylobacter]

MERIVCLLIFLSFKLFAQDEFIFWAELSSKNFILFHQNQNLSLAMTQSENVEEQWVCEISYSDQDLKVLP

RTSLGLIDDNMPKTIKFNFLNSHKDELSDCFIGARISVKDIVNTDLLRAQSETYVKILPLRFTVEFGEQN

AIIYYLKKK

>WP\_002852756.1 MULTISPECIES: hypothetical protein [Campylobacter]

MYERKDLRVLKIIQKAREFGDGDLLNEALVKQLIDADFCEINEKEKEELATLLHSLINAKDKALLSN

>WP\_002852615.1 MULTISPECIES: hypothetical protein [Campylobacter]

MVFLIPLLIIIGVIFGIDYVYFKNQDLKVQVKKEQKELNSSLEKEKKEYIEKLFKTK

>WP\_002852583.1 MULTISPECIES: hypothetical protein [Campylobacter]

MELDQILLYAFIFLNLFALFGLFLGNKKKNQFNDKKFYKICPCKKMAENGSLSTICIYSAVGGFFYSVLS

IGFVGFGNWTLNFIFLLALLSVFLGWKLKLD

>WP\_002852539.1 MULTISPECIES: hypothetical protein [Campylobacter]

MSMINSTLPIQMKVLAKSGYGHYTLLLNHKKIQTKSMIELEIGAEYLAELYMQNGGVIQFKHLSKRPNFK

PFEEGLALIIAILEDKISYKKFIIQNLLDCKDIERYQILKEMLFASFENIYHIPFNFENKSCLFQMRKRA

KYLEIYLYFSVFGALKILIDSQGISVFTPFAKVQKFLNEHLDFNVSQENKIEPLFVFKRLFDFKG

>WP\_002852449.1 MULTISPECIES: hypothetical protein [Campylobacter]

MQISNLGELLNATLIHEGSVLSVEGFAINLNELKTGFAFFNNDKKEIAQAVKKGAYAIITENDITIEDKE

IFYFRVENLERALVRFLRFFCEDKECEFLLFKSYELSLCKAFYFNILKGNIFADFEKLIKAKKGEIFCYC

EENYLNKLCTYSHSLKDANFTLLSRSSFFFTTLICENLYFKNLNLPFFYANSFAKIISFLKEKSQKIIFD

FNKIDDFKIYFIDDKFEITPFGSSSQAFIVSNNQNTFEFWKEKFKNIKDFKIASKNSLFCDFSYNQLSDL

RKLKNFKYCLILENYDIFEQEFENKENQTPSLF

>WP\_002852397.1 MULTISPECIES: hypothetical protein [Campylobacter]

MPVSPLGNINYINQNMAYPATQASNELAKEGFAATLNMAEFNEKEKTLNKLEKVNETHEIKEEIKEKAEQ

EEKKKKHNQEAKTSDDEKNEEDESKDPNFKDAQSIHRLDISI

>WP\_002852223.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKFKEFSLRFLFKVSEQPVLIRDLLEANALFNDGMLVDPSKLNFNFKILNSYIYFGVFCAVILLPLLLI

THYFLTKLDFHISIVSAVMVTACVFIGYDIFKVYTRKIISKKIIQKAWALHFPYFAYEKYSTMAGEFYKE

ALKEEIPKANLEQYVLDKIIHSK

>WP\_002852050.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLEDDFIKERQNIRQKMLKFSRAINQGKPLDDDLRDEISSDDILRRRFKKKTPNKFLEELDEEYESKHTK

KSNIYLKEDLINVKLEEKQSLAKKIFSKMKERRKEENKKTKKNFLFSRKKANEIKNIQTKTQIQTKSNQA

TTQTKQEKKELTNSIEKIQKTETKIQKPLIIEKKLDVKNQPNIKKSLENLQKKITPQENKQELPKPSNQA

QEKQQNDEDAQKAKNILLEGFSNATKEDRNLNFNHLLFAALLVSFALFLFAPQIYIRNQIYYLSREIATL

RTEESVLNEENKDLKRRLENMRFQNQILDYLE

>WP\_002852016.1 MULTISPECIES: hypothetical protein [Campylobacter]

MTINSANPYQNLTLSNPLQNSSALNLIKDSKALDQEGNENSLEQLSYIFNNTTYASEFGFRINEEGFFDK

DLNKIANIPESYDINIKSVRSIAKELAKQDENLNYNKIDLPYLLNSYHSSLKSINSEFLQDDNAYLSRDL

ISKLSSGFSTDNGEFLGQISRIYNNQEEIDLALSNITNLNTLMLDNKITNFHFDKAIENTSSNEILKPYL

TKNAEVSKSGLLMNFIYHDIKTQNEKEFNFFMKPATLELSSHQNLQKILKGETDIEDYIKKENEKKMSFD

LYLYINGVDKKTSTQDKLSVFFQQYINYQKDMDLREFANSSSIFQIYIDQNRNDFDALKKQYQNQSQDTQ

RLEEANQLRSSSIENFLDRRQKQANINKILNSYMSVMV

>WP\_002851870.1 MULTISPECIES: hypothetical protein [Campylobacter]

MIVFPLSSFNRYFGNNPLQTLTKIRDESIENGNPELTKKQREELGNDLIDLYKISKKFSDKIELVEGSIE

DKLRNNELPESEVKNLFQWMDENAKHPRWMHIDGVSYDEAYVKIFHTSKSIDEFKEKYLELQKKYFVDFN

NIDSSQKKLQETSEEDKKAFKPIQVESKSETYKDDNKMNELLRKLLETKFGTSDELEILFGMNFSNDNAG

EFNKILSQNTSAKIIDIKA

>WP\_002851806.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKIKLFLLASFIYIALIFAFAWHLELGSYTLNISTYTFELPIMIWLVIPLFIYMILAVLHIAFYGFLRYL

KFKHFFKDAAKFEAYTQDLLLEKDLKTTFQTKEFRSVAQLFKTIKTHEKIPHSNKINEILDLIDGLNKNE

FFNLSKFKLENNNVLYLQNEKNHLKNDANYAYNKLKNLNEIKDEFEEIAFNTLIEKASYEQIKNVKIPKK

PSEVLTLIKRFKEGNLELSVAEYEVLLSHNILSEKDYLNAAKLSTKLLNPDAILGIFNKIKNEKSEALRA

YLYLLAEFGLLDELREQIHNDDKKFNDFKAFLALREKNIKIDLNQLIQ

>WP\_002851454.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKILQDGFFLAIFFFVLLPSRVFALDAVLFNENILSQKVSNEINLIGKELYQKSNIFIGVMVGDKTEIE

TLLNKQKELPQSYILLLLSKNSHKVDIVGSKGALALIDKEAVLSPYPGTGSILPILATNKGDIYNAAILN

GYADIVDRVAKSLGLQLEHSIGNANRDTINILRILIYGFICFALLYYAQRRIKRKKNVRN

>WP\_002851410.1 MULTISPECIES: hypothetical protein [Campylobacter]

MQNYKKLGIEHFYKKDFKTAKMYFSMAYEKRKNKRLLNFICLCDLALKSPKEASLLFDFYIEHYKISSID

KDLEEILSTIEFKKQENKQENEFEDGHALNYQDFLKSEEELGFQKSFENIINSTKLVIDNRDDFLDFLEK

LLDNGYKDMTLNYIENVMPHFWANDRFIKLQEKLMGFKSEIKT

>WP\_002851266.1 MULTISPECIES: hypothetical protein [Campylobacter]

MIYDNALCFLDMPSLKNKNLCEKIGVNSINISCLEDKNLKAKFYKCEIASLSFVLALLCKLSDEGQFCDL

DEGYLSAESCFGEEEAGEVLAFLKEVKYLIIDKNIHSYKDSENIKYFLNFLSVKYGLKILDSDEEECDFK

KAKLNTLKELDNYDGLVLFRANLQDKNLHCSKQFLQIAKCKDQSEVEILAKDFSFKTKLCLDENLQGTIA

FLNYENNGFDFTPIRIKEAK

>WP\_002851161.1 MULTISPECIES: hypothetical protein [Campylobacter]

MAFMNFSGFFYARNDLRLFKIEKKNELKSFFYKDYTLSSYKDDLNLNNEIFFYQSLKEGLFKENDEILVS

NLGKKIILFRNFTQNCDNFNETKLKQILLLFFLLLASVFFASLAMINEFGAIDLLFLTICLLLLVMGVIN

LGLLFKQIRILKSFSKEEMKEFLSQRMKKYTKV

>WP\_002851102.1 MULTISPECIES: hypothetical protein [Campylobacter]

MGLKDNLKAVKNELNTEEQFIENFIKGERFIRKYKFYISAVVIILVAWFAGNFIISKINDYKTKEANEIY

ANLIQDPSNKNLLEQLKNKNTNLYAIFLLKENINDFNNTTLQNELKQIYNNAQTNTLLKNIIALSLGDKS

IFLKNYDKLLEAYKLLEQNKIEEANVLLSQIKENSSLNQIAKNLKHYQGITQ

>WP\_002839177.1 MULTISPECIES: hypothetical protein [Campylobacter]

MIFWAFLVVIGAIYFGNMFFGQYSLDTLLSLENTKEELNKKIILLKEQNAKAQKDYFELKGLYPNEN

>WP\_002826526.1 MULTISPECIES: hypothetical protein [Campylobacter]

MTLDFDFIYNADNDIFEYLLRFYAKNYNYILSKEENTYHFSIDADEENLKTFCDSLNFMSHSVFLKKFDV

KAGQGFNPCIPEDKEFSRFSYITHLNSNAYQEKKLLNKNEWGVFCECEFSSNLSEFEKINEENFNTFLNL

AFDLLSQEKKIYLKDKNGIYEFSLFKNEFIGDFLLPCDIKAINSVFVCSNENLKLLASLEKPLMKLRLNA

MFRKNHNLDFSDFKIRLARDLFCFALGLKLFENEYKFLSVKKIEEYQKDFYISALDEQVVVLEGFEFINA

KARELIFSKEDKNMARISYLVSRYKEKAFILELSKDYEDILLINKELNLLKLCLPKHSKELYEEIKKDEI

GARLLENFNKEFPLLDENFELQNNFYSLLGLLGRVLNLGRNLQESASELLKIADESKMPRGVKIDYRLKE

DKSFDYTRTLRSAMSFMLAGVDSANIAYGAVESLAYFLRDTYDELREKKQSDLALISGSLFEHKSLLKNT

LKHLKNCQLSDVPLRI

>WP\_002825403.1 MULTISPECIES: hypothetical protein [Campylobacter]

MFFKKKISQKQKEKPKIPINDVILDDRLCKFKNKVQKISKDEASASLLARQLSRLIRANKF

>WP\_002824766.1 MULTISPECIES: hypothetical protein [Campylobacter]

MNYQQLECDYFNLYNQFLSVDFQISLFEKDHKGLIKDFIFFYYQILKQKDLSYLLEVRNKISLKVYNYMQ

EHSTSPKDLSLICLRENKHIEFFQIFYKALAYFVAFRKKLDGEQKIKNLISNINDCFGYHFLNSDFNNLQ

NFQKSDLFTLPEKHLKYFHFAMIHLCFMVLNPLNFKDSNRHLDKAINYLVDGTFEIYELIFKEYFLLFSK

DKELKDELRKLKKLEFKILMQETSKIKLLNHYKEFCEEIFYNIELEKITQN

>WP\_002797008.1 MULTISPECIES: hypothetical protein [Campylobacter]

MNEVRDEFEQDMDKKKEILLSCQNSKNLNSCYNCDEIFNCQTRKNYVDAVYNSMSKGKTEGGFDF

>WP\_002792114.1 MULTISPECIES: hypothetical protein [Campylobacter]

MGVVYDEINIAVNTCKGLVLSKKRLLALNLSFFIQ

>WP\_002782892.1 MULTISPECIES: hypothetical protein [Campylobacter]

MSKPLNEEIFVEFKSDLAERKNEVLLQVLELLETFRSDENEKMARISSELTEILENEENLEKILNAKNLE

ELLNILTALNEDKMIKVYEDSYLKEKFPNVMVDKFLK

>WP\_002780361.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLEFIFTLILDFTFYSIKTLEKVFLGRTALVILFVVFIALFCVKGLFLYILLALELFLLLYLFLGILFLR

FYKS

>WP\_002776186.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKQWLSDFKLALIQEDVNKLENLLDELDMKAFIKNLAKESPSEDFLKENANDVFYQVQALLQEAVILIEQ

KKKTKAVEIQKFQKALTYFKS

>WP\_002864845.1 bifunctional methylenetetrahydrofolate dehydrogenase/methenyltetrahydrofolate cyclohydrolase [Campylobacter jejuni]

MTLLDGKALSAKIKEELKEKNQFLKSKGIESCLAVILVGDNPASQTYVKSKAKACEECGIKSLVYHLNEN

ITQNELLALINTLNHDDSVHGILVQLPLPDHICKDLILESIISSKDVDGFHPINVGYLNLGLESGFLPCT

PLGVMKLLKAYEIDLEGKDAVIIGASNIVGRPMATMLLNAGATVSVCHIKTKDLSLYTRQADLIIVAAGC

VNLLRSDMVKEGVIVVDVGINRLESGKIVGDVDFEEVSKKSSYITPVPGGVGPMTIAMLLENTVKSAKNR

LN

>WP\_002851895.1 MULTISPECIES: recombination protein RecO [Campylobacter]

MQGFILHTQKVKDEDLIVYILSPKMLIKAYRFYGLRHSSILSGYKIDFALEENPSFLPRLKDVLHLGFLW

IMQRDKMLIWQEFIRLLYRHLKDVEELDSFYFDLLDECVKRFEKQNPKRVIVDAYLKILEFEGRLHKDFF

CFACDEKIQNSITLLRAFLPSHSQCALGFEFEEKKLKQFYSSKNCAIFDDEEIENLYHLIKEGL

>WP\_002919663.1 flagellar hook-length control protein FliK [Campylobacter jejuni]

MINTQLASQIANTQKNDLKVDNSASKDKTNLKDNPKEALAQALKQNLGLSKDASSEEILAKFVQNETGTK

LKELVNKLLDQINAQKNPDSPVLKQGKNLNLAPNFANELKILSTELAKSDTFTQVLDRLNQILKPASEIK

NNNLAPLFKNSGVFLEAKLKDALNEELLPKSFHSLLSTIKGLSSEKLSVQIAQLANTNLSPKDTLKELKN

IINSSKNENKQILNQSSFKALLNLSSKLENFKNYISKNPSHAQEKITPIANKILKELNSIKNDFFKALNK

PENLMIKDPNILKQTATAFEKLENTLKNILGNQASKIQDKENILENLLSNKENMKEEKLNHNTKNQDEEK

HIKASKEDENLDSGIKTHEEDTQDTKNDIQNNETENKPDNDIKNSTPNQEKIKDEKQEKSKENIKENPKF

YETKTENKTSINTNTNTSNPNTNNTQNLNNTQNIQSNNNQTMQNIFKNQEFIKQNIVKNLAFNVENLDLE

QVQDLSKNLSNLSRRLNESLKELEPYTQNAKLNQAELKNLEHKLNLSIKDLAQIKPKTEQDIAESLHHDV

KSTLLQISNLAKNEGNEAVYNQANRLLAQIEINQLMSLANDSINTYLPFSWDDLNDSKIMFRRGKKDKFF

AQIKLEFAKLGDLEILISLNNEKYIDINIMAENIEFRKTIYENAHELKRNINKAGLLSANFFVGDIIRSK

FDTRNMKNLDLEMGMDKKV

>WP\_002857980.1 acyl-[ACP]--phospholipid O-acyltransferase [Campylobacter jejuni]

MQKKSFLKIYGLIPFLLIAFINAFVDLGHKIIIQNTIYKAYEGSEQLFLNAIVNALILLPFILMLSPSGF

LADKYPKNIVMKISAIFNVILTLIICICYYSGAFWMAFIFTFIMGAQAAIYSPSKYGFIKELVGKDFLAM

GNGVINAVSIVAILAGMALFSLSFESLYSSMYNQTDEILKEVAPLGIVLILFSCIEVFFAWRLPKLKQTN

KDLVFNKKDYIRGKLLINNLKLVFKNKTIWLCIIGISFFWAISQLYLVSFPVFAKNELFIENTFYVQISL

AFSGIGVILGSLVAGKFSKNYIELGFIPLGALGMFLMAFLMPYFISLLSYSFLFFFFGFCGALFIIPLNT

LIQFHAKENELGQILAGNNFFQNIAMLGFLLLATLFVKFEINVIYLFYFIALVTFIGSFYILLKLPFSLV

RILLSIAFLQRYRLLVEGFENIPEKGGALLLGNHISFIDWAVVQMAIPRKIYFVMERSIYSKWYIKIFLD

KFGIIPVSSTGSKTSLELIAKHIKEGNLVCLFPEGTLSRHGQLNEFKAGFELACECLSEDDGKIIPFYIR

GLWGSAFSRSDEEFSARNRTLNKRKIAIAFGKAMPLHSKKDEVKAKVFELSFMAWKSQCEAMHTIARAWI

DTAKKNLNQIAIIDTLAGDISYRKMLTLSLFLNFFIKRKSKELNINLQRGSYAPKEEAIGILLPASFASS

LTNLSVLIAEKIAVNLNFTAGEKALKAAIKNAQISQIYTSKTFLEKLANKGINLNFDTNIHLIYFEDIVE

DFKMQKTKIFSMMLAVSIIPSFILKSIFTPSKNNLAIAAILFSSGSEGSPKGVMLNNRNILSNIAQISDV

LCTRNNDVILSSLPPFHAFGLTVTTFLPLLEGIKSITFSDPTDALGVAKAVAKNNVTIMCGTSTFLGIYA

RNKKLDALMFESLRIVVSGAEKLKNEVRTTFEMKFKKSIFEGYGATETTPVASVNLPNHFDVDYWLIHRA

NKEGSVGMPLPGTAVRIVDPNNYENLKTNEDGLILIGGHQVMVGYLNDKEKTDEVVKEIDGIRWYNTGDK

GHLDEDGFLYIVDRYSRFAKIGGEMISLGAIEEEIAKFIDTEVVKFCATSLEDEKKEEQIVLLIECNNEI

FEGVCEAIKNSNIPTLFKPRYYFQIEKIPLLGSGKVDLKKVKELAKNLAI

>WP\_002852563.1 MULTISPECIES: SCO family protein [Campylobacter]

MKKNIILFIVIVAIILGVIFFIKNHQNSYDFILKSDLKEETTLKDFKGDKLIIYFGYTYCPDVCPATLSL

VGKALKQINNPKAHLLFISLDPNRDNNLSNTNEWLRYFYPKADALIAKDEKTLQKITKQYNVQYQKIDLN

DSFMGYSIAHSNMLYLIDEKGHFYKEINDLNPQEILRELRIFLNSQ

>WP\_002851998.1 MULTISPECIES: RDD family protein [Campylobacter]

MKTKAKISSRWLRFRALLIDIFLIYVPILYLFYFLLGSKEAFLNNHFITTLCTFLFGLIQAIFLTKKAQS

PGLKAYDLYLIDIKTGKKLSFLRILLRYVIFIISFGLLFGLFVSFVRKDRLNLHDILTQSCIATKA

>WP\_002851295.1 MULTISPECIES: response regulator [Campylobacter]

MKVLIIENEIYLAQSISIKLSDAGYSCEIINSFDEYNGEKYYDIILLSTNTNNFLKAVGQFKHSIIILLI

SYISTDTVSNPLKLGASDYIQKPFMIEELIRKIKHYQDFRKLSILNKAYQSYIKSRLETIKIPEYNYKKL

KLPLILKSNKQSSADAFVFNYANECDITLSFIDLTSTNSVEKVMKLPTENNLLFLSNFQALKAAEKEKLL

DFIQNKNVILHTNSNTDDLKINCINLNDNEKNINSNEILTIDEYVKYVIINYQNIFPDTDLSKKLGISRK

SLWEKRKKYEISKKK

>WP\_002851199.1 MULTISPECIES: MFS transporter [Campylobacter]

MQELTRTKKIRSIIAASSGNLVEWFDFYIYAFTATYFAHTFSTSDNPVIQQINAFGVFAAGFFMRPIGSW

LFGSLADKVGRKKSMVISVVLMALGSFMIAALPSKDTVGDLAIILLLIARLIQGLSVGGEYGIAATYLSE

LATEGKRGFYSSFQYVTLIGGQLLAVASISIMFLFFSIDDMKDYAWRILFVIGGILALGSLFVRKMMNES

ATKLHQHEDRGTLKALCKSWKPFLMVLGVTSGGSLAFYTITTYTKTFMENTGMDKMLVNNLFLGALFILM

IIQPLFGYIGDKIGHKRSLIVFCILALVGIYPIFSLIANNAQNNPSLTFMLVVLLFVILSFYTSVAGIFK

AKLFPEHVRALGTGLGYAISNAVFGGSAPWVALQFKNAGIENGFFIYIAIFTIIMLIATLCLPKKSELN

>WP\_002779263.1 MULTISPECIES: flagellar protein FlgN [Campylobacter]

MLKQRLDEVNAILAKLIALTEEDIENIKVAKHESVTPSVEEKNKLIAEFITAKKQLDVALVELNNSSTKG

LSELLDDEDKQKLDLLKKNLQNLHSKNKEYAKFVLIVKDFLDGLVNKMFDINDGTNNAYGDKKTNPESIF

KINV

>WP\_010891893.1 DNA translocase FtsK [Campylobacter jejuni]

MLAPGMGEWVYKANLFLFGEFAYYYPFFLFILNYVYYKRNYKLANFTRRELFGIGFAFFSSLLLFAVFYP

NSGYILELAYAIFSTILGHTGSGIFALLLLLFSLVLLFPKFAKEILKIELDFTYLLKVEQAFKSLLMRVF

GGENEKEDVGKSEPIVPKLNILQDSIYGNLQINKKGETNNLEQIIKDSNINASKNSITTAKENFEKLKNQ

ILDETIEIDKQSLKESRSFVHEHSQQVRNFAQKASKMSISLDEDFNFISEEEVDMIPERFLKPKKLEDIK

QIDTNKNLDEPSYKRKNIEIPVSNQEVKPKIFTKELELRENLIKKEKLEQEYKAYQNEILENKVKQEIKK

LEEYDAINSSDIIEGNKYSFNSPKTIKTETEESDKINENKNLDKADNIFEFAPIVEELNHPYIEPTPIKN

INEIVIEEKNTLDFIQNTETKIDNEKTNDQEIKLQKAVLAKEIAINQALLREIEQGEIEKPKDFTLPPLD

FLANPKEHKQEINESEIDKKIYNLLEKLRRFKIGGDVISTYVGPVVTTFEFRPSADVKVSRILNLQDDLT

MALMAKSIRIQAPIPGKDVVGIEVPNDEIQTIYLREILQSEVFKNAKSPLTIALGKDIVGNAFVTDLKKL

PHLLIAGTTGSGKSVGINSMLLSLLYRNSPKTLRLMMIDPKMLEFSIYNDIPHLLTPVITDPKKAVNALS

NMVAEMERRYRLMADAKTKNIENYNEKMKELGGEKLPFIVVIIDELADLMMTAGKDVEFYIGRLAQMARA

SGIHLIVATQRPSVDVVTGLIKANLPSRISYKVGQKIDSKVILDAMGAESLLGRGDCLFTPPGTSSIVRL

HAPFASEFEIEKIVDFLKDQQSVEYDESFLKDQQSVGVTTNESFDGEADELYEEAKRVILEDGKTSISYL

QRRLKIGYNRSANIIEQLTQNGILSEPDAKGQREIL

>WP\_002858826.1 cytochrome ubiquinol oxidase subunit I [Campylobacter jejuni]

MNELSSVDWSRAQFALTALYHFLFVPLTLGLSFMIAIMETIYVKTKNERWKKITKFWLSLFAINFAIGVA

TGIIMEFEFGTNWANYSWFVGDIFGAPLAVEGIMAFFLEATFFAVMFFGWDKVSKGFHLLSTWCVAIGSN

LSAFWILVANGWMQYPVGMSFNPDTARNEMQSFFEVALSPVAISKFLHTIGSGYVISALFVMGISAWFML

KGRHIIEAKKSLVVGASFGLVCSIFLFFSGDESAYRVTQTQPMKLAAMEGVYQGEHRAGLVPFGILNPKK

TIDNNESVFLFDITIPYALSILGNRDPNSFVPGIEDLIYGNESKGIEPMQNRIDRGKIAIQTLKDYKLAK

ENNDTIAMANHKSILETHFKDFGYGYLEKPSDTIPPVALTFYSFHIMVALGSFFFLLFIVTLYLTMANDI

EKFRKVLWVCLLSIPLGYIAAEAGWIVAEVGRQPWAIQDLLPVHIAATQLGKVNVQISFWIFAVLFTALL

IAEVKIMLTQIKKGFDAHAGHTPLMGKGEK

>WP\_002858634.1 MULTISPECIES: tRNA (N6-isopentenyl adenosine(37)-C2)-methylthiotransferase MiaB [Campylobacter]

MSAKKLFIQTLGCAMNVRDSEHMIAELTQKENYALTEDIKEADLILINTCSVREKPVHKLFSEVGGFEKV

KKEGAKIGVCGCTASHLGNEIFKRAPYVDFVLGARNISKITQAIKTPKFMGVDIDYDESEFAFADFRNSI

YKSYINISIGCDKHCTYCIVPHTRGDEISIPFNIIYKEAQKAIEKGAKEIFLLGQNVNNYGKRFRNEHKK

MDFSDLLEELSTIEGLERIRFTSPHPLHMDDKFLEVFANNPKVCKSMHMPLQSGSSEILKAMKRGYTKEW

YLNRALKLRELCPNVSISTDIIVAFPGESEKDFEETVDVLEKVRFEQIFSFKYSKRPLTKAATMPNQIDE

EIASRRLSTLQNRHSEILDKIVKKQENKTFKVLFEELRAGNSIAGRTDNNFLVQVEGSEELLGQFKEVKI

TNAKRMVLYGEIV

>WP\_002858622.1 MULTISPECIES: basic amino acid ABC transporter substrate-binding protein [Campylobacter]

MKKILSIALVALVGLFLGACSDSKNKESNASVELKVGTAPNYKPFNYKENSKLTGFDTDLVEEIAKKNGI

KIVWVETNFDGLIPALKAGKIDMIASAMSATDERRQSVDFTKPYYMSKNLYLKLKNNDSLQTKNDLEGKK

IGVQLGTLQENTAKAIKNAQVQSNKDLNIAVLALKNNKIDAIVADQDTAKGFLAENPELVSFYQETDGGE

GFSFAFDKNKQKNIIEIFNKGIDEAKTDGFYDTLIKKYELE

>WP\_002858451.1 MULTISPECIES: sodium-dependent transporter [Campylobacter]

MSSKFSKIGFILAVAGSAVGLGNAWKFPTLVGQSGGSAFILLYIILTLGVGFVIFLAELSIGKISEKDPV

NAYEKLAPSNKKAWSYVGFTMVGAILIVSFYTLVIGWIVKYVFLSITGNLPMDLEVSKAQFGFFISEDFL

SQFICFTLVFLCVFYIVSKGVKNGIEKLNVWMMPSLFILLILMLVYAISKDGFIMAVKFLFVPDFSKINT

SNVLEALGLAFFSLSLGVGTIITYSASLPDKTNFITSTLNIIFINLLVGLLMGLVVFTFIFEFGYNPNQQ

GPGLVFISLATLFEKIGVIGCIFGAAFFISLIFAGITSAVSMIEPFTFYLINTFGMSRKKALILIGIVVY

ILGMLCILSSLKSTQFGFFGMSFFDLLDSVSSKVIMPLGGILAAIFVGFVMKKEALKILFKPYMRGIFFE

LWYVFLRFISPLAVVIVMIAAFLK

>WP\_002851399.1 MULTISPECIES: ABC transporter substrate-binding protein [Campylobacter]

MKKILIIMSLFLIALNAKERLVVLDPASIETLFMLKAEDQIVGIATLQHSNIYPKDQTSKLTSVGTFSNP

SLEKIVALKPSLVILSSYSLNLEEGLKNFGIKSINLKAERLEDITKNITTLGQITKKEKEAELLKQEFNQ

KFKKLSDKPLNKSAIYLYSSNPLMAFNDNSLIADILRLIGIKNLSPQSQISRPVISAEYILKQNPDILIL

GINAKNNLLDTNALLKNTKAVKTGSIYFNKDTPILLRLSPKIIDRIQEFKTKLENNNF

>WP\_002834281.1 MULTISPECIES: NADPH-dependent 7-cyano-7-deazaguanine reductase QueF [Campylobacter]

MRYGEKEIKEFDVENMEIWPNDAKNDYIIKITLPEFMCCCPRSGYPDFATIYLEYMPDKFVVELKAIKLY

INTFMYRNVSHEASINEIYNTLKDKLKPKWIKVVGDFNPRGNVHTVIECRSDMVVPK

>WP\_002787583.1 MULTISPECIES: putative motility protein [Campylobacter]

MVSDVSMGNVNLMTAVNTSVLKKSMDTNEALMNELIEGMEGVSQASAPQASSSSGLDIYA

>WP\_002864118.1 hypothetical protein [Campylobacter jejuni]

MSIRSNKGLTGPGGDPTDTIGYKETSDLIAKDNISNEVLNSIFNDLKFNSSVDISDLSKFYKDGKILTAD

ELTSINQSMDFITALYGQTQDSNNATFANALKEVLGNSYGDLGKANQVIIKTKEILSQNS

>WP\_002852635.1 MULTISPECIES: hypothetical protein [Campylobacter]

MNLEDLAKKTISEVSSIMEEQRRQNEILKEQELNRKTEIKDELPPMEFVCEELDTPQDLEDKISMAKFEE

EQKIQNNIEISTQENKEFKKEEPFLQNEILNPSVMTEVQTLNEDIFLKHLRERILVLFEGLNSIKKDDLE

NRLNLTINFLEFLLANIEDKLKK

>WP\_002780440.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKRVRTKIRANFRRRVKRTLKGSLKEKLAGTILLCAIVPLAVLGYLFIVIIGIFFNTARARQGVRALDHF

VNASLFNGYAWESVSSHAWRERNRKKWARIVIKITDFFQKDHCKRANKREQPVVDFILSRNLDKQTIGK

>WP\_002868040.1 MULTISPECIES: tRNA (guanosine(37)-N1)-methyltransferase TrmD [Campylobacter]

MKFSFVSLFPNLMEFYFQDSILARAKEKKLFKLNFYNPRDFSKNSYHKVDDYKIGGGAGLLMQAEPMYEV

LRSIQEKKENPYFIFLNPSGKTFNQKDAKRLSKKEHIVFVCGRYEGIDERVLEIFANEVFSIGDFILTGG

ELPALVMCDAILRNVNGVLGNMESLEEESFENNLLEAPAFSKPFIFEKKNKKFYTPSEFLKGNHARIASL

KTTLASCKTKFFRPDLFLEHERKK

>WP\_002852279.1 MULTISPECIES: tRNA preQ1(34) S-adenosylmethionine ribosyltransferase-isomerase QueA [Campylobacter]

MNKDLLLSSYDYTLANELIANYPTNPKEDARLLVFDRKNKEIFHTTFKNLQDFLPNCAIFFNDTKVIKAR

IYGNKASGGKIELFLHQPFLNSHNPLFLAQIKGRIKKDEILYFKEDLKVRVVELLNDGLRKVQFFQNDKT

LDTSNLYNLLDKIGHIPLPPYIKREDEKSDLKDYQSIFAKNLGAVAAPTASLHFSETMLENLRKKHEIYH

LTLHVGAGTFKSVECENIQEHKMHSEFFNIPQQACEIIDSKQAILGVGTTVTRTIEYYTRTKTKNGFCDL

FLHPQNPPIRQNHLLTNFHLPKSTLIMLVSAFIGREQCLKLYELAIKEKYRFYSYGDAMLIL

>WP\_002851990.1 MULTISPECIES: GTP cyclohydrolase I FolE [Campylobacter]

MQKKFEDCVKTMLEIIGENPNREGLIKTPNRVFKAYEFLTSGYTQNVKEILNDALFESSNNEMVLVRDIE

FYSLCEHHLLPFFGRAHVAYIPNKKVVGLSKIPRLVEVFARRLQIQEQLTEQIAQALMENVDAKGVGVVI

EARHMCVEMRGVQKANSTTTTSALRGIFLKNEKTREEFFSLINSAKQVRF

>WP\_002851982.1 MULTISPECIES: tRNA (adenosine(37)-N6)-dimethylallyltransferase MiaA [Campylobacter]

MFFEIALIGTTASGKTYIANTLAREFNAVVLSLDSLCVYKEINIASAKPSQDDLASIKYFGVNLLSVNEH

FNVELFIREYQKAKEFALARNLPLIIVGGTGFYLKTMIDGLSEKTLESKSSLNNDEIYALLLNIDPNYKI

EKNDTYRLKKWLGIYEQTREIPSEFLKRTQKTGVLKDIEIYELAWDKEILKKRIKTRTKEMLDNGLLDEA

KILFSKFDHKLKALNSIGLKECKEYLDGEISFKELENLITIHTTQLAKRQRTFNKKFQSKALEFDKALAT

LRMKFSIEK

>WP\_002851977.1 MULTISPECIES: tRNA 2-thiouridine(34) synthase MnmA [Campylobacter]

MKILVAMSGGVDSTVTAYKLKNLGHEVIGCYMKLHGKPNYHEENIKKVEKVANFLQIPYHILDLQEDFKN

KVYMPFVDTYKEGKTPNPCALCNRFIKLGKLLEFAKSLGCEKLATGHYARLENNLIKTAVDESKDQSYFL

ASADKEALKYLIFPLGEMKKEDVKKFASTIEVLKSFATQKESSEICFVEDTYVQVLDQFMDTKIPGEVLD

SSGKVVGKHEGYMHYTIGKRRGFEVRGAHEPHFVLKINPKQNQIIVGTKEELKISEFNLKNINLFIDAKE

LDCEVKIRYRSKSTPCKVEIYEDKSAKIILKDPVYGLASGQMAVFYDHDKVIASGFIE

>WP\_002852194.1 MULTISPECIES: 5-(carboxyamino)imidazole ribonucleotide mutase [Campylobacter]

MNFVSILMGSKSDYETMKEAAKTLESFGVKYELIISSAHRSPKRTKEYIANAEEKGVKVFIAAAGMAAHL

AGAVAAYTTKPVLGVPMSGSNLASMDSLFSTVQMPSGIPVGTLAIGKAGAINAAYLAMQILAIYDVDLAQ

KLKEDRLEKEKKLVSDSKEVEVLL

>WP\_002858312.1 uroporphyrinogen-III synthase [Campylobacter jejuni]

MKIYLLNETPFEGVENLILNEIVFYDFSVDLSLYDALICTSKNALKALQHAKITLNFKLNLYAVGQSTAQ

YAKNLGFKKIKIPSKAYGKDLFLEFKEELKMQKCLYLRAKNIVSTLNLDLKNVGVDLDEMIVYENVFKKG

DKKLIHPAIFIFTSPLSVENFLKFYSLKEEDKVVVIGQSTAKKLLNFKNLYICENQSLLNCVKLAKTLV

>WP\_002852226.1 MULTISPECIES: HslU--HslV peptidase ATPase subunit [Campylobacter]

MNLTPKEIVKFLDDYVIGQKKAKKIIAIALRNRYRRMQLSPELQDDIVPKNILMIGSTGVGKTEIARRLA

KMMGFPFIKIEASKYTEVGFVGRDVESMVRDLANAALNLVKNEQREKNKDKIDEFIENKILEKLLPPLPK

GISDEKQEEYKNSLEKMRTKLRNGDLDESTIEIEISQNMFDTNPNLPPEMGAMQDIVKVIGVGSKKVKKE

MKIKDAKNALKNEAGEKILDQESIKSEALKRAENEGIIFIDEIDKIAVSSGNSNRQDPSKEGVQRDLLPI

VEGSNVQTKIGTLKTDHILFIAAGAFHLSKPSDLIPELQGRFPLRVELDSLDDKALYEILTRPKNSLLKQ

YSQLLKTENLELEFDDEAIKEIAKIASRANEEMQDIGARRLHTVIEKLLEDLSFEADEYAGKKFVVDKKM

VEEKLGDIIENKDLARYIL

>WP\_002781630.1 MULTISPECIES: HslU--HslV peptidase proteolytic subunit [Campylobacter]

MFHATTILAYKGKNKSVIGGDGQVSFGNTVLKGNAVKIRKLNNGKVLAGFAGSTADAFNLFDMFENLLQS

SKGDLLKAAIDFSKEWRKDKYLRKLEAMMLVLDRNHIFLLSGTGDVVEPEDGQIAAIGSGGNYALSAARA

LAKHTDLDEEELVKSSLQIAGEICIYTNTNIKTYVIEDEK

>WP\_002858673.1 MULTISPECIES: HIT family protein [Campylobacter]

MIYENDLIYIEKEEAQVPWLKIFTKEIYKEFSDCPLELQKELFEKILFCEKAMIEFYKPEKINIASFANY

VPRVHFHVMARFKEDAFFPECMWGKQQRETIKLDLPKFEEFVKFLNSKIF

>WP\_002855621.1 MULTISPECIES: polyisoprenoid-binding protein [Campylobacter]

MKKVLLSSLVAVSLLSTGLFAKEYTLDKAHTDVGFKIKHLQISNVKGNFKDYSAVIDFDPASAEFKKLDV

TIKIASVNTENQTRDNHLQQDDFFKAKKYPDMTFTMKKYEKIDNEKGKMTGTLTIAGVSKDIVLDAEIGG

VAKGKDGKEKIGFSLNGKIKRSDFKFATSTSTITLSDDINLNIEVEANEK

>WP\_002851721.1 MULTISPECIES: lactate utilization protein C [Campylobacter]

MSKIDEISSKSKANILEHLKKAYKETTFTRIESIDPVEHIQTTQDMLTEMKQKMSDNKYIVENATKDTLE

EKINEIVAKYSFKSMIYGADLNLNLEQIKAEKKICFDKEIENLRSEVFHSDFSIIHARAGVSSHGVALIP

SSKTQPRMLSLAPKLCIVLLKKENVVKSLSEALNLVKKENEILPTNILFIAGPSRTADIELITVFGVHGP

QIAHIIIY

>WP\_002787430.1 MULTISPECIES: disulfide bond formation protein B [Campylobacter]

MNEINKTKNFYTLMCLAGFLIILLPVGIANLIFGYMLGDSPCTLCWGQREAMIFIGVMALFIVRYGMKGK

YLAALLIMTAVGLYQSFAHYGNHAHRDLDQGFGLAVFGIHTYFWAEVVFWAVVLLLGVIFAFAPKFNAFE

AELNGEKFRKYTKFSFAAVLISAIIVASNVFQAFVSTGIPPYVGQGDPVRFSLNPKYIIWSKEGWNGLWQ

NISFLGKRDVKAPDYAFAPASEKLGIKFDNDINNAPFAKINDELKITNEQTINFDKAINTLDYINNEFVA

SSKWDVAFLDNNFSVKEGFELDPYFSASIDPIIGIIPYMNDKFILMGSNKSFLRFAKNPNASEEDIAKQY

ADFVKGNDKFKGQGESLGRGRLDTVRAKFNHVASMTTDGNYLYLATVPNNKDAKTFVISKVSLKDRVLSG

EFTPKANLKEGKTLGDLYVTSMTFKDGEIYALSKNHNVIAVIDPVKEEVVKTIAFPSSITNARSIFFKDG

KINILSYQDGANKLYTLN

>WP\_002783223.1 MULTISPECIES: QacE family quaternary ammonium compound efflux SMR transporter [Campylobacter]

MEWFYLFLATACEIFGVVIMKELVSTKNKLYLLALIVCFGFSFTFLSLSMQNIAMSVAYAIWTGAGTAGG

VMIGVLFYKESKSFLKLFLIAVIITCTAGLKFLS

>WP\_002783219.1 MULTISPECIES: QacE family quaternary ammonium compound efflux SMR transporter [Campylobacter]

MNEKFNINIAWFLIILGGIIECFWVSGLKYSTEIWQYILTAIGVCISFTCFLKACERLEVSITYSVFVGI

GTIGVVLNEMFIFNEAVSIIKLVLIAILLLSIIALKWVSKEA

>WP\_002852504.1 MULTISPECIES: ferredoxin-type protein NapG [Campylobacter]

MKGRREFFVSAFKAACLCTGGGFLANLALKADDNYALRPPGAENEARFLSKCIRCGLCVKACPYDTLKLA

SLLDSPKNGTPFFKAREIPCYLCKDIPCIRECPTDALDKKHLEQGIESLKMGIAIVDSASCVAHWGIQCD

ACYRACPLIDRALKLELKRNERTAKHAFLLPSVDHEVCVGCGLCELACITEKPAIRVLPREYVLGKAGSH

YVKGWDEKDEGRIKNADTSKHFNVKKATNYLNDGEL

>WP\_002858074.1 MULTISPECIES: gamma-glutamyl-gamma-aminobutyrate hydrolase [Campylobacter]

MFIGITQRLICNDSYHEKRECLALDWGKLFNKDLFKNFTPLPLSYEIDFSYYKHLIKAVILSGGNDLSFY

SPNVLSKKRDLYEKQVIEICLEEKIPLLGICRGAQMIAHYFNSHISPCENHIGKHEVFFSKEKFISNSFH

NFAIEKLGEDLVELCLAKDNTIEAFKHKYENIFGIMWHIERENGLNNIQILKEWFSLIKE

>WP\_002851944.1 23S rRNA (guanosine(2251)-2'-O)-methyltransferase RlmB [Campylobacter jejuni]

MIVYGKQIFFYILEYHKDCINELYLAKECDKITFSKIAKSGFKIKKLDFKTAQAYAKGGNHQGFLLDIKE

SSFANLNEIKKNDFIVMLYGISDVGNIGAITRTAYALGVGALIFIGEKLAMEGVIRTSSGAALDLPIVIS

NDALSVINELKQVGFYFYASDGSGKEIHSVKISNGKKVLVLGSEGFGLSSKIVKKCDECVGIAMKNNFDS

LNVSAAFAILCDRMLNA

>WP\_010891930.1 MULTISPECIES: cytochrome c nitrite reductase small subunit [Campylobacter]

MIILRRKILKKTSNLFTIFLVLLFVFFAVGFYTFYNAKGTSYLSNASESCNNCHIMNEVYNEYMAGPHSQ

KVKGEPRATCVDCHLPHNFVAKWIAKAQSGLGHAYAFTFKLDELPTNLSATEKSRKMVQENCIRCHADFA

QTAINATTNPHADKSLNCASCHKDVGHKHGI

>WP\_002853164.1 MULTISPECIES: Ni/Fe-hydrogenase, b-type cytochrome subunit [Campylobacter]

MQNKEEKLQRKAEYEFSIGLRLTHWVRAIAIVILIGTGYYLSYVFQSPISNGEPVNFMQAKYRLVHQAVG

FVLIACIIFKVYLFFCDKVSAKERRSVWDIFNIKLWIEQVKFYIFLGKHPHLKGVYNPLQFVTYFFFYLV

ILGIILTGLILYTHTYHEGLGGLLYHILRPLEAAMGGLADVRTYHRILMWVIMIFVPVHIYMAIFNAVKG

KDGAMDAIISGYKFVKEEQH

>WP\_002851470.1 MULTISPECIES: TonB system transport protein ExbD [Campylobacter]

MLKLPKNEGLNIVPFIDIMLVLLAIVLSISTFIAHGKIQISLPSSENATNISNNEKKLLITIDEKNTFYL

NDKLADLNEVQNAIFSLDKKTIVELKSDKNAKFESFVKIIDFLKAKEHENFQILTEKNK

>WP\_002851166.1 MULTISPECIES: TonB-system energizer ExbB [Campylobacter]

MEFLKDYIDLIIFLILGIMAFIAFWCVVERMLFFRKINFKNYENQEQFDDAISENLTTIYIIYSNAPYIG

LLGTVIGIMVTFYEMGLAGNIDVKSIVVGLSLALKATALGLLVAIPALMAYNALLRKVSLLSNAYKANKN

A

>WP\_002858753.1 MULTISPECIES: cytochrome c oxidase accessory protein CcoG [Campylobacter]

MQGHITNYTKKRYFVYLIASIIIFSLPFIRINENHFFLLSFDHSKLNLFFISFSTQEFYLMPFVLIFLFL

FIFFITTLGGRIWCAWSCPQTIFRVIYRDIIQTKFLKIRKNINNKQKEYERQYFKKFLGVIIFYFISLVA

VSNLLWYFIPPEDFFNYIQNPGEHLLLLGILFCASLLFTLDITYLQEKFCVYVCPYARIQSVMFDHDTMQ

VIYDEKRGGLIYDGHTKLHKKPPEGECIGCEACVSICPTHIDIRKGMQLECINCLECADACSKVQSKFNR

PSLINWTSAKAIETRSKVHYLRFRTIAYFIVLLIALLALIIMGSKKESMLLNINRSSELYNISNVKGELV

ISNAYTFLFQNTDSKPHEYYFTANLEGINDGIEIIRPNKPFKLKAGEQVKKIVVIRATKNLANNDKKDVI

FPLHIKAYAKDNEKISVFRKSIFVYPKSTLIKDKNELK

>WP\_002857589.1 MULTISPECIES: molybdate ABC transporter substrate-binding protein [Campylobacter]

MKKFVVFFGILLFVSCLNAQNLSIFVASSASKAMSEVKDEFLKTHPEDKIELVFGASGKYYELLKQGREF

DLFFSADTKYAKAIYDDKNALIKPKVYVLGVLALYSLDENLLQGGVENLKEKANKITHLSIANPKVAPYG

VAAKEVLENLGLNELLKDKIVLGENISVPVLHVDSKNSDIAIVAYSLVSSINHPKGKAVIIDAKYFSPLE

QSYVITKYAKDKKLAFEFNEFIGSSKAKEIFKKYGFSTP

>WP\_002853363.1 oxygen-independent coproporphyrinogen III oxidase [Campylobacter jejuni]

MRDYKAFVKYSKAGPRYTSYPTAVEFNANFKYEEYIEILKKQDRSLSLYFHLPFCRSACYFCGCNVIYTA

KEESKERYLTYIFKELDILSTILDTKREVVQMHFGGGTPTFFSAKQLQSLILKIRSVFGNFSKDAEISCE

IDPRFLNEEQAIVLTQNGFNRISFGVQDFDEKVQKEIHRIQSFELTQNALNLVRNKGIKSVNMDLIYGLP

YQNLQSFTQTLEKVMLLNPDRLAIFNYAHVPWLKKNMRKFDENTLPSPDVKLEILEFCEKFLSKNGYKMI

GMDHFAKENDELFKALENGTLHRNFQGYTTKGGADLVGVGLTSIGEGQRHYAQNFKDMSSYEAALDRGVL

PFERGVILSDDDELRKAVIMELMANFKLDIKSIEKEFSIDFKEYFKEDLKALEEYKDFVNFDENFIKVNE

TGVLLIRNIAMCFDAYMKNISEDKKVFSKTV

>WP\_002852612.1 MULTISPECIES: serine O-acetyltransferase [Campylobacter]

MNFWGIIKEDFSQPKAQDPAFNSCIELFFNYPGVWAVVNYRFAHFFYIRNFKRIARMISGISQFLTGVDL

HPGAELGRRIFIDHANGVVIGQTAIIEDDVLIYQGVTLGGTSLEKGTKRHPTIKKGVIIGSGAKVLGNIT

IGENAKIGSNAVVVKDIGANLTAVGIPAYIIEERKNKNIRAIDANCDDKLEKLEKKILELENLILKQPES

QK

>WP\_002852529.1 MULTISPECIES: flagellar biosynthetic protein FliP [Campylobacter]

MKKILLFLLLSMSLFAAEATIPTVNLSLSAPNTPNQLVTTLNIVIVLTILALAPSIVFVMTSFLRLIVVF

SFLRQAMGTQSMPPNTILVTLALILTFFIMEPVATKSYNEGIKPYLAEKIGYEEAFIKGAKPFKDFMLKN

TREKDLALFYRIRNLPNPKTIDDVPLTVLVPAFMISELKTAFEIGFLIYLPFLVIDMVVSSVLMAMGMMM

LPPTMISLPFKLLIFVLVDGWNLLVQRLVESFVT

>WP\_002851708.1 MULTISPECIES: outer membrane protein assembly factor BamA [Campylobacter]

MKKHLISICALVAMANAATIKDIKFIGLNHLSNTSAINIAGLKIGEEINPAKINTAILNLYKQNYFENIA

VENNNGILEIIVTEKPTIAKVTITGIASNDRKQVESILGIKRGTLLDEGNIKEAIERIKAYYEAKSYFDT

IVEYKKKTLENTDGLELEFIVNRGENIIIDNVHLSGAKKFSYSDIEPAVVNKEKEFMGWMWGRNDGKLKV

FELSNDSSRIADEYMKKGYLDVQVSSPYLKTYTDTYQANLTYFIKEGKPYKIKSISIENPLFDDKQNAQT

VKDLRSSAGKTINIEDIRKDVKTIETQSADLGYAFVEVYPDIQKNDQTQEATVVFKVIPHDKVYIRNVII

SGNSRTVDRVIRRELYITEGNLYNRTDLSESKNALKRTSYFDDVNIKEEKVDDTHIDLIVDVKEASTGAI

SGGIGYGSSDGILLNASLSDTNIFGSGIKSSVSVDKSDDTLSGRISLVNPRVLDSQYSLGGTLYSNDYEW

DNYSEKNYGFDITIGRQFARYYNVSLTYNLEQSDIYHLSPTLLRTGYELGKSIKSSITPAITFNDTDDYY

LPRSGIIASTSLEYAGLGGDQEFISSSSKFNFYQGLQDYIGYDLIYRYKASFYKVWDEGYLPINQRIYLG

GIRSIRGFESRTVSPKNQWGDEIGGTIAFANSVELSFPLIDRIKLRGSVFFDYGMIGRKNLDEIKRMSTG

IGIEWITPIGPLQLVFAKPLNDKKGDDTNSFEFNLGTRF

>WP\_002851598.1 MULTISPECIES: phosphoserine phosphatase SerB [Campylobacter]

MIKLCVFDFDATLMDGETIDILATAHGKGNQTSEITRHAMTGELDFFESLQKRVSFLKGMSYKKVLELSS

TLPLMRGAHELIQYLKSKNIQIVIFSGGFHEGINPAMQKLGINLGFANYLHHKNDILTGLVGGEMMFSNS

KGLMLQRLKSFLNLKTDEVMCVGDGANDLAMFNESGLKIAFCAKEILRSQADICIDIKDLKEIIKVI

>WP\_002851174.1 MULTISPECIES: formate dehydrogenase subunit gamma [Campylobacter]

MRKVFVTLLLSVVSLFAYGSERMGQDTQIWDFHRITNIPNYDTFGKLWTTLQGEYIATIALIAVIAVLSA

FALHYMVIGPKQFSHDGKKIYAFTLFERLFHFIAAISWVILVPTGFVMMFGEVFGGGVFVRVCKNLHAFA

TILFIISIIPMFLCWIKRMLPASYDIRWMMIVGGYLSKIKRPVPAGKFNFGQKSWYYIAVFGGFLMIITG

GFMYFLDFNSTAIQGLFGLTQIELLRISAIVHNFLGIVCAVFFGVHIYMAVFAIKGSIHSMISGYKEEEE

VYILHSYWYKELSNKKQIEPSFSYDPNVKI

>WP\_002776330.1 MULTISPECIES: hydrogenase accessory protein HypB [Campylobacter]

MCKDCGCSINSSHTHGHHHDHHHENPSLKEGKTIEVISKILSKNDEEAKHNRAHFNEANTLCINLMSSPG

SGKTTLLESTIKALKNELKIAVIEGDLETNNDALRVKNAGALAYQITTGQSCHLDAFMVHEALHHLAIDD

VDLLFIENVGNLVCPASYDLGEHLNVVLLSITEGSDKPQKYPVMFKKADIVLITKADLAHHFDFDIKEAT

RLIKELNPRADIITLDAKNGTNMELWYKVLKLKKELF

>WP\_002858636.1 MULTISPECIES: type I glutamate--ammonia ligase [Campylobacter]

MGKFVNNIDDFFKFCKQNEVLFVDFRFTDMIGTWHHITYNLHAINEETFQTGIPFDGSSIHGWQPIEKSD

MILKPDAQSAFLDPFTADPTIIVFCDVYDIYKGQMYEKCPRSIAKKAIEHLKNSGIADTAYFGPENEFFV

FDSVKIVDTTHCSKYEVDTEEGEWNDDREFTDSYNTGHRPRNKGGYFPVQPIDSLVDIRSEMVQTLEKVG

LKTFVHHHEVAQGQAEIGVNFGTLVEAADNVQIYKYVVKMVAHLNGKTATFMPKPLYGDNGNGMHVHMSL

WKNGVNLFYDKDGYSGLSQTAINYIGGILKNARSVAAFTNPSSNSYKRIVPGFEAPCILTYSCQNRSASC

RVPYGIGKNSARIEIRFPDSTANPYLAFVSLLMAGLDGIKNKTIPVGPMDENLFDLTLDEIREKGIEQLP

HTLRGSLEALIRHNSYLKPVMSDIFIDDYQHLKFETQVWPVEARPTAYEFKTCYSC

>WP\_002858416.1 MULTISPECIES: type I methionyl aminopeptidase [Campylobacter]

MIELKKPDEIEKLRIANQIVAKTLNFLENEIKIGMSLKQIDKMAEDYILSLGAKPSFKGLYGFPGAICTS

LNQVCIHGIPDDKIIKEGDILGLDVGSLIDGYYGDAARTIAIGEVSPADKALISCAKDALYHAIDIIRDG

MRFKELSAALGEFIHVRGFVPLRGYCGHGIGRKPHGEPEILNYLEKGASAKSGPKIKNGMVFCIEPMICQ

KDGTPKHYNGKWDAGSIDGLNAAHYEHCVAVINGRAEILSMI

>WP\_002851648.1 MULTISPECIES: thioredoxin-disulfide reductase [Campylobacter]

MLDVAIIGGGPAGLSAGLYATRGGLKNVVMFEKGMPGGQITSSSEIENYPGVAQVMDGISFMAPWSEQCM

RFGLKHEMVGVEQILKNSDGSFTIKLEGGKTELAKAVIVCTGSAPKKAGFKGEDEFFGKGVSTCATCDGF

FYKNKEVAVLGGGDTALEEALYLANICSKIYLIHRRDEFRAAPSTVEKVKKNEKIELITSASVDEVYGDK

MGVAGVKVKLKDGSIRDLNVPGIFTFVGLNVRNEILKQDDSKFLCNMEEGGQVSVDLKMQTSVAGLFAAG

DLRKDAPKQVICAAGDGAVAALSAMAYIESLH

>WP\_002780453.1 MULTISPECIES: type I glyceraldehyde-3-phosphate dehydrogenase [Campylobacter]

MAVKVAINGFGRIGRCVARIILERNDIELVAINDTTDIELTKYLFKYDTVHGEFKGSVDSEGDDLVVNGK

KIKVFKSRNVKDLDFAKHGAQIVLECTGAHLTMAKCQEFIDMGVQKVIMSAPAKDDTPTYVLGVNSELYK

GESIISNASCTTNCLGPVCRVLQDNFGIEKGLMTTIHAYTNGQSIIDAKAKDKRRSRAAAQNIIPTSTGA

AKAMKLVMPELNGKLHGQSMRVPVIDVSSVDLTAQLSRKVSKDEINEAFRKAAATNLKGILMVDDDERVS

SDFITCSYGAIVASDLTQVIADDFIKVIAWYDNEWGYSSRLVDMAVYIANKA

>WP\_002776292.1 MULTISPECIES: phosphate ABC transporter permease subunit PstC [Campylobacter]

MLKEKIIKFALFLCAFVSVIVSFAIMLTILIEALKFFQKESVVTFLFSSQWAADAAFMNADGTSKQGVFG

ALSLFWGTFYISLIAMLTALPLGVMCAIYLGVFAGKKSKNYLKPILEIIAGIPTVVFGFFAAIVVAPFIV

WFFSLFGIQASFQSALGAGFIMGIMIVPIVASLSQDCIEAVSEKRINGAYALGMTKKEVVFAVILPEAIP

GIVAACLLGLSRALGETMIVVMAASLRPNLTLNFLEDMTTVTVKIVEALSGDQAFDSSLALSAFSLGLVL

FVITLIINMFSVYLINRFHKRKNL

>WP\_010891909.1 tRNA pseudouridine(55) synthase TruB [Campylobacter jejuni]

MNKIFAAFKPRGLSSNAFLSTLKKKYKNKKAGYSGTLDPFAKGVLIVAFGQYTKLFRFLKKTPKTYKATL

WLGVYSLSLDDQNIKEIKNIKEFDLPNLQQIIDQMQGIISYTPPQFSAKRINGTRAYELAKKGIEVNLKP

CQMEVFDCKILSYNHPFLNIEITVSEGAYIRSYCELFARKLGINATLSSLERIKEGKFVYNNEKSLNVLK

YINLKPNFIKDLNKLENGAKIFVEELEFHDKGDYYIETEKYFSIINIKENTVKYLLNKVEKC

>WP\_002858203.1 MULTISPECIES: tRNA (guanosine(46)-N7)-methyltransferase TrmB [Campylobacter]

MPNFKSKKIKEINLPYSKDDVEFLWLAKNDNVSLIYTKVQEESFFLQIKKAQNGFVIKGDKHTKPSKIGY

LQKALKIFKEGFCEDIINEAFGLKNNALIEKTPFIVDNFDELLSRLQGKIYIEIGFGSGRHLLYQAKENP

NVLILGVEIYNPALTQVAKLAKAQNVNNILLIQSDARLLLSVLKSKSVEKIFLHFPVPWDKKPHRRVIGK

DFCKECARVLVQNGRFELRTDSFEYFNFTLEQFLTFPAPKFSLRKNENLEISSKYEDRWKKQEKNIYDLW

VWNFNQECKNYELNEFNLSSVEFSKEDLKKIEQNFKNITIKKDDFFLHFESIYKQDENLLLKVAFGAFNK

PEHCYLHLDKTIDFAFKEPFKIQENIKAINELKEILKVQFKI

>WP\_002851469.1 MULTISPECIES: multidrug ABC transporter permease/ATP-binding protein [Campylobacter]

MPFIMELLKQNKLKLISFLLFSFITSAVGVLTLVFINDYLLKNAQNIPIFYFIVLLLIFFISSTIVELGL

SIFGQNFIFKMQRRVVKQILDTPLLRVAKVGKARILASLGSDVRNISFGLLRLPDFLQSSILILCTSVYL

CYLSPQIFALCVVWIMVIFITNNFLMMKVYQYFRKARENDDALQNNYQNILDGHKELLINRDRAKLYYED

EFENNARLKKKNSTLGNLFNNLSNNWTNVTLLALVGVEFYLALKFEWASVADATTIALSILFLRTPLVSM

IGSFPTLLLAKIALDKIAKLELDDYIEGFKKTHYISEWKKISFRNTQFAYEENFHLNPVNIELKKGELVF

LIGKNGSGKSTFCMLLTGLFKPSKGGIYVDDTLIDDKNLDEYRSLISAVFSDFHLFTKTLNKENFASEEK

IAFWLEFLELKNKTSVKDNELTLTKLSTGQKKRLAMLIALLEERDILVLDEWAADQDPVFRRFFYKKLLP

LLKEQGKTIFAITHDDAYFDSADRIFLAQNGEISELKGENIKELAKNLVEKFD

>WP\_002857293.1 MULTISPECIES: hypothetical protein [Campylobacter]

MDKAKIVQNLNALFKQRAEFYSYFDENIAKINNTEVFDFKNAKNLNPEEVYKQFYHFDYAIRKLLPAIYK

AYEITDADLDKDF

>WP\_002852415.1 MULTISPECIES: hypothetical protein [Campylobacter]

MNQNNNKTLKNELEDLQYELSIVLEAMLLYAGVKREKLENAIEAYIDNIDNVLENSNKEGVDEILEVVEF

LKNKYKDFFQ

>WP\_002852327.1 MULTISPECIES: hypothetical protein [Campylobacter]

MFDEKIINTMTDKVNELIEKYNEVCEANEALRNELVSVKAQNEAKSNQIMRLEEELKSRNIESEDIYKKI

EAVLGR

>WP\_002865516.1 anaerobic C4-dicarboxylate transporter [Campylobacter jejuni]

MDFLTSLSEAGQFAIQIIIVLICLFYGAKKGGIALGLLGGIGILMLVFAFHIKPGKPAIDVMLTILAVVV

ASATLQASGGLDVMLQIAERILRRNPKFLTILAPFVTCFLTILCGTGHVVYTIMPIIYDIAIKNGIRPER

PMVAASISSQMGIIASPVSVAVVSLTALLLNANHKLAGFDGYINLLQITIPSTLFGVLCIGIFSWFRGKD

LDKDEVFQEKLKDPEFKKYVYGDSKTLLGVKLPKSNWVAMWIFLGAIALVALLGVFDFLRPNWGQVVKNG

IPQVDALGNPKMDVLSMVSVIQMFMLLAGSLIIIFTKTDAKKIGSNEIFKSGMIALVAVFGISWMADTMF

AVHTPMMKAALGDIVKEHPWTYAVMLLLISKFVNSQAAAISAFVPLALGIGVEPGVIVAFAAACYGYYIL

PTYPSDLATIQFDRSGTTHIGKFVINHSFILPGLIGVITSCIAGYFIAMAAGYL

>WP\_002783228.1 MULTISPECIES: OXA-61 family class D beta-lactamase OXA-193 [Campylobacter]

MKKITLFLLFLNLVFGQDKILNNWFKEYNTSGTFVFYDGKTWASNDFSRAMETFSPASTFKIFNALIALD

SGVIKTKKEIFYHYRGEKVFLSSWAQDMNLSSAIKYSNVLAFKEVARRIGIKTMQEYLNKLHYGNAKISK

IDTFWLDNSLKISAKEQAILLFRLSQNSLPFSQEAMNSVKEMIYLKNMENLELFGKTGFNDEQKIAWIVG

FVYLKDENKYKAFALNLDIDKFEDLYKREKILEKYLDELVKKVKNDG

>WP\_002851611.1 MULTISPECIES: GTPase ObgE [Campylobacter]

MFIDSVKITLASGDGGKGAVSFRREKHVPLGGPDGGDGGNGGDIIFVCDNNTHTLVNFKGKRELRAQNGA

GGMGRNKNGKKGENLELIVPEGTQVIDAQTNEILLDLTKEGQRELFLKGGKGGLGNTHFKHATNQRPDYA

QPGIKGESRLVRLELKLIADVGLVGFPNVGKSTLISVVSNAKPEIANYEFTTLTPKLGLVDVNEYNSFVM

ADIPGIIEGASGGKGLGLAFLKHIERTSFLLFVLDPMRQMPLKEQFIVLRKELEKFSNELFGRKFGIMIS

KSDSVRLGEEFAEQIALNINELDNYLKEINNPQSFLIKVSSLEKTGLKELKFMLLEEIKTLRNNKKNLTI

>WP\_002858758.1 MULTISPECIES: threonine ammonia-lyase [Campylobacter]

MLELNKIYKAKQQISGFVNKTPFIYSSFLSDICQSEIYLKNENLQITGAYKIRGAYNKIANLSTEQKQHG

VIAASAGNHAQGVAISAKKFSIKAVIVMPESTPLLKVSATKALGAEVILRGDNFDEAYAFATSYAKENNL

SFIHPFEDEFVMAGQGTLMLEMLDEISDLDMIIAPVGGGGLISGISSTAKQINPNIKIIGVGAKGAPAMY

ESFHAKKIKNAKSVRTIADGIAVRDANPINFNIILECVDDFIQVDDEEIANAVLFLLEKHKIIVEGAGAA

SVAALLHQKINTQNHKKIGVVLSGGNIDAQMLNIIIEKGLFKSYRKMQIYVTLVDKPGALLHLTDSLKIA

NANIVKIDYDRFSTKLDYGDAMISITLETKGKEHQEEIRKILTQKAFNFYESF

>WP\_002825273.1 MULTISPECIES: co-chaperone GroES [Campylobacter]

MNFQPLGKRVLVKRVEETKTTASGIIIPDNAKEKPLMGEVVAVSKEITDIANGDKIVFAKYGGTEIKLDN

NEYLVLNLDDILGILK

>WP\_010891854.1 shikimate dehydrogenase [Campylobacter jejuni]

MKFLAVIGDPISHSKSPRMHNNAIKALGLDSIYTRYHLRNANCLREDFFKLGLSGANITLPFKEKALDIA

DVKDDFARNIGSANTLCLKEDKIYAYNTDALGFLEAIKDFDNIKKALILGAGGTALALAYVLKQKGVEVY

IANRSKERFKDFLAYPTYLYKNLQDFDFDLVINSTSAGLKDENLPCDRELLDRILPKAKFAFEVIYGRET

PFYRLCKEYHLKIKDGLDMLLWQGVFAFELFFEIQDKREMIKNAMQQALILK

>WP\_002851903.1 MULTISPECIES: 16S rRNA (uracil(1498)-N(3))-methyltransferase [Campylobacter]

MQFLYNKQAGEEFIQLQGENFNHLKVRRVKENSELNLRNLQDNFLYNYTITNLTRNSCTLKFLNKKSQNI

KQSELNLALAIIDIKILEKTLPFLNELGVKKLHLVFTNFSQRNFKIDLERFEKIIISSCEQCGRNTKMDL

IIHQSTQEFVQKFPNAIMVDFQGEQQSHFDEKELYFIGPEGGFNNDERLLFNRKISLKSSNILKSQTAII

AIASKILL

>WP\_002858699.1 MULTISPECIES: YajQ family cyclic di-GMP-binding protein [Campylobacter]

MASEHSFDISAALDKQELKNAFEQAKKELDSRYDLKGIKCEIDLSEKESIFKLSSSSEGKLDVLKDIVIS

KLIKRGINPKAIKELSRESGAMFRLNLKANDAIDSENAKKINKVIKDSKLKVNSSIRGEEIRVAAKQIDD

LQAVMKLVKELDLELNISFKNLK

>WP\_002858649.1 MULTISPECIES: mononuclear molybdenum enzyme YedY [Campylobacter]

MLITPEKLYKQRRNFLKLGAGALISSSVLASKLSALNFTSDTNPNKLEISDEELATNYVNFYEFSTDKRK

AVSLAQNFNTQNWKIDISGEIEKPLTLSMEDILKFPLEERIYRFRCVETWSMVVPWVGFELRRLIEMAKP

TSEAKFVKFTTLLDKSQFPDQDALFPTIDYPYVEGLRMDEAMHPLTLLAVGMYKKALKPQNGAPIRLVVP

WKYGFKSIKSIVKIEFTKEQPKSTWESYAPSEYGFYANVNPNVSHPRWSQANERALGDFFTKPTLMFNGY

EKEVASLYKNMDLKVNF

>WP\_002851967.1 MULTISPECIES: cytolethal distending toxin subunit A [Campylobacter]

MKKIITLFFMFITLAFATPTGDLKDFTEMVSIRSLETGIFLSAFRDTSKDPIDQNWNIKEIVLSDELKQK

DKLADELPFGYVQFTNPKESDLCLAILEDGTFGAKSCQDDLKDGKLETVFSIMPTTTSAVQIRSLVLESD

ECIVTFFNPNIPIQKRFGIAPCTLDPIFFAEVNELMIITPPLTAATPLE

>WP\_002858744.1 MULTISPECIES: ribosome biogenesis GTPase Der [Campylobacter]

MQSIILIGKPNVGKSSLFNRMARQRIAITSDISGTTRDTNKTQIHIHSKKAMLIDSGGLDESDELFKNVK

KNTLKVAKESDIILYLVDGKLAPDDEDRQFFYSLKKLGKPIALVINKVDNKKDEERAWEFANFGVKEIFN

LSVTHNVGLDELYEWLEKFLHEEFLIPDEEENLEDFLEYYEEGKEFQFKEVDQNHIRVGIVGRVNVGKSS

LLNALVKQERSVVSSIAGTTIDPVNESVVHKDKVIEFVDTAGIRKRGKIQGLERFALNRTEKILSHSQIA

LLVLDAHEGFNELDERIAGLVAKHYLGVIIVLNKWDKSEMDFDKTVKELRLDRFKFLAYAPVISVSALSG

KRVHVLLDKILQIFENFTQKIQTSKLNTLIENATRAHPLPHDYGKLVKIYYAVQYDLAPPKIALIMNRPK

ALHFSYKRYLQNQIRKEFNFEGVPLVIASRKKGSKENDES

>WP\_010891823.1 cytochrome b6 [Campylobacter jejuni]

MKKIIMILCLSYANIVFAVDMITPIPNSISYDKEKAKLGKSLYMDKSLSKDGKVSCNTCHRLDQHGVDGL

EFSIGVDNQLDKPFNTPTTFNSVFNFVQFWNGRAKDLAEQATVPFFNPKEMGLSPELLLQKVNSNENYVK

TFKKLYGEVTVENIALAVAEFEKTLITPNSPFDRYLSGDQNAISTQAKKGYEDFKANGCISCHQGQNIGG

NMFQKIGIFEEYPNQEDLGRYEITKREADKMVFKVPSLRNIAKTAPYFHDGSIPTLDACVQFMAYYQLGK

FLDQETVDNIVAFLESLTGEYHDK

>WP\_002860564.1 MULTISPECIES: cytochrome c [Campylobacter]

MKKHILLLGLCLSLSLSAKSVSDYKVGEELSDKEGVEYFKELSKRPVQEWPNKNLSINDVPKGKQGDLIR

YGIELLSKTESTLGPYSKLKKTSNEVNCISCHMDNDGNGLPGTKKYVIPFLNILNNYPRLDIETMKIISV

EDRIRGMGGTDSHRFPNDSKEMKAILAYFKWLKEAYGIKDGVKLEGDFFAKMNFPNRPADPVRGKKLFEE

NCVACHGERGLGVKNDNYEQGSGHLYPSLLIYPDGGHMAMIPFLARFLKSAMPFGASADNPILSDEDALD

IAAYVNTGFVRMPITTTENRAGLDTAYSKSPSLKPEYFASPQQNLDPKEYIKVKYGPWKNPNHFPGE

>WP\_002857587.1 MULTISPECIES: cytochrome c biogenesis protein CcsA [Campylobacter]

MKVKSLLIASLVAFSSLNAASLIDEAKNSGLVALPKDQKGVDEILKQNGVKASEFTLEKAELGKKLYFEP

RLSKSGIISCNTCHNVGLGGTDGISTAIGHKWTANPHHLNSPTVYNAVLNNTQFWDGRAGTLADQAKGPI

QADPEMATPAKLAVEKISSLPEYVSEFKKIYGKSGVNFDNIADAIANFERTLITPSRFDKFLEGDEKALT

KEEQKGLKLFIDKGCVACHNGVNLGGNMQAFEVAGKYKFANLGDFKGDANGMVKTPTLRNVAETAPYFHN

GAIWNLKDAIKEMGSVQLGIKISDKEAKSIETFLKSLTGTKPAIVYPQLPISTEKTPKPEL

>WP\_002854555.1 MULTISPECIES: 5'-nucleotidase SurE [Campylobacter]

MKEILITNDDGYESEGLKKLIKMLTKEFKAKITIVAPASEKSACSHSITLTKPLRFVKVGKRFYKLDDGT

PADCVYLALHALYKKRLPDLVISGINKGANVGEDITYSGTCAGAMEAVLQGIPAIALSQFYKKSEKELDY

KNALQITKKIIQNIFDKGFPLEKKEFLNINFPAKSKIKGIKICKAGKRVYNFEAHSNVNPRGVEYYWLAA

ANLDFEDEKNSDIALLKKGYATITPIMLDLTAYERMKKVKKWLKANDE

>WP\_002853099.1 MULTISPECIES: cytochrome c [Campylobacter]

MKKIILILALFLSASWAQNLEINPDTGLIIDPDSPLVEANCLACHGSNLITNMHASRKAWLAAIRWMQDS

EGLWEIEPEDEEKILNYLEKYYGEKYDTRRRIPLAILLQNKTH

>WP\_002853050.1 MULTISPECIES: cytochrome c [Campylobacter]

MIARWLFISSIFVVALFGINLKSFFTYTFDANKQYDMEKAKALYFQNKCNTCHGDNAEKSVIGSRILKDM

SPEDIKGALIGYTLDSSSSTTASQMAFYARNLSHEDIDNIIAYIKGGNFALDLQVKDLLEEEPAQKTKHN

IFLK

>WP\_002852963.1 MULTISPECIES: cytochrome c biogenesis protein [Campylobacter]

MKNIIKSIGDLRVSVVLFLLFALFCALATFIESAYGTPTAWAMVYDTFWFEYIQLLLGINLLCGMFRYKM

FGLKKLPLMIFHISFLFILVGSAMTRYAGFEGILPIREHTQNSLIESSKTSLRISAIKDGERYSAVNDRY

IGNLPFANSFKLKLNLGDDQAVLKYKDLILNAHYTYKENNNSDPLLVLMLSQKGSQGVDVKFEKGEVKNI

EGVNFAFMNDNVKAPFVKIDENLTLSSSENLHFLSMLDGQNLDLKIGEKANAKERRLYEINDISFVVKAA

SLHAQEALEGSNRPQDESFWLWFKSAWLEVGRTMLISTFGEPQNWKNSLLLHFKDFALSNENKNLELTGS

NALKLELSYKNESKEFYIFEYNKPIMIELADQKFFISWALSYEQLPFDIYLRDFVLDRYPGSMSPASYAS

EITVKNNNENFDYRIFMNNVLDYDGYRFYQSSYDQDEKGTVLSVNKDPGKIPTYIGYFLLCLGMFMNFLN

PHSRFRTLARLINKDTLKHTSVIIFILLLSFGSEKTFAQDLNSTLPVVNTNHAKALATLIVQKSADGRMV

PFDTLSREILEKIHQSDSYKGQNSNAVMLSMLVDVDKWQLEPFILMPQNQAVRDAIANILEIPSAKYIAY

KDFFDENNRYKLQKYVENANRKNPNARGVFDKEIIKLDERANVVNLVFSGELFKFIPVQNNPNNVWLAPF

SAVTTLKGDEGHIVLALIQNYFSAVENAFKDGNWIRADEGLKFIKEYQEKIGYKVMPSKTKVEMEIFSNK

AEIFVKLAPVYLIAGFLLLILVFSKMVVPNLKISFIFKVVYVLNVLAFVIHTVGLGLRAYLSGHAPWSNG

YESMVYIAWALSLSGIFFSRKSPIALSLTSILSGVVLMVAHLSEMNPQITNLVPVLNSYWLSIHVSVITA

SYGFLGLCALLGIFTLFLMCFLKKDGKYNLNILRNITEATRINEMAMIFGLCLLTVGNFLGAIWANESWG

RYWSWDSKETWALVSILVYAAILHLRMIPKYCNQFVFALWSMFAYWVIIMTYFGVNYFLTGLHSYAAGEA

AQIPNYVYWGFALMVVLAFFARRKRNFVGKL

>WP\_002852762.1 MULTISPECIES: cytochrome c [Campylobacter]

MKKLLVVSALACLGVSAFAADGATLFKKCAVCHGANADKVYLNKVPALKTLSSAERLQYMKEYSEGKRNA

YGQGAIMKLNLKGLTEEDFKAIEAHIETLK

>WP\_002851702.1 MULTISPECIES: cytochrome c [Campylobacter]

MKKIFISFVVLATCLWAKNTAYTDEVVSLYLNKDDTKVIGRLLPTNPFEVLKSENNRVLLKIDGYVNPKA

PSVIYFNDSQRIIVAAFSKNTKLNFSQRITGKNGKWDKVSLEIWADKKEFVKDNKEMLNRAKELFVNNCG

ICHAIHKEKEFTANAWPAIFRSMADRTGIDKKDRWLVIEYLQKNAKDFKTK

>WP\_002859130.1 MULTISPECIES: 4-diphosphocytidyl-2C-methyl-D-erythritol kinase [Campylobacter]

MKAYAKANIFLKLTGFDSRKYHLLESRFILLKDVFDELELVDKESDSKKEFEIISNFKCENNIIQKAYLL

LSRRYNNELKELFSKKSLKLTKNIPVCAGLGGGSSDCASFLLLINETLNLKLNLQELINLSIQLGSDIAF

FLSGFHSANVSSCGEIIEEFEDDIPNLKWTFPQISCQTKAVYDEFDRGIFDFQKNNNQAQIYKKLSTKEL

LQNFKNKELNDLFTPCATLYPKMKSYLQEDFFLSGSGSSVFKVDR

>WP\_002858290.1 MULTISPECIES: alpha-2,3-sialyltransferase [Campylobacter]

MSMNINALVCGNGPSLKNIDYKRLPKQFDVFRCNQFYFEDRYFVGKDVKYVFFNPFVFFEQYYTSKKLIQ

NEEYNIENIVCSTINLEYIDGFQFVDNFELYFSDAFLGHEIIKKLKDFFAYIKYNEIYNRQRITSGVYMC

ATAVALGYKSIYISGIDFYQDTNNLYAFDNNKKNLLNKCTGFKNQKFKFINHSMACDLQALDYLMKRYDV

NIYSLNSDEYFKLAPDIGSDFVLSKKPKKYINDILIPDKYAQERYYGKKSRLKENLHYKLIKDLIRLPSD

IKHYLKEKYANKNR

>WP\_002853292.1 MULTISPECIES: ATP synthase subunit C [Campylobacter]

MKKVLFLLLACTAVAFAAETNAPVEQEAINVWIKAFSVLAAGLGLGVAALGGAIGMGNTAAATIAGTARN

PGLGPKLMTTMFIALAMIEAQVIYALVIALIALYANPFIVLQ

>WP\_002853034.1 MULTISPECIES: exodeoxyribonuclease VII small subunit [Campylobacter]

MSFEENLKHANESLEKLNNQELALDESVKIYKEGLESIKKARLELEKAKLEVEQIDE

>WP\_002852880.1 MULTISPECIES: ubiquinol-cytochrome c reductase iron-sulfur subunit [Campylobacter]

MATSESRRSFMGFAFGSVAAVGGVFSLVAMKKTWDPLPSVKAAGFTTVDLSGMQDGELRTIEWRKKPIFI

LKKDASMPKDEKRDVVVDNAAYTVVIGLCTHLGCIPAYQPSEQLFKCACHGGEFDTSGKNVFGPPPKPLE

IPPFKIDGTKLVLGEEGPEYKKMIAEA

>WP\_002852870.1 MULTISPECIES: glycosyl transferase [Campylobacter]

MQKLGIFIYSLGSGGAERVVATLLPILSLKFEVHLILMNDKISYEIPECQIHFLECSKPSENPILKFLKL

PFLALKYKKLCRNLGIDTEFVFLNRPNYIALMARMFGNKTRLVINECTTPSVMYMKNNFNSLVNKFLISL

LYPKADLILPNSKGNLEDLVQNFSISPKKCEILYNAIDLENIGQKALEDIALKDKFILSVGRLDKGKNHA

LLIRAYARLKTDLKLVILGEGVLKDELLALIKELNLEEKVLLLGFDNNPYKYMAKCEFFAFASVFEGFSN

VLIESLACSCAVVCTDHKSGARELFGDDEFGLLVEVDNENSMFQGLKTMLEDDKLRKAYKNKAKTRAKAF

DKVKIARDALKYLLG

>WP\_002852062.1 DNA ligase (NAD(+)) LigA [Campylobacter jejuni]

MKKEEYLEKVALANLWMRAYYEKDEPLASDEEYDALIRELRVFEEQNKDEISKDSPTQKIAPTIQSEFKK

IAHLKRMWSMEDVFDESELRAWAKRAKCEKNFFIEPKFDGASLNLLYENGKLVSGATRGDGEVGEDITLN

VFEIENIPKNIAYKERIEIRGEVVILKDDFEKINEKRALLNQSLFANPRNAASGSLRQLDTSITKERNLK

FYPWGVGENTLNFTKHSEVMQFIRELGFLKDDFVRLCANLDEVLKAYDELLALREKKPMMMDGMVVRVDD

LALCEELGYTVKFPKFMAAFKFPALEKTTRLIGVNLQVGRSGVITPVAVLEPVNLDGVVVKSATLHNFDE

IARLDVKINDFVSVIRSGDVIPKITKVFKERREGLEMEISRPKLCPTCQSELLDEGTLIKCQNIDCEDRL

VNSIIHFVSKKCLNIDGLGENIVELLYKHKKITTLESIFHLKFNDFEGLEGFKEKKINNLLNAIEQAREC

ELFRFITALGIEHIGEVAAKKLSLSFGKEWYKQSFEAYANLEGFGEQMALSLCEFTRVNRTRIDEFYKLL

NLKIEKLEIKSDGVIFGKTFVITGTLSRPRDEFKALIEKLGGKVSGSVSKKTDYVLFGEEAGSKLSKAKE

LEVKCIDESAFNELVKE

>WP\_002858574.1 MULTISPECIES: beta-ketoacyl-[acyl-carrier-protein] synthase II [Campylobacter]

MKRVVVTGIGMINALGLDKESSFKAICNGESGVNKITLFDATDFPVQIAAEVKNFDPLEVVDGKEVKKID

RFIQLGIKAAREAMQDAGFSEELDKEEFGIVSASGIGGLPNIEKNSIICSERGPRKISPFFIPSALVNML

GGLISIEHGLKGPNISCVTACAAGTHAIGEAYKSIALGNAKKMLVIGAEAAICPVGIGGFASMKALSTRN

EDPQHASRPFDKERDGFVMGEGAGALVFEEYEEAKKRGATIYAELIGFGESADAHHITSPTLDGPLRAMK

KALNMAGNPKVDYINAHGTSTPVNDKNETAAIKELFGNNIPLISSTKGQTGHCLGAAGAIEAVVSVMVLR

DGVVPPTINQLVKDDECDLDYIPNISRKVDLKVVMSNSFGFGGTNGCVVFKKVD

>WP\_002858454.1 MULTISPECIES: UMP kinase [Campylobacter]

MQERKRVLVKFSGEALAGENGFGIENSILKFIASEIKELIKNQIEVGIVIGGGNIIRGVSAAKGGLIKRT

SGDHMGMLATVINAIAIQEALESSGLEVRVQSAIQMEAFCETYIMRRAQRHLEKGRVVVFAAGTGNPYFT

TDTTAILRAVEIDADMVIKATKVNGVYDKDPKQFDDAVFLNTLSYDEAMQDNIKVMDDTAIALAKDNKLP

IVVCNMFEEGNLLKIIQGDTSLCSTVKNN

>WP\_002852968.1 MULTISPECIES: IMP dehydrogenase [Campylobacter]

MKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISAAMDTVTEHRAAIMMARLGGLGVIH

KNMDIASQVREVKRVKKSESGVIIDPIFVSPKASVAEALEIMAEYRISGVPVVDEDKKLIGILTNRDLRF

ESDFSNLVENVMTKMPLITAPKGCTLDDAEKIFSTNKVEKLPIVDEQGRLEGLITIKDLKKRKEYPDANK

DNFGRLRVGAAIGVGQMDRVDALVEAGVDVVVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAA

KALCEAGVDAVKVGIGPGSICTTRIVSGVGVPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVG

ASSVMIGSLLAGTDESPGELFTYQGRQYKSYRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYV

GSIRSVVHQLLGGLRSSMGYVGAKDIEDFQKRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>WP\_002851756.1 MULTISPECIES: acyl-[acyl-carrier-protein]--UDP-N-acetylglucosamine O-acyltransferase [Campylobacter]

MKKIHPSAVIEEGAQLGDDVVIEAYAYVSKDAKIGNNVVIKQGARILSDTTIGDHSRVFSYAIVGDIPQD

ISYKEEQKSGVVIGKNATIREFATINSGTAKGDGFTRIGDNAFIMAYCHIAHDCLLGNNIILANNATLAG

HVELGDFTVVGGLTPIHQFVKVGEGCMIAGASALSQDIVPFCLAEGNRASIRSLNLVGIRRRFDKDEVDR

LSRAFKTLFRQGDLKENAKNLLENQESENVKKMCHFILETKRGIPVYRGKNNA

>WP\_002871806.1 aspartate--tRNA ligase [Campylobacter jejuni]

MRSHYNTDLGISHVGQSVKLCGWVNSYRDHGGVIFIDLRDRSGIIQLVCDPNDSKEAHEIASNARNEFVL

ITEGTIRPRGEGLVNPKLKTGEIEVVVSKLTIENESAVPPFAIADESVNEELRLKYRFLDLRNPKLYENF

ALRSKACIAARNSLANMGFLEVETPILTKATPEGARDYLVPSRVHQGEFYALPQSPQLFKQLLMCSGFDR

YFQIAKCFRDEDLRADRQPEFTQIDVEMSFCEQKDVIKVAETFLKDIFKACGKEIQTPFRQMQYKDAMEN

YGSDKPDLRFDLKFIDVIDIFTKSNNEIFANIAKDTKKNRIKAIRVPKGDTIFSKRQMQRFEEFVRKFGA

QGLAFIQVKKDGLKGPLCKFFSEEDLNELSKRCELEVGDVVFFGAGAKKTVLDYMGRFRIFLANELKLID

PNALEFLWVVDFPMFEQNDDGSYSAMHHPFTMPKNIDETDLEEISSIAYDVVLNGVELGGGSIRIHKNDI

QQKVFKLLNIDEEQQKEKFGFLLDALSFGAPPHGGIAIGLDRLIMLVTGANSIREVIAFPKTQRAQCLMT

DAPSPASNEAMRELGIKLRENIK

>WP\_002852069.1 MULTISPECIES: glycine--tRNA ligase subunit alpha [Campylobacter]

MTFSQMILNLQNYWQEQGCAIMQPYDMPAGAGTFHPATFLRSLGKKPWAAAYVAPSRRPTDGRYGENPNR

LGAYYQFQVLIKPSPDNIQELYLKSLENLGFDLKSHDIRFVEDNWESPSLGAWGLGWEVWLDGMEVTQFT

YFQQVGGIAVDLVSAEITYGLERIAMYLQNVDNVYDIVWSEFNGEKIKYADVHKQSEYEFSKYNFEVSDV

KILNEQFENSYKECKNILEQGLALPAYDYCMLAAHTFNLLDARGAISVAQRQDYMLKIRELSKNCAEIYK

KNLNEAE

>WP\_002855528.1 MULTISPECIES: triose-phosphate isomerase [Campylobacter]

MIFAANLKCNHTRASFKIYAKILNKTMGVKCDDIIVFPPSIAFLENENNFIQGAQNFYPCVNGAFTGELG

KEHLDEFGIKCVLIGHSERRALGDEEFIKAKFDFAKEHGYKIVFCIGENLDTKNSGKTLEFLKKQLEIID

LNYEKLIIAYEPIYSIGTGVSAQSTDIAKVLEFLASLTKVPLLYGGSVNENNIKEILSVNHCGGVLIGSA

ALKVENFIKLIKG

>WP\_002852836.1 MULTISPECIES: methionine adenosyltransferase [Campylobacter]

MYLFTSEVVSAGHPDKCADIIADTIVDILLKNDKNSRVASEVFVAGNKVVIGGEVKSNHKLSKADYDNLV

KDVLKNIGYDGAGHFSKEQCLHPDEVDVMVFLNEQSPDINQGVDQEDGETGAGDQGIMFGFASCEAEEYM

PAAISYARMLCDRVYAYAKANPHELGVDIKTQVTIDYGTKANFENCKPQSIHTIVVSAPCVESMKIEDLR

SLVMKLILDSNLPKELFDPNKTRILINPTGKYVNHSSLHDSGLTGRKLIVDSFGGYSPIGGGAQSSKDYT

KVDRSGLYAGRWLAKNIVAAGLAKKCIVQLSYAIGVAKPTSVSVDCMGTNTSVNDDVLSDFVMQNFSLTP

NWIRDKFHLDKPSKETFLYADVAARGQVGQKDYPWEKLDALEQFKKLL

>WP\_002864828.1 L-lactate dehydrogenase [Campylobacter jejuni]

MAKIGIVGLGYVGAASAYSIVIQGICSELYLYDIKQDLALAHARDLEDMSAIHFSYTKIFHVPNLENLAS

CDIIILAFRKESLKELPSRLVELKNNILELKDIVLTLKNANFKGKYIVATNPNDTITYYTQVLSQLPKNH

VFGSGTNLDSSRLKKLLAKDLNINSKDIFACMIGEHGDSQFAALSNASVLGQNLLDFYKQKLGKDLDIQE

LEKAVISEGYFIYERKGRTEFGIGTSCANLAKAILEDRKSLYPVSVVFDDIAFSMPAIIGKDGIEKVFEL

KFNEKEKIKLENSKQQIKNAIQSVKDKI

>WP\_002864547.1 inverse autotransporter beta-barrel domain-containing protein [Campylobacter jejuni]

MRGIFYIIALFSLLNGDELTEALAKNNNQNSWEHFDYKNTKEAPKIQEENVDFKSTFDSLLSKTLENNNG

IDKTDGNLDFQNENAQVKNLSSLYEGENNSLLFQKELFVAQDNYNYSGGLINRYEKDDFLFGVNGFIDKQ

KEQKDTKSFGTEFGYSKFIKAYSNYYIPNEAEKKLQLGMSFVIPTYTAFAFDISKDNDKTNYQVSYSPYS

VFSLNLLRRDYSARETVDDTVVQVGFSFNFNESFLKQFRKKDNTLEEVNRYDFLQRTH

>WP\_002858114.1 bifunctional heptose 7-phosphate kinase/heptose 1-phosphate adenyltransferase [Campylobacter jejuni]

MLEFLSQQKPKILIIGDFMVDNYTWCDCSRISPEAPVLIAKTLKEDKRLGGAANVYANLKSLGADVFALG

VVGDDESGKFLQENLKGEFLIQKGRKTPFKNRIMAHNQQVLRLDEEDISEILLENELIALFDEKIKDFKA

VVLSDYAKGVLTPKVCKAVIEKAKVLNIPVLVDPKGSDFNKYSGATLLTPNKKEALEALKFENLEGENLE

KGIKKLKEDFSLRYSIITLSEAGIALFDEGLKIAPAKALEVYDVTGAGDSVIAVLAFCLANEIEIFKACE

LANEAAAVVVSKIGSVSVSFDEIKSFKRVDFEKKIKSKEELLVLLKQNNKKIVFTNGCFDIVHFGHIKYL

DKAKRLGDVLIVGLNSDASVKRLKGESRPVNSEFQRACMLAAFYFVDFVVIFDEDTPLELISFLKPDILV

KGADYKDKLVVGADIVSRVELIDFEEGFSTSKIIEKIKDKK

>WP\_002852211.1 MULTISPECIES: acetolactate synthase small subunit [Campylobacter]

MRRVLSVIVLNEHGVLSRIVGLFSGRGYNIDSLTVAPLENKEFSRINIVTSGNERTFEQIVKQLHKLIPT

YKVIESEEFIDKEMALVKIPLNENLGGLDAVLKAYNGTIANSNENFLFLMVADDANRIDNFLKTIKKYNP

SDIVRSGSVLMEIK

>WP\_002851622.1 MULTISPECIES: gamma carbonic anhydrase family protein [Campylobacter]

MLIKFKNHSPKLGQNVFVAEGAKIIGEIEIGDESSIWFNCVLRADVNFIKIGKRTNIQDLSTVHVWHREF

DEKGKLKDAGFPTIIGDDVTIGHNCVIHACVIKNRVLIGMNAVIMDNALIEEDSIVGAGSVVTKGKKFPP

RSLILGNPAKFVRELNDEEVSFLKQSALNYVDFKNEFLKDLQ

>WP\_010891890.1 glutamine amidotransferase [Campylobacter jejuni]

MKKILFIDNYDSFSYTIIYYLKELSFECKVIKNDGFKKAKELEKFDFTHLIISPGPHSPKESKLSLKAIK

YFKKNKKILGICLGHQCIAEIFGGRVSKMQNPMHGKISKLYFKKDPIFKGIKKEIEICLYHSLHISSMPE

KCKILAHNSENIIMAIKHKKYPIYGLQFHPEAVLTQKGKKILKNFMKL

>WP\_010891850.1 rod shape-determining protein [Campylobacter jejuni]

MILDQLIGFFSSDMGIDLGTANTLVLVKDKGIVINEPSVVAVERERYDSKAKILAVGKEAKDMVGKTPGN

IEAIRPMKDGVIADFDMTEKMIRYFIEKTHRRKSFLRPRIIISVPYGLTQVERKAVRESALSAGAREVFL

IEEPMAAAIGASLPIQEPKGNLVVDIGGGTTEIGVISLGGLVISKSIRTAGDKLDMSIVNYVKEKYNLII

GERTGEEIKITIGSAIQLPKELSMVVKGRDQVSGLLSRIELTSEDVREAMREYLKEIADALKMVLEMMPP

DLASDIVENGVVLTGGGALIRGLDKYLSEIVRLPVYIADEPLLAVAKGTGKALEEISLLQQLTNEE

>WP\_002858684.1 transcriptional repressor [Campylobacter jejuni]

MELLQMLKKHELKATPQRLCVLKILKRHEHPNIDELYIEIKKEYPSISLATVYKNLNTLQEQGLVVEINV

LNQKTCYDIYEEEHIHVVCTKCGGIEDLSFKDAKLYEYQEHLEKKIGNLVNHLSVCAYVDNCKKCH

>WP\_002858441.1 thiamine phosphate synthase [Campylobacter jejuni]

MKNKLDLSLYLVATKGSKSEECFLNTLENAIKGGVSIIQLREKELNAREFYKLGLKVQKLCKSYKIPFLI

NDRVDIALALDADGVHLGQEDLEAKLARKLLGDEKIIGLSLKKLEQLEFIQGVNYLGCGAIKATPTKESS

LLSLELLSQICDKSPIGVVAIGGIDKEALVELKGINLSGVAVVRAIMDAKDAFLAAKELKRKIYENLSLK

>WP\_002858367.1 MULTISPECIES: thiamine biosynthesis protein ThiS [Campylobacter]

MIINGQKLELKELKFMDFIKEKGFKIELIALELNGEIVPKSEFENLILKENDKAEIVSFVGGG

>WP\_002854645.1 MULTISPECIES: tryptophan synthase subunit alpha [Campylobacter]

MVDFRKFYKENANVAYTVLGYPNLQTSEAFLQRLDQSPIDILELGVAYSDPIADGEIIADAAKIALDQGV

DIHSVFELLARIKTKKALVFMVYYNLIFSYGLEKFVKKAKSLGICALIVPELSFEESDDLIKECERYNIA

LITLVSVTTPKERVKKLVKHAKGFIYLLASIGITGTKSVEEAILQDKVKEIRSFTNLPIFVGFGIQNNQD

VKRMRKVADGVIVGTSIVKCFKQGNLDIIMKDIEEIFKK

>WP\_002854230.1 MULTISPECIES: transcriptional repressor [Campylobacter]

MLIENVEYDVLLERFKKILRQGGLKYTKQREVLLKTLYHSDTHYTPESLYMEIKQAEPDLNVGIATVYRT

LNLLEEAEMVTSISFGSAGKKYELANKPHHDHMICKNCGKIIEFENPIIERQQALIAKEHGFKLTGHLMQ

LYGVCGDCNNQKAKVKI

>WP\_002852949.1 MULTISPECIES: thiamine phosphate synthase [Campylobacter]

MWDKKIIAISDRKCVEIDFLKQIEKLAKAKVDAIVLREKDLSEFEYYDLAKEVLSICAKQKVTCFLHFFD

RECLKLGHRYFHAPLSLLRKEPKLTKYFHILGTSVHSKEELLEAMSYKVNYAFVGHIFESSCKMGLEPKG

IDFLKSLLEFSQIPLYAIGGINAQNIENFKDINVVGVCMREILMKEKDLKKYLLECRQNLR

>WP\_002800873.1 MULTISPECIES: ribosome maturation factor [Campylobacter]

MNLEALCKEAGLSFYDDELVSENGRKIYRIYVQKEGGVNLDDCARLSEILSPIFDVESPVNGEYFLEVSS

PGLERKLSKIEHFAKSIGELVKITTNEKEKFEAKIIAVDDENITLENLENKEKTTINFNDIKKARTFVEW

>WP\_002851318.1 MULTISPECIES: TIGR02757 family protein [Campylobacter]

MKNFIHLKAKLDFLANQKNTNHSLFETPDPLQIAKIHNDEFIALICALFAYGNAKNIVNFLKKLDFSLLN

LQEKQIKKELKNLKYRFQNEKDIQEIFITLSRLKNEISLYELFYQAYQERENTTDAILAFMQKIKTLNSY

SSYGYDFFFGKIWQNTPTSPLKRYNMYLRWMVRKDELDLGLFTKIHTKDLLIPLDTHAHKISLTLGLLKR

KIYDYKSVLELTQNLKKLDANDPIKYDFALYRLGQSKEIDKFKE

>WP\_002851387.1 MULTISPECIES: AMIN domain-containing protein [Campylobacter]

MKTRILAIFFIFTSLLYADENPFKTDQNITLVAPPEFQKEEVKFNSSARILKSITFNYINLDGSEDKIDL

DVNKSIDWHDTYTISRFKSPDPSKVLDVSVTIPEKNSSKQESNSTANVEIPLQVAKIYDFISYAVYKNKI

KLNTSDEMITDFSVGNPSKIVIDFRSKMISPTKNIRLSNSIFKRIDFGSHKGYYRLVIYLDGTYNYNIQK

DATGYMINLL

>WP\_002778123.1 MULTISPECIES: pantoate--beta-alanine ligase [Campylobacter]

MQVITSVKEAKQIVKDWKSHQLSIGYVPTMGFLHDGHLSLVKHAKTQDKVIVSIFVNPMQFGPNEDFSSY

PRDLERDIKMCQDNGVDMVFIPDATQMYLKNFSTYVDMNTITDKLCGAKRPGHFRGVCTVLTKFFNILNP

DIVYMGQKDAQQCVVVRHMVDDLNFDLKIQICPIIREEDGLAKSSRNVYLSKEERKASLAISQSIFLAEK

LVREGEKNTSKIIQAMKDILEKEKLIKIDYIELVDFNTMENIENITDNVLGAVAAFVGKTRLIDNFLVQG

LK

>WP\_002864264.1 MULTISPECIES: alcohol dehydrogenase [Campylobacter]

MDINKLKLTPDSSIKEALKIVGQERVRLGIIVDKKDKFLGVISDSNIRKALISGKTLKDSIKDIYTKNPI

TIKENTSKEQLLKISAKTDIYDFPVLDEKGQILSIKSISSLLKANPNSIIIMAGGLGSRLKELTKDTPKP

MLKVGKKPILESIIQRLKNQNFENFIFCVNYKKQIIEDYFQKGQKFGVKISYIKERKKLGTAGALSLIKQ

EFKESFIVMNADILTELDFNALLKAHKKSKALMSVCVREFEQQIPYGVITQKQGFIENIEEKPTQKFLVS

AGIYVLENEILNLIAKNEYLDMPELIKLVLQKGKVNTYIINDYWIDIGRPDEFLKANEDFK

>WP\_002858716.1 MULTISPECIES: membrane protein [Campylobacter]

MFLLDFLISLSFIFEISALVLSFYFKNSKIFFLTLVLLGAKLPYFYTSFFQANLFVALFLPMIFTLFCVG

KHHVLILNKKNIASITTLIFIGILSIILPRNTTFNSAGLEFHFIALDFFKPVSELGFLFFLVGLILIFIK

TFKTKEYYLLIAFFTAYFQFLFQEGAGIRYFEFASLVFCFYLLNHAYRLAFFDTLTKLPNEKSLTRFTKG

KNNYIIALLHFNELKDTKESYTKLILKQIAKILKRFRAKIFIVENDFILIFNDKNQALNHLAFLESTLKN

TEFNLENENFKPDFKLIWQESEENLDKNLQSLRARLLD

>WP\_002858688.1 MULTISPECIES: hypothetical protein [Campylobacter]

MFKKVILFFLMGFALLQANSLDKCDNTAVVSNLKEKIPSEIFKNLYELSGLKAQGIDYEDYAKGLKEIAK

HDGMVNYTDMIEVNSISNFDLNFDSCMATINAALKGEQRKGLWSVVYKVSNINQVKITDITYINGDFQ

>WP\_002853102.1 MULTISPECIES: CTP synthetase [Campylobacter]

MKQTKYIFVTGGVLSSLGKGIAAASIATLLKNSGLKVSILKADPYINVDPGTMSPFEHGEVFVTDDGAET

DLDLGHYERFLDESLSQDNNFTTGRVYQSVIEKERRGEYLGKTIQVIPHIVGEIKDRIKKAGEGKDILIV

EIGGTVGDIEGLPFLEAIRALRLEVGKNNAMNIHLTLVPFIKAAGELKTKPTQHSVGELRRIGISPDMII

CRSEKALDRDLKDKIAISCGVEKNCVIESVDAASIYQIPLNFLKQDILSPIAEILDLKNLKPNMENWDSL

VKRVIAPSNEVKIAFVGKYVDLKESYKSLTEAIIHAGAALDTKVELKWVDSEKLENMESSEVFKDVSGIL

VAGGFGYRGVEGKIKAIQYARENKIPFLGICLGMQLALVEFARNVLKLKDVNSSEFNEKCQNPVVYLIDE

FMDTNGEKQIRTAKTPLGGTMRLGAYKCDIKEKSLLAKVYNEVKSVKERHRHRYEANPKYRADFEKYGLI

VSGESKGLIEAVELNCHPFFLAVQFHPEFTSRLEHVNPVICSFIKAAINYEDN

>WP\_002852770.1 MULTISPECIES: galNAc(5)-diNAcBac-PP-undecaprenol beta-1,3-glucosyltransferase [Campylobacter]

MPKLSVIVPTFNRQVLLEKAIKSIQNQDFKDLEIIVSDDNSSDDTKSVVQNLQKDDDRIKYFLNQNYKQG

PNGNKNNGLDQASGEFVTFLDDDDELLSGALSTLMQKANEGYAHVFGNCLIEKEGNLSKEFSGKGLEKDS

EISKKDFLMAKFSGEFFSVFKKSLLENKRFNEEFYGNEATLWVNLYKEKSFYIHKAFRIYRIFRQDSVTL

GASKNAYRVYLGYLELAKILENELRMSKDKDYKKTCASYYKMAAYYAKLAKNYKALYKCLFKSLSIKINA

PALILLILSIIPNNMIEKLSKIRVALCKN

>WP\_002858685.1 MULTISPECIES: nucleoside-diphosphate kinase [Campylobacter]

MEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMISGPV

VVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>WP\_002858573.1 MULTISPECIES: NAD(+) kinase [Campylobacter]

MQNKIDYKNIKKIGLVTRPNVSLDKEILKLQSILSIYKVELVLLKESSEILDLPKYGLDDLFKISDFVIS

LGGDGTLISLCRKACEYDKAVLGIHAGHLGFLTDFKVDEAENFFQAFFQGEFRIEKPYLLSIFLEDRQGK

ILEKLAFNDVVISKNNQASMAHIEVFRKEKKFNEYFGDGLIVATPAGSTAYNLSANGPIVYTLAQAFILT

PVCSHSLTQRPIVLPKGFEIEIMAKDCMLCIDGQENYKMNDFKSIKVGLSDKNVALIHPKNRDYFQILKE

KLHWGN

>WP\_002854779.1 MULTISPECIES: indole-3-glycerol-phosphate synthase [Campylobacter]

MILDKIFEKTKEDLKERKLKLPYDMLGRSLASNPFFPKDVIKALKRVEKEVKIIAEVKKASPSKGVIRED

FDPLSIALNYEKNKAAAISVLTEPHFFKGSLEYLSLIRRYTQIPLLRKDFIFDEYQILEALVYGADFVLL

IAKMLSMKELKKLLEFARHLGLEALVEIHDKEDLSKAIFAGADIIGINHRNLEDFTMDMSLCEKLIPQIP

NSKIIIAESGLENKEFLEHLQNLGVDAFLIGEYFMREKDEGKALKALL

>WP\_002853265.1 MULTISPECIES: phosphoenolpyruvate carboxykinase (ATP) [Campylobacter]

MKKFDKLGLDNIKEIFHNLSYDELNAHEKANNEGLSTDNDTFCVDTGIFTGRSPKDKYFVKQDPSSKYIA

WGKVNQPITKELFDKLLTKAKQELSGKKIYVQDVFCGASLQSRKAVRFVTEIAWQAHFVKNMFIRPSQEE

LENFKADFIVYNACKCINEDYKQDGLNSEVFVIFNVEENIAVIGGTWYGGEMKKGIFSMMNYWLPLENKL

SMHCSANVGEKDDVALFFGLSGTGKTTLSTDPKRRLIGDDEHGWDDEGVFNFEGGCYAKTINLDPEHEPE

IYGAIKRNALLENVVLRADKSVDYADASKTENTRVSYPIEHIENHEPSLKAGHPKNIIFLSADAFGILPP

VSKLSKEQAMYYFLSGYTAKVAGTERGITEPQATFSACFGEPFMPLHPTVYARLLGEKIEKHEVNVYLVN

TGWSGGSYGVGKRMSIKATRACINAILDGSITKCEFENFEVFDLAIPKALEGVESVLLNPINTWLDKNAY

IATRDKLAHMFIQNFKRYEDVKEGIEFSKFGPKI

>WP\_002853142.1 MULTISPECIES: purine-nucleoside phosphorylase [Campylobacter]

MIICAGGNENFSFAKAIGIGLVESAFHLSQLCFKEKPSKLIFIGTCGLYDKGEILEIYRSSHAFNVEFSK

ISHAFYTPAKYEICLEKENVSRETIKINSSNYICQNSKAAKEFSKLGFFAENMEAFSVLSVAKNLNIDAE

CILCATNFCNENAHEDFIKNHQKAKENLEEYLKKYHYI

>WP\_002851945.1 MULTISPECIES: penicillin-binding protein activator LpoB [Campylobacter]

MKKTKILGTALIGALLFSGCAQTAYTDGKASQVKKGDALTLGLDRQDFESAAETMINSMLSDPAFANIKP

GTRKVIAIGRVVNDTPQRIDTEKLTAKITSALRKSGKFVLTSAVAAGGALDSMSEDVRELRDNDEFNQKT

IAKKGTLVSPDFSLAGKIRQDNVKLSNGKTQVEYFFLLRLTDLTSGLVYWEDEQTIDKTGSSKSVTW

>WP\_002851391.1 MULTISPECIES: 1-(5-phosphoribosyl)-5-((5-phosphoribosylamino)methylideneamino)imidazole-4-carboxamide isomerase [Campylobacter]

MTQIIPALDLIDGEVVRLVKGDYEQKKVYKYNPLKKFKEYEKAGAKELHLVDLTGAKDPSKRQFALIEKL

AKEVSVNLQVGGGIRSKEEVKALLDCGVKRVVIGSMAIKDATLCLEILKEFGSEAIVLALDTILKEDYVV

AVNAWQEASDKKLMEVLDFYSNKGLKHILCTDISKDGTMQGVNVRLYKLIHEIFPNICIQASGGVASLKD

LENLKGICSGVIVGKALLDGVFSVEEGIRCLAN

>WP\_002790076.1 MULTISPECIES: hypothetical protein [Campylobacter]

MVKNGLLLTIFLSVIGVLGVIFIHIFVGAIIFVLIAVLMIYLLRQHKDEQIMIDKLLVLCRELKEGNFDN

RIIYVKTKSKKLAEIADNLNNTIDGLEAYLREINTSISCSQKGEFYRKALPEGLKGIFAHNIEFINKALA

NIEVTARSTFKNALSRTLMDLSLGNQNKDMSQISSSLNQDISMMKNVYDTVDAISHTATENGSEVDSLQS

AMGSLMDVVNSSKETVQTFVANSQNITSVVEVIRDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVRK

LAERTQRSTSEISIAIQTMQQDFVNIQSGSEQVFNIVSESEERINKFSQAFKRLEENSSALGVNFGSFAK

RLILSVVKIDHILYKSNIYLNLNGAQNFNLESVDPISNLCQDERAQGVINELSSETELNLAKEFIKDNAK

KAIEESSQDYIDQKAYDAIVNDIKSLEQRSAEILAKLKI

>WP\_002865460.1 MULTISPECIES: UDP-N-acetylmuramoyl-L-alanyl-D-glutamate--2,6-diaminopimelate ligase [Campylobacter]

MKLKLENSFITDNTLECEKECFFLQTTQNAKFHAQALEKGAKIIDVNECKKLLKIDEKIQIIGITGTNGK

TTTAAAIYSILLDLGYKCGLCGTRGAFINDEQIDEKSLTTSPILKTLEYLQIATQKKCDFFIMEVSSHAL

VQNRIEGLNFAAKIFTNITQDHLDFHGTFENYKEAKELFFTDESLKFINKDALAIKFNVRNAFTYGIENP

ALYQIKAYSLEEGISTIVTNKNQTFHIDSPLLGLFNLYNLLVASACVNELVKPDLKDLEKAISGFGGVCG

RVEQVAKGVIVDFAHTPDGIEKVLDTLKNKKLIVVFGAGGDRDKTKRPLMGKIVEHFAKIAIITSDNPRS

EEPKTIMEEILSGFTKKEKVLMIEDRKEAIKKALELKENDDLVVILGKGDETTQEIKGIKYPFSDKVVVN

EILKNQG

>WP\_002865443.1 MULTISPECIES: ferrous iron transporter B [Campylobacter]

MKKIKIALVGQPNVGKSLLINALCKANMKVGNFSGVTIEKASAKTFYKNYEFEVIDLPGTYSLDGYSEEE

KITRHFLNQNDYDVIVNVLDATNLERNLILSAELLSLNKKMLLALNMCDEAKKEGIELDTSILSQEFQSQ

VVEISAKTKENLELLLQKIIILFESKFIPRSQFYTPLCEKSPEKEDLLYFINELSKKIITHKKEERNLTK

KIDALLIHKFFGLPIFLFLMWLLFQLTFSLGQIPMDYIESGFNTLGEFVKNNISNTFIASALADGIIAGV

GAVILFLPNIMILFLGIALLETTGYMSRVAFLLDGILHKFGLHGKSFIPLITGFGCSVPAFMATRTLKNK

RDRLLTLFVINFMSCGARLPVYVLFIGAFFPSEKAGNYLFGIYILGAILGLCAAKFLRMTAFRGLDEPFV

MEMPKYRMPNWHLVWFMVYNKAKMYLKKAGTFILLASLLIWFASNFPKSEENLNDFNAQERAIEQSYLGQ

FGKGIEPIFQPLELDWKLSVSLISGLAAKEVMISTMGVLYSLGKDVDETNNDLKGIIAKNIPIPSAVAFI

LFVMIYNPCFAATIVFSKESGKLKYTLFLFLFTCTSAYIVAFIGLHIAKILLN

>WP\_002858572.1 MULTISPECIES: phosphoribosylaminoimidazolesuccinocarboxamide synthase [Campylobacter]

MTKKEMLYEGKGKKLFKTDDENLLISEFKDDLTAFNAEKRGNESGKGALNCKISTEIFHLLEKNGIKTHL

VEIISDTEQVVKKCKIVPIEVIVRNVATGSLTKRLGIKDGTVLPFALVEFCLKDDALGDPFINDEHCLIL

NLVQNEAQISEIKNMARKINSILTPFFDNKNLRLIDFKIELGLTKDNELVLADEISPDSCRFWDKFSNEK

LDKDRFRQDLGNVKMAYEEVLKRILN

>WP\_002858158.1 MULTISPECIES: tRNA (N(6)-L-threonylcarbamoyladenosine(37)-C(2))-methylthiotransferase MtaB [Campylobacter]

MKEKVFFKTFGCRTNIYDTELLKSYVKDYEIINDENKAQIIVVNSCTVTNGADSGIKSYVNTMQKKGIKV

ILTGCGAVSKGKELLDKKQVFGVLGASNKDKINEFLGAKTSFYELGNLNFIDKDIVCEYENHTKAFVKIQ

EGCDFACSYCIIPSVRGKSRSVDEKALLKQVEILGANGYSEIVLTGTNIGSYGLKNGTTLGKLLQKMGQI

LGIKRIRLGSLEPAQLDESFLEILDEAWLERHLHIALQHTSEKMLRIMRRRSHTDNDLKLFNTIASKGYA

LGTDFIVAHPGESEELWQEALRNFKEFPLTHIHAFIFSPRNNTHSATMKDVINGTLAKERLNTLKSIVEK

NNYEFRKKNQVSLEVLVENQKDGFFEGYDQFFNKIKIKSDKDIAKEWIVISEYEVQEKSNFTNLKG

>WP\_002857888.1 class II fumarate hydratase [Campylobacter jejuni]

MEYRVEHDTMGEVKVPNDKYWGAQTERSFENFKIGCEKMPKVLIYAFANLKKSLALVNNKLGKLDDAKKN

AIVQACDEIIAGKFDDNFPLAIWQTGSGTQSNMNMNEVIANRATEIMGGDFRKEKLVHPNDHVNMSQSSN

DTFPTAMSIVAVEQVEKKLIPALDELIATFEKKVKEFDGIIKIGRTHLQDATPLTLAQEFSGYLSMLLHS

KEQIIASLPTLRELAIGGTAVGTGLNAHPELSQKVSEELTQLIGTKFISSPNKFHALTSHDAINFTHGAM

KGLAANLMKIANDIRWLASGPRCGLGELIIPENEPGSSIMPGKVNPTQCEAVTMVAVQVMGNDVAIGFAA

SQGNFELNVFKPVIIYNFLQSLDLLADSMHSFNIHCAVGIEPNRAKIDHNLHNSLMLVTALNPHIGYENA

AKVAKNAHKKGISLKESTMELGLVSEEDFNKFVDPTKMIGPKA

>WP\_002852408.1 MULTISPECIES: histidine triad nucleotide-binding protein [Campylobacter]

MQEKTIFELIVEGKLPCNKVLESDDFLAFHDIAPKAPIHILIIPKKYFKDFQEFDPELMAKMTSFIQELA

VLLGVDKSGYRLVTNCGKNSGQEVFHLHFHMLGGFELPKEKTKKENPQALF

>WP\_002851492.1 MULTISPECIES: imidazole glycerol phosphate synthase cyclase subunit [Campylobacter]

MLTKRIIACLDVKDGRVVKGTQFKNHKDMGDIIELARYYSQNGIDELVFYDIAASARKERISREWVSEVA

KNINISFCVAGGIKSEEDAAELLANGADKISINSPALNDPSLITRLAKSFGVQCVVVGIDSFKDENGNLK

VFQYTGDEKTSKHSGKSTLEWVKKVQDLGAGEIVLNMMNQDGVKNGYDLEQLEAVYKICKVPLIASGGAG

KMEHFLEAFKLGIDGALAASVFHQKLIDIKELKIYLKNQGLSIRI

>WP\_002851089.1 MULTISPECIES: exodeoxyribonuclease VII large subunit [Campylobacter]

MTPTELNLKAKALLETHFDDIVLSGEISKITLHGSGHWYFDLKDERSSIACAMFKGANLKVGFKPAVGDF

LELCGSVSLYPESGRYQFIATSMKKAGFGDLEAQFLALKERLQKEGLFDPRFKKSLPKFPKKVGIITSKT

SAALQDMLKLIHQKEYFLAKIYIFDALTQGNNAPFSLIQALKKADDMDLDVLIIARGGGSREDLFCFNDE

NLAREIFKAKTPIISAIGHEIDYVISDFVADFRAPTPSAAIDTLFYSKLDIEQSLDLMEEKLMQLWNYKI

QNYENLLLNLSKFFKFNSLPKIIDEKIKQSHNIEKQLNHLLANQMRYNELKLDKLQNAYLQHENFFNKSK

KFICIRKNGKIANLEDLKSDDIVILSSQTSQKEAKIL

>WP\_002776344.1 MULTISPECIES: hydrogenase expression/formation protein HypE [Campylobacter]

MKNISLAHGGGGEEMNELLTKLFKIFDNEILNANNDAAILGNLALSTDSFVLSPIFLDEEVNIGKLCVCG

SINDVLMVGAKPKYLSLGLILEEGFELEKLERILKSIKEECEKCGVMLVCGDTKVVPKGKADEIYINTTA

LGEIISKKESKNIKAGLSILLSGDIGRHGASVLIKRNELEADIKSDCKALNKEVLELLEKDIKVVAMRDA

TRGGLSAVLNEWAKQSGNDLLIFEEKIIVQDEVLGLCELFGYEAYELANEGTFILCVEKEDELKALEILK

KYNVNASIIGEVLEEKKARVILQNAYGAKRFLESPKGELLPRIC

>WP\_002858608.1 MULTISPECIES: diguanylate cyclase response regulator [Campylobacter]

MNKKILIIDDNKMLGKLLAKKIQMTLDYEVDIAFGFAEAKELMNNDYFLAFVDLCLPDAPNGEVVDYVIE

KKIPAIVLTASGDKATKEKFMDKDILDYIFKESETCIDEIISSIVKLNQYAKTKVIVAMSKLPERNEIKK

ILTQRQFNVLAAAHGEEAMSYLNDNNDVKLIIADVNMPVISGFELLTQVRERFSDDELGVILLGDHNDSF

EANSFKNGVNEYLFKPLSKESFNCRLDRCLSYMDDKKFLSTYNVLDPVSGVKNYNALIDGIDDYFNEIAT

KDEEFAFAFLDIDNLQMINDEYGREVGDEVIKICANEIVNETKGRDLVGRYSAEKICILLKNISQERAIK

IFSRIRVNIKKAGVLVNLDEVFFTASIGVVFGKSGDKIDSLADKASKILSQAKDNGKDRVEVCS

>WP\_002857563.1 MULTISPECIES: Fe(3+) ABC transporter substrate-binding protein [Campylobacter]

MKKIFFMFLTAVSFLGASELNIYSARHYNADFEIIKKFEEKTGIKVNHTQAKASELIKRLSLEGSNSPAD

IFITADISNLTEAKNLGLLSPVSSKYLEEFIPAHLRDKDKEWFAITKRARIIAYNKNTNIDISKMKNYED

LAKAEFKGEIVMRSATAPYSKTLLASIIANDGNKEAKAWAKGVLENLATNPKGGDRDQARQVFAGEAKFA

VMNTYYIGLLKNSKNPKDVEVGNSLGIIFPNQDNRGTHINISGIAMTKSSKNQDAAKKFMEFMLSPEIQK

ILTDSNYEFPIRNDVELSQTVKDFGTFKEDQIPVSKIAENIKEAVKIYDEVGFR

>WP\_002857452.1 MULTISPECIES: beta-hydroxyacyl-ACP dehydratase [Campylobacter]

MIDVMQIQEILPHRYPFLLVDKITELKVKEVVLGYKNISISDHVFMGHFPGHPIYPGVLILEGMAQTGGV

LAFESMEDKVDPKSKVVYFTGIDGAKFRNPVRPGDRLDYEMSVVKNRGNMWIFKGQAFVDGNLVAEAELK

AMIVDK

>WP\_002852272.1 MULTISPECIES: class II fructose-bisphosphate aldolase [Campylobacter]

MGVLDIVKAGVISGDELNKIYDYAKAEGFAIPAVNVVGTDSINAVLEAAKKVNSPVIIQFSNGGAKFYAG

KNCPNGEVLGAISGAKHVHLLAKAYGVPVILHTDHAARKLLPWIDGLIEANAQYKKTHGQALFSSHMLDL

SEESLEENLSTCEVYLQKLDALGVALEIELGCTGGEEDGVDNTGIDNSKLYTQPEDVALAYERLGKISDK

FSIAASFGNVHGVYKPGNVSLQPEILKNSQKFVKDKFALNSDKPINFVFHGGSGSELKDIKNAVSYGVIK

MNIDTDTQWAFWDGVREYELKNRAYLQGQIGNPEGDDKPNKKYYDPRVWLRSGEESMIKRLEIAFEDLNC

INKN

>WP\_002840050.1 MULTISPECIES: iron-sulfur cluster assembly scaffold protein NifU [Campylobacter]

MGKNSLIGGSIWDEYSQKVQDRMNNPQHMGEFSEEDAKARNAKLIVADFGAESCGDAVRLFWLVDEKTDK

IIDAKFKSFGCGTAIASSDTMVDLCIGKTVDEAVKITNLDVEFAMRDNPETPAVPPQKMHCSVMAYDVIK

QAAAHYKGISPEDFEDQIIVCECARVSLGTIKEVIKLNDLHSVEEITQYTKAGAFCKSCIKPGGHEKRDY

YLVDILAETRAEIDREKLKNTMKSDVAFDEMTVVGQLKAVESVLDAEIRPMLHNDGGDLEVIDIQKAEGA

AIDVYIRYLGACSGCSSGSGATLYAIETILQEELSPNIRVMPV

>WP\_002780052.1 MULTISPECIES: nucleotide exchange factor GrpE [Campylobacter]

MSEQKQEFENENAENSEHLQDENLQNIEDVEQNKLQKDYDELKDKYMRANAEFENIKKRMEKEKLSAMAY

ANESFAKDLLDVLDALEAAVNVECQDEISLKIKEGVQNTLDLFLKKLEKHGVALIKDEKEFDPNLHEAMF

HVDSENHQSGEVVQVLQKGYKIADRVIRPTKVSVAK

>WP\_002851703.1 MULTISPECIES: HDOD domain-containing protein [Campylobacter]

MIGDMNELLLKSVEVLPPLPDTVSKLRKYVSEANSNIETMKVAEIISSDPLMTAKLLQLANSPYYGFTRE

ITTINQVITLLGVGNIINIVMADSIRDNFKIDVSPYGLNTQNFLKTCNEEATFIANWLNDEDKKLSHLLV

PCAMLLRLGIVIFSNFLIQNHKDKDFLAFLNKNENLALAENEFLGVDHISFLGFLLHRWNFDDVLIESIC

FVRTPHAAREKVKKSAYALAITDHLFAPHDGSSPFNAKAAVALLKEAKTQGINFDLNNLLSKLPNKAKEN

LNKED

>WP\_002858151.1 MULTISPECIES: molybdopterin molybdenumtransferase MoeA [Campylobacter]

MLMSYEESLKILHSHIKTYEKIEKIALTECLGRILAQDIKAPKNQPEFPTSAMDGYAIKFEDQDKPLKIL

GLTPAGTMPQFSVQNGTCVKTFTGSLMSEGSDTLVPVENIRIENNTLFIEKKVPQAFAVRAVGENYKKDE

ILLKKGTRLNYSEIALLAELGFFHISVFIKPIVGVLSSGSEIKDLGEALENPAQIRSSNHIAIANLAKNL

NCDTRVFPLLKDDEKATFSTLESALQSCDILVTTGGVSMGDFDFLKKAIKEYEIIIDKADIKPGRHIKIA

KANEKFIIALPGFPYSAMVMFNLYTREILNSWLLQPKDYICKAFLQGSYKKKTPYLEFVACNIEFKNGRI

LANLEGKKEGSSAIINNLNNKAALMVVPKECEMLENESLVDIIFMP

>WP\_002780449.1 MULTISPECIES: nicotinate-nicotinamide nucleotide adenylyltransferase [Campylobacter]

MKIALFGGSFDPPHNGHNSVVLEALEKLDIDKLIIMPTYINPFKQSFSADEKQRFLWVKKLWGHLPKVEI

CDFEIRQKRPVPSIESVKYLYKLYNPSKFYLLIGADHLEKLHLWHDFEKLNSLVEFVIANRNDIGIPKNF

KDLKTNKKIASSFIRDTLNTNEVCEEIKDEVKKYYEKLQKN

>WP\_002857935.1 MULTISPECIES: SDR family oxidoreductase [Campylobacter]

MLENKIIFVAGACGRIGKALCEKILLSKGIPILADINKECLNKLQENLETNFKTKLLSLELDITKQESLQ

TALQKSQERYGKIDAFVNSSYPFGKDWGKTPYYELKYEQICESLNLHLAGFMLAAQEFVKFFKQQGYGNI

INLSSIMGVYAPKFENYEGTSMQSSLEYSVIKAGINHMSSWLAKELFNQNIRVNTLASGGILDNQNELFL

KAYRKCCASKGMLDADDICGTLVFLLSDESKFITGQTLVVDDGWGL

>WP\_002864485.1 type II CRISPR RNA-guided endonuclease Cas9 [Campylobacter jejuni]

MARILAFDIGISSIGWAFSENDELKDCGVRIFTKVENPKTGESLALPRRLARSARKRLARRKARLNHLKH

LIANEFKLNYEDYQSFDESLAKAYKGSLISPYELRFRALNELLSKQDFARVILHIAKRRGYDDIKNSDDK

EKGAILKAIKQNEEKLANYQSVGEYLYKEYFQKFKENSKEFTNVRNKKESYERCIAQSFLKDELKLIFKK

QREFGFSFSKKFEEEVLSVAFYKRALKDFSHLVGNCSFFTDEKRAPKNSPLAFMFVALTRIINLLNNLKN

TEGILYTKDDLNALLNEVLKNGTLTYKQTKKLLGLSDDYEFKGEKGTYFIEFKKYKEFIKALGEHNLSQD

DLNEIAKDITLIKDEIKLKKALAKYDLNQNQIDSLSKLEFKDHLNISFKALKLVTPLMLEGKKYDEACNE

LNLKVAINEDKKDFLPAFNETYYKDEVTNPVVLRAIKEYRKVLNALLKKYGKVHKINIELAREVGKNHSQ

RAKIEKEQNENYKAKKDAELECEKLGLKINSKNILKLRLFKEQKEFCAYSGEKIKISDLQDEKMLEIDHI

YPYSRSFDDSYMNKVLVFTKQNQEKLNQTPFEAFGNDSAKWQKIEVLAKNLPTKKQKRILDKNYKDKEQK

NFKDRNLNDTRYIARLVLNYTKDYLDFLPLSDDENTKLNDTQKGSKVHVEAKSGMLTSALRHTWGFSAKD

RNNHLHHAIDAVIIAYANNSIVKAFSDFKKEQESNSAELYAKKISELDYKNKRKFFEPFSGFRQKVLDKI

DEIFVSKPERKKPSGALHEETFRKEEEFYQSYGGKEGVLKALELGKIRKVNGKIVKNGDMFRVDIFKHKK

TNKFYAVPIYTMDFALKVLPNKAVARSKKGEIKDWILMDENYEFCFSLYKDSLILIQTKDMQEPEFVYYN

AFTSSTVSLIVSKHDNKFETLSKNQKILFKNANEKEVIAKSIGIQNLKVFEKYIVSALGEVTKAEFRQRE

DFKK

>WP\_002915726.1 phenylalanine--tRNA ligase subunit beta [Campylobacter jejuni]

MIITKSWLNDWLELEEISSDKIAKTLNSIGIEVDRVGALKAPDKVVVGYVKEKIKHENSDKLSICQVDIG

SETLQIVCGAANVDAGQFVAVATKGAIMSNGMEIKEAKLRGVDSCGMLCSSLELGFEKINEGIMLLDESI

GKLELGRPLNTYEIFNDELIEVELTPNRGDCLSIYGIARDLAAALNLNLKEPKPFKESENVLGIGRILRL

AAEKELNGLYNYRAIGLKEEIQTNLLLSLRLAQIEGLGKNSIENLLNYATHSTGVLFNAYDLSSFSEKDE

EFTINLSKQVHGETKVSYKDKLLSFSGIFQNNESRCKDDSKIIIIEANYTDPLVIADAKIYHKDQDEKML

YRSFRGSEPKLNLGMDFLLGIFEQIPNLVIYSSSQQILTDKELPIIPISIEGISDIIGQNVDKDEVLKIL

KKLGFELILSGEGLINVKAPLHRPDIKNLSDICEEVVRIIGIDNIASKGLEFIEKNRLNSAYKNYIEFLN

LRKRAVASGYFESLHYVLDNGEELKRLGFDSVKLKLINPITAELNTLRTTLLNHLLNAASLNAKNSKKII

KLFELGAVFNVNNQELNRIAFIHSGLKEEAKISNKAKPESVQFYDFLLDIKNIIGDFKLKSSKYNILSPY

EQADIYLSDIKVGFIGRLHLKIENERDLPKTYICELDLDLIRQDFKIAKPYSKFPAITRDLSVLIPKGFE

YNQIKNCIEELNLEILENFRLVDIYSDENLKEFYSITISFSFRDINKTLEDNQVNECMDKILNTLKNLGL

DLR

>WP\_002858583.1 alanine--tRNA ligase [Campylobacter jejuni]

MDIRKAYLDFFASKGHEITPSSPLVPDDATLLFTNAGMVPFKSIFTGEIPRPNPPRKTSCQTCIRAGGKH

NDLDNVGYTARHHTFFEMLGNFSFGDYFKEQAIAYAWEFVTEVLKLPKDRLYVTVHENDDEAFNLWQKHI

QKERIYKFGDKDNFWQMGDTGPCGPCSEIFYDQGQEHFNSSEDYMGGDGDRFLEIWNLVFMQYERSADGV

LSPLPKPSIDTGMGLERVTAIKEGKFSNFDSSLFMPIINEISKLCNKTYVYESGASFRVIADHIRSSVFL

LAQGVSFDKEGRGYVLRRILRRALRHGYLLGFKQAFMYKLVDVVCDLMGGHYTYLNEKKDFIKEQIRLEE

ERFLSTIENGIEIFNEELKNTKEIFSGEVAFKLYDTYGFPLDLTADMLREKNLKVDEEKFELFMNEQKAR

AKASWKGSGDKTASGDFKNLLEKFGENHFVGYEKAECESKILALLDEDFKEVSTLKDAGWVMLENTPFYA

TSGGQSADSGFIAKREVLDTQKFFNLNLSFIKAGEELKVNDIVHARIDTEKREQIARHHSATHLLHHALR

EILGSHVSQAGSLVESNKLRFDFTHHKALNKEELESIEKRVNKMIINSSEAILENMPLEEAKKSGAIALF

NEKYQGNVRVLTLGESKELCGGTHVKNTAQIGSFYIVKESGVSAGVRRIEAVVSKAALEFVKNQLEELSK

VKDELKNNDILSGIKKLKNEILSLKNELKNSSKTELDSKNIQGVEICVKRIDNGDIKAMIDDFKNKFAKA

VILLIQVKDEKITLAAGVKDVPLKAGALVKEAAQILGGNGGGRDDFATAGGKDLSKINEALKQSLETIEK

AL

>WP\_002852567.1 MULTISPECIES: phenylalanine--tRNA ligase subunit alpha [Campylobacter]

MQNFIEQIQKCENLNDLEAIRISVLGKKGILTEGFTKLKELEDEAKKEFAAKLNAQKEIFNEAYLAKFKD

LENLALEERMKQDALNFNYFDESITTGALHPVMSTMDKIIEYFIALNFSIEKGPLIEDDFHNFEALNLPK

SHPARDMQDTFYFDDKRLLRTQTSPVQIRTMLAQKPPIRMIAPGAVFRRDFDITHTPMFHQVEGLVVEEG

QKVSFANLKSVLEDFLRYMFGDVKVRFRPSFFPFTEPSAEVDISCVFCKGKGCRVCKHTGWLEVLGCGIV

DPNVYNFVGYENVSGYAFGLGVERFAMLLHQIPDLRSLFEGDLRLLEQFR

>WP\_002864243.1 MULTISPECIES: 1-deoxy-D-xylulose-5-phosphate reductoisomerase [Campylobacter]

MILFGSTGSIGVNALKLAALKNIPISALACGDNIALLNEQIARFKPKFVSIKDSKNKHLVKHDRVFIGQE

GLEQILTECQDKLLLNAIVGFAGLKSTLKAKELGKNIALANKESLVVAGSFLKGAKFLPVDSEHAALKFL

LEGKKNIAKLYITASGGAFYRYKIKDLNQVSVKDALKHPNWNMGAKITIDSATMANKLFEIIEAYHLYDF

KEIDALIEPRSLVHAMCEFKNGASTAYFSKADMKLAISDAIFEKQDTPILEAVDFSKMPALKFHPISTKK

YPIFKLKNTFLKEPNLGVIINAANEVGVYNFLENKSGFLDIAKCIFKALDHFGVPKISSIEEVFEYDFKT

REYLRS

>WP\_002860529.1 MULTISPECIES: DNA-binding response regulator [Campylobacter]

MLKFKILIIEDDIDLNELLVLKLKSSGYEVISLADFFGVEDLLDNEQIDLLIVDRNLPSGDSLEKIQDLR

EQGYKEAVIFLTAKALHQDLLEGFESGCDDYVCKPFDFNELLLRIKAILKRHKKEEEKLSFGDFILDLVS

YEFFYKNQKLEISNLDYELLKCFFENPNTLLTRQFLSESVWKDDTTSDKTINIALTRLRNKFPKLKDHII

SVRGIGYKLC

>WP\_002857553.1 MULTISPECIES: DNA-binding response regulator [Campylobacter]

MRILVIEDEISLNKTIIDNLNEFGYQTDSSENFKDGEYFIGIRHYDLVLANWTLPDGDGAELVNTIKHKS

PRTSVMIMSSKTDKETEIKALKAGADDFVKKPLDFDILLARIEARLRLGGTNVIKIEDLVIDPDEEKITY

KGQDIELKGKPFEVLTHLARHSDQIVSKEQLLDAIWEEPELVTPNVIEVAINQIRQKMDKPLNISTIETV

RRRGYRFCFPKKS

>WP\_002853196.1 MULTISPECIES: DNA-binding response regulator [Campylobacter]

MTNILMIEDDLELAEITAEYLEKFDMKVDIAHEPYIGLSKLALKEYQLIILDLSLPGLDGLEVCEEIRKK

YDTPIIVSSARHDITDKVNALELGADDYLPKPYNPKELQARIKSHLRRISNTKSAIAKSVKDLVYDQYKH

IITMKGQELTLTNAEFDILSYLIKKEGGVVSREELVYNCSSISEDSSNKSIDVIISRIRQKMGDDPKTPK

YIHSIRGIGYKLTQ

>WP\_002853168.1 MULTISPECIES: DNA-binding response regulator [Campylobacter]

MINVLMIEDDPDFAQLLSEYLAQFNIKITNFENPKSALNVGIQGYDCLILDLTLPGIDGLEVCREIRQKS

NIPIIISSARGDLSDKVVGLQIGADDYLPKPYDPKEMYARIMSLIRRTKRVEHTNNENINSAFKIDERRH

EITYEDKVLTLTPAEFEILEYLIQQHGYSVSREQLVSRCKNLKDKDSKSLDVIIGRLRVKIGDSSKSPKH

IFSVRGIGYKLIG

>WP\_010891867.1 phosphate ABC transporter ATP-binding protein [Campylobacter jejuni]

MIAKTTNLNLFYGKKQALFDINMQIEQNKITALIGASGCGKSTFLRCFNRMNDKIAKIDGLVEIKGKDVK

NQDVVALRKNVGMVFQQPNVFVKSIYENISYAPKLHGMIKNKDEEEALVVDCLQKVGLFEEVKDKLKQNA

LALSGGQQQRLCIARALAIKPKLLLLDEPTSALDPISSGVIEELLKELSHNLSMIMVTHNMQQGKRVADY

TAFFHLGELIEFGESKEFFENPKQEKTKAYLSGAFG

>WP\_002866134.1 MULTISPECIES: two-component system response regulator [Campylobacter]

MKLLVVDDSSTMRRIIKNTLTRLGHDDVLEAEHGVEAWDLLTKNEDVKVLITDWNMPEMNGLELVKKVRA

EKKYEDMPIIMVTTEGGKAEVITALKAGVNNYIVKPFTPQVLKEKLEDVLGTGSGEGAAE

>WP\_002858494.1 MULTISPECIES: phospho-N-acetylmuramoyl-pentapeptide-transferase [Campylobacter]

MYYLSDLSHYAFFTYISVRAGFAFFIALCLSLFLMPKFITWAKAKNASQPIYEYAPETHKTKCHTPTMGG

LIFISSAVIASLFCIKFDNIFAISALLCLILFCLIGLIDDLGKVLKKDNHSGLSPRMKLLAQIIAGLICI

LPLYFSSELSTELFIPFYKHPLFDMEIFAIAFWILVLISSSNAVNLTDGLDGLATVPGIFSLSTLGIFLY

LSGNLNYSEYLLLPKIQGLGEVVIICAALIGALMGFLWYNCYPAQVFMGDSGSLALGGFIGFLAVISKNE

ILLLLIGFVFVLETVSVILQVGSFKIFNKRVFKMAPIHHHFEKVGWVENKIIVRFWMIALLSNLLALASI

KLR

>WP\_002858462.1 MULTISPECIES: adenylyl-sulfate kinase [Campylobacter]

MKNNPYIIWLTGLAGSGKTTIGQALYEKLKLKYKNLIYLDGDELREILGHYAYDRQGRIDMALKRAKFAK

FLNDQGMMVIVTTISMFNEIYDYNRKQLKNYYEIYIECDMHELIQRDQKGLYTKALNKEIDNVVGVDIEF

DKPEADLVINNSCRNNLEEKVELIIKKLAL

>WP\_002851418.1 MULTISPECIES: phosphatidylglycerophosphatase A [Campylobacter]

MQKLFLTFFYSGSVKKASGTFGTIAALIPAFFILKYLGINTLFLLSILIFVASIRVIDDYEKKTGIHDDK

HIVIDEVAGVFLACAIAASVENSIVNFILAFVLFRLFDITKPSIIGKIDKKVKGGLGVMLDDMLAGLFAG

LLSAVIYGFLLKFNLVFWDINLKDLF

>WP\_002851288.1 MULTISPECIES: acetyl-coenzyme A synthetase [Campylobacter]

MLNQNNQELFKPSKEFSRNARIKNLCEYYDLCDEAKEDFEGFWKRQAFEKIEWFSPFSRVLNEDKAPFYK

WFEGGTLNVSYQCLDRHMKTRRNKAALIFEGEMGDYEVYTYRRLLHETCKAANLLKKFGVKKGDRVVIYM

PMIPETAIVMLACARIGAIHSVVFGGFSPEALRDRIIDAGAKLVVTADGAFRRGKPYMLKPAVDKALSEG

CESVEKVLIVIRNNEPIEYIKGRDYVYNELVKNESYKCEPEIMDSEDLLFLLYTSGSTGKPKGVMHASAG

YILWAQMTMEWVFDIKDYDNYWCSADVGWITGHTYVVYGPLACGATTIMHEGTPTYPNSGRWWRMIEEYQ

ISKFYTSPTAIRMLHADAPNEPRKYDLSTLEVLGTVGEPINPSAWKWFYDEIGGTKSPIVDTWWQTETGG

HMITPLPGATPLKPGCATLPLPGIFAEVIDEEGNKKDEGEDGLLCITKPWPSMIRGIWGNDERYIESYFS

QAKKDGKAVYFSGDGAFYDKNGYITITGRTDDVVNVAGHRIGTAEIESAIAKHPSVAESAVVSILDTIKG

ESLFAFVVLSPASSCDLGGAIETLKELNDILRVEIGPIAKIEKILYTPGLPKTRSGKIMRRILRTIARGE

EIKQDISTLEDSKVVETIVKLAKAEFE

>WP\_002855447.1 MULTISPECIES: SirA-like protein [Campylobacter]

MKITYSLNLQGEACPYPAIATLDVLPKLKSGEILEVLCDCPQSINSIPQDAKNRGFKVLEIDQSGPTLRF

LIQKP

>WP\_002853334.1 MULTISPECIES: molecular chaperone DjlA [Campylobacter]

MTLVLIILVVLVFYWYYKTWGKQDFLNSATRGAKGFAKGFARGVMEERMDEFKRRMNYYVIALLAKIAKS

DGRVSENEAEMIKDLLDANAKDEKERAFLKASFNEHKENLSDAFYVAKDFLKEVPLPKNERFNVLRVLVF

MALIDADFNAKKREILEQIAKAFDIAKSELDAFIASLSNLKSTKKELSLDEAFAILELPNNADLNAVKKQ

YRNLAKKYHPDILNANNVSEEELKIGVEKFQKINEAYEKVKKHLER

>WP\_002853315.1 acyl-CoA thioesterase [Campylobacter jejuni]

MRDMGEPKLKIVAMPSDTNPAGNIFGGWILSQIDLAGAIAARELSPERVVTISMDKVVFKEPVFIGDIIS

CYSKVVNVGNTSISVEVEVTAQRVDSQGCTSCINVTSALVTYVSVTRDGKKNPISEELKRIHGFLNA

>WP\_002852992.1 MULTISPECIES: ABC transporter ATP-binding protein [Campylobacter]

MILELKQISKSFGSVKAINETSFKINEGEIFALIGPNGAGKTTLFNIITGNYKPSSGSVEFLGERIDHLK

PHKIVHLGIARTFQNIRLFSSMNVLENVLIGFNKQMKYNIFEAFLHLGRFGKIEQVFKEKAYAILEELGI

AEFAYEKATSLSYGQQRKVEIARAMATQPRLLLLDEPAAGMNSSESDELAGLIFKLRKDYKISVLLIEHD

MKFVNKLCDRVLVLDYGKTIFEGKLCDAVNHKEVIAAYLGDFDANS

>WP\_002852965.1 MULTISPECIES: ABC transporter ATP-binding protein [Campylobacter]

MLIVKDLHVYYGLIEAVKGIDFKVETGHIVSLIGSNGAGKTSTLNALLNSVKRTGEVNFLGYDTKRHLTH

TLVQKGIALVPEGRRVFINLSVEENLKIGAFNNAENYEHLREQMYKLFPRLASKKHALAGTLSGGEAQML

AISRALMSEPKLLMLDEPSLGLAPKIVGEVFDIIVRLKEEGITILLVEQNAYSALKISDYAYVLENGRIV

MENEAKNLIGDDEIRKKYLGL

>WP\_002852892.1 MULTISPECIES: ATP-dependent Clp protease adaptor ClpS [Campylobacter]

MPKTQTLEQTKLSEPKMYKVILLNDDVTTMDFVIEILMNIFHQNLEKASQTMLEIHHNGSGICGIYTQEI

ALSKQKKVMDAAKLANFPLQAKVEEE

>WP\_002852555.1 MULTISPECIES: NAD(+) synthetase [Campylobacter]

MDWQKITEKMCDFIQEKVKNSQSQGVVLGLSGGIDSALVATLCKRALKENVFALLMPTQISNKANLEDAL

RLCADLNLEYKIIEIQSILDAFIKQSENTTLVSLGNFAARIRMSLLYDYSALKNSLVIGTSNKSELLLGY

GTIYGDLACAFNPIGSLYKSEIYALAKYLNLHENFIKKAPSADLWENQSDEADLGFSYTKIDEGLKALET

NDEKLLRTLDPSLIAMLKNRMQKNAFKGKMPEILEI

>WP\_002852180.1 MULTISPECIES: UDP-3-O-(3-hydroxymyristoyl)glucosamine N-acyltransferase [Campylobacter]

MKLSEIAEFLSLEYKGEDIEISALNSLLKANFTELTYCDGEKNTKDIPHTGAAAILVSKEYENLVPKDTK

ALITQSPHLSFAFLSKLFAKPLISTAKEKVQNIAKSARIMPNVYIGDNVNIGENVIIMAGAYIGDNVSIG

DESIIHPNVVIYNDTKIGKKCHLLANCVIGSDGFGYAHNKNGEHYKIYHNGNVVLEDFVEVGACTTIDRA

VFDSTIIKAGTKVDNLVQIGHNCNIGQNCIIVAQTGISGSSELGRNVIMGGQSATSGHLKIGDFSTIAAR

GGVSKNLEGGRVYGGFPIMLQKDWLKLQAKIAINFKEKSQD

>WP\_002851546.1 MULTISPECIES: DNA starvation/stationary phase protection protein [Campylobacter]

MSVTKQLLQMQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEMAELFDSCAERVLQLGEKAITCQK

VLMENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLWMIG

ATLQGACKM

>WP\_002851424.1 MULTISPECIES: DNA recombination/repair protein RecA [Campylobacter]

MDDNKRKSLDAALKSLDKTFGKGTILRLGDKEVEQIDSIGTGSVGLDLALGIGGVPKGRIIEIYGPESSG

KTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDLI

VVDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTT

GGNALKFYASVRLDVRKVATLKQNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVK

LDIVDKSGAWFSYKDKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMISGSEDDEGEE

>WP\_002868269.1 MULTISPECIES: 3'(2'),5'-bisphosphate nucleotidase CysQ [Campylobacter]

MLNLDKFLEIAINASNQASKAILEERKNFKTWEKEDKSPLTSADLASNKILNDILGSTDIKILSEEKLLS

KEECEELKTFWLIDPLDGTSGFLKGSDEFCVMISLVHDNRPVLSLIQNPSKGDIFYAHAKTKVYKNDKPL

QIDQQEYEKNKYKALLSVNHLSKEDEDFAKEHQLEAINIGSGLKFCAILEARAGVYKRFEKLNIWDIVAG

DFLINQNGGFMGDFSKKYILYNPLSYKSNPFICVSSRNFLQDFL

>WP\_002858670.1 MULTISPECIES: 3-phosphoserine/phosphohydroxythreonine aminotransferase [Campylobacter]

MRKINFSAGPSTLPLEILEQAQKELCDYQGRGYSIMEISHRTKVFEEVHFGAQEKAKKLYELNDDYEVLF

LQGGASLQFAMIPMNLALNGVCEYANTGVWTKKAIKEAQILGVNVKTVASSEESNFDHIPRVEFSDNADY

AYICSNNTIYGTQYQNYPKTKTPLIVDASSDFFSRKVDFSNIALFYGGVQKNAGISGLSCIFIRKDMLER

SKNKQIPSMLNYLTHAENQSLFNTPPTFAIYMFNLEMDWLLNQGGLDKVHEKNSQKATMLYECIDLSNGF

YKGHADKKDRSLMNVSFNIAKNKDLEPLFVKEAEEAGMIGLKGHRILGGIRASIYNALNLDQVKTLCEFM

KEFQGKYA

>WP\_010891891.1 MULTISPECIES: hypothetical protein [Campylobacter]

MQDFIIAKKLYFCFKYISSILNINEYYFKV

>WP\_002904918.1 MULTISPECIES: phosphatidylserine decarboxylase [Campylobacter]

MKDFIAKDGYLSLIILSLVFIFMWIFYSFSILLLALIVICIFLFRTPKRELVCSDEKAIFAPIDGRVTKI

ENIHHKDLGECVEITIKNALYDAGNFNTPFAMSIIDIRLRHGLFLCSELKSAKMMNERAFILAKVKENKT

IALRIYAGSFDRKLKLDNISHDLKAGDRMGFLINGSISLLLPKDTRIHIGLNDEIKAGSLLGYFA

>WP\_002888538.1 MULTISPECIES: homoserine kinase [Campylobacter]

MKILVPATSANLGPGFDCLGLSLKLFNETQIQKSGVFSISIGGEGSDNIFLKKNNIFVNIFYEIYEKLSG

KKDNFRFIFQNNIPLSRGLGSSSAVIVGAIASAYYMSGFKVEKECILDEALIYENHPDNIAPATLGGFVC

SLVEKNKVYSIKKEIDKDLAAVVVIPNLAMSTEQSRQALAKNLSFNDAVFNLSHASFLTACFLEKKYEFL

KFASQDKLHEINRMKNLPELFEVQKFALENKALMSTLSGSGSSFFSLAFKDDALALAKKIQTKFKDFRVQ

YLEFDDNGFEIC

>WP\_002872052.1 MULTISPECIES: multidrug efflux RND transporter permease subunit [Campylobacter]

MFSKFFIERPVFASVVAIIISLAGAIGLTNLPIEQYPSLTPPTVKVSATYTGADAQTIASTVASPIEDAI

NGADNMIYMDSTSSSSGTMSLTVYFDIGTDPDQATIDVNNRISAATAKMPDAVKKLGVTVRKTSSTTLAA

ISMYSSDGSMSAVDVYNYITLNVLDELKRVPGVGDANAIGNRNYSLRIWLKPDLLNKFGITATDVISAVN

DQNAQYATGKIGEEPVTQKSPYVYSITMQGRLQNPSEFENIILRTNNDGSFLRLKDVADVEIGSQQYSSQ

GRLNGNDAVPIMINLQSGANALHTAELVQAKMQELSKNFPKGLTYKIPYDTTKFVIESIKEVVKTFVEAL

ILVIIVMYMFLKNFRATLIPMIAVPVSLLGTFAGLYVLGFSINLLTLFALILAIGIVVDDAIIVVENIDR

ILHENEQISVKDAAIQAMQEVSSPVISIVLVLCAVFVPVSFISGFVGEIQRQFALTLAISVTISGFVALT

LTPSLCALFLRRNEGEPFKFVKKFNDFFDWSTSVFSAGVAYILKRTIRFVLIFCIMLGAIFYLYKAVPSS

LVPEEDQGLMIGIINLPSASALHRTISEVDHISQEVLKTNGVKDAMAMIGFDLFTSSLKENAAAMFIGLK

DWKDRNVSADEIAMELNKKFAFDRNASSIFIGLPPIPGLSITGGFEMYVQNKSGKSYDEIQKDVNKLVAV

ANQRKELSRVRTTLDTTFPQYKLIIDRDKLKHYNLNMQDVFNTMNATIGTYYVNDFSMLGKNFQVNIRAK

GDFRNTQDALKNIFVRSNDGKMIPLDSFLTLQRSSGPDDVKRFNLFPAAQVQGQPAPGYTSGQAIEAIAQ

VAKETLGDDYSIAWSGSAYQEVSSKGTASYAFALGMIFVFLILAAQYERWLIPLAVVTAVPFAVFGSFLL

VYLRGFSNDIYFQTGLLLLIGLSAKNAILIVEFAMEERFKKGKGVFEAAVAAAKLRFRPIIMTSLAFTFG

VLPMIFATGAGSASRHSLGTGLIGGMIAASTLAIFFVPLFFYLLENFNEWLDKKRGKVHE

>WP\_002871805.1 MULTISPECIES: DNA repair protein RecN [Campylobacter]

MINRIFMKENLGFKKAELEISKGLTVFTGLSGAGKSVLFKGILSAFSLSESEAKIVEIEVDDKLDLESFG

IESEEENVFKLLKEKNTKYFINNQSIAKKSLQNLSKTFIKYLSAKENNEFGNEKFLNLLDALEMQENTNF

VSFLEDFKKDFNAYSQISNELNAILEEEKKVEELKELARAQIEKISSINPKIGEYEELLILKKKLSKKDK

LEEAWSKAERIFELEKVVIEALNLSEVDASFFSECLNELRVICENQKMEDLDFDVEALLDRIENLSYLIK

RYESIENALEVLKQKKYELEHYENLSFEKKELEKKFQELKQKLEEKAQILTQTRKKNLKKLEKCLNNYLK

DLYMKDASLTLKENEKISILGKDEIMLDINLAHLKNLSSGELNRLRLAFIATECNILNAGKGILFLDEID

ANLSGKEAMSIAKVLEELSKFYQIFAISHLPQLSSKAHNHFLVEKNGEESKVKKLDQEERIKELARMVSG

ELVSDEAIEFAKTLFKN

>WP\_002869556.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKFFLTILFFITSIFALELDFSVGENGKSLDDNNTVLIFGGIQGDEPGGFHAASLLLSDYNITKGKIIVA

PNLAFDSIIKRSRGNNGDLNRKFASISPKDPDYKTVQRIKELILLPEVSMVINLHDGWGFYKPTYIDAMQ

NPKRWGNSSVIDTSEINASKYPDLENIATQTVNSVNSSLADPKHAYHLKNTKTQELGDTEMLKALTYFVI

SNHKAAFANEASKNLPVNLRAYYHLLAIENYLKTAGIEFSRDFELTPQGVDKAINKELEVKLFDDRILLS

LKNPRKVINYVPFPVNKELNYNTSNELTAVIAEGNSFYIQYGNRFQTRLYPEYLEFSDAFNEVTFQVDGN

ETTVPFGTKVKVKENFLIPKIANVRVNIIGFDHSKDESGILVHKKNMQTQYSLDMAGKIYRAEFYELRGA

NLQQLLEANINSKLIKNAKNLDLNTLKMARSKDKFLGSILVEFE

>WP\_002869238.1 MULTISPECIES: hypothetical protein [Campylobacter]

MITLSSFNRYFGNNPLQTLTKIRDESIENAKI

>WP\_002869114.1 MULTISPECIES: membrane protein [Campylobacter]

MLENPIPNSIIITTIAVVLAFSALAVFLIKKTKENK

>WP\_002868437.1 MULTISPECIES: cyclic pyranopterin monophosphate synthase [Campylobacter]

MLIDQFGRKINYLRISVTQRCNFRCLYCMPKIPFDYQPKENLLSFEELFLFVKAAIDEGIEKIRITGGEP

LLRKDLSIFIKMISDYKSDIDLAITTNGFLLKDFAKDLKNAGLKRLNISLDTLDHKKAKTLAQKDVLDSV

LSGIDEALNLDLKVKLNTVALKNLNDDELISLLEFAKSKKAQIRFIEFMENTHAYGKLQGLKRDEIIQIL

SQKYQIQLIKKDEKAPVSIYKADDYEFGIIDPHSHEFCDSCNRIRLSAEGLLIPCLYFDEALSIKEAVRK

GDIKAAVEILQEVLRNKPEKNKWSVVDNETSSRAFYQTGG

>WP\_002868367.1 MULTISPECIES: metal ABC transporter ATP-binding protein [Campylobacter]

MIEISNLFFNYQNKEVLKIKNLKLDTSKISILMGANGSGKSTFLRILKFLEGDFSKNISYFGNFKPNNKQ

KREIYLLFPEPILLNRSVRANFLFTLKTYGIKEDIEERIKESLMFLNLDESLLSKHPNELSSGQSQKIAF

AIALSVRAKYYLLDEPSAFLDKNTTLLFKKTILKMHENFNTGFLIASHDKHFLDSLAQKKLYLHSGEILE

FENTNVFELENQGVKFCNFIDFSNCKKYKDFKKPPSKIAIDPYKISFFNSKNIPKNNYDFILEKCYIIAL

RSRKSDVFIRVSCMDKILEFALEKQEFLRFDLKLYEELSLYFYEDAICFLN

>WP\_002867614.1 MULTISPECIES: lipoprotein [Campylobacter]

MGKSFKIHCLTYIIFILQWLIFLSCKKHYKGEKVDRKAGVILFWHGKLALMPFAFRHYRQKNKKAYVMIS

HHKDGEQIAKIIKLFGLDTVRGSTSRGASSALRAAFKVLEQNDDIVITPDGPRGPYHSISDGSIILAQKK

ELKIRILNYEANRFWKFKSWDKMILPKPFSKITYSLSEPLDILSLDKEKAKEFLMKQFDKISLADQFKE

>WP\_002867487.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKLLFTSFCCFASLMASDAINCDNIKNNKTLLNESSNLDYLNIASSCKESLKNQDFTKKLYAISNEIRGS

NSSCNGVAYLPKLQQFDFLLLKIAIDPIAYQKTLDTPENLEKKYDILKSYFRYWAYQSIGNFRLYKAFWQ

EYNNAIEPLEKYFESNFNFDKGSNIYYTSNALNEFLNWAVGETKIYKDISPLAKIMSNKNYSVSYIQDFI

FSNNPSQDDLTIALQAALLNQREKEILELLIRFGARIDEGYESAIFYALESYENTNFLIQNGANVNQANA

FGKTPLFYAIEFNRLDIIKLLLDNGANVNQKYINNNEKLALSANIGSNTPYFITFCALEHTSKNVLMHAA

AYGNVEILKLLISKGANFNAVDDLGFNALDFALSAGKKENADYLKSLGLKANENLFYGGSLE

>WP\_002867312.1 MULTISPECIES: molybdenum cofactor guanylyltransferase [Campylobacter]

MQLNELNCVILCGGKSSRMGQDKSKLILKNQNLTQFQVDKFSKIFKNVYVSAKEDKFENHFSLIKDSLEF

EVYSPMLALYSILSNFKNEFVFVLSVDSPKVGENELLKMLPFLEQNYKIIIAKTPLHKHPLCGFYHSSLA

QTCKNFLEKNEQKIGLLFSEIKTKFVEFEDEDAFLNLNFYEEYEKFKSKLK

>WP\_002865738.1 MULTISPECIES: single-stranded DNA-binding protein [Campylobacter]

MFNKVVLVGNLTRDIEMRYAQSGSAIGASAIAVTRRFTANGEKREETCFIDISFYGRTAEVANQYLTKGS

KVLIEGRLRFEQWSDQNGQNRSKHSIQVENMEMLGNSNAPQQGGNFGNNSFSNNNYSGNYENQSYDPYMS

ENQNFNKAKANPAPQRNQSPQHEEKLKEIDIDAYDSDDTNLPF

>WP\_002864789.1 MULTISPECIES: preprotein translocase subunit SecY [Campylobacter]

MNRALTNKILITLAFLFAYRVLAYVPVPGVNADVIAEFFNNNQNNALGLFNVFSGGAAERFSIISLGIMP

YITASIIMELLAATFPNIGKMKKERDSMQKYMQIIRYATIVITLVQSIGVAIGLQSLHGRGGAGAIMVED

LNMFIALCAISMLAGTMLLMWLGEQITQRGIGNGISLIIFAGIVSGIPRAISGTVGQINSGEMNFLTAFA

IFALILITIGVIIYIELGERRIPISYSRKVVMQNQNKRIMNYIPIKLNLSGVIPPIFASAILMFPTTILQ

TSTNPYLQAINDFLNPNGYLFHVLTFLFVIFFAYFYASIVFNAKDIAENLKKQGGFIPGIRPGEGTSSYL

NEVASRLTLSGSIYLGLVATLPWVLVKFMGVPFHFGGTSVLIVVQVALDTMRKIEAQIYMSKYQTLSAVG

L

>WP\_002864777.1 MULTISPECIES: type III pantothenate kinase [Campylobacter]

MLLCDIGNSNANFLDDNKYFTLNIDQFLEFKNEQKIFYINVNEHLKEHLKNQKNFINLEPYFLFDTIYQG

LGIDRIAACYTIEDGVVVDAGSAITIDIISNSIHLGGFILPGIANYKKIYSHISPRLKSEFNTQVSLDAF

PQKTMDALSYGVFKGIYLLIKDAAQNKKLYFTGGDGQFLANYFDHAIYDKLLIFRGMKKIIKENPNLLY

>WP\_002864641.1 MULTISPECIES: 2-oxoglutarate:acceptor oxidoreductase [Campylobacter]

MKYQLRFGGEGGQGVITAGEILAEAAIKEGRQAFKASTYTSQVRGGPTKVDIIIDDKEILFPYAVEGEVD

FMLSTADKGYKGFRGGVKEGGIIVVEPNLVHPESEDYKKWQIFEIPIITIAKDEVGNVATQSVVALAIAA

YMSKCIDLDVLKETMLHMVPAKTRDANAKAFDLGVKYATQAKPHS

>WP\_002864601.1 MULTISPECIES: rod shape-determining protein RodA [Campylobacter]

MFRLDRRILTHFDYIQPILFLPIILISFFLIFEANPFLAEKQFVYACVGLFAFMVFFFFPIRKFIWIIPV

AYWINIFLLLSVDIFGVEKLGAKRWLEIPFTHFTIQPSEIFKPSFILMLAYLIYQNPPPKNGYKLKQFIK

LSFYIILPFLLIAKEPDLGSAMVLLLVGFGVLFIMGVHYKIWLSIVIAISVSSPIIYTHLLKPYQKQRIH

DFISEKPSYQVAQSMIAIGNGGLTGKSQDEATQTHFKFLPISTSDFIFAYMIERFGFIGGLTLIIFYILL

IFHLLSLNYKLKDDYFARVAINCVALFIFIYAAVNISMTIGFAPVVGIPLPFFSYGGSSFTIFMIFFGIL

QHLITFRYFWTDIKAK

>WP\_002864583.1 MULTISPECIES: rod shape-determining protein MreC [Campylobacter]

MKNKIFYVLVLAFLVFISFYYGGLIKQNVLRVNDFVIGNFYNIKDYLGEKISEHFNQANQIQQLKARNKE

LEDIAVKVTSFANQLNRILEDQNSTKYLPQVSLTRVISYVQLNDYKKLWLDWSKIPVGKNRGLIYQGYTA

GIAINKNGRAMALLQGDDQCVFSVYIGKSKAPGLIQGEDGRIVVKFIPKWAKINTGDEILTSGLDNIFFS

DIPVGIVNRVNDEDMYQSVEVKPYVKISIPAYLYVVDNL

>WP\_002864418.1 MULTISPECIES: NADH-quinone oxidoreductase subunit J [Campylobacter]

MIENLAFVFFSVVVLGFFGIAVLSKNMLYSLSALAGGMVFLSGFYFLLDAEFLGVIQIIVYSGAVLGLYS

FAMMFFDASKEFKEQLKAKKSFFTLVVLSTILLLAMLIGFKYQNISTDLPLNDPALFDFNKQLALAIFSK

YLLAFEFIAILLLIALVCAIVLTHKELTKEKQ

>WP\_002864417.1 MULTISPECIES: NADH-quinone oxidoreductase subunit D [Campylobacter]

MQIPSKLKPYYENIAFEQEDSKMIINLGPQHPSAHGNLRLILELDGEQVVKARPCIGYMHRGMEKMAENM

IYQEFIPTTDRMDYIAASANNYAYCAAVEKLCGLEIPRRAAVIRMILLELNRITSHLLWLATHALDIGAM

SVFLYCFREREYVLDLIEKYCGARLTHSSMRIGGVMLDLPENYLEEMLAFCDKFPNDLKDYEDLLDDNRI

WRLRTENVGVVTKEQALNWGCTGVMLRGSGIKYDIRKEEPYLLYNEVEFGVPYATQGDSYARYKVYMQEF

RESLKILRQCAMLYKDTSPEILATHPEYVSASKEQILTQNYSLMQHFVLITQGLKPPKGEVYVPTESPKG

ELGFFIHSDGTGRPYRLKARTPSYWHCAFFEEMLVGTYLADVVAIMGNVNIVLGEIDR

>WP\_002864239.1 MULTISPECIES: phospholipase [Campylobacter]

MRKIALFLSLCVFIWASDLQQALEYEKQGDYKKAMEIYKKLALKNSSVLISQEQNNSSQATQTQNSITIK

KEEKQDFSRLALANYLGENESFNPLGISSYKMNYFLPFAYSFNSLGVNNNKSEAKFQLSVKKRLFENLLG

LDEKYYIAYTQTSWWQIYEHSSPFRETNYQPEFFIDLPLYLKDYEFFNNLRVGILHESNGKGDENLQSRS

WNRIYVSTAILYNKFLFVPRLWYRIPENKKDDDNPAILHYMGNFDVNLAYLGDDYFINLMLRNNLKFHNN

KGAIQVDLGYDIFNNGIYWYLQYFNGYGESLIDYNKHLQRLSTGFLISY

>WP\_002864176.1 MULTISPECIES: amino acid ABC transporter permease [Campylobacter]

MLELLNTDTLLRLWQGLFVTLEISFISIIITSIGGLFLGILMSFKNTYIYAFCRLGLEFVRVMPLLVWLF

VVYFGFPRWFGWDLSSVSAAIIVFSIWGCFEMMDLVRVSLQSIPKHQYESASSLGLNTVQSFAYVIIPQA

MRRLTPMSMNLLTRMIKSTTFAYLIGAVELVKVGQQIIEFHNRNDFAPFIIYGLIFFIFFILCYPITLYS

RKLEKKWS

>WP\_002864101.1 MULTISPECIES: potassium transporter [Campylobacter]

MKQFGLDRRTFKILLAGYIIIALFGALLLHSSWAHTTPIDFLDAFFTSTSAVSMTGLVVKNTAVDFTLAG

QIIILALVQIGGLGYMGIGLFVYILIRKKVGFSARNLLKESLFYPSMDGLFKFFKKVLLFIFTIELIGAI

LLTMRFALEMNFKKALWFGIFHSISAFNNSGFTIFEHGFIAYKHDIAINLIITSLIIIGGLGYFVLVELY

FFQRKKLQNLSLHTKMVVVASIFLIFSSTLIIFAFEYSNPQTIGHFSFFDKILSSYFIAINYRTAGFNTL

DMGHLHDASLFFGSLFMVIGGAPGGTAGGMKVTTVMVLLLYAYWSIRDGRVRIFGHEIPRETISKAFIIA

VGSAVYIVIAVILLSLLESKFDFIALLFETSSAFATVGISVGNGGTLSLCALFSDPSKVIIIIMMLSGRI

GVFAFLLSVFKQDKAIHLKFPEGKVNL

>WP\_002860421.1 MULTISPECIES: polyphosphate kinase [Campylobacter]

MQTSPDMFINRELSWLRFNSRVLDQCSKNLPLLEKLKFIAIYCTNLDEFYMIRVAGLKQLFSAGVNASSS

DEMTPLQQLKAIRKYLHQEKELLERYFNEITSELEKENLFIKHYENLDENLKQKCDEYFFSNIFPVIVPI

AVDATHPFPHLNNLSFSLAVKICDKAHPELVKFGMIRIPRVLPRFYEVSANIYVPIESIVHQHAEEIFPG

YKLLASAAFRVTRNADMVIEEEEADDFMMILEQGLKLRRKGAFVRLQIQKDADEQIVEFLNTHMKIFHKD

VYEYSILLNLPSLWQIAGNKTFTHLLSPLYTPKTLPPFDENLSIFDAVEKEDILIIQPFESFDPVYKFIK

EASKDPEVISIRMTLYRVEKNSNIVQALIDAASDGKQVTVMVELKARFDEENNLHWAKALENAGAHVIYG

ITGFKVHAKVSQVIRKQGDKLKFYMHLSTGNYNASSAKIYTDVSYFTSKAEFARDTTSFFHILSGFSKNR

RLQTLSMSPNQIKEKVLEMIRIETSKKNEGVIVAKMNSLVDSDIIQALYEASMEGVQIDLIIRGICCLKP

DEEYSKNIRVRSIIGKYLEHARVFYFKHSEPNYFISSADWMPRNLERRLELMTPIYDERSKAKLAQFLRL

QLSDNVLAYELKNNGEYEKIPSSEKIIDSQQTLEEYVSKIYKTLKKDTDQSRATHLASKLFKEN

>WP\_002860288.1 MULTISPECIES: phosphoglucosamine mutase [Campylobacter]

MKLFGTDGVRGKAGEFLDSFLAMRLAMAAGIYFKDKSITNNILVGKDTRRSGYMIENAIVSGLTSIGYNV

IQIGPMPTPAIAFLTEDMRCDAGIMISASHNPYYDNGIKFFDAHGNKLSEDIEKKIEEIYFDDKLIQASK

VDMEKIGQAKRIDDVIGRYIVSIKNSFPKDLTLKSLRVVLDVAHGAAYKVAPTVFKELGAEVIVMSDKPN

GLNINENCGALHPANLAAEVKRLRADVGFAFDGDADRLVVVDEKGEVANGDSLLGVLALYLKEQGKLQSS

VVATIMSNGALKEFLNKHGIELDTCNVGDKYVLEKLKANGGNFGGEQSGHIIFSDYAKTGDGLIAALQFS

ALMLSKKKSASSILGQVKPYPQLLTNLKIAEKKDLDKIKGLKELKKDLENKNINTLFRYSGTENLIRLLL

EARDIKLLEKEMKNVVEFFKKALNG

>WP\_002859784.1 MULTISPECIES: energry transducer TonB [Campylobacter]

MKNYGLSNLNSFLLALAIYISIVILVFFRLVSEVEPAIQYTDIKDSFVDIELAEPSKQVITQSNTPKEIQ

KPTEQIDIEKLFAQTTNKTVKTEDIDQKASNFNELFGNIKEIQEEKTTKIQSSAKSGISSAPKPQASELV

KQLNDSLLQEESSTQGESTKAQKIGIYDEFLGKVVRIITQRWTQYYPNSEKISVKVKIFIDENGKFGYTS

VEKSGNPLYDAKVAEFLESQKGKFITYPPQNKNISITMNLRDEVKVKND

>WP\_002859562.1 MULTISPECIES: DNA-binding protein HU [Campylobacter]

MTKADFISLVAQTAGLTKKDATTATDAVISTITDVLAKGDSISFIGFGTFSTQERAAREARVPSTGKTIK

VPATRVAKFKVGKNLKEAVAKASGKKKK

>WP\_002859520.1 MULTISPECIES: lipoprotein [Campylobacter]

MKIYSVILGAFLLGACSLKDQAIVDTNLKSQTLMFTQKYKITQDKINAIITMSYLNPILDKTSKDDVLAL

SFTPNTLKIQNLEVFINNKKANIEKLDDEYLKYIIQNNYTDYFKASLPSVKEETRLVAKICLDHLPCFEL

NFQKYPKSLYYRSEDVDTQYN

>WP\_002859351.1 MULTISPECIES: UDP-3-O-[3-hydroxymyristoyl] N-acetylglucosamine deacetylase [Campylobacter]

MKQLTLAKTVKGVGIGLHKGEPIEITLEPLEANSGIVFFRSDLNASYKASPENVINTQMATVLGDDRGFI

STIEHLMSAINAYGIDNVRIVLNANEAPVMDGSSISFCMMLDEAGVKELDAPKKIMVIKKPIEVRDGNKF

VRLTPTKEPRINYTIKFDNAVIGEQSYNFEFSKKNYIENIARARTFGFLKDVQALRSMNLALGGSLENTI

VVDENRILNPEGLRFKDEFVRHKILDAIGDLTLLGYRVFGDYTSYAGSHHLNHLLTKEVLKDKDAYEIVS

LEKTTQKAYEKVFA

>WP\_002859319.1 MULTISPECIES: hydrogenase maturation protease [Campylobacter]

MKFLVLGIGNIMFADEGLGVHLCKQLEKNYKFTHSEFTLDFVDGGTLALQLSYIIARYDRLIVLDCIEAQ

GASIGDVFFFPYDAMPNKISWSGSAHEIEMLQTLQYMELAGDLPKTHILACVPKRIEAMSFKLSDELIQG

AKIMEKTLLDFLSKEGFAYEKIADFSLQELADISYKNY

>WP\_002859148.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKAYVLIWTIFLILLISLWMSLTLNISSYTPKIIQDSYYYLQAQILSHNATQFSKYFLYQAKQENKECL

DNIYFNYTKALIKIKYFYPIAQCVNFKFSNFNPDANLSKDGVIIAHISIALNRDKNVNDEILLTKSIIIY

PKENFWNLKN

>WP\_002859143.1 MULTISPECIES: hypothetical protein [Campylobacter]

MAIFNKGGISPTSSSSSETTVISSGARIEGKFYFASMLHVDGELSGIIHSESIVVIGKNGNLKGELQADK

IVVNGCFEGQLEANSLEILAGGVVNGDISTQKISIENGGRFNGTSKIKEDTIKLIENNNEE

>WP\_002858793.1 MULTISPECIES: 3-isopropylmalate dehydrogenase [Campylobacter]

MKTYKVAVLAGDGIGPLVMKEALKILTFIAQKYNFSFEFNEAKIGGASIDAYGVALSDETLKLCEQSDAI

LFGSVGGPKWDNLPIDQRPERASLLPLRKHFNLFANLRPCKIYESLTHASPLKNEIIQKGVDILCVRELT

GGIYFGKQDLGKESAYDTEIYTKKEIERIARIAFESARIRKKKVHLIDKANVLASSILWREVVANVAKDY

QDINLEYMYVDNAAMQIVKNPSIFDVMLCSNLFGDILSDELAAINGSLGLLSSASLNDKGFGLYEPAGGS

APDIAHLNIANPIAQILSAALMLKYSFKEEQAAQDIENAISLALAQGKMTKDLNAKSYLNTDEMGDCILE

ILKENDNG

>WP\_002858790.1 MULTISPECIES: biopolymer transporter ExbD [Campylobacter]

MPFDDEKPELNITPLVDIMLVLLAILMVTAPSITYEEKINLPQGSQKNTSTPTVKSLIISINAKKEIFLN

QEKYDFISFADNLAQRKAQFNTEDPVFIRADKSLKYDDVISVLRSVKNLGFNKVALQTE

>WP\_002858783.1 MULTISPECIES: CoA-binding protein [Campylobacter]

MNEKETISYIINTSKNIVIFALSPDKTKASYRVAEFLQRKNYKIFPIYPKEEFILNEKVYRNLDQIEEKI

DTLILFRKGEVALEILPKLVEKNIKNLWLQLDISNETAKEECKKLDINFIQNRCIMLEYPHFKTKEK

>WP\_002858779.1 MULTISPECIES: amino acid ABC transporter substrate-binding protein [Campylobacter]

MKKIILIFISFFALNLSAKDLVVGMELGYPPFEMSDKTGKASGISVDFLEAFAKKNGYKLVVKNIAWDGL

IPALKTAKIDLIMSSMTITDKRKKVVDFSIPYAKANLAILTPLNSDITNIKDLDKKGKVLALKRGSTGHL

YAVKNLKNATINLFDKENAAILEVIQGKADGFFYDQLTIYRTWQKHQDTTRAILAPFQENPEFWGIAVRK

GDEALKDKLDNFIDESRKNGFLDFLGNKYLKDIKEVFKQNNITFFL

>WP\_002858759.1 MULTISPECIES: cysteine synthase B [Campylobacter]

MKVHEKVSELIGNTPIIHLKKFGINVFAKCEFLNPSHSIKDRAAFEMIKDALDSKKINQDTTIVEATSGN

TGISLAMICADLGLKFIAVMPESMSLERRKMITLFGARLELTPANLGMKGAVDKANEILLNTPNSFMVSQ

FENISNKNAHRKNTALEILRDLDNELDIFVAGFGTGGTISGVGEILKEKLEKVHIVGVEPLNSPLLSKGE

AGSHKIQGIGANFIPAILNKEVIDEVITVSNEDAINTAKELAKSGLMVGISSGANVFAASMLAKKFPDKR

ILTMLNDTAERYLSTDLFA

>WP\_002858748.1 MULTISPECIES: flagellar assembly protein FliH [Campylobacter]

MVNRSNVISGGASDQHVVEGYRFKVISEFDNHTGEKKHTQTPDEENTNISLNDEKPVEENQVIASTQAVM

ETQIPTFQPSFVEDLLKKTDEMSSNIIKLQMQIESQENEFNNRLNSELENAKEKFTKEGYEKAKEEFQKE

LSDFKDKYLKSIAKLDNACENLENFIEKNEKELADTAIDIAKEVILKELELNSSKIAYALAKDLIGELKG

ASAIELKVNAEDYEYLKEQFDQNAHIKISLDDAISKGSVVIISDAGNIESNLNSRLTKIKKMVNNE

>WP\_002858745.1 MULTISPECIES: nucleoside hydrolase [Campylobacter]

MRLILDTDIGNAIAGANTDDGLALALILSSKEIKLEMLSTVCGNVPSLVAYSVAKDLFQRLNLNIPVYLG

ANEALKEPSKAWRQRLDESVKNFKLEYLWENIKSPEILENINPDAIFKMGELVSKNPKEISICAIGPLTN

IAMTMKIFKDFDINLKELFIMGGSFDMPYYTKDTNFGFDPEAASIVLNSRAKITLIPYNATMQTLLTHED

LKELQGKNILCDFIVETLGVWIDYASKTRGTKGTWIHDALTIACALDSSIADFDECYADVICDSSLARGM

SWRCFREPKMSMGVDLSTKNCVKILKNVDNARLLKLIKERLLKGVCYENYESITT

>WP\_002858740.1 MULTISPECIES: N-(5'-phosphoribosyl)anthranilate isomerase [Campylobacter]

MLKLKICGIKDEKNAKDLAFLNIDFFGLIFAKSPRRVSLEQARNLSAIFHEKDKKVVGVFVDENLEQILR

CIKEAKLDGIQIYRTITKEEFEILKVQNVFVWQVISVENSLDLKSEIFANLVLFDAKGILKGGNGISFDW

TLLGSYTKDFILAGGIGLDNVHKAVKTGAKILDLNSKLEDEKGLKDINKIKQILKELKK

>WP\_002858737.1 MULTISPECIES: membrane protein [Campylobacter]

MEKLREIVLFYTTHLYLVDYMLILLVFFLFTCVLLLCVFLRHRPIAALFIIAFDIIICFLVYIYGYKLID

NEVRTRKIAITDQKMIQSSNDLIVDFNITNNSKNNFKECKITAKIFADKIPNDNIIEEYKKKFIPFRQKS

REIKDLKKNATQVQRIAFENFNYENNYTIRLVSECF

>WP\_002858735.1 MULTISPECIES: ABC transporter ATP-binding protein [Campylobacter]

MVEVKNLTMRFANQLLFENVNLKLVRGQRYGLIGANGAGKSTFLKILSGEIESSSGEIVFDEGLKIAVLG

QDQFAFENYTIKDAVMCANKRLYEALKEKEKLYMSEEFTDEINERLGELEIITAEEDPNYDCETRCEKIL

SSLKIKDFDALMSTLQSADKFKVLLAQVLFLGADALFLDEPTNNLDLEAISWLENELLRHEGTLVVISHD

RHFLNKICTRILDVDFKQIRDFAGNYDDWYMASTLLAKQAELKRDKTLKEREELENFIRRFSANASKAKQ

ATSRAKALEKLELEEIKISSRRDPSIVFRTNREIGNEVLEIKGIGKAYDKQLFSNLELKIEKNDKIALIG

ANGVGKSTLAKIIAHAISPDSGSIHLGATIELGYFPQDTSNLICENLKLYEWLMSEKFKDLDEIRKCLGR

MLFSGSDQEKMAASLSGGEKHRLMLSRLMLERPNFLLLDEPDNHLDLESIIALGEALYNFKGVVLCISHD

RELVSAFANRIWHLENGKLTDFRGTYQEFLGENDG

>WP\_002858733.1 MULTISPECIES: diaminopimelate decarboxylase [Campylobacter]

MDYKQLKQEFNTPFYIYNFDFIKERFLNLKEAFKARKSQIFYAVKANSNLSLLQMLANLDSGFDCVSIGE

VKRALKAGAKAYKIIFSGVGKTKEELRQALEYDILYINLESEAEMMLLESVAKELNLKARISIRVNPNVD

AKTHPYISTGLNENKFGVEIDIARKMYLYAKNSSFLEPVGVHFHIGSQLLDISPIHEAAAIVAKLVRELK

ALQIDLKFFDIGGGLGVAYEKNECEPDLYDYAQGILAQLHGLDLTIGMEPGRYLVAKSGEFVCSVLYEKQ

NKTKRFVVVDGAMNDLIRPSLYEAYHEIILPYNQGEESLCDVVGGICESGDFFAKARSLPSTQSDDIMVI

KNTGAYGFSMSSNYNTRNKVCELALEEGQVRLIRQRENFEDQIALEEKFLKA

>WP\_002858726.1 MULTISPECIES: flagellar biosynthesis protein FlhB [Campylobacter]

MAGEDQEKTEEPTSKKIEDARKEGNVPKSQDAAAIVTLIIGVTITLFMMSFMGERIVNLYRYYQSFIGVE

FDLRIIQAIMIKSIFEVLIILAPIVLSIMIAGVLGNIMQFGFIFTTKPIMPNLGKINPLKGLKNLFSLKK

IVESIKIILKVGIVFTIAFIVLLKFMQELPRVELYTMVAQLTWLRDRAIVLAAIVIVAFLIIAVLDVFLV

RFQYFKGLRMSKQEIKDEYKQMEGDPQVKGRIRRLQMEAARRRMVQDVAGADVVITNPTHYAVAIRYDTG

KEQAPRVVAKGVDFLALRIKQVAYENNVVVYENPPLARELYKACDVNDLIPREMFKAVAEVLGFVYNTNN

KSRLAGQVKKGN

>WP\_002858725.1 MULTISPECIES: transcriptional regulator [Campylobacter]

MTKKSKRDMAYELDIDVSTLYNWRKYKPNLYRIVMLGFKFDELLDNSKKTHEELLHIEQTIQDEIAKFK

>WP\_002858719.1 MULTISPECIES: tryptophan--tRNA ligase [Campylobacter]

MRVLTGLQPSGDLHIGNYFGAIKQMVDAQEKSQMFMFIANYHAMTSSQDGEKLKQNSLKAAAAFLSLGID

PQKSVFWLQSDVKEVMELYWILSQFTPMGLLERAHSYKDKVAKGLSASHGLFSYPVLMAADILLFDTRIV

PVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKMSKSYQNTIDIFSSEKTLKKQ

ISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEAREK

YNELLEKPSHLKEILDFGATKARKIAQEKMQKIYEKIGL

>WP\_002858717.1 MULTISPECIES: 1-deoxy-D-xylulose-5-phosphate synthase [Campylobacter]

MSKKFAHTQEELEKLSLKELENLAASMREKIIQVVSKNGGHLSSNLGAVELSIAMHLVFDAKKDPFIFDV

SHQSYTHKLLSGKEEIFDTLRQINGLSGYTKPSEGDYFVAGHSSTSISLAVGACKAIALKGEKRIPVALI

GDGALSAGMAYEALNELGDSKFPCVILLNDNEMSISKPIGAISKYLSQAMATQFYQSFKKRIAKMLDILP

DSATYMAKRFEESFKLITPGLLFEELGLEYIGPIDGHNLGEIISALKQAKAMQKPCVIHAQTIKGKGYAL

AEGKHAKWHGVGAFDIDSGESVKKSDTKKSATEIFSKNLLDLASKYENIVGVTAAMPSGTGLDKLIEKYP

NRFWDVAIAEQHAVTSMAAMAKEGFKPFIAIYSTFLQRAYDQVIHDCAIMNLNVVFAMDRAGIVGEDGET

HQGVFDLSFLAPLPNFTLLAPRDEQMMQNIMEYAYLHQGPIALRYPRGSFILDKEFNPCEIKLGKAQWLV

KNNSEIAFLGYGQGVAKAWQVLRALQEMNNNANLIDLIFAKPLDEELLCELAKKSKIWFIFSENVKIGGI

ESLINNFLQKYDLHVKVVSFEYEDKFIEHGKTSEVEKNLEKDVNSLLTKVLKFYH

>WP\_002858715.1 MULTISPECIES: lipoprotein [Campylobacter]

MKHCLALCFVFFLCACSVKNQNFSSQSLMVLIASPMIKINDTAFLKKENNALNLEVYKLGQAFFELKIKD

KICINAVCYDKQVFNQKFFKNVYYDDILSDILKANPLWQGKNLEKTDCGFEQNLKAKNYEIFYQVCDNKV

SFFDKISHTKIILTHIQN

>WP\_002858710.1 MULTISPECIES: serine hydroxymethyltransferase [Campylobacter]

MSLEMFDKEIFDLTNKELERQCEGLEMIASENFTLPEVMEVMGSILTNKYAEGYPGKRYYGGCEFVDEIE

TLAIERCKKLFNCKFANVQPNSGSQANQGVYAALINPGDKILGMDLSHGGHLTHGAKVSSSGKMYESCFY

GVELDGRIDYEKVREIAKKEKPKLIVCGASAYARVIDFAKFREIADEIGAYLFADIAHIAGLVVAGEHPS

PFPYAHVVSSTTHKTLRGPRGGIIMTNDEELAKKINSAIFPGIQGGPLMHVIAAKAVGFKFNLSDEWKVY

AKQVRTNAQVLANVLMDRKFKLVSDGTDNHLVLMSFLDREFSGKDADLALGNAGITANKNTVPGEIRSPF

ITSGLRLGTPALTARGFKEKEMEIVSNYIADILDDVNNEKLQENIKQELKKLASNFIIYERAMF

>WP\_002858708.1 MULTISPECIES: pyruvate kinase [Campylobacter]

MLKKTKIVATVGPASEKEEILRQMIINGVNVFRLNFSHGTHEYHKKNLDTIRRVAKELHTRIGILQDISG

PKIRTGELKEPFELKKGDRLDFYRETILGEKIAQNHYKISINQKSILDMLKIDEYIYLYDGSIRAKVVNI

DNQKIETIIENDGFLNSNKGINFPNTKINIDVITQKDKNDLLWGIKNEVDFLAISFVQNAHDIDEVREIL

AQNNAKISIFAKIEKFDAVENIDEIIKSSDGIMVARGDLGIEVPYYKVPNIQKEIIQKANNASKPVITAT

QMLFSLAKSKTATRAEISDVANAVLDGTDAVMLSEESAVGIDPANAVDIMCQTIIETEKRYPYNKFNDFN

DLDNTDKIMRSSAHLATDLNADAIFSLTSSGKSAIKIARYRPNIEIIAVGHSEKTLNSLSIVWGVNPAIL

VNKSNELTELLKDSVRSSVEKGFMDEDKCYLLTAGFPTGVEGTSNLIRILNKEQIAYYLQ

>WP\_002858704.1 MULTISPECIES: lipoprotein [Campylobacter]

MKKYILLASSMLILAACGGTSSNFVNVSMPNFKPQVPTKVEPIDSGVSIALVPINIEQNNNYSDYFENSV

LKIRIEKEIDLLKQNLEEQIKTIAQLKGYKIVTTNPDYTLKSSISIYTEEKNVQKTSNFMSGDYVKSNLG

INFKGKIDFIDAHNPQNSTNLSSSTKLDSLVALNYPIKNDDGVNMFKTTISTVPTQLNKGLEQPAFEIDK

SFLAFYKNTLNTLYNNLPKATDIGKTIPNTNSGFNSFDGDATFEESLPQTNSNQNNTIENAPTQNIPTNP

SSTNQNNQSKNQDGVEIFE

>WP\_002858694.1 MULTISPECIES: lysine--tRNA ligase [Campylobacter]

MFDNILEQQRIEKAKELKNLGINPYPHFLEKEMSLKTFKDKFSYILEQVEKRDESVNAVVAGRLKLLRIA

GKSIFANIEDEDTNLQIYFSKDSVGEELYTILKKNLEVGDIVLVKGFPFVTKTGEFSLHASEVKLATKAI

VPLPEKYHGLTDIEQRYRKRYVDMIMNVEVRKDFLVRSKVVSLIRHFFENKGFLEVETPMMHPIAGGANA

KPFVTFHNSLGVERFLRIAPELYLKRLIVGGFEAVFEINRCFRNEGMDLTHNPEFTTIEFYWAYHNYKDL

MDLTEELFALLLDKLNLGKTIEFDGKMINFSKPFERITYKDALCKYGGLDRDLIEDKEKILTKLKADGFE

ANEKLELGHLQAELFDNYVEEKLINPTFVIDFPISISPLSRRSDEDSQIAERFELFICGRELANGFNELN

DPLDQYERFLKQIEAKNAGDEEACEMDEDFVNALGYGMPPTAGQGIGIDRLVMLLTNKKSIRDVILFPAM

RPLKSELKEKE

>WP\_002858693.1 MULTISPECIES: flagellar motor protein MotA [Campylobacter]

MDLSTILGMVLAVTSISVGDILEGGNPLHVVHLSSFLIVMPTAAFCAMTSTHKKIVKAAYKELKVVFKGS

GVNLPERIAQLIEFAIIARRDGLLALESRTSEIENEFLKNAMMMLVDGKSFEEIHESMEIQTEQLEEHYK

ECAEYWIVFGETCPTMGLVGAVFGLILALKLLDNPQAMAAGISGAFTATVTGIFGAYALFAPWGKKLKAN

GMDLVKEQIVITEAIKGIAEGANPRDLEAKLFNFLSHDDPRISQFDKG

>WP\_002858689.1 MULTISPECIES: glutathionylspermidine synthase [Campylobacter]

MQLLQVDKLQKDYLENIGFSWHTDEDGSDYISNKLVCVKESEANAYYEAVNELYDMFIAAAQEVINNDRF

DELGIPFNLIDAIKMSWENEVHWHLYGRFDLAGGLDGKPIKLIEFNADTPTALFESAILQWALLKQNGMD

ESAQFNSIYESLMDNFKRLITLDESVEGFEEHYQGWKILFSSVAGSKEEEITTKLLAHIANEAGFQTNFS

FVDEVEFSEEGIFKEGENYEYWFKLIPWEDIAIEEGELAMLLTQIMRNQRAIILNPAYTLLFQSKGILKI

LWELYPNHPLLLETKDTPLEGKNYVKKPVFGREGANISIIKDGKTLHENVGPYGNNKAIYQEYVEFNSCE

NEYYQAGVFFAYEGCGLGFRKGGLVLDNYSKFVGHIIKD

>WP\_002858687.1 MULTISPECIES: membrane protein [Campylobacter]

MPADLNDYFNKKNGNSNNNGNNNRQNFNFKAPEFNFKGFGKFSPFVYGVIIIILFLIVAKPFMVINSGEM

GIKSTTGKYDPNPLEPGLHFFLPFVQKITIIDTRVRQINYASIEGSNENLSSGSGVINKNSISVLDSRGL

PVSIDVTVQYRLNPLQVPQTIATWSLNWENKIIDPVVRDVVRSVVGKYTAEELPTNRNTIATQIEEGIRK

TIEAQPNEPVELRAVQLREIILPSKVKEQIERVQIAKQEAERTKYEVERANQEALKKAALAEGEANATII

SAKGKAMAVKIEADAQAYSNKEIANSLNTPLLNLKQIETQKEFNEALKVNQDAKIFLTPGGAVPNIWVDT

KDAKKQSAANMN

>WP\_002858682.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLNILHANSSHRFHKCMPKEVHQIYDTLKLMEQQEGTKKSRSQKRRAK

>WP\_002858681.1 MULTISPECIES: serine--tRNA ligase [Campylobacter]

MLDLKNLQNNFDEVAKKLKNKKVDENILKKLAELFASLKKEKIALEEFQAFQNKFSKELATAEDKESLKA

KLSENKSKINEQSAKVNALENELEEIAHAIPNIPDECVPVGEDENENVELKKVLNPPSFDFTPKEHFELG

ESLNWLDFMRGVKISQSRFCVLKNEGALLSRALVNYMIDFNRSRGFEFVNVPFLVNGATMFGTGQLPKFK

EDMYKVDDEDLYLISTSEIPVTNLYSGEILASETLPIKMTCYSACFRKEAGSAGRDTRGIIRQHQFEKVE

LVSITKPEQSDSVFNEMLECASDLLSSLGLAHRHLMLCTGDLGFSAAKTVDLEVWLPGQNKYREISSVSN

CRDFQARRAKIRYKNEQGKNELVHTLNGSSLAVGRTLVAIMENYQDKEGKIHIPDVLKKYF

>WP\_002858678.1 MULTISPECIES: lipoprotein signal peptidase [Campylobacter]

MAKTFKFIFYFWGAFVLVFALDQWVKSLTLAGFRWQSEYLDLTYALNTGVAFSMLSFLEHNLKYLHLALI

GVLFIYLFWQRTLLKTHSIAFGMMLGAGVSNLLDRFIHGGVVDMFFWHKWFNFAIFNVADVMINISVALI

LIQEIFKKRKKDDRMD

>WP\_002858674.1 MULTISPECIES: 50S ribosomal protein L32 [Campylobacter]

MAVPKRRVSKTRAAKRRTHYKVSLPMPIKDKDGSYKMPHRANPTTKEY

>WP\_002858671.1 MULTISPECIES: ferredoxin [Campylobacter]

MAVKITDICIACGSCIDECPVNAIVDDTNNPEGEDRYYVYANKCVECVGHNDQPACASACPTDGCIVWSA

VESGQPSRDNIGADMRSGDTPVFA

>WP\_002858664.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLVHICCSVDSHYFIEELRKTYPDEKIIGYFYDPNIHPLSEYELRFLDVKRSCDKLGIKLYKGEYEYEKW

LNAVRGYEDEPEKGARCEICFDVRMGSSVKFAAKIGEKKLTTTLLTSPKKDLEQLKNALQKECEPYGVEF

LAPDFRKNGGTQRQFALAKKEMLYHQNYCGCIYGLKKQKQDKNFIDELMSSVNKQILPVSIEARIALYKK

VVLWEKKGIKFEILREKFLNYRLLSALIKLDKKPVKSHILFYSHFKNAYTRFSLDEENLKQNLKEGFYRS

TKDEIVLVEFWRFNAFFKNKWKNFEDFLKKPLSVQAEIKWRNKLFGTYNLSPIIILENILPSRYEVIAKS

EIYHDNQEVLVKI

>WP\_002858660.1 MULTISPECIES: transcription elongation factor GreA [Campylobacter]

MQKEPMSQFGYDKLAAELKDLKDNQRPAVVIEIDTARSHGDLKENAEYHAAREKQALIESRIAELSDLLA

RAQVIDPSSYEHDSVKFGSSVVIMDLDTEKESKYTLVGICEGNLDKGYISIASPIAKAMLGKKEGDDFKV

RLPKGESEFEILSINYEPLKF

>WP\_002858659.1 MULTISPECIES: peptidyl-tRNA hydrolase [Campylobacter]

MILVVGLGNIGVEYENTRHNVGFMLIDLLLKESNFTNLTNSKFKGELFKIGSSLLLLKPSTYMNNSGLSV

KAVNDFYKCERMIVIHDDIDINLGALRFKKGGSSGGHNGLKSIDTLCGNDYERVRIGVGKGENVISHVLG

KFKSEEEITLSKVLEHAKKALLELIENDDLSAISSKYSLKA

>WP\_002858656.1 MULTISPECIES: lipoprotein [Campylobacter]

MKKIFLTLFCLIFLCACGTKRQYFEPKQTDGDLSHNSNLKSKIVDWNLVSAKLSNNTTILKNNISIDKFK

LPKNYMLLAYQDGEYFTADNNGNLKIFDNSYNEIYNFQFDASVVGVASNGDDLALVLANNTIVLANRSLG

IKFSQTLTSAPAQDSRTANPIFLDNIIVYPTLDGKILILSRNNLQIIKDVVISAENFFNNVIHLSVIGDK

LIAATAKKIIVVSPARTLYLDADIKDVALSDDGIFILEKDGTIIKTDYNLRKIAEKKFEFAIFVKSNIYN

NYLYIFEKTGYLIKMNLNLDNAQVFKLSEAVDKISFMGNGKFYYGDKILDLL

>WP\_002858652.1 MULTISPECIES: 2-dehydro-3-deoxyphosphooctonate aldolase [Campylobacter]

MKKMILIAGPCVIESKDLIFKVAEQLKNFNENPNIEFYFKSSFDKANRTSINSFRGPGLEEGLKILQSVK

DEFGMKILTDIHESNQANPVSEVADVLQIPAFLCRQTDLLVAAAKTKAKINIKKGQFLNPSDIKYSVKKV

LQTRGIEDEGYEAAQRNGVFVAERGASFGYGNLVVDMRSLVIMREFAPVIFDATHSVQMPGAAGGSSGGK

SEFVEPLARAAAAVGIDGFFFETHINPCEALCDGPNMLNLTRLKNCVNTLLEIQNIIKENK

>WP\_002858651.1 MULTISPECIES: membrane protein [Campylobacter]

MAEQEDIILEKPEDGLNQPRLDESLEGFKGQEGQAPEDEEFASLPEELPQENSESGFKFTRESAPEDVST

FEEVESQEPTPWYKDRKFMSLVGLSLGIICILVFTLFYLTFSEGKIKPDIIASKPLEQPVIMPDESYKYN

DMQRIDGMIQKANALYLKGEVEQALKVYEQVAVYNESLSNYNLGVSQMNENKFQEAFESFKKAIANGENQ

SVAAINAAVCALKLNDKEKFRYYIDLAQVYLPKEGKSKLYDYYLSLINYYKGYYPEALQMLQRTDVEPYS

DVAKYLSAKIYAKMDFDSKAIQQLNSQGNFESSLSLGLLYARIGEYAKAKVALSTAMKIERDFNQSLAAL

TLVDIKTGNYQDMLARLQNSYDNDKDRYKILDTYKIQVRLNKDLFNIAVAQNSFSKDLLKKQKDQFDLLF

YFAPYQVFDSKQAALYIKKANVTDFVDDSTDAGIYLNISKALSSTNVKIANIINYALNQKLRLANQEFQK

LIKDYPEHSILHYNLALTYAQMQNYELAYKHFSSSYHLNPKNYLAGAFAMFCAKLIDIDTTKLYNEILDN

IAADSNFKANMQKSMLFLVNNNYISMLPYLDETKKDTPLSLIFEAIVAKNNNLNNQVDVKIAKLRSELPE

DILANILYFNSLNSNLNIKEYAQNAQIHFKNLKLDYRSVFGGPNIAREFYVNLMHIAGLLNLERQKFKEL

INVSGAKDEGILQTLAYLDIFAQQYEEAYALYNSLIDDYGAKDTKTLFLAAVAAVGANNPNSAIALLQLS

KLTDKNNKESKAALGMLYQEVKNYEAAISQYKTLPNNFKSEFFTFDINNN

>WP\_002858650.1 MULTISPECIES: histidinol-phosphate aminotransferase [Campylobacter]

MKFNEFLNNLSNYEPGKDIEVIAKEYGVKEVIKLASNENPFGTPPKAIECLRQNANKAHLYPDDSMIELK

STLAQKYKVQNENIIIGAGSDQVIEFAIHSKLNSKNAFLQAGVTFAMYEIYAKQCGAKCYKTQSITHNLD

EFKKLYETHKDEIKLIFLCLPNNPLGECLDASEATEFIKGVNEDCLVVIDAAYNEFASFKDSKKHLEPCE

LIKEFDNVLYLGTFSKLYGLGGLRIGYGIANANIISAFYKLRAPFNVSNLALKAAVAAMDDDEFTEKTLE

NNFSQMELYKEFAKKHNIKIIDSYTNFITYFFDEKNSTDLSEKLLKKGIIIRNLKSYGLNAIRITIGTSY

ENEKFFTEFDKILR

>WP\_002858648.1 MULTISPECIES: ubiquinone/menaquinone biosynthesis C-methyltransferase UbiE [Campylobacter]

MQKQEKIIEMFNQIAPTYDKANRILSFGADVAWRKKACQRVMSLYLKKDLKIADIACGTGDMIEIWQESA

LKMEKNILNIKGIDPSSGMLNVAKEKFPNVEFIKAGAQNLPLESQSLDILSISYGIRNVVERQKALSEFA

RVLQKDGILVVLEFTKREKGGFIAACRDFYLKNILPSIGGIISKNKSAYEYLPNSIEGFLSKKEFILELK

NAGFEMLDYKSFSFGVSSMFIAKKL

>WP\_002858647.1 MULTISPECIES: protein TolB [Campylobacter]

MKKIVAIFLVFLGSLWAEDPVIDVVNSGVVLPKIIVKDNSNLSDENLKKSFYNIIVNDLKVSSNFEVVAN

ATETSNYIFEYTLNKNGNTLSLNVKIKAGGSDKSEQTYTLNGLEQYPFLAHKSVKASVNALGLAPVDWMD

HKILIARNSSSKKSQIIMADYTLTYQKVIVDGGLNLFPKWGNKEQTLFYYTAYDHDKPTLYRYDLNTNKA

SKILSSGGMVVASDVNVDGSKLLVTMAPKDQPDVYLYDLNTKNLTQLTNYSGIDVNGNFIGSDDSKVVFV

SDRLGYPNIFMQDLNSNSAEQVVFHGRNNSAVSTYKDFLVYSSREPNQAGVFNIYLMSINSDYIRQLTAN

GKNLFPRFSSDGGSIVFIKYLGAQSALGVIRVNANKTFYFPLRVGKIQSIDW

>WP\_002858645.1 MULTISPECIES: phosphate acyltransferase [Campylobacter]

MINIAIDAMGGDFGEKPIIEGVLKALETKPFNAILVGNSKILKPLIPKKLEQYIQYEEASEIFSMNGNAT

DALKNKETTIYKAINLLKEKKVDAVVSAGHSGASMSLATLKLGRLKGISRPAIATLMPNIVNKTLLLDVG

ANTDCKAENLFQFAIMGEVYAREIMQIQKPRLALLSNGEEECKGNELTKESHQLMKKIPNFIGNAEGRDI

FNGEIDVLVCDGFDGNVILKACEGVATAIFQLLKNEVKQSFISKIGALLMKPSFKKLKKHTDWQEYGGAP

LLGVNGCVIISHGKSDSRAIKNAIFQAINFSQSHINKFIENELGKYNA

>WP\_002858644.1 MULTISPECIES: DNA polymerase I [Campylobacter]

MKTLTIVDTFGFFFRLYYALKGFKNSQGQASGMISGFANFIYSLKNEYKSDYIVFALDSKGKTFRSEIDP

NYKQNRTPPPPELLEQIPICIKMIEKMGFISVSQEGYEADDIIASFVKTCENRDIFVRIITQDKDLYQLI

KDGKTSIYSPISKNDYDEAACLEKYGVKPNQIRDFLALCGDSSDNIPGVKGIGAKGAKTLLDEFGSIEGI

YENLTLVRNERSRNLLLEGKENAFLSKKLASLYDNLEVQNLIEKATYPDEEPLLKILEILEHYELNTLLK

KLRQNPDNKDKNLGFKATLVQDENKLFEILNTLDKESIIAFDTETTGLDTKEAKIVGFSFCMNENEAFYV

PLTHNYLGVGEQISLQSAKKAIEVIFNHFVIGHNLKYDFKIIQNNFDLNLPQKYADTMILAWLKNPSLRV

NMDDLALRLFNYETLHFESLVKKGENFASVELEKACKYAAEDAYITLRFYLYFLKNLETPLLELAKNCEF

DFIKIIMMMEENGIKLDTNALEILMKKFENEIKNLSEEIYTLCEDRFNLNSPKQMGDILFEKLKLPSGKK

GKTGYSTDEKVLNILLDKHPVIAKILDYRELAKLYSTYCEPLLKLALKDKNSRIYSSFLQTGTATGRLSS

KDPNLQNIPAHGQYAKDYKSCFVAKDGFSFISLDYSQIELRILAHFSEDEKLLNAFANDEDIHARTAIMI

FGESNYETRSVAKSINFGLIYGMGYKTLSQNLKIEANLAKSYIEKYFENFTSIKKYFEKVKNEAKQNGFI

VTLSGRKRYFDFENAKPMQIAMYERESINSILQGSAADVIKLAMLEINKELNEDKKLILQIHDELIFEVK

DDLCENFVKKTRDIMENIVKLKVKLKTSSSIAKNWGDLK

>WP\_002858643.1 MULTISPECIES: colicin V biosynthesis protein [Campylobacter]

MNFYWFDAFILGFTLLLGLKGIINGLIKEIFGLLGIIGGVFIASKYATQAAEFIQSTFYKIENQSLAGFA

GFLAILIIFWIACLLAGNFLSKLIKLSGLGFLDRIGGFIFGGAKIFLIFAILVFCVARIDFLNDKLDNFA

KNSYTLNLLKETGSFIMNQPLTENSLDHASEKLQDIVSDLNNTQKGE

>WP\_002858642.1 MULTISPECIES: hypothetical protein [Campylobacter]

MQISSSYNSYDYYSSKPSFDKTNQSDSTQKDEKNLSENKDDKEKNGEQTQMVNGVELSQKEVAQVRELQS

IDRNVKAHEAAHQAAGGGLAGAASFTYTRGPDNQMYATAGEVPISMQKGNTPEETIANARQIAAAAMAPA

DPSPQDYKVAANATKMEFEARAEAMKLKAEEAKEKEEENKEKDDKNSENSLEKTDKDSKNNDKNSNFDKD

FKNLVTRTYQQNSQNNDIKFSIAS

>WP\_002858641.1 MULTISPECIES: membrane protein [Campylobacter]

MEGASGGSIFVTILLFILYMLPAIIGLSRKHSNWLIISLLNLFFGWTIIVWLVCLIWSFTGSFKQTIIIK

EKNEK

>WP\_002858639.1 MULTISPECIES: 3-oxoacyl-ACP synthase III [Campylobacter]

MLKASLKSIASYIPEKILSNADLEKMVDTTDEWITRRTGIKERRIASENENTSDLGTKAALKAIERANLK

PEDIDAILVATLSPDYFTMPSTACKIASNLGLVNISAFDISAACSGFIYLLEQAKALVESGLKKNVLIIG

AEKTSSIMDYNDRSICILFGDGAGAGVVSLDNENHILDVHTASNGNYGDLLMTQRSQKSSLCQTLSMQMK

GNEVFKIAVNTLSNDVVEILAKNNILAQEIDLFIPHQANLRIIKAVQEKLNLSDEKCVITVQKYGNTSAA

SIPMAMNDAYEEGRLKKGNLILLDAFGGGFTWGSALLKFGGENF

>WP\_002858620.1 MULTISPECIES: 1-acyl-sn-glycerol-3-phosphate acyltransferase [Campylobacter]

MIYKKIKALYFWIFFVLSVALVIFCFCFTKSQNTLWKIRKIWAKFQRYTISYKQEIIGTFNPQAQMILMN

HQSALDIIALEELYPKNLCWIAKKELGEIPIFKVAMKKPKLLCIDRKNPRDLVRVLKEAKERISEDRVLA

IFPEGTRSKNEKMLKFQSGAKILSEKLNLKVQPILIVDSAKILDTKSFSASSGVLKIICMDLVDTNDEKW

LENTRKKMQELLDQERAKLC

>WP\_002858619.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLFLLKKIFPQLFISIILEDKKNIVKASIYRGNKLISSNEKTFDKSENLLEYIKNLSKHFLFYHTALFLD

AKEQGLIPSTNIQDCEHFNIGKISLQHILLNNALVYTATEHVEYYSELFEEYRGLDFLYSPFALLYYNMQ

KEKQPDDQILLYGFKQGYLLAIIVAKGNTILYGDFKIFEQELGLELELPSEDNQEIENNNDDTEVTLDNF

NEALNNKFDLLDQENNLETLDNNDNFNLDELNQFSNDMELCRYIITSIEKFYNDDKYAGVFINGILLYSE

SDININAIDFLESETFLEIKTKQINTLDLMIELMRKEVK

>WP\_002858618.1 MULTISPECIES: chaperone protein ClpB [Campylobacter]

MANIQDFLTDNMLSNLESAASLAIHSKNNEVVPLHLLWALSVDSTSILNQILNKLNISKEALELEIKSRI

SKLATSSNVNRENIRFSNELINSLENAKGLMSANGDSYLSVDTWLISESQKSPIKEILAQFLDLREFQKE

LESLRAGRKMDSKTSDETLDSLNKFGIDLTLKASEGKLDPVIGREEEIERLMQILIRKTKNNPILLGEPG

VGKTAIVEALAQRIIKKDVPKSLQNKKVIALDMSALIAGAKYRGEFEDRLKAVVNEVIKSENIILFIDEI

HTIVGAGASEGSMDAANILKPALARGELHTIGATTLKEYRKYFEKDAALQRRFQPVNVGEPSVNEALAML

RGIKEKLEIHHNVTINDSALVAAAKLSKRYIADRFLPDKAIDLIDEAAAELKMQIESEPSSLRKVRKDIE

TLEVENEALKMENDEKNQKRLDEIAKELANLKEKQNALNSQFENEKSVFDGISAKKKEIDLLKNEASLAK

ARGEFQKAAELEYGKIPSLEKEVEILEDKWKKMSENGVLLKNQVDEDLVAGILSKWTGISVQKMLTSEKQ

KFLEVEKHLKESVIGQDKALSALARAIKRNKAGLNADNKPIGSFLFLGPTGVGKTQSAKALAKFLFDDEK

AMIRFDMSEFMEKHSVSRLLGAPPGYIGHEEGGELTEAVRRKPYSVLLFDEVEKAHKDVFNVLLGILDDG

RATDSKGVTVDFKNTIIILTSNIASNAIMNLSGKEQEDAVKNELKNFFKPEFLNRLDDIITFNPLGKDEA

YEIVKLLFKDLQMSLENKGIKASLSENAALLIAKDGFDPDFGARPLRRAIYDLIEDKLSDMILADELHEN

DSIIIDAKDDEIIIKKA

>WP\_002858610.1 MULTISPECIES: 50S ribosomal protein L10 [Campylobacter]

MTRSEKVEIIAKLEEGFKASEAIVVCNYRGLSTKKLEELRNNARENNVKVQIVKNTLANIALNNSGKTGL

VLKDTNIYLWGEDQLSVSKVAAKFEENNDKFEIKTAHIEGEVADVAKVKALAKMPSRNELLAMLLQVWNA

PITNFTIGLNALKNKKESE

>WP\_002858599.1 MULTISPECIES: 2,3-bisphosphoglycerate-independent phosphoglycerate mutase [Campylobacter]

MKQKCVLIITDGIGYNKNSKFNAFEAAKKPSYEKLFKEVPNSLLKTSGLAVGLPEGQMGNSEVGHMCIGS

GRIIYQNLVRINKAIENKELEKNENLKKLLAKCKRVHIIGLYSDGGVHSMDTHFKAMLEICAKNGNEVFA

HAITDGRDVSPKSGLNFIKDLKEFCENLGVHFATLCGRFYAMDRDKRWDRVKEYYECLLGKAYKVPNLLE

YLQKSYDENVTDEFIKAAQNENYKGMREEDGIIFINFRNDRMKQLVEVLNSKDFKEFEREKIFENLLTMS

VYDDKFKLPVLFEKEKIENTLAQVISKAGLSQLHTAETEKYAHVTFFFNGGKEELLENETRVLIPSPKVK

TYDEKPQMSAFEVCDAVKKGIEKGEDFIVVNFANGDMVGHTGDFNATIKAVEAVDTCLGEILECAKKHDY

AFIITSDHGNCEAMQDEKGNLLTNHTTFDVFVFVQARGVSKIKDNMGLSNIAASVLKILDLEIPKEMNEA

LF

>WP\_002858590.1 MULTISPECIES: succinyl-CoA ligase subunit beta [Campylobacter]

MNIHEYQAKAIFVDNGIPTLKGKVAFSVDEAVANAKELGGSVWAVKAQIHAGGRGLGGGVKIAKNLDEVK

DYASKILGMNLVTHQTGPEGKLVQKLYIESGANIVKEYYLAILFNRMAEQITIIASSEGGMDIEKVAKES

PEKIAKVGIDPQIGFKMFHGLEVARVLGLDKDEGKKLISMIAKLYKLYMDKDMNMLEINPLIKTAEGDFY

ALDAKCSFDDSALYRHPEIAELRDTTEENPAEREAAEFGLSYVKLDGDVACMVNGAGLAMATMDIINYSG

AKPANFLDVGGGASPETVAKAFEIILRDKNVKVIFINIFGGIVRCDRIANGILEATKNVEVNIPIVVRLD

GTNAAEAKTILDNSNLKNIKAATNLKNGAELVKSLVG

>WP\_002858588.1 MULTISPECIES: ATP-dependent DNA helicase RecG [Campylobacter]

MKIKESDFEFFKKLKIRSAIDLALLLPKKIENLNPSKNPKENEICTQKITIKSVSSRKNQLFGLGFCEEW

QENISFVFFHPRAWHFGICKVGKELIFNAKLSHFNHTWQFNNPKILTSFEGFSPKYQILGLKDTKIAAFI

HKYLNYENLKESGIEDKYIHFLLNLHAYDEKSFFMFENLQNFSKDLKYIEIYNFLKRLKAKKTHFKAHQI

NVFNIANWLKDLPFSLTKDQLNALKDIEKDLHSKEAKRRVIMGDVGCGKTLVLLGAALMVYPKQAILMAP

TSILAYQLYEEAKKFLPDFMNILFIKGGKKEKDLEQNIQKANLVIGTHALIHLESHNAVLVMIDEQHRFG

SAQREKIHSLNKQEFAPHFIQFSATPIPRTLSMIQSELLNFSFIKQMPFKKDITTYCIQNEGFSKLSEKI

KEEIAKNHQIIIIYPLLSASDKIPYLSLEQAKEYWQSHYEKVFVTHGKDKQKDEILERFRDEGNILLSTT

VVEVGISLPRLSMIVIVGAERLGLATLHQLRGRVGRVGLKSACYLYTKLKEIPSRLKEFASTLDGFKIAE

LDLKNRLSGDLLDGFMQHGNEFKFFDFSKDEEILEKVKKDLAKKLPN

>WP\_002858587.1 MULTISPECIES: dihydropteroate synthase [Campylobacter]

MKFFKINPNTDFNLLCSFINPHKMGQKIMSEKTKIHFIFIKDISTPAANILKQDALRVGAELITHKEVIT

AKITHSNALLMASKEQIQKLVVKEKLQDFGLKNLALFLQKDFLKPKKAELMAVINVNEDSFNAKSRVSEE

DFEKRLNDFLALKPEYIDIGAVSSRPGSEYCGKEEEFKRLKKVLDLIYEKNYYEQAIFSLDSFDEYCLEY

ALNKGFKLINDITSLRNLNLAKLASKYGAKYCLMHMQNNPNNMQDNPFYEDLLDEMTLFFKEKLELLESF

GVKESILDVGIGFGKSAGHNMILIKHLEHFLQFNKPLLIGASRKSVINAYFQSEIKDRLAGTLYLHLKAF

ENGASIIRVHDLYEHKQLFALAQAMDNIGV

>WP\_002858584.1 MULTISPECIES: membrane protein [Campylobacter]

MGIILGILSLIAGFVAIVLMCGLYFIAFMVFVGIAILIFLSMQPYPYNIIFCAIYLITILALVLWRKT

>WP\_002858571.1 MULTISPECIES: ribulose-phosphate 3-epimerase [Campylobacter]

MYVAPSLLSANFLKLEEEVKAIEAAGADLLHIDVMDGHFVPNLTFGPCVIEKISTISKLPLDVHLMVKDV

SKFVDLFISLKPKFISFHMESEVHPIRLCEYIRSQGIHPAIVLNPHTPIDSIKHMLEFVDMVLLMSVNPG

FGGQKFLPLIHEKIKELRQMIDKKNAKVFIEVDGGVNGLNASDLEESGADILVAGSYIFSSNDYKTAISS

LKLEF

>WP\_002858569.1 MULTISPECIES: 50S ribosomal protein L7/L12 [Campylobacter]

MAISKEDVLEYISNLSVLELSELVKEFEEKFGVSAAPVMVAGGAVAGGAVAAAEEKTEFDIVLTDGGAKK

IEVIKIVRALTGLGLKEAKDAVEQTPSTLKEGVAKAEAEEAKKQLEEAGAKVELK

>WP\_002858530.1 MULTISPECIES: acetyl-CoA carboxylase carboxyl transferase subunit alpha [Campylobacter]

MASYLDFEKNIQQIDEDIINAQIKGDTEAVSILKKNLEKEISKTYKNLSDFQRLQLARHPDRPYALDYIE

LILNDAHEIHGDRAFRDDPAIVCFMGYLGEKKIIVIGEQKGRGTKDKIARNFGMPHPEGYRKALRVAGLA

EKFQIPILFLIDTPGAYPGIGAEERGQSEAIARNLYELSDLKIPTIAIVIGEGGSGGALAIGVADKLAMM

KNSVFSVISPEGCAAILWNDPAKSEAATKAMKVTADDLKSQGLIDDVIDEPTNGAHRNKEAAAVAIADYV

KKSLNELENIDVRELSANRMQKILKLGAYQEA

>WP\_002858516.1 MULTISPECIES: chemotaxis protein [Campylobacter]

MFGSKINHSDLQKLEEENKNLTHKIEKFQSENLELKNKITSLEQAALESKLKTDLLNVLLTGVLKNITII

QGDMLENVNKAEVISSYSKTSLAEMDELNHIANSINASLGNITESANKTRDVAGTLHRSVDEITNVINLI

KDVSDQTNLLALNAAIEAARAGEHGRGFAVVADEVRKLAEKTQKATTEVEMNINLLKQNANEMYTQSEQV

EKISIDSNAHIMSFSEKFTHLVNEAHSTNSNAVGIASEAFVSLAKLDHIAFKLNGYKEIFSKSGKQLADH

TSCRLGKWLASTGKERFGQNKSFLKINEPHEKVHENMNNAITIANTEDISKDITQHSIINKCEVAENASL

DLFNVFKEMLDESDH

>WP\_002858508.1 MULTISPECIES: DNA-directed RNA polymerase subunit beta' [Campylobacter]

MSKFKVIEIKEDARPRDFEAFQLRLASPEKIKSWSYGEVKKPETINYRTLKPERDGLFCAKIFGPIRDYE

CLCGKYKKMRFKGVKCEKCGVEVANSKVRRSRMGHIELVTPVAHIWYVNSLPSRIGTLLGVKMKDLERVL

YYEAYIVENPGDAFYDNESTKKVEYCDVLNEEQYQNLMQRYENSGFKARMGGEVVRDLLANLDLVALLNQ

LKEEMGATNSEAKKKTIIKRLKVVENFLNSNLNANTDSDEAVPNRPEWMMITNLPVLPPDLRPLVALDGG

KFAVSDVNDLYRRVINRNTRLKKLMELDAPEIIIRNEKRMLQEAVDALFDNGRRANAVKGANKRPLKSLS

EIIKGKQGRFRQNLLGKRVDFSGRSVIVVGPKLRMDQCGLPKKMALELFKPHLLAKLEEKGYATTVKQAK

KMIENKTNEVWECLEEVVKGHPVMLNRAPTLHKLSIQAFHPVLVEGKAIQLHPLVCAAFNADFDGDQMAV

HVPLSQEAIAECKVLMLSSMNILLPASGKSVTVPSQDMVLGIYYLSLEKAGAKGSHKICTGIDEVMMALE

SKCLDIHASIQTMVDGRKITTTAGRLIVKSILPDFVPENSWNKVLKKKDIAALVDYVYKQGGLEITASFL

DRLKNLGFEYATKAGISISIADIIVPNDKQKAIDEAKKQVREIQNSYNLGLITSGERYNKIIDIWKSTNN

VLSKEMMKLVEKDKEGFNSIYMMADSGARGSAAQISQLAAMRGLMTKPDGSIIETPIISNFREGLNVLEY

FISTHGARKGLADTALKTANAGYLTRKLIDVAQNVKITIEDCGTHEGVEINEITADSSIIETLEERILGR

VLAEDVIDPITNSVLFAEGTLMDEEKAKILGESGIKSVNIRTPITCKAKKGICAKCYGINLGEGKLVKPG

EAVGIISAQSIGEPGTQLTLRTFHSGGTASTDLQDRQVSAQKEGFIRFYNLKTYKNKEGKNIVANRRNAA

VLLVEPKIKTPFKGVINIENIHEDVIVSIKDKKQEVKYILRKYDLAKPNELAGVSGSIDGKLYLPYQSGM

QVEENESIVEVIKEGWNVPNRIPFASEILVEDGEPVVQNIKAGEKGTLKFYILKGDGLDRVKNVKKGDIV

KEKGFFVVIADENDREAKRHYIPRESKIEFNDSEKIDDANTIIASAPKKERKVIAEWDAYNNTIIAEIDG

VVSFEDIEAGYSADEQIDEATGKRSLVINEYLPSGVRPTLVIAGKGDKAVRYHLEPKTVIFVHDGDKIAQ

ADILAKTPKAAAKSKDITGGLPRVSELFEARKPKNAAVIAEIDGVVRFDKPLRSKERIIIQAEDGTSAEY

LIDKSKHIQVRDGEFIHAGEKLTDGVVSSHDVLKILGEKALHYYLISEIQQVYRGQGVVISDKHIEVIVS

QMLRQVKVVDSGHTKFIEGDLVSRRKFREENERIIRMGGEPAIAEPVLLGVTRAAIGSDSVISAASFQET

TKVLTEASIAGKFDYLEDLKENVILGRMIPVGTGLYGEQNLKLKEQE

>WP\_002858477.1 MULTISPECIES: MFS transporter [Campylobacter]

MNYIELLKNNKNIRILASVQFIVYFGAWFSQTGVFTLLVELNAPTWATATSAMLAFLPGVLLAPINGVIV

EKNKPKKLLLSMISIELISIFCLIFVTSLSMLWLLFILIFIRLCVASIYFQAEMSLLAKILTPQELKLAN

EMHSVIWAISYTAGMASAGIFIYFLGVKTAFLFDCILILIGISFLVRLSIPDFHQKTQSRFFTMIKEGFF

YVLNNKIIFHLILLHAFIGLTAYETLVTLLAQHQYKEVLSAALVIGFLNAVRACSLAIGPMVLSKFINDK

NLFYMYLGQGLGIILWALTQFNFYISFLGLIGAGFFTSALWAYTYTMIQKNADKEYHGRVIAYTDMIYLS

FSAIISMLMGFLFEIGLSLELITGLLGMIFIFAAFYWKWFYKKYL

>WP\_002858476.1 MULTISPECIES: flagellin C [Campylobacter]

MMISDATMMQQNYYLNNAQKASDKALENIAAVRAISGVDSANLAIADSLRSQSSTIDQGVANAYDAIGVL

QIADASLTNISQSADRLNELSVKMNNAALNDSQKGMLRTEATRIQESINDSFNNATYNGKNVFQTMNFVV

GSGTETTNLNPLATDGLSIDSQDSITNFMDQLGSLRSEIGSGINAITSNINASVQNSINSKAAENNLLNN

DMAKNVNDFNANYLKENAAAFVAAQSNMQLQSKIANLLQ

>WP\_002858475.1 MULTISPECIES: peptidase M48 [Campylobacter]

MTLIAILCLYTALLSWISYAQIRFLEREKDKQAQILSEKDYQNAADIAIENEKFKLFSNFYNLIISIAWI

GFGFLYLKELLILNNTRFENTLFLLSFLIITSILNLPLSIYESFIKDKAHGFSNMTVKLFIKDTMKSLIL

TLIFGFLILYTLLFCYDFFGTFWWIAAFIFAFCIIVIINLIYPTLIAPIFNKMKKLDDENLLKKISSLMK

QCGFSANGVYVIDASKRDKRLNAYFGGLFKSKRVVLFDTLLKALNERELLAVLGHELGHFVHKDIIKALF

NGAITMFLLFFVFANLPEFVYLESHLEGVNGGVFALLFILANIFSFLISPMLNALSRKNEFAADQHGAKV

TSKEDMKNALIALARENKAFIKTSKIYTFFYLSHPSISDRIKALS

>WP\_002858471.1 MULTISPECIES: group 3 truncated hemoglobin ctb [Campylobacter]

MKFETINQESIAKLMEIFYEKVRKDKDLGPIFNNAIGTSDEEWKEHKAKIGNFWAGMLLGEGDYNGQPLK

KHLDLPPFPQEFFEIWLKLFEESLNIVYNEEMKNVILQRAQMIASHFQNMLYKYGGH

>WP\_002858455.1 MULTISPECIES: oxidoreductase [Campylobacter]

MAKLSNEELKNILEDRIKKLENSTLKEDKVINEESVKILARHLSLGNEIPALAQRFFQIAPKTKLVWLHL

CECTGCSESLLRSELPSFDELIFDFFSLEYHETLMAANGTKAEELLEYVLEEDFILAVEGGVAAIDTFFL

TIGAQGESGYEILEKLAAKAKAIFAVGTCSSYGGIQAAYPNPSKTCGISEVLSQKVVNIPGCPPSDINII

ATLSFFALFGVLPELDEQNRPVWAYGKCLHDMCERKAKFESGIFAEHFDDEAAKNGACLFKIGCKGPYTY

NNCPKVKFNAKTSWPVAAGHGCIACSEKNFWDEFGNYEKPMANIFSYAKLCNEELKQEFFLEEQIKILEQ

IDFEFESNIKLILQNIAKNKLGALLVENYKKSFEKNYAFIEQNFDENPMPSKDFWKYLEISFILVKGAFL

KDKNDFLIVAKNYAFKHASPYDFKLNMNAEKPKLDVSKSFRMTLIYLCGGLDFEGVAYSILKAFEDNIAK

ISSLKAS

>WP\_002858444.1 MULTISPECIES: histidinol dehydrogenase [Campylobacter]

MQILVYDNLDEKQKEEALKRPAISAKDEISKIVSSIIKEVQEKGDKALIEQALKFDKAEISKIKITQEEI

TQASNRLDKDLQEAILVAYENIKKFHEAQIPHEIALETTKGVKCEVLTRPIEKVGLYIPGGLAPLFSTVL

MLAIPAKIAGCEKIVLASPAKINDAVLFCAKLCGVDEIYQMGGAGAIAALTYGTQSVLKVDKIFGPGNAF

VTEAKRQVSSDINGAAIDMQAGPSEVLVIADDLANEKFVASDLLSQAEHGADSQVILVCLSQDFAKKASD

EVQSQLELLPRKELASKSIANSRIIIAKDLNQALEISNLYAPEHLIIQTQNPRELLKGVKHAGSVFLGAY

SPESMGDYASGTNHVLPTYGLTKTHSSLGLADFSKRMTVQELSKEGFLALGKSVEILAQNEHLDAHKNAV

TFRLESLK

>WP\_002858436.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKLSLILVCSASLFAASNSEISDFYSKSIKAQFPNATVSVSNRQKVGNTGFESVIVSVELNGQKQENIL

FTKDSLITPDLIDLKTGISYAQEYEMKKFQEARENFTKNAKAVAQKETMVIALGDKNKPAIYVFSDPECP

YCREHLAQIDDELKNYQVNYILTPVHGKSAFEKSALIYKEAKKAKNDKEKIAILNKYYDANIKNYPKVSD

AELKEVFSLYEKYRSLGLSATPTIIK

>WP\_002858434.1 MULTISPECIES: DNA repair protein RadA [Campylobacter]

MAKNKALFECQACGNQQSKWLGKCPDCGAWDSFVELKAEQIKVLKELAQVSMKTSEAVCIEDVELEHFTR

YSTDDNELDLVLGGGLVEGSLVLIGGSPGVGKSTLLLKIASNLAKQGKKVLYVSGEESKAQIKLRADRLE

ANTPNLFLLTELCLENILEELHKKDYSILIVDSIQTLYSNKITSAAGSITQVREITFELMRVSKAYNIST

FIIGHITKEGAIAGPRVLEHMVDVVLYFEGDATKEIRLLRGFKNRFGGTNEVGIFEMTAKGLISAKDLAN

RFFTRGKAISGSALGVVMEGSRALVLEVQALVCESSYPKRSATGYEKNRLDMLLALLERKLEIPLGHYDV

FVNISGGVKVSETAADLAVVAAIISSFKNRPLSKDSIFIGELSLNGEIREVFSLDTRLKEAKMQKFKNAI

VPSKPLEDIGLKCFVAKELSQVLEWM

>WP\_002858431.1 MULTISPECIES: carboxynorspermidine decarboxylase [Campylobacter]

MFYEKIQTPAYILEEDKLRKNCELLASVGEKSGAKVLLALKGFAFSGAMKIVGEYLKGCTCSGLWEAKFA

KEYMDKEIHTYSPAFKEDEIGEIASLSHHIVFNSLAQFHKFQAKTQKNSLGLRCNVEFSLAPKELYNPCG

RYSRLGIRAKDFENVDLSTIEGLHFHALCEESAGALEAVLKVFEEKFGKWIGQMKWVNFGGGHHITKKGY

DVEKLIALCKNFSDKYGVQVYLEPGEAVGWQTGNLVASVVDIIENEKQIAILDTSSEAHMPDTIIMPYTS

EVLNARILATRENEKISDLKESEFSYLLTGNTCLAGDVMGEYAFDKKLKIGDKIVFLDQIHYTIVKNTTF

NGIRLPNLMLLNAKNELQMIREFSYKDYSLRN

>WP\_002858409.1 MULTISPECIES: iron ABC transporter ATP-binding protein [Campylobacter]

MIKLKNITKFYDNKVIISDLSLDFHKGKITSIIGANGAGKSTLLALASRLIKPSSGEIYIDGMNLKNYKE

QILAQKISILKQQNNINLRLKVEELVAFGRFPHSQGRLNTNDKIKINEALEYMELSNLRNEFLDTLSGGQ

KQRAFIAMIIAQDTEFIMFDEPLNNLDMKHSVQIMQLMKNLVKDFNKSIAVVLHDINFASIYSDEIIALK

DGKLLKQGSKDEIINQENLKQIYDMDIPVSQINGKKICIYF

>WP\_002858407.1 MULTISPECIES: ATP phosphoribosyltransferase [Campylobacter]

MQENTRLRIAIQKSGRLSKESIELLSECGVKMHIHEQSLIAFSTNLPIDILRVRDDDIPGLIFDGVVDLG

IIGENVLEENELERQSLGENPSYKLLKKLDFGYCRLSLALPQENKFQNLKDFEGLRIATSYPQLLKRFMK

ENGINYKNCTLTGSVEVAPRANLADAICDLVSSGATLQANNLKEVKVIYESRACLIQKENALSKEKQALV

DKIMLRVAGVMQARESKYIMLHAPKEKLDKIQALLPGVERPTILPLAHDEKNVALHMVSKENLFWETMEA

LKEEGASSILVLPIEKMLK

>WP\_002858358.1 MULTISPECIES: glycosyl transferase [Campylobacter]

MQIQQNNSLIYNTLTKKLSSFIPIKSTRRKLRNHIQYKLEHPKVTNYLSNNYINPFLEGKIPHFDFEKKH

YFKNDKIIWQFWYQGKNQASPMIQQCFNSVQSQMKDDYTIIILDKDNIKDYLDFPPFVIEKLENNFFGEK

TITFFSDLLRVCLLATYGGIWCDASIFLSSKIPSELCDKDFFTFERSKIKPSKEKLKKFIKSGYFSYGYF

NWNDDFKVKMLSSFMIAKTNNTFIQTLKDILMNYWKNEQSSENHYYFILHIIFELLKEHGFVNDIYKNMS

DIECHLLQFSAKEKFNSTLWEEIQKQSFLHKLTHFKSIKKDSMIDKIILQS

>WP\_002858315.1 MULTISPECIES: tyrosine--tRNA ligase [Campylobacter]

MDIKKILAEVKRGCAELIDEERIENLIKNYYEKGENFFIKAGFDPTAPDLHLGHSVVLTKMAFLQKHGAI

VQFLIGDFTGQIGDPSGKSATRKKLDKEQVLINAKTYKTQVFKVLDKEKTQIKFNSTWLNELGAAGIVEL

TSTFSVARMLERDDFTKRFKEQSPISICEFLYPLLQGYDSVALKSDIEMGGTDQKFNLLMGRQLQRVYNI

GKEQAVIMMPLLEGLDGVNKMSKSLNNYIGVTEKANDMYAKILSISDELMFRYYELLSQKSLEEIAQIKK

DIEQGNLHPKKAKENLALEITERFHSKEEANNAKSEFDRIHSQNALPSDMAEFEIQGKIWLAKALVECGL

ESSTSAARRSISANAVSVNSQKVSDEQMYLEQGEYILQIGKRKFAKLKVKE

>WP\_002858308.1 MULTISPECIES: protein glycosylation K [Campylobacter]

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>WP\_002858296.1 MULTISPECIES: hypothetical protein [Campylobacter]

MSKAFTLFELIISLILFTFITSLLSKPLMDFYHLNFTALHTNNLITQAHLNLLKIEKLIQNCINITFSQN

TLKCLLKDELISLKDNKLYLINSALILENNHTLYSPHSDFKTQLQNRKDLYNDNEHISYAYKINKIEKIS

ILENGISANFTGSFIPLQAQLVIKLQNEELIYEIKPKFNEQLNQQGLISKNISSFNLQNNKLKICLKRQT

KHCLEKRILL

>WP\_002858294.1 MULTISPECIES: glycine--tRNA ligase subunit beta [Campylobacter]

MSELLIEIGTEELPAIPLLKELANIEKKWNNVLEEYRLVSDFKFYYTPRRLVFFHENFADKQEDSFAEFI

GAPKNVAYKDGVLTPAGQSFLQKARISENELSFKEIKGKEVLYHQKAIKGLQSQEILGEMVEKFLKSLSF

GKSMRWGANSFEFIRAIRSIACILNDELVNFQSYGVKSTKKTFIHRSVSYDLQDFNNAKEYFELLEKNYI

ILDPIKRKEKILEQFKLIESQKNIQIGEDEELLAEVVAITEYPNALLGSFEEEFLEIPSEVIITSMRENQ

RYFAVFNDKGLSNHFIVVSNAVCKDYSKIIHGNERVLRARLSDAMFFYQNDLQNGLKPEKLAKMTYLEGL

GTMQDKSLREIKIAEILCQMLHNDKIENISTALKYAKADLATQMVYEFTDLQGIMGSYYAQKMGLDYQIC

LAIKEQYLPNSEQAPLPSTEFSSIVALANKLDTLIGLFSIGKIPSGTKDPYALRRAANGIIKIALNLNKE

FDIQILLEKLSNHYKSFDMQILKDFIFERLYTFYTVNASFVKAVLSSQNTDLIHINQSVNALIKLSKKDN

FNENFATFKRLANIATKNPHKVDESLFVQEAESKLYKAFQEKTKANSLQEKLENLFALKPFIDEFFNQVM

INAEDEKLKNNRQALVYEIYAEFLKIADLKELSL

>WP\_002858255.1 MULTISPECIES: allophanate hydrolase [Campylobacter]

MSIKIIEASINSSLQDFGRKKFAKFGIARSGAMDEDALRMANILLGNKQDEAGIELCLKGGKYEFLDENY

FVLSGAEFEAKLDNQKIKTCKVYQANKGDILELDLAKIGFRGYLCVAGGFEVKSFLNSKSSDAKMGAGVF

EGRALQKDDILNTHNTFIPFNLEARECENPLFKSPKEPIIRVILGTNEDAFTQKGIETFLNTTYKVGLKS

DRMAIYAESSESIEHKNSADIISDPAVFGSIQVPKSGIPIILMAGRQSTGGYTKIATVIENDLSLLAQAK

LGSSFKFQSISMQEALELYKQREMKFKAMDQKINLDFENLI

>WP\_002858213.1 MULTISPECIES: sialic acid synthase [Campylobacter]

MQIKIDKLTISQKNPLIIPEIGINHNGSLEIAKLMVDAAKRAGAKIIKHQTHIVEDEMSQEAKNVIPGNA

NISIYEIMEQCALNYKDELALKEYVEKQGLVYLSTPFSRAAANRLEDMGVSAYKIGSGECNNYPLIKHIA

QFKKPMIISTGMNSIESIKPTVKILRDYEIPFVLLHTTNLYPTPSHLVRLQAMLELYKEFNCLYGLSDHT

TNNLACIGAIALGASVLERHFTDTMDRKGPDIVCSMDESTLKDLINQTQEMVLLRGDNNKNPLKEEQVTI

DFAFASVVSIKDIKKGEILSMDNIWVKRPSKGGISAKDFEAILGKRAKKDIKNNIQLTWDDFE

>WP\_002858148.1 MULTISPECIES: glucosyltransferase [Campylobacter]

MNLKQISAIIIVKNAKQTLLECLNSLKDFDEIILLNNESSDNTLNIANEFKKDFANLHIYHSAFIGFGAL

KNLALSYAKNDWILSIDADEVLENECIKELKNLELQEDNIIALSRKNLYKGEWIKACGWWPDYVWRIFNK

NFTRFNDNLVHESLVLPSNAKKIYLKNGLRHYAFRDISHLIDKMQYYSSLWAKQNIHKKSGVLKANLRAF

WTFFRNYFLKNGFLYGYKGFIISVCNALGTFFKYMKLYELQKQKPKTCALIITTYNQKERLKLVLDSVKN

LAFLPNEVLIADDGSKEDTARLIEEYQKDFPCPLKHIWQEDEGFRAAKSRNNAIKASKSEYIILIDGDMI

LEKDFVKNHLEFAKRKVILQGSRVILNKNESEEILKNNNYSLAFNKKGFKNQRSIFLAKCVYKFSKLTKK

FFKKSQLVKGSKTCNMSFYKSDFEAIEGFNEKFIGWGREDSEFVARFLFNDGVFKRLKFNALAYHIYHEE

NSKNMLEINHQIYLETIKNEKTTWR

>WP\_002858145.1 MULTISPECIES: N-acetylmuramoyl-L-alanine amidase [Campylobacter]

MAKIFVFLVFVFTTLFGVYENELANFDKNFIGSKSEVQVKFHHQLKSLYIQSVINEDEKTKIEILKRLII

SSNTLNLDDKSYANELKESGISETSINALRKAVIKDIKVQNISQDTEKSTFEPIKTVQKNEKKSSNEQIK

NTEKTNSKTSQAPKSSIVSKAKSDDKIYVLKSSKTNQGVEFELNADLDKDQLKSFALDEKGNYRFISDFD

GVLEGGKKEFKFDDYRLVISQFNPKTIRIVVYAKEKIPIDISFKEEKIIFSKETTSQKKTEQVSKISEKK

QDQKTEIKTKVLETKKQDKKTNNEKENQEPLYVLDVDKISNAVVLNLSDDLDEKEIAVFDTKDQKFRYVV

SFKGVLEGNRKSFTFGQNVITVTQYNPKTVRVVLSAPKEFKLLKELDNNNLTLGFYIQTTNQNANKKATQ

SSSKTLNTNYKSGKLVVIDAGHGGKDSGALSDKKGSLKEKDIVLSTALKLGNELKKRGYKVLYTRSSDKF

INLRDRTKYANDKRADLFISIHANAAPNATKAKSSEGVETFFLSPARSERSKKAAEKENQGDFEEINYFS

KQSILNFLNREKIVASNKLAIDVQKNILTQTRKKYKIVDGGVREAPFWVLVGAQMPAILIEIGYITHPNE

GKRIANKAFQDLLVKGIADGVESYFYNNR

>WP\_002858079.1 MULTISPECIES: aminofutalosine synthase MqnE [Campylobacter]

MKNLITKLENEERLNQEEANALWDLDLFTLGKYAHKKRTKLHGKKVYFNINRHINPTNICADTCKFCAFS

AHRKNPNPYLMTHEEIMKIVDETVKRETKEVHIVSAHNKDTTWQWYLEIFKMIKEKYPNLHVKAMTAAEI

DFLHRRFKMSYEEVIEKMLEYGVDSMPGGGAEIFDEEVRKKICHGKVSSENWLKIHKLWHEKSKQSNATM

LFGHIEERHHRIDHMLRLRDLQDQTGGFNAFIPLVWQRDKSFIQTDKIMDSEEILKTIAISRLVLDNIKN

IKAYWATMTLNLAMVAQEFGANDLDGTIEKESIQSAGGAKSAKGTSLKTFIDMIKTSNLIPVERDSLYNE

LKTY

>WP\_002858047.1 MULTISPECIES: molecular chaperone GroEL [Campylobacter]

MAKEIIFSDEARNKLYEGVKKLNDAVKVTMGPRGRNVLIQKSFGAPSITKDGVSVAKEVELKDSLENMGA

SLVREVASKTADQAGDGTTTATVLAHAIFKEGLRNITAGANPIEVKRGMDKACEAIVAELKKLSREVKDK

KEIAQVATISANSDEKIGNLIADAMEKVGKDGVITVEEAKSINDELNVVEGMQFDRGYLSPYFITNAEKM

TVELSSPYILLFDKKITNLKDLLPVLEQIQKTGKPLLIIAEDIEGEALATLVVNKLRGVLNISAVKAPGF

GDRRKAMLEDIAILTGGEVISEELGRTLESATIQDLGQASSVIIDKDNTTIVNGAGEKANIDARVNQIKA

QIAETTSDYDREKLQERLAKLSGGVAVIKVGAATETEMKEKKDRVDDALSATKAAVEEGIVIGGGAALIK

AKAKIKLDLQGDEAIGAAIVERALRAPLRQIAENAGFDAGVVVNSVENAKDENTGFDAAKGEYVNMLESG

IIDPVKVERVALLNAVSVASMLLTTEATISEIKEDKPTMPDMSGMGGMGGMGGMM

>WP\_002858032.1 MULTISPECIES: amino acid adenylation protein [Campylobacter]

MTTHIYDFLEKSLIKFSEKTAFVEPFVKERKEITYKDFDLFSKKLASEILKTLGNDNPTQAPVLIILPKG

IDCLISFFGVALSGNFYTLLDEKSPKERVEKVIEVLKPKLFITSKDLNFNLDLPTLYTQDFESFNIDESL

IKHAKEKHIDTNLLYVFFTSGSTGIPKGVSIAHKSVIDYTFWVCETFKFDENEILANQAPFYFDNSILDI

FSSVKSGATLHLLPNHLFAFPNKILECLEKEKVSTIFWVPSVLIYFANTEALNNFSLNALKKMLFCGEIM

PNKQLNIWRKHLPNALFANLYGPTEITDVCSFYIINRTFKDEELLPIGKACKNTELLVFDENMNFISPKQ

IGVKGELFVRGTSLSLGYYNDKEKTKQAFIQNPLHDNYLDLLYKTGDIVSYNEFGELLCYGRADNQIKYM

GHRIELGEIESVINSHVNIKNSACIFKEDIICFYESEEEINFKDFLKDKLPSYMIPKNFIKLDKFKLNQN

GKIDRKVLKELV

>WP\_002858021.1 MULTISPECIES: phosphoheptose isomerase [Campylobacter]

MINLVEKEWQEHQKIVQASEILKGQIAKVGELLCECLKKGGKILICGNGGSAADAQHFAAELSGRYKKER

KALAGIALTTDTSALSAIGNDYGFEFVFSRQVEALGNEKDVLIGISTSGKSPNVLEALKKAKELNMLCLG

LSGKGGGMMNKLCDHNLVVPSDDTARIQEMHILIIHTLCQIIDESF

>WP\_002858009.1 MULTISPECIES: L-seryl-tRNA(Sec) selenium transferase [Campylobacter]

MNKFRTFPQINTLIEDESLKSYPFYIKAFFCKKVVAKLKENFFQDEISKDKLLLEIKKEIKTFYRKDLQS

VINASGVVIHTNLGRSVIHEELYEACKDIICNYSNVEFDLENGKRGSRYALVLEKLKMLFECEDALVVNN

NAAAVFLVLNSLCYDKEVISSRGELVEIGGSFRVPEVIKAAGVKLCEVGTSNKTHLKDYEQAINENTALI

LKTHKSNFALMGFHSEVNIKDLHELAKEKELLSYYDLGSGWCENLNEKLIKNEPKIRKLVQECDILSFSG

DKLFGSVQAGIILGKKELIEKLKQNQLLRMLRVDKLTLSFLNESLKAYLQKDYEKIITLKLLNDDLSFIE

KKALRVQKELKFQTQLKKSKSLVGGGSMPDKSLDTYILTFQGDALKLQTRFRKENIIGRIENDEFVLDFR

TIRENELQKLILTINQMENL

>WP\_002857990.1 MULTISPECIES: MFS transporter [Campylobacter]

MLNNVLPLSFIVGTRFFGLFIVLPVLSLYALKLEGANEFLVGLLVGVYALTQMILQMPFGILSDKIGRKK

TMLIGLIIFIIGSLICSFAENIYTMLLGRMLQGAGAIGAVATAMISDFITEENRGKAMAVMGSFIGLSFA

ASMVISPLMSAKWGLSSLFDLSAALSLLCIILLYTVVPKENKITHENEKTPFFHLIKQKNLALMNLTNFM

QKMLMSIAFLSIPIILVKHLGFASDKLWIVYSASMVAGFIAMGFAGSLGEKKGLAKQILLLGIVFFILSY

LFFAFSNSIDFFIIAVVIFFIGFNLHEPIMQSCASKFCKVHEKGAALGLFNAFGYGGSFIGGIIGGIFLH

LDTLNLLAIILVILALIWLVALFFLKNPADFKNLYLPLETPLNFSTFGENLGVVDIYKNSKNLVVKFDSK

LTSKEELEGKL

>WP\_002857989.1 MULTISPECIES: adenylosuccinate lyase [Campylobacter]

MTGISVFDHRLLADSWSTQEMRAIFCEQNRIQKWLDVEAALAKAQAKLKIIPKKAADEIAKKAHYKFMDM

DFIFAEFKKTKHPLVPTVRGLEKACDNNLGEYVHFRVTTQDIIDTGLVLQFKEAMTLVKSELKAIAKALA

KLAKTHKNTAMMGRTLALQALPITFGHKVAIWLSELDRHFERILELEKRLYVGSIVGAVGTKASLSDECN

EVEKLTLENLGLEVPNISWQSTRDRFIELGFVLGNINATFNKIAHQLLILSHNEIDEVAEPFGKGQVGSS

TMPHKRNPAVSENAVTVSNAFKANLAILSDIERHEHERDGQVWKMEWKLLPEMFLMLSVVLANMKFALSD

LEVKKDKMLKNLDTLKGFVLAERVMFALSDHYGKQHAHEIVYENAMLGIEQQKTFKEVLLADTRVSQVLK

EKDIDALLDATSYVGYAPKLVDEFLAKIKNSAILK

>WP\_002857979.1 MULTISPECIES: ferredoxin [Campylobacter]

MQDFVYIKNDVLIPLPDAIEILDQANDKEALICNDKNQKAQIYAPEINFYLKNSQDEILEQSKNVLTLYE

ARASVYDLGLDLEQSKEVQNRLIVADGDAQTVEFLKEHEFKVIALSSAEILAVFGSVGELCAVVKNQGEE

VEIDFDFLLFKAEDLSVVRKDFTRQSGCYNLLNFENLEVLFEFLQSKSPKYHYKTYISYNASVCQYHERR

SEHCAKCAEICPTVAILKDDENKHLEFSQVDCLGCGGCISVCPSGSLDYAPMPRESFFTLCEFYKDKKIL

IIPKKMSLENLNLALPKDVLPFMIEGEKWLSSMHFLTLLQNSGANLVFYTDFVSRGSNEAIVLLNTFFER

KFQKKAIFVAKDEKELQNVLKEQEFIQDLKYDFHNNTLTTRENFAKRMQEMIKNEDFGSMESGEWLRYGK

VEINPNTCTLCLSCVGACNVGALIADKQENALKFNASLCTTCGYCELSCAEKDTLKLFRSGMEFRASYFE

YQTMAKDELFACIECGKEFATKKAVEKIANLMKPKFGNDENKIKTLYCCADCKAKVMIKAMIN

>WP\_002857890.1 MULTISPECIES: S-ribosylhomocysteine lyase [Campylobacter]

MPLLDSFKVDHTKMPAPAVRLAKVMKTPKGDDISVFDLRFCIPNKDIMSEKGTHTLEHLFAGFMRDHLNS

NSVEIIDISPMGCRTGFYMSLIGTPDEKSIAKAWEAAMKDVLSVSDQSKIPELNIYQCGTCAMHSLDEAK

QIAQKVLNLGISIINNKELKLENA

>WP\_002857885.1 MULTISPECIES: hypothetical protein [Campylobacter]

MIFGKIDYINLLPLHIYLKKYPLPNGYKASMEYKKGVPSKLNKDLFYRRIDAAIISSIESARKKYKNLDL

GICANKRVLSVLVEKNTSNAKDPSSATSNALAKVLKQDGKVIIGDKALKLYLKDPSKYIDLCAKWHEKTG

LPFVFARFSCVQKKALYKQILKKFPKTKIKIPYYILQNYAKTRDLDIKDVRYYLDEVIYHKISTKEKTAL

KRFVKACKALNLA

>WP\_002857878.1 MULTISPECIES: potassium transporter TrkA [Campylobacter]

MNNILIIIDGILAKHFLERLCFEKGLGYFFTVVCQNSEKNNLNISSEYIDLHYFDPTSTARLENIMSKDF

KQAFIYMQDEFETKKSYEALRSLNPNLEIEIMDFWGLSVNDTHANLADARMTLSRRFMDFLPDIALTAQY

IGLGVGEIMEVKIPAGSIFAYRHISSIQQKRWRIVLIYRNSKIYFVKPSFVLEPNDSILIVGDPVVLQSI

FHNIRGKAGQFPMPFGSNVFALIDMKNMNQNMQERVLDTTLKLTQKSNAKRFFIHVINPKLGVMYEKLKK

LSEDKEGVFFDYFNTDFKQISMWLQNNDIGLVVTDIKNFEKEKQAFFDLKIPIMKVGEASFDELKEAIIL

SADESELENNANVITDLSKQLDFGVILYYYNPNSQNTTDMEEYFRSLSKLYDKNIQIINKNDENPLLNLQ

YREDLLQFVSFQKELLNRDFARNLSTNLNRHYYKMRQNYQLFIPVE

>WP\_002857555.1 MULTISPECIES: oxidoreductase [Campylobacter]

MQDNIIDRRSFFKLGLLGGSVVAASTIGGGAVLKAAELTHSHQASQGKSNKIRGRMFFQTQTEFDTLSAA

CERIYPKDEQGEGAIGLGVPYFIDNQLASAYGYNDREYMQGPFMEGKAEQGYQTPMQRKDIFLEGVHALE

ENAQKRYKKSFSLLKGGDQDKILSDFEKGKIQTTGFKSSYFFTLLRDMTVAGVLADPIYGGNDNKNGWRM

MQYPGAQMSYVDKIASDEFFNIEPMGLADMES

>WP\_002857328.1 MULTISPECIES: molybdenum-pterin-binding protein [Campylobacter]

MNLIKGQICELLNQEDIVIVKILSKEVIFSVLMLELKSLENLKIGVSVELLFKEHELCFSASKTLLSVEN

SFLAKITKIKKGKLLYQVFFDFKGNELSSIITKEKALELEICENQEWLCFVKANDIVLRSHSA

>WP\_002857221.1 MULTISPECIES: restriction endonuclease subunit M [Campylobacter]

MKENPSFLKEQIITYLGNKRALLSFLNNGFKVAKKELGKDKFSFCDIFSGSGVVSRFAKAHSNYILANDL

EDYSKLINECYLANKDKDLLQNIKKYYKNLIQNLDFQKGFISELYAPKDDDDIKKNERVFYTFKNALYLD

TIRQKIENEIPKELRHFFIAPLIYEASVHSNTSGVFKGFYKGKDGIGKFGGEGQNALKRIKGEIELKMPI

FSNFSCEFEVMQKDANMLAKELDFFDVVYLDPPYNQHPYSSNYFMLNLIANYKKPEEISKISGIPKDWNR

STFNKSKFAQDALFELINDLKARVILLSYNCEGFVKKEIFLKRLSTLGKCRILEQKYNTFRASRNLKNRN

IHLHEQLYILVKN

>WP\_002857102.1 MULTISPECIES: UDP-N-acetylglucosamine 1-carboxyvinyltransferase [Campylobacter]

MTYLEIEGTNHLSGNVTISGAKNAALPLIVSSILAKNEVKINNVPNVADIKTLISLLENLGAKVNFQNNS

ALLNTNTLNQTIAKYDIVRKMRASILTLGPLLARFGHCEVSLPGGCAIGQRPIDLHLLALEKMGANIQIK

QGYVVASGNLKGNEILFDKITVTGSENIIMAAALAKGKTKLLNVAKEPEVVQLCEVLKDAGLEIKGIGTD

ELEIYGSDGELLEFKEFSVIPDRIEAGTYLCAGAITNSKITLDKVNATHLSAVLAKLHQMGFETLITEDS

ITLLPAKEIKPVEIMTSEYPGFPTDMQAQFMALALKANGTSIIDERLFENRFMHVSELLRMGADIKLNGH

IATIVGGKELNAADVMATDLRASSALILAALAAKGTSKVHRIYHLDRGYENLEEKFKDLGAKITRLEE

>WP\_002856867.1 MULTISPECIES: pyridine nucleotide-disulfide oxidoreductase [Campylobacter]

MKKIDLIVVGAGPTGIGCAVEAKLKNKEVLILEKSNNICQTLMQFYKDGKRVDKAYKGCEGTNHGHVPFE

DGTKESTIETFQNALKEHNIEVEFGSEVESVKNENGVFLVSTAKGVYECKNIIVAIGRMGKPNKPDYKLP

MTLTKIINFNANSVLGNEKILVVGGGNSAAEYAVDLANSNQVSLCYRKKEFTRLNDINLKDIHEAGNSGK

VELKLGIDINEVEDDNGKAKVNFTDGTSDIYDRIIYAIGGSTPLDFLQKCGINVDDKGVPLMDENKQSNV

KGIFVAGDIATKNGASIVTGLNDAVKILSVL

>WP\_002856117.1 MULTISPECIES: catalase [Campylobacter]

MKKLTNDFGNIIADNQNSLSAGAKGPLLMQDYLLLEKLAHQNRERIPERTVHAKGSGAYGEIKITADLSA

YTKAKIFQKGEVTPLFLRFSTVAGEAGAADAERDVRGFAIKFYTKEGNWDLVGNNTPTFFIRDAYKFPDF

IHTQKRDPRTHLRSNNAAWDFWSLCPESLHQVTILMSDRGIPASYRHMHGFGSHTYSFINDKNERFWVKF

HFKTQQGIKNLTNQEAAELIAKDRESHQRDLYNAIENKDFPKWKVQVQILAEKDIEKLGFNPFDLTKIWP

HSFVPLMDIGEMILNKNPQNYFNEVEQAAFSPSNIVPGIGFSPDKMLQARIFSYPDAQRYRIGTNYHLLP

VNRAKSEVNTYNVAGAMNFDSYKNDAAYYEPNSYDNSPKEDKSYLEPDLVLEGVAQRYAPLDNDFYTQPR

ALFNLMNDDQKTQLFHNIAASMEGVDEKIITRALKHFEKISPDYAKGIKKALEK

>WP\_002855904.1 MULTISPECIES: membrane protein [Campylobacter]

MINKNKLFRQVHIYLSLFFLPCALLFALTGIAYIFGINQDVGLKVEQYQLSKVIESGKEREALIEYLKTN

GLKVPSNTNIIKSKDKGITIGGTHYSANITQNSTNEYNITLKTRSLLGDMIMLHKDKGAWYFSVLSVGFG

ITLFMLYISGLMITLFANKKDRSKQFAVLGVGVVVTLLLAYLSL

>WP\_002855462.1 MULTISPECIES: glucose-6-phosphate isomerase [Campylobacter]

MLNNTLFFKQSEIHTISSYANRINDEVKSGDIGYYHLIDTSLNLIDESLQFIQDKEYVKNIVLVGMGGSS

CGVKALRDMLFNEKSNQRELFILDNTSSHSFNKTLEKIKLEESLFLIISKTGSTIEVVSLFKLLIEHFKL

DMQELKKYFVFITDKDSKLHQEGENLGIKCFFIPANVGGRFSILSAVGIVPLCFCGYNAKALLEGAKACF

EDFFTHKKDEILQKAYHYCTHKNANINVLFSYSDAFKGFNEWYIQLIAESLGKKQGYKRIGLTPIALIGA

RDQHSFLQLIMDGPKNKTVTFLKIKDAQKAPIIPDIHFKFLDSLSNKVNLHELLNAQCDATMHALIAENL

SVDVIELEKLDAWHAGYLMYYYELFTSTCGVMLGINTYDQPGVEVGKLILKNILNS

>WP\_002855295.1 MULTISPECIES: transcriptional regulator [Campylobacter]

MTKENSPCNFEECGFNYTLALINGKYKMSILYCLFRYEIVRYNELKRFLSSISFKTLTNTLRELENDGLI

IRKEYAQIPPKVEYSLSKRGQSLIPILQAMSKWGKKDKKGKKCLN

>WP\_002855280.1 MULTISPECIES: hypothetical protein [Campylobacter]

MCQEKHTHTHSQKHLKAVCNRLSRTIGHLSAIKRMVENDKDCSEILIQLAAVKAEVNNTAKVVLKEHLAH

CMVHAVEENDIQSIEELNKAIDMFMK

>WP\_002855271.1 MULTISPECIES: elongation factor Tu [Campylobacter]

MAKEKFSRNKPHVNIGTIGHVDHGKTTLTAAISAVLSRRGLAELKDYDNIDNAPEEKERGITIATSHIEY

ETDNRHYAHVDCPGHADYVKNMITGAAQMDGAILVVSAADGPMPQTREHILLSRQVGVPYIVVFMNKADM

VDDAELLELVEMEIRELLSSYDFPGDDTPIISGSALKALEEAKAGQDGEWSAKIMDLMAAVDSYIPTPTR

DTEKDFLMPIEDVFSISGRGTVVTGRIEKGVVKVGDTIEIVGIKDTQTTTVTGVEMFRKEMDQGEAGDNV

GVLLRGTKKEEVIRGMVLAKPKSITPHTDFEAEVYILNKDEGGRHTPFFNNYRPQFYVRTTDVTGSIKLA

DGVEMVMPGENVRITVSLIAPVALEEGTRFAIREGGKTVGSGVVSKIIK

>WP\_002855217.1 MULTISPECIES: hypothetical protein [Campylobacter]

MFKISPYLICIFFIFSNVLASEPTFDYTYKFILKKDERASVQIKEIGYEDKVQNFDFYWTLFDNTNIIVH

SKFRKYPRQFVMSLRRNLDWVTQTLIPDYTNPHIDRARLILEFSGYNKGLATFTVYIEDKESRLMVEFLD

PRKKALQNPPQNNQVVPMINFNEPQVKPLTSKENNNSN

>WP\_002855132.1 MULTISPECIES: lipoprotein [Campylobacter]

MYRYLLFVLAAFFLAACGSSKINVVYPDYTKYKSNDFDLRVMKAYNYEYYKQYKEARDEFLSLYQDYNNT

NFLENAFLLTLANNLDKQAELDNLAKPYLNQNDNLKRLSALYALNSNDINNAQKLMKELLTKKDSDPRNL

ELYGDILVKKNDLKNATKYYRSAYNQVQNEEILFKLIGIYAILNDTLNIKNVLEFSRKTNGCTLKTCVLL

AKIYFDEKNIEALKSIYKELYQLTKNKSFVLALVELLNSQGKTEEALKISLQYDLDDDIKLALYQNLKRF

DDAKKMSLALYHKTKNKEYLLRAAVFEFEAANEAKKITPKVIDSVKEKFEQAIDKDSNALYLNYYGYLLI

DYDLDVKKGIELVKLALEKDPQNLYYLDSLAWGYYKLGDCKQAWEILKQTLDDKEFANSDESKAHIKAIK

ACIKP

>WP\_002855131.1 MULTISPECIES: NUDIX hydrolase [Campylobacter]

MAFKNLKELSFEKSNYIKPKRFAYESNGRLCTWDFIESKDSVSVLLYHKELESFIFVRQFRIPLWYHQMH

DKDYVKDDDMGYTIELCSGLVDKKLSLEEIAKEECIEELGYAPKNLEKIGDFYTGFGSGVSKQSFYFVEV

DEKDKISSGGGVDDEEIEAVYVKVQDFEKKCKNMIRTPLLDFAYMWFLKEKWGKLKII

>WP\_002855128.1 MULTISPECIES: hypothetical protein [Campylobacter]

MRRLSILLAILIVINITACDSKTENYYKNLPSEAKEKAKECKESGTLSEDCINALKVGVKPTNEEGKYSP

NTPKKSDNQILEALKQNDLKKEKTTKDINQSSENNESIIIPPIAETPSEIYPSKTTENNQSSIFSDDVNM

TQEK

>WP\_002855106.1 MULTISPECIES: heterodisulfide reductase subunit B [Campylobacter]

MQKEYAFFPGCVLSQAAKESKISLEAIAPILGWKLNEIKGWSCCGASQAQCVDPIATLVANARNIALAEE

MKMPMLTTCSTCMLTLTKAKNTLDKGAKERINIFLAQGGMKYQGSTPITSLLWELYEDLDNLKSKVKKPL

SNLKVALFYGCHSLRPEDAFGKKESSTNPKSFESVVEVLGAKIVPFEKRLDCCGFHASYPAEKSVKKMSS

QIVNNASENQADCVVTPCPLCQMQLDIYQERFQDYTNSKARLPIIHLSQLVGLALGLSKEMVGLDYNIID

ASKIA

>WP\_002855027.1 MULTISPECIES: UvrABC system protein B [Campylobacter]

MLELTSEFKPSPDQQEAIKGIVKSIKKGNKYQTLLGVTGSGKTFTMANVIKELNIPTLIMSHNKSLCAQL

YSEFKGFFSKNHVEYFISYYDYYQPEAYIPRTDVFIEKDSSTNEDLERLRLSATASLLSYEDVVCIASVS

ANYGLGNPNEYIGMVLIFELGMQISQKELLKKLVDMGYKRNDNFFDRADFRVQGDIIDIYPAYYEDEVVR

LEFFGDELDAMYHYNVLENKKGKDLKRFILYPTSQFSVGETRLKQAIKDIKAELNERLAYFEHENKLVEY

QRLKQRVEFDLEMLTSTGMCKGVENYARHLTGLKEGDTPYTLFDYFAIKDRKFLVIVDESHVSLPQFRGM

FAGDRSRKQTLVDYGFRLPSALDNRPLMFDEFIHKNCQFLFVSATPAPLELELSKENIFHQIMRPTGLLD

PLIELKDSDNQVEILFDEAKKVIQRNERVLVTVLTKKLAEELTRYYLELGIKVKYMHSDIDAIERNEIIR

GLRSGAFDMLIGINLLREGLDLPEVSLIAIMDADKEGFLRSTTSLIQTMGRAARNVNGKVLLFCKKITKS

MQEAMDTTNERRKLQMAYNKKYNITPTSVKRHIEESLKNEEDLGEIYRKGKKLEKMPASERAKLVKELRK

QMLEAAKALEFEKAAAIRDEINKLRDL

>WP\_002855005.1 MULTISPECIES: septum formation inhibitor Maf [Campylobacter]

MLILASSSISRANLLKTAKIDFRQVSFDYDENLNKNISPFLYVQKIVLEKERQFLSTLGKDFQNQNLLFA

DSIVCIDEKILTKAKDKKEAYEMLALQNGKYASILSAFLLVKPEKRVFSLSKTTLYFKNFDENALRDYVE

NDLYKGKAGCIMCEGFHQNFITQQVGNLSTALGLDIQTLKAYL

>WP\_002854985.1 MULTISPECIES: preprotein translocase subunit SecE [Campylobacter]

MEKLITYFKLSKAELRKVIFPLKEQVRNAYITVFVVVAVISLFLALVDWLMSSIVSAIV

>WP\_002854974.1 MULTISPECIES: 50S ribosomal protein L28 [Campylobacter]

MARVCQITGKGPMVGNNVSHANNKTKRRFLPNLRTVRVTLEDGTTRKMRIAASTLRTLKKQNSK

>WP\_002854966.1 MULTISPECIES: ArsC family transcriptional regulator [Campylobacter]

MKLYGIKNCNSVKKAMDALTQKGIVFDFMDIKKINQDILYTWLKQKSFEELINTAGLTSKKLGLNKEKVK

NLNEKELEKIVLENPSCIKRPIIEYEQNIYIGKEYEKML

>WP\_002854928.1 MULTISPECIES: 50S ribosomal protein L1 [Campylobacter]

MAKIAKRLKELSQKIDSNKEYALSDAIDTIKTLKSAKFDETVEIALKLNVDPRHADQMVRGSVVLPAGTG

KKVRVAVIAKDAKADEAKNAGADIVGSDDLVEEIQKGNMNFDVLIATPNLMGLVGKVGRILGPKGLMPNP

KTGTVTMDVAQAVNNAKSGQVNFRVDKQGNIHAGLGKVSFSKEQLWDNVSTFVKAINKHKPAAAKGRYIK

NAALSLTMSPSVKLETQELLDMK

>WP\_002854831.1 MULTISPECIES: acyl carrier protein [Campylobacter]

MATFDDVKAVVVEQLSIDADAVKMESKIIEDLGADSLDVVELIMALEEKFEVEIPDSDAEKLIKIEDVVN

YIDNLKK

>WP\_002854730.1 MULTISPECIES: 2-hydroxyacid dehydrogenase [Campylobacter]

MKIVCLDAATLGDYDLSVFEKFGSLQIYTTTNKEQTIERLKDANVAMTNKVVIDKDVIDACKNLKLILET

ATGVNNIDIEYAKEKGIIVKNAAGYSTMSVVQHTFAFMFAFLNQVLYYDKWSKEGKWCESPIFTDYSRIL

NTLSGKKHGIIGLGTIGKEVAKISKAFGAEIYYYSTSGANKNADFVHLELKDLLKTCDIISIHAPLNEKT

KNLLAFEELKLLKDNAILINVGRGGIVNENDLAKIIDEKNIRVGLDVLEIEPMMKNHPLLSIKNKENLII

TPHVAWASKEALNALMDIVYNNLKEWIENGK

>WP\_002854681.1 MULTISPECIES: glycerol-3-phosphate acyltransferase [Campylobacter]

MENLIIYAFIYLLGSIPFGLILAKFFAKTDIKKEGSKSIGATNVLRVVKEKNPKLAKKLAIATIILDFAK

AAIPLLTLKFLHYDQALLWSVAVLAILGHCFSIYLLFEGGKGIATGAGAMIVLLPLEVLTAFIVWVVIGK

IFKISSLASLAALLAFVVSSFIFNYDLEIHTHAPVFIIAFIIVYKHLPNIKRLIFKEECKVI

>WP\_002854647.1 MULTISPECIES: ferredoxin [Campylobacter]

MSLLITKDCVCCDACREECPDEAIYENSPIYVIDPDLCSECVNDFSEPACIVACPYECIIPDPDNVETIE

ELKLKHRDREF

>WP\_002854600.1 MULTISPECIES: prolipoprotein diacylglyceryl transferase [Campylobacter]

MEFWQHIYSNFNVIAFSIFGLKVHWYGIMYVIALLLALLLAKFFVRKFQLDINEKHLDSYFIWVEIGVIL

GARLGYILIYDANTMYYITHPWQIFNPYINGEFVGIRGMSYHGAIIGFLIATLLFCKKYKTNPWIFLDLV

ALSVPLAYVFGRIGNFLNQELFGRITNVPWGIYVDGVLRHPSQLYEAFLEGIVVFIIVYLARFKQSFQGE

LILVYAGAYSLARFICEFYREPDFGIGFVLWGMSMGQILSFIMFITALLVYICIKFKKVNI

>WP\_002854586.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKFFLLVFCFVNLALAKVYKGELHFYHLQDKEIFAIVYDNAPMTPLFDRDKNQTSSSFLIVDDINGNLEI

PLVKINDFWQDERKKYKINSSKMLTYDNKNFQGENLGTTTLELVETQDGIRIKRSLDFIGFNDDFKEFHP

VHKGVFSFEQIRQKPIFLQDGKISFEEWYYFYEDGMSRAILELNNFVYDINAHAFVKLNDLYNTENQKFQ

NLLHEKLKNTCDECFEDLQNLQFNNNFLLNNGKLKICYLPFEGHFLDENICVEFNEDELKEFKK

>WP\_002854524.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLKILEYSITHFCEHILRLRIEAAQDISGELYGASIPIMGKSEGECNFYLFFPKEFLKKIAEILINDEKF

KEDDWCDLTKECANQIIGYAKNLLNDAKGDDEYKLGIPEYLGKVDFSEIVLDEALTYKFENCYFRIGYCK

>WP\_002854402.1 MULTISPECIES: malate:quinone oxidoreductase [Campylobacter]

MSQQEFDVLVIGAGISGAALFYELARYTNIKNIALIEKYNTAATLNSKGTSNSQTIHCGDIETNYTLEKA

RKVKRTADMIVKYGLMQNAQNNFMFSHQKMALAVGDIECDYMKKRYEEFKELYPYIKFFDKAKIKQIEPK

VVLGEDCNQDRPENICAMGVESGEVFTTVDFGKMSINLIEQAQKQNKNTFVAFNQEIIHIEKKDDIFILK

TSNHQEYHAKSVVVNAGAHSLYLAHKMNLGMDKSCWPVAGSFYLTKQKLLNGKVYMVQNPKLPFAALHGD

PDLLADMNTRFGPTALVIPKLERYHGLKSVPEFFEALKLDKTVLKVTFNMFKDATIRNYIFYNYLFELPF

VDKSLFVKDAKKIVPSLKASDIYYAKGFGGVRPQVIDKTKGELMLGEASITETPGIIFNMTPSPGATSCL

GNAERDAKLVCNYLGMEFNEDKFSSELL

>WP\_002854351.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKIKKIIQIGMIGGLAAVAGGALAGCGSNNDNADTLNQAANAQGAFVIIEETAPGQYKIKDQYPSDETR

VVLKDLNGTERILSKEEMDALIKEEAAKIDNGTSNLTKDNGQISSGGLSLGETLLASAAGAILGSWIGSK

LFNNQNFANQQRGAFSNQSAYQRSVNSFNKAGTTSSASSAKKSGFFGGGSKATSSSSSFGS

>WP\_002854302.1 MULTISPECIES: fumarate reductase iron-sulfur subunit [Campylobacter]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>WP\_002854278.1 MULTISPECIES: 6,7-dimethyl-8-ribityllumazine synthase [Campylobacter]

MNIIEGKLNLDSNTKIAIINARFNHIITDRLVEGAKDAFLRHGGKEENLSLILVPGAFELPYALKKAIES

KKFDAICCVGAVIRGSTPHFDYVSAETTKGIANVSLNHNIPVSFGVLTTDTIEQAIERAGSKAGNKGFEA

MTTVIEMLNLSKEL

>WP\_002854273.1 MULTISPECIES: dihydroneopterin aldolase [Campylobacter]

MQSHIKIKFHFKCIIGILDFERRKKQKIIIKLKAKANEFLNYAEVITKIKTWYKKEEFYTLEESLDFVSL

NLKKDFPNLTNLNIKIFKPHIIKNATVGVKLKKKY

>WP\_002854204.1 MULTISPECIES: tryptophan synthase subunit beta [Campylobacter]

MKKAYYGDFGGQFLPESAMFALNELEGAFLKFSKDKLFKKELNELLKTYVGRPTPLYFARNLSKKYQHEI

YLKREDLNHTGAHKINNAIAQALLAKKMGKKKIIAETGAGQHGLATATAAALLGLECEIYMGATDVQRQA

LNVYKMELLGAKIHAVQSGLKTLKEATTAAIQAWVGDIKNIFYVVGSAVGPYPYPKMVMHFQSIIGKECK

MQLQKLNKKVDYIIAAVGGGSNAAGIFYDFIKDENVKLIGIEAGGLGIDTPYHAATLNKGKTGIIHGMKT

KVLQDDLGNILPVHSVSAGLDYPGIGPLHAFLFESKRAQYHAISDEECMQALKLLCKEEGIIAAIESSHA

LAFLEKLCPTLKKKSVIVVNLSGRGDKDMQMIRDYKKGVIYG

>WP\_002854193.1 MULTISPECIES: fumarate reductase flavoprotein subunit [Campylobacter]

MNIQYSDALVIGGGLAGLRAAIEVAKSGQSVTLLSICPVKRSHSAAVQGGMQASLANGAKGEGDNEDLHF

ADTVKGSDWGCDQEVARMFAQTAPKAVRELAAWGVPWTRVTKGPRTVVINAQKTVIEEKEEAHGLINARD

FGGTKKWRTCYIADATGHCMLYGVANEAIKHQVKIIDRMEAVRIIHDGKKCLGVIARDLTNGQLIAYIAR

GTMIATGGYGRIYKQTTNAVICEGTGAAIALETGLCRLSNMEAVQFHPTPIVPSGILLTEGCRGDGGILR

DVDGYRFMPDYEPEKKELASRDVVSRRMMEHIRKGKGVKSPYGDHLWLDISILGRAHVEKNLRDVQDICK

TFNGIDPADEGPKGWAPVLPMQHYSMGGIRTKPTGESQWLNGLFACGEAACWDMHGFNRLGGNSCAETVV

AGMIVGDYFADYCKNNGEVIDTNVVKDFLTKEYQYLKSLVDKEGKHNVFEIKNRMKEIMWDKVAIFRTGE

GLKEAVDELEKLYKDSQDVKVHCKELDCANPELEEAYRVPRMLKIALCVAYGALLRTESRGAHYREDYPK

RDDLNWMKRTNTFWVEGETLPRIEYEELDIMKMEIPPAFRGYGAKGNIIENPLSEKRQAEVDAIREKMEA

EGKGRYEIQNALMPYELQAKYKAPNQRIGVDYE

>WP\_002854141.1 MULTISPECIES: iron ABC transporter permease [Campylobacter]

MRKKMLILSFLTLNMIGIFIFVGLNGFDEYALKSRFLQIAAIIIVAICIAVSTVIFQTLCNNKILTPAII

GLDSLYMLLQSALIFSFGAANLSVYKNDINFLITLVCMVVFSLGLYKILFSSDRSIYLIMLLGLVFGTLF

STLSSFFEVLIDPDEFMVIQGRMFASFDNIAFDVLILAYIISFLSFIWIFRYMKFLDPLNLGKDLAINLG

INYQKISKQLMIIIAILTSISTALVGPITFLGLLVVNITYELFKTAKHSILLSACILISILALLGGVFFV

SRVFDYNATISVVINFLGGIYFIYLVLKGNKL

>WP\_002854086.1 MULTISPECIES: deoxycytidine triphosphate deaminase [Campylobacter]

MGLKADNWIRKMALEHKMIEPFCEANIGKGVVSYGLSSYGYDIRVGREFKIFTNVNSTVVDPKNFVEENV

VDFEGDVCIVPANSFALARTIEYFKMPDNVLAICLGKSTYARCGIIVNVTPFEPGFEGHITIEISNTTPL

PAKIYANEGIAQVLFLQGDEKCDTTYKDKKGKYQAQTGITLPRILK

>WP\_002853992.1 MULTISPECIES: CDP-diacylglycerol--serine O-phosphatidyltransferase [Campylobacter]

MNNRPQLIYILPNLFTAASAFLGVISIIASIHGNYYTALIYIILSLICDGLDGRVARLTNSTSKFGVEFD

SLADLVAFGVAPAVLFYMAIGYDFGKLGSLITAFFVVFGAIRLARFNVTTGTYEPSVFIGLPIPTAAVVS

AIWTYAFISYDFLKPYGVVFLVLQAILGLLMVSNIRYPSFKKLDFNRSSVLKVLIILIIIFSFLYLYPLE

SLVILASLYVLYGIIRVLYTIIVSKFKTRNQE

>WP\_002853863.1 MULTISPECIES: arginyl-tRNA-protein transferase [Campylobacter]

MLEIGFCTLEDQCPYLKDKRSRIEYKYIENCPKEINNELIKRGWRRFGRYFSRPICKDCDECLSLRILVN

EYNFSRSERRVVNKNINTKVILRTPNLSNEHLFLYDKYHRFMEEKKNWKRYDLSFKQYYNLYVDGFMNFG

YELAFYIEDKLVCVDLIDILEDGISSIYCFYDPDFSYFSLGKFSLLNEIQIAKKMNLDYIYLGYFVKKCQ

SLSYKADYTPNEILKGTKELFENEVLWEK

>WP\_002853860.1 MULTISPECIES: peptidase M23 [Campylobacter]

MRKNILIFFCFFLFVDISLANAINEKTKSLEENKRIQEQLNKKLEDLASDILNGEKSLKDLSLQIESLNS

QTSKLEASAKAQNQELNTLTSQNEDLLKSKSNMEGKLISLMAKDFAYDLPIPQGYIESEESFMAFEILGS

LNKVLNEEIFKISKDYEGVSRLIDDKQAQIKKINESLKDYNAQLAKLQSLKQKQISEINKQKTDRAIYAK

KLDDLQAQQEELRKTLNQLKIINDKEDANSNKNDTKIVKNNQKIRQLGSSYQGSSVKRYTGKKTIAPLDS

FTVKQKFGNYVDPVYNLKIFNENVVLRSNKSDAVVKNVLDGKIVFAKDTSMLARVVIVEHDNGIHTIYAH

LDKIAPNIKVGKNIKKGAVVGRIKNDLTFEVTQKNFHINPLELISLN

>WP\_002853812.1 MULTISPECIES: polysaccharide biosynthesis protein [Campylobacter]

MAKNEGYICVFDCESVPDVELIRKTLGFEGSDLEVSLKALQWQKEQSGSEFLPLPYHKIISICAVLSDNF

GKFIKVNKIDGQNEKEMIENFFNFIENYEPKLVSFNGKNFDMPVLVLRALKYNLKAATYLDTQSDKWNNY

KTRFSELKHCDLLESLGSNGRGIKLDTLCSMVGLPGKYDVHGDEVMKLFYENKLEKIHEYCESDVLNTYM

LFLKYELIKANVDEEDYVGFLSYMRDFLCAKKSDRSYTEVFAKACESEISKVRS

>WP\_002853724.1 MULTISPECIES: hypothetical protein [Campylobacter]

MRIKFISFILIFFTIFAFAKEQNLDDFEQEYQNYQVNDPLSGYNKAMTSFNVALYDYGLRPVLKGYNAIT

PEFIRLGARNFFDNLLAPLRFVSNVLQFKFEEAGEEFKRFTANTIMGFGGLMDVASKMGLKKHPADLGTV

LAHWGVGSGFHIVLPILGPSNLRDTLTLPATWYASFTAYIDPTWASIAISAYGFGNELSFRLDEIDEIYH

NTPNLYPFLRDAYEQRRNELSK

>WP\_002853697.1 MULTISPECIES: cation transporter [Campylobacter]

MSLQKKATLVASLCAIVLALVKFIVGLTSGSVAVLSSAIDSLMDFAISAFNFLALKKSSQKANENYNFGF

SKIEALMGLLEGVFIVGVGIFIFYESILKIYYKEEIKDLNSSIYVMIFALIMTFFLVLFLNYVAKKTKSL

IIESDALHYKTDCLTNACTLGALVLIYFTNLHIIDAIFGIVISLYTAFSAFKIIKKALAFLMDEALPKEQ

VDKICTLISNNPEIISYHELKTRKTPSCNYLSVHLVFCPIISLLNAHKISDEIEEGVRKMFENEKWDIQI

HLDPYDDAEQERQRQ

>WP\_002853680.1 MULTISPECIES: non-canonical purine NTP pyrophosphatase [Campylobacter]

MKIILATSNKHKVLELKEILKDFEIYAFDEVLMPFEIEENGKTFKENALIKARAVFNALDEKQKKDFIAL

SDDSGICVDVLEGNPGIYSARFSGKGDDKSNRDKLVNEMIKKGFKQSKAYYVAAIAMVGLMGEFSTHGTM

HGKVIDTEKGENGFGYDSLFIPKGFDKTLAQLSVDEKNNISHRFKALELAKIILKILNKG

>WP\_002853613.1 MULTISPECIES: peptide-methionine (R)-S-oxide reductase [Campylobacter]

MKELNEEEKKVILNKGTEAPFSGKYNDFYEKGIYQCKQCGASLYKSEDKFKSGCGWPSFDDEIKGAIKRI

PDKDGIRTEIVCANCNGHLGHVFEGEGFSAKNVRHCVNSISLEFVKTKD

>WP\_002853534.1 MULTISPECIES: ABC transporter ATP-binding protein [Campylobacter]

MPNLIQANKLTLGYDELVIKEASFAFKDDDFVFITGKSGSGKSTLLKSFYGDLEPISGKLEVCGSLMNKI

GNLELLKLRQRIGIIFQDYKLVQEYSVEKNVMLPLMIKGYSKKVCHDQATKLLKHVNLTFKADKLPNQLS

GGEQQRVAMARALAHNPKLLLCDEPTGNLDEYSSDIIWTLLKSARELLGTCVIVVTHRIPSNLRVDYRRF

NIENGKMNEIF

>WP\_002853464.1 MULTISPECIES: DNA-directed RNA polymerase subunit omega [Campylobacter]

MDKRIEEVAAKALEKMGNDRYRLSLVVAKRAEQLANGATPLVDFDKNKNKLADIALYEIAENKITLEGLV

ETNR

>WP\_002853393.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKIFLIFFLSCFLLNAKEQKLVDVKPVENFYPKLSVQECNTNCLFDLLESRLYLSFLSEFADQNDQFLS

NVYAKLLNSITDFEKNVQKITSVKLAIIIPEKTIKSYSNTIINSSIAYLLRQRAEIKVKVFLTGTEDNDK

IRAALDAAQAQGYQYAIAGFTLKGANELKNYSGNMKIFIPTIHKNNIQISNQNIIFGSIDYDAQIATLLS

KSNANIAIFSDGSALSSNLNSRILAQNNNARIYTIEGEKLDFSRLLRSQGGVNNASIFFNTPLIKTALAS

SQLRIYNIHPYVLLSTQINYNPTFLSLTQQGDRENFIIANSINNHDDNLVYLNEIFNQSIDYNWIAYATS

IGVDYFYTEFLNKKSESLFDEKIKNSQVDYKVRLMQGKQASFEELK

>WP\_002853389.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKIEAIDLQSALTEASRSLECSVMDLEYEIIQHPRKGFFGFGRKKAIIEAKAKKRILKKNPKKEFTSSKN

HKPETHEPKQENKIEIKNEKNKSQKEKYTVKSDEIFDSFHRESKGVRNTQDILDEIRIQLVKLLESSQFK

IELSELRMYDEDCVLIRLDGEDAALMIGKEAHRYKAISYLLHNWINLKYNLLVRLEIAQFLENQIQGMQL

YLQSVIEKIKIHGRGQTKPLDGVLIKIALEQLRAEFPDKYVGIKQNNDQRFVVINDFFKKDE

>WP\_002853387.1 MULTISPECIES: nuclease [Campylobacter]

MRINYKKIFNLRKLLSDPKKLFSVLIFTLVVVFIQNYIAQNSSFEGKVVRIIDGDTIEVNHENKLARIRF

FGIDAPELKQSFGKQSKEALSRILSGKQVEIIYKNKDTYGRIVAIVKLNDVDINRFLVSKGYAWADTYYS

NAYTKEQENAKKNHLGLWKESNPIEPYKWRKHNKF

>WP\_002853385.1 MULTISPECIES: lipoprotein [Campylobacter]

MKKYTLMVLLVLGISGCFVNERGISNRFYDDCKEYYDGSGTYHKDCPKNWVDIKMTP

>WP\_002853379.1 MULTISPECIES: MFS transporter [Campylobacter]

MQKKYKNIIYASLGGILEFYDFVLFAFFLDIFAKVFFPQNDAFWMQINAYIAFGAAYLARPFGSIVMAHF

ADRYGRKNIFYISMLLMVLPSFALAFLPSYESIGIFATLILFTIRILQGLAVGTEVSGAWIYVSEFVKGR

QIPLALGFISATLTIGLLLGNIATLGIRSYFTPEEVQSYAWRIPFIIGGFFGILALFLRNKLSETPEFIK

VQNEKKILSFPLFEALKTHKMSMLVCFLMTMVLTSGVATLMILPKYFESLLAMSKTSALWVQNFAILAVI

FGALFQGFLASKWGSYKICSIFSIAFIIFGMLFGFYDENFLFYFLLACFAQGIITFAPVFMTQIFKSELK

FSGLSFAYNISYAILGFLTPFIVNAFYKEYLGIYLAIVGSCSLLCVFLLKRVFARSKIKELSIVF

>WP\_002853369.1 MULTISPECIES: peptidase [Campylobacter]

MQNVIENFKQLCKIPHCSYETEQMKEFLSSYAKDKGFKVSVDKAGNIHAIKGKPKICLQSHYDMVCMGDA

PNLEVYEENGFLRAKNSSLGADNGIGIAIMMSAMAEFENLECLFTNDEEVGLMGVNLLEHTLESKMLLNL

DHESDDEIMIGCAGGVDIEASLSFNTLRKKGKIYELCAQNFKGGHSGINIIRNEKSSIKEMAKFIQENEG

EIISFEGGERINSIPKHAKALVHFKDEVKSNNWIKCEFKEENEFEICDQSKKLLSLINSFTHGVRAYDEN

LDIVQTSINLATLRMQDNQIKFALFARSNILDGLKQVEFETLEFFKAFDFKIRSFNFYPPWEGKPNALSD

MVFKALKKVSPNAKVSAIHAGLECGIIEKKQELLCASIGPNIHNPHSTDEHCEIASVEKISKVVFEVLKD

NA

>WP\_002853367.1 MULTISPECIES: hypothetical protein [Campylobacter]

MAKKDNFEEYAQLEEYASAEDISRVRAELLTCPELNTSLAGTIIEIDKNYAKSILITTSEMVADDQGLIF

DAFIFAAANYVAQASINKEFSVIIGSKCFFYAPLKLGDVLELEAHALFDETSKKRDVKVVGHVKEVKMFE

GTIQVVSTDEHIFKLKRPPLNTVKPTENQEQGAKINNPEAVAAALMASVGGK

>WP\_002853356.1 MULTISPECIES: membrane protein [Campylobacter]

MEFLAFIFLIIIFLFVVFIIVTRYEKKIKLLNQNIQNMKEDIADLKETTQKNRSLIEKNRSNIENIIK

>WP\_002853349.1 MULTISPECIES: ribonuclease P protein component [Campylobacter]

MKNFDKFSTNEEFSSVYKVGKKWHCEGVIIFYLNSYEKKIAVVASKKVGKAVVRNRSKRILRALFAKFER

YLQDGKYIFVAKNEITELSFSRLEKNLKWGLKKLECFK

>WP\_002853338.1 MULTISPECIES: hypothetical protein [Campylobacter]

MIRSLYYLKAMGFNFVDTHTNHFEQVQNFQELKQLVSSCTLCQFSKTRKFSLMEPKIKNAKLLILDVFGQ

KSENESGILLNSKKGEKLKHYIYQILGLCDEDFYFSYLFKCFCNGKFDDFSLQSCLPFFWNELKLIQPAF

LLCLGEYTFKSLGFKDYHILKGEVFAYKNFFIMPSYDLDFIEKNPSYEKNFIQDLKKIKGFL

>WP\_002853332.1 MULTISPECIES: amino acid ABC transporter permease [Campylobacter]

MNESVGFVEHLRQILTSWGLYDENSISPFAVWKFLDALDNKDAFINGFIYTLEVSILALLIATIFGTIGG

VMATSRFKIIRAYTRIYVELFQNVPLVIQIFFLFYALPVLGIRLDIFTIGVLGVGAYHGAYVSEVVRSGI

LAVPRGQFEASASQGFTYIQQMRYIIVPQTIRIILPPMTNQMVNLIKNTSVLLIVGGAELMHSADSYAAD

YGNYAPAYIFAAVLYFIICYPLAYFAKAYENKLKKAHLTR

>WP\_002853331.1 MULTISPECIES: lipoprotein [Campylobacter]

MKSCLYFTFIVLFLTACSTKNLTSLHRENLEQKNENQHYVKLEYEQNVNILPQFAYDINFDAKRYKKYFF

NPWHDSFKNYKGQNIFWSFPLYLNSKNTYYFFNKQIIPLSWFKNAINNANIQEFGKLNQKALIIQNTIIK

NLPTQRAILKNPFFENEGIPFDYASDGILNTGAPVLISHFSKDKRYAFVLGEAGFGFVESKNLEFFSNDR

AKIYENLNFITPLKEKFAIYSEDGKFLFESRIGAIYPYYKEDKNYFYGKIGSKKYKISKKDVSKFPLQFN

DKNLKNQLSQVLNLPYGWGGYNFERDCSLLTRDIFSAFGLYLPRNSAAQKNSFNHFDISTLSNSQKKDFL

NRFGKAYLSLLYLPGHIMLYAGQITDNNIAIHNIWGLRKDATQRLLISSSVITSLEIGKNEILEDNLLLS

RLKEISFINLNEQEKEQIKSYLENIQNK

>WP\_002853310.1 MULTISPECIES: amino acid ABC transporter permease [Campylobacter]

MSLFTQKNKNFKPLKPLSKSKIITNLILLILFLILFCYCSFSISAYHFDFSAIATYKEKFLQGFLNTLII

SFFSLLLSIILGGVFCAFSLSSIVFLRFLSTFYIELVRGTPLLVQVLLIYYIIANNLGLDNRYVAGVIIL

SCFSAAYLAEIFRAGILSISISQLESARALGLKEMQVFAYVIFPQALKNILAPLSGQFANLIKDSSLLSV

IAVNELTQSAQEINSYTFATLEAYVILAITYLVLTLPISIFSRYLERKCQK

>WP\_002853308.1 MULTISPECIES: ribose 5-phosphate isomerase B [Campylobacter]

MLREKIYIASDHAGFELKEKICVFLKEKNIIFNDLGTNTCASCDYPDYAHLLAEKINKRSFGILICGSGI

GISIAANRHKNIRCALCHESLSAELARRHNDANVLALGGRLIGVELAIDIIEKFIQTPFEEGRHMQRIQK

IEVKI

>WP\_002853306.1 MULTISPECIES: ATP-dependent DNA helicase pif1 [Campylobacter]

MFDKLEKILAYDNVFLSGGAGVGKSFLTNELIKSYRKQKKLAIALGSSALSAFNIGGVTLHSFFCLGYCD

DMMKLSVLDRNQKQKEKLTKLKELLKTIELIIIDEISMVSANVFEMIGFRLKNSQFNGKILVVGDFFQLP

PVIKEKKETLFNHSYYAFSSFFWQDLNFKNIKLSQPKRTQNMEFYNHLSLIRQGFLDEKILSFFESLRID

YKELENLEDDYTLLCGINKKVNNINQEKLSKLETPLVCFKAQVKKEDKRIKDEELDSWIRSLNILEELNI

KIGARIIFCVNNWDKNYYNGEQGIIEDILYEEEKIYISIIKNNGMKILLEPYTFFMEELEQSGKDFVVNI

LASVTQFPIKLAYAITIHKSQGMSIEKLVCDIDHIFENGQLYVALSRATNPNTLKIYSTKKINFGFYFAN

ILKIDSNVIEFYKKHNFLDLEIQEQII

>WP\_002853293.1 MULTISPECIES: ribose-phosphate pyrophosphokinase [Campylobacter]

MRGYKIFSGSANVEFARQVSKYLSLPLSDAGVKRFSDGEISVQIDESVRGKDVFIIQSTCAPTNDNLMEL

LILTDALRRSSANSITAIIPYFGYARQDRKANPRVPITAKLVANLIQAAGIDRVATIDLHAGQIQGFFDI

PVDNLYGSIVFNDYIKAKHFKNAIIGSPDIGGVARARSVAKHLGLDIVIVDKRREKANESEVMNIIGDVK

DKEVILVDDIIDTAGTIVKAAEALKEKGAKSVMACCTHAVLSGKAYERIASGVLDELVVTDTIPLKEQLP

NIKVLSVTPVFAEVIRRVYHNESVNSLFI

>WP\_002853290.1 MULTISPECIES: amino acid ABC transporter permease [Campylobacter]

MENVFNAQNIEFLMQGLFLTLKIALATCIISIVFGTFLAITKNYGDRLSKFLAACYIDIFRNTPLLLWML

AACFVLPVFFGQFPQAFWGTIGFSLYTSSVMAEIIRGGLNSIPKGQFEAAYSQGFGKFFTLFYIILPQTF

RKIIPALLSQIVTTVKDTAYLAGLGIAELTYNSKTILAKLTSFEEILAMIGVVAGIYFIICFSLSMLVRY

YAKKTAYIS

>WP\_002853285.1 MULTISPECIES: chemotaxis protein methyltransferase [Campylobacter]

MEKKITPSELELNEFIKIINEMSGIDLTDKKNILALKLNKFLEGTNTKNFSEFLGKLKSNRQLKQETLDF

VTIGETYFLRELAQLKEIIYYAKSLEKRVNILSAPCSSGEEVYSLALLAAQNFIKDMYILGVDINSSVIE

KAKLGKYQGRTLQRLSESEKRRFFLESEDKFYTINKNELCTCKFELCNVFEEKFSRLGKFDIIASRNMII

YFDHESKLKLMERFHRILNDKGRLYVGNADLIPETIYFKKIFSPRGVYYEKV

>WP\_002853278.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKIFLSVFLVLSLNAQNLEIDKIRTDLYSKSGANVLKKVEISLEFDGNNLKENENKLIDAVNTVISGFF

YEDIFTEIGKNNFKKTLEKFLDKKYKIKLDDIYIISLSGVEKFDLEEFKRFLESTEAKEKGMGSEVKKAL

ENLEVPKTQVPSVEKIPTPSVPNLEVKQVEQLFKDPDEENKNDNGEINIDNLNTPKMTPDIEEKIKRDLI

ANPPQIFKENNASKPYHLPQTGYDIKLDENSTQN

>WP\_002853263.1 MULTISPECIES: chemotaxis protein B [Campylobacter]

MKLILIGSSTGGPNQLKFLLKDIDVKNTCVVIAQHMSASFIPSFVGQFNKEAFSEVCLLNDKEILSNKIY

ICPKNTILSGNLNIVAAWQDVASSFKPSVDLLFHSAVSLAKTNKILAIILTGMGDDGAKGLFELYKTGVR

CLCENEADSVVYGMPKRAKDMNPHLKPMSLKEIKKEIVNFIDQD

>WP\_002853259.1 MULTISPECIES: polar amino acid ABC transporter ATP-binding protein [Campylobacter]

MIELKNVNKYYGTHHVLKNINLSVKEGEKLVIIGPSGSGKSTTIRCMNGLEEVSSGEVVVNNLVLNHKNK

IEICRKYCAMVFQHFNLYPHMTVLQNLTLAPMKLQKKSKKEAEETAFKYLKVVGLLDKANVYPATLSGGQ

QQRVAIARSLCTKKPYILFDEPTSALDPETIQEVLDVMKEISHQSNTTMVVVTHEMGFAKEVADRIIFME

DGAIVEENIPSEFFSNPKTERARLFLGKILKN

>WP\_002853252.1 MULTISPECIES: major cell-binding factor [Campylobacter]

MVFRKSLLKLAVFALGACVAFSNANAAEGKLESIKSKGQLIVGVKNDVPHYALLDQATGEIKGFEVDVAK

LLAKSILGDDKKIKLVAVNAKTRGPLLDNGSVDAVIATFTITPERKRIYNFSEPYYQDAIGLLVLKEKKY

KSLADMKGANIGVAQAATTKKAIGEAAKKIGIDVKFSEFPDYPSIKAALDAKRVDAFSVDKSILLGYVDD

KSEILPDSFEPQSYGIVTKKDDPAFAKYVDDFVKEHKNEIDALAKKWGL

>WP\_002853247.1 MULTISPECIES: membrane protein [Campylobacter]

MFTNWLVLTILICATIYLIVMLFYYKTLLNKEKTSKDFIKNNLDDTEIVIRKLQIQLQRSLGNIDILTEE

LNKIKADLTSLRTRNSQYRLENDKLRQRIKELEAKIEALL

>WP\_002853239.1 MULTISPECIES: potassium transporter [Campylobacter]

MDNFLEIFLITVAIAIVLNVIFKKFEIPTIIGYIAAGEIISEIYHLSGKGEITHIAEFGIVFLMFTIGLE

FSFKHLMAMKQEVFLNGSLQMLTCGFVFMLLAIGILGLGDKSATIVGFALALSSTAVVLKILNDNGDINE

QYGRKALGILLFQDIAVIPLLLLVDIFSSNNQNIEKLLFTSLISALILITLLFFIGKYLVDRIFRLIIHT

SSQEIFISTVLFMVIGASFLANYFGFSYSLGAFIAGALIAETKYKHKIEADLIPFRDLLLGLFFITVGMQ

IQLDVVAQNWFLIIVLTLLVMALKFGIVFGFLFLYTKKRVALKTAFAIAQIGEFALAIFSLLQAKNMLDI

KTSQILIVVSILTMIITPFILNNIRKITNVVEDIALNTNAVQNIDSNIKLKNHLVVFGYGRLGQEVVQKI

KNTGVPYLVLESDLNLVELGVSRGENVVFANAAQEETLKIANIEECAVAIITVTNEAKLEILCQVLANYP

KPIDTIIHVNGTLKKMLFSSIDENIRIIRSEKVIARNLVQEALECRIHKNT

>WP\_002853230.1 MULTISPECIES: MerR family transcriptional regulator [Campylobacter]

MEQHYDEPVYLISVVAKVLSIHPQTLRQYEREGLIEPSRTDGKIRLYSQRDIDRIKLILRLTRDMGINLA

GVDVILKLKNQLHEFENLIDELRLELSKQQDKEAASKAVVKHKNSFDLIFYEKK

>WP\_002853214.1 MULTISPECIES: recombination protein RecR [Campylobacter]

MVKGLEKFNELVESFANLPTIGKKTAIRLAYHLCINNQIDGMKLAHNIENAIRFIKPCEQCGALSENELC

EICSDKERNKNILCIVESPKDILTLEESQSYNGLYFVLDELNEEKLEKLKQIILKLNISELIFALTHSIN

SDATIFFIEDKFKGLNLTFSKIAQGIPSGVNLENVDLISLNKAMNFRTKI

>WP\_002853212.1 MULTISPECIES: phosphoribosylamine--glycine ligase [Campylobacter]

MKIMILGSGAREYSIALALRRVDKNLEFYFAPGNGATESLGTNLNLKDPVVLATYAKEKGFDLCIVGSES

FLAEGVVDIFKQQGLAIFGPSKAAAMLETSKSFMKSFLKKYRIKTAKFLNTNDIEKAKNFIYSLTPPIVV

KADGLCAGKGVIIAKTHEEAIEETAKMLSGESFGDAGKLVVIEEFLDGYELSIFAVCDGNDFVLLPAAQD

HKKLLDNDQGPNTGGMGAYAPSSLANESLLRKVQKDIILPTLAGMKKEGAEFCGVLFIGAMIVGNKPYVL

EFNVRFGDPECEVLMPLIEDPLELILAATQRRLRHSKIKIKKEFAVGVVCASENYPYKSSPKSEITVNNI

PENSHISYAGVSLEDGKLMADGGRVLVCVGTGKSIEEAQKNAYKLCDNVNFKGKQYRKDIAHQVLK

>WP\_002853203.1 MULTISPECIES: molecular chaperone DnaJ [Campylobacter]

MEISYYEILEITQNADKETIKKAYRKMALKYHPDRNQGDKEAEDKFKLVNEAYEVLSNDEKRAIYDRYGK

DALKGGGFGSSSSGFGGFEDLGDIFSSFFGEGFGSSRRRKSSNDEKIPSDFIVNLKLSFKEAVFGCKKNI

DFTYKCSCKTCNGTGAKDGKLQTCPKCQGRGQVGVSQGFITFAQTCPDCQGIGEKASEKCSDCKGLGYNE

SKDSVELNIPEGVDTGMKLRVNAKGNILKNGTRGDMYVKIIAAEDDTFIRDDDDIYIEFPVFFTQAILGE

SIKVPTIRGEATLNLPKGAKDGQRFVLEKEGVKDVHSSRMGNQIVQISIKFPTSLNDEQKELLEKLSESF

GIKDGMHQEQKGLFEKITNWFKS

>WP\_002853195.1 MULTISPECIES: quinone-reactive Ni/Fe-hydrogenase small chain [Campylobacter]

MIDYHQIESRLSALEKLPSLKDNDSITKALEKSGFSRRDFMKWAGAMTAFLALPASFTPMVAKAAELADR

LPVVWLHMAECTGCSESLLRSDTPTIDSLIFDYISLEYHETVMAAAGWQAEENLESAIQKHKNKYILMVE

GGIPMGDTEHFLTIGAHGKTGYELSKMASENALAIFAIGTCSSFGGIQAARPNPSNAQPLSKVTSKTVIN

VPGCPPSEKNIVGNVLHYLLFGELPALDVYNRPKWAYGLRIHDLCERRGHFDAGEFVHAFGDEGAKQGFC

LYKVGCKGPYTFNNCSRERFNQHTSWPIQAGHGCIGCSEPNFWDTMGPFEEPMASRKFDTVFGLGADSVS

DKIGIGVLTLTGVAIAAHAVISSMQKDKE

>WP\_002853153.1 MULTISPECIES: ribonuclease HII [Campylobacter]

MKTLFDTKELLNEFDINLIGIDEAGRGALAGPMMMAACKLNKQLDGLCDSKKLSEKKREELYEIIIKNSN

YLILAFSSEQIDALGLSTCLKKGLKLIKKHFKTENNFLYDGNTNLGINGIKTQIKADTSILQVSAASILA

KVSKDRVMNFLAKDFPCYEFEKNKAYGTKAHKEFIAKFGICKLHRKSFKLL

>WP\_002853150.1 MULTISPECIES: 3-isopropylmalate dehydratase small subunit [Campylobacter]

MQKFIIHKGIACPLEYANIDTDQIIPKQFLLAVSKQGFGKHLFHDLRYLDDKESVLNMDFNLNKKEYQNS

SILVSFENFGSGSSREHAPWALVDYGIRAIIAPSFADIFKNNALGNGLLTIELAKDEVLEIVDELKKSQD

KNIEISLLEKRVFFKDKIFSFDLDDFHRICLLEGLDNIALTLKHEAQIKAYEKNSKSFLV

>WP\_002853127.1 MULTISPECIES: outer membrane protein [Campylobacter]

MNKKFLSIIAGIALFSSSAFAEEKSGFFIGADAAYVQTKVQGNLKHNQTGAVFNGDLSSSIPILGLKAGY

RFNDLHRLYLAYNYSDEFSDIIRTPKLKIESDFSTHKFLMGYDFTPKIFERVRAVAGGYLGYAKTNLDLK

TSLLSLSQKFDGFVYGVKIGAIFELGASNEIEAGFKVEKIEYNTRDFYQKAIGSNLYDPRQTNYGLYLGY

TYKF

>WP\_002853088.1 MULTISPECIES: dihydroxy-acid dehydratase [Campylobacter]

MRSDAIKKGHLRAPNRSLLRACGLKDEDFDKPFIGVANSYIDIIPGHYFLNDYAKIIKDEIRKNGCVPFE

FNTIGVDDGIAMGHEGMLYSLPSRELIANSIETVMNAHQLDALICIPNCDKITPGMLMGALRVNVPTIFV

SGGPMASGVTKKGEKISLSSVFEAVGAYESKKISEEEFKDIECSACPSGGSCSGMFTANSMNTLCEAMGI

ALEGNGTILALSKEREELLRKAARRICEIALDERFKIRNIITQKAVRNAMVVDMAMGGSSNTVLHMLAIS

REAGVALDIKDLNFISSKVAHIAKIAPSLNSVYMDDIHKAGGVSAVMAEISSRQGHILELDALTITGESL

KERLKNAKIKDENIIRKVDNAYSKVGGLAILFGNLAKQGCVIKTAGIIGERKFKGKAVCFNSQDEAIKGI

IKGKVQKGNVCVIRYEGPKGGPGMQEMLSPTSLLMGMGLGADVALITDGRFSGATRGLSVGHISPEAAEG

GLIGLLKDGDEIEIDVDAYTIHANVSEEEIAKRKKEFALPQKEVSSRWLRMYQKLVSNASKGAVLDME

>WP\_002853083.1 MULTISPECIES: ribosomal RNA small subunit methyltransferase A [Campylobacter]

MVKAKKQYGQNFLIDKSVLAKIIQAIPKEMNNIIEIGPGLGDLTQELLKISQVKAYEIDNDLIPILKKKF

QKELECGKFNLIHQDASEAFNPSLDEKPYFLVANLPYYVASHIILKALEDKNCLGLIVMAQREMAEKFCA

KEGNSEFSSLGVLSAMICERKILFDVDPQCFNPPPKVMSAVMSLIKTKDFDELCEIENFKNFLKDCFKAP

RKQLLGNLKTYKAKVLEVLSTLGLKENIRPHEICVDLYLKIYDKLKDEYGRKQRDK

>WP\_002853056.1 MULTISPECIES: GTP cyclohydrolase II [Campylobacter]

MEIKISEIANLPSKWGNFQMQSFKENDKEHLCIFKNTPKDTLNLRIHSECLTGDALGSLKCDCGEQLEFS

LKYIEKNGGMVIYLRQEGRGIGLFNKVNAYALQDKGFDTIKANHQLGFKADERTYEIVEFILKHYEISKV

NLLTNNPEKLDSIKEKIITRIPILIEPNRFNVEYLNIKQTQMGHLK

>WP\_002853049.1 MULTISPECIES: branched-chain amino acid ABC transporter permease [Campylobacter]

MMVRIKVSHLIFLIASIIFIFISPYIFGDYGLNIVNQIAIFIILAVSYNLINGVTGQFSLEPNGFVAIGA

YAAALVLLSADAKNDQFFLDGPSSFILAIHSNSFILALIVAGICSSLLALILAFAVFRVRGDYLAIVTLG

FGIIIKIAAINFPSITNGSRGLVDIPQFSTIYWTGGIAIVAVILILNIVYSKYGRAMKAIRDDEDAASAM

GINTFWIKTLAFSTSAFLEGVGGGLLACLLTTVSPTQFDFLLTFQLLIIIVLGGLGSTTGAIIGAILVIG

GSEWLRFLDELNIKIDSLNLDIQSTPGLRMVVFSIVLILVMLFARKGIMGYYELSDVIRGIKKRFKRSKK

>WP\_002853032.1 MULTISPECIES: 30S ribosomal protein S18 [Campylobacter]

MAEKRKYSRKYCKYTEAKVEFIDYKDTAMLKHALSERFKIMPRRLTGTSKKYQEMVEVAIKRARHVALIP

YIVDRKEVINNPFEGL

>WP\_002853004.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKIFLIGMILNHFVFAAPLDEVFKDIEVSGTVRYRYDIKKEKKYNKKTHRYQNKTQTEITIK

>WP\_002853001.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKIKFLNIITILSLSLNADIIISADNLPNVSKEFLQHNFKAPIGIVQKDKNSYEVYLSDGTELEFDIDGA

WKEIENKAFPFDLDFLPQNLANIIKNEFPNTKAREIERKINHYKIKLDNDIKILIDFNGTILYKEFDD

>WP\_002852997.1 MULTISPECIES: RNA polymerase sigma factor RpoD [Campylobacter]

MNAKTQEAELEELFQENAKDYITYEKLVKYLTKQPSASTTKKVQALMKKHKVQLFSAAEIAQMKNIEDAK

RLQEEKQKLQDTSLENEFDLANENDLLEWSRSDSPVRMYLREMGQIALLNKDEEIEISKKIELGEDIIID

AFCSVPYLIDFILDYKEPLINRERRVKELFKSFDDEEKSDDKLDELDIDEDEENETELESDEENTKKNSK

KEDERTLKVIEKFKALEKAKKDWLKTSKDKESGDELLDKLSIAFKKNILKEKLMDLGPTSKLISEIVKSM

ETALKSDEEFDKELKRLEYRLPMFSDELKKRHADILKDITKLSKEEITERALETTMVSTYMEIKKLFQTK

EASEKSFDLEKSRLKEILEQIKRGKKISDEAKGRMAKSNLRLVVSIAKRYTNRGLPFLDLIQEGNIGLMK

AVDKFEYKRGYKFSTYATWWIRQAISRAIADQARTIRIPIHMIETINQINKIIREHLQKDGKEPDVSVIA

KEVGLSVDKVKQVIKITKEPISLEAPIGNEDDGKFGDFVEDRNSLSPMDHILKDDLKEQIDEVLDQLNDR

EKAVIRMRFGLMDDESDRTLEEIGKELNVTRERVRQIESSAIKKLKHPKVGRKLKNYIEGWK

>WP\_002852982.1 MULTISPECIES: flagellar assembly factor FliW [Campylobacter]

MTLAVKCPILGFEETKNMEFSTIDEVFVRLKSLDGKDFSFVLINPYLIRPDYEFDIPTYYQELLSLTPES

NMKIFNIVAIAKSIEESTVNFLAPVVINLDNNTMVQVILDTVNYPDFFQADQIANYIKK

>WP\_002852978.1 MULTISPECIES: 3-dehydroquinate synthase [Campylobacter]

MQVEVKLKENAYKVYIDELEELEFDSKVFILSNPKISGLHLKTLLSKIKAKEIFIATVKDGEEYKNLSTM

EEILNQMFNSKLDRKSVLISFGGGVISDMGGFAASIYQRGIDFINIPTTLLACVDAAVGGKTGVNNNFGK

NLIGTFYQPKAVYCESFFLKTLSSRELAAGMAEFIKMAAMFDYSILDFIEKIDEKSFLNATCENEIFTQI

IAKSIELKSRVVEQDEKESRLRMLLNYGHTFAHVIENFTDYKLYLHGEAVAIGMVMANQLALNLGLLDKM

QSQRIKDILLKFGLPISYKINNVDEFYEAFFMDKKSSNKKINFVLASPLGKGLIKGDISKEDIIATLREF

Q

>WP\_002852972.1 MULTISPECIES: lipoprotein [Campylobacter]

MKKIYFMLAIAGIFAGCVPSANSATKNSSANSTAPSQDVIVQKVDKDDVRDIIREEKMLAPDASETELSF

TAVGEGIAPMNTVSTAQALALAKRAAITDAYRQLASKLYGVKVNGKDTVKDAMLRSSTITAQVNGLIKNA

SIIDENFNQGLYRVNLELKIDADKWKELFAY

>WP\_002852961.1 MULTISPECIES: lipoprotein [Campylobacter]

MKKGIFLLVFLSVFFSACSTKNDEGLYNLSASEWYKQIIKDLQDKDLEKADDHYNGMASEHVADPLLETT

LIILAQAHMDEEEYKLAEFYLDEYNKKFGNSRNADYIRYLKIKAKFDAFAVPNRNQALMLESQKEIDTFL

KDYPYTEYEPLVQTMLTKFNLAVFYLNSTIENLYQRIGHDESAQIYKQRLQESEFYQQSIIKPELPWYRS

IFERF

>WP\_002852953.1 MULTISPECIES: branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter]

MKKSLILASILSLSLSAAEVKIGVVLPLSGATAAYGQSALEGIKLANSMQSALSNGDKVSLAIIDTKGDK

LESSSGANRLVSQDKVIGLIGEMVTANTLQVMRVAEDNKIPLIAPAATGDRLLDKKIYSSRVCFMDSFQG

SSLAKYVFSKLNYKSAVIVVDQSTDYSLGLAKAFEKQYKSNGGQILRILRVNSGDKDFRAIVAQVKSLNP

EFIFLPLYYSEASLFARQSKLAGLNIPMGSADGVADQTFISLAGDASEGYIFTDSFDANNPTTKLSKEFI

SVYEKAKGTKEVPNFSAMGADAYFVMLNAMNACVENLTSKCVNEKIHQTKNYQGVSGVISIDQTGNATRS

VVVKEIKNQKQNYKDIINP

>WP\_002852952.1 MULTISPECIES: branched-chain amino acid ABC transporter permease [Campylobacter]

MDSTLFLQQLVNGLSLGSMYALIAVGYTMVYGVLRLINFAHGDIMMVGAYAALFCMTNLNVPFLGALSLA

MIFAACVGIATDRIAYKPLRQAPRISLLITAIGISFFLQNLFNMLFTSTPRTFTPPSYFEESVNFGGVIT

TYGSLMVPALTFVILIAVLWILYKSKYGIAIRALAFDIQTVNLMGIDANRIIAIVFALGSALAAVGGVFW

AANYYSVEPTMGTLIGLKAFAAAVLGGIGSVVGAVLGGLIIGFTEVVVVAFFPDLSGFKDAFAFIFLVFI

LLFRPTGILGINFEKSRF

>WP\_002852941.1 MULTISPECIES: hypothetical protein [Campylobacter]

MFKKFLIFIVPILFLSACATKQDTFAQVNQISKNSQCSSCESPGGFEAKIKGLLYISDVGIQCCANKRTL

DTGIALKKVYLHRFYDLKEGQKVLNAKGKKLFVDVNFNAVFYTYLKQELEARGIVVLDNNDQNSPYVSKI

DLEFISYGATQDAIGLHSKLVGVLQVSDINKNKKFTIRTKQDVQGFDDLKETTFYTHLLIKQMANKAASL

ISEL

>WP\_002852919.1 MULTISPECIES: membrane protein [Campylobacter]

MLEKIFESLLVRSRIVTILPVIFGLIGAFVLFFIASYDVLKVIFYTYNYFFDAGSNVDLHEDVVALIIGA

VDLYLMALVLFIFSFGVYELFISEIEEFKQTKQSKVLEVHSLDQLKDKLAKVIIMVLVVNFFQRVLQMKF

ATPVDMAFLAGSILALCVGLYFLHKGGH

>WP\_002852890.1 MULTISPECIES: leucine--tRNA ligase [Campylobacter]

MAYEASLIEKKWQKIWDENEYFEPKDDLNLPKKYILSMFPYPSGRIHMGHVRNYTIGDALARYYRKIGFN

VLHPIGFDSFGMPAENAAIKHKIHPKSWTYENIAYMKKELFSLGFSFSKKRMLATSDPLYTKFEQEFFIK

MFEKGLIYTKEANVNWCEQDQTVLANEQVEDGKCWRCGHEVVQKKMPGYYVKITAYAEELLKDLEELKDK

WPNQVLTMQENWIGKSEGLEFSLNLDEESKQKTKESSLEVFTTRADTIYGVSYIALAPEHKIVQNLLSQN

LLNQDVLNKIKVIQNQSPRERQSSEKEGYFLGIYAIHPLSGEKIPLWVANFVLADYGSGAVMAVPAHDER

DFEFATKYNLAIKQVIQTQENLPYMQKLGKLINSQEFDNLDCNEARLKIISQFEAKNIGKRVVNFKIRDW

GVSRQRYWGAPIPMIKCQSCGIVPQKLENLPITLPEDVQITGEGNPLDKHPTWKNCICPKCGKEAQKESD

TLDTFFESSWYFARFASDEKTWQEKALDEKSVKYWMSVDQYIGGIEHAILHLLYARFFQKALRDLGYLTQ

NEPFDRLLTQGMVLKDGAKMSKSKGNVVDPDEIIEKYGADTARLFILFAAPPAKELEWNDDAVEGAYRFI

CKLYDRAQNVKKGELVELKQENLNKEEKYARLKVYEALKKSFEVYHQSFAFNTLIAACMEALNALALCKN

EALEQEAFYIILNILEPIIPHVCFELSEELFKCKNFKKLELKEEVFVKDTLNLAVSINGKKRAEFEISSS

ASKEEILAFAKENTAKWLEGKSIVKEIYVEGKLVNLVIK

>WP\_002852885.1 MULTISPECIES: N,N'-diacetylbacillosaminyl-diphospho-undecaprenol alpha-1,3-N-acetylgalactosaminyltransferase [Campylobacter]

MRIGFLSHAGASIYHFRMPIIKALKDRKDEVFVIVPQDEYTQKLRDLGLKVIVYEFSRASLNPFVVLKNF

FYLAKVLKNLNLDFIQSAAHKSNTFGILAAKWAKIPYRFALVEGLGSFYIDQGFKANLVRFVINSLYKLS

FKFAHQFIFVNESNAEFMRNLGLKENKICVIKSVGINLKKFFPIYVESEKKELFWKNLNIDKKPIVLMIA

RALWHKGVKEFYESATMLKDKANFVLVGGRDENPSCASLEFLNSGAVHYLGARSDIVELLQNCDIFVLPS

YKEGFPVSVLEAKACGKAIVVSDCEGCVEAISNAYDGLWAKTKNAKDLSEKISLLLEDEKLRLNLAKNAA

QDALQYDENIIAQRYLKLYDRVIKNV

>WP\_002852871.1 MULTISPECIES: membrane protein [Campylobacter]

MYIKDIQRFEDNRYRARAYMSYILTRNLPNKLPDIHLETIKTALDKIAHEVVVFDALYILDISGMQIENA

ISLNKAHEIGQGEDRSTRSYFYRAVKLRRCVLSDPYPSVLNNELCVTASMPIYDDKNNLLFVVCIDIKLE

DILKIIQAGKFEFVFTQFSRLVYFCFALVLFVITCFLFQKGFFSLFDNQAIGIEHMFESTIAITLALAIF

DLAKTLIEQEVLGRTKKEEGGIQKTMVRFLGSIIIALAIEALMLVFKLAIGDLSQMIYAIYLIGGVSLLL

LGLSVYLFTVKYKNNNI

>WP\_002852865.1 MULTISPECIES: UDP-N-acetylbacillosamine N-acetyltransferase [Campylobacter]

MARTEKIYIYGASGHGLVCEDVAKNMGYKECIFLDDFKGMKFESTLPKYDFFIAIGNNEIRKKIYQKISE

NGFKIVNLIHKSALISPSAIVEENAGILIMPYVVINAKAKIEKGVILNTSSVIEHECVIGEFSHVSVGAK

CAGNVKIGKNCFLGINSCVLPNLSLADDSILGGGATLVKNQDEKGVFVGVPAKRM

>WP\_002852861.1 MULTISPECIES: SsrA-binding protein [Campylobacter]

MKIIARNKKALFDYSIIERFEAGIVLKGSEVVALRAGRANLKDSFVRIIKNEIFLLNSHISLLHTTHSFY

KHEERGARKLLMHRKQIDKLLGKVSIEGYTIVALDLYFNTKNKVKATLALAKGKNLHDKRETLKKKQADL

EARAAMKNYK

>WP\_002852858.1 MULTISPECIES: cation transporter [Campylobacter]

MYKFLSHEPLANKSCHHNHEEHSHEHHHSHADARSVDKKILKISLLMTFSMMLVQFIYSILSNSLALLSD

TLHMFSDVFALALSFLAIIAVEKWQDHQKTFGYFRLEVLVAFINALTIILSALFIIYEAIEKFINPKEID

AKTMIIVAILGFLVNGINALMMFKGANLENVNMKSAFLHMMSDLLGSLAVIIGGIVVYFSDIVYIDTILA

IVLSILLLRWAIILLKQSANVLLESSPVDIEKVRQVLLLNPSVDEVVDLHITQITNKMLVASMHLKVRVC

NLKEFEKLSQDLSHKLLHEFEIGHITIQPIRSENEI

>WP\_002852856.1 MULTISPECIES: membrane protein [Campylobacter]

MIYILEFFKGASLALMLFGALFFFFKYNSFFYLCLGIIPGLLLSLIFVLLIENHKLKNENKLR

>WP\_002852854.1 MULTISPECIES: carbon storage regulator [Campylobacter]

MLILSRKENESIIIGEGIEIKVVQTGKGYAKIGIEAPKSLMILRKELVQQVKDENLHSVVQNDIKLDDLS

KKLIK

>WP\_002852852.1 MULTISPECIES: transcription termination factor Rho [Campylobacter]

MEKEKKQHQRTHVPVEGYKIEELKLLDLENLVKIANECEIENPREFRRQELIFEILKAQTKKGGFILFTG

ILEISSEGYGFLRGMDSNLSDSVNDAYVSNSQIKKFALRVGDIVTGQVREPKDQEKYYALLKIEAINYLP

LQEAKERPLFDNLTPIFPTEKIKLEYDAMKLTGRVLDLFTPIGKGQRGLIVAPPRTGKTELMKELATAIA

KNHPEMHLIVLLVDERPEEVTDMQRCVKGEVFSSTFDLPAYNHVRVAELVIEKAKRMVETGKDVIILLDS

ITRLARAYNTATPSSGKVLSGGVDANALHKPKRFFGAARNIENGGSLTIVATALIDTGSRMDDVIFEEFK

GTGNSEIVLDRNIADRRIYPAINIIKSGTRKEELLQGVANLQKIWAIRSAISQMDDVEALKFLYSKMLKT

KDNVELLSIMNE

>WP\_002852850.1 MULTISPECIES: C4-dicarboxylate ABC transporter [Campylobacter]

METLSQTLAERKPPLYKRIIKSLGFWVIIGIITGIVLGYTDKELAIASKPGVDYFIGALKVLIGPIIFVT

LVLGIISLESLKKVGSIGAKAVIYFEVVSTLALAIGIFMANVMQPGHGMNLDPSQLDTKSVQKYISQTTE

VSASSEIMHILKDAMPTDIITPFTEGKTIQVLVIAIITALIISLMRIEDKQAIQRVFEVVQNFVFKILQI

IMYFSPIAAFSAMAVLIAQYGIGSLINLAYLLLVMLISCLVFIFGILGLICYFAKVNIFKFMRFISREVL

IVFATSSSESALAPLMRKLEKAGLSKATVGLVLPTGYSFNLDCTNIYLAMSLIFLAQAFNVNLSLAHEIS

ILIVLMIASKGAVGVTGSGFIVLGSTLAALGNMEISEANATLAQVLPVAAIGVLLGVDKFMSEMRAVGNL

CGNSVAALIVAIWDKQIDWEKFRYAMDNPEKFHNAGMN

>WP\_002852844.1 MULTISPECIES: hypothetical protein [Campylobacter]

MAITSPVIYHIGYIAIILFETFIALTALKKVLMICLKLEI

>WP\_002852760.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKFKVKNVNCMNCVNLIKNSLEDEFGNIEVDLEQKILSLNLEENQVSNFTKEFQDLGFEIVERL

>WP\_002852748.1 MULTISPECIES: ATP-binding protein [Campylobacter]

MDWNKTYAAIYRARKDYLKPIFEIDPIALKDLVGMESQKKALYENTLNFIQDKGANHALLWGSKGTGKSS

LIKAIFNEFKEQGLRLVELNKEDLFALADIIDEIRLENFKFILFCDDFSFEKGDDSYKFLKPLLEGSIEK

APNNVIIYASSNRRHLLSESITDNLDTQITHTELHLSDAAEERLSLSDRFGLWLSFYQGNLEEYLKMIDF

YFKDYSCDKELLHAKAKEFATLRASRSGRTAKQFYLAFKENFK

>WP\_002852743.1 MULTISPECIES: ATP-dependent Clp protease ClpA [Campylobacter]

MKYQENLQKYLDNAKNLSLINHHEFVTCEHVLFALLKLSTDFKDIFEEFSDGDLELLETELKNYISQNNQ

VIKQEIEPTISVVLDEILLSSKNKNNEIKIIDFLEKLIQDSRSYSSYLLKKHNINLNKIQELQNHENIQN

LNNHTSDLTLLAQNGKIDPLIGRKFELERMMQILSRRKKNNPILVGEAGVGKTAIVEGLALAIAEKKVPK

NLQNAKIFSLDMASILAGTKYRGDFEKRIKEILSELEKIPNAILFIDEIHTIVGAGSTGESHTDFSNLLK

PALSNGTLKCIGATTFMEYKNTFDKNKPLSRRFAKINVDEPSQEESLQILKGLKNKYEEFHHIKLNDEIL

QYAVIWGKKFFNDKFLPDSAIDLIDELGASFALNPRAKKNANLKDLENVLAKMTHHHKMFEFDQNKALMN

LKTNLKAKIFGQDEVIDSLVSSLKQSFAGFKNSNTPRGVFLFTGSSGVGKTELCKALAEFLGLNLERFDM

SEYAEKHAISKLIGSPAGYIGFEEGGLLSNAIRKNPFSLVLFDEIEKAHPDLSNTFLQIFDNAELTDNSG

LKVDFKNTIIIMTSNLGLKESNELGFLSKNEEKSNRAIKDFFAPEFINRIDKILHFNDLNDAILVKIIEK

ELDEISKNLNNIKLSVDDKAKIYLAKKAYNKEFGVRLLKRIISEEIGEKISDEILFGKLKKGGIAKIKLG

KNEKLEFIF

>WP\_002852708.1 MULTISPECIES: chemotaxis protein [Campylobacter]

MFGAKKNNTKIIEQLEKKCNGLGDILRSIGNTMAVIEFTTDGVILEANQNFLTTMKYSLSEIKGKHHSMF

CLPEVVNSSAYSDFWKDLRDGKARSGLFRRIAKGGIDVYLEANYLPISDNNGYVYKIIKFANDITQRHYE

MLDLRNTIAAANRSMAIIEFKPDGTIITANENFLRAMDFNIDEIKGKHHSMFCDSNYRHSKDYVQFWEDL

REGKFQSGKYIRYGRNNKKVYLEASYNPVKNDDGKIYKVIKFATDISEQVKKDQEKLRLISELAEKNDNL

TQDGDRVIENTVSNVQNIADMMSQSSNLVSSLNQQSDEIKSIIQTISDIADQTNLLALNAAIEAARAGEH

GRGFAVVADEVRNLAERTGHSVNEITTTINSIRNVTSQVVESIKSGLEDVNQSVELAKEARECMEKIRES

SAEVAKAMS

>WP\_002852692.1 MULTISPECIES: hypothetical protein [Campylobacter]

MFKTIVCFLALNLSLFAVGFDLKPIKSELVKVDDIYGYIKDSDDIKLYSSGVVVQHFSNSQSIIARASVI

DKKNGLAKLEFSVFSALKQDALPLPNVLPKVGDEVVLNFLYDRGLVIAPDEQTYNELVREFPQIYFTHID

IFGAQLIRTATLSPKRSDFRQFCDDNAVGILVVALENHAEVVDCQDFNKLYEVPISKPTSVQVPFYSRIG

GYKSNFFDFNSQEIGNYYRYYDALINLPKVQ

>WP\_002852685.1 MULTISPECIES: lipoprotein [Campylobacter]

MKKILIFCIGLFLGACGYIPTSKIANNIFDEKVYVNVELSQQDPKNSIYVADTLKEMVISKLGRKLALKH

EADDVINVKMNNLEFIPLAYDKNGYVISYKAKLNLDFNVVFKDGSSQAFSTSGSYNFEISPNSIISDSAR

YEAIRAASSEAFDEFISVIAIKGQKRDSKY

>WP\_002852650.1 MULTISPECIES: membrane protein [Campylobacter]

MEEFYPYTLTIHLLCAILFIGYLFVDVFVLGVVKKKNPNFDKSLFSATGVKIMPFVVLLLFLSGGALAGF

HFKPLNLLFAVKIILAFGILSLVVFSLFCHFILKKKNPLGVFIHPFVFVLCIAIVILAKLMNYFFIPC

>WP\_002852646.1 MULTISPECIES: oxidoreductase [Campylobacter]

MKTAFITGASSGFGRACVEAFIQEGYKAIALARRKERLEELKNAYKDKIYTLCIDVRNQKEIFEAIENLP

KEFQEIDVLFNNAGLALGVDEFDKLNLEDINTMVDTNIKGFLYVAKAIIPILRKQKNAYIFNLGSVAGRN

PYFGGNVYCGTKAFVGQFSLALRNDLRGSNIKVTNIAPGLCKTEFSEVRFKGDIQKADAVYENTQFISAN

DIAKVVMSIINLPSHINVNEIELMPVTQTWNGFYIERDE

>WP\_002852641.1 MULTISPECIES: hypothetical protein [Campylobacter]

MSKIKRSIKKAVALGYQKEKNSAPKVLASGKGESAAKIISLAKEHGVPIKEDEDLIEILSKLDLGDEIPP

NMYKAVAEVFAFIYQMANKTPKN

>WP\_002852639.1 MULTISPECIES: methionine--tRNA ligase [Campylobacter]

MRYITTPIYYVNDVPHLGHAYTTIIADTLARFYRLQGHETRFLTGTDEHGQKIEEAAKLRNSTPQEYADK

ISFEFKKLWDEFEITYDIYARTTDTRHIEFIKAMFLKMWQKGDIYKDEYEGHYCISCESFFTQSQLINDC

SCPDCGKQTRILKEESYFFKLSKYQDKILQWYEEKDPILPKNKKNELINFVQNGLKDLSITRTSFDWGIK

LPQEINDDKHIIYVWLDALFIYVSSLDFQNKGENAKFWPAHVHLVGKDILRFHAIYWPAFLMSVDLPLPK

FIGAHGWWTKEGEKMSKSKGNVVKPKEVVDAYGSEAFRYFLLREVPFGNDGDFSENMLINRINAELSNEF

GNLLNRIIGMSTKYSQGNISKEGVLKFYNAELNQAKEHLNLAVEFLENLQCNRYLEELFKALSVANLAIS

KYEPWSLIKENKHEQANALVALCANILAKTSLLLSPTLPKSSQKVALALNFEISSANYTKMILDNELLDF

KANPCEALFPKVEKALLKQEIKEEPKKEESPKIKIDDFAKIEIKVAKVLDCQNIEGSEKLLKFQLELDDK

EIRQVLSGIAKYYKASDLIGKQVCVISNLKKAKIFGHESDGMILSAKSGDKLVLIAPEQLVQNGSLVG

>WP\_002852626.1 MULTISPECIES: ATPase [Campylobacter]

MALDEKIIAYTENPARELLSVASRTNLSLNELDFSLLAFSTQYRFGDLEWEKISEKELTLFDKDEIFLKN

DLQIKQEYKIEIFHGINQSKASQAVKLVANKNLTKIVAQIDFTNLDFHEKLALELLQNIYKKMLKLKFLI

GIRIFDFKKKLMSFCNQYKNTPLNKTIQITVAQGIDPIESQDESLILTYKEKTKNYTIDEKRSGIIVVDE

NEVVLKHVKFKQGKEGKDLNLHTLKVLAANENKVKFSCSSAFKQVEQDGYTEYIALKKGYVVQDGEKFDI

ANELDFNGVDFKNIGIIRAGLDKNVKINIKFLSEVKDAVNSGVGIECEELNVVGSVGSNTQLNATKMKIE

GTTHSKAKIQAKQAYIKTHRGFAEAEILNIDLLEGGTIKAKEVRIKKSLGGNIQADKIYIENLESNNSCV

FFENTTIERINGDNNKFHAKIKTLDKNYDEEFAILGEQISKLNHKINKIRQYILSSKNGILSVEKKITEL

KNQGQNVPVQYEKALKDFSLQNLELNKLQNEEKELLERKKSLQLELINLQKMLFEATFINKSGKWTDMNE

IKFSLLEPKEDIFCSSFVNESAKFIGIKKVIQNNQESIEIHKKLDYEEKDIAWLSASKE

>WP\_002852619.1 MULTISPECIES: methionine import ATP-binding protein MetN [Campylobacter]

MIKIKNLKKYYGKELVINDVSLEIKKGEIYAIVGHSGAGKSTLLRCINGLENYQEGSLKVFDQEIKDLSQ

KKSKELRMLRKDIGMIFQNFALMERKNVFENVAMPLRTHYTQCKFHAKLFNKEYMSEKEIAQKVNSLLEI

VGLDHKNKSYPRELSGGQKQRVAIARALALNPKILLSDEATSALDPNTTKNILELISKINAEFGITVVLV

THEMDVVKDIAQKALLLEHGQIIGSGAIDELFLRPNAKMKEFLGESDFLPEHGLNIKLYFPKEVAQNSVI

THMARTLNIDFNIVWGKIEKLNGKALGNLVININEKDKDKVLDYIEKSGVLWEVAS

>WP\_002852609.1 MULTISPECIES: transcriptional regulator [Campylobacter]

MLFTKASEYALLSLIYISQKETPQDVDSLALELDIPKSFLAKILQTLAKDGLLKSFKGAKGGFVLIKEPS

QYTIKEIVNSAEKKDISVFECSGGTCPNNKEENCTLMPMLVNLQNKVDEFLDSITLEDIMKNNGKK

>WP\_002852585.1 MULTISPECIES: 4-hydroxy-3-methylbut-2-enyl diphosphate reductase [Campylobacter]

MIIELAKNYGFCFGVKRAIKKAEQIKDAATIGPLIHNNEEISRLQKNFNVKTLENIQALSNEKKAIIRTH

GITKQDLEELRKKDIEIFDATCPFVTKPQQICEQMSKEGYEVVIFGDENHPEVKGVKSYVSTKAYVVLDK

KELQNIKLPNKIAVVSQTTKKPEHFMEIVNFLILKTKEVRVFNTICDATFKNQDAIKELSLKSDVMVVVG

GKNSANTKQLFLIAKTNCEDSYLIETEEELKKEWFLDKKHCGISAGASTPDWIIQKVIAKIENFRIN

>WP\_002852582.1 MULTISPECIES: tetraacyldisaccharide 4'-kinase [Campylobacter]

MNEEKNYELWLDNYFFKPNFWQKCLAFILLPLSVLYAFFAILNTFFRKKIVFKKPVISVGNLSFGGNGKT

PLCKAIAREFDGVFIVLRGYKRKSKGLFVVKNQNEILCTLTQSGDEAMEYAFEENIKGVIVSEDRVKGIE

KAFELGAKIVVLDDAFSKFHIKKFDILLESKIKPYFNFTLPSGAYRLPKFYEKRADFIALEGRDFVRYSF

VKENPKAVLVTAIAKPFRLYEHFIKARACYFFKDHYEFKKEELENLLKKHNCDTLMLTFKDFVKVKDFGF

KCQIIELNIELKDSLREKIKTYIKEFEQ

>WP\_002852579.1 MULTISPECIES: 30S ribosomal protein S15 [Campylobacter]

MALDSAKKAEIVAKFAKKPGDTGSTEVQVALLTARIAELTEHLKIYKKDFSSRLGLLKLVGQRKRLLSYL

KRKDYNSYSKLITELNLRDK

>WP\_002852577.1 MULTISPECIES: 3-phosphoshikimate 1-carboxyvinyltransferase [Campylobacter]

MKIYKLQTPVNAILENIAADKSISHRFAIFSLLTQEENKAQNYLLAQDTLNTLEIIKNLGAKIEQKDSCV

KIIPPKEILSPNCILDCGNSGTAMRLMIGFLAGISGFFVLSGDKYLNNRPMRRISKPLTQIGARIYGRNE

ANLAPLCIEGQKLKAFNFKSEISSAQVKTAMILSAFRADNVCTFSEISLSRNHSENMLKAMKAPIRVSND

GLSLEINPLKKPLKAQNIIIPNDPSSAFYFVLAAIILPKSQIILKNILLNPTRIEAYKILQKMGAKLEMT

ITQNDFETIGEIRVESSKLNGIEVKDNIAWLIDEAPALAIAFALAKGKSSLINAKELRVKESDRIAVMVE

NLKLCGVEARELDDGFEIEGGCELKSSKIKSYGDHRIAMSFAILGLLCGIEIDDSDCIKTSFPNFIEILS

NLGARIDY

>WP\_002852574.1 MULTISPECIES: 4-hydroxy-tetrahydrodipicolinate synthase [Campylobacter]

MDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAVETC

KGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLYNVP

GRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNGGKGVISVT

SNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFRLPLCSPSK

ENFAKIEEVMKKYKIKGF

>WP\_002852565.1 MULTISPECIES: isoprenyl transferase [Campylobacter]

MNELKHLAVVMDGNRRWARAKGFLAKLGYSQGVKTMQKLMEVCMEENISNLSLFAFSTENWKRPKDEIDF

IFELLDRCLDEALEKFEKNNVRLRAIGDLSRLEDKVREKITLVEEKTKHCDALCVNLAISYGARDEIIRA

AKRVIEKKLELNEENLTQNLDLPLDVDLMLRVGNAKRLSNFLLWQCSYAEIYFSETLFPSLTKREFKRII

KEFRNRERTFGK

>WP\_002852541.1 MULTISPECIES: histidine--tRNA ligase [Campylobacter]

MINALKGMKDLLDKDAYYYEKVIKICEEVAKNYGFTFINTPHLELCTLFKRSVGESSDIVGKEMYEFIDK

GENHVCMRPEGTAGVVRAYIEKKLDKNTSVKRWFYYGSMFRYERPQKGRLREFHQFGVESLGIPNVYEDA

SIILMLVEIFSRLGIDFKLQLNSLGCSQCLPKYRDRLVEFLDSKEGFCEDCLRRKNLNPIRVLDCKNEHC

QNLLENAPLLINNLCTSCQKDFETLQQILKDNGVKFELDSKLVRGLDYYSKTAFEFISDEIGAKAAIAGG

GRYDRLIEYLGGKSGYGIGFAMGIERIITILEQKEEKIQREGIYLCAMDEIYIQKLLHIATNLRKEYKVL

LSYEARKLAKHLENADKNNTEIFLCMGENEAQNESLFYKNLAKKEEKMIKISDLKKVL

>WP\_002852538.1 MULTISPECIES: flagellin [Campylobacter]

MRITNKLNFTNSVNNSMGGQSALYQISQQLASGLKIQNSYEDASTYIDNTRLEYEIKTLEQVKESTSRAQ

EMTQNSMKALQDMVKLLEDFKVKVTQAASDSNSQTSREAIAKELERIKESIVQLANTSVNGQYLFAGSQV

ANKPFDSNGNYYGDKNNINVVTGAGTESPYNIPGWDLFFKADGDYKKQISTNVSFTDNRWDLNKDPDKTK

YLTGDSKWQQLIGQSYVKDNSLDADKDFEYDDSKLDFPPTTLYVQGTRPDGTSFKSAVLVKPEDTLEDVM

ENIGALYGNTPNNKVVEVSMNDSGQIQITDLKQGNNKLDFHAVAFTPQADDKTELNNIIQAAQDEGITME

DVTNRVMTAALGNPNNGDITNLNNPVTIQINGQNFEIDLKQTDFIKSKMTDTDGNAANGADYDNVYFEKN

GNTVYGNVSQVIKGSNAYATDSTKLSEVMAGDSLNGTTLNLKVNSKGGNSYDVTINLQTSTVSYPDPNNP

GQTISFPIMHTNPATGNSGVVTGSNDITYGQINDIIGMFAADKIPTTTIQANNGQINNADYTQIQQLMKD

SQATVDVSMDYKGRISVTDKLSSGTNIEISLSDSQSGQFPAPPFTTTSTVQNGPNFSFSANNSLTIDEPN

VDIIKDLDSMIDAVLKGNMRADSESENPRNTGMQGALERLDHLADHVSKLNTTMGAYHNTIEGVNTRTSF

LSVNVQSIKSNVIDVDYGEAMMNLMQVQLAYQASLKASTTISQLSLLNYM

>WP\_002852520.1 MULTISPECIES: 30S ribosomal protein S1 [Campylobacter]

MSEVNKKVQDGVDDYLEEEDFGQLLEAFDKSREEATTEGVIVEIKNDEVYVDIGKKSEGILALSEIQGDN

SKLLFNVGDSIKVAVMGSRGGRSLLSHKKALRKEKVIEFIKNYQENQDDIFTVKVVGKNKGGLIVVDEND

VEFFLPKSQYGFKETNNIIGKTFKVKIIKIDKDEQSIIVSRKKTLDDERRKRKELINNVAQQEDLIEGIV

KKITTYGMFVDVGGVDGLVHYSEISYKGPVNPGTLYKEGDKVPVKVIKYDKERKHLSLSIKAALPDPWSE

IKDTLDIGDTIKVIVSNIEPYGAFVDLGNDIEGFLHISEISWDKNIKNPKDYINKGQEIDVEVIEINPNE

RRLRVSLRNLLSRPFDEFMKSYKIADVVEGEITSVTSFGAFVKLGGIEGLLHNEDASWDRNDKCKDKFSQ

GDKIKVKIIKIDEENQKISLSTKELSSSPVQEYAKIHKVGDIVKGAIRDIKDFGVFVELSKNVDALIHKE

DISTSMLENLKIGDDIEAAIVFIDEKKNRIRLSVKNLVRIKEREVLNEINNDDKVTLGDIIKDQLA

>WP\_002852516.1 MULTISPECIES: D-alanine--D-alanine ligase [Campylobacter]

MKFAILFGGNSYEHEISIVSAVVLKKVINQNLEFIFCDEERRFYHIPSEKMNSKTFSTKAYKKEKELFIK

QGGFFSKGFLKENKLECECVINLIHGRDGEDGKIAALFEFYSIKFIGPRLEASVLSFNKELTKLYAKSVG

VKTLDYTILRKNQNSKEKLSFPCIIKPARLGSSIGISIVKDEKDLEYAKDVGFEFDNDLVVEEFKNNIKE

YNLAGCMINDEFVFSIIEEPKKKEFLDFEQKYLSFSGHNELIEADLSEELKEKLKDSFKKIYNPLFKGAL

IRCDFFILDNEIYLNEINPNPGSLANYLFKDFNTTLNALADQISLEKMIKINYNFLHSINGQKGKL

>WP\_002852502.1 MULTISPECIES: 3-deoxy-manno-octulosonate cytidylyltransferase [Campylobacter]

MIIIPARLKSSRFHEKILCDIGGVPMFVATARRVSSVDEVCIALDDEKVLSIAKEYGLNAVLTSKDHESG

TDRINEACKKLALKDDEIIINVQADEPFIECENLLKFKEFASFCLDKKAFMASCYKKITQEEAMDPNLVK

VLCDKEGYALYFSRAKIPYERENYEESFKGHLGIYAYSVKALREFCSLSSSALERAEKLEQLRAIENGKK

IKMLEISTTSMGIDTKEDYERALKIYLEK

>WP\_002852494.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLKRLALLIALSSLMLHASDLVKIYLNQGLDAVGVAIEKELTQKDFWLSEIGDKNISLGYYDDNVAIVLT

NKTDKILRVYSYEDGKIRKDFEQKEIITGLMGDKKIEGDLKTPVGFYELGRKFNPGDPYYGPFAFATTYP

NLLDKVQGKTGGGIWIHGYPLDGSRLDEFKTRGCIALFNNNLEKFAKVVQDKKVFVMTEEKEKIRAKKDQ

IASLLADLFTWKLAWTNSDTNAYLSFYDEQEFKRFDKMKFEQFASMKKSIFSRKEDKKIKFSDINISPYP

NLENETMYRISFYEDYYTKNYRFRGDKILYVKIDSKGKMKILAEQ

>WP\_002852485.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKIVLMFFLFSISLFGADFITLKEYSKMLYENPRGISCKECHGADGSEQILGYYMKNGIKTAYKVPSIQN

LSFENFKNSLNQSKDAKSIMPNYSLTNDEIVTLYNYIKQFSKEEK

>WP\_002852474.1 MULTISPECIES: thiol:disulfide interchange protein [Campylobacter]

MKFPVKLARSIVVCAFLAGISASALSEGKEYVILKNPIANADNYSVGLKAMNVSKADFENFLKTPEAAEL

LKSYEIANPISQNYGTPAFVVNGKYQIVPSAINSPEALIEITKELSKQK

>WP\_002852466.1 MULTISPECIES: aromatic acid decarboxylase [Campylobacter]

MKVLLGISGSSSVNLGLKLLKNLENQCELYCILTQGAKLNFKTENQANLEEICQENFKYTHFLDDKNLSL

SVASGSFGIEKTIIAPCSISSLAKIHAGFADTLLMRAAAVALKERKKLILGVREMPFSTLNLEHMLKLSQ

MGVIIAPPIIASYSKANNLEQMENFIAGKWLDLLEIKHNLYEKWQNF

>WP\_002852462.1 MULTISPECIES: UDP-N-acetylmuramoyl-tripeptide--D-alanyl-D-alanine ligase [Campylobacter]

MLINTLYFINSLFFNFCIAFYLMSALQWYSYKFKRVFFHYHKPLWHLYFLFIPYFLFLAFPLYSLVYFAL

IHTPILYFWNKGIDKKLVFTSKVKWFFVFVFVYNAIFTILALRFSFLFNLFSLPFALLSLKIYEFFTNLY

YKKQAKAKLRANENLKIILITASFGKTSIKNFLYELLKDDFKSYKTPRSVNTLLGIVADINANLSQDTQI

YIAEAGARLKGDIDEITHFLQPQISIVGEIGNAHLEYFKSVENIRSTKLEALNSERLEKAFLHSSTQKEE

DKLISLYDDKLSLIHSSLEGLEFKVDIENKSYDFKSQILGDFNAQNLCVCILCAHYLGIKLEKIQKQVLN

INSVEHRLQVLSREPKFIIDDGFNGNFKGMSTSYKLCKSYKGRKVLVSPGIVEVSEEENIKLAKIINECF

DLAIISAQINAEIFKKELKIKTIILKEKSQLVQTLAKETKHGDLILFSNDAPSFM

>WP\_002852459.1 MULTISPECIES: sodium:proton antiporter [Campylobacter]

MNKFLVSLFLPLVAFANSSEAAANANLFGAFTLIPPLVAIALAFITKDVILSLFTGVLSGTFLLSLSTNI

FKAQHLTFVNYYNTTVESFSKIISYILGSTSDPVNAGIILQILCIGGLVALITKMGGAKAVALKFAKRAK

SAVSAQVNTWFLGLLIFFDDYANLLIVGPIMRPLADKFKISREKFAFIIDSTAAPVAGIAVISTWIGLEV

SLIKTAYEHIGISNISAFGIFVETIPYRFYNIFMLFFVVMTAIMGREFGSMYKAEVRARTTGQIAPLPKS

GTLDTTELEDQFLAPKEGIKIRAFDAIVPIFTLIILAILGFYFNGLSTLEGEELAKASTNPLSFETFRAA

FGNADSSVVLFQAALFAAIVAIFIGVRRKIFNLKEAVETWIYGWKTMIFTIVLLLFAWSLSSIVKDLGTS

LFITSLLADKLPEFILPATIFAFASAISFAIGTSYGTMGILMPLAVPLAHEIAKINGMDANAMHHYMVIN

ISCVLTGAIFGNHCSPISDNVILSSMSAKCDHMEHVRTQIPYALFICGISLIAGYIPVSLGLSVWFVLPL

NFILIALLLRLIGKKVP

>WP\_002852452.1 MULTISPECIES: phosphatidylserine decarboxylase proenzyme [Campylobacter]

MSFSKESSRLFGFVAGIKFPKMIQKVINENYVKYFNINMSEFKAPCEYESLNALFTRTLQIPRKFEEGFI

SPSDGKILECGSTFLANEEHFAFSIKGHAYSVEELLKDSFEKDELKNGLDYVNIYLSPKDYHRYHSPCDM

QILSATYTSGVLYSVNEKHLERISNLYVKNERVSLKCQNEKGIFWLVFVGAQNVGKMRFNFDASIQTNAK

ISHNFTRKYENLNFKKGEELGNFELGSTIVLISQKGLLTFNLKVGQGIKFGEKIAD

>WP\_002852451.1 MULTISPECIES: threonine synthase [Campylobacter]

MKLVESRNVNNVSSFKEALINPNAPEGGLYSPLNLPIFEGEKYANLSYKDFALKLIESFGFGEEELFKKA

LKSYESFDDKNTPISLQKISEKTYINELWHGPTRAFKDMALQPFGVLLSEFSKDKNILIICATSGDTGPA

TLKSFENAKNVKVACMYPKGGTSGVQELQMRALDKDNLKVFAIDEDFDAAQRTLKELLFSKDFQNEIKAL

NYELCAANSVNFGRILFQIIYHYYASLKLFNEFLEEVQIIVPSGNFGNALGAFYAKKMGAKISKIKIASN

ANNILSEFFNQGVYDLREKSLKKTISPAMDILISSNIERLLFAKFKDKRTKELMNLLKNERYFKLEKEEL

QSLQEDFEADFCTDEECMQFIKQSKILIDPHTATCFKMLDPLKPSIITSTAEWTKFTPSMIKALYDRDSK

NEKEDLKFIAKEFNVQVKDEILALFDLKNSDEKVFEARNIKKEILDWMQK

>WP\_002852445.1 MULTISPECIES: hypothetical protein [Campylobacter]

MRKIIFILAFAFVIAILYIIFDFYVIKDSQKITKTDFSTPLTCDLNVKDCTYSFNNKKVLISLNPKPLQS

LDVTNLKIVNLGNYNNLGIKIYGLNMYMGEIKPKIHRLNSTDYESKIVLAACVLDTMRFRVEFMDNNKPI

GFYFDFELKK

>WP\_002852438.1 MULTISPECIES: hypothetical protein [Campylobacter]

MIRNFFIGMSFLGILFLAFYTLYDKKKESIFSLNTCQPLTCDLNLQDCVFSFNKKNIEVSAYPKPIKIFN

KTTIKIKNFPHYSNLKIKIYSLNSYIGDIIPKFNIVNGDILINFIGRSITDDSRFRVEFLNNNAPTGFFF

DFDVTMQKNFQTGNTH

>WP\_002852437.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKCILIFFSLYSLSFANIYEKLNDFAYEKKPNKDFKIQEVKLVQFSQENKDCLELLIEASQVRILNSYN

SCQKLSKDESFQKFLNEDFLKLYKNNGYLINENLQNLKNTMQDIMIYYKLRYSFSKDVKDMSKNKNLDIL

NIDEKDGGTLLYKINNQACVGIELTRHDSRMAMKIYGIENLDKECKLFIQSPSFKDLSYTKKDFKWYYLE

>WP\_002852435.1 MULTISPECIES: oxidoreductase [Campylobacter]

MNNLSSVLILAKEEYINDLKKAISEIPFCSVELCENEKIIVVIESENLEDELNSYKMLEKLPNIISINMV

FSYQDLNDDIQKAINSGAIETIEKNENAENVRYYGSVFNQFS

>WP\_002852423.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKYITISILSILLLILLAVVFTLLWQFKANVNFIPQFAKDTNTQPSIQTQNQDLSWQEELAKWPTRDFT

PAAEKFTLYFDADTSELKEKNKYYQLIVGKYDIYSMFCLRQTLNSFNVKYFLLKSGHSPEIFLDTGNEKL

IDDIIKELKKYKINTEVKEIWL

>WP\_002852414.1 MULTISPECIES: membrane protein [Campylobacter]

MSNILKEEKNHLENSNSKRQKIIRKTLEAADGLSLGISMVVAVFIGVGIGYLLKKFTPYPWLFWLGVFWG

ISAAILNVYKAYKVQVKSYEEFKERDELIKEKIQKEKNK

>WP\_002852403.1 MULTISPECIES: lipoprotein [Campylobacter]

MKKVAFFLLFLFLSCTVLNAAREYCKYAYQEDRAIPLILNYGIRLGVVGAGVANAPAPGGSTYNSKIDMM

AARCH

>WP\_002852394.1 MULTISPECIES: toluene tolerance protein [Campylobacter]

MKKIFLILTLFFNAFALQLDEISSTMQKNIDASLKLLQDNKEDKKQAANGIFKLFDSIIDYKLMAKLSLS

KNYSKLTPKEQEKFTTAFETSLKKSFTDKLSLYKDQVLKVKNGELKNEKRYFLTTSMVVDGEEKNIIFKF

YNDNNNWLIYDVDVLGVSIVQTYRSQFGDILANQGFDALLQKLESIVIE

>WP\_002852389.1 MULTISPECIES: nicotinate phosphoribosyltransferase [Campylobacter]

MIFYSYEEFKEDVKILAKEIKEDFNPDALLAIARGGMSLGHSLAVALKTRQLFALNSIHYDNTKKLDTIE

IFNIPDLSKHKKILLIDDIVDSGESLAEIKKVLLEKFPHIELKITTIFYKKTALLEPDFKVKEATEWVDF

YWDINLD

>WP\_002852385.1 MULTISPECIES: enterochelin ABC transporter substrate-binding protein [Campylobacter]

MKKSLVFAFFAFFLSLILTACNSNSNENNASSTTKTNTATVKVLPISMSDEGDSFLVKDSLGENKIPKNP

SKVVILDLGILDTFDALKLNDKVVGVPAKNLPKYLQQFKNKPSVGGVQQVDFEAINALKPDLIIISGRQS

KFYDKLKEIAPTLFVGLDNANFLSSFENNVLSVAKLYGLEKEALEKISDIKNEIEKAKSIVDEDKKALII

LTNSNKISAFGPQSRFGIIHDVLGINAVDENIKVGTHGKSINSEFILEKNPDYIFVVDRNVILGNKERAQ

GILDNALVAKTKAAQNKKIIYLDPEYWYLASGNGLESLKTMILEIKNAVK

>WP\_002852367.1 MULTISPECIES: magnesium transporter CorA [Campylobacter]

MLYIYIKTQNALVQRINFNLDSQELPQNILWIDLLHPSAAEIAFISSEFNLEFPTKEEREEIELSAKYWE

DNATITINAHFLVRDLKSDEEDRNLIKLRTEIVTFATAKNILFTIRYNEFSTFEEIQARILASPKNFEDG

FDIIDKMFEVRVEKDADLLEWIDKEARRLRTSVLEKKDEYSYDEMLKDISSLQELNMRVRDSLFDKRRAM

TSLLKSDKIDKDIKQNLTIVLKDLNSLVEFSVSQLNILDNIQTILASQINIEQNKVIKIFTVATVAMMPP

TLIGTVYGMNFKFMPELELHYAYPIVLGVMVISIILPLVVFKKKGWL

>WP\_002852326.1 MULTISPECIES: amidohydrolase [Campylobacter]

MQKLVENLALKYYDKVVDLRHQIHMHPELEFEEENTAHLVCKILDEFGIKYQKNIAKTGILAIIEGKKKS

QKKPKCVLLRADMDALPVQEKTNLSYASKIDGKMHACGHDGHTAGLLGAALILNELKDEFCGTIKFMFQP

AEEGSGGAKPMIESGVLENPYVDAVFGCHLWGPLLENTAQIVSGEMMAGTDIFDLEFIGRGGHGAHPHTC

IDPIIMTTQFVNNIQSVISRRLAPYEAGVITVGQICAGTTYNVIPTNAYLKGTVRFLNDKTQDILKSSLE

EVAAATAKSNGGDYKLKYTKEFPPLINDEKAVLIARKAFAKVLGEENIIVSSKPDMGAEDFAFLTRERMG

AYVFVGISKDLNHPALHHSSTFCWDDENLKVLMQGDVMMALEFLNL

>WP\_002852323.1 MULTISPECIES: ribosome maturation factor RimM [Campylobacter]

MSEKDFVQVAKLGKTVGLKGYVKLHNLSDFSSQFKKDATFFIKNTKEMLKIKHYNANNSTVLFENYEDIE

KAKELTNLILFQSIEKSRQTCKLKKDEFFYFDILECEVFEEDKRLGKVVDILETGASYLFEIQSDEKWVE

KKYPKIFFIPYLDKFVKNIDIEKRQIFCTQDAFLILENS

>WP\_002852315.1 MULTISPECIES: Nif3-like dinuclear metal center hexameric protein [Campylobacter]

MKLSEIYNFLDQLSPFNIQESWDNSGILLGDRDSEISTVYLSLDIDENIIKEASENSLIITHHPLIFKGL

KDLYDKTYPRAFIKEMIYKNISLISMHTNYDLSHLNTYFTEEILGFKISFKDKFLIYVENSMSFEALCDW

VKKKLNLQILRVSDCGKKDIKRIAICTGSGGDLISKVDADCFLSGDFKYHQALEALSNQISLIDLGHFES

ERYFSQCLAKDLKNLPLQVIITVSKNPFQYF

>WP\_002852307.1 MULTISPECIES: 50S ribosomal protein L19 [Campylobacter]

MKNKYIEQFEAKQIEGKNVPDFRAGDTLKLAIRIKEGDKTRIQNFEGICIARRGNGVSETFIVRKIGANN

VGVERIFPIYSESLESITVLRRGRVRRARLFYLRDRRGKAARIKELKK

>WP\_002852277.1 MULTISPECIES: 3-deoxy-D-manno-octulosonic acid transferase [Campylobacter]

MIFFYYFLTWTAFLFCAVFILLLSFLKSKYKISLKSRFFLYKNLHQEKADVHFHACSYGEVRSIKALVLK

FDSRITTITQTGFECAKEFCKKVNYLAFENFLPFWLKPCKVLVIFEAEYWLMLVFMARIYKAKIILLNAR

ISDKSYHSYQRFSFFYKKIFSYIDEVFAQSDLDKARLESLGAKNVKIFKNIKANLEIKNNKIYTKPKEKL

IIFASTHKDEEELLLDHFKLEENEKLIIAPRHPERFKEVENLLLNKGLEFEKFSSLKDENKKFSKKILLL

DALGELVNFYAISDVVVLGGSFIEGIGGHNPIEAAYFDNVLISGKFIHNQKVLFEEVENVYFCEKLKDLN

DKVHYLNLKAKISKKENLDLIIQTIQKGIDARKSL

>WP\_002852274.1 MULTISPECIES: 30S ribosomal protein S16 [Campylobacter]

MTVIRLTRMGRTKRPFYRIVVTDSRKRRDGGWIESIGYYNPMVEPEVIKVDAERLAYWKSVGAKLSDKVA

SITSK

>WP\_002852268.1 MULTISPECIES: RNA polymerase sigma-54 factor [Campylobacter]

MLKQKITQAPKTKISQTLRSWLPILQANIEDLKENLDKFAEDNPFLNVQDSIQTHDKGKNYFDSFYKHNV

NSAFVDSKGLAKKSVYELLNEQILPPLFPTSKSQELAKKIIECLNEEGYFEHDEEFLKEYSLEEIERVRA

RFKFLDPVGVGAKDYKEAFLFALENMELDEDIDEFCRMLIMDFENIQNYTKEPLYKEALAVLKRFSTPPF

LEYFEDSRIIVPDIFVYKENGEIKVKINDDYYPEISIQTDGLEHDFLSHYIKEAKNLVDALAMRKATLYK

IGLMIVEYQYDFFMGKEIKPMTFKDLALDLERNASTISRAVANKYLSCERGLIPLRDFFAFALDEEGETS

NVGVKEFVANLVKNEDRNKPLSDSKILELIKEEFKVDIGRRTITKYRKHLNIASSTDRKKLYELEG

>WP\_002852256.1 MULTISPECIES: non-heme ferritin [Campylobacter]

MLSKEVVKLLNEQINKEMYAANLYLSMSSWCYENSLDGAGAFLFAHASEESDHAKKLITYLNETDSHVEL

QEVKQPEQNFKSLLDVFEKTYEHEQFITKSINTLVEHMLTHKDYSTFNFLQWYVSEQHEEEALFRGIVDK

IKLIGEHGNGLYLADQYIKNIALSRKK

>WP\_002852254.1 MULTISPECIES: chemotaxis protein [Campylobacter]

MTQEELDALMNGDVDLDSETEAEVKTEESNTEEDALMLEDVKIADYKPNPSVVWPPPPPNQEHKVVHQLD

DVTKDSELKATEMMDKLESINNFFADSESLLKEINKAIEKNIDIFSKLNEKFPNVESFSEALELNNQAKK

SSKEIVGNLQSGQDEVMMAMDAMQYQDIHRQKIERVINVMRALSRYMSSLFEGKIDDKKRVSSAVHIEGD

STADVVSNDDIEALIASLGQK

>WP\_002852250.1 MULTISPECIES: 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase (flavodoxin) [Campylobacter]

MEYKRFKTRQIKVGNVLIGGDAPISVQSMLFTKTRDIEGSLEQINRLYFAGANIVRLACLDMADARALKE

IKAKSPLPLIVDIHFNHNLAVYCAEFIDGVRINPGNIGSKENIKEVVKACKERGIPIRIGVNHGSIEKQF

SDKFGYGVDAMLESAMYNIKLLEDLDFFDIKISMKTSDAQKTIEAYERLRPLCDYPFHLGVTEAGTKFHS

TVKSSIALGNLLLKGIGDTMRVSMTGELEEEIRVARAILQDSGVQKSGVNIISCPTCGRIQSDLLSAIKI

VEEKTKHIKEPLNISVMGCVVNALGEAKGADVAIAFGKNQGLVIRHGEVVAKLKESELVDRFLAEVEDEV

KSRVVKE

>WP\_002852227.1 MULTISPECIES: RlpA-like lipoprotein [Campylobacter]

MQIKTITLKLSAVSLGALFFSGCLGTSFFSSLDNAQVYYPSNDFKSSPSSSGTKGTMKPYTINGKTYYPT

VVAVGETADGIASWYGPGFHGKKTSNGETYNQNALTAAHKTLPMNTILKVTNLNNNRQVTVRVNDRGPFV

NNRIIDLSKGAASQIDMIASGTAPVRLEVIGFGSSNSGNNIVHSNVNYGNSGEIANNGQIYEGGNFMVQI

GAFKNPAGAQTIAARYKTYRTYSSTIRTSSVDGLNRVFLTGFRSEDEARDFAASGAFAGAFVVRE

>WP\_002852225.1 MULTISPECIES: endonuclease III [Campylobacter]

MKRNLEIKELFLKHFDKPVTELKFSNLYELLVCVMLSAQCTDKRVNLITPDLFKAYPDIKSLANANLSSL

KTYIQTCSFFNNKAQNLIKMAKAVCENFDGEIPLDEQNLKSLAGVGQKTAHVVLIEWCGANFMAVDTHVF

RVSHRLGLSKAKTPEATEEDLTRTFKDNLNYLHQAMVLFGRYTCKAKKPLCKECFLNHLCKSKDKELK

>WP\_002852205.1 MULTISPECIES: membrane protein, partial [Campylobacter]

MDIKSDEISELVLPEGKDARGSLVYFKIIFIPAFLYILILLGYFNVIDFKVELHTVIMTGVIFFTALIFA

RHSAEYAYSIFEQQKDEFKQALKRHIMRHFLAIGKDTKSNANFDDFAYTYIKGARNENFASIGSAIFPMM

GILGTFISIAFSMPNFSSSDTAALEQEIADLLSGVGTAFYVSIYGIFLALWWMFFEKYGKSKIDRLLNRQ

KNATSGFFWTKEELDQRYLTESLQHFEKIGAIFKQVSNDDFFAELDHAIDRKFGIFQDMLNVEEKAIRLS

SEHIKQTMGELSKAQRDQRDLGKLYSEMLNGIGLLNQNLKEINTRMSEQYNRLLDISSDKIHHLDKTLSA

FDEKIERFGKNFELYEKAMLESQEKVFEGFKASLFEGMHKFKEVYEEEKSIDAKIKMMDELKKEMKALDE

ETSQMMSKLSGDENQNKENETKQIEDFSESKTEENQDEIQAEISKQESNDELKNEDKENK

>WP\_002852200.1 MULTISPECIES: argininosuccinate synthase [Campylobacter]

MKNEVKKVVLAYSGGLDTSIILKWLQDEYNCEVVTFTADIGQGEELEPARKKALSLGIKEENIFIKDLRD

EFVKDYVFPMFRANAIYEGEYLLGTSIARPLIAKTQAQIALQTGADAVSHGATGKGNDQVRFELGYLAFS

PDLKIIAPWREWDLNSREKLLAYAQKHGIDISKKKGKSPYSMDANLLHISYEGLVLEDPAHAPEEDMWRW

SKSPKDAPNESEIIELDFQKGDLVAINGEKLSPAGLLTKLNELGCKHGIGRLDIVENRYVGMKSRGCYET

PGGTILLKAHRALESITLDREAAHLKDELMPKYASLIYNGYWFSPERMMLQALIDESQIHANGRVKLELY

KGNVMVIGRESANDSLFNAAYCTFEEDEVYNQKDAAGFIKLNALRFIIAGKNGRKF

>WP\_002852192.1 MULTISPECIES: ATP-binding protein [Campylobacter]

MNHLLILYNPYYQEDVIKQHLSILQEKSQVAFGKIKSKLNDQEKQNSLEEIYQSTNEENFLQLFLSDYAN

LFVAKVVKISKNVDESLIPSYYKEKNLEVEDFFIISDLRELVREDFSRLRDKFLANFITPNDHTYAIYGN

HYTYPLPVRLKEECSYFLGDEKHYLSVYKSKEYLAMQENFIRFVFGKRIFYLLHSDSISNIIHAELELLQ

SENDLLNDFTSIIVKYSKTLEYEIYAFAKKVLLKACMKDPSLYDLAYNVQGKSFILKDFFTQKPNLGSIK

FLLRHENIQCHLGKSLTQFINYPFSKSLTIIQEIRNEAVHAKAPSLNEVKKLRNEILGIEGVSLLKRILT

HKEIS

>WP\_002852167.1 MULTISPECIES: DNA polymerase III subunit delta' [Campylobacter]

MFISKIIISEDFLGIKEEMINNFGIKKLRFFIPQNEFLLDDARAVEKESYIAETEEKIIVLMADSYRIEA

QNFLLKLLEEPPKNIKFLIVIPSKNLLLPTIKSRLICEKRKVEKEVKKLDLDLKRMDLRMLFDFLQKNEN

LDKNELMDQIALLAKECVKYKDFNAEELEFFYESYELAKLNSKSGVLLATLLLNYYTKK

>WP\_002852165.1 MULTISPECIES: DNA polymerase III subunit alpha [Campylobacter]

MSQFTHLHLHTEYSLLDGANKLKELALTLKEQGATSVAMTDHGNMFGAIDFYQTMKAQGLKPIIGIEAYL

HNHDELDDKSSRQRFHLCLYAKNEIGYQNLMYLSSQSYIKGLYYYPRINKKLLEDYSEGLICSSACLQGE

VNWHLNTYSERNVRFGAKGYEAAKEAALWYKKVFKDDFYFEIMRHGIGDQRMIDDDIIRLSKELNIKIIA

TNDTHYTFKERAAAHEVFMCIAMGKKLNDPDRMRHSVHEFYVKSPEQMSELFADIPEAIENTQEIAQKCN

LELNLGNPTPPNFKFTREYAKDHNIILPEETKEFSFDNDDMVFEELCKKGLEERLKFIDESKHEEYKQRL

EVEINIIKNMKFSGYMLIVHDFIKVAKDKGIPVGPGRGSAAGSLVSYCLRITDLDPIPYSLLFERFLNPE

RVSMPDIDVDFCQDRRAEVIDYVIDKYGADKVAQVITFGKLLAKGVIRDVARVCDMSIQDADELAKLVPE

ELKITLDAAYEKEPKIKEFIDRHPKGLEVWEYARALEGLNRNAGMHAAGVVISNESLWKKTPLFRQSKND

ERHLVTQYSKDHLEDVDLIKFDFLGLKTLTVINNAIKLIKKRYNKDIIWETIDVNDSKVYKTIQSGNTLG

IFQIESGGMQSLNARLKPERFEDIIAVLALYRPGPMESGMLDDFIDRKHGLKSIEYPFDSLEKVLEPTYG

VIVYQEQVMQIVQIIGGFSLGGADVVRRAMGKKDPEKMKKLKTDFADGAEKQGYDRAKAEDLWELIVKFA

GYGFNKSHSAAYALITFQTAYLKTYYPSEFMAALLTSEENNVDKIAVYIDEMKKMNIKLLPPSINKAIRE

FSALEQDGKDAIIYGLGAIKSVGIPAVENLLEARQDGEFKDINDFLGKIDPTKINRRTLESLIKAGAFDE

FGFTRKALFDNMENLSEASRKMAEVRKNAASSLFGEEELTSGVQVNFTPKNEEFEVMEKLGYEKEILGIY

VSGHPLDRFYEQINAIDYVKSLDFESLKNNGEILSIGKIEDFKSMMSKNNKRYGRIEILDYYSSFDATVF

ESNVEEIENIIKDENLKNNAYGFVLGFKAEGGEKPSFFLKAIKDLQSLEDGEIKAIKKFGAKKDFKNKEE

NHFTAEPKEFEKNIIELDLTRLNRELIYEIHEIARNAHNPNEKNNKKLVLKVISAGSCLLYHTDFIISDS

IVEEISNKYA

>WP\_002852163.1 MULTISPECIES: signal recognition particle protein [Campylobacter]

MFELVSESFKSAINKLRFVDDEKALKNALETLKKALLKADVHHKVTKELLTLIEEDAKQNGIGQKQFLNA

IKINLENILSVNGKNQGFVFASKPPTVVLMAGLQGGGKTTSTIKLANYLKLRNKKVLVAACDLQRLAAVE

QLRQLCEANEIELFFIENEKDPIRVAKEALKKAESSMVDVLLVDTAGRLAIDEALMDELRAVKDVLNPDE

IFYVADAMSGQDGVKTAASFNEVLGISGVILSKFDADTKGGVALGIAKQIGIPLRFIGVGEKVADLEVFI

PDRIVSRIMGEGDLATLAEKTAAIIDEKEAKKLNQKIKKGEFNFNDFLNQMESIKKLGSMKSLIGMIPGL

GGMANAVKDIDLDNSKEIIRIKAMISSMTPKERENPDLLNNARKRRIAEGAGLSQVEVNRFLKQFSNAAK

LAKRFSGKKGMESLTQMMSQARRQF

>WP\_002852154.1 MULTISPECIES: hypothetical protein [Campylobacter]

MSDFLSFTLENIRNGGAFMAWLESRRLEWAPLMAARLKYLLEGRTFVLMCDEQRSWYEEYFLKNINSKAT

RPMLPFVSLNSLCKKKVQSSEDIALLNDLLDISFPNGYVYFYIGSASDNKSLIAKSRDDSLLWLFDEQLQ

DSFYLNSKDKDLDIKLISLYQLFDVSLDAILFSKVQLG

>WP\_002852139.1 MULTISPECIES: hypothetical protein [Campylobacter]

MNKYLEQLVLLSKIDQEIDSYEPKIDSINKTLKDAELKIEKINADLEKIDEEIKDIENQKIQNNAHISEF

SAKIKDLSKKSGVVKTEKEANALKIEEDIAKEQLDAANDEIVRLDKILENKETYKKELEEEKIKQEQNIN

EIRVSIKSEMEVLEKDRMSVYDKKTKLVSEMNQKVLSFYEKIRKWAKNTAVVPVKKQACYGCFMKIYDKT

YLSVVKGEEIVTCPHCGRILYKEQEEQN

>WP\_002852128.1 MULTISPECIES: peptidyl-prolyl cis-trans isomerase [Campylobacter]

MLTWMQHHKKYLVVTIWVSTIAFVGAGFLGWGAYDFNLNRSSSVATVGNEKIGFSEFDTRYRQILSYYNQ

ISNGALTPENAEQLGIKNIALSSLVEDKLLLNFAKDLGIGVNENQILQKLANTREFQDPTGDFNKTIYYE

LLNANNLAPKDYETQLANEVITDKLNQIFNIPSKDEELKMLASSYFMQDALSIAKIDYDKKNIKINEEDL

KKLWNEHKEDYKTKKIYEISTYFLPVSNEKIDDKELEKFYNQDENKLKYKDFAGKVMDFQSAKNEVAKDY

ALMQLKNVANAKFLDLKNGKDNFQKDQNISESDVYYPIDLLNKAKNGDVLRPAPYNNGYIIVKLNKVDPI

RNKTFEEAREEVLPMYLSEQARKNLEEKAKNSLVNFKGDDIGFVSRDSSRESVKVSDKILNDSEFAYFLM

NVFNTDQNSSYVVINDNKAILYKINKQKLDMNSDKFEQYKTMLEQNLQNLKANELKQELVDELKKIYPIK

IYYKGN

>WP\_002852119.1 MULTISPECIES: peptidyl-prolyl cis-trans isomerase [Campylobacter]

MKKFSLVAATLIAGVVLNVNAATVATVNGKSISDTEVSEFFAPMLRGQDFKTLPDNQKKALIQQYIMQDL

ILQDAKKQNLEKDPLYTKELDRAKDAILVNVYQEKILNTIKIDAAKVKAFYDQNKDKYVKPARVQAKHIL

VATEKEAKDIINELKGLKGKELDAKFSELAKEKSIDPGSKNQGGELGWFDQSTMVKPFTDAAFALKNGTI

TTTPVKTNFGYHVILKENSQAKGQIKFDEVKQGIENGLKFEEFKKVINQKGQDLLNSAKVEYK

>WP\_002852114.1 MULTISPECIES: GTPase Era [Campylobacter]

MKSGFVSIIGRTNAGKSTLINSLLEEKIALVSHKQNATRRKIKAIVMHEKNQIIFIDTPGLHESGATLNQ

LLVQSAIKSMGDCDVILFVASVFDSTKDYENFLSLNPQVPHIITLNKVDLTDNATLLKKLSEYAKFSQHF

KAIIPYSSKKKSYKKGLLDEIVKYLDEHEYFYDPEFLSASSEKEIYRDFILESIYENLSDELPYSSEVLI

HRTKDTPNLLILEANIITDTNSHKGMLIGKEGATLKRIGKDARFKISKLAQKKVLLKLFVTVKKNWQKDE

EFLKKLLNDEN

>WP\_002852104.1 MULTISPECIES: 3,4-dihydroxy-2-butanone-4-phosphate synthase [Campylobacter]

MKFVSVEQAIKDLQAGKMLVMVDAEDRENEGDLIFPAQFSTQEKVNFMIKEARGVVCVALDETLAKKFEL

PLMVPKNTSNHETAFTITVDAKDATTGVSAYERNMTIQIFADDNAKASDFVRPGHINPLIAKKGGVLERT

GHTEGTVDLCKLAGLKGACVICEIVKDNGDMARREDLEIFCQKHDLNMIAVSDLIEYRLKHESLIKLEEK

SQSVLAGFKAEKFIFSDHNQTQHIAFCFKDIKKCENVKFHISGSDFELLTSDKFSKLLEQIKFLSENGGV

IVFMQGEKSSTTQYKNYGIGAQILRYFGIEEIKLLSQSCDKDYIGLEGFGLNLKACNFN

>WP\_002852095.1 MULTISPECIES: ABC transporter substrate-binding protein [Campylobacter]

MSKKFFLSLGLVALLFSNSQAIDENLIKAAQAEGRVNSLAMPDTWANWKDTWADLKNLYDIEHSDTDMSS

AQEIAKFKTEKKNASGDIGDVGASFGEIAVKQGVAQPFKTSYWDQIPTWAKDKDGNWLLAYTGTIAFIVN

KDVVKDIPKTWQDLLKGNYKITVGDVSVAAQAVSAVLAANYALGGDEKDLSPALAFFNTLAKQGRLVNND

VSIANLEKGEVEVGLVWDFNGLGYRDKVGKDRYEVLIPADGSVISGYTTIINKYAKHPNAAKLAREFILS

DKGQINLAKGYARPIRIDHITLPDDIKAKLLPSEQYKNARAIKDQKAWEKSAKELPQLWQEKVIVDMK

>WP\_002852091.1 MULTISPECIES: RNA pyrophosphohydrolase [Campylobacter]

MENEKNYRPNVAAIVLSSSYPFECKIFIARRSDMDNIWQFPQGGIDKGESVKNALFRELKEEIGTDEVEI

IAEYPEWLSYDFPSKIVKKMYPYDGQIQKYFLVRLKHGATININTKHPEFDDYQFVSVKQIFEMINHFKK

NIYVRVIKYFEEKGYI

>WP\_002852071.1 MULTISPECIES: cell division protein FtsZ [Campylobacter]

MSEFLVEEMQHNKGAKIKVIGCGGGGGNMINHMVKMGLNDLDLIAANTDAQAISISLAKTKIQLGEKKTK

GLGAGMLPEVGAESARESFEEIKASLSQSDIVFIASGFGGGTGTGATPVIAQAAKEIGALTVSVVTMPFA

FEGKQRKKLAESGLLELKKESDSILVIQNEKLLSIIDKKAGIKDAFRLVDDILARAVKGMVSILLDNGDI

NVDFADVRTIMSHRGLALMGVGSASGENAIEEALSNAIESPLLDGMDIKGAKGVILHFKTSSNCSLFEIS

AAANSIQEIVDENAKIIFGSTTDDSMEDRVEVTIIATGFEDKDTVAKKSTEEAQASKKNPYLSLKKVSGG

YDEEIMAQIETPTFLRRQMD

>WP\_002852026.1 MULTISPECIES: saccharopine dehydrogenase [Campylobacter]

MKNLLIIGAGGVSRVATVKCAMNSDTFSKITLASRTKSKCDEIAAFIKERLGVQIETAQIDADDSNAVVE

LIKKTEAQILLNVALPYQDLSLMDACIKAGIDYIDTANYEHPDLAKFEYKEQWARNDEFKQAGILGLLGS

GFDPGVTNVFCAYAQQNLFDEISYIDILDCNAGDHGYAFATNFNPEINLREVSAKGRYWENGKWIETQPM

EIKMEWDYPEVGVKDSYLLYHEELESLVKNIKGLKRIRFFMTFGQSYLTHMKCLENVGMLGIKPVIHQGK

EIIPIEFLKTLLPDPASLGPRTKGYTNIGCVIRGKKDGKDKQVYIYNVCNHEECYKETGAQAVSYTTGVP

AMIGTKLIAKGIWQGKGVFNMEEFDAKPFMEELNSQGLPWKIIEMTPSLGE

>WP\_002852021.1 MULTISPECIES: cytolethal distending toxin subunit A [Campylobacter]

MQKIIVFILCCFMTFFLYACSSKFENVNPLGRSFGEFEDTDPLKLGLEPTFPTNQEIPSLISGADLVPIT

PITPPLTRTSNSANNNAANGINPRFKDEAFNDVLIFENRPAVSDFLTILGPSGAALTVWALAQGNWIWGY

TLIDSKGFGDARVWQLLLYPNDFAMIKNAKTNTCLNAYGNGIVHYPCDASNHAQMWKLIPMSNTAVQIKN

LGNGKCIQAPITNLYGDFHKVFKIFTVECAKKDNFDQQWFLTTPPFTAKPLYRQGEVR

>WP\_002852018.1 MULTISPECIES: iron ABC transporter permease [Campylobacter]

MYKTLKYYKLGAILLALFLALPIFGIFAELFYILFQNFNTSDLTQFSSIKENLSHFFDYLFLKFIKDTFI

ISMGVLCLSLILGVSSAYLIANYDFYFCKILEKLLILPLAIPAYILAFVYVGIMDFQGFFHENFGFRIDF

FNHYGVIFVLAISLYPYIYLFAKTAFKSEAKEAYEVAKIMKYSEFRIFTRVALLSARPAIFSGALLVLME

TLSDYGASAYLGVDTFSAGIFKLWYDLNDSYSSSVLSGILMLFVFLIMYVDYYYKNKHHYSFNQNLALFI

KKRKLNPIKQILSCIYCFMIAFVGFILPFIWLVYWGLKDHKLFESQFYIISFQTIILALITALITTFLAY

FLMFSSRIVKNHFFNLFILKISSLGYSIPAAALGISIIVLFVFLDKFFHMSLLGNSLLVLVFAYIIRFLA

SAIYSLEGGYNKIHLNIDEASLNLRTSYFILFFKIHTPLMKHFLFLAFIIVFIDTIKELPLSRILAPFGF

ETLSVKAFWFASDERIYDAALPSLFIVFLSLMVVVWMDKITRKDDVRN

>WP\_002852014.1 MULTISPECIES: C4-dicarboxylate ABC transporter [Campylobacter]

MDIMIILQVIVLLGAIFIGIRLGGIAIGYAGGLGVVILGLVLGMKPGNIPWDVILIIAAAIAAISAMQQA

GGLDYMVRVTEKILRSSPKFINYLAPACGWLLTILAGTGNAVFSLMPVVVDVAKSQNIKPSVPLSLMVVS

SQIGITASPVSAAVVYMSGVLEPLGWNYPTLIGIWISTTFVACMLAAFIVSLITPMDLSKDSVYQERLKA

GLVKDAGAVLHGEDKPGAKLSVVIFLITVLAVVLYATAISSNIKWIDPVVVSRDAAIMSFLLTAATLITW

LCKVEPGKILDTSVFKSGMTACVCVFGVAWLGNTFVAGHEASIKEVAGDWVKQTPAMLAVAFFFASMLLY

SQAATAKAIVPVIITALGISAANPHDSYMLVACFAAVSALFVLPTYPTLLGAVQMDDTGTTRIGKFIFNH

SFFIPGVLAIAIAVALGFVLAPMLI

>WP\_002852012.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKIIKILFLGLFLSLSLNAKVITTTSTKSSTGEGTGLTREDAINNAIIEAIGKMSGVSINSLKKSNTSVS

TDNSGSNIQDNYSEQISKATKGRADTYEINSVEQDANGKYTANVTIFKTTTTKKYQAPGLSADNRRSITV

FDSTPDAAKRGIGSALQQKIISDLLQSRKFNVLDRDSSGYYEMEKALIKSGDAASDEVYKLKNMLATDYI

LLFSISGLEGKQKTSNLTGKSKTEIEVIVDYRVLLFATRQIKFSNTLSMKVNLKDNSLSANETALKQIAN

RIAGDILNAIYPLKVASVENNEVIFSQSLNQGDVYECFALGKVIKDTYTKENTGRVESKTGSIEITRTSP

KFSYAKITEGSVKVGDICRPLSNTGSGNGYTIGRDANYQTQEGGGVNLGF

>WP\_002852008.1 MULTISPECIES: dihydroorotase [Campylobacter]

MKLKNPLDMHLHLRDNQMLELIAPLSARDFCAAVIMPNLIPPLCNLEDLKAYKMRILKACKDENFTPLMT

LFFKNYDEKFLYSAKDEIFGIKLYPAGITTNSNGGVSSFDIEYLKPTLEAMSDLNIPLLVHGETNDFVMD

RESNFAKIYEKLAKHFPRLKIVMEHITTKTLCELLKDYENLYATITLHHLIITLDDVIGGKMNPHLFCKP

IAKRYEDKEALCELAFSGYEKVMFGSDSAPHPKDTKECCGCAAGVFSAPVILPVLAELFKQNSSEENLQK

FLSDNTCKIYDLKFKEDKILTLEEKEWQVPNVYEDKYNQVVPYMAGEILKFQLKH

>WP\_002852005.1 MULTISPECIES: ATP synthase subunit beta [Campylobacter]

MQGFISQVLGPVVDVDFNDYLPQINEAIVVNFESEGKKHKLVLEVAAHLGDNRVRTIAMDMTDGLVRGLK

AEALGAPISVPVGEKVLGRIFNVTGDLIDEGEEISFDKKWAIHRDPPAFEDQSTKSEIFETGIKVVDLLA

PYAKGGKVGLFGGAGVGKTVIIMELIHNVAFKHSGYSVFAGVGERTREGNDLYNEMKESNVLDKVALCYG

QMNEPPGARNRIALTGLTMAEYFRDEMGLDVLMFIDNIFRFSQSGSEMSALLGRIPSAVGYQPTLASEMG

KFQERITSTKKGSITSVQAVYVPADDLTDPAPATVFAHLDATTVLNRAIAEKGIYPAVDPLDSTSRMLDP

NIIGEEHYKVARGVQSVLQKYKDLQDIIAILGMDELSEEDKLVVERARKIEKFLSQPFFVAEVFTGSPGK

YISLEDTIAGFKGILEGKYDHLPENAFYMVGNIDEAIAKADKLKG

>WP\_002851996.1 MULTISPECIES: membrane protein [Campylobacter]

MDFYSLIFLSCALGMDAFAVSLCKGFSVKKLHLKHYLIVGIYFGGFQALMPTIGYFIGITFASFIASIDH

WIAFILLSLIGLKMIKESLENENCDSNANQFGFKTMLALAIATSIDALAVGVSFAFLNVNLLLAIFLIGI

ITFILCIIALKIGNKFGIYLKNKAELLGGLVLIILGVKILIEHLFFD

>WP\_002851994.1 MULTISPECIES: hypothetical protein [Campylobacter]

MVKKIIILTFWVNISFAISSLELAKNLVNNPSKNSQLELLFSNNSYIDNNGNCDIAKISQILKTNSLIAL

TLSNPQSLRLNFKAKADEVMFFKILSDVLTDAGYIYFIPTDLILREGNIDYTIQVESQYVLDPGTLYNLL

KENSVYINNIKRIGVYDYEYDLNFSNAVLKTNTNVNLNTPKSLEKPLKDYVLDLKNATNLIIDANDLDNW

FPKIFFLDKNLNLIKAVKSENKNNHFSELIPNGAIYAIVSDMYSLDNIRRGLKITLKK

>WP\_002851963.1 MULTISPECIES: peptidase C39 [Campylobacter]

MEKILKILLFLPILALSTKAEWVVKSYQEIKNERVIRQTYEQSCGASSLATLLNILDDQKKFDELELLKI

MSGQELYTDMVSFADLNDAVKKLGFQSNSYQINRENLDKLVNIPMLVKIEDDPRFPHFVIIINHKGNYLQ

VLDPSHGEYISSKSQFFSIWDRYNKGGYALIVAPKKELKPFKLNTPKSLHFDFSPFSLF

>WP\_002851942.1 MULTISPECIES: tautomerase [Campylobacter]

MPLVNIKLAKPSLSKEQKAELIADITELLSTKYNKSKERVVVVLEDVENYDIGFGGESVEAIKAKASK

>WP\_002851941.1 MULTISPECIES: flagellar biosynthesis protein FlhF [Campylobacter]

MGQLIHTFTVEDTEQIIPKVKEDYGDKALIITNKQIRPKTLNRSALYEVMVAIEESDYEEHLKKQGKSLP

AKKSSPKPSSTSLAEEKIRSQIPQEDEDVVLDFSNTRLNTNLNTVKNNDLAKKTYQDFPQNKINPHQNKT

LGFDDFKEKLSEVSNEISKVTNTPLENYTPNPNYNKKIENFEKQFEKQINKLNDKIDLLADMMWDDKAEA

RKNLMIPPEFASIYKQAKESGMLENHLEAIMKATIENMPAAMKTNKDAVQRYFHSLLRNILPCRVESDIK

KQKIMMLVGPTGVGKTTTLAKLAFRYAYGDKRYKTGIITLDTYRIGAVEQLFQYAKMMKLPIIDSIEPKD

LDEAIKSLNNCEVILVDTIGNSQYDQSKLAKTKEFLMHSNAEIDVNLVVSANTKHEDLMEIYKNFSFLNI

DTLIITKFDETKVFGNIFSLVYETNIPLSFFSIGQEVPDDLEVANSDFLVHCILEGFNKGKNNE

>WP\_002851938.1 MULTISPECIES: trigger factor [Campylobacter]

MEVKAKQLDSVNATASVKIPSGMIKSEVENLAKKASKSVKMDGFRPGKVPVSAVLKRYERELTQDAEQNL

FKSAVNSALQELKKENKELVGEPYFEKFDRKDGEIIAELILSFKPEIKLEGYEKLIPEYQTPKVSKKEID

EKKDELLKRFATPEAIKTKRALKEGDFAKFDFEGFVDDKAFEGGKAENYVLEIGSKQFIPGFEDGMVGMK

IGEEKDIKVTFPKEYGAAHLAGKDAVFKVKLHEIQELKIPELDDEMLKKLLPGEEKASVEVLDEKLKEQI

KNEKLFKLVNDELKGKFADALIEKYNFDLPKGIVEQETDMQMRAAFNTFSEKEIEELKASKEKYQEKRDS

FKEEAQKSVKLTFIIDELAKLRKIEVNDQELIQAIYFEAYRYGMNPKEHLENYKKQGALPAVKMALIEEK

LFNDIFIPKTEKSEKVSKKEKEDK

>WP\_002851936.1 MULTISPECIES: peptide deformylase [Campylobacter]

MVRKIITYPNPRLFLNSEIVNKFDTELHTLLDDMYETMIASNGVGLAAIQVDIPLRVLLVNIFDENDEQK

KEDLLEIINPEIIPLDEEMITCTEGCLSVPDFFEEVKRYNHILLKYQDRFGEFKELEAKGFLAVAIQHEN

DHLNGHLFIEKISFAKRQKFDKEFKKKKKNHKKEK

>WP\_002851925.1 MULTISPECIES: iron-sulfur cluster-binding protein [Campylobacter]

MSQKIPHEQIVQIKLNDKQMQENLMTAMHTLQKNRLNVIDARFKDWQGLRAKAKQAKNNALMSLEERLLE

FEKNATKNGIKVHWASSDEDACEIVYEIMKEKNITKLLKGKSMASEEIGLNHYLEKKGLKAIETDLGELI

LQLNEEPPLHIVVPAIHRNRHEIGEIFKEKLGANLENDEPESLNAVAREHLRKDFEGLKLGLSGVNFAMS

REGAFWLIENEGNGRMCTTAPDIHIALCGIEKIMESFEDAATMVSLLTPSATGQFIPTYNNIITGPRKNG

DLDGPKEVHVILFDHNRSKMLAHEDYYEALRCIRCGACMNFCPVYDQIGGHAYQTTYPGPIGEVISPNIF

GIDHTGDILNFCSLCGRCSEVCPVQIPLADLIRKLRCDKIGQGKNPPLGANNVHHNALEAFAFKQFKNIA

TNGDKWRFSLSKAHYFNWTVQNFASILPVIKKWYAFKELPQIKMDLYKEVQKLEGVSYE

>WP\_002851913.1 MULTISPECIES: chlorohydrolase [Campylobacter]

MFIVAARYLFLCDEDFTILENQAFVFEDKILELGELDNLKKKYPKAKIIKTPKNSVILPAFINPHTHLEF

SANSTTLHFGEFLIWLKSVINSRSILNAQAKEELILQSIKKMQKSGIGTIGEISSFGSDLDPCLKASHKG

MRIVFFNEILGTNENQVEDKKQEFLKRFENSLKFKNDFFIPAISIHSPYSTHPSLAHFALDLAKKQNLLA

STHFLESKAENIWLRESKGGFKKWLENFTLHPKPLYTPKDFVKLFKGVRTLFTHCVYLKEYEWLDKNLHS

ITHCAFSNRLLSQKSLDLKTALKSGLNIHLGTDGLSSNISLSLLDEMRANLLIHKNFDLLELASKLLQMV

TLYPARALNLNLGELKKGKIADFNVFELGECDKKQAPLQFILNAKEVDKLFIKGKECKF

>WP\_002851907.1 MULTISPECIES: L-lactate permease [Campylobacter]

MEQILTWQQIYDPFSNIWLSALVAFLPILCFLVCLVVLKLKGYQAGFLTVILATLVALFAYKMPWNLVGA

SFIQGFTNGMWPIAWIIIAAIFLYKLSIKSGSFEIIKKSVMSITPDHRIQVILIGFCFGSFLEGAIGFGG

PVAITAALLVGLGLRPLQAAGLCLIANTAPVAFGAVGIPIIAMANLVGIEQHSVSAMVGRMLVPLSLTIP

FFIVFLMDGFKGIKETFPAILVAALSFTTTQFLSSNHLGAELPDIISAVVSLAVTTVFLKFWKPKNIFRF

DNESNFTQDNTLSFNQILKAWSPFILLIVCIIIWTQPWFKALFDKDGILSYTSITLQFSNITTGILSPSI

TGIGEAKPLSLALGVDLINGKTVAQAGTAILLAAFLTIAILKIKAEDAAECFWVTLKEMAIPCITIGLVV

AFAFISKNSGMSTTLGLAFAHTGDAFSFFSPIIGWIGVFLTGSDTSANLLFGTLQQVSAQKLGISEALFL

AANSVGGVVGKMISPQSIAIACAAVGLVGKESDLFKFTLKYSVAFIILIGIWTCIIAFFLQGIIPEVIVK

>WP\_002851905.1 MULTISPECIES: 4-hydroxybenzoate octaprenyltransferase [Campylobacter]

MNTFWIKFKDILELVVFKHSIFALPFLFSSMIVASKLANDTAWFGFKALILGIICAVSARNFAMATNRLM

DEDIDKDNPRCANRPNVSGKIGRKSVWIFIIINALIFISCSYFINTLAFYLSFPVLLVLAIYSAFKRFSS

LAHLVLGFCLGLAPIAGSVIIMGEIHIYSVILCLGVTFWTAGFDLLYSLQDMEYDKKIGLHSIPAKFGSK

ATLFISSFCHILAVLFWLLFVWEVWGVALGKIALIGVIISGIILALEHKIVHKNFAHIDRAFFTLNGYLS

IIFFIFIWIDLLWN

>WP\_002851900.1 MULTISPECIES: hemerythrin [Campylobacter]

MTYNEKIISMNNDLLDHQHKELFEISKKLSLMNQRHVGTKELKIVLRELLIMINRHFSDEEAFMREIEYP

YINHHTRIHRKIILEIEEIIISEAKFVNIMTEKLNLVVQDFIFKHTAKEDSKIVKYYEEKFKK

>WP\_002851896.1 MULTISPECIES: amidophosphoribosyltransferase [Campylobacter]

MCAVVGVINSKNASTYAYYALFAMQHRGQEASGISVSNGKNIKTIKAKGEVSQIFNPDNLKTLEGEIAIG

HNRYSTAGNSSLNDAQPIAATSVLGDIALAHNGNLVNKEEVRSRLIQDGAIFQTNMDTENVVHLIARSKQ

ESLKDRFIESLKECIGAYCFVLASKDKLYVVRDPHGVRPLSLGRLKDGGYIVASETCAFDLIEAEFIRDV

KPGEMLIFTQGNDKFESIELFSQTPRICAFEYIYFARPDSIVEGKSVYEVRKKMGEALAKKFAYKADFVV

PVPDSGVSAAIGFAQYLQIPLEMAIVRNHYVGRTFIEPTQELRNLKVKLKLNPMRKVLEGKEIVVIDDSL

VRGTTSKKIISLLRAAGASKIHLAIACPEIKFPDTYGIDTPTFEELISANKNAEEVREYVEADTLSFLSI

EELTQSIGDERKYSLISFDGDYFIK

>WP\_002851861.1 MULTISPECIES: ATP synthase subunit delta [Campylobacter]

MENIIARRYAKAIASRADINDFYQNLCILNSAFVLPKFKNIIESNEIKKERKMEFLDSFFDIKNSSFQNF

LRLLIENSRLECIPQIVKELERQKAFKENIFVGIVYSKEKLSQENLKDLEVKLNKKFDANIKLNNKISQD

DSVKIELEELGYELSFSMKALQNKLNEYILKII

>WP\_002851858.1 MULTISPECIES: lipoprotein [Campylobacter]

MKIKVGLIFSGIACLFLTACVNQVKQNTTFENTLTQKYCGDDFFNQNLEKIKKNDDVIYTGLNAGLIARN

CGDFNKSNVFFDAVEESYKYDVDLENVSPKAAKFIGTTLLNDNIVDYDGSLYERIMVNIYKALNYMEEDD

YENARVEFNRVLMRQDKAKEYFAKEIEKNRADLDKAKEDKNYDKNMNENSKVIEAQYDNLFKEFDTTKNF

INPYATYLASIFFFMDKDYRKAADLFREVAIIYPKNKTIKKEAKIFKEYATKIKVKKAKKYVFVVYENGF

GVVKDEFALTLPFIVDKKIISTNIALQTLKKREASFANLNINGQNTNDFVDLDNIVATEFKINMPAMIAK

ALAQTIIKTTLNVAVANNDSTGGWLSLATAVATAATNKADVRSWRGLPKSIAIATIENDGNLEIKDPQGN

ILFQKSLDKNKNALVIVRSFAPYLPASVAIMEK

>WP\_002851854.1 MULTISPECIES: ArsR family transcriptional regulator [Campylobacter]

MKFENLIREILGKKRFELLKFLCENADENGFIMIKISDLEEKLHQSKPTIIATFKFLEEKKLFKRLKNGF

YQLNIGDKNET

>WP\_002851849.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKSILFASALLASSMLFADSLKLEGTIAQIYDNNKTLLIDSIYGGQMAIKVLPNTEIEMDDCGIFGTDK

DGTFKDLQVGNFLESKISYGTPATPNTQAIPVARKIEIQCYKKAY

>WP\_002851836.1 MULTISPECIES: ATP synthase subunit alpha [Campylobacter]

MKFKADEISSIIKERIENFDLNLEIEETGKIISVADGVAKVYGLKNIMAGEMVEFENGDKGMALNLEESS

VGIVILGKGEGLKEGASVKRLKKLLKVPVGEALIGRVVNALGEPIDAKGVINANEYRFVEEKAKGIMARK

SVHEPLHTGIKAIDALVPIGRGQRELIIGDRQTGKTTVAVDTIISQRGQGVICIYVAIGQKQSTVAQVVK

RLEEHGAMEYTIVVNAGASDPAALQYLAPYTGVTMGEFFRDNAKHALIVYDDLSKHAVAYREMSLILRRP

PGREAYPGDVFYLHSRLLERASKLNDELGAGSLTALPIIETQAGDVSAYIPTNVISITDGQIFLETDLFN

SGIRPAINVGLSVSRVGGAAQIKATKQVSGTLRLDLAQYRELQAFAQFASDLDEASRKQLERGQRMVELL

KQPPYSPLSVEKQVVLIFAGTKGFLDDIAVSRIKEFEDGIYPFIEAKHPDIFEQIRSKKALDSDLEEKLA

KAINEFKANHL

>WP\_002851835.1 MULTISPECIES: ATPase AAA [Campylobacter]

MSLALTFRPENFDDILGQYELIEIFKKFTALQKLPHSIFFGTAGSGKTTFARVVAKEFGLDFYEFDGGNF

KLEELRKILDNYKNSLYKPLIFIDEIHRLSKTQQEMLLIPMENYRLILIGASTENPYFVLSSGIRSRSML

FEFKSLGAKELETLLLRVQEKMKFSIDKEAKDFLLKSADARAMLNLLEFVLVLDEKHISLENLKKLRNTI

NSEGVSSKDTHYILASAMIKSLRGSDVDAAIYYLARLIDAGESADFIARRLVIFSSEDVGNADPNALNLA

VSTLDAVKNIGYPEARIILAQCVVYLASTIKSNASYKAINEALNYVKNNEALEIPNYLNNNHQEKQNYLY

PHDFGGWVEQKYLGKNLKFYHSKGLGEEAKLLDNLYKLKNHKA

>WP\_002851822.1 MULTISPECIES: 50S ribosomal protein L35 [Campylobacter]

MPKMKSVKSAVKRFKVGKNKIKRGSAFRSHILTKKPAKRMRGLRTAKYVHSTNVKAVEKMLGI

>WP\_002851812.1 MULTISPECIES: F0F1 ATP synthase subunit B' [Campylobacter]

MFEDMHPSIMLATMAIFLAMIVILNSMLYKPLLKFMDERNDSIKNDENKVKENSQEVLGVNDELEAIHIN

TREEIQKIKQSAIAAAKEEAEQILRSKKEELERKMASFYADLAVQKKELQEHLNIHLSELKQALQNNIKK

I

>WP\_002851769.1 MULTISPECIES: glutamate 5-kinase [Campylobacter]

MKRIVVKVGSHVISEENTLSFERLKNLVAFLAKLMEKYEVILVTSAAISAGHTKLDIDRKNLINKQVLAA

IGQPFLISVYNELLAKFNKLGGQILLTGKDFDSRKATKHAKNAIDMMINLGILPIINENDATAIEEIVFG

DNDSLSAYATHFFDADLLVILSDIDGFYDKNPSEFSDAKRLEKITHIKEEWLQATIKTGSEHGTGGIVTK

LKAAKFLLEHNKKMFLASGFDLSVAKTFLLEDKQIGGTLFE

>WP\_002851754.1 MULTISPECIES: 4-hydroxy-tetrahydrodipicolinate reductase [Campylobacter]

MIKIGIYGAKGRMGKQIEECLKSETQARISILYDKGGNLGELFEKSDVIIDFSSPSGTHELLNYARTMPK

PLVIGTTGLDEKILHLMQSASEVMPIFYATNMSLGVAVLNYLASKASQMLRNFDIEILEMHHRHKKDAPS

GTAMTLAQSVAKARNLELEKVRVSGRDGIIGERSKDEIAVMSLRGGDIVGRHTVGFYEDGEFLELNHTAT

SRATFAKGAIKIAIWLSKQEAKMYSINDFLGI

>WP\_002851752.1 MULTISPECIES: ATP synthase epsilon chain [Campylobacter]

MNDLINFEIVTPLGVIYQGEVKSVTLPGSEGEFGVLKGHAALVSSLKSGVIDIEKADLNHELIAIDAGHA

KVDEDKICVLAKGAVWVCGSDESEIEKNLAQAKDLIKSMSSDNAALAATFSKLDNARMH

>WP\_002851738.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKIFTVALLGATLLYAESSAFGAGDITSNSSYGLTSNEKLFKEKLDNLNNENIQTNARINEINERIEGL

QSTLEGINSQYAKSNSRLSQVEENNQNIENNFTSEIQKLKAYVEESRKIQEANNKQVKKVLAELSSLVDA

INANYVSKNELNDANLSVKTITPSVVVSTTDSNSTIENNNTQNTQDDKAKQIDESWKKKKNNEILELAIK

DVDKNAFEDSKAKLNFLITKQYKPARANFWLGEIEYKQKNYNNAIVYYKKSSSLSTKGDYFPKLLYHTAI

SLDKTGDTKTANGFYKALKTNYPNSPEAKASPNRK

>WP\_002851731.1 MULTISPECIES: 50S ribosomal protein L20 [Campylobacter]

MARVKTGVVRRRRHKKVLKLARGFYSGRRKHFRKAKEQLERSLVYAYRDRRRKKRDFRRLWIVRINAACR

LNDLSYSRFINGLKKAGIELDRKILADLAMNDAAAFAKIAEAAKKAL

>WP\_002851727.1 MULTISPECIES: membrane protein [Campylobacter]

MRPENYVAFFTVCGFFIGLAFSIISIDEAFDILIFTCFITFMFYVFVHIAIMNFIDVKKISGRIFNKHDY

EKTSNNIINDLVIREKKMDIILEKLNEEREELKKNEFKERRRNAKRAA

>WP\_002851726.1 MULTISPECIES: translation initiation factor IF-3 [Campylobacter]

MSKEKEVLLNEEIRADEIRCVGDDGKVYGIISSDEALEIANRLGLDLVMIAADAKPPVCKIMDYGKFRYQ

QEKKQKEAKKKQKVIDIKEIKLSVKIAQNDINYKVKHALEFLEQGKHVRFRVFLKGREMATPEAGVALLE

KIWTMIENEANRDKEPNFEGRYVNMLVTPKKA

>WP\_002851715.1 MULTISPECIES: hypothetical protein [Campylobacter]

MSDDVLYLVFIIVLLIAMLAYMNIKERENNAKIAKLQNVIEDITKELHYFRKELGVKDDSEEDEDYKTSL

LKEEIMIELDKQISSKITPVLRTLKTMEHIIEDFQNEQQNRLLNLEQKAQSMAKLTPNYDTEEQKIENLF

KEGKSIEQIAKDLRIGTGNVELVLKFKKLIK

>WP\_002851710.1 MULTISPECIES: flagellar motor switch protein FliM [Campylobacter]

MAEILSQEEIDALLEVVDDNTDTPIASNSKDEKDERNIVVYDFKRPNRVSKEQLRTIKGIHDKLARNLAS

QISSMMRSIVETKLHSVDQMTYGEFLMSLPSPTSFNVFSIKPLDGNCVLEINPSIAFPMIDRLLGGQGDS

YEASRELTDIELNLLDSILRIIMQRLKESWATVTEIYPSIEAKESSPNVVQIVSQNEIVIMVVMEIIIGN

SSGMVNICYPVVHLESILSRLANRDIMMGETSAKKSRNKELKTLIGRAEVVYEAILGKTLINVHEFLELK

QGDILRLDREADDKAIVSIDKKDVFLAQIGLHRFRKSIKILELIRTDKDEIKEILEKYEEERKAKASVYD

EPEEEDEEI

>WP\_002851707.1 MULTISPECIES: diacylglycerol kinase [Campylobacter]

MKPKYHFLNNARYALEGLFALFKNEMAFRIELCIIIPAIVFSFFLKISFLEHLLLISVLILILIVEALNS

AIEACVDLITNEWHEKAKIAKDCASAAVFFSVLLALFVWGFILYNIYL

>WP\_002851705.1 MULTISPECIES: homoserine dehydrogenase [Campylobacter]

MKVAILGYGTVGSAVVKFLLENDKLIRARCGQSITPVIALARSPKKNALIPITHSVAEILNADVDVFVEL

MGGVDEAFKIVSEILKKKKAVVTANKAMLAYHRYELENLAKNLAFGYEASVAGGIPIIKVLKEGLSANNI

LAIKGILNGTSNYILSSMSQKNMSFKQALQIAQNLGYAEADPTFDIEGQDAAHKLLVLSSIAYNLKAKPE

DILIEGISEIAPEDMYFANEFEFTIKLLGIAKVRENKVELRVHPTMIDKEKMLAKVDGVMNAISINGDLL

GESLYYGAGAGGEATASAVISDLMDIARDQVKAPMLGFVNTLEYKLLSKDEIYTKYYLRVKVEDKIGILS

KITQLMSENNISIDSFLQKPKKNDENYSTLFFTTHLTYEKSIQNLLEILRKQDFIKTKPFMMRIE

>WP\_002851704.1 MULTISPECIES: iron transporter [Campylobacter]

MKFYTILSILFISFMLSACAVLQKSSPLQENKDFYILDTHTQKKISFEDMILELLKADVILLGEKHDEVK

HKISQVMIFNALEGNLSSQNINFDVALEMLASTEQNHLDKAFKNKKTIKANELTNALNWDKVWKWKDYEQ

FVNVVFYSKSKILGANLSRSEITSIYNGAQPLKGYVSTTNEVKKQLFDIISLSHKLNPEENKELLDKLVE

IQQFKDRRMADVLVHHVNKVLLLAGSYHTSKKIGIPLHIQDFKSSKKIVVVNLSYGEIDLKDSDYVLIYK

GEE

>WP\_002851686.1 MULTISPECIES: hypothetical protein [Campylobacter]

MIYLAQTDTTVGFLSKNLEEINALKGRDKNQPCLITSAKFCELKSLARIPKSFKNLVRRSKKTTFIYPNN

QAIRIVKECKHANFLSKNGYFYSSSANKHGKEFDEEWARSVADIILDEKFFENIPSKILKLSKNKMIKIR

>WP\_002851681.1 MULTISPECIES: F0F1 ATP synthase subunit B [Campylobacter]

MSKLFFIIFLLPLYAFGASNGSGEYDIIPRTINFLIFVAILYYFVATPFKNFYKNRIVKISSKLDEIQKK

LLESKAKKLDTMKKLEEAKASAAAALITAKKEAEILVQNIKKETQDELDLLQKHFEEQKDYEFRKMEKEL

VSNTLNEIFSDPNMTLKQSEIIELMMKKVS

>WP\_002851662.1 MULTISPECIES: superoxide dismutase [Fe] [Campylobacter]

MFELRKLPYDTNAFGDFLSAETFSYHHGKHHNTYVTNLNNLIKDTEFAGKDLVSIIKTSNGGVFNNAAQV

YNHDFYFDCIKPSTGCGCGGSCQSIDANLQAALEKEFGSLENFKAEFIKGATGVFGSGWFWLVYNTKNQK

LEFVGTSNAATPITEDKVPLLVVDVWEHAYYVDHRNARPAYLEKFYAHINWEFVAKAYEWALKEGMGSVS

FYANELHPVK

>WP\_002851657.1 MULTISPECIES: methionyl-tRNA formyltransferase [Campylobacter]

MKKIIFMGTPSYATCILKALVENENFKLVALFTQPDKAVGRKQILTPSDTKAFLSQNYPSIPIFTPSSLK

DKNIIREIKDLNPDFIVVAAYGKILPKAILDLAPCVNLHASLLPKYRGASPIQSAILNKDEKSGVCTMLM

EEGLDTGAILESLECDIKDKNSSEVFELLANLAAKIILSTLLNFDKITPKKQEESLATLCRKIKKEDGLI

NLQNARELYQKYLAFTPWPGVFLENGLKFLELELVDELKQNAKMGEILELEKESFLLACKQGVLRIKKLQ

ESGKKALDGRTYLNGKRLKSEDSLC

>WP\_002851641.1 MULTISPECIES: hypothetical protein [Campylobacter]

MELALFKAGFEAHLECCEIENNRFLGEYLKLGAISQILKWKKLALRIDFDEGEKIIFDLLLSLKEDILRL

ENSLDKNKELIPLKQKGVIESLNFEYLNFLDTILEEDKEYYLRFDLNNQKIAIFIKAQSQTLAKIIKIKP

EDKMAFDAFVVEIQRNMIRNKKGQE

>WP\_002851635.1 MULTISPECIES: membrane protein [Campylobacter]

MDQSYEFFLALHLYSLYASGFLMLFYLILTQGNFKTEFIFIRRIRLFLPIYYLFLALIIFTGCLLSAMKQ

FQMNVNIWVMIFSWILIFALAIFHFVCFKKARRFRKYATFRWISCLILPFEIFLLFLPFLIERYL

>WP\_002851609.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKWIFIVFCFILGFIIHIFYIGYTNELLFNKFIKNSNPDYTITDIYFKKGFLTSKGSFTLNHSHTQLST

KINLKFNNYFFLNKIIKGNFTNPFDFLDEVLKNNKLGTFTLKLHDNNSKIFLNIKDINLSNEGGDTIING

GYIEVLMNKNLEIKNMKIHFDMINFSQFYTKFVLQNLNYEQFFNNPVQFYELNLFSDSQQEINFDYLVLD

NNKINSFYSKNQVNFNEENSAVNLNIQGKSNEIDLKSLLGQNLNFDKTKFNITINKFFNSNFNISHFIQK

NLDLKIQNLILEKNKQNISLQGNLNINNSYQAKLQVISSDEPDEIFPWTKDYGGLNQYFLKENNNFFLNL

SYDSLANPQLKINGSEFSNMDLN

>WP\_002851603.1 MULTISPECIES: 50S ribosomal protein L31 [Campylobacter]

MKKEIHPEYVECKVSCACGNTFTTKSNKAELRVDICSNCHPFFTGSEKIVDAAGRVEKFKKKYAMQ

>WP\_002851556.1 MULTISPECIES: membrane protein [Campylobacter]

MVDKFFLNELFKSISFSYQRLFIIVLSVFIGALTCSAFLNIYFDIDIKLSKELKAYGANVMISPKQDENF

ISNTEYEKIKENLKARALTPFLYDFLNLGSTSGVVLGTDFRALKITKPFLEVKEGSFSLNDFDENSAFLG

VNLAKQLGLKAGNELQIYNPNNGKSIKLTIKGILSSNDEFDSIVLAPLSVVQNLSDRAGINYANAVVYGN

FDEVKAKTQAISNEFIDAKPISSVSLSEGLVLGKIKALMFLIILVVLIIVTTSVNTTLSSIIFSRKKEIA

LRLALGAKKSEIFKLFASECFIVSFFASLIGAFCGIFLANVFGYLIFNSSIDFRFIAVFIALIISLIFAF

LAAFFPIKRALKINVCENLKGE

>WP\_002851551.1 MULTISPECIES: 30S ribosomal protein S4 [Campylobacter]

MARYRGPVEKLERRFGVSLALKGERRLAGKSALDKRPYAPGQHGARKGKISEYGLQLREKQKAKFMYGVS

EKQFRRLFAEAARREGNTGVLLIQLLEQRLDNIVYRMGFATTRRFARQLVTHGHVLVNGKRVDIPSFRVE

AGAKIEIIEKSKNNPQITRAIELTAQTGIVAWVDVEKDKRFGIFTRKPEREEVVIPVEERFIVELYSK

>WP\_002851549.1 MULTISPECIES: 30S ribosomal protein S17 [Campylobacter]

MAFKREIQGVVVKIAGEKTASVLVERKVVHPRYRKIVKRFKKYLIHDERNEVKVGDTVVAVECRPLSKRK

SFRLKSVLATGVE

>WP\_002851528.1 MULTISPECIES: membrane protein [Campylobacter]

MSIDFLAIISVAFLSSFGHCYSMCGGFNLLFINLNSKSNNLFLLTFIYNLFRIFAYIVLGIIFGTFGNIL

AINAKVQSLSFFILGIFMMILGFALIFRGNMLSFIENNVFFDSFVKKIIKKSKNFKGLKSAIFLGFSNGF

VPCGLVYFFIANAMSKQNIFEGILVMMIFGISTLPAMLFFSKISQFFSDFLKNLFNYLSYGVIVCYGINL

AYIGFKAFQ

>WP\_002851519.1 MULTISPECIES: enolase [Campylobacter]

MLVIEDVRAYEVLDSRGNPTVKAEVTLSDGSVGAAIVPSGASTGSKEALELRDNDERFGGKGVLKAVANV

NETIADEILGLDAFNQTQLDDTLRELDGTNNYSNLGANATLGVSMATARAAAAALGMPLYRYLGGANASI

LPVPMCNIINGGAHANNNVDFQEFMIMPFGFTSFKEALRSVCEIYAILKKELANSGHSTALGDEGGFAPN

LANNTEPIDLLMTCIKKAGYENRVKIALDVASTEFFKDGKYHMEGKAFSSEALIERYVELCAKYPICSIE

DGLAENDFEGWIKLTEKLGNKIQLVGDDLFVTNEDILREGIIKKMANAVLIKPNQIGTITQTMRTVRLAQ

RNNYKCVMSHRSGESEDAFIADFAVALNTGQIKTGALARGERTAKYNRLLEIEFESDEYLGEKL

>WP\_002851511.1 MULTISPECIES: lipoprotein [Campylobacter]

MLKQLFCILTFIFMLCGCSLRHETINKNENIILKDEGIDSNIFFKKTGKILKIRNANAPLYLNSRAIVYI

DNGFSNKYAHYFWGDLPSNLYSFLILSKFEQSNIFTTLLSSTSSLSADYSLESRINSFEQILNNNENYAQ

ISISVNFINLENNQIIAHKIFNTKEKIEKKDIRSTYNAFQKALNKIGNEIVFWVNSNLS

>WP\_002851510.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKILTSALALGAMTLIVDCGDGDLVELKNNGNDQAMFDLGNQEIMKKYPNYKLYDYTSVRTISDINNPE

GKIKEMKRDLEIDKTPYSNYVFLLNPNDKKTIKL

>WP\_002851505.1 MULTISPECIES: peptide-binding protein [Campylobacter]

MKKILIICMLFTLSFGIERPKFEDFLAGYERNKASMLNYEGMPAFALSENLLAVLKQPNAKLNKYVKYDP

FLNLYLVRTDFSLIPTPMGDEEKLTRNDWVGIWDPNKPYIGHIKYLAQNIDEKDQLDFNSKIGLLGTPCC

EMMGIALNNSSFIGNRYLKHFMKYNDVYWGDIGVDFVVRENKIYVNNVRKNPQFLINDQVISVDGLPAND

LRKLNEKILFADRGSTLYFQVLRDNMDLNISTEVFAKDLSKFNLPDSKPKPKITNFTSNLGLTVNASLVV

TKIDPKSKVSNAGFMVGDKILRVNNIILNNFKELQNILSAGNDFSILIERKSTKLPLSNFNNELGGNANS

GGDGKFQFFIRLTK

>WP\_002851503.1 MULTISPECIES: HugZ family heme oxygenase [Campylobacter]

MNFESIISHMNDHHKSNLVDLCKKFGGIEQVQDVFLKSVDFNGLDLVYNDKENLRVEFPKKADENTIKDA

IISLCMSAKSEQNFSGVEKELNEFMLSFNSVALATLNANGEVVCSYAPFVSTQWGNYIYISEVSEHFNNI

KVNPNNIEIMFLEDESKAVSVILRKRLRYRVNASFLERGERFDQIYDEFEKQTGGEGGIKTIRKMLDFHL

VKLEFKKGRFVKGFGQAYDIENGNVAHVGASGNPHKFLHKH

>WP\_002851499.1 MULTISPECIES: glutamate racemase [Campylobacter]

MKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDTIIKFCLEALDFFEQFQIDMLIIAC

NTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIATKATIKSEEYQKRLLSQGYTNINAL

ATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLLGRSLSKYFGDKTKLIHSGDAIVEF

LKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>WP\_002851475.1 MULTISPECIES: peptide chain release factor 2 [Campylobacter]

MDNYEFSELLKTLKNKVGNIASIIKPENIQTRLKEIEELENSPSFWSDVKQAGIIGKEKTKITNLLKNYE

NAFNALNDASELFDLANSENDTETLEALFNDAPKLEDTITSLEISMLLSGENDGKNAIVSIHPGAGGTES

NDWASILYRMYLRFCEREGFKVETLDFQEGEEAGLKDVSFLVKGENAYGYLKAENGIHRLVRTSPFDSAG

RRHTSFSSVMVSPELDDDIEIEIEEKDIRIDYYRASGAGGQHVNKTESAVRITHFPTGIVVQCQNDRSQH

KNKATAFKMLKSRLYELELMKQQDSANTGEKSEIGWGHQIRSYVLFPYQQVKDNRSGEAFSQVDNILDGD

IKKMIEGVLIALKAE

>WP\_002851465.1 MULTISPECIES: A/G-specific adenine glycosylase [Campylobacter]

MQKKELEKLQENLLLWYEKNGRKTLPWRNLQSQNCDESLKHIDRAYGVYISEIMLQQTQVKSVLERFYFP

FLQKFPTLESLANANEDELLKAWQGLGYYTRARNLKKAALECVDKFGAKLPKDVEDLKKLSGIGAYTAGA

IACFGYDQKVSFVDGNIRRVLSRLFALENPSMKELEKRAKELLNLNHAFDHNQALLDIGALVCVGKNAKC

RICPLYDFCQGKFHTELYPRAKKILYESLNLNLFLFEFNKKFAIQKSQDKLYKGMYNFPFFKEGEYKLSK

DMGFVGEFKHSYTKYKLNIKVYHQILNNENKNYEFKTLKELESTALSALSLKALKLIKL

>WP\_002851464.1 MULTISPECIES: ATP-binding protein [Campylobacter]

MSKIIPFREEIFHQINQILESQKAFIFLWGKSGSGKSVLLQRLAKKYNVDFINENFKDQSFLKEKIEFLI

SQGQSLIILDEVGMYDYAMLESIRIYSDSISFVLSSHKKLNILKKEHFKSRLSACFKLKNISLLELDDYI

KLKFGMNFSNKCLKFLQKISQGNLRYIDKTLKSFYEINSFFDKNKSQEYILKLSALENGLLR

>WP\_002851463.1 MULTISPECIES: chorismate synthase [Campylobacter]

MNTFGTRLKFTSFGESHGVAVGCIIDGMPAGVKFDEEFLQNELDKRKGGSKFATPRKESDKAQVLSGVFE

GYTTGHPIAIVVFNENAHSKDYDNLKDLFRPAHADFTYFYKYGIRDHRGGGRSSARESVARVAGGAVAAM

LLREFDICVQSGVFGVGTFVSNLKEEEFDFEFAKKSEIFCLDPKLESDFKNEILNARNSKDSVGAAVFTK

VSGMLIGLGEVLYDKLDSKLAHALMGINAVKAVEIGEGINASKMRGSCNNDALKDGKFLSNHSGGILGGI

SNGENLILKTYFKPTPSIFAKQESIDKFGNNLKFELKGRHDPCVGVRGSVVASAMVRLVLADCLLLNASA

NLNNLKNAYGLK

>WP\_002851461.1 MULTISPECIES: biotin transporter BioY [Campylobacter]

MLELIGELSLQNYMGEWLEIARKPAFFQKSCLNSKAKYELKYKNGIPYVEIENFCSKKNEISSIKGKAKI

VSNRQLAVRFNIFMNLFNKVNYEIIFVDSEYKVAIVGSPDKKYLWILARNIIDEKNIKELLNIAKQRGFD

ISDVVFDKY

>WP\_002851458.1 MULTISPECIES: adenylosuccinate synthetase [Campylobacter]

MSKADIIVGIQWGDEGKGKVVDKLCENYDFVCRSAGGHNAGHTIWVNGVRYALHLMPSGVLHPRCINIIG

NGVVVSPEVLIAEMAQFENLKGRLYISDRAHLNLKHHSLIDIAKEKLKGKNAIGTTGKGIGPSYADKINR

TGHRVGELLEPQRLCEALIKDFEANKTFFEMLEIEIPSAEELLADLKRFNEILTPYITDTTRMLWKALDE

DKRVLLEGAQGSMLDIDHGTYPYVTSSSTISAGTLTGLGLNPKEAGNIIGIVKAYATRVGNGAFPTEDKG

EDGEKIAQIGKEIGVSTGRKRRCGWFDAVAVRYTARLNGLDALSLMKLDVLDGFEKIKICRAYEYKGMEI

DYIPSDLENVQPIYEEMDGWDKVFGIKDYDLLPENAKKYIARLEELAGVKVKYISTSPERDDTIIL

>WP\_002851457.1 MULTISPECIES: LamB/YcsF family protein [Campylobacter]

MFKVDLNSDLGESFGAYKMGMDEEILKFVSSVNVACGFHAGDPCVMDETLNLAKQNGVCIGAHPSYPDLL

GFGRRNMQISFEEAKNYALYQLGALFGFAKAKGMKIQHFKAHGALYNMAAIDENLALALCEAVASFDENI

IFLGLSNSAMNEAAKKKGLRYANEVFADRAYNDDGTLVSRKLEGALIHDENLAIKRVIKMIKESKVTSIN

GKEIDLKADSICVHGDNAKALEFVKKIKENLKKEQIQICALENFI

>WP\_002851456.1 MULTISPECIES: NADH-quinone oxidoreductase subunit I [Campylobacter]

MKNYYLVDEKRKTPVSTWEKISQALRRSVKLELFVGLFVMMRELLKRNNSATIKYPFEKVKLDNRYRAVH

RLMRFIESENERCIGCGLCEKICISNCIRMETSLDENGRKKVENYSINLGRCIYCGFCAEVCPELAIVHG

TEYENAAEQRSYFGYKQDFLTPIDKLKNQVEFEGAGSLRKDANLWVKKTPNYYDVMIERALENQNTQEQG

ENK

>WP\_002851451.1 MULTISPECIES: DUF411 domain-containing protein [Campylobacter]

MKKTILTILFLLTLTQAKEIQIYESPTCGCCDLWADYMKAKGYEVSVHKTNDFLKIKEKMGIKDEYQSCH

TGVIEGYAIEGHVPESAIAWLLENKPKDVIGISAPGMPQGSPGMEQGYSEKYPVILMKKDGSYELYGYFI

GDKKL

>WP\_002851428.1 MULTISPECIES: ATP-binding protein [Campylobacter]

MNKYKFVKFQVKNFRSLLDITLNIDNNNINTICGENNIGKTNFLRALNLFFNHNNGVEYNQNEDRPYHIQ

KGSTGGRKTELIGYFTKNNVTHILKVEFHKDKIVYILNGKMVEWKVARDIVESFKLLFIEASNVNMPSVI

SAILENDALLALDNKRKKQSEPLRTLKLFIEQSKKAIEDIEKDINIYLKQMLDFDNTLKDKEIKIRFAEF

EKLRDVVKTMTSVTLDDGNDHLMDHKGSGAQRIVLLSLMQYITDKITTDIIWAIDEPEAFLQPKLQKKIM

EIFKNIVREKKQPIIMTTHSQYFVDFNNLVNTHLFKLTKEEKIYARKKGRVFQEINTKPIYIGTAFEKLS

VIKKHLGIETNDNWDIMPYNILVEGEEDKKYLQMLIEILNLSMPNIIHSGGATKIAGFLEYFNNQCSYTS

FKPYFICIFDNDEEGRKQYNKISKDNLYPNIKLDAKKLKRYGESIQENNRDIWEIEDFMPIKIIVDAVNI

ILKYKQYNTITNSQISDRKKLAFKNMSILDYLEKCIADRNEEKERFILNTESRKKEICQNAFRAREKYTK

NDLEDYHVDFMNELIDSFNKVDLIKKDN

>WP\_002851426.1 MULTISPECIES: membrane protein [Campylobacter]

MGFEHLNTIYYFILFFVALFAGFIDSIVGGGGLITLPALIACGIPAHLSLATNKLQSVFGSFTATLTYFK

STTLPRLAWGVFFTALGAAIGSYSVLFVKDEQLKLIILIFLTLTFLYTALRPNLGKHESEPKIKNIKIFH

LICGLTLGFYDGFLGPGTGSFWIFACVMLLGFNMRKASINTKILNFTSNIIALAIFLWQYELLWAVGLLM

GVGQVLGAYLGSKLVLKTNGKFIKTLFLIVVGATIIKVAWDYFS

>WP\_002851421.1 MULTISPECIES: UTP--glucose-1-phosphate uridylyltransferase [Campylobacter]

MLQTCIFPAAGYGTRFLPATKTLPKEMLPILTKPLIHYGVDEALEAGMENMGFVTGRGKRALEDYFDISY

ELEHQISGTKKEYLLDEIRSLINRCTFTFTRQNQMKGLGDAVLKGRPLVGDEAFGVILADDLCVNEEGLN

VMAQMVKIYEKYRCTIIAVMEVPKEQVSNYGVISGNFVEENLIMVNSMIEKPSPDEAPSNLAIIGRYILT

PDIFGILENTKAGKNGEIQLTDALLTQATNGMVLAYKFQGKRFDCGSVEGFVEATNYFYEKSKC

>WP\_002851414.1 MULTISPECIES: ABC transporter ATP-binding protein [Campylobacter]

MVIKAQNIITKFGEKIVHDGVSFEIKKNEIFGILGGSGSGKSVLLKQMLMLEHFDDGEYEILGYKLKNIN

EEDALALRKKWGVVFQFAALFSFFNVYENIAIPLKEYTHLDENSIQELVLMKLKMVGLNESVLKQFPSEL

SGGMQKRVAIARALALDSKLLFLDEPTSGLDPHSSREFDDLVLELKKSFDLNIILVTHDKESMKNLLDRF

IILENKKVGFCGTYEELRLQNERLFKRFME

>WP\_002851413.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKSDLDIFKKHLGEIQGVNEFKANQICSQINDANDFIGALQVLDMSLKKIEKSILERIDENSDDMQKRTL

DATASQLIQNCSFMGTALFGNIFNVYVGKKLFEFEIANPLLILQTSNYEGVLAYIQDKRDEIKIILSELS

TAITMGETMDNAGIYNSTMDFKNLFK

>WP\_002851407.1 MULTISPECIES: mannosyl-glycoprotein endo-beta-N-acetylglucosamidase [Campylobacter]

MKPIIIFFSLFLIPLFADDLKSGFGEEYYKLDIDQKRQIFFIKMNEMFDQSFKKIEQERAFIEAFFKDAY

KTGFRTSNQINLEKLITIKNKYRIENLYDFAEYKKRIQKIPKSMGIAQALVESATGTSRFAREANNLFGE

WTWGEKGLIPDLRHPDKKHKIKIFDSLQDSVDSYVLNLNRHFAYEKFRDARAKFESEGKEITGLEAIKTL

DSYSERKGYYINLITKIIKRYNLEKYDTNSNNT

>WP\_002851403.1 MULTISPECIES: DNA-directed RNA polymerase subunit alpha [Campylobacter]

MRNITTSAYTPTEFTIENISDTVAKISAWPFEIGYGITLAHPLRRLLYTSTIGYAPTAIHIDGVAHEFDS

MRGMLEDVALFIINLKKLRFKIKGDSNKEIVEFSFKGSKEIYGKDLNNDQVEVVNKDAYLATINEDAELK

FTLIVEKGIGYVPSEEIKELINDPKFIALDAFFTPVREATYDIEKVLFEDNPDYEKVVLTVTTDGQITPN

EAFQNALEAMYKQLSVFDKITNVRSVIKNQATSNELENTKLLQNITDLNLSARSYNCLEKAGVVYIGELA

LMSVSELAGLKNLGKKSLDEIKNIMESIGFPVGTSKLSDNKEILKNKIAELKAQNEG

>WP\_002851401.1 MULTISPECIES: hypothetical protein [Campylobacter]

MDFFFVEYRDPLVGLIILTILVFVVAVANYIWKIFANKDEEQKLEKFIKKFEMDNAHKELLRNSSLSFGN

LSFLAEIFTKSGEFEKATQIYLIALEKCKDKQEREFIFLSLAKVYFKAGFLERAKEVLLQALKLRPRNIQ

ALKLLKIVYLKLRSYKENLELLECLFELNEDVQKERDFIKALELCTFNITDEEKKKKLLEFKIEDNPMLG

RLVFEKYHMFLGQNFFDICDLLYRENEAFNLENQDFLEFFYALGKISKHDDTHQFVFKNSNFKMLKILKD

NSFNAGLEFSYRCSECKNVMPLFFYHCPVCYEFNTCKIIYEVKNNETH

>WP\_002851392.1 MULTISPECIES: transcriptional regulator [Campylobacter]

MKKYHSLCPIETTLNLIGNKWKILIIRDLLQGTKRFGELRKSISFTKNQNISQNVLTQNLRELEEAKLIK

RKVYAEVPPKVEYSLTSLGNSLESILKSLENWGNSYKNIV

>WP\_002851386.1 MULTISPECIES: ATP-binding protein [Campylobacter]

MKALALFSGGLDSMLAMKLITAQGIEVKALNINIGFGSTSDKSEIMKKRAAMVGADFEMIDVRNSYLQEV

LFNPQYGYGKHFNPCIDCHAFMFKTALAMLKEENASFIITGEVLGQRPMSQRSDAMAKVKKLALDEEDLI

LRPMCAKNLPLTKPEREGWVDREKLEGIIGRSRKRQLELAAKFGLEDFESPGGGCLLTLDSFAKKIRDFI

EFDKDMQVNDAQLLKYGRHLRLPNGAKMIIGRNELENTLLKGLKTPKYEAIEIGDLIGAYSLVDEKISEK

DLELALKIALTYTKHEVGKSYELKFKNQAYTSIAFENKADINQFFIS

>WP\_002851370.1 MULTISPECIES: membrane protein [Campylobacter]

MQERIKELELRYKYFLLKKYLKYLLLIILISVIAFCFFVLMQKYNKQKNIYLQAIEHKKHLEQKILQAQI

LQEKNKISREKLYKELEEVKAVQENTHISKIEIDSKILNISDLKKSFYQNPSYEKALNLAKKYFDIKAYQ

KTIFWALKANELDKQKQDSWLIFAQAKRALGEEKEAQSALDAYINYYGLMELDGK

>WP\_002851362.1 MULTISPECIES: methyl-accepting chemotaxis protein [Campylobacter]

MFKSLNIGLKLIFSVAAVVVIGLVILISLITKQVSQNITKNTEDILASITKEYATQTQGIFGEMIALNKS

ISGTLTEMFRSTSKEDLDIDNITNIITNTFDNSAYSNFTYLYLIDPPEYFKEESKFFNTQSGKFVMLYAD

EEKDNKGGIKAIQASDEIANLQVVQDILKKAKYGENKVYIGRPIKMNLEGQDFDAVNVAIPIFDRKNQVV

GVIGMTLDFSDIATYLLDPKGQKYDGELRVLLNSDGFMAIHPNKNLVLKNLKDINPNKGAQETYKAISEG

KNGVFNYIASDGDDSYAAINSFKVQDSSWAVLVTAPKYSVFKPLKKLQLIILGASFIFIFVVLGVVYYCV

RKIVASRLPVILSSLESFFRFLNHEKIEPKAIEIRANDELGAMGRIINENIEKIQISLEQDQNAVDESVQ

TAREIEKGNLTARITKNPINPQLVELKDVLNRMLDVLQSKIGSNMNEINRVFDSYKALDFSTEVFNAKGE

VEITTNILGKEIKKMLLASSNFAKDLANQSEELKNSMQKLADGSNAQASSLEQSAAAVEEINSSMQNVSG

KTVEVASQADDIKNIVNVIKDIAEQTNLLALNAAIEAARAGEHGRGFAVVADEVRQLAERTGKSLSEIEA

NINILVQSVNEVAESVKEQTAGITQINDAIAQLETVTKENVEVANVTNNITNEVNQIAAAILEDVNKKRF

>WP\_002851351.1 MULTISPECIES: amino acid transporter [Campylobacter]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>WP\_002851346.1 MULTISPECIES: HrgA protein [Campylobacter]

MSSKLSYKELTLEILKQSDRPLSVNEIWQKALEQGLDKKLSSIGQTPIATLGARIYVDIKELQHNSLFIK

ASQKPTTFWLKERENELLKLDNKNEITNEKQEKNKFHERDLHPLLVKFLYENLDFNLNCKTIYHEQSKKG

KGGEDKWNYPDIVGVYFPYDDYEKETITLLENIKQNSYKLFSFELKIALNFSNLKECYFQAVSNSSWANE

GYLVVLQEIDSEVLSELRRLNQSFGIGVIKLEKDISNSQILISAKEKELDIQTLNMLINKNPNFKEFIDD

INKQIKVGKEAKIQANFDEIKSDEEMEKYLKEKCILEK

>WP\_002851344.1 MULTISPECIES: MFS transporter [Campylobacter]

MRKSKFGTKEIKILGLSSLGGTLEFYDFIIFVFFAEYIANVFFPKDMSEFWALLNTYGAFAAGYLARPLG

GIVMAHFGDKFGRKNMFMLSILLMVLPTFVLAFIPGYETLGFLAPVLLILIRIFQGIAIGGELPGAWVFV

REYCQEKQKAFFLSCLNSAMALGILLGSIVFLIINAFFSIEEIAAYAWRIAFFVGGIFGIISIYLRRFLQ

ETPVFKQMKKESSLSSFPLKDLFKEKDIVKNLFSSMMMTWVLTGCVIVLVLLMPKFMPSILNLSGVEGSY

LQILGILGIALGGAFMGYLVDKFGLFKICIFFSLTFVFFSFLYFYALYELKNLVLVCILYSIICFLGGIN

VFAPILMSEVFRAKIRFSGISFSYNISYAISGGITPQLVFWLNTLASKNENPFLYGMSIYMIFLALLAIC

AVFIVKDKIKF

>WP\_002851335.1 MULTISPECIES: tungsten ABC transporter substrate-binding protein [Campylobacter]

MKKIISLALALALSASAAELKMATTTSTDNTGLLDALKPLYEKESGNTLKWVAVGTGAALKMGEDCNADV

LFVHSPKAEKEFMKKGFGVDRTPVMYNDFIIIADKSLASKFKGKNLKESLELIKNEKLTFISRGDKSGTD

NKEKSLWKNLGGVPEKQSWYQQSGQGMLASIKIAEEKKGVILTDRGTYIKYEANEKGKPNLVIVNEGDDS

LKNFYSVIATNPKHCKNVNYTEASKFIKWVTSDKTLNFIADFKLLNKPLFVIDAKTRKD

>WP\_002851317.1 MULTISPECIES: 30S ribosomal protein S20 [Campylobacter]

MANHKSAEKRARQTIKKTERNRFYRTRLKNITKAVREAAANGNKNAANEALKVANKSIHAMVSRGFIKKQ

TASRRVSRLALLVNKIA

>WP\_002851311.1 MULTISPECIES: 2,3,4,5-tetrahydropyridine-2,6-dicarboxylate N-succinyltransferase [Campylobacter]

MINTKEDFLLLIKQIEQKSGYKKPKAFGIARLDRGQLNKNKILQASFALINYEQNFGSAAIMLEAFMQRG

VEIDFNASEFVQTLKLEDIDFALSCFKPFLEEDGHQNIDLLKIIKDKFKDDEFSFVCLFEDKEPLSVESI

YLKLYLLSTKKVPLRSINLNGAFGLLSNVAWSDDKPIELEYLRANEMRLKMSNQYPKIDFVDKFPRFLAH

IIPEDNTRILESSKVRMGASLAAGTTIMPGASYVNFNAGTTGACMVEGRISSSAIVGEGSDVGGGASILG

VLSGTSGNAISVGKACLLGANSVTGIPLGDNCIVDAGIAVLEGTKFLLKDAEELAKLNPYFNFDKEIYKG

LELKGLNGLHFRQDSISGAMIVALNKKAVKLNEALH

>WP\_002851306.1 MULTISPECIES: cytochrome CBB3 [Campylobacter]

MQWLNLEDNVNLLSLIGAILIILITLVIVGRMFKQMKEKKGESELSEHSWDGIGEYKNAVPTGWAVVFFL

TIVWAIWYFLWGYPLNSFSSIGQYNEEVATHNTKFEEKFKNLSPEDKIAMGQNIFLVQCSACHGITGDGI

NGKAQNLNIWGSEEGIINVIKHGSKGMNFPGGEMLGAADLGVAEEDIPAIAAYVAKDLSAIKKTANENLV

AKGKEAYATCAACHGEDGKGQDGMFPDLTKYGSAAFVVDVLHSGKAGFIGTMPSFPTLNDIQKEAVGEYV

ISLSRGE

>WP\_002851302.1 MULTISPECIES: 50S ribosomal protein L6 [Campylobacter]

MSRIGKQPIAIPAGVEVKLEGNLLKFKKGNLAKELDTKANVNVEIKDNNILFSPKGEDRQSRAYWGTYRA

LAYNIVVGLTQGFSKTLEINGVGYKAALKGKVLELSLGFSHPINYDIPEGIEIVVDKNTIAVKGSDKQVV

GQVAAQIREFRPPEPYKGKGVKYSDERIIRKAGKTSKK

>WP\_002851292.1 MULTISPECIES: 50S ribosomal protein L15 [Campylobacter]

MNLTKAAGSTHKTKRIGRGQGSGMGKTATKGGKGQTARKGYNEKRGFEGGQQPLQRRLPKVGFTSKIQKP

YVINVEKITAVKELSEITFESIKSVHKISKSVNKIKLIGASAKDLVSKIKDENISVTGSK

>WP\_002851277.1 MULTISPECIES: ribonuclease HI [Campylobacter]

MKHIEIYTDGSCLNNPGFGGWAYILRYKEYQKEGFGAEANTTNNRMELMAIIESLKALKEPCEISLFTDS

NLMVQSINEWLEGWIKKDFKGKKNIDLWKEYIKVAKSHKIKAFWVKAHNGHLENERCDTLAREAALKIAR

ENDEKH

>WP\_002851270.1 MULTISPECIES: imidazole glycerol phosphate synthase subunit HisH [Campylobacter]

MKIIIIDTACANLASLKFCLDRLGFNATISRDLKELESADKLFLPGVGTAKEAMKNLEQFNLIDFIQNTK

KPLLGICLGMQILGNFSEELNQETLKLIDFTTQKFKAKEGFTFPHMGWNEVYSSHALFKGLEGAYFYFVH

SYCVGLGKYTIADCEYSQKFSASVMKDNFYGVQFHPERSSEAGEILISNFIKDIG

>WP\_002851264.1 MULTISPECIES: formate dehydrogenase iron-sulfur subunit [Campylobacter]

MSKVNFANLEKERLKFFCDNERCIDCNGCAVACDEAHELPIHIRRRRVITLNEGIQGKEVSTSISCMHCD

DAPCSIVCPVDCFYIRADGIVLHDKEICIGCGYCLYACPFGAPQFPKDSVFGNKGIMDKCTMCAGGPEAT

NSEKERELYGQNRIAEGKVPVCAAMCSTKALLVGESSKIEEIYHNRLMNRNYGIPNPSESLEWKIAYTGK

ERL

>WP\_002851243.1 MULTISPECIES: ATPase [Campylobacter]

MKDFFKDQFFKALEKNTIFSRADVQGNLIFVSDKLCQISGYSKKELIGKKHSIFKHPDVEECYIEELLKK

LSYKKPYQVIFKNIDKLGKTFYLETLLIPILDKNNELIEIVAFSHDVSNSFKLNEELALNHAKLRELSIN

LENTVKNHQQEFIQLGKKFEKKMQIALEKNEKDIKIAYEEILKSSLEQMISDIAHQWRQPLNELGIAMFQ

MKQNLKDEKGFAEIYSQSKDMIKNMSETIDVFRTLFNKGVEQCVFIKETLNKALEIAFETIEKNHVNINI

VSKSDYEVLAYENGLIRVFLNLILNSIEAFKNKKRKIITINFSKFGKNYLKITIKDNAGGIDKENLDKIF

QPYFTTKHPSQGIGVGLYISRQIIESFQGKIKVKNGKDGACFEIFLKLKERVE

>WP\_002851224.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLAFFKGLGVGFLCLLLFVAGVVFNVEFLGKKDSNHDLYFSRNIEVSNTLKPDILYANINFWANENLSSK

ITLDNSEKAEITNTFNQILERSKKENFCSGGSFSLEPNFSYKDGIQTPKGQRFDANLECEFKENQLADFN

KLLNDINSIIAKNNFISVSTPAIQTKFSKDTLNNNKENLYKELLKTSYEYEKTYSLDLNKTCVLKNLQVN

ANTNIAPRMLNAKSDNIELSSPIISKKEQILNAKALFICK

>WP\_002851220.1 MULTISPECIES: Na+/H+ antiporter NhaA 1 [Campylobacter]

MNNIVHKLKTLVLNEAFGGVLLIVCTLLALLVQNGSFSEHYREFLNLKVGFSVGEFELNKPFLLWINDGL

ISIFFFAIGLELKKEFLHGDFKNPKNIVLPFMAALGGILIPAMLFALVNIGDAYTLKGWAIPTATDTAFA

LAILMMCGKHIPSSLKIFLLSLAIFDDVGAILIIAIFYTTKLSIAAFVIAGLAILVMLILNLLGITRKSF

YFICSVILWISVLKSGVHATLAGIVTAFFIPMQTKNGEAFLEEIYESLKFWIAFIILPLFAFANAGVNLS

NIDIGAIFSGVSIGIFLGLFVGKQVGVFLFSYLAIRFKFAALPQGSNLKQLYGVCILTGIGFTMSLFIDG

LAYEVSDIFNYADNLAILIASFCSGIWGFIYLKFFTTRS

>WP\_002851214.1 MULTISPECIES: 50S ribosomal protein L22 [Campylobacter]

MSKALIKFIRLSPTKARLIAREVQGMNAELAMASLKFMPNKGAKYIANAISSAVANGGFEANEVIVKSCR

VDAAAVLKRFRPRARGSASRIRKPTSHILVEVAKAEVKSEEKKTVAKKTTTTKAPAKKTTSTKKATVKKE

S

>WP\_002851191.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKVDNFLNTYSMNSALLDRAAKARSLESSIKINDNDIVTKSKEDKALKEQTNAFEAFFLKQVLDVSLKSQ

NSLFGKDASDEIYSSMYNDTMSKALSGGMGFSKLLYDFLKERG

>WP\_002851189.1 MULTISPECIES: peptide chain release factor 1 [Campylobacter]

MLASKLDPFFKRFEELNSLLSSSDILNDISKMTTLSKEQKNLEPIVLKAKEYLKTLDNIEENKALLNDPE

LGELAKEELKTLEELKPKLEEEIKILLLPKDPNDERNIFLEIRAGTGGDEASLFVGDLVKAYARYAENRG

YKLEIVSSSEGSVGGFKEIIMLVKGTGAYSRLKYEGGTHRVQRVPQTESQGRVHTSAITVAVMPEVDDIE

IEINPNDLKVDVMRSSGHGGQSVNTTDSAVRITHIPTGIVVVNQDGKSQHKNKESAMKVLKARLYEMQES

ERLAKESEARKSQVGSGDRSERIRTYNFPQNRISDHRINLTLYRLDAIMQDGLFDEIIEPLITHHQAQAL

QEQNL

>WP\_002851185.1 MULTISPECIES: outer membrane protein A [Campylobacter]

MKKIFLCLGLASVLFGADNNVKFEITPTLNYNYFEGNLDMDNRYAPGIRLGYHFDDFWLDQLEFGLEHYS

DVKYTNTNKTTDITRTYLSAIKGIDVGEKFYFYGLAGGGYEDFSNAAYDNKSGGFGHYGAGVKFRLSDSL

ALRLETRDQINFNHANHNWVSTLGISFGFGGKKEKAVEEVADTRATPQAKCPVEPREGALLDENGCEKTI

SLEGHFGFDKTTINPTFQEKIKEIAKVLDENERYDTILEGHTDNIGSRAYNQKLSERRAKSVANELEKYG

VEKSRIKTVGYGQDNPRSSNDTKEGRADNRRVDAKFILR

>WP\_002851181.1 MULTISPECIES: DNA primase [Campylobacter]

MITKESIENLSQRLNIVDIIENYIEVKKQGSSFVCICPFHADKNPSMHINPIKGFYHCFACKAGGDAFKF

VMDYEKLSFADAVEKVASLSNFTLSYTKEKQENKKELKSILPSLNAYFKDNLKHHKEVLTYLYQRALNDK

DIAKFELGFAGASEDSIRLLQNQKIPLEDAMSVGALKKDENNEFYASFIWRITFPIYDHKDLLVGFGGRT

LNPNVPAKYVNSPQNILFDKSRIFYAFNIAKENIAKKKEIIVCEGYMDAIAFHKAGFNNAVAVLGTALTE

HHLPLIRRYDAKVILCFDNDEAGLKAATRSAFLLSTNKIDGKVAILQGGKDPAELVAKNESTKLHNILDE

GIELGEFYIRRLISTHSIISALDKQKALETIQKFTFNLEPLVANSYTSLVSNLLKVDEKFIVLSQNSKKT

IQTPLISQNKYNFPKEKIHIAELELIAFLKQHPDICNDFKQISDSVCFKHKILLDKILEKKGYEDSDIRE

FESKNIRKNLNYSEFLLGICKVNLAFLNNVKIKNSTLALKKQLFTLIDKNLNLLIKNLNTAELNNFLKEY

LSFLKYEKNEEILQQSFRNLNGIFGNKNFTAYDLGFSIQNNDEPF

>WP\_002851157.1 MULTISPECIES: thioredoxin [Campylobacter]

MGIFRIQAYFFALIIALFFVACDSGENFKALNSDKTYNFAYNGFEKSLKLNDKAQNFALVFFTKDCGVCK

EQIPILQNLAKNYDFNIFVVLGDANDANDAKAWADEKGLSNLAMFYEKRAAKYLSSAIGEIYGVPVLSFF

KEGKMDEKFIGLTPYSILEKEIKKVKS

>WP\_002851150.1 MULTISPECIES: lipoprotein [Campylobacter]

MLETKKSFWPYGILLSLLAIIIACIVTIFIASHHPVYEDDFYFDSYQNVENNYNQIQKQQVNFDKFFKVN

FQNDKITFIGKRKIPSYEVDQNSYVANFKISALQNINSNDLKVQVLLTRPFTKNFDQKLEGQVKNGILSI

ALPKLDKGRWELKLKFYANQETVGFFSYELNAQ

>WP\_002851149.1 MULTISPECIES: NADH-quinone oxidoreductase subunit H [Campylobacter]

MSDFAFFALETLIKCIIIIAIFASLAGLATYAERKVLAYFQRRIGPDMVGPFGLIQLVADMIKLFTKEDI

IPSNSQKFIFAIAPLISAICAFVSLAAIPMLPEFTLFGRVIQPIVADINVALLFVIGTSGLCFYAVFLGG

LASNNKWSILGAARGLVSIISYESVGALALIAIIMLVGSFSLVDINNYQSDGFFSWLIFKQPLAFVLFII

ALFIETNRTPLCLTENDAEIVAGYGTEYSGLRWGMFFIGEYTSMIAGAILVTLLFLGGFNSFWIIPGWIM

MIVKSSFIFFWYFWARAAFPQLRPDQVMKMCYLILIPLAVLNLLITALTVLL

>WP\_002851148.1 MULTISPECIES: allophanate hydrolase [Campylobacter]

MFSVHFSGSKALLLRFEQEISPQINAYVLSTEQRIQKALKEGEIYGIDELVSAYASLLIYFNPCVLSLNS

LLDFLEKIKKDIKLAEQNSSLCIEVPLCYDEEFGLDLEFVCKHNQISKEELISLHTKPYYLVFMLGFMAG

FPYLGGLDERLFTPRLSSPRAKIEAGSVGIADKQTGVYPISSPGGWQIIARTPLEFFDKEDEKNPTLLKA

GMFLKFKAISKDEFFDIQEQVAKKVYQKEIYEYKNH

>WP\_002851144.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKLGLVLAVLVALNVSAFADLIVINKKDLVPVSASEMQNKYFQESIKSTLTEPLFKKATFYEADIVAKV

DPRTYNSTQAIIQKEYSDKSNYVYYKQVLILTSDGKRARLSTLSCEIASFDKKGYLCGGTADHNYSIK

>WP\_002851140.1 MULTISPECIES: ABC transporter permease [Campylobacter]

MNTNFKFQNNTLFIFGIWDKTSIYKLKIKDFLALIQSKEVIFDFKDLKAIDTAGVRFFLALENDLKNKNI

KITKEGLNSRFQTLFELCEKNYQRLGKTKKSHQNFSEYFIDLGKLSLELLKILRKFINFTGAFFTSLFLC

LKNPKNFRFIAFLYHIENSAFKALPIVILTALLVGVVLAYQAAYQLAQFGANIFIVDLMGISATRELAPL

IAAIVIAGRSASSYTAQIGVMKITDEIAAMNTMGFRSFEFIVIPRVMALVVAMPLIVAISDAISIIGGMM

VAKLNLDISFAEFLRRFREAVDIKHIFIGLAKAPIFGFLIGLIACFRGFEVKNTTQSIGIYTTKSVVNAI

FWVIAFDALFSVILTSTGI

>WP\_002851120.1 MULTISPECIES: flagellar motor protein MotB [Campylobacter]

MAKKHKCPECPAGEKWAVPYADFLSLLLALFIALWAISKTNPAKVEALKTEFVKIFDYTSTQTVKEESKT

QEKYKGAAKEESDELKSLKQMTMTQQETIKRLQAALDQSDNQVALNLPSKVEFERGSAQIVSADIQDYLK

RMAELTTYLPPQAKIEIRGYTDNSDSIIRSYELAYQRAENVLKYFIEGGANLKNISIKSYGLNNPINGNP

QTLENNRVEIYFKVDTADTSTQKSVLELINKIGTKAP

>WP\_002851098.1 MULTISPECIES: transcription termination/antitermination protein NusG [Campylobacter]

MSTHKWYAIQTYAGSEMAVKRAIENLVKDNGIEEQLKEIVVPTEDVIEFKNGKEKISERSLYSGYVFALL

DLNTELWHRIQSLPKVGRFIGESKKPTPLTEKDINLILEKVHNRAAPKPKISFEEGENVRITEGPFANFT

AIVEEYDMVRGLLKLNVSIFGRSTPVEILYSQVEKII

>WP\_002851090.1 MULTISPECIES: dehypoxanthine futalosine cyclase [Campylobacter]

MKRLDKKEALDLLHHASLTELGEMAYKRKLELHPEKITTFVVDRNINYTNVCCIDCSFCAFYRHHKEDDA

YILSFEEIGKKIEELEAIGGTQILFQGGVHPKLKIEWYEELVSWIKEHYPNITVHGFSAVEIAYIAKASK

ISITEVLKRLQAKGLFSIPGAGAEVLSDRVRDIIAPNKCDTATWLEVHRQAHKIGMKSTATMMFGTVEND

EEIIDHFEHLRKLQDETGGFRAFILWSFQSDNTALIQKHPEIMKQSSNKYLRLLALVRLYLDNFKNLQSS

WVTQGSLIGQLALKFGANDLGSTMMEENVVSAAGASYRMNQDEMIRLIRSLGENPAKRNTAYEILERF

>WP\_002865770.1 menaquinone biosynthesis decarboxylase [Campylobacter jejuni]

MKEFIQILKENDLLRVIEEPVDVDLEIAHLAYIEAKKGEKGKALLFKNPIDKKLNKQYKFPVLMNTFCNK

KALNLAFGRDYKEVAEEISKLIKLHIPTSFKAKMDFFMNLLSFKNIPPKRLKKNKALYDYEILNSLEELP

ILKTWEDDAGKFITMGQVYTQNLDKTQNNLGMYRLQMSDKNELLIHWQIHKDGANFYHEYKNAGFKKMPV

SIAIGGDPLYIWCSQAPLPKGIFELLLYGFIKKTPAKITPCENGIFVPYDSDVVIEGYVDLEEFKIEGPF

GDHTGFYTPAELFPVMKVEKIYAKKDAIYQATVVGKPPLEDKIMGLGTERIFLPLLQTSVPDLIDYNMPE

NGVFHNLILAKIDAKYPAHAQQIMHAFWGVGQMSFVKHAIFVDKNAPSLKDYDALIPYMLDRFNTKKILI

SEGICDQLDHASPNSCFGGKAGLDACEEIQVEELEILEDEKLLELFKTKVELLNLKQFYKESKSPIVCIL

LDKKEKIEQSFDKLLEFKKYFRILVFLDAENKLENSYMLVWRVVNNIDAKRDIFIKEERLGVDASAKGEA

EGYLRAWPKQTDCTKSVIEDLILRNILENNPDLFNKFEIF

>WP\_002858812.1 MULTISPECIES: biotin--[acetyl-CoA-carboxylase] ligase [Campylobacter]

MEKGLKVKIVCVESIDSTHLFLCKQIRNGKIDENFAIYALEQINGVGSRENSWQSSKGNLHLSFCIKEED

LPKDLPLASVSIYFAYLLKEVLQEKGSKIWLKWPNDLYLDDKKAGGVISAKISNFIIGGMGLNLKFAPQN

TALCDIEISLKDLVSEFLQKVEKKILWKNIFSKYMLEFEKSRKFSVHHEGKVFSLENSFLYEDGSILLGD

KRVYSLR

>WP\_002851521.1 tRNA(Ile)-lysidine synthetase [Campylobacter jejuni]

MQIKDEILSLLKRGKNLLAFSYGSDSSVLFYLLMQEKIDFDLVMINYKTRKNSDLEELKAKELALKFHKK

IFIKHAPKFQSNFEKKARDFRYDFFEKICLEQGYDHLILAHHLNDQFEWFLMQLSRGAGLAEILGMQECE

KRSNYTLLRPLLFISKDEISSFLKEKDIFYFHDESNENEKYFRNYIRKNFSNAFVSEFHQGLKRSFSYLD

EDRKKLYDFENIKEIQGLLICPKNESLIARAVKMKGLLLSTAQRKELLKGDCVLGGKIALAYKNEQAIVF

EYETCQKLPKNFKEECRIAKIPRLLRAYLYNHKIDISSLSF

>WP\_002906848.1 MATE family efflux transporter [Campylobacter jejuni]

MAKKQLSLTRLSFPIFWDLLSKYLTVIINTAMVSHYSNFLVGAMGAGNQILDLFITIFSFLSVGCSVLIA

QAIGAKDHVLARKVIHQSLFLNALLGFVCGVLILWHGEYLLYLLKIPQELLKDSEIYLHMLAICLFFDAI

GIVLAAIVRVYNMAYWVMFIGFLMDIVVICGNYYVLHYTKSELFGVGLSNIFARIVAIVALFAILFYKLK

IHLKIKEMIKLEKEVLKKVLNIGGFSAGENLLWIVQYTIAFAFVASLGEASLSVQTIYFQISMLIMLIGQ

AISIANEIIVGKLIGARYENIAYKHAWRALYFSVIASALVAFLNYLCQDFTMQILGLKEELKNLMIPLFA

LSIFLEISRTFNIVMVNSLRASGDAKFPFFSGLVFMMGVSLPVGYVLCFHFNLGILGVWIGFCADEFLRG

MVNSYRWKSKKWQGKALV

>WP\_002864556.1 signal recognition particle-docking protein FtsY [Campylobacter jejuni]

MFNFFKKGLAKTLENIVGVKGENKKITKDLLEEILLEADVSYEIVEEIIYYLPPQNEVKKEDLKRVMGSY

FLYEKKETNQEKPFVELILGVNGAGKTTSIAKLAYLYKNQNQKVILGACDTFRAGAIEQLKLWAQKVDVD

IVLTAQGHDPSAVTFDTISKAKAKDFDRVIIDTAGRLQNQKNLAHELEKIVRISNKALEGAPHRKILVLD

GTQGNAGILQAKAFNELVKLDGVIITKLDGTAKGGALFSIARELELPIFYVGVGEQMTDLQEFNASAYLD

TLLDPIFE

>WP\_002864577.1 MULTISPECIES: membrane protein [Campylobacter]

MHFTIFHIIAFIILLICFALICILIFLKVKQKEMALISYTIATIFTALLIYSIFLTINQFTTQADLSKLT

YTRDLRHESVIVSGKVQNLTKFEIKKCYLILSILNQQQVGGEIFNDKNIRNAKMQNTSVSYTIEIIDTLP

GNTYKEFRASVPFPPTFNNPEFYHTLKCI

>WP\_002864362.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKKIFLTFMVLVNCVFASDELNIDSLFKKQIGLRSITSFSLLSTGNANSYSLYPNITIGGDPTIWNDTKQ

VFLTQTFIYTLTPKFDILISGGGSYARQEYTNFFTNAYSHKDRIGFDNLWLGFIYTGDSIADLIPQITFQ

TAVVQREKAINQTKNFYLKSQSLQASLRGYSDPVVYSIYTGFGYNQSRKFKTLKIEYGNSIYVGGDLSII

LSPKITLDLGAEQRFQMKQKINGYQNSEVRSIPTLSLGSTYSINSDTAVSVNASFGGSSASPDSIFGISL

WKKF

>WP\_002864286.1 MULTISPECIES: NAD-dependent protein deacylase [Campylobacter]

MKNIMILSGAGLSAPSGLKTFRDNDGLWEEYDVMEVCSATGFRKNPKKVLDFYDARRAQLQNVKPNHAHE

KIAQLKEKWGKNLFVITQNVDDLLERAGCKDVVHLHGFLPELRCLKCEGIFNIGYEKFTDKQCPKCKSKD

LRHNIVMFEEQAPAYATLYSLLHQTSLFISIGTSGAVLPVGQYASMCEKSILNIYEKDVNLERYFDKIYI

EDIISAIDKIALDIENFMKDGNV

>WP\_002864265.1 MULTISPECIES: N,N'-diacetyllegionaminic acid synthase [Campylobacter]

MKKTLIIAEAGVNHNGDLNLAKKLIEIAADSGADFVKFQSFKAKNCISTKAKKAPYQLKTTANDESQLQM

VQKLELDLKAHKELILHAKKCNIAFLSTPFDLESVDLLNELGLKIFKIPSGEITNLPYLKKIAKLNKKII

LSTGMANLGEIEEALNVLCKNGAKRQNITLLHCTTEYPAPFNEVNLKAMQSLKDAFKLDVGYSDHTRGIH

ISLAAVALGACVIEKHFTLDKNMSGPDHKASLEPQELKMLCTQIRQIQKAMGDGIKKASKSEQKNINIVR

KSLVAKKDIKKGEIFSEGNLTTKRPANGISAMRYEEFLGKIATKNYKEDELIRE

>WP\_002864263.1 MULTISPECIES: CMP-N,N'-diacetyllegionaminic acid synthase [Campylobacter]

MAEILCTICARGGSKGVKNKNIRKINKLEMIAYSIIQAQNSKLFKHIVISTDSDEIASVAQKYGAEVFFK

REAHLANDRTAKLPVMRDALLRSEEHFKTCFETLIDLDASAPLRSSLDIKKAYESFVENDNSNLITAVPA

RRNPYFNLVEIQNNKVVKSKEGNFTTRQSAPKCYDMNASIYIFKRDYLLENDSVFGKNTGLFVMDESTAF

DIDSELDFKIVEFLISLKNLSPKDF

>WP\_002858702.1 MULTISPECIES: haloacid dehalogenase [Campylobacter]

MFFLDVQGTLISDHDKSLIHGAKELIDFLNAKNLPYLIITNNTKKLDFLEKLQQKGLVIKENAYIDPFSV

LKHLLRPCKVAAFGADEFVKSLENLGFELDFVNPSAVLVASYDDFKFKDFATMIELARREVRFIAMHETS

IYKKDGRPYPGVGSIMAMLKNAIDFEYEVVGKPSIAFYKEALNLIRRQNSKIDFEDIKIISDDFRGDLLK

AKELGMKTLLVLSGKISDTKGLDTDLLDGVYPSVFEFLKDLKCQI

>WP\_002852633.1 MULTISPECIES: phosphopantetheine adenylyltransferase [Campylobacter]

MTCLYPGTFDPITNGHLDVIKRALKIFDEVIVAIAKSEHKKPCYDLEKRKELALLATQNLKNVKIIAFDN

LLVDLAKELKVNTIIRGLRAVSDFEYELQIGYANHALWEDMETIYLMPSLKHAFISSSIVRSIVAHGGDV

SSLVPKEILPFLKDQSCM

>WP\_002852526.1 MULTISPECIES: thymidylate kinase [Campylobacter]

MYVVFEGIDCVGKSTQISLLKEIYKDAIFTLEPGGTELGKHLREILLNKTHPINKRAELLLFLADRAQHF

EEILKTNQNKLIISDRSFISGMAYAKDFENDLLFALNSFALENFFPQKIIFLKGDANLIQERLSQKELDS

IEKRGIEYFLSVQDKLEKVLHFLKEKISVEILTLDAKESKEKLHQQIKEFLQ

>WP\_002851664.1 MULTISPECIES: endoribonuclease YbeY [Campylobacter]

MILSDEKCDFLESIASFLSPKDVELVFVDSKEMQEINLEQRKQDKTTDVLSFPLENIDESLPLGSVVINV

DLAKEKAKELGHSYEEEISLLFIHAMLHLLGFDHENDNGEMREKEKELIEHFNLPKSLIVRTLED

>WP\_002851459.1 MULTISPECIES: 30S ribosomal protein S9 [Campylobacter]

MATTYATGKRKTAIAKVWVKPGSGKISVNGVDLNTWLGGHEAIKLKVVQPLLVTKQETSMDIKATTLGGG

YSAQAEALRHGISRALAAMDADFRALLKPKGLLTRDSRTVERKKYGRRKARRSPQFSKR

>WP\_002851441.1 MULTISPECIES: 50S ribosomal protein L23 [Campylobacter]

MADITDIKTILYTEKSLNLQEQGVVVIQTSPKMTKTGLKAVLKEYFGVTPKSINSLRMDGKIKRFRGRLG

QRNNYKKFYVKLPEGVSLENTEA

>WP\_002851265.1 MULTISPECIES: hypothetical protein [Campylobacter]

MIKKFILLVFISSVVFGAEQDCEQYFEARKAQIELQTREFDEARQSLEAYKASFEALQKERLENLEKKEA

EVNATLAKIEELKLENARLVEEQQKILNSINDKTQGRVKEIYSQMKDAAIADVLSQMDAEDASKIMLSLE

SRKISGVLSKMDPKKASELTLLLKNLDNNASN

>WP\_002851156.1 MULTISPECIES: carbamoyl-phosphate synthase small chain [Campylobacter]

MKAYIYLENDIFLSAKAFGKSGTFFGELVFNTSLTGYQEIISDPSYAGQFIVFSMPEIGIVGTNENDNES

KEIFASGVLMRELSSSFSNFRAKESLQDYLEKHGKIGIYELDTRYLVKMIRNNGNLRAVISTEISNKEDL

KIALEKSAKIDEVNFVKEVSTKKNYSHKQGVWNASFQKFNDAKRSEKKVAVIDYGVKTNILNELVEVGFE

VEVYPYNVKADELITLYKKGEIQGVFLSNGPGEPRILKQEIAEIKKLAEAKIPMLGICLGHQLLSNAFGY

ETYKMKFGQHGANHPVINLDTKTVEITAQNHNYNVPEELAQVAHITHRNLFGDNVEGVRYKDYPIISVQH

HPESSSGPHESKYIFKEFMNLM

>WP\_002851634.1 N-acetyl-gamma-glutamyl-phosphate reductase [Campylobacter jejuni]

MKIKVGILGASGYAGNELVRILLNHPKVEISYLGSSSSVGQNYQDLYPNTPLNLCFENKNLDELELDLLF

LATPHKFSAKLLNENLLKKMKIIDLSADFRLKNPKDYELWYKFTHPNQELLQNAVYGLCELYKEEIKKAS

LVANPGCYTTCSILSLYPLFKEKIIDFSSVIIDAKSGVSGAGRSAKVENLFCEVNENIKAYNLALHRHTP

EIEEHLSYAAKEKITLQFTPHLVPMQRGILISAYANLKEDLQEQDIRDIYTKYYQNNKFIRLLPPQSLPQ

TRWVKSSNFADINFSVDQRTKRVIVLGAIDNLIKGAAGQAVQNMNLMFDFDEDEGLKFFANL

>WP\_002816240.1 MULTISPECIES: malonyl-[acyl-carrier protein] O-methyltransferase BioC [Campylobacter]

MNFLKAKDYEKHAKVQDFMGLKLCEILKNLRISHFEKVFEFGCGRGELSKKLQNFITFDEYLKNDILDFK

ENSSILIFDMNEIAKQDLSKEKFDLIVSNATLQWLDLKRIIPSLRDMLNQNGILLLSTFAEQNLKEIKQS

TGFGLNYFSLNELEQIFKVYFNEVKITQELIKLSFDNALDVFRHLKLSGVNSLGFYPLNKGFLKEFEEKF

QNKLTYHPVFILCKNDIK

>WP\_010891946.1 MBL fold hydrolase [Campylobacter jejuni]

MFNFITTLLKTNLYFLEEKTTSKNSNQTHIISLKQSDDEFLNLLFSFLVPQSDEDKNFIEKTRTKIKRNE

HNIVLIKNPNFNALIDTGFLDTIDTLKEKLHIHKTDFKDITHIILTHAHPDHIGALMSEENLFPKAQILI

DKKKYDFWIKSDRQEIKNTLLKLKNIEFIDHSKDLIFQNSGIKAIPAYGHTPGQNAIIIDDKIVFWGDLL

HLYDIQIPKPKIAIKFDIDQNEAIQTREKLLKEFKERKLKVIGTHVPFIKPKFLD

>WP\_002851566.1 MULTISPECIES: 50S ribosomal protein L29 [Proteobacteria]

MKYTEIKDKTAAELATMLKEKKVLLFTLKQKLKTMQLTNPKEISQVKKDIARINTAINALR

>WP\_002797817.1 MULTISPECIES: CRISPR-associated endonuclease Cas2 [Campylobacter]

MIEDKFMRVLLMFDVPTKSKKEQKLASKFRNNLIKLGYFMLQFSVYMRICKGLSSAKSSIENVKKILPPY

GNVRALIITEKQFDKMELLLGGIVFNEKVNNETNLTLFDIDSHGEFKYKNSNNEEIQINKKQEKYHQQNL

FEF

>WP\_002864856.1 fructose 1,6-bisphosphatase [Campylobacter jejuni]

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>WP\_002858692.1 TonB-dependent receptor [Campylobacter jejuni]

MKKLSLFCAVGLCFASFAFSEELEFDSLEISGSKIKNDEKPFVTPGATSTREGIGSDTQSIDSIVRSIPG

TYTNTDQAQGTVQVNIRGMSGFGRVNTMIDGVTQTFYGSASDDPARFHSQTGTSAFGAVIDTNFLIGVDV

TRGTFEGVGGANALMGSANFKTIGINDIVHDGNIFGFLGRFSYGSNGIGPSYMSAVAGKTELENNGYVGA

LFGYSAKRITQNYTVGGGGKIGSSMVDTDGDGIADTNIAPFDPDFLTQKPNSQLFKLEYVPNSFTNTIFS

YRRYQNELAGRKIHNDNYQLDFWHNPNEWLNVNTLIAYNQGIQTYGSKSTFAANDAIANTKAKNTATTFD

ISDTLEGEWHRFNLNIRFGANILLNDYKNTLNTSIQGVNSIPFQPRGKQNLFTYYLDNSLNYGIFTLDTN

VNLLDWNIKGHRPACDEVNFMCFPKAATDIDKNGLRLNASVMLSAAIHELITPFVSFARTNRAPNVQEMF

FSNNEGNGINSFLKPEQANTWQIGFNSFKHGLLKDDDRFGFKAVYYHTKIKDYIYNEQFYLEDPSKDPPS

SQFYMHLNSADDTIFKGVELELSYDLGFAYAKAMYSRQDTSSTISQTSGPLLGSFSASKIMELPKDYANV

ELGFRLNDKISFGGIAKYTGKAKRVNPNTDDWNKDPNNPYYPKPTTQDLPKIPIIVDLYWNIEWFKNLTM

RAEVQNLFDKNYMDALNAYNSLDNQLQYNGAGDPIYLFSNSARGRTFIVSFEYKY

>WP\_010891884.1 HrcA family transcriptional regulator [Campylobacter jejuni]

MMKSRDKKDLILESIIQTYLLDNAPIGSNELNSNLCIPASTIRVYLKRLSDEGLITQLHISSGRIPTILT

MQNYWQNFWEKEQDKNIHIKNESFLKELSKEFEIYCLVYGGRSLVLKEVLDLNTKFIVLDFEDEELVLKY

EKEAWNFLQSLIGLDLSSIEKIALRVHFIDLVEKIASLRQNLICYRSNEERAYQIYQNDEFVKLLDCQIH

RHFKESLEFEPLFKEGFMGLKVDAQFLGEDVNIILAGSVYTDYKKILQYIKEAA

>WP\_002799206.1 MULTISPECIES: Na+/H+ antiporter NhaA 2 [Campylobacter]

MQMIKKMVLSETFPGILLIFFTFLALLCKNSSLSVIYTDFFHANFTVGFDHFQISKSLDLWINDGLIAIF

FLCIGLELKYEILRGQLKNIRAVSLPIFGALGGMITPALIFIAINYSHDFAMKGWAIPTATDIAFAVGIL

MLLGNKIPTSLKLFLLSLAIFDDLGAIVIIALFYTDQLSALAIIICLFCIFALLLLNYYHITHLSLYVLV

GVVLWIAMLKSGVHATLAGVIISLFIPLDTKNKKPYLHEVLKDLNPWVVYFILPLFAFANAGIDIRDMHL

GSVFSPVSLGIILGLFLGKQLGVFTFCFIAIKLKLAKLPENIKYGKFYGICILTGIGFTMSLFIDGLAYK

NSDIFEYADKLAILVASFLSAIVGFIYLKIVK

>WP\_002777340.1 MULTISPECIES: signal transduction histidine kinase [Campylobacter]

MSREIFLQEDSLITSKTDLKGKIVYANDDFLKYAGYTMGEVLNKPHNIVRHEEMPKTVFKYLWDYMKEGK

EIFAYVKNKTKDNNYYWVFANVTPSIDVNNNIIGYYSVRRMPNKSAISTIESLYSDLLRAEQQQGLNKGV

EMLKNFCKDADKTYNELIFSLQEAK

>WP\_002851153.1 MULTISPECIES: ribonuclease 3 [Campylobacter]

MKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAVLDLVVGEYLFHKFAKDAEGDLSKL

RAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALEAIIGAIHLEAGFEFAKTIALRLIE

KNFPQIDAKILIKDYKTKLQEITQGKIGQTPQYETVRAFGPDHLKQFEIALMLDGKELARAIAGSKKEAQ

QMAAKIALEKLGAL

>WP\_002786080.1 MULTISPECIES: haloacid dehalogenase [Campylobacter]

MNLFSPHLKRNELIKFAKELDFSKSQDLLINVHRNHAFEGVQSIIAPFLHFANLRAEFNFSSYDDSLSFD

NFKEASLELLWLDLTRYKNNVQNFIEERLLELRKISQNPILVLSLGEFKTDKKILNCEIFNIEKLIKEYF

DEEDILDLAKEELTGSKLNNKALIFLAQILGLSLIPALVKPALKALVLDLDNTLYQGILGEEGIDNLNLS

PLHKTLQEKIKTFKKQGFLLALASKNEEKDAKKLFEIRKDFILQWDDFDARMINWEPKGENILKIAKKFN

INTNAMLFIDDNIAELENTKITGVKTLLCDENILYKIKLFPNLLKLSNTKEDQIRAKDIAANALREELKS

LSDEEYFQNLEISLNFSKNDLQNIPRISELLGKTNQFIANYTRLNQEKVAQHMQKELIVSVSMSDKLSDS

GIIAIFVFSCKEGNLFIDDLCISCRALGRKLETRMFFKAFELALHFFDLKNNNARLYYQKGERNMPFLSF

LEQISKEFEKNSALIPFQNLNFKGLIIHEN

>WP\_002871824.1 glutamate--tRNA ligase 1 [Campylobacter jejuni]

MYRFAPSPTGDMHIGNLRAAIFNYICARQKNMDFILRIEDTDKARNIAGKEEEIKEILNLFSISWQHYYI

QSENLKFHRQMALKLVSEKKAFACFCTEEELEAKKELAKKQGKAYRYDGTCEKLADIDVLECEKPFVIRL

KKPTHTMKFTDFIKGELSFEPENIDSFVIMRTDKTPTYNFACAVDDMLENVTCIIRGEDHVSNTPKQEHI

RASLGYNKAMTYAHLPIILNEEGVKMSKREAHSSVKWLLESGILPSAIANYLIMLGNKTPCEIFTLEEAI

KWFDISKVSKAPARFDLKKLLQINREHIKMIKDDELNKILDLNKDLAQLAKFYTQETSTIKELKEKMQAI

FNAKDFGEFETEYKILKELLKDIELFENYEDFKNELLNKSNLKGKKFFMPLRIILTGNIHGPELSDLYPY

IKNFIHELARI

>WP\_002793291.1 MULTISPECIES: periplasmic protein [Campylobacter]

MKKVILTSAMLCSVLFGVQEYEANLAGHIIIDSKSTVKPPKDAPDFFKTYGKFANIAREEKIGTFKSKGN

RETDFYLPFKNQPIQGHSGIKYIPKKDVFWVISDNGLGKKYNSYDAMLYAHEFKFDFKNSKYELLKTVFF

KDSDKKYPYPITTETTKERYLSGVDFDTESIQVINDEFYIGDEFGPYLLHFDKNGNLKEVFDVYVEGKKL

ISPDNPSLKFSDKPDGENEKFNIKRSKGFEAMASSKDGSKLYLLLEGSIYNNNAYENEKGKEYLRIIEFN

VKNKKFTGKTYKYFLEDKSHSIGDFNMIDDKYGIIIERDQKEGTKDKACKEGEDTKHCFNNVAQFKRIYK

VKLDDKTHEAQKISYIDLLNIKDRNKISKKPLVNDKFVFPFETIEGVDIVDDSHIVVENDNNFPYSSSRE

PNKTDDNEFILLEVKDFLKSK

>WP\_002826316.1 MULTISPECIES: molecular chaperone DnaK [Campylobacter]

MSKVIGIDLGTTNSCVAVYERGESKVIPNKEGKNTTPSVVAFTDKGEVLVGDSAKRQAVTNPEKTIYSIK

RIMGLMINEDAAKEAKNRLPYHITERNGACAIEIAGKIYTPQEISAKVLMKLKEDAEAFLGESVTDAVIT

VPAYFNDAQRKATKEAGTIAGLNVLRIINEPTSAALAYGLDKKDSEKIVVYDLGGGTFDVTVLETGDNVV

EVLATGGNAFLGGDDFDNKLIDFLANEFKDETGIDLKNDVMALQRLKEAAENAKKELSSANETEINLPFI

TADASGPKHLVKKLTRAKFEGMIDSLVAETITKINEVVSDAGLKKDEIKEIVMVGGSTRVPLVQEEVKKA

FNKDLNKSVNPDEVVAIGAAIQGAVIKGDVKDVLLLDVTPLSLGIETLGGVMTKIIEKGTTIPTKKEQVF

STAEDNQSAVTINVLQGEREFSRDNKSLGNFNLEGIPPAPRGMPQIEVTFDIDANGILTVSAKDKATGKA

QEIKITGSSGLSEEEINNMVKDAELHKEEDKKRKEAVDARNAADSLAHQVEKSLSELGEKVAAADKENIQ

KALDDLRETLKNQNASKEEIESKMKALSEVSHKLAENMYKKDEPNTANDKKKKDDDVIDAEVE

>WP\_002864795.1 23S rRNA (adenine(2503)-C(2))-methyltransferase RlmN [Campylobacter jejuni]

MKELVNILDFLPEELGEKIKPMFRVKQIYQWIYQKYANNFSDMSSLPKDLRLELARNFHFSPVKCVKNEQ

SKDGSIKYLFELIDGLRVESVLLPMKEEKIDAEGKRISHARYTICVSSQVGCKSGCSFCLTAKGGLKRNL

SAGEIVGQILWIKKQNNIPYERRVNIVYMGMGEPLDNLKNVSKAVKILAQNEGLAISPRRQTISTSGLAK

QIKELGQMNLGVLLAISLHAVNDELRTELMPINKAYNIAAIMDAVREFPIDQRKRVMFEYLLIDGINDKL

EHAKELVKLLNGIKAKVNLILFNPHEGSLYKRPSLENAIKFQDLLSNKGVTCTIRESKGLDISAACGQLK

ERAKEQ

>WP\_002857939.1 holo-ACP synthase [Campylobacter jejuni]

MRVGCDIIAISRIEKIHSRHGKNFLDKFLNPKEQILIKNPATLAGLWAAKEAASKALGVGICELCSFFDI

EISKDEKNAPKLKYSQKITKDFNITQTSLSISHDNGFAIAIVAVV

>WP\_010891932.1 phosphoglycerate kinase [Campylobacter jejuni]

MSDIISIKDIDLAKKKVFIRCDFNVPQDDFLNITDDRRIRSAIPTIRYCLDNGCSVILASHLGRPKEISS

KYSLEPVAKRLARLLDKEIVMAKDVIGEDAKTKAMNLKAGEILLLENLRFEKGETKNDENLAKELASMVQ

VYINDAFGVCHRAHSSVEAITKFFDEKHKGAGFLLQKEIDFASNLIKHPARPFVAVVGGSKVSGKLQALT

NLLPKVDKLIIGGGMAFTFLKALGYDIGNSLLEEELLEEANKILTKGKNLGVKIYLPVDVVAAPACSQDV

PMKFVPAQEIPNGWMGLDIGPASVRLFKEVISDAQTIWWNGPMGVFEIDKFSKGSIKMSHYISEGHATSV

VGGGDTADVVARAGDADEMTFISTGGGASLELIEGKELPGVKALRSKENE

>WP\_002878972.1 glutamyl-tRNA reductase [Campylobacter jejuni]

MYYCISFTHKNTDIALREKLSFSNEAKKGEFLKIISTHENIEECLVISTCNRVEIVAFVKMACAEFIVKS

LALLCDVDKDILLEKADIFEDSGAIHHLFSVASSLDSLVVGETQIAGQLKDAFAFAVKNNFCGVHLSRAV

HSAFKCAAKVRNETQISKNSISVASVAVAKAKELADLTQKKAVVIGAGEMGELAAKHLIAAGAKVIILNR

DLQKAKDLCERLGVLSEYDSLENLKKYLNQYEFFFSATNAPNAIITNSLIEELSYKRYFFDIAVPRDIDI

NENENISVFAVDDLEIVVQKNLALREQEARMAYGIIGRETSEFFRYLNDLALMPIIKAIRLQAKEYADKQ

LEIALKKGYLKKSDKEEARKLIHQVFKAFLHTPTVNLKHLQGKMQSDTVINAMRYVFDLQNNLEGLNQYK

CEFDMENNDEIY

>WP\_002864846.1 glutamate-1-semialdehyde 2,1-aminomutase [Campylobacter jejuni]

MTNKKAFKETCKFIAGGVNSPVRAFANVQSEPKFISHGKGAYIFDIDGNSYIDYVQSWGPLLFGHCDKDI

QKACQKALHKGSSFGAPTLLETELAKLVLSDFPHLEKIRFVSSGTEATMSAIRLARGFTKKDKILKFEGC

YHGHSDSLLVSAGSGAATFNSPSSLGVLEDVAKHTLVAKYNDINSVKELFEKNKDIACVIIEPIAGNMGL

VPAKQDFLEELAKICKNNQTLLIFDEVMSGYRASYLGSYGINHIQADIITFGKVIGGGLPAAAFASRAEI

MDILSPLGGVYQAGTLSGNPLAMAAGIASLTKAKKKTKLYDKLGKLAKKLTQGMKKLADEKGLPLQACHV

GSMFGYFFTKDPVSNYQDALKSDLALFSKFHKNMLENGIYLAPSQFETGFICSKMDDKIIDTTLEAVRES

FKRI

>WP\_002864836.1 elongation factor Ts [Campylobacter jejuni]

MTEITAAMVKELRESTGAGMMDCKNALSETNGDFDKAVQLLREKGLGKAAKKADRLAAEGLVSVKVSDDF

TSATVSEINSETDFVAKNDQFIALTKDTTAHIQSNSLQSVEELHSSTINGVKFEEYLKSQIATIGENLVV

RRFATLKAGANGVVNGYIHTNGRVGVVIAAACDSAEVASKSRDLLRQICMHIAAMRPSYLSYEDLDMTFV

ENEYKALVAELEKENEERRRLKDPNKPEHKIPQFASRKQLSDAILKEAEEKIKEELKAQGKPEKIWDNII

PGKMNSFIADNSQLDSKLTLMGQFYVMDDKKTVEQVIAEKEKEFGGKIKIVEFICFEVGEGLEKKTEDFA

AEVAAQL

>WP\_002858822.1 chromosomal replication initiator protein DnaA [Campylobacter jejuni]

MNPSQILENLKKELSENEYENYLSNLKFNEKQSKADLLVFNAPNELMAKFIQTKYGKKIAHFYEVQSGNK

AIINIQAQSAKQSNKSTKIDIAHIKAQSTILNPSFTFESFVVGDSNKYAYGACKAIAHKDKLGKLYNPIF

VYGPTGLGKTHLLQAVGNASLEMGKKVIYATSENFINDFTSNLKNGSLDKFHEKYRNCDVLLIDDVQFLG

KTDKIQEEFFFIFNEIKNNDGQIIMTSDNPPNMLKGITERLKSRFAHGIIADITPPQLDTKIAIIRKKCE

FNDINLSNDIINYIATSLGDNIREIEGIIISLNAYATILGQEITLELAKSVMKDHIKEKKENITIDDILS

LVCKEFNIKPSDVKSNKKTQNIVTARRIVIYLARALTALTMPQLANYFEMKDHTAISHNVKKITEMIEND

ASLKAKIEELKNKILVKSQS

>WP\_002857707.1 Bcr/CflA family drug resistance efflux transporter [Campylobacter jejuni]

MQKHTKIHGFAKFKLIVILALMSSIAPLSTDMYLPALSHVEQSFQTNSFLTQLSIASFFIAFALGQLIYG

PLSDIFGRKIPALVGIFFFIVSSLFCVIIDDIYAFIALRFFEALGGCAGVVIARAIVNDLFEIKEAAGIF

ALMMVFSSLAPMLSPTFGGILLEYFSWHSIFATLFALGILLFLMILFGLKESAPHLKNKKFSHHEAMKSY

KFVLSDKRFLVYILCASFALAAMFAYITGSSFVFTQFFSLSEQKFALLFGANALGFVICANINARLVLKY

ESEKILAKALMIMFISTVILLVNAFFHPNFLLFELSIFTSIAMLGFIAPNTTTLAMARFKEHSGTASAVL

GTVQFGFAGLISFVVGAINANTPIILAFVMCACVLVANMIYFLIKIKEKK

>WP\_002857482.1 MULTISPECIES: aspartate 1-decarboxylase [Campylobacter]

MNITLLKSKIHRASVTEARLDYIGSISIDEKLLQASGILEYEKVQVVNVNNGARFETYTIATQEEGVVCL

NGAAARLAEVGDKVIIMSYADFNEEEAKTFKPKVVFVDENNTATKITNYEKHGAIF

>WP\_002837927.1 MULTISPECIES: elongation factor 4 [Campylobacter]

MSVKNIRNFSIIAHIDHGKSTLADRIISECGAISDRQMSSQVMDTMDIEKERGITIKAQSVRLNYKFNNE

NFVLNLIDTPGHVDFSYEVSRSLASCEGALLVVDASQGVEAQTIANVYIALENNLEIIPVINKIDLPNAD

VEKVKHEIEHIIGIDCKDAICVSAKTGVGIKELIETIITKIPAPKTDDEAPTKALIYDSWFDNYLGALAL

VRIYEGSIAKNDEVLVMSTDKKHIVQDLFYPHPLSPIKTQSLQSGEVGVVVLGLKTVGDVQVGDTITLVK

NKAKEAIGGFEKAKAFVFAGLYPIETDKFEDLRDALDKLKLNDSSITYEPETSLALGFGFRVGFLGLLHM

EVIKERLEREFNLDLIATAPTVTYEIYQTDGELIKIQNPSELPPVNKIDHIKEPYVKATIITPSEFLGNL

ITLLNRKRGVQVKMDYITPERVLLEYDVPLNEIVMDFYDKLKSLTKGYASFDYEPIEFRVGDLVKLDIKV

AGENVDALSIIVPNEKAQSKGRELVSAMKEIVPRQLFEVAIQASIGNKIIARETVKSMGKNVTAKCYGGD

ITRKRKLLEKQKEGKKRMKAIGKVNLPQEAFLSVLKID

>WP\_002781436.1 MULTISPECIES: translation initiation factor IF-1 [Campylobacter]

MAKDDVIEIDGTVLEALPNANFKVELDNKHVILCHIAGKMRMHYIRIMPGDKVKVELTPYSLDKGRITFR

YK

>WP\_002822570.1 MULTISPECIES: hypothetical protein [Campylobacter]

MDKNQEKEIISYMRELLNSNEKLDCGTAFKIAKKFNINIEKIGQLADENHMRIDNCELGQFGHLDFEKAK

IEVLKKIEPSLDEKRRIFCKDARDIAKEGCGLKSMRSALKTYKVDVKYCQLGCFKEKKGKQFIVRTKTWI

ENADGDLLFGRGKTELLELIGQTGSLLHASKLMGINYKKAWMHLQTLQKNSQEILVSTRQGRSKESGTKL

TPRAMELMENYSILQKDIEEYANKRFKELFLKGKK

>WP\_002851336.1 hypothetical protein [Campylobacter jejuni]

MDERILEFIKNEQLLSWAMIDEKGVYTASAFYAFDEKNLAFIIASHEDTKHIRLASENSSIALNIAKESK

IAFLKGVQAKAEFKMASKEQMKIYFSKFPFAKFDKSAKIYALELFWLKFTNNALGLSKKLEFYKK

>WP\_010891949.1 lipoprotein [Campylobacter jejuni]

MKNITLTKIPIGEGKEPCLNSKKIVLSLATISFLASCANAKLNSEIKTYDEVNKNVKTRSASVYSPQAKI

NTTINSLHNQQVTITGNGTSNSLTIGSSGTLGSIGNTGKIIYAHANGSNTLTLANLTNNRTINGKIGIEN

NGNFTGTIAVNTFENTGQINGQIYMGIWGNNSGTLNIDKFDNSGTIIDNNKGVFEGKNTNIQTFNNSGFI

SANKGVDIGNIGTIKNFNNNGTIQGSEVGVAINTKIDTFTNNGFINSPGSGQWNNGIWISSNATIEKLVN

NGTIKGGHSAIMVTSQHIKTVENTGIIHAEGEWGSSILLEYGGFIEHIINTGTISNNNVGIGSAYGVFGT

LTIKDGGMVYGKYSAIGVGRSQTLGDLYIDGRSNNGTVSGIYSEEHGILLENNSRTQKIELKNGGIIKGN

IDGIRLINSASLSGEMILSGEGSRVEGGRGVGILNRSGKIEGSIKVEDGATVTATSNRAIANSGSGSITG

GITVSGKNTKLEGNIINTGNASIGSDIKIEGGAKVEGGLVNQGNGSISGSVQVSGGSSIDSITNEGNGAI

SGSITVYKDSKLDSITNTSTSSTGISGSITNNSDNKLEISNSGNIGGKIESTGSADMVISNSNGGTISGG

ISSSGSGSTSISNSQGSTINNGITVSGSAQVEISNQGSVGKDENGNTVTNNGSGSVGIKDWLVSTDKNTG

KLNTVVIGGSRAFNVKVENITVDQSNVDLEELNDINNIISGVNQNNIGNIGTNGSGEISLSFDPITGKLT

TDFNLNASISGATFRSLISTTSRRSTFIDNVMGNSMQSFALASSSKSQSIAMSEKGNLYADASDYIKSDL

NNGSYGSNKEHSLFILPYTSSQNVELSLNEESKGHTKGTIIGYSTLKDSGIYGVYAGYEDTKMGSTYFDI

NNRTYYAGLKYFNTLFTTEKGQEVYIKAQGKAALIKNDLTEKIGNNEAKAEPNSYAYGVNTALGMNFISN

KDIFSPEIGLAYEGGYTEAFSMKDTIGQATVKGGERTYANYLNLFSTKTSLTWFRDWLPNLKTSVELGAK

FNINPKVEAEARFGNIKVSDEFDLPRVQKFVSTSFIVPVNEAFYFSLNYNGMFDKDGNTHTGFAQFNYLW

>WP\_010891945.1 NADH-quinone oxidoreductase subunit G [Campylobacter jejuni]

MTVKINGIDCAFEEGEYILNIARRNDIFIPAICYLSGCSPTLACRMCMVEADGKKVYSCNTKAKEGMVVE

SDLQNLWDERNEIMQAYCINHPLECGVCDKSGECELQNFTHKSRVNVQKHWIKDTHKPHKHWGMINYDPA

LCIVCERCITVCKDKIGESALKTVPRGGDSVDNSFKESMGKDAYAIWTKFQKSLIGPANGDTLDCSFCGE

CTSVCPTGALIGSKFQYTSNIWELKRIPASNPHSSDCELMYYDIKQSGISNQKEKIYRVSNDFAFASLNK

AARFAFDTQNEADKDEKAFKELVELFEKNEIKNIKFNSFITNEEALILQNLKKKFNLSLINEEALKFKEF

LQEFIANSGEFYSANTQDITKSDFLVVAGMLLRYDAPTLSYKINNALVMNKGSGLYFHPMEDMGIAKYSK

NFIPHIHKNGDEEQILYFLLQKFSQDEGIKTHLAEFFVSENKEIEESINEEVVEQVIEKDEEGNEIQKEV

KKVVPKKVKKIIEVQRSVFAKNLGIDEDKLEDLLLKKANFTLVAGSDFYFHKNAKKLAKLLALIQNTTPF

KVFLNPTHTNTLGVAMICDLDNNTQEGKTLGYNEKGDFSFSYEEHANLASASLNQQEGTFLNYDKRVVPT

NAALEFKGYFLNDLANALGFDEEYTINYTKRLPINKGFSPIDFDHLDNFYTNAGDCKRGYELNLECFKQV

AKKEFISPNFENLSLKEDEILLYSANPSYQFGRFSNRASAINEVIFLGVSENLAKEKNLKDKDLVKLKIK

DKELSLSVRVDKDIKNGAFLPYFDEKLDTLSFFDERFVVANLEKLGANHE

>WP\_010891927.1 flagellin A [Campylobacter jejuni]

MGFRINTNVAALNAKANADLNSKSLDASLSRLSSGLRINSAADDASGMAIADSLRSQANTLGQAISNGND

ALGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTVKATIGATQSSKIGLTRFETGGRISTSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALADEINKNADKTGVRATFTVETRGIAAVRAGATSDTFAINGVKIGKVDYKDGDANGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGQIDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TAITNLDQIRADIGSVQNQVTSTINNITVTQVNVKAAESQIRDVDFAAESANYSKANILAQSGSYAMAQA

NSVQQNVLRLLQ

>WP\_010891919.1 major outer membrane protein [Campylobacter jejuni]

MKLVKLSLVAALAAGAFSAANATPLEEAIKDVDVSGVLRYRYDTGNFDKNFVNNSNLNNSKQDHKYRAQV

NFSAAIADNFKAFVQFDYNAADGGYGANGIKNDQKGLFVRQLYLTYTNEDVATSVIAGKQQLNLIWTDNA

IDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGADLLEHSNISTTSNQAPFKVDSVGNLYGAAAVGSY

DLAGGQFNPQLWLAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKTHANGNLFALKGS

IEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNET

VRVGADFVYGGTKTEAANHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQA

LYKF

>WP\_010891916.1 arginine--tRNA ligase [Campylobacter jejuni]

MKSIIFNEIKKILECDFALENPKDKNLAHFATPLAFSLAKELKKSPMLIASDLASKFQNHDCFESVEAVN

GYLNFRISKTFLNELANQALTNPNDFTKGEKKQESFLLEYVSANPTGPLHIGHARGAVFGDTLTRLARHL

GYKFNTEYYVNDAGNQIYLLGLSILLSVKESILHENVEYPEQYYKGEYIVDLAKEAFEKFGKEFFSEENI

PSLADWAKDKMLVLIKQNLEQAKIKIDSYVSERSYYDALNATLESLKEHKGIYEQEGKIWLASSQKGDEK

DRVIIREDGRGTYLAADIVYHKDKMSRGYGKCINIWGADHHGYIPRMKAAMEFLGFDSNNLEIILAQMVS

LLKDGEPYKMSKRAGNFILMSDVVDEIGSDALRYIFLSKKCDTHLEFDISDLQKEDSSNPVYYINYAHAR

IHQVFAKAGKKIDDVMKADLQSLNQDGVNLLFEALNLKAVLNDAFEARALQKIPDYLKNLAANFHKFYNE

NKVVGSANENDLLKLFSLVALSIKTAFSLMGIEAKNKMEH

>WP\_010891907.1 peptidase [Campylobacter jejuni]

MLEWDLSALFHDKEALQNFTQDQIQQSLNFKKNYENKLYTLNANEFLQALKDYENLNQALGKIMTYAYLL

FAKNTQNGSFYAQYEEECKKIEENLLFFELEFCELAPEKSREFTTFCKDYDFYLSNLLQNKRYNLSKNEE

RIMLYLSNTGANAFSRLFDESMSALKIPFEGKKLSEEEILSKMYDENRKIRKKAAKKFSKVLQKNSRLLS

FIINMIKTERKNISLLRGYENAEISRHISNQISQKSVDSLIASAQKHFNLVSQFYKRKKQILGYDELKDY

DRYAPIGKEASFDFKTSKNIVLEAFQAFSPQFYDIAKNAFDQGWIDVYPQENKQGGAFSHSATSDAHPFV

LLNHTNKRRDLFTLAHELGHTIHQKLSYNVSYLNQNTPLTTAETASVFAEMLVFDFIKDKLKKEELLSLY

ANKIEDIFATFYRQINFTCFERRLHAQENELSTEEINKIWMEESQKMFQDSVKLTKNYASWWSYIPHFIH

SPFYCYAYAYAQLLVLALYGLYKSKKCENFKELYIKMLSLGGSVSPKELVGMFGFDIEDENFWEIGIKEI

QKLINEFMELQSC

>WP\_010891904.1 UDP-N-acetylmuramate--L-alanine ligase [Campylobacter jejuni]

MMQNIHFIGIGGIGISALARFLREKGFKISGSDLKESKITKELEKEGVKVSIPHHKDNILNKDLVIYSAA

IKEENPEFKYAKELGIKCLSRKEALPLILEDKRVFAVAGAHGKSTTSSILASLLDDASVIIGAILKEFGS

NMIYKESQNLVFEADESDSSFLNSNPYLAIVTNAEAEHLDHYGNEVSKLHHAYTQFLDVAKIRVINAEDE

FLKNYKNESIKLYPSKDIKNCTMCIENFKPFTSFELKDLGEFKVFGMGYHLALDASLAILAALNFLDIET

IRTRLKNYQGIKKRFDILHADENLVLIDDYGHHPTEIKATLSAAQEYVKLGGYKKITAIFEPHRYTRLAT

NLKEFAKAFEGVDELVILPVYAAGEEPIELDLKAVFPKALFVEDIKREGKFLVASKGQVFEEGLIIGFGA

GDISNKLRQKNE

>WP\_010891898.1 lipoprotein [Campylobacter jejuni]

MKKGIFLSIGIAVLFSACGNSIDEKTVKKYENQLNQTVKQEIASLSQDSGIKIEFSDFKCNADGDFIACL

SPNFKTLTKDNNDEYQELFQAKNIKIRSNEIYKGKANASISIKEYYNDLFKNQKSIQSNLVFEDFKLGEK

VVSDINASLFQQDPKISSFINKLSSDSYTLSFDNSINKQENNYLDNLDIKFYNAKLNFNTNLNINLKEDL

LNYLDSKGIKFNTQTLVMDKQAINELLNIANYEQASDFSNTIQKYIILNNFKIDSTLKTEGVFSSYIATA

KENLQTLKAQSQNEEQALIFDKALAILNNITQNDDYKLNLDLKFKNIPVSDYSTQGIDSIEKLSINNQDA

TEALKIILPFIMFSMLMGGASF

>WP\_010891889.1 oxidoreductase [Campylobacter jejuni]

MNTEFQGKTLVISGGTRGIGKAIVYEFAKVGANIAFTYNSNAQIADEMVQDLEKNYKIKARAYEFNILEP

ETYKELFEKIDVDFDRVDYFISNAIISGRAVVGGYTKFMKLKPKGINNIFTATVNAFVVGAQEAAKRMEK

VGGGSIISISSTGNLVYIENYSGHGTAKAAVEAMARYAATELGEKNIRVNVVSGGPIKTDALRAFTNYEE

VKQATINLSPLNRMGQPEDLAGACLFLCSSKASWVTGHTFIVDGGTTFK

>WP\_010891880.1 ribosomal RNA small subunit methyltransferase H [Campylobacter jejuni]

MILEIPHIPVLLNEVQEIFKNLKTGYFLDCTLGFGGHSEALLKNHPDLKFIACDQDQQALKFSKKRLKDF

RNRITFMQSNFSEVLEKISHKEELRGILADIGVSSFQLDNNERGFSVNSDFLDMRMNQNSKISAYEIINT

YTKEQLTSIFKDYGELHDAHFIAEKICLERSKNLIKSAKELYQIIGKGKQNHRKISKATLAFQAIRIEVN

QELKVLKDFLEHLENLKPKNCILAIISFHSLEDRIVKQFFKKWSKNCICNEKIMRCECGNNHSLGQIITK

KAISASKEELLKNSRSSCAKMRAFYFNNLDNK

>WP\_010891869.1 lipoprotein [Campylobacter jejuni]

MNKTALTKTYTKDIQNSCLNSKKIVLSLATISFLASCTHATLTPEIKTYEETNRHAKARSGLQSRNSNNE

TINNLQTLTKTISDTGNTLVIESSGTITISNDGQQAVNFQPNSSTSTFLNKGTLIGGNNTASVQLGAANG

NNGVSIETFNNQGIIGNGSSKFGVTVFGGGSKDNPKSIINNFSNSGTIHSNTGESIYFGNAKISSFVNSG

TIKSKQGAGVNISQGTSIENFNNTGTGIIEGKRMGVNVRSTINTFVNDGLIAATNDGIQINANVKTLINK

GTIKGDAISIRSLGGTIETLTNEGIMYGKSAGIYMNRSLVKTLTNSGTINQNNSATWSAGIKLENGSIIE

NIINTGSIRSNAFGISVTGGKFGTLTIKDGGMVYGKYSAIGVGRSQTLGDLYIDGRSNNGTVSGIYSEEH

GILLENNSRTQKIELKNGGIIKGNIDGIRLINSASLSGEMILSGEGSRVEGGRGVGILNRSGKIEGSIKV

EDGATVTATSNRAIANSGSGSITGGITVSGKNTKLEGNIINTGNASIGSDIKIEGGAKVEGGLVNQGNGS

ISGSVQVSGGSSIDSITNEGNGAISGSITVYKDSKLDSITNTSTSSTGISGSITNNSDNKLEISNSGNIG

GKIESTGSADMVISNSNGGTISGGISSSGSGSTSISNSQGSTINNGITVSGSAQVEISNQGSVGKDENGN

TVTNNGSGSVGIKDWLVSTDKNTGKLNTVVIGGSRAFNVKVENITVDQSNVDLEELNDINNIISGVNQNN

IGNIGTNGSGEISLSFDPITGKLTTDFNLNASISGATFRSLISTTSRRSTFIDNVMGNSMQSFALASSSK

SQSIAMSEKGNLYADASDYIKSDLNNGSYGSNKEHSLFILPYTSSQNVELSLNEESKGHTKGTIIGYSTL

KDSGIYGVYAGYEDTKMGSTYFDINNRTYYAGLKYFNTLFTTEKGQEVYIKAQGKAALIKNDLTEKIGNN

EAKAEPNSYAYGVNTALGMNFISNKDIFSPEIGLAYEGGYTEAFSMKDTIGQATVKGGERTYANYLNLFS

TKTSLTWFRDWLPNLKTSVELGAKFNINPKVEAEARFGNIKVSDEFDLPRVQKFVSTSFIVPVNEAFYFS

LNYNGMFDKDGNTHTGFAQFNYLW

>WP\_010891863.1 proline--tRNA ligase [Campylobacter jejuni]

MMRFTKFYAPSLKEAPKDASLPSHIFLTRAGFVEQIGSGLYNFLPLGKRVLDKIKNIVKEEMDKAGAQEV

NLSFITPASLWQESGRYNVFGKELLRFKDRKENEFVLGPTHEEAMLSLVKNKITSYKQLPLHLYQIGLKF

RDEARPRFGLLRCREFLMKDGYSFHANEEDLGREFELMYKTYSQILQRMGLDFRAVEADSGAIGGSGSKE

FMVLAKNGEDDILICENCDYAANVEAAKRAKKTCQDERPEANYASKFHTPNIKTIDSLAQFFKINAFYTI

KAVVKKAIYENESKLVVFFIRGSDDLQEVKAQNTCSALELVDASEEELKKAGLVAGFIGFVGLKDIDFYI

DFELENEKQMIMGANEKDYHLIGIDVVNLNKDRFKDLIEVKEGDCCVKCGAKLKQSKGIEVGHIFKLGQK

YSKAMNANFLDENGKSQPFYMGCYGIGVSRLLAVAIEANHDEKGCIWNKTLAPFVLEIIVSNLKDEKALE

FANKLYRDLTNLGLEVLLDDRNERFGVKMNDFELMGFPYALVIGKGLENNEIELIQREGLVKELIKTDEL

MEILKKKVL

>WP\_010891839.1 ABC transporter ATP-binding protein [Campylobacter jejuni]

MLFFEISNLNYAYDNEIILKNINLSYDNKDFLSIIGPNGAGKSTLVKLILGLLKSKNEIHFKALQRKEIG

YVPQHTLANPNFCPRVLEIVLMGLVSKKIFGFYGKKDKEKAMQALKSVGMEKFWNKTIDSLSGGQRQRVF

IARALASECKMLILDEPTASVDNKSAIQIFELLISLHQKGMGILLICHDINLVLAYSDKIAHLNKELFLH

TNTKEKEKSSFLKHLYENHSHFCDVEMSLNTCFCNEENCDSKKLCEQEFTRRNLKKTEFKKENFCLKFSK

ENNA

>WP\_002907389.1 isoleucine--tRNA ligase [Campylobacter jejuni]

MDYKETLLLPSTTFAMRANLAELEPQRFKKWFEQNYAYEKMKENRKNAKKSFTLHDGPPYANGHIHIGHA

LNKILKETIIKTHYFKGESVRFTPGWDCHGLPIEQQVEVKLGEKKKSLSKKEIREFCRQHASEFVDIQRE

EFKDLGIIADWDKPYLTMKFEFEAAIYRTLCEIAKKGLLCERSKPVFWSWAAKSALAEAEVEYQDKEDYS

IFVAFDLDVKACEKLGVSKASAVIWTTTPWTLVANQAIALNPNENYVITKEGLIFASALLKSMVEKGLTS

GEIQKELNAKEFEKLEAINPLNGRKSVLIMGEHVLMDGGSGLVHTAPGHGEDDYYACLKYGIEVLMPVDD

SGCYDETLRAKGLLPSHLLEEFIGLHIFKANEKILELLGEKLLHSSKFIHSYPFCWRTHKPVIYRATKQW

FILMDEPKLQGKTLRECAKEQLLKTTFYPQSGVKRIGSMVENRPDWCISRQRDWGTPIAFFRDKNTKEVI

FDDELFDFVAAIFEKHGADAWWEFEIKDLIPTNSKYKAENLEKVYDILDVWFDSGSTFNAVLNSGLYDAG

EKRASMYLEGSDQHRGWFQSSLLVGTAINESAPYESILTHGFTTDEKGQKMSKSKGNVIASEYVAKTYGV

EILRLWILLSDYSSDLKISDNILKQVGEQYRKIRNTIRFLLANTNDLKDLEVKEFSFIDKWILSRATKVF

KASKEAFFAYEFAKGFSLLLNFLSADLSGIYLDISKDRLYCDSENAQRRKSAQVAMALMAKELLNLLAPN

LSYSVDEALEHANVLIKGDAKDVFDLSLTQDFDYDFGIDDTFLMSAREKFFEQIDILKKDKIIKSTLELN

LNISFNKFPNEELADWFMVSQISNENEEILAEFEVENEKFKITKASLCKCPRCWKLQSKNEETPCLRCEE

VLKGVQC

>WP\_002870258.1 pseudaminic acid synthase [Campylobacter jejuni]

MQIGNFNTDKKVFIIAELSANHAGSLEMALKSIKAAKKAGADAIKIQTYTPDSLTLNSDKEDFIIKGGLW

DKRKLYELYESAKTPYEWHSQIFETAQNEGILCFSSPFAKEDVEFLKRFDPIAYKIASFEANDENFVRLI

AKEKKPTIVSTGIATEEELFKICEIFKEEKNPDLVFLKCTSTYPTAIEDMNLKGIVSLKEKFNVEVGLSD

HSFGFLAPVMAVALGARVIEKHFMLDKSIESEDSKFSLDFDEFKAMVDAVRQAESALGDGKLDLDEKVLK

NRVFARSLYASKDIKKGEMFSEENVKSVRPSFGLHPKFYQELLGKKASKDIKFGDALKQGDFQ

>WP\_002864855.1 transglycosylase [Campylobacter jejuni]

MIKKILVFLFIFSSLNATQYSIEKLKKEENSLAKDYYIYRLLEKNKISKKDAQDLNSHIFRYIGKIKSEL

EKIIPLKPYINPKYAKCYTYTANTILDANLTCQSVRLNSLVFIASLNSKDRTTLAQTFKNQRPDLTNLLL

AFNTSDPMSYIVQKEDINGFFKLYNYSKKYDLDLNTGLVNKLPNHIGFKDFAQNIIIKKENPKFRYSMLE

INPENVSEDSAFYLGVNALTYDKTELAYDFFKKAAQSFKSQSNKDNAIFWMWLIKNNEEDLKTLSQSSSL

NIYSLYAKELTNTPFPKIESLNPSKKKNNFNMQDPFAWQKINKQIRDANASQLDVLAKEFDTQETLPIYA

YILERKNNFKKHYFIMPYYDNIKDYNKTRQALILAIARQESRFIPTAISVSYALGMMQFMPFLANHIGEK

ELKIPNFDQDFMFKPEIAYYFGNYHLNYLESRLKSPLFVAYAYNGGIGFTNRMLARNDMFKTGKFEPFLS

MELVPYQESRIYGKKVLANYIVYRHLLNDSIKISDIFENLIQNKANDLNKS

>WP\_002864738.1 MULTISPECIES: flagellar L-ring protein [Campylobacter]

MKKVLFYVLPFAFFGCSATVDPQISMKPPAYVEELAPKQSNNVESAPGSLFGKGDNPLFSDKKAMNVNDL

VTVVIQESTTQSTQANKATSRTNTSNLGGGALTGSSGVVANALNKVNAYSNIGFQTNSSNNYTGTGSQSR

NESFNTTISTRVIKILSNGNYFIEGSRELLINGEKQIIQLSGVIRPYDIGQDNTIDSKYIADAKILYKTE

GEVDRSTRKPWGSKVIEAIWPF

>WP\_002864614.1 UvrABC system protein C [Campylobacter jejuni]

MTKENLENELKTLPNSTGVYQYFNQEGKLLYVGKAKNLKNRVRSYFAFTPNLHANPRNSLRIQKMIEETV

HLEFIATNSEADALILENSFIKQLHPKYNILLRDDKTYPYIYVDFEEEFPRFEITRKLVKKSKIKYFGPF

FKGARELLDALYLYYPLKQKASCKSPCIFYQISRCLAPCDKLISREKYLEILDEAIHALLNPSVLLKNLE

KQMLVLAQNENYEEAAKVRDQIAMIKDLEVKVEIDIAKLEDFEVFALAFKNSVLSTLRFVVQNGKIISAN

SKITPIKNDIQWDQNEIYKQLILENFSMDIPLLANVIYVYEEFEDRVLLEEILSQRFDKKISIKIPKIGE

KRRICDLAFQNALLNIEKEQKNHDFTIQKELKSYFELENLPNDIEIFDNSHLQGVANVGAMVTYRINSWD

KSKYRKFHLKHKNDYDQMREVLTRRALDFDKIPPPDLWLIDGGKALLDLAKEIIVSSGVNVDILAISKEK

IDAKAHRAKGGAKDKIHSLKGEFSLSINDKKLQFLQKLRDEAHRFAISFHQNTKKKQDLKSSKLANLGLS

SGVMQKLLAYYGNFESIYKADFKDLTMLVGRKAAQKIKEN

>WP\_002864542.1 ubiquinol-cytochrome C reductase cytochrome C subunit [Campylobacter jejuni]

MREIKIFLVVVVFTALVYWGVEPYAHSVMKPHVAPANFDFAVEDTTFAKGIVEAKELALKDAQASGDAKR

IESANKELEKAKEELSKVETLWVDVAKIDFAKGDAKKGKEFFENNCFACHGVKEDGIAANITDSSMGVIP

PDLSAAGAIFDEKFLAALIMHPALALKVDHKFGDAFIMTAYNKDTSGESEEATNANIANVIAYLKDVSVK

FEANEDATIKKDVEAKYAKMENSAQKAALMEKDIKFAKDKATFIEACGRCHDMKYDSFFTPSNQNDLKTY

LGSVPPDLSMMIRSRGEQYLHDFINNTQKLLPGTAMPRVGLTEAAQAKVVSYIDQVGDSKKEERKTTGIY

VMIFFVILSIFAIGWKRSVWSKLH

>WP\_002864150.1 valine--tRNA ligase [Campylobacter jejuni]

MYDKNLEKEYYQICEERGYFEIDGNKTIQEKDKNFCIMMPPPNVTGVLHIGHALTFTLQDIMTRYKRMDG

YKVLYQPGLDHAGIATQNVVEKQLLTQGIKKEELGREEFIEKVWEWKEQSGGKILDQMRTLGITPAWSRL

RFTMDEGLVNAVKKAFVELYDKRLIVRGNYMINWCTHDGALSDIEVEYKENKGKLYHIKYFLKDSDEFLV

VATTRPETFFGDTAVMVHPDDERYAKFVDKEVILPISKKAIKIIADKHVEKEFGTGVVKVTPAHDMNDYE

VGLRHNLDFISVFDEKGILNEHCLEFQGLERLEAREKIVAKLESLGFIEKIEEYNNQIGYCYRCNNIVEP

YISKQWFVKKEIAQESIEKVALGESKFYPNHWINSFNAWMKDLRDWCISRQLWWGHQIPVYYCECSHEWA

SQHTPKTCPKCQSQNFKQDEDVLDTWFSSGLWAMSTLGWGNENWGKDKIWSEKDLKDFYPNSLLITGFDI

LFFWVARMMFQSTNVLHQLPFKDIYLHALVKDEQGRKMSKSLGNVIDPNESIKEYSADILRFTLALLAIQ

GRDIKLSNDKLLQVRNFTNKIYNAKNYLLLNESKFEDLENITLHSELAKYIYAKFQTCVKDVRENLDNYR

FNDAANTLYKFFWDDFCDWGIELSKAEKSSVKELGSIFKEALKLLNPFMPFISEYLYHKLSDTELKTSPS

IMISKYPKFKEQDKNIEKIFSLLIESIVSIRRAKSLIDLGNSKIEKAYIKFNDKKIKDEIKAYMNFIIML

AKCEQIEFSEEKLPKAICDVSENLEIFITLENVDLSGILTRLENQKNKLEKESFKLNSMLSNEKFIANAP

KEVVEQNKEALENLKIQLEKISVELQNLRG

>WP\_002858661.1 carbamoyl-phosphate synthase large chain [Campylobacter jejuni]

MPKRTDIKSILLIGSGPIVIGQACEFDYSGTQAAKTLKELGYRVVLINSNPATIMTDPEFADATYIEPIT

KESILSIIKKEKIDAILPTMGGQVALNVAMEVYESGLLGDVKFLGANPEAIKKGEDRQVFKECMKKIGMD

LPKSMYAYNYDEALKAVDEIDFPLMIRASYTLGGAGSGVVYNMDEFKELTNTALALSPIHEILIEESLLG

WKEYEMEVIRDRADNCIIVCSIENIDPMGVHTGDSITIAPALTLTDKEYQVMRNASFAILREIGVDTGGS

NVQFAINPKNGRMIVIEMNPRVSRSSALASKATGYPIAKVATLLAVGFSLDEIKNDITGTPASFEPVIDY

IVTKIPRFTFEKFPGANTTLGTAMKSVGEVMAIGRTFKESIQKALCSLERSLSGFDRVKFEDRNDLVFKI

RNANEKRLLYVAQAFREGFSVEELYELCKIDPWFLTQIKEIVDFEEQIDMDILNNKALLRKAKTMGFSDK

MIALLVNLKDNLELSQNDIYYVRMKQKIIAEFSEVDTCAGEFEALTPYLYSSINVSELTQSKNDAKDKKE

KKVMIIGGGPNRIGQGIEFDYACVHASFALKDMGIKTIMYNCNPETVSTDYDTSDILYFEPIDFEHLRAV

IEREKPDGVIVHFGGQTPLKFAKRLSAFGAKIIGTSARVIDMAEDRKKFAEFITKLGINQPKNSTATSVE

EAVLKASDIGYPVLVRPSYVLGGRAMRVVNDEAELRLYMQEAVDVSDKSPVLIDQFLDNATEIDVDAICD

GKDVYVAGIMEHIEEAGIHSGDSACSLPPCNIDEKMQEFIAQKTADIALNLGVVGLLNIQFALHNNELYM

IEVNPRASRTIPFVSKATGIPLAKVATRVMWQGNLKEALKFYDTFKVVNFDTKILRPKTPKYMSVKEAVF

PFAKLSGSDLELGPEMRSTGEVMGISKDFANSYAKSQIASFNHLPEQGVVFISLKDKDKKYTKKIAAEYV

KLGFKLMATGGTCKEILESGFECELVHKISEGRPNVEDKLKNGEIHLVINTSDSHSFKGDTKKIRENIIR

FKIPYFTNLRSALAGAKSIKAIQSKSCLDVKSLQEWLKS

>WP\_002858528.1 phosphoribosylformylglycinamidine synthase subunit PurQ [Campylobacter jejuni]

MKVAIIRFPGTNCEFDTTYAFEKLGVKTQIVWHEEKEFDADLVVLPGGFSYGDYLRCAAIAKLAPAMQGV

FNHAKKGGYILGICNGFQILLESGLLKGAMKHNNNLSFISKNQSLRVVSNDNAFLKNFKKDEIINLPIAH

GEGNYYADETTLKELQDKDLIILKYEPNPNGSVFDIAGICDENKKIFGLMPHPERACEKVLGNDVGLKML

KGFLLENFINFNF

>WP\_002858406.1 phosphoribosylformylglycinamidine synthase subunit PurL [Campylobacter jejuni]

MDKETIKAHKISDEEYAQILEILGREPNLLELGVISAMWSEHCSYKSSKKYLNGFPTKAPWVIQGPGENA

GVIDIGQGMAAVFKVESHNHPSFIEPFAGAATGVGGILRDVFTMGARVVAGLNSLKFGDIHDEKCGKHQK

YLVKGVVNGISHYGNCMGVPTIGGECAFDECFNGNILVNAFALGVCKSEDIFYAKAEGVGNPVIYVGSKT

GRDGLGGAVMASDSFNEESKSLRPTVQIGDPFSEKLLMEACLELFKTDYIVGIQDMGAAGLTSSSFEMAG

RSGSGMKLYLDKTPMRESGMTPYELMLSESQERMLICAKKGYEDKVIEIFKKWDLDAVVMGEVTNTGKME

LFWHDELVGLIPIEPLSEKAPILSRPTSEPKYLSEIKNYKFELKSSVQELFIQMLQNENINNKAFIYDQF

DSSVQTNTIKADGRLGASVIRIKENGASVAMAIECNSRLNYVNSKIGAALAVASAGRKVACTGAKPLAIS

DCLNYGNPQNPEVMWQFAQGCEGIKEACKELNTPVVSGNVSLYNETEGVSIYPSPTIVSVGVLEDANKTL

KASFEKENLSVYLLGESLGEFSGSMVMKIQDKKVSGSLKELDYKAELALWDLLYKANQNSLLECANSVGI

GGIAMTLAKMFAISSVGANLTSDFDDEKMIFDESASRAIIGLSKENEEAFLNLAKEFGVKAYKLGVSTSQ

KHFKLDSIELSKAELDKLYFESFKEQIQ

>WP\_002858049.1 flagellar P-ring protein [Campylobacter jejuni]

MRVLTIFLLFMTSIFAVQIKDVANTVGVRDNQLIGYGLVVGLNGSGDGTSSKFTLQSISNLLQGMNIKVD

PNDIKSKNTAAVMVTAKLPAFAKSGDKLDITVSSMGDAKSLQGGTLLLTALRGIDGEIYAIAQGSISTGG

LTPRPGGTGSHSTAATVMGGANVEREIPQNFSQNNDLTLSLKVADFKTANNIERVLNTVFGEEVAKAIDS

RTVKLKKPEDLSNVDFMARVLEQDIAYKPQSKVIIDERTGTVIAGVDVEVEPVLITHKDITIKIDPNNNT

VANQNEIDMKDGGFVDPSSNTLRINNAKSTVANIARMLNKLGATPNDIIAIMENLKRAGAINADLEII

>WP\_002852395.1 flagellin B [Campylobacter jejuni]

MGFRINTNIGALNAHANSVVNARELDKSLSRLSSGLRINSAADDASGMAIADSLRSQAATLGQAINNGND

AIGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTIKATIGATQSSKIGLTRFETGGRISSSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALAEEINKSADKTGVRATFTVETRGIAAVRAGTTSDTFAINGVTIGQVAYEDGDGNGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGRFDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TATTNLDQIRADIGSVQNQLQVTINNITVTQVNVKAAESTIRDVDFAAESANFSKYNILAQSGSYAMSQA

NAVQQNVLKLLQ

>WP\_002851478.1 MULTISPECIES: 30S ribosomal protein S14 type Z [Campylobacter]

MAKKSMIAKAARKPKFKVRAYTRCQICGRPHSVYRDFGICRVCLRKMGNEGLIPGLKKASW

>WP\_002851122.1 flagellar hook-basal body complex protein FliE [Campylobacter jejuni]

MNNINDLRLNNNISNTNKSQNSTGIGDEFAKMLKNEINDLNKAQESGEAAMTDIATGQVKDLHQAAIAIT

KAESSMKFMLEVRNKAISAYKEITRTQI

>WP\_002843383.1 MULTISPECIES: membrane protein [Campylobacter]

MKAKLTLLALLGTTVLLAKDMVVPASELPNNAKEFISKNFKTAQIGLVKKDIDSYDVILNDGTEIDFMIN

GEWKEVDGKYKALPHTILPNVMKKVSATQPNAQILEVDKEINGYKFKFNNNMEVYTDMQGNILGQKLD

>WP\_002836742.1 MULTISPECIES: undecaprenyl-diphosphatase [Campylobacter]

MENLYALILGIIEGLTEFLPISSTGHMILGTTILGIDIDEFWKSFLIIIQLGSILAVIFVFWRKLFQGLD

IWLKLAVGFFPTGVIGLFVAKYLNALFNGWVVVGMLIFGGVVFILIELAHKNKQYRINSLEEISFKQAFC

IGIFQSLAMIPGTSRSGASIIGGLLLEFNRKVAAEFSFLLAIPTMIIATAYSIYKEPELLGNANSLIPLG

IGFITAFIVAVLVIKFFLKFISKFDFIPFGIYRIILGFVFFYLYYSGILNAGSEFKL

>WP\_002830499.1 MULTISPECIES: UDP-2,4-diacetamido-2,4,6-trideoxy-beta-L-altropyranose hydrolase [Campylobacter]

MKVLFRSDSSSQIGFGHIKRDLVLAKQYSDVSFACLPLEGSLIDEIPYPVYELSSESIYELINLIKEEKF

ELLIIDHYGISVDDEKLIKLETGVKILSFDDEIKPHHCDILLNVNAYAKASDYEGLVPFKCEVRCGFSYA

LIREEFYQEAKENREKKYDFFICMGGTDIKNLSLQIASELPKTKIISIATSSSNPNLKKLQKFAKLHNNI

RLFIDHENIAKLMNESNKLIISASSLVNEALLLKANFKAICYVKNQESTATWLAKKGYEVEYKY

>WP\_002793288.1 MULTISPECIES: ABC transporter ATP-binding protein [Campylobacter]

MAYLKIKNFKKAYGDKIIFEDINFSAKKGEFITLLGPSGCGKSTLLRCIAGLSQINGGKISLNDKDLTKL

SPQKRNIGMVFQNYALFPNLNVFENVAFGLKIKKMDKKDIEKRVKKMLKLVELEEYAKTYPHKLSGGQMQ

RVALARSLVIKPDLLLLDEPLSALDAKIRKYLRVQIKEIQKELELTTIFVTHDQEEALELSDTIILMNEG

KIIQNSNANNLYLLPESHFVASFIGNYNILSPKELDSLGLKHDFKKDIALRPETIEISNEGLEAKIKEKS

LLGNIIRYRVRVQEIEFKVDTLNFSTHSTYEAGDKIALKFNLSLAKELK

>WP\_002779472.1 MULTISPECIES: elongation factor G [Campylobacter]

MSRSTPLKKVRNIGIAAHIDAGKTTTSERILFFTGMSHKIGEVHDGAATMDWMEQEKERGITITSAATTC

FWKDHQINLIDTPGHVDFTIEVERSMRVLDGAVAVFCSVGGVQPQSETVWRQANKYGVPRIVFVNKMDRI

GANFYNVEDQIRNRLKANPVPLQIPIGAEDNFKGVIDLVTMKALVWEDDTKPTDYVEKEIPAELKEKAEE

YRTKMIEAVSETSDELMEKYLGGEELSLEEIKTGIKAGCLSLSIVPMLCGTAFKNKGVQPLLDAVVAYLP

APDEVANIKGEYEDGTEVSVKSTDDGEFAGLAFKIMTDPFVGQLTFVRVYRGCLESGSYAYNSTKDKKER

IGRLLKMHSNKREEIKVLYAGEIGAVVGLKDTLTGDTLASEKDKVILERMDFPDPVISVAVEPKTKADQE

KMSIALNKLAQEDPSFRVSTDEESGQTIISGMGELHLEIIVDRMLREFKVEAEVGQPQVAYRETIRKTVE

QEYKYAKQSGGRGQYGHVFLRLEPLEPGSGYEFVNDIKGGVIPKEYIPAVDKGVQEALQNGVLAGYPVED

VKVTVYDGSYHEVDSSEMAFKLAASMGFKEGARKAGAVILEPMMKVEVETPEDYMGDVIGDLNKRRGQVN

SMDERGGNKIITAFCPLAEMFGYSTDLRSQTQGRATYSMEFDHYDEVPKNVADEIIKKRNG

>WP\_002777693.1 MULTISPECIES: pseudaminic acid cytidylyltransferase [Campylobacter]

MKNLCIIPARGGSKRIPRKNIIDFLGKPLISYSIENALNSGIFDEVVLSSDDEEIIEVALKYGAKAPFVR

DKNLSDDYASSTAVVQNAIEILQSQNQIYDHVCCLYATAPLLNKDILKQAYEKFIQNQSKFLFAATEFEY

PIQRAFYLNENNQVYMFDEKHYKSRSQDLTKAYHDAGAFYFGTSKAWLEEDFIFKPHSSVFVLPRNLVCD

IDTIQDLEFAKILYKVNHESAF

>WP\_002858404.1 MULTISPECIES: sugar nucleotidyltransferase [Campylobacter]

MNAIILAAGFGSRLMPLTKDQPKCMVEYKNKKIIDYEIEALKSAGINEIAVVGGYLNDVLKNYLNKYDIE

HFFINSKYDKTNMVHTFFCAKDFMLKCIEEKQDLIISYADIVYFQDCVQKLINAKEELAIVVDKSWCKLW

SKRFANPLEDAETLKMTNGYIIELGKKANAYDEIEAQYIGLFKFSYQFLSEVIAFYEMLDRDILYDNKNF

ENMYMTSFLQALIEKYNNAKAVEIDGNWCEIDFMSDLEVQIEK

>WP\_002855210.1 MULTISPECIES: elongation factor P [Campylobacter]

MASYSMGDLKKGLKIEIDGIPFKIVEYQHVKPGKGPAFVRIKIKSFIDGKVLEKTFHAGDKCEAPNLEDK

TMQYLYDDGENCQFMDTQTYEQVAISDDDVGEAKKWMLDGMMVDVLFHNGKAIGVEVPQVVELKIIETAP

NFKGDTQGSNKKPATLETGAVVQIPFHVLEGEVIRVDTVRGEYIERANK

>WP\_002858483.1 MULTISPECIES: ketol-acid reductoisomerase [Campylobacter]

MAITVYYDKDCDLNLIKSKKVAIIGFGSQGHAHAMNLRDNGVNVTIGLREGSVSAVKAKNAGFEVVSVSE

ASKIADVIMILAPDEIQADIFNVEIKPNLSEGKAIAFAHGFNIHYGQIVVPKGVDVIMIAPKAPGHTVRN

EFTLGGGTPCLIAIHQDESKNAKNLALSYASAIGGGRTGIIETTFKAETETDLFGEQAVLCGGLSALIQA

GFETLVEAGYEPEMAYFECLHEMKLIVDLIYQGGIADMRYSISNTAEYGDYITGPKIITEETKKAMKGVL

KDIQNGVFAKDFILERRAGFARMHAERKNMNDSLIEKTGRNLRAMMPWISAKKLVDKDKN

>WP\_002852998.1 MULTISPECIES: adenylosuccinate lyase [Campylobacter]

MQIVQTLETINVNTDDISVFQYFKDLITKNFTKVIGRKNKIFSFFEENEIPQRRYFLKVLDQKYRKSTNE

GIENLQDAHFKTFRLIFEQNNMLKPMLFIKIDFVAGRILMKLSSNEKLFITYIRNYFQDHNIEYNEMTNI

LILEYKNENTLELFEAFADESEHLKYCVNFEVDREEYKKFRQNIHNKENMKWKFNALAKLFSNYFNTLEC

TPQNDLSEIRQKYLILVKLYHPDFHQGKSAIEKAYAREQFEKIQIAYDNLKALYKNNT

>WP\_002852001.1 MULTISPECIES: 3-dehydroquinate dehydratase [Campylobacter]

MKIMIIQGPNVNMLGVREVGIYGAMKMEEIHEQMKLAASQNNVELDFFQSNFEGEIVDKIQECLGTVDGI

IINAAGYTHTSVAIRDAIAAVALPTIEVHISNVYRREEFRQKSLIAPVCSGTIVGFGPFGYHLALMGIIQ

ICEQIKNLRAMQQAQQTNK

>WP\_002851915.1 MULTISPECIES: preprotein translocase subunit SecG [Campylobacter]

MITLLIILQFIIVVVICIAVLLQKSSSIGLGAYSGSNESLFGAKGPAGFLAKFTFVMGILLIANTIGLGY

LYNKASKDSLAEKIKVENNNTTIPSAPIVPTTPNTNSIAPSAPQLPSDVNSSK

>WP\_002851887.1 MULTISPECIES: carbonic anhydrase [Campylobacter]

MENLISGAIKFMQEDFKEHEELFESLKNKQNPHTLFIGCSDSRVIPNLITNTGPGELFVIRNIANIVPPY

RVGEDYLATTSAIEYALNSLHIKNIVVCGHSNCGGCNALYYSDEELNKIPNVKKWLTMLDPIKKDVMIFA

RDDLAMRSWLTEKLNLVNSLQNILTYPGVQEALDEGKIEVHAWYYIIETGEIYEYDFKAKIFTLIQDRKV

Q

>WP\_002851803.1 MULTISPECIES: 2-amino-4-hydroxy-6-hydroxymethyldihydropteridine pyrophosphokinase [Campylobacter]

MLKIQGVKHFEKSRFFPFFSQNIRSFKYLALIGLGSNIEPEKKRFDMLFRVMMDDKRFKILSTSPMLINE

AFGFKEQKDFTNAVMLIQTNLHARALLKVLLYYEVKFKRKRTFKNAPRTLDLDLLYFSQKVKRDKWCEVP

HKGAKERVSVILPLGMI

>WP\_002851758.1 MULTISPECIES: ribonucleotide-diphosphate reductase subunit beta [Campylobacter]

MQRKRIYNPSSNETLGDRKVFDGNPHGILNFTKAKYTWALKLWDLMEANTWFPKEVDTTKDALDYRCNLT

AGEKRMYDLVWSQLISMDSFQTNNLADNINPYITAPEINAVLARQAYEEANHSKSYAVMVEAICDNTDLI

YEMEKHDETLREKNDFISSIYEELAGDVDDNKLLLAMVANQILEGVYFYSGFTAIYALARAGKMLGSAQM

IRFIQRDEITHLLLFQNMINSVRKERPDLFHDENINKIYDMFKKAGDLEIKWGKYITQNQIMGFTDDIIE

EYIHYLVDQRLSAINLDKLYNAKHPIKWVDDFSKFNDQKSNFFESKVTNYSKGSISFDDF

>WP\_002851742.1 MULTISPECIES: aspartate ammonia-lyase [Campylobacter]

MGTRKEHDFIGELEISDEVYYGVQTFRAVENFDISHDRLKDFPRFVRALARVKKAAAMANHELGLLDKNI

QDAIIKACDKILEGGYYDQFVVDMIQGGAGTSTNMNANEVIANIGLELMGHKKGEYQYLHPNDHVNLSQS

TNDAYPTALHLALHDYLSDLAKAMEHLKKAYERKAEEFKDVLKMGRTQLQDAVPMTLGREFKTFAVMIGE

DIQRVLEARKLILEINLGGTAIGTGINSHPDYPKVVERKIREVTGFEYTVAEDLIEATQDTGAYVQISGV

LKRVATKLSKVCNDLRLLSSGPKCGLNEINLPKMQPGSSIMPGKVNPVIPEVVNQVCYFVIGADVTVTFA

CEGGQLQLNVFEPVVAYSLFNSVVMLEKAMYTLADKCIDGITANEKICSDFVYNSVGIVTALNPYIGYEN

SASIAKEAMNTGKRVADIALERGLLSKEQIDEILTPSNMLNPHMEAKK

>WP\_002793551.1 MULTISPECIES: 50S ribosomal protein L33 [Proteobacteria]

MRIKVGLKCEECGDINYSTYKNSKNTTEKLELKKYCPRLKKHTLHKEVKLKS

>WP\_002864792.1 MULTISPECIES: 50S ribosomal protein L3 [Campylobacter]

MEYIVEKIGMSRTITNPSIAVTLLRVVNAKVCEVEGGKALVAYPKGKASNKCVAGQQKKYNLSAEYNRFA

TLEVANTEAGDLDETPLNEAKILKVSFNTKGRGYSGVMKRHNFAGGPASHGSRFHRRHGSIGNREWPGRV

QPGMKMAGHYGNTKVTIKNEVVSYDAENKILVVKGAVPGYNGAMGKIRIAK

>WP\_002854895.1 MULTISPECIES: 2-oxoglutarate ferredoxin oxidoreductase subunit beta [Campylobacter]

MAFNYDEYLRVDKMPTQWCWGCGDGVVLKCIIRAIEKLGWNMDDVCLVSGIGCSGRMSSYVNCNTVHTTH

GRAIAYATGIKLANPSKHVIVVSGDGDTLAIGGNHTIHGCRRNIDLTHIVINNFIYGLTNSQTSPTTPKG

FYTVTAQFGNIDPNFDACELTKAAGASFVARGNVIEANKLENLIYKALAHKGYSFVDVFSNCHINLGRKN

KMGEAVAMLDWIKNRVVDKAKFESMDFEERKDKFPTGILHEDNSQPEYCHAYEEVRRAAKEKRMVDLGAL

K

>WP\_002851453.1 MULTISPECIES: 50S ribosomal protein L5 [Campylobacter]

MMRLKEKYNQSIKPALVKEFDIKNPMLIPVIEKVVISVGAGELAKDQKVLQNVADTISLIAGQKAVITKA

KKSVAGFKVREGFPVGVMVTLRKENMYAFLDKLISIALPRVKDFRGLSRDGFDGRGNYNFGLDEQLMFPE

VEYDKILRTHGMNISIVTTAQNDKQAQKLLELIGVPFTKGK

>WP\_002851353.1 MULTISPECIES: 30S ribosomal protein S8 [Campylobacter]

MINDIISDSLTRIRNAGMRKLETTKLLHSKVVEALVGIFQAKGYIESFNVIEEDKKKFINVVLKYDEKGK

SVINELKRISKPGRRVYKGKDEIKRFKNGYGTIVVSTSHGVLANDEAYKAGVGGEILCTIW

>WP\_002851509.1 MULTISPECIES: 30S ribosomal protein S19 [Campylobacter]

MARSLKKGPFVDDHVMKKVIAAKKANDNKPIKTWSRRSTITPDMIGLTFNVHNGKSFIPVYITENHIGYK

LGEFAPTRTFKGHKGSVQKKIGK

>WP\_002851138.1 MULTISPECIES: 30S ribosomal protein S3 [Campylobacter]

MGQKVNPIGLRLGINRNWESRWFPTKANLVENIGEDYKIRAFLKRKLYYAGISQILVERTAKKLRVTVVA

ARPGIIIGKKGSDVDNLRKELQDLIGKDVNINIKEERKAGASAQLAAESVATQLEKRIAFRRAMKKVIQG

AQKAGAKGIKVSVSGRLGGAEMARTEWYLEGRVPLHTLRAKIDYGFAEARTTYGNIGVKVWIFKGEVLHK

GMQPEKTEESAPAKKPRRTRRGK

>WP\_002864162.1 hypothetical protein [Campylobacter jejuni]

MIKIAFFITFVISFLAAQSPVNFKEDNNITKERNIFKEQLPKRIKIPTH

>WP\_002854670.1 MULTISPECIES: flagellar motor switch protein FliG [Campylobacter]

MIKLSEEQKMVYDDLSMPEKVAIFLIQLGEDATTSVFSHMEIDVITEISRYIAMAKNVDRSVATAVLEEF

YTLLQSNQYIKSGGLEYAKEILFRTFGPEIANKILEKLTKSMENNQNFAYLAQIKPQQLADFITKEHPQT

IALILAHMDSIHAAETLEYFSDELRAEVVIRMANLGDISPSIIKRVSAVLESKLESLTSYKVEVGGPRAV

AEVLNRLGQKASKSTITYIEQSDERLAETIKELMFTFDDIQKLSTQAIREILKVADKRDLMIGLKGASEE

LKQKFLANMSTRASEAFLEEMGFLGAVRVKDVEDAQRKVVEVVQKLAEQGLVQTGDADEMIE

>WP\_002851714.1 MULTISPECIES: biopolymer transporter ExbD [Campylobacter]

MIKTEMAHKEEELSEINITPFIDIMLVLLIVFMAVTPLITSSIKIELPKSSQQAEDKLKNPIILYLNTDN

TLAINDDKLSLENLSSALDIKTKGNKEEIIYFHIDKSVKYEDIMQVMQKLKENGYGKIALSSKKMD

>WP\_002842823.1 MULTISPECIES: molybdopterin adenylyltransferase [Campylobacter]

MDTINIGILTLSDRASSGIYEDKATAEIERVLNSYIKNDIIYHKELIPDDYDLIIKKLLYLADEKKCDLI

VTSGGTGPALRDVTPEATEAVCDKMMPGFGELMRLESLKYVPTAILSRQSAGIRNKSFIINLPGNPKAIK

ECLEPVFPAIPYCIDLIEGAYIEANDEVIKVFRPKKKCQN

>WP\_002831613.1 MULTISPECIES: membrane protein [Campylobacter]

MIEFILRDMFFAAVAGFGFAYACNPPLKTLILSALLAAIAHGLRFTLVEYFHFQTLAIATFVASFCIGCL

GIVLAKIIKTPAEIIAFPALIPMIPGIYAYKAILYLISFIRSDDLKAKSEFLVQFFDYFFTTVSVTLALA

IGVSVTLLIFFEQSFMMTRHAKKH

>WP\_002831611.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLCPVCNVDLVMSDRSGVEIDYCPKCRGVWLDRGELDKIIERSVPNTANFNQAPRQESRYNDSAYHQHND

YYKKKKKESWLGELFDF

>WP\_002826203.1 MULTISPECIES: ATP-binding protein [Campylobacter]

MQIDASKNQSFSMDYTTKSGKHLALSMYDNQSVSYANNEEGKTLNLKRQYGFSFTFEGSKLTQNDLDEIK

NAMKEVEPMIKDFLANSKVGELKPKEIIESAMQMANVLPTPNDENHQNAIMNNFTNKLSDLLKQNQTDDK

DINASMLEDSKKLLDEVLEQMKKQLEKQQEKAKENQDKTDDSLNLYA

>WP\_002825501.1 MULTISPECIES: 50S ribosomal protein L2 [Campylobacter]

MAIKTYKPYTPSRRYITGLSSEDITAKPSVRSLLVKLPAHAGRNSYGRITSRHKEAGAKKLYRIIDFKRR

KFGIEGKVEAIEYDPYRNCRIALIAYKDGEKRYILQPRGLSVGDIVAAAESGLDIKPGNAMKLKNIPVGT

IVHNVELKPGKGGQMIRSAGAYAQLMGKEEKYVILRLASGEMRQVLAECMASIGEVGNEEWANVTIGKAG

RNRHRGIRPQTRGSAMNPVDHPHGGGEGKKNSGRHPVTPWGKPTKGAKTRRKKASDKLIISRRKGK

>WP\_002825115.1 MULTISPECIES: short-chain dehydrogenase [Campylobacter]

MDLKIKNKVCIITGGAKGIGYGIAKLWASEGGIPVIFSRSMPKEHDKELKKLSSEYEFYEIDLKNYEQIE

KLVKKVAIKHGGIYALVNNAGTNDNLHIENTSTQDLIKSYENNLFHYYTMTKECLPYIKKEQGSILNIVS

KTGITGQGRTSAYASAKAAQMGFTREWACAFAKDNVRVNAIAPAEVMTPLYEKWLQNFPNPKEQYEKIAK

AIPLGHRFTTIEEIANTAVFTLSPLASHTTGQILMPDGGYVHLDRALNWDEN

>WP\_002825067.1 MULTISPECIES: amidohydrolase [Campylobacter]

MKIDTHAHIFLKKLNTVANARYKPDYDASFKDYKANLDHYDFNKGVLVQPSFLGIDNEFLLQSIEKDENI

KAIVVVDENIKFDELKKLKERKACGVRLNLIGKELPNFKSMVWTQFFENLSKLKMQIEIQRDLDNNLVDI

VENLIPYGCNIVIDHLARANANLTNLEDLICLKNSRIFFKISGFYRAKIDYANNEQAVKFAKKIYEILKE

HFPLSNFVFGSDWPHTNFEANINFSSALVAFNEVVVSKKEQEQILGDNACALFGF

>WP\_002824979.1 MULTISPECIES: hypothetical protein [Campylobacter]

MRRVDLRKSKELFEDLAQIIKEAKQGEVLVVLFEIGDFSPVEKSFSFVKEQGCELLNSLKFNQVDWTIVI

KKERV

>WP\_002824739.1 MULTISPECIES: flagellar motor switch protein FliN [Campylobacter]

MSDDIEFNIHHGLLQSYEDILDITVDFVSELGTTNMSVAELLKLEVGSVIDLEKPAGESVELYINKRIFG

KGEVMVYEKNLAIRINEILDSKTVLQYFKKEI

>WP\_002822505.1 MULTISPECIES: hypothetical protein [Campylobacter]

MRKILFASLLPIIALADCASLMAKYEAPEPESKTMKQVERWINKKVSDPADAAVLKECMIARAADNPNQV

SVAGK

>WP\_002819467.1 MULTISPECIES: membrane protein [Campylobacter]

MDILKLAIKDFLSLKFLKFALIPLIFSLILMLFLGVLGFSALLDYFNSLFSVGEDSFWAWFYALHFVQIL

ITIISFLFSGFIVVFASVFLALFITSFLTPFIAKEINQKYYHYDNTNEVSTLKTIFEIFKIFIKFIGILL

LCTLALFLPFINIFVYYLAFYYLFHKLLMIDVTSTILDKESFKNFHSDFSPLEFKFSTLCFYLLSSVPLL

GLFLQVFFVIFLTHLSYQRILKLKAKA

>WP\_002816248.1 MULTISPECIES: ATP-dependent dethiobiotin synthetase BioD [Campylobacter]

MQIYVSGIHTDVGKTHFSAAFCANFNYDYFKLIQAGTPTDSEFIAKFSPKTKIFKEGIFLQTPASPHLGK

IKEKLDYKALDIILPKSKNLLIELAGGLFSPMDENYTMIDFVNIFKHPTILVAKYYLGSINHILLSIEAL

KQRNINLLALVMMGKKDILQDDFIKNYAKIPIINLDFFDENSILNKDFKEQMQEILQLKIP

>WP\_002816245.1 MULTISPECIES: 8-amino-7-oxononanoate synthase [Campylobacter]

MKLEKILQDLEQNHNLRTLTPLKHENKFVYKQDHKLLNLVGNDYLYLASSKELKAEFLNTLKEQDLFFSS

SSSRSLSGNFEIYEKLESFLKTKFKDKEILHFNSGYHLNISCIAALSSVSKTLFLTDKFIHASMIDGLRL

GRADFFRFHHKDMNHLESLIQKHYENYENIIVLSEALFSMDGDFSDFKTLCELKRRYDKIKLYIDEAHSV

GCFDEEGLGLVKKLALENEVDFLVFTFGKALASMGACIICDEKYKKFFINKARAFIYSTALPPINVAWTQ

FIFKKMPYFKKEREKLELLSTFFKSKLQEKNHIVLGDAYIICLLLGENKKALEISQKLQKAGFFAPAIKE

PTVPKNTARIRFSLHAGLNTEELERIIELL

>WP\_002816233.1 MULTISPECIES: GTPase [Campylobacter]

MIRIDINHPMNTAKGRLDLNFKKDIESGKITALFGESGAGKTTLLKIIAGLIKPKLGRIEVDNELWFDSS

KNFSLALQKRKIGFVFQDYALFPNMNIKENIAYAASSKAKVSELLALMKLENLAKIYPKHLSGGQAQRVA

LARALAREPKILLLDEPLSALDFKMRANLQDELTKILEYFKISTLLVSHDLAEIYKLSHRILELKNGKII

KDFPKNEFFTHSNISAKLRLSATLLEIKKSDILVVLTLLLNQDIIKITLSEEEFLKAYQDVKIGDTLLLS

IKAFNPIIVGKLDK

>WP\_002814418.1 MULTISPECIES: globin [Campylobacter]

MTKEQIQIIKDCVPILQKNGEDLTNEFYKIMFNDYPEVKPMFNMEKQISGEQPKALAMAILMAAKNIENL

ENMRSFVDKVAITHVNLGVKEEHYPIVGACLLKAIKNLLNPDEATLKAWEVAYGKIAKFYIDIEKKLYDK

>WP\_002812871.1 MULTISPECIES: CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase [Campylobacter]

MNLPNILAIFRMVLAPLLFFLLIHKFENIHQSWINYFAALTFSLAALSDFFDGYIARTWKQTTKLGGILD

PLADKMLVLAAFLGLLLTGKANEWVIYIILVREFFITGFRVVMISENLNVNASFAGKLKTAFQMTAIGFL

IMEWIGGEILLYIALILTLYSGFEYIYTYIKAQKKGEK

>WP\_002806309.1 MULTISPECIES: ATP-dependent Clp protease proteolytic subunit [Campylobacter]

MFIPYVIEKSSRGERSYDIYSRLLKDRIIMLSGEIHDELAASIVAQLLFLEAEDPTKDIYLYINSPGGVI

TSGFSIYDTMNYIKPDVCTICIGQAASMGAFLLSCGAEGKRFALPNSRIMIHQPLGGARGQATDIEIQAK

EILRLKTILNDILAKNTKQKVAKIAKDTERDFFMSAQEAKEYGLIDKVLEKSFK

>WP\_002805290.1 MULTISPECIES: flagellar basal body rod modification protein FlgD [Campylobacter]

MISSSDWNLNTTATTSGTTSSGSTSGTTRTDSSSSSGIVSNPNATLDKDAFLKLLLIELQHQDPTDPMDS

DKMLTQTSQLSALEMQQNTNTTMQKMVETMQKLSDSFSTSMSTSALGAIGKMATVSDNKIKLTGADELIA

LKMYLPEDSDENGVTLEIYDSNNKLVFSEKSDAKSISQGLFTMEWPGRNNDGVYAGDGEYTVKMVYNNKN

GEKITANYGTYPIEGVVFKDGVAYAKMAGQEVPFDAIQEITDYKLGSSSSTGGSGSSGDSSGGSSDGDSS

GSGSTEDGDKEEKA

>WP\_002800974.1 MULTISPECIES: 50S ribosomal protein L27 [Campylobacter]

MAHKKGQGSTQNNRDSIGRRLGVKKFGGEFVRAGNIIIRQRGTATHAGNNVGMGKDHTIFALIDGFVKFE

RKDKDRKKVSVYPA

>WP\_002800121.1 MULTISPECIES: 30S ribosomal protein S13 [Campylobacter]

MARIAGVDLPKKKRIEYGLTYIYGIGLFTSRKILDKVGISYDKRVHELSEDEAAAIRKEIQENYMVEGDL

RKQVAMDIKALMDLGSFRGLRHRKGLPVRGQKTKTNARTRKGKRKTVGAKS

>WP\_002797496.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKSKYNSVVKVRKQQLDKAESNLNQAKQRQLEHEKAYELSRQECESLGVLPKSGSIAELRSNLSMAQVGR

EALARAKEKVELSKKEMNHYQFLYQKAHLDYEKMKVLEAEEIKQKQKELAKAEEKFLDEIAISRFFKGEK

DD

>WP\_002793289.1 MULTISPECIES: ABC transporter permease [Campylobacter]

MNENLSLKAKIYHYAVLFLVFLFLALPLMATFLYSISTSWGVSVLPDDLTLKWYQELFHDERFLLALWHS

LLVCVGSILLSVILVFPLVFVLNYYFLKLKAFVNILIIMPFAVPPIVSCVGLLQLYADNIGGTAWILIFT

YFTIALPFIYRALDNAISNVNLNELITSNAMLGGSLMGAIFKLILPNLRNGILVAVFLSFSFLIGEFLYA

NILVGSAYETLQVYLYNIKNQSGHYSSALVIVYFVLIFITTFIASLIKE

>WP\_002791673.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLNTTLNLPLHHIGVACKNLEKERECFFKLGFYKESEFIDEKQGVRGEFIIPCNEAFPQYRFELLQNLND

KGPLDSYLKNNTKMYHLAYESKNIAQDLILLEQQGGICIVPIMQASYFAKLCFIMMPNRLLIELVELK

>WP\_002789840.1 MULTISPECIES: acyl carrier protein [Campylobacter]

MTKTEFLEELKEAMHRDEDLNEDMLLDDIDEWDSLAFVSVMVLYKNLFTLKITAEDLKNCQKVSDLINLA

KLD

>WP\_002788888.1 MULTISPECIES: methyltransferase [Campylobacter]

MQNSLEAYTMKYNENGYGLLFPDGHVVRFYERILKYKLNKINGNLLDFGCGNGVHSAYFQSKGFKTFGID

IVPSLKEIWEQNISGGGYCKIIEPNSSIKGLFDENMDIIFANQSLYYIPLKELKQNILEFYELLNTGGIL

FATMMSKKNYYFSHSQKEEKNGLSKVEINGRLNETSFIHFIDKAEDLENLFQPFETLFLGDYDPINFYNF

EGSAHHYIYIGIKK

>WP\_002788173.1 MULTISPECIES: membrane protein [Campylobacter]

MEELTKEQRQIIEEEIKKEIKKANTFLKPELINKIIQDIIGDIKGKINNKFKCPKNLEEILSSIPQKVYV

SLGKEEIKQILKLDFCCFVDNVFYIDSAPKIEPYEHNQNKTAIEEQRIIQCSYDDLLYLFKTYPLIFNHC

IFDYKIDKKTPIEQIKKLSFLNCNFKKEVYLNFQECLDSFQMDNCVFEDRVTIKGKFNDNVYFNNSIFKN

YADFHECEFEKTANFYGVRFNKTPNFSQAIFRGNLNAVNANLNFTFDDLQERIKQEYEDFNKNIENKKSL

DKFANDFRDSFRTFKNALIKDNNLLDASNFHKYELYCKEIELKQNWDKRGENVKNTTDLEKNVSRIRDFM

DFLLLGFYRKLCDHHTDFLKVFNNLILLIALYALFVFGFTWLHDDKLEDTRAILTLFGFFDKFRLYFDII

STIFVVFGCGFFVCKLDSYEKKNNVSKKQNINFIYIIGDFLNLIKSLLFASFIPCVFYVLFSLFGFFLNL

GKDFGYSLLINTLFVSLYICLVYTKSLFFGRYVVLIFSYIVFIIMLIKQPNVIHPLIGKIANESDKFFNY

PSLIVLNILYTILLALVLFSLQKTARKNSIVPS

>WP\_002786732.1 MULTISPECIES: NAD-dependent dehydratase [Campylobacter]

MRNILVTGADGFIGSHLCESLVKKGFKVRALSQYNSFNFWGHLEKSPFLKDMEVISGDLRDSFFCEKITK

NIDAIFHLGALIAIPYSYTAPQSYVDTNVNGTLNMLEAAKKNEISHFIHTSTSEVYGTAFYVPIDEKHPL

QPQSPYSASKIAADMMALSYYNSFNLNVNIARPFNTYGPRQSARAIIPTIITQILSGAKEIKLGDLSPKR

DLNFVLDTCEGFISLLNLKHFGEVYNIGSGVEYSMQEVLDLIQKILDSKVKIIQDEQRLRPKNSEVFRLC

CDANKLKKATNWQSKISLEEGLRQSIEYFKENLENYKSELYNV

>WP\_002786346.1 MULTISPECIES: preprotein translocase subunit YajC [Campylobacter]

MAENSILTSLLPLVVLFAIFYFLVIRPQQKQAKAHKQMLESLQKGDKIITNGGLICEVVKPEEDFIKVKL

NEDNVTAKISREFIAKKIDA

>WP\_002785057.1 MULTISPECIES: hydrolase [Campylobacter]

MKKAFVLVDYQNDFIDGSLGFDKALKIKENILKALNQIDFNNTHLLLTYDTHDEHYLQSKEGLNLPVKHC

IKESLGWQMPKEFEPFLQKAHKIFYKNTFGSLELANFIQKSDYEELHFAGLVSHICVFCNIILAFGAKPN

ARIILHQNLSASFDENLEKSAFDILRAYGIEIV

>WP\_002784190.1 MULTISPECIES: ABC transporter permease [Campylobacter]

MKEKFLAFLSILPFFIVFTFFMIAPLIWIVFNAFYVEEDEIYSLANFIHIFESKFYLQSIINSLQISFIS

SIFGLLIGLLASYSLFVLAPSKICKFLFSLNTMISNFSGVPLAFAFIIVLGSNGVVNVFLKNLGIEPFVS

VYANFGVNIVYVYFQIPLAILLLLPAFKSLENSHLNACKMLGGGNFLYWLKIALPLLAPALFGVFVILFA

NAFGAYATIYALSSGNFNVAPVRIAALIAGDINLDPYMASALSIIITIIMLVVTFIANFLSKKYNFKVL

>WP\_002783526.1 MULTISPECIES: homoserine O-succinyltransferase [Campylobacter]

MPLIIPENIPAYELLKEHAFIMGLRRAKHQDIRPQEILIVNLMPKKIETENQILSLLANSPLQVNITLLA

TTSYVGKNTPFTHLEKFYKGLEEVKKHKFDGAIVTGAPVEQMDFEKVAYWEELLEIFDFLKQNVTSSMYI

CWGAMAALKYFYGVDKISLDKKIFGVYKHDKVSPDLLLTNLDEKVLMPHSRHSSMDEEQILALQKQGKLK

ILLRNKKIGSALLRDEKNIFILGHLEYFKETLHQEYVRDNFIQKAKNYYDKKGNIKYNWRSNANTIFANW

LNYDVYQSTPFVL

>WP\_002783229.1 MULTISPECIES: 3-methyl-2-oxobutanoate hydroxymethyltransferase [Campylobacter]

MRKSMISFLEKKAKNEKITMVSAYDYHSARILDNSDIDIILVGDSLAMTVLGMQDTLSVTMDEMLIFTKA

VSRGAKKSFVLADMPFMSYQSSDRDAILNASRFIKESHANGVKVEGGIEIASKIKLISQSGIPVVAHLGL

TPQAVNMLGGYRVQGKDLQSAQKIIDDAKAVQDAGACMLVLECVPVKLAQKISSILEIPTIGIGSGKYCD

GQVLVYHDLLGLNKDFKAKFVKHFDKIDPQVGVEKYRDEVKSGIFPSQEHSFDYLDDELLDKLY

>WP\_002782934.1 MULTISPECIES: 30S ribosomal protein S12 [Campylobacter]

MPTINQLVRKERKKVLEKSKSPALKNCPQRRGVCTRVYTTTPKKPNSALRKVAKVRLTSGFEVISYIGGE

GHNLQEHSIVLVRGGRVKDLPGVKYHIVRGALDTAGVAKRTVSRSKYGAKRPKAGAAK

>WP\_002781997.1 MULTISPECIES: acyl carrier protein [Campylobacter]

MEKQFYEILENILETKVDENTNLSMENCKNWTSLAHIDIIMSLEEEFEIKFNKEDLSLLKSQSALLEKIQ

TLKAEK

>WP\_002781628.1 MULTISPECIES: 50S ribosomal protein L9 [Campylobacter]

MKVLLIKDVKALGKAGEIKEVKDGYGQNFLIAKGFAKAATNEVLRKYESDKKKEAENLRFEIANLEKLKE

ELSKITLEISKPVGANGSLFGGVTKDEIAHALKEQSHIEIDKKSLECDTLKSLGIHEVSVKLGHAIHAKF

NINIKAE

>WP\_002781429.1 MULTISPECIES: 50S ribosomal protein L36 [Campylobacter]

MKVRPSVKKMCDKCKVVRRKGVVRIICENPKHKQRQG

>WP\_002781229.1 MULTISPECIES: molybdenum cofactor biosynthesis protein MoaE [Campylobacter]

MKHFTLYQGSLDIPKIYSQWYEFSKDKNCGALLTFCGIVREEGGIEALSFDIYESLLKKWFDEWQKRVDF

DGISLLFAHSIGDVAIHESSYFAGILSKQRKLGLKLLNEFVEDFKASAPIWKYDVINKERIYAKERSTKL

CGAGLLKG

>WP\_002780697.1 MULTISPECIES: 30S ribosomal protein S21 [Campylobacter]

MPGIKVHPNESFDEAYRKFKKQVDRNLVVTEVRARRFFEPMTEIRKKQKISARKKMLKRLYMLRRYESRL

>WP\_002780442.1 MULTISPECIES: flagellar basal body protein FliL [Campylobacter]

MDEELENEETKKKKGGSLVIIIVILLFVLLLSIMGVIAWLISSSSSDESEVKEAPKEEAKADKPKVSAPA

QRGSDFANIGPMYPLDPFTLNLLSDSGSRYVKCTIELEQNSELLKPELDKKVPVIRDIIIRTLTAKTFEE

VSTQKGKERLKDELVGKINEILTDGFIKNVYFTDFVVS

>WP\_002780438.1 MULTISPECIES: cytochrome P450 [Campylobacter]

MSECPFFPKPYKNKASTLLTFLLKRRSWLDGLYERSYKMQTGYVKMPNFDLYVINDTKEVKRMMVDEVRE

FPKSAFLHELLSPLLGESIFTTNGEVWKKQRELLRPSFEMTRINKVFNLMSEAVADMMDRFSKYPNHAVI

EVDEAMTFITADVIFRTIMSSKLDEEKGKKILNAFVTFQEQSVHTAMRRMFRFPKWLSYVLGDCKRAKAG

DVIRQVLSDIIKPRYDMADNAEFEDILGSLLLVVDADTNKRFSFEEILDQVAMLFLAGHETTASSLTWTL

YLLSLYPKEQEKAYEEITQVLQGGVIEISHLRQFKYLTNIFKESLRLYPPVGFFAREAKKDTQVRDKLIK

KGSGVVIAPWLIHRHEEFWTNPHGFNPSRFEGEYKKDAYLPFGVGERICIGQGFAMQEAILILANILKTY

KLELEEGFVPDVVGRLTVRSANGMRIKFSKRKL

>WP\_002779544.1 MULTISPECIES: 30S ribosomal protein S11 [Campylobacter]

MAKRKIVKKKVVKKNIAKGIVYISATFNNTMVTVTDEMGNAIAWSSAGGLGFKGSKKSTPYAAQQAVEDA

LNKAKEHGIKEVGIKVQGPGSGRETAVKSVGAMEGIKVTFLKDITPLAHNGCRPPKRRRV

>WP\_002779471.1 MULTISPECIES: 30S ribosomal protein S7 [Campylobacter]

MRRRKAPVREVLPDPIYGNKVITKFINSLMYDGKKSTATTIMYGALEAIDKKGGEKKGIDIFNDAIENIK

PLLEVKSRRVGGATYQVPVEVRPARQQALAIRWIISFARKRSERTMIDKLAAELLDAANSKGASFKKKED

TYKMAEANKAFAHYRW

>WP\_002779452.1 MULTISPECIES: 50S ribosomal protein L11 [Campylobacter]

MAKKVVGEIKLQIAATKANPSPPVGPALGQQGVNIMEFCKAFNERTKDMAGFNIPVVITVYADKSFTFIT

KQPPATDLIKKAAGISKGTDNPLKNKVGKLTRAQVLEIVDKKIADLNTKDRDQAAKIIAGSARSMGVEIV

D

>WP\_002779441.1 MULTISPECIES: 50S ribosomal protein L16 [Campylobacter]

MLMPKRTKYRKMMKGRNRGYANRGTEFTFGEFALKATEAGRINSRQIEAARIALTRFVKRQGKTWIRVFP

DKPLTKKPLETRMGKGKGAVEEWVMNIKPGRIIYEMAGVSEEMAREALTLAMHKLPFKTKFVTRESQNEI

Y

>WP\_002779438.1 MULTISPECIES: 50S ribosomal protein L14 [Campylobacter]

MIQSFTRLAVADNSGAKELMCIKVLGGSKRRYATVGDVIVASVKKALPNGKVKKGQVVKAVIVRTKKEIH

RDNGSLIRFDENAAVILDNKREPIGTRIFGPVGREVRYGGFMKIVSLAPEVL

>WP\_002779437.1 MULTISPECIES: 50S ribosomal protein L24 [Campylobacter]

MAVKLKIKKGDSVKVITGDDKGKTGKVLAVYPKTLKVVVEGCKIAKKAIKPSEKNPNGGFINKEMPMDIS

NVAKVQE

>WP\_002779428.1 MULTISPECIES: 30S ribosomal protein S5 [Campylobacter]

MEKYNREEFEEVIVDIGRVTKVVKGGRRFRFTALVIVGNRKGLVGVGYGKAKEVPDAIRKAVDDAFKNIV

EVKTKGSTIAHDVEVKYNASRILLKPASEGTGVIAGGSTRPIVELAGIKDILTKSLGSNNSANVVRATIK

ALTMLKG

>WP\_002779353.1 MULTISPECIES: 30S ribosomal protein S10 [Campylobacter]

MERIRLKLKAYDHRVLDRTVAAIVEAVKRTGADIRGPIPMPTKIKRYTVLKSPHINKDSREQFEIRIHAR

MLDIVAATPDTVDSLTKLDLAPEVSVEVRAMGK

>WP\_002779321.1 MULTISPECIES: 50S ribosomal protein L13 [Campylobacter]

MTKITKPNEVKREWIVLDAEGKRFGRLLTEVATILRGKNKPCFTPNVDCGDYVIIINASKAVFTGANKAE

DKLYHRHSGYFGSVKSEKFGDLLEKNPAKLYKLAVRGMLPKTNLGRAMLKKLKIYAGSEHPHTAQIAKEG

K

>WP\_002779270.1 MULTISPECIES: dihydroneopterin aldolase [Campylobacter]

MEFLELLLVLIALILIIKKPEKENLAFGLVMVAWLLMVFFYVGHKTGALLTIMNL

>WP\_002779268.1 MULTISPECIES: 7-cyano-7-deazaguanine synthase [Campylobacter]

MSKKALCIISGGMDSTLCAYLAKKEGYEIIALHFDYEQRTQEKEKECFKQICKALKVEKSYILDVSFIKD

IGGNALTDKSIDIPKNELCTSDTPPITYVPFRNGIFLSIAGSLAEKENCESIFIGVVEEDGSGYPDCTDE

FIQKAQEFINEGTSKNFKVCIKTPLVRLNKAKIVELALKENVPLELTWSCYESEDEACGECDSCLLRLRG

FEKAGFKDKIKYKS

>WP\_002779262.1 MULTISPECIES: hypothetical protein [Campylobacter]

MINPIQQSYVANTALNTNRIDKETKTNDTQKTENDKASKIAEQIKNGTYKIDTKATAAAIADSLI

>WP\_002779147.1 MULTISPECIES: hypothetical protein [Campylobacter]

MTLNELKDGQKAIIVNLNAHKELKNRLLSFGFIKNKNLKKIHSSLKNATIMVELDTSCVILRSDEAKTIE

VNLI

>WP\_002778908.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLKIILVLSILSSFAFANSCANYEQELKKCNSLKNSHERKMCRLGLFAKCKKG

>WP\_002778842.1 MULTISPECIES: iron transporter [Campylobacter]

MIKKVLSVVAAAAVISTNLFAGEVPIGDPKELNGMEIAAVYLQPIEMEPRGIDLAASLADIHLEADIHAL

KNNPNGFPEGFWMPYLTIAYELKNTDTGAIKRGTLMPMVADDGPHYGANIAMEKDKKGGFGVGNYELTFY

ISNPEKQGFGRHVDEETGVGKWFEPFKVDYKFKYTGTPK

>WP\_002778820.1 MULTISPECIES: 50S ribosomal protein L21 [Campylobacter]

MYAIIKHSGKQYKVSVGDELKLDHFEAESKASIEVSEVLAINDKELKVGAPFVAGAKVVLEVINHGKDKK

VVIYKKRRRKDSKLKRGFRRQFTRVVVKDIKA

>WP\_002778650.1 MULTISPECIES: ribosome-binding factor A [Campylobacter]

MNPSEIKKLRTESILKELIPEALANLDDENLKNLCVVDVECKKGRYDAFVYLDKMFFNVHEQEKILSSLK

KASRALQNYCMSEQGWYRCPNFHFKFDDRLEYQNHMDALFEKIKKDKNES

>WP\_002777686.1 MULTISPECIES: acyl carrier protein [Campylobacter]

MQEIKQFFINIERTDINESMENLVSEDFIDSIDIMALVAEIEKFYKKPLKAEFITPENFESFENIKKMLE

TAMKD

>WP\_002776864.1 MULTISPECIES: 50S ribosomal protein L34 [Campylobacter]

MKRTYQPHGTPRKRTHGFRVRMKTKNGRKVINARRAKGRKRLAV

>WP\_002776614.1 MULTISPECIES: hypothetical protein [Campylobacter]

MLETLKKYAENQGIEDNYPKKIYNQKEKKP

>WP\_002776343.1 MULTISPECIES: hydrogenase formation protein HypD [Campylobacter]

MNFIDEFRDKESILALKKLIEQELKNPINIMEICGGHTHSIMKYALPSILPKEINFIHGPGCPVCVMPRV

RIDTAIKLASMKDTIFCTLGDLLRVPGSEISLLDLRAKGADVRALYSPLEVLEIAKQNLNKNIIFFAIGF

ETTTPMSALLLQKVIEEKINNVFFHINHITVPAPVEAIMNDENVKINAFLGPSHVSVITGYGIYEPLAAK

FKTPIAVSGFEPVDILESVLNIIKQSNEGTFKVYNQYKRAVSKEGNVKAQNLVKKYFRVCDFEFRGLGLI

KDGGLELKEEFSAYDASKKFDCTVQSKNESKACICGQILRGLAKPYDCKVFGKACTPRSPIGSCMVSGEG

ACAAYYKYSKVNA

>WP\_002776146.1 MULTISPECIES: flagellar protein FlaG [Campylobacter]

MEISKANGQMDTALANISQRTSETQASLNIQTDRSQGQEGDDGQQRGVSEKLADITKKLNEQMDSLDTNV

RFGYSDKIGSMYISVTEKSTGREIRQIPSEEAMRLAEYFRDVIGMIFDKES

>WP\_002858808.1 DNA polymerase III subunit beta [Campylobacter jejuni]

MKLSINKNTLESAVILCNAYVEKKDSSTITSHLFFHADEDKLLIKASDYEIGINYKIKKIRVESSGFATA

NAKSIADVIKSLNNEEVVLETIDNFLFVRQKSTKYKLPMFNHEDFPNFPNTEGKNQFDIDSSDLSRSLKK

ILPSIDTNNPKYSLNGAFLDIKTDKINFVGTDTKRLAIYTLEKANNQEFSFSIPKKAIMEMQKLFYEKIE

IFYDQNMLIAKNENFEFFTKLINDKFPDYEKVIPKTFKQELSFSTEDFIDSLKKISVVTEKMRLHFNKDK

IIFEGISLDNMEAKTELEIQTGVSEEFNLTIKIKHLLDFLTSIEEEKFTLSVNEPNSAFIVKSQGLSMII

MPMIL

>WP\_002858388.1 pyrroline-5-carboxylate reductase [Campylobacter jejuni]

MLYILANGSMATALAYGLKDDYEICIVGRSIEKLQALAKEGFKTLLYKDFNIEGKDVILAFKPYALENIA

QMLKGQARILISVLANVDFEKLQTIKAQNYVRIIPNTAAKYKASTTPYILKNSHFENEILDILKTFGSAY

KLDNEIQMNAAMAISGCAPAFLALIAESIANAGVYEGLSKELSLNLTRSLFKSSNALLEHEHPAIIKENI

CSPGGVTIKGIKILEQKGIRGSFFEAINASSAK

>WP\_002857904.1 DNA gyrase subunit A [Campylobacter jejuni]

MENIFSKDSDIELVDIENSIKSSYLDYSMSVIIGRALPDARDGLKPVHRRILYAMQNDEAKSRTDFVKSA

RIVGAVIGRYHPHGDTAVYDALVRMAQDFSMRYPSITGQGNFGSIDGDSAAAMRYTEAKMSKLSHELLKD

IDKDTVDFVPNYDGSESEPDVLPSRVPNLLLNGSSGIAVGMATNIPPHSLNELIDGLLYLLDNKDASLEE

IMQFIKGPDFPTGGIIYGKKGIIEAYRTGRGRVKVRAKTHIEKKTNKDVIVIDELPYQTNKARLIEQIAE

LVKERQIEGISEVRDESNKEGIRVVIELKREAMSEIVLNNLFKSTTMESTFGVIMLAIHNKEPKIFSLLE

LLNLFLTHRKTVIIRRTIFELQKARARAHILEGLKIALDNIDEVIALIKNSSDNNTARDSLVAKFGLSEL

QANAILDMKLGRLTGLEREKIENELAELMKEIARLEEILKSETLLENLIRDELKEIRSKFDVPRITQIED

DYDDIDIEDLIPNENMVVTITHRGYIKRVPSKQYEKQKRGGKGKLAVTTYDDDFIESFFTANTHDTLMFV

TDRGQLYWLKVYKIPEGSRTAKGKAVVNLINLQAEEKIMAIIPTTDFDESKSLCFFTKNGIVKRTNLSEY

QNIRSVGVRAINLDENDELVTAIIVQRDEDEIFATGGEENLENQEIENLDDENLENEESVSTQGKMLFAV

TKKGMCIKFPLAKVREIGRVSRGVTAIKFKEKNDELVGAVVIENDEQEILSISAKGIGKRTNAGEYRLQS

RGGKGVICMKLTEKTKDLISVVIVDETMDLMALTSSGKMIRVDMQSIRKAGRNTSGVIVVNVENDEVVSI

AKCPKEENDEDELSDENFGLDLQ

>WP\_002854067.1 succinyl-diaminopimelate desuccinylase [Campylobacter jejuni]

MNAKEFLIELLKFKSVTPNDDGALNFIAMELSDFEAFFIEKEGIKNLLLTKKFKDEGEHLAFGGHVDVVP

AGEGWSNNAFAPVEKEGFIYARGAQDMKSGVAAFVDAAKNADFKGARLSLILTSDEEGEAIYGTKAVLEW

MQERDMLPDYAVVAEPTCVKKIGDSIKIGRRGSINGKLLIRGKQGHVAYPEKCINPVHDFAPVLKLLAGF

DLDPGSAEFSPSKIVITDIRGGMGVCNVTPNDLKLMFNVRNSPDTSLEDVKSYVEKICHGLNYELELKQS

SEAFLTNIDNKIVQKMNESVQKITHEVPELNTKGGTSDARYFAKYGVKVVEFGVCNDRIHAIDERVSIEE

FEKLCLVFKDLIENF

>WP\_002853134.1 2-isopropylmalate synthase [Campylobacter jejuni]

MKDNKIIIFDTTLRDGEQALGSSLGINQKLQIALALENLGVDVIEAGFPVSSQGDFKAVQKIASKVKNST

ICALSRALDKDIDMAYEALKVAKHFRIHTFIATSTLHMQDKLKKDFDEILSMAKRAIIRARSYTDDVEFS

CEDAGRTPIDNLCFMVENAIKAGAKTINIPDTVGYTLPSEFANIIKILFNKVPNIDKAIISVHCHNDLGM

ATGNSLSAILQGARQIECTINGLGERAGNCALEEVVMAIKTRKDYLKGFYTDIKCENIFKTSKLVSAITN

ESIPSHKAIVGSNAFSHSSGIHQDGVLKNRQTYEIISPSAIGIHENRMLMTARSGRAMIKTCLENLGYDE

NTYNLDDVYERFLRLADKKGQVYDYDLEALMFLSYESEEENEFVLEKLSVISGNIPTACVCMRIKEELKT

EACTGNGPVEAVFNCIARITNLKPALKAYSINAKSSGVDAQGQVDVDLEFKGRKFHGKGLSTDVIEASAQ

AFVSAYNAIYRSLKVEERKMA

>WP\_002852931.1 aspartate-semialdehyde dehydrogenase [Campylobacter jejuni]

MSKKQKIAIVGATGAVGEELLNVLDELDFPVESILPLASAKSVGSEVEFKGKAYKVKELTENVFKENPID

IAFFSAGGSVSEKYAKFAVESGAVVIDNTSHFRMEKDVPLVVPECNPEDIKDWKKTGIIANPNCSTIQMV

QVLKPLNDAFNLKRVDVSTYQAASGAGKEGMQELVEAMQSFFAFKLDEFEPQTFPYTLALNLIPQIDVFM

DNDYTKEELKMVNETQKILHKNLEVSATCVRVPVLRSHSEAITMHFEKEIDVKKAKEILKKAPSVIVIDD

PKNKKYPMPLMTSDTNETYVGRIRADVYDKKILHLWCVADQIRVGAATNAVRIAQKWLELKNK

>WP\_002851926.1 tRNA-dihydrouridine synthase [Campylobacter jejuni]

MIDFSKKPLFLAPMAGFSDLPFRNVVKKFGADITISEMISSNALVYESSKTLHMLERAELENPYIVQIAG

GDKEVLKKAVQMLNEMDFVDGIDFNCGCPVNKVVKQCAGSALLENLELFKNLVGVIKENNKKSLTSVKFR

LGFNEKYPEKMAKICESLGVDFISIHGRTRKQLYSGKADYGSIASAKASVKIPVIANGDINAQNAKEVYK

ITKCDGLMIGRASVGNPWIFYEIKSGKSVDEKLKKEIILTHFDEMIKHYKDQGVSIFRKHLHEYSKGHKD

ASTFRDTVNRIDNVEEMRKKIEEFFSLT

>WP\_010891940.1 1-pyrroline-5-carboxylate dehydrogenase [Campylobacter jejuni]

MIQKALALAEELQGQIEANISNSEKEFHAKMQKLLNNPKNKVMLIELLDRSFRCKDKNASFELIEYTLSK

YGIADFFSTFEKFLLFSFLNFGKFAPNLSVPFFVKHLREDTKAMVLDANPSVLEPHIKKRKEQDKITLNV

NLIGEEVLGEAESKYRMQKYEEALKSSYITYISIKITTIFSQINIIDFNYSKEEVVKRLDYLYALALEEE

KKQGVSKFINLDMEEFRDLELTVAAFMESVAKFDIKAGIVLQAYIPDSYKYLKKLFAFSKERVLKGMKSI

KIRFVKGANMESEETIASQRGWELPTFYKKIDTDSNYNKMLDFILEGDNYKYINIGIASHNIFEIAYAYT

RISEVGALDSFTFEMLEGMSLQCSYELSKMHDLILYTPVCDEAHFNNAIAYLVRRLDENTSEDNFMRYFF

NLKVGDKNWNIQKELFLKSLEGIKTLDNTTHRKQDRNKESNIISSYEGKKFSNESDTDFILAQNRVWAKE

IKTKYENLKDYDVYPVIGELDFKAENLNVLEVKDKIEDRVIGKAYLAGEKEIKQALEVAKNSKFTQKSHD

EIYQILAKSAKLMRERRGDLIGLAALEVGKTFLEIDPEVSEAIDFIEFYPHSLEELKKQNPKVTFTPKGI

GVTIAPWNFPIGISVGTIAAPLAAGNVVIYKPSSLSTLTGYMLCKCFWDSGIPKDALIFLPSKGSDISKY

LLIDEAIKFSILTGGEDTAYAMLKANPTLLLSAETGGKNATIVSKFADRDSAIKNIIHSAFSNSGQKCSA

TSLLVLEEEVYHDEEFKKTLVDAASSMAVGNPFEFKNKLGTLADKPSSKVQKALDELQPYEEWALKPKFL

EDNPYLMTPGIKYGTKKGDFTHMNELFVPILSVMKAKDLKEAIDIVNSTGYGLTAGFESLDEREWEYFHT

HIEAGNIYINKPTTGAIVLRQPFGGIKKSAIGLGRKVGIYNYITQFLEIKQEDFDDHLIEDKFSKKLAQI

DLKEAQDFINNLIKMSQSYAYHYKNEFSVSKDYVNIRGEDNLFSYTKIKNMVLRLCGNESLKDVLGVVLG

ANIANIDLSISYDEQDVSMIERIVQSIGAKVLFLKENKENFIKSIKEYERVRYLAKPDVNDEIYKEAAKL

AKIIIREKPLLNGRFELLNYFNEKALSISFHRYGNLGIRAIS

>WP\_010891914.1 DNA polymerase III subunit gamma/tau [Campylobacter jejuni]

MLQALAIKYRPKTFDELIGQKTVSVSLKYALNHNRLAHAYLFSGLRGSGKTSSARIFSRALVCEQGPSDT

PCGTCKHCLAALEGKHIDIIEMDAASNRGLEDIQALIEQTKYTPSMARFKIFIIDEVHMLTPQAANALLK

TLEEPPSYVKFILATTDPLKLPATVLSRTQHFRFKQIPQSEILNHLKEILLKENVKFEEEALKFIARSGN

GSLRDTLTLLDQAIIFCQNEISISKITDMLGFLDPQKIKAFYQAILTKDKEKVFVYLEELQDYEASSVID

EMLFYLKESFFAKSTEFSTLIYERFFRILSKAKNMLCDDDGFTLCVMAFMMMEASHLKEIDAQIQEIKQE

NTTNIISRITPSPIIPHLEKKTEKNAYEILLDSIYDRDFDLAECFKQSTNFISFENNTLNINSNAQGQNR

DTLNKGFKLIQELFKAKFGENAKINVQKALTIDENKLQSLTQELPNNENKNIDIQSSINMLKEGAKKFDP

QEDLKEALKDCFGEPSIEN

>WP\_010891876.1 invasion protein [Campylobacter jejuni]

MNYIYKLNTIKRGYMQNLLFYIKNNLTPTLAQILLQALKNSNNEKFFTFVLENIETICTWLNSNKFRDRY

LSTKHPYPPLINPNFIEIDSSRHCAELAWDLNLPLPKHYKFIYISPHGVGAAAFLRYLNQCCDVTCFASW

VLPPDSKERYCINYMCLNDNTIAQYAINISEINLPYFDKYLSLLDFNSKIICGVRDPIGLLKHSWGRDWS

KVLRNYPPEFNLTYDWRYYINYLTHQNHKIKIDINELQQGVFIISYLLKYFNKDNVYYLDMEEIRQSKAF

DTMNLLAINFNFTPPHKDKLDLFKIKEFRGYIRYLFPITLYANSKDINNTFYLNTPKNNKNFNIDRTSSI

PIILDRKHINHEKIDVIQEIIKNDLCNDMGVYIDKNDFKQLEQNNLLFSTIKHYLYDFLYQIKITIDETE

SKMMKEKDVIDYFIKNKSLIYTFLIYLKMN

>WP\_010891837.1 mcrBC 5-methylcytosine restriction system component [Campylobacter jejuni]

MNSIFSIIEHQAFSKEDLKEIFKEKAEGFYKELEDFAKNNENLLGFKNKNSLKAKNYVGIIQTKSGVLEI

LPKCTNLDSYKKEDSSSNHDKEKLRRCYELDNISKNNDFYEKDFKFNPKNLLINMLKTLKNSPFKKSQIS

SLQSSKIPLFEVFITMFLDEFDSVYKKGLMRSYLSCEENRAFLKGKLLFNEHIKQNLIHKERFFTSNDEF

VLDIAPNRLIKSTLNFLKSKTSLNKFRLIKAMQMLDEVEFSKNYEKDFSYKISRHFDYYENLLLWCKIFL

KNESFMPYHGKNEAFALLFPMEKIFEDYVAYMLKKVNSTQDIKVQNNGKYLISKNDENCFMLKPDLYIKN

KMILDTKWKIPNDSEDEKKQGIAQSDLYQMFAYACKFKIYDIKLVYPLCEKTQDLQRKIAEKFFVFKASE

HLYFKEQGQKDIKVQVFFAPLPF

>WP\_002888535.1 endonuclease [Campylobacter jejuni]

MWNLDEKKLQEMLDGFLNFQEVWTLEKVKNMTLEEYTNIKKDNPNRDDFTFWIESKLDNLGSIWGGSAFK

FGIYRRNDESQKESSSGRLYSQNYAWIAKYGNNENEAFNNIKEKIIQIIQASQDNNLKTIEKIDFGDAIK

WKIAFHYQDVKNIKIVNIFSKNVLDLISLNEFKEKLKIYQIHKKLLENKNLSLVKMIENIAIPLWNKYGM

DSQNYIDKMKNLFSEYLNKKKLDKNTINKYIQVIENISKEFLKENLYSCDLFSFDQNINKLNKNEEFKLK

NSNGHNMYSSALNYYRAFLIDYYEQDIFITERVQSEESNMKIIPLNQILYGPPGTGKTYHTIDKALEILG

ENLESRDEKKAKFDEYVRKGQIVFTTFHQSYGYEEFVEGIKPIIDNDENSQEVKYDVKDGIFKELCDKSL

KNYILSMQNENEIDLDKLIFEFANYINQDFLNKGNEFPLENKVSIKKILLNFKDEYRSFSLGGSIKSPQS

LTIDIIKRDYLNFKNKKILSFKDIKPKYDSQSDYHGNAIYYFMFYNKLKEFENIQNEKFKIKKEILKSYI

IIIDEINRGNVSKIFGELITLIEPSKRIGEKEELKVTLPYSGEKFGVPKNVYIIGTMNTADRSITSLDTA

LRRRFEFVEMMPDVSKLSMDCEGINLQELLKAINTRIEYLLDREKTIGHAFFVSVENLEDLKKVFQNKII

PLLQEYFYNDYALINAVLNDNDMIFEDKKDDKYLQKIKNLDSVNSERSIYNIASFDDKIWDKIEIYQAIY

NDEIANKLKNENE

>WP\_002874223.1 multifunctional acyl-CoA thioesterase I/protease I/lysophospholipase L1 [Campylobacter jejuni]

MLVNKFKVILLFFIIFTSSYAQNLNTNDTIDSILNQNKNHSALTSYVSKKDLKNLEKKLEKNQNIGIRIY

GDSHMAADFFPRVIRGYLIRSNSIGFAYPLQPKYQQNLNLVYSYKNFEILNSRNPANAGHNFPLGGIIAK

AKTKGAKINLDTTLDKKNFKIGFLFKAKQNTNAFSIKDAKNQSYELRTTQINKWSYKELELDLPLQISAL

QKDAELGGYFITNKDNNVFLDTIAINGAKSDLWLSWNQEVVKKELELLHNDLIILAYGSNDALFKGFEKQ

KFKNNLKKWISILKTYNKNAVIMLISPPTVVQKQGKNYKLAPDFFTIRKALYEVAKEEKTLIFDMHQFMQ

DSGGKNKWIEQKLSLNDVHLTIKGYELMAKKLLEDLKNIIDY

>WP\_002868074.1 hypothetical protein [Campylobacter jejuni]

MKKYLFSCVLASILTQSATAVEFQEGFSGNLSIGVGARDIKSNISTLANSDYLSSHNADNSDSSFIPFIG

AELYYGNLIDNDRIFIKNYNGRDISGIALGYERAYLERFSTSFSVISSLREKAYANPYAIGNREETDVDR

YGFKISQLYESDFGKFTTSYLFSKNKYDKDTIAQSSLKREGYYHEIELNYNYSLLNLGLNYDYNDADGKA

QSYSRYGFSIGTNLAFANDYIFTPNLNLSKYEAVGTDPIFHKKQDGNIVKLNLKVVKNQFLGYNGLYGFA

NYGIEKRNSDIGFYDETYQIVLTGIGYKF

>WP\_002864617.1 hypothetical protein [Campylobacter jejuni]

MKFSDFFHAWLHESYYKNAVSIGKNGDFFTAVSVGNLFGTLLAKHFLNLIDEKILKPPLELVEIGANEGY

LSRDFLAALLELRPEIFSQISFFIIEPHEKLRTLQKKTLEGVEFTHKNSLKECHFKNAFFFCNELFDSFT

CELIDHDKMAFVENFKLIFKNMDENLITKCKALNLTKGELSLELENFFKDLNQTCERFIFAGFDYGTLNP

QSFSLRIYQKHEVFSPFEVSLKDFFGKSDLTYNVNFTHLQKLIKEYDFKPLAFKKQSLAFMDFGFEDLLE

YAKNKNIKTYESFLSQAKILFFNFDEKFHFFEFQKN

>WP\_002864555.1 5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase [Campylobacter jejuni]

MKNSIISYPRIGANRELKFAIEKYFKNQSSKEELLKSAKDLRIRHWQEIQKAGIDFIPSNDFSLYDNVLD

AAVLFNIVHTKYKNLNLDALDEYFAQSRGYQGENGDVTALAMKKWFNTNYHYLVPECDNADIIALTGDKI

FKEYLEAKELGIESKPVLIGIFTLFKLIAFKDEKTQKLAKEKLLNAYIELFDKLNELKVTWLELDEPYLV

YDLSKEDIALFEEFYQELLNHKKDLKILLQSYFGDLRDIYPKLLESKFDALGLDFIEGKQSLALVQQYGF

AKDKILFGGLINGKNIYANDYAKSLKLIKELQKYTQNIILNTSCSLLHVPYSTEFESKLDSSYLKLFAFA

KEKLQELKDLKEILNSSEENPLFRANQELFKNIPERLDEKVKARLKALKKEDFTRTPSFKERALIQKEFL

KLPLLPTTTIGSFPQSADVRSNRLAFKQEKISAQNYTEFNQQKIKECIQIQEEIGLDVLVHGEFERNDMV

EYFGENLKGFLFTQNGWVQSYGTRCVKPPVIWGDVSRTKPITLAWSKFAQSLSQKIVKGMLTGPVTILNW

SFPREDISLKESTEQIALAIRDEVLDLENAGIKIIQIDEAALREKLPLRKSDWHSEYLDWAIPAFNLVHS

GVKAKTQIHTHMCYSEFSDILKEIDAMDADVISFEASRSNLSLLDTLKAIRFKTEVGPGVYDIHSPRVPS

VEELSLTIEKILNKLPKEQIWINPDCGLKTRAYEEVITSLKNLVTATQKIREQL

>WP\_002864445.1 UDP pyrophosphate phosphatase [Campylobacter jejuni]

MQRFKKWFLSIIKNFKQHEKIKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNT

KIDLNNTKIDLNNTKIELSQLKKEHYKVLDFHLRKITPQAFLEIVEIHLAESCNLNCFGCNHFSQIAEKE

FPDIEIFKKDMQRLSEISKGIVGTFRLMGGEPLLNPNCIQFFDITRYFFPKSAIWLVTNGILLDKQNEDF

WNSCQRNKMQIRPTKYPIKINWDLIKDKCDQYDIPLIFFNNGELEKTSWKFSLDPSGNCDNYHSFTNCSM

ANHCVQFKDGKLFTCTFPAHVQHFNKKYGNHFEVCEFDFIDIYKAKDYQEILFFLSKPIPFCRYCKVSQW

AEIGKWRSSNKTKHEYLI

>WP\_002858667.1 membrane protein [Campylobacter jejuni]

MEKIKNYKLIIILLSLDLLALLYGTSTLSISADEADIYFGEQGKSLIFSHSLLYYISHFGTFIFGQNDFG

LRLPFLFFHFLSCLLLYLLALKYTKTKIDAFFSLLLFVLLPGTVASALLVNAASLVIFLTLAILCAYEYE

KKWLFYILLIIVLFVDKSFNILFLTFFFFGIYKRNAILFTLSLVLFGASISFYGFDTGGRPRGYFLDTLG

IFAACFSPLVFVYFFYTIYRLTFQKYKNLLWFLMSVTFVFCLLLSLRQKLFLDDFLPFCVICTPLLIKTL

MQSYRVRLLVFRLRYKIFIECSIIFLIFCYFLIVANQLLYYFINNPNRHFANNYHFAKELALELKKQDVL

ELATAPSLQKRLRFYGIKNSNKFYLKALKQADKHDMDKKIVKVKLGKYEKVYQILNYD

>WP\_002858484.1 flagellar basal body rod protein FlgC [Campylobacter jejuni]

MAYLSDFDISGYGLSAQRFRMNVISSNIANANTTRTAEGGPYRRREVIFKATDFDKLLNEQINKDNNFLK

YENPLNDPSSPEEAKPAIQSVVVDKVVRDDKDFRMKYDPSHPDANAEGYVAYPNVNPVIEMADLIEATRA

YQANVSAFTSAKTISQSAIDLLRG

>WP\_002858440.1 capsule biosynthesis protein CapA [Campylobacter jejuni]

MDNSKPLIIAGRDDGFGERMRALLNALYISKKFGFKFGFVWRDINNIQNLLDGKVLIPWANLPTREYLFD

QDFIKSYYRQDIEFAYETPVLWSLYRQSIKNILKKPYEKEWGWYSTQGDLSEYFTDVDEGEYRTELVSCW

KQIDFSSHVKKIFEKAHSKFLDIGKFVAIHIRTGEVIHDEFYRNILYHCRYKIFPYPFALEIALKEIKKG

HRVIFFGDDLNLIQNLKEYCSFNKQAQENIFSIDDIIAFEQLDNGYDRLLFELVLMSKSEYIFGSGTTGF

SRCASWIENKIFINIFDHLSLIEQYEIILKYIDIENIDDLYRSCNYFFLFLLSEQLNLNFDIKLRYLSKS

LRYDSGSLNSEVFYINLLLQNEKFKEADDRLEQVICKNKKKFFDLLLGYGQNPTFPYDIYMNYYFKDFDQ

YSNIFYVACRIFSEFNIPESRVNTYYPNFHPIIFDQFKMFIFKDLPKSDQEIGAVKKIRNHLAYKLGVAA

IKNSKSLWGYIRMPYVLSYIRDMHKESQNKMDKKSISLEYYSDYESALKEKEGFVYKLGQIIIKAHKNWH

KGGYIMLWFEVKKLKKEFKKGK

>WP\_002858428.1 branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter jejuni]

MKKLTLTLSVLTMVNCLYAKDINIGVVLPLTGTVAAYGQDVFNGIELANKLQPKLSNGDVIKLITIDTKG

DKLETSNGVNRLIATDKVLGIIGEATTPNTIQAISIAEEKKIPLIAPVASGDKLLDKKKYASRVCFKDSF

QGDKFATYVSKDLGLKNAVIIIDQSNVYSLGLARAFENSFKNNGGKIIKKLVINSGDKDFRAVVSQLKSL

NPDFVYMPIYHPEAALIARQARQIGFDKLLVAGDGVNNQTFIDLGGSAVNGVIFTDSFDYNSPSTQLGKD

FVAAYEKVKGTKELPAFSAMGADAYFVMLNAMNACVDNLSSECINSKIHQTKDFQAVGGVISIDESGNAI

RSVVIKEIQNQKQNYKTIINP

>WP\_002858311.1 biotin attachment protein [Campylobacter jejuni]

MAKKFIDVMDTSFRDGFQSVYGARVLMDDFFPAVEAAKEAGITHFEFGGGARFQSLYFYLNEDAFTMMDR

FRAIVGKDANLQTLARGVNTVTLDTGSSELIDLHAKLFAKHGTTTIRNFDALNDINNLKFSGECIAKHGL

KHEIAITLMDLPPNCKGAHDVPFYEKILKEILAAEIPFHSICFKDASGTSNPNKIYETIKMARKILPQDM

HIRLHTHETAGVSIACYLAALEAGVDGIDLAAAPVSGGTSQPDILTMMHALKGKDYDLGGLEEEKILKYE

EVLKDCLKEYFLPPEATMVNPLIPFSPMPGGALTANTQMMRDNNILDKFPQVIHAMREVVEKGGFGTSVT

PVSQFYFQQAFNNVMFGSWKKIAEGYGKMVLGYFGKTPVAPDANIIELASKQLNLEPTTELAINIADKDE

SKSIAYTKTLLEKEGIETSEENIFVAAACKEKGIAFLKGEAKVNIRKLASMPKPMSADENKFTVAVNGNK

YHVEVSYGFDKDVNVKSVKKVEENKNIISSNSTSSVDAENEVLAGISGNVFKIYVNEGEEVKSGQAIMVL

EAMKMEIEVNAPKDGIILELCIKIGDTVNEGEVLAIYKN

>WP\_002858304.1 membrane protein [Campylobacter jejuni]

MDREVFYIAGYDPKSYRFYYDLFKKNLKDYSHAFNIKADLSKIEKNEQFPFFQISCEGVQTKYHFLTWND

IVKKNWSENYKDALADCYSFFRIYTITGLFIKFGKESIYQLITGYYPFFYVLFSLLFSLVLAFGSFAFLQ

NYMHFSLAIIIGCFLGFLLNHFLFKLGKKLAVFWIARICAFCATWQDKKTGTMQERIKLFANTIVDKLKQ

NENKQDYELVLVAHSVGTIVCIEVLECILRQNLDLSLLHKLKILTLGECIPLVSYQKKADEFRKKLEFVS

RFDLKWYDYTSIIDGACFPQVDFFRTSGVNAKFTPPFLSAKFHTLYEKHEYKKIKRDKNKAHFLYLYSIS

VKGDYDFFSFIIMPKFLEEKVKI

>WP\_002858279.1 MFS transporter [Campylobacter jejuni]

MASFKKIFWINVTIVIIVAFNLRAPITAVGPIIDIIKDKYYLNSTVAGILTSLPLIAFGSISFIVGYFSP

IRAIVFGIFLIFLGEIIRSYFGVYGLFLGMLAMGCGIAIANVLLPSFIKEKFPKKMASIMGIYSLVLSIS

SIMGIALAIPLLSVFDLAGAMFFWAIFSFVALVVYYPQAKNGRFFRIKKKTHKKINLFTNLTTWKITLFM

GFQSFLAYSLFFWYVQIVVEKGFDKEFSTSMVLFAQLVAAPVSLFGPLLLGKLRQNLHTFYIAGLCSMYV

IAFGMLFIFDSKISIIISAFIMGFPWGGVFGIALLFIAQKSSNAQIAARLSALAQGFGYLIAAQGQWIIG

FLHDKFENFSFAILMLVFVGILVNIFGYLSYKSQIIK

>WP\_002858199.1 lysine transporter LysE [Campylobacter jejuni]

MFDSFLSGVFLGFGVSVPFGPVNILILTYALKAFKNSIAVGLGAFSMDMLYLFLLQFGLLNFLDNVIFMR

FLAIFGFCFLTYMAYLMLRKKKESLNLEHKEFKESLLKSYIKGAFLNGSNPFVIGFWLSAASVVLSSDHA

YLMTLGLVVAILFWVSALAFVVARYSHVFSAKVVFIINIISAIIIEYFALNLLYKTFLG

>WP\_002857952.1 ATP-binding protein [Campylobacter jejuni]

MKKYVLSLALLGSLLGASELKYQEFDGFKSPESIFVDKNYVYVSNVGEKLEPLAKDNDGFISKLDKNGKV

LEYKFLTHLNAPKGMMEIGKTLYVVDIDVLRGFDLKTKKEIFNLPIKGAIFLNDIEKLDDNTLLVSDTGT

GLILKVDLKTKQYDELLKLDLAKFGGPNGLYLDRKKHKLFIAGYHPDGVSGGVVMAYDLNTKELSIIKNE

KESYDGIVPYKDGLLVSSWGNNLNGYIYNLDNVKSVKLELPLMKGPADIFIEGNILWIPKMVEGKIFKVE

LNK

>WP\_002853353.1 glutamine ABC transporter substrate-binding protein [Campylobacter jejuni]

MKKILLSVLTAFVAVVLAACGGNSDSKTLNSLDKIKQNGVVRIGVFGDKPPFGYVDEKGNNQGYDIALAK

RIAKELFGDENKVQFVLVEAANRVEFLKSNKVDIILANFTQTPQRAEQVDFCSPYMKVALGVAVPKDSNI

TSVEDLKDKTLLLNKGTTADAYFTQNYPNIKTLKYDQNTETFAALMDKRGDALSHDNTLLFAWVKDHPDF

KMGIKELGNKDVIAPAVKKGDKELKEFIDNLIIKLGQEQFFHKAYDETLKAHFGDDVKADDVVIEGGKI

>WP\_002851924.1 membrane protein [Campylobacter jejuni]

MLNWKKIQELNLKEVAAKTQIELDFLEALVEKNFAVLSRFNVKGFVKILSREYELDFSDFNEEYEAYLNE

NNPTPQTKSKMITPKLDAYSQKSFNTWPFLIVLIVLVIIGSGIYYFDTLKTFFKDEQNNTSATVIDIIGQ

AQENLKSLGGNNVVVIDNNKAQETNRTESVLPSQNISLQENDKNISIENNISENNTTLLDEEKNTQIQED

TNTPKTDSLKEAHFKTSTKIWIGLIDLKSLKKTSFVKEKDFNISLDKDQLILTGAAALTMFDQENKEQKF

PAGISKRFLIKDGKITSISAAEFVKLNKGKEW

>WP\_002851559.1 capsule polysaccharide transporter [Campylobacter jejuni]

MLNVIYALFFRELKTRFGKNRYLGYIWVVGEPMSIVLLVTIIGTIVREYHHQVMPEGISIFMFLISGIMP

FFMFRSIVTQLMNGTQANLALFAYKPVKPIHVFIARTLLEFCIYFVIFIIILFFAGWFFRLDVFPVHLLG

VLFCIFLLICSAFALGICFAIIWHFVEPLRTLLAYFSIVFYWTSGIIFPTWLTPRPLLDIFYYNPLLHIF

ELLRFNFFENYPLQDEYSYFYAIFWILLVLFIGLFIYYYNRQALTAVKKE

>WP\_002851485.1 sugar ABC transporter substrate-binding protein [Campylobacter jejuni]

MKKILILLFSCILCFGAVDVSQIISAEDQGSATTSIDQNLSSNYDIANKENNLTKIHQILVFGAHLFNGN

FKNYNQRVYNPDYKIAVGDQISLKIWGAVEFSQVLVVDSQGNIFIPKVGAVNLLGVKNSALVSVIKARVN

KIYKSNVFVYADMNAYQNVSVFVTGNVNAPGLYQGLSSDSVIQYLDKAGGINLEYGSFRDIQILRNNSVI

KNIDLYDFLLKGQMDLFPFRSGDVILVGNVQNYAFVNGDVQRPFRFELSNDIKTLADLARVSGAKPIVTN

AIVKSYGEDHKLDVSAYNKMQFSKVLLRTGDEVEFHPEYVSENITISVNGEHNGLKTLVVGKGTTLEDIS

KLIKANPQSNMQALQVFRKSVARTQKELINAQLKELETLALTSGSVTAQGAAIRAQQAKTILEFIQRAKQ

VEPKGQIVIDNPKSYNSVILEDGDTINVPSKNNLIIVQGEVSLPGAFVYDKGKDLRYYINLAGGYGERAD

TSKVLVIRSNGKAEKYHSGIDMKRGDSVLVLPKVDSENLQIFSMLTQILYQIAIATNVVLNL

>WP\_002851377.1 dUTPase [Campylobacter jejuni]

MTNIEILENMLKLQQKLNDETNGLNWENGYTKEGKLISWRRCIYMECAELIDSFTWKHWKNISSLTNWEN

VRIEIVDIWHFILSLLLEEYRDKNNKDFKAIATEVNAVSVFQDFCKEEEYPNEGDIYGILNDIELIIHKC

SGFGFNLGELLSTYFTLAIKCGLNLEILYKTYIGKNVLNIFRQNNGYKDGSYKKTWNGKEDNEVLAQILE

QELDFDTIYKKLEECYKKA

>WP\_002851097.1 GMC family oxidoreductase [Campylobacter jejuni]

MAEVLKKVDVVTVGAGWTGGIVAAELTKAGLNVLSLERGHMQSTENFNYIHDEWRYGINYGLMQDCSKDT

VTFRHDPSGLALPYRKMGSFLLGNNVGGAGVHWNGWTFRFMPYDFEIQTLSKQRYGNKLGNDYTLQDWGV

TYKDMEPYYDRFEKTCGVSGEPNPLAEKMGAFRSSPYPQEPLENTKMLKRFESAAKSSNLHTYRLPASNS

KGGYTNPDGQDLAPCQYCAYCERFGCEYGAKASPLNTVIPKAMSTGKYTIRTYSNVTQILKKDGKVTGVK

FVDTRTMKEYIQPADIVVLTSYMFNNAKLLMVSNIGEQYDPKTGKGTLGRNYCYQMNMGTTAFFDEQFNT

FMGSGALGTTSDDFNGDNFDHSKEKFLHGAMIYSVQLGTRPIQSAPLPAGAPTWGAEFKKALNYNFTRAI

TVGGQGASLPHKNNYLSLDPTYKDAFGMPLLRLTYNFTDQDRALHKFITDKTAEVAKRMQGVKSIKKGAY

LKDYSVVPYQSTHNTGGTTMGADRETSVVNTYLQHWDADNLFVVGAGNFQHNSGYNPTDTVGALAYRCAE

GILKYHKSGKSLA

>WP\_010891951.1 3-isopropylmalate dehydratase large subunit [Campylobacter jejuni]

MTMAKTLYEKVFDAHVVYEGKNELPILYIDRHLIHEVTSPQAFSGLKMAKRRMARADLTLATIDHDVSTK

SMDLNACSDMAKEQITTLMQNTKEFGVRLLGLGDKNQGIVHIVGPELGFTLPGVTLVCGDSHTATHGAFG

ALAFGIGTSEVEHVMATQTLKQAKLKTMKIECKGQFQKGVYTKDLILYLIAQYGTAKGTGYAIEFCGELI

RNLSMEARMTLCNMAIEFGAKVGMIAPDEITFEYIKGKEFAPKGEEFQKYCEYWKSLRSDEGAKYDASIT

LDVSKIKPQISYGTNPSQVIGIDEKIPKISDFKNQSEQKSLLDALYYVNLEQDQVIEGVKIDIVFIGSCT

NGRLEDLKIAADILKGRKIHKNVKALIVPGSMQVRKEAENLGLDKIFIEAGCEWRYAGCSMCLGMNDDKA

NSGQRVASTSNRNFVGRQGKGSITHLMSPASAAACAIEGVICDNRKYLGV

>WP\_010891923.1 aminotransferase DegT [Campylobacter jejuni]

MFKKEISFIKSLFNKENIALHEPCFIGNEKKYLLECIDSGFVSSVGEFVTRFEEALKEKTKARFVIATNT

GTAALHIALLANGIDENCEVITQSISFVATANAIAYTGAKPVFLDIDENTLSLSPKALEHFLENQTYQKD

NLSYNKTTHKLIKACVIMHTFGLSAHIKAIKELCEKYHILLIEDAAEALGSTYENKALGTFGKCGILSFN

GNKIITGGCGGAILSDDENLAKLARHLSTTAKIPHPYEYDHDRIAYNYRLCNINAAILFAGLENLELFLE

NKRELAKIYKDFFKNHDKCKFIDEKSNEKSNFWLNTLLFKNENLRNIFLEECLKNNIFVRPVWKSLPSLK

AFQNCQSNELMNTKKLEKRLINLPSSVRIANKKE

>WP\_010891918.1 arsenic transporter [Campylobacter jejuni]

MLAFFIFLSTLVLLFWRPWNLPIWVFSSLGAFFVFIFQLVDFKDACFVFSLVWDSSLTLVGLIILSFSLE

ALGFFDFIASKILYFSREKNQEKIYISTKKMMLFLLIFVFFLSAFFANDGAILIITPIIIALFSTLKDCK

NHAFILSSFLLSLSFLCDASSNALVISNLTNIITANYFKIEFLEFAKNMFLPNFFVLLSTIVTVFVLYVR

VLPKRLEFKLIKKEQISLKLFFLCIVFLFLFVISFFIGEIFDIKISFFALLWAGIFWLIVLKIQGKKSIK

ILFEAPYGVLLFSFGLYMVVFALHKIGVSEILVKSYAFLMQDKSGIFGVALISAFGSSVFNNLPMVLIGD

LALKEYFENFSFDSLMIYAHLLGVNIGPKLTPIGSLATLLWLGVLARKGINISFWQYCKFGFLITLPVLV

FSLFALIV

>WP\_010891879.1 restriction endonuclease [Campylobacter jejuni]

MNYYQELKKYLNNNLFTSYSLEIDFPKIYNFNANQKAFRDILTKITKIYDKNKFIKQNEHQFEDEFISKV

LEILGWCFVRQDEKIIQGKLEKPDFLLFSNDKLKSKYENLDKETKKSSNDFTIILESKAYNIEIDNKKVK

DNPHFQILRYLGNLKKNYGFLTNGRFWRFYDNSILNSNKVFYEINLEKIIEDQNIEAFAYFYSVFSAFNF

TEKEDHLEITLQNNKLSKIKIEDDLKSIIYGTNGNESLFEFIGSRIYNKTKADLKLIYENSLYFIFRLLF

IAYFEDKFEIILEKHKYFKSKISLRTLLENLQEDESSSGGFGELENIFNIYNKGKGNFDMPVFNGGLFDE

SKTALLSTPKIFNDKDLKFILNQLLNFKDKNLSFKRDYKTLSVEHLGTIYEGLLSYFFEIANEDIYYVSY

KEKSKEIECYFDNYDFKILEKSKKVEKYTFYKKGQIYLKNTSNSRKASASFYTPQSIANFLIQSALKDKL

NNENILKFKILDNACGSGHFLVGVLNAITHIVLSDFDHFTNLKELYEEEKENILNHIKDFVQDYEVDESD

ILKRLLLKRIIYGVDLNPFSIELTKLSLWIDSFIFTTPLSFIEHHIKCGNALINSNLSDFKDLIKQNSSN

LFTNSITQEFEILQEVFEKLDNLKDTNEEQIKQSKQIYQNEITPKLNKLNLYLNYINTLHFVNKEELQIL

KALSQDDIQNLSQNEQAKAIISKYQKEFNFFNYELEFPEIVENQVFKGFDIIIGNPPWDKTKFSDSDFFP

QYKSDYRSLIASKKKEIQDNLLAKDYIKQNYEKQKAYINDLSEYYKKAYPLNKGSGDGNLFRLFVEKNLS

LLKQDGNLAYVLPSALMFEDGSLILRKEILENKTLEYFYSFENNKAIFIDVHRSYKFALMLIKNTQANHT

HKIKMMFYKTDINSLKNKDEILTLNLKDIKKLSPTHLALMELKDKQALEILRKSYNAFQNLSFDYIDFRR

ELDMTNDKDLFIEEFREGLLPLYEGKMIHQFDANFSQATYFLEKAKFDERLKSKELYRAKKATGKELNPK

LIKYDREFFRLGYRKIASDTNERTLIASLLPKNCGGADSTYSNIPKQYVLKDDVICMDIVPYERILFVLA

LFNSLVVDFIIRNMVQINVSKSYLERIPLPQPSDEEIQNNEIYKTLAKNALLLQLYNDQNRHFDELKQEF

NIKNEEIPKTKKAYDILRAKNDLLVKELYGLSDDEFSYMISTFKVLNEKQSEYITLLKTI

>WP\_010891871.1 ribonuclease R [Campylobacter jejuni]

MKEFLNSLSYGISSHEVNNEFKQIFRELLTNHIIKEHKNKYYLNNGFAFGVLDISSKGTGFLQCFDESFK

KDLLIENKNLKGANYKDIVAVKLLPLKKKRPSAKVILVLKRANETSLMITKRYGEAVLGMNIKTGLSTAL

KASQKSLKALPLGTILKIENENNNIIEVLGHIDDESVDEKISLALFNKNNEFSDACIKEALANGDSVDAS

MYENRMDLRALPFCTIDPIHAKDFDDAIYFDTQKREIYVAIADVSEYVYAYSAIDKEARNRGFSIYFPHI

AIPMLPRPLSENICSLKPHLDRLAYCFKITLNHENKVIKEELFEGIINSKRRFNYDEVDEILIQKPDLKE

LSWLYELFEITKNLRKMRLKNAFEFRTEELRMNLDENLSLKSTVFEKDTPSHNLIEDCMLLANKAAAKLI

DIGVFRNHLSADVRKIDKLLNELRELGIDVNFKPNLPELIRDIQALADELNLRAEVDKLIIKAQKKAEYS

SVNAGHFGLGFDKYSHFTSPIRRYSDLILHRLLKAKQKNDEKLFNYLLLNIESTCENLSTLEREADKVAF

DFMDRKFARWAAKNIGKKFKALVVQNDGVCIAKLDDEIKGADIILYDTRVNLLENVEVQIMEADIVMAKI

YAKITQRLIKEENV

>WP\_010891856.1 ATP-binding protein [Campylobacter jejuni]

MIKAFSLLEFVFIILILGIVFNLGSLYLKKDNLLEGAIQILNDIQYTQSLAMMQEGIRVDELTIAKREWF

KSKWQIYFIKSAATGYDQTYTIFLDKNGDGNANLGKTEINIDREIAVDVINHNKLMNSGQSGVISKDDEK

TTQRFNLTKRFGIEKVEFKGSCSGFTRLVFDEMGRVYSPLKNANYAYEKTLAKNNSDCIIRLLS

>WP\_010891830.1 poly(A) polymerase [Campylobacter jejuni]

MDLKSLENNRLYILKRLGILKFLSIIEALLVGFLAFVFIRDALIAVILAVFVGVFFFRFTAKKLKLAQKE

LQINALNLFLRRFGAKFKKQSLSQKDFLKLGLTKDLKEFKSQNCFEFKDFKIYDIQFLDENKRFFCGILL

EISKANKNPSFENEEQIYIKLTDKNFTLNHIFSKENHYLITTLSNPFFIDIKKDLESNFKDLEENLNSIK

NKLFK

>WP\_010891828.1 type II restriction endonuclease [Campylobacter jejuni]

MHFTLLNEKDFFNPYYRKKQIMQNEFDIFSKALMQYLERLESSQSENEDYLVANALSPFLTMLNFKTHIK

TKQKGKSEIDLSISKDEFSKDLEVLIEAKKPNSKEFITHTKVNSKALHETILYYFRNREYSFSLKFIIIT

DFYKFYIFKISEFEELFYKNPSFKKLFEEFCNPNSLFKGNTEEFYKEVAKLIENSKENLKGFLIDLTFLK

DKQKSNFKNLASIYKTFHRDFLLSEFNPNDANSLNNAFYKELLYILGLYESKQNSKLIIAKSEESKEEQG

TFYTAINSKLKEENFETILKLLILWLNRILFLKLIESNLVRFNDDKNLKFLNFKKIPDFDKLSELFFEVL

AKEKSTRKKSEFTYLPYLNSSLFEKQSIENTLEISSLSNDLKLFYYKNTVLKDDKCKAKKGQVGLLEYLF

EFLDSFDFGSDDEQSEILSQKELISSSVLGNVFEKLNGYKEGSFYTPSFITSYMCKESITKVVLDKFNAQ

FDLDAKDISELRKSLRKEDKKAQKELLNSIKICDPAVGSGHFLVSALNVMLSIYDELNLFDEEFYLEVQN

DEILITGRKGEFIEYKRPSTPKDKTHLIQQELFHTKKDIIENNLFGVDINPNSCEITKLRLWIELLKHSF

YQSFDDGNYHDLKTLPNIDINIKCGNSLVSYFETGKSLNHYPNIKERMGKYKRIVKDYKEGFYTDKSHIN

QEIKNLKISFKNFCFADKFKKEMKSFNDKCEKYSKKYGNFLAVDDENLKFFVSANLTLFDFDEKEAIKEF

ANLKKEYDNIFNLESNHPFEWRFEFPEILDDDGNFKGFDLIIGNPPYIRQEELKELKPHLAKNYKVYKGT

SDIYTYFYELGFNVLKDRGGVLSYITSNKYTRAGYGEALREFLLKNVKFLEYTDLNGIKVFDSATVDTSI

LCFEKSKSKDNKFKYLALSNEILKTCAYDIGLYKDFAEFSQNSLSKESFTFSDENTSALKAKIERIGTPL

KEWYGLNINYGIKTGLNEAFIITTEKRNEILANCKDEAEKERTAKLIRKMLRGRDIKRYSYEWAGLWVIG

TFPSLKIDIEQYPALKQYLSQFLPHIEQSGEKGCRKKTSNKWFETQDNIAYYEEFEKEKIVWAEMTKEAC

FVYDNSNFFTNQTCYFFTHCDYKYLLAILNSRLIVYYMQYISSHLGQGAFRWIRQYIEKLPIPKINSKNE

KLADELINLVDEILKAKEQDKNANTQELENKINSLVYKLYNLTEEEIKIIEGK

>WP\_002934663.1 zinc metalloprotease [Campylobacter jejuni]

MRSLLLLIVILILGIKFYSIEFLATVLVISFLIFFHELGHFLAARSLGVKVEVFSIGFGKSLIEREFKGT

NYRLSTLPLGGYVKLKGQDDMRPGFENLDKDSYSILSPLKKIYILFAGPFFNLILAFFLYIIIGNLGLNK

LAPQIGNIAPNSAAQEIGLQKNDTILEINGIRIQTFDEISKHLSLDPLKILINREGKNLEFILTPKIGQG

YNDFGQIVEKPQLGVSPNGTSTLVKHQGLESFKYAAQESFQASTLIIKGIVKLISGEVEAKNLGGIITMT

EITSKAAQNSFTLLLFITALISINLGILNLLPIPMLDGGHILFNLYEMIFRRKVPQRTFEYLSYTGMAIL

LSLMLFATYNDISRIIGE

>WP\_002878829.1 MFS transporter [Campylobacter jejuni]

MSPKKIIKSMTALFAGMAFLFAGNALIVSSIGVILKENGESSLAVGVVSSCFFVGALIGTISTHKIISRI

GHIRSFGLFGAIFGISAMLHTVSENLIFWAVLRFFIGICYYGLLMVIESWLNEKSKNAIRSRILGFYEIV

FYLAFGIGVLIIALNLSKHSVFILSATLILLSSLPLNLIKIKEPVLPASSPISIPKIFDIAPLAIVTSFI

AGMLINGFFSMASLFILLQGFDTKAVSYFIFCGVLGGFIAQTIIGTISDKLGRKFAIITCASIGFITMLI

FIFFKLHLYMQYFLGITLGIGIFCLYALALARANDVLVSKNKGVELGRGVLFCYSLGSLFGPLILGFLMQ

YFEIKGFIWFYIVSLAFLILFAINKPNILNKKFKKKPGNMVIFDD

>WP\_002871823.1 metallophosphoesterase [Campylobacter jejuni]

MIFLIFSFIVLLIFGLANVYIYKRLIKKITLFKYFYKIFSFIFIVLFLAQAVFLIFRRDEYLSDTWYEIL

AMFYAPTYCLFFMTLAWDFVKLILALMGKRDKTYNLILRLIFELSLIVLSVFLIYASINNALKTPEVKSV

DVEIPNLKKDLKIVMLTDIHLGKNLHENFLDKLITKVNLQSPDMVVIVGDLIDTNPKDLKNYISKLNDFN

STYGTFYALGNHEYYHGINEVLDLLRKHTNMKILVNQNLDLGFIDIAGLGDLAGLDRGLYAPDLARIKVD

LNTSKASILLTHQPKTALLYDLSDFDLVLSGHTHGGQIFPFMFLVKLQQGFVHGLYDLGEKTKLYVSSGA

GFWGPSLRVFAPSEIVILNLKGKK

>WP\_002864843.1 para-aminobenzoate synthase [Campylobacter jejuni]

MTLENYAVFGKYFYHDLKHTLKAFNHKESKKCFKFIEKYKNDFYILMLTDYELYRYFQDKNFTSKKAYLS

VFAFKKRKKFQKEDIDEEKFIPEFINFLDQDNYKENFIKVKEAISKGRVYQINLTQNFKFHSKMDSFELF

KLLLSRQDTEFKAFIKDETREILSFSPELFFKTKKRKIFTKPMKGTIKRDKDPIKDEENKIFLQNDTKNL

SENVMICDLLRNDLSKIITKKSLKTKLFEIQSHPTLHQMTSRAQGKLKKNISLHQIFKALFPCGSITGAP

KLESIKFIEELEQRDRGIYCGTIGLIHKNKNKFSVAIRTLEKQDEIYTYSTGSGLVWDSKFKDEFEELKL

KSAILNPCDFHLFETMYFKNSQILFLKEHLLRLINSALKFNFNTHKLFKDFYNILNQKSSYKKYQNFTLF

KLDEKIFHKKHSLFYNFPLPFKNPHKEGILKLILYKDGRYEFQQSALKQNSNDILLLSDDKINSKSDNLY

HKSSLRTFYNQHSYKWQQNLCYDIAFFNEKDELCEGSRTNLILEKNSQFYTPQIQSGMLNGVYRNFLINL

GLIKEKALFKQDLFEAENIYCINSVRGLKKVKLQ

>WP\_002864393.1 ABC transporter permease [Campylobacter jejuni]

MMLAKMIFNSIFKNKIQKFLAFLTCFLATLLLSTMLNITLSIGDEVTKQLKSYGSNILVLPKGSSLSIEI

GNELYEPLKNKNYLEEKNLYMIKDIYWRNNITALAPFLEGKITIENSQQKALIYGAYFQKAIKIKDDDDF

ITGIKSLYPYLAVQGEWAKDDSNEIMLGEDFAKNNKLKLGDTIKFIGENNQSKEAKIVGILLHANPKMSN

KIIAPLNLAQDLLNKQGLYSSTEVRAFTIPESALSEKVRRMGEEKLDQLEYDKWYCSAYVGSIASQISDG

LPGADAKALNAISDAQSLVVKKIQSLMGITCIICLIVASIAISSLMSSEIHRRKKEIGLLKVLGANTFQI

YLIFASENLIVALFAALLGFIFGTALSQIISLSIFGYFIDIAFVALPLSFIFAGLIALLGCLLPIKNITQ

LSAAGVLYGR

>WP\_002864102.1 hypothetical protein [Campylobacter jejuni]

MKKILLSFAFFASLASANTINAIAVVVDKEPITTYDIDQTMKALKIDRNKALGVLINEKMEISQMKQLGI

VVNDLELDDAINKMLAQNKTTLNAFKANLKSKNQSYEQFRTNFKKDLEKRKLYEKIASMAKTDFSDDGAK

KFFEQNKDKFTFYTQINANIYLSNNPQTLENIKNTKKTILKPQNASLNTSNADPRLLGLLSQIPVGSFSP

VLNGKNGYELYEVKSKDGTQTPEYEQVKNEVLNAYVSEQRQNFIQDYFDKLRSKINIEYLR

>WP\_002858732.1 MFS transporter [Campylobacter jejuni]

MTNQQIDGIADKNFNTPEGRKVFKKAVFSCWLGTAMEYADFALYGLAAATIFSEVFFPEQTPVIALLLSF

VTYGIGFIARPIGALFFGHLGDKHGRKNVMMATIALMGISTTLIGFIPSYAVIGVWAPICLVALRFMQGF

GAGAELSGGTVMLAEYAPSKRRGLVSSVIALGSNSGTLLASFVWLLMVQMDEASFKEWGWRVPFMGSILI

ALFAVYIRFHVKETPVFEKQKNEMMKLRLNNEKHMKKDERSFWQRSRAFWTMVGLRIGENGPSYLAQGFI

VGYVTKILLLDKSVATTAVMIASLVGFLVIPLAGYLSDKFGRCITYRMFCLLLMIYAFPAFMLLDSKNEI

IVILTIIVGMSLASLGIFGVQAAWGVELFGVKNRYTKMAFAKELGSILSGGTAPMVASALLAYYGSWWPI

ATYFVLTAGIGFVTTFFAPETRGRDLNKIEDAI

>WP\_002858621.1 phosphomethylpyrimidine synthase [Campylobacter jejuni]

MKTQMNYAKEGIFTKEMQIVAQKENLSKDFLLENIACGKIIIPANINHKSLDPNGIGFGLRTKVNVNLGV

SNDCVDYSEEMKKVELAHKFGIEAIMDLSNYGKTSRFRDELVNVSKAMIGTVPVYDAVGFLEKDLKQINA

KDFLDVVYHHAKSGVDFMTIHAGINSRAAHIFKQSKRLTNIVSRGGSVLYAWMMMKDAENPFFEYYDDLL

DICLKYDVTLSLGDALRPGSTHDASDGAQISELIELSLLTQRAWDVGIQVMIEGPGHMAINEIEANMQLE

KRLCKGAPFYVLGPLVTDIGAGYDHISGAIGGAVAAASGADMLCYVTPAEHLRLPNLEDVREGIVATKIA

AHAGDIAKLPKERARDDEMSKARQEIDWEKMFKLAIDGEKAKKMFNERRPDDLNSCSMCGKMCAMNTMNQ

ILKGEDVSLA

>WP\_002858443.1 sugar transferase [Campylobacter jejuni]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFMWFFSHGAGAFTLGQFFYHLFKINILDYFCGGDGDI

RYYKFYNKLLELKDKRNIITINDIDPSWYGNQHKRDKLFSSFQKITPILFQIRDPIELIKHAYGRKWGNN

LAKTKEFDLSYQFNDIITEVEVYNYNLPNTLEGQRPQSFLWKSLIECFDKFNDCFYLDISKIRGEETIHT

LNYLSNKFNLKQIKINDKEFVTKSYFKGNLYFLLPLTLYLNKEDLNTNIPNKKINKNNSLIININFFQND

NNLFNLYSELSILDMDSSVGFYIDKQDYNKLKNDSIFYKQVIDYLRNFAYELKNRIQIEEDLMLKVEDVL

RHLYNNKNARVSAKNILDEELVYIKQHRPDIVASWKYYQEFEKMCKELDGDI

>WP\_002858405.1 sugar transferase [Campylobacter jejuni]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFVGFFLHTSGEKAMERFLKEVGVVLIGAFGYEDGKRY

ISIFNFLISEACACNDLKFAIGILDVNCQKYDKFCFLLQNKPVLILLRDPIDSLKSFINVRHQKNGFNEI

LKIDINNTDFDKINDRIVYVHESNGCFNPDTNQKFPSLESIKALSDTNHWMLMYNIRRNKTIEFFRFNKI

IYIDMMDIVGDKTLFTLEKLSKILNFSSPDKNNKIFYQQLYSPLTVLLPCIIKVNNKVKIFVSNRFSVKN

IQIMENCIDITDKFKEIFHENLIIFCSKDHFDSLINNQTLYNVVLEYINKFLISLKKRINVEKNKEVKVD

DVLDYFKKNISVAKSYKDILDEELVYIKQHRPDIVASWKYYQEFERMCKELDENNQNPSLSFSNQ

>WP\_002858224.1 sugar transferase [Campylobacter jejuni]

MPLLSVIIPFGLSKERPYIEERVLQKAKFFQSDENIEFIFVEGYSSKDHELKNFIQANHHIYLKDMDQKA

FSQGRCRNLGASYAHSNVLLFLDVDCYISLDNFEKILKLIQIKNISQNINALIVLPVVYLNKEANEKLKQ

YDDKFWDILIQEDLFTAKNTWVKFFAPSSTSSIVINKHQFLRLGGNDENFIGHGYEDFDLFARILKACVS

FEKMPTNLSYDARNWNFFNFKGFRSWFSLLGYEACFYGIYIYHFYHIEPNQNAYMQNKDKNHQLFYKHLK

NIKKHDLKPLQVFKAKGEKVLMLFKDQNYDFKDISVYVGEIIYKNISDFFIAKELKYELLLDFLQQEKIT

KIFLDASIKLQFNGIDYCDIFYFQKGILPHSWFFAKKLDLGYKQDLNLSEQKLYQVKEYFLTLKEDEKKV

ILDFLSQNNDDKYDLYKMLYYLINELYSFEHDGIFYQIIIDKEKMLIAQKHDKSFYPLRSFVYKPYLHEL

KSIRPFSFLMKILGLEYLGAMISHTKFYRLARKLFFNPKGFFEDFNYKIMKGKI

>WP\_002852425.1 ABC transporter ATP-binding protein [Campylobacter jejuni]

MALIDLIEASKKFGDKIVLNEVNFSANEGEKIAIIGKNGEGKSTFLKTLLGALPLDSGRIIRQNGKSIAM

LSQTVDFNANLSVKEAIKQELVEIYNTLEEYEILHKKLEEDPSNKDYLQKIDTLMTLIDSKDAWSIESKI

IRVLKEFSLLEYENRIISTLSGGEIRRVGLCILLLKNPDILLLDEPTNHLDVYMTSFLEELLKNSKMCVI

FISHDRYFIDAIAHKCVEVEQGKLSIFKGGYANYLEKKTQILQSLAKSHETLLKQLKSEEEWLRRGVKAR

LKRNEGRKERIFKMREEAKKNPGAIKRLKLEISRAALNFNGEKTINRKKMLFELKNISKNINNKNLFKDF

STRILQGERIAIVGRNGCGKSTLLKILLGQIKQDSGEIKRGELKIGYFDQARSLVNSDKSLLEIFCPNGG

DRVEVRGKNMHVYGYLKNFLFPKEFLDKSVALLSGGEKNRVALALLFAKEYDVLILDEPTNDLDIATINI

LEEYLLSFEGAILLVSHDRYFVDKIATKLYAFEGNGYINILHTLYTEYLENEKEIEELDNFALELQTQEQ

NNNQKEKSSKKLSYKENEILKNHPEKIDFLEQKIAKLNQDLSDPNVYQEIGINKLYQELEVMQKELEILE

NEYFLVLEKSENL

>WP\_002852392.1 sugar transferase [Campylobacter jejuni]

MIKKILLITPELEYTGALNSFKRICEVLLNNKYAVDIWTYNEGPYISEFDKLGVYVEVISEDDIDSKWVH

ERISKYSLVIANTIVVYKCVELIQNLTPVVWYIREAENLPDFFWKPERKLALEKAKKLYVVSEYAKDFII

HNYNKNVEVLHNYVDDVFYEKHDDFLKQIKSDKLKFLALGTIEKRKGYDVLLQAFIDLPVDIRDQCELHF

AGRFWEGAKDFFPKILSLAKKFPNIFYHGELRDRKKIHSLIFQCNVMVVPSRDESCSLVALEGAMMSKPL

ILTENIGAKYILDENSGWLVKTGSVDSLKNAFIQAYKNKNKLDAMGANSRNNYLQTSTYEIYEKNILKMV

RDEICKNQYLYRINQENYVLFSFDIFDTLISRNIAKPSAVFLIMKQKMRNMDFPLNLVKNFDRIRVEVEQ

YYYRNVCKNKYEDTNFDEIYNLLQQNFSLSFQQKEELMKLEINTEKETLYPIKKNIELVEELIKNEKRVV

LISDMYFSSSIIRTFLNKFSPIFNNIPIYMSSEFRLKKNSGNLFKAILNLEKVDPKKWIHCGDNWVGDYL

KPSNLEISTNFYINQLLPYEEFALNRNSLDMDLQKIIGISKKIRLENTLTNLQEIGVSFGAPMLLPYVQW

ILNIALKNSIRCLYFIARDGYVLQKMTDMLIQAKKINIKTKYLYGSRESWREPFRNKDKLKIQLIDEYLD

QEIDKQEIFAFVECCGTGETLDYIVKRIESNQQFKNMFFGSLYLYRSKLNKTKTQSLFMLPLNENYTYGI

ELFVRSLQGQVLGYDKKDGRVIPVFDFLEGEALQKFRYDEYIDGVMLFMEYIVKTDNYEKIFDNMNVTIL

YLNYLSNNYIDKKFIEIMGNVPFILNGVKDRVGIFAPRLNNKITLDQKNSFFNWSVLRSCKDIRVKYNMD

NDCYFGLIGAVDIIKSHLSYKLGKVILLNIKNPLKWIKLIVLIPILIFSHHEQKKIYLTEKKINIDLSFY

KDYNEAIMVRNFFSYQLGELILKTSRKWNVLAIVILPYKIAQLYRKKFKKG

>WP\_002851832.1 citrate transporter [Campylobacter jejuni]

MEIFLALLGFFSLGLIVWLLLKDYTTPALAFISVSISVACILLILERLGFGVGVALGVKGGVFDIKTLVV

FIKDGVKSVTDTAALFVFSILFFSVLNASGFFTKILNAFLSKMKANVYQVCILTVFIAAAVHLDGSGAST

FLIVIPALLPIYERLGIRKTSMLLIITSAMGVMNVIPWGGPTLRAATNIGMDANLLWHHIIPIQIVGLVL

SLLLAIWIAKIEIKRGAGAGNLSGINLNIEKSEHHNEKWFWLNLLVAIGVIGLLISGIIPSYICFMIGLA

IILPLNYPNLKTAKKVLDRASAGAMLMYITLIGAGILIGVFDKSGIMEKMGVLILNFVPDYLGAYIPLMV

GILAVPMAIIFCTDSYFYGVMPIVLSVTKAFGAEPLTIAIIMVIARNCATFISPVVPATLLGCGLAEVNI

KDHIKRSFFYIWGISIICLIFAEVAGII

>WP\_010891950.1 hypothetical protein [Campylobacter jejuni]

MKMRYCFILFLSLVLSSNLLANNFSQKKVIKIEKSADSFEVIDLNQNVANPNLNQQKALFDSSTLIEKKS

QITKDKDIDFAIVLTSRKNFGYFLDGFRVSDKEFSTLFAKNLIQSLKLNWVNSAANGIYQSPKTLSYFSP

KDAKLINVSPFLTQEKDKAKMYAKFTDYVVVVNLQDFYVNITNYFITTSKEGVANVNFKIISTSNGKILV

AKNAELNLTLKDQDAKQNYQDIINQMPKMLADVIKNQIFHLKLLN

>WP\_010891938.1 hypothetical protein [Campylobacter jejuni]

MKLRIFSSSRQIREYYNQKKQQNALLDSAIHIGEFLDKVCLSNFHKASSYESLLLMQEACLKSKDLEKKL

GISVEFFAFLKNNEYLFSFFKELSLEKKSIEDLKNNDYYATYNEHLEILDEVYKNYLALLEKNSFYDDLS

LPKNYTLNKDFLDEYEAIVYDLQGFLSKFEENLLSEISQIKEVVLSFKTSKFNLEYLLKLDFLKIFDLKI

NTHYEINLSKQEILKEEIFKTKNSKMKLKSFELRALQCAFVMDEISHFVRKGLKPENIAVITPDESFCEF

LRLFDKDNMLNFASGISIKESLFYQKFQALYESASSASFVYKNQEDYFEDTQMIFDYHNTLLHSLKLDFI

EFKKYFDEKCDFEYFEKLLALFLENEKQELMYLIRKELYFIKDLLKNQSLTLKELIHLFFMQISQLSLSD

VGGGKVTVMGLLESRGLCFDGVILVDFNEEFIPKRSVNELFLNNEVRKKAGLISYDRRENLQRFYYESLM

KNALEVSICFVENEEKSKSRFLDELDFDFFYETHIHQKAYLNALKLDYEGIKPNLTPIKAPILKHNPFEF

PLSFSRFNLLENQKRTYYYRYILNLAEPRVLSEESKAKNQGNFIHKMLEIYYKNYANNDFDIKVFANLLD

KEYQKYNISELDLEVFKLKFMQFAKNEKEHFSKGFYVVHTELELNNILKLGTDSIKLKGTIDRIDSSKEG

NLIIDYKSGKVPSNSYQLAFYQALYDENASVGFYDLNSMQILHQKAKSLDELRERLKDLVLMSKEEIEFE

NEQDEYCPYKLIYKKELK

>WP\_010891936.1 sugar transferase [Campylobacter jejuni]

MMNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISD

KKSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYILESNKGKYSKITPID

FLYNQIISFKTHPNIFNFQSINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINEAF

YMLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLDFL

KRFSQDFRKILKDKELDENLFGDGDMKIIYSIVENPENYYFLYMGYCNDMFGKLYFGASERIKWQLSYRI

GKLLIDLKNPVQILKFPFKLFLEIKQFKFEQKIYKTTIKFYPNLQLPPLEEYSDYEQALKTKKHLSYILG

KSFINNPILFIFKIKKIYKQYKKDISSSKKNIKELSDYDFLLNRHKQIFDYTPDFKCPVTFNEKLIYRIL

YDRSCIYSFLADKIKMRFYVASALSDNHEYSWDKIDILNEKSILFNNIDDLQDKIFETNKCKYLPKIYGI

YKNIYDINFNELPNSFVLKTNHDCGGYVIVENKQEFLRDTVVFSNAMKKLKKHLEWNYYSVFREWHYKDI

EPRVFAEELLLGENKKPADTYKFHIFDKENLSNNFIQVTTDRFDNYQRAMFDLSWNLAPFNFMYDNKNVT

MIPKKPNLLDSMINISLILAKPFDYVRVDLYQFDKKIYIGELTFTHGAAGEKVIPKEWDKKLGDLWRLKR

LDNASK

>WP\_010891917.1 ABC transporter ATP-binding protein [Campylobacter jejuni]

MELLRAENLSHSFDYPLFEGLNLTLNTKDCIAIQGSSGCGKSTLLHILSSLLIPKKGEVFFKGSNLYQMD

ENERLKIRRYDFGIIFQTHYLFKGFSALENIELASVLSGQDLDEKILKRLGINTLLHQKIGKLSGGQQQR

VSIARVLCKKPKIIFADEATGNLDFDNAKNVIELLISYVKENDAALFFVTHDSKLASFCDKTYTINANGI

C

>WP\_010891912.1 hypothetical protein [Campylobacter jejuni]

MKQEISSFWYTPRGYKGIGLMELLSIKSFIDNGYKFILYTYNLDDKIFKKLDELFDDFELKDANEIVSFK

NYFRDDRGSGVAAFSDYFRYNLLYLKKKGGVWVDLDMICLNYIDLNEEYIFTQEVDEDNKKSRITTSFLK

FSRYSDFGKNLIQEAEKIINKRKKISWGVIGPWFLADHVKKCGLENFVWDYKRTCQIPWCNVKIFLDNTS

IDISQPFLHLFSEMWRLNNMEKNTFHQMGVYGQLLKKHEIEKLYNQINTCLKTSMLDNIASFLTKFFIKK

L

>WP\_010891908.1 ATP-dependent DNA helicase [Campylobacter jejuni]

MNLFEDLNDSQKQAVSHIDGAMLILAGAGSGKTKTITTRLAYLIGEVGIPSHNTLTLTFTNKAASVMRHR

ALNFLQGNHNPLLCTFHKFGLLFLKLHFERLERKNSFIVIDTDDTKKIIKDLIHDKNKDNVYDIIQYISY

CKNEGKRVSNVFEDLNLLKEHNFEKYQNEYKFANYYRAYEEYLLKQNFVDFDDLLLLSNLILENDINFAK

EQSLLYNYITVDEYQDTNTLQYKILKNLCCMHENITVVGDDDQSIYSWRGAKIENILNFQNDFKNVKLVK

LEQNYRSVGTILQAANNLISHNEQRLGKTLICTKDTGENIKILKNENEKDEGLYIAQEVKKLLNSGVEAK

EIAILFRVNALSRAIEEAFMKKQISYKLLSGMRFYERLEIKDLISYLRLILNPSDDLSFKRIINRPKRSI

GEKALKNLEEYAKKRQISLFDALCESDGGVGILTTKKAQNEANIFIQNIHTLKSYDNAKKVFDNIEELFK

IKDYFSEQDDGDERIRNLDEFYANLREKLKEDPEASLEDLLSEISLLSDQDNLDEECVCLMSIHASKGLE

FDYVFIIGFDEGFFPLNSEENLEEERRLAYVAITRAKKFLTISVANSRFYHGSRANINPSRFLEESKLIN

EKSKNQNIQKTSFCKGDLVKHKIFGIGRVVEANKSGKEEKLNINFGGIMRVIMASFVEKAV

>WP\_010891902.1 thiazole synthase [Campylobacter jejuni]

MQENLKNDKLKIGKYEFDSRFILGSGKYSLELIKSAIEEAKAQIITLALRRANTGEIANILDYIPKNITL

LPNTSGARNADEALRIARLSRELGCGELIKIEVISDSRYLLPDNYETIKACELLAKEGFTPLPYMHADLY

AARAMRDAGAAAIMPLAAPIGSNKGLCAKEFIQILLNEIDLPIIVDAGIGSPSQACEAMQMGVSAVMVNT

AIAEAKDIALMARAFSLAVNAGRVAFLAGVASVSEAKASSPLTGFLRD

>WP\_010891895.1 argininosuccinate lyase [Campylobacter jejuni]

MKNEMWSGRFSGASDELLKEFNASLNVDKTLFNEDIQGSIAHATMLESCGILKKEELDAIIKGLEQVRSE

IEQGKFIFDIKDEDIHMAVEKRLSEIIGSEIGGRLHTARSRNDQVATDFKLFVKKSHIELIKLLKELIQT

MLEHAKVHKKTIMPSFTHLQHAQPVSFSFYILAYAFMLMRDIKRLQNSLELADFSPLGSCACAGTSYAIN

RELSAKILGFKDIMPNAMDGVSDRDFALDLLYDIAVIFTHTSRLCEEMILFSSSEFSFITISDSFSTGSS

IMPQKKNPDVCELIRGKTGRVYGNLISLLTIMKALPLAYNKDMQEDKEGIFDSVKTAKDSLIILNAMLKE

IQINKENMLNACKKGHLLATDLADYLVREKNIPFRKAHFIVGNVVAQAEAQGIDISEIKDLSKIDPVFDE

KAMELLNFEFSLNSKQSEGSSSIASVEKQIQILEGFIQNL

>WP\_010891892.1 hypothetical protein [Campylobacter jejuni]

MKNLSIQEKKDLDNCVFQNLGRQDTFTLSVVFKNFYLKIKAFILNNTT

>WP\_010891883.1 ferric enterobactin uptake receptor [Campylobacter jejuni]

MKKICLSVCAIGLLSSNAISQNVELDSSIVSASGFTQDIKEAPATINVITKKELQSKPYRDVAEAIADIP

GVDLYASKGKTGSYNITMRGITGYTLVLIDGRRQGIGGEVGPNGFNEISNSFLPPISSIERIEVIKGPMS

TLYGSEALGGVVNIITKKVSDKWETSVSLDALLNENKDWGNTYGTSIYSSGPLMNDKLGLTLRFREFYRQ

QSNVEFTNGSGQRVQGDQAQSPTKANNFNIGTRISYLANDYNTFIFDIDFSRNHYDNKQGQLGTITSPGR

TPGSLTGGYADIMEVDKFVTYLSHEGVYENFSITSGLQYNRVSNDGREVVGQSTQPFLGENRDIVAEDII

LDTKSVIPLGQSHILSVGGEYRLEKMQDKIASPTNFDQYLLAIFAEDEYSIKDDLRLTFGARYNHHEIFG

NNVSPRAYVVYNPTNELTLKGGVSTGFRTPYANRLINGTYSYSGQGRFPTYGNPDLKEETSLNYEIAAIY

NNDLFYVSATGFLTNFKDKISSQSYNNSEPIPGIGTCDADRCSRAINHGKVEYKGVELGAGISPLDNLNV

NFAYTYLDTEVKEAQDRSVIGKPEQDSLKHNIMLKTEYSFYNKITPWIKGEWQIDRYMGDTNINREYYKD

IFLASMGVRYDINKQWSINAAIYNLFDKSFTNGWESYASGSGSTWVNTYNRIEEGRRMYISINGNF

>WP\_010891881.1 cell division protein FtsA [Campylobacter jejuni]

MILNILGIDLGSTQTCAIIAQKDEDGLKIIGFSKSKTNGVKKGAITNIELASKSIEEAVRSAEMMSGVHY

DRVVVSISGAYTKSVDSIGVVNIPNHEIGIKEIHRAVSTAKHTANLPSGYEIIHVLPYNFKVNDLEHVDD

PLGMSGNRLEVSTHIVISQESHIKNLKKAVELADLRVDNIVLSGYASAIACLDDSEKELGAVLIDMGGAI

CDMVVHTGNSIRYNDCLQIGSINITQDLSMALHTPLKEAEKIKLNYAALSQQPNTLIQIPSMGDERKVNE

VSLDIISNVIYARAEETLMILAKILSDNRYANAIGGGVVLTGGMTKLAGIDELAPATFDNRSVRLATARK

DLITGFSEIFNDPENTCAIGLCLYGAGYFTPYELDSNEKLRYKGEIENFNRQIKQDIVLQKDAESEIKSD

FFDENLQENDTIAIQEQLDFKEPKEKKPSVFSNIWHKIMNQF

>WP\_010891878.1 acetate kinase [Campylobacter jejuni]

MKILVLNSGSSSIKFKFFDNKVVKASGLVEKIGEQNSKVVLKNTLNNESFERELTINNHEEGLSIVNELF

KESGILADLNALDGCGHRIVHGGRNLSEHCLVDDYVLKEIDRVSIFAPLHNPAHLAGIKTMIKAAPSVAN

AAIFDTAFHRTMPDFAYMYALPYDFYDKHNIRRYGFHGTSHAYVSSRAAKFLQKDQNELNVISAHLGNGA

SVCAIEKGKSVDTSMGFTPLEGLVMGTRCGDLDPAILPFISHLKGLTIEEIDTLMNKKSGVYGICGYNDF

RDIEREIEQGNDKARLALDMFCYRLVKYIGSYFAVLPKTDAIIFTGGIGENDSLVRQKVCERLAHLGIEL

DFELNKQRISGERMINHANSKVKVLVIPTDEELEIARITEELIGKN

>WP\_010891877.1 phosphate acetyltransferase [Campylobacter jejuni]

MMANLYLMRSRSDELNTIISTNLLKNYSKIYKNIAIYCPVIYIHRVPVLQGWLEEFNINQTVKSAYGFTF

REAMEEFSKDPHNFFNVILEEYEELKRKYDFVLVNSFCEFGILDGFDLSIKLAKNLNTPIAAIINDEDKL

IAQKYFDHALDGRNYVLINENFNFEEVQKLKEYDFITPHRFKYELIKQSIKNKKTVVLPESNDERILKAA

EILLKSKVVDLILLGDEEKIKQDATRLSLDLSAMQIMNPLNSEYNQKFTSILYEARKSKGMSLEEAKMLV

QDKTYFGTLLIHTGKADAMVSGASTTTAETIRPALQLIKTKEGISSVSGIFFMGLEDQVLAFADCAVNPS

PTAEQLATSAYVSAMTAKSFGLEPRIALLSYSSGDSGKGESVDLVKEALKIAKEKYPELNIDGPMQFDCA

YDPKTAAKKMPNSKIAGHANVYIFPDLNAANICYKAVQRTANALAIGPILQGLKKPVNDLSRGCLVDDIV

DTVILSAIQAQ

>WP\_010891870.1 DNA polymerase III subunit delta [Campylobacter jejuni]

MYRKELQILLSKDSIPNFFFLYGADNFQSELYAEFIKEKYKPDETLKLFFEEYNFTRASDFLSAGSLFSE

KKLLEIKTSKKIPTKDLKVLVELCKNNTDNFFLLELYDESSKQSDIEKIFSPHFVRFFKANGAKEGVELL

SIKAKQLGVEITQNALFTLFTSFDENLYLAASELNKFSGLRVDEKTIEQYCYSLNTGSFESFFDKILKKQ

DFKSELEKILDNFNEIALINSLYNSFYRLFKIALYAKINGKIDFKELLGYTPPPQVGQNLSSQAFSLKIE

QYKEIFTLLLKSEYELKTNPKLVKKEFLISNLLKLARILKN

>WP\_010891865.1 aspartate kinase [Campylobacter jejuni]

MLIVQKYGGTSVGTLERIEAVANRVIQSAQQGNQLVVVVSAMSGVTNTLIEQAEYFSKTPNGKDMDMLLS

SGERVTSALLSIALNEKGCPAISFSGRKAGIITDSVFTKARIHHIDTKAIKSELQNGKIVVIAGFQGVDE

EGNVTTLGRGGSDLSAVAVAGALNADLCEIYTDVDGVYTTDPRIEPKAKKLDKISYEEMLELASLGAKVL

QNRSVELAKKLNVNLVTRSSFNNNEGTMITKEDGMEQALVSGIALDKNQARVTLRNIEDKPGIAAEIFSV

LANENINVDMIIQNVGVDGATNLGFTVPQNELELAKNAMQKILSSKTTIESDSAVLKVSIVGVGMKSHSG

VASKAFKALADEGINIGMISTSEIKISMIVHEKYGELAVRALHECYGLDK

>WP\_010891860.1 DNA-directed RNA polymerase subunit beta [Campylobacter jejuni]

MCDMLDNKLGNRLRVDFSNISKQIEIPNLLQLQKKSFDYFLNLDNGESGIEKVFKSIFPIHDPQNRLSLE

YVSSEIGKPKYTIRECMERGLTYSVNLKMKIRLTLHEKDEKTGEKVGVKDIKEQEIYIREIPLMTDRVSF

IINGVERVVVNQLHRSPGVIFKEEESSTVANKLVYTAQIIPDRGSWLYFEYDAKDVLYVRINKRRKVPVT

MLFRALGYKKQDIIKLFYPIQTIHVKKDKFLTEFNPNDFMDRIEYDIKDEKGKIVHQAGKRLTKKKAEQL

IKDGLKWIEYPVEILLNRYLANPIIDKESGEVLFDSLTLLDESKLAKIKEQKSFDIANDLANGVDAAIIN

SFAQDGETLKLLKQSENIDDENDLAAIRIYKVMRPGEPVVKDAAKAFVNDLFFNPERYDLTKVGRMKMNH

KLGLEVPEYVTVLTNEDIIKTAKYLIKVKNGKGHIDDRDHLGNRRIRSIGELLANELHLGLAKMQKAIRD

KFTSLNADLDKVMPYDLINPKMITTTIIEFFTGGQLSQFMDQTNPLSEVTHKRRLSALGEGGLVKERAGF

EVRDVHATHYGRICPVETPEGQNIGLINTLSTYAKVNELGFVEAPYRKVVNGKVTNEVVYLTATQEEGLF

IAPASTKVDAKGNIVEEFVEARQDGETILARREEVQLIDLCSGMVVGVAASLIPFLEHDDANRALMGSNM

QRQAVPLLTASAPIVGTGMEQIIARDAWEAVKAKRGGVVEKVDNKSIFILGEDDKGPFIDHYTMEKNLRT

NQNTNYIQHPIVKKGDIVKAGQIIADGPSMDQGELAIGKNALIAFMPWNGYNYEDAIVVSERIIREDTFT

SVHIYEKEIEARELKDGIEEITKDIPNVKEEDVAHLDESGIAKIGTHIKPGMILVGKVSPKGEVKPTPEE

RLLRAIFGEKAGHVVNKSLYATASLEGVVVDVKIFTKKGYEKDDRAIKSYDKEKMALEKEHHDRLLMMDR

EEMLRVCALLSKASLNSDQKIGDKNYKKGQTADISELEKINRFTLTTLIKAYSKEIQKEYDDLKNHFQNE

KKKLKAEHDEKLEILEKDDILPSGVIKLVKVYIATKRKLKVGDKMAGRHGNKGIVSTIVPEVDMPYLPNG

KSVDIALNPLGVPSRMNIGQILESHLGLVGLRLGDQIQEIFDRKQKDFLKELRAKILEICSIPRLANEKE

FIKSLSDEELLNYARDWSKGVKFSTPVFEGVNIEEFSKLFKMAKIDMDGKTELYDGRTGEKIAERVHVGC

MYMLKLHHLVDEKVHARSTGPYSLVTQQPVGGKALFGGQRFGEMEVWALEAYGAAHTLREMLTIKSDDVE

GRFSAYKALTKGENVPATGIPETFFVLTNELKSLALDVEIFDKDEDNE

>WP\_010891844.1 serine/threonine protein phosphatase [Campylobacter jejuni]

MRILLVLRGNYYAGQEEFIKNNKLQNYTLDLNALRLLSGSVKNIVSEYKILNVKNDEDLSKILLKLLEMR

MQKGEFSIINAYNETLKIYKDLAKQYRYKIYVIVFDSSLKQCQEKNLLEAKKNGYIIPYALLEKTQDLLK

KNPKKYPILDSRDWKKCLYQMPNLSKYKKIHHIGDLQGCYSVLKEYIKTIKEDEFYIFLGDYINRGIENG

KVIKFLLKICEKENVCLLEGNHERHLIKWANGELSNSKEFNENTLKDFRKEKLTPRDARKLYPHLKECLY

YKFQNKFIFCSHGGVNFIPSKPEKISFIPSHDFIYGVGGYEDSQKVANQFCNFTSDNLYQIFGHRNKEKL

PMKIAKRVFLCEGKIDDGGYLRVVTLDEKGFECV

>WP\_010891840.1 hypothetical protein [Campylobacter jejuni]

MKKVVLISALLGAFAANVFAANTPSDVNQTHTKAKADKKHEAKTHKKTKEQTPAQ

>WP\_010891833.1 iron-binding protein [Campylobacter jejuni]

MKVKWSRDFSIKNMQLDKQHELIFEITNLANDLALNIQDNNTQHKNDLKQILVKLFQYIKIHFKDEEKFM

ESIDFPLIEEHKKSHQILVEKTKELLEHSNDIVKMSQELSILTKDWILDHFANEDLWIANFTKKTLHLQE

IHYTLEQYIKLKSIKQDLRAEKTYDYICNCSLRIHAVPQTIHQELVSKENTLKCEKCGQILVHLDYFDLN

QNFEKFNAIFEDALQNHHFTTQENDMRGGG

>WP\_010891827.1 hypothetical protein [Campylobacter jejuni]

MEKFIERLLEEDIKFEKDVNNGLSDINIFDALNIETKENYHSKFIAYLIDINKDHYQKNFAKVFLEKLGK

SLVNTKFENLNIEDIKSVETEACIKDNRRIDILITLSDKRYIIIENKIYAKDQKNQLKDYINFVRKNIKN

IKDCYKNILTIYLHQDECASPSDYSLGNFTIKTNLIKDKNENNVSYYLKMDYMWIKEWIDECIKIYEEKS

TKDQKFILDIQNIIFTLNQYKSILQWYIADEYTQRDDVLEFIFQDIIKMQNLKNAMILYRYNKNKSELKN

LNEEKYKKAKDIIQHKWSNICEYIIEEFFDSFEHKEIKIGDITFIGNKIEENRVNHGVFIFYPVDYKNES

IYPCIYIYFKKKYYDIIGLTFEISNDDEEDIENEKYKECLKLFKDVKEENVRKYQNHYYCDKLINNEKLE

GEYAFIYWLIENQNSKKDFIQILNDFFIKKPIQEAYKGINDILNS

>WP\_002882660.1 flagellar hook protein FlgE [Campylobacter jejuni]

MMRSLWSGVSGLQAHQVAMDVEGNNISNVNTTGFKYSRADFGTMFSQTVKIATAPTDGRGGSNPLQIGLG

VSVSSTTRIHSQGSVQTTDKNTDVAINGDGFFMVSDDGGLTNYLTRSGDFKLDAYGNFVNNAGFVVQGWN

INWDDQTIDSSRTPQNIFIDPGMHIPAAKSTEVAIKANLNSGLNIGTSSRNLYALDSVHGWNTKTQRAED

ENDTGTTQFYTTSKNSVEVTEKGVDAGSLFNAKGQGLNLRDGQGIWVSYADATYSTNKVGVNAFDPNLQQ

NQTAAFWGTANQKVNLDITLNGVRIQNADIQSIDDAIAYINTFTAPTDTRDGTGVKAVKNKDGSGIDFVN

DNADGTTDNMKNINLVVANTNTAGELWNAVWNNNNQTFTFNNNGNGQAGTPTINKNGSSLWTATNITFTP

QPPQAATNVQLTGGLNAQIITAHKYIYSSNPVDIGPMYNPDGGPAFQPGANATTRPTEPGSAAYWDAVNG

GLLNTNVRTFRTTEDLRELLQRDARYGVDYDGSGTFAAADINQNIKVVVTADGHFAISNANEQSTVPPNA

INGVGNATTTDPKNMSFNITAYSNKQGTVSTNDAFTAIFKAFDGPLVIGNQIKESEQLKLSAFSAGLEIY

DSLGSKHTLEVQFVKQSTTQDGGNEWQMIIRVPEPAEINTTGEGPNNIIVGTARFNNDGSLASYTPRTIN

FSPNNGAAPNQQIKLSFGTSGSNDGLVSSNSASTLTGQATDGYTSGNLKPDAIRVDDKGNILGEFTNGKT

FAVAKIAMASVANNSGLEEIGGNLFKVTANSGNIVVGEAGTGGRGEMKTSALEMSNVDLSRSLTELIIIQ

RGYQANSKTISTSDQMLQTLIQLKQ

>WP\_002864821.1 acylneuraminate cytidylyltransferase [Campylobacter jejuni]

MTLFYKIIAFLRLLKIDKKLKFDNEYFLNLNKKIYDEKHKGFFDFDPNSKDTKSPLNPWAFIRVKNEATT

LRVSLESMLPAIQRGVIGYNDCTDGSEEIILEFCKQYPSFIPVKYPHEVQIENPQSEENKLHSYYNYVAS

FIPQDEWLIKIDVDHYYDAKKLYKSFYMASKNTAVRFPRINFLILDKIVIQNIGECGFIDGGDQLLIQKC

NSVFIERMVSKQSQWIDPEKTVKELYSEQQIIPKHIKILQAELLQWHFPALKYHRNDYQKHLDALTLEDF

KKIHYRHRKIKKINYTMLDEKVIREILDKFKLSGKKMTLAIIPARAGSKGIKNKNLALLHDRPLLYYTIN

AAKNSKYVDKIVLSSDGDDILEYGQTQGVDVLKRPKELALDDTTSDKVVLHTLSFYKDYENIVLLQPTSP

LRTNVHIDEAFLKFKNENSNALISVVECDNKILKAFIDDNGNLKGICDNKYPFMPRQKLPKTYMSNGAIY

IVKSNLFLNNPTFLQEKTSCYIMDEKASLDIDTTEDLKRVNNISFL

>WP\_002864549.1 dihydroorotase [Campylobacter jejuni]

MIIKNAKIYGDSLQDIEIKEGKITNIDSNLQGEEILDAKGMTLLPSFVDLCVSLKNDKFSLANLELLENE

CLKGGISSIVLRDCMDFDEESFALFLQNLAQRKMQIFSSVRVKDANGKLKNLATLLNKGACALELDSSLD

ANTLKVSSQYAFMKDSPIFVRCYDKDFDDNGVMNDCEMSFELGLIGMSKIAETSQIAKMKELAKFYKNKV

IFDLLSLKDSLVLLDEKDLKLVSIHHLIKDDSACEDFNTAAKLMPPLRSKEDVLALREVLKEGKISFLTS

LHSAKSISLKDLAFDEAAFGIHSVCEFISLCYTFLIKEGFLNWQELCRFTSKNPSEFLGLNSGVIEVGKE

ANLVLFDENEEIFAPKSSLYSEDKLFGKIKMHIIKGKNILEK

>WP\_002864335.1 phosphoribosylglycinamide formyltransferase [Campylobacter jejuni]

MLVKLAVLFSGNGSNLENILEKLHKKTIGENTYEIVLCLCNKKDAFGIQRAKKFGLNTVIIDHKAYNTRE

EFDTILVQKIKESGANLTVLAGFMRILSPVFTKNIKAINLHPSLLPLFKGAHAIKESYESDMKVAGVSVH

WVSEELDGGMIIAQKAFEKRNLSFEEFEEKIHSLEHEILPLSVIEIFS

>WP\_002864204.1 hypothetical protein [Campylobacter jejuni]

MEKLLKELNNNIKLSNQLSYQILMSNIISNLDIDKKDKEILLLLLQARDRNYIRINNNEQCYQNIINYLN

LIRPLELPLCDLLRIGGNGDGGYVMYNGGGDMSDINAKALSLGVSDSSPWDLEMAQRGFKVIEYDASIEK

CPYDHENIVFHKKFIGNVNNENTITLVQALKDNNLDENKPNILQCDIENCEWDMLENIDISILNKYFSQV

IFEFHGCNPEEQDGVEKRISLLKKLNEYFVPMHTHFHNHGKIFYSQGLFFSTTLEVSYLRKNLINLDIMK

YRDVAGGFKNLDFPWISNPEIPIRFRGY

>WP\_002858797.1 hypothetical protein [Campylobacter jejuni]

MKKILFIGSLVMASLLYAQGSQPVEITQQDINTQNEMSDASTKDITPKSIEDFFEEFADNFGIEYGITKD

GKTFYTGKSTVAVNDTDPQFAQALQNAYQKAMLNLQSEFIRDAFGRIATSKIQNYEADNSTNAKEFDELP

KGDKVDQILNKLTQLAGAQLDKALKDLGIDTNSLSEDRKKTLLKQEFLNKTMTNAIGSMSGLVPVQTIVT

QRRGEYDVGVVAVISNKTRQLAKDMALARQSAIKGKGKAISEYLPKDTKGFLNEYGIRLVYDENGAPIIL

SYGNWGYVADPSNAKKTNILEDRAKETALTMADAAIIEFINTNLSLKDERTTGDTYEEIIKQSINVNDSS

TQEQTQNITNIIDKVNSKIKASASGKIRGIRTLKKWSYTSENGIEHVGAVRFYSYENLANTNEALNSKSN

ATKNEAKKSSSIQRSSNVVNSMDDF

>WP\_002858731.1 hypothetical protein [Campylobacter jejuni]

MVKNLIIKFGRLILDAIAVISFVVALLYSLFMMFSIGFLAGLLSLIVSFIALFLSFFCNLSCYRYQRCSC

K

>WP\_002858517.1 hypothetical protein [Campylobacter jejuni]

MKILLTLIFSIVVLFGRGEISVFSGQDENMQKELQKLPQEEQKIYQNIPPSDENNDFESNVDDPFVAKGS

LVLTNDEYPSRVYVGEVFPITIYARTTENIKFDFNISVEKTNLSFLNPDAKWEFINNEYKTTLWFEAKNS

NASLSKISIKLLRNNEAFQEADINLNPIKFENTLFNKDFSHLVASSLEIKKVKASYFDDANIIMMIELNA

TNTNLKSFFIEGIQKQGIENLKGDFNASSAFYYAILPLSKTNFEFSYFNKDSKKLENINLKLKISDDEIS

TQSDLNPVNKDLNIYKQYALWFLAVLFGVLFVWRKNYIILALAVVCFALSFLVDTNTQNAIIKAGSRAKI

LPTEPSTYFYTANADEKVEVLGKRQNYIKVLFSDGKIGWVNKDDLQKN

>WP\_002858480.1 hypothetical protein [Campylobacter jejuni]

MKKKILYIVVFFVVLILALFIVLKNGIVISSIQFDFLKLEQLYIKLDKKLIVRAKNITINETQNSEISSQ

THSSDNASTEILKITKNLKYLYTFVKEIDIQNLNIKDNHVRILFKDNEFFIDNDLLFLKLTLQRQNKELI

ADIKKLLLKDYDLSIDGNLSINTKSEFYYFQGRASGELLDFNASISYKDKNLAYKIEDLNIRNITEIFKR

VNKRIELPQSLNLWVAYRAKGEFYHLDYLQGFIDFTKDNYYLDNISASGYVNNVKVRLDDKMNAIEIPKL

DLNLNKQKLDFVFNKAFYNGADLSSSKVYLYDLFDEKKVGIYLRIKSDNLKFDEKLAKALEDYHFSLPFY

QKSGKIKSDLELKIDFHDKGEISYSGILALENASISLADFNITKAFVKLNQNDLNIENASVKNGFLEADF

NAKFDLQKQQGNFNTQISRLYFDNAELLDLKNQNVEVKLDYSQNVNISIPQWNLILNFKDGLEANLNNPK

ILFSFSPLLKKLGFINAKNVYYKTLNFEDFNASVNDAYFKNNLLINGQTPYENDSFDIVKNKGIMEIHTQ

SDTASAKISSDNKEIHLKNLSYIYRKHSNSSNSTFDIATNTQNISFGGANVALILADSNKTLAFDRVEAD

LKGNALDLKGSRGNAKFDLYYSSNDLNLNVSNIDDNYLNEFLQKQAVQDGVFNLSIKGSGLEYFDGQIDF

KNTYVKDLKGINQLISFIDTVPSLLMFKSPTFNQKGLSLHDGKIIFNRKKDLLSVSAINLNGDSVDIYGL

GSANLRLNTVDFSLELKTLKSASEAISKVPILNYVILGKNQEISTNLKIDGSIDDPKFHTEILTDTLKTP

FNLIKNIIQLPANLLN

>WP\_002858322.1 invasion antigen B [Campylobacter jejuni]

MNNFKEIAKLVRKYKERNNALYEFLDKEDVGEYFRSLISLSELKQDKTTMLAILRRLIDLKEENLVQEWK

KNNFKEDKIIELKHKFYEEVRKFYEKEHQNLINEIKEKKLLNNFYQSLIQGVHNIGLIMNIFEISWTKEI

IEKNNKILSTQFPNLDDAMEFLRKNHLYQKTPEGEICERSYGVLVRIGNLWKFVPYARFFENEILKLEFA

FENMIDQLKIFASSEEEKAYIEYFEKLKLAFCEKDEDRVIKAWQEAEFAWMKVKSPLQVGHPLEYYEDNY

THAVALEWDIRIEDENDFDVLKFGNEIKESFEHVYKNIGLEDCELEKEVLSNIEKTQLYICTPMIFYGAE

LKGLFSAQVVPNDEFVSSKAGKKIFAFINFVYENAKTKPFMKISSEVFDKEFLDFGRNILFYQEKIWKRV

YEVSTIGHEFGHIFFIANDTEKTMNQSGFFKNIEEYKATTGGLINFFYHEQDDLIMPVFHELIKRAIGLI

SWQRVDEVRPYYTEGLIHLSLLFESEVLIFENNNLKINFDLGYYEKFKELTLKNYHELAKHYALRLDAKE

FLSRFCEIEDNIFLPIMPKCKEFVKFYYDLYEKIGNEIDNSGEFERYKKK

>WP\_002858240.1 transcription-repair coupling factor [Campylobacter jejuni]

MQASFYEYLQNPKICELFLCKDEKQADLLAQVSRFKGLKTFVLPDFRAQFGDDLRAFSKELFDLCKILNA

YHKEEEKKILISPLNTVLKKLPSKKHLQNYHIDKKQNFDLKCFEDEISRLGYEFVDIVQDKGEISIRADI

IDIFCINEENPIRILLFGEEIESIRYFDLQSQKSIPNELEHFEICPFLKYFDKENYEIFKDKLEDFQSDA

LIHDINSLGFWCIDDFFDYLELDFLACEKFDINEYEKDISFVNAKILPQAKKFKELQSSYNKDFFEFHKN

KKITLLAKNEALFKALELEDTQNIHFVKSDLRLNLISPEELIISLNQKEKQKTRKKASLIIDELKNGDYI

VHEDYGVGKFLGLEMIVISGAKKEFVAIEYQNSDKLLLPVENLYLIDKYLGVSGSIPSLDKLGKTSFIKL

KEKLKTKLLAIASEIVIMAAKRSLVQAKKITVDLNRQTDFIASAGFIYTSDQDKACHEILQDFQSGKVMD

RLLSGDVGFGKTEVAMNAIYPVVKSGFCAFLFAPTTLLSHQHYKTLKKRFDPFDIKVFKLDRFTSSAEKK

QVLQNLKENKACVVVGTHALLSVECENLALVIIDEEHKFGVKQKEKLKEITQNSHILSMSATPIPRSLNQ

ALSSIKSYSVLQTPPEDRMDVRTFVKENDDALLKEAIARELRRGGQIFYIHNHIASIEQCKKHLLELFST

LRILILHSKIDAKMQEEEMLKFENKEYDLLLSTSIVESGIDLPNANTIIVEKSDRFGMADLHQLRGRVGR

SDKQGYCYFLIEDKNAITKDALKRLVSLESNSFLGAGSILAYHDLEIRGGGNLLGVDQSGHIEQIGYSLY

LKMLEDELNALSKNEVDQKENKLDLKLNVNAFLNSELISEDRLRLELYRRLSKCEQVHEVYEIESEIEDR

FGKLDIYTKQFLSLITIKILALNKFKSISNYEQNIQFTALNDEKELIKAKSKDDDDILEAILTHLRKA

>WP\_002852900.1 hypothetical protein [Campylobacter jejuni]

MKILLLNENPVVSRLVSLSAKKMSYDFEELNAYSENLGNYDVIVVDSDTPAPLKILKEKCDRLIFLAPRN

QNVEDIDAQILQKPFLPTDFLNLLNNKDANKHTSIDLPMLSNDENPYADISLDLDNLNLDDLPDENSLDI

NSEGMEDLSFDDDAQDDNANKTLETQNLEHETIKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEP

SLDELDDKNDEDLEIKEDDKNEEIEKQELLDDSKTNTLEMQEELSESQDDNSNKTLETQNLEHDNLEQET

IKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEPSLDELDDKNDEDLEDNKELQANISDFDDLPEV

EEQEKEMDFDDLPEDAEFLGQAKYNEESEENLEEFAPVVEEDIQDEIDDFASNLSTQDQIKEELAQLDEL

DYGIDSDNSSKVLEDFKDEPILDDKELGTNEEEVVVPNLNISDFDTLKESDIQEALGEEILEKNEEPIVS

DVTKDDNSEEIVNELSQSIAGAITSSIKDDTLKAALKGMNMNININISFKED

>WP\_002852788.1 hypothetical protein [Campylobacter jejuni]

MKKIFYGIVAFVVVLLIALYTILFTSFGNNIVANIAQKKIKENAGLDVNITRFNLRFSSLELQANIANMA

DCNLQGALSPFKLGFDLDYLISLNQNYAKNLGLNLNQNLSFGGKIQGKASDFTLDGKGYLLGSNVLLNAR

MYNYSPIALNLDAQNLKIEEILHLLSYPSYAKGFLNAQAKISAQNLKPDGNIIIKLDTSYINYEAIKKDF

SLDLPLNSNPKAEILANVKEDKIYAVSKIYNDYLNLQTQKTLYDMSKNILSTDFNLNIPSLAKLEKLTKT

RLNGSLGVIGETSVVNNALSSLNAQVIGLGGEVKASLKNNKIFADINEASLEKLLALAGYGALVSGNLNA

KLLNADLDFSNFDLEAKINNAKINTNELKKLAKIELPNTIFSFDAKANAKNSNIAYNALLASNLLNIKKL

QGTYNLKNSELNTDLNAFIDDLSQFSAIAGQKLQGKADLTAKAHIIGTQIQNLNANANLADGVIKADSNG

KKLDLNIDKLDLSKLFVIAGMPNYASGIVNAKVNLDNIDFSNLNGKANLEAKGILNAATLSKILNKNFPN

NTSYDLNTKINFKNNIAQFDSVLNSSLADLTKLQGSFDISKMLLNSDFNLKINDFSKLGFLLDRKLKGKA

EFNGKVGFDKNLNFVVNSPNLFEGKLQSTLKDNLLLADLNGVDLSSLAQGLDFMDVYQGKADVKANYNLL

SEEGEVNLDMKEGKLKPNLITNALKILTLKDITNDVYRTANAKALIKKENIKFDLNMQADRSYILVQSGA

LNSKSGALNLPFDIKFDRANFKGSITGTTENPKVNLNAGSVLNSIKNVVGGGMSDGAKSTGDKVDKAVNK

LLNKIF

>WP\_002851118.1 hypothetical protein [Campylobacter jejuni]

MENICQFIIENIDKNSLNTKKIKLVFNMQEQEITTISKIFKVSSEHIIAFYDTSTSFNYFSKTTGICFTG

KEVIFKRKEDEVLMKINYEDFKEANKSLPEKTTTLQDIKFPISFHNLGTSYLSFDDFKKKNYIEENDELI

INFLHILTSKNNIESFKNESMFPQALEKTNESIKENYIKVIIKIILDQYGFLDEKRSIKIFALMNKINVA

SETRYKIQDFLHNKHSSFEDLLNIIKQESRFMQFKYILISLIKDLIDIDFEDNKIYNFLYENKDIFKIKD

LKEIYWVKEIIKKEYQIILDDNKEIQQIFNFISETATKNNISLNGLHLSGMTIGMSVSIMELLGFGELIK

LPLIDSSKKYHNKNKQQLRLFIIQEILKENQKTITQIIDIINNLIEQCNTNTQNLQELIKLLKLASKNNE

TFKEREKLLYCPETLSLITINNHLKEDDIQFIEQYYTYNQNTHKYERNDNLSSSDLEKLSNFFKLKNL

>WP\_041337232.1 DUF115 domain-containing protein [Campylobacter jejuni]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGVIMKIYFIKIP

LKSCKLC

>WP\_002858633.1 MULTISPECIES: filamentous hemagglutinin N-terminal domain-containing protein [Campylobacter]

MKKMSKHIVLSFAVSSLLFSQAYALLSGGKFTHGTSGTIHTSGNTVTITGKGQNHVIQWGGGFNIGQNES

VNFNGKNQNYLNIAYQKDASKIDGALNRGNNNIFLVNPMGVLIGKTGTITAGKFVASTTALSDDNVKTFL

EKGASFSPAFDVSKQGNIINLGKINADNIVLIGNKVEINKGKITLDVLKLEGNKVYVDAGVVKDTKNIVA

KAEQEAIIQQSITSFEEDGALLGNSSSKFSFDDSSKVKNWTKYGSIADATEWNKFADFWNVNKEKFRTAF

DHFRLIDDIDFSGVKTYIVGDNTSNAFAKSFDGSGYALKNVNINSSNQYVGIFGVVQNSYIRNFNIQGLK

IASTGYDA

>WP\_041351049.1 M23 family peptidase [Campylobacter jejuni]

MVKNKFTITITDINGSRHFYLNQIIKKIVFYIIAFIVLFLVFSGFYIKYLDSKLSDISEKREELLKKSKE

LELSNSQMQKSIEEKTQQYAAIEDKIASFEEALGLEAENNLTISARLDNLQLTNEQQLGILGQIPNGWPI

ENKGITGNFGWREHPLLKRREFHPGIDLRAEIGTPIYAPASGVVEFSGYSDNGYGYNVILLHNFGFKTVF

AHMMRKEVVKAGQFVNKGYSGNTGLSTGPHLHYEVRFINKTLEPLYFLNLQRKNMNDFFNQERRVPWQSL

IKAVSAQHPALAQKQQ

>WP\_002921306.1 MULTISPECIES: hypothetical protein [Campylobacter]

MPIFMICSTLLAVIVVAYYILKYNLIFVFFFQILSCLFLLFTSQEHLYQKPQAESIQAF

>WP\_002864182.1 MULTISPECIES: TonB-dependent receptor [Campylobacter]

MILNIKIIFFKGINLTQIKNMKFKKSLLCFLILSGALLKAEETYQLNDVVVSASGFEQDLVDAPASISII

TKEELEKKPIKDIGEAIGDIPGVDVTMDKTGTYDFSIRGFGSSYTLVLIDGKRQSVANGFYTNVFKGSES

GYLPPLSMIERIEVIRGPASTLYGSDAVGGVINIITKKNPDKIEANIEFNTLLQQHSNHYGNAGVLMLM

>WP\_002853375.1 MULTISPECIES: MFS transporter, partial [Campylobacter]

MEKSLLFHFRRIGVEFIIFSVYAVFSISWAATGSLMPLISNDLALNTQQATLITSMIVVAKIFGASFTAF

LVYKFGLKKGYFLGCILMSSGIFLSFVDSYSGILIIRFLTGLGSACALVCLVPIAQQWFEKKALHFVISF

NITSNLVGITLGLVLAESISNYFGNWRDSLSFYAWINLILLILWLFVGKDENKKEEKKNNAKDLIYALKS

RVTWGMIIFYIGPILFLNSLFTFLPTFYAQYAGFSKELADFAKKEIPALANFAIIFGPYLGLFFKRKNIS

FKIMLLSGGACIFICGFCMLFLQNLVLIQIFAVLSGIFYSM

>WP\_002853344.1 MULTISPECIES: hypothetical protein [Campylobacter]

MSAFWSITFVILSFNLWVVSWSVDKTHSFTLGFVYIFALIFISAILAQFVLPRREKFIQGEK

>WP\_002852472.1 MULTISPECIES: hypothetical protein [Campylobacter]

MPQGAPDLSLEDAYDVAAYMNSQARPIKANRNKDFPDRKIKPLDMDVGPYDDSFSTTQHRYGPYTNMIKK

>WP\_002852412.1 MULTISPECIES: cytochrome c [Campylobacter]

MWVHKPKILKKRFAGNNLSCSSCHANGGSVQNQSGFVGIWARFPQYNARGDKVITLADRINGCFERSTNG

KRMPSDTPEMKAMLTYMQWLSQGVPVGAKIEGQGLKKIDFILKAADPKKGKAIYMDKCAVCHQENGLGLK

NEDSTGAYYLYPPLWGDDSYNTGAGMYRLSKLLLILKKICLKVRLT

>WP\_002851918.1 MULTISPECIES: autotransporter outer membrane beta-barrel domain-containing protein [Campylobacter]

MFINLGNDYKLNDKTRFNFEFEKTFFGDLNVDWSANANLRYSF

>WP\_002851165.1 MULTISPECIES: type II secretion system F family protein [Campylobacter]

MKFYEVEFLKNNQNYTKTIKAENLNTAQAKALSKNWKIIDIKEIQKSNFQRLKDENFILFFKELALLCEV

GLSVQEAIRELYFMHSCKIMKKILDNLILAQNLNQAFENANFGLNRAELALIKTAEKTGKISEVFSQISK

LREKSLESQKQLKKAFRYPTLVFLSIIGAFLFLMLFVVPNFKDLFENLGASLPFITHVMLEIYNFLDDYG

IFCIFLFVIFIVMLILAYKNFHSFAFSCDFLFLKVPLISRLIIYNQNYYFFMVFSLLLKNGISISKAFDL

AIIGLENKFLIFQYKKLFSFIDSGLELSQAFKKIDIFDSLVFSMLSVAMKSGRLEVLSEEIAKYYQQKSE

NLMDRFLIFLEPMMTLFVALLVLFLALGIFLPMWELSSGVNFN

>WP\_014906734.1 citrate synthase [Campylobacter jejuni]

MSNSVTITDNRNGKSYEFPIYDGTTGPSVVDMSSFYKQTGMFSYDEGLTSTATCKSKITYIDGENGILMH

RGYPIEWLAENKLYLDVVHLLLYKELPDATRLEAFRYEMKKRSFIHEGMHRLFDSFPDNAHPMAVLQGAV

SSLSAFYPDHLNMNVKEEYMEMAARIVAKIPTIVATAYRYKHGFPMAYPNLDRGFTENFLYMLRTYPYDH

VELKPIEVKALDTVFMLHADHEQNASTSTVRTVGSTHAHPYACIAAGIGALWGHAHGGANEGVIRMLEQI

GSVDRVDEFIKRAKDKNDPFRLMGFGHRVYKNFDPRAKVLKKLRDQLIDELGIDTNLIKVATRIEEIALS

DDYFVQRGLYPNVDFHSGLILKALGIPNEMFATLFVIGRTPGWIAQWIEQKEQESLKIVRPRQLYLGETS

KI

>WP\_041337140.1 methyl-accepting chemotaxis protein [Campylobacter jejuni]

MQSINSGKSVGISAKLTLWVGILVVLILAITSAISYFDSRNNTYELLKDTQLKTMQDVDAFFKSYAMSKR

NGIQILANELTNRPDMSDEELINLIKVIKKVNDYDLVYVGFDNTGKNYQSDDQILDLSKGYDTKNRPWYK

AAKEAKKLIVTEPYKSAASGEVGLTYAAPFYDRNGNFRGVVGGDYDLANFSTNVLTVGKSDNTFTEVLDS

EGTILFNDEVAKILTKTELSINIANAIKANPALIDPRNQDTLFTAKDHQGVDYAIMCNSAFNPLFRICTI

TENKVYTEAVNSILMKQVIVGIIAIIIALILIRFLISRSLSPLAAIQTGLTSFFDFINYKTKNVSTIEVK

SNDEFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLD

VLQARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQT

AVQSLTTSSNSQAQSLEETAAALEKITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAI

EAARAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQ

TTKDNVEIANESAIISSTVSDIANNILEDVKKKRF

>WP\_041337137.1 methyl-accepting chemotaxis protein [Campylobacter jejuni]

MKSVKLKVSLIANLIAVVCLIILGVVTFIFVKQAIFHEVVNAEINYVKTAKNSIESFKARNSLALESLAK

SILKHPIEQLDSQDALMHYVGKDLKNFRDAGRFLAVYIAQPNGELVVSDPDSDAKNLDFGTYGKADNYDA

RTREYYIEAVKTNKLYITPSYIDVTTNLPCFTYSIPLYKDGKFIGVLAVDILAADLQAEFENLPGRTFVF

DEENKVFVSTDKALLQKGYDISAIANLAKTKEDLEPFEYTRPKDGNERFAVCTKVSGIYTACVGEPIEQI

EAPVYKIAFIQTAIVIFTSIISVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFG

QISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARV

GSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLT

TSSNSQAQSLEETAAALEKITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAG

EHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNV

EIANESAIISSTVSDIANNILEDVKKKRF

>WP\_002851912.1 MULTISPECIES: autotransporter outer membrane beta-barrel domain-containing protein [Campylobacter]

MHKRMGELRNNPYESGVWLRTFGWGTSDEYNSGKYFEIQSGHDKLNEYSNFELYSGVRFL

>WP\_002858548.1 Na/Pi cotransporter family protein [Campylobacter jejuni]

MTNLGIGFKVFSGDLLEKILVKSTDTKIKSILFGTLSTLIMQFSILVSIVTISFLSAGLISLGAGIGIIF

GVNLGNTASSWLIVGLTNIKILMLAIPLLIIGVLFFFQKDSILKGLGNIFIGIGFFFLGVDYIKSGFENF

KHIIDLSRFDFAGFKGVFVF

>WP\_002858488.1 Na/Pi cotransporter family protein, partial [Campylobacter jejuni]

MLTGVIQSSTVIMAIIVAALLAQQISLENSLAATLGTSVGGVVTAVLASLSTNIEGKKLAFANCIFNFGI

AFLIVLIFPYFIHFLIFYPLR

>WP\_002851649.1 MULTISPECIES: hybrid sensor histidine kinase/response regulator [Campylobacter]

MEDMQEILEDFLVEAFELVEQIDHDLVELESNPEDLELLNRIFRVAHTVKGSSSFLNFDVLTKLTHHMED

VLNKARHGELKITPDIMDVVLESIDRMKTLLNSIRDNGNDTAIGMDIEPICARLTAISEGESPVVATDSN

EKSIPQAELEAPKQEIATPEPEVDVNQLSDSEVEAEIERLLKVRKAEDQARRAQKKQTTNAAPKPTNNTA

NKPTESGEKKVPASGSNASSMDQTIRVEVKRLDHLMNLIGELVLGKNRLLKIYDDVEERYEGEKFLEELN

QVVSQLSIITTDVQLAVMKTRMQPIAKVFNKFPRVVRDLSRELGKQIELEITGEETELDKSIVEEIGDPI

MHMIRNSCDHGVEDPATRAANGKPEKGIVQLKAYNEGNHIVVEITDDGKGLDPNGLKAKAIEKNLITERE

ADQMTDKEAFALIFKPGFSTAAKVTNVSGRGVGMDVVKTNIEKLNGVIEIDSELGKGSSFKLKIPLTLAI

IQSLLVGTQEEFYAIPLASVLETVRVPIDDIYTIEGKNVLRLRDEVLSLVRLSDVFGVKQVLESGDQTYV

VVIGVAESKLGIIVDTLVGQEEIVIKSMGDYLQNIQGIAGATIRGDGRVTLIIDVGAMMDMAKEIKVDIK

AQLESSAKKPKEQPSDYKVLIVDDSKMDRTLMQKALEPLGVSLIEATNGVEALNIIKSGEHDIDAMLIDI

EMPRMDGYTLAGEIRKYSKYRNLPLIAVTSRTSKTDRLRGVEVGMTEYITKPYSPEYLENVVRKNLKLG

>WP\_041337234.1 DUF115 domain-containing protein [Campylobacter jejuni]

MLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQNARLMVLE

NDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAENFKNIILRNGNDPKDALQGI

EQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGI

KPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNLVITQKVLAFPYYINLKDFSY

AAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYESQMYEHILTEAYGGNGKVET

HSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFEKLEPLSLNK

QNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLAIRKIDEFKNKLENIKQMQDL

YEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNILPLEEKLK

ERKLDKWMERVRR

>WP\_002852291.1 MULTISPECIES: DUF2920 domain-containing protein [Campylobacter]

MIINQIYSIDSCDDVELNIKRGSKLEFRLTYDDSKEIEAIVCIIPGGAEDMNSYIYIDDYLTRNYKVAVI

NINYHCIGNRPHLGSSFYLDDIDKFILDTSLKAINLKCINVYGINSYENLNNAFIRIDQEIQKLKLNQQL

HQNYKLKTHVSFLPFKNEYQNFGIMQAMDILNAIFYIKENSPFKLMRGGGIRTILFGNSYGGYLANLCAK

IAPWSIDFILDNSSFVNLFGNIFRLIGFGKEIDFTRYHGTYDDTLFKNIFLYLSDKTYWNNNKFSKNYFS

NARKIIREPLNKEHLIIQSLYPNPKYILYHSIFDERSPFKNKENFVHILKELNFKVEFFAISQVDNKFIK

NLNHGMGLSTKLFFKKHLLQILKEPLQDKICKKEVSYKCDELVYTFKEENHQIILNITN

>WP\_002858531.1 MULTISPECIES: TonB-dependent receptor [Campylobacter]

MVALYGENEYFITDDLIFTTGLRYIYSNLFDSEFTPRIYLVYHLNDNIAFKGGVSKGYKTPSAKQLTNGY

YNYANGNALFGNPDLKPEESINYELGADFRVFDFAHYSITGFITDFTNQISSEYLTGMQNGINCSNGTVC

KRPINLGKTQTKGIEFAFNTKTYNGFSLNSSYTFMDNRYKDSQKNWFGGDRIENLPRHIAMLKLNYERGK

FNSYIKTRARLDTIAKARVGGNGSLPWQKYKPFYIVDLGINYKINKQSSLSFAVQNLFDKNFFDPQVTRW

DGANPAGYANRYQDYTEGRSFWLSYKYDF

>WP\_002851872.1 MULTISPECIES: DUF4878 domain-containing protein [Campylobacter]

MAYGSSNPEDLAKNFTKDLYSGDTKSVMSYIDLSEAKSDEEKTFVSDKITQVVAENAAKAKRMGGVKDIQ

IEEKTINKDSAKIRVLVLFNNDNNQSSNVFLAKKDRKWLVLLK

>WP\_019108902.1 MULTISPECIES: DUF2920 domain-containing protein [Campylobacter]

MDGVIDNSGSALPPLNYILGREMEHSYGDYYEDFPHNRIIFFLKTHWTRKENSPYFFNNENYFIRTLLNK

DHLILQSQKNKNIIYVSYHSDKDPLTPANFKQQTMQILKILGYDVSLNLIDENKIDGKFIKNLDHGCGIP

DKALFRKELPLMLEKLQKRKSFMQENSISYPCGNKVFIFKDVGDKFELVIKD

>WP\_010891868.1 MULTISPECIES: DUF2920 domain-containing protein [Campylobacter]

MIINQIYSIDSCDDVELNIKRGSKLEFRLTYDDSKEIEAIVCIIPGGAEDMNSYIYIDDYLTRNYKVAVI

NINYHCIGNRPHLGSSFYLDDIDKFILDTSLKAINLKCINVYGINSYENLNNAFIRIDQEIQKLKLNQQL

HQNYKLKTHVSFLPFKNEYQNFGIMQAMDILNAIFYIKENSPFKLMRGGVLERFCLEIHMADI

>WP\_002858554.1 MULTISPECIES: DUF2920 domain-containing protein, partial [Campylobacter]

MFGNSYGGYLANLCAKIAPWSIDFILDNSSFVNLFGNIFRLIGFGKEIDFTRYHGTYDDTLFKNIFLYLS

DKTYWNNNKFSKNYFSNARKIIREPLNKEHLIIQSLYPNPKYILYHSIFDERSPFKNKENFVHILKELNF

KVEFFAISQVDNKFIKNLNHGMGLSTKLFFKKHLLQILKEPLQDKICKKEVSYKCDELVYTFKEENHQII

LNITN

>WP\_002858006.1 DUF2920 domain-containing protein [Campylobacter jejuni]

MLINQTFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSAYKYFQEEDIENIKNLLNQFHFSYGEINNDNALFLANSLVKHVENLKMQN

KLDHNFKLNFTSTFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGVLWRIPIFTHSKDS

SLVCGWCD

>WP\_072233179.1 type II asparaginase [Campylobacter jejuni]

MKKLFICCLFIGVCMKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWE

QIANIDSSNMCDEIWLRLAKKIAKLFAEGIDGVVITHGTDTMEETAYFLNLTIKSDKPVVLVGAMRPSTA

ISADGPKNLYNAVALVVNKEAKNKGVMVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFY

NNVIKAHTKNAPFDVSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKE

LLKKGLKVVVSSRVVAGCVAVSDSDEKLGFISAEDLNPQKARVLLMLALTKTSDPKKIQEYFLKY

>WP\_019109092.1 hypothetical protein [Campylobacter jejuni]

MLISLLILYFKAALELEEFHKNCTLKQNWEQPFKKVKNLTLILSISLLSIIGFFLMFINLVNINPI

>WP\_009881605.1 MULTISPECIES: hypothetical protein [Campylobacter]

MFITATAPNPLVVDLIAQATNLEVHLTWGGVIGFRDVFTWYSCYAFDAFDALFSLSARN

>WP\_077409355.1 MULTISPECIES: selenide, water dikinase SelD [Campylobacter]

MQYKNQNLTHFVKAAGUAAKLSPGGLKTILNFMQKTPALLSDIGNNEDASVYQISPDLALVQTLDFITPI

VDSAYHFGAIAAANALSDVFAMGAEVINALNIVGFDTCNHDLNILKELLEGANDKVKECNALVVGGHTIE

STELFFGLSVTGKVHPSKFIANNTSKIGDCIILTKPLGTGILSTALKAQMLNQKHLDIMLKNMIELNYKA

SQIALKFHPSAMSDVTGFGLLGHLKEMLNKNISFEIFESELPFLDGVKEYFNMGLIPAGAYKNLEFIKEL

TPDLNEEKLLLCDPQTSGGLLISISEKDSLECLKKLEDENIQAKIIAKVVNKQENDIIIS

>WP\_002858750.1 MULTISPECIES: hypothetical protein [Campylobacter]

MQFLNYTNDKRNPFTSSSISGDSGSRVYVYDKMDKKWYLVGVVSTSNCNVHFTMDILVCRLIML

>WP\_002857937.1 MULTISPECIES: C4-dicarboxylate ABC transporter [Campylobacter]

MVISTFVAIIFEMIRYKSVVETLNSIMIFFKGMGHLFVITVSLIVCGQVFASGLLSVGFVDTLIEFCKNA

GFGVLAIIIAVSILLAVCAFLMGSGNAAFFSFAPLIPNIAKHFGVETITMIAPIQIMTGFGRCVSPIAPA

ILAISAIAKVSPFAVVKRTAIPMLVAAIVNVIMTYIYL

>WP\_002853348.1 MULTISPECIES: hemagglutination domain protein [Campylobacter]

MVLKALIIDGTLNSGSNNIFLINPNGIVVGKGGKKLFCLLHQ

>WP\_079394646.1 methyl-accepting chemotaxis protein [Campylobacter jejuni]

MLKITKIKRKIMNSIKIKLSLIANLIAIFALIVLGIVSFYFTKTSLYESTLKNQTDLLKVTQSTVEDFRS

TNQSFTRALEKDIANLPYQSLITEENIINNVGPILKYYRHSINALNVYLGLNNGKVLLSQKSNDAKMPEL

RDDLDIKTKDWYQEALKTNDIFVTPAYLDTVLKQYVITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTP

GNTFLFDQKNKIFAATNKELLNPSIDHSPVLNAYKLNGDNNFFSYKLNNEERLGACTKVFAYTACITESA

DIINKPIYKAAFIQAIVVIIVVVFSVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSND

EFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQ

ARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQ

SLTTSSNSQAQSLEETAAALEKITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAA

RAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTK

DNVEIANESAIISSTVSDIANNILEDVKKKRF

>WP\_079338674.1 invasion protein [Campylobacter jejuni]

MQNLLFYIKNNLTPTLAQILLQALKNSNNEKFFTFVLENIETICTWLNSNKFRDRYLSTKHPYPPLINPN

FIEIDSSRHCAELAWDLNLPLPKHYKFIYISPHGVGAAAFLRYLNQCCDVTCFASWVLPPDSKERYCINY

MCLNDNTIAQYAINISEINLPYFDKYLSLLDFNSKIICGVRDPIGLLKHSWGRDWSKVLRNYPPEFNLTY

DWRYYINYLTHQNHKIKIDINELQQGVFIISYLLKYFNKDNVYYLDMEEIRQSKAFDTMNLLAINFNFTP

PIKIN

>WP\_079254168.1 MULTISPECIES: 2-oxoglutarate translocator [Campylobacter]

MAYSIAFCETILAPVTPSNTARAGAIINPIVQVIARSFKSTPEDGTQNKIGTYLSLVNYQEPILFHQLCL

LQLQLQILWWLIL

>WP\_079261378.1 peptide transporter [Campylobacter jejuni]

MSIALSILSTPMFFLGLTFIVIGTGFFKTNASVTVGILYKQNDTRCDTGYTIFYIGINIGAFIAPLICGF

VQAKWNYHLGFG

>WP\_021034248.1 MULTISPECIES: C4-dicarboxylate transporter, DcuC family [Campylobacter]

MIAICQYIDHGPGSGNVIMASKVAEVDPAIYFVHYQLPTTLPIIIAVGIAIYLCNKFFDKKDNFAFNAQE

IEKELNENEGKEKELKKPPRIYAILPIIPLVLILGFSSVLDSILVLMGISSAQEVKAAASTAIKMNVPVS

NGDFNFCGYYF

>WP\_002858101.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKNITLTKIPIGEGKEPCLNSKKIVLSLATISFLASCANAKLNSEIKTYDEVNKNVKTRSASVYSPQAKI

NTTINSLHNQQVTITGNGTSNSLTIGSSGTLGSIGNTGKIIYAHANGSNTLTLANLTNNRTINGKIGIEN

NGNFTGTIAVNTFENTGQINGQIYMGIWGNNSGTLNIDKFDNSGTIIDNNKGVFLKERIPTYKPLITVVL

LVQIRV

>WP\_072280311.1 transposase [Campylobacter jejuni]

MKKDSYHKITSKLIQEFDLLAVEDLQIKNMCKRAKLKNIKAKSGLNKSILNISFYQFSQYLEYKAKHNGK

FFIKVNPQYTSKTCSVCGNIKKNLMFKDRVYLCEKCGNTLHRDINAANNILKRGLKSFGLGISLEDYKLK

AFRIS

>WP\_002859995.1 MULTISPECIES: amino acid transporter [Campylobacter]

MVIYFIYLFVFKALNKREKQQLIILIVLFFAATFFGVLLNKNPTAYNLFAQDFTNRNIFDWKIPTNWFQS

FNPIFIIILAPIASYIWIFLEKKIYIFLPLENLL

>WP\_002857419.1 MULTISPECIES: glycerol-3-phosphate transporter [Campylobacter]

MRTWSLSGVFIGYMGYYLVRNNITLSTPFIQNQLNLSKSDIGTITGSMLIAYGISKGAMSVISDKADPKK

SWL

>WP\_002869268.1 MULTISPECIES: hypothetical protein [Campylobacter]

MRLYFSLFAFFIRNLLRLQFLKLNLLRIDNEI

>WP\_002868719.1 MULTISPECIES: hypothetical protein [Campylobacter]

MIKAFSLLEFVFIILILGIVFNLGSLYLKKDNLLEGAIQILNDIQYTQSLAMMQEGIRVDELTIAKREWF

KSKWQIYFIKSAATGYDQTYTIFLDKNGDGNANLGKTEINIDREIAVDVINHNKLMNSGQSGVISKDDEK

TTQRFNLTKRFGIEKVEFKGSCSGFTRLVFDEMGRVYSPLKNANYAYEKTLAKNNSDCIIRLLSKKHALC

IVIDTLSGYVYIPDFKTLKSQFVNIKNKNYECSKI

>WP\_002865392.1 MULTISPECIES: hypothetical protein [Campylobacter]

MITYSNLSDVKKRIEDEFTHRNAECDKYDYLIAITCGAIAGIMDIFLVGNPKDSYLGKKVDKTVEKMTQK

FAQLCGWDKQKALDKNKDLTKSV

>WP\_002864137.1 hypothetical protein [Campylobacter jejuni]

MITQTMQSKESKESKENSKISFANAFLKQNASKLNEIQNANSQTLARSEALNSTNTTNTSNNTNFSISSK

TSSPNYDISSEFKNSIYTLKYKQVDISNTSTNTAYGYSVDKDGYMGSDFNKAAGLPEDFKIHKSTLDEIK

KAAENDPVVSSTKEYLGVSSYYSNIDIANTIKQYYNLFSNALGQSFSNDKTSFSEADINSMPSGYGVSGT

QWMDFNEPSNRMNITGLKDFSNSLISNVYKTPEQAKEADEI

>WP\_002858568.1 hypothetical protein, partial [Campylobacter jejuni]

MISLVKFSDTAIEALRKESEHLYNNTYAVVAHAIGFSRKDIQSDKSFKEILENKKWFSKNVDLDYLYQTR

IKVLFEAIIDFSTKAQVYINDETKNHKIFTFKMAAKNLAETTKNLKIIQANIKKYSSSSNEFLALEYNKI

RSNLGELLRSIEELRVVEDREKLYLIIKNLQKGKEILKEIDTLTLSNVEHLISVRKITTAEGISILNDTT

FAAKIAEELIGAVEVIFSKDISN

>WP\_002858499.1 MULTISPECIES: hypothetical protein [Campylobacter]

MQYNNEVTGKKDFDSAVRKKFNDIKYLDNNSYAFADSFTKATDAVKLSKDDFDPKLLQRILDDLMNGKYT

YDFDTKTWTYTDSKGVVGKDEASEITQSLNFLNAFKDTGVEQEFLKLWQGSQEQNYKNYTNLYEKWTQKK

TAMDKIKTGEGYFASFKEELQKYQEALAQLDKENKNYEKIKESGLVSDETLRAIYEKLLEQKEALEKQFA

DLSGNEGFRYKLENEILNSQGFSIEGKDVDGKVYTGNFNFKGKLASLPEKPNISIYEPDKQGGEDPDKPS

VLPPEIPEKVVEAPIKIQTEVDAKKRRR

>WP\_002858498.1 MULTISPECIES: hypothetical protein [Campylobacter]

MTYSFIQPRKKPIFTLFDKIWLGLFGFSILFILLVYFTYTIKIALINSSIDDEKQQVIVLQNQTKQNEML

YEILFDQSQIAKNFNTQNQIVKESLRNLFDIIVKTDNITLESVEQDEYSLKLIGVTPTREMFTLLLETPL

KSIFDQSYTTYYRLDNGWYRFVSISKQIPGVADER

>WP\_002858485.1 hypothetical protein [Campylobacter jejuni]

MENKFKINYDQTTTNGRNGTNGKVDNLSMKNHHLKSIGHSPDIFGLFVSIVNQFTNTSTFVSNGKIITID

TNTFELQGGNFIAKIFCGFFNWFGHLASDWCGSSGGKERGAGIPMPFYNLFLLCDFGNFGQHRQTLAQIA

TQVFEQGYDLRHGVTMSIPVMINKMLIRFMYIIKAKFYHKKEWKECIPKDNIPELNKMLLIGSGTFLLID

TGGAWIKSKNPITNPVVFLSEINLINVIRFSTLILKEIYILYNNGKIDNKKLEKYLDDTCKILLIEAHNK

SKPFKEILK

>WP\_002852528.1 hypothetical protein [Campylobacter jejuni]

MNKFSIVLTLLLCGSCALALDPNLEKTKSATGIDLPTAKWNLPKELNEDGTIDETKMPKNSEYSKMVILG

NKILNETSKYVGPQAKDPKKKICGK

>WP\_002851988.1 MULTISPECIES: hypothetical protein [Campylobacter]

MSNLQVEKSAIYRKVDAKKLSANNTIFKINADFENSKSDYINSKESTQGVNNTLVLIFLNNPSKKRV

>WP\_002792117.1 MULTISPECIES: hypothetical protein [Campylobacter]

MNTFFKMRYHRDLPNTYKFNQITIIKNHNKYYLAFSIIYDESNVSLMSSKDFDIKKAVDIDLNINEITLS

SGELIATNSKLLSRAEY

>WP\_002782233.1 MULTISPECIES: hypothetical protein [Campylobacter]

MDDLNCDFIHFFNTIYIKLIELCGSNLERFTPLKDLKKLGFHIICSKGNRGALANLLLFNEISSFFKIIE

KYDYNFKECQTVYDLLYEKRNLLNIIDTIGIELCNKICKNLKEDDENFYHPKIFKKAL

>CDK02669.1 TPA: proteolysis tag peptide encoded by tmRNA Campy\_jejun\_700819, partial [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

ANNVKFAPAYAKAA

>CDI30531.1 TPA: proteolysis tag peptide encoded by tmRNA Campy\_jejun\_700819, partial [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

ANNVKFAPAYAKAA

>WP\_002858626.1 hypothetical protein [Campylobacter jejuni]

MIEDTLSISARLKYYDKAASDLKWPTPVWNNNNQKPDNYQQRPDNYQIAIHSPGAFTSLGFGSRLNWTVD

DKNNIYFDIERYINEISVNSISSRAIKSEKQLFKDNIVLNHDGNYDFDSTNSYLQYGSTKDKELHSQIWV

GEGKVVLPWNLGQYGNLVNTFGARIDYEMLKNDQASAGS

>WP\_002852120.1 hypothetical protein [Campylobacter jejuni]

MGVYIDKNDFKQLEQNNLLFSTIKHYLYDFLYQIKITIDETESKMMKEKDVIDYFIKNKSLIYTFLIYLK

MN

>WP\_002851700.1 MULTISPECIES: rod shape-determining protein [Campylobacter]

MILDQLIGFFSSDMGIDLGTANTLVLVKDKGIVINEPSVVAVERERYGSKAKILAVGKEAKDMVGKTPGN

IEAIRPMKDGVIADFDMTEKMIRYFIEKTHRRKSFLRPRIIISVPYGLTQVERKAVRESALSAGAREVFL

IEEPMAAAIGASLPIQEPKGNLVVDIGGGTTEIGVISLGGLVISKSIRTAGDKLDMSIVNYVKEKYNLII

GERTGEEIKITIGSAIQLPKELSMVVKGRDQVSGLLSRIELTSEDVREAMREYLKEIADALKMVLEMMPP

DLASDIVENGVVLTGGGALIRGLDKYLSEIVRLPVYIADEPLLAVAKGTGKALEEISLLQQLTNEE

>WP\_041351051.1 hypothetical protein [Campylobacter jejuni]

MVKNGLLLTIFLSVIGVLGVIFIHIFVGAIIFVLIAVLMIYLLRQHKDEQIMIDKLLVLCRELKEGNFDN

RIIYVKTKSKKLAEIADNLNNTIDGLEAYLTEINTSISCSQKGEFYRKALPEGLKGIFAHNIEFINKALA

NIEVTARSTFKNALSRTLMDLSLGNQNKDMSQISSSLNQDISMMKNVYDTVDAISHTATENGSEADSLQS

AMGSLMDVVNSSKETVQTFVANSQNITSVVEVIRDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVRK

LAERTQRSTSEISIAIQTMQQDFVNIQSGSEQVFNIVSESEERINKFSQAFKRLEENSSALGVNFGSFAK

RLILSVVKIDHILYKSNIYLNLNGAQNFNLESVDPISNLCQDERAQGVINELSSETELNLAKEFIKDNAK

KAIEESSQDYIDQKAYDAIVNDIKSLEQRSAEILAKLKI

>WP\_025096292.1 hypothetical protein [Campylobacter jejuni]

MVKNGLLLTIFLSVIGVLGVIFIHIFVGAIIFVLIAVLMIYLLRQHKDEQIMIDKLLVLCRELKEGNFDN

RIIYVKTKSKKLAEIADNLNNTIDGLEAYLTEINTSISCSQKGEFYRKALPEGLKGIFAHNIEFINKALA

NIEVTARSTFKNALSRTLMDLSLGNQNKDMSQISSSLNQDISMMKNVYDTVDAISHTATENGSEVDSLQS

AMGSLMDVVNSSKETVQTFVANSQNITSVVEVIRDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVRK

LAERTQRSTSEISIAIQTMQQDFVNIQSGSEQVFNIVSESEERINKFSQAFKRLEENSSALGVNFGSFAK

RLILSVVKIDHILYKSNIYLNLNGAQNFNLESVDPISNLCQDERAQGVINELSSETELNLAKEFIKDNAK

KAIEESSQDYIDQKAYDAIVNDIKSLEQRSAEILAKLKI

>WP\_002875862.1 major outer membrane protein [Campylobacter jejuni]

MKLVKLSLVAALAAGAFSAANATPLEEAIKDVDVSGVLRYRYDTGNFDKNFVNNSNLNNSKQDHKYRAQV

NFSAAIADNFKAFVQFDYNAADGGYGANGIKNDQKGLFVRQLYLTYTNEDVATSVIAGKQQLNLIWTDNA

IDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGADLLGHSNISTTSNQAPFKVDSVGNLYGAAAVGSY

DLAGGQFNPQLWLAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKTHANGNLFALKGS

IEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNET

VRVGADFVYGGTKTEAANHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQA

LYKF

>WP\_002858663.1 MULTISPECIES: hypothetical protein [Campylobacter]

MKQGSVLHFGGVANRIVSSSDNFTYKKENVDFAVLKMSKISLNKSANLSKDLNLIEKILAMVEIFMNTRI

HFGIVVKVENVIIQKVKASFLIVRVMSTLQEREVVL

>WP\_002858658.1 MULTISPECIES: chemotaxis protein [Campylobacter]

MQEYTFALKIGEDYLISPMEINPNKTLFSYCDIESAQELSLLKKTNFIEAIKKDYEKFSLNKPKPLGAIF

NDCILRRLHNKEHLNQIHFNDFPIVGFSSFGEIYGVGIAKSLVAIFFYEVENFNDFKPRYLKTFIQKYSD

FKYYYLNIRAQKLEMTNEINKIILNQLKQNTSEIDKNTSIFKEIFEELENIRRSLTTISESFTNFTNYLE

YNLYQSEEKMNLEKEVQSSLKNIDQLNSILDLISGIAEQTILLSLNAGIEAARAGKLGRGFAVVADEVRK

LSENTQMGLGEMEGAIKLVIQTIQSIAKSSNSSTQEMNFIRDKTNEFSKIISNLINSGKEISDKLEQRSN

VSEDFEKNVNQLKCYEDVLAKLNQY

>WP\_002858615.1 MULTISPECIES: hypothetical protein [Campylobacter]

MGLQSLIKIGGFKSYQIAVIVANQVMKVLLGRGLSLAANATLTRALSLFSGPVGWTIMTTWTALDLASPA

YRVTIPAVLQIIILRLKHNTKN

>WP\_002857297.1 MULTISPECIES: hypothetical protein [Campylobacter]

MDNSLSAYTQKYDKEGYGLQYPDGHVIRFYERILKYKLSKTSGKLLDFGCGNGVHSKYFKNITGGGYRAL

WH

>WP\_002852476.1 MULTISPECIES: 7-alpha-hydroxysteroid dehydrogenase [Campylobacter]

MNTEFQGKTLVISGGTRGIGKAIVYEFAKVGANIAFTYNSNAQIADEMVQDLEKNYKIKARAYEFNILEP

ETYKELFEKIDVDFDRVDYFISNAIISGRAVVGGYTKFMKLKPKGINNIFTATVNAFVVGAQEAAKRMEK

VGGGSIISISSTGNLVYIENYSGHGTAKAAVEAMARYAATELGEKNIRVNVVSGGPIETDALRAFTNYEE

VKQATINLSPLNRMGQPEDLAGACLFLCSSKASWVTGHTFIVDGGTTFK

>WP\_002852257.1 MULTISPECIES: ATPase [Campylobacter]

MLEILITLIIAFILALIFGNYLYKIASCKKTIFDFIFNPIDNLIYKICAIDRKNMTWQKYSLHLIAFNAL

VAIFSFVIFYLQDKLF

>WP\_002852126.1 MULTISPECIES: ATPase [Campylobacter]

MNLNTVISFITNTNLQHYSGENALSLLSQNTGILLAMFVSSASGYSACMAFCRALCSMQMGNFMKILRVL

LRV

>WP\_002851935.1 MULTISPECIES: serine/threonine protein phosphatase [Campylobacter]

MRILLVLRGNYYAGQEEFIKNNKLQNYTLDLNALRLLSGSVKNIVSEYKILNVKNDEDLSKILLKLLEMR

MQKGEFSIINAYNETLKIYKDLAKQYRYKIYVIVFDSSLKQCQEKNLLEAKKNGYIIPYALLEKTQDLLK

KNPKKYPILDSRDWKKCLYQMPNLSKYKKIHHIGDLQGCYSVLKEYIKTIKEDEFYIFLGDYINRGIENG

KVIKFLLKICEKENVCLLEGNHERHLIKWANGELSNSKEFNENTLKDFRKEKLTPRDARKLYPHLKECLY

YKFQNKFIFCSHGGVNFIPSKPEKISFIPSHDFIYGVGGYEDSQKVANQFCNFTSDNLYQIFGHRNKEKL

PMKIAKRVFLCEGKIDDGGYLRVVTLDEKGFECIEIKNQIYKKK

>WP\_002851848.1 MULTISPECIES: methyl-accepting chemotaxis protein [Campylobacter]

MILFSEDMIENLCTNKIKLFSDIKDYTERKKLIEKEVLFINIPFEAHCINTLYYLIYDGLSQSESSLLEL

LYKHNPYPCALVGGGSSGNMDFSGAFIFYNGEILKNQALSIHVQFKPKYRFNLMKSQNFNPQSNITFTIL

DVSLYDKTVRELINKKPFRLKLYVIILTALLKNLKIKCKNILLL

>WP\_002851711.1 MULTISPECIES: hypothetical protein [Campylobacter]

MDFIFANQSLYYLTKQAFKEAVQEFYELCNEGAIIFATMMSDKGYSMYERGELMDNSLREVKGCPSGRLS

GSSYIRFTKDIEELKEDFKPFKPLFWGDYELINLYNFEGSVEHFIYIGQK

>WP\_002851600.1 MULTISPECIES: hypothetical protein [Campylobacter]

MSANTDKALIFDGNIYNKEGVFRTENAKLNFQGHARIHAYVSKEQAKKLQEHGLSALTKPVSFTQEDWED

RVFVLKELNLEKKRVLFRA

>WP\_002858316.1 MULTISPECIES: 3-hydroxyacyl-CoA dehydrogenase [Campylobacter]

MKEINIIDFGLMGKQISALFYLLGYEIGVYNKSKLNIYEFEKQIKLLQRKIDFSNFNAGKINIYQHIEDL

KNSLTIESLNEDLNLKKEIMQILRDNNIVFSRVWMI

>WP\_002851856.1 MULTISPECIES: 2-oxoglutarate translocator [Campylobacter]

MALLGLSLVLISGVLTFGEVLAEKAAWNTLVWFSALVMMATLLGKLGVTQFLAEA

>WP\_002893868.1 phnA domain protein [Campylobacter jejuni]

MAKDANGIELNAGDSVSIIKDLKVKGASTTLKRGTTIKNIKLTSKEGEIEARVDKFGVIVLKTEFLKKI

>CCK67801.1 Holliday junction resolvase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLKILGIDPGSRNCGYAIIEADKGKNILIEAGLIKIKPSTLQYQITELCEGLDLIFKNHSFDEVAIEDI

FFAYNPKTVLKLAQFRGALSLKILQIHGDFAEYTPLQVKKAVTGKAKATKEQVAFMVKRLLGLSKDIKPL

DITDAIAVALTHAANLRVRV

>CCK67800.1 flagellar hook protein FlgE [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMRSLWSGVSGLQAHQVAMDVEGNNISNVNTTGFKYSRADFGTMFSQTVKIATAPTDGRGGSNPLQIGLG

VSVSSTTRIHSQGSVQTTDKNTDVAINGDGFFMVSDDGGLTNYLTRSGDFKLDAYGNFVNNAGFVVQGWN

INWDDQTIDSSRTPQNIFIDPGMHIPAAKSTEVAIKANLNSGLNIGTSSRNLYALDSVHGWNTKTQRAED

ENDTGTTQFYTTSKNSVEVTEKGVDAGSLFNAKGQGLNLRDGQGIWVSYADATYSTNKVGVNAFDPNLQQ

NQTAAFWGTANQKVNLDITLNGVRIQNADIQSIDDAIAYINTFTAPTDTRDGTGVKAVKNKDGSGIDFVN

DNADGTTDNMKNINLVVANTNTAGELWNAVWNNNNQTFTFNNNGNGQAGTPTINKNGSSLWTATNITFTP

QPPQAATNVQLTGGLNAQIITAHKYIYSSNPVDIGPMYNPDGGPAFQPGANATTRPTEPGSAAYWDAVNG

GLLNTNVRTFRTTEDLRELLQRDARYGVDYDGSGTFAAADINQNIKVVVTADGHFAISNANEQSTVPPNA

INGVGNATTTDPKNMSFNITAYSNKQGTVSTNDAFTAIFKAFDGPLVIGNQIKESEQLKLSAFSAGLEIY

DSLGSKHTLEVQFVKQSTTQDGGNEWQMIIRVPEPAEINTTGEGPNNIIVGTARFNNDGSLASYTPRTIN

FSPNNGAAPNQQIKLSFGTSGSNDGLVSSNSASTLTGQATDGYTSGNLKPDAIRVDDKGNILGEFTNGKT

FAVAKIAMASVANNSGLEEIGGNLFKVTANSGNIVVGEAGTGGRGEMKTSALEMSNVDLSRSLTELIIIQ

RGYQANSKTISTSDQMLQTLIQLKQ

>CCK67799.1 hypothetical protein BN148\_1728c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFFAPFKGASLALQAYLGSLVILGLGLNCLQFIANSLLLGVGCNKIFSNVI

>CCK67798.1 O-acetylhomoserine (thiol)-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLAN

VEGGAFGIPVASGMAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEKV

IDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSKYVSGQ

GTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAWL

LLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDYE

HARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQA

IES

>CCK67797.1 homoserine O-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPLIIPENIPAYELLKEHAFIMGLRRAKHQDIRPQEILIVNLMPKKIETENQILSLLANSPLQVNITLLA

TTSYVGKNTPFTHLEKFYKGLEEVKKHKFDGAIVTGAPVEQMDFEKVAYWEELLEIFDFLKQNVTSSMYI

CWGAMAALKYFYGVDKISLDKKIFGVYKHDKVSPDLLLTNLDEKVLMPHSRHSSMDEEQILALQKQGKLK

ILLRNKKIGSALLRDEKNIFILGHLEYFKETLHQEYVRDNFIQKAKNYYDKKGNIKYNWRSNANTIFANW

LNYDVYQSTPFVL

>CCK67796.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKSIAIIGGSIAGLSAALFFASAKNEELDFDITVFDEGKADLKAAAIYNVPFFPKGAKADEIYTHIKAQ

IASMLEVKYIDSKVVSISGEKGDFTVNDEQGLGIKADYIIVATGANKSDIKELEDFVIPHELMPKPNKFC

FKHHGRQIIKEGIYAAGLASGVTTMVACAMGSANEAACAILSDIKGAVSVYHDTPTTRV

>CCK67795.1 7-cyano-7-deazaguanine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRYGEKEIKEFDVENMEIWPNDAKNDYIIKITLPEFMCCCPRSGYPDFATIYLEYMPDKFVVELKAIKLY

INTFMYRNVSHEASINEIYNTLKDKLKPKWIKVVGDFNPRGNVHTVIECRSDMVVPK

>CCK67794.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVKFIPVILACSAILASANTISNVSAQTSAVAPAPATSYPVYPQYAVPPQDHFNGLPKILPVKFKISIQ

VLLS

>CCK67793.1 hypothetical protein BN148\_1722c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDWEAYGYEIKLNNYMELYFDRNGNFLGQEFDN

>CCK67792.1 outer membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKKFLSIIAGIALFSSSAFAEEKSGFFIGADAAYVQTKVQGNLKHNQTGAVFNGDLSSSIPILGLKAGY

RFNDLHRLYLAYNYSDEFSDIIRTPKLKIESDFSTHKFLMGYDFTPKIFERVRAVAGGYLGYAKTNLDLK

TSLLSLSQKFDGFVYGVKIGAIFELGASNEIEAGFKVEKIEYNTRDFYQKAIGSNLYDPRQTNYGLYLGY

TYKF

>CCK67791.1 hypothetical protein BN148\_1720 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKELLEIKKEMEPVIHEANVKLNVLAREVIVRKKEYEIYGPMVDRVYLDNAIYVKVMSSGRDVKTDNVT

IKNGFYMVFVAPEKESTKDIKNKLKVAYEGLDNKFIATLIRSCQRFKEIINKTQATLAKASKMNVVVKTN

LGEASAALKFNITIEYTKENQKLTRENSKSAGSFRDTKTYINLVVEKNTDSQICEKLLDDVEKYFIGGG

>CCK67790.1 2-isopropylmalate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKDNKIIIFDTTLRDGEQALGSSLGINQKLQIALALENLGVDVIEAGFPVSSQGDFKAVQKIASKVKNST

ICALSRALDKDIDMAYEALKVAKHFRIHTFIATSTLHMQDKLKKDFDEILSMAKRAIIRARSYTDDVEFS

CEDAGRTPIDNLCFMVENAIKAGAKTINIPDTVGYTLPSEFANIIKILFNKVPNIDKAIISVHCHNDLGM

ATGNSLSAILQGARQIECTINGLGERAGNCALEEVVMAIKTRKDYLKGFYTDIKCENIFKTSKLVSAITN

ESIPSHKAIVGSNAFSHSSGIHQDGVLKNRQTYEIISPSAIGIHENRMLMTARSGRAMIKTCLENLGYDE

NTYNLDDVYERFLRLADKKGQVYDYDLEALMFLSYESEEENEFVLEKLSVISGNIPTACVCMRIKEELKT

EACTGNGPVEAVFNCIARITNLKPALKAYSINAKSSGVDAQGQVDVDLEFKGRKFHGKGLSTDVIEASAQ

AFVSAYNAIYRSLKVEERKMA

>CCK67789.1 3-isopropylmalate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTYKVAVLAGDGIGPLVMKEALKILTFIAQKYNFSFEFNEAKIGGASIDAYGVALSDETLKLCEQSDAI

LFGSVGGPKWDNLPIDQRPERASLLPLRKHFNLFANLRPCKIYESLTHASPLKNEIIQKGVDILCVRELT

GGIYFGKQDLGKESAYDTEIYTKKEIERIARIAFESARIRKKKVHLIDKANVLASSILWREVVANVAKDY

QDINLEYMYVDNAAMQIVKNPSIFDVMLCSNLFGDILSDELAAINGSLGLLSSASLNDKGFGLYEPAGGS

APDIAHLNIANPIAQILSAALMLKYSFKEEQAAQDIENAISLALAQGKMTKDLNAKSYLNTDEMGDCILE

ILKENDNG

>CCK67788.1 isopropylmalate isomerase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTMAKTLYEKVFDAHVVYEGKNELPILYIDRHLIHEVTSPQAFSGLKMAKRRMARADLTLATIDHDVSTK

SMDLNACSDMAKEQITTLMQNTKEFGVRLLGLGDKNQGIVHIVGPELGFTLPGVTLVCGDSHTATHGAFG

ALAFGIGTSEVEHVMATQTLKQAKLKTMKIECKGQFQKGVYTKDLILYLIAQYGTAKGTGYAIEFCGELI

RNLSMEARMTLCNMAIEFGAKVGMIAPDEITFEYIKGKEFAPKGEEFQKYCEYWKSLRSDEGAKYDASIT

LDVSKIKPQISYGTNPSQVIGIDEKIPKISDFKNQSEQKSLLDALYYVNLEQDQVIEGVKIDIVFIGSCT

NGRLEDLKIAADILKGRKIHKNVKALIVPGSMQVRKEAENLGLDKIFIEAGCEWRYAGCSMCLGMNDDKA

NSGQRVASTSNRNFVGRQGKGSITHLMSPASAAACAIEGVICDNRKYLGV

>CCK67787.1 isopropylmalate isomerase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKFIIHKGIACPLEYANIDTDQIIPKQFLLAVSKQGFGKHLFHDLRYLDDKESVLNMDFNLNKKEYQNS

SILVSFENFGSGSSREHAPWALVDYGIRAIIAPSFADIFKNNALGNGLLTIELAKDEVLEIVDELKKSQD

KNIEISLLEKRVFFKDKIFSFDLDDFHRICLLEGLDNIALTLKHEAQIKAYEKNSKSFLV

>CCK67786.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNTIIQKAVNKDLNSILEITKDALNAMKTMNFHQWDENYPNEIVFQEDIQAQELYVFKENDEILGFICI

NEKFKPEFYKQVIFNKNYDDKAFYLHRLAVKQNAKGKGVAQKLLNFCENFALENHKASLRADTHSKNFPM

NSLFKKLDFNFCGNFDIPNYQDPFLAYEKILNQKAF

>CCK67785.1 hypothetical protein BN148\_1714 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTMLDIFEIIFITTVVIIGFGGIVFVVTKEKK

>CCK67784.1 ribosomal RNA large subunit methyltransferase N [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKELVNILDFLPEELGEKIKPMFRVKQIYQWIYQKYANNFSDMSSLPKDLRLELARNFHFSPVKCVKNEQ

SKDGSIKYLFELIDGLRVESVLLPMKEEKIDAEGKRISHARYTICVSSQVGCKSGCSFCLTAKGGLKRNL

SAGEIVGQILWIKKQNNIPYERRVNIVYMGMGEPLDNLKNVSKAVKILAQNEGLAISPRRQTISTSGLAK

QIKELGQMNLGVLLAISLHAVNDELRTELMPINKAYNIAAIMDAVREFPIDQRKRVMFEYLLIDGINDKL

EHAKELVKLLNGIKAKVNLILFNPHEGSLYKRPSLENAIKFQDLLSNKGVTCTIRESKGLDISAACGQLK

ERAKEQ

>CCK67783.1 hypothetical protein BN148\_1712 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIICAGGNENFSFAKAIGIGLVESAFHLSQLCFKEKPSKLIFIGTCGLYDKGEILEIYRSSHAFNVEFSK

ISHAFYTPAKYEICLEKENVSRETIKINSSNYICQNSKAAKEFSKLGFFAENMEAFSVLSVAKNLNIDAE

CILCATNFCNENAHEDFIKNHQKAKENLEEYLKKYHYI

>CCK67782.1 dimethyladenosine transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVKAKKQYGQNFLIDKSVLAKIIQAIPKEMNNIIEIGPGLGDLTQELLKISQVKAYEIDNDLIPILKKKF

QKELECGKFNLIHQDASEAFNPSLDEKPYFLVANLPYYVASHIILKALEDKNCLGLIVMAQREMAEKFCA

KEGNSEFSSLGVLSAMICERKILFDVDPQCFNPPPKVMSAVMSLIKTKDFDELCEIENFKNFLKDCFKAP

RKQLLGNLKTYKAKVLEVLSTLGLKENIRPHEICVDLYLKIYDKLKDEYGRKQRDK

>CCK67781.1 metallo-beta-lactamase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNMDENKEINKNEQNPNSNSKNNKRYKYKNRRKKLADSLQNENDTPKIDQNSNKENSENSENKTEKKKKK

NRNLPSKLTGNEDWQIALAECIEANRISHENRLHPLKYNNSSEHKIRITPLGGLGEIGGNISVFETNKDA

IIVDIGMSFPDGTMHGVDIIIPDFDYVRKIKDKIRGIVITHAHEDHIGAVPYFFKEFQFPIYATPLALGM

ISNKFEEHGLKAERKWFRPVEKRRVYEIGEFDIEWIHITHSIIDASALAIKTKAGTIIHTGDFKIDQTPI

DGYPTDLGRLAHYGEEGVLCLLSDSTNSYKEGYTKSESSVGPTFDQIFARTKGRVIMSTFSSNIHRVYQA

ITYGLKYGRKVCVIGRSMERNLYTTMELGYIKLDRKIFIDADEVSKYKDNEVLIVTTGSQGETMSALYRM

ATDEHKFIKIKPTDQVIISAKAIPGNEASVSAVLDYLLKAGAKVAYQEFSEIHVSGHASIEEQKLMLTLT

KPKFFLPVHGEYNHITKHKETAMKCGIPERNIYLMSDGDQVELCQKYVKRIKTVKTGKVFVDNQINKQIA

DDVVIDRQKLADSGIVVIIAQIDKATKTLINKPRVFSYGLVADKHDHAFSKDMAEVLGQFFINVKDEVLN

DPRFLENQIRQVLRKHIFRKIKKYPTIVPTIFVM

>CCK67780.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRINKFISHNTRYSRREADELIKQGLVKINNKIALLSDEVKFDDKVFVKGKRVQKRTQFSVIIYHKQKGE

IVSKKDDRGRKTIYDTLPRQFSTWLSVGRLDYASEGLLLLTDSPVIADALMHSDLEREYYLKVKGTVSKQ

VIEAMQNGLEIKNEKKGAHAKTKITSMSFAPFIDFEIFGSSGGYTKLRVVINEGKNRELRRFFGHFDLEV

MDLKRVAFGALDLGMLKAGKHRYLENGEYEKLRDFLKFNEIRY

>CCK67779.1 30S ribosomal protein S10 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MERIRLKLKAYDHRVLDRTVAAIVEAVKRTGADIRGPIPMPTKIKRYTVLKSPHINKDSREQFEIRIHAR

MLDIVAATPDTVDSLTKLDLAPEVSVEVRAMGK

>CCK67778.1 50S ribosomal protein L3 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEYIVEKIGMSRTITNPSIAVTLLRVVNAKVCEVEGGKALVAYPKGKASNKCVAGQQKKYNLSAEYNRFA

TLEVANTEAGDLDETPLNEAKILKVSFNTKGRGYSGVMKRHNFAGGPASHGSRFHRRHGSIGNREWPGRV

QPGMKMAGHYGNTKVTIKNEVVSYDAENKILVVKGAVPGYNGAMGKIRIAK

>CCK67777.1 50S ribosomal protein L4 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKVVVLNDKLEKAGELDLPSKYAEVNPHNLYLYVKSYLASLRANTAHTKGRSDVSGGGKKPWRQKGRGG

ARAGSTRTNVWVGGAVAFGPTNERNYFQKVNKKQKRLALERALADKAAKGVLFTADSLAIESGKTKDANA

VIKKLGVKDALIVKDLLDEKTLLAYRNLANCYVVDVTEVNAYLVSVFNAVIMEKSVLESITKEG

>CCK67776.1 50S ribosomal protein L23 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MADITDIKTILYTEKSLNLQEQGVVVIQTSPKMTKTGLKAVLKEYFGVTPKSINSLRMDGKIKRFRGRLG

QRNNYKKFYVKLPEGVSLENTEA

>CCK67775.1 50S ribosomal protein L2 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAIKTYKPYTPSRRYITGLSSEDITAKPSVRSLLVKLPAHAGRNSYGRITSRHKEAGAKKLYRIIDFKRR

KFGIEGKVEAIEYDPYRNCRIALIAYKDGEKRYILQPRGLSVGDIVAAAESGLDIKPGNAMKLKNIPVGT

IVHNVELKPGKGGQMIRSAGAYAQLMGKEEKYVILRLASGEMRQVLAECMASIGEVGNEEWANVTIGKAG

RNRHRGIRPQTRGSAMNPVDHPHGGGEGKKNSGRHPVTPWGKPTKGAKTRRKKASDKLIISRRKGK

>CCK67774.1 30S ribosomal protein S19 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MARSLKKGPFVDDHVMKKVIAAKKANDNKPIKTWSRRSTITPDMIGLTFNVHNGKSFIPVYITENHIGYK

LGEFAPTRTFKGHKGSVQKKIGK

>CCK67773.1 50S ribosomal protein L22 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKALIKFIRLSPTKARLIAREVQGMNAELAMASLKFMPNKGAKYIANAISSAVANGGFEANEVIVKSCR

VDAAAVLKRFRPRARGSASRIRKPTSHILVEVAKAEVKSEEKKTVAKKTTTTKAPAKKTTSTKKATVKKE

S

>CCK67772.1 30S ribosomal protein S3 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGQKVNPIGLRLGINRNWESRWFPTKANLVENIGEDYKIRAFLKRKLYYAGISQILVERTAKKLRVTVVA

ARPGIIIGKKGSDVDNLRKELQDLIGKDVNINIKEERKAGASAQLAAESVATQLEKRIAFRRAMKKVIQG

AQKAGAKGIKVSVSGRLGGAEMARTEWYLEGRVPLHTLRAKIDYGFAEARTTYGNIGVKVWIFKGEVLHK

GMQPEKTEESAPAKKPRRTRRGK

>CCK67771.1 50S ribosomal protein L16 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLMPKRTKYRKMMKGRNRGYANRGTEFTFGEFALKATEAGRINSRQIEAARIALTRFVKRQGKTWIRVFP

DKPLTKKPLETRMGKGKGAVEEWVMNIKPGRIIYEMAGVSEEMAREALTLAMHKLPFKTKFVTRESQNEI

Y

>CCK67770.1 50S ribosomal protein L29 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKYTEIKDKTAAELATMLKEKKVLLFTLKQKLKTMQLTNPKEISQVKKDIARINTAINALR

>CCK67769.1 30S ribosomal protein S17 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAFKREIQGVVVKIAGEKTASVLVERKVVHPRYRKIVKRFKKYLIHDERNEVKVGDTVVAVECRPLSKRK

SFRLKSVLATGVE

>CCK67768.1 50S ribosomal protein L14 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIQSFTRLAVADNSGAKELMCIKVLGGSKRRYATVGDVIVASVKKALPNGKVKKGQVVKAVIVRTKKEIH

RDNGSLIRFDENAAVILDNKREPIGTRIFGPVGREVRYGGFMKIVSLAPEVL

>CCK67767.1 50S ribosomal protein L24 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAVKLKIKKGDSVKVITGDDKGKTGKVLAVYPKTLKVVVEGCKIAKKAIKPSEKNPNGGFINKEMPMDIS

NVAKVQE

>CCK67766.1 50S ribosomal protein L5 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMRLKEKYNQSIKPALVKEFDIKNPMLIPVIEKVVISVGAGELAKDQKVLQNVADTISLIAGQKAVITKA

KKSVAGFKVREGFPVGVMVTLRKENMYAFLDKLISIALPRVKDFRGLSRDGFDGRGNYNFGLDEQLMFPE

VEYDKILRTHGMNISIVTTAQNDKQAQKLLELIGVPFTKGK

>CCK67765.1 30S ribosomal protein S14 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKKSMIAKAARKPKFKVRAYTRCQICGRPHSVYRDFGICRVCLRKMGNEGLIPGLKKASW

>CCK67764.1 30S ribosomal protein S8 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINDIISDSLTRIRNAGMRKLETTKLLHSKVVEALVGIFQAKGYIESFNVIEEDKKKFINVVLKYDEKGK

SVINELKRISKPGRRVYKGKDEIKRFKNGYGTIVVSTSHGVLANDEAYKAGVGGEILCTIW

>CCK67763.1 50S ribosomal protein L6 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSRIGKQPIAIPAGVEVKLEGNLLKFKKGNLAKELDTKANVNVEIKDNNILFSPKGEDRQSRAYWGTYRA

LAYNIVVGLTQGFSKTLEINGVGYKAALKGKVLELSLGFSHPINYDIPEGIEIVVDKNTIAVKGSDKQVV

GQVAAQIREFRPPEPYKGKGVKYSDERIIRKAGKTSKK

>CCK67762.1 50S ribosomal protein L18 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRANVLKRKLTLRIKRKKRIRAKISGCENFPRISVFKSNRTLYIQAIDDVKAVTLAAVDGRKLGVKANKE

GAKKIAAEFAKTLKVKKIEQAVFDRNGYVYHGVIAALAESLRENGIRL

>CCK67761.1 30S ribosomal protein S5 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKYNREEFEEVIVDIGRVTKVVKGGRRFRFTALVIVGNRKGLVGVGYGKAKEVPDAIRKAVDDAFKNIV

EVKTKGSTIAHDVEVKYNASRILLKPASEGTGVIAGGSTRPIVELAGIKDILTKSLGSNNSANVVRATIK

ALTMLKG

>CCK67760.1 50S ribosomal protein L15 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLTKAAGSTHKTKRIGRGQGSGMGKTATKGGKGQTARKGYNEKRGFEGGQQPLQRRLPKVGFTSKIQKP

YVINVEKITAVKELSEITFESIKSVHKISKSVNKIKLIGASAKDLVSKIKDENISVTGSK

>CCK67759.1 preprotein translocase subunit SecY [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNRALTNKILITLAFLFAYRVLAYVPVPGVNADVIAEFFNNNQNNALGLFNVFSGGAAERFSIISLGIMP

YITASIIMELLAATFPNIGKMKKERDSMQKYMQIIRYATIVITLVQSIGVAIGLQSLHGRGGAGAIMVED

LNMFIALCAISMLAGTMLLMWLGEQITQRGIGNGISLIIFAGIVSGIPRAISGTVGQINSGEMNFLTAFA

IFALILITIGVIIYIELGERRIPISYSRKVVMQNQNKRIMNYIPIKLNLSGVIPPIFASAILMFPTTILQ

TSTNPYLQAINDFLNPNGYLFHVLTFLFVIFFAYFYASIVFNAKDIAENLKKQGGFIPGIRPGEGTSSYL

NEVASRLTLSGSIYLGLVATLPWVLVKFMGVPFHFGGTSVLIVVQVALDTMRKIEAQIYMSKYQTLSAVG

L

>CCK67758.1 efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNDKTYKFHPNDTKMDKKIIQITEKSGFKAAVFSMAAMTMLGSVVISSALPAINRHFEELLTQSGATLAS

SFTLAHLDILVRLVLTIPAIFVVILSPFAGILMDKFGKLKFILPAMVVWTLSGISGFFLNDIYAILTSRA

IFGMATAFIMTGASALLGDYYSRGGFNRRENALSLQGFFCAVGGAVFISIAGFVSSYSWRYPFLVYGLGI

LITLMAIIYLFEPRKFKFYNHTKIETKTNYWQFFPIYFIGFFIMVVYYISPTQLPYYIEEHLGLDPKYIG

ISMSVSALCYGFFSLSYRYIIKFLSIKTIYVLTLFIVSCSFLLLFLVDSFFTVLIALALLGMGGGIMLVN

NTAYLFSICPENARSRAYGILASCIFLGQFLSPIISQPIVRQMGLVDAFLIWSIVIFIVCIVFLFLKQKP

RIN

>CCK67757.1 DNA topoisomerase I [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKNLIIVESPAKAKTIGNFLGKDYEVIASKGHIRDLPKSSFGIKIEDDEFIPEYRITSDHSALVKELKS

KAKDAKEVYLATDEDREGEAIAYHIAKAIGKDENTLPRIVFHEITKSAIENALKNPRKLNMHSVNAQQTR

RLLDRIVGYKLSPLLGQKIQRGLSAGRVQSAALKIIVDREKEIRAFVPLEYFSIDMIFQKDLDAELVEFD

KAKIEKLTITNKDRAKLILEACKNEVYSISDIESKERKIAPPPPFMTSTLQQSASNRLGFNPKKTMMIAQ

KLYEGVNTHEGVMGVITYMRTDSLNLAKEAVENARKFIQANFGKDYLPSKANVYTTKTKGAQEAHEAIRP

TNLSFTPEIAAKFLDKDELKLYTLIYNRFLACQMSPAISQTQNVFVKNDRVVFKISGRKILFDGYYKVYG

DMDKDKILPNFKIGQNLKVQNLEMNSHFTEPPSRYSEAGLVKKLESLGIGRPSTYAPTISILTSRDYVTI

DKKQLIPSDVAFNVTEVLEKNFSDIVDSKFTSNLENTLDEIAEDKADWQETLKEFYYPFMRKIEEGKTKI

ASQKTVTKLGESCPDCGGELAIRKGRFGEFVACLNFPKCKYSRNLKSESKNESENTAAKAKANGTGITCP

SCQKGEIVERFSKRGKFYGCSAYPKCNFISKYKPSEEKCEECGETLVIKELKKGTFLECLKCKIKKEMKD

>CCK67756.1 biotin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQIMLCAISNIASGNCSEDCKYCTQSAHVKTDIQKYRRKELSQIVLEAKMAKKNEALGFCLVTAGLGLDD

EKLEYVCEAAKAVQKEVPNLLLIACNGMASVEQLKELKKAGIFSYNHNLESSKEFFPQICTTHTWESRFQ

TNLNAKEAGLMLCCGGIYGMGESEEDRLSFRKSLQELQPFSTPINFFIANENLKLQVPRLSADEALKIVR

DTKEALPQSVVMVAGGREVVLRERQYEIFQAGAGAIVIGDYLTTKGEEPSQDIIKLKEMGFTFASECH

>CCK67755.1 transmembrane transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MHQSVIDTQALIDLKILIVIALCLLFSPHIAKILRLPLSATEIILGAIIAHFGFIGKSENFALLANVGFY

YLMFIAGMEVNLRAFFNMDKEIAKKSFFYIFLLYALSSFIVWIFGLSLVFVIIIPVMSVGLLSLLFKDFG

KECYWLNIAMIVATLAEVISIVLLTIAGAFLREGTGIIDVAQSILYLNIFLGLCLLGFKMLGVLFWWYPQ

LKVVLMPWEDKNEKDIRFCMAIFILIIVAMVITKLEIVLGSFIAGSFIATFFDHKKDLEHKLSTFGHGFL

IPIFFIHIGSTFDLKMILDYKIVLQAFLLMFVMVGLRILCASVFLKRIGFKNMILFGLSHSMPLTLLIAT

ATLGYSGKVIDEKLYSALILTALFEAIIVMSMIKFLSNSKK

>CCK67754.1 citrate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSNSVTITDNRNGKSYEFPIYDGTTGPSVVDMSSFYKQTGMFSYDEGLTSTATCKSKITYIDGENGILMH

RGYPIEWLAENKLYLDVVHLLLYKELPDATRLEAFRYEMKKRSFIHEGMHRLFDSFPDNAHPMAVLQGAV

SSLSAFYPDHLNMNVKEEYMEMAARIVAKIPTIVATAYRYKHGFPMAYPNLDRGFTENFLYMLRTYPYDH

VELKPIEVKALDTVFMLHADHEQNASTSTVRTVGSTHAHPYACIAAGIGALWGHAHGGANEGVIRMLEQI

GSVDRVDEFIKRAKDKNDPFRLMGFGHRVYKNFDPRAKVLKKLRDQLIDELGIDTNLIKVATRIEEIALS

DDYFVQRGLYPNVDFHSGLILKALGIPNEMFATLFVIGRTPGWIAQWIEQKEQESLKIVRPRQLYLGETS

KI

>CCK67753.1 CysQ protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNLDKFLEIAINASNQASKAILEERKNFKTWEKEDKSPLTSADLASNKILNDILGSTDIKILSEEKLLS

KEECEELKTFWLIDPLDGTSGFLKGSDEFCVMISLVHDNRPVLSLIQNPSKGDIFYAHAKTKVYKNDKPL

QIDQQEYEKNKYKALLSVNHLSKEDEDFAKEHQLEAINIGSGLKFCAILEARAGVYKRFEKLNIWDIVAG

DFLINQNGGFMGDFSKKYILYNPLSYKSNPFICVSSRNFLQDFL

>CCK67752.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKMRYCFILFLSLVLSSNLLANNFSQKKVIKIEKSADSFEVIDLNQNVANPNLNQQKALFDSSTLIEKKS

QITKDKDIDFAIVLTSRKNFGYFLDGFRVSDKEFSTLFAKNLIQSLKLNWVNSAANGIYQSPKTLSYFSP

KDAKLINVSPFLTQEKDKAKMYAKFTDYVVVVNLQDFYVNITNYFITTSKEGVANVNFKIISTSNGKILV

AKNAELNLTLKDQDAKQNYQDIINQMPKMLADVIKNQIFHLKLLN

>CCK67751.1 hypothetical protein BN148\_1679 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFDKIHYYYFNANYEKCLNLSEQFLKESPKFALEFATLSSYKLSLFQKALYYAQELFSLNPTSFNGLMLA

KSYIENLRLDEALNLLQTLLTRKDDLEDELKLELAFIYKLSNKLEESEQIFKELLSKDMYNLNLWKNYAE

IYFKHDFTKALNAHEHLCHFMQDLIDKLQKGIIAEQTNLNLVKLEDRLHSKTKENLTISKIEDFLTHQIL

PQKAYLLFKLFRISDSLELFQSLQEANQHHAQFWQNYAKVLEFNSNYQEAYHAYKKCLSLDSHATYQFDL

AYLLMRMGVDDNFEEGKKYYESRLFYAHNETFSTYHYNESLKAFNKFGVDAFKNKEVLVFCEQGFGDTIM

YARCLEKLCKIASKVLFAPQSAMYEMFKNQIKFLNQNDDIFKNVKVLKNLPTNFDYAIPICSLPFFIDIK

LDEILRLKTPILPQKKPHNQRKKLGIFYATPNAENSDLLRNVKFEFLFDVLKDLDYEIISFQMQLKEELP

KVIEDRSKLIKNWNDTLNYLYDIDCMLSIDSAIAHLSLAMDIPTIVLLHPRFDWRWGKFENPKSYFWPKA

KCFIIKEQEETKRNLQKLIKDILN

>CCK67750.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNITLTKIPIGEGKEPCLNSKKIVLSLATISFLASCANAKLNSEIKTYDEVNKNVKTRSASVYSPQAKI

NTTINSLHNQQVTITGNGTSNSLTIGSSGTLGSIGNTGKIIYAHANGSNTLTLANLTNNRTINGKIGIEN

NGNFTGTIAVNTFENTGQINGQIYMGIWGNNSGTLNIDKFDNSGTIIDNNKGVFEGKNTNIQTFNNSGFI

SANKGVDIGNIGTIKNFNNNGTIQGSEVGVAINTKIDTFTNNGFINSPGSGQWNNGIWISSNATIEKLVN

NGTIKGGHSAIMVTSQHIKTVENTGIIHAEGEWGSSILLEYGGFIEHIINTGTISNNNVGIGSAYGVFGT

LTIKDGGMVYGKYSAIGVGRSQTLGDLYIDGRSNNGTVSGIYSEEHGILLENNSRTQKIELKNGGIIKGN

IDGIRLINSASLSGEMILSGEGSRVEGGRGVGILNRSGKIEGSIKVEDGATVTATSNRAIANSGSGSITG

GITVSGKNTKLEGNIINTGNASIGSDIKIEGGAKVEGGLVNQGNGSISGSVQVSGGSSIDSITNEGNGAI

SGSITVYKDSKLDSITNTSTSSTGISGSITNNSDNKLEISNSGNIGGKIESTGSADMVISNSNGGTISGG

ISSSGSGSTSISNSQGSTINNGITVSGSAQVEISNQGSVGKDENGNTVTNNGSGSVGIKDWLVSTDKNTG

KLNTVVIGGSRAFNVKVENITVDQSNVDLEELNDINNIISGVNQNNIGNIGTNGSGEISLSFDPITGKLT

TDFNLNASISGATFRSLISTTSRRSTFIDNVMGNSMQSFALASSSKSQSIAMSEKGNLYADASDYIKSDL

NNGSYGSNKEHSLFILPYTSSQNVELSLNEESKGHTKGTIIGYSTLKDSGIYGVYAGYEDTKMGSTYFDI

NNRTYYAGLKYFNTLFTTEKGQEVYIKAQGKAALIKNDLTEKIGNNEAKAEPNSYAYGVNTALGMNFISN

KDIFSPEIGLAYEGGYTEAFSMKDTIGQATVKGGERTYANYLNLFSTKTSLTWFRDWLPNLKTSVELGAK

FNINPKVEAEARFGNIKVSDEFDLPRVQKFVSTSFIVPVNEAFYFSLNYNGMFDKDGNTHTGFAQFNYLW

>CCK67749.1 UDP-N-acetylenolpyruvoylglucosamine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIIDFKKYSSVRIGNEFEVLVLDQICDFDGFLIGGANNLLVSPKPKNIGILGDGFNFIQILDRNKDFIHL

RIGCKTKSSKMYRFAKENNLKGFEYLSKIPGTLGGLLKMNAGLKGECISQNLIKIATSQGEILRANINFD

YRFCPLNTHFFWAEFKLNFGFDTLKDEALKNARSNQPSGASFGSIFKNPKNDFAGRLIEAVGLKGFSKGD

AMLSDKHANFLINKKNASFEDAFFLIELARKKVFEEFGTNLENEVIII

>CCK67748.1 flagellar biosynthesis protein FliQ [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDESTLVALGVQTFKITLLLSLPMLLAGLIAGLVISIFQATTQINEMTLSFVPKIILVVVILIFLMPWMT

TTMIDFTENILNQIPTFIK

>CCK67747.1 hypothetical protein BN148\_1674 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKITIAHSPDADDIFMYMAIKFGWIGNDFAYENTALDIQTLNEFALKNEFDATAISFGLYPLIASEYAL

LRTAVSFGEGYGPKLIKKKDTHLKRNFKVALSGANTTNALIFRMKYPEARIIYKNFLDIENAVLSGEVDA

GVLIHESILNFDQSLYVEAELWDIWLEFAKENLPLPLGGMALRRSLPLSDAIKIERDLTNAVKIADANRK

ILAPMLMERKLIRVDEEKLDTYLNLYANKNSISMNQTQLLAVDTLFKLGYDYKFYDKIIHVNDFLIPSEY

EEARNS

>CCK67746.1 recombinase A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDDNKRKSLDAALKSLDKTFGKGTILRLGDKEVEQIDSIGTGSVGLDLALGIGGVPKGRIIEIYGPESSG

KTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDLI

VVDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTT

GGNALKFYASVRLDVRKVATLKQNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVK

LDIVDKSGAWFSYKDKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMISGSEDDEGEE

>CCK67745.1 phosphopyruvate hydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLVIEDVRAYEVLDSRGNPTVKAEVTLSDGSVGAAIVPSGASTGSKEALELRDNDERFGGKGVLKAVANV

NETIADEILGLDAFNQTQLDDTLRELDGTNNYSNLGANATLGVSMATARAAAAALGMPLYRYLGGANASI

LPVPMCNIINGGAHANNNVDFQEFMIMPFGFTSFKEALRSVCEIYAILKKELANSGHSTALGDEGGFAPN

LANNTEPIDLLMTCIKKAGYENRVKIALDVASTEFFKDGKYHMEGKAFSSEALIERYVELCAKYPICSIE

DGLAENDFEGWIKLTEKLGNKIQLVGDDLFVTNEDILREGIIKKMANAVLIKPNQIGTITQTMRTVRLAQ

RNNYKCVMSHRSGESEDAFIADFAVALNTGQIKTGALARGERTAKYNRLLEIEFESDEYLGEKL

>CCK67744.1 hypothetical protein BN148\_1671c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIFWAFLVVIGAIYFGNMFFGQYSLDTLLSLENTKEELNKKIILLKEQNAKAQKDYFELKGLYPNEN

>CCK67743.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTRILAIFFIFTSLLYADENPFKTDQNITLVAPPEFQKEEVKFNSSARILKSITFNYINLDGSEDKIDL

DVNKSIDWHDTYTISRFKSPDPSKVLDVSVTIPEKNSSKQESNSTANVEIPLQVAKIYDFISYAVYKNKI

KLNTSDEMITDFSVGNPSKIVIDFRSKMISPTKNIRLSNSIFKRIDFGSHKGYYRLVIYLDGTYNYNIQK

DATGYMINLL

>CCK67742.1 DNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRFVFLICCACLVFANEILLLSKFDKQDFNSKDFNAYLMSEKLDGVRGIWDGKYLKTRQNYKIKTPDFFT

KNFPPFAIDGELWIARNKFDEISALIRSGDSNLTLWKEVTYNIFDVPNACEEFQISTCTLKNRLAVLEEY

LQKYPSAYIKIISQIPVENQNNLNQFYESIIKNQGEGIVIRKNLSPYEKGRSKNATKLKPYDDAECELVG

FRKGKGKFENQVGALLCKMPNGQIIKIGSGLKDEDRKNPPKIGSIVTYKFNGLTKNSLPRFPVFLRIRDE

NP

>CCK67741.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKLGLVLAVLVALNVSAFADLIVINKKDLVPVSASEMQNKYFQESIKSTLTEPLFKKATFYEADIVAKV

DPRTYNSTQAIIQKEYSDKSNYVYYKQVLILTSDGKRARLSTLSCEIASFDKKGYLCGGTADHNYSIK

>CCK67740.1 RepA protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKHSKYKIYLNFKLFKLKISSFLNRFIFYIFAAKTKSTLIKSLFLIKFL

>CCK67739.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKTILTILFLLTLTQAKEIQIYESPTCGCCDLWADYMKAKGYEVSVHKTNDFLKIKEKMGIKDEYQSCH

TGVIEGYAIEGHVPESAIAWLLENKPKDVIGISAPGMPQGSPGMEQGYSEKYPVILMKKDGSYELYGYFI

GDKKL

>CCK67738.1 lipoprotein thiredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGIFRIQAYFFALIIALFFVACDSGENFKALNSDKTYNFAYNGFEKSLKLNDKAQNFALVFFTKDCGVCK

EQIPILQNLAKNYDFNIFVVLGDANDANDAKAWADEKGLSNLAMFYEKRAAKYLSSAIGEIYGVPVLSFF

KEGKMDEKFIGLTPYSILEKEIKKVKS

>CCK67737.1 periplasmic thiredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKSLLILSILFLLNACSFENSKDTGKVGEKSAEISAKDTLGKAVKLADDNTSLKVLVFFQNGCPSCLKE

LPSLDEFIQNHPNKISVYAINSIDNANVVKVLAEQFDFKNVKVLKDDLKITNDRYAVFATPTTIIIKDGM

IKDRILGEKPWEFFESKLISLL

>CCK67736.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKKELIKINNLNKEFGKVKALNNINLSVYEGEWLAIMGPSGSGKSTLLNILSLMDTPSSGEYILDNENL

EQMDEEQKITLRREKIGLVFQQFHLIPYLNALENVMLSQYYHSSVDEEDAKMVLEKVGLSHRLTHLPSQL

SGGEQQRVCIARALINNPELLLADEPTGNLDEANEQIVLQTLQKLKNEGKTIVLITHNPDLAKFADRTLI

LQHGVLK

>CCK67735.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVDKFFLNELFKSISFSYQRLFIIVLSVFIGALTCSAFLNIYFDIDIKLSKELKAYGANVMISPKQDENF

ISNTEYEKIKENLKARALTPFLYDFLNLGSTSGVVLGTDFRALKITKPFLEVKEGSFSLNDFDENSAFLG

VNLAKQLGLKAGNELQIYNPNNGKSIKLTIKGILSSNDEFDSIVLAPLSVVQNLSDRAGINYANAVVYGN

FDEVKAKTQAISNEFIDAKPISSVSLSEGLVLGKIKALMFLIILVVLIIVTTSVNTTLSSIIFSRKKEIA

LRLALGAKKSEIFKLFASECFIVSFFASLIGAFCGIFLANVFGYLIFNSSIDFRFIAVFIALIISLIFAF

LAAFFPIKRALKINVCENLKGE

>CCK67734.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMLAKMIFNSIFKNKIQKFLAFLTCFLATLLLSTMLNITLSIGDEVTKQLKSYGSNILVLPKGSSLSIEI

GNELYEPLKNKNYLEEKNLYMIKDIYWRNNITALAPFLEGKITIENSQQKALIYGAYFQKAIKIKDDDDF

ITGIKSLYPYLAVQGEWAKDDSNEIMLGEDFAKNNKLKLGDTIKFIGENNQSKEAKIVGILLHANPKMSN

KIIAPLNLAQDLLNKQGLYSSTEVRAFTIPESALSEKVRRMGEEKLDQLEYDKWYCSAYVGSIASQISDG

LPGADAKALNAISDAQSLVVKKIQSLMGITCIICLIVASIAISSLMSSEIHRRKKEIGLLKVLGANTFQI

YLIFASENLIVALFAALLGFIFGTALSQIISLSIFGYFIDIAFVALPLSFIFAGLIALLGCLLPIKNITQ

LSAAGVLYGR

>CCK67733.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSIYFVHFLISVLPLSILMAFITPNKKYIFKSFFVVFLGFLFGYFAFFIAAQFLKTENLIFNFDFVFIGL

LLVSFIFYFWKKIEILNFILLGILSFCTALHYYFLSQDFPIFTSSLIDSEGISSLGFIALALLVCILIFF

FLKWQKNFNQKTSFMLFLLLILIESDKALANILLTLMRNSIIETHAFLVSFVGKSNYFGVFGIYVYLIFI

TFLAFLSLKIRKKNISKKQILDINYRKNEAKTSLINRYFSSVFISCVVSFCIVLYFFMVSSKPLTIDEPK

EILPDKNGKFIFDIALLRDNKLHRFAYISAEGKVIRFFLINKREDKDSPVAVFDACMICGDMGYIKKDGQ

LICISCNVRIFLPSVGKSGGCNPIPLKYEYDGNKITIDVKDVIAGSNYFSQIKEIEVQDPVSKTKVINTQ

APFSYSYKGVTYYFSNQNNYEEFKKDPTKYVEENEAQFLIQRRNDVG

>CCK67732.1 periplasmic protein p19 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKKVLSVVAAAAVISTNLFAGEVPIGDPKELNGMEIAAVYLQPIEMEPRGIDLAASLADIHLEADIHAL

KNNPNGFPEGFWMPYLTIAYELKNTDTGAIKRGTLMPMVADDGPHYGANIAMEKDKKGGFGVGNYELTFY

ISNPEKQGFGRHVDEETGVGKWFEPFKVDYKFKYTGTPK

>CCK67731.1 iron permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIFKIIFLIISIFLSSSAFARVDDYINEANLIKDMLKQSIETYKKGDNLGAKKLSEDAYFQHFENMEGS

IGRNIGRKAITMERKFVNLRRMYKDEAPLTQINALIDSLYYDLDEVAPILQNGYRLKAEASDINYDKAKA

EKSSLEANAKREADAEALIAQMMGVDKKDLAQSSLTTQAPIPINNDTSKLTDDNASTDLQAAAAMDVRLQ

FILDNISTKFSQAANAFKEKNYQTSKDFLNDALFSDYRNTKVEILVNKFTKAGNDQKIQQAIRTLIRQIN

DAKIDEKGLRDGLDNIEEQIFDVFLQIPNSELSSLQISGFNDETKGKDYAKVSNDIKLALDEILKNYDGF

SASIVDDLQGIYLDIFEASGMENKIGAVDSGLKLKIESLFSKSVALIKASTDKKELEATFNDLEQLIASS

VDKIQDSTPYSLFIWALGIILREGLEALIIVVAIVSYLVQSGNKNRLNIAYSALFTGVILSFVTAFGVSW

LFKENAGQSRELIEGITMLIAVLLLFYVGFWLLSNAQNKKWTSFIKQGAIDAISNNSAKTLWITVFLAVY

REGAETVLFYQALLFDAKTSTDFGAVFGGLGLGILILIVLYFLLKAGAIRIPVKQFFYITSYIIFYMVFV

FTGKGIAELIEGKVIIPSLIPMNFEPILWLGIYPYYETLIPQFIVLIMLIIGILITKQISKKGVKS

>CCK67730.1 hypothetical protein BN148\_1656c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVSDVSMGNVNLMTAVNTSVLKKSMDTNEALMNELIEGMEGVSQASAPQASSSSGLDIYA

>CCK67729.1 Na(+)/H(+) antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQMIKKMVLSETFPGILLIFFTFLALLCKNSSLSVIYTDFFHANFTVGFDHFQISKSLDLWINDGLIAIF

FLCIGLELKYEILRGQLKNIRAVSLPIFGALGGMITPALIFIAINYSHDFAMKGWAIPTATDIAFAVGIL

MLLGNKIPTSLKLFLLSLAIFDDLGAIVIIALFYTDQLSALAIIICLFCIFALLLLNYYHITHLSLYVLV

GVVLWIAMLKSGVHATLAGVIISLFIPLDTKNKKPYLHEVLKDLNPWVVYFILPLFAFANAGIDIRDMHL

GSVFSPVSLGIILGLFLGKQLGVFTFCFIAIKLKLAKLPENIKYGKFYGICILTGIGFTMSLFIDGLAYK

NSDIFEYADKLAILVASFLSAIVGFIYLKIVK

>CCK67728.1 pH-dependent sodium/proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNNIVHKLKTLVLNEAFGGVLLIVCTLLALLVQNGSFSEHYREFLNLKVGFSVGEFELNKPFLLWINDGL

ISIFFFAIGLELKKEFLHGDFKNPKNIVLPFMAALGGILIPAMLFALVNIGDAYTLKGWAIPTATDTAFA

LAILMMCGKHIPSSLKIFLLSLAIFDDVGAILIIAIFYTTKLSIAAFVIAGLAILVMLILNLLGITRKSF

YFICSVILWISVLKSGVHATLAGIVTAFFIPMQTKNGEAFLEEIYESLKFWIAFIILPLFAFANAGVNLS

NIDIGAIFSGVSIGIFLGLFVGKQVGVFLFSYLAIRFKFAALPQGSNLKQLYGVCILTGIGFTMSLFIDG

LAYEVSDIFNYADNLAILIASFCSGIWGFIYLKFFTTRS

>CCK67727.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRHIFFIITIIFFISGCSFYQNLNYRPSYNTNKEARLKVIANEWKKTPYVLGGTSKKGADCSGFTQSALA

QLNIRIPRTTKTQLGSGRKVSKSKLQTGDLVFFKTGRGPNGMHVGIYMSKGKFIHLSTKDGVKEVELNSS

YWKARYIGARRY

>CCK67726.1 glutamate racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDTIIKFCLEALDFFEQFQIDMLIIAC

NTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIATKATIKSEEYQKRLLSQGYTNINAL

ATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLLGRSLSKYFGDKTKLIHSGDAIVEF

LKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>CCK67725.1 methionine aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIELKKPDEIEKLRIANQIVAKTLNFLENEIKIGMSLKQIDKMAEDYILSLGAKPSFKGLYGFPGAICTS

LNQVCIHGIPDDKIIKEGDILGLDVGSLIDGYYGDAARTIAIGEVSPADKALISCAKDALYHAIDIIRDG

MRFKELSAALGEFIHVRGFVPLRGYCGHGIGRKPHGEPEILNYLEKGASAKSGPKIKNGMVFCIEPMICQ

KDGTPKHYNGKWDAGSIDGLNAAHYEHCVAVINGRAEILSMI

>CCK67724.1 hypothetical protein BN148\_1650 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKSDLDIFKKHLGEIQGVNEFKANQICSQINDANDFIGALQVLDMSLKKIEKSILERIDENSDDMQKRTL

DATASQLIQNCSFMGTALFGNIFNVYVGKKLFEFEIANPLLILQTSNYEGVLAYIQDKRDEIKIILSELS

TAITMGETMDNAGIYNSTMDFKNLFK

>CCK67723.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKQLFCILTFIFMLCGCSLRHETINKNENIILKDEGIDSNIFFKKTGKILKIRNANAPLYLNSRAIVYI

DNGFSNKYAHYFWGDLPSNLYSFLILSKFEQSNIFTTLLSSTSSLSADYSLESRINSFEQILNNNENYAQ

ISISVNFINLENNQIIAHKIFNTKEKIEKKDIRSTYNAFQKALNKIGNEIVFWVNSNLS

>CCK67722.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENRANYFFVGLFVFGVFFASLGFILWLGGYSKEESFKYYEIHTQESVAGLGIKAPVRLLGVEVGSVEEI

SIYNQDELGVNIRIKVKNNTPIKEDTFATLQLQGITGLKFIQLQGGSKNSKDLVSMQGKLPVIPFKESFL

ATIDRQSEHIFSLVKTADDKSKELLSEKNLKNLEILLQNLAELSANLNANSKNLSLNLSNASLKIGKMAD

NISLSAQNFNSSLKNIKESTMILKNFIKKADEKLNTYDDIKASLMQNLELFKRVLIESNILIENLQNSPA

DLIFKETKPKLGPGEK

>CCK67721.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVIKAQNIITKFGEKIVHDGVSFEIKKNEIFGILGGSGSGKSVLLKQMLMLEHFDDGEYEILGYKLKNIN

EEDALALRKKWGVVFQFAALFSFFNVYENIAIPLKEYTHLDENSIQELVLMKLKMVGLNESVLKQFPSEL

SGGMQKRVAIARALALDSKLLFLDEPTSGLDPHSSREFDDLVLELKKSFDLNIILVTHDKESMKNLLDRF

IILENKKVGFCGTYEELRLQNERLFKRFME

>CCK67720.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNTNFKFQNNTLFIFGIWDKTSIYKLKIKDFLALIQSKEVIFDFKDLKAIDTAGVRFFLALENDLKNKNI

KITKEGLNSRFQTLFELCEKNYQRLGKTKKSHQNFSEYFIDLGKLSLELLKILRKFINFTGAFFTSLFLC

LKNPKNFRFIAFLYHIENSAFKALPIVILTALLVGVVLAYQAAYQLAQFGANIFIVDLMGISATRELAPL

IAAIVIAGRSASSYTAQIGVMKITDEIAAMNTMGFRSFEFIVIPRVMALVVAMPLIVAISDAISIIGGMM

VAKLNLDISFAEFLRRFREAVDIKHIFIGLAKAPIFGFLIGLIACFRGFEVKNTTQSIGIYTTKSVVNAI

FWVIAFDALFSVILTSTGI

>CCK67719.1 transketolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNIQILQEQANTLRFLSADMVQKANSGHPGAPLGLADILSVLSYHLKHNPKNPTWLNRDRLVFSGGHASA

LLYSFLHLSGYDLSLEDLKNFRQLHSKTPGHPEISTLGVEIATGPLGQGVANAVGFAMAAKKAQNLLGSD

LIDHKIYCLCGDGDLQEGISYEACSLAGLHKLDNFILIYDSNNISIEGDVGLAFNENVKMRFEAQGFEVL

SINGHDYEEINKALEQAKKSTKPCLIIAKTTIAKGAGELEGSHKSHGAPLGEEVIKKAKEQAGFDPNISF

HIPQASKIRFESAVELGDLEEAKWKDKLEKSAKKELLERLLNPDFNKIAYPDFKGKDLATRDSNGEILNV

LAKNLEGFLGGSADLGPSNKTELHSMGDFVEGKNIHFGIREHAMAAINNAFARYGIFLPFSATFFIFSEY

LKPAARIAALMKIKHFFIFTHDSIGVGEDGPTHQPIEQLSTFRAMPNFLTFRPADGVENVKAWQIALNAD

IPSAFVLSRQKLKALNEPVFGDVKNGAYLLKESKEAKFTLLASGSEVWLCLESANELEKQGFACNVVSMP

CFELFEKQDKAYQERLLKGEVIGVEAAHSNELYKFCHKVYGIESFGESGKDKDVFERFGFSVSKLVNFIL

SK

>CCK67718.1 geranyltranstransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLKELFIHHLEKNLPKVESFHPFFNEALALMLKAGGKHFRAQLLLSVVQSNKPELLNQALDVALALEFI

HTYSLIHDDLPAMDNADFRRGIPTLHKSYDETTAILVGDALNTEAFLVLSHAHLKDEIKIKLIKTLAFNA

GLNGMVIGQAIDCFFEDKRLSLNELEFLHTHKTARLIAAALKMGCEICELNNEESNQIYKLGLKLGLIFQ

INDDIIDVTTSQEQSGKPTNNDIHKNSFVNLLGLEQAIKTKENLLSECEQDLEKLNEKLAQMIQNLIIQY

L

>CCK67717.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILIICMLFTLSFGIERPKFEDFLAGYERNKASMLNYEGMPAFALSENLLAVLKQPNAKLNKYVKYDP

FLNLYLVRTDFSLIPTPMGDEEKLTRNDWVGIWDPNKPYIGHIKYLAQNIDEKDQLDFNSKIGLLGTPCC

EMMGIALNNSSFIGNRYLKHFMKYNDVYWGDIGVDFVVRENKIYVNNVRKNPQFLINDQVISVDGLPAND

LRKLNEKILFADRGSTLYFQVLRDNMDLNISTEVFAKDLSKFNLPDSKPKPKITNFTSNLGLTVNASLVV

TKIDPKSKVSNAGFMVGDKILRVNNIILNNFKELQNILSAGNDFSILIERKSTKLPLSNFNNELGGNANS

GGDGKFQFFIRLTK

>CCK67716.1 hypothetical protein BN148\_1642 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFENMDFSKMGELLNQVQEKAKNIELELANREFSAKSGAGLVKVSANGKGEIIDVSIDDSLLEDKESLQI

LLISAINDVLAMVAQNRSSMANDVLGGFGGMKL

>CCK67715.1 UDP-N-acetylmuramoylalanyl-D-glutamate--2,6-diaminopimelate ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLKLENSFITDNTLECEKECFFLQTTQNAKFHAQALEKGAKIIDVNECKKLLKIDEKIQIIGITGTNGK

TTTAAAIYSILLDLGYKCGLCGTRGAFINDEQIDEKSLTTSPILKTLEYLQIATQKKCDFFIMEVSSHAL

VQNRIEGLNFAAKIFTNITQDHLDFHGTFENYKEAKELFFTDESLKFINKDALAIKFNVRNAFTYGIENP

ALYQIKAYSLEEGISTIVTNKNQTFHIDSPLLGLFNLYNLLVASACVNELVKPDLKDLEKAISGFGGVCG

RVEQVAKGVIVDFAHTPDGIEKVLDTLKNKKLIVVFGAGGDRDKTKRPLMGKIVEHFAKIAIITSDNPRS

EEPKTIMEEILSGFTKKEKVLMIEDRKEAIKKALELKENDDLVVILGKGDETTQEIKGIKYPFSDKVVVN

EILKNQG

>CCK67714.1 hypothetical protein BN148\_1640 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNYKKLGIEHFYKKDFKTAKMYFSMAYEKRKNKRLLNFICLCDLALKSPKEASLLFDFYIEHYKISSID

KDLEEILSTIEFKKQENKQENEFEDGHALNYQDFLKSEEELGFQKSFENIINSTKLVIDNRDDFLDFLEK

LLDNGYKDMTLNYIENVMPHFWANDRFIKLQEKLMGFKSEIKT

>CCK67713.1 NifU protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMPFSDEELINPVKASLEKSLPMLERDGGGLEFLGIKNGIVYVHLIGACKGCASSGTTLKYGLERQLKID

IHPEITIINLNGGADEFAKL

>CCK67712.1 DNA primase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MITKESIENLSQRLNIVDIIENYIEVKKQGSSFVCICPFHADKNPSMHINPIKGFYHCFACKAGGDAFKF

VMDYEKLSFADAVEKVASLSNFTLSYTKEKQENKKELKSILPSLNAYFKDNLKHHKEVLTYLYQRALNDK

DIAKFELGFAGASEDSIRLLQNQKIPLEDAMSVGALKKDENNEFYASFIWRITFPIYDHKDLLVGFGGRT

LNPNVPAKYVNSPQNILFDKSRIFYAFNIAKENIAKKKEIIVCEGYMDAIAFHKAGFNNAVAVLGTALTE

HHLPLIRRYDAKVILCFDNDEAGLKAATRSAFLLSTNKIDGKVAILQGGKDPAELVAKNESTKLHNILDE

GIELGEFYIRRLISTHSIISALDKQKALETIQKFTFNLEPLVANSYTSLVSNLLKVDEKFIVLSQNSKKT

IQTPLISQNKYNFPKEKIHIAELELIAFLKQHPDICNDFKQISDSVCFKHKILLDKILEKKGYEDSDIRE

FESKNIRKNLNYSEFLLGICKVNLAFLNNVKIKNSTLALKKQLFTLIDKNLNLLIKNLNTAELNNFLKEY

LSFLKYEKNEEILQQSFRNLNGIFGNKNFTAYDLGFSIQNNDEPF

>CCK67711.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDFFFVEYRDPLVGLIILTILVFVVAVANYIWKIFANKDEEQKLEKFIKKFEMDNAHKELLRNSSLSFGN

LSFLAEIFTKSGEFEKATQIYLIALEKCKDKQEREFIFLSLAKVYFKAGFLERAKEVLLQALKLRPRNIQ

ALKLLKIVYLKLRSYKENLELLECLFELNEDVQKERDFIKALELCTFNITDEEKKKKLLEFKIEDNPMLG

RLVFEKYHMFLGQNFFDICDLLYRENEAFNLENQDFLEFFYALGKISKHDDTHQFVFKNSNFKMLKILKD

NSFNAGLEFSYRCSECKNVMPLFFYHCPVCYEFNTCKIIYEVKNNETH

>CCK67710.1 ribonuclease H [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKHIEIYTDGSCLNNPGFGGWAYILRYKEYQKEGFGAEANTTNNRMELMAIIESLKALKEPCEISLFTDS

NLMVQSINEWLEGWIKKDFKGKKNIDLWKEYIKVAKSHKIKAFWVKAHNGHLENERCDTLAREAALKIAR

ENDEKH

>CCK67709.1 ribonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAVLDLVVGEYLFHKFAKDAEGDLSKL

RAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALEAIIGAIHLEAGFEFAKTIALRLIE

KNFPQIDAKILIKDYKTKLQEITQGKIGQTPQYETVRAFGPDHLKQFEIALMLDGKELARAIAGSKKEAQ

QMAAKIALEKLGAL

>CCK67708.1 chorismate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNTFGTRLKFTSFGESHGVAVGCIIDGMPAGVKFDEEFLQNELDKRKGGSKFATPRKESDKAQVLSGVFE

GYTTGHPIAIVVFNENAHSKDYDNLKDLFRPAHADFTYFYKYGIRDHRGGGRSSARESVARVAGGAVAAM

LLREFDICVQSGVFGVGTFVSNLKEEEFDFEFAKKSEIFCLDPKLESDFKNEILNARNSKDSVGAAVFTK

VSGMLIGLGEVLYDKLDSKLAHALMGINAVKAVEIGEGINASKMRGSCNNDALKDGKFLSNHSGGILGGI

SNGENLILKTYFKPTPSIFAKQESIDKFGNNLKFELKGRHDPCVGVRGSVVASAMVRLVLADCLLLNASA

NLNNLKNAYGLK

>CCK67707.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKALALFSGGLDSMLAMKLITAQGIEVKALNINIGFGSTSDKSEIMKKRAAMVGADFEMIDVRNSYLQEV

LFNPQYGYGKHFNPCIDCHAFMFKTALAMLKEENASFIITGEVLGQRPMSQRSDAMAKVKKLALDEEDLI

LRPMCAKNLPLTKPEREGWVDREKLEGIIGRSRKRQLELAAKFGLEDFESPGGGCLLTLDSFAKKIRDFI

EFDKDMQVNDAQLLKYGRHLRLPNGAKMIIGRNELENTLLKGLKTPKYEAIEIGDLIGAYSLVDEKISEK

DLELALKIALTYTKHEVGKSYELKFKNQAYTSIAFENKADINQFFIS

>CCK67706.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKIILVLSILSSFAFANSCANYEQELKKCNSLKNSHERKMCRLGLFAKCKKG

>CCK67705.1 hypothetical protein BN148\_1631c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIDTSASLTHSLTNNVDKKELSVLKKEDQDKIPVQDLSSLNSDGVKVVFENKQGELIALNLSDENYSSL

QKNFGSYMNYVARNDGSIRLNGEVNQFVSNWFESVKDNFGSLNSNLNNKQQSVKLNFNTSTLQQSMQNLG

FKTSDEKISDDANIEEKLNFFIDKDVNKDGKVDDSDVKEPSMREILSDIKEASGGGANAMKTIDPQKINK

KDDKENNIKEKEDEDLLQKAQEKGLSALSADEQAKLEASNPEEFEKLKQKSLQELSQNLSKDFQNKIENQ

EAQIVDKRV

>CCK67704.1 TonB transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTLFLNHKYQASYITFIVFIPLLFVIFHSNDFFKMEIKNEDSFSLAIKQFTQTNPTNETKPTESIIEPI

KPKPQPKVIKKTPEKMQKKIKKTPPHPIPNKTPIAPTQEVKTFAKTTDTNVKPKITQLTQGKDNHPVLKE

IQKAIQQAQFYPRQAKKMRMQGTVKVEFLWKENKTLADLKIIEISGYDLLDKSALESIRKASLNFPHYNG

DLRITLPIIYDFKTLRG

>CCK67703.1 exbD/tolR family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKLPKNEGLNIVPFIDIMLVLLAIVLSISTFIAHGKIQISLPSSENATNISNNEKKLLITIDEKNTFYL

NDKLADLNEVQNAIFSLDKKTIVELKSDKNAKFESFVKIIDFLKAKEHENFQILTEKNK

>CCK67702.1 exbB/tolQ family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEFLKDYIDLIIFLILGIMAFIAFWCVVERMLFFRKINFKNYENQEQFDDAISENLTTIYIIYSNAPYIG

LLGTVIGIMVTFYEMGLAGNIDVKSIVVGLSLALKATALGLLVAIPALMAYNALLRKVSLLSNAYKANKN

A

>CCK67701.1 hypothetical protein BN148\_1627c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTIDLNHNFTSFVLLDEVDFNFSELKSILEDKFNIKIADENFTKEGVIFSYENMLVTLNLINNPIPNHEV

EYYANFNFMWKDALEQTKKHKAHLLIAVLSQDQSKLEQAKMFTKIAALCLDNKHALGFYTGAVVLEPSFY

IENAKMLDDNRLPVYNWIYVSVYPSENGVNAYTYGLRNFDKLELEVCDLNIEEKELFFCIYDIVLHILTY

DINLKDKDILKFEDGKEIKFIKSQGISVENESLKIIF

>CCK67700.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKAKLTLLALLGTTVLLAKDMVVPASELPNNAKEFISKNFKTAQIGLVKKDIDSYDVILNDGTEIDFMIN

GEWKEVDGKYKALPHTILPNVMKKVSATQPNAQILEVDKEINGYKFKFNNNMEVYTDMQGNILGQKLD

>CCK67699.1 amino acid transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>CCK67698.1 L-serine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSNLSIFKIGVGPSSSHTLGPMLAGNLFCKKVAKKLDEIDRVEVTLYGSLSLTGKGHLSDKAVIWGLNGL

EAKNLSAAIQDEVNKNAIENAQIDFCGEKKLSFNYEKDLIFSKDFLPLHENGMKIKAYDCKGGLVDEETY

YSVGGGFVLTAAELEKKGKNSNQNKKKKLDIELNNAKEALELCDKRDWDLAELSYRYELQFHTKEEICAY

CLEIWEVMQEVYYNGTHPNEDYLPGKLHLKRRAKGLKERVAMTADPMGIIDFISLYAIAIAEENASGAKV

VTAPTNGACAVIPAVMLYLKNHTIGFSDEKVIEFLLTAMLIGSFYKKNASISGAEAGCQAEIGSASSMAA

AAMATVLGANAFKACNAAEMAMEHHLGLTCDPVAGLVQIPCIERNAFGAIKAISAARMAMTRKSTPMVSL

DEVIETMYETGKDMNYKYKETSLGGLATNLKTVC

>CCK67697.1 hypothetical protein BN148\_1623 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAFMNFSGFFYARNDLRLFKIEKKNELKSFFYKDYTLSSYKDDLNLNNEIFFYQSLKEGLFKENDEILVS

NLGKKIILFRNFTQNCDNFNETKLKQILLLFFLLLASVFFASLAMINEFGAIDLLFLTICLLLLVMGVIN

LGLLFKQIRILKSFSKEEMKEFLSQRMKKYTKV

>CCK67696.1 riboflavin-specific deaminase/reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSNFKIQGRQMKEFYMNLALNEAWKYQFLTYPNPAVGCVILDKNEKILAIKAHEKAGLAHAELNAIAHAF

KSLRPEISLPKEANALHEFICKNHQGVFKDSIAFVTLEPCSHQGKTPPCAKLFSELGFKKIFISVKDENK

IASGGAEFLKKQGIEVEFDILKEEGKKLLKPFLKWQKGQFKLFKLALSMNGSPFGKIVSNELSRTYAHEI

RAVIDLLVVGGETIRKDCPILDARLCKAKAPNLCILSRQNIDNFDKNIPLFKVPNRQIYTQIPSEAKFLM

YEGGENFLKIFKDEIDMFLIFQSSSLNDEKNVTIPLNFKPLYRNFLGSDTYGIYEL

>CCK67695.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLAFFKGLGVGFLCLLLFVAGVVFNVEFLGKKDSNHDLYFSRNIEVSNTLKPDILYANINFWANENLSSK

ITLDNSEKAEITNTFNQILERSKKENFCSGGSFSLEPNFSYKDGIQTPKGQRFDANLECEFKENQLADFN

KLLNDINSIIAKNNFISVSTPAIQTKFSKDTLNNNKENLYKELLKTSYEYEKTYSLDLNKTCVLKNLQVN

ANTNIAPRMLNAKSDNIELSSPIISKKEQILNAKALFICK

>CCK67694.1 A/G-specific adenine glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKKELEKLQENLLLWYEKNGRKTLPWRNLQSQNCDESLKHIDRAYGVYISEIMLQQTQVKSVLERFYFP

FLQKFPTLESLANANEDELLKAWQGLGYYTRARNLKKAALECVDKFGAKLPKDVEDLKKLSGIGAYTAGA

IACFGYDQKVSFVDGNIRRVLSRLFALENPSMKELEKRAKELLNLNHAFDHNQALLDIGALVCVGKNAKC

RICPLYDFCQGKFHTELYPRAKKILYESLNLNLFLFEFNKKFAIQKSQDKLYKGMYNFPFFKEGEYKLSK

DMGFVGEFKHSYTKYKLNIKVYHQILNNENKNYEFKTLKELESTALSALSLKALKLIKL

>CCK67693.1 alpha-ketoglutarate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQELTRTKKIRSIIAASSGNLVEWFDFYIYAFTATYFAHTFSTSDNPVIQQINAFGVFAAGFFMRPIGSW

LFGSLADKVGRKKSMVISVVLMALGSFMIAALPSKDTVGDLAIILLLIARLIQGLSVGGEYGIAATYLSE

LATEGKRGFYSSFQYVTLIGGQLLAVASISIMFLFFSIDDMKDYAWRILFVIGGILALGSLFVRKMMNES

ATKLHQHEDRGTLKALCKSWKPFLMVLGVTSGGSLAFYTITTYTKTFMENTGMDKMLVNNLFLGALFILM

IIQPLFGYIGDKIGHKRSLIVFCILALVGIYPIFSLIANNAQNNPSLTFMLVVLLFVILSFYTSVAGIFK

AKLFPEHVRALGTGLGYAISNAVFGGSAPWVALQFKNAGIENGFFIYIAIFTIIMLIATLCLPKKSELN

>CCK67692.1 radical SAM domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLHILINFINFGKMFTLGNIMKFKKIYIELSDICGLKCDFCPSQKGIRGVMSEEKFQNLAYEISNKAELF

TFHLLGDPLLLPNLENYLKIAKDEAMKLEITTSGFYLNSKNQALLLGYENIHQINISLMSFLSQSKISLE

QYFKPILELCKKHLEQKSLSFINLRLWNLDANFKAPKSNLKIYEFLAKEFEAKIDANLSKNRLQRHILLH

QNKLFKWPNLKDEPLYKKGKCHALKEQIGILSDGSLVPCCLDTKADINLGNVFENNFDKLFRSPRIKMMK

KAFEEDKRIEKLCQTCEFFKARLGD

>CCK67691.1 hemin uptake system periplasmic hemin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILIIMSLFLIALNAKERLVVLDPASIETLFMLKAEDQIVGIATLQHSNIYPKDQTSKLTSVGTFSNP

SLEKIVALKPSLVILSSYSLNLEEGLKNFGIKSINLKAERLEDITKNITTLGQITKKEKEAELLKQEFNQ

KFKKLSDKPLNKSAIYLYSSNPLMAFNDNSLIADILRLIGIKNLSPQSQISRPVISAEYILKQNPDILIL

GINAKNNLLDTNALLKNTKAVKTGSIYFNKDTPILLRLSPKIIDRIQEFKTKLENNNF

>CCK67690.1 hemin uptake system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKIHNLSFAYHQKDLLKNIHLELKNQAFIGILGPNGSGKSTLLKLILKNLSPNKGVISLFNTNIKDFSL

KEFAKICGFVPQKSELNTPLKVIDVLLMSKYPNLKHAFSSYSKEDILEIKEFAKDLRLENFLERSILSLS

GGEFQRMLLARALLKKPKILFLDEPTSALDLNYAIELLNLCEKLVKEKNIAVVAILHDLNLASIFCDKIL

FLKEGEIKYFGTSKELFTQEILKEIYDLNCEIIYKNSKPYILALKEKK

>CCK67689.1 hemin uptake system permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNLNTHSKILVIIGLLVAYIIASFTALCLGDENLNPKELFSYIFSQDEILRQIIIDGRLPRIIMAILIG

MLLASSGAITQNVFSNPIADPYIIGIASAATFGAVLAYLLKLNDYYYGILGFVCSAFFALGVFKISSKAS

IATLLIIGIAASSFLGAFTSFFTYLIGEDSFKIVAWLMGNIGNASWFRVGILILPLIFCLFYFYAHKNEL

NILLSGDDEARNLGVNAQKLKINLLIVSSLAVSFAVAFSGLIGFVGLIIPHTIRLLLKNYNNALVIPLCT

AFGGLFLLICDTLARTLLAPVQIPIGILTAFFGAPIFLYLALSARRFL

>CCK67688.1 haemin uptake system outer membrane receptor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MHPNKKAFKLSLFALLLITNLNAQESNKAINLQKVVVSTTGFEQDADSNLRNVISIEGKDLQNKGYVSLE

QALERISSISFVNFGLGRNIDMRGQGNKSNIAVKVMIDGHAINVLDNSHGVTPLDSINLDNVERIEIIPG

GGSVLYGSGTRGGVINIITKKQKSDAFAINLKSSAYDHGGLGGNLGINGAKQINENLAFSFDIQSFNLDG

YQEGYNEKGYFINTKTYIDINDNSDLTLGYNYFKSKNTSSGYLTKAQAQSDPTQKGKSDNITQINRPEIS

LDYHYYFDDIWEFNLEAFWQNQKINYLKDVSTMSYMNMSLPVYQNGSGFEDTLTGISLKNKLNYANNSYF

IFGYEFANHDAKRKSLVYYSVPSVINYHRMTTLIDMTKQSHSIFALDSHNFNEFFTLSGGARYEFSSYNT

DRSYRNEMSMNGRPPSPTIIDSTTLFDTNKNANNFAFEITPNFKYSDTGKLYIKYERGFVSPSPAQFVNK

DKNSQKYYSANLNPEIFDTFELGIDDFWWDFYGFNLTLFYTLSKDEISYLGNPHSTSGSWWKYYNIDQTR

RLGVELSLSQNFLDDDLIFRESLTYLDAKISKGVNDGMRIPYVSKIKATAGLEYAWNKNFSNFIDLTYFS

RAKDGGTIDENTGKMSKNSWIRDYFLTDIGMKYNYKKLQILAGIRNLFDKRYYTYQDSINDQYLVGNGRN

YYVEFKYAF

>CCK67687.1 pyridoxamine 5'-phosphate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFESIISHMNDHHKSNLVDLCKKFGGIEQVQDVFLKSVDFNGLDLVYNDKENLRVEFPKKADENTIKDA

IISLCMSAKSEQNFSGVEKELNEFMLSFNSVALATLNANGEVVCSYAPFVSTQWGNYIYISEVSEHFNNI

KVNPNNIEIMFLEDESKAVSVILRKRLRYRVNASFLERGERFDQIYDEFEKQTGGEGGIKTIRKMLDFHL

VKLEFKKGRFVKGFGQAYDIENGNVAHVGASGNPHKFLHKH

>CCK67686.1 peptide chain release factor 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLASKLDPFFKRFEELNSLLSSSDILNDISKMTTLSKEQKNLEPIVLKAKEYLKTLDNIEENKALLNDPE

LGELAKEELKTLEELKPKLEEEIKILLLPKDPNDERNIFLEIRAGTGGDEASLFVGDLVKAYARYAENRG

YKLEIVSSSEGSVGGFKEIIMLVKGTGAYSRLKYEGGTHRVQRVPQTESQGRVHTSAITVAVMPEVDDIE

IEINPNDLKVDVMRSSGHGGQSVNTTDSAVRITHIPTGIVVVNQDGKSQHKNKESAMKVLKARLYEMQES

ERLAKESEARKSQVGSGDRSERIRTYNFPQNRISDHRINLTLYRLDAIMQDGLFDEIIEPLITHHQAQAL

QEQNL

>CCK67685.1 30S ribosomal protein S20 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MANHKSAEKRARQTIKKTERNRFYRTRLKNITKAVREAAANGNKNAANEALKVANKSIHAMVSRGFIKKQ

TASRRVSRLALLVNKIA

>CCK67684.1 phosphatidylglycerophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKLFLTFFYSGSVKKASGTFGTIAALIPAFFILKYLGINTLFLLSILIFVASIRVIDDYEKKTGIHDDK

HIVIDEVAGVFLACAIAASVENSIVNFILAFVLFRLFDITKPSIIGKIDKKVKGGLGVMLDDMLAGLFAG

LLSAVIYGFLLKFNLVFWDINLKDLF

>CCK67683.1 sulfate adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKSARKNKNIIIDQNEFGILSLIKEGLLGTCTHLMNEKEVNEIIKSGKFKGESFPYPLSFAPKNAEEALN

DIKSGDRIDLMLDEKVVGHIDFKSQFKNNKNFSDIFSPNTCSLEDMGTTCISGKIEIYNSQIEKIKENFQ

QIKNNLNAQKITAIVSSFDPLHRAHERMFRWTIDKADLVVIFLVESFDVNGFEFELKEAYLKKFIQNYLP

PDRIFIFPLKNINIFHAHLNPGLESIIAKSLGCTKLVVGQNHTGLGMFYDDNQPKTILDDFSKDYGIEVI

VLPEFVFCDQCRMIVSTRSCPHGCHHHLHYNSQSLKDLLRAGIIPPAIFIRKEVSSVILTSLFPNRLKNM

QKIYNELFPTDGILEYKNDEEFYQKLLEIHQMSYMV

>CCK67682.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVLIIENEIYLAQSISIKLSDAGYSCEIINSFDEYNGEKYYDIILLSTNTNNFLKAVGQFKHSIIILLI

SYISTDTVSNPLKLGASDYIQKPFMIEELIRKIKHYQDFRKLSILNKAYQSYIKSRLETIKIPEYNYKKL

KLPLILKSNKQSSADAFVFNYANECDITLSFIDLTSTNSVEKVMKLPTENNLLFLSNFQALKAAEKEKLL

DFIQNKNVILHTNSNTDDLKINCINLNDNEKNINSNEILTIDEYVKYVIINYQNIFPDTDLSKKLGISRK

SLWEKRKKYEISKKK

>CCK67681.1 bifunctional 2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase/2-C-methyl-D-erythritol 2,4-cyclodiphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSEMSLIMLAAGNSTRFNTKVKKQFLRLGNDPLWLYATKNLSSFYPFKKIVVTSSNITYMKKFTKNYEFI

EGGDTRAESLKKALELIDSEFVMVSDVARVLVSKNLFDRLIENLDKADCITPALKVADTTLFDNEALQRE

KIKLIQTPQISKTKLLKKALDQNLEFTDDSTAIAAMGGKIWFVEGEENARKLTFKEDLKKLDLPTPSFEI

FTGNGFDVHEFGENRPLLLAGVQIHPTMGLKAHSDGDVLAHSLTDAILGAAGLGDIGELYPDTDMKFKNA

NSMELLKQAYDKVREIGFELINIDICVMAQSPKLKDFKQAMQSNIAHTLDLDEFRINVKATTTEKLGFIG

RKEGMAVLSSVNLKYFDWTRL

>CCK67680.1 ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEQILEKLKTVKYPGFEKDIVSFNFVKDIKIQDDGVFIDIEIVSANPEVANEIRKNTIEALSSLALKNI

ELNIITPKIPEEKSNSRSGKNIAPQVKNFIMVSSGKGGVGKSTTTVNLAISMAKMGKRVGILDADIYGPN

IPRMLGETKTQPEVVGQRLKPILTHGVYMMSMGVLIEEGQGLMWRGAMIMKAIEQLLADVIWPELDVLFL

DMPPGTGDAQITSAQSIPIAAGVCVSTPQTVSLDDSKRALDMFNKLHIPIAGVIENMSGFLCPDNGKEYD

IFGKGTAEDMAKAYKSEVLAQIPIEMIVREGGDEGKPVSFYHPESVSSKRYLMAAEKIWSFIEKINNEGG

ADNSAIQPVMNGKSACSH

>CCK67679.1 2,3,4,5-tetrahydropyridine-2-carboxylate N-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINTKEDFLLLIKQIEQKSGYKKPKAFGIARLDRGQLNKNKILQASFALINYEQNFGSAAIMLEAFMQRG

VEIDFNASEFVQTLKLEDIDFALSCFKPFLEEDGHQNIDLLKIIKDKFKDDEFSFVCLFEDKEPLSVESI

YLKLYLLSTKKVPLRSINLNGAFGLLSNVAWSDDKPIELEYLRANEMRLKMSNQYPKIDFVDKFPRFLAH

IIPEDNTRILESSKVRMGASLAAGTTIMPGASYVNFNAGTTGACMVEGRISSSAIVGEGSDVGGGASILG

VLSGTSGNAISVGKACLLGANSVTGIPLGDNCIVDAGIAVLEGTKFLLKDAEELAKLNPYFNFDKEIYKG

LELKGLNGLHFRQDSISGAMIVALNKKAVKLNEALH

>CCK67678.1 bifunctional phosphoribosyl-AMP cyclohydrolase/phosphoribosyl-ATP pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNFKELNEKIAWQKVDNLLPVIIQDAKTCEVLMLGFMNNEALEKSLESGKVVFFSRTKQRLWMKGEESG

NFLNIIDLSLDCDNDTLLILANPVGPTCHTGDISCFEKISKNADFVFLARLEKLINARKNADENTSYTAK

LFKSGTKRIAQKVGEEGVETALAATVKDKEELICEAADLMYHLSVLLADANLSFSDVISKLKERHKA

>CCK67677.1 imidazole glycerol phosphate synthase subunit HisF [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLTKRIIACLDVKDGRVVKGTQFKNHKDMGDIIELARYYSQNGIDELVFYDIAASARKERISREWVSEVA

KNINISFCVAGGIKSEEDAAELLANGADKISINSPALNDPSLITRLAKSFGVQCVVVGIDSFKDENGNLK

VFQYTGDEKTSKHSGKSTLEWVKKVQDLGAGEIVLNMMNQDGVKNGYDLEQLEAVYKICKVPLIASGGAG

KMEHFLEAFKLGIDGALAASVFHQKLIDIKELKIYLKNQGLSIRI

>CCK67676.1 hypothetical protein BN148\_1602 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSSKLSYKELTLEILKQSDRPLSVNEIWQKALEQGLDKKLSSIGQTPIATLGARIYVDIKELQHNSLFIK

ASQKPTTFWLKERENELLKLDNKNEITNEKQEKNKFHERDLHPLLVKFLYENLDFNLNCKTIYHEQSKKG

KGGEDKWNYPDIVGVYFPYDDYEKETITLLENIKQNSYKLFSFELKIALNFSNLKECYFQAVSNSSWANE

GYLVVLQEIDSEVLSELRRLNQSFGIGVIKLEKDISNSQILISAKEKELDIQTLNMLINKNPNFKEFIDD

INKQIKVGKEAKIQANFDEIKSDEEMEKYLKEKCILEK

>CCK67675.1 1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)methylideneamino] imidazole-4-carboxamide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTQIIPALDLIDGEVVRLVKGDYEQKKVYKYNPLKKFKEYEKAGAKELHLVDLTGAKDPSKRQFALIEKL

AKEVSVNLQVGGGIRSKEEVKALLDCGVKRVVIGSMAIKDATLCLEILKEFGSEAIVLALDTILKEDYVV

AVNAWQEASDKKLMEVLDFYSNKGLKHILCTDISKDGTMQGVNVRLYKLIHEIFPNICIQASGGVASLKD

LENLKGICSGVIVGKALLDGVFSVEEGIRCLAN

>CCK67674.1 imidazole glycerol phosphate synthase subunit HisH [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIIIIDTACANLASLKFCLDRLGFNATISRDLKELESADKLFLPGVGTAKEAMKNLEQFNLIDFIQNTK

KPLLGICLGMQILGNFSEELNQETLKLIDFTTQKFKAKEGFTFPHMGWNEVYSSHALFKGLEGAYFYFVH

SYCVGLGKYTIADCEYSQKFSASVMKDNFYGVQFHPERSSEAGEILISNFIKDIG

>CCK67673.1 imidazole glycerol-phosphate dehydratase/histidinol phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSQKILFIDRDGTLIEEPKSDFQIDTLEKLRFEKDAIPTLLKLKKFGFKFVMVSNQDGLGTPSFPKENFE

IAHEKMLDILKSCGIEFQDIFICPHFENENCACRKPKTAMLEEYIKHELYDKEQSFVIGDRESDMILASN

LGVRGLKYGELSWKEIENEILSSFRSASYQRTTKETDIKVKVCLNGGKVSIKTGIDFFDHMLEQIAVHGG

IGLEISCKGDLEIDEHHSVEDVALALGACIKKALGDKIGIARYGFALPMDECLASCAMDFCNRPHLVYKA

KFKKSHLGALSTEMIEHFFYSLSYAMGVSLHLKVKGKNDHHKAEGLFKAFAKALKMAVKIESENLASSKG

VI

>CCK67672.1 histidinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQILVYDNLDEKQKEEALKRPAISAKDEISKIVSSIIKEVQEKGDKALIEQALKFDKAEISKIKITQEEI

TQASNRLDKDLQEAILVAYENIKKFHEAQIPHEIALETTKGVKCEVLTRPIEKVGLYIPGGLAPLFSTVL

MLAIPAKIAGCEKIVLASPAKINDAVLFCAKLCGVDEIYQMGGAGAIAALTYGTQSVLKVDKIFGPGNAF

VTEAKRQVSSDINGAAIDMQAGPSEVLVIADDLANEKFVASDLLSQAEHGADSQVILVCLSQDFAKKASD

EVQSQLELLPRKELASKSIANSRIIIAKDLNQALEISNLYAPEHLIIQTQNPRELLKGVKHAGSVFLGAY

SPESMGDYASGTNHVLPTYGLTKTHSSLGLADFSKRMTVQELSKEGFLALGKSVEILAQNEHLDAHKNAV

TFRLESLK

>CCK67671.1 ATP phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQENTRLRIAIQKSGRLSKESIELLSECGVKMHIHEQSLIAFSTNLPIDILRVRDDDIPGLIFDGVVDLG

IIGENVLEENELERQSLGENPSYKLLKKLDFGYCRLSLALPQENKFQNLKDFEGLRIATSYPQLLKRFMK

ENGINYKNCTLTGSVEVAPRANLADAICDLVSSGATLQANNLKEVKVIYESRACLIQKENALSKEKQALV

DKIMLRVAGVMQARESKYIMLHAPKEKLDKIQALLPGVERPTILPLAHDEKNVALHMVSKENLFWETMEA

LKEEGASSILVLPIEKMLK

>CCK67670.1 50S ribosomal protein L17 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRHKHGYRKLGRTSSHRAALLKNLTIALVNSGKIETTLPKAKELRGYVERLITRARLGDFNAHRAVFASL

QDKNATNKLVTEIAPKFKDRNGGYTRIIKTRIRRGDAAEMAFIEFVA

>CCK67669.1 DNA-directed RNA polymerase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRNITTSAYTPTEFTIENISDTVAKISAWPFEIGYGITLAHPLRRLLYTSTIGYAPTAIHIDGVAHEFDS

MRGMLEDVALFIINLKKLRFKIKGDSNKEIVEFSFKGSKEIYGKDLNNDQVEVVNKDAYLATINEDAELK

FTLIVEKGIGYVPSEEIKELINDPKFIALDAFFTPVREATYDIEKVLFEDNPDYEKVVLTVTTDGQITPN

EAFQNALEAMYKQLSVFDKITNVRSVIKNQATSNELENTKLLQNITDLNLSARSYNCLEKAGVVYIGELA

LMSVSELAGLKNLGKKSLDEIKNIMESIGFPVGTSKLSDNKEILKNKIAELKAQNEG

>CCK67668.1 30S ribosomal protein S4 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MARYRGPVEKLERRFGVSLALKGERRLAGKSALDKRPYAPGQHGARKGKISEYGLQLREKQKAKFMYGVS

EKQFRRLFAEAARREGNTGVLLIQLLEQRLDNIVYRMGFATTRRFARQLVTHGHVLVNGKRVDIPSFRVE

AGAKIEIIEKSKNNPQITRAIELTAQTGIVAWVDVEKDKRFGIFTRKPEREEVVIPVEERFIVELYSK

>CCK67667.1 30S ribosomal protein S11 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKRKIVKKKVVKKNIAKGIVYISATFNNTMVTVTDEMGNAIAWSSAGGLGFKGSKKSTPYAAQQAVEDA

LNKAKEHGIKEVGIKVQGPGSGRETAVKSVGAMEGIKVTFLKDITPLAHNGCRPPKRRRV

>CCK67666.1 30S ribosomal protein S13 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MARIAGVDLPKKKRIEYGLTYIYGIGLFTSRKILDKVGISYDKRVHELSEDEAAAIRKEIQENYMVEGDL

RKQVAMDIKALMDLGSFRGLRHRKGLPVRGQKTKTNARTRKGKRKTVGAKS

>CCK67665.1 50S ribosomal protein L36 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVRPSVKKMCDKCKVVRRKGVVRIICENPKHKQRQG

>CCK67664.1 translation initiation factor IF-1 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKDDVIEIDGTVLEALPNANFKVELDNKHVILCHIAGKMRMHYIRIMPGDKVKVELTPYSLDKGRITFR

YK

>CCK67663.1 hypothetical protein BN148\_1589 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFNFITTLLKTNLYFLEEKTTSKNSNQTHIISLKQSDDEFLNLLFSFLVPQSDEDKNFIEKTRTKIKRNE

HNIVLIKNPNFNALIDTGFLDTIDTLKEKLHIHKTDFKDITHIILTHAHPDHIGALMSEENLFPKAQILI

DKKKYDFWIKSDRQEIKNTLLKLKNIEFIDHSKDLIFQNSGIKAIPAYGHTPGQNAIIIDDKIVFWGDLL

HLYDIQIPKPKIAIKFDIDQNEAIQTREKLLKEFKERKLKVIGTHVPFIKPKFLD

>CCK67662.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRKSKFGTKEIKILGLSSLGGTLEFYDFIIFVFFAEYIANVFFPKDMSEFWALLNTYGAFAAGYLARPLG

GIVMAHFGDKFGRKNMFMLSILLMVLPTFVLAFIPGYETLGFLAPVLLILIRIFQGIAIGGELPGAWVFV

REYCQEKQKAFFLSCLNSAMALGILLGSIVFLIINAFFSIEEIAAYAWRIAFFVGGIFGIISIYLRRFLQ

ETPVFKQMKKESSLSSFPLKDLFKEKDIVKNLFSSMMMTWVLTGCVIVLVLLMPKFMPSILNLSGVEGSY

LQILGILGIALGGAFMGYLVDKFGLFKICIFFSLTFVFFSFLYFYALYELKNLVLVCILYSIICFLGGIN

VFAPILMSEVFRAKIRFSGISFSYNISYAISGGITPQLVFWLNTLASKNENPFLYGMSIYMIFLALLAIC

AVFIVKDKIKF

>CCK67661.1 multidrug transporter membrane component/ATP-binding component [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPFIMELLKQNKLKLISFLLFSFITSAVGVLTLVFINDYLLKNAQNIPIFYFIVLLLIFFISSTIVELGL

SIFGQNFIFKMQRRVVKQILDTPLLRVAKVGKARILASLGSDVRNISFGLLRLPDFLQSSILILCTSVYL

CYLSPQIFALCVVWIMVIFITNNFLMMKVYQYFRKARENDDALQNNYQNILDGHKELLINRDRAKLYYED

EFENNARLKKKNSTLGNLFNNLSNNWTNVTLLALVGVEFYLALKFEWASVADATTIALSILFLRTPLVSM

IGSFPTLLLAKIALDKIAKLELDDYIEGFKKTHYISEWKKISFRNTQFAYEENFHLNPVNIELKKGELVF

LIGKNGSGKSTFCMLLTGLFKPSKGGIYVDDTLIDDKNLDEYRSLISAVFSDFHLFTKTLNKENFASEEK

IAFWLEFLELKNKTSVKDNELTLTKLSTGQKKRLAMLIALLEERDILVLDEWAADQDPVFRRFFYKKLLP

LLKEQGKTIFAITHDDAYFDSADRIFLAQNGEISELKGENIKELAKNLVEKFD

>CCK67660.1 single domain haemoglobin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTKEQIQIIKDCVPILQKNGEDLTNEFYKIMFNDYPEVKPMFNMEKQISGEQPKALAMAILMAAKNIENL

ENMRSFVDKVAITHVNLGVKEEHYPIVGACLLKAIKNLLNPDEATLKAWEVAYGKIAKFYIDIEKKLYDK

>CCK67659.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MANFKAFYKEAKYIFKDRIFNDYARCYAYGIDASCYFYIPKIVIIAKNEDEIKQIIQLANTYKTPITFRA

AGTSLSGQSSCDGVLVVIKFAFKKIKINKDANEITLGCGVVGIHANESLAFLKKKIGPDPATINSALIGG

IINNNSSGMCCGTKDNSYKTLRSIRVILANGSMLDTSDALSVARFKDENKKLINELREIKEEINANKELK

DLIIKKFKIKNTTGYSLNAFVDYDDEIDILAHLLIGSEGTLGFVSEVKLAVLDDLEFKACALLFFDNINN

AANTIKEFAKVDFVSSAEIMDYASLKAASTYDELRDILADIKEGNTCVLIQSEHSNELKLDENINKIKEI

SKLAYKSYFSKNKAEYDLWWKIRKALLPIAASLRKAGSTVITEDVCFNIEDLADGIKSIQELFYKYGFGD

NGIIFGHALAGNIHFIITPDLNNKLEFDNFSNLVKEMSNIVASYGGSIKAEHGTGRMVAPFVEVEWGKQA

YLINKKIKSIFDKDSLFNPDVIISDDKDIYKKNIKQVSWIDEKLNTCMECGFCERFCPSNEYTITPRQRI

AILREIKRLESLNDDESKAKLKDIKKYYNHLVDSSCAACGVCSFSCPLGINFADFSLKYRKNNIGFISKI

LGNLAYKNHEKTLKIAKFSLSIANKFDNLSLDNKLEKASNFLSIIPRTRAYLPKVNDYELKSHKRVCNVV

YFTSCLNKSFKPNEKMHDKRSLQEVFESLCKKANIGIIYAPNDLCCGKAYENFQDIQDKNIQKINDFLSN

IDSPIVLDHSACSAKLISDHSKYEIYDLSEYLLKFIAPKLRIDKINENVGLYIMCAARKLGLNENIIKLT

KLCTNGKVLIDNDTYCCGFAGYKGFFKPQLNISATKGFKKFYAKTNIKRGFSTSSTCEIGLSDATGISWQ

HIAYLLDECSEAI

>CCK67658.1 peptide ABC transporter periplasmic peptide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLRWFVLLFLLFLNLEAKIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKS

WDISKDGLVYDIFLRDDVLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLF

KPYPAFLDALSIGMLPKHLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLI

IKHIFDPSIASAELKNGKIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALN

YAVDKESIVKNLLHDYAFVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEF

EIWAMSNDPLRVSLAGILQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQD

SALNDEGWNFGHYHDKKVDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGI

KTRTLGHHGVGFTWNVYEWSK

>CCK67657.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKRLVFSIFIAFFSTFLCFVLLHFSKGSIAYANGVNSQSKEFVQRIEQNLGLDKPLLEQYKIWLFKALK

GDLGVSFLSGESVLKLIKERIFNTFILGFSALMLLFLLSVFLALLGYYYKESFIDKIITFLAFNFFALPP

FVLALLFVLIFGIFWKILPVMGSSDIGFEDDFLNRLEHLILPVLVLVLSHLALFLRIARNFINESFSQIF

IQNLYARALREKDIYFLVLKYSLSPIVAYFGGSALSFMMGTYVVESVFAYKGLGSLLFKSIIFKDYPIVL

ALIFFSVLLAAFFTFLSDIVARILNPRLRRLDFV

>CCK67656.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MILFKFLIILAPLIFLFLCALFAPFLALFDILSTHLENLHQAPNFTYILGTDFLGRDLFSRLLFALRNSL

IIGVGGSLLSIIFALCYLFLARCFFYVFCMRILEFFLALPAFLLMMFFQSMITSDVFLMIFLIALIHWCF

IARIIESELKRLENLDFYKANIVLGRTKFRAFFKDLIPALKTLIFTLFIFNIVHAIATEATLSFFGLGLG

FEIPTLGTLLSESSKAVFIGAWWMILFPLLSLLLLFLPLLWLGNFLQKIWGIRS

>CCK67655.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVRNLNISSKNNLLLKDINLDIKTGKTLMILGQSGVGKSLLGKALVRLLDSNFTISFDELSFHNSCIFN

FNKEELRNFRSKVALVLQDAELSLYPYLDIGNLCHLVLKTHTKLKQKERKDYAFSYFQKLGFENLDRLWH

SYANELSLGMARRVSLALALLNQPQILICDEITASLDKENASKIISILKELKNTTALVCITHDLNLVNSL

ADEILMLEKNSSNLYSLNEFLRYYNA

>CCK67654.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKVCNLSKFYELKKHWYLKKERHIIFDNVNFSLNENDNLIILGKSGAGKSTLARILCFLEDPSEGEVWY

ENLNLHKLDKNKQRLLRKQIQYCFQDQKMALNPYKKIKNLIQDGLENFNLQKNDDLILEFFDFFSLKKQI

LEQKSYELSGGEATRVGLIRALVLNPKLLILDEITSAFDIKTSKEILTFLYDYQQKNNISYIFITHQSDL

FYKFNHKKLKL

>CCK67653.1 NADH dehydrogenase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSHIDASHPYFGIFLMLVLASVIFFGLVFLASKIGNNFAAKNRKKLGLGIYECGPIPVKQANKINSQFFI

IALIFILLDIEVVFLFPWALIFKDLGWFGFLEVFVFIVLLGVGFLYAYKKGAFAWQSIK

>CCK67652.1 NADH dehydrogenase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAEHQVNYASGLPVVLTSVDKLVQWGRSNSLWALSYGLACCAIEMMAAGGSRYDFDRFGTIFRASPRHSE

VMIIAGTLCKKHAEFTRRLYDQMPDPKWVISMGSCANTGGMFNTYSTVQGVDRIIPVDIYVPGCAPRPES

FQFALMILQKKIRKEKASRKIAPKRLI

>CCK67651.1 NADH dehydrogenase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMRKYSDKKNAQTQNYYKDRFYHAPHTVKSDVNESVFKEDFEVLKTQVEILNSFVELDFWVIEIKKEDNV

KTLQMLKTLGYLSFTEASAIDFIADKNGFEVFYQLLNLEKKLRVRIKTFVGVKERLQSVAHVFKGANWSE

REIYDMFGIFIINHPNLKRILMPDDWFGHPLLKTYPLKGDEFARWYEIDKIFGKEYREVVGEEQRDSGFA

DDKDTLNFARLYHEVPKGGQKKEISFKQEYQEDEGVAFVKKVKRDEAKILEKRR

>CCK67650.1 NADH dehydrogenase subunit D [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQIPSKLKPYYENIAFEQEDSKMIINLGPQHPSAHGNLRLILELDGEQVVKARPCIGYMHRGMEKMAENM

IYQEFIPTTDRMDYIAASANNYAYCAAVEKLCGLEIPRRAAVIRMILLELNRITSHLLWLATHALDIGAM

SVFLYCFREREYVLDLIEKYCGARLTHSSMRIGGVMLDLPENYLEEMLAFCDKFPNDLKDYEDLLDDNRI

WRLRTENVGVVTKEQALNWGCTGVMLRGSGIKYDIRKEEPYLLYNEVEFGVPYATQGDSYARYKVYMQEF

RESLKILRQCAMLYKDTSPEILATHPEYVSASKEQILTQNYSLMQHFVLITQGLKPPKGEVYVPTESPKG

ELGFFIHSDGTGRPYRLKARTPSYWHCAFFEEMLVGTYLADVVAIMGNVNIVLGEIDR

>CCK67649.1 hypothetical protein BN148\_1575c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRRVDLRKSKELFEDLAQIIKEAKQGEVLVVLFEIGDFSPVEKSFSFVKEQGCELLNSLKFNQVDWTIVI

KKERV

>CCK67648.1 hypothetical protein BN148\_1574c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIYDNALCFLDMPSLKNKNLCEKIGVNSINISCLEDKNLKAKFYKCEIASLSFVLALLCKLSDEGQFCDL

DEGYLSAESCFGEEEAGEVLAFLKEVKYLIIDKNIHSYKDSENIKYFLNFLSVKYGLKILDSDEEECDFK

KAKLNTLKELDNYDGLVLFRANLQDKNLHCSKQFLQIAKCKDQSEVEILAKDFSFKTKLCLDENLQGTIA

FLNYENNGFDFTPIRIKEAK

>CCK67647.1 NADH dehydrogenase subunit G [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTVKINGIDCAFEEGEYILNIARRNDIFIPAICYLSGCSPTLACRMCMVEADGKKVYSCNTKAKEGMVVE

SDLQNLWDERNEIMQAYCINHPLECGVCDKSGECELQNFTHKSRVNVQKHWIKDTHKPHKHWGMINYDPA

LCIVCERCITVCKDKIGESALKTVPRGGDSVDNSFKESMGKDAYAIWTKFQKSLIGPANGDTLDCSFCGE

CTSVCPTGALIGSKFQYTSNIWELKRIPASNPHSSDCELMYYDIKQSGISNQKEKIYRVSNDFAFASLNK

AARFAFDTQNEADKDEKAFKELVELFEKNEIKNIKFNSFITNEEALILQNLKKKFNLSLINEEALKFKEF

LQEFIANSGEFYSANTQDITKSDFLVVAGMLLRYDAPTLSYKINNALVMNKGSGLYFHPMEDMGIAKYSK

NFIPHIHKNGDEEQILYFLLQKFSQDEGIKTHLAEFFVSENKEIEESINEEVVEQVIEKDEEGNEIQKEV

KKVVPKKVKKIIEVQRSVFAKNLGIDEDKLEDLLLKKANFTLVAGSDFYFHKNAKKLAKLLALIQNTTPF

KVFLNPTHTNTLGVAMICDLDNNTQEGKTLGYNEKGDFSFSYEEHANLASASLNQQEGTFLNYDKRVVPT

NAALEFKGYFLNDLANALGFDEEYTINYTKRLPINKGFSPIDFDHLDNFYTNAGDCKRGYELNLECFKQV

AKKEFISPNFENLSLKEDEILLYSANPSYQFGRFSNRASAINEVIFLGVSENLAKEKNLKDKDLVKLKIK

DKELSLSVRVDKDIKNGAFLPYFDEKLDTLSFFDERFVVANLEKLGANHE

>CCK67646.1 NADH dehydrogenase subunit H [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSDFAFFALETLIKCIIIIAIFASLAGLATYAERKVLAYFQRRIGPDMVGPFGLIQLVADMIKLFTKEDI

IPSNSQKFIFAIAPLISAICAFVSLAAIPMLPEFTLFGRVIQPIVADINVALLFVIGTSGLCFYAVFLGG

LASNNKWSILGAARGLVSIISYESVGALALIAIIMLVGSFSLVDINNYQSDGFFSWLIFKQPLAFVLFII

ALFIETNRTPLCLTENDAEIVAGYGTEYSGLRWGMFFIGEYTSMIAGAILVTLLFLGGFNSFWIIPGWIM

MIVKSSFIFFWYFWARAAFPQLRPDQVMKMCYLILIPLAVLNLLITALTVLL

>CCK67645.1 NADH dehydrogenase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNYYLVDEKRKTPVSTWEKISQALRRSVKLELFVGLFVMMRELLKRNNSATIKYPFEKVKLDNRYRAVH

RLMRFIESENERCIGCGLCEKICISNCIRMETSLDENGRKKVENYSINLGRCIYCGFCAEVCPELAIVHG

TEYENAAEQRSYFGYKQDFLTPIDKLKNQVEFEGAGSLRKDANLWVKKTPNYYDVMIERALENQNTQEQG

ENK

>CCK67644.1 NADH dehydrogenase subunit J [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIENLAFVFFSVVVLGFFGIAVLSKNMLYSLSALAGGMVFLSGFYFLLDAEFLGVIQIIVYSGAVLGLYS

FAMMFFDASKEFKEQLKAKKSFFTLVVLSTILLLAMLIGFKYQNISTDLPLNDPALFDFNKQLALAIFSK

YLLAFEFIAILLLIALVCAIVLTHKELTKEKQ

>CCK67643.1 NADH dehydrogenase I chain K [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIEKYFFVAILMFVIGLVGILKRQNLIMLFISSEILLNSANLALVAASKMHNDLNGQVFALFIMGVAACE

VAVGVALCVLWYRRKGTLELKSLKEVEA

>CCK67642.1 NADH dehydrogenase subunit L [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNLALISLFSPFVAFLFASCFALSEKKQFVGIICSLLVALSAFCSLYLLFCNEAFNVSLFEWFAGVNFG

FDIDAISLTMMSVVGIVATCVHFYSIFYMAHDEGFNKFFAYLGLFVFSMLFLVMSDNFLGLFVGWEGVGL

CSWLLIGFWYKNDTYSFAANEAFIMNRIADLGMLLGIFWLYLQAGTLKYDEVFSMAQSLDHNALILIATC

LFIGAMGKSAQFPFHTWLADAMAGPTPVSALIHAATMVTAGVYLVIRASTLYDLVPEVSYIIALLGAFVA

IFAASMALVVRDLKRIIAYSTLSQLGYMFVAAGLGAYGIALFHLATHAFFKSLLFLGAGNVMHAMNDKLD

IKKMGGLFKPLKITAILMCIGSLALAGIYPFAGFFSKDLILGYSFISFHHGIFLVLLIAAFLTAFYSFRL

LMLVFFTPARHDEHPHEASKIALLAMSPLMVLAIIAGFFEHSFFEYLSTKLVFIDAQNQIVMICASVAAI

LGAILAIFAYKNSWFKESIEENKIHKLLSNDYFIPQFYHQFIVSKYESLCAILKHCDLYIFDRIVEKIAL

YSQNISQKMIMPNSLNLMLRFLVAAFVILLILVWMV

>CCK67641.1 NADH dehydrogenase I chain M [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNYLIFFPLISAFVVLLLNRGGVKVFSVVVSFMILALNLDIFADFLQGVSFDYNLSFKILKFFSFHVGV

DSIALVLILLSSLMIFLSFLFLKLEQKALISCIFFLEFAIMGLFSAKDGLLFYVFWEFSLLPLLYIMGVY

GKDFRAGVKFFIYAFAGSILMLVALIYQAYLNYQLLNIFTFDLEIWKNNASAVNFTEQLLLFGAFFIAFA

IKAPLFPLHTWAPKVYANSPILVSVMLVVFKMAPFGFLLFCLPLFPDASVYFMPLIVALCIVSIVYNALI

AYRAENIKELIAYSSISHLGVMILGIFSLNALGISGAVFYMFAHGIVTGALFLMVELLYQRYHTYDISFY

HSLAKKAPLFSIFFMLILLASVSLPLTVSFVGEFLILLGIAKINLFYALLAGLVIILGAIYMFAVFRKIF

FMQKQSFIEGFSLLFREIVALVCIVVMIFGLGLMPNILLKPIQKDVDNLIKTMNIRAVEQNTLDFLSKIG

EANVK

>CCK67640.1 NADH dehydrogenase I chain N [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNNFLNLELLNISLSYPFLFLITTAIVLLLCSGFWKFHRSFYIGISSLSLIVSAFLILNNANAQGLEAK

AFLATLNNDIVSFYASLVILCFSFLYLLMQKEENQGEFYALFLFMIASLLLMVSSSNLVLIFIGLESSSL

ALYTLIAMRGSDNAISSAIKYFSVAAVGAGFFVMAVAFIYLKTGTLDLSANLALKNEFQKDPMLLGAGVM

IFVLCAIKLSLAPFHFWLKDVYYAAHTNLVAFISVVPKVAMLVVVIRLFDFLNNTGFEYIIIVLAIFSML

IGAFAALSQNNIKKMFAYSSVVHSSLVLVACIPLLKEQNFDGILLAIFGYWTLFAFANYAVFMILSNYEN

NSYESLNGLLVKKPLIAFCLSISVLSLAGIPPFGVFWGKFMILNTAILNGYWYLALFVALSSVIMLYAYL

KILIHALFMKNDRVHNIKFSFIQNFILAFCVCVSTFVILLML

>CCK67639.1 paralysed flagellum protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRILFLILLSFLNAFAFELVLNTGRENNQAFAVLHASNDLEFTCQKFITEAKVHFECDIVGMVDNKLKDQ

SFSAFDLKFIQEAQKIKMIILPKIQARMFDTSQNIYIDKELSSSSSHKSKAFTFIFTPELAPIKDYDGLD

FNINFPHESLPYVGALDLNSDPVVIPQSADINTYLRIKKEYDKANYNQVVIDAQNAINRYRGSIFTSEFI

LYKLRAQNKLYTQDPSMRDQQILEKMIDDAKNWTRTFTSDKNFSEVLHIMLRTYIALAQRADVEYTMSIL

DNEQPNNYFTQLSKLDYADYIYNLNEKEKAVNIYENTYFNTKNLDLAARAAMSLAKNLLSNEQVNKAIEY

INTILKANPEYFGKDIPRSLELAKLFNQKGQFDISASIYEDAFAKMSKLDPSYEETLKDLALVLSHANRS

SDAKKYLDLYMDDYLDGKYLDEIKKASDEVFFALGDNNASFLHQRYTDLMKQYANKDENIANKALDEDVA

LYYKEGNFSAILAYKDLIESKKIPNATQFLEKAAINDLKNAIKADNCINAANIFMRFSAYDIGQKIENKK

QMLACLIRTSNVEQALDYIDKNYNEDSIFYGLQKASILFDNKQYPQVIKISKDIANSRILKSDDENFKAY

YLQFLSLLRLNDYNQAIKILQILESFPMNFSMVEAYDALLSYANDHNMQTTILTYAPKAIDYQNFKGINL

FSPNLEFIYLDALTKINKNEESLAVLTDLLKLKLSDEDRARALYIQALTYERMQNIQAEKESLKQCLEIK

SASNWQNLCKSKNQILNQ

>CCK67638.1 methyl-accepting chemotaxis signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKITKIKRKIMNSIKIKLSLIANLIAIFALIVLGIVSFYFTKTSLYESTLKNQTDLLKVTQSTVEDFRS

TNQSFTRALEKDIANLPYQSLITEENIINNVGPILKYYRHSINALNVYLGLNNGKVLLSQKSNDAKMPEL

RDDLDIKTKDWYQEALKTNDIFVTPAYLDTVLKQYVITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTP

GNTFLFDQKNKIFAATNKELLNPSIDHSPVLNAYKLNGDNNFFSYKLNNEERLGACTKVFAYTACITESA

DIINKPIYKAAFIQAIVVIIVVVFSVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSND

EFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQ

ARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQ

SLTTSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAA

RAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTK

DNVEIANESAIISSTVSDIANNILEDVKKKRF

>CCK67637.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAYTIKKVEKETKISAHTLRFWAKKGLFPFVQKDENSVKYFSKSDIEWVKWIEWLRISGMPIEQVKHYIK

LCSLGIKTAKERQEMLKQTKKKLQNQIKTLKESEKVLSKKIKIYEEMLANEVDGFNPESKDYQPCDKLHK

FKG

>CCK67636.1 hypothetical protein BN148\_1562 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYVRRQGTWAYYGINNELLKLHLDLFENIKNLELKNAIKKNENIITQICP

>CCK67635.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKFLAIISAINDESRVLILHHLLRYKELCVCDLQELLNMGQSRLSRHLKILKDAGFCM

>CCK67633.1 hypothetical protein BN148\_1558 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQSFLNTFKEFLYLFTELSVLFIAISFLVSIINQKYEGIFKNNLLVTKFQVILKLYF

>CCK67632.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKYHSLCPIETTLNLIGNKWKILIIRDLLQGTKRFGELRKSISFTKNQNISQNVLTQNLRELEEAKLIK

RKVYAEVPPKVEYSLTSLGNSLESILKSLENWGNSYKNIV

>CCK67631.1 hypothetical protein BN148\_1555c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIAILCASGKVGKEISKEALKRNLEPVCFVRNSSKMNEFLPQAKIVQRDLFELDSKDLIDFDIIIDAFG

EWENLSLHKKHIECLSVILQGSKAKLFVVGGAGSLYMDENHTTRLMDMPDFPKEYLDIAKASAEVLEFLR

NEKGFKWVYVSPSAIFSPDLPKSNHYKIIGEKFEVNANNESKISYSDYASAMIDIVLNSCYENTRIGVIS

L

>CCK67630.1 type I restriction enzyme M protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKKKEIKLEDALWKSADKLRKNIDAAEYKHIVLGLIFLRYISDSFMQKYEELLKEQDDGADPEDADEYL

ADNIFFVPEKSRYNYIRDNAKNPKIGKMLDEAMDEIEKHNDTLKGVLPKVYAKDNLDSKCLGELIDLIGN

IAFDTGKSTDVLGHVFEYFLGEFALAEGKQGGQFYTPKCVVELLVTMLEPYKGRVFDPCCGSGGMFVQSE

EFVKSHQGRLDDISIYGQESNQTTYKLAKMNLAIRKIESSQVIWNNEGSFLNDAHKDLKADFIIANPPFN

DSDWSGELLENDGRWKYGVPPASNANYAWIQHFLYHLSPNGGVAGFVLAKGALTSNTTNEAAIRKALIED

DLIDCIVNLPAKLFLNTGIPASLWFIRRQKLPKTVKKTLFIDARDLGTRINRRNKTLNKDDINQIANIYK

AWKNGTDYEDIKGFCKSVSIDEIRELSYVLTPGRYVGLADSDDEFDFDTRFNELLAKLKSQIKTEQELSE

IILKNLEKIK

>CCK67629.1 hypothetical protein BN148\_1552c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIRTVMDFKFVLRLLEANQFENEVVEYKKNNKDFIVLGKNISALSNTAALLGIDKAYIIFGIEDGTLNIV

GTNFKPKQEKKGNEELESWLHKVLKPNIEFKIHEITEKEIRLVVFEIEATKISPIKFEEKAYIRIGSNRK

ELDKYPEKEKKLWQVLSGFSFENEIAKSNLNIQDIYDLLDYSKCFDMLDISYDNYSSDEYIIEKLIEHGL

VKNLNDSFAITNLGAILFAKDLTKFKGLNRKRIRFIRYQGKNKIHTLEELEGRKGYAIGFQGLISYIMQY

VPKNEVIENAIRKDTTLYPEIAIRELVANAIIHQDFTINGRNPMIEMYSDRIEITNNGKSLIDIKRLIDM

PSKSRNDKLANLMRIMGICEERGSGVDKVIDSVEAYQLPAPDFINNEDYFQAILFSHMPLEDMTKQDRIR

ATYQHCCLKWASREAMTNASLRARFKIGDKQHSKASKIISDTLEAGLIKQQDPENKSTKHVKYVPFFV

>CCK67628.1 type I restriction enzyme S protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNNWKKCKLGDIAEITMGQSPKSEFYNFDNIGMPFLQGNRTFGRKYPYFDTYCTEYKKIAKKGEILFSVR

APVGDINFANNDICIGRGLCSMNAKNGENEFLYYLLHNLRSVIINNESGSVFGSVNKNDLQTIEILLPLL

EEQRQIATILSSIDDKIELLHEQNKTLEELAQTLFLNWFKDREFNSTISDFISMQNGFAFKSKDFIDYGN

NGVIKIKNISNGIVDIVNTDKISQNTINEVNNKFNINSGDILFAMTGAEIGKMGIVPSTNKKLWLNQRVG

MVKERFLGARFLAYIHLTSEFGYDYVINSATGSAQENISATDIENCPFVKLTSEEIVSYSKQLNDFFEKI

IFNLGEIQTLENMRDILIPKLLNGEIKITN

>CCK67627.1 ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKYKFVKFQVKNFRSLLDITLNIDNNNINTICGENNIGKTNFLRALNLFFNHNNGVEYNQNEDRPYHIQ

KGSTGGRKTELIGYFTKNNVTHILKVEFHKDKIVYILNGKMVEWKVARDIVESFKLLFIEASNVNMPSVI

SAILENDALLALDNKRKKQSEPLRTLKLFIEQSKKAIEDIEKDINIYLKQMLDFDNTLKDKEIKIRFAEF

EKLRDVVKTMTSVTLDDGNDHLMDHKGSGAQRIVLLSLMQYITDKITTDIIWAIDEPEAFLQPKLQKKIM

EIFKNIVREKKQPIIMTTHSQYFVDFNNLVNTHLFKLTKEEKIYARKKGRVFQEINTKPIYIGTAFEKLS

VIKKHLGIETNDNWDIMPYNILVEGEEDKKYLQMLIEILNLSMPNIIHSGGATKIAGFLEYFNNQCSYTS

FKPYFICIFDNDEEGRKQYNKISKDNLYPNIKLDAKKLKRYGESIQENNRDIWEIEDFMPIKIIVDAVNI

ILKYKQYNTITNSQISDRKKLAFKNMSILDYLEKCIADRNEEKERFILNTESRKKEICQNAFRAREKYTK

NDLEDYHVDFMNELIDSFNKVDLIKKDN

>CCK67626.1 type I restriction enzyme R protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKAKTSEFDLEQFVISSLLEHGWCYEKPVRATDEVLLETSLVNALCRLNPQLDLSKANEIYKELKSKNH

LSLLDSNENFHYKLVNGVNINTTKDGESRADIINLIDFNNASNNEFIATNQLSITEAKENKIPDVVLYIN

GIPLVLMELKSPSDENATINSAYNQINTYKQTIPSIFTYNAFCVISDGYFARAGSISADFSRFMAWKSSD

GINYAPNKSLEIKTLIDGMLNPKTLLDIICNFIVFEKEQIRDLNGILSIKTTKKIACYHQYYAVNKAISR

TITASSKDGDKKGGVVWHTQGSGKSLSMVFYSAKAIKALNNPTILLITDRNDLDDQLFGTFASCANLLRQ

EPKQANDKEHLKELLRVASGGVVFTTIQKFSPENDNVFECLSLRDNIIVIADEAHRTQYGFDAKVVEEKS

KSGDVLGQKIVYGFAKYLRDALPNATYIGFTGTPIESHDINTPAVFGNYIDIYDISRAVEDGATVSIYYE

SRLAKIELSEEGKRLVNELDEKLENQDSQKAKATKLEALVGSTSRLKQIAKDIVKHFETRSSKLGGKGMI

VSISRSVAIKLYDEIIKIRPSWHSDELSSGAIKVVMTSSSSDGVEFSKHHTSKIQKQFLANRMRNIDDEL

KLVIVVDMWLTGFDVPSLHTLYIDKPMKGHNLMQAIARVNRVYKDKPSGLVVDYLGIASDLKKALSFYSE

SGGKGDIITTQEDAVKVMIEKLEIVEQMLPNDYEKYFELDTGAKLEYILDVEEHILSNEDGKNRFIKEFA

ALDKAYTIAMPHEKALSIKNKIAFMYAIKARFLKFAKENENENLLNQALIKQVVDKAIVSSKVVDIFDAS

GIKKPDISILSDEFLLEVKNMKRKNLAFEMLKKILNDEIKAREKLSLTKAKKLAQMLSDAIKKYNNKLIS

SSEALDELINMSKSIVSMEDEAKKLGLKDYEYAFYSALACNDEYEKILGNEKLLALVSEILQIIKNNVSI

DWMIKENVRARLRVAVKRVLNKYGYPPDMQQLAIDGVLAQAEILAKELANE

>CCK67625.1 NADP-dependent alcohol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQYKILENNRIASKGYAMLSKDAKFTPFEFSRHAIGDNDILIKILYAGICHSDIHTARSEWGEATYPCVP

GHEIAGEVIAVGKNVSKFKVGDYAGVGCMVNSCGECDACKRSQEQFCENGKTIFTYNSCDVFHGNENTYG

GYSNNIVVSEKFAVCVPKDAPMEKVAPLLCAGITTYSPLKFSNIKEGSSVAVAGFGGLGMMAVKYAVKMG

AKVSVFARNENKKADALAMGVSSFYTSCDKNAVKERFDLIISTIPTPYNPAIYLDLLKFGGEMAIVGLPP

HEVAPSISVITFVHKAGKKVYGSLIGGIAETQEMLDFSLKHGIYPETELITPQEIDKAYENLTSGKAKFR

YVIDMTKE

>CCK67624.1 Blc protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLELIGELSLQNYMGEWLEIARKPAFFQKSCLNSKAKYELKYKNGIPYVEIENFCSKKNEISSIKGKAKI

VSNRQLAVRFNIFMNLFNKVNYEIIFVDSEYKVAIVGSPDKKYLWILARNIIDEKNIKELLNIAKQRGFD

ISDVVFDKY

>CCK67623.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTKENSPCNFEECGFNYTLALINGKYKMSILYCLFRYEIVRYNELKRFLSSISFKTLTNTLRELENDGLI

IRKEYAQIPPKVEYSLSKRGQSLIPILQAMSKWGKKDKKGKKCLN

>CCK67622.1 MdaB protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNILLLNGAKEFGNSKGQLNLTLHNHALEILKTLGYEVDQTHIDQGYDPKEEIQKFIKADAVIYQMPAW

WMGEPWIVKKYIDEVFGLGAGVLFKNDGRTHENPSKNYGKGGLDHGKKYMFSLTWNAPLEAFNDKNEFFE

GKGVDMVYWHLHKAHEFIGMKALPTFMCNDVVKNPQVEKYLNEYELHLKKIF

>CCK67621.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTRTKYLYILLVIAMFLWGSSWPTSKILANYTDTSIITFWRFFFVVLGSFFVLNFLKIPLKIEKTALKWV

LIAGVLNGLYAFVFFIAIKHGLAGKGGVLVTTMIPIFSYLIFMIAIFFQKNKKSTHKITKSEILGLFLGL

LSGFCLLNLGSLEDLFGKFNILFLTCSFIWALMAVFNHKAKGAHPLAINFYINLISILMFSWILFDVKSY

EIFHFEFKFWISMFVVAFLSTIIGTSIYYYGIHILGSVKANSFVLITPASALICSYFILDEVPNALTLLG

CALAIGAIYFINIYGKKA

>CCK67620.1 allophanate hydrolase subunit 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSIKIIEASINSSLQDFGRKKFAKFGIARSGAMDEDALRMANILLGNKQDEAGIELCLKGGKYEFLDENY

FVLSGAEFEAKLDNQKIKTCKVYQANKGDILELDLAKIGFRGYLCVAGGFEVKSFLNSKSSDAKMGAGVF

EGRALQKDDILNTHNTFIPFNLEARECENPLFKSPKEPIIRVILGTNEDAFTQKGIETFLNTTYKVGLKS

DRMAIYAESSESIEHKNSADIISDPAVFGSIQVPKSGIPIILMAGRQSTGGYTKIATVIENDLSLLAQAK

LGSSFKFQSISMQEALELYKQREMKFKAMDQKINLDFENLI

>CCK67619.1 allophanate hydrolase subunit 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFSVHFSGSKALLLRFEQEISPQINAYVLSTEQRIQKALKEGEIYGIDELVSAYASLLIYFNPCVLSLNS

LLDFLEKIKKDIKLAEQNSSLCIEVPLCYDEEFGLDLEFVCKHNQISKEELISLHTKPYYLVFMLGFMAG

FPYLGGLDERLFTPRLSSPRAKIEAGSVGIADKQTGVYPISSPGGWQIIARTPLEFFDKEDEKNPTLLKA

GMFLKFKAISKDEFFDIQEQVAKKVYQKEIYEYKNH

>CCK67618.1 LamB/YcsF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFKVDLNSDLGESFGAYKMGMDEEILKFVSSVNVACGFHAGDPCVMDETLNLAKQNGVCIGAHPSYPDLL

GFGRRNMQISFEEAKNYALYQLGALFGFAKAKGMKIQHFKAHGALYNMAAIDENLALALCEAVASFDENI

IFLGLSNSAMNEAAKKKGLRYANEVFADRAYNDDGTLVSRKLEGALIHDENLAIKRVIKMIKESKVTSIN

GKEIDLKADSICVHGDNAKALEFVKKIKENLKKEQIQICALENFI

>CCK67617.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIISLALALALSASAAELKMATTTSTDNTGLLDALKPLYEKESGNTLKWVAVGTGAALKMGEDCNADV

LFVHSPKAEKEFMKKGFGVDRTPVMYNDFIIIADKSLASKFKGKNLKESLELIKNEKLTFISRGDKSGTD

NKEKSLWKNLGGVPEKQSWYQQSGQGMLASIKIAEEKKGVILTDRGTYIKYEANEKGKPNLVIVNEGDDS

LKNFYSVIATNPKHCKNVNYTEASKFIKWVTSDKTLNFIADFKLLNKPLFVIDAKTRKD

>CCK67616.1 anion-uptake ABC-transport system permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKLLILKRIFLDYIFDGFKQALFLLFNADESVISAIKTTLLSSSISIVLALLIGFPLGFILGFFEFKLK

RFIKLIVDTSLSFPTVAVGLILYALISSRGPLGEFGLLFTIKALILGQFILALPIVIALFSNLIENMNKK

HFLLIKSFHLSPLKLVLTMIYELRFALISVVALAYGRIVAEVGVAMIVGGNIKYDTRTITTAISLETNKG

EFASGIALALVLILIAFCLNFITHKLKRT

>CCK67615.1 anion-uptake ABC-transport system ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIEISNLFFNYQNKEVLKIKNLKLDTSKISILMGANGSGKSTFLRILKFLEGDFSKNISYFGNFKPNNKQ

KREIYLLFPEPILLNRSVRANFLFTLKTYGIKEDIEERIKESLMFLNLDESLLSKHPNELSSGQSQKIAF

AIALSVRAKYYLLDEPSAFLDKNTTLLFKKTILKMHENFNTGFLIASHDKHFLDSLAQKKLYLHSGEILE

FENTNVFELENQGVKFCNFIDFSNCKKYKDFKKPPSKIAIDPYKISFFNSKNIPKNNYDFILEKCYIIAL

RSRKSDVFIRVSCMDKILEFALEKQEFLRFDLKLYEELSLYFYEDAICFLN

>CCK67614.1 acetyl-CoA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNQNNQELFKPSKEFSRNARIKNLCEYYDLCDEAKEDFEGFWKRQAFEKIEWFSPFSRVLNEDKAPFYK

WFEGGTLNVSYQCLDRHMKTRRNKAALIFEGEMGDYEVYTYRRLLHETCKAANLLKKFGVKKGDRVVIYM

PMIPETAIVMLACARIGAIHSVVFGGFSPEALRDRIIDAGAKLVVTADGAFRRGKPYMLKPAVDKALSEG

CESVEKVLIVIRNNEPIEYIKGRDYVYNELVKNESYKCEPEIMDSEDLLFLLYTSGSTGKPKGVMHASAG

YILWAQMTMEWVFDIKDYDNYWCSADVGWITGHTYVVYGPLACGATTIMHEGTPTYPNSGRWWRMIEEYQ

ISKFYTSPTAIRMLHADAPNEPRKYDLSTLEVLGTVGEPINPSAWKWFYDEIGGTKSPIVDTWWQTETGG

HMITPLPGATPLKPGCATLPLPGIFAEVIDEEGNKKDEGEDGLLCITKPWPSMIRGIWGNDERYIESYFS

QAKKDGKAVYFSGDGAFYDKNGYITITGRTDDVVNVAGHRIGTAEIESAIAKHPSVAESAVVSILDTIKG

ESLFAFVVLSPASSCDLGGAIETLKELNDILRVEIGPIAKIEKILYTPGLPKTRSGKIMRRILRTIARGE

EIKQDISTLEDSKVVETIVKLAKAEFE

>CCK67613.1 UTP-glucose-1-phosphate uridylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLQTCIFPAAGYGTRFLPATKTLPKEMLPILTKPLIHYGVDEALEAGMENMGFVTGRGKRALEDYFDISY

ELEHQISGTKKEYLLDEIRSLINRCTFTFTRQNQMKGLGDAVLKGRPLVGDEAFGVILADDLCVNEEGLN

VMAQMVKIYEKYRCTIIAVMEVPKEQVSNYGVISGNFVEENLIMVNSMIEKPSPDEAPSNLAIIGRYILT

PDIFGILENTKAGKNGEIQLTDALLTQATNGMVLAYKFQGKRFDCGSVEGFVEATNYFYEKSKC

>CCK67612.1 glucose-6-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNNTLFFKQSEIHTISSYANRINDEVKSGDIGYYHLIDTSLNLIDESLQFIQDKEYVKNIVLVGMGGSS

CGVKALRDMLFNEKSNQRELFILDNTSSHSFNKTLEKIKLEESLFLIISKTGSTIEVVSLFKLLIEHFKL

DMQELKKYFVFITDKDSKLHQEGENLGIKCFFIPANVGGRFSILSAVGIVPLCFCGYNAKALLEGAKACF

EDFFTHKKDEILQKAYHYCTHKNANINVLFSYSDAFKGFNEWYIQLIAESLGKKQGYKRIGLTPIALIGA

RDQHSFLQLIMDGPKNKTVTFLKIKDAQKAPIIPDIHFKFLDSLSNKVNLHELLNAQCDATMHALIAENL

SVDVIELEKLDAWHAGYLMYYYELFTSTCGVMLGINTYDQPGVEVGKLILKNILNS

>CCK67611.1 bacterioferritin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSVTKQLLQMQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEMAELFDSCAERVLQLGEKAITCQK

VLMENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLWMIG

ATLQGACKM

>CCK67610.1 hypothetical protein BN148\_1533c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVLNFFYENHPKFEVSYERKNQISKPNIIIKGPRFCGKKTLIFNFLSQFKASEILFLDLYDTRFEKQSL

ERLADFLNENLQIKILCLYNLDFIPNLEKINIPIILSTNIKDLNVNGFEELELDYFDFEEFISVSKKNLP

INNLVGLFLQSGRSKFGEKNILLRQSFTLLELEILKYLALNLGQQISISKIFIELKKRLKTSKDSVYQAI

KKLENTYVIYTLKHDEKKLQKIYFKDFGLRNNLCISKDFSHLFENLVLSELFKFKEEFFYNKYFNFYSQI

SKIAYISSPTLDIDLIKLRAKKILPKALELGIFHVIFITLSSEDNFFEQGVKFEVISFDKFSLGF

>CCK67609.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKPIIIFFSLFLIPLFADDLKSGFGEEYYKLDIDQKRQIFFIKMNEMFDQSFKKIEQERAFIEAFFKDAY

KTGFRTSNQINLEKLITIKNKYRIENLYDFAEYKKRIQKIPKSMGIAQALVESATGTSRFAREANNLFGE

WTWGEKGLIPDLRHPDKKHKIKIFDSLQDSVDSYVLNLNRHFAYEKFRDARAKFESEGKEITGLEAIKTL

DSYSERKGYYINLITKIIKRYNLEKYDTNSNNT

>CCK67608.1 diaminopimelate epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFYKYCASGNDFVITNADRKEDRSALAKELCNRYEGIGADGFIVILPHEKYDFEWEFYNNDGSRAAMCG

NGSRAAAHFAHHINKINPNMSFLTGAGIIKAKVNQDKVEVSLGKIKSVQNTFEELGKTWQLCNTGVPHLV

HFCQNLDEFDTMLCQKMRQKYNANVNFVKILDENHLKVRTYERGVEDETLACGTGMGACFYLAFLNKKVQ

NKVKITPKSGEEVGFAYKNEELFFEGKVKYCFEANYNFF

>CCK67607.1 dephospho-CoA kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKIDRKI

LGEIVFNNKEAKKILENFTHPKIRAKILEQMQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPKELS

LKRIMQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNM

>CCK67606.1 phosphoribosylaminoimidazole synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKISYEDAGVSIDNGNTFVEAIKPLVKETFNDNVVGGIGSFAGAFRMPSGFKKPVILGATDGVGTKLRLA

IDAKKYDTIGQDLVAMCVNDLICNFATPLFFLDYYATAKLEVEVAKAVVSGIAKGCKMANCALIGGETAE

MPGMYAKDDFDLAGFAVGMAEEDEIDRSKFVKNGDILLALSSSGLHSNGYSLARKVLFESLKLKFDDKIE

GKNLIDILLEPTRIYVRDFLTLKPYISALAHITGGGLVENLPRVLPRGMGATIRKHHLKTPEIFYTIGQA

VEESEMYRSFNMGVGLVMVVDPSNVSKILENSDAFIIGEICINEGIVLE

>CCK67604.1 CRISPR-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MARILAFDIGISSIGWAFSENDELKDCGVRIFTKVENPKTGESLALPRRLARSARKRLARRKARLNHLKH

LIANEFKLNYEDYQSFDESLAKAYKGSLISPYELRFRALNELLSKQDFARVILHIAKRRGYDDIKNSDDK

EKGAILKAIKQNEEKLANYQSVGEYLYKEYFQKFKENSKEFTNVRNKKESYERCIAQSFLKDELKLIFKK

QREFGFSFSKKFEEEVLSVAFYKRALKDFSHLVGNCSFFTDEKRAPKNSPLAFMFVALTRIINLLNNLKN

TEGILYTKDDLNALLNEVLKNGTLTYKQTKKLLGLSDDYEFKGEKGTYFIEFKKYKEFIKALGEHNLSQD

DLNEIAKDITLIKDEIKLKKALAKYDLNQNQIDSLSKLEFKDHLNISFKALKLVTPLMLEGKKYDEACNE

LNLKVAINEDKKDFLPAFNETYYKDEVTNPVVLRAIKEYRKVLNALLKKYGKVHKINIELAREVGKNHSQ

RAKIEKEQNENYKAKKDAELECEKLGLKINSKNILKLRLFKEQKEFCAYSGEKIKISDLQDEKMLEIDHI

YPYSRSFDDSYMNKVLVFTKQNQEKLNQTPFEAFGNDSAKWQKIEVLAKNLPTKKQKRILDKNYKDKEQK

NFKDRNLNDTRYIARLVLNYTKDYLDFLPLSDDENTKLNDTQKGSKVHVEAKSGMLTSALRHTWGFSAKD

RNNHLHHAIDAVIIAYANNSIVKAFSDFKKEQESNSAELYAKKISELDYKNKRKFFEPFSGFRQKVLDKI

DEIFVSKPERKKPSGALHEETFRKEEEFYQSYGGKEGVLKALELGKIRKVNGKIVKNGDMFRVDIFKHKK

TNKFYAVPIYTMDFALKVLPNKAVARSKKGEIKDWILMDENYEFCFSLYKDSLILIQTKDMQEPEFVYYN

AFTSSTVSLIVSKHDNKFETLSKNQKILFKNANEKEVIAKSIGIQNLKVFEKYIVSALGEVTKAEFRQRE

DFKK

>CCK67603.1 CRISPR-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSYDEAFKTLLISSNAKLNLELNHLVIKQDENIAKLFLKDINIIVLESLQISISSALFNAFAKYKIILLT

CDETHSINGVFTPFLGHFQSAKIAKEQMNVSAQKKAILWQKIIKNKILNQAFILKKHNKIEQSNELINLA

KKVSLNDSKNIEAVAAALYFKTLFGTSFSRDELCFENSALNYGYAIIRACIIRAVCISGLLPWLGIKHDN

IYNSFALCDDLIEVFRASVDDCVLKLKGESEFLSKDDKRALIGNLQSKINFDGQNYPLNRAINHYVANFK

NALLYEDELKIVKFDD

>CCK67602.1 CRISPR-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIEDKFMRVLLMFDVPTKSKKEQKLASKFRNNLIKLGYFMLQFSVYMRICKGLSSAKSSIENVKKILPPY

GNVRALIITEKQFDKMELLLGGIVFNEKVNNETNLTLFDIDSHGEFKYKNSNNEEIQINKKQEKYHQQNL

FEF

>CCK67601.1 molybdopterin biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLMSYEESLKILHSHIKTYEKIEKIALTECLGRILAQDIKAPKNQPEFPTSAMDGYAIKFEDQDKPLKIL

GLTPAGTMPQFSVQNGTCVKTFTGSLMSEGSDTLVPVENIRIENNTLFIEKKVPQAFAVRAVGENYKKDE

ILLKKGTRLNYSEIALLAELGFFHISVFIKPIVGVLSSGSEIKDLGEALENPAQIRSSNHIAIANLAKNL

NCDTRVFPLLKDDEKATFSTLESALQSCDILVTTGGVSMGDFDFLKKAIKEYEIIIDKADIKPGRHIKIA

KANEKFIIALPGFPYSAMVMFNLYTREILNSWLLQPKDYICKAFLQGSYKKKTPYLEFVACNIEFKNGRI

LANLEGKKEGSSAIINNLNNKAALMVVPKECEMLENESLVDIIFMP

>CCK67600.1 molybdopterin converting factor subunit 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKHFTLYQGSLDIPKIYSQWYEFSKDKNCGALLTFCGIVREEGGIEALSFDIYESLLKKWFDEWQKRVDF

DGISLLFAHSIGDVAIHESSYFAGILSKQRKLGLKLLNEFVEDFKASAPIWKYDVINKERIYAKERSTKL

CGAGLLKG

>CCK67599.1 molybdopterin converting factor subunit 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVKVEFLGPINKENLELEVKNLKELKEILQKDESLKEWLELCAVSLNDEIIFNENTKLKDGDKIALLPPV

CGG

>CCK67598.1 periplasmic oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNRRNFLKFNALTLASMGVAYANPMHDMHSMHKNHSINHDLDTSFINFAPKNLKLLDPKQFPQGEILKAL

PLLKNESKEKNIFRATLEIKENHIELIKGKKTLFYTYNGLVPAPKIEVFEGDKLEILVKNKLKEATTIHW

HGVPVPPDQDGSPHDPILAGEERIYRFEIPQDSAGTYWYHPHPHYTASKQVFMGLAGAFVIKAKKDALSH

LKEKDLMISDLRLDENAQIPNNNLNDWLNGREGEFVLINGQFKPKIKLATNERIRIYNATAARYLNLRIQ

GAKFILVGTDGGLIEKAIYKEELFLSPASRVEVLIDAPKDGNFKLESAYYDRDKMMVKEESNTLFLANIN

LKKEKLELPKNLKIFKPLEEPKEFKEIIMSEDHMQMHGMMGKSENELKIALASMFLINGKSYDLKRIDLS

SKLGVVEDWIVINKSHMDHPFHIHGTQFELISSKLNGKVQKAEFRAFRDTINVRPNEELRLKMKQDFKGL

RMYHCHILEHEDLGMMGNLEVKE

>CCK67597.1 decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFYEKIQTPAYILEEDKLRKNCELLASVGEKSGAKVLLALKGFAFSGAMKIVGEYLKGCTCSGLWEAKFA

KEYMDKEIHTYSPAFKEDEIGEIASLSHHIVFNSLAQFHKFQAKTQKNSLGLRCNVEFSLAPKELYNPCG

RYSRLGIRAKDFENVDLSTIEGLHFHALCEESAGALEAVLKVFEEKFGKWIGQMKWVNFGGGHHITKKGY

DVEKLIALCKNFSDKYGVQVYLEPGEAVGWQTGNLVASVVDIIENEKQIAILDTSSEAHMPDTIIMPYTS

EVLNARILATRENEKISDLKESEFSYLLTGNTCLAGDVMGEYAFDKKLKIGDKIVFLDQIHYTIVKNTTF

NGIRLPNLMLLNAKNELQMIREFSYKDYSLRN

>CCK67596.1 hypothetical protein BN148\_1514c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGALMDLEKLRLARSLYYQCLGELFVFSFSEERLSKLQEYLKTMQECLFDENLKSNFDILLKHLDDENSI

QAFFKEYDLLFLSLKNSIPTTFSYIEEGFENSNPLLCVRQILVKSKIRRNEKFFKESEDSVGFCLLLMSE

FLRQNEDDLAKELFEKVINKSIDEFLGDVFMNKNANLYKEIASIASAFMEFERLCFEVEKPAKINSKKVQ

NDLSRSEFLRREANKQRRTREKSQGIS

>CCK67595.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNRREFLKKSAFALGAAGVLGSTTLALAKDEERKDLVKGKSKKKEVLFQRSANWENYYIKAE

>CCK67593.1 formate dehydrogenase iron-sulfur subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKVNFANLEKERLKFFCDNERCIDCNGCAVACDEAHELPIHIRRRRVITLNEGIQGKEVSTSISCMHCD

DAPCSIVCPVDCFYIRADGIVLHDKEICIGCGYCLYACPFGAPQFPKDSVFGNKGIMDKCTMCAGGPEAT

NSEKERELYGQNRIAEGKVPVCAAMCSTKALLVGESSKIEEIYHNRLMNRNYGIPNPSESLEWKIAYTGK

ERL

>CCK67592.1 formate dehydrogenase, cytochrom B subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRKVFVTLLLSVVSLFAYGSERMGQDTQIWDFHRITNIPNYDTFGKLWTTLQGEYIATIALIAVIAVLSA

FALHYMVIGPKQFSHDGKKIYAFTLFERLFHFIAAISWVILVPTGFVMMFGEVFGGGVFVRVCKNLHAFA

TILFIISIIPMFLCWIKRMLPASYDIRWMMIVGGYLSKIKRPVPAGKFNFGQKSWYYIAVFGGFLMIITG

GFMYFLDFNSTAIQGLFGLTQIELLRISAIVHNFLGIVCAVFFGVHIYMAVFAIKGSIHSMISGYKEEEE

VYILHSYWYKELSNKKQIEPSFSYDPNVKI

>CCK67591.1 formate dehydrogenase accessory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDPLFTTQILKYKGDESFTCNDTLVREIKLEIFINDEKVGALMATPVDEQALAIGYLMSENIIAKVSDIE

SIETKDDGMSVHIKAKIDKENLAKLNAEGVVISGCGRAHTANIDPEAIEASKISSDAKFSKDEILKQMST

FYTQCELYEKTGCVHTAKLFVDEKTFFIGEDIAQHNTIDKALGKACLAGVDLSQCFLMVSGRLSSEMVAK

AVMHKIPVLVSRTAPTCLGVMIARKFDLTLCGFARENKINIYSGEFRIHG

>CCK67590.1 regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDKNQEKEIISYMRELLNSNEKLDCGTAFKIAKKFNINIEKIGQLADENHMRIDNCELGQFGHLDFEKAK

IEVLKKIEPSLDEKRRIFCKDARDIAKEGCGLKSMRSALKTYKVDVKYCQLGCFKEKKGKQFIVRTKTWI

ENADGDLLFGRGKTELLELIGQTGSLLHASKLMGINYKKAWMHLQTLQKNSQEILVSTRQGRSKESGTKL

TPRAMELMENYSILQKDIEEYANKRFKELFLKGKK

>CCK67589.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFKSLNIGLKLIFSVAAVVVIGLVILISLITKQVSQNITKNTEDILASITKEYATQTQGIFGEMIALNKS

ISGTLTEMFRSTSKEDLDIDNITNIITNTFDNSAYSNFTYLYLIDPPEYFKEESKFFNTQSGKFVMLYAD

EEKDNKGGIKAIQASDEIANLQVVQDILKKAKYGENKVYIGRPIKMNLEGQDFDAVNVAIPIFDRKNQVV

GVIGMTLDFSDIATYLLDPKGQKYDGELRVLLNSDGFMAIHPNKNLVLKNLKDINPNKGAQETYKAISEG

KNGVFNYIASDGDDSYAAINSFKVQDSSWAVLVTAPKYSVFKPLKKLQLIILGASFIFIFVVLGVVYYCV

RKIVASRLPVILSSLESFFRFLNHEKIEPKAIEIRANDELGAMGRIINENIEKIQISLEQDQNAVDESVQ

TAREIEKGNLTARITKNPINPQLVELKDVLNRMLDVLQSKIGSNMNEINRVFDSYKALDFSTEVFNAKGE

VEITTNILGKEIKKMLLASSNFAKDLANQSEELKNSMQKLADGSNAQASSLEQSAAAVEEINSSMQNVSG

KTVEVASQADDIKNIVNVIKDIAEQTNLLALNAAIEAARAGEHGRGFAVVADEVRQLAERTGKSLSEIEA

NINILVQSVNEVAESVKEQTAGITQINDAIAQLETVTKENVEVANVTNNITNEVNQIAAAILEDVNKKRF

>CCK67588.1 two-component response regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIDCRNLSCPQPIVETKNALEKLQENEILEIVLNSIISKNNVVKFLNSLNLNPVVDENAQEFCIKVQKK

NFDSSEVNIHDYNVLFLKTDKVGEGELGQNLLVGFLSTLKNLDHAPSKILCVNESVLINVDENHKAHLAM

KELENLGIEIISCGACLEFFNKSKELKIGNIGNAYEILNELFGKAKIITL

>CCK67587.1 selenide,water dikinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKTPALLSDIGNNEDASVYQISPDLALVQTLDFITPIVDSAYHFGAIAAANALSDVFAMGAEVINALNI

VGFDTCNHDLNILKELLEGANDKVKECNALVVGGHTIESTELFFGLSVTGKVHPSKFIANNTSKIGDCII

LTKPLGTGILSTALKAQMLNQKHLDIMLKNMIELNYKASQIALKFHPSAMSDVTGFGLLGHLKEMLNKNI

SFEIFESELPFLDGVKEYFNMGLIPAGAYKNLEFIKELTPDLNEEKLLLCDPQTSGGLLISISEKDSLEC

LKKLEDENIQAKIIAKVVNKQENDIIIS

>CCK67586.1 proline dehydrogenase/delta-1-pyrroline-5-carboxylate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIQKALALAEELQGQIEANISNSEKEFHAKMQKLLNNPKNKVMLIELLDRSFRCKDKNASFELIEYTLSK

YGIADFFSTFEKFLLFSFLNFGKFAPNLSVPFFVKHLREDTKAMVLDANPSVLEPHIKKRKEQDKITLNV

NLIGEEVLGEAESKYRMQKYEEALKSSYITYISIKITTIFSQINIIDFNYSKEEVVKRLDYLYALALEEE

KKQGVSKFINLDMEEFRDLELTVAAFMESVAKFDIKAGIVLQAYIPDSYKYLKKLFAFSKERVLKGMKSI

KIRFVKGANMESEETIASQRGWELPTFYKKIDTDSNYNKMLDFILEGDNYKYINIGIASHNIFEIAYAYT

RISEVGALDSFTFEMLEGMSLQCSYELSKMHDLILYTPVCDEAHFNNAIAYLVRRLDENTSEDNFMRYFF

NLKVGDKNWNIQKELFLKSLEGIKTLDNTTHRKQDRNKESNIISSYEGKKFSNESDTDFILAQNRVWAKE

IKTKYENLKDYDVYPVIGELDFKAENLNVLEVKDKIEDRVIGKAYLAGEKEIKQALEVAKNSKFTQKSHD

EIYQILAKSAKLMRERRGDLIGLAALEVGKTFLEIDPEVSEAIDFIEFYPHSLEELKKQNPKVTFTPKGI

GVTIAPWNFPIGISVGTIAAPLAAGNVVIYKPSSLSTLTGYMLCKCFWDSGIPKDALIFLPSKGSDISKY

LLIDEAIKFSILTGGEDTAYAMLKANPTLLLSAETGGKNATIVSKFADRDSAIKNIIHSAFSNSGQKCSA

TSLLVLEEEVYHDEEFKKTLVDAASSMAVGNPFEFKNKLGTLADKPSSKVQKALDELQPYEEWALKPKFL

EDNPYLMTPGIKYGTKKGDFTHMNELFVPILSVMKAKDLKEAIDIVNSTGYGLTAGFESLDEREWEYFHT

HIEAGNIYINKPTTGAIVLRQPFGGIKKSAIGLGRKVGIYNYITQFLEIKQEDFDDHLIEDKFSKKLAQI

DLKEAQDFINNLIKMSQSYAYHYKNEFSVSKDYVNIRGEDNLFSYTKIKNMVLRLCGNESLKDVLGVVLG

ANIANIDLSISYDEQDVSMIERIVQSIGAKVLFLKENKENFIKSIKEYERVRYLAKPDVNDEIYKEAAKL

AKIIIREKPLLNGRFELLNYFNEKALSISFHRYGNLGIRAIS

>CCK67585.1 sodium/proline symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKERLMEVVQINTPIAVMFVVYALLMLYIGFYFYKQNKNSEDYFLGGRTMGPVISALSAGASDMSGWLL

MGLPGALYVSGFIDSYIAIGLTIGASLNWIFVAKRLRIYTSVIANSLTIPDYFETRFDDDKHILRIVCAV

VILIFFTFYVSSGLVSGAKLFESTFGIRYDYALTTGTIIIVAYTFLGGYKAVCWTDMIQGLLMMMALIIV

PLVMLYHLGGFGEAMNIVREIKPQALSMGEGVGIVSIISALAWGLGYFGQPHILVRFMSIRSTKDIPMAT

FIGIAWMAVCLLSACMIGILGIAYVHKFELSLQDPEKIFIVMSQLLFNPWIAGILLSAILAAIMSTASSQ

LLVSSSTIAEDFYKKIFREDAPSHIVLNLGKLGVLLVAVIAFLISTDKNSSVLSIVSYAWAGFGASFGSV

MLFSLFWSRMTRVGAILGMITGAATVVLWKNFANSGLYEIVPGFLVASVVIIIASLFTNVRSGTKAAYEK

MLKEF

>CCK67584.1 hypothetical protein BN148\_1501 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKITYSLNLQGEACPYPAIATLDVLPKLKSGEILEVLCDCPQSINSIPQDAKNRGFKVLEIDQSGPTLRF

LIQKP

>CCK67583.1 inner membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNSFKQKYLINFWDNSRSMIALGILSAVYFGIFGGVWAVTGEMTRWGGEFLELLGMNLDGYSYYQKQNLN

GTPLTRTDGIMLIGMFIGCLVAALLANKVKFRLPASNIRIFQAIVGGILSGYGARLAFGCNLANFFTGLP

YFSLHTWLFTVFMVLGIYLGVKICNTSFFKPKAKLERVNKENLPLNKQSLRTKLYFNLGILLFIAFLVWV

FYLVFTNGNISTQNKQSLLALALIFGFVFGFVISRGQICFTSCFRDLFLFGRDNAIKGALIGMIIASLIA

FAFILQGHTSKLIELSPAVAVGAFLFGFGIVFAGGCECGWTYRAFEGQSHFIIVGIANIIGTMILALSYN

FLPKAFKEGIKINLLTEFGNLNGFFINLILFILMFVFVVFYKKHFFKNQLKG

>CCK67582.1 adenylosuccinate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKADIIVGIQWGDEGKGKVVDKLCENYDFVCRSAGGHNAGHTIWVNGVRYALHLMPSGVLHPRCINIIG

NGVVVSPEVLIAEMAQFENLKGRLYISDRAHLNLKHHSLIDIAKEKLKGKNAIGTTGKGIGPSYADKINR

TGHRVGELLEPQRLCEALIKDFEANKTFFEMLEIEIPSAEELLADLKRFNEILTPYITDTTRMLWKALDE

DKRVLLEGAQGSMLDIDHGTYPYVTSSSTISAGTLTGLGLNPKEAGNIIGIVKAYATRVGNGAFPTEDKG

EDGEKIAQIGKEIGVSTGRKRRCGWFDAVAVRYTARLNGLDALSLMKLDVLDGFEKIKICRAYEYKGMEI

DYIPSDLENVQPIYEEMDGWDKVFGIKDYDLLPENAKKYIARLEELAGVKVKYISTSPERDDTIIL

>CCK67581.1 hypothetical protein BN148\_1497c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKSKYNSVVKVRKQQLDKAESNLNQAKQRQLEHEKAYELSRQECESLGVLPKSGSIAELRSNLSMAQVGR

EALARAKEKVELSKKEMNHYQFLYQKAHLDYEKMKVLEAEEIKQKQKELAKAEEKFLDEIAISRFFKGEK

DD

>CCK67580.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKKFILLVFISSVVFGAEQDCEQYFEARKAQIELQTREFDEARQSLEAYKASFEALQKERLENLEKKEA

EVNATLAKIEELKLENARLVEEQQKILNSINDKTQGRVKEIYSQMKDAAIADVLSQMDAEDASKIMLSLE

SRKISGVLSKMDPKKASELTLLLKNLDNNASN

>CCK67579.1 hypothetical protein BN148\_1495c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRIKLPHIPYIANKMMLDIANSSFVEIKDQLEKLKVCIIEVLEKDILNERKLDERVKELLEQQEDEMELM

QVDRKNMFWLVKKKLAPEFNVILDSEDRHNHLAHQILEELVENDYINFIVSENRVKNLIFSSIESYLKIY

EKLEDEVYEKISNYKTKPIPGSEEYDLIFEKLYQEELRKKGMF

>CCK67578.1 carbamoyl phosphate synthase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKAYIYLENDIFLSAKAFGKSGTFFGELVFNTSLTGYQEIISDPSYAGQFIVFSMPEIGIVGTNENDNES

KEIFASGVLMRELSSSFSNFRAKESLQDYLEKHGKIGIYELDTRYLVKMIRNNGNLRAVISTEISNKEDL

KIALEKSAKIDEVNFVKEVSTKKNYSHKQGVWNASFQKFNDAKRSEKKVAVIDYGVKTNILNELVEVGFE

VEVYPYNVKADELITLYKKGEIQGVFLSNGPGEPRILKQEIAEIKKLAEAKIPMLGICLGHQLLSNAFGY

ETYKMKFGQHGANHPVINLDTKTVEITAQNHNYNVPEELAQVAHITHRNLFGDNVEGVRYKDYPIISVQH

HPESSSGPHESKYIFKEFMNLM

>CCK67577.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSIDFLAIISVAFLSSFGHCYSMCGGFNLLFINLNSKSNNLFLLTFIYNLFRIFAYIVLGIIFGTFGNIL

AINAKVQSLSFFILGIFMMILGFALIFRGNMLSFIENNVFFDSFVKKIIKKSKNFKGLKSAIFLGFSNGF

VPCGLVYFFIANAMSKQNIFEGILVMMIFGISTLPAMLFFSKISQFFSDFLKNLFNYLSYGVIVCYGINL

AYIGFKAFQ

>CCK67576.1 two-component sensor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKDFFKDQFFKALEKNTIFSRADVQGNLIFVSDKLCQISGYSKKELIGKKHSIFKHPDVEECYIEELLKK

LSYKKPYQVIFKNIDKLGKTFYLETLLIPILDKNNELIEIVAFSHDVSNSFKLNEELALNHAKLRELSIN

LENTVKNHQQEFIQLGKKFEKKMQIALEKNEKDIKIAYEEILKSSLEQMISDIAHQWRQPLNELGIAMFQ

MKQNLKDEKGFAEIYSQSKDMIKNMSETIDVFRTLFNKGVEQCVFIKETLNKALEIAFETIEKNHVNINI

VSKSDYEVLAYENGLIRVFLNLILNSIEAFKNKKRKIITINFSKFGKNYLKITIKDNAGGIDKENLDKIF

QPYFTTKHPSQGIGVGLYISRQIIESFQGKIKVKNGKDGACFEIFLKLKERVE

>CCK67575.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSQECKELIILVVEDEVKARESMINILSERFSKVIGAQNGDEGLKKFKKFKPDLVITDIAMPIMDGLDMA

REIKEISDDVPIVVLSAYSEKERLLRSIDIGIDKYLIKPVDIEELFKVLDYLIGEKIEANMLVKISEEYQ

FNKTKRTLIYSGGEIVLTKKELAFISLLLKQPGALVLHEDIKKNVWIGEHVSDTAVRTFIKRVRDKVGED

FIKNVPSLGYKININK

>CCK67574.1 cbb3-type cytochrome c oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MHPGNVLNYDYTVARYFMFATILFGIVGMAIGTLIAFQMAYPNLNYLAGEYATFSRLRPLHTSGVIFGFM

LSGIWATWYYIGQRVLKVSMAESRFLMAVGKLHFWLYMLTMVLAVISLFMGVTTSKEYAELEWPLDILVV

LVWVLWGVSIFGLIGIRREKTLYISLWYYIATFLGIAMLYLFNNMEVPTYFVTGMGKWWHSVSMYAGTND

ALVQWWYGHNAVAFVFTVGIIAQIYYFLPKESGQPIFSYKLSLFAFWGLMFVYLWAGGHHLIYSTVPDWM

QTMGSVFSVVLILPSWGSAINILLTMKGEWSQLRESPLIKFMILASTFYMFSTLEGPILSIKSVNALAHF

TDWIPGHVHDGTLGWVGFMTMAALYHMTPRVFKRELYSKSLMEAQFWIQTTGIVLYFASMWIAGITQGMM

WRATDEYGNLLYSFIDTVVAIVPYYWIRAIGGLLYLIGFFMFTYNIYKTIACGRVLDKEPKSASPMAA

>CCK67573.1 cbb3-type cytochrome c oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFSWLEKNPFFFAVAVFVVIAYAGIVEVLPNFAENARPIEGKKPYTVLQLAGRAVYIKDSCNACHSQLIR

PFKSETDRYGMYSVSGEFAYDRPFLWGSKRTGPDLARVGNYRTADWHENHMWDPTSVVPDSIMPSYKHMF

KNNADIETAYAEALTVKKVFNVPYDAENGTKLGSWEDAQAEVKAEAQAIVDQMKNQEVKDAFAKGEIKEI

VALIAYLNSLK

>CCK67572.1 cb-type cytochrome C oxidase subunit IV [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEHLSIVFDVIKNLITFDLATVQKHEWEIFQGYGFFALVMFLSIVLYAYWYHLYRTEKKGERNYENYANL

ALKDDIDDSVLESKRSA

>CCK67571.1 cb-type cytochrome C oxidase subunit III [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQWLNLEDNVNLLSLIGAILIILITLVIVGRMFKQMKEKKGESELSEHSWDGIGEYKNAVPTGWAVVFFL

TIVWAIWYFLWGYPLNSFSSIGQYNEEVATHNTKFEEKFKNLSPEDKIAMGQNIFLVQCSACHGITGDGI

NGKAQNLNIWGSEEGIINVIKHGSKGMNFPGGEMLGAADLGVAEEDIPAIAAYVAKDLSAIKKTANENLV

AKGKEAYATCAACHGEDGKGQDGMFPDLTKYGSAAFVVDVLHSGKAGFIGTMPSFPTLNDIQKEAVGEYV

ISLSRGE

>CCK67570.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMENNNRCVFSLSGVTGMLIATVLLLVILAVLTIWGLKAQQEVMQKPYSLKDVQSVKMFGSKEQDHRSIK

EAQ

>CCK67569.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKALEYLIVIGLVAAAAITAWSVLTVNHLHIG

>CCK67568.1 hypothetical protein BN148\_1484c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILQDGFFLAIFFFVLLPSRVFALDAVLFNENILSQKVSNEINLIGKELYQKSNIFIGVMVGDKTEIE

TLLNKQKELPQSYILLLLSKNSHKVDIVGSKGALALIDKEAVLSPYPGTGSILPILATNKGDIYNAAILN

GYADIVDRVAKSLGLQLEHSIGNANRDTINILRILIYGFICFALLYYAQRRIKRKKNVRN

>CCK67567.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLETKKSFWPYGILLSLLAIIIACIVTIFIASHHPVYEDDFYFDSYQNVENNYNQIQKQQVNFDKFFKVN

FQNDKITFIGKRKIPSYEVDQNSYVANFKISALQNINSNDLKVQVLLTRPFTKNFDQKLEGQVKNGILSI

ALPKLDKGRWELKLKFYANQETVGFFSYELNAQ

>CCK67566.1 hypothetical protein BN148\_1482c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLRIFSSSRQIREYYNQKKQQNALLDSAIHIGEFLDKVCLSNFHKASSYESLLLMQEACLKSKDLEKKL

GISVEFFAFLKNNEYLFSFFKELSLEKKSIEDLKNNDYYATYNEHLEILDEVYKNYLALLEKNSFYDDLS

LPKNYTLNKDFLDEYEAIVYDLQGFLSKFEENLLSEISQIKEVVLSFKTSKFNLEYLLKLDFLKIFDLKI

NTHYEINLSKQEILKEEIFKTKNSKMKLKSFELRALQCAFVMDEISHFVRKGLKPENIAVITPDESFCEF

LRLFDKDNMLNFASGISIKESLFYQKFQALYESASSASFVYKNQEDYFEDTQMIFDYHNTLLHSLKLDFI

EFKKYFDEKCDFEYFEKLLALFLENEKQELMYLIRKELYFIKDLLKNQSLTLKELIHLFFMQISQLSLSD

VGGGKVTVMGLLESRGLCFDGVILVDFNEEFIPKRSVNELFLNNEVRKKAGLISYDRRENLQRFYYESLM

KNALEVSICFVENEEKSKSRFLDELDFDFFYETHIHQKAYLNALKLDYEGIKPNLTPIKAPILKHNPFEF

PLSFSRFNLLENQKRTYYYRYILNLAEPRVLSEESKAKNQGNFIHKMLEIYYKNYANNDFDIKVFANLLD

KEYQKYNISELDLEVFKLKFMQFAKNEKEHFSKGFYVVHTELELNNILKLGTDSIKLKGTIDRIDSSKEG

NLIIDYKSGKVPSNSYQLAFYQALYDENASVGFYDLNSMQILHQKAKSLDELRERLKDLVLMSKEEIEFE

NEQDEYCPYKLIYKKELK

>CCK67565.1 recombination protein RecB [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSQFEPFLALEASAGSGKTFALSVRFVALILKGARINEILALTFTKKAANEMQKRIIETFLNLEKENKTS

ECNELCKLLGKDKEELISLRDAKKEEFLRTELKISTFDAFFGKILRVFALNLGLSSDFTMSEERLDVREI

FLKLLKKDELKDLAYYINLVDEKENFFNELEKFYENAYFQNRPKILNPTKAYINKAYSELRSYCLGLTHV

KNYKNLCDNFKSEVLDLSVFMQSSFMTKFESTKYLQDLESTNLHFSAKRMEFINALNTYAIELENYKIAN

LMNLLNHYSEAKNIFHKDKNTLNFQDVSKKVYELITSEFKDMIYFRLDGFISHLLIDEFQDTSVIQYQIL

RPLIAELVSGEGVKKNRTFFYVGDKKQSIYRFRKGKKELFDLLKQEFSQIKSDNLNTNYRSKELLVDFVN

ETFKEKIKDYKEQFALESKKGGFVRIVESKEQKVKNQAQEIKEKTLETLFEQINFLRSKNISYDDICILC

WKNSDADMVLDFLREQNIPAFTQSNVLLENKASVRLVLEYAKYCIFGDEFYLVFLKELLGFEPRKITLDF

SKNAMENVLFLIKELKLDLNDIALIQFIEYAKTKENFLKLLFEPCALKIVSEQNMGISIMSVHKSKGLEF

DHVILLDSLSKNNSNNEDIMLEYDINQGWQLHIKDKIRELTKEPIYTLFKENITRANYEDDINKLYVAFT

RAKESLIIIKRNEESVNGNYPSYFKGGFLNIHSQERGFLESKEQILSVKKESIQTLQKFEKITLQEIQSE

ERLDSKELYFGNAFHFFMQNLKLPKGENFQILTQRCKSKFRHFLDESDFEKLFKRIEILLKNIQFQNLIG

DGKLLKEQALSFNGEIKQLDLLALKDEEAFIIDYKTGLAMQDKHKEQVGTYKIAISEILQKDKVRAFIVY

CLENEIQILEI

>CCK67564.1 50S ribosomal protein L13 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTKITKPNEVKREWIVLDAEGKRFGRLLTEVATILRGKNKPCFTPNVDCGDYVIIINASKAVFTGANKAE

DKLYHRHSGYFGSVKSEKFGDLLEKNPAKLYKLAVRGMLPKTNLGRAMLKKLKIYAGSEHPHTAQIAKEG

K

>CCK67563.1 30S ribosomal protein S9 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MATTYATGKRKTAIAKVWVKPGSGKISVNGVDLNTWLGGHEAIKLKVVQPLLVTKQETSMDIKATTLGGG

YSAQAEALRHGISRALAAMDADFRALLKPKGLLTRDSRTVERKKYGRRKARRSPQFSKR

>CCK67562.1 outer membrane fibronectin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIFLCLGLASVLFGADNNVKFEITPTLNYNYFEGNLDMDNRYAPGIRLGYHFDDFWLDQLEFGLEHYS

DVKYTNTNKTTDITRTYLSAIKGIDVGEKFYFYGLAGGGYEDFSNAAYDNKSGGFGHYGAGVKFRLSDSL

ALRLETRDQINFNHANHNWVSTLGISFGFGGKKEKAVEEVADTRATPQAKCPVEPREGALLDENGCEKTI

SLEGHFGFDKTTINPTFQEKIKEIAKVLDENERYDTILEGHTDNIGSRAYNQKLSERRAKSVANELEKYG

VEKSRIKTVGYGQDNPRSSNDTKEGRADNRRVDAKFILR

>CCK67561.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKTILFDLDGTLIDSTDAILNSFQGAFKALGLTSKNNEEIKNLIGYPLEQMFRMLYPDKVNLSKEFVLA

YREIYAQIYLEQTTLLPKAKEALELGSEIADLGIVTTKGGKFTPILLDYLGVKKFFKTLITLEDVTNPKP

SSEPIILALKGLNKTQENAYMIGDTILDIQAAISANITPLALTCGYGNENELKAHSMVFLNAYEAVNYIA

RLN

>CCK67560.1 pyruvate-flavodoxin oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGKIMKTMDGNEAAAYAAYAFTEVAGIYPITPSSPMADYTDMWAAAGKKNLFGVPVKIVEMQSEAGAAGS

VHGSLQAGALTTTYTASQGLLLKIPNMYKIAGQLLPCVIHVAARSLAAQALSIFGDHQDIYAARQIGFAM

LCSHSVQETMDLAGVAHLAAIKGRVPFLHFFDGFRTSHEIQKVEVMDYAHFDRLLDREALLEFRNNALNP

ENPKTRGTAQNDDIYFQTREVSNRFYDALPDVVNEYMQEISKITGREYKPFTYYGHKEPECVIVAMGSVT

QALEEVVDYLNAKGEKVGILKVYLYRPFSLKYFFDVMPKSVKKIAVLDRTKEPGSLGEPLYLDVKSAFYG

RENAPVIVGGRYGLSSKDVDPAQMIAVFENLKLDNPKDGFTVGIIDDVTHTSLSTGEKISLGDESTIECL

FYGLGADGTVGANKNSIKIIGDKTDFYAQAYFAYDSKKSGGYTRSHLRFSKKPIRSTYLVSTPHFIACSV

AAYLEIYDVLAGIRKGGTFLLNSIWNAEETIRQLPDAVKKTLAEKEVNFYIINATKLARDIGLGNRTNTI

MQSAFFKLAKIIPYEDAQKYMKELAYKSYSKKGDAIVEMNYKAIDVGADGLVKVEVDPNWKNLELKEKEQ

TNAYKGTEFVEKIVKPMNAAKGDDLPVSAFLGYEDGSFEHGTTEYEKRGVGVMVPRWIEANCIQCNQCAS

VCPHAVIRPFLINDEEMANAPRGVKDHALEAKGTKGEKLSFKIQVSPLDCTGCELCVHECPTKEKSLVMV

PLQEEMDFGEQENADYLFKEITYKDDILNKETTKGAQFAQPLFEFHGACPGCGETPYITLITRLFGERMI

VANATGCSSIYGGSAPSTPYRKSVKNGHGPAWGNSLFEDNAEFGLGMKIATENTRHRIEHIMNESMQEVP

NALSALFKDWIANKDNGAMSVEIKDKMIPILEQNKNIKAVQDILELKQYLSKKSHWIFGGDGWAYDIGYG

GLDHVLASGENVNILVLDTEVYSNTGGQSSKSSRTGAVAQFAAAGKPIQKKDLGQIAMTYGYIFVAQVNS

TANYTHLIKAITAAEAYDGPSLVICYSPCIAHGIKGGLGYSGEQGELATKCGYWPLYTFDPRLEEQGKNP

LTLTGKEPDWDLYEQFLMNEVRYNSLKKANPEHAAELFERNKKDAQRRYRQLKRIAMADYSNEVES

>CCK67559.1 hypothetical protein BN148\_1475c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MCFSTLFAQDNFEEYFKLIDKENRINFNTLQNPFVNPTFEKLRHIKITAIMLDKVKIYDRWYKKGDMIDD

AIIYEINTKEIKFQYDNLEIAIQINKNDKINININ

>CCK67558.1 type II protein secretion system D protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIRLILILINILFCHYLYALDCQKRLFDISINEKLSIQESLDELAKYCSFSIIVKDKIAKEKLETLQNSV

NIHQMSLDEIFNFFIKEHDLSYDFDGKILRISGINTKIFKISYITSIREGQSITKASVDAKPRQSEYSGS

FDDAEDNMIKSMEKFDFWQNIEKEIIVLLKNSHEDYEAKTPIINPNAGLIIVTGTNSQLKSVKNYLQKLE

NRLKKQVIIDVSILAVSLNESHSSGINWQNFNIGLNSQVNNENSFIQFQNGQGFVKNLGLRANLNFDSII

NFLSQNGKTSVLSNPKLMALNNQQAIISVGDTINYQVKESSKGTENGTTVSESYNNYSIFVGILLNILPE

ISDDGKIMLRINPSLSDFKYPEDNKRQKEPRTIAPDTIQKKLSSVVQVENNQTLILGGLISHDKSNEKNS

INFLSKIPILGSLFKGEVLNSKATEIVFIITPSIVDSVNAPSLKDLGFKHYE

>CCK67557.1 ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKIIPFREEIFHQINQILESQKAFIFLWGKSGSGKSVLLQRLAKKYNVDFINENFKDQSFLKEKIEFLI

SQGQSLIILDEVGMYDYAMLESIRIYSDSISFVLSSHKKLNILKKEHFKSRLSACFKLKNISLLELDDYI

KLKFGMNFSNKCLKFLQKISQGNLRYIDKTLKSFYEINSFFDKNKSQEYILKLSALENGLLR

>CCK67556.1 hypothetical protein BN148\_1472c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQERIKELELRYKYFLLKKYLKYLLLIILISVIAFCFFVLMQKYNKQKNIYLQAIEHKKHLEQKILQAQI

LQEKNKISREKLYKELEEVKAVQENTHISKIEIDSKILNISDLKKSFYQNPSYEKALNLAKKYFDIKAYQ

KTIFWALKANELDKQKQDSWLIFAQAKRALGEEKEAQSALDAYINYYGLMELDGK

>CCK67555.1 type II protein secretion system E protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MESRMDKIFQAYIDNEISLDEICTKFNITSWDFFNKLANFCNLHFVDLDEDNDFIYEGIPFSLLLKFKFL

LIKNNDGFMIIRSKPCSLELLEQVKTFMICEKIDTAIADELKIAKILNQIRIQEEIKRLSIKLRLEWQEN

HKRDDQSCISQIFDFLLHEILSFHASDIHIEARNNDALIRFRVDGILREFAIFEKDIYEALVFHVKFLAC

LNLAESRKTQDGSFELDFENERYDFRVSCLPLIYGESVVIRILKHDKEILDLYKLNLGNKNLEILKKILH

RPNGMILLTGPTGSGKSTTLYACLNELKSIEKKIISAEDPIEYKIPLVQQILLNSKVGVEFNSVLRAILR

QDPDIIMIGEIRDEESLDIALKASLTGHLLLSTLHTNDALSTIDRLLDMQAKSYLIASALSLVIAQRLVR

KLCPWCKQKSKKHYIEFEGEFFEPKGCERCHHSGFFGRELIAECLEINEDLACAIRENQDKTILMELAKK

YGFQTMFEQGLKKAKEGLTSIDELLRVVR

>CCK67553.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGFEHLNTIYYFILFFVALFAGFIDSIVGGGGLITLPALIACGIPAHLSLATNKLQSVFGSFTATLTYFK

STTLPRLAWGVFFTALGAAIGSYSVLFVKDEQLKLIILIFLTLTFLYTALRPNLGKHESEPKIKNIKIFH

LICGLTLGFYDGFLGPGTGSFWIFACVMLLGFNMRKASINTKILNFTSNIIALAIFLWQYELLWAVGLLM

GVGQVLGAYLGSKLVLKTNGKFIKTLFLIVVGATIIKVAWDYFS

>CCK67552.1 hypothetical protein BN148\_1467 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNFIHLKAKLDFLANQKNTNHSLFETPDPLQIAKIHNDEFIALICALFAYGNAKNIVNFLKKLDFSLLN

LQEKQIKKELKNLKYRFQNEKDIQEIFITLSRLKNEISLYELFYQAYQERENTTDAILAFMQKIKTLNSY

SSYGYDFFFGKIWQNTPTSPLKRYNMYLRWMVRKDELDLGLFTKIHTKDLLIPLDTHAHKISLTLGLLKR

KIYDYKSVLELTQNLKKLDANDPIKYDFALYRLGQSKEIDKFKE

>CCK67551.1 flagellar hook-associated protein FlgK [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGIFGTLYTGVTGLKASEVQIATTGNNISNANATFYTRQRVVQTTNGYITTGGVQVGTGTAVESIVRLHD

EYSYYKLKGASTQLEYTKYMASTLQEIAQRFPDLQNTGILQDLENYNKAWNDFASNPNENATKIALVKAS

QTLTESVNNTFATLDKIQKKVNDDIKNTVDEINRIGEEIATINKQIYGQEALPTEHANELRDRRDELELT

LSKLVSAVASKNEINQDNRLDTTITDPGHQYNLSIEGFSIVDGINFHPLKLDYDDKNKSYSIYYETPDEK

VRDLTAKISGGQLGAQLDLRGRNYSKSEGKYEDGIIQGYMDSLDTFAKTMINETNNLYASSAKSSVTSDY

LSGLKGDIPLVNYDRTIQPGSFDIVIYDDKGDKKLTKTITIDVNTTMNDIMRQINANTDDNDNKNSNDDV

DDHINASFSYDAKTGDGLFQINAKSGFKVAIEDKGTNFAGAFSIGGFFSGTDASDMKVKDSILNDPSTVR

ASSNGVDSGNDMANKIIQLQYKKVNFYNEDGTIDNLTMEEYYRKLTGKIASDGENNNVVNSSNETLYNSV

YSEYQSKSGVNTNEELAALIQYQSSYGAAAKIVSTVDQMLDTLLGLKS

>CCK67550.1 hypothetical protein BN148\_1465 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKQRLDEVNAILAKLIALTEEDIENIKVAKHESVTPSVEEKNKLIAEFITAKKQLDVALVELNNSSTKG

LSELLDDEDKQKLDLLKKNLQNLHSKNKEYAKFVLIVKDFLDGLVNKMFDINDGTNNAYGDKKTNPESIF

KINV

>CCK67549.1 hypothetical protein BN148\_1464 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINPIQQSYVANTALNTNRIDKETKTNDTQKTENDKASKIAEQIKNGTYKIDTKATAAAIADSLI

>CCK67548.1 hypothetical protein BN148\_1463 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVDNFLNTYSMNSALLDRAAKARSLESSIKINDNDIVTKSKEDKALKEQTNAFEAFFLKQVLDVSLKSQ

NSLFGKDASDEIYSSMYNDTMSKALSGGMGFSKLLYDFLKERG

>CCK67547.1 flagellar basal body P-ring protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRVLTIFLLFMTSIFAVQIKDVANTVGVRDNQLIGYGLVVGLNGSGDGTSSKFTLQSISNLLQGMNIKVD

PNDIKSKNTAAVMVTAKLPAFAKSGDKLDITVSSMGDAKSLQGGTLLLTALRGIDGEIYAIAQGSISTGG

LTPRPGGTGSHSTAATVMGGANVEREIPQNFSQNNDLTLSLKVADFKTANNIERVLNTVFGEEVAKAIDS

RTVKLKKPEDLSNVDFMARVLEQDIAYKPQSKVIIDERTGTVIAGVDVEVEPVLITHKDITIKIDPNNNT

VANQNEIDMKDGGFVDPSSNTLRINNAKSTVANIARMLNKLGATPNDIIAIMENLKRAGAINADLEII

>CCK67546.1 DNA methylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNDEFISVKDFFNHNEKRKKFLQKQEIKPPKEKTKKTKETKLYTNIESGKYKGKKLLLPSLTTTRSTKSI

VKSCVFNVIREDLRSKIFIEAFGGSALIAAEALSNYALKAYAIELDIKAYKIALENAKNIDPNLEVIHAN

TFEILPKLIENSKNEIILYLDPPFDIREGFSDIYEKIYHFLENLDLKTLNLIIFEYHSTIKTPEKIQNFQ

KVKEKKFGSTSLSFYSS

>CCK67545.1 hypothetical protein BN148\_1460 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKISLECKDLIIEKTLELFLKDHLVMKKNCDFIISDEKIHTAKPLFIISKNSPFLSIPFSKETLFESLNE

FDNALKAAALQLALEQKRLLEEKIDAIALEFKKDYENKIDLAIKDLKNKLVKALNDE

>CCK67544.1 hypothetical protein BN148\_1459 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKLELRIFRFDKTKDYEAYYKPYIYDNYENFASFYDLLLQVQNDDIYFDFDKDEDTYIVVNKQIIPLFT

PLEKIAKEFDFNLCIEPLSTKRAIKDLIIDKNDFLDKYKYLEKFGDEEDKKLYAKYDYLYYATEILDYLP

EYMGDGVFYLASKMIEKYPEKKIEILKTLADKEKGIFYHLESKNEILETTIKNLQNEILNLGLFDKNILH

FDLPKTNAFDNEIKELKEIKHNFKDFNIAFYGFNACDTLKSKLKAKFISYENSIKNNGFSLLNLNPTLSY

KIAADIVLDAYDSGADFMVVKEEKDFYLFDTCAKKLMQTSKRDFEDFYILSRFEFLALIEGIQAPSLKNH

TLKVSLI

>CCK67543.1 thiamine monophosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKEDFIIKAFLNKKNGDDGAIIDDWCFSKDLFFENVHFKREWFSLEQIATKAMLVNISDAISMNAVPKY

ALLGLALPKNLSENEIKALQKGFLKTARKFNIKIIGGDTISNDKIDISLTIISKINDKAVFRKGLKKGHL

LAYTGKLGRSLKGLEILQNGGTLKPNHVFIKPKLRASFFYEIAPLISCAMDISDGLSKDLSRLLALNKCG

ISWFKKLDDYALYSGEEYEILFAFDEKERQNIEIIAKKHGVKLNIFGKAVKGKYEFRGREHHF

>CCK67542.1 tRNA pseudouridine synthase D [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLEEENTIFKPLYSLKHSPINAYFSKNSDDFVVRERPLYEFSGKGEHLILHINKKDLTTNEALKILSEA

SGVKIRDFGYAGLKDKQGSTFQYLSMPKKFESFLSNFSHPKLKILEIFTHENKLRIGHLKGNSFFIRLKK

VLPSDALKLEQALMNLDKQGFANYFGYQRFGKFGDNYKEGLEILRGKKMKNVKMKEFLISAFQSELFNRY

LSKRVELSHFANDFSEKELIQIYKISKEEAKELKKQEQFFKLLKGEVLGHYPFGKCFLCEDLSAELGRFK

ARDISAMGLLIGAKAYETGEGLALNLENEIFKDTLEFKAKMQGSRRFMWGYLEELKWRYDEEKAHFCIEF

FLQKGSYATVVLEEILHKNLFE

>CCK67541.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILTSALALGAMTLIVDCGDGDLVELKNNGNDQAMFDLGNQEIMKKYPNYKLYDYTSVRTISDINNPE

GKIKEMKRDLEIDKTPYSNYVFLLNPNDKKTIKL

>CCK67540.1 peptide chain release factor 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDNYEFSELLKTLKNKVGNIASIIKPENIQTRLKEIEELENSPSFWSDVKQAGIIGKEKTKITNLLKNYE

NAFNALNDASELFDLANSENDTETLEALFNDAPKLEDTITSLEISMLLSGENDGKNAIVSIHPGAGGTES

NDWASILYRMYLRFCEREGFKVETLDFQEGEEAGLKDVSFLVKGENAYGYLKAENGIHRLVRTSPFDSAG

RRHTSFSSVMVSPELDDDIEIEIEEKDIRIDYYRASGAGGQHVNKTESAVRITHFPTGIVVQCQNDRSQH

KNKATAFKMLKSRLYELELMKQQDSANTGEKSEIGWGHQIRSYVLFPYQQVKDNRSGEAFSQVDNILDGD

IKKMIEGVLIALKAE

>CCK67539.1 radical SAM domain family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKLYLMSLGCNKNLVDSEIMLGHLSAYELCDEPSKADVLIVNTCGFIDSAKKESINAILDLHEQRKKDS

LLVVTGCLMQRYREELMKELPEVDLFTGVGDYERIDEMILKKTNLFSNSTYLQSENSKRIITGSNSHAFI

KIAEGCNQKCSFCAIPSFKGKLKSREISSIIAELKDLVARGYKDFSFIAQDTSSYLFDKGEKDGLIRLID

EVEKIKGIRAARILYLYPTSASEALIKRIIASEIFINYFDMPLQHISDNMLKIMKRGANSTRLKEMLNLM

KSAPNSFLRTGFIVGHPGESEADFEELCEFVKDFGFDRISVFAYSKEEDTAAFDMEQVPFKVINKRLKII

EKIVDEVIEKSFEKEVGQKRLVVCTGKSSEGEFFIAAKDLRWDREIDGEILINESECGNLEMGQIYECEI

LQNLDKKLLAKALRKVDAN

>CCK67538.1 tRNA(Ile)-lysidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQIKDEILSLLKRGKNLLAFSYGSDSSVLFYLLMQEKIDFDLVMINYKTRKNSDLEELKAKELALKFHKK

IFIKHAPKFQSNFEKKARDFRYDFFEKICLEQGYDHLILAHHLNDQFEWFLMQLSRGAGLAEILGMQECE

KRSNYTLLRPLLFISKDEISSFLKEKDIFYFHDESNENEKYFRNYIRKNFSNAFVSEFHQGLKRSFSYLD

EDRKKLYDFENIKEIQGLLICPKNESLIARAVKMKGLLLSTAQRKELLKGDCVLGGKIALAYKNEQAIVF

EYETCQKLPKNFKEECRIAKIPRLLRAYLYNHKIDISSLSF

>CCK67537.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDILKLAIKDFLSLKFLKFALIPLIFSLILMLFLGVLGFSALLDYFNSLFSVGEDSFWAWFYALHFVQIL

ITIISFLFSGFIVVFASVFLALFITSFLTPFIAKEINQKYYHYDNTNEVSTLKTIFEIFKIFIKFIGILL

LCTLALFLPFINIFVYYLAFYYLFHKLLMIDVTSTILDKESFKNFHSDFSPLEFKFSTLCFYLLSSVPLL

GLFLQVFFVIFLTHLSYQRILKLKAKA

>CCK67536.1 dUTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTNIEILENMLKLQQKLNDETNGLNWENGYTKEGKLISWRRCIYMECAELIDSFTWKHWKNISSLTNWEN

VRIEIVDIWHFILSLLLEEYRDKNNKDFKAIATEVNAVSVFQDFCKEEEYPNEGDIYGILNDIELIIHKC

SGFGFNLGELLSTYFTLAIKCGLNLEILYKTYIGKNVLNIFRQNNGYKDGSYKKTWNGKEDNEVLAQILE

QELDFDTIYKKLEECYKKA

>CCK67535.1 ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQIDASKNQSFSMDYTTKSGKHLALSMYDNQSVSYANNEEGKTLNLKRQYGFSFTFEGSKLTQNDLDEIK

NAMKEVEPMIKDFLANSKVGELKPKEIIESAMQMANVLPTPNDENHQNAIMNNFTNKLSDLLKQNQTDDK

DINASMLEDSKKLLDEVLEQMKKQLEKQQEKAKENQDKTDDSLNLYA

>CCK67534.1 hypothetical protein BN148\_1449c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDERILEFIKNEQLLSWAMIDEKGVYTASAFYAFDEKNLAFIIASHEDTKHIRLASENSSIALNIAKESK

IAFLKGVQAKAEFKMASKEQMKIYFSKFPFAKFDKSAKIYALELFWLKFTNNALGLSKKLEFYKK

>CCK67533.1 capsule polysaccharide export system inner membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNVIYALFFRELKTRFGKNRYLGYIWVVGEPMSIVLLVTIIGTIVREYHHQVMPEGISIFMFLISGIMP

FFMFRSIVTQLMNGTQANLALFAYKPVKPIHVFIARTLLEFCIYFVIFIIILFFAGWFFRLDVFPVHLLG

VLFCIFLLICSAFALGICFAIIWHFVEPLRTLLAYFSIVFYWTSGIIFPTWLTPRPLLDIFYYNPLLHIF

ELLRFNFFENYPLQDEYSYFYAIFWILLVLFIGLFIYYYNRQALTAVKKE

>CCK67532.1 capsule polysaccharide export ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKLINLTKSYPLFSGGRHYVFKNFTFEFPENCSIGLMGYNGAGKSTLMRLLSGAELPDSGKIITNKKLS

WPLGLNGAFQGSLTARDNAKFVARVYGYKGKELQEKVKFVEDFAELGKFFDEPMKTYSSGMSARIAFGLS

MAFDFDYYLIDEAGAVGDPAFREKSVKLYRERLSKSKVIMVSHNVAEIKEWCDKIIYMKNGQITVYDDVD

EGIAVYQGKV

>CCK67531.1 capsule polysaccharide export system inner membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEENKTLLEKIKDLSIFDSFKIVWFIMIFVVIYYTLIAAPRYVSTMILDVRSTSGESAQTSGILSLLSST

STASEDLNYLKGYIESSDMLKILDEKIKLKNLYQEQHIDLPFKIWDSSSIESYLKYYQARVKVHTDETTK

LLKVEVEGFTPKSAHLIAQAIMQESEKFINEISHKAAREQMAFAENEVQKYKERYQKAQNDLIAFQNKYG

VFDPLKQAETKASLVAQIEANLAQKEAKLLTLQSYMNDAAPEVVALKAEIEAIKKQLLREKSKISANNSS

QKLNDLAAKFQDLTIEATFAQKAYEAALKAYESARIEALRKIKQLVIIQSPDIPESAKYPERIYDILTAF

IVLSLIFGIVKFIKMIIEEHKY

>CCK67530.1 capsule polysaccharide export system periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILILLFSCILCFGAVDVSQIISAEDQGSATTSIDQNLSSNYDIANKENNLTKIHQILVFGAHLFNGN

FKNYNQRVYNPDYKIAVGDQISLKIWGAVEFSQVLVVDSQGNIFIPKVGAVNLLGVKNSALVSVIKARVN

KIYKSNVFVYADMNAYQNVSVFVTGNVNAPGLYQGLSSDSVIQYLDKAGGINLEYGSFRDIQILRNNSVI

KNIDLYDFLLKGQMDLFPFRSGDVILVGNVQNYAFVNGDVQRPFRFELSNDIKTLADLARVSGAKPIVTN

AIVKSYGEDHKLDVSAYNKMQFSKVLLRTGDEVEFHPEYVSENITISVNGEHNGLKTLVVGKGTTLEDIS

KLIKANPQSNMQALQVFRKSVARTQKELINAQLKELETLALTSGSVTAQGAAIRAQQAKTILEFIQRAKQ

VEPKGQIVIDNPKSYNSVILEDGDTINVPSKNNLIIVQGEVSLPGAFVYDKGKDLRYYINLAGGYGERAD

TSKVLVIRSNGKAEKYHSGIDMKRGDSVLVLPKVDSENLQIFSMLTQILYQIAIATNVVLNL

>CCK67529.1 D-arabinose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNTLEIAKEVFEKEAQAILDLATNLDENFNQAVNLMLNTKGRCIVSGMGKSGHIGAKIAATLASTGTPSF

FIHPGEALHGDLGMLTSEDVLIAISNSGETEEILKIIPAIKKREIPLIVMCGKKNSTLVKQGDIFLNIAV

EKEACPLQLAPMSSTTATLVMGDALAAALMKVRNFKPDDFALFHPGGSLGRKLLTKVKDLMVSSNLPIVH

PDTEFNDLVDVMTSGKLGLCVVLENEKLVGIITDGDLRRALKASDKPRFDFKAKEIMSINPKVVDADAMA

SEAEGIMLKHKIKEIIVGKEEKVVGIIQLYAIGNV

>CCK67528.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPLLSVIIPFGLSKERPYIEERVLQKAKFFQSDENIEFIFVEGYSSKDHELKNFIQANHHIYLKDMDQKA

FSQGRCRNLGASYAHSNVLLFLDVDCYISLDNFEKILKLIQIKNISQNINALIVLPVVYLNKEANEKLKQ

YDDKFWDILIQEDLFTAKNTWVKFFAPSSTSSIVINKHQFLRLGGNDENFIGHGYEDFDLFARILKACVS

FEKMPTNLSYDARNWNFFNFKGFRSWFSLLGYEACFYGIYIYHFYHIEPNQNAYMQNKDKNHQLFYKHLK

NIKKHDLKPLQVFKAKGEKVLMLFKDQNYDFKDISVYVGEIIYKNISDFFIAKELKYELLLDFLQQEKIT

KIFLDASIKLQFNGIDYCDIFYFQKGILPHSWFFAKKLDLGYKQDLNLSEQKLYQVKEYFLTLKEDEKKV

ILDFLSQNNDDKYDLYKMLYYLINELYSFEHDGIFYQIIIDKEKMLIAQKHDKSFYPLRSFVYKPYLHEL

KSIRPFSFLMKILGLEYLGAMISHTKFYRLARKLFFNPKGFFEDFNYKIMKGKI

>CCK67527.1 UDP-glucose 6-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIVIVGIGYVGLANAILFSKNNENEVVLLDIDENKIQSINNHKSPIKDKLIEKFFVQNISKLHATSNIK

EAYFNADFAVIATPTDYDEQLNFFDTRSIENVLKDIKNINSKINVIIKSTVPIGYTKTIKQKFNMSNIVF

SPEFLREGSALYDSLYPSRIIIGDKSVLGKTIGDLFLKNIEKKNVDIFYMDSDEAESVKLFSNTYLAMRV

GFFNEVDSYARKHNLNSADIIKGISADDRIGKYYNNPSFGYGGYCLPKDTKQLLANFYNIPNSLIKAIVE

TNEIRKKFITQLILEKKPNILGIYRLIMKQNSDNFRNSVIIDIIKYLQEYNSNIELIIYEPLVKEKKFLN

IKVENDFNVFGAKVDLIIANRFDDKLKEIKDKVFSADVFYTDI

>CCK67526.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTVGVVIPIYNVEKYLRECLDSVVNQTYKNLQVVLVNDGSTDENSLNIAKEYTLKDERFILFDKENGGQ

STARNVGIEFFSKEYDFKNITQELKENSLVEFKLDNEDNPYNIYKIYKSSNFFKNKDELLNFKAPDIDYI

IFLDSDDYWELNCIEECVPKMDGVEVVWFDSCSIFEEGFKKQWSSLLKLYDLHEGVIKSKVWLEYSINKK

IYNFYFTWSGMIDFIYLKNIKLKFIDYIIHQDHHFGMLLFAKCKYIYIFPSSMHTYRIRSNSTINLSDSE

LQIHIPRYMQSIYDSFNINIKEAKEYYSSMSMFYVLKNCFNDKILMENRYNAYLLEKAFFKFICERCLRI

FLLKRDPCCIKIQIKKILKQYKNYRYVHLTNFYGAFIYFKIFKINIIKKYIRYLFFR

>CCK67525.1 UDP-galactopyranose mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYDYLIVGSGLFGSIFAYEATEKGYTCLVVEQREHIGGNCYTENIKNINVHKYGAHIFRTSDQNIWDYMN

QFCEFNHFINSPIAIYKDEIYNLPFNMNTFSKLWGIKTPNEARKIIEMQKQIIQHPPKNLEEQAISLVGT

DVYEKLIKGYTEKQWGRSCKDLPASIIRRLPVRYIYDNNYFNDPYQGIPKGGYTAIFDKMLKKSKVILNT

DFLKYKDKFKNKAKKIVFTGCIDAYYDYRYGALEYRSLKFEHKILNLDNFQGVAVVNYTDKEIPYTRIIE

HKHFEFGNTDTTVISEEYPLEWIKGIEPYYPINDEKNQALYEKYKQLAKHESNVYFGGRLGEYRYYDMQD

VVRSALLFCKNELKNKQG

>CCK67524.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISD

KKSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYILESNKGKYSKITPID

FLYNQIISFKTHPNIFNFQSINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINEAF

YMLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLDFL

KRFSQDFRKILKDKELDENLFGDGDMKIIYSIVENPENYYFLYMGYCNDMFGKLYFGASERIKWQLSYRI

GKLLIDLKNPVQILKFPFKLFLEIKQFKFEQKIYKTTIKFYPNLQLPPLEEYSDYEQALKTKKHLSYILG

KSFINNPILFIFKIKKIYKQYKKDISSSKKNIKELSDYDFLLNRHKQIFDYTPDFKCPVTFNEKLIYRIL

YDRSCIYSFLADKIKMRFYVASALSDNHEYSWDKIDILNEKSILFNNIDDLQDKIFETNKCKYLPKIYGI

YKNIYDINFNELPNSFVLKTNHDCGGYVIVENKQEFLRDTVVFSNAMKKLKKHLEWNYYSVFREWHYKDI

EPRVFAEELLLGENKKPADTYKFHIFDKENLSNNFIQVTTDRFDNYQRAMFDLSWNLAPFNFMYDNKNVT

MIPKKPNLLDSMINISLILAKPFDYVRVDLYQFDKKIYIGELTFTHGAAGEKVIPKEWDKKLGDLWRLKR

LDNASK

>CCK67523.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQANKNIQKLTPYLSIPHKIWNSSQSNILKLDWNEATIPPSPYVIESIKKFLVNGNLNWYPNTKNLYLLD

KIAEYTKQINSSFVELFEGSDSAHECIIDVFLDKCDKIGIVSPTYDNFRSRANGVGIETISFTLDDNFNL

DFDSLEYFIHEKRIKLLYLCNPNNPTGKSYNIQKIKSLIINNPNVMFIIDEAYYEFTSQSVCDLVEQCNN

LIITRTFSKAFALASFRIGYIISHPENIESINKLRNPKSVPMLSQIAANAALEDLQYMRDYVDEVSCARM

EFVKFLNTLTTGGGGIFNDSVANFVLIQNENISLFVGFLEKEGIFIRNYSHLISKNCRISIGTRNQMSYV

AEKIQEFAKKQGGFHLV

>CCK67522.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLIKLNDYEKNITQKIKDLKNASGSHSPSIFTMAEQIPELNIKIDSCFLSNPYATALFLRYLKEELIDGQ

KLRSVLEFYPSQNSIIAKTVADFIGIDPKNVFIGNGAIEIIQAVMHNFVGKKIIVNIPTFSSYYEFAKSE

TNVVYYQLSKEDNYNLNIEHYLNFVKNENPDSVVLINPNNPDGGYINYEKLRYILSELKYVKNIIIDESF

IHFAYENKDYNGINIEYLFKEFHNTIIIKSMSKDFGVAGIRIGYAIMSEDKIRGLLKNGYLWNSSGLSEY

FLRLYVRKNFFDEYDKVRREYIQETQTFFRKLSGIKQFKVYPSMANFALVELLDGSSSTDFVAKMLIKYG

IYMRTCNDKIGLEGEFIRIASRTLEENDMVLKSICDVFKE

>CCK67521.1 phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKEILALFDFCETLTNFQTLDRYLPLAGSKNINYTQSKNLARRERFQRENLPYPRYEWLIDLDVDLAEE

IAQEFVYTDVMANLNQNVMDRLFWHQDEGHTIVIVSGGLTIYIKEFARIYNIENIVAVDLEIYKNKLTGN

IDGIHTMQERKLYKLAQKFNLKQFDLKNSYAYSDCVSDIPLLSLVGNPNVIECGKDLQWARILGFNILLK

Y

>CCK67520.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISD

KKSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYIFAYGKTEYVNVLRNS

CEDIYNYKVNWNKDIRIFLGSDGINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFIN

EAFYMLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKL

DFLKRFSQDFRKILKDKELDENLFGNINMQRINKIIENPVIYYYFSRGARARLQNQLVYRLGKVVVEAKS

FNKIIKLPFLMLKICLEHNFEHKVYRSIVQFRPDLKLLPLECYLDYHEALVIKEHLSYKFGKLILLSFKG

WYKGKIFILPFMLKKRYKEYKNKMI

>CCK67519.1 hypothetical protein BN148\_1433c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQRFKKWFLSIIKNFKQHEKIKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNT

KIDLNNTKIDLNNTKIELSQLKKEHYKVLDFHLRKITPQAFLEIVEIHLAESCNLNCFGCNHFSQIAEKE

FPDIEIFKKDMQRLSEISKGIVGTFRLMGGEPLLNPNCIQFFDITRYFFPKSAIWLVTNGILLDKQNEDF

WNSCQRNKMQIRPTKYPIKINWDLIKDKCDQYDIPLIFFNNGELEKTSWKFSLDPSGNCDNYHSFTNCSM

ANHCVQFKDGKLFTCTFPAHVQHFNKKYGNHFEVCEFDFIDIYKAKDYQEILFFLSKPIPFCRYCKVSQW

AEIGKWRSSNKTKHEYLI

>CCK67518.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKKILLITPELEYTGALNSFKRICEVLLNNKYAVDIWTYNEGPYISEFDKLGVYVEVISEDDIDSKWVH

ERISKYSLVIANTIVVYKCVELIQNLTPVVWYIREAENLPDFFWKPERKLALEKAKKLYVVSEYAKDFII

HNYNKNVEVLHNYVDDVFYEKHDDFLKQIKSDKLKFLALGTIEKRKGYDVLLQAFIDLPVDIRDQCELHF

AGRFWEGAKDFFPKILSLAKKFPNIFYHGELRDRKKIHSLIFQCNVMVVPSRDESCSLVALEGAMMSKPL

ILTENIGAKYILDENSGWLVKTGSVDSLKNAFIQAYKNKNKLDAMGANSRNNYLQTSTYEIYEKNILKMV

RDEICKNQYLYRINQENYVLFSFDIFDTLISRNIAKPSAVFLIMKQKMRNMDFPLNLVKNFDRIRVEVEQ

YYYRNVCKNKYEDTNFDEIYNLLQQNFSLSFQQKEELMKLEINTEKETLYPIKKNIELVEELIKNEKRVV

LISDMYFSSSIIRTFLNKFSPIFNNIPIYMSSEFRLKKNSGNLFKAILNLEKVDPKKWIHCGDNWVGDYL

KPSNLEISTNFYINQLLPYEEFALNRNSLDMDLQKIIGISKKIRLENTLTNLQEIGVSFGAPMLLPYVQW

ILNIALKNSIRCLYFIARDGYVLQKMTDMLIQAKKINIKTKYLYGSRESWREPFRNKDKLKIQLIDEYLD

QEIDKQEIFAFVECCGTGETLDYIVKRIESNQQFKNMFFGSLYLYRSKLNKTKTQSLFMLPLNENYTYGI

ELFVRSLQGQVLGYDKKDGRVIPVFDFLEGEALQKFRYDEYIDGVMLFMEYIVKTDNYEKIFDNMNVTIL

YLNYLSNNYIDKKFIEIMGNVPFILNGVKDRVGIFAPRLNNKITLDQKNSFFNWSVLRSCKDIRVKYNMD

NDCYFGLIGAVDIIKSHLSYKLGKVILLNIKNPLKWIKLIVLIPILIFSHHEQKKIYLTEKKINIDLSFY

KDYNEAIMVRNFFSYQLGELILKTSRKWNVLAIVILPYKIAQLYRKKFKKG

>CCK67517.1 capsular polysaccharide heptosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDNSKPLIIAGRDDGFGERMRALLNALYISKKFGFKFGFVWRDINNIQNLLDGKVLIPWANLPTREYLFD

QDFIKSYYRQDIEFAYETPVLWSLYRQSIKNILKKPYEKEWGWYSTQGDLSEYFTDVDEGEYRTELVSCW

KQIDFSSHVKKIFEKAHSKFLDIGKFVAIHIRTGEVIHDEFYRNILYHCRYKIFPYPFALEIALKEIKKG

HRVIFFGDDLNLIQNLKEYCSFNKQAQENIFSIDDIIAFEQLDNGYDRLLFELVLMSKSEYIFGSGTTGF

SRCASWIENKIFINIFDHLSLIEQYEIILKYIDIENIDDLYRSCNYFFLFLLSEQLNLNFDIKLRYLSKS

LRYDSGSLNSEVFYINLLLQNEKFKEADDRLEQVICKNKKKFFDLLLGYGQNPTFPYDIYMNYYFKDFDQ

YSNIFYVACRIFSEFNIPESRVNTYYPNFHPIIFDQFKMFIFKDLPKSDQEIGAVKKIRNHLAYKLGVAA

IKNSKSLWGYIRMPYVLSYIRDMHKESQNKMDKKSISLEYYSDYESALKEKEGFVYKLGQIIIKAHKNWH

KGGYIMLWFEVKKLKKEFKKGK

>CCK67516.1 dTDP-4-dehydrorhamnose 3,5-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAIEFDIQESKILKGVYIITPNKFRDLRGEIWTAFTDEYLSKLVPDGIKFKHDKFINSHFNVLRGIHGDV

KTYKLVTCVYGEVHQVVVDCRKDSPTYLKWEKFIISYKNQQLILLPPNMGNSHYVSSKEAVYYYKLAYEG

EYMDAPDQFTYAWNDERIGIDWPTNTPILSDRDILATKNKG

>CCK67515.1 hypothetical protein BN148\_1429c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKLLKELNNNIKLSNQLSYQILMSNIISNLDIDKKDKEILLLLLQARDRNYIRINNNEQCYQNIINYLN

LIRPLELPLCDLLRIGGNGDGGYVMYNGGGDMSDINAKALSLGVSDSSPWDLEMAQRGFKVIEYDASIEK

CPYDHENIVFHKKFIGNVNNENTITLVQALKDNNLDENKPNILQCDIENCEWDMLENIDISILNKYFSQV

IFEFHGCNPEEQDGVEKRISLLKKLNEYFVPMHTHFHNHGKIFYSQGLFFSTTLEVSYLRKNLINLDIMK

YRDVAGGFKNLDFPWISNPEIPIRFRGY

>CCK67514.1 GDP-L-fucose synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQTNSKIYIAGHKGTAGTALVENLQKRGFNNLVLKTRQELDLVNQQAVAKFFKEEKPEYVFLTAVLPCGA

ANVAQRADFIYENLMIQNNVIHNSFLNNVKKLVFFGSGYMYPENAKNPLKEEYLFQGDLEYGAYSFGAAK

IAGAIMCESYNIQYGTNFITLVLNNLYGTKANFDFGKSRVLPALLRKFHLAKLLSEGNITQILQDLKMNN

FEEAKEYLHNFGISKKSVEIWGTGKVRREFIHSDDLADVAIYTMQNIDFKDLIKDRKSKNTHINIGTGID

YSIKEVALMVKNIVGFSGELVFNTSRPDSTMDRLMDCSKIHSLGWKHKIELKDGIKMMYEWYKTQN

>CCK67513.1 sugar-nucleotide epimerase/dehydratease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKKVLITGGAGYIGSVLTPILLEKGYEVCVIDNLMFDQISLLSCFHNKNFTFINGDAMDENLIRQEVAK

ADIIIPLAALVGAPLCKRNPKLAKMINYEAVKMISDFASPSQIFIYPNTNSGYGIGEKDAMCTEESPLRP

ISEYGIDKVHAEQYLLDKGNCVTFRLATVFGISPRMRLDLLVNDFTYRAYRDKFIVLFEEHFRRNYIHVR

DVVKGFIHGIENYDKMKGQAYNMGLSSANLTKRQLAETIKKYIPDFYIHSANIGEDPDKRDYLVSNTKLE

ATGWKPDNTLEDGIKELLRAFKMMKVNRFANFN

>CCK67512.1 methyltransferase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKEQLEVLKEALNGLIYQIDNHQQARKPIADVERIISELQVLNHWNKQENVYNALHLIQGAIADPQGLG

RLNLLLDNARIPKQYYDIFYKMLYVDKYGGGDGYRPVCIDCGGHAGLITDIILHCGGQSYIFEPNIYLNY

FLRKKYENNINVKLFQKAVSDRNYETDFIMFGNRILSQGNRIVESVQDSQTEKTYKVQVIDLCEFIENEI

LTQHKRIYFLKLDIEGMEFEIMKKIIEKKIYKKIDYIACETHEYMFDDSEKKIGELKQLINKCNIQNILL

DWI

>CCK67511.1 D-glycero-D-manno-heptose 7-phosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTIRTQTPLRLGLAGGGTDINLYCDKYTGYVLNATISLYIHCTLIKREDGKIIFDSPDTNSYCEYESKE

FLGNDGKLDIFKSIYNRIVKDFTKKPLSFSLHTYSDVPSGSGLGGSSTLVVGVIKAFAEWLNLPLGEYEI

AKLAYEIEREDLGIVGGAQDQYAATFGGFNFMEFYNNKRVIVNPLRIKNWIASELEARTVLYFTNITREA

KDIEEHKKGKLGDEKSLEAMHAIKQDAIKMKEALFRADFGTLAQILGKSWRSKKIISEIVSNDELERIYK

LAIDNGAYSGKTSGAGAGGFMFFFVDPTKKYNLIKALRKEQGYVQDFSFTKEGVKSWRI

>CCK67510.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENLNSYIKGHFADSILVKEQILKDENLITLIKNASLEVIKAYKNGNKTLLAGNGGSAADAQHIAGEFVS

RFYFDRPGIASIALTTDTSILTAIGNDYGYENLFARQVQAQGVKGDVFIGISTSGNSKNILKALEFCKQK

EIISIGLSGASGGAMNELCDYCIKVPSTCTPRIQEAHILIGHIICAIVEEELFGKGFSCKQ

>CCK67509.1 D-glycero-D-manno-heptose 1-phosphate guanosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQAIILCGGLGTRLKSIIKDIPKPMAPINDKPFLEFIFEYLKKQGIKEVILAVSYKYEVIKEYFKDEFLG

IKIKYSIEKEPLGTGGAIKETLKFVKNEAYVLNGDTFFDIDLSKLKLNESKICLALKQMNDFDRYGTVNV

DEQDLVISFEEKVFKKQGLINGGIYLLTKDIFNDFALQEKFSFEEFLQENYKKLKARACIFDDYFIDIGV

PEDYYHFLINN

>CCK67508.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFVGFFLHTSGEKAMERFLKEVGVVLIGAFGYEDGKRY

ISIFNFLISEACACNDLKFAIGILDVNCQKYDKFCFLLQNKPVLILLRDPIDSLKSFINVRHQKNGFNEI

LKIDINNTDFDKINDRIVYVHESNGCFNPDTNQKFPSLESIKALSDTNHWMLMYNIRRNKTIEFFRFNKI

IYIDMMDIVGDKTLFTLEKLSKILNFSSPDKNNKIFYQQLYSPLTVLLPCIIKVNNKVKIFVSNRFSVKN

IQIMENCIDITDKFKEIFHENLIIFCSKDHFDSLINNQTLYNVVLEYINKFLISLKKRINVEKNKEVKVD

DVLDYFKKNISVAKSYKDILDEELVYIKQHRPDIVASWKYYQEFERMCKELDENNQNPSLSFSNQ

>CCK67507.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFMWFFSHGAGAFTLGQFFYHLFKINILDYFCGGDGDI

RYYKFYNKLLELKDKRNIITINDIDPSWYGNQHKRDKLFSSFQKITPILFQIRDPIELIKHAYGRKWGNN

LAKTKEFDLSYQFNDIITEVEVYNYNLPNTLEGQRPQSFLWKSLIECFDKFNDCFYLDISKIRGEETIHT

LNYLSNKFNLKQIKINDKEFVTKSYFKGNLYFLLPLTLYLNKEDLNTNIPNKKINKNNSLIININFFQND

NNLFNLYSELSILDMDSSVGFYIDKQDYNKLKNDSIFYKQVIDYLRNFAYELKNRIQIEEDLMLKVEDVL

RHLYNNKNARVSAKNILDEELVYIKQHRPDIVASWKYYQEFEKMCKELDGDI

>CCK67506.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKQGDFTKVAKHYHNRPAYSPFLLEKLVACINDKNKNLKDLNIVEVGAGTGKLTKMLGEMFGCQISAVEP

NDNMREEGQKFTQNLSNISWHKGSGEETCMSNNQADWVIMASSFHWTDPKKSLPEFNRILTGGGYFTAIW

NPRHIVEGSVFDEIEKEIKHIVPDLARVSSGTQNVKKWEEILVSTGDFIDCFFMECDYKEFWDKERYLGA

WHSVNDIQAQAGEKRWKEILEMIEAKISHMQSIEIPYKIRAWTARKA

>CCK67505.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKLVEQVWDYTKHAKFYSYRPNYAPKTIDMLISLVGKKDIKVADIGAGTGNLSIMLLERGCKVVSVEPN

DAMREIGIERTKDQKIDWVRATGLNSTLQNSEFDWVTFGSSFNVMDRNEALEEAHRLLKSEGYFSCMWNH

RDLNDPVQKIAEDTIVEFVPNYTRGTRREDQRPIIESRKDLFDNIVYIEEDFYFHQSIENYINAWKSVKN

PYWDLETDEGNELFNKISNKISQRLPKEFSIKYTTRCWSAKKI

>CCK67504.1 hypothetical protein BN148\_1418c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAELKFKTKAQNLKNLQTKLKKAKVLPLVLTSLEELISNEDKVLQDIQTLKANRLIIRSSSLSEDSMKNS

NAGAFLSLANIKADSKDELLKALYEVANSMPSKSDEILVQPMLENITLCGVGFSVDKDNFSPYFCLQYDE

NGSNSSITDGSSKSAKTYYHYRNYLEFKDIRLQKIIELIKELEVLYDCHFLDVEFAFAIQDDKEELFCLQ

VRPLVMHEKNNLFHSLPKEALYRFYKRFESLKESRSRVLGDKAIFGVMPDWNPAEIIGLRPKRLAFSLYK

EIITDNIWAYQRDNYGYRDLRSHPLIHSFLGIPYVDVRLSFNSFIPKKLDENIAQKLVNFYLDKLNKNHE

LHDKIEFNIVYSCYDFNSSKKLEELLNHGFNENEIKRLEFSLLELTNKIINPRSGFYLKDIQKAYKLKER

YDGIINSNFSLIDKIYWLIEECKRYGTLPFAGVARAAFVAMQLLNSLVEIDFITKEEKDDFLNSLNTVSK

NLSKQTNHLNFHNKDQFLKDFGHLRAGTYNILSPRYDEDFELYFDADQKDSKVYLQDKAFVFSKEKTRAL

NALLKEHGLEINACEFFDFLKQAIEGRELVKFEFTRLLSKAIVYIEELGKYYDIEKEDLAHLDIKSILNL

YSSLYSINPKEQFIEEINRNKKEYELTQAIKLPSLLCNADEIFSFYNHSIIPNFITQKSITAFTAKENDK

DLEGKIVLIYAADPGYDYLFTKNIAGLITCYGGANSHMAIRASELGMPAVIGVGEENFEKYLKAKKINIE

CESEQIFCL

>CCK67503.1 amidotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFIGITQRLICNDSYHEKRECLALDWGKLFNKDLFKNFTPLPLSYEIDFSYYKHLIKAVILSGGNDLSFY

SPNVLSKKRDLYEKQVIEICLEEKIPLLGICRGAQMIAHYFNSHISPCENHIGKHEVFFSKEKFISNSFH

NFAIEKLGEDLVELCLAKDNTIEAFKHKYENIFGIMWHIERENGLNNIQILKEWFSLIKE

>CCK67502.1 sugar nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNAIILAAGFGSRLMPLTKDQPKCMVEYKNKKIIDYEIEALKSAGINEIAVVGGYLNDVLKNYLNKYDIE

HFFINSKYDKTNMVHTFFCAKDFMLKCIEEKQDLIISYADIVYFQDCVQKLINAKEELAIVVDKSWCKLW

SKRFANPLEDAETLKMTNGYIIELGKKANAYDEIEAQYIGLFKFSYQFLSEVIAFYEMLDRDILYDNKNF

ENMYMTSFLQALIEKYNNAKAVEIDGNWCEIDFMSDLEVQIEK

>CCK67501.1 adenylylsulfate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNNPYIIWLTGLAGSGKTTIGQALYEKLKLKYKNLIYLDGDELREILGHYAYDRQGRIDMALKRAKFAK

FLNDQGMMVIVTTISMFNEIYDYNRKQLKNYYEIYIECDMHELIQRDQKGLYTKALNKEIDNVVGVDIEF

DKPEADLVINNSCRNNLEEKVELIIKKLAL

>CCK67500.1 capsule polysaccharide modification protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKYYSISKKLIANVRNFYTISLYKKNLKIKKDDLFFGWGRKKSGLKAMNLAKKYKAKFILLEDGFIRSLN

LGVENSPSFSMVKDDIGIYYDATMPSKLENLLNTCEFKDEEIKQAKKAIELIKKYKISKYNNNLDIPDNY

FQKDEKRVLIITQTANDASLEFGLAKDFKTLDMIKDAIKENPKSTIYIKIHPDVLSGKKQSDLDLNSLPK

ECILITENFNPIALLEFFDKVYTKTSGMGFEALMQECECICYGMPFYAGWGLTKDKLECKRRMQKRSLEE

VFYAAYILYAEYFNPYLNQKSNIFDTIQTLAKYKDIEKVNSNKLFMLGFTLWKRHFIKPFFKAKDNEIIF

LNSLKSLARYKLKENDKFFIWGKRIDYNALKTTLIKKAQDENLLHFTPKISLVEDGFIRSISLGSDLTRP

FSLIVDDKGLYIDPNKASKLEELLQNEIFDENMLNRAKNIIKILLENRFSKYNGLKHEDLKINAKIGQKI

ILIPAQVEDDASMILGGFGLSTLDLLKEVRAKNQDAYIIFKPHPDVLSGNRVGLKDETLILEFCDEIVKD

CSIDSAIKIADEIHTITSTSGFDALLRAKKVFTYGMPFYAGWGLTKDKYRCERRIRKLSLEELVAGALII

YPRYINPKTKTLCEIEVCLDIMLNLQKAYFSKKYIKLAIDFKTFMLRKIRRFYEFLAKK

>CCK67499.1 capsule polysaccharide modification protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRFSTKIKKEFSGKNVLLLQGPVGNFFHHLAVKMRKNQTKVFKLNFNGGDFFFYPSGTRCKCDEKDLENF

YRDFFQNKKIDAILMYNDCRIIHAKAIKVAKELGIEIWIFEEGYLRPYCITLEKDGVNANSSLPRDKNFY

LSQNIFTKESIKEIPGGFKFMAFDAFLYWLFAFILAPFFNNKLHHRTLYPFEFLFWFRSLYRKYLYKITE

KKLNEKIYNLEKKYFLAILQVYSDTQIKYHYKKSIEHFIEETILSFANHARAKSYLVFKHHPMDRGYKNY

FKLINDLSRKYHVEGRVLYVHDTHLPVLLRKALGCITINSTVGLSAILEGCPTKVCGNAFYNFEGLSYPK

KLQFFWREAHAYKPNPVLVCNFKKYLLQTNQFNGNFYKNFFLDK

>CCK67498.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDREVFYIAGYDPKSYRFYYDLFKKNLKDYSHAFNIKADLSKIEKNEQFPFFQISCEGVQTKYHFLTWND

IVKKNWSENYKDALADCYSFFRIYTITGLFIKFGKESIYQLITGYYPFFYVLFSLLFSLVLAFGSFAFLQ

NYMHFSLAIIIGCFLGFLLNHFLFKLGKKLAVFWIARICAFCATWQDKKTGTMQERIKLFANTIVDKLKQ

NENKQDYELVLVAHSVGTIVCIEVLECILRQNLDLSLLHKLKILTLGECIPLVSYQKKADEFRKKLEFVS

RFDLKWYDYTSIIDGACFPQVDFFRTSGVNAKFTPPFLSAKFHTLYEKHEYKKIKRDKNKAHFLYLYSIS

VKGDYDFFSFIIMPKFLEEKVKI

>CCK67497.1 cytochrome P450 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSECPFFPKPYKNKASTLLTFLLKRRSWLDGLYERSYKMQTGYVKMPNFDLYVINDTKEVKRMMVDEVRE

FPKSAFLHELLSPLLGESIFTTNGEVWKKQRELLRPSFEMTRINKVFNLMSEAVADMMDRFSKYPNHAVI

EVDEAMTFITADVIFRTIMSSKLDEEKGKKILNAFVTFQEQSVHTAMRRMFRFPKWLSYVLGDCKRAKAG

DVIRQVLSDIIKPRYDMADNAEFEDILGSLLLVVDADTNKRFSFEEILDQVAMLFLAGHETTASSLTWTL

YLLSLYPKEQEKAYEEITQVLQGGVIEISHLRQFKYLTNIFKESLRLYPPVGFFAREAKKDTQVRDKLIK

KGSGVVIAPWLIHRHEEFWTNPHGFNPSRFEGEYKKDAYLPFGVGERICIGQGFAMQEAILILANILKTY

KLELEEGFVPDVVGRLTVRSANGMRIKFSKRKL

>CCK67496.1 hypothetical protein BN148\_1410c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKRVRTKIRANFRRRVKRTLKGSLKEKLAGTILLCAIVPLAVLGYLFIVIIGIFFNTARARQGVRALDHF

VNASLFNGYAWESVSSHAWRERNRKKWARIVIKITDFFQKDHCKRANKREQPVVDFILSRNLDKQTIGK

>CCK67495.1 4'-phosphopantetheinyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRVGCDIIAISRIEKIHSRHGKNFLDKFLNPKEQILIKNPATLAGLWAAKEAASKALGVGICELCSFFDI

EISKDEKNAPKLKYSQKITKDFNITQTSLSISHDNGFAIAIVAVV

>CCK67494.1 flagellar basal body-associated protein FliL [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDEELENEETKKKKGGSLVIIIVILLFVLLLSIMGVIAWLISSSSSDESEVKEAPKEEAKADKPKVSAPA

QRGSDFANIGPMYPLDPFTLNLLSDSGSRYVKCTIELEQNSELLKPELDKKVPVIRDIIIRTLTAKTFEE

VSTQKGKERLKDELVGKINEILTDGFIKNVYFTDFVVS

>CCK67493.1 phospho-sugar mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLKEKMLDVIFREYDIRGLYDKELNEKSVKAIGFCLGQTMLNRGCKNVSVGYDARYSANELFNYLVSGL

NKAGIKIYDIGLVPTPLGYFSLYEGLKFDANVMITGSHNPKDYNGFKITINKESFFGVELKEFSKEVYKH

LDDDIEENLEVEKYDILNLYVKFMCEQFSFLKDFNYKFGVDCTNGAAGVVIKPLIKALNLKAHVMFAEPD

GQFPNHAPDPTEEENLSAIREFLNQNQDYSLAFAFDGDADRMVALSKTHVFCGDELCYLFAKDIPNPRIL

GEVKCSKNLFDEVAKFGTIFMGKTGHSNIKKMMKEKDIDLAAEVSGHIFFKHRYFGYDDGIYAFLRALEL

VYKGFDLESMIKALPKLYTTPEIKIPVNEEEKFKLVEEFQKEIEKGALKGVKSLCEIDGARIDFGDGWAL

LRASNTSPYLITRFEATSLERAKELESMVFTLFNDIKARFKN

>CCK67492.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILILLTLCAFAFGASECDRKIDRINKEISFSKAHNDTARTLSLELALKQVQNDCAKDPMFYDKKLEA

KKLKEQEVEKIEKELDALKEQKDYMSKAEYKAKKEALKEQKEKIKK

>CCK67491.1 hypothetical protein BN148\_1405 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQERIDLIVKILDEKKAENIKTIDMSEQEYFVKYVIIAATLGERHALSLIDELKTRLKAKGEEFLNIDSS

EEWSVIDLGDILIHLLTPEHRGIYNIEELLENLKKGRV

>CCK67490.1 nicotinate-nucleotide adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIALFGGSFDPPHNGHNSVVLEALEKLDIDKLIIMPTYINPFKQSFSADEKQRFLWVKKLWGHLPKVEI

CDFEIRQKRPVPSIESVKYLYKLYNPSKFYLLIGADHLEKLHLWHDFEKLNSLVEFVIANRNDIGIPKNF

KDLKTNKKIASSFIRDTLNTNEVCEEIKDEVKKYYEKLQKN

>CCK67489.1 glyceraldehyde 3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAVKVAINGFGRIGRCVARIILERNDIELVAINDTTDIELTKYLFKYDTVHGEFKGSVDSEGDDLVVNGK

KIKVFKSRNVKDLDFAKHGAQIVLECTGAHLTMAKCQEFIDMGVQKVIMSAPAKDDTPTYVLGVNSELYK

GESIISNASCTTNCLGPVCRVLQDNFGIEKGLMTTIHAYTNGQSIIDAKAKDKRRSRAAAQNIIPTSTGA

AKAMKLVMPELNGKLHGQSMRVPVIDVSSVDLTAQLSRKVSKDEINEAFRKAAATNLKGILMVDDDERVS

SDFITCSYGAIVASDLTQVIADDFIKVIAWYDNEWGYSSRLVDMAVYIANKA

>CCK67488.1 phosphoglycerate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSDIISIKDIDLAKKKVFIRCDFNVPQDDFLNITDDRRIRSAIPTIRYCLDNGCSVILASHLGRPKEISS

KYSLEPVAKRLARLLDKEIVMAKDVIGEDAKTKAMNLKAGEILLLENLRFEKGETKNDENLAKELASMVQ

VYINDAFGVCHRAHSSVEAITKFFDEKHKGAGFLLQKEIDFASNLIKHPARPFVAVVGGSKVSGKLQALT

NLLPKVDKLIIGGGMAFTFLKALGYDIGNSLLEEELLEEANKILTKGKNLGVKIYLPVDVVAAPACSQDV

PMKFVPAQEIPNGWMGLDIGPASVRLFKEVISDAQTIWWNGPMGVFEIDKFSKGSIKMSHYISEGHATSV

VGGGDTADVVARAGDADEMTFISTGGGASLELIEGKELPGVKALRSKENE

>CCK67487.1 triosephosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIFAANLKCNHTRASFKIYAKILNKTMGVKCDDIIVFPPSIAFLENENNFIQGAQNFYPCVNGAFTGELG

KEHLDEFGIKCVLIGHSERRALGDEEFIKAKFDFAKEHGYKIVFCIGENLDTKNSGKTLEFLKKQLEIID

LNYEKLIIAYEPIYSIGTGVSAQSTDIAKVLEFLASLTKVPLLYGGSVNENNIKEILSVNHCGGVLIGSA

ALKVENFIKLIKG

>CCK67486.1 enoyl-(acyl carrier protein) reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIMKGKKGLIVGVANNKSIAYGIAKACFDQGAELAFTFLNDALKKRVEPIAQEFNSNFVYELDVNNNEHL

DSIAEKIKKDLGEIDFVVHAVAFAPKEALENSFLETSKEAFDIAMQTSVYSLLSLTRAVLPILKDKGSIL

TLSYLGGVKYVPHYNVMGVAKAALESSVRYLARDLGVKGIRVNAISAGPIKTLAASGIGDFRMILKYNEI

NSPLKRNVSIEDVGNSAMYLLSDLANGVTGEIHYVDAGYNIMGMGDVEKNEEGQTVLCWDNQKG

>CCK67485.1 Ni/Fe-hydrogenase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKLSNEELKNILEDRIKKLENSTLKEDKVINEESVKILARHLSLGNEIPALAQRFFQIAPKTKLVWLHL

CECTGCSESLLRSELPSFDELIFDFFSLEYHETLMAANGTKAEELLEYVLEEDFILAVEGGVAAIDTFFL

TIGAQGESGYEILEKLAAKAKAIFAVGTCSSYGGIQAAYPNPSKTCGISEVLSQKVVNIPGCPPSDINII

ATLSFFALFGVLPELDEQNRPVWAYGKCLHDMCERKAKFESGIFAEHFDDEAAKNGACLFKIGCKGPYTY

NNCPKVKFNAKTSWPVAAGHGCIACSEKNFWDEFGNYEKPMANIFSYAKLCNEELKQEFFLEEQIKILEQ

IDFEFESNIKLILQNIAKNKLGALLVENYKKSFEKNYAFIEQNFDENPMPSKDFWKYLEISFILVKGAFL

KDKNDFLIVAKNYAFKHASPYDFKLNMNAEKPKLDVSKSFRMTLIYLCGGLDFEGVAYSILKAFEDNIAK

ISSLKAS

>CCK67484.1 ferrous iron transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIKIALVGQPNVGKSLLINALCKANMKVGNFSGVTIEKASAKTFYKNYEFEVIDLPGTYSLDGYSEEE

KITRHFLNQNDYDVIVNVLDATNLERNLILSAELLSLNKKMLLALNMCDEAKKEGIELDTSILSQEFQSQ

VVEISAKTKENLELLLQKIIILFESKFIPRSQFYTPLCEKSPEKEDLLYFINELSKKIITHKKEERNLTK

KIDALLIHKFFGLPIFLFLMWLLFQLTFSLGQIPMDYIESGFNTLGEFVKNNISNTFIASALADGIIAGV

GAVILFLPNIMILFLGIALLETTGYMSRVAFLLDGILHKFGLHGKSFIPLITGFGCSVPAFMATRTLKNK

RDRLLTLFVINFMSCGARLPVYVLFIGAFFPSEKAGNYLFGIYILGAILGLCAAKFLRMTAFRGLDEPFV

MEMPKYRMPNWHLVWFMVYNKAKMYLKKAGTFILLASLLIWFASNFPKSEENLNDFNAQERAIEQSYLGQ

FGKGIEPIFQPLELDWKLSVSLISGLAAKEVMISTMGVLYSLGKDVDETNNDLKGIIAKNIPIPSAVAFI

LFVMIYNPCFAATIVFSKESGKLKYTLFLFLFTCTSAYIVAFIGLHIAKILLN

>CCK67483.1 ferrous iron transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTLNELKDGQKAIIVNLNAHKELKNRLLSFGFIKNKNLKKIHSSLKNATIMVELDTSCVILRSDEAKTIE

VNLI

>CCK67481.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTGISVFDHRLLADSWSTQEMRAIFCEQNRIQKWLDVEAALAKAQAKLKIIPKKAADEIAKKAHYKFMDM

DFIFAEFKKTKHPLVPTVRGLEKACDNNLGEYVHFRVTTQDIIDTGLVLQFKEAMTLVKSELKAIAKALA

KLAKTHKNTAMMGRTLALQALPITFGHKVAIWLSELDRHFERILELEKRLYVGSIVGAVGTKASLSDECN

EVEKLTLENLGLEVPNISWQSTRDRFIELGFVLGNINATFNKIAHQLLILSHNEIDEVAEPFGKGQVGSS

TMPHKRNPAVSENAVTVSNAFKANLAILSDIERHEHERDGQVWKMEWKLLPEMFLMLSVVLANMKFALSD

LEVKKDKMLKNLDTLKGFVLAERVMFALSDHYGKQHAHEIVYENAMLGIEQQKTFKEVLLADTRVSQVLK

EKDIDALLDATSYVGYAPKLVDEFLAKIKNSAILK

>CCK67480.1 cystathionine beta-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKYRELRKTDRVLSYGARGTTTNFELEKLICTLEGGYRAQLFPTGLAALAMVLLNYASKDAHFLITDAI

YGPVRTICELFLDKIGVEIDFLKADASDIEEKIKPNTKLILCESPGSILYEIIDLPKLCKIAHAYNIPVA

IDNTYSSGYFLNPLELGVDISVIAATKYLSGHSDVTMGIVVINEKEWKNFDKLPEALGFTTSPDDAYLVL

RGMRTLDVRMKAHEKSADEIVEFLQSRKEIKTIFYPKLKSHPNHEIFMRDHKGANGMITIEFAEGYNKDD

AIKFVDKLEYFSIGASWGGYESLATVTTPPRTATDLSARGLFVRFHIGLEDTKDLIADLTQAFDSIKK

>CCK67479.1 cystathionine beta-lyase, N-terminus [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNSKTKLIHCGRGDQGAEVRSVNPTLMRASTILFKDHATWKNTEN

>CCK67477.1 endoribonuclease L-PSP [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSNYPKAIGPYSAYREVNGLLFISGQLPINPASGEIESSDIKEQTKQSLKNIGAILEENGISYDKVIKTT

CFLADINDFVAFNEIYAEFFKAPYPARSAFAVKDLPKKAKVEIEIIAQKG

>CCK67476.1 hypothetical protein BN148\_1387c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDEGQKQQFIKLTYFLGEVLGEQYEIVFHVITEDGAYIAAIANSHISGRSLDSPLTAFASELMQNKKYLE

KDFLCDYKALVGKSKLIRGSTFFIKNHDKLVGILCINHDTSIMRDLICKMIDLEKIGDMGDILGNISFSQ

NDSSIETLSHSIEDILVQSVDSSYLNSDYQLSITQKEEIAEKLYEKGIFNIKGAVPIVAKFLKISEPSVY

RYLKKFKK

>CCK67475.1 ankyrin-repeat containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTTLSLEEEKRFEELCKMAFNFARNNECENLKIMIEAGLNVNLKTHKGDSLLMLAAYNNSYESAKMLLEK

GAKVDEKNDRGQTPLAGVCFKGYLPMCELLVKYGANIDENNGLGMTPYTFAIMFGRKDVAEFLLKKSKNN

FLKKISLKILKFIKKF

>CCK67474.1 catalase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKLTNDFGNIIADNQNSLSAGAKGPLLMQDYLLLEKLAHQNRERIPERTVHAKGSGAYGEIKITADLSA

YTKAKIFQKGEVTPLFLRFSTVAGEAGAADAERDVRGFAIKFYTKEGNWDLVGNNTPTFFIRDAYKFPDF

IHTQKRDPRTHLRSNNAAWDFWSLCPESLHQVTILMSDRGIPASYRHMHGFGSHTYSFINDKNERFWVKF

HFKTQQGIKNLTNQEAAELIAKDRESHQRDLYNAIENKDFPKWKVQVQILAEKDIEKLGFNPFDLTKIWP

HSFVPLMDIGEMILNKNPQNYFNEVEQAAFSPSNIVPGIGFSPDKMLQARIFSYPDAQRYRIGTNYHLLP

VNRAKSEVNTYNVAGAMNFDSYKNDAAYYEPNSYDNSPKEDKSYLEPDLVLEGVAQRYAPLDNDFYTQPR

ALFNLMNDDQKTQLFHNIAASMEGVDEKIITRALKHFEKISPDYAKGIKKALEK

>CCK67473.1 hypothetical protein BN148\_1384c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSVLVIGADEITPIRAVLHDLGAKKIEHWDARNENRVNRKPIPCDTECIVMLTSFLNHNTMKKIKNEAKK

RKIPLVCAKRSVSCVYCEYCKIFNLNKEFSCYKG

>CCK67472.1 hypothetical protein BN148\_1383c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLFGFDDKQEFIPQIYRYLNNQELMLTFLTQYNASVDSALKIPLLYAKNTKSLKMIFGNFLHNIMHVSFG

KIQNINIKLNTYAFYFQKRKSLIFNTKISKNVDLLRLLRIYLYGICFDAQILFSSYVYDKVSFQNNGKNI

DQDGDLIIIDKKFAILPLCKEINTHNLEIENEIYELLNLIKENNFEKFYIVCPRNKNFTHFIEIKHFLCD

LNKTMLKLVPYKISNQIIRRK

>CCK67471.1 flavodoxin FldA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSVAVIYGSAMGNTEGAANTIASKLGISDVFNISDIDAAKMNSYDKLICGTSTWGSGDLQDDWDGFDFSG

LSLGGKTVAVFGMGDSESYSDTFCGGMGKLAQNLKDAGANLVGEVSTDGYTFEASDAVVDGKFVGLALDN

DNQEDQTESRIDAWVEQIKPYFA

>CCK67470.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKFALILSFFIALFMSACTNATFTQSFIQTSNEGIFIRSQKQQSFKISFQNPSQLQTTLDRDLALKLKN

LGLKEVKENADYEILINLVDMKKHSYAQKITTSARFFYDFDPLESDGEWMVENYYTMQVNLQINSKNHNS

QKTSLLARTAYLGNKERCQLSLENKIINQIVSFFYF

>CCK67469.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKLSLILVCSASLFAASNSEISDFYSKSIKAQFPNATVSVSNRQKVGNTGFESVIVSVELNGQKQENIL

FTKDSLITPDLIDLKTGISYAQEYEMKKFQEARENFTKNAKAVAQKETMVIALGDKNKPAIYVFSDPECP

YCREHLAQIDDELKNYQVNYILTPVHGKSAFEKSALIYKEAKKAKNDKEKIAILNKYYDANIKNYPKVSD

AELKEVFSLYEKYRSLGLSATPTIIK

>CCK67468.1 selenocysteine-specific elongation factor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKSVIIGTAGHIDHGKTSLIKALNGFEGDSLKEEQERQITINLSFSNLKLKDKNISFIDVPGHKDLVKTM

VSGAFGFSVCLFVVDINEGLKEQSLEHLEILKILDIKNIILVLSKCDLCENIEQKSVEILEELKNLDYPI

LKVFHTSIKNNQGIEELKNYLYTIENKENDEELIFHYYIDRVFSLKGIGTVVTGSLNEGSITLNEKIICL

DTQKELIVKNIQNHDTNLEQIKACNRVALSLNCDYKELKKGYLLSKKGYFKAFKECDALVKAKNLQNSKM

IFCVGSRQIECKINILKKLENDEFFVHFSFDKNVFLSFDEAFILLQNNRVIGGGKVLNPLSEPLKKEQKN

KFLMFLKNKDFKAAFSFLKDAHKYGFGLLSSYQRFKLSHQKALKLAKELNQVFVDEKNLNVYHLQSLEEI

KNFIKFILEKNPYAMLSAHSLALRITWASENFCELGLKEMSNLLDFQNGIYFKKGIDFEKLQEKNNNQMY

EILKKQGIKPEAPYNLYDFLELDRKSGDNILKKLTQKGLVVRLSHNLFIEKQALEKLMQECLNLLKNQSL

DVQSMKEYFNLSRKYAIAYLEYLDKFPQVSKEAEKRFLTNI

>CCK67467.1 selenocysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKFRTFPQINTLIEDESLKSYPFYIKAFFCKKVVAKLKENFFQDEISKDKLLLEIKKEIKTFYRKDLQS

VINASGVVIHTNLGRSVIHEELYEACKDIICNYSNVEFDLENGKRGSRYALVLEKLKMLFECEDALVVNN

NAAAVFLVLNSLCYDKEVISSRGELVEIGGSFRVPEVIKAAGVKLCEVGTSNKTHLKDYEQAINENTALI

LKTHKSNFALMGFHSEVNIKDLHELAKEKELLSYYDLGSGWCENLNEKLIKNEPKIRKLVQECDILSFSG

DKLFGSVQAGIILGKKELIEKLKQNQLLRMLRVDKLTLSFLNESLKAYLQKDYEKIITLKLLNDDLSFIE

KKALRVQKELKFQTQLKKSKSLVGGGSMPDKSLDTYILTFQGDALKLQTRFRKENIIGRIENDEFVLDFR

TIRENELQKLILTINQMENL

>CCK67466.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQDFVYIKNDVLIPLPDAIEILDQANDKEALICNDKNQKAQIYAPEINFYLKNSQDEILEQSKNVLTLYE

ARASVYDLGLDLEQSKEVQNRLIVADGDAQTVEFLKEHEFKVIALSSAEILAVFGSVGELCAVVKNQGEE

VEIDFDFLLFKAEDLSVVRKDFTRQSGCYNLLNFENLEVLFEFLQSKSPKYHYKTYISYNASVCQYHERR

SEHCAKCAEICPTVAILKDDENKHLEFSQVDCLGCGGCISVCPSGSLDYAPMPRESFFTLCEFYKDKKIL

IIPKKMSLENLNLALPKDVLPFMIEGEKWLSSMHFLTLLQNSGANLVFYTDFVSRGSNEAIVLLNTFFER

KFQKKAIFVAKDEKELQNVLKEQEFIQDLKYDFHNNTLTTRENFAKRMQEMIKNEDFGSMESGEWLRYGK

VEINPNTCTLCLSCVGACNVGALIADKQENALKFNASLCTTCGYCELSCAEKDTLKLFRSGMEFRASYFE

YQTMAKDELFACIECGKEFATKKAVEKIANLMKPKFGNDENKIKTLYCCADCKAKVMIKAMIN

>CCK67465.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILFLFCSFFLAFAKPSLEIPKLSKQAKQNFILENVKFNYNGTIYKIFIAKNKNENSNYKYKIIYLLD

GNAFFPLFLNLFNTPVKENLLIIGIGYDNNLAFDTQKRTKDYTPTTNLNKQGGGSKEFRNFLITQLIPYI

NKMYPIDFSHQILFGHSFGGLFAIDTLLYDSKIFSHYFIISPSLWWDNSEFLPNIIKLQTCPKIYIGLGS

LETNSSIIKGVAKLNAQKLSEKISKETNCKTHFKLFKNETHGSVISKAMLWMKKLLDLN

>CCK67464.1 multidrug efflux transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNNVLPLSFIVGTRFFGLFIVLPVLSLYALKLEGANEFLVGLLVGVYALTQMILQMPFGILSDKIGRKK

TMLIGLIIFIIGSLICSFAENIYTMLLGRMLQGAGAIGAVATAMISDFITEENRGKAMAVMGSFIGLSFA

ASMVISPLMSAKWGLSSLFDLSAALSLLCIILLYTVVPKENKITHENEKTPFFHLIKQKNLALMNLTNFM

QKMLMSIAFLSIPIILVKHLGFASDKLWIVYSASMVAGFIAMGFAGSLGEKKGLAKQILLLGIVFFILSY

LFFAFSNSIDFFIIAVVIFFIGFNLHEPIMQSCASKFCKVHEKGAALGLFNAFGYGGSFIGGIIGGIFLH

LDTLNLLAIILVILALIWLVALFFLKNPADFKNLYLPLETPLNFSTFGENLGVVDIYKNSKNLVVKFDSK

LTSKEELEGKL

>CCK67463.1 deoxyribonucleotide triphosphate pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIILATSNKHKVLELKEILKDFEIYAFDEVLMPFEIEENGKTFKENALIKARAVFNALDEKQKKDFIAL

SDDSGICVDVLEGNPGIYSARFSGKGDDKSNRDKLVNEMIKKGFKQSKAYYVAAIAMVGLMGEFSTHGTM

HGKVIDTEKGENGFGYDSLFIPKGFDKTLAQLSVDEKNNISHRFKALELAKIILKILNKG

>CCK67462.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFAKLLKFFISRPKSTFFGTLFICLFLSFFAFKLSVDASAESLLLEDDADLKTFREISKHYKSDNFLLLA

FKPYDEKPFSNENLAKLKKLHEELEKAPLVERVFSIINAPLLQSSQNTDLKELLKNIPNIESQDINRTKA

QNEILNSPFYKNNIISKDGKVTGLIIYLKPDTVYNNLIEKRDLATDEKEKDQIRLAIKEHQDKQKVITKQ

SLDTIKSIVRNYEKNKDTLYLGGVSMIADDMIAYIKSDLVLYGVSLVFLLGLALYYFFRSWRFVFLPLFI

CFISLSAASGVFALLNFQITVISSNYVALVLIITLSVVVHLITHFIESTQNHPKAKVERIVLETLLAKAN

PSLYAIVTTMIGFFSLILSNIEPIIKLGIMMSIGIGLALIFSYLFLASILVLLKPKNYHKKEFKFNLLAF

CAKTALDPKKRRMIYEISVLAIILALIGISKLRVENSFVNYFKDGSEIKKGLLVIDKNLGGTLPLEVIIR

FPNNKNDQNASDTLDSFESEFENLATQETYWFDSKKTRIAKKVHEFLENKEFVGSVLSLNSLLTLGKNIN

DGKELDDFALAFLNENLPAKFKQDLLSPFVSIENNELRFSMRIVDSDPNLRRNEFLIDLKKQLNELVKND

GVEVQITGIMVLYNNMLQSLFSSQFDTLIFVILAIFILFIIVFRDLKFSVAAILVNVIPLSVVFALMGLL

GIPLDMMSITIAAIAIGIGVDDAIHYIYRFREEIKNKSLEEAIMISHLSIGSALYYTTISIVLGFSVMMS

SNFIPTIYFGILTVFVMILLLSGSLFLLPSFLITIYSKKTKFPNQHKEHILKQ

>CCK67461.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIFLILTLFFNAFALQLDEISSTMQKNIDASLKLLQDNKEDKKQAANGIFKLFDSIIDYKLMAKLSLS

KNYSKLTPKEQEKFTTAFETSLKKSFTDKLSLYKDQVLKVKNGELKNEKRYFLTTSMVVDGEEKNIIFKF

YNDNNNWLIYDVDVLGVSIVQTYRSQFGDILANQGFDALLQKLESIVIE

>CCK67460.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRIKFISFILIFFTIFAFAKEQNLDDFEQEYQNYQVNDPLSGYNKAMTSFNVALYDYGLRPVLKGYNAIT

PEFIRLGARNFFDNLLAPLRFVSNVLQFKFEEAGEEFKRFTANTIMGFGGLMDVASKMGLKKHPADLGTV

LAHWGVGSGFHIVLPILGPSNLRDTLTLPATWYASFTAYIDPTWASIAISAYGFGNELSFRLDEIDEIYH

NTPNLYPFLRDAYEQRRNELSK

>CCK67459.1 nucleotide phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIFYSYEEFKEDVKILAKEIKEDFNPDALLAIARGGMSLGHSLAVALKTRQLFALNSIHYDNTKKLDTIE

IFNIPDLSKHKKILLIDDIVDSGESLAEIKKVLLEKFPHIELKITTIFYKKTALLEPDFKVKEATEWVDF

YWDINLD

>CCK67458.1 permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSFFKLKENNTSFKTEVIAGLTTFLAMVYIIPVNSSIVGNTGMPIEALITATALITIVASAFNAFFANTP

VAMSVGMGLNAYFTFAVCLGQNIAWQSALGAVFISSIIFLILSFTHFRLWVIRNIPKDLRLAICAGIGCF

IAFLGLSQMGVIMHNKDTLVSIGNFKSPHVLFGIFTLALIIFFWAIKLRGAFILGVLASSIIAWIFHLDN

ASFPVQIFSWPNFSMENGLGAIFLQLDIKSALNITMIPIILTFFITQLFDSIGTITGVGERGKIFDDPKN

GEKKLSKTLMADATGSALGAMTGTSTVTAFVESTTGVESGGRTGLTALVVAICFAFTLFLLPLFKAIPAN

AIYPVLVMVGILMFMEVKNIDFKDSAIAVASFFTIIMMPFTYSITTGFAFGFLSYLLVRIFKREWDKINL

GIIVLSLLSLGNFLLMALQ

>CCK67457.1 hypothetical protein BN148\_1368 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNLITKLENEERLNQEEANALWDLDLFTLGKYAHKKRTKLHGKKVYFNINRHINPTNICADTCKFCAFS

AHRKNPNPYLMTHEEIMKIVDETVKRETKEVHIVSAHNKDTTWQWYLEIFKMIKEKYPNLHVKAMTAAEI

DFLHRRFKMSYEEVIEKMLEYGVDSMPGGGAEIFDEEVRKKICHGKVSSENWLKIHKLWHEKSKQSNATM

LFGHIEERHHRIDHMLRLRDLQDQTGGFNAFIPLVWQRDKSFIQTDKIMDSEEILKTIAISRLVLDNIKN

IKAYWATMTLNLAMVAQEFGANDLDGTIEKESIQSAGGAKSAKGTSLKTFIDMIKTSNLIPVERDSLYNE

LKTY

>CCK67456.1 nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNKELEIFKKNLSSYTQSCRKFFLKQGAFSLYHSKNMDNFIKKAYDIVLKDYFDDFSPPSDNIPFCVLA

SKAYANNSLCFNESISLIFVYKDIKAFHLKPMIKAFIEILNDAHLQIDSVILEFNGLYNASNELKTSIIQ

TRFICGSRILFKGIKIKFESIIKENKNDFAKLLLENFKEFDIPFIKQEFNILKDFGGLNHLRSLESLLVL

FKTSPKNYALNFIDEKKLSELRLAGDFLLSLKSAMNLLSAKDEDEFLLINVHDLSELMYKKAKKHFGANE

LLVQKALQSMHTIGFYTHFLAKQIQDGLNHTLKQEYKFKTLVEVLEYLLKLEDKHVIFDLNLVFALGRLK

YGKKDIEKALILFEKIFYKRHSFCVLKLLLDSGILKDLCKPFWTVRFLSDEEGNYSFDEQVFLMLSEFEK

YEDELEILQKLKTDEKMILKLVILLSAIESENEISLAGIYRAYCSKFDLKNEILEWGLKIFKNNNALKDL

VEKEDIYNPIVVSSLVSKLENLENLELLYTLTWLKAKALNYNAFYFRVLDKLLENAKQGFEDENLLEESA

RRVKKELTLKRSKIFLEQDEILQDKIIHIKSNLFIIKNTFEDIVMISKLAKENDFKFWFSNETNLSLQIV

APLHFNIAIILSSLTNLNLIFMNFFELFDDKIYLRFEYDNIISDEQKLKLCELLNSNLSGFNLKKIKKPI

IKKDELKLDLNYSKMYAKLGLNTKDQQGLMAYLMNVFNELELVLCAAKIQTIRQRTRNIFIFQKNEKLEH

SEQKLVNLLISE

>CCK67455.1 glucosamine--fructose-6-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MCGIVGYIGNNEKKQIILNGLKELEYRGYDSAGMAVMQEGELSFFKAVGKLENLANKCTDFESQGYGFAI

GHTRWATHGKPTEINAHPHLGQYSCVIHNGIIENYKEIKDKLEKEGVSFLSQTDTEVIVQLFEFYARNLG

VFEAWQKTIKELRGAFATLLVTKKDPNHVYFAKNAAPLIIGKNANKEWYFSSGDAPLIGSCDEVMYLEDL

SLGYASKDELVVYENDILKSLCFSKLSGDKAYAKKDGFRFFMEKEIYEQSRVMSEVLMGRIQGDEVVFDE

LNNEDLSQVDEITLCACGTSYHAAMASAYLFERIAKVKAKVEIASEFRYREAIIKKDSLFIVISQSGETA

DTLEALKIAKEQGAKTFAICNVDNSNIVRLAHLSLLTRAGIEKGVASTKAFATQVLTLWMLAIFMAQKRN

LNVSAEIKALLHTPNCVSVKQALHEKIHRLSKRYLDGHGFFFIGRDVFYPLALEGALKLKELSYLHAEGY

PAGEMKHGPIALADSKLYTIALMPKHMLYEKTKSNVEELIARDSTVLSISPLEFDLSDDFIKTNEQDHYM

CEFFEMMVITQLLAMEISIRLGNDVDMPRNLAKSVTVE

>CCK67454.1 secreted serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKFFCLTLVCKLFALSEFELHHIDKVHKLGYSGDTIIIGVADDAFNQDHISLKDKILKSTYPTDTAGKQ

LIPDLKKSTHGSHVAGIAVGAKIGDSKPYGVAYGAKFYGAGVFPNGSYTQIPDIYNFFKDVSIINNSWGI

NFYPYFNLKASNSGLVDCTQTNQGTSYNICNTPLEYVMKADKVANDMMRLSKDKGVLNVFAAGNEGILSP

ALHAILPSYDESLRAWLAVGALDANEITLESDGTLIIKSQGLADFSNGFKGATNFSLVAAGVNINNVDSS

TNDKFTKKSGTSMAAPMVSGTAALVKQNFPFLDGKQIADILLSTANKNYKAPKFTVKQVTDGTNQPKFLI

VYISQDPPGIEDEIKRDLKQLYNGIQVQVNGQWIDYSDYIWDNRDSAQSQKLNTSTISSINGVVRVEKEE

LFGQGILDAQKALKGLSILDANRLSDQDVLKYEQEPNTAYYTINTAGYDAEFSNDISQRKWDESTHLSSA

INKPTHLANLNIGLSKEGEGILIISGQNTYEGATLIKQGELKLKGKVKNNAYVEQKAILSGNGIVGQNLN

NKGIVRPGNEDLNDLTVQGTYTQEGVDSKLQLDFGNYKNSKLIAKTYDIKSGNLEYIPLPKYYILNKPVK

INLGDLEKSLSSFNHVLIQNTYALNFDFVLSDDLVSINKTLIKPNLKPNAYEIPNTSLGNALRQLRSRAD

LSQTYQEFFASLDNGIDVKTKLNRIEGSGYLSTFSNHNQSNLMQNNMLFTLHPLNINNFAQNNNILLAST

YLPRIFSNEEYFWHLTPSYKYYKDKDFSGQKTGANISLGENFSSGFLAYALSLSSAKFNFNNGSDLKSYN

MDLLLNYNHDLDFIKILSGLGIGVGFNTLNRFVVEQPIEGKYKTLQTSAQLGVTKDIILGQDFIFNPLMY

FTHSFFYQEDFKENKSPFAKNYESLKHHSINANLGFNLAKNIEQDDYQASFSTFVIFEKRIYGRTLENKA

SFVDFPIAFIQKYKLKDNILSQGFNSEFLYKNNVFWQFMLMNRFSHNAYELHLMSSVGKRF

>CCK67453.1 fumarate hydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEYRVEHDTMGEVKVPNDKYWGAQTERSFENFKIGCEKMPKVLIYAFANLKKSLALVNNKLGKLDDAKKN

AIVQACDEIIAGKFDDNFPLAIWQTGSGTQSNMNMNEVIANRATEIMGGDFRKEKLVHPNDHVNMSQSSN

DTFPTAMSIVAVEQVEKKLIPALDELIATFEKKVKEFDGIIKIGRTHLQDATPLTLAQEFSGYLSMLLHS

KEQIIASLPTLRELAIGGTAVGTGLNAHPELSQKVSEELTQLIGTKFISSPNKFHALTSHDAINFTHGAM

KGLAANLMKIANDIRWLASGPRCGLGELIIPENEPGSSIMPGKVNPTQCEAVTMVAVQVMGNDVAIGFAA

SQGNFELNVFKPVIIYNFLQSLDLLADSMHSFNIHCAVGIEPNRAKIDHNLHNSLMLVTALNPHIGYENA

AKVAKNAHKKGISLKESTMELGLVSEEDFNKFVDPTKMIGPKA

>CCK67452.1 acid membrane antigen A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNGKFFLISFILVILFLLLYLFKGFLLVIIIASLMAVATSNINAKFLNLTKGHKFLASILTTTCMVLLF

FAPFVYAMIELAKALKNFDINLVTQTLDYVKNYQFTLPESFNFLEPKIKEFLASIDLNSISKQILSYASS

FTKSGAKFLIDMVLICVFYFFANLYGTELVIYLKSIIPIDKKELDDVLSEVGNVMAVVLYSMVIVAIFQG

ALFGLITIFYGYDGILMGVIFAVSSLIPAIGGALIYMPVSLYEFASNNLNSALVIFIYSVIVISFIADTL

IKPLIIKWINKKLVKTPTKINELLIFLAMIAGISTFGFWGIILGPAILTFFVSTLRMYVILKDKNLI

>CCK67451.1 Holliday junction DNA helicase RuvB [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDRIVEIEKYSFDETYETSLRPSNFDGYIGQESIKKNLNVFIAAAKKRNECLDHILFSGPAGLGKTTLAN

IISYEMSANIKTTAAPMIEKSGDLAAILTNLSEGDILFIDEIHRLSPAIEEVLYPAMEDYRLDIIIGSGP

AAQTIKIDLPKFTLIGATTRAGMLSNPLRDRFGMQFRLEFYKDSELALILQKAALKLNKTCEEKAALEIA

KRSRSTPRIALRLLKRVRDFADVNDEEIITEKRANEALNSLGVNELGFDAMDLRYLELLTAAKQKPIGLA

SIAAALSEDENTIEDVIEPYLLANGYIERTAKGRIASAKSYSALKLNYEKTLFEE

>CCK67450.1 hypothetical protein BN148\_1361c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLEFTLNFNDYGLKMGILTKLELDYEIDDIEKFLQFFRTMCDRFEPLIIKLGSDSVRYKEAIKELETLAH

NTAWAARRLNLEEVTDFCVFCEEMMAQANRFNGPASDEFTDWMLLMSDQFEKYCRSYENDDSVLAVFNPL

IVNVPNIISK

>CCK67449.1 proteolysis tag for 10Sa\_RNA, partial [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

ANNVKFAPAYAKAA

>CCK67448.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQTSPDMFINRELSWLRFNSRVLDQCSKNLPLLEKLKFIAIYCTNLDEFYMIRVAGLKQLFSAGVNASSS

DEMTPLQQLKAIRKYLHQEKELLERYFNEITSELEKENLFIKHYENLDENLKQKCDEYFFSNIFPVIVPI

AVDATHPFPHLNNLSFSLAVKICDKAHPELVKFGMIRIPRVLPRFYEVSANIYVPIESIVHQHAEEIFPG

YKLLASAAFRVTRNADMVIEEEEADDFMMILEQGLKLRRKGAFVRLQIQKDADEQIVEFLNTHMKIFHKD

VYEYSILLNLPSLWQIAGNKTFTHLLSPLYTPKTLPPFDENLSIFDAVEKEDILIIQPFESFDPVYKFIK

EASKDPEVISIRMTLYRVEKNSNIVQALIDAASDGKQVTVMVELKARFDEENNLHWAKALENAGAHVIYG

ITGFKVHAKVSQVIRKQGDKLKFYMHLSTGNYNASSAKIYTDVSYFTSKAEFARDTTSFFHILSGFSKNR

RLQTLSMSPNQIKEKVLEMIRIETSKKNEGVIVAKMNSLVDSDIIQALYEASMEGVQIDLIIRGICCLKP

DEEYSKNIRVRSIIGKYLEHARVFYFKHSEPNYFISSADWMPRNLERRLELMTPIYDERSKAKLAQFLRL

QLSDNVLAYELKNNGEYEKIPSSEKIIDSQQTLEEYVSKIYKTLKKDTDQSRATHLASKLFKEN

>CCK67447.1 periplasmic cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIILRRKILKKTSNLFTIFLVLLFVFFAVGFYTFYNAKGTSYLSNASESCNNCHIMNEVYNEYMAGPHSQ

KVKGEPRATCVDCHLPHNFVAKWIAKAQSGLGHAYAFTFKLDELPTNLSATEKSRKMVQENCIRCHADFA

QTAINATTNPHADKSLNCASCHKDVGHKHGI

>CCK67446.1 periplasmic cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKNILRLGIVVLVLLIAGVLWLNNDINQKKEDEANKNAIAANADFSLLSDDDPNFEKWGKVFPEQLKMY

LTVEKEEPKATEFGGNLAYSKLIRFPQLTILWAGYPFSLDFNEERGHFWVQVDQMKTARNNKDFLNAHGL

AAFKGQPAACMNCHSGWTPWLIKNVAKGDFTAFNSTNYWTMIKNIPAVDGIVENSPEHAGPHGGKRMGVT

CADCHNPNDMSLRLTRPAAINALVSRGYEKDPVQGVKATREEMRTLVCSQCHVEYYFKPTGEKVKVMGET

IVDDSSKKWWNGTQKNYDEYEFWRDGNKVKEIETDGIVLTFPWSEWKKGQPFRIEMLDDYYDKVRGVFGA

DFTHKLTGAQIIKIQHPESELYSGGVHAANGVSCVDCHMPYVREGAKKVTQHNITSPLRDINSACKSCHK

QSEDYLKAQVLDIQNSVAHDQRTAEYAIVSLIMDTKKLRDELGNMEKFQSDGKADAKKISEELKEVLELH

RKAQMRADFVNAENSTGFHNPREASRMLLQAVDMARMGQTKLVEIAAANGIKDFKTSNLGFEDIQKFNPG

ELYYKVDVNNHKAGERYYADEKDVNGNPPKELLEHDKELAPYNYQVIDKK

>CCK67445.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINKNKLFRQVHIYLSLFFLPCALLFALTGIAYIFGINQDVGLKVEQYQLSKVIESGKEREALIEYLKTN

GLKVPSNTNIIKSKDKGITIGGTHYSANITQNSTNEYNITLKTRSLLGDMIMLHKDKGAWYFSVLSVGFG

ITLFMLYISGLMITLFANKKDRSKQFAVLGVGVVVTLLLAYLSL

>CCK67444.1 enterochelin uptake periplasmic binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKSLVFAFFAFFLSLILTACNSNSNENNASSTTKTNTATVKVLPISMSDEGDSFLVKDSLGENKIPKNP

SKVVILDLGILDTFDALKLNDKVVGVPAKNLPKYLQQFKNKPSVGGVQQVDFEAINALKPDLIIISGRQS

KFYDKLKEIAPTLFVGLDNANFLSSFENNVLSVAKLYGLEKEALEKISDIKNEIEKAKSIVDEDKKALII

LTNSNKISAFGPQSRFGIIHDVLGINAVDENIKVGTHGKSINSEFILEKNPDYIFVVDRNVILGNKERAQ

GILDNALVAKTKAAQNKKIIYLDPEYWYLASGNGLESLKTMILEIKNAVK

>CCK67443.1 enterochelin uptake ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKLKNITKFYDNKVIISDLSLDFHKGKITSIIGANGAGKSTLLALASRLIKPSSGEIYIDGMNLKNYKE

QILAQKISILKQQNNINLRLKVEELVAFGRFPHSQGRLNTNDKIKINEALEYMELSNLRNEFLDTLSGGQ

KQRAFIAMIIAQDTEFIMFDEPLNNLDMKHSVQIMQLMKNLVKDFNKSIAVVLHDINFASIYSDEIIALK

DGKLLKQGSKDEIINQENLKQIYDMDIPVSQINGKKICIYF

>CCK67442.1 enterochelin uptake permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRKKMLILSFLTLNMIGIFIFVGLNGFDEYALKSRFLQIAAIIIVAICIAVSTVIFQTLCNNKILTPAII

GLDSLYMLLQSALIFSFGAANLSVYKNDINFLITLVCMVVFSLGLYKILFSSDRSIYLIMLLGLVFGTLF

STLSSFFEVLIDPDEFMVIQGRMFASFDNIAFDVLILAYIISFLSFIWIFRYMKFLDPLNLGKDLAINLG

INYQKISKQLMIIIAILTSISTALVGPITFLGLLVVNITYELFKTAKHSILLSACILISILALLGGVFFV

SRVFDYNATISVVINFLGGIYFIYLVLKGNKL

>CCK67441.1 enterochelin uptake permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFFKHILSLKVLIALLLFFGMISLFIGVISINVKDILNLNSTQLEIITLTRIPRLIAILLTGMSLSICGL

IMQQLTQNKFVSPTTAGTMDCAKFGILISLIFFTGASFFTQAIIASIFALLGSFIFIQILRKIKLKDVIF

VPLIGLMFGGIISAITTFFAYALNYIQNIQGWLQGSMANVMQGNYELLYISLPLFILAYFLAHKITIVGM

GEDIALNLGISYNGILFLGLMIVSIITSLVIVSVGIIPFLGLIIPNLVALYLGDNLRKNLIYIALCGALF

LLVCDIISRLVIFPFEMPLSITTGVLGSLIFIFLLLKRKVYA

>CCK67440.1 phospholipase A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRKIALFLSLCVFIWASDLQQALEYEKQGDYKKAMEIYKKLALKNSSVLISQEQNNSSQATQTQNSITIK

KEEKQDFSRLALANYLGENESFNPLGISSYKMNYFLPFAYSFNSLGVNNNKSEAKFQLSVKKRLFENLLG

LDEKYYIAYTQTSWWQIYEHSSPFRETNYQPEFFIDLPLYLKDYEFFNNLRVGILHESNGKGDENLQSRS

WNRIYVSTAILYNKFLFVPRLWYRIPENKKDDDNPAILHYMGNFDVNLAYLGDDYFINLMLRNNLKFHNN

KGAIQVDLGYDIFNNGIYWYLQYFNGYGESLIDYNKHLQRLSTGFLISY

>CCK67439.1 molybdopterin-guanine dinucleotide biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQLNELNCVILCGGKSSRMGQDKSKLILKNQNLTQFQVDKFSKIFKNVYVSAKEDKFENHFSLIKDSLEF

EVYSPMLALYSILSNFKNEFVFVLSVDSPKVGENELLKMLPFLEQNYKIIIAKTPLHKHPLCGFYHSSLA

QTCKNFLEKNEQKIGLLFSEIKTKFVEFEDEDAFLNLNFYEEYEKFKSKLK

>CCK67438.1 fibronectin/fibrinogen-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKYTELLQLQTFFSRFKKIDFIKRINDNILELSFDRERFIFDLTRAMSAIYTAKFNAKNYNAPFDFMLKK

YFSNAFIKEVKVLEGNRILCFSVKANKAYKSYESKIYFEFTGKNTNVILTDEKDLIIEALRHIDKSYRVV

KPNVILESLKPYKMDENFEEIKDFADYFSRKFTSIYESKIKQIKNLKLAQVDKKIQNLQELFSSLDEENS

LLLKALEYRKRADVLFANLSVLKDYEREFKLDDFEGKELEFKLEFNPKQSANLYYKNAKKLEQKAKNLNI

QRQNLKEKLDFTLSLKELLLQAKSEIELEILLPKKNSKKNQDHKQEDLVANFYFNEFKICVGKNEKGNEF

LLKNAKKDDLWLHVRDIPSAHTLIVSNKQKISLDVIEFAARLCVSFSKLKKGSYWVDYTLKNFVKVQQKA

FVNYTNFKSINITKD

>CCK67437.1 coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPVSPLGNINYINQNMAYPATQASNELAKEGFAATLNMAEFNEKEKTLNKLEKVNETHEIKEEIKEKAEQ

EEKKKKHNQEAKTSDDEKNEEDESKDPNFKDAQSIHRLDISI

>CCK67436.1 phosphatidate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFNTTRIISALVMIGAIIIIALIDQFFINFIVFAVLLYLSFSEAKKLFALENISIIPLAIAFILGSLSHK

ALLFGILVLLLVVGYLVYKKASLKPALIYIYPSLPILALWQVYLDQGMFALFWLIIIVAACDSGAYFIGK

LMGKTPFSPTSPNKTLEGVIGGLICASVIGTILGVFVYSFWLSLLCSFFVAIFAVIGDLLESYFKREAGV

KDSGDLIPGHGGVLDRIDAVIIAAFVMVALL

>CCK67435.1 1-deoxy-D-xylulose 5-phosphate reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MILFGSTGSIGVNALKLAALKNIPISALACGDNIALLNEQIARFKPKFVSIKDSKNKHLVKHDRVFIGQE

GLEQILTECQDKLLLNAIVGFAGLKSTLKAKELGKNIALANKESLVVAGSFLKGAKFLPVDSEHAALKFL

LEGKKNIAKLYITASGGAFYRYKIKDLNQVSVKDALKHPNWNMGAKITIDSATMANKLFEIIEAYHLYDF

KEIDALIEPRSLVHAMCEFKNGASTAYFSKADMKLAISDAIFEKQDTPILEAVDFSKMPALKFHPISTKK

YPIFKLKNTFLKEPNLGVIINAANEVGVYNFLENKSGFLDIAKCIFKALDHFGVPKISSIEEVFEYDFKT

REYLRS

>CCK67434.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFFLTILFFITSIFALELDFSVGENGKSLDDNNTVLIFGGIQGDEPGGFHAASLLLSDYNITKGKIIVA

PNLAFDSIIKRSRGNNGDLNRKFASISPKDPDYKTVQRIKELILLPEVSMVINLHDGWGFYKPTYIDAMQ

NPKRWGNSSVIDTSEINASKYPDLENIATQTVNSVNSSLADPKHAYHLKNTKTQELGDTEMLKALTYFVI

SNHKAAFANEASKNLPVNLRAYYHLLAIENYLKTAGIEFSRDFELTPQGVDKAINKELEVKLFDDRILLS

LKNPRKVINYVPFPVNKELNYNTSNELTAVIAEGNSFYIQYGNRFQTRLYPEYLEFSDAFNEVTFQVDGN

ETTVPFGTKVKVKENFLIPKIANVRVNIIGFDHSKDESGILVHKKNMQTQYSLDMAGKIYRAEFYELRGA

NLQQLLEANINSKLIKNAKNLDLNTLKMARSKDKFLGSILVEFE

>CCK67433.1 DNA-binding/iron metalloprotein/AP endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>CCK67432.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKAFTILELVFVIVILGILAAIALPKMSSSKDEAEVSKSLNNLKTLINDISIYTLKNDHLSSIKTMSNV

SGVENVDLSNFNGIKEVNFRVGDDKECLKLVFINKADFILMGISSNEASKNAIINAANQSHEDLENIDFT

SSSSNKACVILSKNENFKNLASKTYLLIGGM

>CCK67431.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIVSKAYEIDSCDDVELGIKRESKLEFKLWYDDEKTPEALVFVVQGMGDDISSIQYVGDYMVRQFNTAVV

GVNYHCIGNRPQTGSSFFMDDIDKLILKASCEAADIKLPYDVDKIQDYKAMSEIFHFVNNQIVEGKQKGN

FTPNYFLNLHVSLQPTKNEYQNFGIMQAQDLLNVALYLKKHAPFDTMGGGIPIIMIGGSHGGYLAHLAAK

IAPWLVDGVLDNSAYAKFLWRVVGFGKEIDFMQYSEFATFDFFHHIKTHCSTKTFWTSNSSSPRFFSPAR

RKIRNLLEEDHLLKQSKCLKTCFISYHSLYDEYVSLKEKTMFYEELEKLGFDVTLHSITKESQVDGKFIK

NLNHGMGIPVKLLIKKELPLMLEKIKQNSKKDYKEKCISYPCEDLLYQFSEKDDKMSLKIDKI

>CCK67430.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTILEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELCSGKIYLVDIEEERVDIQL

LILFDMKDMFEYLSLYEMFVNNVYYKKFYEDVWHKADELCEKNIKVVIRNLNSSLCIGFECYSHLLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENKTSLNMLSCATHPSLVHFLDNKSVVLRDDPLYQRFNLNDFGYIDTGTHVSHFSYT

LALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRIKLE

YLFACNEQKAKFYNATEGGARINFTEELSFKECCEKLLTKEKPQFELPKSLTKNRSDKLLVKFKEKIQKD

QDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDGILKAVMYERGLKIS

LVYKENIIDNASFISAYIKAYHEWLLYFMEKLEQRINIIIDSFKELP

>CCK67429.1 hypothetical protein BN148\_1340c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLLEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELKVYKVVLFDCVAKDLEIQI

AMIFDQQSILEYLSLYEMFISSHYYLKYYETSILSLNELCIKSASVAIRNADITCFLPLLTHGQFLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENLKQSIIALECATHPNIVRSLNAENCMIVLRNKALYQRFNLNDFGYIDTGTHVSHF

SYTLALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRI

KLEYLFACNEQKAKFYNATEGGARINFTEELSFKECCEKFLTKEKPQFELPKSLTKNRSDKLLVKFKEKI

QKDQDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDETLRGAFAYRGK

MIADVLKLHIQDKTHFITAYIKAYHEWLLYFIEKLEQKYKSLSKV

>CCK67428.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGFRINTNVAALNAKANADLNSKSLDASLSRLSSGLRINSAADDASGMAIADSLRSQANTLGQAISNGND

ALGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTVKATIGATQSSKIGLTRFETGGRISTSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALADEINKNADKTGVRATFTVETRGIAAVRAGATSDTFAINGVKIGKVDYKDGDANGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGQIDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TAITNLDQIRADIGSVQNQVTSTINNITVTQVNVKAAESQIRDVDFAAESANYSKANILAQSGSYAMAQA

NSVQQNVLRLLQ

>CCK67427.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGFRINTNIGALNAHANSVVNARELDKSLSRLSSGLRINSAADDASGMAIADSLRSQAATLGQAINNGND

AIGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTIKATIGATQSSKIGLTRFETGGRISSSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALAEEINKSADKTGVRATFTVETRGIAAVRAGTTSDTFAINGVTIGQVAYEDGDGNGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGRFDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TATTNLDQIRADIGSVQNQLQVTINNITVTQVNVKAAESTIRDVDFAAESANFSKYNILAQSGSYAMSQA

NAVQQNVLKLLQ

>CCK67426.1 PseE protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MREENNFNKNLKALSGFEYNNLRKKLEDLKELREFTFTQGKDNLDINIIKKRNLKKMYQDPIKELEKNLE

YFKDFTRYPVLFFYGFGNGILYKILLQNQALKRIIIFEKELELIFLALNFIDFSKDLSLGRLIILHHDDI

NLPKMDKVFRLIGDLFYRSYNLHIANDFYEHYKEDILKLNKLNMQIIKNHNLMHGNDPKDALQGIEQFVY

NLPSMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGIKPDYV

CMLERDEIVAECFNNDFKDFDKDIIFLVASLVHKKTISYLKKNKRKYILIIKGQPFARCLGLDDYGYINA

GMSVSHMAYELAENLGHNNIILIGQDLAYAKDGQTHSQGFIHANLHNGDYERDLDRFSTTAYGGNGKVQS

SEIWTLFRQIFENFIAFSKSKTYNCTEGGARIESAIEKPFKELCEDLLKNKKDKKFKKLQVLNTKEQVKL

GLKIYQKIKKNMNLSLNFKKECKKVQKQIHNLTHGKNKLSLEQINQNIDKIKEKLSNKKYLFLQEILGPT

LHHEQSILTPLYLKDIKDESDKQNKLFAWVYAHEALIENIIELLEVQDKRLKIAILPLLDFLEKKKAL

>CCK67425.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGGYNENLLYQDP

IKELQTMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQNA

RLMVLENDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAENFKNIILRNGNDPK

DALQGIEQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPI

LAKHGIKPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNLVITQKVLAFPYYIN

LKDFSYAAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYESQMYEHILTEAYGG

NGKVETHSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFEKLE

PLSLNKQNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLAIRKIDEFKNKLENI

KQMQDLYEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNILP

LEEKLKERKLDKWMERVRR

>CCK67424.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MREELFLKNTQALFEVDEFLACTLRSLKYLTFALIQDENGINFKKDDIFLYENPNKELLENLTLFKTEYN

KYPVLFFYGFGNGMFYKTLCKNKQHKHIIIFEDNLEILTLAFHLFDFSEELKKEQLILFYTPNINTAQLT

TLFTYEIIQKSVKIFNLFIHNDFYQQFYSTQIQNINTQLIEMIRFIVLNKGNDPHDSLVGIKHTLDNLPK

MLNHGIFQEFLKERRAKVENAIIVSTGPSLIKQLPLLKKYANKATIFCADSSYPILAKHGIKPDYVCMLE

RDDIVSKCFDNDFGDFNKGILFILASVVHKEVLDFLEKDQRAYMLVHRPLNFAASLKLDEYGYLGVGHSV

SNMIYELAGALRFENIIFIGQDLAYGEDGSSHPKEHIHGSQGEEIRGEKYTLAYGGKGKVRTQLTWNLFR

QAFEKDIFWAKEKLNITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFDFPKFLDKKLAKEKLEKT

KKYLQKSILESKEFIKKTQTQLQKLRYTLEKNDKNFQTLEKIKNDLLNLFKEFKKLKLFNELCQAIYFHN

ECEILKFEVLNTNKQKENLIDFLKIQHNWFIQGLGYLDTQNKTIEKSLENWNFDDIIKK

>CCK67423.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGLMMTFTPTQKELFNKNIEALSNLFLKESLKEIKSSKFELILGKDNLDINLKDTSDNTFLYENVIDELN

SMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQSARLMIL

QTSSLDIELFSNFCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLVQDFKDSILSHGNDPLDALQG

IEQFVYNLPQMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHN

IKPDYVLSLERIPLTSEFFNNDFGEFDKDILFVLKSYVHPHTTKYLQKNNRNFMLVSTYASFINYLKLDD

FGYFNMGFSVANMNFLLAIHLKHKNIVLIGQDLAYAKDGLSHTKDYSNLDKHEGHFQRDKNKYTTQAYGD

NGKVESSFVWTLFRHNFEQDVANAKKNYYITTYNCTEGGARIEGTIEKPFLWACENLLHKDLNKPFEKLE

PLSLNKQNEFLLKAYYKVYQSIKHCRDFSNKFIKSYDKIKNSFMSLQNSQENETLIKEIIKDIDKIKTQI

DELYNTQKDLMQILGPLLTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIK

NILPLEEKLKERKLDKWMERVRR

>CCK67422.1 flagellin modification protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLENKIIFVAGACGRIGKALCEKILLSKGIPILADINKECLNKLQENLETNFKTKLLSLELDITKQESLQ

TALQKSQERYGKIDAFVNSSYPFGKDWGKTPYYELKYEQICESLNLHLAGFMLAAQEFVKFFKQQGYGNI

INLSSIMGVYAPKFENYEGTSMQSSLEYSVIKAGINHMSSWLAKELFNQNIRVNTLASGGILDNQNELFL

KAYRKCCASKGMLDADDICGTLVFLLSDESKFITGQTLVVDDGWGL

>CCK67421.1 acylneuraminate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAEILCTICARGGSKGVKNKNIRKINKLEMIAYSIIQAQNSKLFKHIVISTDSDEIASVAQKYGAEVFFK

REAHLANDRTAKLPVMRDALLRSEEHFKTCFETLIDLDASAPLRSSLDIKKAYESFVENDNSNLITAVPA

RRNPYFNLVEIQNNKVVKSKEGNFTTRQSAPKCYDMNASIYIFKRDYLLENDSVFGKNTGLFVMDESTAF

DIDSELDFKIVEFLISLKNLSPKDF

>CCK67420.1 hypothetical protein BN148\_1330 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVLIIGFGSIGKKHFLALKNLNHEVSLLSLSAKKEEFKNTPIYRSLKECDLNEFDLFIIANITTEHFNT

LKTLDELVKDKTILVEKPLFEKSQNFTSSKNHIYVAYLQRFNPVIVALKRLLKGEKIYFASLVCNSYLPH

WRALDYRQNYSAKKELGGGVLLDLSHEIDLAFFLFKDLELIYSQNAKISELDITSDDFAFLALKNSQEAK

IHIELDYFAKFNKREIIIHTLEKSFKADLINNKIEIYHKNQSQKILNFENDTIKTLQNLHHAVFEKDKEL

CDLKQALKVLELCDEVRKKNG

>CCK67419.1 sugar-phosphate nucleotide transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDINKLKLTPDSSIKEALKIVGQERVRLGIIVDKKDKFLGVISDSNIRKALISGKTLKDSIKDIYTKNPI

TIKENTSKEQLLKISAKTDIYDFPVLDEKGQILSIKSISSLLKANPNSIIIMAGGLGSRLKELTKDTPKP

MLKVGKKPILESIIQRLKNQNFENFIFCVNYKKQIIEDYFQKGQKFGVKISYIKERKKLGTAGALSLIKQ

EFKESFIVMNADILTELDFNALLKAHKKSKALMSVCVREFEQQIPYGVITQKQGFIENIEEKPTQKFLVS

AGIYVLENEILNLIAKNEYLDMPELIKLVLQKGKVNTYIINDYWIDIGRPDEFLKANEDFK

>CCK67418.1 UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKRKICIVSATRAEWYLLRNLCHEIQNDKDLSLQIIATGAHLSPEFGLTYKEIEKEFKITKKIPILLAN

DDKISLCKSMSLAFSAFSDAFEDLKPDMVVILGDRYEMLSVASVCLLMHIPLVHLCGGELTLGAIDDSIR

HSISKMSHLHFVSHEIYKKRLLQLGEEEKRVFNIGSLASTIIKNMNFLNKKDLEKALEMKLDKELYLITY

HPLTLNVKNTQKEIKTLLKKLDTLKNASLIFTKANADENGLLINEILQNYCQKNSHKAKLFDNLGSQKYL

SLMKIAKAMIGNSSSGISESPFFKTPCINIGDRQKGRLRTQNIIDSEINDLDQAFEKLESKEFKQNLKNF

KNPYDNGKNPNKIIKTCLKNVNLDTILHKNFIDL

>CCK67417.1 N-acetylneuraminic acid synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKTLIIAEAGVNHNGDLNLAKKLIEIAADSGADFVKFQSFKAKNCISTKAKKAPYQLKTTANDESQLQM

VQKLELDLKAHKELILHAKKCNIAFLSTPFDLESVDLLNELGLKIFKIPSGEITNLPYLKKIAKLNKKII

LSTGMANLGEIEEALNVLCKNGAKRQNITLLHCTTEYPAPFNEVNLKAMQSLKDAFKLDVGYSDHTRGIH

ISLAAVALGACVIEKHFTLDKNMSGPDHKASLEPQELKMLCTQIRQIQKAMGDGIKKASKSEQKNINIVR

KSLVAKKDIKKGEIFSEGNLTTKRPANGISAMRYEEFLGKIATKNYKEDELIRE

>CCK67416.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNSLEAYTMKYNENGYGLLFPDGHVVRFYERILKYKLNKINGNLLDFGCGNGVHSAYFQSKGFKTFGID

IVPSLKEIWEQNISGGGYCKIIEPNSSIKGLFDENMDIIFANQSLYYIPLKELKQNILEFYELLNTGGIL

FATMMSKKNYYFSHSQKEEKNGLSKVEINGRLNETSFIHFIDKAEDLENLFQPFETLFLGDYDPINFYNF

EGSAHHYIYIGIKK

>CCK67415.1 hypothetical protein BN148\_1324 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIYCDHCVMPNTRPGINFTKDKEGKNICSACINHKNKENIDYKARFKELEVLCDKYRRMNGKFEYDCAIA

VSGGKDSHFQVHIMKEKLGMNPILFSVEDNFTMTEAGKKNLKNLSETFGCHIISLKPDIKTQKKVMLKTF

EKYGKPTWFIDRLIYSYPFAMALKFNTPLLVYGENVSYEYGGSDTEETPSAKEIFLNGVASDLNINEFID

DEIKEENLQLFFNPNKDKLDKLNPIYLSYFVKWNSYSNYIFAKSRGFTDLEGEWDRTMCAENFDQVDSIG

YILHAWMKYPKFGHACASDYAARFVRYGLLSRKEAIELVQKRDHKLDNKCVEDFCNFIGISKTTFWKIVE

KHYNMDLFYKNDFGEFKLKNKLQ

>CCK67414.1 hypothetical protein BN148\_1323 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDDLNCDFIHFFNTIYIKLIELCGSNLERFTPLKDLKKLGFHIICSKGNRGALANLLLFNEISSFFKIIE

KYDYNFKECQTVYDLLYEKRNLLNIIDTIGIELCNKICKNLKEDDENFYHPKIFKKAL

>CCK67413.1 hypothetical protein BN148\_1322 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEINIIDFGLMGKQISALFYLLGYEIGVYNKSKLNIYEFEKQIKLLQRKIDFSNFNAGKINIYQHIEDL

KNSLTIESLNEDLNLKKEIMQILRDNNIVFSRVWMI

>CCK67412.1 transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNVIIIGAGGFTRELYSYLKDANYEIIGYIDIQENNFFDLKYLGNEDNFDKKLIQKASFALGVGQINLR

KKILVKLSKKSCNFITFIHPQSFVSKEAKIGQGVIVCPFVTINANSNIGDFVLCNIYSSIAHDCKVGEGS

ILSPYATLNGNSSIGKNCFLATRVSLLPCVNLEDNCIVSR

>CCK67411.1 DegT family aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFKKEISFIKSLFNKENIALHEPCFIGNEKKYLLECIDSGFVSSVGEFVTRFEEALKEKTKARFVIATNT

GTAALHIALLANGIDENCEVITQSISFVATANAIAYTGAKPVFLDIDENTLSLSPKALEHFLENQTYQKD

NLSYNKTTHKLIKACVIMHTFGLSAHIKAIKELCEKYHILLIEDAAEALGSTYENKALGTFGKCGILSFN

GNKIITGGCGGAILSDDENLAKLARHLSTTAKIPHPYEYDHDRIAYNYRLCNINAAILFAGLENLELFLE

NKRELAKIYKDFFKNHDKCKFIDEKSNEKSNFWLNTLLFKNENLRNIFLEECLKNNIFVRPVWKSLPSLK

AFQNCQSNELMNTKKLEKRLINLPSSVRIANKKE

>CCK67410.1 nucleotide sugar dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRNILVTGADGFIGSHLCESLVKKGFKVRALSQYNSFNFWGHLEKSPFLKDMEVISGDLRDSFFCEKITK

NIDAIFHLGALIAIPYSYTAPQSYVDTNVNGTLNMLEAAKKNEISHFIHTSTSEVYGTAFYVPIDEKHPL

QPQSPYSASKIAADMMALSYYNSFNLNVNIARPFNTYGPRQSARAIIPTIITQILSGAKEIKLGDLSPKR

DLNFVLDTCEGFISLLNLKHFGEVYNIGSGVEYSMQEVLDLIQKILDSKVKIIQDEQRLRPKNSEVFRLC

CDANKLKKATNWQSKISLEEGLRQSIEYFKENLENYKSELYNV

>CCK67409.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGGYNENLLYQDP

IKELQTMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQNA

RLMVLENDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAENFKNIILRNGNDPK

DALQGIEQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPI

LAKHGIKPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNLVITQKVLAFPYYIN

LKDFSYAAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYESQMYEHILTEAYGG

NGKVETHSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFEKLE

PLSLNKQNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLAIRKIDEFKNKLENI

KQMQDLYEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNILP

LEEKLKERKLDKWMERVRR

>CCK67408.1 Pse synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQIGNFNTDKKVFIIAELSANHAGSLEMALKSIKAAKKAGADAIKIQTYTPDSLTLNSDKEDFIIKGGLW

DKRKLYELYESAKTPYEWHSQIFETAQNEGILCFSSPFAKEDVEFLKRFDPIAYKIASFEANDENFVRLI

AKEKKPTIVSTGIATEEELFKICEIFKEEKNPDLVFLKCTSTYPTAIEDMNLKGIVSLKEKFNVEVGLSD

HSFGFLAPVMAVALGARVIEKHFMLDKSIESEDSKFSLDFDEFKAMVDAVRQAESALGDGKLDLDEKVLK

NRVFARSLYASKDIKKGEMFSEENVKSVRPSFGLHPKFYQELLGKKASKDIKFGDALKQGDFQ

>CCK67407.1 pseudaminic acid biosynthesis PseA protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFCKKCVMPDTKPDLHFDEEGVCDACRSQEAKNQNINWQEREKEFFELIKKYKKHPVYDCVIGVSGGKD

STFQVVKMLELGLNPLCVCFEPSVPTKIGRKNLDNLNHLGVDLIHIKRDPKVYQKLAREAFIRTGDNEWQ

NHLGIFTSVPRIAVNFGVPLIIWGESPQIEYGGPASSKNKNILGREWLEEFGGLLGNRASDMLGVNGITE

KDLFLYTYPSDEELQRVGVTGLFLGYYFKWDYKKILEISKKYGFLTLDHPVETTYENFENLDCYSNHVHD

YLKYCKYGFGRATDNACLDIRLGYISREEGVRLAQKYDGKPPKKAIKKYLEFSGFSEEEFQKIVDSFTNK

KIFKRDENGKFIRDYDGSLVRKDECVLK

>CCK67406.1 imidazole glycerol phosphate synthase subunit HisH [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIALIDYKAGNLNSVAKAFEKIGAINFIAKNPKDLQKADKLLLPGVGSFKEAMKNLKELGFIEALKEQVL

VQKKPILGICLGMQLFLERGYEGGVCEGLGFIEGEVVKFEEDLNLKIPHMGWNELEILKQVPLYQGIDNK

SDFYFVHSFYVKCKDEFVSAKAQYGHKFVASLQKDHIFATQFHPEKSQNLGLKLLENFARL

>CCK67405.1 imidazole glycerol phosphate synthase subunit HisF [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKTRIIPCVLLKNSQLVKSIEFKDFRTIGHLTSTMRIYNARNVDELIILDIDASKSGEIDFESIEDLAK

ECFMPLTIGGGIKTLEDIQKILNLGADKISINSKALEDMDFISKAGNRFGSQCIVCSIDVKRKGDQFCVY

DRGNLLEKSPLELALEYEKKGAGELLLTSVDFEGKAKGYDLELLKIFQNKLKIPLIINGGLSKPSDGVEA

LNLGADALAGAYIFHFSKYTPKDVKEELARQGFAVRLL

>CCK67404.1 N-acetyltransferase specific for PseC product,UDP-4-amino-4,6-dideoxy-beta-L-AltNAc [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKLKNFAELNSQEIKLIFKWRNHPDISQFMKTKHIDFEEHLRFIRNLHQDSNKKYFLVFQDEQIIGVID

FVNITTKSCEFGLYAIPDLKGVGQVLMNEIKKYAFEILKVDTLKAYVFKDNHKALKLYQQNHFTIYDEDK

DFYYVCLKQSHCKALPS

>CCK67403.1 nucleotidase specific for PseC product,UDP-4-amino-4,6-dideoxy-beta-L-AltNAc [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVLFRSDSSSQIGFGHIKRDLVLAKQYSDVSFACLPLEGSLIDEIPYPVYELSSESIYELINLIKEEKF

ELLIIDHYGISVDDEKLIKLETGVKILSFDDEIKPHHCDILLNVNAYAKASDYEGLVPFKCEVRCGFSYA

LIREEFYQEAKENREKKYDFFICMGGTDIKNLSLQIASELPKTKIISIATSSSNPNLKKLQKFAKLHNNI

RLFIDHENIAKLMNESNKLIISASSLVNEALLLKANFKAICYVKNQESTATWLAKKGYEVEYKY

>CCK67402.1 acylneuraminate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNLCIIPARGGSKRIPRKNIIDFLGKPLISYSIENALNSGIFDEVVLSSDDEEIIEVALKYGAKAPFVR

DKNLSDDYASSTAVVQNAIEILQSQNQIYDHVCCLYATAPLLNKDILKQAYEKFIQNQSKFLFAATEFEY

PIQRAFYLNENNQVYMFDEKHYKSRSQDLTKAYHDAGAFYFGTSKAWLEEDFIFKPHSSVFVLPRNLVCD

IDTIQDLEFAKILYKVNHESAF

>CCK67401.1 hypothetical protein BN148\_1310c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLINQTFEIDSCDDVELGIKRTSKLEYRISYDDEKDIKAIVFIVGGFGANANISFLDFDREYIAKNFDVV

VVHVFYHCFCARQSIDQKYNPKLIPNQDDLERVNGILKNINLGHLSVNKDNFEQIIPLIEQKVNKMKQAG

LVDESQKIELSCDFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGVCLPFLACILGREMNQGEFYFEGSGYRLYCFVYKYWNRNMNSSYYFGDENYLIRAVLN

SNHLQIQSNLNKNTIFVSYHSIQDMGAPVQNKIELYKCYQELGYDATLHLIKDENDIDGRFVKSLEHGLR

MTDRALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFVFKDLEDKFELEMIN

>CCK67400.1 hypothetical protein BN148\_1309c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTAYLHIGTTNTGNQEKQGFLMQNEEKLLQKAYIYPKSLRVANRHWALVDMVLELVQKEDILKKESVLSH

ITNERLLRAIENFKSESALHKDKKFIFSAEGIVWDFSTKKHVEILEKIMRELGFTQIYIIVYFRDTLGYL

NSHCSQDHKNNMGYYSADFAPQDHPRKYIFDYEWICKTHAEVFGEENLIVRLLREDYVGGTLLKDFVYHL

GLEWDESFVLKQTKNESFNLLGMELMSRLNQKDLKQDNLNSLLFMARRKFEGSKEKRLKFAVQKDIAKAY

VDYFASSLEWVKNKYFPHKNSLFTPVNWEEYEQNYTLTHMLSKDWDDVADFIAQIIVSKNEIISSLKEQL

ELARKD

>CCK67399.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQEIKQFFINIERTDINESMENLVSEDFIDSIDIMALVAEIEKFYKKPLKAEFITPENFESFENIKKMLE

TAMKD

>CCK67398.1 amino acid activating enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTTHIYDFLEKSLIKFSEKTAFVEPFVKERKEITYKDFDLFSKKLASEILKTLGNDNPTQAPVLIILPKG

IDCLISFFGVALSGNFYTLLDEKSPKERVEKVIEVLKPKLFITSKDLNFNLDLPTLYTQDFESFNIDESL

IKHAKEKHIDTNLLYVFFTSGSTGIPKGVSIAHKSVIDYTFWVCETFKFDENEILANQAPFYFDNSILDI

FSSVKSGATLHLLPNHLFAFPNKILECLEKEKVSTIFWVPSVLIYFANTEALNNFSLNALKKMLFCGEIM

PNKQLNIWRKHLPNALFANLYGPTEITDVCSFYIINRTFKDEELLPIGKACKNTELLVFDENMNFISPKQ

IGVKGELFVRGTSLSLGYYNDKEKTKQAFIQNPLHDNYLDLLYKTGDIVSYNEFGELLCYGRADNQIKYM

GHRIELGEIESVINSHVNIKNSACIFKEDIICFYESEEEINFKDFLKDKLPSYMIPKNFIKLDKFKLNQN

GKIDRKVLKELV

>CCK67397.1 hypothetical protein BN148\_1306c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLINQSFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSTLADFTKDDLKLIEKVLRKYNIPCDQLANNTVVSHCEYLSEIMTELKMLN

RLPYDFEERLSATFIPSRGEYQNFGIMAAIDHINALKDLVKRFPKLADLPKIYGGGSYGGYLALLIAKIA

PWYVDGVIDNSGSAVPPLNYIIGRELEFKSKDTNGDMYMQGDHFFVSCFLKTHWTRKENSPYFFNNENYF

IRTLLNKDHLILQSQKNKNIIYVSYHSKEDPLTPANFKELTMQILKILGYDVSLNLIDENKIDGKFIKNL

DHGCGIPDKALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFTFKDVENQLKLIIN

>CCK67396.1 hypothetical protein BN148\_1305c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLINQTFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSAYKYFQEEDIENIKNLLNQFHFSYGEINNDNALFLANSLVKHVENLKMQN

KLDHNFKLNFTSTFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGSALPPLNYILGREMEHSYGDYYEDFPHNRIIFFLKTHWTRKENSPYFFNNENYFIRTL

LNKDHLILQSQKNKNIIYVSYHSDKDPLTPANFKQQTMQILKILGYDVSLNLIDENKIDGKFIKNLDHGC

GIPDKALFRKELPLMLEKLQKRKSFMQENSISYPCGNKVFIFKDVGDKFELVIKD

>CCK67395.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTKTEFLEELKEAMHRDEDLNEDMLLDDIDEWDSLAFVSVMVLYKNLFTLKITAEDLKNCQKVSDLINLA

KLD

>CCK67394.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTRFDKAKISGICVSVPEHKICIDDELESVFSNDIKTLKRMKKVIGLNTRYICDENTCVSDLGKHAANT

LLQGLNIDKNSLDALIVVTQSPDFFMPSTACYLHQLLNLSSKTVAFDLGQACAGYLYGLFVAHSLIQSGL

GKILLICGDTLSKFIHPKNMNLAPIFGDGVSATLIEKTDFNEAFFELGSDGKYFDKLIIPKGAMRIPKAD

IFNDDSLMQTEEFRQLENLYMDGANIFNMALECEPKSFKEILEFSKVDEKDIAFHLFHQSNAYLVDCIKE

ELKLNDDKVPNFIMEKYANLSACSLPTLLCELDTPKEFKASLSAFGAGLSWGSAVLNFKDLYTKNILIYT

KEK

>CCK67393.1 HAD-superfamily hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLFSPHLKRNELIKFAKELDFSKSQDLLINVHRNHAFEGVQSIIAPFLHFANLRAEFNFSSYDDSLSFD

NFKEASLELLWLDLTRYKNNVQNFIEERLLELRKISQNPILVLSLGEFKTDKKILNCEIFNIEKLIKEYF

DEEDILDLAKEELTGSKLNNKALIFLAQILGLSLIPALVKPALKALVLDLDNTLYQGILGEEGIDNLNLS

PLHKTLQEKIKTFKKQGFLLALASKNEEKDAKKLFEIRKDFILQWDDFDARMINWEPKGENILKIAKKFN

INTNAMLFIDDNIAELENTKITGVKTLLCDENILYKIKLFPNLLKLSNTKEDQIRAKDIAANALREELKS

LSDEEYFQNLEISLNFSKNDLQNIPRISELLGKTNQFIANYTRLNQEKVAQHMQKELIVSVSMSDKLSDS

GIIAIFVFSCKEGNLFIDDLCISCRALGRKLETRMFFKAFELALHFFDLKNNNARLYYQKGERNMPFLSF

LEQISKEFEKNSALIPFQNLNFKGLIIHEN

>CCK67392.1 hypothetical protein BN148\_1301 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNTTLNLPLHHIGVACKNLEKERECFFKLGFYKESEFIDEKQGVRGEFIIPCNEAFPQYRFELLQNLND

KGPLDSYLKNNTKMYHLAYESKNIAQDLILLEQQGGICIVPIMQASYFAKLCFIMMPNRLLIELVELK

>CCK67391.1 SAM domain containing methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKENIEKLFQAIAQKNPIHSKYLKKIEFSQEDEEEFDKLISYYIQDGISIKEQCDCYLLILNDTLEETKF

FIENGAYRYSSFDEVKDKVYFNESYMKQYMIGLALSSFVWIAHIKVRKYFSQYLQNFTPKTTYFEIGPGH

GEYFARAVKSGKFSAFYGLDISPTSCELTQKMVKQQVGGLITKCDFLCQDFFTYDFDKKADLIVIGEVLE

HVEKPLEFLKRSKELLSDGGEIFATIPINAPAIDHIYLFSHPDEVKDLIEKSGLKFKAYECFMANDYSLE

KALKFKNAITMAVVLNA

>CCK67390.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKQFYEILENILETKVDENTNLSMENCKNWTSLAHIDIIMSLEEEFEIKFNKEDLSLLKSQSALLEKIQ

TLKAEK

>CCK67389.1 N-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKYLLEFENKKYSTYDFIETFYKLGLQKGDTLCVHTELFNFGFPLLSRNEFLQTILDCFFEVIGKEGTLI

MPTFTYSFCKNEVYDKINSKTKMGALNEYFRKQTGVKRTNDPIFSFAIKGAKEELFLKDTTSCFGENCVY

EVLTKENGKYMTFGGQGHTLTHYAEEQFNVFYRYHKIFSGILIDENNISYNKTISYYVRKLDISSEPNLI

NIINIVNNTKNFKKNNFAGDHINIYNAKEYIEILWKKLDINQTILIENYDTIY

>CCK67388.1 hypothetical protein BN148\_1297 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKGAKADIFLKENSSCFGKDSVYEILTREGGKFMLLGLNYGHALTHYAEERNTSFCRYFKEFKGFVIDEL

GQKREKRINYYVRDLEKAYVCSLDKINEIVRQTRYYKSIKFAGDFLESYDAKEYVKAIGNALKQDKFAIY

EKLLL

>CCK67387.1 hypothetical protein BN148\_1296 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKYFLEHNGKKYSDKDLIDAFYQLGIKRGDILCVHTELMKFGKALLTKNDFLKTLLECFFKVLGKEGTLL

MPTFTYSFCKNEVYDKVHSKGKVGVLNEFFRTSGGGRLGELATLFFPLL

>CCK67386.1 hypothetical protein BN148\_1295 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDKLDFRSQDFSQTGKAMYELACELFPIPRSITGQGFRDSLEILNKTLGGGILKFHSIKSGTKVFDWIVP

DEWNVKEAYIITPKGEKICDFKKHNLHLLNYSEAIDQEIELEELQDHLYSIEEMPDAIPYVTSYYKRRWG

FCLTHNERKKLKKGKYKVYIDAKHDENGVLDYADFILPSTQNSKDEILISTYLCHPSMANNELSGPVVSI

FLAKWLLGLKERRYNYRFVIIPETIGSIVYLSKHLECLKKHVKAGFVLSCLGDDHTYSLIHTVKENTLSD

KVALHTLKNKENFKAFSFLDRGSDERQYNAPLVNLGIVGVCRTRYGDYDGYHNSKDDLNFISEKGLMGGL

QSMQEMILNLEINAVYENTIVCEPNLGKRGLYHTLSTTNDIPLACNFLAYCDGENDIIDIANILNMQAYE

FKELLEKIKFYGLVK

>CCK67385.1 C4 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>CCK67384.1 UDP-GlcNAc-specific C4,6 dehydratase/C5 epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFNKKNILITGGTGSFGKTYTKVLLENYKPNKIIIYSRDELKQFEMASVFNAPCMRYFIGDVRDKERLSA

AMRDVDFVIHAAAMKHVPIAEYNPMECIKTNIHGAQNVIDACFENGVKKCIALSTDKACNPVNLYGATKL

ASDKLFVAANNIAGNKQTRFGVTRYGNVVGSRGSVVPFFKKLISEGAKELPITDTRMTRFWISLEDGVKF

VLSNFERMHGGEIFIPKIPSMKITDLAHALAPNLSHKIIGIRAGEKLHEIMISSDDSHLTYEFENYYAIS

PSIKFVDKDNDFSINALGEKGQKVKDGFSYSSDNNPLWASEKELLEIINHTEGF

>CCK67383.1 deoxycytidine triphosphate deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGLKADNWIRKMALEHKMIEPFCEANIGKGVVSYGLSSYGYDIRVGREFKIFTNVNSTVVDPKNFVEENV

VDFEGDVCIVPANSFALARTIEYFKMPDNVLAICLGKSTYARCGIIVNVTPFEPGFEGHITIEISNTTPL

PAKIYANEGIAQVLFLQGDEKCDTTYKDKKGKYQAQTGITLPRILK

>CCK67382.1 biotin carboxyl carrier protein of acetyl-CoA carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTKEEIKELVNLFAEANISKIKIKEQDGFEIELERDMCCDVPAPVCPPVPAPQPINVSVVNEAQPSQSVK

SNKPSINSPMVGTFYQAPSPGAAPFVKVGSTVKKGDTIAIIEAMKIMNEIEAEFDCRIAEILVADGQPVE

FGMPLFAVEKL

>CCK67381.1 biotin carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEIKSILIANRGEIALRALRTIKEMGKKAICVYSEADKDALYLKYADASICIGKARSSESYLNIPAIIAA

AEIAEADAIFPGYGFLSENQNFVEICAKHNIKFIGPSVEAMNLMSDKSKAKQVMQRAGVPVIPGSDGALA

GAEAAKKLAKEIGYPVILKAAAGGGGRGMRVVENEKDLEKAYWSAESEAMTAFGDGTMYMEKYIQNPRHI

EVQVIGDSFGNVIHVGERDCSMQRRHQKLIEESPAILLDEKTRTRLHETAIKAAKAIGYEGAGTFEFLVD

KNLDFYFIEMNTRLQVEHCVSEMVSGIDIIEQMIKVAEGYALPSQESIKLNGHSIECRITAEDSKTFLPS

PGKITKYIPPAGRNVRMESHCYQDYSVPAYYDSMIGKLVVWAEDRNKAIAKMKVALDELLISGIKTTKDF

HLSMMENPDFINNNYDTNYLARH

>CCK67380.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILLSFAFFASLASANTINAIAVVVDKEPITTYDIDQTMKALKIDRNKALGVLINEKMEISQMKQLGI

VVNDLELDDAINKMLAQNKTTLNAFKANLKSKNQSYEQFRTNFKKDLEKRKLYEKIASMAKTDFSDDGAK

KFFEQNKDKFTFYTQINANIYLSNNPQTLENIKNTKKTILKPQNASLNTSNADPRLLGLLSQIPVGSFSP

VLNGKNGYELYEVKSKDGTQTPEYEQVKNEVLNAYVSEQRQNFIQDYFDKLRSKINIEYLR

>CCK67379.1 glutamyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MHEKLTTRFAPSPTGYLHIGGLRTALYNYLYARKNGGNFLLRIEDTDLKRNSKEATKAIIEAFKWCGLEH

DGEVTYQSERFDLYKEYVKKLLDEGKAYYCYMSKEELEELRAKQEAAKERPRYDGRYREFTGTPPQGIEP

VVRIKAPQSGEIVFEDGVKGEVRFKAEDIMDDFIIARSDGTPTYNFTVVIDDALMGVSDVIRGDDHLSNT

PKQIVLYEALGFKIPKFFHVAMIHGEDGKKLSKRHGATDVMEYKEMGILPQALLNFLVRLGWSHGDDEVF

SLEDLKKLFDPYHINKSASCYNAKKLEWLNAHYIKTLPFEEINRQLKDLGFDLSVYEKAGFLLDLLRERA

KTLHDIINGAKSIVNAPQNYDENAVQKFVNKNNLELLQAFANTLKDQKTGKDFEDFTNDFLEKKEAKLKD

LAQPIRIALTGSAVSPSIFEVLEFLGVDECKKRIDNFLKVRGK

>CCK67378.1 malate oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLKEEALKYHLGGKIDIVPSKPMATSYDLSLAYSPGVAEPCLEIAKDNELAYTYTNKANLVAIVSDGSA

VLGLGNIGAQASKPVMEGKACLFKKFANVNAYDIEINVHSIEEIVNFCKALAPTVGGINLEDIAAPKCFE

IEAALQDLGIPVMHDDQHGTAIISTAGLMNAMEISGKKFKDIKVVVSGAGAAGIASAKMYRNLGVENIIL

VDSKGVISKDRNDLTPQKLEFAVDSKEKTLKEVLKGADVFLGLSAPKILDDEMVLSMAKDPVIFALANPI

PEVMPEDVARLRKDAIVGTGRSDYPNQINNVLGFPFIFRGALDVRASKITENMKVAAAKALADLAKLPVS

DAVKKAYNLSTLEFGRDYVIPKPFDERVKAAVSTAVAAAAVKDGVAKVKNFDEKAYFESLK

>CCK67377.1 uracil phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNIHCINHPLIEHKLGILRAKETKPFQFRMLIDEISSFLLFEASKDFSLKEIEISTPIQKTTVKKLDEK

IMICPILRAALGMLESVFKMIPDASVGFLGFVRNEETLKADFYFQKLPKDAKKRTAIVIDPMFATGGTAI

DACNFLKSQGVKKIKFISILAAPQGLKKFSQMHDDVEVFVACIDEGLNEKGYIIPGLGDAGDRVFNTL

>CCK67376.1 hypothetical protein BN148\_1285c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIFGKIDYINLLPLHIYLKKYPLPNGYKASMEYKKGVPSKLNKDLFYRRIDAAIISSIESARKKYKNLDL

GICANKRVLSVLVEKNTSNAKDPSSATSNALAKVLKQDGKVIIGDKALKLYLKDPSKYIDLCAKWHEKTG

LPFVFARFSCVQKKALYKQILKKFPKTKIKIPYYILQNYAKTRDLDIKDVRYYLDEVIYHKISTKEKTAL

KRFVKACKALNLA

>CCK67375.1 K+ uptake protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNLNYGIIGLGKFGSVVADELIAGGHTVIVADKDEEALKSIQNPPSYAYILDSTNISALKEAGFHDVEV

VIVSIGENVEKSILTLMALKDIGVKNIIAKATSNIHGQILSKLGATKVIYPEKESAKRLVKEFLTKDADY

EVFDLSANTIRAIKINIDEKLAGNSLKHVAQNMKVISYKKLNSDWEILPDLETTTVYSGDVVILLGTVKE

LREFEH

>CCK67374.1 K+ uptake protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKQFGLDRRTFKILLAGYIIIALFGALLLHSSWAHTTPIDFLDAFFTSTSAVSMTGLVVKNTAVDFTLAG

QIIILALVQIGGLGYMGIGLFVYILIRKKVGFSARNLLKESLFYPSMDGLFKFFKKVLLFIFTIELIGAI

LLTMRFALEMNFKKALWFGIFHSISAFNNSGFTIFEHGFIAYKHDIAINLIITSLIIIGGLGYFVLVELY

FFQRKKLQNLSLHTKMVVVASIFLIFSSTLIIFAFEYSNPQTIGHFSFFDKILSSYFIAINYRTAGFNTL

DMGHLHDASLFFGSLFMVIGGAPGGTAGGMKVTTVMVLLLYAYWSIRDGRVRIFGHEIPRETISKAFIIA

VGSAVYIVIAVILLSLLESKFDFIALLFETSSAFATVGISVGNGGTLSLCALFSDPSKVIIIIMMLSGRI

GVFAFLLSVFKQDKAIHLKFPEGKVNL

>CCK67373.1 RodA protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFRLDRRILTHFDYIQPILFLPIILISFFLIFEANPFLAEKQFVYACVGLFAFMVFFFFPIRKFIWIIPV

AYWINIFLLLSVDIFGVEKLGAKRWLEIPFTHFTIQPSEIFKPSFILMLAYLIYQNPPPKNGYKLKQFIK

LSFYIILPFLLIAKEPDLGSAMVLLLVGFGVLFIMGVHYKIWLSIVIAISVSSPIIYTHLLKPYQKQRIH

DFISEKPSYQVAQSMIAIGNGGLTGKSQDEATQTHFKFLPISTSDFIFAYMIERFGFIGGLTLIIFYILL

IFHLLSLNYKLKDDYFARVAINCVALFIFIYAAVNISMTIGFAPVVGIPLPFFSYGGSSFTIFMIFFGIL

QHLITFRYFWTDIKAK

>CCK67372.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQTFLVDENSRLDVFLAKKLNQSRNQVALLIEKDCVQVNDKIQDKNSFKLKNGDIISIASLKLCNEIKPQ

FEVDFDIDVLYEDEDLLVLNKPSNLVVHGASSVKNATLVDWLIEKKYTLSNLGGEIRAGLVHRLDKDTSG

AILIAKNNFTHQKLSEQLADKSMGRIYLALIDLPLKEDKIIVEKFLMRSPSNAIKKIAIDKENKFSKNAK

SAFINVVKTENLTLMAAKLFTGRTHQIRAHLASLNRYILGDSLYGYKGKYDCRIMLHAYFLYFIHPKTKE

QIFVKAPLMEDFKNIMFEQINLGENDEKISLEFLLEFFNSFA

>CCK67371.1 fibronectin domain-containing lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKRFRLSFYLSFLTLLLSACSVSQMNSLASSKEPAVNESLPKVESLKSLSDMSNIAFEWEPLYNENIKG

FYLYRSSDENPDFKLVGTIKDKFQTHYVDTKLEPGTKYRYMMKSFNEQGQISEDGKVIEVSTAPRLEAVP

FVQAVTNLPNRIKLIWRPHPDFRVDSYIIERTKGDDKEFKKIAEVKNRLNAEYIDSDLKPNENSSYRIIA

VSFNGIKSGSSQVVSSTSKALPPQVEHLSASTDGSSKIILTWDAPTYEDFSYYKVYSTSSSFLPFSVLAK

TDKNSYEDIVEGAGKSKYYKVTMVDKDGLESPMPKDGVEGKTLGNPLAPSIILAQSTSEGINLEWSDNDT

RAVEYEVRRYGGEQNAVFKGIKEKRLKDVKALPGVEYSYEVIAIDSAGLRSEPSSKVKAAQ

>CCK67370.1 tRNA (guanine-N(7)-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPNFKSKKIKEINLPYSKDDVEFLWLAKNDNVSLIYTKVQEESFFLQIKKAQNGFVIKGDKHTKPSKIGY

LQKALKIFKEGFCEDIINEAFGLKNNALIEKTPFIVDNFDELLSRLQGKIYIEIGFGSGRHLLYQAKENP

NVLILGVEIYNPALTQVAKLAKAQNVNNILLIQSDARLLLSVLKSKSVEKIFLHFPVPWDKKPHRRVIGK

DFCKECARVLVQNGRFELRTDSFEYFNFTLEQFLTFPAPKFSLRKNENLEISSKYEDRWKKQEKNIYDLW

VWNFNQECKNYELNEFNLSSVEFSKEDLKKIEQNFKNITIKKDDFFLHFESIYKQDENLLLKVAFGAFNK

PEHCYLHLDKTIDFAFKEPFKIQENIKAINELKEILKVQFKI

>CCK67369.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPNLIQANKLTLGYDELVIKEASFAFKDDDFVFITGKSGSGKSTLLKSFYGDLEPISGKLEVCGSLMNKI

GNLELLKLRQRIGIIFQDYKLVQEYSVEKNVMLPLMIKGYSKKVCHDQATKLLKHVNLTFKADKLPNQLS

GGEQQRVAMARALAHNPKLLLCDEPTGNLDEYSSDIIWTLLKSARELLGTCVIVVTHRIPSNLRVDYRRF

NIENGKMNEIF

>CCK67368.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFFKTHLSLILPLLFMMFAFEFILITNATLKHYEELVNKDYNIIVVSKTELDQNVVKTKVPFFAGLESL

DPKDLIDRLKNDVSEKNLKVLKDSLPKFYTLKLNSLPDQNELNSIKNQLLNIVGVSKVETFSKTHDKIYS

LLILMKFVFWLFLFIIILLAFVLFLKQMRIWLYEHTDRIEIMCLFGAPFWFRSFMLYKVVVVDCFIAFVI

LLAFFTQIFDLSIIQESLKAVDIIFPPINFILHLTLIFLATLFICLLCVNTVMFKVKR

>CCK67367.1 peptidase M23 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRKNILIFFCFFLFVDISLANAINEKTKSLEENKRIQEQLNKKLEDLASDILNGEKSLKDLSLQIESLNS

QTSKLEASAKAQNQELNTLTSQNEDLLKSKSNMEGKLISLMAKDFAYDLPIPQGYIESEESFMAFEILGS

LNKVLNEEIFKISKDYEGVSRLIDDKQAQIKKINESLKDYNAQLAKLQSLKQKQISEINKQKTDRAIYAK

KLDDLQAQQEELRKTLNQLKIINDKEDANSNKNDTKIVKNNQKIRQLGSSYQGSSVKRYTGKKTIAPLDS

FTVKQKFGNYVDPVYNLKIFNENVVLRSNKSDAVVKNVLDGKIVFAKDTSMLARVVIVEHDNGIHTIYAH

LDKIAPNIKVGKNIKKGAVVGRIKNDLTFEVTQKNFHINPLELISLN

>CCK67366.1 uridylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQERKRVLVKFSGEALAGENGFGIENSILKFIASEIKELIKNQIEVGIVIGGGNIIRGVSAAKGGLIKRT

SGDHMGMLATVINAIAIQEALESSGLEVRVQSAIQMEAFCETYIMRRAQRHLEKGRVVVFAAGTGNPYFT

TDTTAILRAVEIDADMVIKATKVNGVYDKDPKQFDDAVFLNTLSYDEAMQDNIKVMDDTAIALAKDNKLP

IVVCNMFEEGNLLKIIQGDTSLCSTVKNN

>CCK67365.1 DNA-directed RNA polymerase subunit omega [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDKRIEEVAAKALEKMGNDRYRLSLVVAKRAEQLANGATPLVDFDKNKNKLADIALYEIAENKITLEGLV

ETNR

>CCK67364.1 guanosine-3',5'-bis(diphosphate) 3'-pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKPIDEELLLEQLIDNVKNCKDLEAAKALLFEICGHDAILEKAVDYCIFCHEGQFRKSGEPYAVHPILVA

TLVGFLSENKSNILAALLHDVIEDTNCTEEELREQFGSEVLKLVLGLTKIIEIREDNLISSKSKKSLTKS

ALTFRNMLLASIEDVGVLIVKLCDRLHNMLTLDILREDKQKRISEETLVVYAPIAHRLGISSIKNYLEDL

SFKYLMPDEYKLIDNYINSNNQEMQLGLNEFISKIELLFLSNGFRQGSFEIQKRIKHSYSIYLKMQRKGI

GIEEVLDLLGVRILVEKVSDCYLALGILHTHFNPLVSRFKDYIALPKQNGYQTIHTTLFDAKSIIEAQIR

TFDMHKIAEFGIAAHWKYKEDGSVVAPRLDWLTDISMQSINNLENAEDYNAIELYEYAKDSLYVEDVAVY

SPKGEIFTLPRGATVLDFAYEVHTKVGLHAKSAYVNRIKVPLLTELKNGDIVRVVTSNDKFYRCSWIDSV

KTGKAKASIREFCKQKIREINLASSINMLSFIFGVDKNRIETWIEKENLVRRIRQVATDSAYLKDIVNGL

KKYAKKSYWFDKYEIKEQKIGNFTLYCNHKIANVDFDFCCHPKRGDAVLAFVKGGNAIVHHKLCDRADKM

IDNNQDMVFIKWDSNIPKSYKLIFSLENKKGVLAEFLAFLAKMQINLLTINLSSDLNSAVDYFEITMEIP

DNINPDSVKDRLKSRCKILDFTSLNDAYKES

>CCK67363.1 tyrosyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDIKKILAEVKRGCAELIDEERIENLIKNYYEKGENFFIKAGFDPTAPDLHLGHSVVLTKMAFLQKHGAI

VQFLIGDFTGQIGDPSGKSATRKKLDKEQVLINAKTYKTQVFKVLDKEKTQIKFNSTWLNELGAAGIVEL

TSTFSVARMLERDDFTKRFKEQSPISICEFLYPLLQGYDSVALKSDIEMGGTDQKFNLLMGRQLQRVYNI

GKEQAVIMMPLLEGLDGVNKMSKSLNNYIGVTEKANDMYAKILSISDELMFRYYELLSQKSLEEIAQIKK

DIEQGNLHPKKAKENLALEITERFHSKEEANNAKSEFDRIHSQNALPSDMAEFEIQGKIWLAKALVECGL

ESSTSAARRSISANAVSVNSQKVSDEQMYLEQGEYILQIGKRKFAKLKVKE

>CCK67362.1 2-nitropropane dioxygenase,oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLQPLQIGKHTIKYPIFQGGMGLGISWDRLASAVSLNGGLGIISSVGTGYYEERKYASKELNAKPYGSE

NFYSRKGLQALINNARKVCGDAPLGCNILCASNDYARIARDACEVGFNVIVSGAGLPTNLPEFTADFPDV

ALVPIISSAKALKIICKRWQSRYNRLPDAVVLEGPKSGGHQGFTYEQCLDPNYQLEKLIAPVVEEAKNWG

SFPVIAAGGIWDKKDIENAISLGASGVQMGTRFIGTFECDASEEFKSVLLASKEEDIELIKSPVGYPARG

VRTNLLNLVDKRMGPKINCISNCVAPCGRGKEATKVGYCIADRLFDAWSGKKETGLFFTGANGYRLDKLI

SVKELMEKLVNGE

>CCK67361.1 N-acetylmuramoyl-L-alanine amidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKIFVFLVFVFTTLFGVYENELANFDKNFIGSKSEVQVKFHHQLKSLYIQSVINEDEKTKIEILKRLII

SSNTLNLDDKSYANELKESGISETSINALRKAVIKDIKVQNISQDTEKSTFEPIKTVQKNEKKSSNEQIK

NTEKTNSKTSQAPKSSIVSKAKSDDKIYVLKSSKTNQGVEFELNADLDKDQLKSFALDEKGNYRFISDFD

GVLEGGKKEFKFDDYRLVISQFNPKTIRIVVYAKEKIPIDISFKEEKIIFSKETTSQKKTEQVSKISEKK

QDQKTEIKTKVLETKKQDKKTNNEKENQEPLYVLDVDKISNAVVLNLSDDLDEKEIAVFDTKDQKFRYVV

SFKGVLEGNRKSFTFGQNVITVTQYNPKTVRVVLSAPKEFKLLKELDNNNLTLGFYIQTTNQNANKKATQ

SSSKTLNTNYKSGKLVVIDAGHGGKDSGALSDKKGSLKEKDIVLSTALKLGNELKKRGYKVLYTRSSDKF

INLRDRTKYANDKRADLFISIHANAAPNATKAKSSEGVETFFLSPARSERSKKAAEKENQGDFEEINYFS

KQSILNFLNREKIVASNKLAIDVQKNILTQTRKKYKIVDGGVREAPFWVLVGAQMPAILIEIGYITHPNE

GKRIANKAFQDLLVKGIADGVESYFYNNR

>CCK67360.1 5-methylaminomethyl-2-thiouridine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKAKLIFKDNTPFSLDFDDFYFNFKDGLNESKFVYTHSFEWKNQENFIIAESGFGIGLNFFLTLKRFLE

TTPSKRPKKLFYISVEAFYIEKEQLREIYQKLEFYEEFKELLEQFLKFYPKAKEGIYRFYFEDCFLDLVF

EDIAVLKELDFKADVWYLDGFSPNKNSQMFDENLIFEVARLSKKNTQICTFSSASFLQKNLKKYGFRVEK

TKGFRKREMIKAYLENELEFKDKEAYFSRTFSSLKNKKVAIIGAGISSAVLAYELSLRGFEIDIFEKHLE

LGKGASGNESGILSSLILKPKVNLGEFSELSFIEASRFYRQILDLEFKGVVEFAHNDLMQERFDTQRENV

LFKISKNQAFLEEGGVIFPKKLVKNLFEKSKACIYFNHEFQAYKFENGCFSLKFKNDVVKSDYAVLIYAM

GADAKDFVFYDEMKLSKVRGQVTHLKPFLDTPFPLSSKAYICPVKDDLQVIGASYDRLNASLESKEEDDK

QNIENIADFMDKNTKLEIIGSKVGFRSYSSDRFMIVGNAYDEAFYKEEYKALLWTKNKEQKPAKMSCNLY

FNFAHGSRGFSTSVLAARYLCALINNEPLCLEKKYIHAIHPARFLIRKLKKGL

>CCK67359.1 Ni/Fe-hydrogenase small chain [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIDYHQIESRLSALEKLPSLKDNDSITKALEKSGFSRRDFMKWAGAMTAFLALPASFTPMVAKAAELADR

LPVVWLHMAECTGCSESLLRSDTPTIDSLIFDYISLEYHETVMAAAGWQAEENLESAIQKHKNKYILMVE

GGIPMGDTEHFLTIGAHGKTGYELSKMASENALAIFAIGTCSSFGGIQAARPNPSNAQPLSKVTSKTVIN

VPGCPPSEKNIVGNVLHYLLFGELPALDVYNRPKWAYGLRIHDLCERRGHFDAGEFVHAFGDEGAKQGFC

LYKVGCKGPYTFNNCSRERFNQHTSWPIQAGHGCIGCSEPNFWDTMGPFEEPMASRKFDTVFGLGADSVS

DKIGIGVLTLTGVAIAAHAVISSMQKDKE

>CCK67358.1 Ni/Fe-hydrogenase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSQKIIVDPITRIEGHLRVEVVVDDNNVVKEAYAGSTLWRGIETIVKGRDPRDAGFMTQRICGVCTFSHY

KAGIVAVENALGITPPLNALLTRTLMNAALFLHDHIVHFYQLHGLDWADVVSALSADVKKASDEAFKYTS

NPYATGADKLLEVQQRLKTFVDKGNLGPFANAYYGHPTYRLSPEQNLIVLSHYLECLRIQRIIAQCMAIF

GAKNPHPQSLTVGGVTCVMDLLDPARMGEYMVKFQEVQDFVNRAYYPDLVMAGKAYAHEASVLNDIGVNN

LYTFKEFQIGRDEWLFESGIIKNGDLSKVYEVEEDKITEEATHSWYADNEPLHPYDGKTNPNYTGLVDGE

SVDHHGNNVHSKVFDTKGKYSWIKAPRYEGNPMQVGPLANVVVNYAKGNQNVVPVVDEFLKETGLPLNAV

FSTLGRTAARCIEAKIVANNALKAFNNLVENLKVDQSTCAPYVIDNSKEYKGRYMGHVPRGTLSHWCRIK

NGVIENWQAVVPSTWNASPKDANGVGGSYEQCLIGLKIADVKQPLEIIRKIHSYDPCIACAVHVMDTKGN

NLSEYKVNVNL

>CCK67357.1 Ni/Fe-hydrogenase B-type cytochrome subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNKEEKLQRKAEYEFSIGLRLTHWVRAIAIVILIGTGYYLSYVFQSPISNGEPVNFMQAKYRLVHQAVG

FVLIACIIFKVYLFFCDKVSAKERRSVWDIFNIKLWIEQVKFYIFLGKHPHLKGVYNPLQFVTYFFFYLV

ILGIILTGLILYTHTYHEGLGGLLYHILRPLEAAMGGLADVRTYHRILMWVIMIFVPVHIYMAIFNAVKG

KDGAMDAIISGYKFVKEEQH

>CCK67356.1 hydrogenase maturation protease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFLVLGIGNIMFADEGLGVHLCKQLEKNYKFTHSEFTLDFVDGGTLALQLSYIIARYDRLIVLDCIEAQ

GASIGDVFFFPYDAMPNKISWSGSAHEIEMLQTLQYMELAGDLPKTHILACVPKRIEAMSFKLSDELIQG

AKIMEKTLLDFLSKEGFAYEKIADFSLQELADISYKNY

>CCK67355.1 recombination protein RecR [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVKGLEKFNELVESFANLPTIGKKTAIRLAYHLCINNQIDGMKLAHNIENAIRFIKPCEQCGALSENELC

EICSDKERNKNILCIVESPKDILTLEESQSYNGLYFVLDELNEEKLEKLKQIILKLNISELIFALTHSIN

SDATIFFIEDKFKGLNLTFSKIAQGIPSGVNLENVDLISLNKAMNFRTKI

>CCK67354.1 two-component sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTKNYSIHTKLIILFVVTFFLVCVLFIVLLKIEGNTYNEEESLKQENLIKNLLISYENTSGVEIGAYLGN

SGFNAIQNPNLVKAIRNNGQSLFKAGGELCTLSSLKYHSNLYFDVQCKDFDGLYEENTSDRVYNLLLIGF

FSFSLLVVFMYFSVLKSLEPLKKLRRQVAEVANGEQPDFLDYQEDEVGKIAFEFQKAFKKNQELIQSRQL

FLRTIMHELKTPIGKGRIISEMIKEDRQKERLIAIFLRMDSLINEFAKIENLFSKNYNLHFKPSRFSTIL

EEAKEHLMIDDFNKVVKVDIRYDALINVDMEIFSVILKNLIDNALKYSNNGTCELFCCKECFTIKNPGKP

LAEPIEHYLEAFTREKHNQVKGMGLGLYIVSEVCKLHNFDLIYFYDDGKHCFKIFFGDKEK

>CCK67353.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINVLMIEDDPDFAQLLSEYLAQFNIKITNFENPKSALNVGIQGYDCLILDLTLPGIDGLEVCREIRQKS

NIPIIISSARGDLSDKVVGLQIGADDYLPKPYDPKEMYARIMSLIRRTKRVEHTNNENINSAFKIDERRH

EITYEDKVLTLTPAEFEILEYLIQQHGYSVSREQLVSRCKNLKDKDSKSLDVIIGRLRVKIGDSSKSPKH

IFSVRGIGYKLIG

>CCK67352.1 molecular chaperone DnaJ [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEISYYEILEITQNADKETIKKAYRKMALKYHPDRNQGDKEAEDKFKLVNEAYEVLSNDEKRAIYDRYGK

DALKGGGFGSSSSGFGGFEDLGDIFSSFFGEGFGSSRRRKSSNDEKIPSDFIVNLKLSFKEAVFGCKKNI

DFTYKCSCKTCNGTGAKDGKLQTCPKCQGRGQVGVSQGFITFAQTCPDCQGIGEKASEKCSDCKGLGYNE

SKDSVELNIPEGVDTGMKLRVNAKGNILKNGTRGDMYVKIIAAEDDTFIRDDDDIYIEFPVFFTQAILGE

SIKVPTIRGEATLNLPKGAKDGQRFVLEKEGVKDVHSSRMGNQIVQISIKFPTSLNDEQKELLEKLSESF

GIKDGMHQEQKGLFEKITNWFKS

>CCK67351.1 major outer membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLVKLSLVAALAAGAFSAANATPLEEAIKDVDVSGVLRYRYDTGNFDKNFVNNSNLNNSKQDHKYRAQV

NFSAAIADNFKAFVQFDYNAADGGYGANGIKNDQKGLFVRQLYLTYTNEDVATSVIAGKQQLNLIWTDNA

IDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGADLLGHSNISTTSNQAPFKVDSVGNLYGAAAVGSY

DLAGGQFNPQLWLAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKTHANGNLFALKGS

IEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNET

VRVGADFVYGGTKTEAANHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQA

LYKF

>CCK67350.1 phosphotyrosine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILFICLGNICRSPMAEFIMKDLVKKANLEKEFFINSAGTSGEHDGEGMHYGTKNKLAQLNIEHKNFT

SKKLTQKLCDESDFLITMDNSNFKNVLKNFTNTQNKVLKITDFSPSLNYDEVPDPWYSGNFDETYKILSL

ACKNLLVFLSK

>CCK67349.1 efflux pump [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENFNRTLLVCWFGVFTTSMGLSQIAPILPFYIKELGHVDTSEIAFYSGLAFGITPLFMAVFSPLWAFLG

AKYGYKNMLLRASFGMSVLTLWLSFAHSALEVVFVRGLTGIISGFTSAAVVFIAVIAPKEKVAYALGTLS

TASISGSLLGPLFGGFVAEFFSISAVFDVVAFLIACSFVTIYFFIHGRKIQKEAKKNTQKVKENKTLIIV

LFITTFVIQFGTFGVMPILSIYVEQIHQGGNLALWAGIVVAASGISNLFFAPKLGKIADKIGPSKIIFGA

LIFCGICFYLQAVASNVYTLIFVRLLIGVGLGGLLPCVNALLKKSVSAKNLSVIFGFNQTCQFLGNFCGA

FGGGLMASHFSVEFVFTFVCLIFIINAFIFLAFEKKYIFSNQGL

>CCK67348.1 hypothetical protein BN148\_1256c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEMILFVLVMILLVLLFVVLFRQYKSPKIEEKSTQSFSDIMQLKSIGELSVFQVFSKEIVTKKDSAFNGI

WKNLLGWSLSERQIALIFEFEITFLYDLRDKNFDILPLGDDAYKIIMPECRYKHSIIDMKFYDEKNAKFL

PFLLPDSINSTGISFSESDKNKLIKEAKDEVKDLSLNLIQNLESKIHKSAKDTLEAIAKGFGAKRVEFEF

KDNTQKLDVS

>CCK67347.1 isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPFVNIRITKENGEPTTEQKQELIAGVTDLLAKVLNKNKSSTVVIIDEIDTDNYGLGGKSITQARKEKS

>CCK67346.1 hypothetical protein BN148\_1254 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSEFLTHPFEPFFDKDSKILILGSFPSIKSRQDGFYYQHPRNRFWPILETLFNAKLENITEQQAFLRKKH

IALWDVLQSCKIKNSDDKTISYAKANDLNLILSQTKIQAIFTTGQSAYRFFVKFHPRLEAIALPSTSPAN

LNFSFEQLLQNYEIIKKFTK

>CCK67345.1 polynucleotide phosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQYSIEINKNTEIFDIDKVAKQAAGAVLMRQGKSVVLATVAREEKQVEEDFLPLTVQYIEKAYAAGKIPG

GYVKRETKPSDAETLTARIIDRSLRPLFPKGYAYPTQIVVMVLSADPKVDLQVMSLNAASVALYLSDIPM

KAPVCGVRIGKIDGNFILNPNNEELQNSTLDLYVAGVKDELLMIEMRALPDQKENEIFIEAPYADVLTQT

TSQNMNELSEDEILEALNLAQKAILNGSNAYEEAFSKHKKNSQIELKNEIEHPEILAFIENNFQKQIKEA

INQMAKSERASELNKIAKEILNLEITKDWSEESVLNTLAKVKRKLIREQILNEGKRADGRSLNEVRPISI

ETNILPNAHGSCLFTRGQTQALVVATLGGENDSQMIDLLTEKNPISERFMVNYNFPGFSVGEASPIKAPG

RRELGHGNLAKRALYPSVDENYPYVIRLVSEILESNGSSSMATVCGGSLALKAAGVPSLKLVAGVAMGLI

FEDNKYAVLTDIMGLEDHDGDMDFKVAGSKDGVTALQMDIKLGGIDQEILKQALYQAKEGRIHILNIMEE

AAKEIIVNEEVLPKLELFSVDPSKIVDIIGQAGKTIKEIVEKFGVSIDLDREKGEVKIAGSQNEQIKAAK

DYIINITSSQKGTKKGPKDKDISGFELGQEFQGIVKKIAPFGAFVELKNGVDGLLHSSKIKHLNLSENQS

LKVKISEIKNGKISVDLCE

>CCK67344.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MWRKFSLLLGTSIALNAAQVDIYALDAKKEGDILTANNDVIIFSDFYFITANKAIYNEKTGDVELFGDVN

ILRGQNERSHSDYAKINLNSNQADFSNFFFSNNNLEVWFQSKTSHLNDKVFESKVSAVSSCNVEDPDWEI

RFSKGWLNRETNFVHLYNARLYVKNTPVFYLPYFGFSADTHRQSGLLIPKIVLKSSEGLYYEQPIYIATQ

ENWDLELDPQIRTNRGFGLYSTLRFLDSPYSTGELNFGAFRENSSYFHDENLKNQTHYGIELKYSRDDLI

KSLLSDNFQEGLWIDATYLNDVDYLNLGSRDYRDLNSLVTSKINYFLADENNFYGAYARYYIDTSKLSNN

TTLQEYPSFQYHRFLNNLFDERLRYSFDASFHNFYRPAGSYANELNLDLPISYHNAFFGDFLHFTFTERF

YASFVNYSNDPERNHEHYFRNTHDFNLYTDLSKAYENFFHTLNLGVNYILPGAKSGKITQDYLEEYDKEN

EHTSLYTVQYFYNNEGQKKLKHRISLDYLNKQNEFYELENLLTYYFNENINLNSEVLYSYEQSRFTNVIS

QIEVNTNSKFNWMFSHAYQNDEYGKYSFIGTRANYIATPNYNLFGGIWFDTQRAHANMWELGYTYQRKCW

NYSLMYRERIDPQLTSGGITAKNQSGVYFIFNFYPLGGVKYDFSLAESENKI

>CCK67343.1 hypothetical protein BN148\_1251 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKENLQDRLERENLKIASFGKRVLAFLIDDMVISLIVFIIFYDRLIQAKDLFETTQIVGNFYLGFILLHF

SYQAIFTYLYGASLGKILCKIIILDENLLDKPNLIQSCIRSAVRQVSAMAFMLGFAWALSNDLRKAWEDY

LARTIVVDVA

>CCK67342.1 phosphoribosylamine--glycine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIMILGSGAREYSIALALRRVDKNLEFYFAPGNGATESLGTNLNLKDPVVLATYAKEKGFDLCIVGSES

FLAEGVVDIFKQQGLAIFGPSKAAAMLETSKSFMKSFLKKYRIKTAKFLNTNDIEKAKNFIYSLTPPIVV

KADGLCAGKGVIIAKTHEEAIEETAKMLSGESFGDAGKLVVIEEFLDGYELSIFAVCDGNDFVLLPAAQD

HKKLLDNDQGPNTGGMGAYAPSSLANESLLRKVQKDIILPTLAGMKKEGAEFCGVLFIGAMIVGNKPYVL

EFNVRFGDPECEVLMPLIEDPLELILAATQRRLRHSKIKIKKEFAVGVVCASENYPYKSSPKSEITVNNI

PENSHISYAGVSLEDGKLMADGGRVLVCVGTGKSIEEAQKNAYKLCDNVNFKGKQYRKDIAHQVLK

>CCK67341.1 hypothetical protein BN148\_1249 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MHGKIAIYMDSTGRGTVTNSANTFFDFNRQIWNDKKSMPSVGMLVEFRTLSSEKKAEDGKLVQTSKTITG

IKPSKFQEFKEGDFITEHDFWKTDNDDELEDLQNSRRSAYITELYRTTDFDTIEKIPLSFTIPQAIQKYF

AHEILSVETLQANLQDEKEIPCILDYLILKRFLFKAYDTLIFMDNSIDQTQFSALKSIMMHLENSYKQMM

ADQKPNITKIFNETFLSLQCHYQALVATIDTRKNRLASLEAQMKTLQSEINLKSNATDADPEKLKARQER

LAKLQKEAEYYRTTLKRLDAIREDFYKKNYNIFENAFKLSREKLFKKIVTGLNLCATIMDVKIWHLSLKS

SGVKNSYFTMSNIENSFCSLSFAEHYLSRLNKSALNPFDQKLLVYIQKITKEQRKKFLVVTSDLDLLCKL

KIENFSQNPYYLVKYAPKKVNYQSLMRDNTFDIVYIDEKHVWENVADIILQGKHFDKSGKTKFKLI

>CCK67340.1 GMP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKADILVLDFGSQYTQLIARRLREQGVYAEILPFNVSLADIKAKEPKGIILSGGPASVYATDAYFCDKG

IFDLNLPVLGICYGMQLMAHHYKATVAPAGHKEYGKANIEIKKDNALFKNLPKKQTVWMSHSDKVENLPQ

GFEVLATSENSPFCVFGNEDKKFFALQFHPEVQHSEFGKNILKNFAKYACNCESIWNMGSFAKTQAEKIR

EEVGNDKVLCAVSGGVDSSVVAALLASAIKEQIIVVFVDNGLLRSGEKEQVEFMFKNTLGIDLISIDASE

IFLSRLVNVTDPEQKRKIIGNTFIEVFEEEAKKHKDVKYLAQGTLYTDIIESSVVGASKTIKSHHNVGGL

PEKMNLKLIEPLKEIFKDEVRALGLELGLSKEVVYRHPFPGPGLAIRIMGEVNRASLELLRKADVILLEE

LKSTGWYDKTWQAFCVLLNVKSVGVMGDNRTYDNAVCIRVVDASDGMTATFSHLPYEILENISRRIINEV

EGINRVVYDISSKPPATIEWE

>CCK67339.1 hypothetical protein BN148\_1247c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGKRNNIKMTKNASAVINELMDKPHYKPLKTLFFCKDFLSSFPLAKQRLIAKIYVKNHILNIITLHPAAY

QELNHDDSKIYIKFLIKAYGQKYPLSGFVDIKDIKIFSQKYTYAANKNKNDEKLSKNSYLELSKGEFKNC

FKDKKLFKKFEDLRELIKKGSNLD

>CCK67338.1 excinuclease ABC subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTKENLENELKTLPNSTGVYQYFNQEGKLLYVGKAKNLKNRVRSYFAFTPNLHANPRNSLRIQKMIEETV

HLEFIATNSEADALILENSFIKQLHPKYNILLRDDKTYPYIYVDFEEEFPRFEITRKLVKKSKIKYFGPF

FKGARELLDALYLYYPLKQKASCKSPCIFYQISRCLAPCDKLISREKYLEILDEAIHALLNPSVLLKNLE

KQMLVLAQNENYEEAAKVRDQIAMIKDLEVKVEIDIAKLEDFEVFALAFKNSVLSTLRFVVQNGKIISAN

SKITPIKNDIQWDQNEIYKQLILENFSMDIPLLANVIYVYEEFEDRVLLEEILSQRFDKKISIKIPKIGE

KRRICDLAFQNALLNIEKEQKNHDFTIQKELKSYFELENLPNDIEIFDNSHLQGVANVGAMVTYRINSWD

KSKYRKFHLKHKNDYDQMREVLTRRALDFDKIPPPDLWLIDGGKALLDLAKEIIVSSGVNVDILAISKEK

IDAKAHRAKGGAKDKIHSLKGEFSLSINDKKLQFLQKLRDEAHRFAISFHQNTKKKQDLKSSKLANLGLS

SGVMQKLLAYYGNFESIYKADFKDLTMLVGRKAAQKIKEN

>CCK67337.1 hypothetical protein BN148\_1245c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MILAGIIFIFNLILAYLSIDISKLDSVTEQLKIGMFSSIFVLSLTLFIFAFRQNRNINKIYQKIFCMQND

FLNFQKKIDVDSALDLLKEKFETTSQNLTKISHEKDRYLHLLEENLYQLINISNAMRCLNEGYNKEINSL

ILNALNSQKDQIRLELNEALEHHKSIIGTSHGKVLQFEASVAIVNNDELENFLLANLLSYFGIESTCFKN

LSFDVNDFHLIFIKDKIFNKNVKKNYDFIVMGRHKNTHYEYFLTLPFEKKDLENILQNKLDKVCTLKFKT

PYQNNVLLFKQNDFDATLFFNIIEKQCDKNICINSFSQLKQELSKETYRLILLDYELIKFDLEQMRNLLS

AYKKQHPQSHIIFFSKEKVRDFDCVSEVLSDVSRNDLITLLRKYLPKA

>CCK67336.1 radical SAM domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKILFGPVSSRRFGRSLGIDLSPSKKQCNFDCVYCELDPKKAQEKQDEIISIDKIISEVKAMLEKNVEFD

FLTLTANGEPSLYPYLNELILSLRSIAKDKKLLILSNGTAVLDEDKFNALLKLDVVKFSLDSAVAKTFYR

IDRALKNIDLEKMIEKMADFRARFNGDLIMEILVVKDLNDNEEEFEALNQALKKIMPLRVDLSTIDRPPA

YAVKKVSEEKLLELSKLIDSTPVLLAKRHYEGEKLSFNEEELLKMLHLRSQSEIDIEVKFDEQSKTLLNQ

LIKEKKVKILDLAGVKFYKV

>CCK67335.1 uroporphyrinogen decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIFIDACFKKPTPYTPIWMMRQAGRYLPEYMEVRKQAGDFLSLCKDYKKASEVSLQPIDILDVDAAIIFS

DILVVPLEMGMNLRFEKGEGPVFGNPISTLEDLEKLDDQNAHKKLNYVYDALKLTREKLSQNKALIGFCG

SPWTIATYMIEGSGSKNYAKCKKMLYQNPELLHKILNKLTQVLKLYLEEQIKAGANAIQIFDSWASALEY

DKFFEFSFNYMLEISNFIKSKYPNIPVILFPKGISGYLDRIDGNFDVFGVDWSTPLDLARDKLSHKYTLQ

GNMEPCRLYDKNAIKEGVEKILKTMQNKAHIFNLGHGILPDIPVENAKYFIKLVQESSAK

>CCK67334.1 hypothetical protein BN148\_1242 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVVDNTQKTSNAIFSTTTKVKEKNTSADEFQATLNEVKNKEEKEDKKTNSSKFTNEDIDLGAVREDFRSY

AWQKMREDQYKKNEETLLNKLFTTIDAGNATNNTKA

>CCK67333.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNYKKALFALALSAFCMGVTEFVMAGVLVDVEAYFSVDAKTAGYLTTLYAIGVVIGAPLITIPLSRFHR

HTQLLINLGIFALANFIIFFSQNFYLTAFARFIAGTQHGVFFVIATLAVSAITPDDKKSSALAIMVTGLT

VALVTGVPLGTFIGHYFGFKFIFLLIFIITSLAFFGVWHMMPKNLHPSPTNLKNLIPAFSHQNLLKTYTI

TICSCGAQFVLYTYLQKILVEISGFKVQDTAYILLLYGICAICGNLWGGKIVDKKGAIFSLRLILSIQVL

VFLSVFLTMHSKILIIFSVALIGFFAFSTIPALKMLSITKAKRHTYKVIDSTVSVNEAAFNVGIALASFL

GGIVLARLGIEFNALFSALFVSPALIFALLFAKDKLNYKKFQRKSFTKV

>CCK67332.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIILLLGLSLASLGALSFDELIYKDEVKPSFDCSKIKYDGKSDDELMICNKIGVRNEFDNKKLALVDN

IYSSLYQNISKKADKKMKKDFKAISKKMLKERKICIKNMQNTKAGENPLLSLLNASDCMQEAYIKVLLEL

MQRAKKDTKTKEVLEQIFKNKVDKYENLLTQSLNTNKDLQDFIDSLAKEDLIDSRAKFKL

>CCK67331.1 4-hydroxythreonine-4-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYEFNF

IKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKAWED

AGLKYKGHTDALRDFFKKNAIMMLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKKMGL

LGFNPHAGDYGVIGGEEEKIMEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPYPLV

ADTAFTKTGLKNCNRLVAMYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINTKSY

FEAAKFAINLHSKA

>CCK67330.1 pyridoxine 5'-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLLGVNIDHIAVLRQARMVNDPDLLEAAFIVARHGDQITLHVREDRRHAQDFDLENIIKFCKSPVNLECA

LNDEILNLALKLKPHRVTLVPEKREELTTEGGLCLNHAKLKQSIEKLQNANIEVSLFINPSLEDIEKSKI

LKAQFIELHTGHYANLHNALFSNISHTAFALKELDQDKKTLQAQFEKELQNLELCAKKGLELGLKVAAGH

GLNYKNVKPVVKIKEICELNIGQSIVARSVFTGLQNAILEMKELIKR

>CCK67329.1 phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLGIDLGSNTLRAVQMDEKLNKLKEYEFVIGAAKNLNQSGEISKEAIQRLKNTLSILAKEQDLSKARAVA

TAAFRKASNTNEIFAHLKKEFGIDFKLIDAKSEAKISVLGMQSGLRRLKIWGEFAYCDLGGASCELSFGK

SFKSFDFGIISFYEKNYHSYYKSCISYKKLIKKYPKFIINIKDKKLKIHFLIANPYLKHLAFRAFDEVAM

IKKELRSLGAKTVVLNSGVPTTLSALKQNISYEKYEATKVNGKKLCHKDFLNYAIKLFHMEEKKAIKEVG

TMRKNYLSAGCLLFYALFDKHKLLVIDEGLREGVCLASMKNIKF

>CCK67328.1 hypothetical protein BN148\_1236 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFSDFFHAWLHESYYKNAVSIGKNGDFFTAVSVGNLFGTLLAKHFLNLIDEKILKPPLELVEIGANEGY

LSRDFLAALLELRPEIFSQISFFIIEPHEKLRTLQKKTLEGVEFTHKNSLKECHFKNAFFFCNELFDSFT

CELIDHDKMAFVENFKLIFKNMDENLITKCKALNLTKGELSLELENFFKDLNQTCERFIFAGFDYGTLNP

QSFSLRIYQKHEVFSPFEVSLKDFFGKSDLTYNVNFTHLQKLIKEYDFKPLAFKKQSLAFMDFGFEDLLE

YAKNKNIKTYESFLSQAKILFFNFDEKFHFFEFQKN

>CCK67327.1 peptidase M23 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKALWILLSLTLWLFGAQNLELIKGQALFLELDKKDFLSLKNNDKNIPTFAHPKNQEKILAIFSLPYKNP

PQNTKLIAFYKDKKEEIFIKTLEGNYKSEKLQIENKKIFPPKTIQERITKELKEANAIYSSYTPKALFNG

AFNIPLNSFITSDFGKARTFNEKVASYHSGTDFRATTGTPIYAANSGVVKIAKDRYFAGNSVVIDHGFGI

YSQYYHLSKIDVKIGQKIKKGELIGLSGATGRVSGPHLHFGILAGGKQVDPLDFVSKFNAIFQ

>CCK67326.1 glycyl-tRNA synthetase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSELLIEIGTEELPAIPLLKELANIEKKWNNVLEEYRLVSDFKFYYTPRRLVFFHENFADKQEDSFAEFI

GAPKNVAYKDGVLTPAGQSFLQKARISENELSFKEIKGKEVLYHQKAIKGLQSQEILGEMVEKFLKSLSF

GKSMRWGANSFEFIRAIRSIACILNDELVNFQSYGVKSTKKTFIHRSVSYDLQDFNNAKEYFELLEKNYI

ILDPIKRKEKILEQFKLIESQKNIQIGEDEELLAEVVAITEYPNALLGSFEEEFLEIPSEVIITSMRENQ

RYFAVFNDKGLSNHFIVVSNAVCKDYSKIIHGNERVLRARLSDAMFFYQNDLQNGLKPEKLAKMTYLEGL

GTMQDKSLREIKIAEILCQMLHNDKIENISTALKYAKADLATQMVYEFTDLQGIMGSYYAQKMGLDYQIC

LAIKEQYLPNSEQAPLPSTEFSSIVALANKLDTLIGLFSIGKIPSGTKDPYALRRAANGIIKIALNLNKE

FDIQILLEKLSNHYKSFDMQILKDFIFERLYTFYTVNASFVKAVLSSQNTDLIHINQSVNALIKLSKKDN

FNENFATFKRLANIATKNPHKVDESLFVQEAESKLYKAFQEKTKANSLQEKLENLFALKPFIDEFFNQVM

INAEDEKLKNNRQALVYEIYAEFLKIADLKELSL

>CCK67325.1 HAD-superfamily hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINVFFDMDGTLIDSANAISCAVNEIRQDLNLAPLSREIIMQTINTPNIDWAKELYNIENFHHSSFKEGY

EKYFVKHYEQSVVLFEGVKELLEFLKSKNCFLAIATNAPQSSLSNILKKHDIIPYFDKILGVSLGIEPKP

HPMMLELLKSEAPYKTSVFIGDSQKDKECAKNANLPYFHAKWYQKNLKENEFSNASELKGFLQKYL

>CCK67324.1 hypothetical protein BN148\_1232 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTKNEEKALRVKYLRNLEKFFNGAISALKKEDFDKTKFEERMLKNAKFFEKNPAVNLNSTYAKNLEFFVN

ACLDFSKEKSELLNLANALDKQKKQGEKKEKHKNYLKDYE

>CCK67323.1 glutathione-regulated potassium-efflux system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDNFLEIFLITVAIAIVLNVIFKKFEIPTIIGYIAAGEIISEIYHLSGKGEITHIAEFGIVFLMFTIGLE

FSFKHLMAMKQEVFLNGSLQMLTCGFVFMLLAIGILGLGDKSATIVGFALALSSTAVVLKILNDNGDINE

QYGRKALGILLFQDIAVIPLLLLVDIFSSNNQNIEKLLFTSLISALILITLLFFIGKYLVDRIFRLIIHT

SSQEIFISTVLFMVIGASFLANYFGFSYSLGAFIAGALIAETKYKHKIEADLIPFRDLLLGLFFITVGMQ

IQLDVVAQNWFLIIVLTLLVMALKFGIVFGFLFLYTKKRVALKTAFAIAQIGEFALAIFSLLQAKNMLDI

KTSQILIVVSILTMIITPFILNNIRKITNVVEDIALNTNAVQNIDSNIKLKNHLVVFGYGRLGQEVVQKI

KNTGVPYLVLESDLNLVELGVSRGENVVFANAAQEETLKIANIEECAVAIITVTNEAKLEILCQVLANYP

KPIDTIIHVNGTLKKMLFSSIDENIRIIRSEKVIARNLVQEALECRIHKNT

>CCK67322.1 heat shock transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEQHYDEPVYLISVVAKVLSIHPQTLRQYEREGLIEPSRTDGKIRLYSQRDIDRIKLILRLTRDMGINLA

GVDVILKLKNQLHEFENLIDELRLELSKQQDKEAASKAVVKHKNSFDLIFYEKK

>CCK67321.1 curved-DNA binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNSLYETLGVSKNASADEIKKAYRRLARKYHPDINKEKGAEEKFKEINAAYEILSDEKKRAQYDQYGDSM

FGGQSFHDFSRNTGGVNLDDILKDLFGGGFGGRSRGGFNGFSSKGFSSGFGGFGGFEEEILDSNLELHIP

FEKAVKGGEHSFNFQGETIKFKIPHGIKEGEKLRIRSKGKQSRNGARGDLIIIVKIEESPIYTREDDDLY

QKVDISLKTALFGGKINIKTLKEGKEEAIINITPNSKNNQKIRLKGYGVQNRKSDIYGDMYLILNVVLPN

LDTLDEKFIELLKEKLP

>CCK67320.1 serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIFLSLSLASALFAASINFNESTATANRVNPAAGNAVLSYHDSIKDAKKSVVNISTSKTITRANRPSP

LDDFFNDPYFKQFFDFDFSQRKGKNDKEVVSSLGSGVIISKDGYIVTNNHVVDDADTITVNLPGSDIEYK

AKLIGKDPKTDLAVIKIEANNLSAITFTNSDDLMEGDVVFALGNPFGVGFSVTSGIISALNKDNIGLNQY

ENFIQTDASINPGNSGGALVDSRGYLVGINSAILSRGGGNNGIGFAIPSNMVKDIAKKLIEKGKIDRGFL

GVTILALQGDTKKAYKNQEGALITDVQKGSSADEAGLKRGDLVTKVNDKVIKSPIDLKNYIGTLEIGQKI

SLSYERDGENKQASFILKGEKENPKGVQSDLIDGLSLRNLDPRLKDRLQIPKDVNGVLVDSVKEKSKGKN

SGFQEGDIIIGVGQSEIKNLKDLEQALKQVNKKEFTKVWVYRNGFATLLVLK

>CCK67319.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTNILMIEDDLELAEITAEYLEKFDMKVDIAHEPYIGLSKLALKEYQLIILDLSLPGLDGLEVCEEIRKK

YDTPIIVSSARHDITDKVNALELGADDYLPKPYNPKELQARIKSHLRRISNTKSAIAKSVKDLVYDQYKH

IITMKGQELTLTNAEFDILSYLIKKEGGVVSREELVYNCSSISEDSSNKSIDVIISRIRQKMGDDPKTPK

YIHSIRGIGYKLTQ

>CCK67318.1 two-component sensor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKSSIFYTITFIFIFAGVSVILGFLWLIEYDQQNYTRELNTKYSLIANARLLNFAGVISEKEFEEQTKN

YNKMDEITEAKQIRKILFRGDVLARVEVNNGLIEIISYNRQVYLNIIYDGKVYLYKDQDYQTYRYFIIKA

IAVAVICILVLLYIYIFKKLKPLKRLKKQIDKFAQGKLGDIEDVSTGVDEISQVSEAFYQAIVQIRKLNQ

SRQFFLRNIMHELKTPITKGLLTLEMIEDNKYKERLNGVFTRLEILINEFAAIEQITSGAAFINRKKYNI

LDVLDEAKEIAMRDDSNIRIFMEESFFVNVDFKLFTTAIKNMIDNGIKHSEDGFVQIDIIDDYICFKNRG

PELNNTLEYYTQAFTQGSKQKSSFGLGLYIVNTILETHGMKLDYLYEDGVNLFYFRNLKSVIVKE

>CCK67317.1 hypothetical protein BN148\_1225 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKRNVKTYSFRMPLELKERLDNLSKNLSKPKSTIVKEAIEAYLNEVEDFSFAVNALEELKDGDYQKASKK

IDKIVKNLKQTK

>CCK67316.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLPKWDNSYSVHNAKIDEQHKKLFKLAAKVEVVSDRSVSKNEVKELLAEFFNYMKDHFNDEEKYMQLIGY

PNLEEHRKIHKEIIQTMINLIKDIKSTNDLKEKLYIVAKKWLLEHILYEDMKVEKWRSSSLSTDDGGDVS

FEAAEDEDNEHPQFYLYTCNCPGKIHDVPYSIHQKIELQGRKFTCKTCKQAIKFYKKYS

>CCK67315.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAAKILLLEDDLSLSEIIEEFLNDEGYEVFLCDNAQEALDMAYERYFDLWILDVKVPLGDGFSLLKELRK

SGKQTPAIFMTSLNTTNDLKQGFDAGCDDYIKKPFELAELSIRVKALLKRAFSHKNEDFEDLGDGFRFEF

TTQILYHNNKALTLPSKEIKLLSLLLKNKNNFLSTERIFEELWDYDEEPSELSLRAYVKNLRKILGKEKI

INQRGRGYCYG

>CCK67314.1 two-component sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKKVIRQILLIYLTTTGIFLTIFFALWYQKLYEELVVLKGATLRENHRNIVISILNSRFTPIDISAKNI

AQSTALKFAIFDAKKIVFSNIDFDLRKAKIELKGRGICDNKVFFLASMSADHYFLRHASNEEVNTNDGLQ

ILIQGEDVGKDLFWIRTKVFSFAIMAFCILGLISYILVKIALKPLEDKISTLNRFIKDSTHELNTPLSVI

LMSIEQLEHQNLGDNTKFTRIKLAAKSLSQVYSDLVFYNFPNTLETEKQKFDLRILLEERLEYFKVFFEQ

KKITLKLDLNQANIFAPKSQISKLIDNLISNAIKYNKKGGVISIILKANFLSIADTGCGISKSNLNHIFD

RYTRFNTDQGGFGIGLSLVKKVCDDNDIKIICESVENQGSVFKLNW

>CCK67313.1 molecular chaperone GroEL [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKEIIFSDEARNKLYEGVKKLNDAVKVTMGPRGRNVLIQKSFGAPSITKDGVSVAKEVELKDSLENMGA

SLVREVASKTADQAGDGTTTATVLAHAIFKEGLRNITAGANPIEVKRGMDKACEAIVAELKKLSREVKDK

KEIAQVATISANSDEKIGNLIADAMEKVGKDGVITVEEAKSINDELNVVEGMQFDRGYLSPYFITNAEKM

TVELSSPYILLFDKKITNLKDLLPVLEQIQKTGKPLLIIAEDIEGEALATLVVNKLRGVLNISAVKAPGF

GDRRKAMLEDIAILTGGEVISEELGRTLESATIQDLGQASSVIIDKDNTTIVNGAGEKANIDARVNQIKA

QIAETTSDYDREKLQERLAKLSGGVAVIKVGAATETEMKEKKDRVDDALSATKAAVEEGIVIGGGAALIK

AKAKIKLDLQGDEAIGAAIVERALRAPLRQIAENAGFDAGVVVNSVENAKDENTGFDAAKGEYVNMLESG

IIDPVKVERVALLNAVSVASMLLTTEATISEIKEDKPTMPDMSGMGGMGGMGGMM

>CCK67312.1 co-chaperonin GroES [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFQPLGKRVLVKRVEETKTTASGIIIPDNAKEKPLMGEVVAVSKEITDIANGDKIVFAKYGGTEIKLDN

NEYLVLNLDDILGILK

>CCK67311.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIFYGIVAFVVVLLIALYTILFTSFGNNIVANIAQKKIKENAGLDVNITRFNLRFSSLELQANIANMA

DCNLQGALSPFKLGFDLDYLISLNQNYAKNLGLNLNQNLSFGGKIQGKASDFTLDGKGYLLGSNVLLNAR

MYNYSPIALNLDAQNLKIEEILHLLSYPSYAKGFLNAQAKISAQNLKPDGNIIIKLDTSYINYEAIKKDF

SLDLPLNSNPKAEILANVKEDKIYAVSKIYNDYLNLQTQKTLYDMSKNILSTDFNLNIPSLAKLEKLTKT

RLNGSLGVIGETSVVNNALSSLNAQVIGLGGEVKASLKNNKIFADINEASLEKLLALAGYGALVSGNLNA

KLLNADLDFSNFDLEAKINNAKINTNELKKLAKIELPNTIFSFDAKANAKNSNIAYNALLASNLLNIKKL

QGTYNLKNSELNTDLNAFIDDLSQFSAIAGQKLQGKADLTAKAHIIGTQIQNLNANANLADGVIKADSNG

KKLDLNIDKLDLSKLFVIAGMPNYASGIVNAKVNLDNIDFSNLNGKANLEAKGILNAATLSKILNKNFPN

NTSYDLNTKINFKNNIAQFDSVLNSSLADLTKLQGSFDISKMLLNSDFNLKINDFSKLGFLLDRKLKGKA

EFNGKVGFDKNLNFVVNSPNLFEGKLQSTLKDNLLLADLNGVDLSSLAQGLDFMDVYQGKADVKANYNLL

SEEGEVNLDMKEGKLKPNLITNALKILTLKDITNDVYRTANAKALIKKENIKFDLNMQADRSYILVQSGA

LNSKSGALNLPFDIKFDRANFKGSITGTTENPKVNLNAGSVLNSIKNVVGGGMSDGAKSTGDKVDKAVNK

LLNKIF

>CCK67310.1 riboflavin synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFNGLIREIAKVQSYQNNTLSLKAKYCPNLGDSIAVNGACLSVTKLYEGGFEVELSRESRTHIVIENLKD

KVHIEPALRYGDRIDGHLMQGHIDFIGTLEKIQKDENGVDFYISLPKEAMKFMAEKGSIGVDGVSLTINE

ILKNGIRLTIIPITFKETLFKDYQVGRKINIESDLLARYIYAQLQGKNKGLSWEEVERISYLY

>CCK67309.1 hypothetical protein BN148\_1217c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGRSRKNFLSLLENDKVGIFCAFDKDYNVFRAKIHNENLFSHLGFKDIEKCVFMDQIHSHKVIIYDENLK

NLSCDGLISKEKNIALCVLSADCLPLILYHESGIIAALHSGRKGSFENILKECVDQITMQNSHLDKNKFH

LFILPGICAKNYEIDGEILEFAKKEFKEFVQDDKLDLKALVKFQAQNLGIENIKDCGICSFDDESFFSYR

RDKTTKRFVSVVYLKD

>CCK67308.1 hypothetical protein BN148\_1216c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYERKDLRVLKIIQKAREFGDGDLLNEALVKQLIDADFCEINEKEKEELATLLHSLINAKDKALLSN

>CCK67307.1 peptidase M23 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKLLLLFIFVVQSFAALSVEELTWDNGDTLLKFLQRNSIPMSLYYGLDREDQELASDIAYKIKYQVLKD

ENNNIEQVLIPISDDLQIHIYKDKDGQYTLAFTPVSYQKEDRILHLTIKSSAYQDVYEESGSSTLARAMV

RAFRGSINFRNIQKGDEVTLYYEQKRRMGKLWGDINIKMAMVEINKSAREVFSYNDIFYDRDGKELESFL

LTKPVNYTRISSPFTTARYHPILKRYRAHLGIDYAAPTGTPVKSAGKGVVTFIGTKGGYGNVIQIKHDSG

YMTLYAHLSRFAKIKNGQKVNQGQVIAYVGSTGMSTGPHLHFGVYLNNKAINPASVVKIAKSELSGKAKE

NFKHIIAGYEQVVKEALASNQPNPPKEEDFENYIEF

>CCK67306.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFKTIVCFLALNLSLFAVGFDLKPIKSELVKVDDIYGYIKDSDDIKLYSSGVVVQHFSNSQSIIARASVI

DKKNGLAKLEFSVFSALKQDALPLPNVLPKVGDEVVLNFLYDRGLVIAPDEQTYNELVREFPQIYFTHID

IFGAQLIRTATLSPKRSDFRQFCDDNAVGILVVALENHAEVVDCQDFNKLYEVPISKPTSVQVPFYSRIG

GYKSNFFDFNSQEIGNYYRYYDALINLPKVQ

>CCK67305.1 glycolate oxidase subunit D [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKEFEQYFKRFLGEENAYFDEIHKRAYSYDATKKHYLPDGVLFPRNEEDIARILKFCNENNIIVIPRGS

GSGFTGGALAVNGGVVLAFEKHMNKILEIDLENLVAVVQPGVINIHLQKEVAKYGLFYPPDPASMEYSSL

GGNVSENAGGMRAAKYGITKDYVMALRAVLPSGEIIRAGKRTIKDVAGYNLAGILIASEGSLAVLSELTL

KLIPLPKFKKTAFAIFPSVKSAMNAVYKSLASGVSPVSMEFLDNLSIRAVESKFNKGLPIEAGAILIADV

DGNVKEAIDEDLRNLEHYFLEAGASEFKIAKDEQETADIWFARRNCSQSIAMYGTLKLNEDITVPRSKLP

TLLEGIDEISKKYGFKIPCFGHTGDGNVHTNVMVPDKNDKEQVKKGYEAVEEIFKLTVKLGGTLSGEHGI

GLSKAPFMNLAFSEAEMNLMRNIKKAFDPNNILNPFKMGL

>CCK67304.1 ribonuclease BN [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNFFTILLNLRDKEILNYAAALSFYTVLSLIPILFVCFSVFTQISSFKAYYEKAKQVIFAFLIPTQQDV

VATYIDTFLKNSVNLGIVGLIAMAFTSLAFFSGYDFVINRITKNEPKGLWQSISSYWTLLTLVPLGLGLS

FYISGFIQQTLDDYKIGFNFFEILPFVIIWGLFFISYSSSVHKGTLKSLALVSFGAGTIWYIGKNLFVYY

VVYNKTYASVYGSFSTILFFFIWIYISWIIYLFGLKLYYFLNHNHNEGNKIRKNTKKS

>CCK67303.1 competence family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSLWNSFSYSFKEFHYLFFSVVVIFIFNILLEYNNFLNFKNQKHYLIDNALLTHQYIKYNKKNKKYWVLK

LQTENFTFYTTSFKDLNLSKNQFLSLRIITHNINFKDYLSKSFYAPSYDFEKLKEKEYNPIISYFLNQHT

NEKIKEFYGALFFALPISLELRNDVNYYGIAHLIAISGYHIGLLFSLIFFILAPIYSFFQKRYFPYRNLR

LDLSILIFALLLAYACLIGFVPSFVRSLIMAFWVFYLLCKNIKIINFVTLFCSILLCISLYPRLLFSIGF

LFSILGVFYIFLYMHHFANKFNNLINIILLNIWTFFAMVLPVLYFFPLISYQQILGIILSGIFVIFYPLV

LFLHLINYGDLLNFILDEFFKFKIYGTNIHIPFWIFISYLIASLISVRFKYLAFLCIFANFIPFIMIVI

>CCK67302.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQDMIDTLIKYGYIVLFFYSLGGGMVGILAAGVLSSQGKMDLSFCIALAFIANTIGSTLLFILGKYYKKD

IMPYFKKHRRKIALAMIKTKQHGIILLVTQKFIYGLKTFIPIAAGMAKYNFIKFFIINTLASLAWAIVLG

FTAYTFGYVIEAIFDKLSLYPYAAPLFLLFLAGIIWLYLSKFSKK

>CCK67301.1 phosphodiesterase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIESLIALIAAIVGLGIGYLVAKKINDAKYEIFVEQAKAKAKAIEYEAELILKDAKNSILNAELEVKKKY

EEKTHKFQKDFNQKFDDLSKKEQKLQQEEEKLKEDKEYLCKSQKHIQNLQSDVDKLKNKYQEKLDDVLKI

LEHSTGLTQNEAKEIILKKVEENSREQIAHIVRKYEEEAKNEAKRKANFIIAQATSRFAGEFAAERLINV

INIKNDELKGRIIGKEGRNVKTLEMVLGVDIIIDDTPGAIIVSCFNLYRRAIATKVIELLVEDGRIQPAR

IEEIHEKVCKEFDSAILEEGETIVMDLGLNKIHPEIVKLIGKLKYRASYGQNALAHSLEVAHLAGIIAAE

CGGDENLARRAGILHDIGKALTHDFEGSHVDLGAELCKRYKEHPVVINAIYAHHGHEEATSIESAAVCAA

DTLSAARPGARREVLEAFLKRVSELEDIAKSKEGIKNAYAINAGREIRVIANAQLVNDDESVLLAKEIAA

EIQEKMQYPGEIKVNVIRELRAVEYAK

>CCK67300.1 5-formyltetrahydrofolate cyclo-ligase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKTDFRALQKIRLFKHSKLNFKQDYKIFKECLKIIKLFKAKNILIFIPLHYEPNLIKFRHILNKNYKLF

VPFMQDKSLKIVKLRLPFIKKRFGVLEPIDSFFKAKIDLAIVPVIGVDKNLKRIGHGQGFYDRFFENLNY

KPHIIFIQSIDALSQNNLTQKHDISGKLYINPYKKYYKKERKNDRITYRTYSRYSRTRYRIFSCKKNQ

>CCK67299.1 lipoprotein thiredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIKKILLLVAISCLFVACSNDKEKQQNDVNLSTEASINQSDDMNFKLNLIDGGSISVKKENAVLNFNDE

DKVTLFVFFTTWCTPCIAEIPHLNKLQEKYNNDFNIVGVLLEDKSNDEIQKFIEQHKISYKVANGENNYL

LAKALGGVNGIPTMFLYNKHSKLINQYLGLIPEEMLEIDIQKAIL

>CCK67298.1 signal recognition particle protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFNFFKKGLAKTLENIVGVKGENKKITKDLLEEILLEADVSYEIVEEIIYYLPPQNEVKKEDLKRVMGSY

FLYEKKETNQEKPFVELILGVNGAGKTTSIAKLAYLYKNQNQKVILGACDTFRAGAIEQLKLWAQKVDVD

IVLTAQGHDPSAVTFDTISKAKAKDFDRVIIDTAGRLQNQKNLAHELEKIVRISNKALEGAPHRKILVLD

GTQGNAGILQAKAFNELVKLDGVIITKLDGTAKGGALFSIARELELPIFYVGVGEQMTDLQEFNASAYLD

TLLDPIFE

>CCK67297.1 DNA repair protein RadA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKNKALFECQACGNQQSKWLGKCPDCGAWDSFVELKAEQIKVLKELAQVSMKTSEAVCIEDVELEHFTR

YSTDDNELDLVLGGGLVEGSLVLIGGSPGVGKSTLLLKIASNLAKQGKKVLYVSGEESKAQIKLRADRLE

ANTPNLFLLTELCLENILEELHKKDYSILIVDSIQTLYSNKITSAAGSITQVREITFELMRVSKAYNIST

FIIGHITKEGAIAGPRVLEHMVDVVLYFEGDATKEIRLLRGFKNRFGGTNEVGIFEMTAKGLISAKDLAN

RFFTRGKAISGSALGVVMEGSRALVLEVQALVCESSYPKRSATGYEKNRLDMLLALLERKLEIPLGHYDV

FVNISGGVKVSETAADLAVVAAIISSFKNRPLSKDSIFIGELSLNGEIREVFSLDTRLKEAKMQKFKNAI

VPSKPLEDIGLKCFVAKELSQVLEWM

>CCK67296.1 F0F1 ATP synthase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKDLFLFSSLLDASHTFSYFFHIGLVALIAVIVAMMATRSMQLVPRGMQNLGEAFLEGVLSMGRDTMGSE

KGARKYLPLVATLGIIVFFSNIIGIIPGFHAPTASLNLTLSLAIIVFVYYHFEGIRAQGFVKYFAHFMGP

IKLLAPLMFPIEIVSHLSRVVSLSFRLFGNIKGDDLFLMVILALVPYIAPLPAYVLLTFMAFLQAFIFMI

LTYVYLAGATVVEEGH

>CCK67295.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIYILEFFKGASLALMLFGALFFFFKYNSFFYLCLGIIPGLLLSLIFVLLIENHKLKNENKLR

>CCK67294.1 5,10-methylenetetrahydrofolate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MCSFSFEVFPPRKDENIKNLHAILDDLGQLSPNFISVTFGAGGSINSQNTLEVASLIQEEYQIPSIVHLP

CIHSSKEKITQILQKCKEKNLNQILALRGDICENLKKSKDFSYASDLISFIKKQEYFEIYAACYPEKHNE

SKNFIEDIHHLKTKVNAGTDKLITQLFYDNEDFYTFKQNCALADIDIPIYAGIMPITNKRQVLKISQLCG

AKIPPKFVKILEKYENNTLALEDAGIAYACDQIVDLITSGVDGIHLYTMNKSKAAIKIYEAVKHLLKEEL

HA

>CCK67293.1 5-methyltetrahydropteroyltriglutamate--homocysteine S-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNSIISYPRIGANRELKFAIEKYFKNQSSKEELLKSAKDLRIRHWQEIQKAGIDFIPSNDFSLYDNVLD

AAVLFNIVHTKYKNLNLDALDEYFAQSRGYQGENGDVTALAMKKWFNTNYHYLVPECDNADIIALTGDKI

FKEYLEAKELGIESKPVLIGIFTLFKLIAFKDEKTQKLAKEKLLNAYIELFDKLNELKVTWLELDEPYLV

YDLSKEDIALFEEFYQELLNHKKDLKILLQSYFGDLRDIYPKLLESKFDALGLDFIEGKQSLALVQQYGF

AKDKILFGGLINGKNIYANDYAKSLKLIKELQKYTQNIILNTSCSLLHVPYSTEFESKLDSSYLKLFAFA

KEKLQELKDLKEILNSSEENPLFRANQELFKNIPERLDEKVKARLKALKKEDFTRTPSFKERALIQKEFL

KLPLLPTTTIGSFPQSADVRSNRLAFKQEKISAQNYTEFNQQKIKECIQIQEEIGLDVLVHGEFERNDMV

EYFGENLKGFLFTQNGWVQSYGTRCVKPPVIWGDVSRTKPITLAWSKFAQSLSQKIVKGMLTGPVTILNW

SFPREDISLKESTEQIALAIRDEVLDLENAGIKIIQIDEAALREKLPLRKSDWHSEYLDWAIPAFNLVHS

GVKAKTQIHTHMCYSEFSDILKEIDAMDADVISFEASRSNLSLLDTLKAIRFKTEVGPGVYDIHSPRVPS

VEELSLTIEKILNKLPKEQIWINPDCGLKTRAYEEVITSLKNLVTATQKIREQL

>CCK67292.1 NLPA family lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRKGEKMTLFTKAFCVATLFTGFAWANEELKVGSSITPHADILRFIKSALQKQGYDLKIYEFNDGVIPNV

MVENGELDANYFQHEPYLKEFNQRQGTHLVKVASIHIEPMAVYSKKHKEFHPKEGQSISIPNNPTNESRA

LRIVVSKGLIEVKDNELITPLDITKNPKKLKFVELKDAQLTRSLDDVDYSLINSNFAILAGLNPVKDGLY

TESKYSEYGNIIAVKEGNENLPKIKALVKALQSNEVKKFIEEKYQGALIPTF

>CCK67291.1 iron/ascorbate-dependent oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLPILDLQAYEKDKSTFLKNLREIASKIGFFYLINTSIDKNLNEKLFKLGKEFFNLSRSSKELISMVHS

PQFRGYTSEGFEYTAGSKDYREQLDIGTERDALNWNLNSPLWQRLEGPNLWPSEIPELKKTFLTWHKQTK

KACLKLLKAFAQALDLPNNAFDKLYGENSYEHCKIIHYPKSSKNITQGVGSHKDGGLITFVFQEKQSGFE

AFIDGKWLSIPPLENSVVVNIGEFLELATNGYLKATIHRVNLSPKERFSIAYFLGVQLDKDIPIFKLNPE

LAKESKGVDTDPKNPLLRNVASNYFKRMIRSHPDVASIYHSDLIEKFSFA

>CCK67290.1 S-ribosylhomocysteinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPLLDSFKVDHTKMPAPAVRLAKVMKTPKGDDISVFDLRFCIPNKDIMSEKGTHTLEHLFAGFMRDHLNS

NSVEIIDISPMGCRTGFYMSLIGTPDEKSIAKAWEAAMKDVLSVSDQSKIPELNIYQCGTCAMHSLDEAK

QIAQKVLNLGISIINNKELKLENA

>CCK67289.1 aspartyl/glutamyl-tRNA amidotransferase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFEVVIGLEVHAQLNTKTKIFCSCATSFGEAPNTNVCPTCLALPGALPVLNEEAVKKAIAFGKAVNATIN

KKSVFNRKNYFYPDLPKAYQISQFDIPIVEKGELFINVKGENKRIGITRAHLEEDAGKNIHESNFSKVDL

NRAGTPLLEIVSEPELRSSDEAVAYLKKLHSIIRFLDISDANMQEGSFRCDANVSIRPKGDTKLYTRVEI

KNLNSFRFIQKAIEYEVKRQSEAWEDGTYEQEVVQETRLFDTTNLVTRSMRGKEEAAEYRYFPDPDLLPV

LLKDEFLDIKIPELPDEKKVRFIDKLGIKESDAEVLISSLEMSRFFESLISQNLNPKLCVNWLNTELMGL

LKGELTIENSPVDAQKLGVLIKRIEDGTISAKAAKDVLAFVFENTSVEIDEAIEKLGLKQVSDDSAIEAV

IEQILNANADKVAEYKSGKDKLFGFFVGQTMKEGKGAFNPAKVNEILKTKLG

>CCK67288.1 NAD(P)H-dependent glycerol-3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMRIAVIGAGKWGSALHLALKENHNCFISSLHQRDLEDFVSIKEALECEYLVFALSSQGMRAWLKENFIN

KGQKILIASKGIEDQSCQFLDEIFLDFVPKENFCVLSGPSFAAEVMQKLPTALMISGINQELCKKFASFF

PDFIKTYIDNDVRGAEICGAYKNVLAIASGISDGLKLGNNARAALISRGLIEMHRFGKFFGTKEETFLGL

SGAGDLFLTATSVLSRNYRVGLKLAQNQKLDSILAELNEVAEGVKTAYAIEKLAKMKGIYTPIVNEVVAI

FKGKSVQEATQNLLKQND

>CCK67287.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIIKNAKIYGDSLQDIEIKEGKITNIDSNLQGEEILDAKGMTLLPSFVDLCVSLKNDKFSLANLELLENE

CLKGGISSIVLRDCMDFDEESFALFLQNLAQRKMQIFSSVRVKDANGKLKNLATLLNKGACALELDSSLD

ANTLKVSSQYAFMKDSPIFVRCYDKDFDDNGVMNDCEMSFELGLIGMSKIAETSQIAKMKELAKFYKNKV

IFDLLSLKDSLVLLDEKDLKLVSIHHLIKDDSACEDFNTAAKLMPPLRSKEDVLALREVLKEGKISFLTS

LHSAKSISLKDLAFDEAAFGIHSVCEFISLCYTFLIKEGFLNWQELCRFTSKNPSEFLGLNSGVIEVGKE

ANLVLFDENEEIFAPKSSLYSEDKLFGKIKMHIIKGKNILEK

>CCK67286.1 phosphate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKDNLIAFVIFIISTIAFVIWGFGYISQHQLILFILASIFGIFMAFNIGGNDVANSFGTSVGAKTVTIK

QALIIAAVFELSGAIFAGAEVTKTIRSGIVIFPNSLDPMLFVIIMLAALLSSGVWIFIATKKGLPVSTTH

SIVGGIVGASIMMGLLKFDGIQTLSMVKWSEILRIAISWIASPLLGGIVAYIIYSYIDKKILKPSEKLND

DLKNIKKERKKFKEEYFLNLKTKSQEEQIKELSAIALDEEEQENNFYRNKMKEFKDQEKDIDIYSILKTH

MPIIACIAAAIISAMFLFKGLNNVSTLDILQNFWIIGIIGTISYVVTFAIVKIVKKTELNKTTDRIFSWF

QIFTASSFAFSHGANDIANAIGPFAAILDVLKNGTINATSPVPFAALAMFGVALVVGLWFLGKEVITTVG

SKLATIRPTTGFSAELGASIVILLATQFGIPVSSTHILIGAILGIGVYNKNANWIMMKPIGLAWIITLPA

AGIMAALVFLGFKLSLGI

>CCK67285.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRGIFYIIALFSLLNGDELTEALAKNNNQNSWEHFDYKNTKEAPKIQEENVDFKSTFDSLLSKTLENNNG

IDKTDGNLDFQNENAQVKNLSSLYEGENNSLLFQKELFVAQDNYNYSGGLINRYEKDDFLFGVNGFIDKQ

KEQKDTKSFGTEFGYSKFIKAYSNYYIPNEAEKKLQLGMSFVIPTYTAFAFDISKDNDKTNYQVSYSPYS

VFSLNLLRRDYSARETVDDTVVQVGFSFNFNESFLKQFRKKDNTLEEVNRYDFLQRTH

>CCK67284.1 C4-dicarboxylate transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

METLSQTLAERKPPLYKRIIKSLGFWVIIGIITGIVLGYTDKELAIASKPGVDYFIGALKVLIGPIIFVT

LVLGIISLESLKKVGSIGAKAVIYFEVVSTLALAIGIFMANVMQPGHGMNLDPSQLDTKSVQKYISQTTE

VSASSEIMHILKDAMPTDIITPFTEGKTIQVLVIAIITALIISLMRIEDKQAIQRVFEVVQNFVFKILQI

IMYFSPIAAFSAMAVLIAQYGIGSLINLAYLLLVMLISCLVFIFGILGLICYFAKVNIFKFMRFISREVL

IVFATSSSESALAPLMRKLEKAGLSKATVGLVLPTGYSFNLDCTNIYLAMSLIFLAQAFNVNLSLAHEIS

ILIVLMIASKGAVGVTGSGFIVLGSTLAALGNMEISEANATLAQVLPVAAIGVLLGVDKFMSEMRAVGNL

CGNSVAALIVAIWDKQIDWEKFRYAMDNPEKFHNAGMN

>CCK67283.1 PAS domain containing signal-transduction sensor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEIVLSENALITSKTDLKGNIIYANNDFLKYAGYKVDELLYKSHNIVRHEDMPRTVFKCLWDYIQKGDE

IFAFVKNKAKDGNFYWVFANVSASFDTNGNIINYYSVRRAPNRKSLSIIEEVYKILLEKEQKSGINAGVS

ALMDIVSSYKMTYNELIFNLQENN

>CCK67282.1 bipartate energy taxis response protein CetA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVKNGLLLTIFLSVIGVLGVIFIHIFVGAIIFVLIAVLMIYLLRQHKDEQIMIDKLLVLCRELKEGNFDN

RIIYVKTKSKKLAEIADNLNNTIDGLEAYLREINTSISCSQKGEFYRKALPEGLKGIFAHNIEFINKALA

NIEVTARSTFKNALSRTLMDLSLGNQNKDMSQISSSLNQDISMMKNVYDTVDAISHTATENGSEVDSLQS

AMGSLMDVVNSSKETVQTFVANSQNITSVVEVIRDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVRK

LAERTQRSTSEISIAIQTMQQDFVNIQSGSEQVFNIVSESEERINKFSQAFKRLEENSSALGVNFGSFAK

RLILSVVKIDHILYKSNIYLNLNGAQNFNLESVDPISNLCQDERAQGVINELSSETELNLAKEFIKDNAK

KAIEESSQDYIDQKAYDAIVNDIKSLEQRSAEILAKLKI

>CCK67281.1 bipartate energy taxis response protein CetB [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSREIFLQEDSLITSKTDLKGKIVYANDDFLKYAGYTMGEVLNKPHNIVRHEEMPKTVFKYLWDYMKEGK

EIFAYVKNKTKDNNYYWVFANVTPSIDVNNNIIGYYSVRRMPNKSAISTIESLYSDLLRAEQQQGLNKGV

EMLKNFCKDADKTYNELIFSLQEAK

>CCK67280.1 tRNA uridine 5-carboxymethylaminomethyl modification enzyme GidA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFDVIVIGGGHAGVEASAAAARMGKKTLLLTTLIEQIGAASCNPAIGGLAKGHLVKELDAMGGLMGEITD

EAGIQFRILNESKGVAVQGSRAQIDMDKYRIIARNKLLKLPNLEISQEQASVLIVENDEVKGVKTNLENI

YFAKKVILTTGTFLNGLIHVGENKLQAGRVGELASVNLGNYLQTLGLKMGRLKTGTCPRVDAKSIDFSVL

EIQDGDVNPKAFSFRSRNFNPTQLPCYIARTNTTTHEIIKNNFYRAPLFTGQIEGVGPRYCPSIEDKINR

FSDKESHHLFIEPQTIDATEYYINGFSTSLPYEVQTQMLRSVEGFENAKITRFGYAIEYDYIEPTELKHT

LELKKIKNLYCAGQINGTTGYEEAAAQGFMAGINASLSIDMKEPLILRRDEAYIGVLIDDLVVKGTKEPY

RMFTSRAEFRLLLREENAILRLGKYGYDLGLLSEQDFTYIQNIANNLQKGLEFLLSKEFTPNNQNNAFLE

SLGEDKISSIVNLQKIVARASFDIEKLKKLDPIFETMDHYSLREILNEAKYYHYISMQKAQVEKMKNLSE

LKIPENFDFKSVSGLSNEVVEKLNHHKPPTIFAASQISGITPAALDILQIYIKMQKKKA

>CCK67279.1 arsenical pump membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLAFFIFLSTLVLLFWRPWNLPIWVFSSLGAFFVFIFQLVDFKDACFVFSLVWDSSLTLVGLIILSFSLE

ALGFFDFIASKILYFSREKNQEKIYISTKKMMLFLLIFVFFLSAFFANDGAILIITPIIIALFSTLKDCK

NHAFILSSFLLSLSFLCDASSNALVISNLTNIITANYFKIEFLEFAKNMFLPNFFVLLSTIVTVFVLYVR

VLPKRLEFKLIKKEQISLKLFFLCIVFLFLFVISFFIGEIFDIKISFFALLWAGIFWLIVLKIQGKKSIK

ILFEAPYGVLLFSFGLYMVVFALHKIGVSEILVKSYAFLMQDKSGIFGVALISAFGSSVFNNLPMVLIGD

LALKEYFENFSFDSLMIYAHLLGVNIGPKLTPIGSLATLLWLGVLARKGINISFWQYCKFGFLITLPVLV

FSLFALIV

>CCK67278.1 ubiquinol-cytochrome C reductase iron-sulfur subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MATSESRRSFMGFAFGSVAAVGGVFSLVAMKKTWDPLPSVKAAGFTTVDLSGMQDGELRTIEWRKKPIFI

LKKDASMPKDEKRDVVVDNAAYTVVIGLCTHLGCIPAYQPSEQLFKCACHGGEFDTSGKNVFGPPPKPLE

IPPFKIDGTKLVLGEEGPEYKKMIAEA

>CCK67277.1 ubiquinol-cytochrome C reductase cytochrome B subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAQIRKANGLVDWLDQRLAVHKLLDVLMVKYWIPKQINFLWAMGVILTTLFAVLFVTGLLLVMYYKPDTA

LAFDSVNKTIMQEVDYGWLWRHMHGVAASVVFLIIYIHMLTGIYYGSYKKGREMIWVSGMLLFVVFSAEA

FSGYMLPWGQMSYWAAQVITNLFGGIPFIGPELVIWIRGDYAVSDPTLTRFFMLHVCLLPIVIIAIIAFH

FYSLRIPHVNNEISEELDFDLEAEKYMAGDTKGSKVIPFWPGFLSKDFMYISFFMIFFFYLVCFKFEFAM

DPINFDPANALKTPAHIYPEWYFLWSYEVLRGFFFDIAGIKAFDIGLAAFGIAQVIFFLLPWLDRSDVVK

PAHERPLFFIWFWILLIDLIVLTVYGKLPPTGVNAWVGFYASIVFLLLLIVVLPVITIMERKGAKQ

>CCK67276.1 ubiquinol-cytochrome C reductase cytochrome C subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MREIKIFLVVVVFTALVYWGVEPYAHSVMKPHVAPANFDFAVEDTTFAKGIVEAKELALKDAQASGDAKR

IESANKELEKAKEELSKVETLWVDVAKIDFAKGDAKKGKEFFENNCFACHGVKEDGIAANITDSSMGVIP

PDLSAAGAIFDEKFLAALIMHPALALKVDHKFGDAFIMTAYNKDTSGESEEATNANIANVIAYLKDVSVK

FEANEDATIKKDVEAKYAKMENSAQKAALMEKDIKFAKDKATFIEACGRCHDMKYDSFFTPSNQNDLKTY

LGSVPPDLSMMIRSRGEQYLHDFINNTQKLLPGTAMPRVGLTEAAQAKVVSYIDQVGDSKKEERKTTGIY

VMIFFVILSIFAIGWKRSVWSKLH

>CCK67275.1 cyclopropane-fatty-acyl-phospholipid synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLEKTLIKSILKKWDYGDFRVVFWDKEEFFIGNKPAKFSLIFKEKIPFLELFGDTSLVFARHYMQAKLDI

EGDYDEMAKVLYYFSNQQFFKTKKDVLSKITQKQESKNIKSHYDIGNDFYKLWLDDTMSYSCAYFKEPNN

TLYEAQINKIEHTLKKLDLKEGEKLLDIGCGWGWLSIMAAQKYGVKVVGITISEEQCKKAKERVKELGLE

DKIEIRLQNYQDLEFENYFDKVVSVGMFEHVGKENLGLYFMKVKQVLKPGGSMLLHSILAMFEGKTNAWI

DKYIFPGGYLPSLREVVSAMSEWDFHLLLAESLRMHYAKTLDLWDENFNKVLDKVREKYDEEFIRMWDLY

LRSCASAFRVGSVDLFQFLITKEINNNLSLTKDYIYK

>CCK67274.1 30S ribosomal protein S2 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVSMRDLLECGVHFGHQTRRWNPKMKKFIFGERKGIYVIDLQKTLRYFRYTYNIVRDAAAEGKTILFVGT

KKQAGGAIKEYAEKCGMPYVNHRWLGGMMTNFGTIRQSIRKLEVIEKMEEDGSIKLLTKKEALMLTRKKE

KLLAYLGGIRYMKTQPDMIFVIDTVKEKIAVQEANRLRIPVVAPLDTNCDPDLVTYPIPGNDDAIRSVQL

FCQEMAEAINEGKALREQDGEALVNEEKEITDEEKKEVLDEAMSEEDFGEEQE

>CCK67273.1 elongation factor Ts [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTEITAAMVKELRESTGAGMMDCKNALSETNGDFDKAVQLLREKGLGKAAKKADRLAAEGLVSVKVSDDF

TSATVSEINSETDFVAKNDQFIALTKDTTAHIQSNSLQSVEELHSSTINGVKFEEYLKSQIATIGENLVV

RRFATLKAGANGVVNGYIHTNGRVGVVIAAACDSAEVASKSRDLLRQICMHIAAMRPSYLSYEDLDMTFV

ENEYKALVAELEKENEERRRLKDPNKPEHKIPQFASRKQLSDAILKEAEEKIKEELKAQGKPEKIWDNII

PGKMNSFIADNSQLDSKLTLMGQFYVMDDKKTVEQVIAEKEKEFGGKIKIVEFICFEVGEGLEKKTEDFA

AEVAAQL

>CCK67272.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MELLRAENLSHSFDYPLFEGLNLTLNTKDCIAIQGSSGCGKSTLLHILSSLLIPKKGEVFFKGSNLYQMD

ENERLKIRRYDFGIIFQTHYLFKGFSALENIELASVLSGQDLDEKILKRLGINTLLHQKIGKLSGGQQQR

VSIARVLCKKPKIIFADEATGNLDFDNAKNVIELLISYVKENDAALFFVTHDSKLASFCDKTYTINANGI

C

>CCK67271.1 flagellar biosynthesis protein FliR [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEFVNYLGDKNVVTFMLLLARMGGLIVFFPFFSHNSIPMVIKSTIVLFLTMYLYPLARLESLHLDSFFVL

QLISEVIFGMIAGLMLQIIFAIIMMAGEQIAFTMGFTMASILDPSSGTSMPITSQILNLLALMFFLAFDG

HHLMLLFLSHSLGYISLGGFYPHENLMHYLNMGMFNIFIIGFTMSFPILGISLLADVIFGLLMKTMPQFN

LLVIGYPIKIALGFVVLIAILLVMMQYFKNLILELFTHMQTLFFF

>CCK67270.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKILLLNENPVVSRLVSLSAKKMSYDFEELNAYSENLGNYDVIVVDSDTPAPLKILKEKCDRLIFLAPRN

QNVEDIDAQILQKPFLPTDFLNLLNNKDANKHTSIDLPMLSNDENPYADISLDLDNLNLDDLPDENSLDI

NSEGMEDLSFDDDAQDDNANKTLETQNLEHETIKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEP

SLDELDDKNDEDLEIKEDDKNEEIEKQELLDDSKTNTLEMQEELSESQDDNSNKTLETQNLEHDNLEQET

IKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEPSLDELDDKNDEDLEDNKELQANISDFDDLPEV

EEQEKEMDFDDLPEDAEFLGQAKYNEESEENLEEFAPVVEEDIQDEIDDFASNLSTQDQIKEELAQLDEL

DYGIDSDNSSKVLEDFKDEPILDDKELGTNEEEVVVPNLNISDFDTLKESDIQEALGEEILEKNEEPIVS

DVTKDDNSEEIVNELSQSIAGAITSSIKDDTLKAALKGMNMNININISFKED

>CCK67269.1 guanylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLQGFVLLISGPSGAGKSTLLKKLFDEFEDELYFSISSTTRKPREGEKNGIHYHFISHEEFQKGIDSDH

FLEWARVHENFYGTSLKHTQNALDNGKIVVFDIDVQGFKIARKKMADKIVSVFITTKNKDELKKRLIKRN

TDTIIQLEKRLQNASDEMKELSEYDYLIINDELKQSYEALRAILIAHKFRTKGQNLGQIQNIWNEGE

>CCK67268.1 Sec-independent protein translocase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGGWSSPSHWLIILLIVVLLFGAKKIPELAKGLGKGIKTFKDEMNNDDEVAKNTQKIEENKNTTNNTNAD

ASIDETKKA

>CCK67267.1 arginyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKSIIFNEIKKILECDFALENPKDKNLAHFATPLAFSLAKELKKSPMLIASDLASKFQNHDCFESVEAVN

GYLNFRISKTFLNELANQALTNPNDFTKGEKKQESFLLEYVSANPTGPLHIGHARGAVFGDTLTRLARHL

GYKFNTEYYVNDAGNQIYLLGLSILLSVKESILHENVEYPEQYYKGEYIVDLAKEAFEKFGKEFFSEENI

PSLADWAKDKMLVLIKQNLEQAKIKIDSYVSERSYYDALNATLESLKEHKGIYEQEGKIWLASSQKGDEK

DRVIIREDGRGTYLAADIVYHKDKMSRGYGKCINIWGADHHGYIPRMKAAMEFLGFDSNNLEIILAQMVS

LLKDGEPYKMSKRAGNFILMSDVVDEIGSDALRYIFLSKKCDTHLEFDISDLQKEDSSNPVYYINYAHAR

IHQVFAKAGKKIDDVMKADLQSLNQDGVNLLFEALNLKAVLNDAFEARALQKIPDYLKNLAANFHKFYNE

NKVVGSANENDLLKLFSLVALSIKTAFSLMGIEAKNKMEH

>CCK67266.1 multidrug resistance protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYIFIIVLSALLDIVANLLLKKSDGFKHKIWGLAAIVNAILAFFLLSFSLKYVPLSIAYSTWGAIGIIGT

CLGGWILYKEKLNKIGILGIIIVIIAVFLLNY

>CCK67265.1 multidrug resistance protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNIAKKELFVAWFFLIAAIVFEVLGTSFLKMENQILGYIFMALFIAFSYFFMGKAIKKIQVGIAYAVWEL

LGIILILLVSFIVFKESLTLTQILGIVLSIVGIIMINIGEVKE

>CCK67264.1 hypothetical protein BN148\_1172c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGRAFEYRRASKEARWDKMSKLFPKLAKAIQVAAKEGGTDPDMNPKLRSAIATAKANNMPKDNIDAAIKR

ASGKDSADIKNIHYEGKAAHGALVIVECMSDNPTRTVANVKAIFSKNGGEVLQNGSLGFMFTRKAVFHLE

KFAGDLEELELDLIDAGLEELEQNEEELVISGDYTAFGELSSAIEAKGLVLKKAGLEYIPNNPVSFSEEQ

LSDIEKLLDKLEDDDDVQAVYTNID

>CCK67263.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKTIDTSKVNEYKFALIETEKGTMKLKLFGDEAPQTVCNFATLANEGFYKDLNFHRVIPNFVIQGGCPH

GNGIGGPGYEIICECDDQEHKHERGTLSMAHAGRDTGGSQFFICHSPQAHLDGVHTVFGQIDPKDEESLE

VLDSIRQGDKILDIKICDKI

>CCK67262.1 50 kda outer membrane protein precursor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTRFSLILSACLLSSSLFAKNTDDEITKLQKQLAQIQAELAQIRKEREAQVKQNEAVKAELADLNDRAD

ETEFQAALSKVKFGLEFSTAVSNTNYKVSGQDYSANNKWMNELHLNMNADINDKTKFYGRLSMAKNWSQM

GWSGTPYDLDAGRNTRSSGPVLYVDRAYLDYYITPEWIATVGRQPGTDGPGSNLRNNALRQSTYPALAIN

ALGDAAVITYKPESLQDHKVAIRAAYGKTYQWDEESGKVRDWMSDQKDADANLYYAAVEGELPIEGMGDN

LIIFNVAHMTDFALPIPGSMLLGDDDEVVNLGNLTLANIHFENYKAFGTNFNWFASLGYSNGSNNEINPL

LSTALQSKGYGNGKFNEKDGYAVHVGGRYDFTKALKVGYEFFWGSRYWYTMSRPSINDPLNIRMTRGTAH

DFYVIYQLDRYQFLRLSYTNIQNIWGNRGLPFGGAKKDKARADNIMLMYNVKF

>CCK67261.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRKILFASLLPIIALADCASLMAKYEAPEPESKTMKQVERWINKKVSDPADAAVLKECMIARAADNPNQV

SVAGK

>CCK67260.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQEIISFIVETASAWGYLGIIILMTLESCFIPFPSEVVMIPAGYLAHKGELDITLCILSGTLGSVLGALI

NYYICFFWGKNFVLKWGKYFGINEAKFAKFEEFFNKHGEFSTFTCRLLPGIRQYISMPAGLVKMKLINFI

LFTALGSAIWVAILVFLGYYIGQNEELIKTYLTQILIIIIVFVILASLIYIKIKKPFKKA

>CCK67259.1 L-lactate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKIGIVGLGYVGAASAYSIVIQGICSELYLYDIKQDLALAHARDLEDMSAIHFSYTKIFHVPNLENLAS

CDIIILAFRKESLKELPSRLVELKNNILELKDIVLTLKNANFKGKYIVATNPNDTITYYTQVLSQLPKNH

VFGSGTNLDSSRLKKLLAKDLNINSKDIFACMIGEHGDSQFAALSNASVLGQNLLDFYKQKLGKDLDIQE

LEKAVISEGYFIYERKGRTEFGIGTSCANLAKAILEDRKSLYPVSVVFDDIAFSMPAIIGKDGIEKVFEL

KFNEKEKIKLENSKQQIKNAIQSVKDKI

>CCK67258.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKPDIQRLTNFLIIYTKTLLGAGTYTARVAKCVGRIAEVYGYEININFFFHHITLNVVDMDDNSIQRTY

VIPNHHAHVNFKLIFDLSALSWAIYDHKYDLEKAKVVFGQISQQKKHSYLLNLLFVSMANSAFCRLFGGD

FGAGNLVFFATFVGLLLRYILTKAKIDLRIQYILCSFISSWFVFFGLDMGYTNTSDVALGSSILYLIPGV

FFINSVIDILKDHILMGLSRIISVAILICCIALGIYMTLSISDFGILR

>CCK67257.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIEFILRDMFFAAVAGFGFAYACNPPLKTLILSALLAAIAHGLRFTLVEYFHFQTLAIATFVASFCIGCL

GIVLAKIIKTPAEIIAFPALIPMIPGIYAYKAILYLISFIRSDDLKAKSEFLVQFFDYFFTTVSVTLALA

IGVSVTLLIFFEQSFMMTRHAKKH

>CCK67256.1 hypothetical protein BN148\_1164c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLCPVCNVDLVMSDRSGVEIDYCPKCRGVWLDRGELDKIIERSVPNTANFNQAPRQESRYNDSAYHQHND

YYKKKKKESWLGELFDF

>CCK67255.1 cation transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYKFLSHEPLANKSCHHNHEEHSHEHHHSHADARSVDKKILKISLLMTFSMMLVQFIYSILSNSLALLSD

TLHMFSDVFALALSFLAIIAVEKWQDHQKTFGYFRLEVLVAFINALTIILSALFIIYEAIEKFINPKEID

AKTMIIVAILGFLVNGINALMMFKGANLENVNMKSAFLHMMSDLLGSLAVIIGGIVVYFSDIVYIDTILA

IVLSILLLRWAIILLKQSANVLLESSPVDIEKVRQVLLLNPSVDEVVDLHITQITNKMLVASMHLKVRVC

NLKEFEKLSQDLSHKLLHEFEIGHITIQPIRSENEI

>CCK67254.1 heavy-metal-associated domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFKVKNVNCMNCVNLIKNSLEDEFGNIEVDLEQKILSLNLEENQVSNFTKEFQDLGFEIVERL

>CCK67253.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEELRIKIGKMTCVNCSNAIERACKKIDGVKDASVSYVNSSGVFLLEDQKKRKDIIAKIKNLGFEILEDE

QSLNAYKAKKHLELRKNLLLSIVLSVIIMYFEMFVKSSFSQNIQMALSFFGIFYCGRDFFSHAFLGFKSK

NLDMNTLVALGTLSAFVYSFLVYLQIFKEEDLYFSGAMMIISFVLLGKYLESKAKFKAQDYQRILENIDT

KKTKILLEDESIKEISSSFVKSGDVLLVKEGESIVADGVVLLGSAELDMSFLNGEFLPVLKKEGDEVQAG

AVVLNGALRIKANKKAMDSTLEQIKNLVFEAGSIKSPLANLADQISKYFVGGIIFFAFLVFVFWVLKADL

NTAFLHSCAVLLISCPCALGLATPIALVVASANAAKNFILIKNPAALEKLALVKYAFFDKTGTLTKENLS

IFKHNLSKDDFDKLCQIESLSSHPIAKALHKDHFFDLKGEGRVIVGSGIKYKEDNDNYLVGNAQFLHENE

IDTKESDIFFDTFKEYVRVYFAKNKKCLGGVLLSNALKDGAKELVLNLKKQNLKTFILSGDHVKNVEKIA

KELQIDEFHAQLKSEEKLQIIQKFKKTLFVGDGINDAAALSAASVSMSFSKANELAKKTGDFILIKDDLS

AIFKCFKLAKKTRGIIKLNLFWAFIYNVLCIPIAAGFIPFISLSPHIAALAMCFSSITVVLNSLRLKRI

>CCK67252.1 hypothetical protein BN148\_1160c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQQKCFCISKMIRFSKIIILLTVVSLAGIVVFGNVTDYNSNFQFVSHVMSMDTKPDLFR

>CCK67251.1 hypothetical protein BN148\_1159c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAITSPVIYHIGYIAIILFETFIALTALKKVLMICLKLEI

>CCK67250.1 hypothetical protein BN148\_1158c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFKARNLDAQSFHNAKIFWDYFFNLCILWFFAFQVVVAEWFGMWMSKVWKGLPDTIRLVTYMFLALIFIS

LKNDD

>CCK67249.1 DNA polymerase III subunits gamma and tau [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLQALAIKYRPKTFDELIGQKTVSVSLKYALNHNRLAHAYLFSGLRGSGKTSSARIFSRALVCEQGPSDT

PCGTCKHCLAALEGKHIDIIEMDAASNRGLEDIQALIEQTKYTPSMARFKIFIIDEVHMLTPQAANALLK

TLEEPPSYVKFILATTDPLKLPATVLSRTQHFRFKQIPQSEILNHLKEILLKENVKFEEEALKFIARSGN

GSLRDTLTLLDQAIIFCQNEISISKITDMLGFLDPQKIKAFYQAILTKDKEKVFVYLEELQDYEASSVID

EMLFYLKESFFAKSTEFSTLIYERFFRILSKAKNMLCDDDGFTLCVMAFMMMEASHLKEIDAQIQEIKQE

NTTNIISRITPSPIIPHLEKKTEKNAYEILLDSIYDRDFDLAECFKQSTNFISFENNTLNINSNAQGQNR

DTLNKGFKLIQELFKAKFGENAKINVQKALTIDENKLQSLTQELPNNENKNIDIQSSINMLKEGAKKFDP

QEDLKEALKDCFGEPSIEN

>CCK67248.1 transcription termination factor Rho [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKEKKQHQRTHVPVEGYKIEELKLLDLENLVKIANECEIENPREFRRQELIFEILKAQTKKGGFILFTG

ILEISSEGYGFLRGMDSNLSDSVNDAYVSNSQIKKFALRVGDIVTGQVREPKDQEKYYALLKIEAINYLP

LQEAKERPLFDNLTPIFPTEKIKLEYDAMKLTGRVLDLFTPIGKGQRGLIVAPPRTGKTELMKELATAIA

KNHPEMHLIVLLVDERPEEVTDMQRCVKGEVFSSTFDLPAYNHVRVAELVIEKAKRMVETGKDVIILLDS

ITRLARAYNTATPSSGKVLSGGVDANALHKPKRFFGAARNIENGGSLTIVATALIDTGSRMDDVIFEEFK

GTGNSEIVLDRNIADRRIYPAINIIKSGTRKEELLQGVANLQKIWAIRSAISQMDDVEALKFLYSKMLKT

KDNVELLSIMNE

>CCK67247.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIMKCEHCKLDYKQAQMIEYKGKFFCCKGCESVWEILHESGLDEFYEKLGNQTLSPVNFQNEMKNYDEFI

TKTKEGFSEIYLMIHGIECAACVWLNEKILTKQEGILELDINHLNHKARIVFDEQSISLVQILRLIESIG

YKASAYDASKASKKADLLKREFYSKLVVAIACVMNIMWIAVAKYAGFFSGMDKDTKDILNFAEFILCSPV

LFYTGSHFYKSAFKTLKMHSLNMDVLVISGASLAYVYSLWAMFFRVGEVYFDSVAMIICFVFIGKYLEMF

SKKRALDTIDGLNDFLQNEVLVFNGKEFVSKEVQKVCLGDRILLKTGDKILIDGICKSGEMSVDTSSLNG

ENTPKLIQKEDEIFSACIVLDGSVEYEATKFYKDSKLSQIIQLLELASSKKAKLESLVNSLLAYFSRTVL

LIAFICFAFWFFYKEESFEISLVNAIAVLIIACPCALALATPVSNLVALGRALKKHILFKSSSVIEDLSK

CDCVVFDKTGILTKIELELKEVFLDKALDLNELYNFVKLSKHPISQNIVLYLKQKGAKDLNLDFKKHSSI

QAKGLSAELNEGLLLGGSSKFLQEKGIVAKEFDNTHFIFAKEGKILAFFEFDSVLREGAKELIAYLKKEK

KELMILSGDHQKAVEKIAKKLEIQNYQASCLPEDKMKTIENLSKNYKVLFVGDGVNDALALKYASVSMTL

REGSDLAIESSDVLLLKNDLLSLKKAIKLSKNTFKIIKQNLAFSLFYNACTIPLAFLGMINPLFAAISMS

FSSIIVVLNALRIKE

>CCK67246.1 cytochrome oxidase maturation protein cbb3-type [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNSIIMMMIGVSILAFFIILATLLWGIKNKQFDDDYKFTTLNDDEDSLRDAIELERRKKEALDKKRLS

>CCK67245.1 periplasmic cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKLLVVSALACLGVSAFAADGATLFKKCAVCHGANADKVYLNKVPALKTLSSAERLQYMKEYSEGKRNA

YGQGAIMKLNLKGLTEEDFKAIEAHIETLK

>CCK67244.1 D,D-heptose 1,7-bisphosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFIFFLKKLYYNVFMKTKALFLDRDGVINIDKKYVYKIEDFEFCDGIFELCRYFLARNYLLFIATNQSGI

ARGYYKESDFFKLCDYMLKEFAKQDIKIDKIYHCPHLEGCECRKPKAGMLLKAKDEFDLDMKNSIFIGDN

LSDMQAGLNADIGTLILVNEEKKEGDFFRQFKNLKEILNFFKEKDI

>CCK67243.1 ADP-glyceromanno-heptose 6-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIAITGGAGFIGSQLALNLQEKHEILIIDKMRSSATFENGNLQSFGHFKNLLEFDGELFAGDINDEKVL

KKIEDFKPEIIFHQAAISDTTVFDQTKVLQTNLNTFKDFIELSIDLNAKLIYASSASVYGDAKSPQTVGK

DEEPKNPYAFSKLMMDKLAKKYYDKAHLVGLRYFNVYGKGEFYKNKTASMVLQFGHQILAGKNPRLFEGS

DQIYRDFTYIKDVISANLIALDSKCGVYNVGSGKARTFQDIVDILQKELKTDLPCEYIPNPYVKSYQFHT

EAKLDQTWNYQPKFSLEEGIKDYLGEIKRLFEKEVNA

>CCK67242.1 D-beta-D-heptose 7-phosphate kinase/D-beta-D-heptose 1-phosphate adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLEFLSQQKPKILIIGDFMVDNYTWCDCSRISPEAPVLIAKTLKEDKRLGGAANVYANLKSLGADVFALG

VVGDDESGKFLQENLKGEFLIQKGRKTPFKNRIMAHNQQVLRLDEEDISEILLENELIALFDEKIKDFKA

VVLSDYAKGVLTPKVCKAVIEKAKVLNIPVLVDPKGSDFNKYSGATLLTPNKKEALEALKFENLEGENLE

KGIKKLKEDFSLRYSIITLSEAGIALFDEGLKIAPAKALEVYDVTGAGDSVIAVLAFCLANEIEIFKACE

LANEAAAVVVSKIGSVSVSFDEIKSFKRVDFEKKIKSKEELLVLLKQNNKKIVFTNGCFDIVHFGHIKYL

DKAKRLGDVLIVGLNSDASVKRLKGESRPVNSEFQRACMLAAFYFVDFVVIFDEDTPLELISFLKPDILV

KGADYKDKLVVGADIVSRVELIDFEEGFSTSKIIEKIKDKK

>CCK67241.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINLVEKEWQEHQKIVQASEILKGQIAKVGELLCECLKKGGKILICGNGGSAADAQHFAAELSGRYKKER

KALAGIALTTDTSALSAIGNDYGFEFVFSRQVEALGNEKDVLIGISTSGKSPNVLEALKKAKELNMLCLG

LSGKGGGMMNKLCDHNLVVPSDDTARIQEMHILIIHTLCQIIDESF

>CCK67240.1 heptosyltransferase II [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIFIHLPTWLGDTVMASPALYTIKEHFKDAQFILYGSFVSTALFKEFPNSKIIIENKLSRYKQALSLRK

ELGKIDLSFAFRSAFSSKIILHILKTKQRYFFDKNKYKEEHQVLKYLYFIENSLSIKAHFKDLKLPFKLK

FQNPLILRNGKKILGLNPGASFGSAKRWDASYFAKVALNFSQSHDILIFGAGKAEQELCNEIYQILKEQN

IKVKNLCNKTTIKTLCQNIAFCDLFITNDSGPMHLSAVYKVKTVAIFGPTKFTQTSPWQNENAKLVHLDL

ACMPCMQKTCPLKHHKCMKDLKPEKVIEQAKNLLKNSHL

>CCK67239.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPQLSIIIPLFNSCNFISRALQSCINQTLKDIEILIIDDKSKDNSLNMVLEFAKKDPRIKIFQNEENLGT

FASRNLGVLHSSSDFIMFLDSDDFLTLDACKIALKEMKKGFDLLCFDAFVHRVKTKQFYRFKQDEFFNQK

EFLEFLSKQRHFCWSVWAKCFRKDIILKSFEKIKIDERLSYGEDVLFCYVYFMFCEKIAVFKTCIYHYEF

NPNGRYENKNKEILWQNYQDKKKSNELVKKLCLNFKNNDFHKKLFEVLEKEEFDLQRRVDEARN

>CCK67238.1 hypothetical protein BN148\_1145c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKQEISSFWYTPRGYKGIGLMELLSIKSFIDNGYKFILYTYNLDDKIFKKLDELFDDFELKDANEIVSFK

NYFRDDRGSGVAAFSDYFRYNLLYLKKKGGVWVDLDMICLNYIDLNEEYIFTQEVDEDNKKSRITTSFLK

FSRYSDFGKNLIQEAEKIINKRKKISWGVIGPWFLADHVKKCGLENFVWDYKRTCQIPWCNVKIFLDNTS

IDISQPFLHLFSEMWRLNNMEKNTFHQMGVYGQLLKKHEIEKLYNQINTCLKTSMLDNIASFLTKFFIKK

L

>CCK67237.1 bifunctional beta-1,4-N-acetylgalactosaminyltransferase/CMP-Neu5Ac synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTLFYKIIAFLRLLKIDKKLKFDNEYFLNLNKKIYDEKHKGFFDFDPNSKDTKSPLNPWAFIRVKNEATT

LRVSLESMLPAIQRGVIGYNDCTDGSEEIILEFCKQYPSFIPVKYPHEVQIENPQSEENKLHSYYNYVAS

FIPQDEWLIKIDVDHYYDAKKLYKSFYMASKNTAVRFPRINFLILDKIVIQNIGECGFIDGGDQLLIQKC

NSVFIERMVSKQSQWIDPEKTVKELYSEQQIIPKHIKILQAELLQWHFPALKYHRNDYQKHLDALTLEDF

KKIHYRHRKIKKINYTMLDEKVIREILDKFKLSGKKMTLAIIPARAGSKGIKNKNLALLHDRPLLYYTIN

AAKNSKYVDKIVLSSDGDDILEYGQTQGVDVLKRPKELALDDTTSDKVVLHTLSFYKDYENIVLLQPTSP

LRTNVHIDEAFLKFKNENSNALISVVECDNKILKAFIDDNGNLKGICDNKYPFMPRQKLPKTYMSNGAIY

IVKSNLFLNNPTFLQEKTSCYIMDEKASLDIDTTEDLKRVNNISFL

>CCK67236.1 UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIVFVSGTRADFSKIKSLMMKVENSNEFELFIFVTGMHMSKKFGSTYMEIEKCGFKNIYKYINHDKYY

QMDKALSSTIDGFSKFIHEIEPDLIVVHGDRVEPLAAAIVGSLNNILVAHIEGGELSGTIDESLRHAISK

LAHIHLVNDEIAKKRLIQMGEDEKSIFIIGSPDLELLNNTISLDEAKKYYDIKFKNYAIAIFHPITTEIN

SLYKQSEEFVNALIKSEKNYIVIYPNNDLGFELILQNYERLKNNERFKIFPSLRFEYFISLLKNANFIIG

NSSCIIKEALYLNINGILVGSRQDGRTDINKTIRVNAEEKDILEAILNTSKCTNITNKRLEILNSSEQFY

RLLKNNILFTINKQKIFMDKK

>CCK67235.1 sialic acid synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQIKIDKLTISQKNPLIIPEIGINHNGSLEIAKLMVDAAKRAGAKIIKHQTHIVEDEMSQEAKNVIPGNA

NISIYEIMEQCALNYKDELALKEYVEKQGLVYLSTPFSRAAANRLEDMGVSAYKIGSGECNNYPLIKHIA

QFKKPMIISTGMNSIESIKPTVKILRDYEIPFVLLHTTNLYPTPSHLVRLQAMLELYKEFNCLYGLSDHT

TNNLACIGAIALGASVLERHFTDTMDRKGPDIVCSMDESTLKDLINQTQEMVLLRGDNNKNPLKEEQVTI

DFAFASVVSIKDIKKGEILSMDNIWVKRPSKGGISAKDFEAILGKRAKKDIKNNIQLTWDDFE

>CCK67234.1 alpha-2,3 sialyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSMNINALVCGNGPSLKNIDYKRLPKQFDVFRCNQFYFEDRYFVGKDVKYVFFNPFVFFEQYYTSKKLIQ

NEEYNIENIVCSTINLEYIDGFQFVDNFELYFSDAFLGHEIIKKLKDFFAYIKYNEIYNRQRITSGVYMC

ATAVALGYKSIYISGIDFYQDTNNLYAFDNNKKNLLNKCTGFKNQKFKFINHSMACDLQALDYLMKRYDV

NIYSLNSDEYFKLAPDIGSDFVLSKKPKKYINDILIPDKYAQERYYGKKSRLKENLHYKLIKDLIRLPSD

IKHYLKEKYANKNR

>CCK67233.1 beta-1,3 galactosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSQISIILPTYNVEKYIARALESCINQTFKDIEIIVVDDCGNDKSIDIAKEYASKDDRIKIIHNEENLKL

LRARYEGAKVATSPYIMFLDSDDYLELNACEECIKILDMGGGGKIDLLCFEAFITNAKKSIKKLNIKQGK

YNNKEFTMQILKTKNPFWTMWAKIIKKDIYLKAFNMLNLKKEIKINMAEDALLYYPLTILSNEIFYLTQP

LYTQHVNSNSITNNINSLEANIQEHKIVLNVLKSIKNKKTPLYFLIIYLLKIQLLKYEQNFNKRNINLIY

YKINILYQKYQFKWKKFLYNLIP

>CCK67232.1 glycosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYKLKNKTQTIKENSLIEFNIEGNNPYEIYTVYKSYKAFNNEQDLTNFTYPIIDYII

FLDSDDYWELNCIEECVPRMDGVDVVWFDSIEYHDIEKSYFKHHSRLKDINIKKECRINPIEWLKLLRQN

KIKDFAFAWSGIIDFDYIKDKKMKFKDAIFAEDHLFGILLFSQAKNIYVYPKVFYYYRIRANSLTNQDKK

ITKDNILPYFKDIFIAFEENATLAKEYFKYVSWVETSLELVRFVENYHDKKISSLLKDTILYFYIKNAFK

IKKFDKDPLCIKEKLQLLKPYKISKIRYKVMKFLISLRN

>CCK67231.1 glycosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQIQQNNSLIYNTLTKKLSSFIPIKSTRRKLRNHIQYKLEHPKVTNYLSNNYINPFLEGKIPHFDFEKKH

YFKNDKIIWQFWYQGKNQASPMIQQCFNSVQSQMKDDYTIIILDKDNIKDYLDFPPFVIEKLENNFFGEK

TITFFSDLLRVCLLATYGGIWCDASIFLSSKIPSELCDKDFFTFERSKIKPSKEKLKKFIKSGYFSYGYF

NWNDDFKVKMLSSFMIAKTNNTFIQTLKDILMNYWKNEQSSENHYYFILHIIFELLKEHGFVNDIYKNMS

DIECHLLQFSAKEKFNSTLWEEIQKQSFLHKLTHFKSIKKDSMIDKIILQS

>CCK67230.1 glycosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYETQYIEKENELNVFKIIGDNPQNIYKIYKYKNALASDKLEISKIDYIIFLDSDNY

WELNCIEECVVRMQNVDVLWFDHACIYDDGIEDKGQKTRMNVFNFTQECTITPRDYAKQAIKVGSRDISF

SWGGMIDFSFLKQLKLKFINKIINEDIHFGMVLFASADSIYILPKRLYLCRLRANSISNHDKKVTKANVS

EYFKDLYEFFGENAKEAKNYLKAASRMITALELIEFFKDQKNENSQAIKEAFLPFYVKKALMIKKFKKDP

LNLKEKLPIIKPFIQTKIPYDLWKIWQKIKGILDKINFAK

>CCK67229.1 two-domain glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLKQISAIIIVKNAKQTLLECLNSLKDFDEIILLNNESSDNTLNIANEFKKDFANLHIYHSAFIGFGAL

KNLALSYAKNDWILSIDADEVLENECIKELKNLELQEDNIIALSRKNLYKGEWIKACGWWPDYVWRIFNK

NFTRFNDNLVHESLVLPSNAKKIYLKNGLRHYAFRDISHLIDKMQYYSSLWAKQNIHKKSGVLKANLRAF

WTFFRNYFLKNGFLYGYKGFIISVCNALGTFFKYMKLYELQKQKPKTCALIITTYNQKERLKLVLDSVKN

LAFLPNEVLIADDGSKEDTARLIEEYQKDFPCPLKHIWQEDEGFRAAKSRNNAIKASKSEYIILIDGDMI

LEKDFVKNHLEFAKRKVILQGSRVILNKNESEEILKNNNYSLAFNKKGFKNQRSIFLAKCVYKFSKLTKK

FFKKSQLVKGSKTCNMSFYKSDFEAIEGFNEKFIGWGREDSEFVARFLFNDGVFKRLKFNALAYHIYHEE

NSKNMLEINHQIYLETIKNEKTTWR

>CCK67228.1 lipid A biosynthesis lauroyl acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNSDRIYLSLYYILKFFVTFMPECILHFLALIVARIAFYLNKKHRKIINTNLQICFPQYTQKERDKLSL

KIYENFAQFGIDCLQNQNTTKEKILNKVNFINENFLIDALALNRPIIFTTAHYGNWEILSLAYAAKYGAI

SIVGKKLKSEIMYEILSQSRTQFDIELIDKKGGIRQMLSALKKGRTLGILTDQDCVENESVRLKFFNKEV

NYQMGASLIAQRSNALIIPVYAYKEDGKFCIEFFKVKDSQNASLEELTLYQAQSCEEMIKKRPWEYFFFH

RRFASYNKEIYKDAK

>CCK67227.1 heptosyltransferase I [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIAIVRLSALGDIIQSAVVLQFIKNFKKDIEIHWFVDEKFEGILKNHPLINKLYALPLKDKKILKSLKI

LLKARKNNYNAVIDLQGLIKSAIVSRILSRNNFGFDKNSLKESFAHNFYNQKLELDYNENVFVRYLSLTS

FMLNTDFNVKNLAFKQDIFSVDENLKQLLNNKLKLDKNEKNILIHVGSSVENKIYPKTKLAILCKLLINE

FQQTKIWLAWGNVKEYEFAKEVLNLSGIDETHIELAPKFNLEELMAFTKMMNLIIGNDSGPTHLAFALNK

ASITIFGATPSYRNAFQTHINKIIDAGKKIQNAKHIDKSDFCITRIEEEDIFKLAKGLLNEK

>CCK67226.1 hypothetical protein BN148\_1132c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKNEGYICVFDCESVPDVELIRKTLGFEGSDLEVSLKALQWQKEQSGSEFLPLPYHKIISICAVLSDNF

GKFIKVNKIDGQNEKEMIENFFNFIENYEPKLVSFNGKNFDMPVLVLRALKYNLKAATYLDTQSDKWNNY

KTRFSELKHCDLLESLGSNGRGIKLDTLCSMVGLPGKYDVHGDEVMKLFYENKLEKIHEYCESDVLNTYM

LFLKYELIKANVDEEDYVGFLSYMRDFLCAKKSDRSYTEVFAKACESEISKVRS

>CCK67225.1 UDP-GlcNAc/Glc 4-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKILISGGAGYIGSHTLRQFLKTDHEICVLDNLSKGSKIAIEDLQKTRAFKFFEQDLSDFQGVKALFERE

KFDAIVHFAASIEVFESMQNPLKYYMNNTVNTTNLIETCLQTGVNKFIFSSTAATYGEPQTPVVSETSPL

APINPYGRSKLMSEEVLRDASMANPEFKHCILRYFNVAGACMDYTLGQRYPKATLLIKVAAECAAGKRDK

LFIFGDDYDTKDGTCIRDFIHVDDISSAHLAALDYLKENESNVFNVGYGHGFSVKEVIEAMKKVSGVDFK

VELAPRRAGDPSVLISDASKIRNLTSWQPKYDDLELICKSAFDWEKQC

>CCK67224.1 flippase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>CCK67223.1 GalNAc transferase/polymerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKISFIIATLNSGGAERALVTLANALCKEHEVSIIKFHAGESFYKLENEVKVTSLEQFRFDTLYHKIAS

RFKKFFALRKALKESKSDVFISFLDTTNIACIAAKIGLKTPLIISEHSNEAYLKPKIWRFLRRVSYPFCD

ALSVLGSSDKVYYERFVKRVKLLLNPCHFSDEISFDSSFEKENLVLFIGRLDHNKNPVMFLKAIAHLDKN

LQENYKFVIAGDGQLRQELEYKVKSLGIKVDFLGRVENVKALYEKAKVLCLCSFVEGLPTVLIESLYFEV

CRISSSYYNGAKDLIKDNHDGLLVGCDDEIALAKKLELVLNDENFRKELVNNAKQRCKDFEISHIKEEWL

KLIAEVKNA

>CCK67222.1 glucosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPKLSVIVPTFNRQVLLEKAIKSIQNQDFKDLEIIVSDDNSSDDTKSVVQNLQKDDDRIKYFLNQNYKQG

PNGNKNNGLDQASGEFVTFLDDDDELLSGALSTLMQKANEGYAHVFGNCLIEKEGNLSKEFSGKGLEKDS

EISKKDFLMAKFSGEFFSVFKKSLLENKRFNEEFYGNEATLWVNLYKEKSFYIHKAFRIYRIFRQDSVTL

GASKNAYRVYLGYLELAKILENELRMSKDKDYKKTCASYYKMAAYYAKLAKNYKALYKCLFKSLSIKINA

PALILLILSIIPNNMIEKLSKIRVALCKN

>CCK67221.1 GalNAc transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKLGIFIYSLGSGGAERVVATLLPILSLKFEVHLILMNDKISYEIPECQIHFLECSKPSENPILKFLKL

PFLALKYKKLCRNLGIDTEFVFLNRPNYIALMARMFGNKTRLVINECTTPSVMYMKNNFNSLVNKFLISL

LYPKADLILPNSKGNLEDLVQNFSISPKKCEILYNAIDLENIGQKALEDIALKDKFILSVGRLDKGKNHA

LLIRAYARLKTDLKLVILGEGVLKDELLALIKELNLEEKVLLLGFDNNPYKYMAKCEFFAFASVFEGFSN

VLIESLACSCAVVCTDHKSGARELFGDDEFGLLVEVDNENSMFQGLKTMLEDDKLRKAYKNKAKTRAKAF

DKVKIARDALKYLLG

>CCK67220.1 oligosaccharide transferase to N-glycosylate proteins [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKKEYLKNPYLVLFAMIVLAYVFSVFCRFYWVWWASEFNEYFFNNQLMIISNDGYAFAEGARDMIAGFH

QPNDLSYYGSSLSTLTYWLYKITPFSFESIILYMSTFLSSLVVIPIILLANEYKRPLMGFVAALLASVAN

SYYNRTMSGYYDTDMLVIVLPMFILFFMVRMILKKDFFSLIALPLFIGIYLWWYPSSYTLNVALIGLFLI

YTLIFHRKEKIFYIAVILSSLTLSNIAWFYQSAIIVILFALFALEQKRLNFMIIGILGSATLIFLILSGG

VDPILYQLKFYIFRSDESANLTQGFMYFNVNQTIQEVENVDFSEFMRRISGSEIVFLFSLFGFVWLLRKH

KSMIMALPILVLGFLALKGGLRFTIYSVPVMALGFGFLLSEFKAILVKKYSQLTSNVCIVFATILTLAPV

FIHIYNYKAPTVFSQNEASLLNQLKNIANREDYVVTWWDYGYPVRYYSDVKTLVDGGKHLGKDNFFPSFS

LSKDEQAAANMARLSVEYTEKSFYAPQNDILKSDILQAMMKDYNQSNVDLFLASLSKPDFKIDTPKTRDI

YLYMPARMSLIFSTVASFSFINLDTGVLDKPFTFSTAYPLDVKNGEIYLSNGVVLSDDFRSFKIGDNVVS

VNSIVEINSIKQGEYKITPIDDKAQFYIFYLKDSAIPYAQFILMDKTMFNSAYVQMFFLGNYDKNLFDLV

INSRDAKVFKLKI

>CCK67219.1 GalNAc transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRIGFLSHAGASIYHFRMPIIKALKDRKDEVFVIVPQDEYTQKLRDLGLKVIVYEFSRASLNPFVVLKNF

FYLAKVLKNLNLDFIQSAAHKSNTFGILAAKWAKIPYRFALVEGLGSFYIDQGFKANLVRFVINSLYKLS

FKFAHQFIFVNESNAEFMRNLGLKENKICVIKSVGINLKKFFPIYVESEKKELFWKNLNIDKKPIVLMIA

RALWHKGVKEFYESATMLKDKANFVLVGGRDENPSCASLEFLNSGAVHYLGARSDIVELLQNCDIFVLPS

YKEGFPVSVLEAKACGKAIVVSDCEGCVEAISNAYDGLWAKTKNAKDLSEKISLLLEDEKLRLNLAKNAA

QDALQYDENIIAQRYLKLYDRVIKNV

>CCK67218.1 galactosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYEKVFKRIFDFILALVLLVLFSPVILITALLLKITQGSVIFTQNRPGLDEKIFKIYKFKTMSDERDEKG

ELLSDELRLKAFGKIVRSLSLDELLQLFNVLKGDMSFVGPRPLLVEYLPLYNKEQKLRHKVRPGITGWAQ

VNGRNAISWQKKFELDVYYVKNISFLLDLKIMFLTALKVLKRSGVSKEGHVTTEKFNGKN

>CCK67217.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MARTEKIYIYGASGHGLVCEDVAKNMGYKECIFLDDFKGMKFESTLPKYDFFIAIGNNEIRKKIYQKISE

NGFKIVNLIHKSALISPSAIVEENAGILIMPYVVINAKAKIEKGVILNTSSVIEHECVIGEFSHVSVGAK

CAGNVKIGKNCFLGINSCVLPNLSLADDSILGGGATLVKNQDEKGVFVGVPAKRM

>CCK67216.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKVFLWEYLQKGCKLHFNNNLVVHYIVNPSPLGWIVINLLTICLICYIFPLKNSLKHKKLFSLKANVNS

KNSRIIKYTGIAAFLGGLIGIWYNFEGFYQLLFFFELENENLKTLWSLQVSVSSVITGMLLLLIYVINLA

MVCENGIYIVSKFNLFYMYFIKREDLEIVKIEKMKFLNQVEVCFVIKTKNKILLKCFESIYKKEDLEKLK

NWYENKL

>CCK67215.1 UDP-4-keto-6-deoxy-GlcNAc C4 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>CCK67214.1 UDP-GlcNAc C4,6 dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIFYKSKRLAFFLTSDIVLILLSVYLAFSLRFSGDIPSIFYHGMMVSAIILLVLKLSFLFVFRIYKVAWR

FFSLNEARKIFIALLLAEFCFFLIFYFFSDFFNPFPRSAIVIDFVLSYMFIGTLRISKRMLVDFKPSRMK

EEETPCIVVGATSKALHLLKGAKEGSLGLFPVGVVDARKELIGTYCDKFIVEEKEKIKSYVEQGVKTAII

ALRLEQEELKKLFEELVAYGICDVKIFSFTRNEARDISIEDLLARKPKDLDDSAVAAFLKDKVVLVSGAG

GTIGSELCKQCIKFGAKHLIMVDHSEYNLYKINDDLNLYKEKITPILLSILDKQSLDEVLKTYKPELILH

AAAYKHVPLCEQNPHSAVINNILGTKILCDSAKENKVAKFVMISTDKAVRPTNIMGCTKRVCELYTLSMS

DENFEVACVRFGNVLGSSGSVIPKFKAQIANNEPLTLTHPDIVRYFMLVAEAVQLVLQAGAIAKGGELFV

LDMGKPVKIIDLAKKMLLLSNRNDLEIKITGLRKGEKLYEELLIDENDAKTQYESIFVAKNEKVDLDWLN

KEIENLQICEDISEALLKIVPEFKHNKEGV

>CCK67213.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYIKDIQRFEDNRYRARAYMSYILTRNLPNKLPDIHLETIKTALDKIAHEVVVFDALYILDISGMQIENA

ISLNKAHEIGQGEDRSTRSYFYRAVKLRRCVLSDPYPSVLNNELCVTASMPIYDDKNNLLFVVCIDIKLE

DILKIIQAGKFEFVFTQFSRLVYFCFALVLFVITCFLFQKGFFSLFDNQAIGIEHMFESTIAITLALAIF

DLAKTLIEQEVLGRTKKEEGGIQKTMVRFLGSIIIALAIEALMLVFKLAIGDLSQMIYAIYLIGGVSLLL

LGLSVYLFTVKYKNNNI

>CCK67212.1 chemotaxis regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLLVVDDSSTMRRIIKNTLTRLGHDDVLEAEHGVEAWDLLTKNEDVKVLITDWNMPEMNGLELVKKVRA

EKKYEDMPIIMVTTEGGKAEVITALKAGVNNYIVKPFTPQVLKEKLEDVLGTGSGEGAAE

>CCK67211.1 ribosomal protein L11 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKKYYELFFIVEEQYKNLFLDFAFDLGIEAIEEKDNGVYIRSHESLEEFSWALEIFAQKLTTTFNLNHK

IISNLSLVEKENKDWIQEYKKGIKPILVDNVYIHTTWQEEKKNCINIKINPALAFGSGHHESTYSCVKFL

QKFSKSKLRALDLGCGSGILGIIMAKFGCNVEICDTDELAIDSSLENARLNGVDFHKAWCGSIDKANGLY

NLIVANIIADVILILEKDIKNHLEDNAILILSGILDKYSTRIKEKFQDLELIDEMQINEWCSFVYKNNKK

G

>CCK67210.1 membrane bound zinc metallopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNNNTQNNKGNPQGNNFFNKNPIFIFAIFAIIMIIIFKGFFDGNGSFGGALNGNEVNKNVPYSELKKLIE

SGQINQVSIGQTTIKAISSSHNTVYTAKKVNDPELVSLLDSKNIAYGAYSETNWFTDILFSWVLPVFIFF

GIWMFLASRMQKNMGSSILGIGSSKKLVNSEKPKVKFSDVAGVEEAKEEVKEIVDFLKYPERYIKLGAKI

PKGLLLVGPPGTGKTLLAKAVAGEADVPFFSVSGSSFIEMFVGVGASRVRDLFENAKKEAPAIVFIDEID

AIGKSRAASGMMGGNDEREQTLNQLLAEMDGFGTESSPVIVLAATNRPEVLDAALLRPGRFDRQVLVDKP

DFKGRCDILKVHMKDVKISPKVKVEDIARLTAGLAGADLANIINEAALLAGRDSKKYVEQNDLVEAVERA

IAGLEKKSRRINEKEKKIVTYHECGHALIAETTKGAKRVSKVSVIPRGLAALGYTLNTPEENKFLMQKHE

LIAEVDVLLGGRAAEEVFIGEISTGASNDLERATDIIKAMISMYGMSEIAGLMVLEKQRNTFLSGGQTIK

DYSEKMAESLDDYVKKTLDERYKDVKDTLNTYKGAIETMVAALYEEETIEGNKVREIIKEFEDQNSLPTR

LQELEEVKTEVKVEE

>CCK67209.1 phosphatidylserine decarboxylase-related protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKDFIAKDGYLSLIILSLVFIFMWIFYSFSILLLALIVICIFLFRTPKRELVCSDEKAIFAPIDGRVTKI

ENIHHKDLGECVEITIKNALYDAGNFNTPFAMSIIDIRLRHGLFLCSELKSAKMMNERAFILAKVKENKT

IALRIYAGSFDRKLKLDNISHDLKAGDRMGFLINGSISLLLPKDTRIHIGLNDEIKAGSLLGYFA

>CCK67208.1 CDP-diacylglycerol--serine O-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNNRPQLIYILPNLFTAASAFLGVISIIASIHGNYYTALIYIILSLICDGLDGRVARLTNSTSKFGVEFD

SLADLVAFGVAPAVLFYMAIGYDFGKLGSLITAFFVVFGAIRLARFNVTTGTYEPSVFIGLPIPTAAVVS

AIWTYAFISYDFLKPYGVVFLVLQAILGLLMVSNIRYPSFKKLDFNRSSVLKVLIILIIIFSFLYLYPLE

SLVILASLYVLYGIIRVLYTIIVSKFKTRNQE

>CCK67207.1 hypothetical protein BN148\_1113 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKEFFQELQDILYEKNITIKFHSFQNFYEDFKSHKFIFNHEHQSIFKKNTSQQITLFHPTRIRRPKFLN

STHALAKIIHSVAHIEFNAINLALDASYRFKNLPLQFYYDWLEVADEEIKHFKLLNSALEELGYKYGDFP

VHDNLESALEATKDSLSFRMGIVHRGLEAKGLDANPFVVQKLQSSNHSIKNLLMEYLEIILNDEIKHVKK

GDTWWKFANQNKYNFIELCKTFKQFSLAGKKLNIQARIKAGFTQEECEVIEKFYS

>CCK67206.1 methionine sulfoxide reductase B [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKELNEEEKKVILNKGTEAPFSGKYNDFYEKGIYQCKQCGASLYKSEDKFKSGCGWPSFDDEIKGAIKRI

PDKDGIRTEIVCANCNGHLGHVFEGEGFSAKNVRHCVNSISLEFVKTKD

>CCK67205.1 MarC family integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGSELYLMFFAAITLLAILNPFGNLTQFLAMSDGLPLMLRKKLFRTILYTAFTIVLVFLLSGPLFMNYIF

RVSLDDLRVSGGLVLIIMAIKNLLFSTKIATKDFSSYQDMDDKEILRQSLIPMAFPMLVGPGTLASVIVI

AEDGGLDVALGGVMIAFIFMFILFHFAATIEKIVGKLILHVFSRIAQVFIVAMGFKMIIVGLKDIFNL

>CCK67204.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFGAKKNNTKIIEQLEKKCNGLGDILRSIGNTMAVIEFTTDGVILEANQNFLTTMKYSLSEIKGKHHSMF

CLPEVVNSSAYSDFWKDLRDGKARSGLFRRIAKGGIDVYLEANYLPISDNNGYVYKIIKFANDITQRHYE

MLDLRNTIAAANRSMAIIEFKPDGTIITANENFLRAMDFNIDEIKGKHHSMFCDSNYRHSKDYVQFWEDL

REGKFQSGKYIRYGRNNKKVYLEASYNPVKNDDGKIYKVIKFATDISEQVKKDQEKLRLISELAEKNDNL

TQDGDRVIENTVSNVQNIADMMSQSSNLVSSLNQQSDEIKSIIQTISDIADQTNLLALNAAIEAARAGEH

GRGFAVVADEVRNLAERTGHSVNEITTTINSIRNVTSQVVESIKSGLEDVNQSVELAKEARECMEKIRES

SAEVAKAMS

>CCK67203.1 leucyl/phenylalanyl-tRNA--protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKSSNLYSKLLNAPKNAPVFLSQNLEADFIVKAYTFGLFPWTSKPVTWWCPDPRCILIPNQIHIQKNMKK

FINLYQIKLDYDFLKLITLCRDTRSQSWIDDEFITTYYKLFTQGYAHSLELYENNELIGGIYGLILGKVF

FGESMVSIKKNASKVAMIKLCDLLKPYDFIIDCQVYNQHLEFMGAHNISRKEFLNILKEKCNQESGFKNF

KDLIT

>CCK67202.1 ATP-dependent Clp protease ATP-binding subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKYQENLQKYLDNAKNLSLINHHEFVTCEHVLFALLKLSTDFKDIFEEFSDGDLELLETELKNYISQNNQ

VIKQEIEPTISVVLDEILLSSKNKNNEIKIIDFLEKLIQDSRSYSSYLLKKHNINLNKIQELQNHENIQN

LNNHTSDLTLLAQNGKIDPLIGRKFELERMMQILSRRKKNNPILVGEAGVGKTAIVEGLALAIAEKKVPK

NLQNAKIFSLDMASILAGTKYRGDFEKRIKEILSELEKIPNAILFIDEIHTIVGAGSTGESHTDFSNLLK

PALSNGTLKCIGATTFMEYKNTFDKNKPLSRRFAKINVDEPSQEESLQILKGLKNKYEEFHHIKLNDEIL

QYAVIWGKKFFNDKFLPDSAIDLIDELGASFALNPRAKKNANLKDLENVLAKMTHHHKMFEFDQNKALMN

LKTNLKAKIFGQDEVIDSLVSSLKQSFAGFKNSNTPRGVFLFTGSSGVGKTELCKALAEFLGLNLERFDM

SEYAEKHAISKLIGSPAGYIGFEEGGLLSNAIRKNPFSLVLFDEIEKAHPDLSNTFLQIFDNAELTDNSG

LKVDFKNTIIIMTSNLGLKESNELGFLSKNEEKSNRAIKDFFAPEFINRIDKILHFNDLNDAILVKIIEK

ELDEISKNLNNIKLSVDDKAKIYLAKKAYNKEFGVRLLKRIISEEIGEKISDEILFGKLKKGGIAKIKLG

KNEKLEFIF

>CCK67201.1 ATP-dependent Clp protease adaptor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPKTQTLEQTKLSEPKMYKVILLNDDVTTMDFVIEILMNIFHQNLEKASQTMLEIHHNGSGICGIYTQEI

ALSKQKKVMDAAKLANFPLQAKVEEE

>CCK67200.1 periplasmic thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKISALFLISLAFFLNACSKEEEIQNDFMFEEYHKGDKIVLNSVNGGSKTLIRTDKGFVVEGEEGKVLM

FDFFGTFCTPCKEEALDLSKLWKNNSSKFIIIGLTHFEDVSDETVKKFAGDYGAYYFLSNGSSNDRIIAQ

ILKDIDYQNMEQLPFKVVLKNGIYQKISDYWNNNTPTNFYLGKIPTELMQEDLNKIYKGK

>CCK67199.1 SsrA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIIARNKKALFDYSIIERFEAGIVLKGSEVVALRAGRANLKDSFVRIIKNEIFLLNSHISLLHTTHSFY

KHEERGARKLLMHRKQIDKLLGKVSIEGYTIVALDLYFNTKNKVKATLALAKGKNLHDKRETLKKKQADL

EARAAMKNYK

>CCK67198.1 4-diphosphocytidyl-2-C-methyl-D-erythritol kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKAYAKANIFLKLTGFDSRKYHLLESRFILLKDVFDELELVDKESDSKKEFEIISNFKCENNIIQKAYLL

LSRRYNNELKELFSKKSLKLTKNIPVCAGLGGGSSDCASFLLLINETLNLKLNLQELINLSIQLGSDIAF

FLSGFHSANVSSCGEIIEEFEDDIPNLKWTFPQISCQTKAVYDEFDRGIFDFQKNNNQAQIYKKLSTKEL

LQNFKNKELNDLFTPCATLYPKMKSYLQEDFFLSGSGSSVFKVDR

>CCK67197.1 carbon storage regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLILSRKENESIIIGEGIEIKVVQTGKGYAKIGIEAPKSLMILRKELVQQVKDENLHSVVQNDIKLDDLS

KKLIK

>CCK67196.1 tRNA pseudouridine synthase B [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKIFAAFKPRGLSSNAFLSTLKKKYKNKKAGYSGTLDPFAKGVLIVAFGQYTKLFRFLKKTPKTYKATL

WLGVYSLSLDDQNIKEIKNIKEFDLPNLQQIIDQMQGIISYTPPQFSAKRINGTRAYELAKKGIEVNLKP

CQMEVFDCKILSYNHPFLNIEITVSEGAYIRSYCELFARKLGINATLSSLERIKEGKFVYNNEKSLNVLK

YINLKPNFIKDLNKLENGAKIFVEELEFHDKGDYYIETEKYFSIINIKENTVKYLLNKVEKC

>CCK67195.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLFEDLNDSQKQAVSHIDGAMLILAGAGSGKTKTITTRLAYLIGEVGIPSHNTLTLTFTNKAASVMRHR

ALNFLQGNHNPLLCTFHKFGLLFLKLHFERLERKNSFIVIDTDDTKKIIKDLIHDKNKDNVYDIIQYISY

CKNEGKRVSNVFEDLNLLKEHNFEKYQNEYKFANYYRAYEEYLLKQNFVDFDDLLLLSNLILENDINFAK

EQSLLYNYITVDEYQDTNTLQYKILKNLCCMHENITVVGDDDQSIYSWRGAKIENILNFQNDFKNVKLVK

LEQNYRSVGTILQAANNLISHNEQRLGKTLICTKDTGENIKILKNENEKDEGLYIAQEVKKLLNSGVEAK

EIAILFRVNALSRAIEEAFMKKQISYKLLSGMRFYERLEIKDLISYLRLILNPSDDLSFKRIINRPKRSI

GEKALKNLEEYAKKRQISLFDALCESDGGVGILTTKKAQNEANIFIQNIHTLKSYDNAKKVFDNIEELFK

IKDYFSEQDDGDERIRNLDEFYANLREKLKEDPEASLEDLLSEISLLSDQDNLDEECVCLMSIHASKGLE

FDYVFIIGFDEGFFPLNSEENLEEERRLAYVAITRAKKFLTISVANSRFYHGSRANINPSRFLEESKLIN

EKSKNQNIQKTSFCKGDLVKHKIFGIGRVVEANKSGKEEKLNINFGGIMRVIMASFVEKAV

>CCK67194.1 hypothetical protein BN148\_1100 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLETILKNENFIHTMQKHCYEVISHLIEENIEFSIVANTNFIDFNPELPKELDIKQNPYALFALGGYTFE

SIQLNKDFIQFHAGFGNDDFDSFVKVDLGAITQIQVENSILFVNFSLYKREDSKNLQKSKNIFLNNPKNK

DIFKK

>CCK67193.1 peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLEWDLSALFHDKEALQNFTQDQIQQSLNFKKNYENKLYTLNANEFLQALKDYENLNQALGKIMTYAYLL

FAKNTQNGSFYAQYEEECKKIEENLLFFELEFCELAPEKSREFTTFCKDYDFYLSNLLQNKRYNLSKNEE

RIMLYLSNTGANAFSRLFDESMSALKIPFEGKKLSEEEILSKMYDENRKIRKKAAKKFSKVLQKNSRLLS

FIINMIKTERKNISLLRGYENAEISRHISNQISQKSVDSLIASAQKHFNLVSQFYKRKKQILGYDELKDY

DRYAPIGKEASFDFKTSKNIVLEAFQAFSPQFYDIAKNAFDQGWIDVYPQENKQGGAFSHSATSDAHPFV

LLNHTNKRRDLFTLAHELGHTIHQKLSYNVSYLNQNTPLTTAETASVFAEMLVFDFIKDKLKKEELLSLY

ANKIEDIFATFYRQINFTCFERRLHAQENELSTEEINKIWMEESQKMFQDSVKLTKNYASWWSYIPHFIH

SPFYCYAYAYAQLLVLALYGLYKSKKCENFKELYIKMLSLGGSVSPKELVGMFGFDIEDENFWEIGIKEI

QKLINEFMELQSC

>CCK67192.1 aspartate carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRHLITTKDFNKVEIMELFKEASDFLDEKPRTFLEGKSITTIFFENSTRTLSSFESAARRLGARVLRLDV

SRSSSSKGETLYDTAANLDAMSPNAIVVRHANSGVPLILAKHMHCPVVNGGDGKHAHPTQALLDLFTIYN

HFQGNVEGKKICIVGDIKNSRVAASNIELLSRFNLDITLVAPPHFMPNTHLKKHYKLDENIIANSDIIMS

LRTQTERHNKTVYASLKDYANDFCIQKSLVKDKKLILLHPGPVNRNIDISDEMMSNERTLVLKQVKNGVA

IRMAVLKKLILENEG

>CCK67191.1 serine/threonine transporter SstT [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFSKIIQSYAKGNLIVQICIGIALGILIGISSKEISEIANLLGILFTSALKAIAPMLVFILILTSICTKD

FSQSGAKIKNIIILYIVGTFFASACAVLANFFFPVKLVLDGVQTATNSSPTHMSDIFKDLLFKIVDNPIN

ALSSGNYLGILTWAIAGGIALKHCSNEAKQVFIDINEGVLKIVKFVVKLAPFGIFGLVANSVAQTGAQGL

LSYVKLLILLVATMLFVTFVINALIVFFYTRKNPFPLIFICLRHSAFFAFFTRSSAANIPVNMALCAKLG

IDKEFYGISIPLGATINMAGAAVTIAILSLTAANTVGIEISLLQAFLLSIIATFAACGASGVAGGSLLLI

PLACSLFNIDYDIAMKVVAIGFIIGVIQDSVETALNSSTDVLFTAICSKNELNYNIK

>CCK67190.1 S-adenosylmethionine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYLFTSEVVSAGHPDKCADIIADTIVDILLKNDKNSRVASEVFVAGNKVVIGGEVKSNHKLSKADYDNLV

KDVLKNIGYDGAGHFSKEQCLHPDEVDVMVFLNEQSPDINQGVDQEDGETGAGDQGIMFGFASCEAEEYM

PAAISYARMLCDRVYAYAKANPHELGVDIKTQVTIDYGTKANFENCKPQSIHTIVVSAPCVESMKIEDLR

SLVMKLILDSNLPKELFDPNKTRILINPTGKYVNHSSLHDSGLTGRKLIVDSFGGYSPIGGGAQSSKDYT

KVDRSGLYAGRWLAKNIVAAGLAKKCIVQLSYAIGVAKPTSVSVDCMGTNTSVNDDVLSDFVMQNFSLTP

NWIRDKFHLDKPSKETFLYADVAARGQVGQKDYPWEKLDALEQFKKLL

>CCK67189.1 apolipoprotein N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLKLNFLPYFSFIPKKLNTNSIIFKIIKVFFIAILLSNSIYLSFFENIFTQTISPFLAIWGLVLLLKSK

TSKQYFWIGFFVGILWFWWIGLSSIYFNLNYLVPIIPIIIGFIYGLLFRLCYLLKFDFLRLCGIFCISFI

HPLGFDWFNWGIFTVYGFFDPSYRGIICIFLIAYFIYEGYISRYYKIAIVLILFFSGFQYNEKQAQTLNL

NYKLINTNISQDQKFLQENLKSNSDILIQDILQAINEKKELVILPETAFAFDLKNTKYELMLKELSYKIT

IITGAFHVEKEHTYNSTYIFKKGNVYILNKHFLVPFGEEIPFFKDLTKKYFLKNIEEFSKGPIQSKYKLD

NQIITNAICYEATKEQNYQNSQIIIALSNNAWFNNSSEYKLQQLLMKFYASKYGVSVYHATNGKENIVIL

PKKLLSKDWKNLSKEIFNDKK

>CCK67188.1 preprotein translocase subunit YajC [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAENSILTSLLPLVVLFAIFYFLVIRPQQKQAKAHKQMLESLQKGDKIITNGGLICEVVKPEEDFIKVKL

NEDNVTAKISREFIAKKIDA

>CCK67187.1 preprotein translocase subunit SecD [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRNSKINYRLIIFIAVFIFGVAFSLPSFLQSERGAKINLGLDLQGGLYMLLGVDNEEAVKSKIKSIASSL

SYSFNKENILNDGLNTHDDILEFTLLDNADIAKVENLLKEIKGINIQSENMHYKISFTSKEVKNIENFAL

LQAVETIRNRLDQFGLAEPTVAKQGDDKILVELAGIKTKEDELRAKERITKAAHLQLMEVDDSKMGQAST

MSDAEAASYGLILVPDSRNPNLKYTLKSIPILDGSMLTDARVGLSDKSNYPVINFTLNAEGSKKFADYTG

ANVGKRLAIVLDNKVYSAPSINERIGGGSGQISGAFTQEEARDVAVALRSGALLAPVKLLEQRSIGPSLG

ADSIKMSMIALIGASVFIVVFMMMYYGVAGIFANIAMLVNVLVVVAVMAMFGATLTLPGMAGLVLTVGMA

VDANVIINERIRELLRDGVNIRVSIEQGYKNAMSAIIDSNITSLVTSVALYAYGTGAVKGFAVTLGIGIV

VSMITAILGTHGMFDYFMQRIEKNNNTRFWFGYRRR

>CCK67186.1 preprotein translocase subunit SecF [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQFFSEKKIYDFMRMRFAAISLSFILFFGSIYLLWDRGLQYGIDFSGGTLVQLKYENAAPITQIREILEN

QGTFQNLSVTEFGSNEEVTIRFLGSNDNVSNDIGEHISTLLKDTGKFEVRRADVVGPKVGDELRNKGLMA

IAVSLIAILIYIALRFEWRFALAAIISEIHDVVITLGAISLFKIDVNLDTLAAVLTVLGYSLNDTIIIFD

RIREGIKTSKKTELAPIINESVSATLSRTVLTSGLTLATVVILYFFGGEMIQGFSLALIVGIIAGTLSSI

FVASPTLLWFKFSVLEFRNKEIEKAKRKQDKERNRAMYEKGTV

>CCK67185.1 leucyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAYEASLIEKKWQKIWDENEYFEPKDDLNLPKKYILSMFPYPSGRIHMGHVRNYTIGDALARYYRKIGFN

VLHPIGFDSFGMPAENAAIKHKIHPKSWTYENIAYMKKELFSLGFSFSKKRMLATSDPLYTKFEQEFFIK

MFEKGLIYTKEANVNWCEQDQTVLANEQVEDGKCWRCGHEVVQKKMPGYYVKITAYAEELLKDLEELKDK

WPNQVLTMQENWIGKSEGLEFSLNLDEESKQKTKESSLEVFTTRADTIYGVSYIALAPEHKIVQNLLSQN

LLNQDVLNKIKVIQNQSPRERQSSEKEGYFLGIYAIHPLSGEKIPLWVANFVLADYGSGAVMAVPAHDER

DFEFATKYNLAIKQVIQTQENLPYMQKLGKLINSQEFDNLDCNEARLKIISQFEAKNIGKRVVNFKIRDW

GVSRQRYWGAPIPMIKCQSCGIVPQKLENLPITLPEDVQITGEGNPLDKHPTWKNCICPKCGKEAQKESD

TLDTFFESSWYFARFASDEKTWQEKALDEKSVKYWMSVDQYIGGIEHAILHLLYARFFQKALRDLGYLTQ

NEPFDRLLTQGMVLKDGAKMSKSKGNVVDPDEIIEKYGADTARLFILFAAPPAKELEWNDDAVEGAYRFI

CKLYDRAQNVKKGELVELKQENLNKEEKYARLKVYEALKKSFEVYHQSFAFNTLIAACMEALNALALCKN

EALEQEAFYIILNILEPIIPHVCFELSEELFKCKNFKKLELKEEVFVKDTLNLAVSINGKKRAEFEISSS

ASKEEILAFAKENTAKWLEGKSIVKEIYVEGKLVNLVIK

>CCK67184.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILIFCIGLFLGACGYIPTSKIANNIFDEKVYVNVELSQQDPKNSIYVADTLKEMVISKLGRKLALKH

EADDVINVKMNNLEFIPLAYDKNGYVISYKAKLNLDFNVVFKDGSSQAFSTSGSYNFEISPNSIISDSAR

YEAIRAASSEAFDEFISVIAIKGQKRDSKY

>CCK67183.1 hypothetical protein BN148\_1089c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIPNTNEIAKQTLIALKERKLKPTPENYTEIFEELSLKYGITSSNKAKLDKYKTLLLPIYQQELNSKTIR

SLEELISFLISVLNRQSGKQFSEFFDFLYTISKTLQISKDKKIRDLAKVTSIRISKTMDSESIYLLTKKW

KELERNYDENDLEEQARKYGISKYDDYDSVIKKLLVKLEERSYEHFSELLCLGLNPSLVEDLKIQGFIQN

LTQKPFVIGEENFKNELMEFINHRIMVDNMYVQKNLNFFNDNLKKIYELLVLLNKSNEKNMDFINTLKPD

ENGEVKLSFEDLKLKFKQLGEKITSLNNQIEFTQSLEEREAWSVLKELDKMDENFNKYKVNYSLALFSIV

NYRFIMEKYGMGSLNEIFVRFKKILKDSCSEFDELWMIDEKSYLIVSPGKSKDEITQLVNTNLKTIENFR

FIYKQDIITPKIHVAYLDKQSKPSINILDELIKQIAAVNEQHNES

>CCK67182.1 folylpolyglutamate synthase/dihydrofolate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQRLMNNIMKVENFLAQKSINYDKIDRFLMFRMYEKYKKYFKNIPIIQLIGTNGKGSTGRYLTQLLENLN

YKIGHYTSPHIFSFNERFYLDGKIANDEELEQAHIRLEEIFKQDLQKLSYFEYATFLAMILFQKCDFIVL

EAGVGGEYDATSIFERRMSIFTRIGFDHIQILGNSLEDIARTKLKVMAPIALISDEQEQNVLNLAKKIAF

LKKANLQVSSLNPFLKEKFEIYCKKFVLPYFLKHNLKLALKACEILTSQEKTLEALKKLQELNLQGRCQE

ISPNFFVDVGHNPMAAKAMLDKFQGEKINLIYNAYLDKDIFQILNTLKPIIDTIQIYKYKSAERKLADDE

IYSIASKLGMQCKEFVKLEENKKNLVFGSFMLVENFLKEWCGKK

>CCK67181.1 peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVKNKFTITITDINGSRHFYLNQIIKKIVFYIIAFIVLFLVFSGFYIKYLDSKLSDISEKREELLKKSKE

LELSNSQMQKSIEEKTQQYAAIEDKIASFEEALGLEAENNLTISARLDNLQLTNEQQLGILGQIPNGWPI

ENKGITGNFGWREHPLLKRREFHPGIDLRAEIGTPIYAPASGVVEFSGYSDNGYGYNVILLHNFGFKTVF

AHMMRKEVVKAGQFVNKGQLIGYSGNTGLSTGPHLHYEVRFINKTLEPLYFLNLQRKNMNDFFNQERRVP

WQSLIKAVSAQHPALAQKQQ

>CCK67180.1 hypothetical protein BN148\_1086c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAIFNKGGISPTSSSSSETTVISSGARIEGKFYFASMLHVDGELSGIIHSESIVVIGKNGNLKGELQADK

IVVNGCFEGQLEANSLEILAGGVVNGDISTQKISIENGGRFNGTSKIKEDTIKLIENNNEE

>CCK67179.1 transcription-repair coupling factor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQASFYEYLQNPKICELFLCKDEKQADLLAQVSRFKGLKTFVLPDFRAQFGDDLRAFSKELFDLCKILNA

YHKEEEKKILISPLNTVLKKLPSKKHLQNYHIDKKQNFDLKCFEDEISRLGYEFVDIVQDKGEISIRADI

IDIFCINEENPIRILLFGEEIESIRYFDLQSQKSIPNELEHFEICPFLKYFDKENYEIFKDKLEDFQSDA

LIHDINSLGFWCIDDFFDYLELDFLACEKFDINEYEKDISFVNAKILPQAKKFKELQSSYNKDFFEFHKN

KKITLLAKNEALFKALELEDTQNIHFVKSDLRLNLISPEELIISLNQKEKQKTRKKASLIIDELKNGDYI

VHEDYGVGKFLGLEMIVISGAKKEFVAIEYQNSDKLLLPVENLYLIDKYLGVSGSIPSLDKLGKTSFIKL

KEKLKTKLLAIASEIVIMAAKRSLVQAKKITVDLNRQTDFIASAGFIYTSDQDKACHEILQDFQSGKVMD

RLLSGDVGFGKTEVAMNAIYPVVKSGFCAFLFAPTTLLSHQHYKTLKKRFDPFDIKVFKLDRFTSSAEKK

QVLQNLKENKACVVVGTHALLSVECENLALVIIDEEHKFGVKQKEKLKEITQNSHILSMSATPIPRSLNQ

ALSSIKSYSVLQTPPEDRMDVRTFVKENDDALLKEAIARELRRGGQIFYIHNHIASIEQCKKHLLELFST

LRILILHSKIDAKMQEEEMLKFENKEYDLLLSTSIVESGIDLPNANTIIVEKSDRFGMADLHQLRGRVGR

SDKQGYCYFLIEDKNAITKDALKRLVSLESNSFLGAGSILAYHDLEIRGGGNLLGVDQSGHIEQIGYSLY

LKMLEDELNALSKNEVDQKENKLDLKLNVNAFLNSELISEDRLRLELYRRLSKCEQVHEVYEIESEIEDR

FGKLDIYTKQFLSLITIKILALNKFKSISNYEQNIQFTALNDEKELIKAKSKDDDDILEAILTHLRKA

>CCK67178.1 ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDWNKTYAAIYRARKDYLKPIFEIDPIALKDLVGMESQKKALYENTLNFIQDKGANHALLWGSKGTGKSS

LIKAIFNEFKEQGLRLVELNKEDLFALADIIDEIRLENFKFILFCDDFSFEKGDDSYKFLKPLLEGSIEK

APNNVIIYASSNRRHLLSESITDNLDTQITHTELHLSDAAEERLSLSDRFGLWLSFYQGNLEEYLKMIDF

YFKDYSCDKELLHAKAKEFATLRASRSGRTAKQFYLAFKENFK

>CCK67177.1 nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTGAQIFTKLLNLDLNYHDFDWLENQGLSEFELLISVVLTQNTNWKNVLKALENLKKENIASLEQINTLS

NLELATLIKPSGFYNTKAKRLKGLVESIINTYENLENFKTNVSRKWLLNIKGLGFESVDGILNYLCKREI

LVVDSYSLRLAFHLGYEFENYEELREFFQSGIESEQENLCKILGRKCELYELYQIFHALIVAFAKQSFKG

QKLSPKGEEWIKILKEDL

>CCK67176.1 phosphomethylpyrimidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKAKGSELIPVLTIAGSDCSGGAGIQADLKTFSAHNLFGMSVVLSVVAENTARVISVHDIPTQSVDEQML

AVFEDIVPKATKIGMIGSCELMSCVAKNLSEFKPQNIVIDPVMFAKNGYALMPQENCDFFKQTIVKFADI

LTPNIPEAEFLCGFKIANEEQMIKAAKHLCSLGAKAVLLKGGHSEINANDVFYDGKEIYILKGERIETKN

THGTGCTLSSAIASNLAKGKDLFHAVSEAKEYVRNAIYYSLNLGKGCGPTNHFFKFLDEK

>CCK67175.1 thiamin-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNKLDLSLYLVATKGSKSEECFLNTLENAIKGGVSIIQLREKELNAREFYKLGLKVQKLCKSYKIPFLI

NDRVDIALALDADGVHLGQEDLEAKLARKLLGDEKIIGLSLKKLEQLEFIQGVNYLGCGAIKATPTKESS

LLSLELLSQICDKSPIGVVAIGGIDKEALVELKGINLSGVAVVRAIMDAKDAFLAAKELKRKIYENLSLK

>CCK67174.1 uroporphyrinogen-III synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIYLLNETPFEGVENLILNEIVFYDFSVDLSLYDALICTSKNALKALQHAKITLNFKLNLYAVGQSTAQ

YAKNLGFKKIKIPSKAYGKDLFLEFKEELKMQKCLYLRAKNIVSTLNLDLKNVGVDLDEMIVYENVFKKG

DKKLIHPAIFIFTSPLSVENFLKFYSLKEEDKVVVIGQSTAKKLLNFKNLYICENQSLLNCVKLAKTLV

>CCK67173.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKAYVLIWTIFLILLISLWMSLTLNISSYTPKIIQDSYYYLQAQILSHNATQFSKYFLYQAKQENKECL

DNIYFNYTKALIKIKYFYPIAQCVNFKFSNFNPDANLSKDGVIIAHISIALNRDKNVNDEILLTKSIIIY

PKENFWNLKN

>CCK67172.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKAFTLFELIISLILFTFITSLLSKPLMDFYHLNFTALHTNNLITQAHLNLLKIEKLIQNCINITFSQN

TLKCLLKDELISLKDNKLYLINSALILENNHTLYSPHSDFKTQLQNRKDLYNDNEHISYAYKINKIEKIS

ILENGISANFTGSFIPLQAQLVIKLQNEELIYEIKPKFNEQLNQQGLISKNISSFNLQNNKLKICLKRQT

KHCLEKRILL

>CCK67171.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKAFILIESISAITIISLIFIGIFYYYIQLYKNYENLNIFERLYKLQEELYEKPIFKTIILQTSALKPI

VLQEQFVNDGIFQFQKLYFQDQNYSVYFKE

>CCK67170.1 pyrroline-5-carboxylate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLYILANGSMATALAYGLKDDYEICIVGRSIEKLQALAKEGFKTLLYKDFNIEGKDVILAFKPYALENIA

QMLKGQARILISVLANVDFEKLQTIKAQNYVRIIPNTAAKYKASTTPYILKNSHFENEILDILKTFGSAY

KLDNEIQMNAAMAISGCAPAFLALIAESIANAGVYEGLSKELSLNLTRSLFKSSNALLEHEHPAIIKENI

CSPGGVTIKGIKILEQKGIRGSFFEAINASSAK

>CCK67169.1 flagellar assembly protein FliW [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTLAVKCPILGFEETKNMEFSTIDEVFVRLKSLDGKDFSFVLINPYLIRPDYEFDIPTYYQELLSLTPES

NMKIFNIVAIAKSIEESTVNFLAPVVINLDNNTMVQVILDTVNYPDFFQADQIANYIKK

>CCK67168.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKGIFLLVFLSVFFSACSTKNDEGLYNLSASEWYKQIIKDLQDKDLEKADDHYNGMASEHVADPLLETT

LIILAQAHMDEEEYKLAEFYLDEYNKKFGNSRNADYIRYLKIKAKFDAFAVPNRNQALMLESQKEIDTFL

KDYPYTEYEPLVQTMLTKFNLAVFYLNSTIENLYQRIGHDESAQIYKQRLQESEFYQQSIIKPELPWYRS

IFERF

>CCK67167.1 ATP-dependent protease La [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQIEEIQNYPANLPVLVEDELFLYPFMITPIFINDSSNMKALDLAIKNDSMLFVAPSKLENGRNFDEIYN

CGVIGTIMRKVPLPDGRVKILFQGYAKGKIIEQISNKPLEAKIELIKEDFLEGTKKEALLEVLKEKVKNL

ANISHYFSPDLLRTIEEGFDASRICDLILNTVRIKKQVAYEFFVLTDLEQKLVKLIDLIAQEIEANKIQK

EIKNKVHSRIDKVNKEYFLKEQLRQIQKELGSDTQKEDEVREYQKRLELKKKFMHEDAYKEIKKQIEKFE

RIHQDNSEASMIQTYIETALDIPFEKISKKKLDIKEVSKQLNHDHYALNKPKERIEEYFAVRELLEKRKI

AEKDGAKVILCLYGPPGVGKTSLANSVSKALKRELIRIALGGLEDVNELRGHRRTYIGAMPGRITQGLIE

AKQINPVIVLDEIDKLNRSFRGDPSAVLLEILDPEQNSKFRDYYLNFNIDLSKVIFIATANDISNIPAPL

RDRMEFIELSSYTPSEKFHIMKKYLIPDELKKHGLKSNELSIDDETIELIISDYTRESGVRNLRRKVAEL

CRKSAKKLLLENIKKVIINTKNLNEFLDKKVFEIEKNNGENQVGQVNGLAWTSVGGDVLKVEAVKIKGKG

ELTLTGSLGDVMKESARIAFSMIKVLIDEGKIKIPKKIIIDPKVNVYDSYNIHIHVPDGATPKDGPSAGI

TISTAIASIFSDKKVKADVAMTGEIDLKGKVLPIGGLKEKLIAAYKADIKTALIPRKNYERDLKDIPSEV

RDNMEIIAVDTFSDVLEYTLV

>CCK67166.1 30S ribosomal protein S18 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAEKRKYSRKYCKYTEAKVEFIDYKDTAMLKHALSERFKIMPRRLTGTSKKYQEMVEVAIKRARHVALIP

YIVDRKEVINNPFEGL

>CCK67165.1 single-stranded DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFNKVVLVGNLTRDIEMRYAQSGSAIGASAIAVTRRFTANGEKREETCFIDISFYGRTAEVANQYLTKGS

KVLIEGRLRFEQWSDQNGQNRSKHSIQVENMEMLGNSNAPQQGGNFGNNSFSNNNYSGNYENQSYDPYMS

ENQNFNKAKANPAPQRNQSPQHEEKLKEIDIDAYDSDDTNLPF

>CCK67164.1 30S ribosomal protein S6 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKHYEVLFILKPTLTEEEVNTKLEFVKEVLTKNSAEIETVVPMGTRKLAYKIKKYERGTYFVIYFKAPTN

LIAELERVLRITEEVIRFLIVKYENKKEIAAWEKLSHGIKQSKKEIKPLDAPEIQ

>CCK67163.1 hypothetical protein BN148\_1069 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKKFSYPIPNFTDRRKSIIFWRYLRFQARKILYFPQVRLLEKTLNKEKNKHLKDFFSQRPYACYNATRR

FCDKSFKANERVKTLIYDVDKGLACFKFLPEEQIIFSFDEDFELFLGYNYNVCEEGFWAFSLKFKKYTIL

QCNFCFTLENNLLLSCIQGHKYKDFNILEINKILTKKCHGLRPVALLIECSKMLCEILKLQATLGVHEKN

QIRSQKGKEKGYFVDYQKIWLENGGELIKINKHKYYKLHHSQKNLEEIPSQKRSMYKKRFAMLEEIKTNL

DKTLSIQD

>CCK67162.1 peptidase M50 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRSLLLLIVILILGIKFYSIEFLATVLVISFLIFFHELGHFLAARSLGVKVEVFSIGFGKSLIEREFKGT

NYRLSTLPLGGYVKLKGQDDMRPGFENLDKDSYSILSPLKKIYILFAGPFFNLILAFFLYIIIGNLGLNK

LAPQIGNIAPNSAAQEIGLQKNDTILEINGIRIQTFDEISKHLSLDPLKILINREGKNLEFILTPKIGQG

YNDFGQIVEKPQLGVSPNGTSTLVKHQGLESFKYAAQESFQASTLIIKGIVKLISGEVEAKNLGGIITMT

EITSKAAQNSFTLLLFITALISINLGILNLLPIPMLDGGHILFNLYEMIFRRKVPQRTFEYLSYTGMAIL

LSLMLFATYNDISRIIGE

>CCK67161.1 CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLPNILAIFRMVLAPLLFFLLIHKFENIHQSWINYFAALTFSLAALSDFFDGYIARTWKQTTKLGGILD

PLADKMLVLAAFLGLLLTGKANEWVIYIILVREFFITGFRVVMISENLNVNASFAGKLKTAFQMTAIGFL

IMEWIGGEILLYIALILTLYSGFEYIYTYIKAQKKGEK

>CCK67160.1 nitroreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKELEIFSTRYSCRNFKNEKLKKEDLNSILEIARLSPSSLGLEPWKFIVVQDEKRKEELSKICNQQKHV

KDCAALIIIISRLDFLDYFEEKLRKRDMSETEMQKRLDTYMPFLKSLNQEQKISYAREQAHIALASILYS

ANALNIASCTIGGFDKEKLDSYLSLDIQKERSSLVVALGYCNDKKNPQKNRFSFDEVVKFI

>CCK67158.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEIKLKEDLEKIYPLIKQLRNNLSLKDFLDKIQLATQTQHYKLFAYENEGSYKAACGVMPFNVLYHNHC

LYICDFVVDEALRGKGIGQAFLKKIQIWAKDQGYEELELSSSFFRTQAHEFYIQKMGFEKSGFVFKKNIK

L

>CCK67157.1 CinA-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKHLLYLIGDELTINEKFKNYIYRTYEEKFKEINEIRIQNKTDKDLPFLLENLLNQYDFITLFTSPLHYA

TVAKILATLNDDNLILKDDTLVPDKAEFSKNSFVCNFSNSKINVVKINPSEKLPDLLGHIKLNFAYFCIF

GMDDESAILLLQTLTKSYEISIKSTKFLDNLVLIKATCANFGKLDGFLNSVKNLFGQKVFLGKDPIHFIS

SKLLEKKLKISFAESCTGGLCASTLTKISGVSEIFEGSIVSYSNRIKHEWLGISESVLENNGEYSERCVY

FMLKGIFKTANPDFALAISGVVGEKDEGKIKSGTIYIGAMFRDGTFIQETLYLDGDREFMQEQAVLATFC

LLLKLKPEIFEI

>CCK67156.1 isoleucyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDYKETLLLPSTTFAMRANLAELEPQRFKKWFEQNYAYEKMKENRKNAKKSFTLHDGPPYANGHIHIGHA

LNKILKETIIKTHYFKGESVRFTPGWDCHGLPIEQQVEVKLGEKKKSLSKKEIREFCRQHASEFVDIQRE

EFKDLGIIADWDKPYLTMKFEFEAAIYRTLCEIAKKGLLCERSKPVFWSWAAKSALAEAEVEYQDKEDYS

IFVAFDLDVKACEKLGVSKASAVIWTTTPWTLVANQAIALNPNENYVITKEGLIFASALLKSMVEKGLTS

GEIQKELNAKEFEKLEAINPLNGRKSVLIMGEHVLMDGGSGLVHTAPGHGEDDYYACLKYGIEVLMPVDD

SGCYDETLRAKGLLPSHLLEEFIGLHIFKANEKILELLGEKLLHSSKFIHSYPFCWRTHKPVIYRATKQW

FILMDEPKLQGKTLRECAKEQLLKTTFYPQSGVKRIGSMVENRPDWCISRQRDWGTPIAFFRDKNTKEVI

FDDELFDFVAAIFEKHGADAWWEFEIKDLIPTNSKYKAENLEKVYDILDVWFDSGSTFNAVLNSGLYDAG

EKRASMYLEGSDQHRGWFQSSLLVGTAINESAPYESILTHGFTTDEKGQKMSKSKGNVIASEYVAKTYGV

EILRLWILLSDYSSDLKISDNILKQVGEQYRKIRNTIRFLLANTNDLKDLEVKEFSFIDKWILSRATKVF

KASKEAFFAYEFAKGFSLLLNFLSADLSGIYLDISKDRLYCDSENAQRRKSAQVAMALMAKELLNLLAPN

LSYSVDEALEHANVLIKGDAKDVFDLSLTQDFDYDFGIDDTFLMSAREKFFEQIDILKKDKIIKSTLELN

LNISFNKFPNEELADWFMVSQISNENEEILAEFEVENEKFKITKASLCKCPRCWKLQSKNEETPCLRCEE

VLKGVQC

>CCK67155.1 hypothetical protein BN148\_1060c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLENPIPNSIIITTIAVVLAFSALAVFLIKKTKENK

>CCK67154.1 aspartyl/glutamyl-tRNA amidotransferase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MITLKEALKYSKEELENLKKELNEKAKKEKKLGAYIEQFLDKDLSVSGEGVPVAIKDNISVKGWELTSAS

KILQGYIAPYDASAIVNLKANGFSPFGRCNMDEFAMGSSTASSCYGKTLNPLNFERVPGGSSGGSAAAVA

GGLALASLGSDTGGSVRQPAAFCGCVGFKPSYGRVSRYGLASYSSSLDQIGVLTQNVEDAAILYDAIAGY

DKMDSTSANIEFIKTVPNLNANKKLKIAVIENYVNDADSEVKNALLKTIDMLKANGHEIVYKNLLDSKFD

IAAYYIIATAEASANLSRYDGVRYGKRSENIQNLKEMYVNTRSEGFGEEVKRRILLGTFVLSSGYYDAYY

IKAQKARAFIKAKYEEILQDCDLIFMPVTPTTAFKFDTQKSPMQTYLEDVYTISVNLAGLGGISVPVAKD

KEGLNISAQLICKAYDEQTLLDGALSLEQMIKN

>CCK67153.1 inosine 5'-monophosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISAAMDTVTEHRAAIMMARLGGLGVIH

KNMDIASQVREVKRVKKSESGVIIDPIFVSPKASVAEALEIMAEYRISGVPVVDEDKKLIGILTNRDLRF

ESDFSNLVENVMTKMPLITAPKGCTLDDAEKIFSTNKVEKLPIVDEQGRLEGLITIKDLKKRKEYPDANK

DNFGRLRVGAAIGVGQMDRVDALVEAGVDVVVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAA

KALCEAGVDAVKVGIGPGSICTTRIVSGVGVPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVG

ASSVMIGSLLAGTDESPGELFTYQGRQYKSYRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYV

GSIRSVVHQLLGGLRSSMGYVGAKDIEDFQKRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>CCK67152.1 coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSFEENLKHANESLEKLNNQELALDESVKIYKEGLESIKKARLELEKAKLEVEQIDE

>CCK67151.1 carbon-nitrogen hydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKIAALQFPTLALSESRLDYYLKASKDNGANLVVLGEYVINSFFTELLHMPKNMIKEQSEAKKESLIKL

AKKYELEIIAPYVSVEAKSYKKLCLKVTPNGVKSYEQQILMPYEHWNEEKFFSNKTPSELKIFTFNYEKL

KCALLFGFETHFDIFWQQIMAKKIDLVIVPSACTFESKQRWEELLKTRAFLNSTSILRVNRIGKTKDEWN

FYGDTLFINAFGEIESKLGSEEEMLIIEPKKSDEARKLWGFDKILKNF

>CCK67150.1 sulfatase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRKILLQIFIFSVLFIATFAINRILMQNSFIPTGLISDKNEIFLMYLLGVFHDIRFLSAAFLPFLLCGFL

SLIFSNIKINNKLVIYSKNFYFIFSSVYIIVLSCLCIGFSYVKYYYYEIYKTKFDIFMFTLKDDNTKTIL

SIIYHDYPILKILALMLIFGVFVFFLNLKILNLKLKPVNLRLFPLIALNLILIIVYVIALRGPFKHVAIN

VQNYSFSEYSVVNDTMLNPIMAFSWALKQYKEEAALKVITPLKAQELKEKLFDYLHQSPINLKAEKNHPS

VFVNLMESFGLNLADFTNTEHNFLGSLDKHFKQDFLFKRFLSSSNGTIPSFANLFFVSPFSNISTSKFQK

TYLDLTPIAVYKKAGYKVIFVSAGNGSWQNIKNYLSILGVDEIIDENILMKEYNGAKDSENGYGIADEFL

YKKVYDLLQKNPHKTLIIALTISNHPPYKIPQNDLPKLQNIPQTLLNMLPYEKDKQDNIIKAYTYANNEF

GKFLDKVKQSPFKNSVIIAATGDHRVREMSMDLNSQKAFAYSVPFYLYIPKDLQDNIYYDKDRVGSHKDI

FPTLYALSLNNVKYLSVGGRNMLARPSDEKLEFGINDAVWIDKKGIYSGGKGYYFESNDTLKDMNKAFNL

DGYTKDFDKFYRELNLYQLAERLGISK

>CCK67149.1 UDP-N-acetylmuramate--L-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMQNIHFIGIGGIGISALARFLREKGFKISGSDLKESKITKELEKEGVKVSIPHHKDNILNKDLVIYSAA

IKEENPEFKYAKELGIKCLSRKEALPLILEDKRVFAVAGAHGKSTTSSILASLLDDASVIIGAILKEFGS

NMIYKESQNLVFEADESDSSFLNSNPYLAIVTNAEAEHLDHYGNEVSKLHHAYTQFLDVAKIRVINAEDE

FLKNYKNESIKLYPSKDIKNCTMCIENFKPFTSFELKDLGEFKVFGMGYHLALDASLAILAALNFLDIET

IRTRLKNYQGIKKRFDILHADENLVLIDDYGHHPTEIKATLSAAQEYVKLGGYKKITAIFEPHRYTRLAT

NLKEFAKAFEGVDELVILPVYAAGEEPIELDLKAVFPKALFVEDIKREGKFLVASKGQVFEEGLIIGFGA

GDISNKLRQKNE

>CCK67148.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSRVFLYFLIILILALITFALREKLGKKTKPFFGILLVIFIVLAVFFEFENTQKSHLRTDIIVAFNQNKN

ILCKDINVSKAYFNYEFGTGSFISKDNNQSFNSLIIDIKDCRLNDE

>CCK67147.1 recombination and DNA strand exchange inhibitor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMNDTKEELISKLDLNSYLEEFKALFARDKEIFLQGDSNLHFKRIHELCEVEFPTMPELSNLDKALVHLS

KQGILHLDEIFEFVKIFRYFEKLKKIKLGTNLGSWLQKIEFVSGALELCLNFDEKGELKESLDERLVNLN

AALRLKNESIIAEFKKFCYTKALMPYLIDTQIHLINNLEALLVRGGFNHAIKAKIIGRSSGGGFYIVPLS

VENLQNDIEKIKNQKEEIYYEYAKNFSAFLAKNLPFLKFINTAFDLFDHYSARVLLAKKRDFEFVLCDQS

TDLVLKNFAHPALKNPKSVSLEFKKQVLIITGVNAGGKSMLLKSMLSAAFLAKHLLPMHIKASESKIGTF

KEFDAIIEDPQNVKNDISTFAGRMLHFSRLFSKKNLLLGIDEIELGTDFEEAACLYSVLISKLIANNLKI

IITTHHKRLAMLLAKNEQVELIAALYDEELSRPKYEFLKGTIGKSYAFETALRYQIPPNLVSEAKKLYGE

DKENLEELVGKNINLELELKAKLENVEKKEQKVDEILLSLKEQKEKNEQEFRTSLRNLEFKFHKAIEEAK

KTIQLKDIKDKQRSLNKTNELKKEIILPSMEQNEELRVGDFVKYEKIKGKIISISKNDAMVESDGIKLRV

PLKLLKKSTPTPKISPKTSISVAKPTNLSVSLDLHGLRSDEAISRLDKFISDALLAGFDEVLVYHGIGTG

KLAFAVREFLKTHKSVKGFNDAPINQGGFGAKVVRL

>CCK67146.1 restriction modification enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MITKDNLKQVLENLGFKNKNENYVKTINNYTLLIDYKNQSINYPKEIKIHDKTTSNFSHPENFVVFECVH

RLLEKGYKAEYLELEPKWNLGRDKKGGKADILVKDNENNPYLIIECKTTDSKNSEFIKEWNRMQEDGGQL

FSYFQQEKGVKYLCLYTSDFSDKLEYKNYIIQAYDNEEYLKEKELQNSYKKSNNNIELFKTWKESYELQY

FKQGIFEENVNAYKILEITPTFDNLKELKEEGKYHEFAKILRKHNISGKENAFDKLVNIFLCKIYDETFN

KNNLKFGYFGVMADTYANMQDRLMWLYKEAMKEFLGEKITFVSNEDIEKDFKQLKIKTLKEVMQNYIKEL

KFYSNNDFAFLEVHNKELFLKNALVLKEIVELFANYKLTQNSTNQFLGNLFELFLQKGMKQDEGQFFTPI

QICEFIMYSLPLQEMLSKSSKALRVIDYACGAGHFLNTYANELKRYLTEDELKEHYKNIYGIEKEYRLSK

VSKVSSAMYGQNEINILYADALASFELANTNNLEGEKAKPQIESNSFDLLIANPPYSVKGFLETLSDKSK

NTYKLFNDDINIETNNSIECFFCERANQILNDNAKAAIILPSSILNKDSIYKNTREILFQNFDFIAIVEL

GNQTFGATGTNTIILFLRKKETFKQENHLISQDYSLIKERIEAENLKDNENFYQNYLSAYCDFRKFDKEL

YSNFLNGNLDSKLAELEAFKDYRNAFRQTSDYKKLKESKIYKESKDKQDLEDKAFLAYTQAIEKDKLLYF

CLSLNQEVLIIKSPSDIKEQKKFLGYEWSNRKGDEGLKELHEPYLSPLFERGNPQNETKLNTLICKAFLK

TLSDIPKDLQGYASKARLIDMMDFEKVEFNKAISLNVKSRDELNPFKNSKYELVRLGEVCDLNKIRNQAS

ATEIEKMNLNSGNVKLLPSSKNYEWWTDEKTAGQFINEGEVITLGVARYANIKKHKGKFVSANNHILSVK

DKSKIIFDFLYILLEICGQKLYKQGQQYPQFDTNIFYSFKIPLPPLEIQKQIVAECEKIEEQHNTLSLSI

KEYQKLIKAMLQKSGIIEDNQEYELNSILENLQKLESKLDFNLLLSLIEEQISHSEVLVEETQSKERKQD

FNAFKNFSKTIQELLQTLSTPPKDGWKRISLKNEQYMELNPSKKEISKLDENMLVSFIEMASVSDKGYIQ

SKIDRSLNEVRKGYTYFIENDILIAKITPCMENGKCAIAKNLTNNIGFGSTEFHIFRAKTGLDSSFLFYN

LNQQNIREKAALAMTGASGHKRVPISFYENLTIPLPPLEIQEKIVQNIELVEQQIDLLNLKLEFLEKEKE

KILQKYLFS

>CCK67145.1 NAD-dependent deacetylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNIMILSGAGLSAPSGLKTFRDNDGLWEEYDVMEVCSATGFRKNPKKVLDFYDARRAQLQNVKPNHAHE

KIAQLKEKWGKNLFVITQNVDDLLERAGCKDVVHLHGFLPELRCLKCEGIFNIGYEKFTDKQCPKCKSKD

LRHNIVMFEEQAPAYATLYSLLHQTSLFISIGTSGAVLPVGQYASMCEKSILNIYEKDVNLERYFDKIYI

EDIISAIDKIALDIENFMKDGNV

>CCK67144.1 LysE family transporter protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFDSFLSGVFLGFGVSVPFGPVNILILTYALKAFKNSIAVGLGAFSMDMLYLFLLQFGLLNFLDNVIFMR

FLAIFGFCFLTYMAYLMLRKKKESLNLEHKEFKESLLKSYIKGAFLNGSNPFVIGFWLSAASVVLSSDHA

YLMTLGLVVAILFWVSALAFVVARYSHVFSAKVVFIINIISAIIIEYFALNLLYKTFLG

>CCK67143.1 succinyl-diaminopimelate desuccinylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNAKEFLIELLKFKSVTPNDDGALNFIAMELSDFEAFFIEKEGIKNLLLTKKFKDEGEHLAFGGHVDVVP

AGEGWSNNAFAPVEKEGFIYARGAQDMKSGVAAFVDAAKNADFKGARLSLILTSDEEGEAIYGTKAVLEW

MQERDMLPDYAVVAEPTCVKKIGDSIKIGRRGSINGKLLIRGKQGHVAYPEKCINPVHDFAPVLKLLAGF

DLDPGSAEFSPSKIVITDIRGGMGVCNVTPNDLKLMFNVRNSPDTSLEDVKSYVEKICHGLNYELELKQS

SEAFLTNIDNKIVQKMNESVQKITHEVPELNTKGGTSDARYFAKYGVKVVEFGVCNDRIHAIDERVSIEE

FEKLCLVFKDLIENF

>CCK67142.1 thiamine biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIINGQKLELKELKFMDFIKEKGFKIELIALELNGEIVPKSEFENLILKENDKAEIVSFVGGG

>CCK67141.1 thiamine biosynthesis protein ThiF [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMRVKFNGKELDTDFKTSLEFFENISKNENDVWIINGFATKENIALNENDELFCIEKNTLPPKDALDAMM

RARHTPKLHDKLKNGRVAVCGLGGLGSHIAINLARSGVGYLKLIDFDVIEPSNLNRQAYRVSDLGKFKTE

ALKEQISEINPYISVEICTLKIDEDNLESLFKDIDIVCEAFDSAIAKAMIAQNFHRFYKDGILICASGLA

GYGDSNSIQTRKIAKNFYVCGDLVNGAKLGNGLMAPRVNICAGHQSNLVLELLANKE

>CCK67140.1 thiazole synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQENLKNDKLKIGKYEFDSRFILGSGKYSLELIKSAIEEAKAQIITLALRRANTGEIANILDYIPKNITL

LPNTSGARNADEALRIARLSRELGCGELIKIEVISDSRYLLPDNYETIKACELLAKEGFTPLPYMHADLY

AARAMRDAGAAAIMPLAAPIGSNKGLCAKEFIQILLNEIDLPIIVDAGIGSPSQACEAMQMGVSAVMVNT

AIAEAKDIALMARAFSLAVNAGRVAFLAGVASVSEAKASSPLTGFLRD

>CCK67139.1 thiamine biosynthesis protein ThiH [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQDYMQHLPHMQEIKSEILNKVLTQVQSYDESQFSAKDVKNALNQTHLSIEHLKALLSSAAEDFIEELAF

KSAKVKQKYFGNSISLFTPLYLSNYCNSKCVYCGFQKGNKIARAKLNEAEIHEEMQAIAKSGLEEILMLT

GEGREFASVEYIANACKIAREYFKVVGVEIYPMNEDEYKILHEKGCDYVTVFQETYNPLKYSKIHLAGEK

RIFPYRFNAQERALKAGMRGVAFAALLGIDDFRKDALATALHAHFLQQAYSHAEISISVPRLRPIINNAK

IHPKDVSEKRLLQVLCAYRLFLPFAGITISSRERIGFRDEVIKLGATKMSAGVSVGIGEHKGEKKGDEQF

EISDDRSVDEILAMLKRSNLQAVMSDSIYVG

>CCK67138.1 thiamine-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MWDKKIIAISDRKCVEIDFLKQIEKLAKAKVDAIVLREKDLSEFEYYDLAKEVLSICAKQKVTCFLHFFD

RECLKLGHRYFHAPLSLLRKEPKLTKYFHILGTSVHSKEELLEAMSYKVNYAFVGHIFESSCKMGLEPKG

IDFLKSLLEFSQIPLYAIGGINAQNIENFKDINVVGVCMREILMKEKDLKKYLLECRQNLR

>CCK67137.1 transcriptional regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKILSLPEDLKQLKGVNYKKIKSCTFAKYTQTDTSHSTFVNVGSHLLTFVRKGYKILHTASKDYKINSY

ETLFLKAGSYTLSNVGLSKGVYEAYLFFFDNAFLIELIYKYKDFFKLDQKFQNYEIFWVKNDKILQGILE

SFSPHFEENTQILDPIVSLKFEEIFLHLLLNKNIYFISFLSGILKEFRLDLSQLFEYCGREFLSVNEMSN

FAKLDLATFSKEFKKCFGQSPKKWLDEKRLQKAKILLKFSKKNINEIANECAFSSVAWFIERFKEKYEQT

PKQYQKTKNLYFLSKN

>CCK67136.1 periplasmic ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKYVLSLALLGSLLGASELKYQEFDGFKSPESIFVDKNYVYVSNVGEKLEPLAKDNDGFISKLDKNGKV

LEYKFLTHLNAPKGMMEIGKTLYVVDIDVLRGFDLKTKKEIFNLPIKGAIFLNDIEKLDDNTLLVSDTGT

GLILKVDLKTKQYDELLKLDLAKFGGPNGLYLDRKKHKLFIAGYHPDGVSGGVVMAYDLNTKELSIIKNE

KESYDGIVPYKDGLLVSSWGNNLNGYIYNLDNVKSVKLELPLMKGPADIFIEGNILWIPKMVEGKIFKVE

LNK

>CCK67135.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MASFKKIFWINVTIVIIVAFNLRAPITAVGPIIDIIKDKYYLNSTVAGILTSLPLIAFGSISFIVGYFSP

IRAIVFGIFLIFLGEIIRSYFGVYGLFLGMLAMGCGIAIANVLLPSFIKEKFPKKMASIMGIYSLVLSIS

SIMGIALAIPLLSVFDLAGAMFFWAIFSFVALVVYYPQAKNGRFFRIKKKTHKKINLFTNLTTWKITLFM

GFQSFLAYSLFFWYVQIVVEKGFDKEFSTSMVLFAQLVAAPVSLFGPLLLGKLRQNLHTFYIAGLCSMYV

IAFGMLFIFDSKISIIISAFIMGFPWGGVFGIALLFIAQKSSNAQIAARLSALAQGFGYLIAAQGQWIIG

FLHDKFENFSFAILMLVFVGILVNIFGYLSYKSQIIK

>CCK67134.1 UDPdiphospho-muramoylpentapeptide beta-N-acetylglucosaminyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTIALTGGGTGGHLAIVRCLLESAIKKNIECVYIGSQNGQDKAWFENEVRFKEKFFLSSKGVVNQSKFDK

ISSLLHTLKLSKDCREIFKKYHIQAVFSVGGYSAAPASFAALFSHLPLFIHEQNSKSGSLNMLLKPFATK

FFSAFEKEISPYPVADKFFDNARIRKELKNIIFLGGSQGAQFINELALNLAPKLQEQNIKIIHQCGKNDF

EKCKKHYQSLNIQADIFDFSLNLEEKMKNADLAISRAGASTLFELCANTLPTIFIPYPYAAKNHQYFNAK

FLQDQALCQIFMQNSINLDEFFKSILKLNLENISTRLQNITQKNGADMLIQKALFDNLTFIR

>CCK67133.1 cell division/peptidoglycan biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVADKRLFYLSCILITIGIVFSYSLTAFTVLFLDYSEFHFFIRQLFFGISGILIMFFISRLDPDKALSKK

IILAILIVSFIFIIILPFLPSVLATASGGAKRWIRLGPLSISPVEFFKIGLIYFLAWSYTRRIDDSKKAI

RHEALILLPYCILASIVIGYIYITQNDLGQSVISFFLILALAFFAGASKRLFAFGTLIIMMIGIMVIFSN

QRRIQRIASWWGNIQDAFLPMLPDWLANALRVSSNSEPYQISHSLNAIAHGGMFGEGLGLGTFKLGFLSE

VHTDFVLSGITEEIGLLGLGVICYIYLWMILRIFRIAGRCEAKQDFIFCSGIALLLLFSFFMNAFGIISL

TPLKGVAVPLLSYGGSSMWAICIGIGYVLMISKKVKL

>CCK67132.1 acetyl-CoA carboxylase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNQIHKILIANRAEIAVRVIRACRDLHIKSVAVFTEPDRECLHVKIADEAYRIGTDAIRGYLDVARIVEI

AKACGADAIHPGYGFLSENYEFAKACEDAGIIFIGPKSEVIHKMGNKNIARKLMAKNGIPIVPGTEKLNS

YSMEEIKIFAEKIGYPVILKASGGGGGRGIRVVHKEQDLENAFESCKREALTYFNNDEVFMEKYVVNPRH

IEFQILGDNYGNIIHLCERDCSIQRRHQKVIEIAPCPGISDNLRKTMGVTAVAAAKAVGYTNAGTIEFLL

DDYNRFYFMEMNTRIQVEHPITEEITGIDLIVRQIRIAAGEILDLEQSDIKPRGFAIEARITAENVWKNF

IPSPGKIGEYYPALGPSVRVDSHIYKDYTVPPYYDSMLAKLIIKATSYDLAVNKLERALKEFVIDDIRTT

IPFLIAITKTREFRRGYLDTSFIETHMQELLEKTEDRHQENKEEVIAAIAATLKKIRESRE

>CCK67131.1 hypothetical protein BN148\_1036c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDFLDSLKSIKKEMQANTNTSKLAKKSSKSGASVKNLEKLAKDIREKNQETNIDKEMQEIFLKQEKLQDE

FSEFIKNADIKKI

>CCK67130.1 arginyl-tRNA-protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLEIGFCTLEDQCPYLKDKRSRIEYKYIENCPKEINNELIKRGWRRFGRYFSRPICKDCDECLSLRILVN

EYNFSRSERRVVNKNINTKVILRTPNLSNEHLFLYDKYHRFMEEKKNWKRYDLSFKQYYNLYVDGFMNFG

YELAFYIEDKLVCVDLIDILEDGISSIYCFYDPDFSYFSLGKFSLLNEIQIAKKMNLDYIYLGYFVKKCQ

SLSYKADYTPNEILKGTKELFENEVLWEK

>CCK67129.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQIVQTLETINVNTDDISVFQYFKDLITKNFTKVIGRKNKIFSFFEENEIPQRRYFLKVLDQKYRKSTNE

GIENLQDAHFKTFRLIFEQNNMLKPMLFIKIDFVAGRILMKLSSNEKLFITYIRNYFQDHNIEYNEMTNI

LILEYKNENTLELFEAFADESEHLKYCVNFEVDREEYKKFRQNIHNKENMKWKFNALAKLFSNYFNTLEC

TPQNDLSEIRQKYLILVKLYHPDFHQGKSAIEKAYAREQFEKIQIAYDNLKALYKNNT

>CCK67128.1 multidrug efflux system membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFKLAINRPITVLMFFLALMIFGLISAFSMSVNLFPNVSIPLIKITSKINGDLNFVESKVTKEIENALSE

IDGVKTITSAAYDNFSVSVVEFKLGKNLEVAANDVRDKIGTLSLPSKPEIEKISSDSGSAISLFLYSKDK

LQLMREINDKIKPFLQRVEGVGKIEAKGFLEPQIRIELKPNQLRKYNLNALDVANIIKSQNFKQALGELN

NNQDNYIIKGYFEATNLEELSNLRIKTGVFLSDIANISSLYEDEKQSALYEGKEGVLLELGKITNYNTLE

MIKNVKNALPILEKQIPKDISINMLYDKSLNIHKHLSQVIFDMVLGIFLTLVIVFLFLRNLSTTLIACIA

IPTSIISTFFIIDLLGYDLNRLTFIALTLSIGIFIDDAIVVIENIAKKLKTYPPLQAAFLGINEIGFSVL

SISIVLLCVFIPISYMNSISGLFFNALGISVASGIVISFLVSVFLIPSIGARFLNPKENKFYEKTEAFFE

KIEQKYENLLYKILQNKVKFILATLVFIGLSFALATRIGLDFLPMEDDSEIQVLLESKKDLSLEAMKEKS

LNLLEKIKNDSNVKYAFLLVGYDDAKDATKAKIYVKLKNLDERNLRQSAIVSLYRQKFQDESLKIKILEL

PKIEGAGIDDPVQFLILGDDLNTLKEAASQAKEILGTNARIVDISDNANATKDEVALHINKEKAKLLDVN

PQYIAGVLGYSFSQLSVGSMDRGNSKDDIILSFAPEFKKDIEALKRISIKNNQGINLELSSVVDFIYSKD

LKTINRYNKNRSVKITAGVNDLSLGAVQKLLLDNMDKILNNNPSLSYAFSGFINLLGETVQGFAMAVALA

FVLIYLVLAALYESFILPLIIMITMPLAFGGASIGLFITGHNFSLFVLIAIILLFGMVGKNAILLVDVAN

KKCHEGLDPDKALLIAGKSRLRAILMTTFAMIFAMLPLALSRGAGYEANSPMAIAIIFGLISSTLLTLLV

VPALFKFCFKLDSKLRKIYEREKLN

>CCK67127.1 mutlidrug efflux system membrane fusion protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILFLLLVFNCAFGEEIYASFNVEASKQSKLALESIGLVQKIPVEIGQKVSKGELLLALDQESEKIAL

QNAQNSYQLALVEYENTKSRMQKIKAVENVIDKQSYEDMKAKFDAANLNLNKAKINIAYYKNIMAKKELR

APYDAIIANKFIQVGEGVGGVAQPLIEIFSYPQSKLILSFDEKYKDKVRLGDDFFYKIDQNGTELKGKIN

LIYPSIEVKTRKIYAEVQTTNLTPGLFGEGRIITKD

>CCK67126.1 multidrug efflux system outer membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFEKYLKSAIFLALYPLAMLASNLHEFIALSQNNESYLIKQMQSEQANLDKEQAFRNYLPSLSLNSAYVA

NNKDRFIIDPQESLFAKVSLNFLLFDGGAREANLRALESREKLSLLDKEQNKNYLALNAITLYFNTLSLE

KILLANQQKVSFLKSTFERLQKFYDAGLSPKDELESIKAKYHLSLLELSQNELKLANIQKEIKILSDTDF

KVQGNAFLENPQQEKSQNYEVMIAKEQINLAKESVNLAKAEYFPKFYIQDNFNFYKNNYNPKVPAPFANL

ADQFLEKYSQGNQFILGMEWKIFDFNARAKEVEKERLNVQIANANARFSERKNKEELNYLDKSLKVLQEQ

ILALNLSLNAANLAFESVDKKYQAGLVSYVEYLQALEVKFKAQSDLELAKNEFEITKANYYFNAGIDLNS

KVKE

>CCK67125.1 GTP-binding protein LepA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSVKNIRNFSIIAHIDHGKSTLADRIISECGAISDRQMSSQVMDTMDIEKERGITIKAQSVRLNYKFNNE

NFVLNLIDTPGHVDFSYEVSRSLASCEGALLVVDASQGVEAQTIANVYIALENNLEIIPVINKIDLPNAD

VEKVKHEIEHIIGIDCKDAICVSAKTGVGIKELIETIITKIPAPKTDDEAPTKALIYDSWFDNYLGALAL

VRIYEGSIAKNDEVLVMSTDKKHIVQDLFYPHPLSPIKTQSLQSGEVGVVVLGLKTVGDVQVGDTITLVK

NKAKEAIGGFEKAKAFVFAGLYPIETDKFEDLRDALDKLKLNDSSITYEPETSLALGFGFRVGFLGLLHM

EVIKERLEREFNLDLIATAPTVTYEIYQTDGELIKIQNPSELPPVNKIDHIKEPYVKATIITPSEFLGNL

ITLLNRKRGVQVKMDYITPERVLLEYDVPLNEIVMDFYDKLKSLTKGYASFDYEPIEFRVGDLVKLDIKV

AGENVDALSIIVPNEKAQSKGRELVSAMKEIVPRQLFEVAIQASIGNKIIARETVKSMGKNVTAKCYGGD

ITRKRKLLEKQKEGKKRMKAIGKVNLPQEAFLSVLKID

>CCK67124.1 liproprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFKKFLIFIVPILFLSACATKQDTFAQVNQISKNSQCSSCESPGGFEAKIKGLLYISDVGIQCCANKRTL

DTGIALKKVYLHRFYDLKEGQKVLNAKGKKLFVDVNFNAVFYTYLKQELEARGIVVLDNNDQNSPYVSKI

DLEFISYGATQDAIGLHSKLVGVLQVSDINKNKKFTIRTKQDVQGFDDLKETTFYTHLLIKQMANKAASL

ISEL

>CCK67123.1 purine/pyrimidine phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRCINCGAFALLCFCELCELELSEFSLNVRKLDNNFKVYSFYKYHEIQHLLHSKHYFYGYFVYKMLAKLS

FAKFKDFFDPRMTINVIALDDKVEDMLYSHSAILARYLKTKFVKPVFNVLKAQNSVKYSGKSLEFRQKHK

RNYKLLKTIHEPVILVDDIVTTGSSLLEAKKVLEENKISVLFALVLADAKV

>CCK67122.1 DNA gyrase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENIFSKDSDIELVDIENSIKSSYLDYSMSVIIGRALPDARDGLKPVHRRILYAMQNDEAKSRTDFVKSA

RIVGAVIGRYHPHGDTAVYDALVRMAQDFSMRYPSITGQGNFGSIDGDSAAAMRYTEAKMSKLSHELLKD

IDKDTVDFVPNYDGSESEPDVLPSRVPNLLLNGSSGIAVGMATNIPPHSLNELIDGLLYLLDNKDASLEE

IMQFIKGPDFPTGGIIYGKKGIIEAYRTGRGRVKVRAKTHIEKKTNKDVIVIDELPYQTNKARLIEQIAE

LVKERQIEGISEVRDESNKEGIRVVIELKREAMSEIVLNNLFKSTTMESTFGVIMLAIHNKEPKIFSLLE

LLNLFLTHRKTVIIRRTIFELQKARARAHILEGLKIALDNIDEVIALIKNSSDNNTARDSLVAKFGLSEL

QANAILDMKLGRLTGLEREKIENELAELMKEIARLEEILKSETLLENLIRDELKEIRSKFDVPRITQIED

DYDDIDIEDLIPNENMVVTITHRGYIKRVPSKQYEKQKRGGKGKLAVTTYDDDFIESFFTANTHDTLMFV

TDRGQLYWLKVYKIPEGSRTAKGKAVVNLINLQAEEKIMAIIPTTDFDESKSLCFFTKNGIVKRTNLSEY

QNIRSVGVRAINLDENDELVTAIIVQRDEDEIFATGGEENLENQEIENLDDENLENEESVSTQGKMLFAV

TKKGMCIKFPLAKVREIGRVSRGVTAIKFKEKNDELVGAVVIENDEQEILSISAKGIGKRTNAGEYRLQS

RGGKGVICMKLTEKTKDLISVVIVDETMDLMALTSSGKMIRVDMQSIRKAGRNTSGVIVVNVENDEVVSI

AKCPKEENDEDELSDENFGLDLQ

>CCK67121.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIYFMLAIAGIFAGCVPSANSATKNSSANSTAPSQDVIVQKVDKDDVRDIIREEKMLAPDASETELSF

TAVGEGIAPMNTVSTAQALALAKRAAITDAYRQLASKLYGVKVNGKDTVKDAMLRSSTITAQVNGLIKNA

SIIDENFNQGLYRVNLELKIDADKWKELFAY

>CCK67120.1 hypothetical protein BN148\_1025c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MERIVCLLIFLSFKLFAQDEFIFWAELSSKNFILFHQNQNLSLAMTQSENVEEQWVCEISYSDQDLKVLP

RTSLGLIDDNMPKTIKFNFLNSHKDELSDCFIGARISVKDIVNTDLLRAQSETYVKILPLRFTVEFGEQN

AIIYYLKKK

>CCK67119.1 sigma-54 associated transcriptional activator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLVIVEDDINMRKSLEIALAEYEEFNIKSYKSATEALKKIDDNTDLIITDINMPGIDGIEFVKACENKY

DFIIMTGNATLSRAIEAVRLGVKDFLTKPFDVDTLVEAIKRAKIIREKTADKKSKKNEKKEENKDFFSTS

PNLEKTLNLSQKAAKTDASVMFFGESGVGKEVFSRYIHTHSKRSNKPFIAINMAAIPANLIESELFGFEK

GAFTDANATKIGLFEMANEGTLFLDEIGEMPYEIQAKLLRALQEKEITRLGSTKSIKIDVRIISATNANL

DEKIKNGEFRSDLYYRLNTVPINIPPLRERKEEILGIAQKVLEDTCKEYDFKEKQLSQEAKNALLEYDFP

GNIRELISVVQRACILSENDEISSEDLFLEARSIKKDVKNLEKELICEVLLSVDYDKDQASQILGMDIKI

LNEKIKKYQIKDK

>CCK67118.1 aspartate-semialdehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKKQKIAIVGATGAVGEELLNVLDELDFPVESILPLASAKSVGSEVEFKGKAYKVKELTENVFKENPID

IAFFSAGGSVSEKYAKFAVESGAVVIDNTSHFRMEKDVPLVVPECNPEDIKDWKKTGIIANPNCSTIQMV

QVLKPLNDAFNLKRVDVSTYQAASGAGKEGMQELVEAMQSFFAFKLDEFEPQTFPYTLALNLIPQIDVFM

DNDYTKEELKMVNETQKILHKNLEVSATCVRVPVLRSHSEAITMHFEKEIDVKKAKEILKKAPSVIVIDD

PKNKKYPMPLMTSDTNETYVGRIRADVYDKKILHLWCVADQIRVGAATNAVRIAQKWLELKNK

>CCK67117.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLEKIFESLLVRSRIVTILPVIFGLIGAFVLFFIASYDVLKVIFYTYNYFFDAGSNVDLHEDVVALIIGA

VDLYLMALVLFIFSFGVYELFISEIEEFKQTKQSKVLEVHSLDQLKDKLAKVIIMVLVVNFFQRVLQMKF

ATPVDMAFLAGSILALCVGLYFLHKGGH

>CCK67116.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIFLIGMILNHFVFAAPLDEVFKDIEVSGTVRYRYDIKKEKKYNKKTHRYQNKTQTEITIK

>CCK67115.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIARWLFISSIFVVALFGINLKSFFTYTFDANKQYDMEKAKALYFQNKCNTCHGDNAEKSVIGSRILKDM

SPEDIKGALIGYTLDSSSSTTASQMAFYARNLSHEDIDNIIAYIKGGNFALDLQVKDLLEEEPAQKTKHN

IFLK

>CCK67114.1 branched-chain amino-acid ABC transporter periplasmic binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKLTLTLSVLTMVNCLYAKDINIGVVLPLTGTVAAYGQDVFNGIELANKLQPKLSNGDVIKLITIDTKG

DKLETSNGVNRLIATDKVLGIIGEATTPNTIQAISIAEEKKIPLIAPVASGDKLLDKKKYASRVCFKDSF

QGDKFATYVSKDLGLKNAVIIIDQSNVYSLGLARAFENSFKNNGGKIIKKLVINSGDKDFRAVVSQLKSL

NPDFVYMPIYHPEAALIARQARQIGFDKLLVAGDGVNNQTFIDLGGSAVNGVIFTDSFDYNSPSTQLGKD

FVAAYEKVKGTKELPAFSAMGADAYFVMLNAMNACVDNLSSECINSKIHQTKDFQAVGGVISIDESGNAI

RSVVIKEIQNQKQNYKTIINP

>CCK67113.1 branched-chain amino-acid ABC transporter periplasmic binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKSLILASILSLSLSAAEVKIGVVLPLSGATAAYGQSALEGIKLANSMQSALSNGDKVSLAIIDTKGDK

LESSSGANRLVSQDKVIGLIGEMVTANTLQVMRVAEDNKIPLIAPAATGDRLLDKKIYSSRVCFMDSFQG

SSLAKYVFSKLNYKSAVIVVDQSTDYSLGLAKAFEKQYKSNGGQILRILRVNSGDKDFRAIVAQVKSLNP

EFIFLPLYYSEASLFARQSKLAGLNIPMGSADGVADQTFISLAGDASEGYIFTDSFDANNPTTKLSKEFI

SVYEKAKGTKEVPNFSAMGADAYFVMLNAMNACVENLTSKCVNEKIHQTKNYQGVSGVISIDQTGNATRS

VVVKEIKNQKQNYKDIINP

>CCK67112.1 branched-chain amino-acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDSTLFLQQLVNGLSLGSMYALIAVGYTMVYGVLRLINFAHGDIMMVGAYAALFCMTNLNVPFLGALSLA

MIFAACVGIATDRIAYKPLRQAPRISLLITAIGISFFLQNLFNMLFTSTPRTFTPPSYFEESVNFGGVIT

TYGSLMVPALTFVILIAVLWILYKSKYGIAIRALAFDIQTVNLMGIDANRIIAIVFALGSALAAVGGVFW

AANYYSVEPTMGTLIGLKAFAAAVLGGIGSVVGAVLGGLIIGFTEVVVVAFFPDLSGFKDAFAFIFLVFI

LLFRPTGILGINFEKSRF

>CCK67111.1 branched-chain amino-acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMVRIKVSHLIFLIASIIFIFISPYIFGDYGLNIVNQIAIFIILAVSYNLINGVTGQFSLEPNGFVAIGA

YAAALVLLSADAKNDQFFLDGPSSFILAIHSNSFILALIVAGICSSLLALILAFAVFRVRGDYLAIVTLG

FGIIIKIAAINFPSITNGSRGLVDIPQFSTIYWTGGIAIVAVILILNIVYSKYGRAMKAIRDDEDAASAM

GINTFWIKTLAFSTSAFLEGVGGGLLACLLTTVSPTQFDFLLTFQLLIIIVLGGLGSTTGAIIGAILVIG

GSEWLRFLDELNIKIDSLNLDIQSTPGLRMVVFSIVLILVMLFARKGIMGYYELSDVIRGIKKRFKRSKK

>CCK67110.1 branched-chain amino-acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MILELKQISKSFGSVKAINETSFKINEGEIFALIGPNGAGKTTLFNIITGNYKPSSGSVEFLGERIDHLK

PHKIVHLGIARTFQNIRLFSSMNVLENVLIGFNKQMKYNIFEAFLHLGRFGKIEQVFKEKAYAILEELGI

AEFAYEKATSLSYGQQRKVEIARAMATQPRLLLLDEPAAGMNSSESDELAGLIFKLRKDYKISVLLIEHD

MKFVNKLCDRVLVLDYGKTIFEGKLCDAVNHKEVIAAYLGDFDANS

>CCK67109.1 branched-chain amino-acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLIVKDLHVYYGLIEAVKGIDFKVETGHIVSLIGSNGAGKTSTLNALLNSVKRTGEVNFLGYDTKRHLTH

TLVQKGIALVPEGRRVFINLSVEENLKIGAFNNAENYEHLREQMYKLFPRLASKKHALAGTLSGGEAQML

AISRALMSEPKLLMLDEPSLGLAPKIVGEVFDIIVRLKEEGITILLVEQNAYSALKISDYAYVLENGRIV

MENEAKNLIGDDEIRKKYLGL

>CCK67108.1 cytochrome C biogenesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNIIKSIGDLRVSVVLFLLFALFCALATFIESAYGTPTAWAMVYDTFWFEYIQLLLGINLLCGMFRYKM

FGLKKLPLMIFHISFLFILVGSAMTRYAGFEGILPIREHTQNSLIESSKTSLRISAIKDGERYSAVNDRY

IGNLPFANSFKLKLNLGDDQAVLKYKDLILNAHYTYKENNNSDPLLVLMLSQKGSQGVDVKFEKGEVKNI

EGVNFAFMNDNVKAPFVKIDENLTLSSSENLHFLSMLDGQNLDLKIGEKANAKERRLYEINDISFVVKAA

SLHAQEALEGSNRPQDESFWLWFKSAWLEVGRTMLISTFGEPQNWKNSLLLHFKDFALSNENKNLELTGS

NALKLELSYKNESKEFYIFEYNKPIMIELADQKFFISWALSYEQLPFDIYLRDFVLDRYPGSMSPASYAS

EITVKNNNENFDYRIFMNNVLDYDGYRFYQSSYDQDEKGTVLSVNKDPGKIPTYIGYFLLCLGMFMNFLN

PHSRFRTLARLINKDTLKHTSVIIFILLLSFGSEKTFAQDLNSTLPVVNTNHAKALATLIVQKSADGRMV

PFDTLSREILEKIHQSDSYKGQNSNAVMLSMLVDVDKWQLEPFILMPQNQAVRDAIANILEIPSAKYIAY

KDFFDENNRYKLQKYVENANRKNPNARGVFDKEIIKLDERANVVNLVFSGELFKFIPVQNNPNNVWLAPF

SAVTTLKGDEGHIVLALIQNYFSAVENAFKDGNWIRADEGLKFIKEYQEKIGYKVMPSKTKVEMEIFSNK

AEIFVKLAPVYLIAGFLLLILVFSKMVVPNLKISFIFKVVYVLNVLAFVIHTVGLGLRAYLSGHAPWSNG

YESMVYIAWALSLSGIFFSRKSPIALSLTSILSGVVLMVAHLSEMNPQITNLVPVLNSYWLSIHVSVITA

SYGFLGLCALLGIFTLFLMCFLKKDGKYNLNILRNITEATRINEMAMIFGLCLLTVGNFLGAIWANESWG

RYWSWDSKETWALVSILVYAAILHLRMIPKYCNQFVFALWSMFAYWVIIMTYFGVNYFLTGLHSYAAGEA

AQIPNYVYWGFALMVVLAFFARRKRNFVGKL

>CCK67107.1 hypothetical protein BN148\_1012c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVIFCAALALLLFLGVIAYLITSDGKKTIKKQKTSQKQHVAEKTKKFDTDLDKMIIAASDVKLTDIELKE

LAKLYVQTHKLGSKTSKELDEAAKKKLEFVSALAANINASAQTVSYLNKELKKIYGSYKKEIDAYEHMGL

AKRKIKEDK

>CCK67106.1 CorA-like Mg2+ transporter protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLELHENLKKILQAKNLETFYSEIYGQKIFVYVGLNLETWLFNDEKIYKLQDGEFKLSSIEEFSNFIKSI

LEDFKVQNTHFQNLLEHKEGIILKGGFVKNFYKKSFVLRQKINKNLKQINLLSEAFNLLLSEQAQYKKHL

KILNLSISILSKNTKEHLARIDTLYTLTNAIKNEKMNKSIYLLSILSSIFLPLNLIVGFFGMNTNNLFFK

DSPYGTLYIFSLICCILIVGFIFYYSKKTKEFDLDEGKKAKKQTK

>CCK67105.1 queuine tRNA-ribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEFKLKHKDGMARVCEITTAHSTFLTPVFMPVGTVGAVKSLDANDMKNELDAKIILANTYHMYLRPTSKV

VKDFGGLHGFTKFDRSFLTDSGGFQAFSLSKNSKHFNEGIEFKSHIDGSRHLFTPKSVLDTQYDFNSDIM

MILDDLVALPATKERVKISVDRTILWAKEAITYHKNMQNKGIGIGQNIFGIIQGGTDYEERKRCALSLNE

MPFDGLAIGGLSVGEENALMYETVQNLNPYLDENRPRYLMGVGTPEDLVENVERGVDMFDCVMPTRNARN

GTFFTSFGKFNIKKAEFINDHEVIDSTCSCYTCRNFSRGYLNHLFKAKELTFFRLASLHNLHYYLELARK

MREAILNNSFTQFKRNFYHLRGK

>CCK67104.1 hypothetical protein BN148\_1009c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNNILIIIDGILAKHFLERLCFEKGLGYFFTVVCQNSEKNNLNISSEYIDLHYFDPTSTARLENIMSKDF

KQAFIYMQDEFETKKSYEALRSLNPNLEIEIMDFWGLSVNDTHANLADARMTLSRRFMDFLPDIALTAQY

IGLGVGEIMEVKIPAGSIFAYRHISSIQQKRWRIVLIYRNSKIYFVKPSFVLEPNDSILIVGDPVVLQSI

FHNIRGKAGQFPMPFGSNVFALIDMKNMNQNMQERVLDTTLKLTQKSNAKRFFIHVINPKLGVMYEKLKK

LSEDKEGVFFDYFNTDFKQISMWLQNNDIGLVVTDIKNFEKEKQAFFDLKIPIMKVGEASFDELKEAIIL

SADESELENNANVITDLSKQLDFGVILYYYNPNSQNTTDMEEYFRSLSKLYDKNIQIINKNDENPLLNLQ

YREDLLQFVSFQKELLNRDFARNLSTNLNRHYYKMRQNYQLFIPVE

>CCK67103.1 3-dehydroquinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQVEVKLKENAYKVYIDELEELEFDSKVFILSNPKISGLHLKTLLSKIKAKEIFIATVKDGEEYKNLSTM

EEILNQMFNSKLDRKSVLISFGGGVISDMGGFAASIYQRGIDFINIPTTLLACVDAAVGGKTGVNNNFGK

NLIGTFYQPKAVYCESFFLKTLSSRELAAGMAEFIKMAAMFDYSILDFIEKIDEKSFLNATCENEIFTQI

IAKSIELKSRVVEQDEKESRLRMLLNYGHTFAHVIENFTDYKLYLHGEAVAIGMVMANQLALNLGLLDKM

QSQRIKDILLKFGLPISYKINNVDEFYEAFFMDKKSSNKKINFVLASPLGKGLIKGDISKEDIIATLREF

Q

>CCK67102.1 mechanosensitive ion channel family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIIILTFFVVFAFGDVNRTIINNINEKINTLNTVISASIWNIRYENFIKYQDINDELIILNLNLKKTS

DIHQQEELKRKIANLEEQLNLLKEYKDLNFAQSLSAPDNIETLSKLTNPLAIIGAFSHIKKLKGEKEEYI

FKFNDFKNLVDKIREKNSELKELVELKPSVENIEALKASDKKLEEFEQALNFASVSYSVYEKKIDEELSR

VSAEIKVQSLRAVNILVAIVIVIAIAFMLKFIAKKYIKDSERYYTATKIINFININIIFLILLFAYIENI

TYLVTILGFASAGLAIAMKDMFMSMLGWCVIIFGGSFRVGDRVKVFQNDTTYIGDIIDISFLRITLYEEL

TLETYNKNRRSGRIIFIPNNYVFTNLLANYTHHGMKTVLDGIDISVTFDSNLDKAQEIVENIVTRHAKGY

TELARKNIARLQHEYSIKNPKVEPRFFMFFEHWGMRISAWYMTNAYAALVLRSTISKEIIKEFNKHKDIK

IAYPSQNLYLGNLNQNHFEQHHENMYFHARNKD

>CCK67101.1 MiaB-like tRNA modifying enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEKVFFKTFGCRTNIYDTELLKSYVKDYEIINDENKAQIIVVNSCTVTNGADSGIKSYVNTMQKKGIKV

ILTGCGAVSKGKELLDKKQVFGVLGASNKDKINEFLGAKTSFYELGNLNFIDKDIVCEYENHTKAFVKIQ

EGCDFACSYCIIPSVRGKSRSVDEKALLKQVEILGANGYSEIVLTGTNIGSYGLKNGTTLGKLLQKMGQI

LGIKRIRLGSLEPAQLDESFLEILDEAWLERHLHIALQHTSEKMLRIMRRRSHTDNDLKLFNTIASKGYA

LGTDFIVAHPGESEELWQEALRNFKEFPLTHIHAFIFSPRNNTHSATMKDVINGTLAKERLNTLKSIVEK

NNYEFRKKNQVSLEVLVENQKDGFFEGYDQFFNKIKIKSDKDIAKEWIVISEYEVQEKSNFTNLKG

>CCK67100.1 membrane bound ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNKKIILASFMVLCMLLGILYFKNEPKYIDENLYQSLLSQNLIQKAVIDKDEIWLKAEGENYVIIKDGI

DIKTLLSKVPVEVKKDNTLWVFFVLLIFIIALFISLGYFARKKELAKYPISNKNQNHTQAQNSNINLESS

HIKPVISNITFNDVAGVDEVKMELSELVDFLQNPKKYKEFGVKMPKGVLMVGPPGVGKTLIAKAVAGEAG

VPFFYQSGSSFVEIYVGMGAKRVRELFSKAKMMAPSIVFIDEIDAVGKARGEMSNVERDSTLNQLLTQMD

GFEDNSGVIVIAATNKIELMDPALLRSGRFDRRIFLSLPDFKDRLKILEIYMKDKNNNINLNKIAKASVG

FSGAGLETLVNEAAINALRRNSALVEESDFYAVLNKVLLGKKKILSFNNEEKKIQATYQAAKALSAYYFD

IGFEKITLIEDRFKEYEHNIRSKSELINRIKVYLAGSRAMRLIYNESYTNSQDDFLKIKELLDYMLSFDM

LKESNLSEQKKEMDEFLNSMKDKILKLSELLLEKEKIEYDDVKDIMQV

>CCK67099.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIKFLNIITILSLSLNADIIISADNLPNVSKEFLQHNFKAPIGIVQKDKNSYEVYLSDGTELEFDIDGA

WKEIENKAFPFDLDFLPQNLANIIKNEFPNTKAREIERKINHYKIKLDNDIKILIDFNGTILYKEFDD

>CCK67098.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLTIFLIFLNILCYFLISYDYYNILGLNILFFNGAYWQLLSSMFLHGNLTHLILNMIVLFQFGRMLETYL

GALCFIFIYFIGGLLCSLLSVFYVYFDFKYFGENINVIGASGAICVLMGFYAVIDKNSTKGLIVAILLMS

FVPLLMGVNVAWYGHIFGFMCGYILAKIKEVK

>CCK67097.1 phosphoglycerate/bisphosphoglycerate mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIYIIRHAKASKSEDIDDFERKLTKSGKEDLKKLFKNLASHEIHPDLVLSSPAVRTAKTAKKIAKFYN

FDKNRICFDERLYLCNVENLLKILQDIDDEFNEVFLVGHNPSLMELGELLSSLCLASFPTSSILCLEFDI

KEFKNLKKHSGKLVFFEHVRKLKEEKDLGF

>CCK67096.1 RNA polymerase sigma factor RpoD [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNAKTQEAELEELFQENAKDYITYEKLVKYLTKQPSASTTKKVQALMKKHKVQLFSAAEIAQMKNIEDAK

RLQEEKQKLQDTSLENEFDLANENDLLEWSRSDSPVRMYLREMGQIALLNKDEEIEISKKIELGEDIIID

AFCSVPYLIDFILDYKEPLINRERRVKELFKSFDDEEKSDDKLDELDIDEDEENETELESDEENTKKNSK

KEDERTLKVIEKFKALEKAKKDWLKTSKDKESGDELLDKLSIAFKKNILKEKLMDLGPTSKLISEIVKSM

ETALKSDEEFDKELKRLEYRLPMFSDELKKRHADILKDITKLSKEEITERALETTMVSTYMEIKKLFQTK

EASEKSFDLEKSRLKEILEQIKRGKKISDEAKGRMAKSNLRLVVSIAKRYTNRGLPFLDLIQEGNIGLMK

AVDKFEYKRGYKFSTYATWWIRQAISRAIADQARTIRIPIHMIETINQINKIIREHLQKDGKEPDVSVIA

KEVGLSVDKVKQVIKITKEPISLEAPIGNEDDGKFGDFVEDRNSLSPMDHILKDDLKEQIDEVLDQLNDR

EKAVIRMRFGLMDDESDRTLEEIGKELNVTRERVRQIESSAIKKLKHPKVGRKLKNYIEGWK

>CCK67095.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIKDIEIFLDLLNTQSPTHTANNFSITQPNVSIVIKNLENKFDGILFERLGKKLLPTPKALELGKNWLK

IIQAYYQSLEKLNDESMLLGEIKIASTQSISEHFLAPILFDFKAEFKNIEIRSQTQNSKECLNLLKNGNI

EFAIIEAELDPALVEYENLEINFWQDDELIVATSDKKLNEKEFYIDELLEQKWILREVGSGLRDKFLNEI

GASSKKLNIFLELDRMAAIKELVLQKKAISIFSKKSIEKELKNSTLYEIKLKNIDLKRKFYTLKRKNYNF

NRALEKFEKIFKS

>CCK67094.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTSFLAHSVAIVRSNFKGLLFTACIVIFAMYLSSVQSIKDTTHLAATAFAIIIGVLLSPWFFKYQHHFQ

AGVHFSAKKLLRLGIVLYGFNITLTELLSVGLKGFLLSAIVIFFVFIIALFVGTKIFKLDKETSMLVGAG

SAICGAAAVLALESSLKSDPFKGILAVGTVVIFGLVFMFLYPIAFSLNLFPFFDQNAMGVFMGATLHEVA

NVAGAAEMAKDMAGFEQGASNVAVIIKMMRVILLVPFLLIVTYFFAKNQHSSSGKTAKSITIPYFAFAFL

GMIVLNTYLASKESILGIATSDIISLGKTLCTLCIVFAMAALGLQIDFKKFLKSGSRVFGLAFVLGLVLI

FGGYFLTLAFKGILW

>CCK67093.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILVSVLSSCLLASALSAVSFKEDSLKISFEGYKTKDMIGTKGEFKNVEYKFSKNIKDLASYLKGAKA

TIKPSNAFMGEGNDIITNNITKVFFPALLGDTDIKVVFQDVIAGENKGVISAKITMDKKSTIVPLTYTIK

DNKFEAKGQLDLHTFKNGSKALKALSDVAAGHGGISWPLVDISFNADLAE

>CCK67092.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIFKDYDFLQNYDLKNFEEKVKIYKELLSKFNRIHNLTHLKNIDENIFDSIKILDFYDFSKAKNIADIGS

GAGFPVVFLAFLLQSNFHLFEPNPKKAAFLRTLKIECELPNLHIYKEKVQEYKNTFKADIITSRALMDVK

PLLEICKNLKDENTVFILWKGSEIYQELENIKDYEIFENNLRRYCILK

>CCK67091.1 GTP cyclohydrolase II [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEIKISEIANLPSKWGNFQMQSFKENDKEHLCIFKNTPKDTLNLRIHSECLTGDALGSLKCDCGEQLEFS

LKYIEKNGGMVIYLRQEGRGIGLFNKVNAYALQDKGFDTIKANHQLGFKADERTYEIVEFILKHYEISKV

NLLTNNPEKLDSIKEKIITRIPILIEPNRFNVEYLNIKQTQMGHLK

>CCK67090.1 delta-aminolevulinic acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFKRFRRLRLNENLRSMVRENSLSVNDLIYPLFVVNGTGIKKEISSMPDVFQMSLDEILKECQNVVNLGI

KAIILFGVLENEKKDSCGSDALDDEGLVARSIREIKKNFPDLFIISDLCFCEYTDHGHCGIIDPKIKSVD

NDATLEISAKQALVHARAGVDMIAPSGMMDGVITTLRKALDKEGFENLPIMAYSTKFASSYYGPFRDVAE

SAPSYGDRKSYQMDFANGKEALEESLEDEAQGADILMVKPALAYLDVVKEISLHSNLPLCIYNVSGEYAM

LKAAKNAGVIDYEKVLYETIIAFKRAGAKLIITYHAKELAKMLKGEK

>CCK67089.1 ornithine carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAMIFEKNSTRTRMAFELAITELGGKALFLSSN

DLQLSRGEPVKDTARVIGAMVDFVMMRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWNK

MQNGIAKVAFIGDSNNMCNSWLITAAILGFEISIAMPKNYKISPEIWEFAMKQALISGAKISLGYDKFEA

LKDKDVVITDTWVSMGEENEKERKIKEFEGFMIDEKAMSVANKDAILLHCLPAYRGYEVSEEIFEKHADV

IFEEARNRLYVVKALLCFLDNQRGRE

>CCK67088.1 hypothetical protein BN148\_0993c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKELEKYSTCLKRIDEFSQNLGIKKKDRTIFKMKQSENENEKCLVLENGSFDSPEPWFVIDENDEIHTLL

SLQSLKNILESLKQSQKENFELRLEKAIYQQIPVDFNDVWTVAMDEIKQKAQNGTMEVSIDLEKLISKIK

QEHPNLFVDMQAMIERVNQNERL

>CCK67087.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRDYKAFVKYSKAGPRYTSYPTAVEFNANFKYEEYIEILKKQDRSLSLYFHLPFCRSACYFCGCNVIYTA

KEESKERYLTYIFKELDILSTILDTKREVVQMHFGGGTPTFFSAKQLQSLILKIRSVFGNFSKDAEISCE

IDPRFLNEEQAIVLTQNGFNRISFGVQDFDEKVQKEIHRIQSFELTQNALNLVRNKGIKSVNMDLIYGLP

YQNLQSFTQTLEKVMLLNPDRLAIFNYAHVPWLKKNMRKFDENTLPSPDVKLEILEFCEKFLSKNGYKMI

GMDHFAKENDELFKALENGTLHRNFQGYTTKGGADLVGVGLTSIGEGQRHYAQNFKDMSSYEAALDRGVL

PFERGVILSDDDELRKAVIMELMANFKLDIKSIEKEFSIDFKEYFKEDLKALEEYKDFVNFDENFIKVNE

TGVLLIRNIAMCFDAYMKNISEDKKVFSKTV

>CCK67086.1 oxidoreductase ferredoxin-type electron transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFSQISDACVKCGKCIPVCTIHEENRDEITSPRGFLDLLTAYKEGSLELDKEAKKVFESCFLCTNCVEV

CPSKLRVDNAIEEVRYDIAKKFGIAWYKKLIFFFLRRRKILDLVAKLGYVFQSCAFKIQNENENTGMKAR

FSMPFVKKGRLLTSFNKKSFLNSNPKFINNDGEKTIGFFVGCLANYFYIDTANAVLKITKELKINVDLMK

EQVCCGAPQFFTGDFKSVEVLAKKNIEYFEKKLEKLDAIIVPEATCSAMLKIDYEHFFIMQNDLDWAKRA

KCVSSKIYMASEYFYKFTSLEEILKTKNKFNYSITYHDPCHARKMQGVFKEPRELLKTNYHFVEMSNSNT

CCGFGGVSMQTDYYDRALSVGLKKAQMIDESKASVVSAECSACRMQISNALEQNSSKVVFASPLELIAKA

L

>CCK67085.1 hypothetical protein BN148\_0990c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMMKIVFKGKSSEYEIQRSCFCVDAFVIKDKIEERDGVDFITSNVDLLEFSDDSFTFEEIVKHFNICDTE

DMIIVEDFDMKSNKDNQNQEDDIEHNILKSEKIIHENTKQTSMQFKNLKFFSRIFKNENFLSDFKESKQE

VVTIKKHEKLEIFKNLSQEDQEISFVKIEILNYDSNEDSLSFNLDIFPSGMSYKYGILKGSMHIILQGKT

SSTMLFPFLKSMIYKNKSENSSEKIFTLMINQKKHYKLIANLS

>CCK67084.1 hypothetical protein BN148\_0989 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEFLAFIFLIIIFLFVVFIIVTRYEKKIKLLNQNIQNMKEDIADLKETTQKNRSLIEKNRSNIENIIK

>CCK67083.1 hypothetical protein BN148\_0988c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKIPYFSFLKLDFEIYHLNTSKNFYGFFILYFSFFIFKLIYKFSKSNKKIYKKIIKLKKIIKDNKYLIF

LCYILINI

>CCK67082.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKSLLFHFRRIGVEFIIFSVYAVFSISWAATGSLMPLISNDLALNTQQATLITSMIVVAKIFGASFTAF

LVYKFGLKKGYFLGCILMSSGIFLSFVDSYSGILIIRFLTGLGSACALVCLVPIAQQWFEKKALHFVISF

NITSNLVGITLGLVLAESISNYFGNWRDSLSFYAWINLILLILWLFVGKDENKKEEKKNNAKDLIYALKS

RVTWGMIIFYIGPILFLNSLFTFLPTFYAQYAGFSKELADFAKKEIPALANFAIIFGPYLGLFFKRKNIS

FKIMLLSGGACIFICGFCMLFLQNLVLIQIFAVLSGIFYSM

>CCK67081.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSAFWSITFVILSFNLWVVSWSVDKTHSFTLGFVYIFALIFISAILAQFVLPRREKFIQGEK

>CCK67080.1 hippurate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLIPEILDLQGEFEKIRHQIHENPELGFDELCTAKLVAQKLKEFGYEVYEEIGKTGVVGVLKKGNSDKK

IGLRADMDALPLQECTNLPYKSKKENVMHACGHDGHTTSLLLAAKYLASQNFNGALNLYFQPAEEGLGGA

KAMIEDGLFEKFDSDYVFGWHNMPFGSDKKFYLKKGAMMASSDSYSIEVIGRGGHGSAPEKAKDPIYAAS

LLIVALQSIVSRNVDPQNSAVVSIGAFNAGHAFNIIPDIATIKMSVRALDNETRKLTEEKIYKICKGIAQ

ANDIEIKINKNVVAPVTMNNDEAVDFASEVAKELFGEKNCEFNHRPLMASEDFGFFCEMKKCAYAFLENE

NDIYLHNSSYVFNDKLLARAASYYAKLALKYLK

>CCK67079.1 hypothetical protein BN148\_0984 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKILFSPSESKNENCVKNPINENSFIFKELFPYRMEALKHYEEFIKNASLQNLQELFGIKNENEIDKFKH

DLKQAPTQEAILLYTGVSYEYLNFKALDKKSQAYILENTLIFSNLFGIVRANDTLPFYKFKQGAKIGNFA

IEKFYKEHFSKALDEYLENEEILDLRAGFYDKFYTPKKKFYTYKFVKNGKVISHFAKAYRGILLSISAKN

QVKNNKELLANLPSNLKLKEIQIKGLKEEIVLEILD

>CCK67078.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKGIFLSIGIAVLFSACGNSIDEKTVKKYENQLNQTVKQEIASLSQDSGIKIEFSDFKCNADGDFIACL

SPNFKTLTKDNNDEYQELFQAKNIKIRSNEIYKGKANASISIKEYYNDLFKNQKSIQSNLVFEDFKLGEK

VVSDINASLFQQDPKISSFINKLSSDSYTLSFDNSINKQENNYLDNLDIKFYNAKLNFNTNLNINLKEDL

LNYLDSKGIKFNTQTLVMDKQAINELLNIANYEQASDFSNTIQKYIILNNFKIDSTLKTEGVFSSYIATA

KENLQTLKAQSQNEEQALIFDKALAILNNITQNDDYKLNLDLKFKNIPVSDYSTQGIDSIEKLSINNQDA

TEALKIILPFIMFSMLMGGASF

>CCK67077.1 amino-acid transporter periplasmic solute-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILLSVLTAFVAVVLAACGGNSDSKTLNSLDKIKQNGVVRIGVFGDKPPFGYVDEKGNNQGYDIALAK

RIAKELFGDENKVQFVLVEAANRVEFLKSNKVDIILANFTQTPQRAEQVDFCSPYMKVALGVAVPKDSNI

TSVEDLKDKTLLLNKGTTADAYFTQNYPNIKTLKYDQNTETFAALMDKRGDALSHDNTLLFAWVKDHPDF

KMGIKELGNKDVIAPAVKKGDKELKEFIDNLIIKLGQEQFFHKAYDETLKAHFGDDVKADDVVIEGGKI

>CCK67076.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKKYKNIIYASLGGILEFYDFVLFAFFLDIFAKVFFPQNDAFWMQINAYIAFGAAYLARPFGSIVMAHF

ADRYGRKNIFYISMLLMVLPSFALAFLPSYESIGIFATLILFTIRILQGLAVGTEVSGAWIYVSEFVKGR

QIPLALGFISATLTIGLLLGNIATLGIRSYFTPEEVQSYAWRIPFIIGGFFGILALFLRNKLSETPEFIK

VQNEKKILSFPLFEALKTHKMSMLVCFLMTMVLTSGVATLMILPKYFESLLAMSKTSALWVQNFAILAVI

FGALFQGFLASKWGSYKICSIFSIAFIIFGMLFGFYDENFLFYFLLACFAQGIITFAPVFMTQIFKSELK

FSGLSFAYNISYAILGFLTPFIVNAFYKEYLGIYLAIVGSCSLLCVFLLKRVFARSKIKELSIVF

>CCK67075.1 peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNVIENFKQLCKIPHCSYETEQMKEFLSSYAKDKGFKVSVDKAGNIHAIKGKPKICLQSHYDMVCMGDA

PNLEVYEENGFLRAKNSSLGADNGIGIAIMMSAMAEFENLECLFTNDEEVGLMGVNLLEHTLESKMLLNL

DHESDDEIMIGCAGGVDIEASLSFNTLRKKGKIYELCAQNFKGGHSGINIIRNEKSSIKEMAKFIQENEG

EIISFEGGERINSIPKHAKALVHFKDEVKSNNWIKCEFKEENEFEICDQSKKLLSLINSFTHGVRAYDEN

LDIVQTSINLATLRMQDNQIKFALFARSNILDGLKQVEFETLEFFKAFDFKIRSFNFYPPWEGKPNALSD

MVFKALKKVSPNAKVSAIHAGLECGIIEKKQELLCASIGPNIHNPHSTDEHCEIASVEKISKVVFEVLKD

NA

>CCK67074.1 secreted nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRINYKKIFNLRKLLSDPKKLFSVLIFTLVVVFIQNYIAQNSSFEGKVVRIIDGDTIEVNHENKLARIRF

FGIDAPELKQSFGKQSKEALSRILSGKQVEIIYKNKDTYGRIVAIVKLNDVDINRFLVSKGYAWADTYYS

NAYTKEQENAKKNHLGLWKESNPIEPYKWRKHNKF

>CCK67073.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKYTLMVLLVLGISGCFVNERGISNRFYDDCKEYYDGSGTYHKDCPKNWVDIKMTP

>CCK67072.1 hypothetical protein BN148\_0977 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKKDNFEEYAQLEEYASAEDISRVRAELLTCPELNTSLAGTIIEIDKNYAKSILITTSEMVADDQGLIF

DAFIFAAANYVAQASINKEFSVIIGSKCFFYAPLKLGDVLELEAHALFDETSKKRDVKVVGHVKEVKMFE

GTIQVVSTDEHIFKLKRPPLNTVKPTENQEQGAKINNPEAVAAALMASVGGK

>CCK67071.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSRIKMQENLLEKQFLNHPLYAKIQELKALNLACNFSLGDSVNLSTNSQAKDEILAIAKELKPWRKGPFK

IDDLFIDTEWQSFIKFNILKPFMNEISQKCVADIGCNNGYYMFKMLEFNPAKLIGFDPSIKYRLQFELIN

ALAKTPIKYELLGVEDLPSYSLKFDVIFCLGVIYHRSDPIKMLKDLKAGLNKNGVVFLDTMYIEDEREIA

LVPNKTYSKIPNIYFVPSISALKNWCERAGFKEFEVLATKKTDENEQRKTEWIDSFSLENFLDPKDKNLT

IEGYEAPKRVYIRIKI

>CCK67070.1 outer-membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLEQSPYKEDANSKNYNNTLKVKDGVIIIDHSNTSDDNNSKTINTKKNTQKNQPNLSNDNTLKTKTPNSN

TPSLKNTSKEESIHKVSFSFHITNKNINFKDLGLDEQVLQEALNDYKKESISVQDLQDIANIISYYVQVS

GYPAATAYIPQQELKDQIQINITLGVLGKYVVQNNSSVRDYAIESKLPNHKGEIITTKLVEDAVYKVNEM

YGIQTLASLKAGDNPGETDVVIETTPSDSFVSVLFYGDNYGIKESGRYRDGASMSFNNIAHQGDSLNAYL

QRSDEAQTNYSISYTTFLGNLKITPSYSKRNYALGGAYKNANFIGTSENLGIDLKYPLWITTYNSFYLTS

SYYHKKLSNSRLNIMTIDKSSDTISFSIEGVYNGISNDSFSYSANVSYGNVKDGGTTILGMSSKTDGDGF

GKFAKLNVNLNNAYFFNDTFTHLFSLNYQQVVNGATLDSSETISLGDPYGVRAYNNGDGEGDNAVVASFG

LRMATPLKDFYITPFYNIGYSWYENDSKLYRASETNYMDAYGLQLLYNKTGNFYVKLDLARALKKYKLDD

DYSSKAYVSFGKYF

>CCK67069.1 hypothetical protein BN148\_0974 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKMIKIQKVKSLLDLVKKLKNKQSLKIKNQTNTKENLNKTHYLTI

>CCK67068.1 hypothetical protein BN148\_0973 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLQLFIQTTDEDPNINEDDKQASIDEASTQESGNVV

>CCK67067.1 hypothetical protein BN148\_0972 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTKGQENAQKTYDTAVNAYNEAVKACNTALSGITGNNGDKVIAGLKQAIDKVSSDLQQATIALQIATAST

NSSLENSNKTLASASINGTSHLTVNENIVQTISQYPL

>CCK67066.1 hypothetical protein BN148\_0971 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSIRSNKGLTGPGGDPTDTIGYKETSDLIAKDNISNEVLNSIFNDLKFNSSVDISDLSKFYKDGKILTAD

ELTSINQSMDFITALYGQTQDSNNATFANALKEVLGNSYGDLGKANQVIIKTKEILSQNS

>CCK67065.1 hypothetical protein BN148\_0970 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEFTKDGKLSAFKGNPKTISPVIKSNAGNVINLETITVGERVAMAGNQVSNMKYGGTDYGKFIFTNKKE

QSNTVYLNVYSNDTFVIRGPASNTIKKKTL

>CCK67063.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKFCFKLSIVTFLSINAFAATQANTTDNRNFNIPEHYFNDNELYDKTNSTYKKLQGINYYAKSSKQYIN

NITLIYNNPKPNITNINDLNFKHYLLTPDMREDEVLSFKARHGVNTAGHSIKTVRVLPFLITAKTDHADA

SYNKLILEQGELSSVFYLKPKDTHIKNPSNSKSNQRMNFLMSSTFTHYGNASYNQTILQKDAHISMGVEN

TYDLALNGAPYLIGAIATYGDSTNNSLNIEAGSSVEFFTSLPKKDKNGNNTFDERITHLVGGLAYQGNVK

NNKIFIKDANMIIHGPSKAYASLAAAHISAGYIDSGTDKNFQASKNLLDIDGFNLDMYMNHDKQPLAYNS

VLFADFWGGKTEQGQALDNTINLKDIKNLKKDKNNENIFAQALFNFYAGASNNGEANYNTLNIELKHPLE

IANNFLGYNQHSFYGGFATKGANHNTINIKNDLTTTDLSQSYKDALNIVAARTLEGSADYNKVYINNSMS

TLPVYIYTAKKNILNNQDFYPSSANNNEVVIKDFASFRNLTVLTEAKEASYNTINYNNVQSITDVSNIDK

GSKIIIRALDKANHNTIDIKNYSSNAADNAYLIMAYNEAAYNKIIINDTLFGVASDKREGILSIIAGLSN

NAHDNTLIINNLNLDEYKNNNSIFIAPSAITGLSEAKSYNNTLYIGGNLNIFKNTFIDILAGALVHYEDN

YSASNAAAPSDISLSKNNRLILNTKVEARIINNFEHYYLIVSNKINTTPLLKSYDAPINISS

>CCK67062.1 acyl-CoA thioester hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKMRVYYEDTDAGGVVYHSNYLKFCERARSEIFFNKKVDIFDASKGHFLLAKANCNFLKPAKLGDMIEIK

TKILEVKNASVEILQEIYKDEILLFKMELTLAFIKNEKPARMDMQLKKLFEELF

>CCK67061.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIFLIFFLSCFLLNAKEQKLVDVKPVENFYPKLSVQECNTNCLFDLLESRLYLSFLSEFADQNDQFLS

NVYAKLLNSITDFEKNVQKITSVKLAIIIPEKTIKSYSNTIINSSIAYLLRQRAEIKVKVFLTGTEDNDK

IRAALDAAQAQGYQYAIAGFTLKGANELKNYSGNMKIFIPTIHKNNIQISNQNIIFGSIDYDAQIATLLS

KSNANIAIFSDGSALSSNLNSRILAQNNNARIYTIEGEKLDFSRLLRSQGGVNNASIFFNTPLIKTALAS

SQLRIYNIHPYVLLSTQINYNPTFLSLTQQGDRENFIIANSINNHDDNLVYLNEIFNQSIDYNWIAYATS

IGVDYFYTEFLNKKSESLFDEKIKNSQVDYKVRLMQGKQASFEELK

>CCK67060.1 hypothetical protein BN148\_0963 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIRSLYYLKAMGFNFVDTHTNHFEQVQNFQELKQLVSSCTLCQFSKTRKFSLMEPKIKNAKLLILDVFGQ

KSENESGILLNSKKGEKLKHYIYQILGLCDEDFYFSYLFKCFCNGKFDDFSLQSCLPFFWNELKLIQPAF

LLCLGEYTFKSLGFKDYHILKGEVFAYKNFFIMPSYDLDFIEKNPSYEKNFIQDLKKIKGFL

>CCK67059.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSEFKIIDLRQEDLDILQEMIIEFAKYEDMLDFLQCTKEKLEHSLLKNKFARAFLLKENEKTIGYMIYFY

TFSSFWGSGGIYLEDIYIREDFRKKGYGKAVFKFLGEICKKENLKRLDWVCLNDNILGINFYESLNAKHL

KQWRNYRLSGENLEKLCDL

>CCK67058.1 50S ribosomal protein L34 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKRTYQPHGTPRKRTHGFRVRMKTKNGRKVINARRAKGRKRLAV

>CCK67057.1 ribonuclease P protein component [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNFDKFSTNEEFSSVYKVGKKWHCEGVIIFYLNSYEKKIAVVASKKVGKAVVRNRSKRILRALFAKFER

YLQDGKYIFVAKNEITELSFSRLEKNLKWGLKKLECFK

>CCK67056.1 hypothetical protein BN148\_0959c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MICLKILRFYQKFLSPLKPAACRYYPSCSEYALWQFQKKNFFLAFFSTFFRILRCNPFFKGGFDYPRVSK

NFYPINLCFKPIFLAEKQLCFLYIPYKNKSFYLIKIIFKRTNQ

>CCK67055.1 inner membrane protein translocase component YidC [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNNSNNIFQQKRILLAVVISFLFFVIYDYFFIPKQPLKIEQNITQKNQQNTSINNTPNIQNATTNTPSAA

LVSQDSVISKVQSKHFEAQIDSFGRISAFYLKDRKYQNEKGEFINLVSKENSPYPLEMRFSDPSINSEAF

KIPYVANASNLFVDENGSQVLKLTQNLSGLKIEKDITFYPKGNYEIEVKLSKNANYFISPGYRPNIAVDS

YTVHGALVMDNKETIETYKDGDVEKDESANNVVMTSAFDRYYATFFYNFDKPLNVAISKDANQNPIVFAY

SDNEFKAGGYIGSKEHVILRSIDPRLEAVVEYGWFTFIAKPMFEFLNFLHQYIGNWGWAIVVMTLIVRII

LFPLTYKSMISMNKLKDLAPKMKDIRERYKGDPQKMNMHMMELYKKHGANPMSGCLPILLQIPIFFAIYR

VLLNAIELKAAPWAFWIHDLSVMDPYFILPILMGATMFLQQLITPMTIQDPMQAKIMKFLPVIFTFFFIT

FPAGLTLYWFVNNLCSLVQQWVINKIFAKEHHKKTSGA

>CCK67054.1 hypothetical protein BN148\_0957c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIEAIDLQSALTEASRSLECSVMDLEYEIIQHPRKGFFGFGRKKAIIEAKAKKRILKKNPKKEFTSSKN

HKPETHEPKQENKIEIKNEKNKSQKEKYTVKSDEIFDSFHRESKGVRNTQDILDEIRIQLVKLLESSQFK

IELSELRMYDEDCVLIRLDGEDAALMIGKEAHRYKAISYLLHNWINLKYNLLVRLEIAQFLENQIQGMQL

YLQSVIEKIKIHGRGQTKPLDGVLIKIALEQLRAEFPDKYVGIKQNNDQRFVVINDFFKKDE

>CCK67053.1 tRNA modification GTPase TrmE [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSDTIAAIATAHGVGSISIVRLSGERALEFALKLSHKTKLTPRHATFTKLFNQNNEIIDEAIMIYFKAPY

SFTGEDIVEFQTHGGFSVSEVLLEELVSLGARLALAGEFSKRACLNGKMTPLKALNIQDLILSKSALAAK

IIARNMQGNLGELLEKIRTDLVKTLAFVETSIDYADDDLPSDLLEQISTMCEENSKILKEIYTLSQSKKG

LIEGFKIAIVGKPNVGKSSLLNALLSYERAIVSDIAGTTRDTIEENFKLGTHLLRIIDTAGIRESKDVIE

QIGVALSKKSLEDADIILAVFDASRVQDKEDEKIFDLLANTDKKIFWILNKSDLENVFKNTQNKNFIKLS

AQKDITLLKEELQNYLNSFDSEGIMVSSLDLINACKISSEAIFRAKGLLEESSLEFFAFELNLAINELAR

FTKDFQRDEILDEMFGNFCLGK

>CCK67052.1 phosphoribosylformylglycinamidine synthase II [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDKETIKAHKISDEEYAQILEILGREPNLLELGVISAMWSEHCSYKSSKKYLNGFPTKAPWVIQGPGENA

GVIDIGQGMAAVFKVESHNHPSFIEPFAGAATGVGGILRDVFTMGARVVAGLNSLKFGDIHDEKCGKHQK

YLVKGVVNGISHYGNCMGVPTIGGECAFDECFNGNILVNAFALGVCKSEDIFYAKAEGVGNPVIYVGSKT

GRDGLGGAVMASDSFNEESKSLRPTVQIGDPFSEKLLMEACLELFKTDYIVGIQDMGAAGLTSSSFEMAG

RSGSGMKLYLDKTPMRESGMTPYELMLSESQERMLICAKKGYEDKVIEIFKKWDLDAVVMGEVTNTGKME

LFWHDELVGLIPIEPLSEKAPILSRPTSEPKYLSEIKNYKFELKSSVQELFIQMLQNENINNKAFIYDQF

DSSVQTNTIKADGRLGASVIRIKENGASVAMAIECNSRLNYVNSKIGAALAVASAGRKVACTGAKPLAIS

DCLNYGNPQNPEVMWQFAQGCEGIKEACKELNTPVVSGNVSLYNETEGVSIYPSPTIVSVGVLEDANKTL

KASFEKENLSVYLLGESLGEFSGSMVMKIQDKKVSGSLKELDYKAELALWDLLYKANQNSLLECANSVGI

GGIAMTLAKMFAISSVGANLTSDFDDEKMIFDESASRAIIGLSKENEEAFLNLAKEFGVKAYKLGVSTSQ

KHFKLDSIELSKAELDKLYFESFKEQIQ

>CCK67051.1 DnaJ-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTLVLIILVVLVFYWYYKTWGKQDFLNSATRGAKGFAKGFARGVMEERMDEFKRRMNYYVIALLAKIAKS

DGRVSENEAEMIKDLLDANAKDEKERAFLKASFNEHKENLSDAFYVAKDFLKEVPLPKNERFNVLRVLVF

MALIDADFNAKKREILEQIAKAFDIAKSELDAFIASLSNLKSTKKELSLDEAFAILELPNNADLNAVKKQ

YRNLAKKYHPDILNANNVSEEELKIGVEKFQKINEAYEKVKKHLER

>CCK67050.1 bifunctional phosphoribosylaminoimidazolecarboxamide formyltransferase/IMP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRALLSVSDKEGIVEFGKELENLGFEILSTGGTFKLLKENGIKVIEVSDFTKSPELFEGRVKTLHPKIHG

GILHKRSDENHIKQAKENEILGIDLVCVNLYPFKKTTIMSDDFDEIIENIDIGGPAMIRSAAKNYKDVMV

LCDPLDYEKVIETLKKGQNDENFRLNLMIKAYEHTANYDAYIANYMNERFNGGFGASKFIVGQKVFDTKY

GENPHQKGALYEFDAFFSANFKALKGEASFNNLTDINAALNLASSFDKAPAIAIVKHGNPCGFAIKENLV

QSYIHALKCDSVSAYGGVVAINGTLDEALANKINEIYVEVIIAANVDEKALAVFEGKKRIKIFTQESPFL

IRSFDKYDFKHIDGGFVYQNSDEVGEDELKNAKLMSQREASKEELKDLEIAMKIAAFTKSNNVVYVKNGA

MVAIGMGMTSRIDAAKAAIAKAKEMGLDLQGCVLASEAFFPFRDSIDEASKVGVKAIVEPGGSIRDDEVV

KAADEYGMALYFTGVRHFLH

>CCK67049.1 HAMP containing membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMFKTIGFKVSAAIFVVLLISFIVMQVILNLDFKNTANKMSRANLDTVSTSVFQTMRMAMNLGDPEKIKE

AIEDAKSIEGISDIKIYPSKDTIDLFEMKAPQISNDKRIIEQFSNPKIQALEENVNLRLIRPLIADESCV

ACHANANVGSVIGVMDISHSLEGVQKDISKTSQSYIVIFTIALIFTLCVVLLMLKVVVGKPVLELLNHAK

ELAQGSGNLKARISVKGQDEIALACGYIN

>CCK67048.1 MCP-domain signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSNKANSANEKSFLLLEQMLKSLFNVANKVSTVSQNENELAKKVENMVNQAGNIQKATQMMDEIADKTNL

LSLNAGIEAARAGAFGRGFSVIAEDVRQLAQNSEEFLGNVAQITKELLQSINEVSAELKKNAQSVQALND

DTALLVDDANEVKLCNEDARALVTQCTEKIKISQENIQNLLSRMQENVEVSEKNEEISKILLQVADELKI

VCHNLESELNQFQI

>CCK67047.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKMLQIALAATFFAGCASTSLTSSTSKGNNELVQNQLFKIEKIIVNGKTFDPKNAEESPNISFENNKFY

GYSGCNRFFGSYQTKADTLQIEGDRVASTQMLCHPMDVMDFENSFLSNFKGTFKISNENGKLVLSNDEMK

IFFK

>CCK67046.1 peptidyl-arginine deiminase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKSIPEWSEQEYLMLSLPHEKSDWNPYLEEILQSYKEFVKVVSEFQKVLLIAPKQSDFENFKDIKNVEF

FKCDTNDTWIRDFGAIDIVENGRLKALDFTFNAWGNKFQSELDNAVNSKLFKEKFKEELKKVDFILEGGS

IDFNGEGVMLTSSHCLLNENRNSHLNKTQIDTKLKEIFGLKQIIWLENGFIKGDDTDHHIDTLARFIDKN

TIAHCICEDEEDEHYLPLQKMKEELKKTGFDLLELPIPKPLYYEERRLGATYANFVFINNALIVPFYKDK

NDEIIAKRLSKALPNHKIIGVDARVFLRQNGSLHCSCQNRFKGLR

>CCK67045.1 cation efflux family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSLQKKATLVASLCAIVLALVKFIVGLTSGSVAVLSSAIDSLMDFAISAFNFLALKKSSQKANENYNFGF

SKIEALMGLLEGVFIVGVGIFIFYESILKIYYKEEIKDLNSSIYVMIFALIMTFFLVLFLNYVAKKTKSL

IIESDALHYKTDCLTNACTLGALVLIYFTNLHIIDAIFGIVISLYTAFSAFKIIKKALAFLMDEALPKEQ

VDKICTLISNNPEIISYHELKTRKTPSCNYLSVHLVFCPIISLLNAHKISDEIEEGVRKMFENEKWDIQI

HLDPYDDAEQERQRQ

>CCK67044.1 carbon-nitrogen hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIALIQQKFHLNKEQTIKKTCEFIEEASKQGAELVCLGELHQSEYFCQSENVDFFDYANDYEKDVKFWA

NIARKNQIVLIASLFEKRSAGLYHNTAVVFEKDGSIAGKYRKMHIPDDPCFYEKFYFTPGDLGFEPINTS

LGKLGVLICWDQWYPEAARIMALKGAEILIYPTAIGWFDKDKDEEKQRQLNAWLGVQKGHAIANGLYVVA

INRVGFEKDVSGVEEGIRFWGNSFVFGPQGEELCLLDSQNECVKIIEIDKKRSENVRRWWPFLRDRRIEY

FTDLTKRFID

>CCK67043.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKSCLYFTFIVLFLTACSTKNLTSLHRENLEQKNENQHYVKLEYEQNVNILPQFAYDINFDAKRYKKYFF

NPWHDSFKNYKGQNIFWSFPLYLNSKNTYYFFNKQIIPLSWFKNAINNANIQEFGKLNQKALIIQNTIIK

NLPTQRAILKNPFFENEGIPFDYASDGILNTGAPVLISHFSKDKRYAFVLGEAGFGFVESKNLEFFSNDR

AKIYENLNFITPLKEKFAIYSEDGKFLFESRIGAIYPYYKEDKNYFYGKIGSKKYKISKKDVSKFPLQFN

DKNLKNQLSQVLNLPYGWGGYNFERDCSLLTRDIFSAFGLYLPRNSAAQKNSFNHFDISTLSNSQKKDFL

NRFGKAYLSLLYLPGHIMLYAGQITDNNIAIHNIWGLRKDATQRLLISSSVITSLEIGKNEILEDNLLLS

RLKEISFINLNEQEKEQIKSYLENIQNK

>CCK67042.1 helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFDKLEKILAYDNVFLSGGAGVGKSFLTNELIKSYRKQKKLAIALGSSALSAFNIGGVTLHSFFCLGYCD

DMMKLSVLDRNQKQKEKLTKLKELLKTIELIIIDEISMVSANVFEMIGFRLKNSQFNGKILVVGDFFQLP

PVIKEKKETLFNHSYYAFSSFFWQDLNFKNIKLSQPKRTQNMEFYNHLSLIRQGFLDEKILSFFESLRID

YKELENLEDDYTLLCGINKKVNNINQEKLSKLETPLVCFKAQVKKEDKRIKDEELDSWIRSLNILEELNI

KIGARIIFCVNNWDKNYYNGEQGIIEDILYEEEKIYISIIKNNGMKILLEPYTFFMEELEQSGKDFVVNI

LASVTQFPIKLAYAITIHKSQGMSIEKLVCDIDHIFENGQLYVALSRATNPNTLKIYSTKKINFGFYFAN

ILKIDSNVIEFYKKHNFLDLEIQEQII

>CCK67041.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIFLSVFLVLSLNAQNLEIDKIRTDLYSKSGANVLKKVEISLEFDGNNLKENENKLIDAVNTVISGFF

YEDIFTEIGKNNFKKTLEKFLDKKYKIKLDDIYIISLSGVEKFDLEEFKRFLESTEAKEKGMGSEVKKAL

ENLEVPKTQVPSVEKIPTPSVPNLEVKQVEQLFKDPDEENKNDNGEINIDNLNTPKMTPDIEEKIKRDLI

ANPPQIFKENNASKPYHLPQTGYDIKLDENSTQN

>CCK67040.1 outer-membrane lipoprotein carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKTFLIFFIFIGQLFALDLNFNTFSSNFTQIVKSKNSTLSYSGHFILSKDQAYWSYDTPSKKEIYINKN

QVTIVEHDLEQVIFSHLDNIPNLNEIFKKASLIDKDKLVAKYDNINYTIKLNQEQIQSISYKDEFENDVI

INLNNQIKNPKINSDVFKAKIPQNYDIVR

>CCK67039.1 preprotein translocase subunit SecA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFLNALKAVFGTKNDREVKKYFKRVAQINALEGNYQNLSDDELKAEFAKFKEQILSGEKNENDVLNDVFA

IVRETGKRTLNMRHFDVQLIGGMVLHDGKIAEMKTGEGKTLVATLPVVLNAMSGKGVHVVTVNDYLAKRD

AEQMSAIYNFLGFSVGVVLSSQNSDIEHKQAYDCDITYGTNNEFGFDYLRDNMKFSKAEKVQREHNFVIV

DEVDSILIDEARTPLIISGPTNRTLDGYIKANEVAKQMQKGEAVLPPAKPEGDFVVDEKNRNILITEAGI

AKAEKLFGVENLYSLDNAILAHQLDQALKAHNLFEKDVHYVLRNNEVIIVDEFTGRLSEGRRFSEGLHQA

LEAKENVKIQEESQTLADITFQNYFRMYNKLAGMTGTAQTEATEFSQIYSLDVISIPTNIPIKRQDKDDL

IYKTQNEKFKAVIEEIKKANAKGQPVLVGTASIERSEVFHNMLVKEKIPHHVLNAKNHEQEALIIQDAGK

KGAVTIATNMAGRGVDIKIDDEIRALGGLYIIGTERHESRRIDNQLRGRAGRQGDPGISRFYLSLEDNLL

RIFGGDRIKSIMDRLGIEEGESIESRIVTRAVENAQKKVESLHFESRKHLLEYDDVANEQRKTIYRYRNE

LLDENYDIRAKISQNIAEYSANVMNDYMLDESGSNVNFENLKAKILYECSTQISEKDFENLSVIEMQDKL

SQILENSYNEKMLRLEIKELRNIERILYLQVLDNAWREHLYQMDILKTGIGLRGYNQKDPLVEYKKESYN

LFLELVNRIKFDSIKLLFSVQFNQEEAQNLENKANEENEKLLQSSVEMGASEDNLGEAEFKKVPRNAPCP

CGSGKKFKECHGKSGPKQGILA

>CCK67038.1 permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKSVLKYLLFKYLRFDKEQPFINLSMLLAFLGVCVGLCVLLVAMAIMNGFDKEFEKRFFVMNYPITILP

KFYAPVNDEFIDELRKTFPNLLFSPYLSTQVVVKGDNRFEGGVLFGVNFNDEKKINEVVAKALKDENLSG

FDILVGSALTDEFGLHKNDKLSLIFSNLNPSGFSLVPQTKRFDVKARFTSGLAFYDKAYMYTDVDALKKV

LGIPKNPNYDGIHVYSDNAFKDVEKIKSYLKDDYAVVGWWEQNKNFFSALELEKRALFIVLMLIILVASL

NIVSSLLMIVMNRRSEIALLLALGASKNEVKKSFFALGMLIGGGGMIVGVVLAFFALWLLGNFDIVTLPV

DVYGTSKLPLDLSLMDFSLTIVGALIIIALSSFYPAKKATQINILDTLRNE

>CCK67037.1 glutamine transport system permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSLFTQKNKNFKPLKPLSKSKIITNLILLILFLILFCYCSFSISAYHFDFSAIATYKEKFLQGFLNTLII

SFFSLLLSIILGGVFCAFSLSSIVFLRFLSTFYIELVRGTPLLVQVLLIYYIIANNLGLDNRYVAGVIIL

SCFSAAYLAEIFRAGILSISISQLESARALGLKEMQVFAYVIFPQALKNILAPLSGQFANLIKDSSLLSV

IAVNELTQSAQEINSYTFATLEAYVILAITYLVLTLPISIFSRYLERKCQK

>CCK67036.1 hypothetical protein BN148\_0939c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLIIGHKLLKNLDFSFIESVEEVKDNKVYCIVYDEKLISYLSQNDFEFAILVQNKDEIFLANALGAKFLL

CNDKKLAKFASKVAEFYVFDSRVLMIVDKLENFKKFYKLKIDGIILKDNIDNFPKN

>CCK67035.1 2-acyl-glycerophospho-ethanolamine acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKKSFLKIYGLIPFLLIAFINAFVDLGHKIIIQNTIYKAYEGSEQLFLNAIVNALILLPFILMLSPSGF

LADKYPKNIVMKISAIFNVILTLIICICYYSGAFWMAFIFTFIMGAQAAIYSPSKYGFIKELVGKDFLAM

GNGVINAVSIVAILAGMALFSLSFESLYSSMYNQTDEILKEVAPLGIVLILFSCIEVFFAWRLPKLKQTN

KDLVFNKKDYIRGKLLINNLKLVFKNKTIWLCIIGISFFWAISQLYLVSFPVFAKNELFIENTFYVQISL

AFSGIGVILGSLVAGKFSKNYIELGFIPLGALGMFLMAFLMPYFISLLSYSFLFFFFGFCGALFIIPLNT

LIQFHAKENELGQILAGNNFFQNIAMLGFLLLATLFVKFEINVIYLFYFIALVTFIGSFYILLKLPFSLV

RILLSIAFLQRYRLLVEGFENIPEKGGALLLGNHISFIDWAVVQMAIPRKIYFVMERSIYSKWYIKIFLD

KFGIIPVSSTGSKTSLELIAKHIKEGNLVCLFPEGTLSRHGQLNEFKAGFELACECLSEDDGKIIPFYIR

GLWGSAFSRSDEEFSARNRTLNKRKIAIAFGKAMPLHSKKDEVKAKVFELSFMAWKSQCEAMHTIARAWI

DTAKKNLNQIAIIDTLAGDISYRKMLTLSLFLNFFIKRKSKELNINLQRGSYAPKEEAIGILLPASFASS

LTNLSVLIAEKIAVNLNFTAGEKALKAAIKNAQISQIYTSKTFLEKLANKGINLNFDTNIHLIYFEDIVE

DFKMQKTKIFSMMLAVSIIPSFILKSIFTPSKNNLAIAAILFSSGSEGSPKGVMLNNRNILSNIAQISDV

LCTRNNDVILSSLPPFHAFGLTVTTFLPLLEGIKSITFSDPTDALGVAKAVAKNNVTIMCGTSTFLGIYA

RNKKLDALMFESLRIVVSGAEKLKNEVRTTFEMKFKKSIFEGYGATETTPVASVNLPNHFDVDYWLIHRA

NKEGSVGMPLPGTAVRIVDPNNYENLKTNEDGLILIGGHQVMVGYLNDKEKTDEVVKEIDGIRWYNTGDK

GHLDEDGFLYIVDRYSRFAKIGGEMISLGAIEEEIAKFIDTEVVKFCATSLEDEKKEEQIVLLIECNNEI

FEGVCEAIKNSNIPTLFKPRYYFQIEKIPLLGSGKVDLKKVKELAKNLAI

>CCK67034.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFVFIPLFTIFILLAGGYFAKRIGVLKQKQARTFLDFAIIFALPCLIFDKAYHLNFDFSLIIFIFIGLFS

CILAAFFAILIGKVFHFSKVTLVSMFLLSCFGNTIFVGMPIVAGIFNDPQFSAEVIFYDALATTLPISLF

GPFILSLGNGEKVSLLANVKKILSFPPFLALLFGFLCKLITLPEFIFSPIRLFGASATPVALFAIGLGLG

FMAIKTSYKPTIVVIFAKMILAPLFFVFCLKIFNLELKDSTIVAIIESAAPTMTLAGAMVMKAKLDSNLA

VSAVAFGVLFAFVSMPILIWTLL

>CCK67033.1 F0F1 ATP synthase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKVLFLLLACTAVAFAAETNAPVEQEAINVWIKAFSVLAAGLGLGVAALGGAIGMGNTAAATIAGTARN

PGLGPKLMTTMFIALAMIEAQVIYALVIALIALYANPFIVLQ

>CCK67032.1 sodium:amino-acid symporter family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSSKFSKIGFILAVAGSAVGLGNAWKFPTLVGQSGGSAFILLYIILTLGVGFVIFLAELSIGKISEKDPV

NAYEKLAPSNKKAWSYVGFTMVGAILIVSFYTLVIGWIVKYVFLSITGNLPMDLEVSKAQFGFFISEDFL

SQFICFTLVFLCVFYIVSKGVKNGIEKLNVWMMPSLFILLILMLVYAISKDGFIMAVKFLFVPDFSKINT

SNVLEALGLAFFSLSLGVGTIITYSASLPDKTNFITSTLNIIFINLLVGLLMGLVVFTFIFEFGYNPNQQ

GPGLVFISLATLFEKIGVIGCIFGAAFFISLIFAGITSAVSMIEPFTFYLINTFGMSRKKALILIGIVVY

ILGMLCILSSLKSTQFGFFGMSFFDLLDSVSSKVIMPLGGILAAIFVGFVMKKEALKILFKPYMRGIFFE

LWYVFLRFISPLAVVIVMIAAFLK

>CCK67031.1 sodium:amino-acid symporter family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRTYFSKIGFVLTVAGGAVGLGNAWKFPTLSAENGGFVFVLLYLFFTLTIGFSIFLAEVAMGRLSKSDLA

NAYSNLAIKYGNRWRYGGVFMLGGIFVLSFYLVIMGWVLKYTVVSLYYLPKTLDEAASNFQNLITTNLTS

SVFFFTLSFFLTLLIVSKGLIKGIEKLNVVIMPSLFLMLVFMLFYCMGFKQGFANAFSYLFYPDFLHFKF

SSIAEALGLAFFTLCLGIGCIVTYSSALDKKTNFIKSSVYIVLINLLISFIMGLIVFTFIFEFGADPHTQ

GVGIVFISLMSLFNQLGALGYIFAFCFFLALFFAGITSAVSMIEPLTFYMINNYQISRVKALFLIGLFVF

VFGICCILSLNLNFFSMFSFFGKDFFTLLDKLTSNFLLPLGAIVCSIFVGFFMNKKQIYKIFSKFISRKI

FLIWLFFIRFISPIAIILVMCYQIFV

>CCK67030.1 pycB [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKKFIDVMDTSFRDGFQSVYGARVLMDDFFPAVEAAKEAGITHFEFGGGARFQSLYFYLNEDAFTMMDR

FRAIVGKDANLQTLARGVNTVTLDTGSSELIDLHAKLFAKHGTTTIRNFDALNDINNLKFSGECIAKHGL

KHEIAITLMDLPPNCKGAHDVPFYEKILKEILAAEIPFHSICFKDASGTSNPNKIYETIKMARKILPQDM

HIRLHTHETAGVSIACYLAALEAGVDGIDLAAAPVSGGTSQPDILTMMHALKGKDYDLGGLEEEKILKYE

EVLKDCLKEYFLPPEATMVNPLIPFSPMPGGALTANTQMMRDNNILDKFPQVIHAMREVVEKGGFGTSVT

PVSQFYFQQAFNNVMFGSWKKIAEGYGKMVLGYFGKTPVAPDANIIELASKQLNLEPTTELAINIADKDE

SKSIAYTKTLLEKEGIETSEENIFVAAACKEKGIAFLKGEAKVNIRKLASMPKPMSADENKFTVAVNGNK

YHVEVSYGFDKDVNVKSVKKVEENKNIISSNSTSSVDAENEVLAGISGNVFKIYVNEGEEVKSGQAIMVL

EAMKMEIEVNAPKDGIILELCIKIGDTVNEGEVLAIYKN

>CCK67029.1 phosphoenolpyruvate carboxykinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKFDKLGLDNIKEIFHNLSYDELNAHEKANNEGLSTDNDTFCVDTGIFTGRSPKDKYFVKQDPSSKYIA

WGKVNQPITKELFDKLLTKAKQELSGKKIYVQDVFCGASLQSRKAVRFVTEIAWQAHFVKNMFIRPSQEE

LENFKADFIVYNACKCINEDYKQDGLNSEVFVIFNVEENIAVIGGTWYGGEMKKGIFSMMNYWLPLENKL

SMHCSANVGEKDDVALFFGLSGTGKTTLSTDPKRRLIGDDEHGWDDEGVFNFEGGCYAKTINLDPEHEPE

IYGAIKRNALLENVVLRADKSVDYADASKTENTRVSYPIEHIENHEPSLKAGHPKNIIFLSADAFGILPP

VSKLSKEQAMYYFLSGYTAKVAGTERGITEPQATFSACFGEPFMPLHPTVYARLLGEKIEKHEVNVYLVN

TGWSGGSYGVGKRMSIKATRACINAILDGSITKCEFENFEVFDLAIPKALEGVESVLLNPINTWLDKNAY

IATRDKLAHMFIQNFKRYEDVKEGIEFSKFGPKI

>CCK67028.1 argininosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNEMWSGRFSGASDELLKEFNASLNVDKTLFNEDIQGSIAHATMLESCGILKKEELDAIIKGLEQVRSE

IEQGKFIFDIKDEDIHMAVEKRLSEIIGSEIGGRLHTARSRNDQVATDFKLFVKKSHIELIKLLKELIQT

MLEHAKVHKKTIMPSFTHLQHAQPVSFSFYILAYAFMLMRDIKRLQNSLELADFSPLGSCACAGTSYAIN

RELSAKILGFKDIMPNAMDGVSDRDFALDLLYDIAVIFTHTSRLCEEMILFSSSEFSFITISDSFSTGSS

IMPQKKNPDVCELIRGKTGRVYGNLISLLTIMKALPLAYNKDMQEDKEGIFDSVKTAKDSLIILNAMLKE

IQINKENMLNACKKGHLLATDLADYLVREKNIPFRKAHFIVGNVVAQAEAQGIDISEIKDLSKIDPVFDE

KAMELLNFEFSLNSKQSEGSSSIASVEKQIQILEGFIQNL

>CCK67027.1 GTP-dependent nucleic acid-binding protein EngD [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSLSVGIVGLPNVGKSTTFNALTKAQNAQSANYPFCTIEPNKAMVEVPDLRLNELAKIVKPERIMHSLIE

FVDIAGLVKGASKGEGLGNKFLSNIRETEVILHIVRCFDEENITHVEGGVDPLRDVEIINTELILADIEQ

LSKKIEKLTKEAKANQKGAKESLELANSLLDHLNKGLAASSYPEKESEIYQALIKELRLLSAKEVIYGAN

VDENGISEDNDYVKALKEYAKKNDHEVIKLCAKIEEELVGLSDEESHEFLSSLGVNESGLDQIIRTAFAK

LGLISYFTAGVVEVRSWTIKKGWKAPKAASVIHNDFEKGFIKAEVISYEDYIQYKGENGAKEAGKLRLEG

KDYIVLDGDVMHFKFNV

>CCK67026.1 leucyl aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFELNDKKLDAIKADFELVFIQDKNLKIFNKEKDFFKLNNYKGEGALLDLNNKKLYLELKSLAYEDIRL

SLCTAYKTLEKLNIKSVKLPSIIGDCVVRSFASLVEGVLFGAYKFDKYKSEKKTSTLEKFIISNEELNGK

KFNKDEAKIGLERGEILANATNFTKNIVNEIPEIYTPLKMAEDAQNLAKENKNIICKIYDEKFLAKEKMN

AFLAVNHASVHPPRLIHLSYKAKNAKKRVVFVGKGLTYDSGGLSLKPADFMLTMKADKSGAAAAMGIIKA

VAELALDLEVHCILGATENMIGGNAYKPDDVLISREGVSIEVRNTDAEGRLVLADCLSFAQDLKPDLLID

MATLTGACVVGLGEFTSAIMGNNEELQNDFYLSSKKSGEYTTILHFNPHLRELIKSNIADVSNTASSRYG

GAITAGLFLDKFIRKEYKDKWLHLDIAGPAYTEKSWGYSSFGAGGAGVRMCVNYLIQILRKAK

>CCK67025.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEEFLKNLLYQYKDLAYIIIFLWCILEGELALILAGIFAHQGHVNLGFVIFIAGLGGFVGDQIYFYIGRY

NKCYIQKKLKTQRRKFAVAHLLLQRFGWPIIFIQRYMYGFRTIIPMSIGITRYSAKKFAIINLFSAWVWA

SITILLAWYFGEQIWKMVTWAEEHWYYAAIIIIAFLSLLLFGFKQMEKAILKDKRKKS

>CCK67024.1 adenine phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKLTQEEQKYLLDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFI

FASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKVELHKDAFKNIQNARVLLVDDLIATGGTAIA

SYELIQKAGAKCVEACFLINLKDLNGANKLEKLTSVYSVLEI

>CCK67023.1 hypothetical protein BN148\_0926 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFTNWLVLTILICATIYLIVMLFYYKTLLNKEKTSKDFIKNNLDDTEIVIRKLQIQLQRSLGNIDILTEE

LNKIKADLTSLRTRNSQYRLENDKLRQRIKELEAKIEALL

>CCK67022.1 ribose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLREKIYIASDHAGFELKEKICVFLKEKNIIFNDLGTNTCASCDYPDYAHLLAEKINKRSFGILICGSGI

GISIAANRHKNIRCALCHESLSAELARRHNDANVLALGGRLIGVELAIDIIEKFIQTPFEEGRHMQRIQK

IEVKI

>CCK67021.1 MCP protein-glutamate methylesterase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLILIGSSTGGPNQLKFLLKDIDVKNTCVVIAQHMSASFIPSFVGQFNKEAFSEVCLLNDKEILSNKIY

ICPKNTILSGNLNIVAAWQDVASSFKPSVDLLFHSAVSLAKTNKILAIILTGMGDDGAKGLFELYKTGVR

CLCENEADSVVYGMPKRAKDMNPHLKPMSLKEIKKEIVNFIDQD

>CCK67020.1 MCP protein methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKKITPSELELNEFIKIINEMSGIDLTDKKNILALKLNKFLEGTNTKNFSEFLGKLKSNRQLKQETLDF

VTIGETYFLRELAQLKEIIYYAKSLEKRVNILSAPCSSGEEVYSLALLAAQNFIKDMYILGVDINSSVIE

KAKLGKYQGRTLQRLSESEKRRFFLESEDKFYTINKNELCTCKFELCNVFEEKFSRLGKFDIIASRNMII

YFDHESKLKLMERFHRILNDKGRLYVGNADLIPETIYFKKIFSPRGVYYEKV

>CCK67019.1 amino-acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIELKNVNKYYGTHHVLKNINLSVKEGEKLVIIGPSGSGKSTTIRCMNGLEEVSSGEVVVNNLVLNHKNK

IEICRKYCAMVFQHFNLYPHMTVLQNLTLAPMKLQKKSKKEAEETAFKYLKVVGLLDKANVYPATLSGGQ

QQRVAIARSLCTKKPYILFDEPTSALDPETIQEVLDVMKEISHQSNTTMVVVTHEMGFAKEVADRIIFME

DGAIVEENIPSEFFSNPKTERARLFLGKILKN

>CCK67018.1 bifunctional adhesin/ABC transporter aspartate/glutamate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVFRKSLLKLAVFALGACVAFSNANAAEGKLESIKSKGQLIVGVKNDVPHYALLDQATGEIKGFEVDVAK

LLAKSILGDDKKIKLVAVNAKTRGPLLDNGSVDAVIATFTITPERKRIYNFSEPYYQDAIGLLVLKEKKY

KSLADMKGANIGVAQAATTKKAIGEAAKKIGIDVKFSEFPDYPSIKAALDAKRVDAFSVDKSILLGYVDD

KSEILPDSFEPQSYGIVTKKDDPAFAKYVDDFVKEHKNEIDALAKKWGL

>CCK67017.1 ABC-type amino-acid transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNESVGFVEHLRQILTSWGLYDENSISPFAVWKFLDALDNKDAFINGFIYTLEVSILALLIATIFGTIGG

VMATSRFKIIRAYTRIYVELFQNVPLVIQIFFLFYALPVLGIRLDIFTIGVLGVGAYHGAYVSEVVRSGI

LAVPRGQFEASASQGFTYIQQMRYIIVPQTIRIILPPMTNQMVNLIKNTSVLLIVGGAELMHSADSYAAD

YGNYAPAYIFAAVLYFIICYPLAYFAKAYENKLKKAHLTR

>CCK67016.1 ABC-type amino-acid transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENVFNAQNIEFLMQGLFLTLKIALATCIISIVFGTFLAITKNYGDRLSKFLAACYIDIFRNTPLLLWML

AACFVLPVFFGQFPQAFWGTIGFSLYTSSVMAEIIRGGLNSIPKGQFEAAYSQGFGKFFTLFYIILPQTF

RKIIPALLSQIVTTVKDTAYLAGLGIAELTYNSKTILAKLTSFEEILAMIGVVAGIYFIICFSLSMLVRY

YAKKTAYIS

>CCK67015.1 ribose-phosphate pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRGYKIFSGSANVEFARQVSKYLSLPLSDAGVKRFSDGEISVQIDESVRGKDVFIIQSTCAPTNDNLMEL

LILTDALRRSSANSITAIIPYFGYARQDRKANPRVPITAKLVANLIQAAGIDRVATIDLHAGQIQGFFDI

PVDNLYGSIVFNDYIKAKHFKNAIIGSPDIGGVARARSVAKHLGLDIVIVDKRREKANESEVMNIIGDVK

DKEVILVDDIIDTAGTIVKAAEALKEKGAKSVMACCTHAVLSGKAYERIASGVLDELVVTDTIPLKEQLP

NIKVLSVTPVFAEVIRRVYHNESVNSLFI

>CCK67014.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTQLSTKILWLFVAALGAICFGYLALQNGESVSAIYLVVAAVCIYMIGYRFYGSFVAYKVLELDKNRATP

ALVENDGRDFVPTNKAVLFGHHFAAIAGAGPLVGPILAAQMGYLPSMLWILVGGVLAGAVHDFVVLFIST

RRKGRSLGEMIKDEMGKFTGGVAMVAIFGIMLIIIAILAMVVVKALAESPWGLFTIAMTIPIAIFMGIYM

RFIRPGRVGEASIIGFVLLILAIHYGSVIAADPYWAKIFTLEAPTLAIVMMAYGFIASVLPVWFLLAPRD

YLSTFLKIGVIVVMAVAIVLVAPDLQMPKANTQYFDGTGPVFAGGVFPFLFITIACGAISGFHALISSGT

TPKMLENETHTLAVGYGSMLAESAVAIMALICACILHPGLYFAINSSSALIGTDVVNVAQTISSWGFSIT

PEEITTLTTNIGEYTILSRTGGAPTFAIGVALILHELFGGVDLMAFWYHFAILFEALFILTAVDAGTRAC

RFMVQDILGNVYKPLGDIHNYPAGLLATALSVAGWGYFLYQGAIDPKGGIYTLWPLFGVSNQMLAGMALL

LATTILVKMGKARYTWVTLVPAVFVLVATLYGGIQKIMPYEEGNKIANAVSHVAAVSIQSQKIKDLEFKL

NNTKDEKEISTIRKEISIATQNKVGNLLNAILCVFFMIATLLVIISCIGICLGKIKIPLKETKYIKIDEF

QKI

>CCK67013.1 hypothetical protein BN148\_0916c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFKKFKYYYEKAERFFHPLVGLSSYDKYLEHMKQKHPGKIPKTRGEFFKECLDKKYNSGGLNKC

>CCK67012.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRDMGEPKLKIVAMPSDTNPAGNIFGGWILSQIDLAGAIAARELSPERVVTISMDKVVFKEPVFIGDIIS

CYSKVVNVGNTSISVEVEVTAQRVDSQGCTSCINVTSALVTYVSVTRDGKKNPISEELKRIHGFLNA

>CCK67011.1 CiaB protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNNFKEIAKLVRKYKERNNALYEFLDKEDVGEYFRSLISLSELKQDKTTMLAILRRLIDLKEENLVQEWK

KNNFKEDKIIELKHKFYEEVRKFYEKEHQNLINEIKEKKLLNNFYQSLIQGVHNIGLIMNIFEISWTKEI

IEKNNKILSTQFPNLDDAMEFLRKNHLYQKTPEGEICERSYGVLVRIGNLWKFVPYARFFENEILKLEFA

FENMIDQLKIFASSEEEKAYIEYFEKLKLAFCEKDEDRVIKAWQEAEFAWMKVKSPLQVGHPLEYYEDNY

THAVALEWDIRIEDENDFDVLKFGNEIKESFEHVYKNIGLEDCELEKEVLSNIEKTQLYICTPMIFYGAE

LKGLFSAQVVPNDEFVSSKAGKKIFAFINFVYENAKTKPFMKISSEVFDKEFLDFGRNILFYQEKIWKRV

YEVSTIGHEFGHIFFIANDTEKTMNQSGFFKNIEEYKATTGGLINFFYHEQDDLIMPVFHELIKRAIGLI

SWQRVDEVRPYYTEGLIHLSLLFESEVLIFENNNLKINFDLGYYEKFKELTLKNYHELAKHYALRLDAKE

FLSRFCEIEDNIFLPIMPKCKEFVKFYYDLYEKIGNEIDNSGEFERYKKK

>CCK67010.1 DNA-binding protein HU [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTKADFISLVAQTAGLTKKDATTATDAVISTITDVLAKGDSISFIGFGTFSTQERAAREARVPSTGKTIK

VPATRVAKFKVGKNLKEAVAKASGKKKK

>CCK67009.1 cysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVHEKVSELIGNTPIIHLKKFGINVFAKCEFLNPSHSIKDRAAFEMIKDALDSKKINQDTTIVEATSGN

TGISLAMICADLGLKFIAVMPESMSLERRKMITLFGARLELTPANLGMKGAVDKANEILLNTPNSFMVSQ

FENISNKNAHRKNTALEILRDLDNELDIFVAGFGTGGTISGVGEILKEKLEKVHIVGVEPLNSPLLSKGE

AGSHKIQGIGANFIPAILNKEVIDEVITVSNEDAINTAKELAKSGLMVGISSGANVFAASMLAKKFPDKR

ILTMLNDTAERYLSTDLFA

>CCK67008.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKNIILFIVIVAIILGVIFFIKNHQNSYDFILKSDLKEETTLKDFKGDKLIIYFGYTYCPDVCPATLSL

VGKALKQINNPKAHLLFISLDPNRDNNLSNTNEWLRYFYPKADALIAKDEKTLQKITKQYNVQYQKIDLN

DSFMGYSIAHSNMLYLIDEKGHFYKEINDLNPQEILRELRIFLNSQ

>CCK67007.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRKIIFILAFAFVIAILYIIFDFYVIKDSQKITKTDFSTPLTCDLNVKDCTYSFNNKKVLISLNPKPLQS

LDVTNLKIVNLGNYNNLGIKIYGLNMYMGEIKPKIHRLNSTDYESKIVLAACVLDTMRFRVEFMDNNKPI

GFYFDFELKK

>CCK67006.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILLLGALFAVNLWAVNDIEVKNAFVKQTPPHAQNSAIFLTIFNNTNKDIALISAKSDISEVSELHTH

IHKDGKMMMQKIPEIIIKAHSSTELKSGGYHIMLLKLKKPIIKDTKVNLDLKFNNHKTIELKNIDSKEF

>CCK67005.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIRNFFIGMSFLGILFLAFYTLYDKKKESIFSLNTCQPLTCDLNLQDCVFSFNKKNIEVSAYPKPIKIFN

KTTIKIKNFPHYSNLKIKIYSLNSYIGDIIPKFNIVNGDILINFIGRSITDDSRFRVEFLNNNAPTGFFF

DFDVTMQKNFQTGNTH

>CCK67004.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKRLALLIALSSLMLHASDLVKIYLNQGLDAVGVAIEKELTQKDFWLSEIGDKNISLGYYDDNVAIVLT

NKTDKILRVYSYEDGKIRKDFEQKEIITGLMGDKKIEGDLKTPVGFYELGRKFNPGDPYYGPFAFATTYP

NLLDKVQGKTGGGIWIHGYPLDGSRLDEFKTRGCIALFNNNLEKFAKVVQDKKVFVMTEEKEKIRAKKDQ

IASLLADLFTWKLAWTNSDTNAYLSFYDEQEFKRFDKMKFEQFASMKKSIFSRKEDKKIKFSDINISPYP

NLENETMYRISFYEDYYTKNYRFRGDKILYVKIDSKGKMKILAEQ

>CCK67003.1 alanine racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSLIKIDQKAYEYNLRHIAKKIGSFQRLICVFKDNAYGHGAKLLAPLAKNLGVSFVAVKSEEEAREIEEF

FENILILSHRPHGNENSRFIYALNDISQVKNYKQDIKIHLKIDTGMHRNGICVENLEHAINLIQGSDLKL

TGMFTHFASADEMDGSFFVQKENFQKAKKIVKKYFSNLLFHSYNSAALFRGKIPEDEYCRVGLVQFGYGD

SNLKRVLSLYAHRLSQRILQKGQSIGYGGIFTAAKDMEVATYDLGYADGLFRYNGRGELVLGNGKAMLGK

MSMDSFSCENSGEEICVFKDADIWADFFHTINYEILVKLNPNIQRVLV

>CCK67002.1 RNA methylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFNIVLVHPRIPQNTGSIGRMCFNAGFKLHIVKPIVFDISQKAVRRAGLDYWDKLEPIIWENLEEFLNEN

MIYKNRFFFATTKSQKAYFDAEFQKNDFLFFGSESYGLPMELMQLNWENAITIPMKSYGRSLNLATSVGI

ISYEALRQNFRNFAS

>CCK67001.1 amino-acid transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLDIMLDFANKASDIIANKIVPNTDIIMVVLLIVCGLYYSFLTRFVQFRMLSSVFKILTEKNEGHAKEH

ISPFQALMISTASRVGIGNIAGISLALATGGAGALFWMWVMAFFGGASAFAESTLAQVYKSKDDTGGFKG

GPAYYIKKALGSHFFGAFFAFILIITYAYGFNGLQSQTMTSSFKVYYDMFNPNAAVDFASSSWPMIIGIV

LTIFGAWMFFSHHTKIGKISSLIVPFMALAYVLLAVIAVLMNFDKIPSVIHMILQSAFDFKAIFGGFAGS

ALVIGIKRGLFSNEAGMGSAPNAAAAALTSHPAKQGVIQAFSVLIDVVVCTSSGFLVLFSMAYLGLGENK

IDGGMPLVQEAMREYYGSFGIHFITIAIVLFAITSLIGNYYYAQANVKYLTNSKFVMNLFRITAVAMIFI

GSQMNLKLAWNLADLTMAFMATTNIISLLLLGGIVNKVLKDFNTQQKSGIDPKFNASKLGIKNAECWD

>CCK67000.1 glutamine transport ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIEVKNLQKKYGELEVLKNINTTISKGDVIAIIGPSGGGKSTFLRCINRLELADSGEILINKQNILDKEI

DINKIRQKVSMVFQHFNLFANKNVMENLCLTPIKTGILSQEEAIKKAKLLLAKVGLADKENIMPHKLSGG

QKQRIAIARSLMMNPDVILFDEPTSALDPEMIGEVLSIMKDVAKEGLTMLVVTHEMGFARNVANRIFFMD

KGKIAVDASPKEVFENPSNERLREFLNKVLNH

>CCK66999.1 amino acid ABC tansporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNQKNIRIFVFFVIIILWGYFSFPIEILKIQDPSGVASYGYTENAKAYLKSYLITLLLTACAVIIGVIIG

FSLAILRFSKFKTLNFIIDEYIDIIRGTPVILQLMIFAFVIFTFIDNLYAAILALGLNSSAYIAEIVRSG

INSVDKGQMEAARAMGLDYKTSMKEIILPQATKNILPALANEFISLFKETSVVGFISVIDITMQSQSLQA

VLYNPKPIIFTGLVYYVSVKIFSYFAKKLELRMNKND

>CCK66998.1 hypothetical protein BN148\_0900c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLEFPKNKVVFMEILDFILIVIFVFLMIVLVIGFNHQMMQKNKEREERFKKYKKGEQNE

>CCK66997.1 4-methyl-5(beta-hydroxyethyl)-thiazole monophosphate synthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKKVLIPLAQGFEEAEFIGIADVLKRAKELNPDLEVVIASLNSELLVKGANSISIKADCSIEDVDIENL

DAIALAGGFEGMMNLKNSNVILNIIKQLHSKNKIVAAICASPIVLNEAGVLEGEFACYPSCEVGLNGNRV

NKAVVVNKNVITSAGPATAILFGLELAKKLCGDEIYQKLYEGMLLPLTK

>CCK66996.1 histidine triad (HIT) family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQEKTIFELIVEGKLPCNKVLESDDFLAFHDIAPKAPIHILIIPKKYFKDFQEFDPELMAKMTSFIQELA

VLLGVDKSGYRLVTNCGKNSGQEVFHLHFHMLGGFELPKEKTKKENPQALF

>CCK66995.1 phenylalanyl-tRNA synthetase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNFIEQIQKCENLNDLEAIRISVLGKKGILTEGFTKLKELEDEAKKEFAAKLNAQKEIFNEAYLAKFKD

LENLALEERMKQDALNFNYFDESITTGALHPVMSTMDKIIEYFIALNFSIEKGPLIEDDFHNFEALNLPK

SHPARDMQDTFYFDDKRLLRTQTSPVQIRTMLAQKPPIRMIAPGAVFRRDFDITHTPMFHQVEGLVVEEG

QKVSFANLKSVLEDFLRYMFGDVKVRFRPSFFPFTEPSAEVDISCVFCKGKGCRVCKHTGWLEVLGCGIV

DPNVYNFVGYENVSGYAFGLGVERFAMLLHQIPDLRSLFEGDLRLLEQFR

>CCK66994.1 phenylalanyl-tRNA synthetase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIITKSWLNDWLELEEISSDKIAKTLNSIGIEVDRVGALKAPDKVVVGYVKEKIKHENSDKLSICQVDIG

SETLQIVCGAANVDAGQFVAVATKGAIMSNGMEIKEAKLRGVDSCGMLCSSLELGFEKINEGIMLLDESI

GKLELGRPLNTYEIFNDELIEVELTPNRGDCLSIYGIARDLAAALNLNLKEPKPFKESENVLGIGRILRL

AAEKELNGLYNYRAIGLKEEIQTNLLLSLRLAQIEGLGKNSIENLLNYATHSTGVLFNAYDLSSFSEKDE

EFTINLSKQVHGETKVSYKDKLLSFSGIFQNNESRCKDDSKIIIIEANYTDPLVIADAKIYHKDQDEKML

YRSFRGSEPKLNLGMDFLLGIFEQIPNLVIYSSSQQILTDKELPIIPISIEGISDIIGQNVDKDEVLKIL

KKLGFELILSGEGLINVKAPLHRPDIKNLSDICEEVVRIIGIDNIASKGLEFIEKNRLNSAYKNYIEFLN

LRKRAVASGYFESLHYVLDNGEELKRLGFDSVKLKLINPITAELNTLRTTLLNHLLNAASLNAKNSKKII

KLFELGAVFNVNNQELNRIAFIHSGLKEEAKISNKAKPESVQFYDFLLDIKNIIGDFKLKSSKYNILSPY

EQADIYLSDIKVGFIGRLHLKIENERDLPKTYICELDLDLIRQDFKIAKPYSKFPAITRDLSVLIPKGFE

YNQIKNCIEELNLEILENFRLVDIYSDENLKEFYSITISFSFRDINKTLEDNQVNECMDKILNTLKNLGL

DLR

>CCK66993.1 3-phosphoshikimate 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIYKLQTPVNAILENIAADKSISHRFAIFSLLTQEENKAQNYLLAQDTLNTLEIIKNLGAKIEQKDSCV

KIIPPKEILSPNCILDCGNSGTAMRLMIGFLAGISGFFVLSGDKYLNNRPMRRISKPLTQIGARIYGRNE

ANLAPLCIEGQKLKAFNFKSEISSAQVKTAMILSAFRADNVCTFSEISLSRNHSENMLKAMKAPIRVSND

GLSLEINPLKKPLKAQNIIIPNDPSSAFYFVLAAIILPKSQIILKNILLNPTRIEAYKILQKMGAKLEMT

ITQNDFETIGEIRVESSKLNGIEVKDNIAWLIDEAPALAIAFALAKGKSSLINAKELRVKESDRIAVMVE

NLKLCGVEARELDDGFEIEGGCELKSSKIKSYGDHRIAMSFAILGLLCGIEIDDSDCIKTSFPNFIEILS

NLGARIDY

>CCK66992.1 4-hydroxy-3-methylbut-2-enyl diphosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIIELAKNYGFCFGVKRAIKKAEQIKDAATIGPLIHNNEEISRLQKNFNVKTLENIQALSNEKKAIIRTH

GITKQDLEELRKKDIEIFDATCPFVTKPQQICEQMSKEGYEVVIFGDENHPEVKGVKSYVSTKAYVVLDK

KELQNIKLPNKIAVVSQTTKKPEHFMEIVNFLILKTKEVRVFNTICDATFKNQDAIKELSLKSDVMVVVG

GKNSANTKQLFLIAKTNCEDSYLIETEEELKKEWFLDKKHCGISAGASTPDWIIQKVIAKIENFRIN

>CCK66991.1 30S ribosomal protein S1 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSEVNKKVQDGVDDYLEEEDFGQLLEAFDKSREEATTEGVIVEIKNDEVYVDIGKKSEGILALSEIQGDN

SKLLFNVGDSIKVAVMGSRGGRSLLSHKKALRKEKVIEFIKNYQENQDDIFTVKVVGKNKGGLIVVDEND

VEFFLPKSQYGFKETNNIIGKTFKVKIIKIDKDEQSIIVSRKKTLDDERRKRKELINNVAQQEDLIEGIV

KKITTYGMFVDVGGVDGLVHYSEISYKGPVNPGTLYKEGDKVPVKVIKYDKERKHLSLSIKAALPDPWSE

IKDTLDIGDTIKVIVSNIEPYGAFVDLGNDIEGFLHISEISWDKNIKNPKDYINKGQEIDVEVIEINPNE

RRLRVSLRNLLSRPFDEFMKSYKIADVVEGEITSVTSFGAFVKLGGIEGLLHNEDASWDRNDKCKDKFSQ

GDKIKVKIIKIDEENQKISLSTKELSSSPVQEYAKIHKVGDIVKGAIRDIKDFGVFVELSKNVDALIHKE

DISTSMLENLKIGDDIEAAIVFIDEKKNRIRLSVKNLVRIKEREVLNEINNDDKVTLGDIIKDQLA

>CCK66990.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKYITISILSILLLILLAVVFTLLWQFKANVNFIPQFAKDTNTQPSIQTQNQDLSWQEELAKWPTRDFT

PAAEKFTLYFDADTSELKEKNKYYQLIVGKYDIYSMFCLRQTLNSFNVKYFLLKSGHSPEIFLDTGNEKL

IDDIIKELKKYKINTEVKEIWL

>CCK66989.1 D-3-phosphoglycerate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKKIIVCDAILDKGVDILRKAEDIELIEAAKFPKDELMQMLSDIEVAITRSSTDVDVNFLNHAKKLKAL

VRAGVGVDNVDIPECSKRGVIVMNVPTANTIAAVELTMAHLLTSARSFVNAHNFLKIERKWEREKWYGIE

LMNKTLGVIGFGNIGSRVAIRAKAFGMKILAYDPYISASKITDLDMEQAKNLDEILEKSDFITIHTPKTK

ETNGMIGKQEIAKMKDGIRLINCARGGLYTEEALYEGLKSGKIAWLGIDVFDKEPATNHPLLDFENISVT

SHLGANTLESQDNIAREACEQALSAARGVAYPNALNLPIKTEDLPPFVAPYIELVSKMAFLAVQIDKNPI

KSIKLEAEGIIGEYANSMLTFAAVGALGGILGEKINYVNAEFVAKEKGVELSCETLPNSGYNNKLSVKII

TENSNISVSGTVFNENEQRIVGLNGFKTDFKPKGKMIIFKNKDIPGVIAKISSVLAAKNINIADFRLGRD

GFGYALAVVLIDEKVQKEVLDELKQLEACVFVQYVEI

>CCK66988.1 sensory transduction transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKFKILIIEDDIDLNELLVLKLKSSGYEVISLADFFGVEDLLDNEQIDLLIVDRNLPSGDSLEKIQDLR

EQGYKEAVIFLTAKALHQDLLEGFESGCDDYVCKPFDFNELLLRIKAILKRHKKEEEKLSFGDFILDLVS

YEFFYKNQKLEISNLDYELLKCFFENPNTLLTRQFLSESVWKDDTTSDKTINIALTRLRNKFPKLKDHII

SVRGIGYKLC

>CCK66987.1 sensory trasnduction histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKTKNIFIVFFVVLALIFGFIFYTFTNSYLNFLLIKQYEQKIKSLDDVLKFSLLEHLNDANIKDFAKDT

RADFIILNNDMKISSVKNPDFFSNLKEGEILNFNSKKILTKSFIYKGYKYIIIVYPRFLDLELFWTKMAI

GFGVCLLFVFILMLLLGRRIEKNFNKILDFLDSIGDHKVVILEKGIFKEFNLLNEKLLKTKDKILKNTQK

NKKQSDKITLKNTQLASVISAISHELKNPLSVIDLSLEMLKDEKLEDKKLKKELLEKISRQSVKLNALTH

KLNFVFNLNSEALQMQEFDLFSLCEKITKNPGFERVALQGKSTKVKADEFLIEQVIINLLSNALKYSQKK

VILTARDQKIIVQDFGKGIEEDKIKLITKKFYKIDVKSDNSFGLGLFLVKKILNIHKSYLEISSTLGYGS

SFSFKLSQG

>CCK66986.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MALIDLIEASKKFGDKIVLNEVNFSANEGEKIAIIGKNGEGKSTFLKTLLGALPLDSGRIIRQNGKSIAM

LSQTVDFNANLSVKEAIKQELVEIYNTLEEYEILHKKLEEDPSNKDYLQKIDTLMTLIDSKDAWSIESKI

IRVLKEFSLLEYENRIISTLSGGEIRRVGLCILLLKNPDILLLDEPTNHLDVYMTSFLEELLKNSKMCVI

FISHDRYFIDAIAHKCVEVEQGKLSIFKGGYANYLEKKTQILQSLAKSHETLLKQLKSEEEWLRRGVKAR

LKRNEGRKERIFKMREEAKKNPGAIKRLKLEISRAALNFNGEKTINRKKMLFELKNISKNINNKNLFKDF

STRILQGERIAIVGRNGCGKSTLLKILLGQIKQDSGEIKRGELKIGYFDQARSLVNSDKSLLEIFCPNGG

DRVEVRGKNMHVYGYLKNFLFPKEFLDKSVALLSGGEKNRVALALLFAKEYDVLILDEPTNDLDIATINI

LEEYLLSFEGAILLVSHDRYFVDKIATKLYAFEGNGYINILHTLYTEYLENEKEIEELDNFALELQTQEQ

NNNQKEKSSKKLSYKENEILKNHPEKIDFLEQKIAKLNQDLSDPNVYQEIGINKLYQELEVMQKELEILE

NEYFLVLEKSENL

>CCK66985.1 lagellar hook-associated protein FlgL [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRITNKLNFTNSVNNSMGGQSALYQISQQLASGLKIQNSYEDASTYIDNTRLEYEIKTLEQVKESTSRAQ

EMTQNSMKALQDMVKLLEDFKVKVTQAASDSNSQTSREAIAKELERIKESIVQLANTSVNGQYLFAGSQV

ANKPFDSNGNYYGDKNNINVVTGAGTESPYNIPGWDLFFKADGDYKKQISTNVSFTDNRWDLNKDPDKTK

YLTGDSKWQQLIGQSYVKDNSLDADKDFEYDDSKLDFPPTTLYVQGTRPDGTSFKSAVLVKPEDTLEDVM

ENIGALYGNTPNNKVVEVSMNDSGQIQITDLKQGNNKLDFHAVAFTPQADDKTELNNIIQAAQDEGITME

DVTNRVMTAALGNPNNGDITNLNNPVTIQINGQNFEIDLKQTDFIKSKMTDTDGNAANGADYDNVYFEKN

GNTVYGNVSQVIKGSNAYATDSTKLSEVMAGDSLNGTTLNLKVNSKGGNSYDVTINLQTSTVSYPDPNNP

GQTISFPIMHTNPATGNSGVVTGSNDITYGQINDIIGMFAADKIPTTTIQANNGQINNADYTQIQQLMKD

SQATVDVSMDYKGRISVTDKLSSGTNIEISLSDSQSGQFPAPPFTTTSTVQNGPNFSFSANNSLTIDEPN

VDIIKDLDSMIDAVLKGNMRADSESENPRNTGMQGALERLDHLADHVSKLNTTMGAYHNTIEGVNTRTSF

LSVNVQSIKSNVIDVDYGEAMMNLMQVQLAYQASLKASTTISQLSLLNYM

>CCK66984.1 cell division protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLAPGMGEWVYKANLFLFGEFAYYYPFFLFILNYVYYKRNYKLANFTRRELFGIGFAFFSSLLLFAVFYP

NSGYILELAYAIFSTILGHTGSGIFALLLLLFSLVLLFPKFAKEILKIELDFTYLLKVEQAFKSLLMRVF

GGENEKEDVGKSEPIVPKLNILQDSIYGNLQINKKGETNNLEQIIKDSNINASKNSITTAKENFEKLKNQ

ILDETIEIDKQSLKESRSFVHEHSQQVRNFAQKASKMSISLDEDFNFISEEEVDMIPERFLKPKKLEDIK

QIDTNKNLDEPSYKRKNIEIPVSNQEVKPKIFTKELELRENLIKKEKLEQEYKAYQNEILENKVKQEIKK

LEEYDAINSSDIIEGNKYSFNSPKTIKTETEESDKINENKNLDKADNIFEFAPIVEELNHPYIEPTPIKN

INEIVIEEKNTLDFIQNTETKIDNEKTNDQEIKLQKAVLAKEIAINQALLREIEQGEIEKPKDFTLPPLD

FLANPKEHKQEINESEIDKKIYNLLEKLRRFKIGGDVISTYVGPVVTTFEFRPSADVKVSRILNLQDDLT

MALMAKSIRIQAPIPGKDVVGIEVPNDEIQTIYLREILQSEVFKNAKSPLTIALGKDIVGNAFVTDLKKL

PHLLIAGTTGSGKSVGINSMLLSLLYRNSPKTLRLMMIDPKMLEFSIYNDIPHLLTPVITDPKKAVNALS

NMVAEMERRYRLMADAKTKNIENYNEKMKELGGEKLPFIVVIIDELADLMMTAGKDVEFYIGRLAQMARA

SGIHLIVATQRPSVDVVTGLIKANLPSRISYKVGQKIDSKVILDAMGAESLLGRGDCLFTPPGTSSIVRL

HAPFASEFEIEKIVDFLKDQQSVEYDESFLKDQQSVGVTTNESFDGEADELYEEAKRVILEDGKTSISYL

QRRLKIGYNRSANIIEQLTQNGILSEPDAKGQREIL

>CCK66983.1 30S ribosomal protein S15 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MALDSAKKAEIVAKFAKKPGDTGSTEVQVALLTARIAELTEHLKIYKKDFSSRLGLLKLVGQRKRLLSYL

KRKDYNSYSKLITELNLRDK

>CCK66982.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLFTKASEYALLSLIYISQKETPQDVDSLALELDIPKSFLAKILQTLAKDGLLKSFKGAKGGFVLIKEPS

QYTIKEIVNSAEKKDISVFECSGGTCPNNKEENCTLMPMLVNLQNKVDEFLDSITLEDIMKNNGKK

>CCK66981.1 flagellar biosynthesis protein FlhA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKNKIVDLVFPFLGPLIAPVLKAKSLTIVGFLVCILAIIIVPLPSPILDFFLALSIALSVLIILISIYI

PKPTDLTTFPTLILIITLFRLSLNIATTRMILSEGQNGPEAVSEIIAAFGEFVVGGNMVIGVIVFCILVL

INFMVVTKGSTRVSEVQARFTLDAMPGKQMAIDADLNAGLIDEQTARARRQEVIAEANFYGAMDGSSKFI

KGDAVAGIIITIINIIGGFLIGSFQHDMALSDAASTYTILTIGDGLVSQIPGLITSTATAIIITRASKDE

ENFAEGTLTQLLSEYRTLLIVGFVLFIFALVPGLPTLSLGFMALVFLSLGYLTKQVKEGKIDITTVKKSK

PSAAAASQSGAGGTTAAPAKKSEEEILKEEEHKINDILKVEILELELGYGLIKLAENELTERIRSMRRSI

AESLGFLMPKIRIRDNLRLKPNEYSFKLKGVSIASAEIYPDKYLAMDSGFITEEIEGIATKEPAFNSDAL

WIDANLKDEATLNGYIVIDPASVISTHMSELIKAHASELLTRQEVQNLLDKVKNDYPIIVEGALGVAPVS

LIQKILKDLLKHHIPIKDMLTILESVSDIAEVSKSFDMIIEHVRASLARMITNMYLDDKGNLDIFILDSA

SSAVLMENVQFRDGSYHLPLSVAQTGTLVDTLRAEVAAVANGRIKPFILCVEPQLRKFIADICYNFSINI

VVLSFAEIAENTNFNTEGIIRIEL

>CCK66980.1 hypothetical protein BN148\_0881c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIYHLSHTDLDGYACQFIVNFYFKSVKFYNSNYGKEINENFNSIIGDIEKDENFGKAIILITDLNLNLN

QCEEFEKICKEKNTKIFLLDHHQSGEECAQKYSWYLLDSKRCATKIVYDFFSKICTPVLELSKFVDVVNA

VDIWLSEDENFELGKVFLGLIANAKEINRVMFKESQIDYMFFLLDKAWKFIGKENANILLDNATHFIKKD

YFARKNDDTLSNLISYFVVEKLSELKENFSIEYEGHKGILTSNIGNTSVIGNDFLVKNPDYDFFIDVSSR

KTLSFRANGKIDVSLMAKNLVGGGGHKNASGGLFATFKDGANYNYIKAQIIDLIKSKELKKENNESKQ

>CCK66979.1 hypothetical protein BN148\_0880c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNQNNNKTLKNELEDLQYELSIVLEAMLLYAGVKREKLENAIEAYIDNIDNVLENSNKEGVDEILEVVEF

LKNKYKDFFQ

>CCK66978.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKCILIFFSLYSLSFANIYEKLNDFAYEKKPNKDFKIQEVKLVQFSQENKDCLELLIEASQVRILNSYN

SCQKLSKDESFQKFLNEDFLKLYKNNGYLINENLQNLKNTMQDIMIYYKLRYSFSKDVKDMSKNKNLDIL

NIDEKDGGTLLYKINNQACVGIELTRHDSRMAMKIYGIENLDKECKLFIQSPSFKDLSYTKKDFKWYYLE

>CCK66977.1 hypothetical protein BN148\_0878 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNLSIQEKKDLDNCVFQNLGRQDTFTLSVVFKNFYLKIKAFILNNTT

>CCK66976.1 hypothetical protein BN148\_0877c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQDFIIAKKLYFCFKYISSILNINEYYFKV

>CCK66975.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKFSIVLTLLLCGSCALALDPNLEKTKSATGIDLPTAKWNLPKELNEDGTIDETKMPKNSEYSKMVILG

NKILNETSKYVGPQAKDPKKKICGK

>CCK66974.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MWVHKPKILKKRFAGNNLSCSSCHANGGSVQNQSGFVGIWARFPQYNARGDKVITLADRINGCFERSTNG

KRMPSDTPEMKAMLTYMQWLSQGVPVGAKIEGQGLKKIDFILKAADPKKGKAIYMDKCAVCHQENGLGLK

NEDSTGAYYLYPPLWGDDSYNTGAGMYRLSKLLLILKKICLKVRLT

>CCK66973.1 hypothetical protein BN148\_0873c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPQGAPDLSLEDAYDVAAYMNSQARPIKANRNKDFPDRKIKPLDMDVGPYDDSFSTTQHRYGPYTNMIKK

>CCK66972.1 protein disulphide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRNFFCKFVLALVFYSSFALANNSFITLNPSLPSSENSVIEAFSYKCIHCYNHHKFGTLEKLREAFPNLH

FKLYPVSLMNGEFSKEMNELFTFAQYKDEQNGKDASYSDSLSHKLADVYFVSYFLNKQRNFSNLDEFYDI

GLKAMNVNKNEVLNFLNTPKAKEILSEFQRANDIAKTYGTPAFVVNGKYQINPSAINSMQDLEDLVKKLS

NMK

>CCK66970.1 disulfide oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSCIKMKDKCRNFSLSKWQDTRKPWLILIIVTIGLTCIAHFLFQEYLFMKPCEQCVYIRFDMLVMAIGGM

IALINPANNIIKIFSYSLAFYGIWLGLEHCLTLNHIHEVVHSENPFAGVDGCREIPIYPFNLPLYKWASS

WFLPTGECGMDTPVVPENAYNHLNAFQKFFIGTPPDFENGLYSNGWYLIPSLKFMNMAICCLIAFLCCFV

VLFAMFIAYVLDKNKPNAKIFALVIVALVLVLKFIGESKNPNQNIASLNQVVLRYS

>CCK66969.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFPVKLARSIVVCAFLAGISASALSEGKEYVILKNPIANADNYSVGLKAMNVSKADFENFLKTPEAAEL

LKSYEIANPISQNYGTPAFVVNGKYQIVPSAINSPEALIEITKELSKQK

>CCK66968.1 DNA recombinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKYPLDCEENFEKSFLFWLAKYVKFKLNSLSNKELKNPQALAEVNFALTKGVKNIDELDALAKKARNAGL

SGVNTYFNPLKKVFEYLNFYKLYSLKQIDEELIVEVLASITGALSDASKKNYRIAVINFFDFLDKQNEED

EKAHIFDINLKNWAGIAGSKGVKLPEFMSKEELKKFLDAIENADFKNNTIRNKLIIKIIIFTGIRVSEAI

NIKMGDISEENDLYIIRIRAKGNKYRVVMIKKELIYDLLKNVSINYISKDALLFVNKKGTPLTQSYVSRI

VEQLLFRAGIRKQKNGAHMLRHTFATLLYKKQKDLVLVQEALGHASLNTSRIYTHFDNDKLKLAAQVAKE

LSDS

>CCK66967.1 para-aminobenzoate synthase component I [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTLENYAVFGKYFYHDLKHTLKAFNHKESKKCFKFIEKYKNDFYILMLTDYELYRYFQDKNFTSKKAYLS

VFAFKKRKKFQKEDIDEEKFIPEFINFLDQDNYKENFIKVKEAISKGRVYQINLTQNFKFHSKMDSFELF

KLLLSRQDTEFKAFIKDETREILSFSPELFFKTKKRKIFTKPMKGTIKRDKDPIKDEENKIFLQNDTKNL

SENVMICDLLRNDLSKIITKKSLKTKLFEIQSHPTLHQMTSRAQGKLKKNISLHQIFKALFPCGSITGAP

KLESIKFIEELEQRDRGIYCGTIGLIHKNKNKFSVAIRTLEKQDEIYTYSTGSGLVWDSKFKDEFEELKL

KSAILNPCDFHLFETMYFKNSQILFLKEHLLRLINSALKFNFNTHKLFKDFYNILNQKSSYKKYQNFTLF

KLDEKIFHKKHSLFYNFPLPFKNPHKEGILKLILYKDGRYEFQQSALKQNSNDILLLSDDKINSKSDNLY

HKSSLRTFYNQHSYKWQQNLCYDIAFFNEKDELCEGSRTNLILEKNSQFYTPQIQSGMLNGVYRNFLINL

GLIKEKALFKQDLFEAENIYCINSVRGLKKVKLQ

>CCK66966.1 para-aminobenzoate synthase glutamine amidotransferase component II [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILFIDNYDSFSYTIIYYLKELSFECKVIKNDGFKKAKELEKFDFTHLIISPGPHSPKESKLSLKAIK

YFKKNKKILGICLGHQCIAEIFGGRVSKMQNPMHGKISKLYFKKDPIFKGIKKEIEICLYHSLHISSMPE

KCKILAHNSENIIMAIKHKKYPIYGLQFHPEAVLTQKGKKILKNFMKL

>CCK66965.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGVFLVLLGGIFWAISGVLAEYLFKNNYSVDWVCFYRLLSTGLILIFLSFKAQKILVFTNLKESLSICMF

GFFGLLLTQFGYFKAIYYTDAGTATMIQYCAPLIIMLYLCFKNKKFPKLIEIFALILIIFALFLLATKGD

IEAVVLNYWGIFWAVIGAFGVAFYSLSAREVILKYGLFWIMGWASLFASFVFLLILQFDKGLIHYAFNLK

AFFSMGGIVFIGTIGAFCLYLKGVEYIGALRASMIASIEPVAAALMSFLFLKTRYSLLDIFAFVLIILSV

ILNAKKTKVS

>CCK66964.1 hypothetical protein BN148\_0859c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQINNSLNSLSQYVKVNSNEENQNSKNQEQNALAQDPAVEVNISKEAKEKSNTSNQNNSQAPAQALNAQN

NTQQDSSSNSEDKLTELTQKLAEIQAKIVELTAKMSKANEDQIKSIESQIATLNAQASTIQAQIQELQSQ

QA

>CCK66963.1 UDP-N-acetylglucosamine 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTYLEIEGTNHLSGNVTISGAKNAALPLIVSSILAKNEVKINNVPNVADIKTLISLLENLGAKVNFQNNS

ALLNTNTLNQTIAKYDIVRKMRASILTLGPLLARFGHCEVSLPGGCAIGQRPIDLHLLALEKMGANIQIK

QGYVVASGNLKGNEILFDKITVTGSENIIMAAALAKGKTKLLNVAKEPEVVQLCEVLKDAGLEIKGIGTD

ELEIYGSDGELLEFKEFSVIPDRIEAGTYLCAGAITNSKITLDKVNATHLSAVLAKLHQMGFETLITEDS

ITLLPAKEIKPVEIMTSEYPGFPTDMQAQFMALALKANGTSIIDERLFENRFMHVSELLRMGADIKLNGH

IATIVGGKELNAADVMATDLRASSALILAALAAKGTSKVHRIYHLDRGYENLEEKFKDLGAKITRLEE

>CCK66962.1 molybdopterin biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNIFETLKDLENQISCLDESELISLEKAKDRILAKDLYARKNLPSFDNAALDGYAFNYTDINEALEIKG

TIFAGDKNFYTVAKNECYKIMTGAKMPKNADTILMLEDECIEENKLIIKKVPKQYNAYRYKGEELKKGEI

LLQKGTKLNDKHIALLASQGLYKIEVIRKIRIGIFSSGNELKEPWQECDEESIYNANALPLLTMLQNASY

LGIIKDDFKSTKEALENTNFDLLITSGGASVGEADFMEKALDELGFTPLFKGLKARPARPTKLYRKGENF

VLILPGNPMAAYLSCFIFAKKIINLLSGNLDNPLTFYGKMGMDLKLKSGRNNLILGNLEKGIFTPFNENK

FGSGMILPLIKSEFLLISEENTGELKKGDEITLLKI

>CCK66961.1 signal peptidase I [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEILKKLYKFSQSWTGTVVIVLLVIFFFIQAFVIPSGSMKNTLLVGDFLFVKKFSYGIPTPHIPWLEIPV

LPDFNKDGHLIKAQGPQRGDIVVFRNPRNEKEHFVKRCVGTGGDRIVYANKTLYVRMHEGDEFMKEHYPN

DLVTLGGQIYVKEPYKQKGIHYDPKKDIESDILRFLSIGDFAMSPAYIKELGNHIGFSGGNAYVFDVPEN

EYFMMGDNRDYSYDSRFWGSVPYRLIVGKPWFVYFSWDKDKNVRWERIGRFVDTLENDEQYIHDHDDEDK

LS

>CCK66960.1 bifunctional 5,10-methylene-tetrahydrofolate dehydrogenase/ 5,10-methylene-tetrahydrofolate cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTLLDGKALSAKIKEELKEKNQFLKSKGIESCLAVILVGDNPASQTYVKSKAKACEECGIKSLVYHLNEN

ITQNELLALINTLNHDDSVHGILVQLPLPDHICKDLILESIISSKDVDGFHPINVGYLNLGLESGFLPCT

PLGVMKLLKAYEIDLEGKDAVIIGASNIVGRPMATMLLNAGATVSVCHIKTKDLSLYTRQADLIIVAAGC

VNLLRSDMVKEGVIVVDVGINRLESGKIVGDVDFEEVSKKSSYITPVPGGVGPMTIAMLLENTVKSAKNR

LN

>CCK66959.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIVLMFFLFSISLFGADFITLKEYSKMLYENPRGISCKECHGADGSEQILGYYMKNGIKTAYKVPSIQN

LSFENFKNSLNQSKDAKSIMPNYSLTNDEIVTLYNYIKQFSKEEK

>CCK66958.1 glutamate-1-semialdehyde aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTNKKAFKETCKFIAGGVNSPVRAFANVQSEPKFISHGKGAYIFDIDGNSYIDYVQSWGPLLFGHCDKDI

QKACQKALHKGSSFGAPTLLETELAKLVLSDFPHLEKIRFVSSGTEATMSAIRLARGFTKKDKILKFEGC

YHGHSDSLLVSAGSGAATFNSPSSLGVLEDVAKHTLVAKYNDINSVKELFEKNKDIACVIIEPIAGNMGL

VPAKQDFLEELAKICKNNQTLLIFDEVMSGYRASYLGSYGINHIQADIITFGKVIGGGLPAAAFASRAEI

MDILSPLGGVYQAGTLSGNPLAMAAGIASLTKAKKKTKLYDKLGKLAKKLTQGMKKLADEKGLPLQACHV

GSMFGYFFTKDPVSNYQDALKSDLALFSKFHKNMLENGIYLAPSQFETGFICSKMDDKIIDTTLEAVRES

FKRI

>CCK66957.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSNILKEEKNHLENSNSKRQKIIRKTLEAADGLSLGISMVVAVFIGVGIGYLLKKFTPYPWLFWLGVFWG

ISAAILNVYKAYKVQVKSYEEFKERDELIKEKIQKEKNK

>CCK66956.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEHKKALFCIFAIIHLFFWIIFSSLNHFKLDTFLSYEIAFFSVLLIIFASYLNYKKVIIKKSKNYEKDFN

FISSLFIKKKQNLSKIIHFKVLKDDLKPNVKEKIHFFAMFFTLFKLMAYVILVAGFLFLHRQDKLDIFAY

ICGISSLLVCVFIFILYIKKYESKKNY

>CCK66955.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSPKKIIKSMTALFAGMAFLFAGNALIVSSIGVILKENGESSLAVGVVSSCFFVGALIGTISTHKIISRI

GHIRSFGLFGAIFGISAMLHTVSENLIFWAVLRFFIGICYYGLLMVIESWLNEKSKNAIRSRILGFYEIV

FYLAFGIGVLIIALNLSKHSVFILSATLILLSSLPLNLIKIKEPVLPASSPISIPKIFDIAPLAIVTSFI

AGMLINGFFSMASLFILLQGFDTKAVSYFIFCGVLGGFIAQTIIGTISDKLGRKFAIITCASIGFITMLI

FIFFKLHLYMQYFLGITLGIGIFCLYALALARANDVLVSKNKGVELGRGVLFCYSLGSLFGPLILGFLMQ

YFEIKGFIWFYIVSLAFLILFAINKPNILNKKFKKKPGNMVIFDD

>CCK66954.1 hypothetical protein BN148\_0849c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINTQLASQIANTQKNDLKVDNSASKDKTNLKDNPKEALAQALKQNLGLSKDASSEEILAKFVQNETGTK

LKELVNKLLDQINAQKNPDSPVLKQGKNLNLAPNFANELKILSTELAKSDTFTQVLDRLNQILKPASEIK

NNNLAPLFKNSGVFLEAKLKDALNEELLPKSFHSLLSTIKGLSSEKLSVQIAQLANTNLSPKDTLKELKN

IINSSKNENKQILNQSSFKALLNLSSKLENFKNYISKNPSHAQEKITPIANKILKELNSIKNDFFKALNK

PENLMIKDPNILKQTATAFEKLENTLKNILGNQASKIQDKENILENLLSNKENMKEEKLNHNTKNQDEEK

HIKASKEDENLDSGIKTHEEDTQDTKNDIQNNETENKPDNDIKNSTPNQEKIKDEKQEKSKENIKENPKF

YETKTENKTSINTNTNTSNPNTNNTQNLNNTQNIQSNNNQTMQNIFKNQEFIKQNIVKNLAFNVENLDLE

QVQDLSKNLSNLSRRLNESLKELEPYTQNAKLNQAELKNLEHKLNLSIKDLAQIKPKTEQDIAESLHHDV

KSTLLQISNLAKNEGNEAVYNQANRLLAQIEINQLMSLANDSINTYLPFSWDDLNDSKIMFRRGKKDKFF

AQIKLEFAKLGDLEILISLNNEKYIDINIMAENIEFRKTIYENAHELKRNINKAGLLSANFFVGDIIRSK

FDTRNMKNLDLEMGMDKKV

>CCK66953.1 hypothetical protein BN148\_0848c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKIKRSIKKAVALGYQKEKNSAPKVLASGKGESAAKIISLAKEHGVPIKEDEDLIEILSKLDLGDEIPP

NMYKAVAEVFAFIYQMANKTPKN

>CCK66952.1 phosphatidylserine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSFSKESSRLFGFVAGIKFPKMIQKVINENYVKYFNINMSEFKAPCEYESLNALFTRTLQIPRKFEEGFI

SPSDGKILECGSTFLANEEHFAFSIKGHAYSVEELLKDSFEKDELKNGLDYVNIYLSPKDYHRYHSPCDM

QILSATYTSGVLYSVNEKHLERISNLYVKNERVSLKCQNEKGIFWLVFVGAQNVGKMRFNFDASIQTNAK

ISHNFTRKYENLNFKKGEELGNFELGSTIVLISQKGLLTFNLKVGQGIKFGEKIAD

>CCK66951.1 metallophosphoesterase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIFLIFSFIVLLIFGLANVYIYKRLIKKITLFKYFYKIFSFIFIVLFLAQAVFLIFRRDEYLSDTWYEIL

AMFYAPTYCLFFMTLAWDFVKLILALMGKRDKTYNLILRLIFELSLIVLSVFLIYASINNALKTPEVKSV

DVEIPNLKKDLKIVMLTDIHLGKNLHENFLDKLITKVNLQSPDMVVIVGDLIDTNPKDLKNYISKLNDFN

STYGTFYALGNHEYYHGINEVLDLLRKHTNMKILVNQNLDLGFIDIAGLGDLAGLDRGLYAPDLARIKVD

LNTSKASILLTHQPKTALLYDLSDFDLVLSGHTHGGQIFPFMFLVKLQQGFVHGLYDLGEKTKLYVSSGA

GFWGPSLRVFAPSEIVILNLKGKK

>CCK66950.1 glutamylglutaminyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYRFAPSPTGDMHIGNLRAAIFNYICARQKNMDFILRIEDTDKARNIAGKEEEIKEILNLFSISWQHYYI

QSENLKFHRQMALKLVSEKKAFACFCTEEELEAKKELAKKQGKAYRYDGTCEKLADIDVLECEKPFVIRL

KKPTHTMKFTDFIKGELSFEPENIDSFVIMRTDKTPTYNFACAVDDMLENVTCIIRGEDHVSNTPKQEHI

RASLGYNKAMTYAHLPIILNEEGVKMSKREAHSSVKWLLESGILPSAIANYLIMLGNKTPCEIFTLEEAI

KWFDISKVSKAPARFDLKKLLQINREHIKMIKDDELNKILDLNKDLAQLAKFYTQETSTIKELKEKMQAI

FNAKDFGEFETEYKILKELLKDIELFENYEDFKNELLNKSNLKGKKFFMPLRIILTGNIHGPELSDLYPY

IKNFIHELARI

>CCK66949.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVIDSFIISIFQVLQIVINIYTWIIIITALLSWVNPDPYNPIVQILYKLSYPAYALVRKIPTRIGNIDLA

PLIIVLALQFLGIFLGNILRSIL

>CCK66948.1 secreted transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKKILVFLFIFSSLNATQYSIEKLKKEENSLAKDYYIYRLLEKNKISKKDAQDLNSHIFRYIGKIKSEL

EKIIPLKPYINPKYAKCYTYTANTILDANLTCQSVRLNSLVFIASLNSKDRTTLAQTFKNQRPDLTNLLL

AFNTSDPMSYIVQKEDINGFFKLYNYSKKYDLDLNTGLVNKLPNHIGFKDFAQNIIIKKENPKFRYSMLE

INPENVSEDSAFYLGVNALTYDKTELAYDFFKKAAQSFKSQSNKDNAIFWMWLIKNNEEDLKTLSQSSSL

NIYSLYAKELTNTPFPKIESLNPSKKKNNFNMQDPFAWQKINKQIRDANASQLDVLAKEFDTQETLPIYA

YILERKNNFKKHYFIMPYYDNIKDYNKTRQALILAIARQESRFIPTAISVSYALGMMQFMPFLANHIGEK

ELKIPNFDQDFMFKPEIAYYFGNYHLNYLESRLKSPLFVAYAYNGGIGFTNRMLARNDMFKTGKFEPFLS

MELVPYQESRIYGKKVLANYIVYRHLLNDSIKISDIFENLIQNKANDLNKS

>CCK66947.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIYSVILGAFLLGACSLKDQAIVDTNLKSQTLMFTQKYKITQDKINAIITMSYLNPILDKTSKDDVLAL

SFTPNTLKIQNLEVFINNKKANIEKLDDEYLKYIIQNNYTDYFKASLPSVKEETRLVAKICLDHLPCFEL

NFQKYPKSLYYRSEDVDTQYN

>CCK66946.1 molybdopterin-guanine dinucleotide biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKQLIIAFSGPSNSGKTTLITKIADNFLQQNLKVLIIKHDPADKAQFDFNGKDSFKFFQSGAEVMVLSPT

RTTFFSHENRDILKALKLSPDFDICLVEGLKTLDLPRISVFCKEIDESYFIFSNAIASYEKISHPYLTWL

DLNDIQAICQYILKNAKNLQGEL

>CCK66945.1 fructose-1,6-bisphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>CCK66944.1 hypothetical protein BN148\_0839c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNEVRDEFEQDMDKKKEILLSCQNSKNLNSCYNCDEIFNCQTRKNYVDAVYNSMSKGKTEGGFDF

>CCK66943.1 methionyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRYITTPIYYVNDVPHLGHAYTTIIADTLARFYRLQGHETRFLTGTDEHGQKIEEAAKLRNSTPQEYADK

ISFEFKKLWDEFEITYDIYARTTDTRHIEFIKAMFLKMWQKGDIYKDEYEGHYCISCESFFTQSQLINDC

SCPDCGKQTRILKEESYFFKLSKYQDKILQWYEEKDPILPKNKKNELINFVQNGLKDLSITRTSFDWGIK

LPQEINDDKHIIYVWLDALFIYVSSLDFQNKGENAKFWPAHVHLVGKDILRFHAIYWPAFLMSVDLPLPK

FIGAHGWWTKEGEKMSKSKGNVVKPKEVVDAYGSEAFRYFLLREVPFGNDGDFSENMLINRINAELSNEF

GNLLNRIIGMSTKYSQGNISKEGVLKFYNAELNQAKEHLNLAVEFLENLQCNRYLEELFKALSVANLAIS

KYEPWSLIKENKHEQANALVALCANILAKTSLLLSPTLPKSSQKVALALNFEISSANYTKMILDNELLDF

KANPCEALFPKVEKALLKQEIKEEPKKEESPKIKIDDFAKIEIKVAKVLDCQNIEGSEKLLKFQLELDDK

EIRQVLSGIAKYYKASDLIGKQVCVISNLKKAKIFGHESDGMILSAKSGDKLVLIAPEQLVQNGSLVG

>CCK66942.1 hypothetical protein BN148\_0837c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQISNLGELLNATLIHEGSVLSVEGFAINLNELKTGFAFFNNDKKEIAQAVKKGAYAIITENDITIEDKE

IFYFRVENLERALVRFLRFFCEDKECEFLLFKSYELSLCKAFYFNILKGNIFADFEKLIKAKKGEIFCYC

EENYLNKLCTYSHSLKDANFTLLSRSSFFFTTLICENLYFKNLNLPFFYANSFAKIISFLKEKSQKIIFD

FNKIDDFKIYFIDDKFEITPFGSSSQAFIVSNNQNTFEFWKEKFKNIKDFKIASKNSLFCDFSYNQLSDL

RKLKNFKYCLILENYDIFEQEFENKENQTPSLF

>CCK66941.1 methylated-DNA--protein-cysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFKVYYKMPLCYLSLHSDGKFLTRVDFCDNKRSEKNCSLLDLAKYELDLYFTHKLRKFSIPVLIQGTDFE

SKVYKALMEIPYGKIATYKDIAEKINHPKAFRAVGNANSKNQIPIFIPCHRVIASNGIGGYNGGLEIKRF

LLENEGVNLK

>CCK66940.1 bifunctional aconitate hydratase 2/2-methylisocitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSFMQEYNKLVEERAALGIPPLPLNANQTRELCKLLENENNEELANLLENRVNPGVDDAALVKCEFLDSI

LKGKISAPNIDKKRALRMLGTMLGGYNVKVLIDALKDENIAKDAAEVLKNIIFVHDNFHTIAELSKNNPH

AKEVLQSWANADWFNKKEKLPQVIKCIVFKVAGETNTDDLSPAGDAFTRSDIPLHANAMLKVRQTGSLEK

IKELKKSGREVVYVGDVVGTGSSRKSAINSIQWHLGKEIEGVPNKHSGGIIMGSTIAPIFFNTAQDSGAL

PIICDVTNLEMGDEFEIHPYEGKIIKNGSTIAEFTLSPNTLLDEVRAGGRIPLIIGRGLCTKAREFLGME

SENIFTKPEQPKSSSGGYTLAQKMLGRACGVEGVRPGMYIEPITLTVGSQDTTGPMTRDEIKELASLGFN

ADFVMQSFCHTAAYPKVSDSNLHKTLPNFMTSRGGVSLKPGDGVIHSWLNRFVLPDTVGTGGDSHTRFPI

GISFPAGSGLVAFAAVTGSMPLNVPESVLVRFSGELQAGVTLRDLVNAIPYYAIKQGQLTVEKKNKKNIF

AGKILEIEGLPNLKVEQAFELSDASAERSAAACSVDLSIESVSEYIKSNISLIEAMIEVGYENKATLARR

AEKMREWLKNPTLLRADKDAKYAYIIDINLNNIKEPILACPNDPDDVATLSEILADDKRPKNIDEVFVGS

CMTNIGHYRALGEILKDKGILKTRLWVVPPTKMDKAQLINEGYYSIFGAAGARIEVPGCSLCMGNQARVN

DGAVVFSTSTRNFDNRMGMGAKVYLGSAELAAVCAILGKIPSKEEYLQIVSEKLSNEHKANIYRYLNFNE

IENFKLEN

>CCK66939.1 ankyrin repeat-containing periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLLFTSFCCFASLMASDAINCDNIKNNKTLLNESSNLDYLNIASSCKESLKNQDFTKKLYAISNEIRGS

NSSCNGVAYLPKLQQFDFLLLKIAIDPIAYQKTLDTPENLEKKYDILKSYFRYWAYQSIGNFRLYKAFWQ

EYNNAIEPLEKYFESNFNFDKGSNIYYTSNALNEFLNWAVGETKIYKDISPLAKIMSNKNYSVSYIQDFI

FSNNPSQDDLTIALQAALLNQREKEILELLIRFGARIDEGYESAIFYALESYENTNFLIQNGANVNQANA

FGKTPLFYAIEFNRLDIIKLLLDNGANVNQKYINNNEKLALSANIGSNTPYFITFCALEHTSKNVLMHAA

AYGNVEILKLLISKGANFNAVDDLGFNALDFALSAGKKENADYLKSLGLKANENLFYGGSLE

>CCK66938.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTAFITGASSGFGRACVEAFIQEGYKAIALARRKERLEELKNAYKDKIYTLCIDVRNQKEIFEAIENLP

KEFQEIDVLFNNAGLALGVDEFDKLNLEDINTMVDTNIKGFLYVAKAIIPILRKQKNAYIFNLGSVAGRN

PYFGGNVYCGTKAFVGQFSLALRNDLRGSNIKVTNIAPGLCKTEFSEVRFKGDIQKADAVYENTQFISAN

DIAKVVMSIINLPSHINVNEIELMPVTQTWNGFYIERDE

>CCK66937.1 Na+/H+ antiporter family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKFLVSLFLPLVAFANSSEAAANANLFGAFTLIPPLVAIALAFITKDVILSLFTGVLSGTFLLSLSTNI

FKAQHLTFVNYYNTTVESFSKIISYILGSTSDPVNAGIILQILCIGGLVALITKMGGAKAVALKFAKRAK

SAVSAQVNTWFLGLLIFFDDYANLLIVGPIMRPLADKFKISREKFAFIIDSTAAPVAGIAVISTWIGLEV

SLIKTAYEHIGISNISAFGIFVETIPYRFYNIFMLFFVVMTAIMGREFGSMYKAEVRARTTGQIAPLPKS

GTLDTTELEDQFLAPKEGIKIRAFDAIVPIFTLIILAILGFYFNGLSTLEGEELAKASTNPLSFETFRAA

FGNADSSVVLFQAALFAAIVAIFIGVRRKIFNLKEAVETWIYGWKTMIFTIVLLLFAWSLSSIVKDLGTS

LFITSLLADKLPEFILPATIFAFASAISFAIGTSYGTMGILMPLAVPLAHEIAKINGMDANAMHHYMVIN

ISCVLTGAIFGNHCSPISDNVILSSMSAKCDHMEHVRTQIPYALFICGISLIAGYIPVSLGLSVWFVLPL

NFILIALLLRLIGKKVP

>CCK66936.1 tRNA (uracil-5-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSLENFGNFLTLDEKHSFIKKYFKEFYTKDFKLFASKDKHYRTRAELSFYHENDTLFYAMFDPKSKKKYI

IEYLDFADEKICAFMPRLLEYLRQDNKLKEKLFGVEFLTTKQELSITLLYHKNIEDIKSNLENLSNILHI

NLIARSKGKKLIFKTENLRQTLNIQDRKIFYEFNNDCFIQPNTAINEKMITWVCEILNTQKRMDLLELYC

GYGNFTLALAPFFFKILATEISKSNINFALKNCELNNTTNIHFARLSSEELSLAIKKEREFFRLKDIRLD

DFNFSHVLVDPPRAGLDKSVIDLIKKYGNIIYISCNPMTLKENLKELSLTHRVEEFALFDQFVNTPHLEC

GVFLSKV

>CCK66935.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEEFYPYTLTIHLLCAILFIGYLFVDVFVLGVVKKKNPNFDKSLFSATGVKIMPFVVLLLFLSGGALAGF

HFKPLNLLFAVKIILAFGILSLVVFSLFCHFILKKKNPLGVFIHPFVFVLCIAIVILAKLMNYFFIPC

>CCK66934.1 CoA binding domain containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNEKETISYIINTSKNIVIFALSPDKTKASYRVAEFLQRKNYKIFPIYPKEEFILNEKVYRNLDQIEEKI

DTLILFRKGEVALEILPKLVEKNIKNLWLQLDISNETAKEECKKLDINFIQNRCIMLEYPHFKTKEK

>CCK66933.1 threonine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLELNKIYKAKQQISGFVNKTPFIYSSFLSDICQSEIYLKNENLQITGAYKIRGAYNKIANLSTEQKQHG

VIAASAGNHAQGVAISAKKFSIKAVIVMPESTPLLKVSATKALGAEVILRGDNFDEAYAFATSYAKENNL

SFIHPFEDEFVMAGQGTLMLEMLDEISDLDMIIAPVGGGGLISGISSTAKQINPNIKIIGVGAKGAPAMY

ESFHAKKIKNAKSVRTIADGIAVRDANPINFNIILECVDDFIQVDDEEIANAVLFLLEKHKIIVEGAGAA

SVAALLHQKINTQNHKKIGVVLSGGNIDAQMLNIIIEKGLFKSYRKMQIYVTLVDKPGALLHLTDSLKIA

NANIVKIDYDRFSTKLDYGDAMISITLETKGKEHQEEIRKILTQKAFNFYESF

>CCK66932.1 tRNA pseudouridine synthase A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKIKIIFSYDGSAFLGSATQPHKKGVQDALSGALSHLGIFSPLLMASRTDKGVHASYAVASVECGDYFT

NLEYLQKQLNKFSHPFIHIKKIEKVKDDFEVRFDVKSREYRYIFSHASYSPFMASYVHFYPKFDLGKANE

LLGFFVGKKDLKFFCKSGGDNKTTLREIFIARAYAYKDFSIFHFKANGFLRGQIRLSVASVLKVLEGKMS

EKELKEQIEAKKQYNHFLAPPNGLYLSRICY

>CCK66931.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLSLRYVLNQFLSTNLSIFFVLFAIVSMVFFIQLAKLTSSIEISFLDLLKLYGFMLPRILIFTLPISFF

ISLTLALFRLSKENESIVLFTLGFSPMILAKFFLKIASLISAFMLVVALVMIPIVFELQDNFVNYKSTQV

KFNYKTGEFGQKFLDWMIFIEKQDSDKYENIIMYRPKHKADDKEQLIIAKEAHVQRKDDSFAFSLNQGKM

YNFEQGQSIFSGEFDTLVVNTQFNTDNLQTKKFYEYWNDLNENLQRAREFVIYTTIALFPLASTLFALCF

GLVTYRYEKGYVYLGMFGVIAIYFGLLSSFSQPPILACLGIFSLSLFVSAYCFKKMILSRY

>CCK66930.1 processing peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIFFIIILGACLGSFCTSLASRIIEKKLFFISRSFCFSCDTKLKYYEIIPIFSYIFLKAKCQTCKCHLSI

SLLINEILGAILLILVYSLSQNFYDFLFLSLFLFNLFLLSLIDIKLKAVPQILLWSAFLFAFFYAFRESE

ILHFLIFKEFSGGFLLNAFSFGGFVFLLKSLVFFLMNFQKKDEILENLGDADIIIMSCIGGILGFEYGFL

VLFIASILTLPFFIFFRIKAIKEQELAMIPFLNIAFVAVLFYKNLGLF

>CCK66929.1 UDP diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNELKHLAVVMDGNRRWARAKGFLAKLGYSQGVKTMQKLMEVCMEENISNLSLFAFSTENWKRPKDEIDF

IFELLDRCLDEALEKFEKNNVRLRAIGDLSRLEDKVREKITLVEEKTKHCDALCVNLAISYGARDEIIRA

AKRVIEKKLELNEENLTQNLDLPLDVDLMLRVGNAKRLSNFLLWQCSYAEIYFSETLFPSLTKREFKRII

KEFRNRERTFGK

>CCK66928.1 hypothetical protein BN148\_0823 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSMINSTLPIQMKVLAKSGYGHYTLLLNHKKIQTKSMIELEIGAEYLAELYMQNGGVIQFKHLSKRPNFK

PFEEGLALIIAILEDKISYKKFIIQNLLDCKDIERYQILKEMLFASFENIYHIPFNFENKSCLFQMRKRA

KYLEIYLYFSVFGALKILIDSQGISVFTPFAKVQKFLNEHLDFNVSQENKIEPLFVFKRLFDFKG

>CCK66927.1 bifunctional phosphopantothenoylcysteine decarboxylase/phosphopantothenate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTILLAISGSIAFYKSYELISLFKKEGFRVKVLLSNGLLKFASKMSFEALVDEVLCEENESWQNSNNHI

AFSKDVDLVLFTPASVNSINKLAFGIADNLFIQTLIAANKPLIIAPAANTNMFHHFSTQNSLKILKENKA

LIIEPICKVLACKDEGVGALAEVKDIFNITKRELLKEKFWCNKSVVITGGGTRERIDDVRCVSNFSSGKM

AKAIADAFYFLGARVKLLSSVEFDTPYELCKFESSKDLKELLDKNLSHDFLIMTAAVSDFIPQSVKGKIK

KNEHLQGLNLHLSLNEDLLKTCKFQGKKIGFKMEFDSQNALENAKKSLKDKQLDMVCLNIIDQKNYFGSD

QNELYFITLNNENKSTLQSKEKLAFELVKWCEKL

>CCK66926.1 bifunctional N-acetylglucosamine-1-phosphate uridyltransferase/glucosamine-1-phosphate acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTSILILAAGLGTRIKSQKPKVLQELCQKSMILHILKKAFALSDDVSVVLSHQKERVEKEILEYFPKTQ

ILEQDLQNYPGTAGALSGFEPKNERVLILCGDMPLVEQTSLEALLGNNAKLNLAVFKARDPKSYGRVVIK

NDSVEKIVEFKDANTQEKEINTCNAGVYVIDSRLLKELLPLIDNNNAAKEYYLTDIVKLAKEKDVMIKAV

FVDEDEFMGINDKFELSIAENFMQKKIKKYWMQQGVIFHLPQSTFIGADVEFVGECEVYENVRIEGKSKI

INSIIKSSSVIENSIVENSDVGPLAHLRPNCELKNTHIGNFVECKNAKLNTVKAGHLSYLGDCEIDSGTN

IGCGTITCNYDGVKKHKTIIGKNVFVGSDTQFIAPVKIEDEVIIAAGSTVSINVEKGALFINRAGHKMIK

DYYYKKFQK

>CCK66925.1 flagellar biosynthesis protein FliP [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILLFLLLSMSLFAAEATIPTVNLSLSAPNTPNQLVTTLNIVIVLTILALAPSIVFVMTSFLRLIVVF

SFLRQAMGTQSMPPNTILVTLALILTFFIMEPVATKSYNEGIKPYLAEKIGYEEAFIKGAKPFKDFMLKN

TREKDLALFYRIRNLPNPKTIDDVPLTVLVPAFMISELKTAFEIGFLIYLPFLVIDMVVSSVLMAMGMMM

LPPTMISLPFKLLIFVLVDGWNLLVQRLVESFVT

>CCK66924.1 hypothetical protein BN148\_0819 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLEFIFTLILDFTFYSIKTLEKVFLGRTALVILFVVFIALFCVKGLFLYILLALELFLLLYLFLGILFLR

FYKS

>CCK66923.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKVAFFLLFLFLSCTVLNAAREYCKYAYQEDRAIPLILNYGIRLGVVGAGVANAPAPGGSTYNSKIDMM

AARCH

>CCK66922.1 glutamine binding periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIILIFISFFALNLSAKDLVVGMELGYPPFEMSDKTGKASGISVDFLEAFAKKNGYKLVVKNIAWDGL

IPALKTAKIDLIMSSMTITDKRKKVVDFSIPYAKANLAILTPLNSDITNIKDLDKKGKVLALKRGSTGHL

YAVKNLKNATINLFDKENAAILEVIQGKADGFFYDQLTIYRTWQKHQDTTRAILAPFQENPEFWGIAVRK

GDEALKDKLDNFIDESRKNGFLDFLGNKYLKDIKEVFKQNNITFFL

>CCK66921.1 hypothetical protein BN148\_0816 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYENNISKESAMGNWALDAEIKQALANGWKAKPSTIDSYADSIMDRLNNLLGQTRV

>CCK66920.1 hypothetical protein BN148\_0815 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKGLSSETLGLSLEEIKNVSRGEDWQFNPDMSVYPQNEDGSYSKETLFMSFLKAQGGQPVESLKTTLNP

KLEAYKRAMAKESFSGPAINIDSIMTGKSDFKSFFRYWAEWHRR

>CCK66919.1 hypothetical protein BN148\_0814 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MITQTMQSKESKESKENSKISFANAFLKQNASKLNEIQNANSQTLARSEALNSTNTTNTSNNTNFSISSK

TSSPNYDISSEFKNSIYTLKYKQVDISNTSTNTAYGYSVDKDGYMGSDFNKAAGLPEDFKIHKSTLDEIK

KAAENDPVVSSTKEYLGVSSYYSNIDIANTIKQYYNLFSNALGQSFSNDKTSFSEADINSMPSGYGVSGT

QWMDFNEPSNRMNITGLKDFSNSLISNVYKTPEQAKEADEI

>CCK66918.1 3-deoxy-manno-octulosonate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIIIPARLKSSRFHEKILCDIGGVPMFVATARRVSSVDEVCIALDDEKVLSIAKEYGLNAVLTSKDHESG

TDRINEACKKLALKDDEIIINVQADEPFIECENLLKFKEFASFCLDKKAFMASCYKKITQEEAMDPNLVK

VLCDKEGYALYFSRAKIPYERENYEESFKGHLGIYAYSVKALREFCSLSSSALERAEKLEQLRAIENGKK

IKMLEISTTSMGIDTKEDYERALKIYLEK

>CCK66917.1 threonine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLVESRNVNNVSSFKEALINPNAPEGGLYSPLNLPIFEGEKYANLSYKDFALKLIESFGFGEEELFKKA

LKSYESFDDKNTPISLQKISEKTYINELWHGPTRAFKDMALQPFGVLLSEFSKDKNILIICATSGDTGPA

TLKSFENAKNVKVACMYPKGGTSGVQELQMRALDKDNLKVFAIDEDFDAAQRTLKELLFSKDFQNEIKAL

NYELCAANSVNFGRILFQIIYHYYASLKLFNEFLEEVQIIVPSGNFGNALGAFYAKKMGAKISKIKIASN

ANNILSEFFNQGVYDLREKSLKKTISPAMDILISSNIERLLFAKFKDKRTKELMNLLKNERYFKLEKEEL

QSLQEDFEADFCTDEECMQFIKQSKILIDPHTATCFKMLDPLKPSIITSTAEWTKFTPSMIKALYDRDSK

NEKEDLKFIAKEFNVQVKDEILALFDLKNSDEKVFEARNIKKEILDWMQK

>CCK66916.1 tetraacyldisaccharide 4'-kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNEEKNYELWLDNYFFKPNFWQKCLAFILLPLSVLYAFFAILNTFFRKKIVFKKPVISVGNLSFGGNGKT

PLCKAIAREFDGVFIVLRGYKRKSKGLFVVKNQNEILCTLTQSGDEAMEYAFEENIKGVIVSEDRVKGIE

KAFELGAKIVVLDDAFSKFHIKKFDILLESKIKPYFNFTLPSGAYRLPKFYEKRADFIALEGRDFVRYSF

VKENPKAVLVTAIAKPFRLYEHFIKARACYFFKDHYEFKKEELENLLKKHNCDTLMLTFKDFVKVKDFGF

KCQIIELNIELKDSLREKIKTYIKEFEQ

>CCK66915.1 NAD synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDWQKITEKMCDFIQEKVKNSQSQGVVLGLSGGIDSALVATLCKRALKENVFALLMPTQISNKANLEDAL

RLCADLNLEYKIIEIQSILDAFIKQSENTTLVSLGNFAARIRMSLLYDYSALKNSLVIGTSNKSELLLGY

GTIYGDLACAFNPIGSLYKSEIYALAKYLNLHENFIKKAPSADLWENQSDEADLGFSYTKIDEGLKALET

NDEKLLRTLDPSLIAMLKNRMQKNAFKGKMPEILEI

>CCK66914.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQIIKQACGVYETNCYILFTPKGEFIIDPGTDALLFIKKHVKNPLAILNTHGHYDHIWDNAKVKKEYNIP

IYIHKNDAFMLHDDFNQGYDSSDADFLVDNEDILNICGVDFKFHFLPGHTPGCTMIEIVGKNIMFSGDFL

FYRSIGRWDFPYSDANLMKQSLEKVMTYKEDFKLLPGHGQETTLKEEQVHLPSWLRYF

>CCK66913.1 hypothetical protein BN148\_0808c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MELDQILLYAFIFLNLFALFGLFLGNKKKNQFNDKKFYKICPCKKMAENGSLSTICIYSAVGGFFYSVLS

IGFVGFGNWTLNFIFLLALLSVFLGWKLKLD

>CCK66912.1 7-alpha-hydroxysteroid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNTEFQGKTLVISGGTRGIGKAIVYEFAKVGANIAFTYNSNAQIADEMVQDLEKNYKIKARAYEFNILEP

ETYKELFEKIDVDFDRVDYFISNAIISGRAVVGGYTKFMKLKPKGINNIFTATVNAFVVGAQEAAKRMEK

VGGGSIISISSTGNLVYIENYSGHGTAKAAVEAMARYAATELGEKNIRVNVVSGGPIETDALRAFTNYEE

VKQATINLSPLNRMGQPEDLAGACLFLCSSKASWVTGHTFIVDGGTTFK

>CCK66911.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAVETC

KGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLYNVP

GRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNGGKGVISVT

SNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFRLPLCSPSK

ENFAKIEEVMKKYKIKGF

>CCK66910.1 zinc protease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIAYEKIQLKNKLEVYALPVNKNSDVISVDIFYKVGSRNEIMGKSGIAHMLEHLNFKSTKNLKAGEFDEI

VKGFGGVDNASTGFDYTHYYIKCAKKNLDKALELFAELMANLNLKDEEFQPERAVVLEERRWRTDNNPLG

YLYFRLFNHAFMYHPYHWTPIGFFKDIENWSIEDIKEFHSIYYQPKNAILLVSGDIESKEVFELSKKHFE

KIKNTKTIPKIHTKEPKQDGVKRIYLHKNSDTELLALAYKIPNFKHKDIPALNALSELLGSGKSSLMSEI

LIDKLNLINDYYAYVNDCIDENLFIFICNCNPNVNAEKVEKELLKIIDKLKMGKISQKDLQRVKNNVKSD

FIFSLNNASAVANIYGSYLARGDINPLLNYEKDIQNLELKDLISCAKKYFIQENSTTVILRKDSNG

>CCK66909.1 dihydroorotate dehydrogenase 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAYEMIKLLLFKLNPEHAHALVEYSLRALSASFPGALSFLAHKYIVDDESLRQNLLGLDFNNPVGLAGGF

DKNATMIRPLSALGFGFLEVGTFTPKPQEGNEKPRLFRLVKQESIQNAMGFNNEGAEKIALRLAKTYPFV

LPLGVNIGKNKITPNDKALEDYFTLFRDFKDLCDYFIVNISSPNTKNLRELQNDDFLNTLLEEAKKITSK

PILIKIAPDMKIDDALNLCENAIKKGADGFILANTSVDYSLLDNNRTFGGISGRLITEKSGIFFKEVTKI

LFGKTLLIASGGIDSADIAYERIKNGANLVQVYTALIFKGPSLVKNINQNLIELLRKDGFLHISEAVGVN

LK

>CCK66908.1 lipid export ABC transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MHNEMNLKEVLIRFKPFYKRYWKQFAIAIFGMILASGGTAGSFYALEPILNYIFVEKNEALLYTVPFLLV

LMYFFKNLGTYLQSFYVSFIGTDMLRVLRARVLKNVLRLDMDFFKRYRSGELVSRCTNDINALQSIVSNI

IPDFFRELLTAIGLLAVVLYQSPTLAFFALVILPLAIFPLVWFAKKLKKYARNIQETNSDLLSYLGEIFS

NIELIKANDNEKKESDKFAKHNDTLCKLNLKSARIDALTSPLMDMMGSVGVAVVIIVGGREVINGSMSVG

SFISFVSALFAIYTPLKRLSSLYGKLQGAVAASERTFYLLDLEPQIKGGSKELKNIEKISFENVEFAYEN

PHKSVLKGVNFDFVKGQMLALVGTSGGGKSSIINLLMYFYEKQKGKILLNQEDISTFTIESLHAKIGLVT

QNIYLFNDSFAANIAYSEELEEEKVIQALKLANAYEFVKEMGGIWAEVKEHGKNLSGGQKQRIAIARALY

KNPDVLIFDEATSALDNESEKAIVKTIENLKQDRLILVVAHRLSTIENADKIVVLDKGKVLAIGKDEELL

QTCSLYQKFKSKEKTKPSFS

>CCK66907.1 cysteinyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRLLDSVTKEKIKLDKKDISIYLCGPTVYDDAHLGHARSSVCFDLLRRVLLAQGNRVKFARNYTDIDDKI

LKKMAQSGQTLEEITEFYIKSYEEDMRVLNVLDPDFKPRATHYITAMLDLIKKLAKDGFVYTLEDGIYFD

TSKDEKYLSLSNRNLEENISRLSNEVQKRNESDFVLWKFDENFYESEFGKGRPGWHTECVAMIDSIFENT

LDIHAGGIDLLFPHHENEAAQCRCGCKRKLANIWLHNGFVKIDGEKMSKSLNNSFFIKDALKEFMGEALR

FYLLSSHYRSHFNYSLSDLENAKKRLDKFYRLKKRLDLGEISDFDVLNDIGIKSEIAKQILEILNDDLNV

SKALALLDDFISSANLELDKESKNKILKQNIKEALSELAKIFGFGFMDATLYFQWGVSKEEREEIEKLIL

ERTEAKKNKDFNTADAIREQLNSKKITLLDTPNGTIWEKINA

>CCK66906.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKSLVFKNFIINALGILFSRILGLARDVLIALFLGAGLYSDIFFVALKMPAFFRRIFAEGAFGQSFLPNF

VKAKKKGAFCVSVMMQFSLIVFLFCLLVSFFSSFFTKLFAFGFNADTIALAAPLVAINFWYLFFIFLVTF

LGAILNYRQKFFITSFSAALFNLSIVIAAFFVDKNAPQNTLYYFSYATVLSGVAQLILHLLVLKNNPVIR

AMTLSIKFKKTKAKLQGFYGNFFHGVLGSSATQFSSLLDTTIASFLMSGSISYLYYANRVFQLPLALFAI

ALTQVSFPKILKHLKSDQENLALKFMQRALALLSILLIASSIVGSVFALEISKLLFERGNFTHEDSVITA

YVLIAYLIGLLPFGLQKLFSLWLYAKFKQKTAAWIAVKSLIISALCSMAFIFLIKDESLKVIAVALSSSI

SAFYLLGANIKEFGFKKFFALISIKICLLVIVALIVFTILLILIKPYILSFFIGIFTSFKGVF

>CCK66905.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MALDEKIIAYTENPARELLSVASRTNLSLNELDFSLLAFSTQYRFGDLEWEKISEKELTLFDKDEIFLKN

DLQIKQEYKIEIFHGINQSKASQAVKLVANKNLTKIVAQIDFTNLDFHEKLALELLQNIYKKMLKLKFLI

GIRIFDFKKKLMSFCNQYKNTPLNKTIQITVAQGIDPIESQDESLILTYKEKTKNYTIDEKRSGIIVVDE

NEVVLKHVKFKQGKEGKDLNLHTLKVLAANENKVKFSCSSAFKQVEQDGYTEYIALKKGYVVQDGEKFDI

ANELDFNGVDFKNIGIIRAGLDKNVKINIKFLSEVKDAVNSGVGIECEELNVVGSVGSNTQLNATKMKIE

GTTHSKAKIQAKQAYIKTHRGFAEAEILNIDLLEGGTIKAKEVRIKKSLGGNIQADKIYIENLESNNSCV

FFENTTIERINGDNNKFHAKIKTLDKNYDEEFAILGEQISKLNHKINKIRQYILSSKNGILSVEKKITEL

KNQGQNVPVQYEKALKDFSLQNLELNKLQNEEKELLERKKSLQLELINLQKMLFEATFINKSGKWTDMNE

IKFSLLEPKEDIFCSSFVNESAKFIGIKKVIQNNQESIEIHKKLDYEEKDIAWLSASKE

>CCK66904.1 Holliday junction DNA helicase RuvA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVVGIEGIITKKEPTFIIVKCASGLSYGIFISLFCSAKIQTQEKHEFFITQIIKEDSNKFYGFLDKDEQK

MFEMLLKVNGVGANTAMAVCSSLDVNSFYKALSLGDESVLKKVPGIGPKSAKRIIVELSDTKTKLENVSD

DKSEALAALLTLGFKQEKIISVLVSAQATGTSELIKEALKKLG

>CCK66903.1 D-alanyl-alanine synthetase A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFAILFGGNSYEHEISIVSAVVLKKVINQNLEFIFCDEERRFYHIPSEKMNSKTFSTKAYKKEKELFIK

QGGFFSKGFLKENKLECECVINLIHGRDGEDGKIAALFEFYSIKFIGPRLEASVLSFNKELTKLYAKSVG

VKTLDYTILRKNQNSKEKLSFPCIIKPARLGSSIGISIVKDEKDLEYAKDVGFEFDNDLVVEEFKNNIKE

YNLAGCMINDEFVFSIIEEPKKKEFLDFEQKYLSFSGHNELIEADLSEELKEKLKDSFKKIYNPLFKGAL

IRCDFFILDNEIYLNEINPNPGSLANYLFKDFNTTLNALADQISLEKMIKINYNFLHSINGQKGKL

>CCK66902.1 hypothetical protein BN148\_0797c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLSFKQDEIYTATEVVRNFSPIMEKLKKSESGKIVILKNNKFEAVMLSMKEFERLQNAMQLLENIYKNQK

A

>CCK66901.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAQTQLSYKNKTYQISYEILGDLSLPQILILHGWGADKKLMKQSFCPFLKDFCQIYMDLAGFGNSSVEEI

LNTQDYANITELFLKQKKLNVCFFMGHSFGGKVSTLLAKEKDTLILLSSAGILAKKSLKVRFKIRIFKIL

KLFGLGKFYRYFASKDGANLSPIMYETFKKVVDEDFSEIFAKQKAKSLIFWGKSDEATPLYCGEKMHQFL

KNSTFYPLEGDHFFFLKHSAFIAQKIKEI

>CCK66900.1 UDP-N-acetylmuramoyl-tripeptide D-alanyl-D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLINTLYFINSLFFNFCIAFYLMSALQWYSYKFKRVFFHYHKPLWHLYFLFIPYFLFLAFPLYSLVYFAL

IHTPILYFWNKGIDKKLVFTSKVKWFFVFVFVYNAIFTILALRFSFLFNLFSLPFALLSLKIYEFFTNLY

YKKQAKAKLRANENLKIILITASFGKTSIKNFLYELLKDDFKSYKTPRSVNTLLGIVADINANLSQDTQI

YIAEAGARLKGDIDEITHFLQPQISIVGEIGNAHLEYFKSVENIRSTKLEALNSERLEKAFLHSSTQKEE

DKLISLYDDKLSLIHSSLEGLEFKVDIENKSYDFKSQILGDFNAQNLCVCILCAHYLGIKLEKIQKQVLN

INSVEHRLQVLSREPKFIIDDGFNGNFKGMSTSYKLCKSYKGRKVLVSPGIVEVSEEENIKLAKIINECF

DLAIISAQINAEIFKKELKIKTIILKEKSQLVQTLAKETKHGDLILFSNDAPSFM

>CCK66899.1 hypothetical protein BN148\_0794 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MITQTMQSKESKESKENSKISFANAFLKQNASKLNEIQNANSQTLARSEALNSTNTTNTSNNTNFSISSK

TSSPNYDISSEFKNSIYTLKYKQVDISNTSTNTAYGYSVDKDGYMGSDFNKAAGLPEDFKIHKSTLDEIE

RKAENNSYTSDIKKYLGIDKYYTNIDMAETIKQYYNQFNQIVNYAFNDTNKTSFTEADINSMPKGISELS

SDKTIGIMPKNYDKLTITNYYNTQEQYNEAEQLGMFGHINIGLQPLNFTPQSMQTQNLDKDTAIDTFNPD

MSVYPQNEDGSYSKEALFMSFLKSTGVSPREGSATLNPIAKSYAEAMAKESFDGSLASLDDIMTGKVDFA

SLLKGYAQEGWLDADIYAMDKGVAWQNTSIGYGGAWFDREFNQVKANGWKASSESINSYVGSIMDRLNNL

MGQTRV

>CCK66898.1 signal transduction histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNESILKSLDSNEKETLQKGLESLIEQTYVIENEYKTLNENYNSLRAMVDEIIEVLPSALWILDKEKNII

LQNQEALKNPKLLSIISLDKIRDELEFEGRFYAVKIIAHNEKTIVSATDISDEKRNERLASMGSVAAHLA

HEIRNPIGSISLLASTLFARSELKNKHIVLEIQKAIARVERIVNSTLLFTKGVHINALNFNLLELKEECE

SAINSYNFTSQIDFEISFLDKQICADKALLGLVLQNLIYNAIDAIEESECEKPMIKILASYDNEKICIRV

YDNGCEIKDEKLVFEAFKTTKLKGNGLGLSLSKEIINAHKGELSFQSDPKNFYFTLPLV

>CCK66897.1 hypothetical protein BN148\_0792 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLYKRKNIKFKNFVDLHKNLSLSKLFDFYSVFEGFEKLNILNFEDDVFTNIERILLDDYLKIKSYFALDE

TSSYALTLLAKNNRKRFSINRKIQHFKALSTLKYLLETGIIKLEYSKEAKKIKDKRQKIKKELRSYVVQD

KIIFSNHFTRFFFYFLKPNEKLILQNRYKEVLECIKEKFELYQSFCFEQLSRELLEKKFNINGVQSYWDK

NLELDLYYQDENLCFVGEVKFKNKKICKNILNLLKSKAKSLNLAPNYYIIISKNGFSKEIDKICEQNLLL

LDLNDFKILLEE

>CCK66896.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYLQISDLKKELILKKGILHFDFTASALALKCVEKEILKILPTYANTHSDSSLNSFKTQQTYEQARKDIK

KSLSLDENFALIACGTGSSSAIKKFQELIGIYIPPLVKERYFTQIDKNTLPLVIVGPYEHHSNELSFREG

LCECIRIPLDKNGEIDFDFLEKTLQKNKKRKIIASFSLASNVTGILSDYKRISEMVRKFKGIVAFDASSF

IPYKNISCQYYDALFISSHKLIGGIGGSGLLAIKKDLCGNKPSFAAGGTVGYVSRTSQCYLCNEEALEEG

GTPGILQLIRASLAFKIKDSIGVKNIEKKEEILKDYFFEKLKTIPNLILYAKNLKTRLPIFAFNIKGISP

FDIAYELSKKYHIETRAGCACAGPYGHDLLGLKDNQKLKTKPGWLRISLHYTHEKEDIDYFFNALNKTIV

KLSH

>CCK66895.1 formyltetrahydrofolate deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MISVLKICTKDQKGLIYRISDVIFKYHINIVKNDEFVGEGMFFFRALLEGEFDKEAFIGTLEAMLGQEAL

IELCEKRKKDIVVFATKESHCLGDLLIKHYSNELEANIKAVISNHNSLKDLVEKFEIPYHFISAENLDRK

EQENQILKCLEQYKFDYLVLAKYMRILSPDFVRHFEGKIINIHHSFLPAFIGANPYKQAFERGVKIIGAT

AHFVNNNLDEGPIITQAVSPVNHEFTWQDMQQAGRNIEKDVLSKALDLAFEDRIFIHNNKTIIF

>CCK66894.1 multifunctional Cca protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQISKISLKNNPDLQFIAEFLKPYTKRAYLVGGSVRDLFLGLKICDYDIELYDIKPKDFEKIMQKLGAQG

FGKSFFVYKFKNYDLALARTENKISYGHKGFEVQICNDEKLGAKRRDFTINSMMINLFNDEFLDFYGGLK

DLGVGFLRHIDKQSFQEDSLRVLRAVVFASRFNFKITSESLKLMQSMDITDLSKDRINAELCKFFKSPRL

DVGYRYLQELGLEKQVFGFESVFKSSEFQNLLRQSREFVKSDALFLYLYLNFFNLEKDIFFKRTKLKKEY

LKYANQAFYLDDISDFELAKIAFEMPLKEWLGLWSKKRIEQAKRLGLYENKFESKILAKDFINAGFCGKI

LGLKLQEARENELKEYIKGLAK

>CCK66893.1 hypothetical protein BN148\_0788 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLEDLAKKTISEVSSIMEEQRRQNEILKEQELNRKTEIKDELPPMEFVCEELDTPQDLEDKISMAKFEE

EQKIQNNIEISTQENKEFKKEEPFLQNEILNPSVMTEVQTLNEDIFLKHLRERILVLFEGLNSIKKDDLE

NRLNLTINFLEFLLANIEDKLKK

>CCK66892.1 hypothetical protein BN148\_0787 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKNTVTEASIYEAQGLKDEALEIYKNILKEDPNNQNAIDAVRRLSGFRSKHKDLNTQMLDFFINMKSDE

EINEFKRWLIKI

>CCK66891.1 hypothetical protein BN148\_0786 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVFLIPLLIIIGVIFGIDYVYFKNQDLKVQVKKEQKELNSSLEKEKKEYIEKLFKTK

>CCK66890.1 NapD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNNLSSVLILAKEEYINDLKKAISEIPFCSVELCENEKIIVVIESENLEDELNSYKMLEKLPNIISINMV

FSYQDLNDDIQKAINSGAIETIEKNENAENVRYYGSVFNQFS

>CCK66889.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKFLFILSLFCVLSYAYELKLNANITALKLDKQNLYIGTDKGEILQYNIKDKSLKELLSLPKIKNYYGD

DFAKIYNIDIFKHTLLILSEGDFGAKNLSFYKENLQIKKLEENSIIKAFFINENTYLLISIGSEIELIDK

SLKNIKKFNFSHSSLNDAVLNEDKSRLIAGFESGEVELFDLKNWKMLKNYDKMHKDNIYQVDFKNNVILS

CGTDRRIGVVKNEEQNFLQKDFLIYTCALSPSGEFAVYSDNEAGVSEVFSTSDFKPVKTFNNENLMSEFI

IFLNNKDFIVSGFGDSIMFRSIDE

>CCK66888.1 periplasmic nitrate reductase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKKKLVLLGSAAVVFFAACAMNSGVSSEQIGLRKASLENENKVNLVEANFTTLQPGESTRFERSYENAP

PLIPHAIEDLLPITKDNNMCLSCHDKAIAADAGATPLPASHYYDFRHNKTTGDMISDSRFNCTQCHVPQS

DAKPLVGNSFKPEFKNEQLKSRSNLIDVINEGVK

>CCK66887.1 quinol dehydrogenase membrane component [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKYLIARRIVQLGILALFSFKATDFILQGNLSSSRLFNTIPLSDPFAVLQIILASWSIDLMALIGALII

FFIYGLLLGRVFCSWVCPVNLITDFAAFVRNKLTLNNKFLILPKNLRYFVLVLVLVLSFVFSLPVFESFS

YIGMIHRGIIFATSSWIFVAFILFCIDTFLSPRAICSHFCPLGAFYAFISRFALLKIKHDSDKCTKCYEC

IRICPEKQVLWMVGKESTSVKSGECIRCARCIEVCNDDALNFNIFDLRNK

>CCK66886.1 quinol dehydrogenase periplasmic component [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKGRREFFVSAFKAACLCTGGGFLANLALKADDNYALRPPGAENEARFLSKCIRCGLCVKACPYDTLKLA

SLLDSPKNGTPFFKAREIPCYLCKDIPCIRECPTDALDKKHLEQGIESLKMGIAIVDSASCVAHWGIQCD

ACYRACPLIDRALKLELKRNERTAKHAFLLPSVDHEVCVGCGLCELACITEKPAIRVLPREYVLGKAGSH

YVKGWDEKDEGRIKNADTSKHFNVKKATNYLNDGEL

>CCK66885.1 nitrate reductase catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNRRDFIKNTAIASAASVAGLSVPSSMLGAQEEDWKWDKAVCRFCGTGCGIMIARKDGKIVATKGDPAAP

VNRGLNCIKGYFNAKIMYGEDRLVMPLLRMNEKGEFDKKGKFQQVSWQRAFDEMEKQFKKAYNELGVTGI

GIFGSGQYTIQEGYAALKLAKAGFRTNNIDPNARHCMASAVVGFMQTFGVDEPSGCYDDIELTDTIITWG

ANMAEMHPILWSRVSDRKLSNLDKVKVVNLSTFSNRTSNIADIEIIFKPNTDLAIWNYIAREIVYNHPEA

MDMKFIKDHCVFATGYADIGYGMRNNPNHPKFKESEKDTVEKENVITLDDEEATSLSYLGVKAGDKFEMK

HQGVADKNWEISFDEFKKGLAPYTLEYTARVAKGDDNESLEDFKKKLQELANLYIEKNRKVVSFWTMGFN

QHTRGSWVNEQAYMVHFLLGKQAKPGSGAFSLTGQPSACGTAREVGTFSHRLPADMVVANPKHREISEKI

WKVPAKTINPKPGSPYLNIMRDLEDGKIKFAWVQVNNPWQNTANANHWIAAAREMDNFIVVSDCYPGISA

KVADLILPSAMIYEKWGAYGNAERRTQHWKQQVLPVGAAMSDTWQILEFAKRFKLKEVWKEQKVDNKLTL

PSVLEEAKAMGYSEDDTLFDVLFANKEAKSFNPNDAIAKGFDNTDVKGDERKIQGSDGKEFTGYGFFVQK

YLWEEYRKFGLGHGHDLADFDTYHKVRGLRWPVVNGKETQWRFNTKFDYYAKKAAPNSDFAFYGDFNKML

TNGDLIAPKDEKEHSIKNKAKIFFRPFMKAPERPSKEYPFWLATGRVLEHWHSGTMTMRVPELYRAVPEA

LCYMSEKDGEKLGLNQGDLVWVESRRGKVKARVDMRGRNKPPVGLVYVPWFDENVYINKVTLDATCPLSK

QTDFKKCAVKIYKA

>CCK66884.1 thiol peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSIVNFKGNPVKLKGNSVEVGADAPKVNLKAKDLSVIEIGAAGKTQIILSVPSLDTPVCATEAREFNKKV

ASYNGAEVIVVSMDLPFAMGRFCSTEGIENLSVASDFVAKEFGEKYGVLINEGALEGLLARAVFVIKEGK

VAYKELVNEITEMPDIAKLDAFFGGSSCCGGCGCH

>CCK66883.1 major antigenic peptide PEB2 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILILSLAASFLNAEILVYGPGGPAPVLKELALKFEEKTKEKVIVTAGPTPAWVDKAKENADLIFSGN

TSMMDDFAKKIPSLSLENLSVLNVRPSGIIVRPNNPKNIKNFEDILKDGINVMVVDGAGQVGLYEDMALK

SAKRENLVKLRKNIKIYAKNSKAAVDEWNNNPNIDALIIWSHWAKALGDDKALFIKDKNAVIYRAAEIAP

TKKGLENKKALEFVDFIKSQEAQKVWKKYTWKEVK

>CCK66882.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPLSKLNNEQYLAATADFGHNLVIASAGTGKTSTIVARISYLLSKGVAPQKIMLLTFTNKASKEMIGRLG

KFFDKNITSKILAGTFHSTAYTLLRNADKNIALKQASELKTLLKSVYEKRTFRHLSDIKPYQSSYLYDLY

SLFQNKAHNQDFYTWFCQNYEDQSIYAEIYEDILKEYDNEKKRFNYVDFNDLLINLKDLLKEEKYEFDEI

LVDEYQDTNTLQSSLIEAFHSKSLFCVGDYDQSIYAFNGADINIIGGFKDRFKDAKIFSLNKNYRSSRSI

LALANKVILNNERLYPKELIVTRNDEFKAPSLLTFEELFDQYQNIAKMILTSGVSLEEIAVIFRNNSSAD

GVEVALREQGIASVRKGSGSFFESLEVKAFSSMLALVVNPKDIMAFIHLVQYTKGVGGVLAKEIFDALLK

LGHGNLIKGFLDPDKNVNLQNHQKRNYQLGLFADLEELASETRFKFESEFDAHPILRLSKINDLCARNLE

KIYLFLKKAMEIKHSLTLVNLICENSFYREICEELATKRATNKAGQVDLLRKSENLEKIETKFNVLKELT

KNYSDIYKYYNFLTLGASEMSSGKGVNLLSVHASKGLEFDLVFVIDLAQGRFPNQKLMGMGGSLEEERRL

FYVAVTRAKNILYLSYAKYDKNKKTSFAPSRFLIEAGLCKGELTID

>CCK66881.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLKIFSIIVGILIAVIVILGGTYYYLFEYSKPKNYTLNTNTYTEQKSYTNNYDNPYSPSIQTNNSSSNV

NTNNNTIQKQETNPLLDENQSLNNDTFNISISENNQSLNNDTNTSNNINTNENKQILDTDKEKLKQENKQ

AKIEALKKEISKQQKILERERAIKKELQSNKSNKNKYLNTAREYLSIGKNSRLEPELSTENMKVYILDGK

FLSQYRINLLKDMLSIIQDNAKDYYLSIFVKMLPKGEMKLTIYNKEIIFSDMKKAYKYISLDRLSPYLNN

PKELNEHVAREEILERLKLQIKKDGKGSDFSKHIKSLKTGLNTAQYFFPFCEIIEISSIK

>CCK66880.1 valyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYDKNLEKEYYQICEERGYFEIDGNKTIQEKDKNFCIMMPPPNVTGVLHIGHALTFTLQDIMTRYKRMDG

YKVLYQPGLDHAGIATQNVVEKQLLTQGIKKEELGREEFIEKVWEWKEQSGGKILDQMRTLGITPAWSRL

RFTMDEGLVNAVKKAFVELYDKRLIVRGNYMINWCTHDGALSDIEVEYKENKGKLYHIKYFLKDSDEFLV

VATTRPETFFGDTAVMVHPDDERYAKFVDKEVILPISKKAIKIIADKHVEKEFGTGVVKVTPAHDMNDYE

VGLRHNLDFISVFDEKGILNEHCLEFQGLERLEAREKIVAKLESLGFIEKIEEYNNQIGYCYRCNNIVEP

YISKQWFVKKEIAQESIEKVALGESKFYPNHWINSFNAWMKDLRDWCISRQLWWGHQIPVYYCECSHEWA

SQHTPKTCPKCQSQNFKQDEDVLDTWFSSGLWAMSTLGWGNENWGKDKIWSEKDLKDFYPNSLLITGFDI

LFFWVARMMFQSTNVLHQLPFKDIYLHALVKDEQGRKMSKSLGNVIDPNESIKEYSADILRFTLALLAIQ

GRDIKLSNDKLLQVRNFTNKIYNAKNYLLLNESKFEDLENITLHSELAKYIYAKFQTCVKDVRENLDNYR

FNDAANTLYKFFWDDFCDWGIELSKAEKSSVKELGSIFKEALKLLNPFMPFISEYLYHKLSDTELKTSPS

IMISKYPKFKEQDKNIEKIFSLLIESIVSIRRAKSLIDLGNSKIEKAYIKFNDKKIKDEIKAYMNFIIML

AKCEQIEFSEEKLPKAICDVSENLEIFITLENVDLSGILTRLENQKNKLEKESFKLNSMLSNEKFIANAP

KEVVEQNKEALENLKIQLEKISVELQNLRG

>CCK66879.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKIKNLKKYYGKELVINDVSLEIKKGEIYAIVGHSGAGKSTLLRCINGLENYQEGSLKVFDQEIKDLSQ

KKSKELRMLRKDIGMIFQNFALMERKNVFENVAMPLRTHYTQCKFHAKLFNKEYMSEKEIAQKVNSLLEI

VGLDHKNKSYPRELSGGQKQRVAIARALALNPKILLSDEATSALDPNTTKNILELISKINAEFGITVVLV

THEMDVVKDIAQKALLLEHGQIIGSGAIDELFLRPNAKMKEFLGESDFLPEHGLNIKLYFPKEVAQNSVI

THMARTLNIDFNIVWGKIEKLNGKALGNLVININEKDKDKVLDYIEKSGVLWEVAS

>CCK66878.1 binding-protein dependent transport system permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNEENISIVSAFFSRISQFFNEFSWQDIKEVSLSSITSFNENYENILKPALNETIYMSLMAVLFGFLLAI

IPGILLAIWDKNGIKENKIAYSILDFITNILRAFPFLILIVVLLPLSKIIVGTSIGTNAAIVPLAIGIAP

YLAKMLESAFKEIDKGIIEAAKSYGASNIQIIFKVIFSEALPAIISGITLTLIFTIGFSALAGTVGGGGL

GDVAIRYGYERFNKEVMIQTVVILLILVQLVQILGNLFYTWAKNSKTTYIIATLLILLGVSIVININNDE

NFFWQVIVFILFLGSLLYKGFKK

>CCK66877.1 NLPA family lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIKSLFIASILTLSLNANALETITVAATPVPHAEILEQVKPDLEKQGYKLEIKEFTDYVLPNLAVDNGE

ADANFFQHTPYLEEFNKNKGTKLIKVAAIHIEPMAVYSKKYKSLDDIKEGVKIAIPNDPTNESRALDIIA

KKGLVKFKDKALKTPLDIIDNPKKIKFVELKPAQLPRALNDVDFAVINSNYALSANLNPAKDSVFIEDKE

SPYANILVVRVGHENDPKIKALIQALQSDKIKQFIIEKYNGSVLPAF

>CCK66876.1 NLPA family lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLFKIIILACILNLSSLFAQNITIGATPNPFGSLLELMKDDFKNKGYELKIVEFSDYILPNRALEEKEL

DANLYQHKPFLEEYNLKKGSNLIATTPVLIAPVGVYSKKIKNLENLKEGARVAIPNDATNESRALELLEK

AKLIELNKNTLKTPLDINKNPKKLKFIELKAAQLPRALDDVDIAIINSNFALGAGLNPSKDTIFREDKNS

PYVNYVVVRSEGKNSEKTKVIDEILRSDKFKAIINEHYKDILIPAF

>CCK66875.1 NLPA family lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNIKKIFLSVLFTISLSFGADKTIIIGATPTPYAEILNFSKPLFQEKGWKLIVKEFNDYNIPNIALNEKD

LDANLYQHKPFLDDFNTHKGTKLSSLGAIVLVPMAIYSNSIKDIKDIPNGAKIAIPNDATNESRALDLLA

KANLIEFKSQSTLKTPIDISKNPKKLKFIELKAAQLPRALNDTDLAIITTNYALGAGLNPLKDGIFMEDK

DSLYAIVLATRKGEETSQKSLVIKEILTSDKIKNFIIEKYKGSVIPTF

>CCK66874.1 flagellar basal body P-ring biosynthesis protein FlgA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIIFLTFFIVINYIQAASLEEIKTALAKEFRNNFPKIIISQIDLKITSLPKDFDQYEFLRIANGRFNQA

QGFLRAEFKTPQNIQKNVFFRYFIQANLEVLKSERAIKRGDKLGAFDYKSVLIDFDKVPLNALTLDDVDN

LVAKSNINKNAILRANMFKTTALIRRNDPIIGVLSEANVDVLIELVALQSANMGERIRAKNKEGKVMQGI

VVGKNRMIIQ

>CCK66873.1 3-octaprenyl-4-hydroxybenzoate carboxy-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVLLGISGSSSVNLGLKLLKNLENQCELYCILTQGAKLNFKTENQANLEEICQENFKYTHFLDDKNLSL

SVASGSFGIEKTIIAPCSISSLAKIHAGFADTLLMRAAAVALKERKKLILGVREMPFSTLNLEHMLKLSQ

MGVIIAPPIIASYSKANNLEQMENFIAGKWLDLLEIKHNLYEKWQNF

>CCK66872.1 phosphopantetheine adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTCLYPGTFDPITNGHLDVIKRALKIFDEVIVAIAKSEHKKPCYDLEKRKELALLATQNLKNVKIIAFDN

LLVDLAKELKVNTIIRGLRAVSDFEYELQIGYANHALWEDMETIYLMPSLKHAFISSSIVRSIVAHGGDV

SSLVPKEILPFLKDQSCM

>CCK66871.1 thymidylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYVVFEGIDCVGKSTQISLLKEIYKDAIFTLEPGGTELGKHLREILLNKTHPINKRAELLLFLADRAQHF

EEILKTNQNKLIISDRSFISGMAYAKDFENDLLFALNSFALENFFPQKIIFLKGDANLIQERLSQKELDS

IEKRGIEYFLSVQDKLEKVLHFLKEKISVEILTLDAKESKEKLHQQIKEFLQ

>CCK66870.1 histidyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINALKGMKDLLDKDAYYYEKVIKICEEVAKNYGFTFINTPHLELCTLFKRSVGESSDIVGKEMYEFIDK

GENHVCMRPEGTAGVVRAYIEKKLDKNTSVKRWFYYGSMFRYERPQKGRLREFHQFGVESLGIPNVYEDA

SIILMLVEIFSRLGIDFKLQLNSLGCSQCLPKYRDRLVEFLDSKEGFCEDCLRRKNLNPIRVLDCKNEHC

QNLLENAPLLINNLCTSCQKDFETLQQILKDNGVKFELDSKLVRGLDYYSKTAFEFISDEIGAKAAIAGG

GRYDRLIEYLGGKSGYGIGFAMGIERIITILEQKEEKIQREGIYLCAMDEIYIQKLLHIATNLRKEYKVL

LSYEARKLAKHLENADKNNTEIFLCMGENEAQNESLFYKNLAKKEEKMIKISDLKKVL

>CCK66869.1 arginine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMDYGIDIWGNENFIIKNGKVCINYEKKPAIIDIVKELRDDGYKGPLLLRFPHLIQKQIENIYGNFNKAR

KEFGYKGGFNAVYPLKVNQYPGFVKNLVKLGKDYNYGLEAGSKAELLLAMAYNNEGAPITVNGFKDRELI

NIGFIAAEMGHNITLTIEGLNELEAIIDIAKERFKPKPNIGLRVRLHSAGVGIWAKSGGINSKFGLTSTE

LIEAVNLLKENKLLEQFTMIHFHLGSQITEIHPLKKALNEAGNIYTELRKMGAKNLKAINLGGGLAVEYS

QFKNEKSRNYTLREYANDVVFILKNIAEQKKDLEPDIFIESGRFVAANHAVLIAPVLELFSQEYAENKLI

LKKQNPKLIDELYDLYKSIKPSNALEYLHDSIDHLESILTLFDLGYVDLQDRSNAEILTHLITKKAILLL

GDKQNPADLLAIQDEVQERYLVNFSLFQSMPDFWGLEQNFPIMPLDRLDEEPTRSASIWDITCDSDGEIS

YSKDKPLFLHDVDVEKENYFLGFFLVGAYQEVLGMKHNLFTHPTEAIISINEKGYEVEGIIEAQSILDTL

EDLDYDIHAIMDILNERISNSKLVNDKQKKHILGELYLFLNDNGYLKSIGV

>CCK66868.1 serine acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFWGIIKEDFSQPKAQDPAFNSCIELFFNYPGVWAVVNYRFAHFFYIRNFKRIARMISGISQFLTGVDL

HPGAELGRRIFIDHANGVVIGQTAIIEDDVLIYQGVTLGGTSLEKGTKRHPTIKKGVIIGSGAKVLGNIT

IGENAKIGSNAVVVKDIGANLTAVGIPAYIIEERKNKNIRAIDANCDDKLEKLEKKILELENLILKQPES

QK

>CCK66867.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLTKRSQVLEESITLAITALANELKAKGEDIISFSAGEPDFDTPQTIKNAAISAIEKGCGKYTAVAGIPE

VLKAIQTKFKKDNNLDYETNEIITNVGAKHSLFECIECLVEKDDEVIIPSPYWVSYPEMVKFAGGKPVFI

EGLEENGFKITAEQLKKAITAKTKVLMLNSPSNPVGSIYSKEELTQIAKVLEGTQITVLSDEMYEKLRYD

GFDFVAFASVSKDALKRTVTINGLSKCGAMPGWRFGYMASKNKALISAVKRLQGQSTSNICSITQHAAIP

ALNGECDKDIEKMRQAFEKRRNLALDILKQIPNISVYKPEGAFYLFVNIQKIEKDSMKFCQKLLEQEKVA

VVPGVGFGMDGYFRLSYATSDELIKKGLERIANFIKNYK

>CCK66866.1 hypothetical protein BN148\_0761 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIIQWNGAEFSPKEVKINVLIDNEKGKEIQILLAKDSVMKEHKAPFAIHVQVLSGKIWFEVEKEKFELN

ALDMISLEANVAHSLGGLENSIIRLSLNKSDSVQRVNAVLKKP

>CCK66865.1 hypothetical protein BN148\_0760 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLSFKIFDISNTQRSKAKKVQGKKYEIFLNENEHSLITPKVSFKEILRYYYLYPKNAIPSFKLPFFKPD

LSGFSTPHITWLGHSSLFISFKEYKILIDPIFNTHASPISFINKAFKNAPVYNINDFNEIFAVIITHSHF

DHLDAKSVKALKDKAKFFITPLKVGNYLKSYGVSEKKIIELDWWSGIEFGDLKIMATPAQHSSSRGDGKN

KTLWASFVMEFLSVDKRVFFSADGGYFTHFKKIGEYFGSFDLACLESGQFNIAWPYSHSFPEQILKEAKD

LNAKAVMPIHWGRFLAGTHAWNEVVKFLYENLDLPLITPKMGEAYEVGAKFKQDFWWKEE

>CCK66864.1 molecular chaperone DnaK [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKVIGIDLGTTNSCVAVYERGESKVIPNKEGKNTTPSVVAFTDKGEVLVGDSAKRQAVTNPEKTIYSIK

RIMGLMINEDAAKEAKNRLPYHITERNGACAIEIAGKIYTPQEISAKVLMKLKEDAEAFLGESVTDAVIT

VPAYFNDAQRKATKEAGTIAGLNVLRIINEPTSAALAYGLDKKDSEKIVVYDLGGGTFDVTVLETGDNVV

EVLATGGNAFLGGDDFDNKLIDFLANEFKDETGIDLKNDVMALQRLKEAAENAKKELSSANETEINLPFI

TADASGPKHLVKKLTRAKFEGMIDSLVAETITKINEVVSDAGLKKDEIKEIVMVGGSTRVPLVQEEVKKA

FNKDLNKSVNPDEVVAIGAAIQGAVIKGDVKDVLLLDVTPLSLGIETLGGVMTKIIEKGTTIPTKKEQVF

STAEDNQSAVTINVLQGEREFSRDNKSLGNFNLEGIPPAPRGMPQIEVTFDIDANGILTVSAKDKATGKA

QEIKITGSSGLSEEEINNMVKDAELHKEEDKKRKEAVDARNAADSLAHQVEKSLSELGEKVAAADKENIQ

KALDDLRETLKNQNASKEEIESKMKALSEVSHKLAENMYKKDEPNTANDKKKKDDDVIDAEVE

>CCK66863.1 heat shock protein GrpE [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSEQKQEFENENAENSEHLQDENLQNIEDVEQNKLQKDYDELKDKYMRANAEFENIKKRMEKEKLSAMAY

ANESFAKDLLDVLDALEAAVNVECQDEISLKIKEGVQNTLDLFLKKLEKHGVALIKDEKEFDPNLHEAMF

HVDSENHQSGEVVQVLQKGYKIADRVIRPTKVSVAK

>CCK66862.1 heat-inducible transcription repressor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKSRDKKDLILESIIQTYLLDNAPIGSNELNSNLCIPASTIRVYLKRLSDEGLITQLHISSGRIPTILT

MQNYWQNFWEKEQDKNIHIKNESFLKELSKEFEIYCLVYGGRSLVLKEVLDLNTKFIVLDFEDEELVLKY

EKEAWNFLQSLIGLDLSSIEKIALRVHFIDLVEKIASLRQNLICYRSNEERAYQIYQNDEFVKLLDCQIH

RHFKESLEFEPLFKEGFMGLKVDAQFLGEDVNIILAGSVYTDYKKILQYIKEAA

>CCK66861.1 ferric enterobactin uptake receptor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKICLSVCAIGLLSSNAISQNVELDSSIVSASGFTQDIKEAPATINVITKKELQSKPYRDVAEAIADIP

GVDLYASKGKTGSYNITMRGITGYTLVLIDGRRQGIGGEVGPNGFNEISNSFLPPISSIERIEVIKGPMS

TLYGSEALGGVVNIITKKVSDKWETSVSLDALLNENKDWGNTYGTSIYSSGPLMNDKLGLTLRFREFYRQ

QSNVEFTNGSGQRVQGDQAQSPTKANNFNIGTRISYLANDYNTFIFDIDFSRNHYDNKQGQLGTITSPGR

TPGSLTGGYADIMEVDKFVTYLSHEGVYENFSITSGLQYNRVSNDGREVVGQSTQPFLGENRDIVAEDII

LDTKSVIPLGQSHILSVGGEYRLEKMQDKIASPTNFDQYLLAIFAEDEYSIKDDLRLTFGARYNHHEIFG

NNVSPRAYVVYNPTNELTLKGGVSTGFRTPYANRLINGTYSYSGQGRFPTYGNPDLKEETSLNYEIAAIY

NNDLFYVSATGFLTNFKDKISSQSYNNSEPIPGIGTCDADRCSRAINHGKVEYKGVELGAGISPLDNLNV

NFAYTYLDTEVKEAQDRSVIGKPEQDSLKHNIMLKTEYSFYNKITPWIKGEWQIDRYMGDTNINREYYKD

IFLASMGVRYDINKQWSINAAIYNLFDKSFTNGWESYASGSGSTWVNTYNRIEEGRRMYISINGNF

>CCK66860.1 TonB transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTFISNHKNQSSFITLFVFTPLFFVFLYSKDFLHIQPNETIKENKFNMAIKHFVQNSSDMKPTQPTQTI

QEPSNVQPKEPVQEIKKIKPRKEKPIAKPKKIIPPANAKAISQPKKDTNMQQQTPQASSYQSVSLTSNSE

LLKEIKSAIDEALIYPRQARKMRMSGEVLVEFTWTKEKKLENLKILKPSKYDFLNKSALETIRIASKKFP

QYEKTFHIKIPLVYKLS

>CCK66858.1 hypothetical protein BN148\_0748 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLETLKKYAENQGIEDNYPKKIYNQKEKKP

>CCK66857.1 hypothetical protein BN148\_0747 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGVVYDEINIAVNTCKGLVLSKKRLLALNLSFFIQ

>CCK66855.1 hypothetical protein BN148\_0741 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQYNNEVTGKKDFDSAVRKKFNDIKYLDNNSYAFADSFTKATDAVKLSKDDFDPKLLQRILDDLMNGKYT

YDFDTKTWTYTDSKGVVGKDEASEITQSLNFLNAFKDTGVEQEFLKLWQGSQEQNYKNYTNLYEKWTQKK

TAMDKIKTGEGYFASFKEELQKYQEALAQLDKENKNYEKIKESGLVSDETLRAIYEKLLEQKEALEKQFA

DLSGNEGFRYKLENEILNSQGFSIEGKDVDGKVYTGNFNFKGKLASLPEKPNISIYEPDKQGGEDPDKPS

VLPPEIPEKVVEAPIKIQTEVDAKKRRR

>CCK66854.1 hypothetical protein BN148\_0740 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSAGNYKTQAGKVIGDPGISVNNNFSNIYVYHNLENGYIDEGQNFLSLCNIIMK

>CCK66853.1 hypothetical protein BN148\_0739 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGGIGRQIDGGNFNNVVVNDIEKLITSGNDSKTGGFTGKVGNLKINNAYLFYKMEQF

>CCK66852.1 hypothetical protein BN148\_0738 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTVNDLVINTAVNTKVGGIIGWGNGSGGNNTINFTNVAINNISIVAKKVLMWVA

>CCK66851.1 hemagglutination activity domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKMSKHIVLSFAVSSLLFSQAYALLSGGKFTHGTSGTIHTSGNTVTITGKGQNHVIQWGGGFNIGQNES

VNFNGKNQNYLNIAYQKDASKIDGALNRGNNNIFLVNPMGVLIGKTGTITAGKFVASTTALSDDNVKTFL

EKGASFSPAFDVSKQGNIINLGKINADNIVLIGNKVEINKGKITLDVLKLEGNKVYVDAGVVKDTKNIVA

KAEQEAIIQQSITSFEEDGALLGNSSSKFSFDDSSKVKNWTKYGSIADATEWNKFADFWNVNKEKFRTAF

DHFRLIDDIDFSGVKTYIVGDNTSNAFAKSFDGSGYALKNVNINSSNQYVGIFGVVQNSYIRNFNIQGLK

IASTGYDA

>CCK66850.1 hypothetical protein BN148\_0736 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGVENIYTLPLNGVPYISGSVAFDGEAKDNKLILESNTKIDLHNSQYFSDEEGKDIYDERITRLMGAFGI

NSNLQNNKVLIDSANIVLHGPDGEYTARSTFEILGALADVNNLKKYNVSKNSVIIKNLNLDLMVNSQNKI

TFYDAVLFGEIYGGRTLQGNAEKNSIEVYHFNSLDHLNKNIKTHASLNLYGGYSNDGEANGNKIVFRLKK

PLKISDNFYGKNYYNLYGCFATEGANFNVFDIQNDLTYEKVPQNYSDKFTVYAARTLSGKANNNTLSIKD

SVISLPLYAFITSETTLDGIDYIADESNNNEVNFENIKSSKNLSLMINAKNVSNNKINYNLIQSLTEASS

LGKGSKIILKATQNANNNLIKLKDCSSAAVESSCIIKADKESAFNKIINNNTAFSTASDKRQGYVGLIAG

VSANSHDNIMELVNLNIDEYKNQDAIFLAPSGTSDISNFKSYNNTLYLGGELNFFKDVNIDLLSGSVFHE

VNKKGKIITQILPHQEDFSKNNRLIIDTQDVKSEVVNNFENFTFILPNKIKNPILTIEKLINLPANGSME

ILTKNKPTKGKYILIQSDVGIYDGDNGLLNQQELENLLEKMKNNKNKFNYNKIEKLAKSTLKNVNFSFEV

SDDAKIIYINIL

>CCK66849.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKYFNIFKIFTNKTNAKFGLGVCSVVLSSSVCFAAVQAASKDGKIFYISEHSFKDNQVYDPQAEIFKKI

NGKNFYASKSKYPISNLTMIYNNPKSGNKNLSKLEILTPDTSKEEIITAFSTLGTVSSDTQAVPSSFMPF

IVTAYAQNTNATNNKLILENGELSSVYFCKPSIGDCGVPNNSQKGDRFKYLITAAFTDRGEGFNNQTILK

ENSYINNGCRKYLHLALKWSSLYFRICSF

>CCK66848.1 histidine-binding protein precursor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILSIALVALVGLFLGACSDSKNKESNASVELKVGTAPNYKPFNYKENSKLTGFDTDLVEEIAKKNGI

KIVWVETNFDGLIPALKAGKIDMIASAMSATDERRQSVDFTKPYYMSKNLYLKLKNNDSLQTKNDLEGKK

IGVQLGTLQENTAKAIKNAQVQSNKDLNIAVLALKNNKIDAIVADQDTAKGFLAENPELVSFYQETDGGE

GFSFAFDKNKQKNIIEIFNKGIDEAKTDGFYDTLIKKYELE

>CCK66847.1 HAD-superfamily hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLVLFDLDDTLIQGDSAKLWLKFCVEKGFLPQEYLEKIVFYQKQYQEKKFDMDEFMTFFLQSVKGKNED

RISSLVDEFIKIYIKPYEKAKELIIKYQDQRCIIISATAEFLVRKIASFLGVRESIAIKCERVGDKFSGK

AYGIYSFKEGKVLRLKEYLGKDYEKWMKDSYFFSDSINDLPLLESVSKAFVCNGDEKILKIAKERKYEIL

TF

>CCK66846.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAYLKIKNFKKAYGDKIIFEDINFSAKKGEFITLLGPSGCGKSTLLRCIAGLSQINGGKISLNDKDLTKL

SPQKRNIGMVFQNYALFPNLNVFENVAFGLKIKKMDKKDIEKRVKKMLKLVELEEYAKTYPHKLSGGQMQ

RVALARSLVIKPDLLLLDEPLSALDAKIRKYLRVQIKEIQKELELTTIFVTHDQEEALELSDTIILMNEG

KIIQNSNANNLYLLPESHFVASFIGNYNILSPKELDSLGLKHDFKKDIALRPETIEISNEGLEAKIKEKS

LLGNIIRYRVRVQEIEFKVDTLNFSTHSTYEAGDKIALKFNLSLAKELK

>CCK66845.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNENLSLKAKIYHYAVLFLVFLFLALPLMATFLYSISTSWGVSVLPDDLTLKWYQELFHDERFLLALWHS

LLVCVGSILLSVILVFPLVFVLNYYFLKLKAFVNILIIMPFAVPPIVSCVGLLQLYADNIGGTAWILIFT

YFTIALPFIYRALDNAISNVNLNELITSNAMLGGSLMGAIFKLILPNLRNGILVAVFLSFSFLIGEFLYA

NILVGSAYETLQVYLYNIKNQSGHYSSALVIVYFVLIFITTFIASLIKE

>CCK66844.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEKFLAFLSILPFFIVFTFFMIAPLIWIVFNAFYVEEDEIYSLANFIHIFESKFYLQSIINSLQISFIS

SIFGLLIGLLASYSLFVLAPSKICKFLFSLNTMISNFSGVPLAFAFIIVLGSNGVVNVFLKNLGIEPFVS

VYANFGVNIVYVYFQIPLAILLLLPAFKSLENSHLNACKMLGGGNFLYWLKIALPLLAPALFGVFVILFA

NAFGAYATIYALSSGNFNVAPVRIAALIAGDINLDPYMASALSIIITIIMLVVTFIANFLSKKYNFKVL

>CCK66843.1 type I phosphodiesterase/nucleotide pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMSKAILVVLDGLNCKSASINMGYLNALCKENLGKFYSLECELPSMSRPLYECLLTGVKPVLSGIINNKL

SFSKQTSIFDLCKEQGLKAGGAAYHWVFELYNKKEFIPSLHRHIEDENLTLPYGHFYYEDDYLDSHLFAD

GEHLRNKYNLDFTLIHSMNIDDAGHKFGSHSIEYANKTKKVDILISEYLPTWLEQGINVIITSDHGMTEG

KSHGGLSEDEILVPFFTFGSAFSYENAKIKQDEICGSICEILGLKHDKRYNDEILKAKK

>CCK66842.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKVILTSAMLCSVLFGVQEYEANLAGHIIIDSKSTVKPPKDAPDFFKTYGKFANIAREEKIGTFKSKGN

RETDFYLPFKNQPIQGHSGIKYIPKKDVFWVISDNGLGKKYNSYDAMLYAHEFKFDFKNSKYELLKTVFF

KDSDKKYPYPITTETTKERYLSGVDFDTESIQVINDEFYIGDEFGPYLLHFDKNGNLKEVFDVYVEGKKL

ISPDNPSLKFSDKPDGENEKFNIKRSKGFEAMASSKDGSKLYLLLEGSIYNNNAYENEKGKEYLRIIEFN

VKNKKFTGKTYKYFLEDKSHSIGDFNMIDDKYGIIIERDQKEGTKDKACKEGEDTKHCFNNVAQFKRIYK

VKLDDKTHEAQKISYIDLLNIKDRNKISKKPLVNDKFVFPFETIEGVDIVDDSHIVVENDNNFPYSSSRE

PNKTDDNEFILLEVKDFLKSK

>CCK66841.1 periplasmic solute-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKKFFLSLGLVALLFSNSQAIDENLIKAAQAEGRVNSLAMPDTWANWKDTWADLKNLYDIEHSDTDMSS

AQEIAKFKTEKKNASGDIGDVGASFGEIAVKQGVAQPFKTSYWDQIPTWAKDKDGNWLLAYTGTIAFIVN

KDVVKDIPKTWQDLLKGNYKITVGDVSVAAQAVSAVLAANYALGGDEKDLSPALAFFNTLAKQGRLVNND

VSIANLEKGEVEVGLVWDFNGLGYRDKVGKDRYEVLIPADGSVISGYTTIINKYAKHPNAAKLAREFILS

DKGQINLAKGYARPIRIDHITLPDDIKAKLLPSEQYKNARAIKDQKAWEKSAKELPQLWQEKVIVDMK

>CCK66840.1 magnesium and cobalt transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLYIYIKTQNALVQRINFNLDSQELPQNILWIDLLHPSAAEIAFISSEFNLEFPTKEEREEIELSAKYWE

DNATITINAHFLVRDLKSDEEDRNLIKLRTEIVTFATAKNILFTIRYNEFSTFEEIQARILASPKNFEDG

FDIIDKMFEVRVEKDADLLEWIDKEARRLRTSVLEKKDEYSYDEMLKDISSLQELNMRVRDSLFDKRRAM

TSLLKSDKIDKDIKQNLTIVLKDLNSLVEFSVSQLNILDNIQTILASQINIEQNKVIKIFTVATVAMMPP

TLIGTVYGMNFKFMPELELHYAYPIVLGVMVISIILPLVVFKKKGWL

>CCK66839.1 molybdenum cofactor biosynthesis protein MogA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDTINIGILTLSDRASSGIYEDKATAEIERVLNSYIKNDIIYHKELIPDDYDLIIKKLLYLADEKKCDLI

VTSGGTGPALRDVTPEATEAVCDKMMPGFGELMRLESLKYVPTAILSRQSAGIRNKSFIINLPGNPKAIK

ECLEPVFPAIPYCIDLIEGAYIEANDEVIKVFRPKKKCQN

>CCK66838.1 hypothetical protein BN148\_0724 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFFKKKISQKQKEKPKIPINDVILDDRLCKFKNKVQKISKDEASASLLARQLSRLIRANKF

>CCK66837.1 integral membrane zinc-metalloprotease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTLIAILCLYTALLSWISYAQIRFLEREKDKQAQILSEKDYQNAADIAIENEKFKLFSNFYNLIISIAWI

GFGFLYLKELLILNNTRFENTLFLLSFLIITSILNLPLSIYESFIKDKAHGFSNMTVKLFIKDTMKSLIL

TLIFGFLILYTLLFCYDFFGTFWWIAAFIFAFCIIVIINLIYPTLIAPIFNKMKKLDDENLLKKISSLMK

QCGFSANGVYVIDASKRDKRLNAYFGGLFKSKRVVLFDTLLKALNERELLAVLGHELGHFVHKDIIKALF

NGAITMFLLFFVFANLPEFVYLESHLEGVNGGVFALLFILANIFSFLISPMLNALSRKNEFAADQHGAKV

TSKEDMKNALIALARENKAFIKTSKIYTFFYLSHPSISDRIKALS

>CCK66836.1 DNA methylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTIKNALMEAKSSLKGYENEAVFILCEYLKKDKAWLFLNQDIKIDHEPYFELIKRFKSGEPFEYIFEKVD

FWGLEFKIKKGILIPRYDSEILLFQILNLCKKNTFNGILEIGFGSGILSIVLAKELGLKITACDINPKAL

ELALENAQLHKVDHLIDFKLCNFKQIKENYDFIFSNPPYIKNSYPIDIWVQKEPKEALFGGEKGYEILEE

IIHFSLDKKVKFLACEFGYDQKEILEKILYQNNFIVDFFKDEQGYNRAFIAKFTNMRYDKK

>CCK66835.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKAVNLFLLASIIGVELILGIVVAPTIFFPQNLIGEGVLSHFQSGLMMTQIFIKMGYLLIFVSVVNFLYE

IYSLIKDEMKFQIKFSKFMLSLLILILSLIFVFYFTNTIIELQNLGENATKTQEFISIHNASEVVIKIIL

IMQVFLYFLSFKIAKK

>CCK66834.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMISDATMMQQNYYLNNAQKASDKALENIAAVRAISGVDSANLAIADSLRSQSSTIDQGVANAYDAIGVL

QIADASLTNISQSADRLNELSVKMNNAALNDSQKGMLRTEATRIQESINDSFNNATYNGKNVFQTMNFVV

GSGTETTNLNPLATDGLSIDSQDSITNFMDQLGSLRSEIGSGINAITSNINASVQNSINSKAAENNLLNN

DMAKNVNDFNANYLKENAAAFVAAQSNMQLQSKIANLLQ

>CCK66833.1 hypothetical protein BN148\_0719c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTLEQILEKTKNVRLVAASKYVDASIIEKLFDQGIVEFGENQVQALAQKKENLDEKKLDIKWHFIGTLQS

NKINLLIKQKPILWHSCNGIKIAKAMDKRLDYKLNTLLEINSANENSKSGLDPNQAVEEYLQIQEECSNL

NLCGVMSIGSHSQDKENIIKSFETTFKIYEILQKHGAKICSMGMSNDFEIAIKCGSNLVRLGSILFKNLK

>CCK66832.1 DNA polymerase III subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSQFTHLHLHTEYSLLDGANKLKELALTLKEQGATSVAMTDHGNMFGAIDFYQTMKAQGLKPIIGIEAYL

HNHDELDDKSSRQRFHLCLYAKNEIGYQNLMYLSSQSYIKGLYYYPRINKKLLEDYSEGLICSSACLQGE

VNWHLNTYSERNVRFGAKGYEAAKEAALWYKKVFKDDFYFEIMRHGIGDQRMIDDDIIRLSKELNIKIIA

TNDTHYTFKERAAAHEVFMCIAMGKKLNDPDRMRHSVHEFYVKSPEQMSELFADIPEAIENTQEIAQKCN

LELNLGNPTPPNFKFTREYAKDHNIILPEETKEFSFDNDDMVFEELCKKGLEERLKFIDESKHEEYKQRL

EVEINIIKNMKFSGYMLIVHDFIKVAKDKGIPVGPGRGSAAGSLVSYCLRITDLDPIPYSLLFERFLNPE

RVSMPDIDVDFCQDRRAEVIDYVIDKYGADKVAQVITFGKLLAKGVIRDVARVCDMSIQDADELAKLVPE

ELKITLDAAYEKEPKIKEFIDRHPKGLEVWEYARALEGLNRNAGMHAAGVVISNESLWKKTPLFRQSKND

ERHLVTQYSKDHLEDVDLIKFDFLGLKTLTVINNAIKLIKKRYNKDIIWETIDVNDSKVYKTIQSGNTLG

IFQIESGGMQSLNARLKPERFEDIIAVLALYRPGPMESGMLDDFIDRKHGLKSIEYPFDSLEKVLEPTYG

VIVYQEQVMQIVQIIGGFSLGGADVVRRAMGKKDPEKMKKLKTDFADGAEKQGYDRAKAEDLWELIVKFA

GYGFNKSHSAAYALITFQTAYLKTYYPSEFMAALLTSEENNVDKIAVYIDEMKKMNIKLLPPSINKAIRE

FSALEQDGKDAIIYGLGAIKSVGIPAVENLLEARQDGEFKDINDFLGKIDPTKINRRTLESLIKAGAFDE

FGFTRKALFDNMENLSEASRKMAEVRKNAASSLFGEEELTSGVQVNFTPKNEEFEVMEKLGYEKEILGIY

VSGHPLDRFYEQINAIDYVKSLDFESLKNNGEILSIGKIEDFKSMMSKNNKRYGRIEILDYYSSFDATVF

ESNVEEIENIIKDENLKNNAYGFVLGFKAEGGEKPSFFLKAIKDLQSLEDGEIKAIKKFGAKKDFKNKEE

NHFTAEPKEFEKNIIELDLTRLNRELIYEIHEIARNAHNPNEKNNKKLVLKVISAGSCLLYHTDFIISDS

IVEEISNKYA

>CCK66831.1 ArsC family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLYGIKNCNSVKKAMDALTQKGIVFDFMDIKKINQDILYTWLKQKSFEELINTAGLTSKKLGLNKEKVK

NLNEKELEKIVLENPSCIKRPIIEYEQNIYIGKEYEKML

>CCK66830.1 phospho-2-dehydro-3-deoxyheptonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MWAKNSWKNYPIKQQPIYPDQEEMNRVLARLEKLPPLVFAGEVRNLQKSLARVCKKEAFLLQGGDCAESF

ENFGAVNIRDMFKILLQMAIVLTFAGGCPVIKIGRIAGQFAKPRSSDFEELDGISLPSYRGDIINGFEFS

EQARIPDPHRMLEAYYQSAITLNLLRGFAKGGLADLHEVHRWNLGFLKKSELHKQYTDISEKISQALAFM

EACGINTSNTPSLREVSVYTSHEALLLPYEEALTRVDSLSGEIYDCSAHMLWIGERTRALDEAHVHFLSG

VKNPLGVKIGPSASADDIIALANVLNPNNEEGRLNIIIRMGADKIINNLPKIFSKLKSEGLNLVYSIDPM

HGNTVKAGNFKTREFDKIMQEVRSFFEIAISEGVYPGGVHLEMTGKDVTECTGGASNVTAQSLEDRYETQ

CDPRLNADQALELAFLIADLVKKTRK

>CCK66829.1 transthyretin-like periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFSIKKTLLILASVPMFLSATEYQLSTHVLDITSGQPAPKVKVELYKLEANQQWKKVSEEFTEENGRIGD

LLPYEKAENRAFGIYKLKFFTKDYYTSHKINTFYPFVEVSFELSKDQKHYHVPITLSPFGYSTYRGS

>CCK66828.1 50S ribosomal protein L19 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNKYIEQFEAKQIEGKNVPDFRAGDTLKLAIRIKEGDKTRIQNFEGICIARRGNGVSETFIVRKIGANN

VGVERIFPIYSESLESITVLRRGRVRRARLFYLRDRRGKAARIKELKK

>CCK66827.1 tRNA (guanine-N(1)-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFSFVSLFPNLMEFYFQDSILARAKEKKLFKLNFYNPRDFSKNSYHKVDDYKIGGGAGLLMQAEPMYEV

LRSIQEKKENPYFIFLNPSGKTFNQKDAKRLSKKEHIVFVCGRYEGIDERVLEIFANEVFSIGDFILTGG

ELPALVMCDAILRNVNGVLGNMESLEEESFENNLLEAPAFSKPFIFEKKNKKFYTPSEFLKGNHARIASL

KTTLASCKTKFFRPDLFLEHERKK

>CCK66826.1 16S rRNA processing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSEKDFVQVAKLGKTVGLKGYVKLHNLSDFSSQFKKDATFFIKNTKEMLKIKHYNANNSTVLFENYEDIE

KAKELTNLILFQSIEKSRQTCKLKKDEFFYFDILECEVFEEDKRLGKVVDILETGASYLFEIQSDEKWVE

KKYPKIFFIPYLDKFVKNIDIEKRQIFCTQDAFLILENS

>CCK66825.1 hypothetical protein BN148\_0711 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVENFLREYAKLIADYPEQIDTQKIELSENFFEIVLFAHKVDTGKLIGKNGKMINAIKTVISAYKSKDAS

SYRVTVKALE

>CCK66824.1 30S ribosomal protein S16 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTVIRLTRMGRTKRPFYRIVVTDSRKRRDGGWIESIGYYNPMVEPEVIKVDAERLAYWKSVGAKLSDKVA

SITSK

>CCK66823.1 signal recognition particle protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFELVSESFKSAINKLRFVDDEKALKNALETLKKALLKADVHHKVTKELLTLIEEDAKQNGIGQKQFLNA

IKINLENILSVNGKNQGFVFASKPPTVVLMAGLQGGGKTTSTIKLANYLKLRNKKVLVAACDLQRLAAVE

QLRQLCEANEIELFFIENEKDPIRVAKEALKKAESSMVDVLLVDTAGRLAIDEALMDELRAVKDVLNPDE

IFYVADAMSGQDGVKTAASFNEVLGISGVILSKFDADTKGGVALGIAKQIGIPLRFIGVGEKVADLEVFI

PDRIVSRIMGEGDLATLAEKTAAIIDEKEAKKLNQKIKKGEFNFNDFLNQMESIKKLGSMKSLIGMIPGL

GGMANAVKDIDLDNSKEIIRIKAMISSMTPKERENPDLLNNARKRRIAEGAGLSQVEVNRFLKQFSNAAK

LAKRFSGKKGMESLTQMMSQARRQF

>CCK66822.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQEKAYKLLALQEKISNREAKDLIDKGCVFSYGKKVVVARALMSDKARFNVIKAKNPQIIFEDDKIIAIN

KPYAYVSEDLEKKFNAKLLNRLDKETSGVILLCKDEDFRKLCIEEFKKHRVYKSYIAVLDGVLAEEVEVN

EPIFTIKVKGGALSKVSKDGLSALSIITPIMMQSKKTLAKIVIQTGRTHQIRVHAKFIKHGVVGDEKYAK

ISSDRMYLHSYEIKIFNYHFRANLDSGFAKFGFDIKNLDF

>CCK66821.1 3-deoxy-D-manno-octulosonic-acid transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIFFYYFLTWTAFLFCAVFILLLSFLKSKYKISLKSRFFLYKNLHQEKADVHFHACSYGEVRSIKALVLK

FDSRITTITQTGFECAKEFCKKVNYLAFENFLPFWLKPCKVLVIFEAEYWLMLVFMARIYKAKIILLNAR

ISDKSYHSYQRFSFFYKKIFSYIDEVFAQSDLDKARLESLGAKNVKIFKNIKANLEIKNNKIYTKPKEKL

IIFASTHKDEEELLLDHFKLEENEKLIIAPRHPERFKEVENLLLNKGLEFEKFSSLKDENKKFSKKILLL

DALGELVNFYAISDVVVLGGSFIEGIGGHNPIEAAYFDNVLISGKFIHNQKVLFEEVENVYFCEKLKDLN

DKVHYLNLKAKISKKENLDLIIQTIQKGIDARKSL

>CCK66820.1 hypothetical protein BN148\_0706 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKYLEQLVLLSKIDQEIDSYEPKIDSINKTLKDAELKIEKINADLEKIDEEIKDIENQKIQNNAHISEF

SAKIKDLSKKSGVVKTEKEANALKIEEDIAKEQLDAANDEIVRLDKILENKETYKKELEEEKIKQEQNIN

EIRVSIKSEMEVLEKDRMSVYDKKTKLVSEMNQKVLSFYEKIRKWAKNTAVVPVKKQACYGCFMKIYDKT

YLSVVKGEEIVTCPHCGRILYKEQEEQN

>CCK66819.1 hypothetical protein BN148\_0705 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLSEIYNFLDQLSPFNIQESWDNSGILLGDRDSEISTVYLSLDIDENIIKEASENSLIITHHPLIFKGL

KDLYDKTYPRAFIKEMIYKNISLISMHTNYDLSHLNTYFTEEILGFKISFKDKFLIYVENSMSFEALCDW

VKKKLNLQILRVSDCGKKDIKRIAICTGSGGDLISKVDADCFLSGDFKYHQALEALSNQISLIDLGHFES

ERYFSQCLAKDLKNLPLQVIITVSKNPFQYF

>CCK66818.1 glycyl-tRNA synthetase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTFSQMILNLQNYWQEQGCAIMQPYDMPAGAGTFHPATFLRSLGKKPWAAAYVAPSRRPTDGRYGENPNR

LGAYYQFQVLIKPSPDNIQELYLKSLENLGFDLKSHDIRFVEDNWESPSLGAWGLGWEVWLDGMEVTQFT

YFQQVGGIAVDLVSAEITYGLERIAMYLQNVDNVYDIVWSEFNGEKIKYADVHKQSEYEFSKYNFEVSDV

KILNEQFENSYKECKNILEQGLALPAYDYCMLAAHTFNLLDARGAISVAQRQDYMLKIRELSKNCAEIYK

KNLNEAE

>CCK66817.1 hypothetical protein BN148\_0703 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQTYLELEEFCKLVHLNEDVVKGMMANGALNFKEEEGKIYIEAHQGTFSVVPSSAKSQTAMVNSMTLAGE

SFVEKTIGTILNLHEKVLDAKDETLEALKNENKFLKDALYSMQELYDEDRKTIETLNNELKHAREEIEFL

KRKYKLMWSKTAEIFGAKTEPDLEMNKNLEKPIENMEQ

>CCK66816.1 phosphoribosylaminoimidazole carboxylase catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFVSILMGSKSDYETMKEAAKTLESFGVKYELIISSAHRSPKRTKEYIANAEEKGVKVFIAAAGMAAHL

AGAVAAYTTKPVLGVPMSGSNLASMDSLFSTVQMPSGIPVGTLAIGKAGAINAAYLAMQILAIYDVDLAQ

KLKEDRLEKEKKLVSDSKEVEVLL

>CCK66815.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIIPEIVAPAGNFTKLKIALAYGADAVYAGVNNFSLRSRTAREFNYESFEEAIKYTHERGKKIYVTLNGF

HLSSQIEGLKRHILKLREMKPDAFIVASVGAMRLVKELAPEISLHVSTQANILNYLDAQVYKDMGAKRVV

IARELGLKDAKALKENCDIELEAFVHGSMCFAYSGRCLISSVQSGRMSNRGSCANDCRFNYELYAKNPEN

GTLFRLEEDENGTHIFNSKDLNLCSYIEKIMQENCISAFKIEGRTKSEYYVALTTRTYKMAIQDALEGKF

ESSKYEKEIATLKNRGFTDGYLVSRPLEKTDTQNHNTSIEEGSHQVHAISEDGRFFKCKGKIVLNTPYEI

LTPLGDVIQTCDNELGKIYQKEGKYFIEFKKLIAKNNKEFSEIHSGNEHEIQLPNKISALSFLRKEI

>CCK66814.1 hypothetical protein BN148\_0700 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTQEELDALMNGDVDLDSETEAEVKTEESNTEEDALMLEDVKIADYKPNPSVVWPPPPPNQEHKVVHQLD

DVTKDSELKATEMMDKLESINNFFADSESLLKEINKAIEKNIDIFSKLNEKFPNVESFSEALELNNQAKK

SSKEIVGNLQSGQDEVMMAMDAMQYQDIHRQKIERVINVMRALSRYMSSLFEGKIDDKKRVSSAVHIEGD

STADVVSNDDIEALIASLGQK

>CCK66813.1 glutamine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGKFVNNIDDFFKFCKQNEVLFVDFRFTDMIGTWHHITYNLHAINEETFQTGIPFDGSSIHGWQPIEKSD

MILKPDAQSAFLDPFTADPTIIVFCDVYDIYKGQMYEKCPRSIAKKAIEHLKNSGIADTAYFGPENEFFV

FDSVKIVDTTHCSKYEVDTEEGEWNDDREFTDSYNTGHRPRNKGGYFPVQPIDSLVDIRSEMVQTLEKVG

LKTFVHHHEVAQGQAEIGVNFGTLVEAADNVQIYKYVVKMVAHLNGKTATFMPKPLYGDNGNGMHVHMSL

WKNGVNLFYDKDGYSGLSQTAINYIGGILKNARSVAAFTNPSSNSYKRIVPGFEAPCILTYSCQNRSASC

RVPYGIGKNSARIEIRFPDSTANPYLAFVSLLMAGLDGIKNKTIPVGPMDENLFDLTLDEIREKGIEQLP

HTLRGSLEALIRHNSYLKPVMSDIFIDDYQHLKFETQVWPVEARPTAYEFKTCYSC

>CCK66812.1 flagellar basal body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMRSLHTAATGMVAQQTQIDVTSNNIANVNTAGFKKSRAEFADLMYQVMKYAGTSTSATTLSPSGIEVGV

GVRPTAVTKVFTEGNLKSTSTDGLDMAIAGNGFFQIQLPDGTIGYTRNGQFTKDNEGNIVNSDGYRLLPE

MTIPEGATAINVATDGTVSVMLPGEQQETQIGQVELVQFINPAGLHSMGDNLYLETGASGAPVAGIAGQD

GLGTIRHGFIELSNVQLVEEMTDLITGQRAYEAGSKAITTSDDMLGIVNQLKR

>CCK66811.1 flagellar basal-body rod protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNGYYQATGGMVTQFNKLDVITNNLANINTSGYKRDDVVIADFKRIFKETQDELPIENHTRDASRFVNT

TIDGIPQVSQEYTDFSLGSLKATNNPLDLAMTREDAFYLVQTKDGEVRLTKDGNFQLDDEGYLVNKQGYK

VLSSDYFNNPQNAGIRIPNGAVQISVDKNGSIEVDGAQNARLFVAQVDDIRALQKDGDNVYKIDDLTRIR

DLKNSNAIRQGFSQGSNVNPVTEMVGLIEANRMVEMYQKVMTAHMDDLNQEAINKLAAVK

>CCK66810.1 cell division protein FtsZ [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSEFLVEEMQHNKGAKIKVIGCGGGGGNMINHMVKMGLNDLDLIAANTDAQAISISLAKTKIQLGEKKTK

GLGAGMLPEVGAESARESFEEIKASLSQSDIVFIASGFGGGTGTGATPVIAQAAKEIGALTVSVVTMPFA

FEGKQRKKLAESGLLELKKESDSILVIQNEKLLSIIDKKAGIKDAFRLVDDILARAVKGMVSILLDNGDI

NVDFADVRTIMSHRGLALMGVGSASGENAIEEALSNAIESPLLDGMDIKGAKGVILHFKTSSNCSLFEIS

AAANSIQEIVDENAKIIFGSTTDDSMEDRVEVTIIATGFEDKDTVAKKSTEEAQASKKNPYLSLKKVSGG

YDEEIMAQIETPTFLRRQMD

>CCK66809.1 cell division protein FtsA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MILNILGIDLGSTQTCAIIAQKDEDGLKIIGFSKSKTNGVKKGAITNIELASKSIEEAVRSAEMMSGVHY

DRVVVSISGAYTKSVDSIGVVNIPNHEIGIKEIHRAVSTAKHTANLPSGYEIIHVLPYNFKVNDLEHVDD

PLGMSGNRLEVSTHIVISQESHIKNLKKAVELADLRVDNIVLSGYASAIACLDDSEKELGAVLIDMGGAI

CDMVVHTGNSIRYNDCLQIGSINITQDLSMALHTPLKEAEKIKLNYAALSQQPNTLIQIPSMGDERKVNE

VSLDIISNVIYARAEETLMILAKILSDNRYANAIGGGVVLTGGMTKLAGIDELAPATFDNRSVRLATARK

DLITGFSEIFNDPENTCAIGLCLYGAGYFTPYELDSNEKLRYKGEIENFNRQIKQDIVLQKDAESEIKSD

FFDENLQENDTIAIQEQLDFKEPKEKKPSVFSNIWHKIMNQF

>CCK66808.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLTWMQHHKKYLVVTIWVSTIAFVGAGFLGWGAYDFNLNRSSSVATVGNEKIGFSEFDTRYRQILSYYNQ

ISNGALTPENAEQLGIKNIALSSLVEDKLLLNFAKDLGIGVNENQILQKLANTREFQDPTGDFNKTIYYE

LLNANNLAPKDYETQLANEVITDKLNQIFNIPSKDEELKMLASSYFMQDALSIAKIDYDKKNIKINEEDL

KKLWNEHKEDYKTKKIYEISTYFLPVSNEKIDDKELEKFYNQDENKLKYKDFAGKVMDFQSAKNEVAKDY

ALMQLKNVANAKFLDLKNGKDNFQKDQNISESDVYYPIDLLNKAKNGDVLRPAPYNNGYIIVKLNKVDPI

RNKTFEEAREEVLPMYLSEQARKNLEEKAKNSLVNFKGDDIGFVSRDSSRESVKVSDKILNDSEFAYFLM

NVFNTDQNSSYVVINDNKAILYKINKQKLDMNSDKFEQYKTMLEQNLQNLKANELKQELVDELKKIYPIK

IYYKGN

>CCK66807.1 S-adenosyl-methyltransferase MraW [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MILEIPHIPVLLNEVQEIFKNLKTGYFLDCTLGFGGHSEALLKNHPDLKFIACDQDQQALKFSKKRLKDF

RNRITFMQSNFSEVLEKISHKEELRGILADIGVSSFQLDNNERGFSVNSDFLDMRMNQNSKISAYEIINT

YTKEQLTSIFKDYGELHDAHFIAEKICLERSKNLIKSAKELYQIIGKGKQNHRKISKATLAFQAIRIEVN

QELKVLKDFLEHLENLKPKNCILAIISFHSLEDRIVKQFFKKWSKNCICNEKIMRCECGNNHSLGQIITK

KAISASKEELLKNSRSSCAKMRAFYFNNLDNK

>CCK66806.1 hypothetical protein BN148\_0692c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLEDDFIKERQNIRQKMLKFSRAINQGKPLDDDLRDEISSDDILRRRFKKKTPNKFLEELDEEYESKHTK

KSNIYLKEDLINVKLEEKQSLAKKIFSKMKERRKEENKKTKKNFLFSRKKANEIKNIQTKTQIQTKSNQA

TTQTKQEKKELTNSIEKIQKTETKIQKPLIIEKKLDVKNQPNIKKSLENLQKKITPQENKQELPKPSNQA

QEKQQNDEDAQKAKNILLEGFSNATKEDRNLNFNHLLFAALLVSFALFLFAPQIYIRNQIYYLSREIATL

RTEESVLNEENKDLKRRLENMRFQNQILDYLE

>CCK66805.1 hypothetical protein BN148\_0691 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKFKEFSLRFLFKVSEQPVLIRDLLEANALFNDGMLVDPSKLNFNFKILNSYIYFGVFCAVILLPLLLI

THYFLTKLDFHISIVSAVMVTACVFIGYDIFKVYTRKIISKKIIQKAWALHFPYFAYEKYSTMAGEFYKE

ALKEEIPKANLEQYVLDKIIHSK

>CCK66804.1 restriction/modification enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNYYQELKKYLNNNLFTSYSLEIDFPKIYNFNANQKAFRDILTKITKIYDKNKFIKQNEHQFEDEFISKV

LEILGWCFVRQDEKIIQGKLEKPDFLLFSNDKLKSKYENLDKETKKSSNDFTIILESKAYNIEIDNKKVK

DNPHFQILRYLGNLKKNYGFLTNGRFWRFYDNSILNSNKVFYEINLEKIIEDQNIEAFAYFYSVFSAFNF

TEKEDHLEITLQNNKLSKIKIEDDLKSIIYGTNGNESLFEFIGSRIYNKTKADLKLIYENSLYFIFRLLF

IAYFEDKFEIILEKHKYFKSKISLRTLLENLQEDESSSGGFGELENIFNIYNKGKGNFDMPVFNGGLFDE

SKTALLSTPKIFNDKDLKFILNQLLNFKDKNLSFKRDYKTLSVEHLGTIYEGLLSYFFEIANEDIYYVSY

KEKSKEIECYFDNYDFKILEKSKKVEKYTFYKKGQIYLKNTSNSRKASASFYTPQSIANFLIQSALKDKL

NNENILKFKILDNACGSGHFLVGVLNAITHIVLSDFDHFTNLKELYEEEKENILNHIKDFVQDYEVDESD

ILKRLLLKRIIYGVDLNPFSIELTKLSLWIDSFIFTTPLSFIEHHIKCGNALINSNLSDFKDLIKQNSSN

LFTNSITQEFEILQEVFEKLDNLKDTNEEQIKQSKQIYQNEITPKLNKLNLYLNYINTLHFVNKEELQIL

KALSQDDIQNLSQNEQAKAIISKYQKEFNFFNYELEFPEIVENQVFKGFDIIIGNPPWDKTKFSDSDFFP

QYKSDYRSLIASKKKEIQDNLLAKDYIKQNYEKQKAYINDLSEYYKKAYPLNKGSGDGNLFRLFVEKNLS

LLKQDGNLAYVLPSALMFEDGSLILRKEILENKTLEYFYSFENNKAIFIDVHRSYKFALMLIKNTQANHT

HKIKMMFYKTDINSLKNKDEILTLNLKDIKKLSPTHLALMELKDKQALEILRKSYNAFQNLSFDYIDFRR

ELDMTNDKDLFIEEFREGLLPLYEGKMIHQFDANFSQATYFLEKAKFDERLKSKELYRAKKATGKELNPK

LIKYDREFFRLGYRKIASDTNERTLIASLLPKNCGGADSTYSNIPKQYVLKDDVICMDIVPYERILFVLA

LFNSLVVDFIIRNMVQINVSKSYLERIPLPQPSDEEIQNNEIYKTLAKNALLLQLYNDQNRHFDELKQEF

NIKNEEIPKTKKAYDILRAKNDLLVKELYGLSDDEFSYMISTFKVLNEKQSEYITLLKTI

>CCK66803.1 acetate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKILVLNSGSSSIKFKFFDNKVVKASGLVEKIGEQNSKVVLKNTLNNESFERELTINNHEEGLSIVNELF

KESGILADLNALDGCGHRIVHGGRNLSEHCLVDDYVLKEIDRVSIFAPLHNPAHLAGIKTMIKAAPSVAN

AAIFDTAFHRTMPDFAYMYALPYDFYDKHNIRRYGFHGTSHAYVSSRAAKFLQKDQNELNVISAHLGNGA

SVCAIEKGKSVDTSMGFTPLEGLVMGTRCGDLDPAILPFISHLKGLTIEEIDTLMNKKSGVYGICGYNDF

RDIEREIEQGNDKARLALDMFCYRLVKYIGSYFAVLPKTDAIIFTGGIGENDSLVRQKVCERLAHLGIEL

DFELNKQRISGERMINHANSKVKVLVIPTDEELEIARITEELIGKN

>CCK66802.1 phosphate acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMANLYLMRSRSDELNTIISTNLLKNYSKIYKNIAIYCPVIYIHRVPVLQGWLEEFNINQTVKSAYGFTF

REAMEEFSKDPHNFFNVILEEYEELKRKYDFVLVNSFCEFGILDGFDLSIKLAKNLNTPIAAIINDEDKL

IAQKYFDHALDGRNYVLINENFNFEEVQKLKEYDFITPHRFKYELIKQSIKNKKTVVLPESNDERILKAA

EILLKSKVVDLILLGDEEKIKQDATRLSLDLSAMQIMNPLNSEYNQKFTSILYEARKSKGMSLEEAKMLV

QDKTYFGTLLIHTGKADAMVSGASTTTAETIRPALQLIKTKEGISSVSGIFFMGLEDQVLAFADCAVNPS

PTAEQLATSAYVSAMTAKSFGLEPRIALLSYSSGDSGKGESVDLVKEALKIAKEKYPELNIDGPMQFDCA

YDPKTAAKKMPNSKIAGHANVYIFPDLNAANICYKAVQRTANALAIGPILQGLKKPVNDLSRGCLVDDIV

DTVILSAIQAQ

>CCK66801.1 flagellar basal body L-ring protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKVLFYVLPFAFFGCSATVDPQISMKPPAYVEELAPKQSNNVESAPGSLFGKGDNPLFSDKKAMNVNDL

VTVVIQESTTQSTQANKATSRTNTSNLGGGALTGSSGVVANALNKVNAYSNIGFQTNSSNNYTGTGSQSR

NESFNTTISTRVIKILSNGNYFIEGSRELLINGEKQIIQLSGVIRPYDIGQDNTIDSKYIADAKILYKTE

GEVDRSTRKPWGSKVIEAIWPF

>CCK66800.1 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEYKRFKTRQIKVGNVLIGGDAPISVQSMLFTKTRDIEGSLEQINRLYFAGANIVRLACLDMADARALKE

IKAKSPLPLIVDIHFNHNLAVYCAEFIDGVRINPGNIGSKENIKEVVKACKERGIPIRIGVNHGSIEKQF

SDKFGYGVDAMLESAMYNIKLLEDLDFFDIKISMKTSDAQKTIEAYERLRPLCDYPFHLGVTEAGTKFHS

TVKSSIALGNLLLKGIGDTMRVSMTGELEEEIRVARAILQDSGVQKSGVNIISCPTCGRIQSDLLSAIKI

VEEKTKHIKEPLNISVMGCVVNALGEAKGADVAIAFGKNQGLVIRHGEVVAKLKESELVDRFLAEVEDEV

KSRVVKE

>CCK66799.1 invasion protein CipA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNYIYKLNTIKRGYMQNLLFYIKNNLTPTLAQILLQALKNSNNEKFFTFVLENIETICTWLNSNKFRDRY

LSTKHPYPPLINPNFIEIDSSRHCAELAWDLNLPLPKHYKFIYISPHGVGAAAFLRYLNQCCDVTCFASW

VLPPDSKERYCINYMCLNDNTIAQYAINISEINLPYFDKYLSLLDFNSKIICGVRDPIGLLKHSWGRDWS

KVLRNYPPEFNLTYDWRYYINYLTHQNHKIKIDINELQQGVFIISYLLKYFNKDNVYYLDMEEIRQSKAF

DTMNLLAINFNFTPPHKDKLDLFKIKEFRGYIRYLFPITLYANSKDINNTFYLNTPKNNKNFNIDRTSSI

PIILDRKHINHEKIDVIQEIIKNDLCNDMGVYIDKNDFKQLEQNNLLFSTIKHYLYDFLYQIKITIDETE

SKMMKEKDVIDYFIKNKSLIYTFLIYLKMN

>CCK66798.1 primosome assembly protein PriA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQRSDIRYYELAICGLYLDNLTFHSFDEIKPLTQVLVDLKTKKNLKAIVLKECQKPDFKTVEIKEITEYF

LTPLQFELANFIVYYYASKLGFVLGFFETSPKYECHKMFFKDTPKLSNQQQNALSFLQKENNSLLFADTG

SGKTEIYISLIKECLEQGKQALLLMPEIALTPQMQKRLEVYFKDNFFLWHSKISKKKKQEYLERFCKGEV

LLVAGARSALFLPFRNLGLIVVDEEHDNSYKASNQPFINARDLALFLGQKNNIQVILGSATPSLTSFYKQ

KSFRLKGTFFESKKHFLYDENELGITPMLLSELEKSLKHQKQAIVFLPTRANFRQIICKDCGETIKCPFC

SIAMSMHKKKNILKCHYCNYTSLIEQNCPSCKGEMLEARKIGTAELLELLQNALPLAKIAKFDSDEITSV

KKLNTILKNFNENKIDILIGTSMLAKGHDYHSVDLSVILGLDEYLLRPSFRASEETLALAMQVAGRAGRK

GEARVLLQTKNRAFFERYIENYDAFLKDELENRKDLYPPFKRLLRVLIEDKDQKSAQKLCEKFASQFRNI

KQVELVGYGICGVEMLYGKYRFYLLLRSENHKALVAIENYILQFKNASADIDPIDFV

>CCK66797.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKAFTLLELVFVILILGILSSLSLSFINTTKDEVKILKLKMDYEMLSSALALMRSQMRLKNLNFPEILD

NAQNNQAKEKLFYCLNDCDYSLLDTPIYSDFKSWIKIGKNHYRFALNAKEMVEFIYDSKEGLLKCIGSSR

CKDLI

>CCK66796.1 hypothetical protein BN148\_0682 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MADNLKQVIVNVNAKDFIVKCSEEFANFLEDDIALISGGTKKIELKRFVDAFVKKSYENYILERELKKLI

KAINEELPTK

>CCK66795.1 hypothetical protein BN148\_0681 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFDEKIINTMTDKVNELIEKYNEVCEANEALRNELVSVKAQNEAKSNQIMRLEEELKSRNIESEDIYKKI

EAVLGR

>CCK66794.1 excinuclease ABC subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLELTSEFKPSPDQQEAIKGIVKSIKKGNKYQTLLGVTGSGKTFTMANVIKELNIPTLIMSHNKSLCAQL

YSEFKGFFSKNHVEYFISYYDYYQPEAYIPRTDVFIEKDSSTNEDLERLRLSATASLLSYEDVVCIASVS

ANYGLGNPNEYIGMVLIFELGMQISQKELLKKLVDMGYKRNDNFFDRADFRVQGDIIDIYPAYYEDEVVR

LEFFGDELDAMYHYNVLENKKGKDLKRFILYPTSQFSVGETRLKQAIKDIKAELNERLAYFEHENKLVEY

QRLKQRVEFDLEMLTSTGMCKGVENYARHLTGLKEGDTPYTLFDYFAIKDRKFLVIVDESHVSLPQFRGM

FAGDRSRKQTLVDYGFRLPSALDNRPLMFDEFIHKNCQFLFVSATPAPLELELSKENIFHQIMRPTGLLD

PLIELKDSDNQVEILFDEAKKVIQRNERVLVTVLTKKLAEELTRYYLELGIKVKYMHSDIDAIERNEIIR

GLRSGAFDMLIGINLLREGLDLPEVSLIAIMDADKEGFLRSTTSLIQTMGRAARNVNGKVLLFCKKITKS

MQEAMDTTNERRKLQMAYNKKYNITPTSVKRHIEESLKNEEDLGEIYRKGKKLEKMPASERAKLVKELRK

QMLEAAKALEFEKAAAIRDEINKLRDL

>CCK66793.1 truncated KdpD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQRQSPEQILKKLEVKAKEEEKNKLVKLKIFLGYAAGSGKTYAMLSEARTLRDNGVDVVLGYIEPHDRPE

TMALAQGFESIANLEIPYKNIVLKEFDLDATLKRKPALVLVDELAHTNAKGLRNEKRFQDIEELLKAGID

VYTTLNIQHLESLNDLVANISKIEVKERIPDRIFDEADQVELVDIEPNKLLKRMQDGKIYKEKQAKLALE

NFFRQERLIALREIALRRLASRVNLRASEQRLINDDLAYHTGEHILVCINASNAKVIRAAARLALAFHAK

LSALYIKNPNIKEAKALEENIELAKSFDAKIISVYDDIARQIAEYSSLSNVSKIVLGKNKDKKSLKKRFL

KLSLKKHPILIYILSMKIKFLLLKYEVKKSFDFLGFLKITGVLLLATFIAFVFHKFNTQPSNIVMIFILA

VFASSFISDNKIFAFYSSLVSVLIYNFFFLEPIFSLKVHDSGNIITFTTMFIVGFLTAVFTRRLKLQSKE

LTKRAYRTAILLENSENLARVKSKQELWEQLGNQALKLLNLPIIIYPINKNNILSKPLLFFNDDKQMLKN

CFSADEIAIAQWVATNKERAGVCTNTLPNANAMYLPIEDGKKLKGL

>CCK66791.1 potassium-transporting ATPase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKKQNKLITKEILNNAIKGAFLKFDPRFMVKNPVMFMVEVGSILTLILSIFPTLFNGNSDERIYNILIT

FILFIILFFANFAESIAEGRGKAQAATLRQSKKDSKARHIKSDGSEEMLNSSELKIGDIVLVKAGELIPN

DGEIIEGTASVDESAITGESAPVMREAGGDFSSVTGGTTVLTDFLKIKILVGAGESFLDKMINLVEGAAR

QKTPNEIALNTLLIVLSLSFLMVVVSLYPFMQFLGVSLPISWLVALLVCLIPTTIGGLLSAIGIAGMDRV

TRFNVIALSGKAVESCGDVDTMILDKTGTITFGNRLANEFYEVQGISKEEMIKACVLSSLKDETPEGKSI

VALAQKMGYELEGNDIKEFIEFSAQNRMSGVDLQDNTKIRKGAFDAIRAYISEMNGKIPSDLETKVMEIS

NLGGTPLVVCKNEKILGVIYLKDTVKPGLKERFDELRKMGIKTLMCTGDNPLTAATITKEAGLDGFIAEC

KPEDKIKAIKKEQAQGKIVAMTGDGTNDAPVLTQADVGIAMNSGTQAAKEAANMIDLDSNPTKILEVVEI

GKGLLITRGSLTTFSMTNDIAKYFAILPAMFSVVLPQMQILNIMHLATPKSAILSALIFNAIIIPLLIPI

AMRGVKFKPMKSEHLLLRNLSIYGLGGMIAPFIGIKIIDIPTAWILRILGV

>CCK66789.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRKGYPMDIIFALLLLLAFGSLCFFICFCEIQTKDTRMIFLLVLSLILALYLFYALLYPEKF

>CCK66788.1 anaerobic C4-dicarboxylate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDFLTSLSEAGQFAIQIIIVLICLFYGAKKGGIALGLLGGIGILMLVFAFHIKPGKPAIDVMLTILAVVV

ASATLQASGGLDVMLQIAERILRRNPKFLTILAPFVTCFLTILCGTGHVVYTIMPIIYDIAIKNGIRPER

PMVAASISSQMGIIASPVSVAVVSLTALLLNANHKLAGFDGYINLLQITIPSTLFGVLCIGIFSWFRGKD

LDKDEVFQEKLKDPEFKKYVYGDSKTLLGVKLPKSNWVAMWIFLGAIALVALLGVFDFLRPNWGQVVKNG

IPQVDALGNPKMDVLSMVSVIQMFMLLAGSLIIIFTKTDAKKIGSNEIFKSGMIALVAVFGISWMADTMF

AVHTPMMKAALGDIVKEHPWTYAVMLLLISKFVNSQAAAISAFVPLALGIGVEPGVIVAFAAACYGYYIL

PTYPSDLATIQFDRSGTTHIGKFVINHSFILPGLIGVITSCIAGYFIAMAAGYL

>CCK66787.1 RNA polymerase factor sigma-54 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKQKITQAPKTKISQTLRSWLPILQANIEDLKENLDKFAEDNPFLNVQDSIQTHDKGKNYFDSFYKHNV

NSAFVDSKGLAKKSVYELLNEQILPPLFPTSKSQELAKKIIECLNEEGYFEHDEEFLKEYSLEEIERVRA

RFKFLDPVGVGAKDYKEAFLFALENMELDEDIDEFCRMLIMDFENIQNYTKEPLYKEALAVLKRFSTPPF

LEYFEDSRIIVPDIFVYKENGEIKVKINDDYYPEISIQTDGLEHDFLSHYIKEAKNLVDALAMRKATLYK

IGLMIVEYQYDFFMGKEIKPMTFKDLALDLERNASTISRAVANKYLSCERGLIPLRDFFAFALDEEGETS

NVGVKEFVANLVKNEDRNKPLSDSKILELIKEEFKVDIGRRTITKYRKHLNIASSTDRKKLYELEG

>CCK66786.1 ABC-transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKLEIVNLEKIIKKTKIIHGISLEVNSGEVVGLLGPNGAGKTTTFYMICGLISPSSGKVLLDGLDVTKD

PLNKRARSGIGYLPQESSIFKDLSVEDNLLLAAQIFYKDKKILHDKVEQMLELLSIEPIRLRKGLSLSGG

ERRRCEIARSLMCEPKFLLLDEPFAGVDPIAVAEIQTLIKELKRLGIGVLITDHNVRETLAICDRAYVIR

SGSLLASGNADEIATNKDVKKYYLGAEFKLLD

>CCK66785.1 unnamed protein product [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEFILAKNEIKTMLQIMPKEGVVLLQGDLASGKTSLVQAWVKFLGLDVRVDSPTFSTMQKYENHDICIY

HYDIYQEGLEGLLANGLFENFFEKGLHLVEWGGENLKKTLMKFGISTIQIKISIKDDKRKYEIYE

>CCK66784.1 S4 domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRVDKFLNVVNITKRRAISEDMCKSGVVGINGVIVKASKEVKVDDIITLHFTEYTQKYKVLALPSTKSIP

KNAQNEYVVKL

>CCK66783.1 argininosuccinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNEVKKVVLAYSGGLDTSIILKWLQDEYNCEVVTFTADIGQGEELEPARKKALSLGIKEENIFIKDLRD

EFVKDYVFPMFRANAIYEGEYLLGTSIARPLIAKTQAQIALQTGADAVSHGATGKGNDQVRFELGYLAFS

PDLKIIAPWREWDLNSREKLLAYAQKHGIDISKKKGKSPYSMDANLLHISYEGLVLEDPAHAPEEDMWRW

SKSPKDAPNESEIIELDFQKGDLVAINGEKLSPAGLLTKLNELGCKHGIGRLDIVENRYVGMKSRGCYET

PGGTILLKAHRALESITLDREAAHLKDELMPKYASLIYNGYWFSPERMMLQALIDESQIHANGRVKLELY

KGNVMVIGRESANDSLFNAAYCTFEEDEVYNQKDAAGFIKLNALRFIIAGKNGRKF

>CCK66782.1 50S ribosomal protein L9 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVLLIKDVKALGKAGEIKEVKDGYGQNFLIAKGFAKAATNEVLRKYESDKKKEAENLRFEIANLEKLKE

ELSKITLEISKPVGANGSLFGGVTKDEIAHALKEQSHIEIDKKSLECDTLKSLGIHEVSVKLGHAIHAKF

NINIKAE

>CCK66781.1 ATP-dependent protease peptidase subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFHATTILAYKGKNKSVIGGDGQVSFGNTVLKGNAVKIRKLNNGKVLAGFAGSTADAFNLFDMFENLLQS

SKGDLLKAAIDFSKEWRKDKYLRKLEAMMLVLDRNHIFLLSGTGDVVEPEDGQIAAIGSGGNYALSAARA

LAKHTDLDEEELVKSSLQIAGEICIYTNTNIKTYVIEDEK

>CCK66780.1 ATP-dependent protease ATP-binding subunit HslU [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLTPKEIVKFLDDYVIGQKKAKKIIAIALRNRYRRMQLSPELQDDIVPKNILMIGSTGVGKTEIARRLA

KMMGFPFIKIEASKYTEVGFVGRDVESMVRDLANAALNLVKNEQREKNKDKIDEFIENKILEKLLPPLPK

GISDEKQEEYKNSLEKMRTKLRNGDLDESTIEIEISQNMFDTNPNLPPEMGAMQDIVKVIGVGSKKVKKE

MKIKDAKNALKNEAGEKILDQESIKSEALKRAENEGIIFIDEIDKIAVSSGNSNRQDPSKEGVQRDLLPI

VEGSNVQTKIGTLKTDHILFIAAGAFHLSKPSDLIPELQGRFPLRVELDSLDDKALYEILTRPKNSLLKQ

YSQLLKTENLELEFDDEAIKEIAKIASRANEEMQDIGARRLHTVIEKLLEDLSFEADEYAGKKFVVDKKM

VEEKLGDIIENKDLARYIL

>CCK66779.1 GTP-binding protein Era [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKSGFVSIIGRTNAGKSTLINSLLEEKIALVSHKQNATRRKIKAIVMHEKNQIIFIDTPGLHESGATLNQ

LLVQSAIKSMGDCDVILFVASVFDSTKDYENFLSLNPQVPHIITLNKVDLTDNATLLKKLSEYAKFSQHF

KAIIPYSSKKKSYKKGLLDEIVKYLDEHEYFYDPEFLSASSEKEIYRDFILESIYENLSDELPYSSEVLI

HRTKDTPNLLILEANIITDTNSHKGMLIGKEGATLKRIGKDARFKISKLAQKKVLLKLFVTVKKNWQKDE

EFLKKLLNDEN

>CCK66778.1 transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKINSLNKINFIKSTDLLYAQRTGISKEDELFNNLTADFKLSKPFDYQIAFFKHNEIYHCFLAPVYKLK

KSRFCFPEPLIFQALFDERFIEESDYCVLNLYDQTLYLYFYQEGKFINLKKIENFNPGNMDLFFKQNRFT

ELLKHYESKLLLYQDLNTIKHYFSSQIKCLNLNDILDKNSLLKLSSYSIKNLDQNCNFIKHNKIKISISF

KIILIFIFSFSLSMMILLFKDFIEYKQNKEIQNKNFIIQEEISKLKQDKQKLLTNIQDLNFTLSNKISST

QQQFHILSTITKEINLDKNKAIILNQIISWLNSNDLKITNLEFEQTKIILSFIDENHFKRALENLNSAFK

ILDKNEETFNIILEVIHE

>CCK66777.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKIEVFLQNLNPREKFLFISFICLCALFLAFKIHDHFLEDIFQKTLVEHNYLALNEAKIENSHLKEIET

KLTKQIKIEEEKLKYYKEKLHLFSYDKDFFNKKINNLSKNLIINEIKFSQENKNFIHYNYVSLSLNGNFK

DLLNFIQNLENLPIALKIDKIKLYNTQGLKLKLDLMFKFVNL

>CCK66775.1 aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSIYKQRVLELRRLMKENNIDAYLILSADPHLSEYLPEYYKNRVFISGFKGSVGTVLITQEEGFLWVDGR

YWLQAQKELEGSGILLQKQDAKNTFTKWLEKNLSEDQILGIDFALLPLSLQKDLKINCKANLKHIDLISP

LWKDRPTLPQEKIYEHELEYCSYSRKEKLALVRQKMKNLNATSHLISSLDDIAWLTNLRGNDVNYNPVFL

SHLLILEDKALLFVDQKKVNSELEKKLNLDGFWLKNYDEIIMELEELANTNLLIEPSKMTALLINSLDKS

VKIIQEINPSTHLKAAKNTKEIAHIQDAMIEDGVALCKFFAWLEEAIKNKELISELDIDVKASEFRAQSK

YYISDSFATIAGFNENAAYPHYKATKESFAYLKKDGLLLIDSGGQYKNGTTDITRVVPIGKANAEQIHDY

TLVLKAHIAISSAIFPKDITMPLLDAITRAPLWKEQIDYIHGTGHGVGYFLNVHEGPQVLSYLSPVLEKT

KAKEGMLTSIEPGIYKVGKWGIRLENLVIHTKVENPKNKDFGEFLYFKPVTLCPFEISCIDTKMLDEKEK

EWLNNYHKEVFEKLSPKLGDYPKALVWLEKRTKAIF

>CCK66774.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRMRLVVGFILLFFIFLLSRVYYLSIKSNVYYEELAKQNAIKTEFLPPVRGQITDRNGTLLAINDLGFSI

SIKPYLSIKKSNKGILDKELSELTNLFPDLNASKLAEIYKRNDSYYNQDFIKVVDFIPYDEIISHYSELN

LNKTIKIDPVVKRKYPFGKLASHIIGYVGKANLQDVQENEIAKLSNYTGKSGIERYYNDILQGEKGTRVY

KVNALNQEVEQLSYTPAMSNDIELTIDIELQSYLTSLFEGNAGAAIIMNVNDGSILAAGSFPEYDLNPFV

TGISFKDWDELSNSLDHPFTNKLINGYYPPGSVVKMGVGLSFLNSKNISPSTHYVCNGSIELGGRFFRCW

NRSGHGPVDLKHAIKYSCDVYFYNGSLQVGIDQISETLSRIGFGVKTGVDLPSEFVGTLPSKEWKMQRYR

QSWFQGDTLNTAIGQGNFLATPMQIARYTAQIAKSGEVIPHFLKSIENNNTTIENQMDENKKEIFTLFEK

SQLPYIRDAMYAVANEQGGTSYRYLHNLDVKVAAKTGTAQVVGFSQTDKNRVDEKQFEYYTRSHAWLTSY

APYSKPKYVVTVLLEHGGRNITSGATVAKIYQKMIELGYFK

>CCK66773.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRRNLSAYKAKFNGAYVFLGFFFLIYQILGSTFVYTPLLYGIFFCYMFCLLEERERTFSKLDFRWYFSLF

FLFFTDITYNFFIFSSWLAFFIFYYLCADWIKTNLKIGKFIPVVFVLCAYGIILFLDMILSYIGDEKIKI

LGWAYIVSVFIECCLAYVFFKGKI

>CCK66772.1 ribosome biogenesis GTP-binding protein YsxC [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIISAKFITSLVKFDENLSSNFSEVAFLGRSNVGKSSLINSLCKQKNLAKSSATPGKTQLINFFEVICRR

NEEKFNINFIDLPGFGYAKVSKNLKEIWNQNLDEFLKLRTSIKLFIHLIDSRHTHLEIDVNLNDYLKRFL

RPDQKILKVFTKCDKLNQSEKAKLKNEFKDSILVSNLNKFGLDSLEDIIINQTLGLDK

>CCK66771.1 OstA family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVARQIILLLVCVSVTWATQIEVKALNFYSDENKGESILSGNVEVIRGDDILNSEKLIIYTDKNRKPIRY

EAMQNARFKIVLKGKTYKGSGDKFIYNVIKDTYEINGHAYINELGSNQKLFGDKIIVDRKANIYRVESKD

QKPARFVFDLKDK

>CCK66770.1 hypothetical protein BN148\_0648 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAIKIFGILIALFTITFTILSLQDPYSLNLQTNALNFKNIEAKNLKAYESNTSIIKAYYKANSWVRYADR

DEFNDFITLNLDFNLSANRLEFFNKDMSKVLFEGNVTYIGSNNVKIISQEVEYQPKDKILHTNTNFKALI

NGSIINGNTLNYDVKNKILNIQGVNAWLQDK

>CCK66769.1 HAD-superfamily hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTELIFLDVDGCLTDGKIIYTSNGEFIKEFNVKDGAAIEAWLKLGKKIAIITGRNCPCVEKRAKDLKIKI

LYQGIKDKLACAKEILQKLNLDFSQCAAIGDYFNDKALLESVGLSFKPKDGHKDLNVDIVLSKKGGKAAV

AQMIEILVEKNHLEEEWNKLWL

>CCK66768.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQIKTITLKLSAVSLGALFFSGCLGTSFFSSLDNAQVYYPSNDFKSSPSSSGTKGTMKPYTINGKTYYPT

VVAVGETADGIASWYGPGFHGKKTSNGETYNQNALTAAHKTLPMNTILKVTNLNNNRQVTVRVNDRGPFV

NNRIIDLSKGAASQIDMIASGTAPVRLEVIGFGSSNSGNNIVHSNVNYGNSGEIANNGQIYEGGNFMVQI

GAFKNPAGAQTIAARYKTYRTYSSTIRTSSVDGLNRVFLTGFRSEDEARDFAASGAFAGAFVVRE

>CCK66767.1 secreted transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILLCFLICFNFLFAQINTPEFYERQMNVLRNLDINPSFISDLIFVQTQQDIKSKHAQTLIDSMQNFS

KVTPMIRKILAQQEVPDEILYLAMVESGLKTHSVSNAKAVGVWQFMQPTARNLGLRIDAYVDERRDPVKS

TYAATNYLKELKEEFGKWYLALLAYNCGNGKLRQAIKQAGSDDLSVLLNPDKKYLSLETRNFIRKILTLA

FLANDRDFLLDKDASLMNYALSNEFAKVDVPSSASLKEIAKNLNMDLATFKKYNPQFKHNFTPPGKGYYM

YIPLNKVAFFDKNFKAEKLAKVDTTIPMTRTYTVKSGDSLYKIAKNYNISVDEIREFNKIAKNHLSINQK

LIIPIKENKNANKNNYTKVVSR

>CCK66766.1 TatD-related deoxyribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFLNLDFQDGLRIVDTHCHLDSEAFKDDLDETLNRAFKNGIEKIIIPGADIKDLPYAATIAHKYKNIFFA

AGVHPYEIDNYDEKILRQYLCDEKCVAVGECGLDYFRFKSDLAEEIQKEKENQKKIFIAQLELAIEFKKP

VIIHSREANHDTYEILHGYSKDLVGGVLHCFNASEHLLTLFEEGFYFGIGGVLTFKNAKKLVEILPKIPK

DKLLLETDAPYLTPEPYRGKRNEPLLTQFVVNKMCEVLNLSRKELLEICFNNSEKLFFKGY

>CCK66765.1 two-component response regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKKILIIDDNKMLGKLLAKKIQMTLDYEVDIAFGFAEAKELMNNDYFLAFVDLCLPDAPNGEVVDYVIE

KKIPAIVLTASGDKATKEKFMDKDILDYIFKESETCIDEIISSIVKLNQYAKTKVIVAMSKLPERNEIKK

ILTQRQFNVLAAAHGEEAMSYLNDNNDVKLIIADVNMPVISGFELLTQVRERFSDDELGVILLGDHNDSF

EANSFKNGVNEYLFKPLSKESFNCRLDRCLSYMDDKKFLSTYNVLDPVSGVKNYNALIDGIDDYFNEIAT

KDEEFAFAFLDIDNLQMINDEYGREVGDEVIKICANEIVNETKGRDLVGRYSAEKICILLKNISQERAIK

IFSRIRVNIKKAGVLVNLDEVFFTASIGVVFGKSGDKIDSLADKASKILSQAKDNGKDRVEVCS

>CCK66764.1 DNA repair protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINRIFMKENLGFKKAELEISKGLTVFTGLSGAGKSVLFKGILSAFSLSESEAKIVEIEVDDKLDLESFG

IESEEENVFKLLKEKNTKYFINNQSIAKKSLQNLSKTFIKYLSAKENNEFGNEKFLNLLDALEMQENTNF

VSFLEDFKKDFNAYSQISNELNAILEEEKKVEELKELARAQIEKISSINPKIGEYEELLILKKKLSKKDK

LEEAWSKAERIFELEKVVIEALNLSEVDASFFSECLNELRVICENQKMEDLDFDVEALLDRIENLSYLIK

RYESIENALEVLKQKKYELEHYENLSFEKKELEKKFQELKQKLEEKAQILTQTRKKNLKKLEKCLNNYLK

DLYMKDASLTLKENEKISILGKDEIMLDINLAHLKNLSSGELNRLRLAFIATECNILNAGKGILFLDEID

ANLSGKEAMSIAKVLEELSKFYQIFAISHLPQLSSKAHNHFLVEKNGEESKVKKLDQEERIKELARMVSG

ELVSDEAIEFAKTLFKN

>CCK66763.1 inorganic polyphosphate/ATP-NAD kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNKIDYKNIKKIGLVTRPNVSLDKEILKLQSILSIYKVELVLLKESSEILDLPKYGLDDLFKISDFVIS

LGGDGTLISLCRKACEYDKAVLGIHAGHLGFLTDFKVDEAENFFQAFFQGEFRIEKPYLLSIFLEDRQGK

ILEKLAFNDVVISKNNQASMAHIEVFRKEKKFNEYFGDGLIVATPAGSTAYNLSANGPIVYTLAQAFILT

PVCSHSLTQRPIVLPKGFEIEIMAKDCMLCIDGQENYKMNDFKSIKVGLSDKNVALIHPKNRDYFQILKE

KLHWGN

>CCK66762.1 aspartyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRSHYNTDLGISHVGQSVKLCGWVNSYRDHGGVIFIDLRDRSGIIQLVCDPNDSKEAHEIASNARNEFVL

ITEGTIRPRGEGLVNPKLKTGEIEVVVSKLTIENESAVPPFAIADESVNEELRLKYRFLDLRNPKLYENF

ALRSKACIAARNSLANMGFLEVETPILTKATPEGARDYLVPSRVHQGEFYALPQSPQLFKQLLMCSGFDR

YFQIAKCFRDEDLRADRQPEFTQIDVEMSFCEQKDVIKVAETFLKDIFKACGKEIQTPFRQMQYKDAMEN

YGSDKPDLRFDLKFIDVIDIFTKSNNEIFANIAKDTKKNRIKAIRVPKGDTIFSKRQMQRFEEFVRKFGA

QGLAFIQVKKDGLKGPLCKFFSEEDLNELSKRCELEVGDVVFFGAGAKKTVLDYMGRFRIFLANELKLID

PNALEFLWVVDFPMFEQNDDGSYSAMHHPFTMPKNIDETDLEEISSIAYDVVLNGVELGGGSIRIHKNDI

QQKVFKLLNIDEEQQKEKFGFLLDALSFGAPPHGGIAIGLDRLIMLVTGANSIREVIAFPKTQRAQCLMT

DAPSPASNEAMRELGIKLRENIK

>CCK66761.1 adenylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKELFLIIGAPGSGKTTDASLIAQADATNITHYSTGDLLRAEVASGSELGKTIDSFISKGNLVPLDVVIN

TIVYALKAAPTKTIIIDGYPRSVEQMMEFDKVLSEQNEICLKGVIEVRVSEEVAKERVLGRNRGADDNEE

VFYNRMKVYTEPLNEILDFYQKKKLHFIIDGERTIEPIVADMKELIKKIQSI

>CCK66760.1 inorganic pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLSKIKIGDIPNKINAVIEIPYGSNIKYEIDKDSGAIMVDRVMASAIFYPANYGFIANTLADDGDPVDI

LVLNEYPIQAGAVIPCRLIGVLIMEDESGMDEKLLAVPNSKIDARYDNIKTYTDLPQATLNKIKNFFETY

KILEPNKWVKVQDFKDEKAAIEILEKAIKNYK

>CCK66759.1 methionine sulfoxide reductase A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNIVLGGGCFWCVEAVFERLKGVINTEVGYSGGKPNPSYESVCNGDGNIEVVKINYDEKQISLLEILTL

FFKIHDPTSIDKQGGDIGIQYRSIIFYENEEDKILAQNFIEEQQKIFSKKIVTKISRLQTYYKAENYHQH

YFINNPDQGYCQAVIAPKLQKIQSD

>CCK66758.1 NOL1/NOP2/sun family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNILSSFAQEKNVCVFANTLKTSIEELEKEFLKQNLKFKKINVYCYLFDAKDKAILSSMKAFNEAHFYI

QNYSSYLCALNLEVKAGQSVLDMCAAPGGKSINLANFMQNTGYLACNEMSRDRFFILQKNLKNYGVNAKV

FMKDGKNIGNLCPLKFDKILLDAPCSTFAKIGFDLEKSYKEIKNIAKTQKKLLHSALKALKIGGELVYST

CTFTKEENEEVIENALKSEFKLELLDIDLENVEAKAGQSEEFAEISKCRRILPSLDYDGFFIAKLRKLC

>CCK66757.1 Holliday junction resolvase-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRALALDVGLKRIGVALCIDKKIALPLDAVLRKNRNQAANEIKNLLKIHEISLLIVGIPKGGSSEEEMTR

RIKHFVSLLEFDKEICFVDESGTSKEALGYGVANTRKKDGKLDSLSAFIMIKDYFAL

>CCK66756.1 DNA processing protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MASEILPDEFLELFKDLKKPPKKLHYKGNLSLLKQDKIAIIGSRRMSVYTKNCVFSLASMLKNAHLCVVS

GGALGVDITASMAAMPNTIGIFANGLDQIYPRTNEKIIKQIYENALALSEYEDDYLPKNYDFLLRNRLVI

ALSKAVVVAQADIKSGSMQSAKLALELNKPLYVLPQRLGESTATNLLLKENKAKLICDFKEFVSEFASID

MNQDEFLEFCKKGVSVDEALKIYGQKVYEYELEGKISIEGLFIRVLA

>CCK66755.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKKKLVQIQRYLIIAILFLLCIALALGILVKYQNSQDVSSVKPDYFIDKQEDLISLNKDHYEIGIFQEN

EFDNNKSVSILEQKIQEIDDLNTSLNEQNLSSVEQNLSLEQNQSLEQNFILKDTNLTQDQNLTFNEDIHL

NKISKKPKLAIIIDDMANASQVRGLKALNLKLNPSFFPPDKNHSETPKLALKFDFYMVHLPLAAINYNKP

ELDTLNPNDSKERIFKKIKQIKKDFKDLRYINNHTGSLFTSNEEAMKKLYEALKNQNIFFVDSKTIGNSK

ANKIAKELSIPYIQRDVFLDNEDDVNYVKKQLENAVKLAQKKGFVIAIGHPRKNTFKALEQSKDLLKGVD

LVYLSEIYGK

>CCK66754.1 ketol-acid reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAITVYYDKDCDLNLIKSKKVAIIGFGSQGHAHAMNLRDNGVNVTIGLREGSVSAVKAKNAGFEVVSVSE

ASKIADVIMILAPDEIQADIFNVEIKPNLSEGKAIAFAHGFNIHYGQIVVPKGVDVIMIAPKAPGHTVRN

EFTLGGGTPCLIAIHQDESKNAKNLALSYASAIGGGRTGIIETTFKAETETDLFGEQAVLCGGLSALIQA

GFETLVEAGYEPEMAYFECLHEMKLIVDLIYQGGIADMRYSISNTAEYGDYITGPKIITEETKKAMKGVL

KDIQNGVFAKDFILERRAGFARMHAERKNMNDSLIEKTGRNLRAMMPWISAKKLVDKDKN

>CCK66753.1 ribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEFLNSLSYGISSHEVNNEFKQIFRELLTNHIIKEHKNKYYLNNGFAFGVLDISSKGTGFLQCFDESFK

KDLLIENKNLKGANYKDIVAVKLLPLKKKRPSAKVILVLKRANETSLMITKRYGEAVLGMNIKTGLSTAL

KASQKSLKALPLGTILKIENENNNIIEVLGHIDDESVDEKISLALFNKNNEFSDACIKEALANGDSVDAS

MYENRMDLRALPFCTIDPIHAKDFDDAIYFDTQKREIYVAIADVSEYVYAYSAIDKEARNRGFSIYFPHI

AIPMLPRPLSENICSLKPHLDRLAYCFKITLNHENKVIKEELFEGIINSKRRFNYDEVDEILIQKPDLKE

LSWLYELFEITKNLRKMRLKNAFEFRTEELRMNLDENLSLKSTVFEKDTPSHNLIEDCMLLANKAAAKLI

DIGVFRNHLSADVRKIDKLLNELRELGIDVNFKPNLPELIRDIQALADELNLRAEVDKLIIKAQKKAEYS

SVNAGHFGLGFDKYSHFTSPIRRYSDLILHRLLKAKQKNDEKLFNYLLLNIESTCENLSTLEREADKVAF

DFMDRKFARWAAKNIGKKFKALVVQNDGVCIAKLDDEIKGADIILYDTRVNLLENVEVQIMEADIVMAKI

YAKITQRLIKEENV

>CCK66752.1 DNA polymerase III subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYRKELQILLSKDSIPNFFFLYGADNFQSELYAEFIKEKYKPDETLKLFFEEYNFTRASDFLSAGSLFSE

KKLLEIKTSKKIPTKDLKVLVELCKNNTDNFFLLELYDESSKQSDIEKIFSPHFVRFFKANGAKEGVELL

SIKAKQLGVEITQNALFTLFTSFDENLYLAASELNKFSGLRVDEKTIEQYCYSLNTGSFESFFDKILKKQ

DFKSELEKILDNFNEIALINSLYNSFYRLFKIALYAKINGKIDFKELLGYTPPPQVGQNLSSQAFSLKIE

QYKEIFTLLLKSEYELKTNPKLVKKEFLISNLLKLARILKN

>CCK66751.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKTALTKTYTKDIQNSCLNSKKIVLSLATISFLASCTHATLTPEIKTYEETNRHAKARSGLQSRNSNNE

TINNLQTLTKTISDTGNTLVIESSGTITISNDGQQAVNFQPNSSTSTFLNKGTLIGGNNTASVQLGAANG

NNGVSIETFNNQGIIGNGSSKFGVTVFGGGSKDNPKSIINNFSNSGTIHSNTGESIYFGNAKISSFVNSG

TIKSKQGAGVNISQGTSIENFNNTGTGIIEGKRMGVNVRSTINTFVNDGLIAATNDGIQINANVKTLINK

GTIKGDAISIRSLGGTIETLTNEGIMYGKSAGIYMNRSLVKTLTNSGTINQNNSATWSAGIKLENGSIIE

NIINTGSIRSNAFGISVTGGKFGTLTIKDGGMVYGKYSAIGVGRSQTLGDLYIDGRSNNGTVSGIYSEEH

GILLENNSRTQKIELKNGGIIKGNIDGIRLINSASLSGEMILSGEGSRVEGGRGVGILNRSGKIEGSIKV

EDGATVTATSNRAIANSGSGSITGGITVSGKNTKLEGNIINTGNASIGSDIKIEGGAKVEGGLVNQGNGS

ISGSVQVSGGSSIDSITNEGNGAISGSITVYKDSKLDSITNTSTSSTGISGSITNNSDNKLEISNSGNIG

GKIESTGSADMVISNSNGGTISGGISSSGSGSTSISNSQGSTINNGITVSGSAQVEISNQGSVGKDENGN

TVTNNGSGSVGIKDWLVSTDKNTGKLNTVVIGGSRAFNVKVENITVDQSNVDLEELNDINNIISGVNQNN

IGNIGTNGSGEISLSFDPITGKLTTDFNLNASISGATFRSLISTTSRRSTFIDNVMGNSMQSFALASSSK

SQSIAMSEKGNLYADASDYIKSDLNNGSYGSNKEHSLFILPYTSSQNVELSLNEESKGHTKGTIIGYSTL

KDSGIYGVYAGYEDTKMGSTYFDINNRTYYAGLKYFNTLFTTEKGQEVYIKAQGKAALIKNDLTEKIGNN

EAKAEPNSYAYGVNTALGMNFISNKDIFSPEIGLAYEGGYTEAFSMKDTIGQATVKGGERTYANYLNLFS

TKTSLTWFRDWLPNLKTSVELGAKFNINPKVEAEARFGNIKVSDEFDLPRVQKFVSTSFIVPVNEAFYFS

LNYNGMFDKDGNTHTGFAQFNYLW

>CCK66750.1 hydrogenase expression/formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MHELSIVESLIELCEENALNNKAYNVQEIYVKIGRLSGIEVDLFKRCFETFKENSNICKNAKLFIELAPL

EILCLKCDQTSILEENVFKCPKCQSIEYKIIQGEDLHLMRLVMK

>CCK66749.1 hydrogenase isoenzymes formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNISLAHGGGGEEMNELLTKLFKIFDNEILNANNDAAILGNLALSTDSFVLSPIFLDEEVNIGKLCVCG

SINDVLMVGAKPKYLSLGLILEEGFELEKLERILKSIKEECEKCGVMLVCGDTKVVPKGKADEIYINTTA

LGEIISKKESKNIKAGLSILLSGDIGRHGASVLIKRNELEADIKSDCKALNKEVLELLEKDIKVVAMRDA

TRGGLSAVLNEWAKQSGNDLLIFEEKIIVQDEVLGLCELFGYEAYELANEGTFILCVEKEDELKALEILK

KYNVNASIIGEVLEEKKARVILQNAYGAKRFLESPKGELLPRIC

>CCK66748.1 hydrogenase isoenzymes formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFIDEFRDKESILALKKLIEQELKNPINIMEICGGHTHSIMKYALPSILPKEINFIHGPGCPVCVMPRV

RIDTAIKLASMKDTIFCTLGDLLRVPGSEISLLDLRAKGADVRALYSPLEVLEIAKQNLNKNIIFFAIGF

ETTTPMSALLLQKVIEEKINNVFFHINHITVPAPVEAIMNDENVKINAFLGPSHVSVITGYGIYEPLAAK

FKTPIAVSGFEPVDILESVLNIIKQSNEGTFKVYNQYKRAVSKEGNVKAQNLVKKYFRVCDFEFRGLGLI

KDGGLELKEEFSAYDASKKFDCTVQSKNESKACICGQILRGLAKPYDCKVFGKACTPRSPIGSCMVSGEG

ACAAYYKYSKVNA

>CCK66747.1 hydrogenase isoenzymes formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MCLSIPSEILEIDELNNALVQTLGVKRKVNLDLIDEPLKQGDYVLIHVGVAMEKIDKEAALESIKTYQEI

VEKMNSGEIKSDEGDLGLNEFHR

>CCK66746.1 hydrogenase isoenzymes formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MCKDCGCSINSSHTHGHHHDHHHENPSLKEGKTIEVISKILSKNDEEAKHNRAHFNEANTLCINLMSSPG

SGKTTLLESTIKALKNELKIAVIEGDLETNNDALRVKNAGALAYQITTGQSCHLDAFMVHEALHHLAIDD

VDLLFIENVGNLVCPASYDLGEHLNVVLLSITEGSDKPQKYPVMFKKADIVLITKADLAHHFDFDIKEAT

RLIKELNPRADIITLDAKNGTNMELWYKVLKLKKELF

>CCK66745.1 carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MCHLGYKIKISGLVQGVGFRPLVYELALKSKLFGEVRNDGFGVEIILACTQKECENFIENLKNHLPPLAR

IDQLIITQISISNYENFSITPSLENTKSTPMLSDFAFCKECKKEFFDEKNPRFLYPFITCTHCGPRFSII

KSLPYDRAHTSMQELLMCEFCKSEYEDPKNRRFHAQPISCPKCKINVFLKNPKGEILAKDQEAFMQSAKF

LKEGKILAIKGIGGFHLMCDAFNEEALKTLRLRKNRPKKPFALMCKDLQSAKELAFIDEKEEALLGGVLA

PIVILKAKKAFSLIAPDVDKIGIMLAYTPLHLLLFEYFKGSLVATSANLSGESIIKDEFNLCKKLDKVFD

FYLDYDREIINASDDSIAQVVNGETMFLRTSRGLNPFYLERNFNKKGTFLALGAELKNEFVIFYENKLLI

SPYIGDLKSLDVHERFFKLLEFFKQNYDLKFDAILCDKHPHFSYAKEFEERIKISHHYAHFCAAYFEYEE

NFAKDEKALAFICDGTGYGEDGKIWGGEVFVGNLKEYERIAHFENFTLINSDIKNIQNLALSLIFHYDLE

DKAKDFLAKIPKIKLKNLKKIYSHSNLQTSSLGRIIDAFGSIVFNLEKSSYEAQVGLMCEAFYDKNLDFS

YKLFVEKGQVNFKNLILGALQDEKTKAITGMFNALANFIIDFSKDYDLKVLLSGGVFQNKTLLEILKAKN

FDFFIPLKYPCNDSSIALGQMVHFLNLEK

>CCK66744.1 hypothetical protein BN148\_0621 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTLDFDFIYNADNDIFEYLLRFYAKNYNYILSKEENTYHFSIDADEENLKTFCDSLNFMSHSVFLKKFDV

KAGQGFNPCIPEDKEFSRFSYITHLNSNAYQEKKLLNKNEWGVFCECEFSSNLSEFEKINEENFNTFLNL

AFDLLSQEKKIYLKDKNGIYEFSLFKNEFIGDFLLPCDIKAINSVFVCSNENLKLLASLEKPLMKLRLNA

MFRKNHNLDFSDFKIRLARDLFCFALGLKLFENEYKFLSVKKIEEYQKDFYISALDEQVVVLEGFEFINA

KARELIFSKEDKNMARISYLVSRYKEKAFILELSKDYEDILLINKELNLLKLCLPKHSKELYEEIKKDEI

GARLLENFNKEFPLLDENFELQNNFYSLLGLLGRVLNLGRNLQESASELLKIADESKMPRGVKIDYRLKE

DKSFDYTRTLRSAMSFMLAGVDSANIAYGAVESLAYFLRDTYDELREKKQSDLALISGSLFEHKSLLKNT

LKHLKNCQLSDVPLRI

>CCK66743.1 hypothetical protein BN148\_0620 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MARQSSSLKSFIYKDECYFYSKKCIKTLRLRLNEKGEFVLSIPYFCTFKSVYEFLDKSSSWMNEAKKRFE

KKVLKDDELIFLAKKYKIIFDENTKKTYFDKDKIICQNKAKLDLFLRQNAKKIFTFYLKKWSQKTGLFYT

HLSIKNMKTRWGSCNHNKAYVNLNLKLIQKSLRAIEYVILHEISHLKFPNHSKEFYTFIEHFMSDFRQRE

KEFLS

>CCK66742.1 MATE family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKKQLSLTRLSFPIFWDLLSKYLTVIINTAMVSHYSNFLVGAMGAGNQILDLFITIFSFLSVGCSVLIA

QAIGAKDHVLARKVIHQSLFLNALLGFVCGVLILWHGEYLLYLLKIPQELLKDSEIYLHMLAICLFFDAI

GIVLAAIVRVYNMAYWVMFIGFLMDIVVICGNYYVLHYTKSELFGVGLSNIFARIVAIVALFAILFYKLK

IHLKIKEMIKLEKEVLKKVLNIGGFSAGENLLWIVQYTIAFAFVASLGEASLSVQTIYFQISMLIMLIGQ

AISIANEIIVGKLIGARYENIAYKHAWRALYFSVIASALVAFLNYLCQDFTMQILGLKEELKNLMIPLFA

LSIFLEISRTFNIVMVNSLRASGDAKFPFFSGLVFMMGVSLPVGYVLCFHFNLGILGVWIGFCADEFLRG

MVNSYRWKSKKWQGKALV

>CCK66741.1 hypothetical protein BN148\_0618 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFGNSYGGYLANLCAKIAPWSIDFILDNSSFVNLFGNIFRLIGFGKEIDFTRYHGTYDDTLFKNIFLYLS

DKTYWNNNKFSKNYFSNARKIIREPLNKEHLIIQSLYPNPKYILYHSIFDERSPFKNKENFVHILKELNF

KVEFFAISQVDNKFIKNLNHGMGLSTKLFFKKHLLQILKEPLQDKICKKEVSYKCDELVYTFKEENHQII

LNITN

>CCK66740.1 hypothetical protein BN148\_0617 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIINQIYSIDSCDDVELNIKRGSKLEFRLTYDDSKEIEAIVCIIPGGAEDMNSYIYIDDYLTRNYKVAVI

NINYHCIGNRPHLGSSFYLDDIDKFILDTSLKAINLKCINVYGINSYENLNNAFIRIDQEIQKLKLNQQL

HQNYKLKTHVSFLPFKNEYQNFGIMQAMDILNAIFYIKENSPFKLMRGGVLERFCLEIHMADI

>CCK66739.1 phosphate ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIAKTTNLNLFYGKKQALFDINMQIEQNKITALIGASGCGKSTFLRCFNRMNDKIAKIDGLVEIKGKDVK

NQDVVALRKNVGMVFQQPNVFVKSIYENISYAPKLHGMIKNKDEEEALVVDCLQKVGLFEEVKDKLKQNA

LALSGGQQQRLCIARALAIKPKLLLLDEPTSALDPISSGVIEELLKELSHNLSMIMVTHNMQQGKRVADY

TAFFHLGELIEFGESKEFFENPKQEKTKAYLSGAFG

>CCK66738.1 phosphate transport system permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKLFKKRQKASKSFKRLCKMGLYINLIFLCIFLGSVAYLGFPAFKQTYIFVEANRNSPAYDLLSRAEQR

KIRTGQITEKSWLLANSEVDQYMKQKYNRLSEKQRTLVDDLMQKGEIELKFNSNFFLNGDSKSPENSGIL

SSVVGTLLVMLVCMVVSVPIGVAAAIYLEEFAPQNILTHFIEVCINNLASIPSILFGLLGLGVFINLFGM

PRSSALVGGLTLAIMSLPIIIVSTKAALKSVDINMKNAAYALGMTKVQMVKGIMLPLAMPMILTGSILTL

AGAIGETAPLMIIGMIAFIPDVASSIFDSTSVLPAQIYSWSAMPERAFLERTAAGIIVLLGLLVVLNLSA

ILLRKYFQGKLK

>CCK66737.1 phosphate transport system permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKEKIIKFALFLCAFVSVIVSFAIMLTILIEALKFFQKESVVTFLFSSQWAADAAFMNADGTSKQGVFG

ALSLFWGTFYISLIAMLTALPLGVMCAIYLGVFAGKKSKNYLKPILEIIAGIPTVVFGFFAAIVVAPFIV

WFFSLFGIQASFQSALGAGFIMGIMIVPIVASLSQDCIEAVSEKRINGAYALGMTKKEVVFAVILPEAIP

GIVAACLLGLSRALGETMIVVMAASLRPNLTLNFLEDMTTVTVKIVEALSGDQAFDSSLALSAFSLGLVL

FVITLIINMFSVYLINRFHKRKNL

>CCK66736.1 periplasmic phosphate binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILSLSVTSLALCGALNAVDLKIAGSSTVYPFTSFVAEEYASIKNTKTPIVESLGTGGGFKVFCEGTT

DISNASRPMKLSEFETCKKAGVTDIVGMMIGYDGIVLAQNKTNAPLNITKKELFLALAKEIPQNGKLIPN

PYTNWNQINKNLPNRKISVYGPPSSSGTRDTIEELVMSDVSKKIPEYKGEYKTIRQDGAYIPSGENDNLI

VSKLTIDKDAFGIFGYSFLVSNSDKINAANIDGVTPSEESIADEKYELARSLFIYINAKKNPKEAFDFAK

IYMSDDLAKSGGELEKIGLVPLSDDKLKASQKHVEDRKILNDELVKAGKVF

>CCK66735.1 ferritin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLSKEVVKLLNEQINKEMYAANLYLSMSSWCYENSLDGAGAFLFAHASEESDHAKKLITYLNETDSHVEL

QEVKQPEQNFKSLLDVFEKTYEHEQFITKSINTLVEHMLTHKDYSTFNFLQWYVSEQHEEEALFRGIVDK

IKLIGEHGNGLYLADQYIKNIALSRKK

>CCK66734.1 acyltransferase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTYFSLEFSILMIAFFAIYWTFKNDYKIQNILILIFSYIIYILINPYFALVLFIYTFFIHYFALLIFVRR

KRYIFATCMAFIILNLCFFKYFPSIKGSVDEILNFFGLEFLNIDLVLPIGISFYTFTSITYLVEVYQKRR

LESFLNLATFLSFFPTLLSGPIMRSSFFFEQAYQKREFKHANLIIILLVFGIVKKVLIANYLGIYAKSIL

DFPQSYNFIQLLSAIYAYAIQIYCDFSGYVDLVCAFALMLGFTLPPNFNMPYLAKNLKDFWARWHISLST

FIRDYIYIPLGGNRKGIPRTVANILIAFILSGMWHGNTLAFIVWGLLHGIGIVFIHLLTLSKFSLQKIPA

LGRFLTFQFVCFTWIFFYYSKNLEDAIEYFKACYYNFFQIPSYNDIYMLVAFGVLFMIYPLFINFKEYCI

KILNLTPFLLKPFIIAFILLLVFAFMPDGIPDFIYSSF

>CCK66733.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSVVRFFFILIIVLGLVVVVMNQSISSYIEQKYHFAFYPHNDLLKEANGFKIKLEQIRAILSNEPLPQTN

EETTNQENKSIDENLSKIDKVLNTLENDENTSHKETNPTLIQDANISFIDNTKLELQNGDEFLFIGDSLM

QGVAIALNRDLRNLNLKVTDLSKQNTGLSYKSYFDWSKATNEAFIKNSNIKYLVVLLGANDPWDIKKGGN

YHRFGSLSWIDIYTSRVDEIIKIAKKHKAKVFWFEIPPVKKEDLNKKIQVLNKIYSDEILKNKEIFINTK

LFFSVNDEYSAYIKDENNRSIKVRTDDGVHFTPSGAREMSKLLLEHIKLKEENASK

>CCK66732.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLVNKFKVILLFFIIFTSSYAQNLNTNDTIDSILNQNKNHSALTSYVSKKDLKNLEKKLEKNQNIGIRIY

GDSHMAADFFPRVIRGYLIRSNSIGFAYPLQPKYQQNLNLVYSYKNFEILNSRNPANAGHNFPLGGIIAK

AKTKGAKINLDTTLDKKNFKIGFLFKAKQNTNAFSIKDAKNQSYELRTTQINKWSYKELELDLPLQISAL

QKDAELGGYFITNKDNNVFLDTIAINGAKSDLWLSWNQEVVKKELELLHNDLIILAYGSNDALFKGFEKQ

KFKNNLKKWISILKTYNKNAVIMLISPPTVVQKQGKNYKLAPDFFTIRKALYEVAKEEKTLIFDMHQFMQ

DSGGKNKWIEQKLSLNDVHLTIKGYELMAKKLLEDLKNIIDY

>CCK66731.1 outer membrane efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIILSIFLAFFLSACGVKLSLPKEVDLTQEQMKDLNLTYDWYRSYDNAKLNEFLNFVLLNNSDINIARK

TLLSALARADLIDYDLYPTLSGNLGFGADKDLNSGKQSKNFNNSLNLSYELDIYGKLRDSASASEFSAKA

SAYDLENLKISMINTALNDVFELAYFNDVDKLLRAYLSNLEQMKELYNYKYKLGKIEELDLLNIEQSLLR

AKQNLLSNDQNRNLLIKNLQDLLARQEGFAYIEYFKTLSLNDFKTLSPDFNIPLKALAYRADVRSKLNSL

KSAFKDYSSMQKSILPSISLGGALSGSDKKIDDSFKFEILSGNVKISLPFLDYGRVKQNIKISQFAYEQL

LISYEQVLQSAMNEFALNYKDYQSDTLLLQNLQNINIKQELITKAYYEKYILGKSELKDYLDANNTLNST

QQEFLRARFNLLKTINSYYQITALSFNNENLEFPKY

>CCK66730.1 ABC transporter transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIFLKNICKNIGENAILKNVSLSIEKGEFVAIIGQSGSGKTSLLNIIGTLDTPSSGTYVFDEYEVTKLNN

DEKARLRREKIGFIFQRYNLLSLLSAKENVSLPAVYAGKNLQERSQNAKKLLNDLELAHKLDSKPNELSG

GQQQRVSIARALINGGELILADEPTGALDSKSGIMVLEILQKLNEQGHTIVLVTHDPKIAAQAKRVIEIK

DGEILSDTKKEKAQEKLILKTMPKEKKTLTLLKNQAFECFKIAYSSILAHKLRSILTMLGIIIGIASVVC

VVALGLGSQAKVLESIARLGTNTIEIRPGKGFGDLRSGKTRLNFSDLETLRSLEYLEAVDAHSNTSGVAT

YTNISLSARAEGVGVNNFAIEGLRIDAGRILNNDDVKNSTNVAVLDFNAKKNLFPDEKSENILGRVVLFN

SQPFKIIGVLQKDTDKPIEDNVVRFYIPYTTLMNKLTGDRNLREIIVKVKDDVSSTLAENAIIRILEIKR

GQKDFFTFNSDTFKQAITANKRTTTILTACVAVIALIVGGIGVMNIMLVSVSERTREIGIRMAIGARRED

IMMQFLIEAVMICTIGAILGVILSIFVIFAFNTLSTDFPMILNAYSVLLGLLSSMFIGVVFGFFPARNAA

NLNPISALSKE

>CCK66729.1 secretion protein HlyD [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKKIVLIILIAILGSVGAYFIFFNNDEKISYLTQKIQKKDISQTIEAVGKVYAKDQVDVGAQVSGQIIK

LYVDVGTHVKQGDLIAQIDKDKQQNDLDITKAQLESAKANLESKKVALEIANKQYQREQKLYAAKASSLE

NLETQKNNYYTLKANVAELNAQVVQLEITLKNAQKDLGYTTITAPMDGVVINVAVDEGQTVNANQNTPTI

VRIANLDEMEVRMEIAEADVSKIKVGTELDFSLLNDPQKTYHAKIASIDPADTEVSDSSTSSSSSSSSSS

SSSSSNAIYYYAKFYVANKDDFLRIGMSIQNEIVVASAKAVLAVPTYAIKSDPKGYYVEILENQKAVKKY

VKLGIKDSINTQILEGVNEDEELIVSSSADGLAPKMKLRF

>CCK66728.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKLVENLALKYYDKVVDLRHQIHMHPELEFEEENTAHLVCKILDEFGIKYQKNIAKTGILAIIEGKKKS

QKKPKCVLLRADMDALPVQEKTNLSYASKIDGKMHACGHDGHTAGLLGAALILNELKDEFCGTIKFMFQP

AEEGSGGAKPMIESGVLENPYVDAVFGCHLWGPLLENTAQIVSGEMMAGTDIFDLEFIGRGGHGAHPHTC

IDPIIMTTQFVNNIQSVISRRLAPYEAGVITVGQICAGTTYNVIPTNAYLKGTVRFLNDKTQDILKSSLE

EVAAATAKSNGGDYKLKYTKEFPPLINDEKAVLIARKAFAKVLGEENIIVSSKPDMGAEDFAFLTRERMG

AYVFVGISKDLNHPALHHSSTFCWDDENLKVLMQGDVMMALEFLNL

>CCK66727.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQENNSPKAQAVVKKNEIYVSVKRKKSTIEYEKDLKNLQIELLKFQNHVKAKGLKVLILIEGRDAAGKGG

AIKRLIEHLNPRGCRVVALEKPSDVEKTQWYFQRYIAHLPSAGEIVIFDRSWYNRAGVEPVMGFCTPQQH

KDFLREVPLFENMISNSDIIFFKFYFSVSKDEQKKRFEKRRSDPLKQYKLSPVDQKSQELWDKYTLAKYS

MLLASNTPTCPWTIISSDDKKKARLNLLRFILSKVEYPNKKTGDFSKIDAKLVRSGEEEIRKMEANLEKL

DSKKADEKIKDLD

>CCK66726.1 thiol:disulphide interchange protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRIFGIILLSFCLCFASILSLNEAFNVKSNSYNNSISIDIELGKDIYLYSNKLKLYINEKDISSLINLPQ

SSTRGNENVYYQKLNLALPNLLLERFAKNTTNLIKLEFQGCSEQGLCYNPQTWYFDLISKKDAFEISKPY

KAQKTDKKTKIESEESSIANFLATDNFFWILLSFFGYGLLLSLTPCILPMIPILSSLIVAKSNAKFSKKY

SFFLSFIYVFFMSLAYAIAGVIASFLGASIQGILQKPIILILFALIFIAFAFAMFGAFRFELPLRFQTFI

HKKSEKGKGVVGIAIMGFLSALIVGPCVAAPLAGALIYIANTGNALLGGSALFIMSFGMGIPLLFIGLGL

GFIKPGFWMEKVKIFFGFVMLAMAIWILSRIIEENYILIAYGILGVFFSVFMGIFEKSFTIISKIKKSIL

ILILAYSLSIFLGGLFGAKNFLNPLNFNTISASKHALSYDYINNFEQLKQEIQTNTKPIMLDFTASWCEN

CKLLDELTFSDERIIQKMQNYKLIKVDVSENNNEQIKTMKEFNVFGPPVLIFFENGKEKLKITGFISADD

LLKKIEP

>CCK66725.1 MOSC-domain containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIQSLQIGKIKNYKNFQSAFIKDTYLEETQIDFLGVLDDQIADKIHHGGYHKAIFTNSCQNYPIWERFL

NKKLNFGSMGENLSIDGLCEQNVCIGDIHQFSNAILQVSEPRKPCVKISKIHNNPNFTHEIFKTGLSGWY

YKVLQVGQIRKHENIKILEKNSTSLSVFELNQLFYSPHQILKQNPNLLDKLEKLNSLISQNWHETIHKRL

KNTYDISYMDSL

>CCK66724.1 sodium-dependent transmembrane transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQRQTWSSTLTYILTVAGATIGFGATWRFPYLVGENGGGAYVLVFCIAMIIIGIPVILVENVIGRKAMTN

SVDAFKQKWQSIGYMGLLGSFGIMAYYMVLGGWVLVYIWELTLGNFSLANVVSKEFTHQFFNDKIAFNPL

GVGIFTTVFVIINYIILKRGIIDGIEKSVKFLMPLLFICLIIVVGRNLTLDGAMAGVKFYLEPDFSKILS

PKLLIDVLGQVFFALSLGFGVMITLSSHLNKNENMAKTAIYTGVLNTIIAVLAGFMIFPALFSAGLAPDS

GPSLVFETLPIAFSHIHFGTIVCILFFVLLLIAALTTSLPIYQVIISVLEEKFKYSKNLSINLTLGFIFI

LGNLPCILTYGPWRDIVIIKGKNIFDSFDFISGNILFVLTAFFCCIYVGWILGKQESLKELSNNNTLKSS

WFGIWFYYVKYIVPLIILIIFIYGILN

>CCK66723.1 hypothetical protein BN148\_0600 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFIKTISPIQKINFNGFEFYIKRDDLLGEINGNKARKLAFYIHQRYPKNQSFVSYGGSQSNALAALSIF

AKQRSYKLVFACEKISTFLKNNPCGNYALALENGVDFVENIHSLSLKQFALSLCKKDDVFIEQGIANLEA

QYGYMELAQEIQMQSQSLKLDFDIFLPSGTGTSAAFLAKYSKFKVFTCACVGDIKYLKKQILTLDPSYDF

SNLEFLTSDKKYHFAKPYKEFYELYMDLKLKCNIEFDLLYDILGLSIALKQEWKKPLLYIHQGGILGNST

MLERYKFKKSV

>CCK66722.1 OmpA family membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNESKEDSNFWIAYADLMAGLLFVFILLIGAIVVKYVLTQSDLKEIKDNLNKQEARLEESKEELRNKEA

IVFKLSSDLNNASSALNLANSQKAELEANITNYKQLSKDLNSTLDNKDKQILILLGQLEKKDEELKNLQE

DFQKAKEKVQNLGLIRENLSKELQSKLDNNITIDEKIGSISLPAEVLFDKDSYVLKNEAKASLRKILSEY

FDAILEDPKIFSNIENIIIEGHTDSDGSYIYNLDLSQKRAYEVMNFIYTFYKSDKLQKLLMASGRSFSDP

VFVNGVEDKDKSRRIEIKFSIKNDNALKDVEKFFEFH

>CCK66721.1 hypothetical protein BN148\_0598 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDIKSDEISELVLPEGKDARGSLVYFKIIFIPAFLYILILLGYFNVIDFKVELHTVIMTGVIFFTALIFA

RHSAEYAYSIFEQQKDEFKQALKRHIMRHFLAIGKDTKSNANFDDFAYTYIKGARNENFASIGSAIFPMM

GILGTFISIAFSMPNFSSSDTAALEQEIADLLSGVGTAFYVSIYGIFLALWWMFFEKYGKSKIDRLLNRQ

KNATSGFFWTKEELDQRYLTESLQHFEKIGAIFKQVSNDDFFAELDHAIDRKFGIFQDMLNVEEKAIRLS

SEHIKQTMGELSKAQRDQRDLGKLYSEMLNGIGLLNQNLKEINTRMSEQYNRLLDISSDKIHHLDKTLSA

FDEKIERFGKNFELYEKAMLESQEKVFEGFKASLFEGMHKFKEVYEEEKSIDAKIKMMDELKKEMKALDE

ETSQMMSKLSGDENQNKENETKQIEDFSESKTEENQDEIQAEISKQESNDELKNEDKENK

>CCK66720.1 fructose-bisphosphate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGVLDIVKAGVISGDELNKIYDYAKAEGFAIPAVNVVGTDSINAVLEAAKKVNSPVIIQFSNGGAKFYAG

KNCPNGEVLGAISGAKHVHLLAKAYGVPVILHTDHAARKLLPWIDGLIEANAQYKKTHGQALFSSHMLDL

SEESLEENLSTCEVYLQKLDALGVALEIELGCTGGEEDGVDNTGIDNSKLYTQPEDVALAYERLGKISDK

FSIAASFGNVHGVYKPGNVSLQPEILKNSQKFVKDKFALNSDKPINFVFHGGSGSELKDIKNAVSYGVIK

MNIDTDTQWAFWDGVREYELKNRAYLQGQIGNPEGDDKPNKKYYDPRVWLRSGEESMIKRLEIAFEDLNC

INKN

>CCK66719.1 major antigenic peptide PEB-cell binding factor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKFSLVAATLIAGVVLNVNAATVATVNGKSISDTEVSEFFAPMLRGQDFKTLPDNQKKALIQQYIMQDL

ILQDAKKQNLEKDPLYTKELDRAKDAILVNVYQEKILNTIKIDAAKVKAFYDQNKDKYVKPARVQAKHIL

VATEKEAKDIINELKGLKGKELDAKFSELAKEKSIDPGSKNQGGELGWFDQSTMVKPFTDAAFALKNGTI

TTTPVKTNFGYHVILKENSQAKGQIKFDEVKQGIENGLKFEEFKKVINQKGQDLLNSAKVEYK

>CCK66718.1 endonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKRNLEIKELFLKHFDKPVTELKFSNLYELLVCVMLSAQCTDKRVNLITPDLFKAYPDIKSLANANLSSL

KTYIQTCSFFNNKAQNLIKMAKAVCENFDGEIPLDEQNLKSLAGVGQKTAHVVLIEWCGANFMAVDTHVF

RVSHRLGLSKAKTPEATEEDLTRTFKDNLNYLHQAMVLFGRYTCKAKKPLCKECFLNHLCKSKDKELK

>CCK66717.1 DNA/RNA non-specific endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIFIFLLTISLNIFALEPYKPSADFSSYFNNINCSQILDKFFYLNCYDYKLKGTKAVAYKVEASNLKDR

QIKKRPRFEDDTNIPKKYRTTWSNYKNSGYTRGHTAPNASFSFSKAAQNSVFLMSNITPQNAQINNKIWN

EIEQRERNLALEFQSIEVLNLVLYDKEPQYIKNRIAIPSFYVKIIKTPKFKECYQAPNHEVNDENIKQYQ

INCDKF

>CCK66716.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEINALTITTLYIIGISAEGMTGALAAGRHKMDLFGVIFIALVTAIGGGSIRDVLLGHYPLTWVKHPEYI

ILICFCALVATKIPRVVTKLETLFLTLDAIGLVVFSILGAQIAIDQNHGFIIAVAAAVITGVFGGILRDI

LCMRIPLVFQKEIYAGIAIIAGAIYYSLIIWLELNALVCTLLTLFIGVFARLLAIKYQWSLPIFSYNEEK

>CCK66715.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRRLSILLAILIVINITACDSKTENYYKNLPSEAKEKAKECKESGTLSEDCINALKVGVKPTNEEGKYSP

NTPKKSDNQILEALKQNDLKKEKTTKDINQSSENNESIIIPPIAETPSEIYPSKTTENNQSSIFSDDVNM

TQEK

>CCK66714.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTMKITLFLSLIGIFFAACEQTKSVEYYQNHPEEAKKRSLECRHKAIISQDCVNAYKIGFPKDEWEDENI

SNP

>CCK66713.1 SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKDELFKQSPKKQFEFDKSVASVFDDMINRSVPFYRENLELCGNLLAKILPTNASVCDLGCSSANFLIF

LANLRKDFKLFGVDNSASMLEVAKSKAKAYGLDISFFEANLCEFDFFTCDVFVANYTMQFIRPPKRQELL

DQIYKNLNSKGILIMSEKILYEDAFLSKNIIELYADYKEKQGYSKFEIAAKREALENVLIPYSQKENLNM

LEKAGFKKIESIFKWANFETFIAFKD

>CCK66712.1 bifunctional riboflavin kinase/FMN adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNIFTTISKINITSLAIGCFDGMHLGHLKLVKCLDENGALLVINKFKGQFLCSNRQKEEISGKKVIEVD

FESIKSLDGRDFLSFLKKEFVNLKFIVVGYDFSFGKNRAYNAKDIESLSGIKTIIVDEFSIDGIGVHASL

IKDFLSKANLQKAKEFLGRDYSIKGKMIKGQGLGSKELFATINLDCEGYFLPQNGVYVTLLKSQRKTYKS

VSFLGVRSSDENFAIESHILEELGENFTQGEFFELEFISFLRENQKFQDLKKLKNQIAKDIEQARELLRK

NDER

>CCK66711.1 hemolysin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRFDFFVSKRLNISRNKALELIENEEILLNGKSFKASFDVKNFLENLKKTQDLNPEDILLANELKLDLLS

EIYVSRAALKLKKFLEENDIEIKHKNCLDIGSSTGGFVQILLENQALKITALDVGSNQLHPSLRVNEKII

LHENTDLRAFKSEEKFELVTCDVSFISLINLLYYIDNLALKEIILLFKPQFEVGKNIKRDKKGVLKDDKA

ILKARMDFEKACAKLGWLLKNTQKSSIKGKEGNVEYFYYYIKN

>CCK66710.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSLLKNSSYILTLLSLFGFLLTWQRSAFSLFFLISIFLTLFWEFFLFLKLRKNIIKEATLIKGSLFYRVS

MGDFYLYIFSFFLAIFGLVSLFLNFLNLEKIDFVFIFIILPLLMIFLKKELHLQFVDNAYNDFRIVVIAS

FFTALFYAFYGLFFTYNELLNLELFSRKIIAYKSASFVYFDFLSEFLHFVSNLKFFIFSYFGYLGFRALN

FIFDFFNFFMFCSLLAFVFNFVLKIKIKIIVLFLCFIMVLGNYFLKEQRNNALKSEQEQILLWMNNFNFL

KDNNLSLIQKEKDLFEKDLKDLREIFKKNAFEIGIWWFSKEKEDLEKRINESLK

>CCK66709.1 NAD-dependent DNA ligase LigA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKEEYLEKVALANLWMRAYYEKDEPLASDEEYDALIRELRVFEEQNKDEISKDSPTQKIAPTIQSEFKK

IAHLKRMWSMEDVFDESELRAWAKRAKCEKNFFIEPKFDGASLNLLYENGKLVSGATRGDGEVGEDITLN

VFEIENIPKNIAYKERIEIRGEVVILKDDFEKINEKRALLNQSLFANPRNAASGSLRQLDTSITKERNLK

FYPWGVGENTLNFTKHSEVMQFIRELGFLKDDFVRLCANLDEVLKAYDELLALREKKPMMMDGMVVRVDD

LALCEELGYTVKFPKFMAAFKFPALEKTTRLIGVNLQVGRSGVITPVAVLEPVNLDGVVVKSATLHNFDE

IARLDVKINDFVSVIRSGDVIPKITKVFKERREGLEMEISRPKLCPTCQSELLDEGTLIKCQNIDCEDRL

VNSIIHFVSKKCLNIDGLGENIVELLYKHKKITTLESIFHLKFNDFEGLEGFKEKKINNLLNAIEQAREC

ELFRFITALGIEHIGEVAAKKLSLSFGKEWYKQSFEAYANLEGFGEQMALSLCEFTRVNRTRIDEFYKLL

NLKIEKLEIKSDGVIFGKTFVITGTLSRPRDEFKALIEKLGGKVSGSVSKKTDYVLFGEEAGSKLSKAKE

LEVKCIDESAFNELVKE

>CCK66708.1 dihydropteroate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFFKINPNTDFNLLCSFINPHKMGQKIMSEKTKIHFIFIKDISTPAANILKQDALRVGAELITHKEVIT

AKITHSNALLMASKEQIQKLVVKEKLQDFGLKNLALFLQKDFLKPKKAELMAVINVNEDSFNAKSRVSEE

DFEKRLNDFLALKPEYIDIGAVSSRPGSEYCGKEEEFKRLKKVLDLIYEKNYYEQAIFSLDSFDEYCLEY

ALNKGFKLINDITSLRNLNLAKLASKYGAKYCLMHMQNNPNNMQDNPFYEDLLDEMTLFFKEKLELLESF

GVKESILDVGIGFGKSAGHNMILIKHLEHFLQFNKPLLIGASRKSVINAYFQSEIKDRLAGTLYLHLKAF

ENGASIIRVHDLYEHKQLFALAQAMDNIGV

>CCK66707.1 DNA polymerase III subunit delta' [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFISKIIISEDFLGIKEEMINNFGIKKLRFFIPQNEFLLDDARAVEKESYIAETEEKIIVLMADSYRIEA

QNFLLKLLEEPPKNIKFLIVIPSKNLLLPTIKSRLICEKRKVEKEVKKLDLDLKRMDLRMLFDFLQKNEN

LDKNELMDQIALLAKECVKYKDFNAEELEFFYESYELAKLNSKSGVLLATLLLNYYTKK

>CCK66706.1 hypothetical protein BN148\_0583 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSDFLSFTLENIRNGGAFMAWLESRRLEWAPLMAARLKYLLEGRTFVLMCDEQRSWYEEYFLKNINSKAT

RPMLPFVSLNSLCKKKVQSSEDIALLNDLLDISFPNGYVYFYIGSASDNKSLIAKSRDDSLLWLFDEQLQ

DSFYLNSKDKDLDIKLISLYQLFDVSLDAILFSKVQLG

>CCK66705.1 aspartate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLIVQKYGGTSVGTLERIEAVANRVIQSAQQGNQLVVVVSAMSGVTNTLIEQAEYFSKTPNGKDMDMLLS

SGERVTSALLSIALNEKGCPAISFSGRKAGIITDSVFTKARIHHIDTKAIKSELQNGKIVVIAGFQGVDE

EGNVTTLGRGGSDLSAVAVAGALNADLCEIYTDVDGVYTTDPRIEPKAKKLDKISYEEMLELASLGAKVL

QNRSVELAKKLNVNLVTRSSFNNNEGTMITKEDGMEQALVSGIALDKNQARVTLRNIEDKPGIAAEIFSV

LANENINVDMIIQNVGVDGATNLGFTVPQNELELAKNAMQKILSSKTTIESDSAVLKVSIVGVGMKSHSG

VASKAFKALADEGINIGMISTSEIKISMIVHEKYGELAVRALHECYGLDK

>CCK66704.1 dinucleoside polyphosphate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENEKNYRPNVAAIVLSSSYPFECKIFIARRSDMDNIWQFPQGGIDKGESVKNALFRELKEEIGTDEVEI

IAEYPEWLSYDFPSKIVKKMYPYDGQIQKYFLVRLKHGATININTKHPEFDDYQFVSVKQIFEMINHFKK

NIYVRVIKYFEEKGYI

>CCK66703.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MHFYIHIPFCESKCNYCAFTSLKKNDYEKAYFKALKEDIVFQLKQFNIQSNQIKTLFIGGGTPSCVNAYN

YEDIFKILYPLLDKNVEISCEANPNSATLNWLKNMKNLGVNRISFGVQSFHPKKLHFLGRIHNQEMIIKT

LENANKVGFKNINLDLIYDTKLDNKKMLEFELLHLKQIKDLITHLSAYNLTIESNTAFAKKEHFKKNAPN

LMKFFIKQLLELDFFQYEISNFSKTKAQICKHNLAYWQGKNYLACGLSAVGFYENKRFYTAKNLKNYIEN

PTFRSIEQLSSKDLNLEHLFLGLRSIVGIDETKLNQWQKDKINILLKEKKLFYKNKRYFNPNFLISDELA

LYLSS

>CCK66702.1 sec-independent translocase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSFGEIIVILVVAILVLGPDKLPEAIVQIAKILKAVKRNIDDAKSSIEKEIRINDLKEEAKKYKDEFSST

NENIRKKLSFEEFDDLKRDILDKTKVDLTFDSRDDKVKNNLSGQNLNTEEKPNLSKLETQDKNGKINV

>CCK66701.1 sec-independent protein translocase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFEELRPHLIELRKRLFISVACIVVMFIVCFALRSYILDILKAPLIAVLPEVAKHVNVIEVQEALFTAMK

VSFFAAFIFSLPVIFWQFWKFVAPGLYDNEKRLVVPFVSFASIMFAFGACFCYFVVVPLAFKFLINFGLN

EDFNPVITIGTYVDFFTKVVVAFGLAFEMPVIAFFFAKIGLIDDSFLKRHFRIAVLVIFVFSAFMTPPDV

LSQFLMAGPLCGLYGLSILIVQKVNPAPKDKESDE

>CCK66700.1 S-adenosylmethionine:tRNA ribosyltransferase-isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKDLLLSSYDYTLANELIANYPTNPKEDARLLVFDRKNKEIFHTTFKNLQDFLPNCAIFFNDTKVIKAR

IYGNKASGGKIELFLHQPFLNSHNPLFLAQIKGRIKKDEILYFKEDLKVRVVELLNDGLRKVQFFQNDKT

LDTSNLYNLLDKIGHIPLPPYIKREDEKSDLKDYQSIFAKNLGAVAAPTASLHFSETMLENLRKKHEIYH

LTLHVGAGTFKSVECENIQEHKMHSEFFNIPQQACEIIDSKQAILGVGTTVTRTIEYYTRTKTKNGFCDL

FLHPQNPPIRQNHLLTNFHLPKSTLIMLVSAFIGREQCLKLYELAIKEKYRFYSYGDAMLIL

>CCK66699.1 UDP-3-O-[3-hydroxymyristoyl] glucosamine N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLSEIAEFLSLEYKGEDIEISALNSLLKANFTELTYCDGEKNTKDIPHTGAAAILVSKEYENLVPKDTK

ALITQSPHLSFAFLSKLFAKPLISTAKEKVQNIAKSARIMPNVYIGDNVNIGENVIIMAGAYIGDNVSIG

DESIIHPNVVIYNDTKIGKKCHLLANCVIGSDGFGYAHNKNGEHYKIYHNGNVVLEDFVEVGACTTIDRA

VFDSTIIKAGTKVDNLVQIGHNCNIGQNCIIVAQTGISGSSELGRNVIMGGQSATSGHLKIGDFSTIAAR

GGVSKNLEGGRVYGGFPIMLQKDWLKLQAKIAINFKEKSQD

>CCK66698.1 acetolactate synthase 3 regulatory subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRRVLSVIVLNEHGVLSRIVGLFSGRGYNIDSLTVAPLENKEFSRINIVTSGNERTFEQIVKQLHKLIPT

YKVIESEEFIDKEMALVKIPLNENLGGLDAVLKAYNGTIANSNENFLFLMVADDANRIDNFLKTIKKYNP

SDIVRSGSVLMEIK

>CCK66697.1 acetolactate synthase 3 catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKELSGSAMICEALKEENVKIVFGYPGGAALNIYDEIYNQKYFKHILVRHEQAALHAADAYARMSGEVGV

AIVTSGPGFTNTITGLATAYSDSIPLVLISGQVANSLIGTDAFQEIDAVGISRPCVKHNYLVTCIEEFPR

ILKEAFYIARSGRPGPVHIDVPKDVSATLGLWEYSKEISMKTYKPVYKGNSKQIKKFAELLKEAKRPLFY

LGGGCISSNASEQIRELIKFTKIPAVETLMALGTLRSDDVFNLKMAGMHGSYAANMALSECDLLVSVGAR

FDDRITGKTSEFAKHATIVHVDIDPSSISKIINAHYPIVGDIKEVLKELLEELKKENFNTTFKEWHETLK

RYNELYPLSYEDSNEILKPQWVIEECAKMAPDARIITDVGQHQMWVAQFYPFNYPRQLATSGGQGTMGYS

LPAALGAKLAVGEEVVINFVGDGSVLMNIQELMTAYEYGIKAINIILNNAFLGMVRQWQSMFYKEHFSQT

DLSTQPDFIKIAQGFGCEGYEISNKEEFIQAFSQALKSDKTSLLNVKIDRFEDVLPMVPAGGAIYNMILP

KAKDRQ

>CCK66696.1 GatB/Yqey family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTLKEQILNDIKEAMKQKDDFKRDSLRTLNAAFKQIEVDERIELDNERIYKIIASEIKKRKDVIELYLKA

NREDLAQKEQNEISLFEIYLPKQLSDEELTLALKQLIEELGVSSLKEQGLVMKEAKIKLGASVDGKRLNL

ALKELLQ

>CCK66695.1 bifunctional 3,4-dihydroxy-2-butanone 4-phosphate synthase/GTP cyclohydrolase II protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFVSVEQAIKDLQAGKMLVMVDAEDRENEGDLIFPAQFSTQEKVNFMIKEARGVVCVALDETLAKKFEL

PLMVPKNTSNHETAFTITVDAKDATTGVSAYERNMTIQIFADDNAKASDFVRPGHINPLIAKKGGVLERT

GHTEGTVDLCKLAGLKGACVICEIVKDNGDMARREDLEIFCQKHDLNMIAVSDLIEYRLKHESLIKLEEK

SQSVLAGFKAEKFIFSDHNQTQHIAFCFKDIKKCENVKFHISGSDFELLTSDKFSKLLEQIKFLSENGGV

IVFMQGEKSSTTQYKNYGIGAQILRYFGIEEIKLLSQSCDKDYIGLEGFGLNLKACNFN

>CCK66694.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEYDKLSIRLVQILSKFNNGESLSAQELAQEFNVDTRTIQRDLNERLTFMPIKKENGRYVLESFALGKL

SFKDIQNFATLSGIAELYPKLDQGFIVDLLSHRVNKVLMVKNEGFQKVDYELFKDLSVAILKHNVLNFFY

KEKERQIKPYKLVNYKGIWYLLGDENDKLKHFNLDKISKLRTKNENFIPNEKLEEQIQNDPNIWLGESKE

VILKLDKNAKEYFFRKEILSNYQIIDKDETSYTLSTQVSYEDEILHLVKQWIPYIKILAPIELKIRLEDI

LKSYLNNLSK

>CCK66693.1 ATP/GTP binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNHLLILYNPYYQEDVIKQHLSILQEKSQVAFGKIKSKLNDQEKQNSLEEIYQSTNEENFLQLFLSDYAN

LFVAKVVKISKNVDESLIPSYYKEKNLEVEDFFIISDLRELVREDFSRLRDKFLANFITPNDHTYAIYGN

HYTYPLPVRLKEECSYFLGDEKHYLSVYKSKEYLAMQENFIRFVFGKRIFYLLHSDSISNIIHAELELLQ

SENDLLNDFTSIIVKYSKTLEYEIYAFAKKVLLKACMKDPSLYDLAYNVQGKSFILKDFFTQKPNLGSIK

FLLRHENIQCHLGKSLTQFINYPFSKSLTIIQEIRNEAVHAKAPSLNEVKKLRNEILGIEGVSLLKRILT

HKEIS

>CCK66692.1 hypothetical protein BN148\_0569 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENKFKINYDQTTTNGRNGTNGKVDNLSMKNHHLKSIGHSPDIFGLFVSIVNQFTNTSTFVSNGKIITID

TNTFELQGGNFIAKIFCGFFNWFGHLASDWCGSSGGKERGAGIPMPFYNLFLLCDFGNFGQHRQTLAQIA

TQVFEQGYDLRHGVTMSIPVMINKMLIRFMYIIKAKFYHKKEWKECIPKDNIPELNKMLLIGSGTFLLID

TGGAWIKSKNPITNPVVFLSEINLINVIRFSTLILKEIYILYNNGKIDNKKLEKYLDDTCKILLIEAHNK

SKPFKEILK

>CCK66691.1 hypothetical protein BN148\_0568 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MITYSNLSDVKKRIEDEFTHRNAECDKYDYLIAITCGAIAGIMDIFLVGNPKDSYLGKKVDKTVEKMTQK

FAQLCGWDKQKALDKNKDLTKSV

>CCK66690.1 hypothetical protein BN148\_0567 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDKIQENTKIEKAILAEKQQIFLIQNKLSEIEKNIKE

>CCK66689.1 hypothetical protein BN148\_0566 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENICQFIIENIDKNSLNTKKIKLVFNMQEQEITTISKIFKVSSEHIIAFYDTSTSFNYFSKTTGICFTG

KEVIFKRKEDEVLMKINYEDFKEANKSLPEKTTTLQDIKFPISFHNLGTSYLSFDDFKKKNYIEENDELI

INFLHILTSKNNIESFKNESMFPQALEKTNESIKENYIKVIIKIILDQYGFLDEKRSIKIFALMNKINVA

SETRYKIQDFLHNKHSSFEDLLNIIKQESRFMQFKYILISLIKDLIDIDFEDNKIYNFLYENKDIFKIKD

LKEIYWVKEIIKKEYQIILDDNKEIQQIFNFISETATKNNISLNGLHLSGMTIGMSVSIMELLGFGELIK

LPLIDSSKKYHNKNKQQLRLFIIQEILKENQKTITQIIDIINNLIEQCNTNTQNLQELIKLLKLASKNNE

TFKEREKLLYCPETLSLITINNHLKEDDIQFIEQYYTYNQNTHKYERNDNLSSSDLEKLSNFFKLKNL

>CCK66687.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGIILGILSLIAGFVAIVLMCGLYFIAFMVFVGIAILIFLSMQPYPYNIIFCAIYLITILALVLWRKT

>CCK66686.1 hypothetical protein BN148\_0563 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFYTFFVILKQGEKMLKQIAFGSIALTATGYGIKKLYEKLSKPERKFDTHAIVPSCKDVINTEEYKLKRE

LEIEQKKNQIQEFLCECMECYSGFSKYFNSKEFLEFEQNFTSKNNHKTEFLLSSYKDQMIKVIDYAKKFK

CLSAFLETQSEKNDLAVVKMISESMERKTQRFYLQTKFQTFPQYIFPSVWSSPMWDKQWE

>CCK66685.1 replicative DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQQEYYDLDLERAILSSCIMSEEAYASIAGDISPKDFSLKAHQDIFKAVIACSNNKEPISVSFLRKHKKI

DEQILAEILATPSMIDLPAYVNELHEKSVKRQLLSFAHLLPTRINEDRAVSEIADEIGKEIFSITNRVNS

RDIKDVDMVISELFEEFKKQKTLENKGIIGLDTGFEGLNKMTKGFKGGELIIIAARPGMGKTTLCLNFID

KVLRQKKGVALFSLEMPATQIMQRMLSSKTSIPLQKILTADLNDDEWERLGDACNDYSQKKLYIYDSGYA

TIADVRAILRRLKSQDESIGLCVIDYIGLMMSNSNFNDRHLQVSEISRGLKLLARELDMPIIALSQLNRG

LEQRANKRPLMSDLRESGAIEQDADAILFVYRDEVYREQEEKERENKAKAEGKAYQRLFIPNPMQENAEI

IVGKNRNGPVGTIEVVFLKEKSCFVDKPIGYETTEFTG

>CCK66684.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKYLFSCVLASILTQSATAVEFQEGFSGNLSIGVGARDIKSNISTLANSDYLSSHNADNSDSSFIPFIG

AELYYGNLIDNDRIFIKNYNGRDISGIALGYERAYLERFSTSFSVISSLREKAYANPYAIGNREETDVDR

YGFKISQLYESDFGKFTTSYLFSKNKYDKDTIAQSSLKREGYYHEIELNYNYSLLNLGLNYDYNDADGKA

QSYSRYGFSIGTNLAFANDYIFTPNLNLSKYEAVGTDPIFHKKQDGNIVKLNLKVVKNQFLGYNGLYGFA

NYGIEKRNSDIGFYDETYQIVLTGIGYKF

>CCK66683.1 MATE family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSSIFSTLSPFRLFVKYAVPNVISMAFISFYYIVDGIFVGKYLGSDALAALALIIPFIMMSFALADMIAI

GSAVQISMHLGLGKKNLARKIFSSSMLIIFIISCFIGILEYFLGPVLIDCLNVSDEIKTMTKECMFVFAL

FAPFTMLSFALDNYLRICGKTAYSMVMNVIIALSNIVLDYIFIVELGWGLFSAALATCLGLVLGGIFGIF

PFLFQNLELKISSLYMNLKIFKNILYNGSSEFFGNISGSLYSIFANFVLLKISDTQAVAAFSIVLYIDSF

IIMLIIAIGDAMQPALSYNYAKKDFSRIKAIIKVVFFAGGFLSLFSIVLILIFGENLITLFTKENNQEFK

TFAYTALMLFAFNYFFAWFNVLSGSFLTAFNKASFSLVLSLAQNLFIPLFFLLFLSCFMGLNGVWLSPFF

AEFCVLILAWIFLKRIFKDLSL

>CCK66682.1 pyridine nucleotide-disulphide oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIDLIVVGAGPTGIGCAVEAKLKNKEVLILEKSNNICQTLMQFYKDGKRVDKAYKGCEGTNHGHVPFE

DGTKESTIETFQNALKEHNIEVEFGSEVESVKNENGVFLVSTAKGVYECKNIIVAIGRMGKPNKPDYKLP

MTLTKIINFNANSVLGNEKILVVGGGNSAAEYAVDLANSNQVSLCYRKKEFTRLNDINLKDIHEAGNSGK

VELKLGIDINEVEDDNGKAKVNFTDGTSDIYDRIIYAIGGSTPLDFLQKCGINVDDKGVPLMDENKQSNV

KGIFVAGDIATKNGASIVTGLNDAVKILSVL

>CCK66681.1 gamma-glutamyl phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRNLLENIKKNSQKLLNLTPKDKEKIILKLAQILRENFKIILEANKKDMANFTKSGAMKDRLLLDEKRIL

ALCEGLEKIAYIEDPIGKISKGWKNYAGLSIQKMSIPLGLICVIYEARPSLSAEIAALMIKSSNACVFKG

GSEAKFTNEAIFTLVNKVLKEFDLQDCFAMFTQRDEILQILAFDDLIDVIIPRGSSNMIQEIANNTKIPL

IKQNKGLCHAFVDQSANLDMALKIILNAKCQRVSVCNALETLLIHEKIAKNFISLLIPEFEKFKVKIHAH

ENALAYFNNSNLKIFKANENTFDTEWLDFALSVKLVKDCDEAIEHINKHSSLHSETIISNDASNIAKFQR

LINSSCIYANASTRFSDGGEFGFGGEVGISTSKLHARGPMGIEDICTYKYIINGEGQIRE

>CCK66680.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKIEILKQHFKEIAKLNSSEQVWQMPFFAALGVGIVLGLSVFFGKLNYGLIAMIGALSFLYVPSTPLYH

RMAVVMCCSFGIVSSFFLGILTHFLPAIFAFIPIGIMAMGSSILIRYYNIGAPGYFFFVFSCVLGAYSPF

EAKDFIFLVGLVFLGAMVANLMALLYSIVVIYGFKNALPSEIPPREYIGFDAVFVDSLIMGSFVAFSIFI

GTFLELERSYWIAISCTAIMQGVTLNSIWIKQIQRIIGTALGVCFAWWLLSKQFHDIELILLMMSLFFIG

QFLVNRNYALAMIFFTPYATYLSEAANFMSENADKLILARLIDVVIGSILGLLGGFVIYKPYLRVHFERI

AKYIFRIKQKA

>CCK66679.1 amidohydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIDTHAHIFLKKLNTVANARYKPDYDASFKDYKANLDHYDFNKGVLVQPSFLGIDNEFLLQSIEKDENI

KAIVVVDENIKFDELKKLKERKACGVRLNLIGKELPNFKSMVWTQFFENLSKLKMQIEIQRDLDNNLVDI

VENLIPYGCNIVIDHLARANANLTNLEDLICLKNSRIFFKISGFYRAKIDYANNEQAVKFAKKIYEILKE

HFPLSNFVFGSDWPHTNFEANINFSSALVAFNEVVVSKKEQEQILGDNACALFGF

>CCK66678.1 dicarboxylate carrier protein MatC [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIMVFLIISSIIVAIILGYITRHNVGIFAMIFAYIIGAFFMDLAPKKIIAFWPISIFFVIFAVSLFYNFA

TVNGTLEKLAGHLMYRFANHPYLLPFVIFVVSAIIAALGAGFYTVLAFMAPLTFLLCDKIGLSKIAGAMA

INYGALGGANFITSQSGIIFRGLMENSGIEANEAFANSSIIFAFTIILPIVVLSFFVFNAFKNNIKISVI

SKPDPFDYKQKTTLILMFMMIVVVLIFPVLNIIFPHNETISYFNKKIDIAMIAMIFVAIALFLKLADEKQ

VVALIPWGTLIMICGVGMLISIAVEAGAIKLFSDLVENEINVIFIPLIMCAIAAFMSLFSSTLGVVTPAL

FPIVPSIAASSGLSEALLFSCIVVGAQASAISPFSSGGSLILGSCPDKYKEKLFKDLLIKAVPIGFIAAI

LATIIMSFIL

>CCK66677.1 hypothetical protein BN148\_0554 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKFIKQFSFIALENIFRELPNKITHSFNDINDIKPPKLMYPIFYGSYDWHSSVHSHWLLVKILKDFSHF

APKDEIIKALDSQFSKEKAEGELKYLQNPAHKGFERPYGWGWFLKLTLEINLLAKENDKAEIWAKNLEGI

ADFFVKEFKEFLPKMDYPIRVGTHFNSSFALYFALEYARFKKDQELEYCIIQSAKKWFLNDKNMQALEPC

GDEFLSPVLMEAVLLSAVLHKNDFVKFFKAYLPNLEAKEPATLFTPVSVSDRSDGKIAHLDGLNLSRAWC

FKILSNFCDENLKILLRNNATEHFDKAIAHIEDDYLGSHWLGSFALLALDVDIL

>CCK66676.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MISLDLLYYIVGILFLVFGILSFSNQAKDIKSRISGGVFWISYSFTFLLAGVLPHFVMGCIVILLALIAG

FNLLKPAKIEVSKEEKEYEIKHANIYKNKLFIPALMVPLITLIGTFLFPYLSFFENKNATLMALIIGIII

SSVVACFMFKASPKRAVKDAAHTMDHISWAALLPQILATLGVVFVSTGMGDQVSKLLSSYISLDNAFIAV

AVYCIAMALFTIVMGNAFAAFPVITAAIALPILIIQMHANPAIIGAIGMLSGFCGTLMTPMAANFNIVPA

ALLNLDDKNGVIKAQFMSGLVLLVANIFLMYFLAFRF

>CCK66675.1 hypothetical protein BN148\_0552 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEWLLLASIPLIVLGFALKINPFLVVTSVGIYAGLVSGFDFVKVVSDIGKSFVDNRYVAIIWLILPLLAV

LERKGLREQAKNLISKIKVASTGRILMCYFVFRQVTAALGLLSLGGHAQMIRPLIAPMAEAAAKLKFKNL

THKDSQKIKAFSAGTDNVAVFFGEDIFIAVHSILFIKAFYESNGIIVEPLHLSVWAIPTGILALIIHCSR

LYLFDKRLEKTYKGLSDDKS

>CCK66674.1 elongation factor P [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MASYSMGDLKKGLKIEIDGIPFKIVEYQHVKPGKGPAFVRIKIKSFIDGKVLEKTFHAGDKCEAPNLEDK

TMQYLYDDGENCQFMDTQTYEQVAISDDDVGEAKKWMLDGMMVDVLFHNGKAIGVEVPQVVELKIIETAP

NFKGDTQGSNKKPATLETGAVVQIPFHVLEGEVIRVDTVRGEYIERANK

>CCK66673.1 hypothetical protein BN148\_0550 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKQWLSDFKLALIQEDVNKLENLLDELDMKAFIKNLAKESPSEDFLKENANDVFYQVQALLQEAVILIEQ

KKKTKAVEIQKFQKALTYFKS

>CCK66672.1 flagellar protein FliS [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNNLAYNAYSQNQVGIESPQKLIEMLYEGILRFCARAKVAIRNEDIEQRVYFVKRTTAIFIELINTLNY

EKGGEVAHYLSGLYTREIQLLSLANLENNEDRINEVINVTKGLLEAWREVHNNETVAQ

>CCK66671.1 flagellar capping protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAFGSLSSLGFGSGVLTQDTIDKLKEAEQKARIDPYTKKIEENTTKQKDLTEIKTKLLSFQTAVSSLADA

TVFAKRKVVGSISDNPPASLTVNSGVALQSMNINVTQLAQKDVYQSKGLANDGGFVNAQLNGTADLTFFS

NGKEYTVTVDKNTTYRDLADKINEASGGEIVAKIVNTGEKGTPYRLTLTSKETGEDSAISFYAGKKDSNG

KYQKDINAEKIFDDLGWGLDVSASIDPDKDKKGYGIKDASLHIQTAQNAEFTLDGIKMFRSSNTVTDLGV

GMTLTLNKTGEINFDVQQDFEGVTKAMQDLVDAYNDLVTNLNAATDYNSETGTKGTLQGISEVNSIRSSI

LADLFDSQVVDGTTEDANGNKVNTKVMLSMQDFGLSLNDAGTLSFDSSKFEQKVKEDPDSTESFFSNITK

YEDINHTGEVIKTGSLSKYLNSNGGNTNGLEFKPGDFTIVFNNQTYDLSKNSDGTNFKLTGKTEEELLQN

LANHINSKGIEGLKVKVESYNQNNVTGFRLNFSGDGSSDFSIKGDANILKELGLSDVNITSKPIEGKGIF

SKLKATLQEMTGKDGSITKYDESLTNDIKSLNTSKDSTQAMIDTRYDTMANQWLQYESILNKLNQQLNTV

TNMINAANNSNN

>CCK66670.1 flagellar protein FlaG [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEISKANGQMDTALANISQRTSETQASLNIQTDRSQGQEGDDGQQRGVSEKLADITKKLNEQMDSLDTNV

RFGYSDKIGSMYISVTEKSTGREIRQIPSEEAMRLAEYFRDVIGMIFDKES

>CCK66669.1 3-octaprenyl-4-hydroxybenzoate carboxylyase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEFIQILKENDLLRVIEEPVDVDLEIAHLAYIEAKKGEKGKALLFKNPIDKKLNKQYKFPVLMNTFCNK

KALNLAFGRDYKEVAEEISKLIKLHIPTSFKAKMDFFMNLLSFKNIPPKRLKKNKALYDYEILNSLEELP

ILKTWEDDAGKFITMGQVYTQNLDKTQNNLGMYRLQMSDKNELLIHWQIHKDGANFYHEYKNAGFKKMPV

SIAIGGDPLYIWCSQAPLPKGIFELLLYGFIKKTPAKITPCENGIFVPYDSDVVIEGYVDLEEFKIEGPF

GDHTGFYTPAELFPVMKVEKIYAKKDAIYQATVVGKPPLEDKIMGLGTERIFLPLLQTSVPDLIDYNMPE

NGVFHNLILAKIDAKYPAHAQQIMHAFWGVGQMSFVKHAIFVDKNAPSLKDYDALIPYMLDRFNTKKILI

SEGICDQLDHASPNSCFGGKAGLDACEEIQVEELEILEDEKLLELFKTKVELLNLKQFYKESKSPIVCIL

LDKKEKIEQSFDKLLEFKKYFRILVFLDAENKLENSYMLVWRVVNNIDAKRDIFIKEERLGVDASAKGEA

EGYLRAWPKQTDCTKSVIEDLILRNILENNPDLFNKFEIF

>CCK66668.1 porphobilinogen deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLIIATRKSQLALWQSEHVAQILKNTHQIEVLLEGFKTKGDVLLDSPLAKIGGKGLFTKELEESMLRKE

AHLAVHSLKDVPSFFPQGLVLAAVSKREQSNDAMLSQNYKDFLSLPKGAKIGTTSLRRKMQLLLLRPDLE

IISLRGNVNSRIEKLKNNDFDAIILAMAGIKRLNLDKQVNFVYEFSKDELIPAASQGALGIESINDEKIL

ELLKCLNDENALIETSIEREFIATLEGGCQVPIGINAELLGDEICVRAVLGLPDGSEILKDKRMIKKNDF

KGFGESLAKEFIAKGAKELLKKAESMI

>CCK66667.1 integral memnbrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNYKLSLSPLFVLEIIASVLFIVFFGFGNFLFFILLSMIFGAVLLGIFWKNMLEFQMGGLKDMLTQFSFV

IAGFLLIFPGIITSVFGIFVFFFGIALKLITKSKYQYTKQEYQNSNEEIIDVEIIEDRK

>CCK66666.1 prolyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMRFTKFYAPSLKEAPKDASLPSHIFLTRAGFVEQIGSGLYNFLPLGKRVLDKIKNIVKEEMDKAGAQEV

NLSFITPASLWQESGRYNVFGKELLRFKDRKENEFVLGPTHEEAMLSLVKNKITSYKQLPLHLYQIGLKF

RDEARPRFGLLRCREFLMKDGYSFHANEEDLGREFELMYKTYSQILQRMGLDFRAVEADSGAIGGSGSKE

FMVLAKNGEDDILICENCDYAANVEAAKRAKKTCQDERPEANYASKFHTPNIKTIDSLAQFFKINAFYTI

KAVVKKAIYENESKLVVFFIRGSDDLQEVKAQNTCSALELVDASEEELKKAGLVAGFIGFVGLKDIDFYI

DFELENEKQMIMGANEKDYHLIGIDVVNLNKDRFKDLIEVKEGDCCVKCGAKLKQSKGIEVGHIFKLGQK

YSKAMNANFLDENGKSQPFYMGCYGIGVSRLLAVAIEANHDEKGCIWNKTLAPFVLEIIVSNLKDEKALE

FANKLYRDLTNLGLEVLLDDRNERFGVKMNDFELMGFPYALVIGKGLENNEIELIQREGLVKELIKTDEL

MEILKKKVL

>CCK66665.1 glutamyl-tRNA reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYYCISFTHKNTDIALREKLSFSNEAKKGEFLKIISTHENIEECLVISTCNRVEIVAFVKMACAEFIVKS

LALLCDVDKDILLEKADIFEDSGAIHHLFSVASSLDSLVVGETQIAGQLKDAFAFAVKNNFCGVHLSRAV

HSAFKCAAKVRNETQISKNSISVASVAVAKAKELADLTQKKAVVIGAGEMGELAAKHLIAAGAKVIILNR

DLQKAKDLCERLGVLSEYDSLENLKKYLNQYEFFFSATNAPNAIITNSLIEELSYKRYFFDIAVPRDIDI

NENENISVFAVDDLEIVVQKNLALREQEARMAYGIIGRETSEFFRYLNDLALMPIIKAIRLQAKEYADKQ

LEIALKKGYLKKSDKEEARKLIHQVFKAFLHTPTVNLKHLQGKMQSDTVINAMRYVFDLQNNLEGLNQYK

CEFDMENNDEIY

>CCK66664.1 polyprenyl synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKIDELIKQFLQELGYEPILNMLSNVKSGKKLRSKLLLAIADESEIAFKICAAIELIHLASLLHDDIID

ESELRRGARSVNAEFGTKNALMLGDILYSKAFYELSKMDARFASIISDAVVKLAIGELMDVDLGEKFNIN

KEAYLKMIYNKTAVLIEASARCGAILAGLYEKDFAEYGKNLGLAFQMIDDILDIKSDEKILGKPAMNDFK

EGKTTLPYIYLYENLQEQDRIYLQTLFKKDLNENEKEWLKTKFEEQKALEKAILEAKTYAKKARKAIEKY

DNNKLNDIIKAMIDREF

>CCK66663.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFKISPYLICIFFIFSNVLASEPTFDYTYKFILKKDERASVQIKEIGYEDKVQNFDFYWTLFDNTNIIVH

SKFRKYPRQFVMSLRRNLDWVTQTLIPDYTNPHIDRARLILEFSGYNKGLATFTVYIEDKESRLMVEFLD

PRKKALQNPPQNNQVVPMINFNEPQVKPLTSKENNNSN

>CCK66662.1 hypothetical protein BN148\_0539 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDFFDEMFNKTPKEKFIEIIQNGNLGALEKVFEEFFADHIAMVELLEKQGLTEMDVKNFILENGDFIEER

QNDIYIELGAKILGHEG

>CCK66661.1 2-oxoglutarate-acceptor oxidoreductase subunit OorC [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKYQLRFGGEGGQGVITAGEILAEAAIKEGRQAFKASTYTSQVRGGPTKVDIIIDDKEILFPYAVEGEVD

FMLSTADKGYKGFRGGVKEGGIIVVEPNLVHPESEDYKKWQIFEIPIITIAKDEVGNVATQSVVALAIAA

YMSKCIDLDVLKETMLHMVPAKTRDANAKAFDLGVKYATQAKPHS

>CCK66660.1 2-oxoglutarate-acceptor oxidoreductase subunit OorB [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAFNYDEYLRVDKMPTQWCWGCGDGVVLKCIIRAIEKLGWNMDDVCLVSGIGCSGRMSSYVNCNTVHTTH

GRAIAYATGIKLANPSKHVIVVSGDGDTLAIGGNHTIHGCRRNIDLTHIVINNFIYGLTNSQTSPTTPKG

FYTVTAQFGNIDPNFDACELTKAAGASFVARGNVIEANKLENLIYKALAHKGYSFVDVFSNCHINLGRKN

KMGEAVAMLDWIKNRVVDKAKFESMDFEERKDKFPTGILHEDNSQPEYCHAYEEVRRAAKEKRMVDLGAL

K

>CCK66659.1 2-oxoglutarate-acceptor oxidoreductase subunit OorA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MREVIATGNVLIAKAAIDCGCKFFGGYPITPSSEIAHELSHMLPANDGTFIQMEDEISGISVAIGAAMSG

VKSMTASSGPGISLKAEQIGLAFIAEIPLVIVNVMRGGPSTGLPTRVAQGDLFQAKAPTHGDFASIAIAP

ASLEEAYTETIRAFNLAEKYMTPVFLLMDETVGHMNGKAVLPDLKDIKVYNRKKFEGDKKDYKPYAAGEN

EPATLNPFFTGYRYHVTGLHHGDIGFPTEDGVIVKKNMERLIGKIKNNQEDICTYEEYMLDDAEFLIIAY

GSVSRSAKEAIQRLREQGIKVGLFRPITLYPVAEKKIAEVVSKFKKVMVSELNMGQYLEEIERVTSRRDF

ISLHRANGRPITPSEIIAKVKENI

>CCK66658.1 2-oxoglutarate-acceptor oxidoreductase subunit OorD [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSMTAPKDTPVWVDEHRCKACNICVSYCPAGVLAMRDDVHAVLGQMIEVVHPESCIGCTECEIHCPDFAI

MVAKRDEFKFAKLTAEAKDRAVAVKNNKYKKLA

>CCK66657.1 sucD [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSILVNKNTKVIVQGFTGKEATFHAEQCMAYGTNIVGGITPHKGGQTHLGKPVFDTVADAVKATKADVSL

IFVPAFAVGDSVIEAADAGIKLAVVITEHTPVKDMMFAKQYANKKGMKIIGPNCPGIITSEECKLGIMPG

FIFKKGCVGLISKSGTLTYEAANQVVQGGYGISTAVGIGGDPIIGLAYKELLSEFQKDDETKAIVMIGEI

GGSLEVEAAKFIKENISKPVVAFIAGATAPKGKRMGHAGAIVGSADESAAAKKEALKSYGIHVVDSPALI

GEEIQKILG

>CCK66656.1 succinyl-CoA synthetase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNIHEYQAKAIFVDNGIPTLKGKVAFSVDEAVANAKELGGSVWAVKAQIHAGGRGLGGGVKIAKNLDEVK

DYASKILGMNLVTHQTGPEGKLVQKLYIESGANIVKEYYLAILFNRMAEQITIIASSEGGMDIEKVAKES

PEKIAKVGIDPQIGFKMFHGLEVARVLGLDKDEGKKLISMIAKLYKLYMDKDMNMLEINPLIKTAEGDFY

ALDAKCSFDDSALYRHPEIAELRDTTEENPAEREAAEFGLSYVKLDGDVACMVNGAGLAMATMDIINYSG

AKPANFLDVGGGASPETVAKAFEIILRDKNVKVIFINIFGGIVRCDRIANGILEATKNVEVNIPIVVRLD

GTNAAEAKTILDNSNLKNIKAATNLKNGAELVKSLVG

>CCK66655.1 malate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKITVIGAGNVGSSVAYALILREIANEIVLVDINEDLLYAKELELTQSIAALNLNIDLLCTKDYTHTKNS

DIVLFSAGFARKDGQSREELLQLNTSIMLDCAKKIKDFTEDPLFIILTNPVDFLLNTLYESGIFSSKKII

AMAGVLDNARFKYELAKKLNVKMSRVDTRLIGFHNDDMVLVKSYASVKNKNISEFLNEEEFEDLENEVKT

GGAKVIKHLKTSAYLAPASACIRMLESIRSGEFLPMSVILHGEFGVQNKALGVMARLGLEGVIEIMKMDL

SLQEKDKLEKSLIKYQYKGE

>CCK66654.1 isocitrate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQITYTLTDESPALATYSFLPIVKAFLSRAHIGVKTSDISLSGRILATFSEYLKEEQRCEDALELLGELV

KRSDANLIKTPNISASIPQLKAAIKELQDKGYMLPNYPDEPKNDEELQIKTKYQKVLGSAVNPVLRQGNS

DRRSTKAVKDYAKNNPYRVVEFNPNSKTRVSYMKEGDFFSNEKAVLIDQDCVANIEFTSVDGKKEILKEG

LKLEKNEILDATFMDVQKLQEFYAKEIKASKDDDVLFSLHLKATMMKVSDPILFGYAVKVFFKELFIEFQ

DEFEKLGINPNNGLSELLSKIENSSKKDEILKKYSEILAKSADISMVNSDKGITNLHVPSDVIVDASMPA

MLKNGARLWDKEGKEKDTNAVIPDQTYATIYEAVIEDLHKNGTLNPSKLGSVSNVGLMAKKAQEYGSHDK

TFVAKEEGTFKIVSNGKVLLEHKVRKGDIYRANQAKFDAVLNWIDLGIERSELSGAEAIFWLDSKRASNK

IMITLVQNRLKEKGKNVAILTPKEACLRSLELIREGKDVISITGNVLRDYLTDLFPILELGTSAKMLSVV

PMLNGGAMFETGAGGSAPKQVEQLVEENHLRWDSLGEFLALQASLEFYANKCGNHKAKVLAECLDEAIGE

WLENNKAPSRKVKEDDNRTSHFYLAMYFANHLARQASDMELQSFFKDIALELSSNEEKIRAEFNDAQGVK

VDLGGYYKFDDEKANKIMRPSATFNAILEKIGQR

>CCK66653.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKKILYIVVFFVVLILALFIVLKNGIVISSIQFDFLKLEQLYIKLDKKLIVRAKNITINETQNSEISSQ

THSSDNASTEILKITKNLKYLYTFVKEIDIQNLNIKDNHVRILFKDNEFFIDNDLLFLKLTLQRQNKELI

ADIKKLLLKDYDLSIDGNLSINTKSEFYYFQGRASGELLDFNASISYKDKNLAYKIEDLNIRNITEIFKR

VNKRIELPQSLNLWVAYRAKGEFYHLDYLQGFIDFTKDNYYLDNISASGYVNNVKVRLDDKMNAIEIPKL

DLNLNKQKLDFVFNKAFYNGADLSSSKVYLYDLFDEKKVGIYLRIKSDNLKFDEKLAKALEDYHFSLPFY

QKSGKIKSDLELKIDFHDKGEISYSGILALENASISLADFNITKAFVKLNQNDLNIENASVKNGFLEADF

NAKFDLQKQQGNFNTQISRLYFDNAELLDLKNQNVEVKLDYSQNVNISIPQWNLILNFKDGLEANLNNPK

ILFSFSPLLKKLGFINAKNVYYKTLNFEDFNASVNDAYFKNNLLINGQTPYENDSFDIVKNKGIMEIHTQ

SDTASAKISSDNKEIHLKNLSYIYRKHSNSSNSTFDIATNTQNISFGGANVALILADSNKTLAFDRVEAD

LKGNALDLKGSRGNAKFDLYYSSNDLNLNVSNIDDNYLNEFLQKQAVQDGVFNLSIKGSGLEYFDGQIDF

KNTYVKDLKGINQLISFIDTVPSLLMFKSPTFNQKGLSLHDGKIIFNRKKDLLSVSAINLNGDSVDIYGL

GSANLRLNTVDFSLELKTLKSASEAISKVPILNYVILGKNQEISTNLKIDGSIDDPKFHTEILTDTLKTP

FNLIKNIIQLPANLLN

>CCK66652.1 aminodeoxychorismate lyase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTIPFLSTINKANISTTKNTTIYKIFFFIRNFFLIFILGIFYYLTQPLKSNSVVFIPQGSISQIITYLKQ

NKYQMSNIDKYILFFLGHPQSGWINIGTKDLNRAEFLHKLTIAKAALQTITLIPGETSVIFLEQAAKQLG

LDKDILLKEFQAQAPYDEGVFLPETYKIPKGITENLLIQMLLNHAEISNKKTSEKIFGDYNPKKWHQYII

IASVIQKEAANDNEMPIVASVIYNRLKKGMKLQMDGTLNYGIYSHVKVTPQRIRQDNSSYNTYKFTGLPK

EAVCNVSLAAIRAAIFPLKTDYLYFVRDKNTGVHIFSTNIDDHNKAINLQKGK

>CCK66651.1 flagellar basal body rod protein FlgB [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINPFKSKELVTGALAGRNLRNQLINANLANVDTPFYKARDIEFETALVNRANEIFKKNDNKELQLAVTE

EEHQKPWKFPDPSKSTIYLRDGHLARNDANTVDLDVETTEMSKNTVMITALDGVLRRQSNIFSSILDASS

KLS

>CCK66650.1 flagellar basal body rod protein FlgC [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAYLSDFDISGYGLSAQRFRMNVISSNIANANTTRTAEGGPYRRREVIFKATDFDKLLNEQINKDNNFLK

YENPLNDPSSPEEAKPAIQSVVVDKVVRDDKDFRMKYDPSHPDANAEGYVAYPNVNPVIEMADLIEATRA

YQANVSAFTSAKTISQSAIDLLRG

>CCK66649.1 flagellar hook-basal body protein FliE [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNNINDLRLNNNISNTNKSQNSTGIGDEFAKMLKNEINDLNKAQESGEAAMTDIATGQVKDLHQAAIAIT

KAESSMKFMLEVRNKAISAYKEITRTQI

>CCK66648.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQEYKKNRVSKVAFAYCMALLFMIIFISSTFFLTSKRHIPNTEKDQYALALRGSIITKDNFTITSSKQIY

RAEIDLRSINKDKFDLFLKLFQIYSGISNDQVADIKKRMQNQKKRSYNFVLLQNLDSKQASYLKDLAKKL

YIQGFFKAFTNNSGRVETRGLNIIEHEEDRIYMSKDSFTPIIGYTKMILDPESGILKNIGVKGLEKYYDA

CLSPVQNEKIQGLKDIGGNIILNLNSLQQKKINGCDLYLNLSLKLQKSIEKAIDQRNEDLKANEIIVGVM

ESKTGRILALASSRRYDPQNRGKDLSVLNASAIEYGYEAGSVIKPFIFTTALRLGKIKMDEVINTYGGSY

KLGRFTIKDDHKMDKMTMEEVIRYSSNIGMIQIAKRLNNIEIVSGLKIFKFGEKSGIDLPYEQKGEIPNP

KRLRDIEKSVLSYGYGLKTTFIQLLAAYNVFNNDGFYITPRLAEKFYQNGRFTNLDDDVKKEKILSSEAA

KTMQNVLINVIEKGTGKKAITQGIIAGGKTGTARIAERQGYTSNRYNASFFGFANDLNHAYTIGVLVRHP

TKPYSYYAAQSALPMFKDVVDILINEEFLTPIQDNNQTSTNN

>CCK66647.1 hypothetical protein BN148\_0524 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MISLVKFSDTAIEALRKESEHLYNNTYAVVAHAIGFSRKDIQSDKSFKEILENKKWFSKNVDLDYLYQTR

IKVLFEAIIDFSTKAQVYINDETKNHKIFTFKMAAKNLAETTKNLKIIQANIKKYSSSSNEFLALEYNKI

RSNLGELLRSIEELRVVEDREKLYLIIKNLQKGKEILKEIDTLTLSNVEHLISVRKITTAEGISILNDTT

FAAKIAEELIGAVEVIFSKDISN

>CCK66646.1 hypothetical protein BN148\_0523 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLTGVIQSSTVIMAIIVAALLAQQISLENSLAATLGTSVGGVVTAVLASLSTNIEGKKLAFANCIFNFGI

AFLIVLIFPYFIHFLIFYPLR

>CCK66645.1 Na+/Pi cotransporter protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAILLIGMTNLGIGFKVFSGDLLEKILVKSTDTKIKSILFGTLSTLIMQFSILVSIVTISFLSAGLISLG

AGIGIIFGVNLGNTASSWLIVGLTNIKILMLAIPLLIIGVLFFFQKDSILKGLGNIFIGIGFFFLGVDYI

KSGFENFKHIIDLSRFDFAGFKGVFVF

>CCK66644.1 hypothetical protein BN148\_0520 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLGIYLLIAALSFLALYFAVKKLTLNIDERTLLEPIKMDIYPKFCDLIDEKIREFKENIQNANLTLKNSN

QKDEFLEKLGDLSRELTFIQTMNLSNKNDSIWQNELFSFLKELENLLLEYLEKGEEEAENLREFLMDEFE

KLKG

>CCK66643.1 rhodanese-like domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIENISASLWTKQDLNAYQIFDVRTPLEWEEGILPNAQCVALYDNQGLLNAKFLDEFQSKRDESKKLAFI

CRSGHRSMVAAEFIAEKLGLESINLDGGMLALKGC

>CCK66642.1 heat shock protein 90 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQFQTEVNQLLQLMIHSLYSNKEIFLRELISNASDALDKLNFLSVSDDKYKSLKFEPKIEIKIDKDKKTL

SISDNGIGMDKDDLINNLGTIAKSGTKSFLENLSGDAKKDSQLIGQFGVGFYSAFMVASKIEVLSKKALD

DKAYLWSSDANGYEIDDANKEEQGTSITLYLKDDEFANAYKIESIIEKYSNHIQFPIFMEKEEFTPAKEG

EEEGKTELKISQINKANALWRMQKSSLKAEDYERFYEQNFHDSNKPLLYLHTKSEGKLEYNSLFFIPQNA

PFDLFRVDYQSGLKLYVKRVFISDDDKELLPTYLRFVRGIIDVEDLPLNVSREILQENQILKGIKEASVK

KILGELEKLKNNDKEKYLSFFKTFGKVLKEGLYGFGGEKDSLLKLMLYKSTKGENLRSLEEYKNDLQGEQ

KEIFYIAGNNESLLRTSPLLEEYKQKNIEVLLMDDEIDSLVTPMLEFEGLKFVSINQVEDKNELSDEEKN

TFAPLVAKFKELLKDQVEDVRLTSRLKDSPSCIVYDKNKPDFAMQQLLKQMGQEQNFKPILEINPKHAIF

TGLKNNESFSADIATLVLNMAKLSEGMGVDNPAEFNASLTKIINKAFS

>CCK66641.1 CrcB protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNTLLVVGFGGFIGAILRMLSINLVNKFFPYSISFGTLFVNVLGSFIIGLLFSYAQNKGLSPLLKSFIS

TGFLGAFTTFSTFSYQNLLLLQSGNYLHFALNIILNVFLCLFAAWLGFLIFK

>CCK66640.1 1-acyl-SN-glycerol-3-phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIYKKIKALYFWIFFVLSVALVIFCFCFTKSQNTLWKIRKIWAKFQRYTISYKQEIIGTFNPQAQMILMN

HQSALDIIALEELYPKNLCWIAKKELGEIPIFKVAMKKPKLLCIDRKNPRDLVRVLKEAKERISEDRVLA

IFPEGTRSKNEKMLKFQSGAKILSEKLNLKVQPILIVDSAKILDTKSFSASSGVLKIICMDLVDTNDEKW

LENTRKKMQELLDQERAKLC

>CCK66639.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKILLTLIFSIVVLFGRGEISVFSGQDENMQKELQKLPQEEQKIYQNIPPSDENNDFESNVDDPFVAKGS

LVLTNDEYPSRVYVGEVFPITIYARTTENIKFDFNISVEKTNLSFLNPDAKWEFINNEYKTTLWFEAKNS

NASLSKISIKLLRNNEAFQEADINLNPIKFENTLFNKDFSHLVASSLEIKKVKASYFDDANIIMMIELNA

TNTNLKSFFIEGIQKQGIENLKGDFNASSAFYYAILPLSKTNFEFSYFNKDSKKLENINLKLKISDDEIS

TQSDLNPVNKDLNIYKQYALWFLAVLFGVLFVWRKNYIILALAVVCFALSFLVDTNTQNAIIKAGSRAKI

LPTEPSTYFYTANADEKVEVLGKRQNYIKVLFSDGKIGWVNKDDLQKN

>CCK66638.1 phosphoribosylformylglycinamidine synthase I [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVAIIRFPGTNCEFDTTYAFEKLGVKTQIVWHEEKEFDADLVVLPGGFSYGDYLRCAAIAKLAPAMQGV

FNHAKKGGYILGICNGFQILLESGLLKGAMKHNNNLSFISKNQSLRVVSNDNAFLKNFKKDEIINLPIAH

GEGNYYADETTLKELQDKDLIILKYEPNPNGSVFDIAGICDENKKIFGLMPHPERACEKVLGNDVGLKML

KGFLLENFINFNF

>CCK66637.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEVIVNISLKNGVLDPQGKAVEKALHSLNFNSVKEVKIAKQIKISLDEKDEKLAKEQVKKMCEELLVNSV

IEDYELIIEKE

>CCK66636.1 phosphoribosylaminoimidazole-succinocarboxamide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTKKEMLYEGKGKKLFKTDDENLLISEFKDDLTAFNAEKRGNESGKGALNCKISTEIFHLLEKNGIKTHL

VEIISDTEQVVKKCKIVPIEVIVRNVATGSLTKRLGIKDGTVLPFALVEFCLKDDALGDPFINDEHCLIL

NLVQNEAQISEIKNMARKINSILTPFFDNKNLRLIDFKIELGLTKDNELVLADEISPDSCRFWDKFSNEK

LDKDRFRQDLGNVKMAYEEVLKRILN

>CCK66635.1 secreted protease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMELILKTKRFFAGLAGFATTFILCLFLTSHLQAKVDQKEEQVQKRLEALDKLTKTLAIVEQYYVDDQNI

SDLVDKSLSGLLSNLDAHSSFLNEKDFNDMKIQTNGEFGGLGITVGMKDGALTVVSPIEGTPADKAGIKS

GDIILKINDEATLGINLNDAVDKMRGKPKTQITLTIFRKGATKPFDVTLTREIIKIESVYAKMIENENIL

YLRVTNFDKNVVDVASKELKKYPNVKGVILDLRNNPGGLLNQAIGLVNLFVDKGVIVSQKGRIASENQEY

KADPKNKISNASLVVLVNGGSASASEIVSGALQDLKRGVIVGENTFGKGSVQQIIPINKTEALRLTIARY

YLPSGRTIQAVGVKPDIEVFPGKVNTQEDGFSIKESDLKQHLESELEKIDKNKKEDKQENKDNKNLISQK

QINDDAQLKSAIDTIKILNIKQGQ

>CCK66634.1 hypothetical protein BN148\_0510c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MCQEKHTHTHSQKHLKAVCNRLSRTIGHLSAIKRMVENDKDCSEILIQLAAVKAEVNNTAKVVLKEHLAH

CMVHAVEENDIQSIEELNKAIDMFMK

>CCK66633.1 ATP-dependent Clp protease ATP-binding subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MANIQDFLTDNMLSNLESAASLAIHSKNNEVVPLHLLWALSVDSTSILNQILNKLNISKEALELEIKSRI

SKLATSSNVNRENIRFSNELINSLENAKGLMSANGDSYLSVDTWLISESQKSPIKEILAQFLDLREFQKE

LESLRAGRKMDSKTSDETLDSLNKFGIDLTLKASEGKLDPVIGREEEIERLMQILIRKTKNNPILLGEPG

VGKTAIVEALAQRIIKKDVPKSLQNKKVIALDMSALIAGAKYRGEFEDRLKAVVNEVIKSENIILFIDEI

HTIVGAGASEGSMDAANILKPALARGELHTIGATTLKEYRKYFEKDAALQRRFQPVNVGEPSVNEALAML

RGIKEKLEIHHNVTINDSALVAAAKLSKRYIADRFLPDKAIDLIDEAAAELKMQIESEPSSLRKVRKDIE

TLEVENEALKMENDEKNQKRLDEIAKELANLKEKQNALNSQFENEKSVFDGISAKKKEIDLLKNEASLAK

ARGEFQKAAELEYGKIPSLEKEVEILEDKWKKMSENGVLLKNQVDEDLVAGILSKWTGISVQKMLTSEKQ

KFLEVEKHLKESVIGQDKALSALARAIKRNKAGLNADNKPIGSFLFLGPTGVGKTQSAKALAKFLFDDEK

AMIRFDMSEFMEKHSVSRLLGAPPGYIGHEEGGELTEAVRRKPYSVLLFDEVEKAHKDVFNVLLGILDDG

RATDSKGVTVDFKNTIIILTSNIASNAIMNLSGKEQEDAVKNELKNFFKPEFLNRLDDIITFNPLGKDEA

YEIVKLLFKDLQMSLENKGIKASLSENAALLIAKDGFDPDFGARPLRRAIYDLIEDKLSDMILADELHEN

DSIIIDAKDDEIIIKKA

>CCK66632.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKILKYIFSFFTLLFITGFIYVAYLFTSADTEGYTFKEYKPPLTTQIYDRNGKLVANIFEQHRFYAPYEE

LPPRLIEALVAIEDTSFFEHNGVNIDAIFRAAVKIIKSGGKTMEGASTLTQQFIKNTELTPERTIARKIR

EALLAYKMETILTKEQILERYLNFIFFGHGYYGVKTAALGYFHKNLNELSLKEIAMLVGMPKAPSSYDPT

KHLDLSISRANNVISRMYNLGWISKADYDTAIKEIPQVYDDTLTQNAAPYVVDEVIKQLSPNIKDLKTGG

YKIILNIDLDVQNMAQNALKFGYDEIVKRDKDANLSTLNGAMVVVNHQSGDVLALVGGVDYEKSNYNRAT

QSMRQPGSSFKPFVYQVAINLGYSPMSEIADISRIFEGGAGNNEDWKPKNEGGKFLGLITLKEALTRSRN

LATINLALDMGLDVLYSKLMEFGFKDIPPNLSIVLGSFGISPLEYSKFYTMFGNYGTIKDPQIIRQVQDK

TGKTIMEFNSNERKVSDEAQSFLVLDMMRNVVEKGTGRNARVKDIEIAGKTGTTNKSVDAWFCGLTPEIE

AIIWYGNDNNKPMRYTEGGARTAAPVFREFLTQYIEKFPDTTRKFSIPNGVYRGNYKGESAYYTTKSPLP

KANMKFNESEIIF

>CCK66631.1 Maf-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLILASSSISRANLLKTAKIDFRQVSFDYDENLNKNISPFLYVQKIVLEKERQFLSTLGKDFQNQNLLFA

DSIVCIDEKILTKAKDKKEAYEMLALQNGKYASILSAFLLVKPEKRVFSLSKTTLYFKNFDENALRDYVE

NDLYKGKAGCIMCEGFHQNFITQQVGNLSTALGLDIQTLKAYL

>CCK66630.1 alanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDIRKAYLDFFASKGHEITPSSPLVPDDATLLFTNAGMVPFKSIFTGEIPRPNPPRKTSCQTCIRAGGKH

NDLDNVGYTARHHTFFEMLGNFSFGDYFKEQAIAYAWEFVTEVLKLPKDRLYVTVHENDDEAFNLWQKHI

QKERIYKFGDKDNFWQMGDTGPCGPCSEIFYDQGQEHFNSSEDYMGGDGDRFLEIWNLVFMQYERSADGV

LSPLPKPSIDTGMGLERVTAIKEGKFSNFDSSLFMPIINEISKLCNKTYVYESGASFRVIADHIRSSVFL

LAQGVSFDKEGRGYVLRRILRRALRHGYLLGFKQAFMYKLVDVVCDLMGGHYTYLNEKKDFIKEQIRLEE

ERFLSTIENGIEIFNEELKNTKEIFSGEVAFKLYDTYGFPLDLTADMLREKNLKVDEEKFELFMNEQKAR

AKASWKGSGDKTASGDFKNLLEKFGENHFVGYEKAECESKILALLDEDFKEVSTLKDAGWVMLENTPFYA

TSGGQSADSGFIAKREVLDTQKFFNLNLSFIKAGEELKVNDIVHARIDTEKREQIARHHSATHLLHHALR

EILGSHVSQAGSLVESNKLRFDFTHHKALNKEELESIEKRVNKMIINSSEAILENMPLEEAKKSGAIALF

NEKYQGNVRVLTLGESKELCGGTHVKNTAQIGSFYIVKESGVSAGVRRIEAVVSKAALEFVKNQLEELSK

VKDELKNNDILSGIKKLKNEILSLKNELKNSSKTELDSKNIQGVEICVKRIDNGDIKAMIDDFKNKFAKA

VILLIQVKDEKITLAAGVKDVPLKAGALVKEAAQILGGNGGGRDDFATAGGKDLSKINEALKQSLETIEK

AL

>CCK66629.1 DegT family aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFINLQAQYLAYKDEINAEIESVLSSSSFIGGAKLNEFEQNLAHFLGVKHAIGCSSGTSALYLALRVLD

IGKDDEVIVPSFTFIATAEVVALVGAKPVFADINLSNYNLDFKAVQKAITSKTKAVIAVSMFGQMSDLRA

LEEILKDKNITLIEDGAQSFGASFKGEKSCSIAKISCTSFFPSKPLGAYGDGGAIFCHDDEIAKKIRILL

NHGQTQRYKHEFIGINGRLDTLQAAILNVKLKYLEKELDKRQKLAQIYNANLKNCQIPQINPNAFSAYAQ

YSVLVEDRASVLRKFEKANIPYAIHYPTPLHKQPCFSEFSNLELKNSEYASEHILSLPFSPFLSEEEQEQ

VICIFKD

>CCK66628.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIGIIGLGKMGQNHLNELSKNSHFKLNALFDLCKNPNLNIFDDIFYDDLDKFLNQNNDIIIIATPTNSH

LTIAKKVFKQCKCVLIEKPLALNLKEIDEISNLAKEYSIKVGVGFCERFNPAVLALKKELENEEIISINI

QRFSPYPQRISDVGILQDLAVHDLDLLCFLSKQEITKTNLLKKYTQDQTRESESIILCGLEKCIASIHQS

WNSTQKLRKIHLITKNHFYEANLNDFSLLKDGNFIELTQQSPLFSEHEALLKLIDNQPNHLASTSDAYKV

QEILERFA

>CCK66627.1 ferrochelatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLVLFLNMGGATNLQDCEVFLKNMFNDPYILGIKNRFLRKFVAWIITKARVKAMQENYKKMGGKSPLNE

LTQSLCDKLNLKQDEFKFDFVNLYVPPFATEILQKYTLNASDEIILFPLYPHHSCTTVTSSLEVLQNEIS

KQKIQAKVKTIDIFYKNELYNEMIVSHILAKKSKFDAKILIFSAHSLPQSIIDKGDLYEKHVNDHVEILK

EKLKDHFDEFILAYQSKLGPVKWLEPNTSDVLANLNDKALIYPISFCIDCSETIFELGMEYKHLSKYNYD

LISCPNDSDEFMEFILKYLSDLN

>CCK66625.1 tRNA 2-selenouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLSEVEFVEFQKENFSLLIDARSPREFLHSHLIGALNFYALNDEEYQEIGTIYKKNQALAKAMGASYICQ

NTTKHILEITQNFRIGEKVGIYCSRGGLRSKSIAVILSELGFRVVRLKGGFKAYRTFVTHYFENEINFDF

FALCGNTGCGKTELLEQLPQAINLEKMANHLGSSFGDILGKQPTQKAFEAELFHNIQNLENFAFIESESR

KIGDIILPLKFYEKMQKAFKIYCFCSLENRVRRIQKIYQEKMTPLKFQQCVQKISPYISLNLRQDLLQSY

ERKEWQKLIVMLLEYYDKTYKKPDKIDLELNTDDILKAKEELLDHFKVQLLF

>CCK66624.1 histidine triad (HIT) family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQYLYAPWRSEYFEKVKSICPFCDCANKIKSDEELGVIFRAKHCFGVMNRYPYSAGHFMVIPYIHEEHIE

NLSDEIWQEMSYFVRLGVKILKEQIHANGVNIGMNLSKDAGAGIAFHCHYHLVPRWSGDTNFITTIGETR

VCGTNIEQVYQKLVLAFKNAQ

>CCK66623.1 indole-3-glycerol-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MILDKIFEKTKEDLKERKLKLPYDMLGRSLASNPFFPKDVIKALKRVEKEVKIIAEVKKASPSKGVIRED

FDPLSIALNYEKNKAAAISVLTEPHFFKGSLEYLSLIRRYTQIPLLRKDFIFDEYQILEALVYGADFVLL

IAKMLSMKELKKLLEFARHLGLEALVEIHDKEDLSKAIFAGADIIGINHRNLEDFTMDMSLCEKLIPQIP

NSKIIIAESGLENKEFLEHLQNLGVDAFLIGEYFMREKDEGKALKALL

>CCK66622.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYRYLLFVLAAFFLAACGSSKINVVYPDYTKYKSNDFDLRVMKAYNYEYYKQYKEARDEFLSLYQDYNNT

NFLENAFLLTLANNLDKQAELDNLAKPYLNQNDNLKRLSALYALNSNDINNAQKLMKELLTKKDSDPRNL

ELYGDILVKKNDLKNATKYYRSAYNQVQNEEILFKLIGIYAILNDTLNIKNVLEFSRKTNGCTLKTCVLL

AKIYFDEKNIEALKSIYKELYQLTKNKSFVLALVELLNSQGKTEEALKISLQYDLDDDIKLALYQNLKRF

DDAKKMSLALYHKTKNKEYLLRAAVFEFEAANEAKKITPKVIDSVKEKFEQAIDKDSNALYLNYYGYLLI

DYDLDVKKGIELVKLALEKDPQNLYYLDSLAWGYYKLGDCKQAWEILKQTLDDKEFANSDESKAHIKAIK

ACIKP

>CCK66621.1 hypothetical protein BN148\_0496 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIFDKNFSYAFDENACEKCGGKCCTGESGNIFASKEELEVLRKHLNLESKEFAEKYLRKVGFKMSFKEVE

CEDGFACIFFDTQKRNCSIYDFRPKQCRTFPFWEYFKTHQKELEKECIGICYLS

>CCK66620.1 methyltransferase domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSDLITLAQLSQGYRYNSDSLILADFILKQGIKGAVFDVGAGCGIIGILLKKNIANLSLSLIDIQKENIE

LIEKNLKSNKIQGDIFHDDFNQFQIIKKFDFIVCNPPFYRQGAYKSEDQHKAISKFQEFLPLHSFLAKTN

SMLKPNGTLYFCYEALALDEICFILKDMKMKITKLCFVHTHQSKKARLVLIQVKKGSKSPCEILPPFFVY

ENEILSKQMQEIHLRFRLKSYDI

>CCK66619.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKIAFFITFVISFLAAQSPVNFKEDNNITKERNIFKEQLPKRIKIPTH

>CCK66618.1 elongation factor G [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSRSTPLKKVRNIGIAAHIDAGKTTTSERILFFTGMSHKIGEVHDGAATMDWMEQEKERGITITSAATTC

FWKDHQINLIDTPGHVDFTIEVERSMRVLDGAVAVFCSVGGVQPQSETVWRQANKYGVPRIVFVNKMDRI

GANFYNVEDQIRNRLKANPVPLQIPIGAEDNFKGVIDLVTMKALVWEDDTKPTDYVEKEIPAELKEKAEE

YRTKMIEAVSETSDELMEKYLGGEELSLEEIKTGIKAGCLSLSIVPMLCGTAFKNKGVQPLLDAVVAYLP

APDEVANIKGEYEDGTEVSVKSTDDGEFAGLAFKIMTDPFVGQLTFVRVYRGCLESGSYAYNSTKDKKER

IGRLLKMHSNKREEIKVLYAGEIGAVVGLKDTLTGDTLASEKDKVILERMDFPDPVISVAVEPKTKADQE

KMSIALNKLAQEDPSFRVSTDEESGQTIISGMGELHLEIIVDRMLREFKVEAEVGQPQVAYRETIRKTVE

QEYKYAKQSGGRGQYGHVFLRLEPLEPGSGYEFVNDIKGGVIPKEYIPAVDKGVQEALQNGVLAGYPVED

VKVTVYDGSYHEVDSSEMAFKLAASMGFKEGARKAGAVILEPMMKVEVETPEDYMGDVIGDLNKRRGQVN

SMDERGGNKIITAFCPLAEMFGYSTDLRSQTQGRATYSMEFDHYDEVPKNVADEIIKKRNG

>CCK66617.1 30S ribosomal protein S7 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRRRKAPVREVLPDPIYGNKVITKFINSLMYDGKKSTATTIMYGALEAIDKKGGEKKGIDIFNDAIENIK

PLLEVKSRRVGGATYQVPVEVRPARQQALAIRWIISFARKRSERTMIDKLAAELLDAANSKGASFKKKED

TYKMAEANKAFAHYRW

>CCK66616.1 30S ribosomal protein S12 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPTINQLVRKERKKVLEKSKSPALKNCPQRRGVCTRVYTTTPKKPNSALRKVAKVRLTSGFEVISYIGGE

GHNLQEHSIVLVRGGRVKDLPGVKYHIVRGALDTAGVAKRTVSRSKYGAKRPKAGAAK

>CCK66615.1 aldehyde dehydrogenase C-terminus [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQEQGKTRVLASIEINFTADYMDYTAEWARRYEGEIIQSDRANEHIYLYKSAIGVIGGILPWNFPFFLIA

RKMAPALLTGNTIVIKPSSETPNNAFEFAKLVSQSSLPKGVFNLVAGKGSVVGYELSSNENIGMVSLTGS

VEAGTRVMEAAAKNIIKVSLELGGKAPAIVCKDADIDLAVEAIKASRICNNGQVCNCAERAYVHTSVYDE

FVDKFVKAMSKVSVGNTLKGDFDMGPLVNQAGVDNALAMLQRATAKGAIVECGGKITDTSGYYFPASVLT

NVKHEDEIMQKEIFAPILPIAKFDTLDEVIDMANDCEYGLTSSIYTQNLDIAMRASREIKFGETYINREN

FEAMQGFHAGFRKSGIGGADGKHGLEEYLATHVVYLQYNTNKQ

>CCK66614.1 aldehyde dehydrogenase N-terminus [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTTYLNYIDGKFIPHNGEFIEVLNPATKEVISRVASASLEDTKRAIEAAKKAQKVWEAKPAIERANHLKE

IAS

>CCK66613.1 hypothetical protein BN148\_0488 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQRYGQIIKIKKEKIEEYKELHTKPYEGVCEMIKECNIQNYSIYLFGEYLFAYFEYIGADFEADMAKMAR

DESTQKWWKVTDPCQISLGYAGQKWLNMEEVFHLD

>CCK66612.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKIFDAHLHLWDLEKIPISWIKDDEKLEQNYDFFRMKQEYKEFEFIGAMYVEVNSDDLEKEALFALEQK

KLHNLLFCLADFKHKEELSSFREVMHTSKKGAKRLFEADFEEKIEILKTFNIPFEACIKNEELGFLEKFL

SKNPNLKVVLNHLGSPKINRLNEYKKDLSFLKKFQNLYIKLSIPDGFSQETPKEFIFELFAFLKENFSEN

KFIFGSNYPVAKITPAKWAKLIIESKIFDDLDKIFYKNALLIYKGG

>CCK66611.1 sugar transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTDSKNIKIAIVLVTSLFFLWGVSYGLIDVMNKNFQNHLHISQHESGFLQFAYFGAYFIIALPAGYIANR

FSYKMGIIFGLALYAIGALLIIPATNLASFHLFLFAFFILACGIGSLETSANPYMTKLGDEKNASFRINA

AQSFNGLGQFVGPIIGGALFLSITKQEEGASKEQIQAALVANMGNVQLVYIGIAVIVILILIAFVANKLP

EGSAVSDDYKQKDDSKPIYVFKHRHFNLGLLAQFLYIANQVAAGAFFINYVVEHNEGLKDAQGAYYFSIA

LVAFMLGRIVSTPLMKIIKGEKILGFYSLINVLICFSLYFASGFFSIVLLIALFFFMSISFPTIFAVATK

NLPLNQVKLGGSLLVMSIVGGAIMPIIIGFINDHYGTGAGYLAMAPLFLYVAWYGFIGSKVRKNAKDF

>CCK66610.1 short chain dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDLKIKNKVCIITGGAKGIGYGIAKLWASEGGIPVIFSRSMPKEHDKELKKLSSEYEFYEIDLKNYEQIE

KLVKKVAIKHGGIYALVNNAGTNDNLHIENTSTQDLIKSYENNLFHYYTMTKECLPYIKKEQGSILNIVS

KTGITGQGRTSAYASAKAAQMGFTREWACAFAKDNVRVNAIAPAEVMTPLYEKWLQNFPNPKEQYEKIAK

AIPLGHRFTTIEEIANTAVFTLSPLASHTTGQILMPDGGYVHLDRALNWDEN

>CCK66609.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKHANSIKLELVCKKISWRILPLIVLMFCLSMLDRTNISFVKSHIEIDAGIGEAAYALGAGIFFIGYAIF

EVPSNLFLHKLGAKIWLSRIMITWGLVTMAMIFIQGEISFYVLRFLLGLTEAGFSPGIILYLSYFFPAIY

RSKAYGIYQMGVPIAFVFGSLISGFILDYTPNIYFKNWQWMFLIEGGITVLVGIFCLFYLDSHPKDAKWL

DIKEKDILLKHIEISNTKAKDYSIKDIFKSILVWKFVFVYFCIQLSVYGVLFYLPSKIAQILQINVGFEV

GLLNAIPWIFVFIALPIFTSLADKKHSWNLHAILFLLLASLSMIASTFVTNLAAFLFFISLAAIGFIVIQ

PIFWNLPTQVLKGKGAAAAIALIGSLGNLGGFVAPTLKTYIENHFGVEFGLIVLALIAIL

>CCK66608.1 altronate hydrolase C-terminus [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKMKKIMGYRREDGKFGLRNKVIIIPSVHCANKVCENIARKCNGAVYINHQHGCSQLEFDALQTRDVLIG

HGSNANVFGVLIIGLGCEVIQAKAVAEKIKEAMPYKKVEYLVIQECGGSKNTIENGIKIVNEMLESAAKL

QKSEGDFSDLILGTECGGSDSYSGLSANPTLGSLSDFVIDEGGAVILAETTELIGCEAILAKRAKNDEIA

KKVYDKILAYENLVKSFHADIRGANPSPGNMAGGLSTIEEKSLGCVYKAGTRTLMDVIDYAKPVVSKGLT

FMNTPGNDIEQLSAMVAGGANICVFTTGRGTPTGSAIVPTIKMSSNTFCYENMNDAIDINAGSIIDGVKT

KEEVRDELIELIVRISDGELVKAELNEQNDFSAWRLATTC

>CCK66607.1 altronate hydrolase N-terminus [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKGYIIVNEKDNVATALRDFKKGEKVANIELLNDIASGHKFALKDIKKDEIIIKYAEAIASASCDISTGE

WVHIHNTAGIRGRGDKE

>CCK66606.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGILKGTLPALLTPYKDDGSINEKEFIRYCEFGISKGLNGLFCNGSAGDSQALSVEEQVKLMKLTKKATK

NNIPIITGITSTIYENTFILAQKAYELGLDALLLAMPYYYKLSEDALFEYVKYLASEVKLPLYVYNIPLF

APALSLKFIEKVSKLDNVVGIKDSSGDALLLNHILDVVPSNFDVFVGREEFYVGALLAGVKGSMTSIGGV

FPELMSEIYKSINEKNIGRALLIQKSLLKAIRFGMSIAFPMGFALLLKARGFEFVNASIHPLSPATKEEL

NTRFDEAKELIKTIEKETGIKL

>CCK66605.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MHQPTLRVLNILELLAKEKLTLSAIAKKLNIPAGTLWPILQTLQEKKYIKCDLKNKSYYLDFKIIELGCN

IKNENNIFEIIKKHMKNIRNLTNQTCQMGILKDGNVLYLEKIDANNTVQLKSFIGTSYPAYATSLGKALL

SNKNKKELEKLYPKNFDKITENTLNNINELYQQIKQIKKEKIAIEIGEMNPQIECMAIGIEHKNKIIAAI

SISYLIYCSNKAFREKNKKILLEEKNKIEKVLKIYFNDLDTLY

>CCK66604.1 DNA-directed RNA polymerase subunit beta' [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKFKVIEIKEDARPRDFEAFQLRLASPEKIKSWSYGEVKKPETINYRTLKPERDGLFCAKIFGPIRDYE

CLCGKYKKMRFKGVKCEKCGVEVANSKVRRSRMGHIELVTPVAHIWYVNSLPSRIGTLLGVKMKDLERVL

YYEAYIVENPGDAFYDNESTKKVEYCDVLNEEQYQNLMQRYENSGFKARMGGEVVRDLLANLDLVALLNQ

LKEEMGATNSEAKKKTIIKRLKVVENFLNSNLNANTDSDEAVPNRPEWMMITNLPVLPPDLRPLVALDGG

KFAVSDVNDLYRRVINRNTRLKKLMELDAPEIIIRNEKRMLQEAVDALFDNGRRANAVKGANKRPLKSLS

EIIKGKQGRFRQNLLGKRVDFSGRSVIVVGPKLRMDQCGLPKKMALELFKPHLLAKLEEKGYATTVKQAK

KMIENKTNEVWECLEEVVKGHPVMLNRAPTLHKLSIQAFHPVLVEGKAIQLHPLVCAAFNADFDGDQMAV

HVPLSQEAIAECKVLMLSSMNILLPASGKSVTVPSQDMVLGIYYLSLEKAGAKGSHKICTGIDEVMMALE

SKCLDIHASIQTMVDGRKITTTAGRLIVKSILPDFVPENSWNKVLKKKDIAALVDYVYKQGGLEITASFL

DRLKNLGFEYATKAGISISIADIIVPNDKQKAIDEAKKQVREIQNSYNLGLITSGERYNKIIDIWKSTNN

VLSKEMMKLVEKDKEGFNSIYMMADSGARGSAAQISQLAAMRGLMTKPDGSIIETPIISNFREGLNVLEY

FISTHGARKGLADTALKTANAGYLTRKLIDVAQNVKITIEDCGTHEGVEINEITADSSIIETLEERILGR

VLAEDVIDPITNSVLFAEGTLMDEEKAKILGESGIKSVNIRTPITCKAKKGICAKCYGINLGEGKLVKPG

EAVGIISAQSIGEPGTQLTLRTFHSGGTASTDLQDRQVSAQKEGFIRFYNLKTYKNKEGKNIVANRRNAA

VLLVEPKIKTPFKGVINIENIHEDVIVSIKDKKQEVKYILRKYDLAKPNELAGVSGSIDGKLYLPYQSGM

QVEENESIVEVIKEGWNVPNRIPFASEILVEDGEPVVQNIKAGEKGTLKFYILKGDGLDRVKNVKKGDIV

KEKGFFVVIADENDREAKRHYIPRESKIEFNDSEKIDDANTIIASAPKKERKVIAEWDAYNNTIIAEIDG

VVSFEDIEAGYSADEQIDEATGKRSLVINEYLPSGVRPTLVIAGKGDKAVRYHLEPKTVIFVHDGDKIAQ

ADILAKTPKAAAKSKDITGGLPRVSELFEARKPKNAAVIAEIDGVVRFDKPLRSKERIIIQAEDGTSAEY

LIDKSKHIQVRDGEFIHAGEKLTDGVVSSHDVLKILGEKALHYYLISEIQQVYRGQGVVISDKHIEVIVS

QMLRQVKVVDSGHTKFIEGDLVSRRKFREENERIIRMGGEPAIAEPVLLGVTRAAIGSDSVISAASFQET

TKVLTEASIAGKFDYLEDLKENVILGRMIPVGTGLYGEQNLKLKEQE

>CCK66603.1 DNA-directed RNA polymerase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MCDMLDNKLGNRLRVDFSNISKQIEIPNLLQLQKKSFDYFLNLDNGESGIEKVFKSIFPIHDPQNRLSLE

YVSSEIGKPKYTIRECMERGLTYSVNLKMKIRLTLHEKDEKTGEKVGVKDIKEQEIYIREIPLMTDRVSF

IINGVERVVVNQLHRSPGVIFKEEESSTVANKLVYTAQIIPDRGSWLYFEYDAKDVLYVRINKRRKVPVT

MLFRALGYKKQDIIKLFYPIQTIHVKKDKFLTEFNPNDFMDRIEYDIKDEKGKIVHQAGKRLTKKKAEQL

IKDGLKWIEYPVEILLNRYLANPIIDKESGEVLFDSLTLLDESKLAKIKEQKSFDIANDLANGVDAAIIN

SFAQDGETLKLLKQSENIDDENDLAAIRIYKVMRPGEPVVKDAAKAFVNDLFFNPERYDLTKVGRMKMNH

KLGLEVPEYVTVLTNEDIIKTAKYLIKVKNGKGHIDDRDHLGNRRIRSIGELLANELHLGLAKMQKAIRD

KFTSLNADLDKVMPYDLINPKMITTTIIEFFTGGQLSQFMDQTNPLSEVTHKRRLSALGEGGLVKERAGF

EVRDVHATHYGRICPVETPEGQNIGLINTLSTYAKVNELGFVEAPYRKVVNGKVTNEVVYLTATQEEGLF

IAPASTKVDAKGNIVEEFVEARQDGETILARREEVQLIDLCSGMVVGVAASLIPFLEHDDANRALMGSNM

QRQAVPLLTASAPIVGTGMEQIIARDAWEAVKAKRGGVVEKVDNKSIFILGEDDKGPFIDHYTMEKNLRT

NQNTNYIQHPIVKKGDIVKAGQIIADGPSMDQGELAIGKNALIAFMPWNGYNYEDAIVVSERIIREDTFT

SVHIYEKEIEARELKDGIEEITKDIPNVKEEDVAHLDESGIAKIGTHIKPGMILVGKVSPKGEVKPTPEE

RLLRAIFGEKAGHVVNKSLYATASLEGVVVDVKIFTKKGYEKDDRAIKSYDKEKMALEKEHHDRLLMMDR

EEMLRVCALLSKASLNSDQKIGDKNYKKGQTADISELEKINRFTLTTLIKAYSKEIQKEYDDLKNHFQNE

KKKLKAEHDEKLEILEKDDILPSGVIKLVKVYIATKRKLKVGDKMAGRHGNKGIVSTIVPEVDMPYLPNG

KSVDIALNPLGVPSRMNIGQILESHLGLVGLRLGDQIQEIFDRKQKDFLKELRAKILEICSIPRLANEKE

FIKSLSDEELLNYARDWSKGVKFSTPVFEGVNIEEFSKLFKMAKIDMDGKTELYDGRTGEKIAERVHVGC

MYMLKLHHLVDEKVHARSTGPYSLVTQQPVGGKALFGGQRFGEMEVWALEAYGAAHTLREMLTIKSDDVE

GRFSAYKALTKGENVPATGIPETFFVLTNELKSLALDVEIFDKDEDNE

>CCK66602.1 50S ribosomal protein L7/L12 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAISKEDVLEYISNLSVLELSELVKEFEEKFGVSAAPVMVAGGAVAGGAVAAAEEKTEFDIVLTDGGAKK

IEVIKIVRALTGLGLKEAKDAVEQTPSTLKEGVAKAEAEEAKKQLEEAGAKVELK

>CCK66601.1 50S ribosomal protein L10 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTRSEKVEIIAKLEEGFKASEAIVVCNYRGLSTKKLEELRNNARENNVKVQIVKNTLANIALNNSGKTGL

VLKDTNIYLWGEDQLSVSKVAAKFEENNDKFEIKTAHIEGEVADVAKVKALAKMPSRNELLAMLLQVWNA

PITNFTIGLNALKNKKESE

>CCK66600.1 50S ribosomal protein L1 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKIAKRLKELSQKIDSNKEYALSDAIDTIKTLKSAKFDETVEIALKLNVDPRHADQMVRGSVVLPAGTG

KKVRVAVIAKDAKADEAKNAGADIVGSDDLVEEIQKGNMNFDVLIATPNLMGLVGKVGRILGPKGLMPNP

KTGTVTMDVAQAVNNAKSGQVNFRVDKQGNIHAGLGKVSFSKEQLWDNVSTFVKAINKHKPAAAKGRYIK

NAALSLTMSPSVKLETQELLDMK

>CCK66599.1 50S ribosomal protein L11 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKKVVGEIKLQIAATKANPSPPVGPALGQQGVNIMEFCKAFNERTKDMAGFNIPVVITVYADKSFTFIT

KQPPATDLIKKAAGISKGTDNPLKNKVGKLTRAQVLEIVDKKIADLNTKDRDQAAKIIAGSARSMGVEIV

D

>CCK66598.1 transcription antitermination protein NusG [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSTHKWYAIQTYAGSEMAVKRAIENLVKDNGIEEQLKEIVVPTEDVIEFKNGKEKISERSLYSGYVFALL

DLNTELWHRIQSLPKVGRFIGESKKPTPLTEKDINLILEKVHNRAAPKPKISFEEGENVRITEGPFANFT

AIVEEYDMVRGLLKLNVSIFGRSTPVEILYSQVEKII

>CCK66597.1 preprotein translocase subunit SecE [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKLITYFKLSKAELRKVIFPLKEQVRNAYITVFVVVAVISLFLALVDWLMSSIVSAIV

>CCK66596.1 50S ribosomal protein L33 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRIKVGLKCEECGDINYSTYKNSKNTTEKLELKKYCPRLKKHTLHKEVKLKS

>CCK66595.1 elongation factor Tu [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKEKFSRNKPHVNIGTIGHVDHGKTTLTAAISAVLSRRGLAELKDYDNIDNAPEEKERGITIATSHIEY

ETDNRHYAHVDCPGHADYVKNMITGAAQMDGAILVVSAADGPMPQTREHILLSRQVGVPYIVVFMNKADM

VDDAELLELVEMEIRELLSSYDFPGDDTPIISGSALKALEEAKAGQDGEWSAKIMDLMAAVDSYIPTPTR

DTEKDFLMPIEDVFSISGRGTVVTGRIEKGVVKVGDTIEIVGIKDTQTTTVTGVEMFRKEMDQGEAGDNV

GVLLRGTKKEEVIRGMVLAKPKSITPHTDFEAEVYILNKDEGGRHTPFFNNYRPQFYVRTTDVTGSIKLA

DGVEMVMPGENVRITVSLIAPVALEEGTRFAIREGGKTVGSGVVSKIIK

>CCK66594.1 amino-acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSILKIENLQKYYGSHHALKDINLEVKAKEVVVILGPSGCGKSTLLRCINGLEEIASGNIYIDNEKIDKD

FKEWPRMRQKVGMVFQSYELFEHLSVEENILLGPMKVQKRKKDEVLKEAKIWLEKVGLLHKIHAYPRELS

GGQKQRIAIVRSLCMNPELMLFDEVTAALDPEIVREVLEVMLNLAKEGMTMLIVTHEMGFAKAVADKIIF

MDEGKIIEENDPKSFFKNPKSERAKKFLNLFDYHNIDKNNIGL

>CCK66593.1 amino-acid ABC transporter integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLELLNTDTLLRLWQGLFVTLEISFISIIITSIGGLFLGILMSFKNTYIYAFCRLGLEFVRVMPLLVWLF

VVYFGFPRWFGWDLSSVSAAIIVFSIWGCFEMMDLVRVSLQSIPKHQYESASSLGLNTVQSFAYVIIPQA

MRRLTPMSMNLLTRMIKSTTFAYLIGAVELVKVGQQIIEFHNRNDFAPFIIYGLIFFIFFILCYPITLYS

RKLEKKWS

>CCK66592.1 amino-acid ABC transporter integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDFDFILAQAPAFLTAAWLTIKLSFFGIIFSLIIGLFCILMSYFKIKILENICKLYIEFSRNTPLLIQLF

FLYYALPKFNIHLEQIPPLDLICLSVEETLRPSFACAIVGLSFLGGSYMAESLRAGFEAIRKQQFEAGLS

LGFSKFGNLRYVILPQALAISMPSISANIIFLIKETSVVSIIALPDLVNLMKSLNSLTYKTDELLFLLFM

GYLCIILPLSFILLKFEKRLLHA

>CCK66591.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKDYLELLSSVGKLKKFQKNSILFYEGEEAKNFFILLKGKIRIYKSTASDKEITLHYFNPPNFIAEMPAF

KKLNYPANAVFEEDGEILEIDFINFQNLCSENKEFNFLLISSLFDKIKILEKKLSQNALDLRTRLLKYLL

ENEKNLDTISQKQIAIDLNVRAQSLSRVLKELKISELIDTKKGRIEILNKDMIMKELW

>CCK66590.1 group III truncated haemoglobin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFETINQESIAKLMEIFYEKVRKDKDLGPIFNNAIGTSDEEWKEHKAKIGNFWAGMLLGEGDYNGQPLK

KHLDLPPFPQEFFEIWLKLFEESLNIVYNEEMKNVILQRAQMIASHFQNMLYKYGGH

>CCK66589.1 ATP-dependent DNA helicase RecG [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIKESDFEFFKKLKIRSAIDLALLLPKKIENLNPSKNPKENEICTQKITIKSVSSRKNQLFGLGFCEEW

QENISFVFFHPRAWHFGICKVGKELIFNAKLSHFNHTWQFNNPKILTSFEGFSPKYQILGLKDTKIAAFI

HKYLNYENLKESGIEDKYIHFLLNLHAYDEKSFFMFENLQNFSKDLKYIEIYNFLKRLKAKKTHFKAHQI

NVFNIANWLKDLPFSLTKDQLNALKDIEKDLHSKEAKRRVIMGDVGCGKTLVLLGAALMVYPKQAILMAP

TSILAYQLYEEAKKFLPDFMNILFIKGGKKEKDLEQNIQKANLVIGTHALIHLESHNAVLVMIDEQHRFG

SAQREKIHSLNKQEFAPHFIQFSATPIPRTLSMIQSELLNFSFIKQMPFKKDITTYCIQNEGFSKLSEKI

KEEIAKNHQIIIIYPLLSASDKIPYLSLEQAKEYWQSHYEKVFVTHGKDKQKDEILERFRDEGNILLSTT

VVEVGISLPRLSMIVIVGAERLGLATLHQLRGRVGRVGLKSACYLYTKLKEIPSRLKEFASTLDGFKIAE

LDLKNRLSGDLLDGFMQHGNEFKFFDFSKDEEILEKVKKDLAKKLPN

>CCK66588.1 zinc protease-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQYLESRGIKIPFIFEKNSDFPIVVLKLVFRNCARSYDEIAGLAKMFSRILNEGVDDKFFKDLEFRAINL

EASSGFESLEINLSCLKENFDFALKSLEKLLLKPRIEEKTLQKLKINALGELASKNSDFDYLAKNLLNAQ

IFKCKEFQSPNDGDEKSIETLSLKDLQNFYKNFIHLSDLVVILGGDLEEKQAKEDLLKLLSKLQIGKKNT

PKKYELGKNIKDEILVRPESEQAYIYFATPFFADFKDKDLYLAKIALFVLGQGGFGSRIMEEIRVKRGLA

YSAYAMLDMNMSFSRVFGYLQTKNESAKEAKKIVKELFEDFIKNGMTQNELDQAKNFLIGSTPLRYESLS

KRLSMSFNEFYQGLNLGYYKEELKLMEKVKLETINAYIKKHQELLNISFASIQNEN

>CCK66587.1 hypothetical protein BN148\_0462 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKRLDKKEALDLLHHASLTELGEMAYKRKLELHPEKITTFVVDRNINYTNVCCIDCSFCAFYRHHKEDDA

YILSFEEIGKKIEELEAIGGTQILFQGGVHPKLKIEWYEELVSWIKEHYPNITVHGFSAVEIAYIAKASK

ISITEVLKRLQAKGLFSIPGAGAEVLSDRVRDIIAPNKCDTATWLEVHRQAHKIGMKSTATMMFGTVEND

EEIIDHFEHLRKLQDETGGFRAFILWSFQSDNTALIQKHPEIMKQSSNKYLRLLALVRLYLDNFKNLQSS

WVTQGSLIGQLALKFGANDLGSTMMEENVVSAAGASYRMNQDEMIRLIRSLGENPAKRNTAYEILERF

>CCK66586.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNYIELLKNNKNIRILASVQFIVYFGAWFSQTGVFTLLVELNAPTWATATSAMLAFLPGVLLAPINGVIV

EKNKPKKLLLSMISIELISIFCLIFVTSLSMLWLLFILIFIRLCVASIYFQAEMSLLAKILTPQELKLAN

EMHSVIWAISYTAGMASAGIFIYFLGVKTAFLFDCILILIGISFLVRLSIPDFHQKTQSRFFTMIKEGFF

YVLNNKIIFHLILLHAFIGLTAYETLVTLLAQHQYKEVLSAALVIGFLNAVRACSLAIGPMVLSKFINDK

NLFYMYLGQGLGIILWALTQFNFYISFLGLIGAGFFTSALWAYTYTMIQKNADKEYHGRVIAYTDMIYLS

FSAIISMLMGFLFEIGLSLELITGLLGMIFIFAAFYWKWFYKKYL

>CCK66585.1 transcription elongation factor NusA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKIADIIESIANEKNLNLENVREKVATALINTAKRIYGQEYEFFVDPKNLNLYQKITIVADNDERLQNK

SESFIALSKAKSEAPDVEIGDELTYECSLENLGRTAVNTLHKELEYHIQKLLEQTIFEKYKNKVGQMVFG

TVVRVDNEENTFIEIDELRAFLPRKNRIKGEKFKIGDVVKAVIRRVYTDKGIKIELSRTSPKFLECLLEA

EVPEIKDGYVNIIGCARIPGERAKIILQANGTNIDPVGATVGVKGVRINAVSKELHNENIDCIEFTNESE

ILISRALAPAIVNSVKIEDKKAIVSLNSEQKSKAIGKNGINIRLASMLSGYEIELNELSSSQLNNAISNE

EAMKNLQDLFKI

>CCK66584.1 hypothetical protein BN148\_0459c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKILKDLAMELKLARTLINEKPKNISLEKIEEAIEKEGQKFFYFDKDNTHKQLIALVNHFEKKGVSIYHR

TVKYGLDDNDFMYEVHIL

>CCK66583.1 (dimethylallyl)adenosine tRNA methylthiotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSAKKLFIQTLGCAMNVRDSEHMIAELTQKENYALTEDIKEADLILINTCSVREKPVHKLFSEVGGFEKV

KKEGAKIGVCGCTASHLGNEIFKRAPYVDFVLGARNISKITQAIKTPKFMGVDIDYDESEFAFADFRNSI

YKSYINISIGCDKHCTYCIVPHTRGDEISIPFNIIYKEAQKAIEKGAKEIFLLGQNVNNYGKRFRNEHKK

MDFSDLLEELSTIEGLERIRFTSPHPLHMDDKFLEVFANNPKVCKSMHMPLQSGSSEILKAMKRGYTKEW

YLNRALKLRELCPNVSISTDIIVAFPGESEKDFEETVDVLEKVRFEQIFSFKYSKRPLTKAATMPNQIDE

EIASRRLSTLQNRHSEILDKIVKKQENKTFKVLFEELRAGNSIAGRTDNNFLVQVEGSEELLGQFKEVKI

TNAKRMVLYGEIV

>CCK66582.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGKSFKIHCLTYIIFILQWLIFLSCKKHYKGEKVDRKAGVILFWHGKLALMPFAFRHYRQKNKKAYVMIS

HHKDGEQIAKIIKLFGLDTVRGSTSRGASSALRAAFKVLEQNDDIVITPDGPRGPYHSISDGSIILAQKK

ELKIRILNYEANRFWKFKSWDKMILPKPFSKITYSLSEPLDILSLDKEKAKEFLMKQFDKISLADQFKE

>CCK66581.1 hypothetical protein BN148\_0456c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLFLLKKIFPQLFISIILEDKKNIVKASIYRGNKLISSNEKTFDKSENLLEYIKNLSKHFLFYHTALFLD

AKEQGLIPSTNIQDCEHFNIGKISLQHILLNNALVYTATEHVEYYSELFEEYRGLDFLYSPFALLYYNMQ

KEKQPDDQILLYGFKQGYLLAIIVAKGNTILYGDFKIFEQELGLELELPSEDNQEIENNNDDTEVTLDNF

NEALNNKFDLLDQENNLETLDNNDNFNLDELNQFSNDMELCRYIITSIEKFYNDDKYAGVFINGILLYSE

SDININAIDFLESETFLEIKTKQINTLDLMIELMRKEVK

>CCK66580.1 hypothetical protein BN148\_0455c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTYSFIQPRKKPIFTLFDKIWLGLFGFSILFILLVYFTYTIKIALINSSIDDEKQQVIVLQNQTKQNEML

YEILFDQSQIAKNFNTQNQIVKESLRNLFDIIVKTDNITLESVEQDEYSLKLIGVTPTREMFTLLLETPL

KSIFDQSYTTYYRLDNGWYRFVSISKQIPGVADER

>CCK66579.1 hypothetical protein BN148\_0454c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKDKSLEEIDLLKLIICALSFISVCTALILFLLLPTLKNYKQANLRENSQLAILKAAKSKFDFSEDKIST

LRSENNKSLEQFEQNFNIGNFNIFLQKYFQNVKIQETKPEKQEKYLKNRLAIKATMNNPRRLYDFIDALK

NYNNLIKLDYPLNLKAGEQGISIDLTLKVYSS

>CCK66578.1 thiamine biosynthesis protein ThiC [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTQMNYAKEGIFTKEMQIVAQKENLSKDFLLENIACGKIIIPANINHKSLDPNGIGFGLRTKVNVNLGV

SNDCVDYSEEMKKVELAHKFGIEAIMDLSNYGKTSRFRDELVNVSKAMIGTVPVYDAVGFLEKDLKQINA

KDFLDVVYHHAKSGVDFMTIHAGINSRAAHIFKQSKRLTNIVSRGGSVLYAWMMMKDAENPFFEYYDDLL

DICLKYDVTLSLGDALRPGSTHDASDGAQISELIELSLLTQRAWDVGIQVMIEGPGHMAINEIEANMQLE

KRLCKGAPFYVLGPLVTDIGAGYDHISGAIGGAVAAASGADMLCYVTPAEHLRLPNLEDVREGIVATKIA

AHAGDIAKLPKERARDDEMSKARQEIDWEKMFKLAIDGEKAKKMFNERRPDDLNSCSMCGKMCAMNTMNQ

ILKGEDVSLA

>CCK66577.1 DNA polymerase III subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSLQQIDQIISILNKQSKPYDWVMQEFAKVEELKNFDLDLETFELLGLGLTLNKDNIFTLKTRTTKIKDE

IFCIVDIESTGGVSKGEILEIGAVKIQNSKEIGRFQSFVKVKEIPKNITELTGITYEMVENASSLAKVLS

DFRLFLKDSIFVAHNVRFDYSFISKALNECGFGILLNRRICTIEFAQCCIESPKYKLEVLKEFLGVENMH

HRALDDALAAAEIFKYCLGKLPYHIKTTEELINFTKTARIKQK

>CCK66576.1 ribulose-phosphate 3-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYVAPSLLSANFLKLEEEVKAIEAAGADLLHIDVMDGHFVPNLTFGPCVIEKISTISKLPLDVHLMVKDV

SKFVDLFISLKPKFISFHMESEVHPIRLCEYIRSQGIHPAIVLNPHTPIDSIKHMLEFVDMVLLMSVNPG

FGGQKFLPLIHEKIKELRQMIDKKNAKVFIEVDGGVNGLNASDLEESGADILVAGSYIFSSNDYKTAISS

LKLEF

>CCK66575.1 50S ribosomal protein L28 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MARVCQITGKGPMVGNNVSHANNKTKRRFLPNLRTVRVTLEDGTTRKMRIAASTLRTLKKQNSK

>CCK66574.1 hypothetical protein BN148\_0449c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLHEYRELMSELKGKDAHFDKLFDRHNELDDMIKDAEEGRTSLSSMEISTLKKEKLHVKDELSQYLANYK

K

>CCK66573.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFGSKINHSDLQKLEEENKNLTHKIEKFQSENLELKNKITSLEQAALESKLKTDLLNVLLTGVLKNITII

QGDMLENVNKAEVISSYSKTSLAEMDELNHIANSINASLGNITESANKTRDVAGTLHRSVDEITNVINLI

KDVSDQTNLLALNAAIEAARAGEHGRGFAVVADEVRKLAEKTQKATTEVEMNINLLKQNANEMYTQSEQV

EKISIDSNAHIMSFSEKFTHLVNEAHSTNSNAVGIASEAFVSLAKLDHIAFKLNGYKEIFSKSGKQLADH

TSCRLGKWLASTGKERFGQNKSFLKINEPHEKVHENMNNAITIANTEDISKDITQHSIINKCEVAENASL

DLFNVFKEMLDESDH

>CCK66572.1 NUDIX hydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAFKNLKELSFEKSNYIKPKRFAYESNGRLCTWDFIESKDSVSVLLYHKELESFIFVRQFRIPLWYHQMH

DKDYVKDDDMGYTIELCSGLVDKKLSLEEIAKEECIEELGYAPKNLEKIGDFYTGFGSGVSKQSFYFVEV

DEKDKISSGGGVDDEEIEAVYVKVQDFEKKCKNMIRTPLLDFAYMWFLKEKWGKLKII

>CCK66570.1 acetyl-CoA carboxylase carboxyltransferase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MASYLDFEKNIQQIDEDIINAQIKGDTEAVSILKKNLEKEISKTYKNLSDFQRLQLARHPDRPYALDYIE

LILNDAHEIHGDRAFRDDPAIVCFMGYLGEKKIIVIGEQKGRGTKDKIARNFGMPHPEGYRKALRVAGLA

EKFQIPILFLIDTPGAYPGIGAEERGQSEAIARNLYELSDLKIPTIAIVIGEGGSGGALAIGVADKLAMM

KNSVFSVISPEGCAAILWNDPAKSEAATKAMKVTADDLKSQGLIDDVIDEPTNGAHRNKEAAAVAIADYV

KKSLNELENIDVRELSANRMQKILKLGAYQEA

>CCK66569.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKRVVVTGIGMINALGLDKESSFKAICNGESGVNKITLFDATDFPVQIAAEVKNFDPLEVVDGKEVKKID

RFIQLGIKAAREAMQDAGFSEELDKEEFGIVSASGIGGLPNIEKNSIICSERGPRKISPFFIPSALVNML

GGLISIEHGLKGPNISCVTACAAGTHAIGEAYKSIALGNAKKMLVIGAEAAICPVGIGGFASMKALSTRN

EDPQHASRPFDKERDGFVMGEGAGALVFEEYEEAKKRGATIYAELIGFGESADAHHITSPTLDGPLRAMK

KALNMAGNPKVDYINAHGTSTPVNDKNETAAIKELFGNNIPLISSTKGQTGHCLGAAGAIEAVVSVMVLR

DGVVPPTINQLVKDDECDLDYIPNISRKVDLKVVMSNSFGFGGTNGCVVFKKVD

>CCK66568.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MATFDDVKAVVVEQLSIDADAVKMESKIIEDLGADSLDVVELIMALEEKFEVEIPDSDAEKLIKIEDVVN

YIDNLKK

>CCK66567.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMLFSNLIKENQKIWNAYLHHDFVKKLEDKSLKQENFLFYLKQDYIYLLNYAKCYARLALNSNTAKELRF

AMKFQNYIVEGEMELHRAILSLGINADELDIKDESLVNIAYSRYMLSVGENGDFLDMLVALSACAIGYAK

IGAEIINRLKNENLKDHPYKEWILTYGSENFQNEAKEFEDFVNSYTSSVGAQKFQKLSEIFHTVTRLEVA

FWEHSLRMELNL

>CCK66566.1 succinate dehydrogenase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKEYAFFPGCVLSQAAKESKISLEAIAPILGWKLNEIKGWSCCGASQAQCVDPIATLVANARNIALAEE

MKMPMLTTCSTCMLTLTKAKNTLDKGAKERINIFLAQGGMKYQGSTPITSLLWELYEDLDNLKSKVKKPL

SNLKVALFYGCHSLRPEDAFGKKESSTNPKSFESVVEVLGAKIVPFEKRLDCCGFHASYPAEKSVKKMSS

QIVNNASENQADCVVTPCPLCQMQLDIYQERFQDYTNSKARLPIIHLSQLVGLALGLSKEMVGLDYNIID

ASKIA

>CCK66565.1 succinate dehydrogenase iron-sulfur protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>CCK66564.1 succinate dehydrogenase flavoprotein subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGEFSRRDFIKTACISVGALAASSSGVYALDDSSKMDKDINLPSCDVLVIGSGGAGLCAAAAVRKENPKL

SVVVATKMMPSRNATCMAEGGINGVTDFSNGDSYKLHAYDTIKGGAYLVDQDAALKFCELAGKAIFNMDF

IGTLFSRNEQGGVAQRLMGGASKKRCNYSADKTGHILMHSCLDDAISSGVKFLMNHELLDIGVVDGKCEG

VVLRDIQSGGIYPVLCKALVIATGGYTRIFYNRTSTPFIATGDGVAAALRAGLGFEDPEMIQFHPTGVAN

GGTLITEAARGEGGYLLNNRGERFMKNYHEKMELAPRDVVARAIETEIREGRGYGEGLGAYVLCDVRHLG

KEKILKDLPKIRHTAMLFENIDLVDTPVPIRPTAHYSMGGIEVAKFEDMGTKIAGIYVGGEASCISIHGA

NRLGGNSLADAVVTGHLAGIGATNYAKDASFGKGAKTHELAQKWQVRFKEITNNGGNGQEMYELREELGS

QNWDNMGIFRTQEKLDLLAKKLEDIQARYEKIRIPNPNEVMNTAFTDYVELGNLILLSRCACLAARNRLE

SRGAHTREDYPKRDDKNFLKHSIVNLENDELKLSYKDVVVTEFSLDGRRVQ

>CCK66563.1 pyridoxamine 5'-phosphate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMDLKEIAQFLDDNAPAFLATLGTCGNPRVRPIQSPLLVGDKIYFCTANTKGLFKHIKNYNDIEFCSCAK

DGTFLRLRANAVFEPNLEVKKMMFKKYPYLVNLYETPQNPKFEVFYLDHLSARMQFMNGEFKLFKA

>CCK66562.1 3-ketoacyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFSGKNVLITGASKGIGASIAKTLAGFGLKVWINYRSKPELADALKDEIIASGGVAAVIKFDASKEDEF

ENGVKTIVESDGELSYLVNNAGVTNDKLALRMKLEDFSGVVDTNLSSAFLGCREALKTMSKKRFGAVVNI

ASIVGEMGNAGQVNYSASKGGMIAMTKSFAKEGASRNLRFNCVTPGFIKSDMTEVLSNEIKQTYQDNIPL

KRFAEPEEVANCVAFLLSDYASYVTGDVLKINGGLYM

>CCK66561.1 phosphoglyceromutase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKQKCVLIITDGIGYNKNSKFNAFEAAKKPSYEKLFKEVPNSLLKTSGLAVGLPEGQMGNSEVGHMCIGS

GRIIYQNLVRINKAIENKELEKNENLKKLLAKCKRVHIIGLYSDGGVHSMDTHFKAMLEICAKNGNEVFA

HAITDGRDVSPKSGLNFIKDLKEFCENLGVHFATLCGRFYAMDRDKRWDRVKEYYECLLGKAYKVPNLLE

YLQKSYDENVTDEFIKAAQNENYKGMREEDGIIFINFRNDRMKQLVEVLNSKDFKEFEREKIFENLLTMS

VYDDKFKLPVLFEKEKIENTLAQVISKAGLSQLHTAETEKYAHVTFFFNGGKEELLENETRVLIPSPKVK

TYDEKPQMSAFEVCDAVKKGIEKGEDFIVVNFANGDMVGHTGDFNATIKAVEAVDTCLGEILECAKKHDY

AFIITSDHGNCEAMQDEKGNLLTNHTTFDVFVFVQARGVSKIKDNMGLSNIAASVLKILDLEIPKEMNEA

LF

>CCK66560.1 phospho-N-acetylmuramoyl-pentapeptide-transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYYLSDLSHYAFFTYISVRAGFAFFIALCLSLFLMPKFITWAKAKNASQPIYEYAPETHKTKCHTPTMGG

LIFISSAVIASLFCIKFDNIFAISALLCLILFCLIGLIDDLGKVLKKDNHSGLSPRMKLLAQIIAGLICI

LPLYFSSELSTELFIPFYKHPLFDMEIFAIAFWILVLISSSNAVNLTDGLDGLATVPGIFSLSTLGIFLY

LSGNLNYSEYLLLPKIQGLGEVVIICAALIGALMGFLWYNCYPAQVFMGDSGSLALGGFIGFLAVISKNE

ILLLLIGFVFVLETVSVILQVGSFKIFNKRVFKMAPIHHHFEKVGWVENKIIVRFWMIALLSNLLALASI

KLR

>CCK66559.1 UDP-N-acetylmuramoyl-L-alanyl-D-glutamate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKISLFGYGKTTRAIAENLVDKFGPFDIYDDHFTETKKDTLGNLLLNPNDFDDNLSDIEIPSPGFPPKHK

LIQKAKNLQSEYDFFYDIMPKSVWISGTNGKTTTTQMATHLLSHIGAVMGGNVGTPLAELNPYAKLWILE

TSSFTLHYTHKAKPEIYALLPISPDHLSWHGSFDNYVQDKLSVLKRMNECDVVILPKIYANTPTKAHKIS

YEDEKDLAVKFGIDTEKISFKSPFLLDAIMALAIEKILLDTLSYKLLNSFVMEKNKLEELKDSQNRLWVN

DTKATNESAVMAALSRYKDKKIHLIIGGDDKGVDLSNLFDFMKGFDIELYAIGISTEKMLDYAKKANLKA

YKCEVLSKAVNEISNHLRVNEVALLSPACASLDQFNSYAERGKVFKECVNKI

>CCK66558.1 periplasmic ATP/GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKAFSLLEFVFIILILGIVFNLGSLYLKKDNLLEGAIQILNDIQYTQSLAMMQEGIRVDELTIAKREWF

KSKWQIYFIKSAATGYDQTYTIFLDKNGDGNANLGKTEINIDREIAVDVINHNKLMNSGQSGVISKDDEK

TTQRFNLTKRFGIEKVEFKGSCSGFTRLVFDEMGRVYSPLKNANYAYEKTLAKNNSDCIIRLLSKKHALC

IVIDTLSGYVYIPDFKTLKSQFVNIKNKNYECSKI

>CCK66557.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKIKNYKLIIILLSLDLLALLYGTSTLSISADEADIYFGEQGKSLIFSHSLLYYISHFGTFIFGQNDFG

LRLPFLFFHFLSCLLLYLLALKYTKTKIDAFFSLLLFVLLPGTVASALLVNAASLVIFLTLAILCAYEYE

KKWLFYILLIIVLFVDKSFNILFLTFFFFGIYKRNAILFTLSLVLFGASISFYGFDTGGRPRGYFLDTLG

IFAACFSPLVFVYFFYTIYRLTFQKYKNLLWFLMSVTFVFCLLLSLRQKLFLDDFLPFCVICTPLLIKTL

MQSYRVRLLVFRLRYKIFIECSIIFLIFCYFLIVANQLLYYFINNPNRHFANNYHFAKELALELKKQDVL

ELATAPSLQKRLRFYGIKNSNKFYLKALKQADKHDMDKKIVKVKLGKYEKVYQILNYD

>CCK66556.1 hypothetical protein BN148\_0429c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQTIDQIFQTQIDIKKSTFLSFLCPFKDFKFLIETLKKEHPKAVHFVYAYRVLNDFNQIVEDKSDDGEPK

GTSGMPTLNVLRGYDLINAALITVRYFGGIKLGTGGLVRAYSDAANAVINNSSLLSFELKKNTTIAIDLK

NLNRFEHFLKTYSFNFTKDFKDCKAILHIKLNEKEEQEFEIFCKNFAPFEIEKL

>CCK66555.1 hypothetical protein BN148\_0428 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQVNYRTISSYEYDAISGQYKQVDKQIEDYSSSGDSDFMDMLNKADEKSSGDALNSSSSFQSNAQNSNSN

LSNYAQMSNVYAYRFRQNEGELSMRAQSASVHNDLTQQGANEQSKNNTLLNDLLNAI

>CCK66554.1 hypothetical protein BN148\_0427 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMAKFRIQYSAGFGHYTQNHKGFGPTIYIEEVVEFDNGKDYFDYIDFYKTYSKSDDTYFHISFLEDRPLS

DKEITIRNEYRKMRDENCKKAKEEFIANNELDVEHLPTHHD

>CCK66553.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVEVKNLTMRFANQLLFENVNLKLVRGQRYGLIGANGAGKSTFLKILSGEIESSSGEIVFDEGLKIAVLG

QDQFAFENYTIKDAVMCANKRLYEALKEKEKLYMSEEFTDEINERLGELEIITAEEDPNYDCETRCEKIL

SSLKIKDFDALMSTLQSADKFKVLLAQVLFLGADALFLDEPTNNLDLEAISWLENELLRHEGTLVVISHD

RHFLNKICTRILDVDFKQIRDFAGNYDDWYMASTLLAKQAELKRDKTLKEREELENFIRRFSANASKAKQ

ATSRAKALEKLELEEIKISSRRDPSIVFRTNREIGNEVLEIKGIGKAYDKQLFSNLELKIEKNDKIALIG

ANGVGKSTLAKIIAHAISPDSGSIHLGATIELGYFPQDTSNLICENLKLYEWLMSEKFKDLDEIRKCLGR

MLFSGSDQEKMAASLSGGEKHRLMLSRLMLERPNFLLLDEPDNHLDLESIIALGEALYNFKGVVLCISHD

RELVSAFANRIWHLENGKLTDFRGTYQEFLGENDG

>CCK66552.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFKKVILFFLMGFALLQANSLDKCDNTAVVSNLKEKIPSEIFKNLYELSGLKAQGIDYEDYAKGLKEIAK

HDGMVNYTDMIEVNSISNFDLNFDSCMATINAALKGEQRKGLWSVVYKVSNINQVKITDITYINGDFQ

>CCK66551.1 acidic periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTKFLSICSLIAMLLSGCGSDFPGQPSDVARVQQNKYPNGNLKKEIPYNKDSRIHGLKRAFYDNGQLRAE

ENYKNGKKDGISREYSRNGQLLEEVHFKDNRGYGDFASYYENGNMRAKGKLLGYNEDGMPEFEGNYKEYY

ENGTLMCDYNFDNKGKFDGVQKRYDENGALEDEENYKNGLKNGVFREYKKGEIVREEEYKNGILVAKPKN

>CCK66550.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEGASGGSIFVTILLFILYMLPAIIGLSRKHSNWLIISLLNLFFGWTIIVWLVCLIWSFTGSFKQTIIIK

EKNEK

>CCK66549.1 H-T-H containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTKKSKRDMAYELDIDVSTLYNWRKYKPNLYRIVMLGFKFDELLDNSKKTHEELLHIEQTIQDEIAKFK

>CCK66548.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFLLDFLISLSFIFEISALVLSFYFKNSKIFFLTLVLLGAKLPYFYTSFFQANLFVALFLPMIFTLFCVG

KHHVLILNKKNIASITTLIFIGILSIILPRNTTFNSAGLEFHFIALDFFKPVSELGFLFFLVGLILIFIK

TFKTKEYYLLIAFFTAYFQFLFQEGAGIRYFEFASLVFCFYLLNHAYRLAFFDTLTKLPNEKSLTRFTKG

KNNYIIALLHFNELKDTKESYTKLILKQIAKILKRFRAKIFIVENDFILIFNDKNQALNHLAFLESTLKN

TEFNLENENFKPDFKLIWQESEENLDKNLQSLRARLLD

>CCK66547.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKVLLSSLVAVSLLSTGLFAKEYTLDKAHTDVGFKIKHLQISNVKGNFKDYSAVIDFDPASAEFKKLDV

TIKIASVNTENQTRDNHLQQDDFFKAKKYPDMTFTMKKYEKIDNEKGKMTGTLTIAGVSKDIVLDAEIGG

VAKGKDGKEKIGFSLNGKIKRSDFKFATSTSTITLSDDINLNIEVEANEK

>CCK66546.1 histidine triad (HIT) family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIYENDLIYIEKEEAQVPWLKIFTKEIYKEFSDCPLELQKELFEKILFCEKAMIEFYKPEKINIASFANY

VPRVHFHVMARFKEDAFFPECMWGKQQRETIKLDLPKFEEFVKFLNSKIF

>CCK66545.1 hypothetical protein BN148\_0418c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQISSSYNSYDYYSSKPSFDKTNQSDSTQKDEKNLSENKDDKEKNGEQTQMVNGVELSQKEVAQVRELQS

IDRNVKAHEAAHQAAGGGLAGAASFTYTRGPDNQMYATAGEVPISMQKGNTPEETIANARQIAAAAMAPA

DPSPQDYKVAANATKMEFEARAEAMKLKAEEAKEKEEENKEKDDKNSENSLEKTDKDSKNNDKNSNFDKD

FKNLVTRTYQQNSQNNDIKFSIAS

>CCK66544.1 hypothetical protein BN148\_0417 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNILHANSSHRFHKCMPKEVHQIYDTLKLMEQQEGTKKSRSQKRRAK

>CCK66543.1 hypothetical protein BN148\_0416 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MITLSSFNRYFGNNPLQTLTKIRDESIENAKI

>CCK66542.1 GMC oxidoreductase subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAEVLKKVDVVTVGAGWTGGIVAAELTKAGLNVLSLERGHMQSTENFNYIHDEWRYGINYGLMQDCSKDT

VTFRHDPSGLALPYRKMGSFLLGNNVGGAGVHWNGWTFRFMPYDFEIQTLSKQRYGNKLGNDYTLQDWGV

TYKDMEPYYDRFEKTCGVSGEPNPLAEKMGAFRSSPYPQEPLENTKMLKRFESAAKSSNLHTYRLPASNS

KGGYTNPDGQDLAPCQYCAYCERFGCEYGAKASPLNTVIPKAMSTGKYTIRTYSNVTQILKKDGKVTGVK

FVDTRTMKEYIQPADIVVLTSYMFNNAKLLMVSNIGEQYDPKTGKGTLGRNYCYQMNMGTTAFFDEQFNT

FMGSGALGTTSDDFNGDNFDHSKEKFLHGAMIYSVQLGTRPIQSAPLPAGAPTWGAEFKKALNYNFTRAI

TVGGQGASLPHKNNYLSLDPTYKDAFGMPLLRLTYNFTDQDRALHKFITDKTAEVAKRMQGVKSIKKGAY

LKDYSVVPYQSTHNTGGTTMGADRETSVVNTYLQHWDADNLFVVGAGNFQHNSGYNPTDTVGALAYRCAE

GILKYHKSGKSLA

>CCK66541.1 oxidoreductase subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQDNIIDRRSFFKLGLLGGSVVAASTIGGGAVLKAAELTHSHQASQGKSNKIRGRMFFQTQTEFDTLSAA

CERIYPKDEQGEGAIGLGVPYFIDNQLASAYGYNDREYMQGPFMEGKAEQGYQTPMQRKDIFLEGVHALE

ENAQKRYKKSFSLLKGGDQDKILSDFEKGKIQTTGFKSSYFFTLLRDMTVAGVLADPIYGGNDNKNGWRM

MQYPGAQMSYVDKIASDEFFNIEPMGLADMES

>CCK66540.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRIFLTLFLFFNSLFALSELEEGLKLYEANKFDKAYEIFKSLCEKDISKACFSLAFMHESARGVSKDLNQ

AYKFYDKACKLGLANACSNMALLLQNQGYENEALLAFNKACTLGESLSCNNIALFYEKEKDGQMASSFYK

RSCDLKNARACYQLGSLYDKGELVKASVKSALAFYSKSCTLGFGEACYLLGRYNQLEKQDLTKAKRYFGM

ACDQKHQEACAAYKELNSKDIELY

>CCK66539.1 ATP/GTP binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQINLLNDFIKAYENTYSVSFDDSFKGRIQELCKELNEPFMHASYALENELKELVFSLDKNVNIAIIGQF

SSGKSSLLNLILGRDCLPTGVVPVTFKPTFLRYAKEYFLRVEFEDGSDIITNIEKLAFYTDQRNEVKQAK

SLHIFAPIPLLEKITLVDTPGLNANENDTLTTLDELKNIHGAIWLSLIDNAGKKSEEDAIKANLELLGEN

SICVLNQKDKLSAEELDNVLNYAKSVFLKYFNELIAISCKEAKDEQSYEKSNFQSLLDFLTQLDTTVLKE

KFVKRKILNLCEILEDENQLFVGIFDRLLNQFQSYEKHLLLAYENFLKEIEILNHQILEQLKSISERISS

EIFASVKEKDAYFYKESKGFLKKDLYTRYDYKAPYISSDDAFLAMFYNSDVMSKEFKKIKNELYKSFEEI

KMKLKDFINILEREILLFKAEFSNIQKDHIFQSDKNFSELRAFCNASDEYFLKDFKELLFKSILELDLFF

EKLNLKAFTNYENATKLSLAFFSRKINESRVLYELDSSEFVLFYPKKSEIYERVLNELNVYEFETLLINK

PILTKIAKNFLEQSQNLIQEKNKFLDLKKAELQKRRAQILNVRESIKED

>CCK66538.1 ATP/GTP binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKELFQKIWQNELQFLNFDAKFQDKSKLDTAECAIILSVNKDNYERYFLLKEFQELCKKIDLRVDIFSMQ

NAQICILNLFKSGFISKQDLLKALKILEKISKNTEIFDFILQEKVQSIDQKALFQNDFKELNTINLELQK

LSFDENLKSRLQKTLEKFQNLEFNIAITGVMNAGKSSLLNALLKEDFLGVSNIPETANLTVLSYGKSEEA

KIYFWDKKEWQNILESSHFNADLKEFIDKLDKSVNIEDFIKDKPLIQNIALCELKNFSSAKNKISALIKK

IEIKSHLEFLKNNISIVDTPGLDDVVVQREIVTNEYLRESDFLIHLMNASQSLTQKDADFLVHCLLNSRL

SKFLIVLTKADLLSKKDLEEVIVYTKESLKSRLVDLDENLVEKIDFLCVSAKMASDFYKGLASKESLQKS

GMQEFENYLFNELYAGEKSKIALRAYKKELHLELKNILSEYEMQNRLIKENKQGVSEENQKLLLELQKQN

TLLKEAQDEISNSIAKLKNIDSGIDNLVLLLAKKLKERLIDEFKYLKNNAQKLNLSRILNIVDITTKDGI

NDILREIKFENIKKIEELKTNLSLKYDFLKDDFDNGFEGFKDGISKNIDSIFQSEKFALLRLKIEKLSNL

KSDLYELETNLDTVIFDTFKEFKMSEILNSLNINGAFFEFLNDKLKHYEKNQKSKLESLEKVLQSLKNQD

ANILNSFEENLEKIEKLKQLEMGLLNAD

>CCK66537.1 fumarate reductase iron-sulfur subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>CCK66536.1 fumarate reductase flavoprotein subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNIQYSDALVIGGGLAGLRAAIEVAKSGQSVTLLSICPVKRSHSAAVQGGMQASLANGAKGEGDNEDLHF

ADTVKGSDWGCDQEVARMFAQTAPKAVRELAAWGVPWTRVTKGPRTVVINAQKTVIEEKEEAHGLINARD

FGGTKKWRTCYIADATGHCMLYGVANEAIKHQVKIIDRMEAVRIIHDGKKCLGVIARDLTNGQLIAYIAR

GTMIATGGYGRIYKQTTNAVICEGTGAAIALETGLCRLSNMEAVQFHPTPIVPSGILLTEGCRGDGGILR

DVDGYRFMPDYEPEKKELASRDVVSRRMMEHIRKGKGVKSPYGDHLWLDISILGRAHVEKNLRDVQDICK

TFNGIDPADEGPKGWAPVLPMQHYSMGGIRTKPTGESQWLNGLFACGEAACWDMHGFNRLGGNSCAETVV

AGMIVGDYFADYCKNNGEVIDTNVVKDFLTKEYQYLKSLVDKEGKHNVFEIKNRMKEIMWDKVAIFRTGE

GLKEAVDELEKLYKDSQDVKVHCKELDCANPELEEAYRVPRMLKIALCVAYGALLRTESRGAHYREDYPK

RDDLNWMKRTNTFWVEGETLPRIEYEELDIMKMEIPPAFRGYGAKGNIIENPLSEKRQAEVDAIREKMEA

EGKGRYEIQNALMPYELQAKYKAPNQRIGVDYE

>CCK66535.1 fumarate reductase cytochrome b-556 subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRELIEGYLGKSIEGKKSKMPAKLDFIQSASGLFLGLFMWVHMLFVSTILVSEDFFNSVVHFLELKFVYD

NPVMSYLTSFLAACVLVVFFVHALLAMRKFPINYRQYQILRTHSKKMNHSDTSLWWVQAFTGFIMFFLGS

AHLIFIVTNADKISGDMSGDRVVSHFMWLFYAVLLVCVELHGSIGLYRLCVKWGWFEGKNVKESRKKLKT

AKWIISIFFLVLGVLSLAAFIKIGYENYQNQTQTTAMIKNYNGANYEYTI

>CCK66534.1 prolipoprotein diacylglyceryl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEFWQHIYSNFNVIAFSIFGLKVHWYGIMYVIALLLALLLAKFFVRKFQLDINEKHLDSYFIWVEIGVIL

GARLGYILIYDANTMYYITHPWQIFNPYINGEFVGIRGMSYHGAIIGFLIATLLFCKKYKTNPWIFLDLV

ALSVPLAYVFGRIGNFLNQELFGRITNVPWGIYVDGVLRHPSQLYEAFLEGIVVFIIVYLARFKQSFQGE

LILVYAGAYSLARFICEFYREPDFGIGFVLWGMSMGQILSFIMFITALLVYICIKFKKVNI

>CCK66533.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKYILLASSMLILAACGGTSSNFVNVSMPNFKPQVPTKVEPIDSGVSIALVPINIEQNNNYSDYFENSV

LKIRIEKEIDLLKQNLEEQIKTIAQLKGYKIVTTNPDYTLKSSISIYTEEKNVQKTSNFMSGDYVKSNLG

INFKGKIDFIDAHNPQNSTNLSSSTKLDSLVALNYPIKNDDGVNMFKTTISTVPTQLNKGLEQPAFEIDK

SFLAFYKNTLNTLYNNLPKATDIGKTIPNTNSGFNSFDGDATFEESLPQTNSNQNNTIENAPTQNIPTNP

SSTNQNNQSKNQDGVEIFE

>CCK66532.1 shikimate 5-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFLAVIGDPISHSKSPRMHNNAIKALGLDSIYTRYHLRNANCLREDFFKLGLSGANITLPFKEKALDIA

DVKDDFARNIGSANTLCLKEDKIYAYNTDALGFLEAIKDFDNIKKALILGAGGTALALAYVLKQKGVEVY

IANRSKERFKDFLAYPTYLYKNLQDFDFDLVINSTSAGLKDENLPCDRELLDRILPKAKFAFEVIYGRET

PFYRLCKEYHLKIKDGLDMLLWQGVFAFELFFEIQDKREMIKNAMQQALILK

>CCK66531.1 transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENQKNEFDDIILEKSNKSEKVKKILLRVIALVILFLAIMIVMKLINGSGDENTQNQSVLPSEPIATQDN

NNDTSFESMPITDNTSAEDQFEALRKQFQDEQNTTQNTTTSSSNNNDTTNFAMPDQEVPAEPTATTSANT

TPQASTPKQEVTQTAKSKEEAKKQTAVKKEKESAKQTPKKEQNANDLFKNVDAKPVHPSGLASGIYVQIF

SVSNLDQKSKELASVKQKGYDYKLYKTTVGSKEITKVLIGPFEKADIAAELAKIRKDIAKDAFSFTLK

>CCK66530.1 hypothetical protein BN148\_0403 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MISPMDMSLIKIIGDHYYIRRDKIVNKITHRGRLFFDKFERVDAPLNLNVMREHAAKKIVVAHDLITKDN

KVENIVFDYNGFNAERFYHRAQLILREEGFINFTAYKTKTPGHLHLYIHKGHTALNEGYSLASKLSMMFA

SKMPVEWKVFPSMDVPREFNILILPYEVYQKERGSSWSKHM

>CCK66529.1 serine hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSLEMFDKEIFDLTNKELERQCEGLEMIASENFTLPEVMEVMGSILTNKYAEGYPGKRYYGGCEFVDEIE

TLAIERCKKLFNCKFANVQPNSGSQANQGVYAALINPGDKILGMDLSHGGHLTHGAKVSSSGKMYESCFY

GVELDGRIDYEKVREIAKKEKPKLIVCGASAYARVIDFAKFREIADEIGAYLFADIAHIAGLVVAGEHPS

PFPYAHVVSSTTHKTLRGPRGGIIMTNDEELAKKINSAIFPGIQGGPLMHVIAAKAVGFKFNLSDEWKVY

AKQVRTNAQVLANVLMDRKFKLVSDGTDNHLVLMSFLDREFSGKDADLALGNAGITANKNTVPGEIRSPF

ITSGLRLGTPALTARGFKEKEMEIVSNYIADILDDVNNEKLQENIKQELKKLASNFIIYERAMF

>CCK66528.1 lysyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFDNILEQQRIEKAKELKNLGINPYPHFLEKEMSLKTFKDKFSYILEQVEKRDESVNAVVAGRLKLLRIA

GKSIFANIEDEDTNLQIYFSKDSVGEELYTILKKNLEVGDIVLVKGFPFVTKTGEFSLHASEVKLATKAI

VPLPEKYHGLTDIEQRYRKRYVDMIMNVEVRKDFLVRSKVVSLIRHFFENKGFLEVETPMMHPIAGGANA

KPFVTFHNSLGVERFLRIAPELYLKRLIVGGFEAVFEINRCFRNEGMDLTHNPEFTTIEFYWAYHNYKDL

MDLTEELFALLLDKLNLGKTIEFDGKMINFSKPFERITYKDALCKYGGLDRDLIEDKEKILTKLKADGFE

ANEKLELGHLQAELFDNYVEEKLINPTFVIDFPISISPLSRRSDEDSQIAERFELFICGRELANGFNELN

DPLDQYERFLKQIEAKNAGDEEACEMDEDFVNALGYGMPPTAGQGIGIDRLVMLLTNKKSIRDVILFPAM

RPLKSELKEKE

>CCK66527.1 ferric uptake regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLIENVEYDVLLERFKKILRQGGLKYTKQREVLLKTLYHSDTHYTPESLYMEIKQAEPDLNVGIATVYRT

LNLLEEAEMVTSISFGSAGKKYELANKPHHDHMICKNCGKIIEFENPIIERQQALIAKEHGFKLTGHLMQ

LYGVCGDCNNQKAKVKI

>CCK66526.1 colicin V production protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFYWFDAFILGFTLLLGLKGIINGLIKEIFGLLGIIGGVFIASKYATQAAEFIQSTFYKIENQSLAGFA

GFLAILIIFWIACLLAGNFLSKLIKLSGLGFLDRIGGFIFGGAKIFLIFAILVFCVARIDFLNDKLDNFA

KNSYTLNLLKETGSFIMNQPLTENSLDHASEKLQDIVSDLNNTQKGE

>CCK66525.1 aspartyl/glutamyl-tRNA amidotransferase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQIDEKLLSKLEKLSALQITKNRNETIAQLSEIVNFVEKLNELDLDSQEITVSTIKGGAPLRIDEIRNSN

VIDEVLDCAPKKQEHFFVVPKIIE

>CCK66524.1 hypothetical protein BN148\_0397c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGLKDNLKAVKNELNTEEQFIENFIKGERFIRKYKFYISAVVIILVAWFAGNFIISKINDYKTKEANEIY

ANLIQDPSNKNLLEQLKNKNTNLYAIFLLKENINDFNNTTLQNELKQIYNNAQTNTLLKNIIALSLGDKS

IFLKNYDKLLEAYKLLEQNKIEEANVLLSQIKENSSLNQIAKNLKHYQGITQ

>CCK66523.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIFLTLFCLIFLCACGTKRQYFEPKQTDGDLSHNSNLKSKIVDWNLVSAKLSNNTTILKNNISIDKFK

LPKNYMLLAYQDGEYFTADNNGNLKIFDNSYNEIYNFQFDASVVGVASNGDDLALVLANNTIVLANRSLG

IKFSQTLTSAPAQDSRTANPIFLDNIIVYPTLDGKILILSRNNLQIIKDVVISAENFFNNVIHLSVIGDK

LIAATAKKIIVVSPARTLYLDADIKDVALSDDGIFILEKDGTIIKTDYNLRKIAEKKFEFAIFVKSNIYN

NYLYIFEKTGYLIKMNLNLDNAQVFKLSEAVDKISFMGNGKFYYGDKILDLL

>CCK66522.1 hypothetical protein BN148\_0395c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKILEQTIKALKLNLKPYDLSMLTRKKSYICAKDQNNILFMYTGKTKFLMKDALFLENLAQQININNKY

FFSMASLCSKAKNHLEMKGFNIYVAL

>CCK66521.1 pantothenate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLLCDIGNSNANFLDDNKYFTLNIDQFLEFKNEQKIFYINVNEHLKEHLKNQKNFINLEPYFLFDTIYQG

LGIDRIAACYTIEDGVVVDAGSAITIDIISNSIHLGGFILPGIANYKKIYSHISPRLKSEFNTQVSLDAF

PQKTMDALSYGVFKGIYLLIKDAAQNKKLYFTGGDGQFLANYFDHAIYDKLLIFRGMKKIIKENPNLLY

>CCK66520.1 malate:quinone oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSQQEFDVLVIGAGISGAALFYELARYTNIKNIALIEKYNTAATLNSKGTSNSQTIHCGDIETNYTLEKA

RKVKRTADMIVKYGLMQNAQNNFMFSHQKMALAVGDIECDYMKKRYEEFKELYPYIKFFDKAKIKQIEPK

VVLGEDCNQDRPENICAMGVESGEVFTTVDFGKMSINLIEQAQKQNKNTFVAFNQEIIHIEKKDDIFILK

TSNHQEYHAKSVVVNAGAHSLYLAHKMNLGMDKSCWPVAGSFYLTKQKLLNGKVYMVQNPKLPFAALHGD

PDLLADMNTRFGPTALVIPKLERYHGLKSVPEFFEALKLDKTVLKVTFNMFKDATIRNYIFYNYLFELPF

VDKSLFVKDAKKIVPSLKASDIYYAKGFGGVRPQVIDKTKGELMLGEASITETPGIIFNMTPSPGATSCL

GNAERDAKLVCNYLGMEFNEDKFSSELL

>CCK66519.1 pyruvate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKKTKIVATVGPASEKEEILRQMIINGVNVFRLNFSHGTHEYHKKNLDTIRRVAKELHTRIGILQDISG

PKIRTGELKEPFELKKGDRLDFYRETILGEKIAQNHYKISINQKSILDMLKIDEYIYLYDGSIRAKVVNI

DNQKIETIIENDGFLNSNKGINFPNTKINIDVITQKDKNDLLWGIKNEVDFLAISFVQNAHDIDEVREIL

AQNNAKISIFAKIEKFDAVENIDEIIKSSDGIMVARGDLGIEVPYYKVPNIQKEIIQKANNASKPVITAT

QMLFSLAKSKTATRAEISDVANAVLDGTDAVMLSEESAVGIDPANAVDIMCQTIIETEKRYPYNKFNDFN

DLDNTDKIMRSSAHLATDLNADAIFSLTSSGKSAIKIARYRPNIEIIAVGHSEKTLNSLSIVWGVNPAIL

VNKSNELTELLKDSVRSSVEKGFMDEDKCYLLTAGFPTGVEGTSNLIRILNKEQIAYYLQ

>CCK66518.1 hypothetical protein BN148\_0391c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQVNTFSNIASMARTQVSNKKADDAKENTKDKNVQSANSSKDVDKNTLEKLNALGGKGITQIYLVQFQQQ

TMNAVIGSSNAQTGLDSLLNGANLDTAKSILTNIDFASLGYSSKNPLDMNTDELQQLVSEDGFFGVENTA

NRIADFVIKGGGDDVEKLKKGLEGMKKGFEQAEKMWGGELPQISQNTIDAALKKVSDRIDELGGKTLDLQ

A

>CCK66517.1 transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAEQEDIILEKPEDGLNQPRLDESLEGFKGQEGQAPEDEEFASLPEELPQENSESGFKFTRESAPEDVST

FEEVESQEPTPWYKDRKFMSLVGLSLGIICILVFTLFYLTFSEGKIKPDIIASKPLEQPVIMPDESYKYN

DMQRIDGMIQKANALYLKGEVEQALKVYEQVAVYNESLSNYNLGVSQMNENKFQEAFESFKKAIANGENQ

SVAAINAAVCALKLNDKEKFRYYIDLAQVYLPKEGKSKLYDYYLSLINYYKGYYPEALQMLQRTDVEPYS

DVAKYLSAKIYAKMDFDSKAIQQLNSQGNFESSLSLGLLYARIGEYAKAKVALSTAMKIERDFNQSLAAL

TLVDIKTGNYQDMLARLQNSYDNDKDRYKILDTYKIQVRLNKDLFNIAVAQNSFSKDLLKKQKDQFDLLF

YFAPYQVFDSKQAALYIKKANVTDFVDDSTDAGIYLNISKALSSTNVKIANIINYALNQKLRLANQEFQK

LIKDYPEHSILHYNLALTYAQMQNYELAYKHFSSSYHLNPKNYLAGAFAMFCAKLIDIDTTKLYNEILDN

IAADSNFKANMQKSMLFLVNNNYISMLPYLDETKKDTPLSLIFEAIVAKNNNLNNQVDVKIAKLRSELPE

DILANILYFNSLNSNLNIKEYAQNAQIHFKNLKLDYRSVFGGPNIAREFYVNLMHIAGLLNLERQKFKEL

INVSGAKDEGILQTLAYLDIFAQQYEEAYALYNSLIDDYGAKDTKTLFLAAVAAVGANNPNSAIALLQLS

KLTDKNNKESKAALGMLYQEVKNYEAAISQYKTLPNNFKSEFFTFDINNN

>CCK66516.1 seryl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLDLKNLQNNFDEVAKKLKNKKVDENILKKLAELFASLKKEKIALEEFQAFQNKFSKELATAEDKESLKA

KLSENKSKINEQSAKVNALENELEEIAHAIPNIPDECVPVGEDENENVELKKVLNPPSFDFTPKEHFELG

ESLNWLDFMRGVKISQSRFCVLKNEGALLSRALVNYMIDFNRSRGFEFVNVPFLVNGATMFGTGQLPKFK

EDMYKVDDEDLYLISTSEIPVTNLYSGEILASETLPIKMTCYSACFRKEAGSAGRDTRGIIRQHQFEKVE

LVSITKPEQSDSVFNEMLECASDLLSSLGLAHRHLMLCTGDLGFSAAKTVDLEVWLPGQNKYREISSVSN

CRDFQARRAKIRYKNEQGKNELVHTLNGSSLAVGRTLVAIMENYQDKEGKIHIPDVLKKYF

>CCK66515.1 tryptophanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRVLTGLQPSGDLHIGNYFGAIKQMVDAQEKSQMFMFIANYHAMTSSQDGEKLKQNSLKAAAAFLSLGID

PQKSVFWLQSDVKEVMELYWILSQFTPMGLLERAHSYKDKVAKGLSASHGLFSYPVLMAADILLFDTRIV

PVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKMSKSYQNTIDIFSSEKTLKKQ

ISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEAREK

YNELLEKPSHLKEILDFGATKARKIAQEKMQKIYEKIGL

>CCK66514.1 shikimate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKAKNIVFIGFMGSGKSTLARALAKDLDLVFLDSDFLIEQKFNQKVSEIFEQKRENFFREQEQKMADFF

SSCEKACIATGGGFVNVSNLEKAGFCIYLKADFEYLKKRLDKDEISKRPLFYDEIKAKKLYNERLSKYEQ

KANFILNIENKNIDELLSEIKKVIK

>CCK66513.1 GTP-binding protein EngA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQSIILIGKPNVGKSSLFNRMARQRIAITSDISGTTRDTNKTQIHIHSKKAMLIDSGGLDESDELFKNVK

KNTLKVAKESDIILYLVDGKLAPDDEDRQFFYSLKKLGKPIALVINKVDNKKDEERAWEFANFGVKEIFN

LSVTHNVGLDELYEWLEKFLHEEFLIPDEEENLEDFLEYYEEGKEFQFKEVDQNHIRVGIVGRVNVGKSS

LLNALVKQERSVVSSIAGTTIDPVNESVVHKDKVIEFVDTAGIRKRGKIQGLERFALNRTEKILSHSQIA

LLVLDAHEGFNELDERIAGLVAKHYLGVIIVLNKWDKSEMDFDKTVKELRLDRFKFLAYAPVISVSALSG

KRVHVLLDKILQIFENFTQKIQTSKLNTLIENATRAHPLPHDYGKLVKIYYAVQYDLAPPKIALIMNRPK

ALHFSYKRYLQNQIRKEFNFEGVPLVIASRKKGSKENDES

>CCK66512.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKVIKHNLGIYFMILACLDFALMGACAKILSKEMSSIEIMFFRNIIGIFFIVYLLKRSKAHKEGGYFWL

LVFRGVVGTLSLYMFFYNVSNITLGGAFAFQKTAPIFITLIAFVVFKENIGIKGWIGILIAFGGVLLIAQ

PWVHNLNHSGFDLKNSVIGITSGFLAALALTSVRELRKSYTTEQIAFSFILLGTLMPLISMISAEFFEPQ

HLDSLHLDFILAPFVMPSLTAWLIIAIMGTLGTIYQIHVTKAYGIAKQAGVVAGVSYLDVVFSMIVGIIL

GDNLPSTMVFLGIIGIIFGGLILVKNKGKK

>CCK66511.1 2-dehydro-3-deoxyphosphooctonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKMILIAGPCVIESKDLIFKVAEQLKNFNENPNIEFYFKSSFDKANRTSINSFRGPGLEEGLKILQSVK

DEFGMKILTDIHESNQANPVSEVADVLQIPAFLCRQTDLLVAAAKTKAKINIKKGQFLNPSDIKYSVKKV

LQTRGIEDEGYEAAQRNGVFVAERGASFGYGNLVVDMRSLVIMREFAPVIFDATHSVQMPGAAGGSSGGK

SEFVEPLARAAAAVGIDGFFFETHINPCEALCDGPNMLNLTRLKNCVNTLLEIQNIIKENK

>CCK66510.1 6,7-dimethyl-8-ribityllumazine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNIIEGKLNLDSNTKIAIINARFNHIITDRLVEGAKDAFLRHGGKEENLSLILVPGAFELPYALKKAIES

KKFDAICCVGAVIRGSTPHFDYVSAETTKGIANVSLNHNIPVSFGVLTTDTIEQAIERAGSKAGNKGFEA

MTTVIEMLNLSKEL

>CCK66509.1 transcription antitermination protein NusB [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MATRHQVRQSVISLLYAFELNSQNNVFVDEILDEKKIRNEQKNFTLNLYNGILDNLNNIDETLNSFLNDN

QITALGHVERAILRLGAYELLFTDTPSAIVINEAIELAKELANDNSPKFINGVLDALIKAKK

>CCK66508.1 orotidine 5'-phosphate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEELKKVDDFKIFLDLKFHDIPNTMAD

ACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSALTSFDEENFFSIYRQKIEEAVINFS

KISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQKRVANLAMARENLSDYIVVGRPIY

KNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEEWIKTRPDKEHALKEFYAKCGIKY

>CCK66507.1 hypothetical protein BN148\_0380c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNYQQLECDYFNLYNQFLSVDFQISLFEKDHKGLIKDFIFFYYQILKQKDLSYLLEVRNKISLKVYNYMQ

EHSTSPKDLSLICLRENKHIEFFQIFYKALAYFVAFRKKLDGEQKIKNLISNINDCFGYHFLNSDFNNLQ

NFQKSDLFTLPEKHLKYFHFAMIHLCFMVLNPLNFKDSNRHLDKAINYLVDGTFEIYELIFKEYFLLFSK

DKELKDELRKLKKLEFKILMQETSKIKLLNHYKEFCEEIFYNIELEKITQN

>CCK66506.1 sulfite oxidase subunit YedY [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLITPEKLYKQRRNFLKLGAGALISSSVLASKLSALNFTSDTNPNKLEISDEELATNYVNFYEFSTDKRK

AVSLAQNFNTQNWKIDISGEIEKPLTLSMEDILKFPLEERIYRFRCVETWSMVVPWVGFELRRLIEMAKP

TSEAKFVKFTTLLDKSQFPDQDALFPTIDYPYVEGLRMDEAMHPLTLLAVGMYKKALKPQNGAPIRLVVP

WKYGFKSIKSIVKIEFTKEQPKSTWESYAPSEYGFYANVNPNVSHPRWSQANERALGDFFTKPTLMFNGY

EKEVASLYKNMDLKVNF

>CCK66505.1 ferric reductase-like transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQTKYFKFLAYFSFIISLIYGFYHIIKAFDFVKEAYIYTGIFALIFLNLSLLFSLLKFKKTKNYPKILGI

FAAFWAILHFLNYFIFDRNAQILRLFDDISHRLLEAIGFIAFLIIFLMLLSSFKIFKKLSKIRKLGYLCL

ILASYHYFLTPKIPMFWEWSALIIALFYFIVRYTKTLKS

>CCK66504.1 AAA family ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKLKNFLILKNIEDTQIYKELKCAKNEALILRELCRNYVVSISSINAFTLLSTIFGNDKYLYLDALEDL

KKLIERGFVNQNSSFFKSLENNKTQTLTLALLQSELSLSEYFLEFLEAKPRLNFEKQEAYADYLEYLKDE

FARIQLYERLSFIQKSAYNSEIKNQIKLYERHIKERLKKSKFYNVLADIFKEYNLEHKEQIIFLALLKEE

YALSNESSISREMNSLLSLISENDLERHKNKKLLQENAPLLNLIECDEYLNAFGDISKSFFIIDEILQRI

INFEPKQSKKIKIESVLKDQDIFELIEPSTDINDIIMPENTKELLENILKQQDKKVLERLHSWGIKSNKN

IEAKIIFYGPAGTGKTMSALAMAKSMKKSVLSFDCSKILSKWVGESEQNVRKIFDTYKNIVQTCKQSPIL

LLNEADQFLSTRVDGSSGSDKMHNQMQNIFLEQIERFSGVIIATTNFLESLDSAFSRRFDYKIEFKKPDF

KDRLKIWEKFLPKKALFEKDFDINILSNYELSGAQILMVVKNTALKVAVSKDGVFKIQDFIESIQKELNS

SFDKSKIVGF

>CCK66503.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFFLLVFCFVNLALAKVYKGELHFYHLQDKEIFAIVYDNAPMTPLFDRDKNQTSSSFLIVDDINGNLEI

PLVKINDFWQDERKKYKINSSKMLTYDNKNFQGENLGTTTLELVETQDGIRIKRSLDFIGFNDDFKEFHP

VHKGVFSFEQIRQKPIFLQDGKISFEEWYYFYEDGMSRAILELNNFVYDINAHAFVKLNDLYNTENQKFQ

NLLHEKLKNTCDECFEDLQNLQFNNNFLLNNGKLKICYLPFEGHFLDENICVEFNEDELKEFKK

>CCK66502.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKHCLALCFVFFLCACSVKNQNFSSQSLMVLIASPMIKINDTAFLKKENNALNLEVYKLGQAFFELKIKD

KICINAVCYDKQVFNQKFFKNVYYDDILSDILKANPLWQGKNLEKTDCGFEQNLKAKNYEIFYQVCDNKV

SFFDKISHTKIILTHIQN

>CCK66501.1 nucleotide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MASEHSFDISAALDKQELKNAFEQAKKELDSRYDLKGIKCEIDLSEKESIFKLSSSSEGKLDVLKDIVIS

KLIKRGINPKAIKELSRESGAMFRLNLKANDAIDSENAKKINKVIKDSKLKVNSSIRGEEIRVAAKQIDD

LQAVMKLVKELDLELNISFKNLK

>CCK66500.1 2-hydroxyacid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIVCLDAATLGDYDLSVFEKFGSLQIYTTTNKEQTIERLKDANVAMTNKVVIDKDVIDACKNLKLILET

ATGVNNIDIEYAKEKGIIVKNAAGYSTMSVVQHTFAFMFAFLNQVLYYDKWSKEGKWCESPIFTDYSRIL

NTLSGKKHGIIGLGTIGKEVAKISKAFGAEIYYYSTSGANKNADFVHLELKDLLKTCDIISIHAPLNEKT

KNLLAFEELKLLKDNAILINVGRGGIVNENDLAKIIDEKNIRVGLDVLEIEPMMKNHPLLSIKNKENLII

TPHVAWASKEALNALMDIVYNNLKEWIENGK

>CCK66499.1 glutathionylspermidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQLLQVDKLQKDYLENIGFSWHTDEDGSDYISNKLVCVKESEANAYYEAVNELYDMFIAAAQEVINNDRF

DELGIPFNLIDAIKMSWENEVHWHLYGRFDLAGGLDGKPIKLIEFNADTPTALFESAILQWALLKQNGMD

ESAQFNSIYESLMDNFKRLITLDESVEGFEEHYQGWKILFSSVAGSKEEEITTKLLAHIANEAGFQTNFS

FVDEVEFSEEGIFKEGENYEYWFKLIPWEDIAIEEGELAMLLTQIMRNQRAIILNPAYTLLFQSKGILKI

LWELYPNHPLLLETKDTPLEGKNYVKKPVFGREGANISIIKDGKTLHENVGPYGNNKAIYQEYVEFNSCE

NEYYQAGVFFAYEGCGLGFRKGGLVLDNYSKFVGHIIKD

>CCK66498.1 hypothetical protein BN148\_0371 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIKKIIQIGMIGGLAAVAGGALAGCGSNNDNADTLNQAANAQGAFVIIEETAPGQYKIKDQYPSDETR

VVLKDLNGTERILSKEEMDALIKEEAAKIDNGTSNLTKDNGQISSGGLSLGETLLASAAGAILGSWIGSK

LFNNQNFANQQRGAFSNQSAYQRSVNSFNKAGTTSSASSAKKSGFFGGGSKATSSSSSFGS

>CCK66497.1 30S ribosomal protein S21 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPGIKVHPNESFDEAYRKFKKQVDRNLVVTEVRARRFFEPMTEIRKKQKISARKKMLKRLYMLRRYESRL

>CCK66496.1 ferredoxin domain-containing integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQGHITNYTKKRYFVYLIASIIIFSLPFIRINENHFFLLSFDHSKLNLFFISFSTQEFYLMPFVLIFLFL

FIFFITTLGGRIWCAWSCPQTIFRVIYRDIIQTKFLKIRKNINNKQKEYERQYFKKFLGVIIFYFISLVA

VSNLLWYFIPPEDFFNYIQNPGEHLLLLGILFCASLLFTLDITYLQEKFCVYVCPYARIQSVMFDHDTMQ

VIYDEKRGGLIYDGHTKLHKKPPEGECIGCEACVSICPTHIDIRKGMQLECINCLECADACSKVQSKFNR

PSLINWTSAKAIETRSKVHYLRFRTIAYFIVLLIALLALIIMGSKKESMLLNINRSSELYNISNVKGELV

ISNAYTFLFQNTDSKPHEYYFTANLEGINDGIEIIRPNKPFKLKAGEQVKKIVVIRATKNLANNDKKDVI

FPLHIKAYAKDNEKISVFRKSIFVYPKSTLIKDKNELK

>CCK66495.1 transcriptional regulator CmeR [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNSNRTPSQKVLARQEKIKAVALELFLTKGYQETSLSDIIKLSGGSYSNIYDGFKSKEGLFFEILDDICK

KHFHLIYSKTQEIENGTLKEILTSFGLAFIEIFNQPEAVAFGKIIYSQVYDKDRHLANWIENNQQNFSYN

ILMGFFKQQNNSYMKKNAEKLAVLFCTMLKEPYHHLNVLINAPLKNKKEQKEHVEFVVNVFLNGINSSKA

>CCK66494.1 periplasmic fusion protein CmeA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLFQKNTILALGVVLLLTACSKEEAPKIQMPPQPVTTMSAKSEDLPLSFTYPAKLVSDYDVIIKPQVSG

VIENKLFKAGDKVKKGQTLFIIEQDKFKASVDSAYGQALMAKATFENASKDFNRSKALFSKSAISQKEYD

SSLATFNNSKASLASARAQLANARIDLDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYAD

FFISDTDKLNLVRNTQNGKWDLDSIHANLNLNGETVQGKLYFIDSVIDANSGTVKAKAIFDNNNSTLLPG

AFATITSEGFIQKNGFKVPQIAVKQNQNDVYVLLVKNGKVEKSSVHISYQNNEYAIIDKGLQNGDKIILD

NFKKIQVGSEVKEIGAQ

>CCK66493.1 inner membrane efflux transporter CmeB [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFSKFFIERPVFASVVAIIISLAGAIGLTNLPIEQYPSLTPPTVKVSATYTGADAQTIASTVASPIEDAI

NGADNMIYMDSTSSSSGTMSLTVYFDIGTDPDQATIDVNNRISAATAKMPDAVKKLGVTVRKTSSTTLAA

ISMYSSDGSMSAVDVYNYITLNVLDELKRVPGVGDANAIGNRNYSLRIWLKPDLLNKFGITATDVISAVN

DQNAQYATGKIGEEPVTQKSPYVYSITMQGRLQNPSEFENIILRTNNDGSFLRLKDVADVEIGSQQYSSQ

GRLNGNDAVPIMINLQSGANALHTAELVQAKMQELSKNFPKGLTYKIPYDTTKFVIESIKEVVKTFVEAL

ILVIIVMYMFLKNFRATLIPMIAVPVSLLGTFAGLYVLGFSINLLTLFALILAIGIVVDDAIIVVENIDR

ILHENEQISVKDAAIQAMQEVSSPVISIVLVLCAVFVPVSFISGFVGEIQRQFALTLAISVTISGFVALT

LTPSLCALFLRRNEGEPFKFVKKFNDFFDWSTSVFSAGVAYILKRTIRFVLIFCIMLGAIFYLYKAVPSS

LVPEEDQGLMIGIINLPSASALHRTISEVDHISQEVLKTNGVKDAMAMIGFDLFTSSLKENAAAMFIGLK

DWKDRNVSADEIAMELNKKFAFDRNASSIFIGLPPIPGLSITGGFEMYVQNKSGKSYDEIQKDVNKLVAV

ANQRKELSRVRTTLDTTFPQYKLIIDRDKLKHYNLNMQDVFNTMNATIGTYYVNDFSMLGKNFQVNIRAK

GDFRNTQDALKNIFVRSNDGKMIPLDSFLTLQRSSGPDDVKRFNLFPAAQVQGQPAPGYTSGQAIEAIAQ

VAKETLGDDYSIAWSGSAYQEVSSKGTASYAFALGMIFVFLILAAQYERWLIPLAVVTAVPFAVFGSFLL

VYLRGFSNDIYFQTGLLLLIGLSAKNAILIVEFAMEERFKKGKGVFEAAVAAAKLRFRPIIMTSLAFTFG

VLPMIFATGAGSASRHSLGTGLIGGMIAASTLAIFFVPLFFYLLENFNEWLDKKRGKVHE

>CCK66492.1 outer membrane channel protein CmeC [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNKIISISAIASFTLLISACSLSPNLNIPEANYSIDNKLGALSWEKENNSSITKNWWKDFDDENLNKVVD

LALKNNNDLKLAFIHMEQAAAQLGIDFSSLLPKFDGSASGSRAKTAINAPSNRTGEVSYGNDFKMGLNLS

YEIDLWGKYRDTYRASKSGFKASEYDYEAARLSVISNTVQTYFNLVNAYENENALKEAYKSAKEIYRIND

EKFQVGAVGEYELAQARANLESMALQYNEAKLNKENYLKALKILTSNDLNDILYKNQSYQVFNLKEFDIP

TGISSTILLQRPDIGSSLEKLTQQNYLVGVARTAFLPSLSLTGLLGFESGDLDTLVKGGSKTWNIGGNFT

LPIFHWGEIYQNVNLAKLNKDEAFVNYQNTLITAFGEIRYALVARKTIRLQYDNAQASEQSYKRIYEIAK

ERYDIGEMSLQDYLEARQNWLNAAVAFNNIKYSYANSIVDVIKAFGGGFEQSEDTSKNIKEESKNLDMSF

RE

>CCK66491.1 hypothetical protein BN148\_0364 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDKAKIVQNLNALFKQRAEFYSYFDENIAKINNTEVFDFKNAKNLNPEEVYKQFYHFDYAIRKLLPAIYK

AYEITDADLDKDF

>CCK66490.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLFQNLALKYSHTMMEKSLQKGFNVELLKQPEEKIPKQDKSYMLYAHVPFCHTFCPYCSFHKYYYDENL

AKVYFQNLREEIKIMKNKGFDFTSMYVGGGTTLIDEEELLKTLELCKKLFNIKEISCESDPNHIDPNKLS

MFKGIIDRLSCGIQSFDDETLKKVARYNKFGSSKELQEKISKALGILPIFSIDLIFNLPGQNEKQLLNDL

EIAKNLAPQQITTYPLMKSNLTKDNIAKSLGVSIKDNEFTYYQIIREFFKDYTQNNGWSFSLEKNKLNDE

YVSSHHEYLGVGSGAFSFLDGELLINAFNLNDYAKFIQEKQNANIAKACFDKKEIIKYVFLTGIFSGKIE

IDKFNKTLNCNLEKELFIELLGLKTSGAIIKDQNALIATEFGQYLFVVLMKDFYTGMDLVRAVFRDDKRL

KNKDYIDIMKENIDPLNSASMEFKAETN

>CCK66489.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTEWINDYYFWIKWVHYLAFVSWMAGLFYLPRLFVYHAEHKDNKGFVEVVKIQERKLYYYIQTPAMIVTL

ITGSLMLHAHKEVLMVGAGFMHVKLTCVTLLIIFHIHNYYCLKALANDTSTKSGKYFRIYNEFPTIMFII

IALMMVVRPF

>CCK66488.1 lipoprotein signal peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKTFKFIFYFWGAFVLVFALDQWVKSLTLAGFRWQSEYLDLTYALNTGVAFSMLSFLEHNLKYLHLALI

GVLFIYLFWQRTLLKTHSIAFGMMLGAGVSNLLDRFIHGGVVDMFFWHKWFNFAIFNVADVMINISVALI

LIQEIFKKRKKDDRMD

>CCK66487.1 phosphoglucosamine mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLFGTDGVRGKAGEFLDSFLAMRLAMAAGIYFKDKSITNNILVGKDTRRSGYMIENAIVSGLTSIGYNV

IQIGPMPTPAIAFLTEDMRCDAGIMISASHNPYYDNGIKFFDAHGNKLSEDIEKKIEEIYFDDKLIQASK

VDMEKIGQAKRIDDVIGRYIVSIKNSFPKDLTLKSLRVVLDVAHGAAYKVAPTVFKELGAEVIVMSDKPN

GLNINENCGALHPANLAAEVKRLRADVGFAFDGDADRLVVVDEKGEVANGDSLLGVLALYLKEQGKLQSS

VVATIMSNGALKEFLNKHGIELDTCNVGDKYVLEKLKANGGNFGGEQSGHIIFSDYAKTGDGLIAALQFS

ALMLSKKKSASSILGQVKPYPQLLTNLKIAEKKDLDKIKGLKELKKDLENKNINTLFRYSGTENLIRLLL

EARDIKLLEKEMKNVVEFFKKALNG

>CCK66486.1 cytochrome C551 peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVKSLLIASLVAFSSLNAASLIDEAKNSGLVALPKDQKGVDEILKQNGVKASEFTLEKAELGKKLYFEP

RLSKSGIISCNTCHNVGLGGTDGISTAIGHKWTANPHHLNSPTVYNAVLNNTQFWDGRAGTLADQAKGPI

QADPEMATPAKLAVEKISSLPEYVSEFKKIYGKSGVNFDNIADAIANFERTLITPSRFDKFLEGDEKALT

KEEQKGLKLFIDKGCVACHNGVNLGGNMQAFEVAGKYKFANLGDFKGDANGMVKTPTLRNVAETAPYFHN

GAIWNLKDAIKEMGSVQLGIKISDKEAKSIETFLKSLTGTKPAIVYPQLPISTEKTPKPEL

>CCK66485.1 glycerol-3-phosphate acyltransferase PlsY [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENLIIYAFIYLLGSIPFGLILAKFFAKTDIKKEGSKSIGATNVLRVVKEKNPKLAKKLAIATIILDFAK

AAIPLLTLKFLHYDQALLWSVAVLAILGHCFSIYLLFEGGKGIATGAGAMIVLLPLEVLTAFIVWVVIGK

IFKISSLASLAALLAFVVSSFIFNYDLEIHTHAPVFIIAFIIVYKHLPNIKRLIFKEECKVI

>CCK66484.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQSHIKIKFHFKCIIGILDFERRKKQKIIIKLKAKANEFLNYAEVITKIKTWYKKEEFYTLEESLDFVSL

NLKKDFPNLTNLNIKIFKPHIIKNATVGVKLKKKY

>CCK66483.1 two-component regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRILVIEDEISLNKTIIDNLNEFGYQTDSSENFKDGEYFIGIRHYDLVLANWTLPDGDGAELVNTIKHKS

PRTSVMIMSSKTDKETEIKALKAGADDFVKKPLDFDILLARIEARLRLGGTNVIKIEDLVIDPDEEKITY

KGQDIELKGKPFEVLTHLARHSDQIVSKEQLLDAIWEEPELVTPNVIEVAINQIRQKMDKPLNISTIETV

RRRGYRFCFPKKS

>CCK66482.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSLLITKDCVCCDACREECPDEAIYENSPIYVIDPDLCSECVNDFSEPACIVACPYECIIPDPDNVETIE

ELKLKHRDREF

>CCK66481.1 phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKKTAVVDLGSNSIRMVIFEKTSRYGFYTTCEYKRKVRLGENAYNNGKILQEEAMQRAEDALAFFKQCA

LKHKCKKIFIVGTSALRDAPNSKNFIKRIKDNLSLNIRCIDGKSESYLGGLAALNLLSPFKDGTTLDIGG

GSSELCLIKNNRIISCISLDIGTVRLKELFYDTGKMDSLEEFIKPILEQIPKEFCNQNLIAIGGSLRAIS

NSIMQKNSYPLKNLHDFRYMLDEEKGHILKIFNSNLDSLINFGIKKDRFDTIKEGIFIFLKIAEKIKAKQ

VITSGVGIREGVYLQDLLRPKITFPPNFNPSLKCLQDKFLQSKQKNKTPHFALQIFTTLKNLHKLNDNYK

HTLLNAAKLCHIGEYLNFYFANEHSAHFVLGGLNYGFSHKEKALIASIIKLNGKKVNPYNLEPYKQLLPN

IHTISWLNFILCLAKTLSANEDKIDFAFANNTLYIYQENKILNLPKDELKKIAKPATIALAINQKI

>CCK66480.1 transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRLLVLFFLILPLYSVELISYNIYDRNDRVDLMLSFDNAYNGKISQKKEKNLTLLTFSDLTYSKDELKEL

NSQLVDKISISSKNNNTYIMLQNKQNINLELSSINDKFGVRIRAIEQGKANIESAPTTTANNSQELMPKP

KSTSLEGYDYTNYILVMLILVILLIVLWWFKKTMVYKNNNVSRDFTMIFQRFLDKNNQLVVFDHANKRYT

MIIGNSNVLLESIEIPEEQTIKHTEKTEKNFDSFFEENKKRIQNLIEQRQKGKKS

>CCK66479.1 flagellar motor switch protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSDDIEFNIHHGLLQSYEDILDITVDFVSELGTTNMSVAELLKLEVGSVIDLEKPAGESVELYINKRIFG

KGEVMVYEKNLAIRINEILDSKTVLQYFKKEI

>CCK66478.1 hypothetical protein BN148\_0350 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKILEYSITHFCEHILRLRIEAAQDISGELYGASIPIMGKSEGECNFYLFFPKEFLKKIAEILINDEKF

KEDDWCDLTKECANQIIGYAKNLLNDAKGDDEYKLGIPEYLGKVDFSEIVLDEALTYKFENCYFRIGYCK

>CCK66477.1 tryptophan synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVDFRKFYKENANVAYTVLGYPNLQTSEAFLQRLDQSPIDILELGVAYSDPIADGEIIADAAKIALDQGV

DIHSVFELLARIKTKKALVFMVYYNLIFSYGLEKFVKKAKSLGICALIVPELSFEESDDLIKECERYNIA

LITLVSVTTPKERVKKLVKHAKGFIYLLASIGITGTKSVEEAILQDKVKEIRSFTNLPIFVGFGIQNNQD

VKRMRKVADGVIVGTSIVKCFKQGNLDIIMKDIEEIFKK

>CCK66476.1 tryptophan synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKAYYGDFGGQFLPESAMFALNELEGAFLKFSKDKLFKKELNELLKTYVGRPTPLYFARNLSKKYQHEI

YLKREDLNHTGAHKINNAIAQALLAKKMGKKKIIAETGAGQHGLATATAAALLGLECEIYMGATDVQRQA

LNVYKMELLGAKIHAVQSGLKTLKEATTAAIQAWVGDIKNIFYVVGSAVGPYPYPKMVMHFQSIIGKECK

MQLQKLNKKVDYIIAAVGGGSNAAGIFYDFIKDENVKLIGIEAGGLGIDTPYHAATLNKGKTGIIHGMKT

KVLQDDLGNILPVHSVSAGLDYPGIGPLHAFLFESKRAQYHAISDEECMQALKLLCKEEGIIAAIESSHA

LAFLEKLCPTLKKKSVIVVNLSGRGDKDMQMIRDYKKGVIYG

>CCK66475.1 N-(5'-phosphoribosyl)anthranilate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKLKICGIKDEKNAKDLAFLNIDFFGLIFAKSPRRVSLEQARNLSAIFHEKDKKVVGVFVDENLEQILR

CIKEAKLDGIQIYRTITKEEFEILKVQNVFVWQVISVENSLDLKSEIFANLVLFDAKGILKGGNGISFDW

TLLGSYTKDFILAGGIGLDNVHKAVKTGAKILDLNSKLEDEKGLKDINKIKQILKELKK

>CCK66474.1 anthranilate synthase component II [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MILLIDNYDSFVFNVKSMLEQLSNDEILVRRNDAISLSEIKNLNPTHIILSPGPKHPSQSGICLEIFKAR

LNIPVLGICLGHQALALAFDSLVVKMQEPMHAKNSLIKQCRENELFSNLPSNFSVMRYHSLEVKQLSDEL

EILALDEKGVIMALGHKNLPYYGVQFHPESYFSEYGLQLFSNFLKQDIKKPQKQENPLSFYLQKMSENHF

LQSDDFEQICKIIMSKDYEILQVVALLILITEKSLNEKSLSAFVRQILRYSQTFSDESEMIDICGTGGDG

FKSINVSTTSAFILAALGVKVAKHGNRAISSSSGSTDVLEALNITTPNTLESVLKQLNNQGLSFLHAPFF

HPLVGELKEIRSRLGVRTVFNVLGPLLHPNLKLKYQLMGNYHAPVHRLLIEVLKNLGRKKALVVRGNDGM

DELSICDESKIYELCEGEILEYSICPEQFGFKRAFHSEIIGSSAYDNAKDLKDILSGRMQGAKFDLVVLN

AMFALYTANKASSPLVAKDMILEAIYSGKVIEYFKEYQAYAKA

>CCK66473.1 anthranilate synthase component I [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFVKNVNFYYRQILEKFENSYFAEDLTKVIIGIDCDYLDANELSFSEFKAKYYEALSKNKICDFAGFFGV

FSANFVSLFEKIPLSSKKNYDFPLFLFANAKAYLIYEKNSKMFFKFGASKYFEYLKDDIEPMKKKQKNDF

EILNSLEDEKNDFLKMCEKAKEYLLSGDIFQVVLSKQLCIKHQVNAFDYYESLSALNPSAYMFYFPSKYG

VVLGSSPEFLLKIKKREIYLAPIAGTRNLENNCDLLALEKDLLSDEKELSEHKMLVDLARNDASKFGTQT

RVENLFSIIKNKFVMHIVSEVYANMKEDASIFDVIEAVFPAGTLSGAPKIRALEITSELEDCDRGIYGGA

VGFLNFNEDITLAILIRCAFFTQDKAYLASGAGIVLQSESQKEYAEICAKRKALLVAFENLKKENQ

>CCK66472.1 hypothetical protein BN148\_0344 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFQNIIKYKDFIIFILNLKQNLYLLIKINLDFKNFHKSLNF

>CCK66471.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEITDLPYLIIGIISGIASGLFGIGGGMIIVPSMFALGASAHHAIGISVLQMIFAAVFGSYINYKKKNLN

LKDGIMIGFGGLIGASFSGMLLKALSDVALTSVFLAVSCIFFIKYAFGIKENIVQNQRSVWVKNVILFIA

GAFTGIFAISLGIGGGLLIAPILAYFLGYDSKKVVSLSLFFVIFASVSGIISFSNSGVIDSEVIHKGILV

GIASMVGVFIGIKIIEKMHISAHRKILLCVYALSILGTTHSLLNKLNFINF

>CCK66470.1 excinuclease ABC subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNDTIKIIGARENNLKNIHLEIPKNKLIVFTGLSGSGKSTLAFGTLYAEGQRRYIESLSAYARQFLDKVG

KPDVDKIEGLTPAIAIDQKTTSKNPRSTVGTITEIYDYLRLLYARVGIQHCHRCGQKISSMSVSDIVSEI

LKFPKGAKIIIYSPLIREKKGTYADLLENLRNKGYVRAQIDGVLVRLDEEIELAKTKKHTIKLVIDRLEI

QEDLLSRLASDIEKGLQESFGEIEIEVLNHEEINLNKHYHFSEHSACFDCKISFVPLEPLSFSFNSPKGA

CEACDGLGIRYTLDMKKIIDENLSLENGAVKIMYGFNKSYYYKFLIAFCEQNEIPIKIPFMQLNEVQKRL

VLYGNAKTIEFLWKRNRLKRTFEGVVKMAYEMLKDEKDLAEYMSEKICKDCGGHRLKPESLAVKVAKKSL

GEILDMSIEDSTAFFADEKNFSYLSEQQKLISKPILKEINERLFFLYDVGLGYLSLGRDARTISGGEAQR

IRIASQIGSGLSGVMYVLDEPSIGLHERDTAKLIKTLRNLQQKGNTLIVVEHDKMTIEEADFIVDIGPKA

GKFGGEVVFSGTYKELLKSKSETALYMNGKKQISQLQNRTQKEWLELKNVNINNIQDLSVKFPLQNLVAI

TGVSGSGKSSLILQTLLPFAQEELNRAKKVKKLGGVQIEGLEKLDKVIYLDQSPIGRTPRSNPATYTGAM

DEIRNLFAATKEAKMRGYKAGRFSFNVKGGRCEKCSGDGEIKIEMHFLPDVMVVCDTCGGKRYNDATLEI

KYKGKNISEILNMSVLEASEFFTAVPKIKQKLDTLVKVGLDYLTLGQNATTLSGGEAQRIKLAKELSRSD

TGKTLYILDEPTTGLHFEDVNKLILVLQHLVDLKNSVFVIEHNLDVIKNADYIIDMGPEGGVKGGKVIST

GSVEKVAKEHKKTRSYTGYYLDLELKNTQKS

>CCK66469.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFDFLYNDISYLGLFMVCFLSSTLLPLASEAFVLGFIKLDFNPNLVLIVATLGNTLGSLSTYALAYFGKE

KILEKYFSKSLKKLENFNANFAKFGSIFAFFTFLPLVGDLFALGLGFAKYSFLKTIFFILLGKLSRYTFI

IFIANSF

>CCK66468.1 nucleoside hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRLILDTDIGNAIAGANTDDGLALALILSSKEIKLEMLSTVCGNVPSLVAYSVAKDLFQRLNLNIPVYLG

ANEALKEPSKAWRQRLDESVKNFKLEYLWENIKSPEILENINPDAIFKMGELVSKNPKEISICAIGPLTN

IAMTMKIFKDFDINLKELFIMGGSFDMPYYTKDTNFGFDPEAASIVLNSRAKITLIPYNATMQTLLTHED

LKELQGKNILCDFIVETLGVWIDYASKTRGTKGTWIHDALTIACALDSSIADFDECYADVICDSSLARGM

SWRCFREPKMSMGVDLSTKNCVKILKNVDNARLLKLIKERLLKGVCYENYESITT

>CCK66467.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTNQQIDGIADKNFNTPEGRKVFKKAVFSCWLGTAMEYADFALYGLAAATIFSEVFFPEQTPVIALLLSF

VTYGIGFIARPIGALFFGHLGDKHGRKNVMMATIALMGISTTLIGFIPSYAVIGVWAPICLVALRFMQGF

GAGAELSGGTVMLAEYAPSKRRGLVSSVIALGSNSGTLLASFVWLLMVQMDEASFKEWGWRVPFMGSILI

ALFAVYIRFHVKETPVFEKQKNEMMKLRLNNEKHMKKDERSFWQRSRAFWTMVGLRIGENGPSYLAQGFI

VGYVTKILLLDKSVATTAVMIASLVGFLVIPLAGYLSDKFGRCITYRMFCLLLMIYAFPAFMLLDSKNEI

IVILTIIVGMSLASLGIFGVQAAWGVELFGVKNRYTKMAFAKELGSILSGGTAPMVASALLAYYGSWWPI

ATYFVLTAGIGFVTTFFAPETRGRDLNKIEDAI

>CCK66466.1 DNA polymerase I [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTLTIVDTFGFFFRLYYALKGFKNSQGQASGMISGFANFIYSLKNEYKSDYIVFALDSKGKTFRSEIDP

NYKQNRTPPPPELLEQIPICIKMIEKMGFISVSQEGYEADDIIASFVKTCENRDIFVRIITQDKDLYQLI

KDGKTSIYSPISKNDYDEAACLEKYGVKPNQIRDFLALCGDSSDNIPGVKGIGAKGAKTLLDEFGSIEGI

YENLTLVRNERSRNLLLEGKENAFLSKKLASLYDNLEVQNLIEKATYPDEEPLLKILEILEHYELNTLLK

KLRQNPDNKDKNLGFKATLVQDENKLFEILNTLDKESIIAFDTETTGLDTKEAKIVGFSFCMNENEAFYV

PLTHNYLGVGEQISLQSAKKAIEVIFNHFVIGHNLKYDFKIIQNNFDLNLPQKYADTMILAWLKNPSLRV

NMDDLALRLFNYETLHFESLVKKGENFASVELEKACKYAAEDAYITLRFYLYFLKNLETPLLELAKNCEF

DFIKIIMMMEENGIKLDTNALEILMKKFENEIKNLSEEIYTLCEDRFNLNSPKQMGDILFEKLKLPSGKK

GKTGYSTDEKVLNILLDKHPVIAKILDYRELAKLYSTYCEPLLKLALKDKNSRIYSSFLQTGTATGRLSS

KDPNLQNIPAHGQYAKDYKSCFVAKDGFSFISLDYSQIELRILAHFSEDEKLLNAFANDEDIHARTAIMI

FGESNYETRSVAKSINFGLIYGMGYKTLSQNLKIEANLAKSYIEKYFENFTSIKKYFEKVKNEAKQNGFI

VTLSGRKRYFDFENAKPMQIAMYERESINSILQGSAADVIKLAMLEINKELNEDKKLILQIHDELIFEVK

DDLCENFVKKTRDIMENIVKLKVKLKTSSSIAKNWGDLK

>CCK66465.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDLSTILGMVLAVTSISVGDILEGGNPLHVVHLSSFLIVMPTAAFCAMTSTHKKIVKAAYKELKVVFKGS

GVNLPERIAQLIEFAIIARRDGLLALESRTSEIENEFLKNAMMMLVDGKSFEEIHESMEIQTEQLEEHYK

ECAEYWIVFGETCPTMGLVGAVFGLILALKLLDNPQAMAAGISGAFTATVTGIFGAYALFAPWGKKLKAN

GMDLVKEQIVITEAIKGIAEGANPRDLEAKLFNFLSHDDPRISQFDKG

>CCK66464.1 flagellar motor protein MotB [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKKHKCPECPAGEKWAVPYADFLSLLLALFIALWAISKTNPAKVEALKTEFVKIFDYTSTQTVKEESKT

QEKYKGAAKEESDELKSLKQMTMTQQETIKRLQAALDQSDNQVALNLPSKVEFERGSAQIVSADIQDYLK

RMAELTTYLPPQAKIEIRGYTDNSDSIIRSYELAYQRAENVLKYFIEGGANLKNISIKSYGLNNPINGNP

QTLENNRVEIYFKVDTADTSTQKSVLELINKIGTKAP

>CCK66463.1 flagellar biosynthesis protein FlhB [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAGEDQEKTEEPTSKKIEDARKEGNVPKSQDAAAIVTLIIGVTITLFMMSFMGERIVNLYRYYQSFIGVE

FDLRIIQAIMIKSIFEVLIILAPIVLSIMIAGVLGNIMQFGFIFTTKPIMPNLGKINPLKGLKNLFSLKK

IVESIKIILKVGIVFTIAFIVLLKFMQELPRVELYTMVAQLTWLRDRAIVLAAIVIVAFLIIAVLDVFLV

RFQYFKGLRMSKQEIKDEYKQMEGDPQVKGRIRRLQMEAARRRMVQDVAGADVVITNPTHYAVAIRYDTG

KEQAPRVVAKGVDFLALRIKQVAYENNVVVYENPPLARELYKACDVNDLIPREMFKAVAEVLGFVYNTNN

KSRLAGQVKKGN

>CCK66462.1 alkyl hydroperoxide reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIVTKKALDFTAPAVLGNNEIVQDFNLYKNIGPKGAVVFFYPKDFTFVCPSEIIAFDKRYQEFKNRGIEV

IGISGDNEFSHFAWKNTPVNQGGIGQVKFPLVADLTKQIARNFDVLYAEAVALRGSFLLDADGTVRHAVV

NDLPLGRNIDEMLRMVDTMLFTNEHGEVCPAGWNKGDEGMKANPKGVAEYLGKNEAKL

>CCK66461.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAVKITDICIACGSCIDECPVNAIVDDTNNPEGEDRYYVYANKCVECVGHNDQPACASACPTDGCIVWSA

VESGQPSRDNIGADMRSGDTPVFA

>CCK66460.1 nucleoside diphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMISGPV

VVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>CCK66459.1 hypothetical protein BN148\_0331c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIPFSKINTKEYPFKLNLENIIFEGNLVKINPKLVKINAIMQGFIYRPCDSCGTELELEIKENLELFAS

DGIFKDEANELSNTIEFFDGHIDLIEVAISELEAYLSDYFYCINCNN

>CCK66458.1 50S ribosomal protein L32 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAVPKRRVSKTRAAKRRTHYKVSLPMPIKDKDGSYKMPHRANPTTKEY

>CCK66457.1 glycerol-3-phosphate acyltransferase PlsX [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINIAIDAMGGDFGEKPIIEGVLKALETKPFNAILVGNSKILKPLIPKKLEQYIQYEEASEIFSMNGNAT

DALKNKETTIYKAINLLKEKKVDAVVSAGHSGASMSLATLKLGRLKGISRPAIATLMPNIVNKTLLLDVG

ANTDCKAENLFQFAIMGEVYAREIMQIQKPRLALLSNGEEECKGNELTKESHQLMKKIPNFIGNAEGRDI

FNGEIDVLVCDGFDGNVILKACEGVATAIFQLLKNEVKQSFISKIGALLMKPSFKKLKKHTDWQEYGGAP

LLGVNGCVIISHGKSDSRAIKNAIFQAINFSQSHINKFIENELGKYNA

>CCK66456.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKASLKSIASYIPEKILSNADLEKMVDTTDEWITRRTGIKERRIASENENTSDLGTKAALKAIERANLK

PEDIDAILVATLSPDYFTMPSTACKIASNLGLVNISAFDISAACSGFIYLLEQAKALVESGLKKNVLIIG

AEKTSSIMDYNDRSICILFGDGAGAGVVSLDNENHILDVHTASNGNYGDLLMTQRSQKSSLCQTLSMQMK

GNEVFKIAVNTLSNDVVEILAKNNILAQEIDLFIPHQANLRIIKAVQEKLNLSDEKCVITVQKYGNTSAA

SIPMAMNDAYEEGRLKKGNLILLDAFGGGFTWGSALLKFGGENF

>CCK66455.1 endoribonuclease L-PSP family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKRFDECDRMSQIIVFDKYFKTAGQVAFEPSGDIKKQTKEALAELDALFEKIGANKGDLIQIQIWLANM

QDFDAMNEIYDAWIKNYPKPVRACVGSALAEGYLVEIQAFGKLREN

>CCK66454.1 phosphoserine aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRKINFSAGPSTLPLEILEQAQKELCDYQGRGYSIMEISHRTKVFEEVHFGAQEKAKKLYELNDDYEVLF

LQGGASLQFAMIPMNLALNGVCEYANTGVWTKKAIKEAQILGVNVKTVASSEESNFDHIPRVEFSDNADY

AYICSNNTIYGTQYQNYPKTKTPLIVDASSDFFSRKVDFSNIALFYGGVQKNAGISGLSCIFIRKDMLER

SKNKQIPSMLNYLTHAENQSLFNTPPTFAIYMFNLEMDWLLNQGGLDKVHEKNSQKATMLYECIDLSNGF

YKGHADKKDRSLMNVSFNIAKNKDLEPLFVKEAEEAGMIGLKGHRILGGIRASIYNALNLDQVKTLCEFM

KEFQGKYA

>CCK66453.1 exodeoxyribonuclease VII large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTPTELNLKAKALLETHFDDIVLSGEISKITLHGSGHWYFDLKDERSSIACAMFKGANLKVGFKPAVGDF

LELCGSVSLYPESGRYQFIATSMKKAGFGDLEAQFLALKERLQKEGLFDPRFKKSLPKFPKKVGIITSKT

SAALQDMLKLIHQKEYFLAKIYIFDALTQGNNAPFSLIQALKKADDMDLDVLIIARGGGSREDLFCFNDE

NLAREIFKAKTPIISAIGHEIDYVISDFVADFRAPTPSAAIDTLFYSKLDIEQSLDLMEEKLMQLWNYKI

QNYENLLLNLSKFFKFNSLPKIIDEKIKQSHNIEKQLNHLLANQMRYNELKLDKLQNAYLQHENFFNKSK

KFICIRKNGKIANLEDLKSDDIVILSSQTSQKEAKIL

>CCK66452.1 ubiquinone/menaquinone biosynthesis methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKQEKIIEMFNQIAPTYDKANRILSFGADVAWRKKACQRVMSLYLKKDLKIADIACGTGDMIEIWQESA

LKMEKNILNIKGIDPSSGMLNVAKEKFPNVEFIKAGAQNLPLESQSLDILSISYGIRNVVERQKALSEFA

RVLQKDGILVVLEFTKREKGGFIAACRDFYLKNILPSIGGIISKNKSAYEYLPNSIEGFLSKKEFILELK

NAGFEMLDYKSFSFGVSSMFIAKKL

>CCK66451.1 hypothetical protein BN148\_0323 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVYEIQKNFLLSDCTLLENLKKDNIPFRNSKFETFYTQITSNHSVKFQSFCNEFYKITKFNNSILEQNQE

EKISKKKFEKARKKIIGKSIKKERFEFKFCSLKSYIDIYEEPKICILKIFFPTLDSSNEFKIPKDFKIQK

ELHHDLNSKHIVLYGFEYQNFDIEKYFKIIEKNQNFSLDFPNYINAYDGFRIFLFYLFKKLKFYWTLSLE

RKDKQSLCEFLFYSRSLYIVLSSMNTILDKNLSNILALKFKDITKKTQDILASENSNQDLLLFLSDEKIQ

DLFNDFDFFIKENSFYEGDCKDRFFKQLVALELRKKIILFRKNILKNFDLELFENSFFELAIFLEYFYHF

LEIKNLNKLYEKYSKDRDKNIFSKIINNKNKFCKLLKKSSKNLKIYKG

>CCK66450.1 peroxide stress regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MELLQMLKKHELKATPQRLCVLKILKRHEHPNIDELYIEIKKEYPSISLATVYKNLNTLQEQGLVVEINV

LNQKTCYDIYEEEHIHVVCTKCGGIEDLSFKDAKLYEYQEHLEKKIGNLVNHLSVCAYVDNCKKCH

>CCK66449.1 1-deoxy-D-xylulose-5-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKKFAHTQEELEKLSLKELENLAASMREKIIQVVSKNGGHLSSNLGAVELSIAMHLVFDAKKDPFIFDV

SHQSYTHKLLSGKEEIFDTLRQINGLSGYTKPSEGDYFVAGHSSTSISLAVGACKAIALKGEKRIPVALI

GDGALSAGMAYEALNELGDSKFPCVILLNDNEMSISKPIGAISKYLSQAMATQFYQSFKKRIAKMLDILP

DSATYMAKRFEESFKLITPGLLFEELGLEYIGPIDGHNLGEIISALKQAKAMQKPCVIHAQTIKGKGYAL

AEGKHAKWHGVGAFDIDSGESVKKSDTKKSATEIFSKNLLDLASKYENIVGVTAAMPSGTGLDKLIEKYP

NRFWDVAIAEQHAVTSMAAMAKEGFKPFIAIYSTFLQRAYDQVIHDCAIMNLNVVFAMDRAGIVGEDGET

HQGVFDLSFLAPLPNFTLLAPRDEQMMQNIMEYAYLHQGPIALRYPRGSFILDKEFNPCEIKLGKAQWLV

KNNSEIAFLGYGQGVAKAWQVLRALQEMNNNANLIDLIFAKPLDEELLCELAKKSKIWFIFSENVKIGGI

ESLINNFLQKYDLHVKVVSFEYEDKFIEHGKTSEVEKNLEKDVNSLLTKVLKFYH

>CCK66448.1 flagellar assembly protein H [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVNRSNVISGGASDQHVVEGYRFKVISEFDNHTGEKKHTQTPDEENTNISLNDEKPVEENQVIASTQAVM

ETQIPTFQPSFVEDLLKKTDEMSSNIIKLQMQIESQENEFNNRLNSELENAKEKFTKEGYEKAKEEFQKE

LSDFKDKYLKSIAKLDNACENLENFIEKNEKELADTAIDIAKEVILKELELNSSKIAYALAKDLIGELKG

ASAIELKVNAEDYEYLKEQFDQNAHIKISLDDAISKGSVVIISDAGNIESNLNSRLTKIKKMVNNE

>CCK66447.1 flagellar motor switch protein G [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKLSEEQKMVYDDLSMPEKVAIFLIQLGEDATTSVFSHMEIDVITEISRYIAMAKNVDRSVATAVLEEF

YTLLQSNQYIKSGGLEYAKEILFRTFGPEIANKILEKLTKSMENNQNFAYLAQIKPQQLADFITKEHPQT

IALILAHMDSIHAAETLEYFSDELRAEVVIRMANLGDISPSIIKRVSAVLESKLESLTSYKVEVGGPRAV

AEVLNRLGQKASKSTITYIEQSDERLAETIKELMFTFDDIQKLSTQAIREILKVADKRDLMIGLKGASEE

LKQKFLANMSTRASEAFLEEMGFLGAVRVKDVEDAQRKVVEVVQKLAEQGLVQTGDADEMIE

>CCK66446.1 flagellar MS-ring protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDFKNMLHQIGQLYQNLTRKQRIVIAASIIVVVGFLVFLALFRGSGSNANNGYAVLVENVSPSSSAAIVA

KLEQNNIPYKLESENKILVPQDQVYRQRMFIASEGLIKDSRVGFEAFDTQAFGATNEEQKVKYQRAIEGE

LARTIETLEPIRSAVVHIAFPKDSVFTERQIPPTASVVVNVREGLKLTRKQIDGIKNIVSAAVPKLTKEN

VKISDQSGVPLDEQEAYEDDLVRAQIKFKSDQEKALEDKIIENLAPFAGGMDKVKVSVNIDFDFSKQESQ

SEIYDPNPIVRSEQTLNEERTGRKDPEIQGVPGAVSNIGPVEGLDNKGQIDTYKKNQVTTNNELSKTITN

TKKQFATVLRTSAAVTIDGKYQDVVDENGDVKSEYVPLTKEELASVESIVKNTINFSATRGDSVVVQNLP

FHRESIRVESKVKTFYNRFVEPFIPPVKYFIAAILLFIFYKKVIAPFTQKMLEDVAAQEEMQQGPNAVLD

DAEDALEKFNAARKKVEEQLGFGDNFNEDSIQYEVLLEKLRGLVSDKGEEIAALLQNLIQNDSEFGEKDM

>CCK66445.1 histidinol-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFNEFLNNLSNYEPGKDIEVIAKEYGVKEVIKLASNENPFGTPPKAIECLRQNANKAHLYPDDSMIELK

STLAQKYKVQNENIIIGAGSDQVIEFAIHSKLNSKNAFLQAGVTFAMYEIYAKQCGAKCYKTQSITHNLD

EFKKLYETHKDEIKLIFLCLPNNPLGECLDASEATEFIKGVNEDCLVVIDAAYNEFASFKDSKKHLEPCE

LIKEFDNVLYLGTFSKLYGLGGLRIGYGIANANIISAFYKLRAPFNVSNLALKAAVAAMDDDEFTEKTLE

NNFSQMELYKEFAKKHNIKIIDSYTNFITYFFDEKNSTDLSEKLLKKGIIIRNLKSYGLNAIRITIGTSY

ENEKFFTEFDKILR

>CCK66444.1 chorismate mutase/prephenate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPNLEEFRNKIDAVDDKILDLLNERMTYVKSIGELKQSSGGSIYRPERERAIINRLKNANLGLLDQNAIE

AIYQEIFAVSRNLEMPQTIAYLGPEGTYTHQAARSRFGAMSRYIALANIEDVFKELSNKEAKYGVVPIEN

NTEGAVGITLDCLGKYNELKIFGEIYMDIHHSFVGINENLKEIKRIYSHPQGYNQCRKFLESHELSAIEF

VPSKSTANAAYLASQDKYAAAICSRIAAKLYNVPVLFDKIEDNAANKTRFLILSDIKNPKMPNCKTSILA

HTAHKPGGLSFLLEQFKKENINLTKLESRPVKSKEFLHSFYIDFEGHIDDENVKKALKDIQEIVWLGSYL

SGEKDEI

>CCK66443.1 HAD-superfamily hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFFLDVQGTLISDHDKSLIHGAKELIDFLNAKNLPYLIITNNTKKLDFLEKLQQKGLVIKENAYIDPFSV

LKHLLRPCKVAAFGADEFVKSLENLGFELDFVNPSAVLVASYDDFKFKDFATMIELARREVRFIAMHETS

IYKKDGRPYPGVGSIMAMLKNAIDFEYEVVGKPSIAFYKEALNLIRRQNSKIDFEDIKIISDDFRGDLLK

AKELGMKTLLVLSGKISDTKGLDTDLLDGVYPSVFEFLKDLKCQI

>CCK66442.1 diaminopimelate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDYKQLKQEFNTPFYIYNFDFIKERFLNLKEAFKARKSQIFYAVKANSNLSLLQMLANLDSGFDCVSIGE

VKRALKAGAKAYKIIFSGVGKTKEELRQALEYDILYINLESEAEMMLLESVAKELNLKARISIRVNPNVD

AKTHPYISTGLNENKFGVEIDIARKMYLYAKNSSFLEPVGVHFHIGSQLLDISPIHEAAAIVAKLVRELK

ALQIDLKFFDIGGGLGVAYEKNECEPDLYDYAQGILAQLHGLDLTIGMEPGRYLVAKSGEFVCSVLYEKQ

NKTKRFVVVDGAMNDLIRPSLYEAYHEIILPYNQGEESLCDVVGGICESGDFFAKARSLPSTQSDDIMVI

KNTGAYGFSMSSNYNTRNKVCELALEEGQVRLIRQRENFEDQIALEEKFLKA

>CCK66441.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MWIFFRFISGIYLKNFFIIFFSLLGFYCGIDLLLNFKDLPKAANLDLLYVMFLSFSAVPYVLPISLIFAL

VVSLISMIRANEFVSLYALGLSRNYVILFPFLWALFFCCIYIGLNFTSFAYANDYKRNILKNGTIMNQSG

EVFLKFNNNFVYISKINNGQNSAQNIKIFNINDLNLSSFASAKNAHFEGESWILRDGNITLLPKNYELAN

DGLKIQDFSELKSLEGFKPKIIEGVASNSDYSISDALESFELFKAQNVNTDTLKINLYKFVFTPFFAPFL

MLIMYYFFPVIARFFNLAFVTFIAFVVTLMIWGVLFLLTRLSENSVIASEIGIVVPIIILGCLSAYMYYK

HR

>CCK66440.1 peptidyl-tRNA hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MILVVGLGNIGVEYENTRHNVGFMLIDLLLKESNFTNLTNSKFKGELFKIGSSLLLLKPSTYMNNSGLSV

KAVNDFYKCERMIVIHDDIDINLGALRFKKGGSSGGHNGLKSIDTLCGNDYERVRIGVGKGENVISHVLG

KFKSEEEITLSKVLEHAKKALLELIENDDLSAISSKYSLKA

>CCK66439.1 50S ribosomal protein L25 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLEGIVRESIGRKAAKALKRDGYLIANIYGKGLENINAAFKVNEFIKEVRKKTTLIFDVKVGSQTLSVVV

VDYQKDPVTAELKHVDLKVAQKGVISKYMVPVKITGTAIGLKNKGVLIQSKRRLKVKCAAENLPNFFELD

VSKLDVGDALLVRDIVVPAGVTMIDADRVAVVGVEKAR

>CCK66438.1 efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNEKFNINIAWFLIILGGIIECFWVSGLKYSTEIWQYILTAIGVCISFTCFLKACERLEVSITYSVFVGI

GTIGVVLNEMFIFNEAVSIIKLVLIAILLLSIIALKWVSKEA

>CCK66437.1 efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEWFYLFLATACEIFGVVIMKELVSTKNKLYLLALIVCFGFSFTFLSLSMQNIAMSVAYAIWTGAGTAGG

VMIGVLFYKESKSFLKLFLIAVIITCTAGLKFLS

>CCK66436.1 dethiobiotin synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQIYVSGIHTDVGKTHFSAAFCANFNYDYFKLIQAGTPTDSEFIAKFSPKTKIFKEGIFLQTPASPHLGK

IKEKLDYKALDIILPKSKNLLIELAGGLFSPMDENYTMIDFVNIFKHPTILVAKYYLGSINHILLSIEAL

KQRNINLLALVMMGKKDILQDDFIKNYAKIPIINLDFFDENSILNKDFKEQMQEILQLKIP

>CCK66435.1 adenosylmethionine-8-amino-7-oxononanoate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNQILKNLDLKHIWHPCTQMKDHETLPLIPIKKAKGVWLYDFDDKAYMDCVSSWWVNLFGHCNEKIANA

IKKQVDELEHVILAGFTHEPIIKLSARLCEKVGRNFNKCFYADNGSSAIEVALKMSFHYHLNKGVKKSKF

LSLSNSYHGETLGALSVGDVALYKDTYKALLLECLSTPVPQGKDYTKELEILKDILEKNASEICAFILEP

LVQCAGNMHMYEARFIDEAIKLCHKFGVQVIFDEIAVGFGRTGTLFALHQCKQSPDFICLSKGITGGFMP

LSVVLTRDEIYNAFYDTYESQKAFLHSHSYTGNTLACAAANAVLDIFEDENILVKNQILSEFIKKEFSRL

EKFDFLGNFRTCGMISAFDILSTKYKRVGLFVFQKALEKGLLLRPLANTIYFMPPYIITKEQIVYVLESL

EQIFKEF

>CCK66434.1 8-amino-7-oxononanoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLEKILQDLEQNHNLRTLTPLKHENKFVYKQDHKLLNLVGNDYLYLASSKELKAEFLNTLKEQDLFFSS

SSSRSLSGNFEIYEKLESFLKTKFKDKEILHFNSGYHLNISCIAALSSVSKTLFLTDKFIHASMIDGLRL

GRADFFRFHHKDMNHLESLIQKHYENYENIIVLSEALFSMDGDFSDFKTLCELKRRYDKIKLYIDEAHSV

GCFDEEGLGLVKKLALENEVDFLVFTFGKALASMGACIICDEKYKKFFINKARAFIYSTALPPINVAWTQ

FIFKKMPYFKKEREKLELLSTFFKSKLQEKNHIVLGDAYIICLLLGENKKALEISQKLQKAGFFAPAIKE

PTVPKNTARIRFSLHAGLNTEELERIIELL

>CCK66433.1 hypothetical protein BN148\_0305c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKYEFLCKNPDSKKLIVVFGGFASHSSHFSHLKSDKNVILFYDYENFDLNFDFKAFDELFLIAFSMGVCV

ANRLLKELNFKQKIAINGTNLGIDKSKGIHPAIFRKTLQNFKLENFKEALFKERKNLTKDFIFKDEKALK

IELEKLFDFALVKQEENLLWDKVYSSKKDEIFPPNALKNAFSKLIFLNEPHFAFFHFKTWDEL

>CCK66432.1 biotin synthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFLKAKDYEKHAKVQDFMGLKLCEILKNLRISHFEKVFEFGCGRGELSKKLQNFITFDEYLKNDILDFK

ENSSILIFDMNEIAKQDLSKEKFDLIVSNATLQWLDLKRIIPSLRDMLNQNGILLLSTFAEQNLKEIKQS

TGFGLNYFSLNELEQIFKVYFNEVKITQELIKLSFDNALDVFRHLKLSGVNSLGFYPLNKGFLKEFEEKF

QNKLTYHPVFILCKNDIK

>CCK66431.1 molybdate-binding lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKFVVFFGILLFVSCLNAQNLSIFVASSASKAMSEVKDEFLKTHPEDKIELVFGASGKYYELLKQGREF

DLFFSADTKYAKAIYDDKNALIKPKVYVLGVLALYSLDENLLQGGVENLKEKANKITHLSIANPKVAPYG

VAAKEVLENLGLNELLKDKIVLGENISVPVLHVDSKNSDIAIVAYSLVSSINHPKGKAVIIDAKYFSPLE

QSYVITKYAKDKKLAFEFNEFIGSSKAKEIFKKYGFSTP

>CCK66430.1 molybdenum-pterin binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLIKGQICELLNQEDIVIVKILSKEVIFSVLMLELKSLENLKIGVSVELLFKEHELCFSASKTLLSVEN

SFLAKITKIKKGKLLYQVFFDFKGNELSSIITKEKALELEICENQEWLCFVKANDIVLRSHSA

>CCK66429.1 molybdenum transport system permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLDPAFLQTLYLTFKLAFITTFILFFIGVFLAYLLSFVRFPFKTILQSFISLPLILPPSVLGFYLLVTFS

ANSFLGQVLKEYFNLSLVFSFEGLVFASLIFSLPFMVNPLQSAFSSINPNLLDASYSLGKSKIYTLFRVI

LPNSKAGIFSACAMSFAHTVGEFGVVMMIGGHKQGETLVASIAIYDELEILNYSLAHQYAFILFIFSFLV

LFSLYFINKKMSFQ

>CCK66428.1 molybdenum transport ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIRIDINHPMNTAKGRLDLNFKKDIESGKITALFGESGAGKTTLLKIIAGLIKPKLGRIEVDNELWFDSS

KNFSLALQKRKIGFVFQDYALFPNMNIKENIAYAASSKAKVSELLALMKLENLAKIYPKHLSGGQAQRVA

LARALAREPKILLLDEPLSALDFKMRANLQDELTKILEYFKISTLLVSHDLAEIYKLSHRILELKNGKII

KDFPKNEFFTHSNISAKLRLSATLLEIKKSDILVVLTLLLNQDIIKITLSEEEFLKAYQDVKIGDTLLLS

IKAFNPIIVGKLDK

>CCK66427.1 periplasmic beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKITLFLLFLNLVFGQDKILNNWFKEYNTSGTFVFYDGKTWASNDFSRAMETFSPASTFKIFNALIALD

SGVIKTKKEIFYHYRGEKVFLSSWAQDMNLSSAIKYSNVLAFKEVARRIGIKTMQEYLNKLHYGNAKISK

IDTFWLDNSLKISAKEQAILLFRLSQNSLPFSQEAMNSVKEMIYLKNMENLELFGKTGFNDEQKIAWIVG

FVYLKDENKYKAFALNLDIDKFEDLYKREKILEKYLDELVKKVKNDG

>CCK66426.1 3-methyl-2-oxobutanoate hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRKSMISFLEKKAKNEKITMVSAYDYHSARILDNSDIDIILVGDSLAMTVLGMQDTLSVTMDEMLIFTKA

VSRGAKKSFVLADMPFMSYQSSDRDAILNASRFIKESHANGVKVEGGIEIASKIKLISQSGIPVVAHLGL

TPQAVNMLGGYRVQGKDLQSAQKIIDDAKAVQDAGACMLVLECVPVKLAQKISSILEIPTIGIGSGKYCD

GQVLVYHDLLGLNKDFKAKFVKHFDKIDPQVGVEKYRDEVKSGIFPSQEHSFDYLDDELLDKLY

>CCK66425.1 pantoate--beta-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQVITSVKEAKQIVKDWKSHQLSIGYVPTMGFLHDGHLSLVKHAKTQDKVIVSIFVNPMQFGPNEDFSSY

PRDLERDIKMCQDNGVDMVFIPDATQMYLKNFSTYVDMNTITDKLCGAKRPGHFRGVCTVLTKFFNILNP

DIVYMGQKDAQQCVVVRHMVDDLNFDLKIQICPIIREEDGLAKSSRNVYLSKEERKASLAISQSIFLAEK

LVREGEKNTSKIIQAMKDILEKEKLIKIDYIELVDFNTMENIENITDNVLGAVAAFVGKTRLIDNFLVQG

LK

>CCK66424.1 aspartate alpha-decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNITLLKSKIHRASVTEARLDYIGSISIDEKLLQASGILEYEKVQVVNVNNGARFETYTIATQEEGVVCL

NGAAARLAEVGDKVIIMSYADFNEEEAKTFKPKVVFVDENNTATKITNYEKHGAIF

>CCK66423.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLRKADIKDLNACLSLFEQSVKTLCAKDYTKDQICAWIKIDRQQWEEKFKYDEIFVYEKRGKIASFISVK

QEQKLLDLLFTHPDFVRQGLAQNLLDFILKTYLHNEIYTFASLSAKDFFLKNGFELIRENKVIKEGQNLK

KILMKKDVIYKN

>CCK66422.1 MoeB/ThiF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMNDRFTRIKWLVGEEKFQKISQTKVLVCGLGGVGGICVDALYRSGFKNLTLIDADKFEITNQNRQIHSE

NIGEEKAKVFERIYKVKGIVSKIDENFLKNFDLSEFDLIIDAIDDIPAKVALAHLIDFKKQIFISSTGGA

RKLDPTRIKTTSIFKTHGDALAKKFRYELRKSGFKGNFDVVFSDEEAHCKDLGSFMGVTASFGLALASLA

LRKVLAKKS

>CCK66421.1 stationary phase survival protein SurE [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEILITNDDGYESEGLKKLIKMLTKEFKAKITIVAPASEKSACSHSITLTKPLRFVKVGKRFYKLDDGT

PADCVYLALHALYKKRLPDLVISGINKGANVGEDITYSGTCAGAMEAVLQGIPAIALSQFYKKSEKELDY

KNALQITKKIIQNIFDKGFPLEKKEFLNINFPAKSKIKGIKICKAGKRVYNFEAHSNVNPRGVEYYWLAA

ANLDFEDEKNSDIALLKKGYATITPIMLDLTAYERMKKVKKWLKANDE

>CCK66419.1 major antigenic peptide PEB3 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIITLFGACALAFSMANADVNLYGPGGPHTALKDIANKYSEKTGVKVNVNFGPQATWFEKAKKDADIL

FGASDQSALAIASDFGKDFNVSKIKPLYFREAIILTQKGNPLKIKGLKDLANKKVRIVVPEGAGKSNTSG

TGVWEDMIGRTQDIKTIQNFRNNIVAFVPNSGSARKLFAQDQADAWITWIDWSKSNPDIGTAVAIEKDLV

VYRTFNVIAKEGASKETQDFIAYLSSKEAKEIFKKYGWRE

>CCK66418.1 ipid-A-disaccharide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTFLVCALEPSANLHLKEVLKAYKKDFGEFELHGIYDESLCKEFDLNSKPLYSSHEFSAMGFIEVLPLI

FKAKKAIKELANLSFTQKINGILCIDSPAFNIPFAKALKKAGSKIPRIYYILPQVWAWKKGRIPIIESHF

DILASILPFDNQFFNKSTYIGHPLLDEIKEFKNQEDINHTFSKKDDEKTIAFLPGSRRSEIRRLMPIFKE

LSQKFKGKKILCVPSFNLEKLEVYGDISEFKIESNTPKVLKKADFAFICSGTATLEAALVGTPFVLAYKA

KAIDIFIAKLFVKLKHIGLANIFCDFAGKEALNPEFLQDKVNVLNLYEAYNKYDYKAFFAKVDFLKEYLQ

FGSAKNLAKILNEI

>CCK66417.1 transcription elongation factor GreA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKEPMSQFGYDKLAAELKDLKDNQRPAVVIEIDTARSHGDLKENAEYHAAREKQALIESRIAELSDLLA

RAQVIDPSSYEHDSVKFGSSVVIMDLDTEKESKYTLVGICEGNLDKGYISIASPIAKAMLGKKEGDDFKV

RLPKGESEFEILSINYEPLKF

>CCK66416.1 hypothetical protein BN148\_0286c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLIGEISATHEFAKPYIELLEELALKIEIIYLEGNHDFNLSCFFKRVKIFNLQEQPIKLNLHTSKGNNLV

LNSAFIKLAHGDIFLPPLLQFTLKTLRNHYLLVFLNFLNIITRNFISNKILQNQNKKNLFYQIKDFENLA

KKRYEKYENLGFWVCEGHYHQNHQINKENIKYLNLASFAYERSFFVVEYQQEIKFREQKLRGQNV

>CCK66415.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFDENIVKTGSNEMELVDFRIFKQGHDKVYEGIYGVNVSKVREIIKIPSLTELPGVPDYIEGIFDLRGVV

IPVVNLAKWMQITEPESTMLKPRVIITEFSNILIGFIVHEAKRIRRINWKDIEPATFSTGSGALDKGKIT

GVTRIENDEVLLILDLESVVEDLGIYAPKTDIDFGKIEKFTGTALILDDSMTARKRVKEMMQQMGFQVVE

AKDGVEGINKLEELSQIYGESLNDTLKIIVSDVEMPQMDGFHFAARIKEDPRFKDIPIVFNSSLSNEFMN

EKGVQEAGGEGYLVKFNASDFFNEIAKVIKKHQSQEQG

>CCK66414.1 chemotaxis histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEDMQEILEDFLVEAFELVEQIDHDLVELESNPEDLELLNRIFRVAHTVKGSSSFLNFDVLTKLTHHMED

VLNKARHGELKITPDIMDVVLESIDRMKTLLNSIRDNGNDTAIGMDIEPICARLTAISEGESPVVATDSN

EKSIPQAELEAPKQEIATPEPEVDVNQLSDSEVEAEIERLLKVRKAEDQARRAQKKQTTNAAPKPTNNTA

NKPTESGEKKVPASGSNASSMDQTIRVEVKRLDHLMNLIGELVLGKNRLLKIYDDVEERYEGEKFLEELN

QVVSQLSIITTDVQLAVMKTRMQPIAKVFNKFPRVVRDLSRELGKQIELEITGEETELDKSIVEEIGDPI

MHMIRNSCDHGVEDPATRAANGKPEKGIVQLKAYNEGNHIVVEITDDGKGLDPNGLKAKAIEKNLITERE

ADQMTDKEAFALIFKPGFSTAAKVTNVSGRGVGMDVVKTNIEKLNGVIEIDSELGKGSSFKLKIPLTLAI

IQSLLVGTQEEFYAIPLASVLETVRVPIDDIYTIEGKNVLRLRDEVLSLVRLSDVFGVKQVLESGDQTYV

VVIGVAESKLGIIVDTLVGQEEIVIKSMGDYLQNIQGIAGATIRGDGRVTLIIDVGAMMDMAKEIKVDIK

AQLESSAKKPKEQPSDYKVLIVDDSKMDRTLMQKALEPLGVSLIEATNGVEALNIIKSGEHDIDAMLIDI

EMPRMDGYTLAGEIRKYSKYRNLPLIAVTSRTSKTDRLRGVEVGMTEYITKPYSPEYLENVVRKNLKLG

>CCK66413.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSNEKLEQILQKQQTQMAGPDVDQREDDIIQLVGFVVGDEEYAIPILNIQEIIKPIEYTRVPSVPDYVLG

VFNMRGNVMPLIDLAQRFHLGSSKMTPQTRYIVLRGETNGTGVGGNAGFVIDRLTEAIKIHRNRIDPPPE

TLVKDKGMIYGIGKRDENILTILKVEALLKREF

>CCK66412.1 phosphoserine phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKLCVFDFDATLMDGETIDILATAHGKGNQTSEITRHAMTGELDFFESLQKRVSFLKGMSYKKVLELSS

TLPLMRGAHELIQYLKSKNIQIVIFSGGFHEGINPAMQKLGINLGFANYLHHKNDILTGLVGGEMMFSNS

KGLMLQRLKSFLNLKTDEVMCVGDGANDLAMFNESGLKIAFCAKEILRSQADICIDIKDLKEIIKVI

>CCK66411.1 transaldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNFSLWCDFIENSFLDNEFLNLLSHGINGATSNPAIFKNAILNSPIYKDKILKLKEKKTKDIYEELAIS

DIQKAADKLAPLFYQKNDGFISIEIDPRLHDNTTLSLGEAKRLYSAIGKENIMIKIPATKASYEVMYELM

KNGISVNATLIFSLEQSQKCFEALNAGLVEFRKNNIALKEQNTRTPQAVISIFVSRFDRLLNPKAKEQNR

IGILNANLAYNNIYSKNEPNIRALFASTGVKGDDLPKDYYIKELLFENSVNTAPLDAIEAFKGKMHFKKP

LMNFEIYTELNQIISQSEREKACNDLLSDGLEQFCIAFEDILKAL

>CCK66410.1 hypothetical protein BN148\_0280 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIYLAQTDTTVGFLSKNLEEINALKGRDKNQPCLITSAKFCELKSLARIPKSFKNLVRRSKKTTFIYPNN

QAIRIVKECKHANFLSKNGYFYSSSANKHGKEFDEEWARSVADIILDEKFFENIPSKILKLSKNKMIKIR

>CCK66409.1 carB [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPKRTDIKSILLIGSGPIVIGQACEFDYSGTQAAKTLKELGYRVVLINSNPATIMTDPEFADATYIEPIT

KESILSIIKKEKIDAILPTMGGQVALNVAMEVYESGLLGDVKFLGANPEAIKKGEDRQVFKECMKKIGMD

LPKSMYAYNYDEALKAVDEIDFPLMIRASYTLGGAGSGVVYNMDEFKELTNTALALSPIHEILIEESLLG

WKEYEMEVIRDRADNCIIVCSIENIDPMGVHTGDSITIAPALTLTDKEYQVMRNASFAILREIGVDTGGS

NVQFAINPKNGRMIVIEMNPRVSRSSALASKATGYPIAKVATLLAVGFSLDEIKNDITGTPASFEPVIDY

IVTKIPRFTFEKFPGANTTLGTAMKSVGEVMAIGRTFKESIQKALCSLERSLSGFDRVKFEDRNDLVFKI

RNANEKRLLYVAQAFREGFSVEELYELCKIDPWFLTQIKEIVDFEEQIDMDILNNKALLRKAKTMGFSDK

MIALLVNLKDNLELSQNDIYYVRMKQKIIAEFSEVDTCAGEFEALTPYLYSSINVSELTQSKNDAKDKKE

KKVMIIGGGPNRIGQGIEFDYACVHASFALKDMGIKTIMYNCNPETVSTDYDTSDILYFEPIDFEHLRAV

IEREKPDGVIVHFGGQTPLKFAKRLSAFGAKIIGTSARVIDMAEDRKKFAEFITKLGINQPKNSTATSVE

EAVLKASDIGYPVLVRPSYVLGGRAMRVVNDEAELRLYMQEAVDVSDKSPVLIDQFLDNATEIDVDAICD

GKDVYVAGIMEHIEEAGIHSGDSACSLPPCNIDEKMQEFIAQKTADIALNLGVVGLLNIQFALHNNELYM

IEVNPRASRTIPFVSKATGIPLAKVATRVMWQGNLKEALKFYDTFKVVNFDTKILRPKTPKYMSVKEAVF

PFAKLSGSDLELGPEMRSTGEVMGISKDFANSYAKSQIASFNHLPEQGVVFISLKDKDKKYTKKIAAEYV

KLGFKLMATGGTCKEILESGFECELVHKISEGRPNVEDKLKNGEIHLVINTSDSHSFKGDTKKIRENIIR

FKIPYFTNLRSALAGAKSIKAIQSKSCLDVKSLQEWLKS

>CCK66408.1 rod shape-determining protein MreC [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNKIFYVLVLAFLVFISFYYGGLIKQNVLRVNDFVIGNFYNIKDYLGEKISEHFNQANQIQQLKARNKE

LEDIAVKVTSFANQLNRILEDQNSTKYLPQVSLTRVISYVQLNDYKKLWLDWSKIPVGKNRGLIYQGYTA

GIAINKNGRAMALLQGDDQCVFSVYIGKSKAPGLIQGEDGRIVVKFIPKWAKINTGDEILTSGLDNIFFS

DIPVGIVNRVNDEDMYQSVEVKPYVKISIPAYLYVVDNL

>CCK66407.1 rod shape-determining protein MreB [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MILDQLIGFFSSDMGIDLGTANTLVLVKDKGIVINEPSVVAVERERYGSKAKILAVGKEAKDMVGKTPGN

IEAIRPMKDGVIADFDMTEKMIRYFIEKTHRRKSFLRPRIIISVPYGLTQVERKAVRESALSAGAREVFL

IEEPMAAAIGASLPIQEPKGNLVVDIGGGTTEIGVISLGGLVISKSIRTAGDKLDMSIVNYVKEKYNLII

GERTGEEIKITIGSAIQLPKELSMVVKGRDQVSGLLSRIELTSEDVREAMREYLKEIADALKMVLEMMPP

DLASDIVENGVVLTGGGALIRGLDKYLSEIVRLPVYIADEPLLAVAKGTGKALEEISLLQQLTNEE

>CCK66406.1 ATP-dependent protease ATP-binding subunit ClpX [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEFLSIGVKIMPRKCSFCNEVENPQRRILANENDDAFICEYCVEGAYSIIYGEEKEFKEPKQSHNTEFKD

ITPKELKAYLDRYVIGQDRAKKVFSVGVYNHYKRLFKAELQDDDTELFKSNILLVGPTGSGKTLLAQTLA

KFLDVPIAICDATSLTEAGYVGEDVENILTRLLQAADGDVQRAQKGIVFIDEIDKIARMSENRSITRDVS

GEGVQQALLKIIEGSLVNIPPRGGRKHPNQEFIQIDTSNILFVCGGAFDGLETILKRKLGDKVVGFFDDA

KEENKALLEKIEPDDLVHFGLIPELIGRLHVIASLNELNEEDMVRILTEPKNAIIKQYQKLFAIDGVNLK

FEEDALRAIAQLALERKTGARGLRSIIEEMMVDLMFELPEYKDYDIVITKEVVKDNAKALLIKRKIS

>CCK66405.1 UDP-N-acetylglucosamine acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIHPSAVIEEGAQLGDDVVIEAYAYVSKDAKIGNNVVIKQGARILSDTTIGDHSRVFSYAIVGDIPQD

ISYKEEQKSGVVIGKNATIREFATINSGTAKGDGFTRIGDNAFIMAYCHIAHDCLLGNNIILANNATLAG

HVELGDFTVVGGLTPIHQFVKVGEGCMIAGASALSQDIVPFCLAEGNRASIRSLNLVGIRRRFDKDEVDR

LSRAFKTLFRQGDLKENAKNLLENQESENVKKMCHFILETKRGIPVYRGKNNA

>CCK66404.1 (3R)-hydroxymyristoyl-ACP dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIDVMQIQEILPHRYPFLLVDKITELKVKEVVLGYKNISISDHVFMGHFPGHPIYPGVLILEGMAQTGGV

LAFESMEDKVDPKSKVVYFTGIDGAKFRNPVRPGDRLDYEMSVVKNRGNMWIFKGQAFVDGNLVAEAELK

AMIVDK

>CCK66403.1 hypothetical protein BN148\_0272 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLVHICCSVDSHYFIEELRKTYPDEKIIGYFYDPNIHPLSEYELRFLDVKRSCDKLGIKLYKGEYEYEKW

LNAVRGYEDEPEKGARCEICFDVRMGSSVKFAAKIGEKKLTTTLLTSPKKDLEQLKNALQKECEPYGVEF

LAPDFRKNGGTQRQFALAKKEMLYHQNYCGCIYGLKKQKQDKNFIDELMSSVNKQILPVSIEARIALYKK

VVLWEKKGIKFEILREKFLNYRLLSALIKLDKKPVKSHILFYSHFKNAYTRFSLDEENLKQNLKEGFYRS

TKDEIVLVEFWRFNAFFKNKWKNFEDFLKKPLSVQAEIKWRNKLFGTYNLSPIIILENILPSRYEVIAKS

EIYHDNQEVLVKI

>CCK66402.1 bacterioferritin comigratory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSLNIGDKAPQFELLNQDGVKIALKDFIGKKVILYFYPKDNTPGCTTEACDFSANYDKFGGKNAVIIGIS

PDSVASHEKFISKFDLKHILLSDSEKEVAKAYGALGLKKNYGKEYEGLIRSTFVIDETGKIAQIYSNVRV

KDHALKVLESL

>CCK66401.1 tautomerase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPLVNIKLAKPSLSKEQKAELIADITELLSTKYNKSKERVVVVLEDVENYDIGFGGESVEAIKAKASK

>CCK66400.1 branched-chain amino acid aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MISADKIWMDGKLVDFKDATLHFLTHSLHYGNAVFEGTRAYKTDKGLAIFRLEDHTKRLLESAKITLLNC

PFSQKELENAQIELLKANNFKSNVYIRPLIFLGDGVMGLYHIKAPVRVGIAAWEWGAYLGEEGLEKGIKV

KISSFARNSVKSCMGKAKASANYLNSQIAKFEAIEAGYEEALMLDEEGFIAEGTGECFFIVKDGVLITPP

NDFSLKSITQDTVLKIAHDLGITVLRQRISRDEVYTADEAFFTGTAAEITPINNIDARIIGNGLRGSVTK

KLQDAYFDVVYGRNEKYASMLTYI

>CCK66399.1 transmembrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPADLNDYFNKKNGNSNNNGNNNRQNFNFKAPEFNFKGFGKFSPFVYGVIIIILFLIVAKPFMVINSGEM

GIKSTTGKYDPNPLEPGLHFFLPFVQKITIIDTRVRQINYASIEGSNENLSSGSGVINKNSISVLDSRGL

PVSIDVTVQYRLNPLQVPQTIATWSLNWENKIIDPVVRDVVRSVVGKYTAEELPTNRNTIATQIEEGIRK

TIEAQPNEPVELRAVQLREIILPSKVKEQIERVQIAKQEAERTKYEVERANQEALKKAALAEGEANATII

SAKGKAMAVKIEADAQAYSNKEIANSLNTPLLNLKQIETQKEFNEALKVNQDAKIFLTPGGAVPNIWVDT

KDAKKQSAANMN

>CCK66398.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKLREIVLFYTTHLYLVDYMLILLVFFLFTCVLLLCVFLRHRPIAALFIIAFDIIICFLVYIYGYKLID

NEVRTRKIAITDQKMIQSSNDLIVDFNITNNSKNNFKECKITAKIFADKIPNDNIIEEYKKKFIPFRQKS

REIKDLKKNATQVQRIAFENFNYENNYTIRLVSECF

>CCK66397.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MHFTIFHIIAFIILLICFALICILIFLKVKQKEMALISYTIATIFTALLIYSIFLTINQFTTQADLSKLT

YTRDLRHESVIVSGKVQNLTKFEIKKCYLILSILNQQQVGGEIFNDKNIRNAKMQNTSVSYTIEIIDTLP

GNTYKEFRASVPFPPTFNNPEFYHTLKCI

>CCK66396.1 cytochrome C-type haem-binding periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIFISFVVLATCLWAKNTAYTDEVVSLYLNKDDTKVIGRLLPTNPFEVLKSENNRVLLKIDGYVNPKA

PSVIYFNDSQRIIVAAFSKNTKLNFSQRITGKNGKWDKVSLEIWADKKEFVKDNKEMLNRAKELFVNNCG

ICHAIHKEKEFTANAWPAIFRSMADRTGIDKKDRWLVIEYLQKNAKDFKTK

>CCK66395.1 molybdopterin containing oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLDRRKFLKIGASLSALPLIPSLSAGKTVEASKVSLGLVKNGEVITAAHWGILKLTIKDGKIVKSEPWEK

VTKMDNPLQHYTADMVYKSRVKYPYVRKSYLENPDNPKPELRGKDEFVRVSYDEAIKLIAKELKKTRDSK

GASAIFGGSYGWKSSGNMQNSRILLHRFLNVTGGFVGATGDYSTGASQVIMPYVVGSIEVYEQQTSWENI

LSDSKYVVIWGADPLSTLRIAWTSNEQRGLAYFEKLKDSKIKVICIDPVKTTTAKFLNAKWIAPRPNTDV

ALMMGMASHLIAKKKVNYEFLDTYTTGFDKFKDYLEGKEDGVKKDTKWASKICGIDEKTIKNLAETFYDN

STMIMSGWGMQRAHHGEQPHWMLVTLCAMLGQIGTKGGGFGLSYHYSNGGVPTCKGGVIGGMTAGSLGIW

KNGKFKGLSKAEASSEGAEWLQNAASYSFPVARIADALLHPGKTIDHNGAKITYPDIDFIYWVGGNPLVH

HQNTNTNVKAWRKPRTVVVNEIYWTPTAKMADIVMPVTSSYERDDITMTGDYSNMHIAPMKQAVEPVGES

KDDYVIFSDICKIYGKDVFNAYTENGKKAKDFIKEYYNSALKQTQSFGEAFATPMPSFEEFWAKNEPITF

EPTAESLEWTRFSEFIEDPILNALGTDSGLIEIYSETIKNYNYDDCKAHPTWFEPIEWLGNASKEAPFHL

LTNHPRDRLHSQLCHTSLRDTYAIKDREPILINSKDAKKLGIKNGDVVRVFNKRGEVLAGAVVSDEIMQG

VVRLCEGAWYDPNENGLCKCGNANVLTMDIPTSKLANGNISHTGLVNIEKFKGELPKLTAFSAPKGAN

>CCK66394.1 zinc transporter ZupT [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQFTFEQIFIAMLLTLFAGFSTAIGSIIAFFSRKDDLRVLSLGLGFSAGVMIYISFMEILPTALKDFKNH

YDSHWAELLGLACFFGGILISLLIDKLIPEDVNPHEPKEDLSELKICPLPQKGQNPPKFHPGEKLHQINT

KALKRTGIFTALAIAIHNFPEGFATFISSLDNLTLGIAIAIAVAIHNIPEGLAVSLPIYHATGDKKKAFI

YSALSGFAEPLGAFVGALILLPFIGDLTLAISFAVIAGIMVFISLDELLPAAKTYDKAHDSLYGLIAGMA

IMALSLNLLGQ

>CCK66393.1 methyl-accepting chemotaxis signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQSINSGKSVGISAKLTLWVGILVVLILAITSAISYFDSRNNTYELLKDTQLKTMQDVDAFFKSYAMSKR

NGIQILANELTNRPDMSDEELINLIKVIKKVNDYDLVYVGFDNTGKNYQSDDQILDLSKGYDTKNRPWYK

AAKEAKKLIVTEPYKSAASGEVGLTYAAPFYDRNGNFRGVVGGDYDLANFSTNVLTVGKSDNTFTEVLDS

EGTILFNDEVAKILTKTELSINIANAIKANPALIDPRNQDTLFTAKDHQGVDYAIMCNSAFNPLFRICTI

TENKVYTEAVNSILMKQVIVGIIAIIIALILIRFLISRSLSPLAAIQTGLTSFFDFINYKTKNVSTIEVK

SNDEFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLD

VLQARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQT

AVQSLTTSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAI

EAARAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQ

TTKDNVEIANESAIISSTVSDIANNILEDVKKKRF

>CCK66392.1 SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLWDKKAKTYARYQNTLNTIQKQTFEYLQNLKISFQDKSIIDIGCGTGVWTLHLAKEAKEILALDSANA

MLEILQEDAKKLNLNNIKCKNLSFETWMQNNPNVKFDLAFLSMSPALQNEKDYTNFLNLAKIKIYLGWAD

YRKSDFLDPIFKYFNTEFKGFYKKDLENYLLEKNIFFHKIVFDETRKVQRTKEEAIENALWHLSMNKITA

SKETVSSFVENNITETIESKIKLLIINNL

>CCK66391.1 hypothetical protein BN148\_0260c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVKNLIIKFGRLILDAIAVISFVVALLYSLFMMFSIGFLAGLLSLIVSFIALFLSFFCNLSCYRYQRCSC

K

>CCK66390.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLKNPLDMHLHLRDNQMLELIAPLSARDFCAAVIMPNLIPPLCNLEDLKAYKMRILKACKDENFTPLMT

LFFKNYDEKFLYSAKDEIFGIKLYPAGITTNSNGGVSSFDIEYLKPTLEAMSDLNIPLLVHGETNDFVMD

RESNFAKIYEKLAKHFPRLKIVMEHITTKTLCELLKDYENLYATITLHHLIITLDDVIGGKMNPHLFCKP

IAKRYEDKEALCELAFSGYEKVMFGSDSAPHPKDTKECCGCAAGVFSAPVILPVLAELFKQNSSEENLQK

FLSDNTCKIYDLKFKEDKILTLEEKEWQVPNVYEDKYNQVVPYMAGEILKFQLKH

>CCK66389.1 ArsR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFENLIREILGKKRFELLKFLCENADENGFIMIKISDLEEKLHQSKPTIIATFKFLEEKKLFKRLKNGF

YQLNIGDKNET

>CCK66388.1 diacylglycerol kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKPKYHFLNNARYALEGLFALFKNEMAFRIELCIIIPAIVFSFFLKISFLEHLLLISVLILILIVEALNS

AIEACVDLITNEWHEKAKIAKDCASAAVFFSVLLALFVWGFILYNIYL

>CCK66387.1 sulfatase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLRLTWFQFTFFNSLMIVLLNFNLFYFVYEKNTQNWLITFVFIVAYFALVHVICSLLFIKFFTKFFSILF

IISSFLSVYFISFYGVLIDSDMMQNVVQTDIKEVKDLLNLKLILFVVLALLLVFYVVKVKIDYYGSFKSH

IKIKIINIISGLIVVCAVLIPLSKTFLPFFRNYNEIRMYNTPFYQIYAVYRYYVRFVKAKPEFKTIANDA

YRENNHTKKLLVLVVGETARAANYSLGGYTKNDTNFYTKKDNVVFFDNFSSCGTATAVSLPCMFSISKRE

NYSSSEFQENAMDVLYKTGVDAVWFDNNSGGCKGVCDRLAYKQKLSSDLDENLLAPFKEKLNHLSDQNII

VLHLQGSHGPTYYKRYPSEFKKFTPTCDTNELSKCDSEALINTYDNTLLYTDYLLSEIIKLLKEQKSYES

SLFYLSDHGESLGENGIYLHGMPYAIAPSYQTHIPAIFWSNDKNLMNLAKEYKGLKLSQDNLFSTLLGYF

DVKTSVYEPEYDLLNPKLKANP

>CCK66386.1 exodeoxyribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLLSWNVNGLRAICDKNALDWIAQEQIDFIGFQEIKAHEDKFPKKIYEYPFKHMYFNSAKRAGYSGVMS

LCNFNSEVKKCEFFDDEEGRVLEHRFKNIALFNIYFPNGQKDEERLNFKMQFYADFLVYLDKLLKDGFEI

IICGDVNTAHKEIDLTHPKANANTSGFLPIERAWIDDLLKLGFIDTFREINGEIKEKYSWWSYRMKARER

NVGWRIDYFFISKGLKDKLKNAFIRDDIFGSDHAPVGIEIDI

>CCK66385.1 hypothetical protein BN148\_0254 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYFKKEGKMKNTLIIFENSLSNLGKDEASDLLEDLSFNLAYKQISHNPHETKKVLNSLLVEFLTILKKLD

FFDDENVTKVIKALVKASIVDAQNSLYEYISEAELLNKQIENQKNLIKNQISDNFFEFENILQECSFCDE

FSGGLNDAILFDIEMLGILKETAESAFLTTLEKAEDIELTSSEIAKNLVYNAICEAHFEKERILKISSII

LNTAFEIANESMAYAKDLCLGVIKGTRDGIVLAMEKFKASLTYANFEEDVSLKSKELIGIEDDFIALLKK

EIQLQNDPCKSIVENLLEHELDNLFAKFRRLAGESREQLILVLNDIKKNPKINDFNKLTQRKLNRFKQEI

FELEKIASEKYKDLNSKKAKKLGVRLWEKAKKFVKK

>CCK66384.1 hypothetical protein BN148\_0253 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVNLCDLKKEPQINYPTFWDYKVIFEVHVKASEIFEEILGQREYKFKHSNSSASGKYQSYLLNVYVDSKK

DRLDIFDKLKAKAKFVL

>CCK66383.1 molybdenum cofactor biosynthesis protein MoaC [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLSHLDEKNHPKMVDVSDKNITLRIATASGIIYMSQEAFDVIKNNTAKKGPVLQTAIVAAIMGVKKTSE

IIPMCHPLMLSKVETNIVEFVKECAFKLIVTVKCEGKTGVEMEALSGVSIGLLTIYDMIKAIDKSMRITD

IVLESKEGGKSGKFVRS

>CCK66382.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAYEDEEDLNYDDYENEDEEYPQNHHKNYNYDDDDYEYDDDNNDDDFYEMD

>CCK66381.1 MFS transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKTLNQKDIKVLGLSSLGGTLEFYDFIIFVFFANYISTNFFPKDLSSFWQMFNTYGIFAAGYLARPLGG

VILAHFGDKFGRKRMFMISILLMVIPTFTLAFIPNYESIGFLCIVLLVFIRICQGIAIGGELPGAWVFVY

EHAPQGQKRTYLGILTASVVGGILLGSLVFLIMNKIYTQEELHEWAWRIPFFLGGIFGIISAYLRKFLRE

TPVFEQMKKDKALEKFPLKEVFKKAKMGIVLSMMITWVLTGCIVVMILLMPSYMAKILQINTSIQTYLQI

GGILLICLGCIISGILADKIGVIKSCVFFSVFFGIASLLYFNTLYRQNADFNLVACLYLLVCFFSGVMNF

CPLIMSEVFDAKIKFSGLSFSYNIAYAIAGGLTPQLAFFLHSFALNNLSNFWRFSLGLYVFFLAIIALLC

AFIFSYLNNTQRTYSQ

>CCK66380.1 hypothetical protein BN148\_0249 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKSLILPPNEFLDHYILNAEFHRFAGISKNAYKFWKNAEIGRYQGTRIIFLHRNCILEKHQQALRQCSG

LNGFVLASAFCSFTGLAPSHLVEKNNSSIYKLLELKEICGIKFVNLKKFYDFLGLNYHQHIYIEKCHFFS

PAPFEKRIKITESMCVGYY

>CCK66379.1 hypothetical protein BN148\_0248 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIGDMNELLLKSVEVLPPLPDTVSKLRKYVSEANSNIETMKVAEIISSDPLMTAKLLQLANSPYYGFTRE

ITTINQVITLLGVGNIINIVMADSIRDNFKIDVSPYGLNTQNFLKTCNEEATFIANWLNDEDKKLSHLLV

PCAMLLRLGIVIFSNFLIQNHKDKDFLAFLNKNENLALAENEFLGVDHISFLGFLLHRWNFDDVLIESIC

FVRTPHAAREKVKKSAYALAITDHLFAPHDGSSPFNAKAAVALLKEAKTQGINFDLNNLLSKLPNKAKEN

LNKED

>CCK66378.1 hypothetical protein BN148\_0247c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIENLCTNKIKLFSDIKDYTERKKLIEKEVLFINIPFEAHCINTLYYLIYDGLSQSESSLLELLYKHNPY

PCALVGGGSSGNMDFSGAFIFYNGEILKNQALSIHVQFKPKYRFNLMKSQNFNPQSNITFTILDVSLYDK

TVRELINKKPFRLKLYVIILTALLKNLKIKCKNILLL

>CCK66377.1 MCP-domain signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQEYTFALKIGEDYLISPMEINPNKTLFSYCDIESAQELSLLKKTNFIEAIKKDYEKFSLNKPKPLGAIF

NDCILRRLHNKEHLNQIHFNDFPIVGFSSFGEIYGVGIAKSLVAIFFYEVENFNDFKPRYLKTFIQKYSD

FKYYYLNIRAQKLEMTNEINKIILNQLKQNTSEIDKNTSIFKEIFEELENIRRSLTTISESFTNFTNYLE

YNLYQSEEKMNLEKEVQSSLKNIDQLNSILDLISGIAEQTILLSLNAGIEAARAGKLGRGFAVVADEVRK

LSENTQMGLGEMEGAIKLVIQTIQSIAKSSNSSTQEMNFIRDKTNEFSKIISNLINSGKEISDKLEQRSN

VSEDFEKNVNQLKCYEDVLAKLNQY

>CCK66376.1 50S ribosomal protein L20 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MARVKTGVVRRRRHKKVLKLARGFYSGRRKHFRKAKEQLERSLVYAYRDRRRKKRDFRRLWIVRINAACR

LNDLSYSRFINGLKKAGIELDRKILADLAMNDAAAFAKIAEAAKKAL

>CCK66375.1 50S ribosomal protein L35 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPKMKSVKSAVKRFKVGKNKIKRGSAFRSHILTKKPAKRMRGLRTAKYVHSTNVKAVEKMLGI

>CCK66374.1 hypothetical protein BN148\_0243c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTINSANPYQNLTLSNPLQNSSALNLIKDSKALDQEGNENSLEQLSYIFNNTTYASEFGFRINEEGFFDK

DLNKIANIPESYDINIKSVRSIAKELAKQDENLNYNKIDLPYLLNSYHSSLKSINSEFLQDDNAYLSRDL

ISKLSSGFSTDNGEFLGQISRIYNNQEEIDLALSNITNLNTLMLDNKITNFHFDKAIENTSSNEILKPYL

TKNAEVSKSGLLMNFIYHDIKTQNEKEFNFFMKPATLELSSHQNLQKILKGETDIEDYIKKENEKKMSFD

LYLYINGVDKKTSTQDKLSVFFQQYINYQKDMDLREFANSSSIFQIYIDQNRNDFDALKKQYQNQSQDTQ

RLEEANQLRSSSIENFLDRRQKQANINKILNSYMSVMV

>CCK66373.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTYNEKIISMNNDLLDHQHKELFEISKKLSLMNQRHVGTKELKIVLRELLIMINRHFSDEEAFMREIEYP

YINHHTRIHRKIILEIEEIIISEAKFVNIMTEKLNLVVQDFIFKHTAKEDSKIVKYYEEKFKK

>CCK66372.1 cysteine desulfurase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVYLDNNATTMLDPNAYELMLPFLKDMYGNPNSLHQYGSATHPALREALDKLYAGLGANDLDDIVVTSC

ATESINWVLKGVYFDHILDKERNEVIISSVEHPAVTAAAYFLKSLGVKVIELPVNEEGVSTVEDLRKVIS

DKTALVSVMWANNETGMIFDIKAMAELAHEFGALFHTDATQAVGKIKVNLTQVGVDFASFSAHKFHGPKG

VGGLFIKKGLKLTPLLHGGEHMGGRRSGTLNVPYIVAMGEALRIANTMLDFEDSHIRRLRDKLEDQILAL

PDTTVVGKREHRVPNTILASIKGVEGEAMLWDLNKNGIAASTGSACASEALESNPIMEAIGAEHDLAHTA

LRLSLSRFNTEEEIDYAAKQIKNATQRLRAISCTYAYNPNNYK

>CCK66371.1 NifU protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGKNSLIGGSIWDEYSQKVQDRMNNPQHMGEFSEEDAKARNAKLIVADFGAESCGDAVRLFWLVDEKTDK

IIDAKFKSFGCGTAIASSDTMVDLCIGKTVDEAVKITNLDVEFAMRDNPETPAVPPQKMHCSVMAYDVIK

QAAAHYKGISPEDFEDQIIVCECARVSLGTIKEVIKLNDLHSVEEITQYTKAGAFCKSCIKPGGHEKRDY

YLVDILAETRAEIDREKLKNTMKSDVAFDEMTVVGQLKAVESVLDAEIRPMLHNDGGDLEVIDIQKAEGA

AIDVYIRYLGACSGCSSGSGATLYAIETILQEELSPNIRVMPV

>CCK66370.1 mechanosensitive ion channel family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIIFSLCFFILHLGAQEFKFIDANISKEDEGIYALVEKYVDLNNQIKEFKKNNDENSSTFNGILSEFE

KDKKTILAKIPDMIVGQKINEEAVARFLKAKEKLLDVQKKNINKPYIYTDATLNLVYFNIVESFYSSLFE

VEKLFKNTASSEDLIATVDKAMENLQNSSNVNLDSFKSKITNPEELEKITLKERYISNAVDSYSEILKYL

RSNADLLESNYIFSLLELQVWIDRINEAIGVSFVNIGKIVISALVLVFFISLRRFFANIVYFFLVQLFYR

NKNDVDDIKVIFIENIKKPVGFLLIVYAISLCLTIATYPAPLSVNLSNFFHIVYAVLIAWLILRMLDGYG

VVLVSKLAQKSGKKEVVNLIIKILYFVIIIIALLYILAQLGFNISAIIASLGIGGLAVALAAKDIIANFF

ASILLLFDNSFNQGDWVEVSGIEGTVVETGLRKTTIRTFDNCLVFLPNSTIMGANIKNWSKRRMGRHVRM

YLGVGYDATPEKLEQCVKDLREFLHTSDLVAHDEDSALKYGDHTTKYRQNLVSINDLEGYKNACYVALSE

FADSSINIELYFYIKEIGGKDFREARQSLMLEFMRIIEKNGLTFAFPSRSIYIENLPPLDLQAKAIK

>CCK66369.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENLISGAIKFMQEDFKEHEELFESLKNKQNPHTLFIGCSDSRVIPNLITNTGPGELFVIRNIANIVPPY

RVGEDYLATTSAIEYALNSLHIKNIVVCGHSNCGGCNALYYSDEELNKIPNVKKWLTMLDPIKKDVMIFA

RDDLAMRSWLTEKLNLVNSLQNILTYPGVQEALDEGKIEVHAWYYIIETGEIYEYDFKAKIFTLIQDRKV

Q

>CCK66368.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSLYDRDYSRSKEFENTRSSELSIFIKQTYQLFAASLLAATVGAYVGIFALASFFIQSQVTFWILFAVEI

GLLFALQWKKREAPLNLVLLFGFTFCSGLTLTPLLISVLALPAGGIIIAQAFALTTVAFAGLSVFAMNTK

KDFTVMGKALFIVLIVIVAASLLNLFFQSSIVNLAISAVAAILFSFYILYDTQNIIRGNYETPIEGAVAL

YLDFVNLFVSLLNILRSFNSR

>CCK66367.1 preprotein translocase subunit SecG [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MITLLIILQFIIVVVICIAVLLQKSSSIGLGAYSGSNESLFGAKGPAGFLAKFTFVMGILLIANTIGLGY

LYNKASKDSLAEKIKVENNNTTIPSAPIVPTTPNTNSIAPSAPQLPSDVNSSK

>CCK66366.1 ribosome recycling factor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIMLNEIFNKQKTQSEKSLEALKKDFTTLRTGKVNIHILDHITVDYYGTQTPLNQVATVLASDASTISIT

PWEKPLLKTIESAIAAANIGVNPNNDGESVKLFFPPMTREQREENVKQAKAMGEKAKVSIRNIRKDANDA

VKKLEKDKAISEDEAKKAYDEVQKLTDTYTTKIDEGVKSKESELLKV

>CCK66365.1 orotate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLEQIYKDCGAYLEGHFLLSSGKHSQFYLQSAKVLEDPKLAAKLCDELAKIIASYKIEFDSICSPALGG

ILAGYELARACSKRFIFTERVNKEMTLRRGFEVKKGEKFIICEDIITTGGSALESAKIIESLGGIVVGFA

ALANRGFCAVENLKSPRKDNAKLPENLPLFTLGNFEFEIYDETNCPLCKKGNKAIKPGSRGN

>CCK66364.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTKAKISSRWLRFRALLIDIFLIYVPILYLFYFLLGSKEAFLNNHFITTLCTFLFGLIQAIFLTKKAQS

PGLKAYDLYLIDIKTGKKLSFLRILLRYVIFIISFGLLFGLFVSFVRKDRLNLHDILTQSCIATKA

>CCK66363.1 ribonucleotide-diphosphate reductase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQRKRIYNPSSNETLGDRKVFDGNPHGILNFTKAKYTWALKLWDLMEANTWFPKEVDTTKDALDYRCNLT

AGEKRMYDLVWSQLISMDSFQTNNLADNINPYITAPEINAVLARQAYEEANHSKSYAVMVEAICDNTDLI

YEMEKHDETLREKNDFISSIYEELAGDVDDNKLLLAMVANQILEGVYFYSGFTAIYALARAGKMLGSAQM

IRFIQRDEITHLLLFQNMINSVRKERPDLFHDENINKIYDMFKKAGDLEIKWGKYITQNQIMGFTDDIIE

EYIHYLVDQRLSAINLDKLYNAKHPIKWVDDFSKFNDQKSNFFESKVTNYSKGSISFDDF

>CCK66362.1 nicotinate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMTSKTSLALLCDFYEFTMSQGYFKNNKKDQICYFDIFFRKIPDSGSFAIFAGLEDILDFVENLSFDAED

IEFLRKQGIFDTEFLDFLANFKFKGEIYAMREGEVIFPNEPLLCIKATTIEAQLLETFLLLSLNHQSLIA

TKTNRIVRAAKDSKILEFGSRRAQGSEAALKGARAAFIGGCIGSACTLAGKIYNIPINGTMAHSWVQMFE

NELEAFKAYVKIYPKNPVFLIDTYDCLNSGLKNAIKVFKEFGIQEGGVRIDSGNLLELSLKIRQELDQAG

LQKCKIIVSNALDEWSIKKLKEQNAPIDIFGVGERLITASSDPIFSCVYKLAALEDQGIKPKIKISENNE

KSTLPHFKKLFRVYDKNTQKILFDELYVFDENPNQDENLERKELLELVYKEKRLLKKSSLNTIQDYTKEQ

ISKLDESFLDLDRFVKFEVKLSPKLQNITEDLLKTRF

>CCK66361.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLIKFKNHSPKLGQNVFVAEGAKIIGEIEIGDESSIWFNCVLRADVNFIKIGKRTNIQDLSTVHVWHREF

DEKGKLKDAGFPTIIGDDVTIGHNCVIHACVIKNRVLIGMNAVIMDNALIEEDSIVGAGSVVTKGKKFPP

RSLILGNPAKFVRELNDEEVSFLKQSALNYVDFKNEFLKDLQ

>CCK66360.1 protein-L-isoaspartate O-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNAFEQKRCQNMAEEIAQKVFINEELFNAFCQIPREIFSPLKAHAYRLDALPLANSQWISSPLTVAKMTM

ALDFKNADSILEIGCGSGYQAAILSKVIRRVFTIERIENLAKKAAQTFRELELFNINVKFDDGQNGWKNY

APYDRILFSAYATQIPEILLDQLSDDGILVAPILHNGKQFITRLRKNGTNLQKEILEECLFVPIVDGKE

>CCK66359.1 acetylornithine/succinyldiaminopimelate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKMDYKEQSHIIPTYKRFDIVLEKGQGVYLFDDKAKKYLDFSSGIGVCALGYNHAKFNAKIKAQVDKLLH

TSNLYYNENIAAAAKNLAKASALERVFFTNSGTESIEGAMKTARKYAFNKGVKGGQFIAFKHSFHGRTLG

ALSLTANEKYQKPFKPLISGVKFAKYNDISSVEKLVNEKTCAIILESVQGEGGINPANKDFYKALRKLCD

EKDILLIADEIQCGMGRSGKFFAYEHAQILPDIMTSAKALGCGLSVGAFVINQKVASNSLEAGDHGSTYG

GNPLVCAGVNAVFEIFKEEKILENVNKLTPYLEQSLDELINEFDFCKKRKGLGFMQGLSLDKSVKVAKVI

QKCQENALLLISCGENDLRFLPPLILQKEHIDEMSEKLRKALKSF

>CCK66358.1 acetylglutamate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIMQKYLEKANVLIEALPYIRKFNSKIILIKYGGSAMENEELKHCVMQDIALLKLVGLKPIIVHGGGKDI

SAMCEKLGVKSEFKNGLRVSDKATIEVASMVLNHINKNLVHSLQNLGVKAIGLCGKDGALLECVKKDENL

AFVGTIQKVNSKILEELLEKDFLPIIAPIGMDENFNTYNINADDAACAIAKALRAEKLAFLTDTAGLYED

FNDKNSLISKISLEQAKILAPKIEGGMHVKLKSCIDACENGVKKVHILDGRVKHSLLLEFFTDEGIGTLV

G

>CCK66357.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLIRAMQKSDYEAVYKLWCEIKGFGIRSIDDSKENIENFLDRNPNLSVVAVIDEEIVGSILCGHDGRTGG

FYHVCVHKDHRKKGIAHEMAKFCLEALKAQKINKIALIAFKNNDLGNEFWKHYGFTLREDANYYDLSLNE

YNQTSFNA

>CCK66356.1 N-acetyl-gamma-glutamyl-phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIKVGILGASGYAGNELVRILLNHPKVEISYLGSSSSVGQNYQDLYPNTPLNLCFENKNLDELELDLLF

LATPHKFSAKLLNENLLKKMKIIDLSADFRLKNPKDYELWYKFTHPNQELLQNAVYGLCELYKEEIKKAS

LVANPGCYTTCSILSLYPLFKEKIIDFSSVIIDAKSGVSGAGRSAKVENLFCEVNENIKAYNLALHRHTP

EIEEHLSYAAKEKITLQFTPHLVPMQRGILISAYANLKEDLQEQDIRDIYTKYYQNNKFIRLLPPQSLPQ

TRWVKSSNFADINFSVDQRTKRVIVLGAIDNLIKGAAGQAVQNMNLMFDFDEDEGLKFFANL

>CCK66354.1 DNA modification methylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKENPSFLKEQIITYLGNKRALLSFLNNGFKVAKKELGKDKFSFCDIFSGSGVVSRFAKAHSNYILANDL

EDYSKLINECYLANKDKDLLQNIKKYYKNLIQNLDFQKGFISELYAPKDDDDIKKNERVFYTFKNALYLD

TIRQKIENEIPKELRHFFIAPLIYEASVHSNTSGVFKGFYKGKDGIGKFGGEGQNALKRIKGEIELKMPI

FSNFSCEFEVMQKDANMLAKELDFFDVVYLDPPYNQHPYSSNYFMLNLIANYKKPEEISKISGIPKDWNR

STFNKSKFAQDALFELINDLKARVILLSYNCEGFVKKEIFLKRLSTLGKCRILEQKYNTFRASRNLKNRN

IHLHEQLYILVKN

>CCK66353.1 translation initiation factor IF-3 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKEKEVLLNEEIRADEIRCVGDDGKVYGIISSDEALEIANRLGLDLVMIAADAKPPVCKIMDYGKFRYQ

QEKKQKEAKKKQKVIDIKEIKLSVKIAQNDINYKVKHALEFLEQGKHVRFRVFLKGREMATPEAGVALLE

KIWTMIENEANRDKEPNFEGRYVNMLVTPKKA

>CCK66352.1 threonyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKEVIAYLDNETIIDSQSVKNTNLKEIYFDNSKESLEVIRHSCAHLMAQAIKSLYPEAKFFVGPVIEDG

FYYDFRVESKIGEEDLVKIEKKMKELAEAKIEISKYEITKSEALAKFQNDDLKQEVLLRIPDRAVSIYKQ

GEFEDLCRGPHVPNTKFLRFFKLTRVAGAYLGGDEKREMLTRIYGTAFADKESLKEYLTIIEEAKKRDHR

KLGTELKLFTFDDEIGGGLPIWLSNGARLRSKLEHMLYKIHRLRGYEPVRGPELLKADAWKISGHYANYK

ENMYFTQIDEQEYGIKPMNCVGHIKIYQSDVRSYRDLPLKFFEYGVVHRHEKSGVLHGLFRVREFTQDDA

HIFCMPSQIKEQVLEILAFVDNLMKLFDFSYEMEISTKPEKAIGDDEIWEIATKALKEALDEQGLKYGID

EGGGAFYGPKIDIKITDALKRKWQCGTIQVDFNLPSRFKLEYTDSDNEKKQPVMLHRAILGSFERFIGIL

TEHCAGEFPFFIAPTAVGIVPIGEAHIAYAKEIQKELLELNIDSEVYEKNESLSKKIRIAEKQKLPMILV

LGDDEVAKRSVALRDRRAKEQKNLSLDEFIKLVKEKMSEVHF

>CCK66351.1 UDP-diphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENLYALILGIIEGLTEFLPISSTGHMILGTTILGIDIDEFWKSFLIIIQLGSILAVIFVFWRKLFQGLD

IWLKLAVGFFPTGVIGLFVAKYLNALFNGWVVVGMLIFGGVVFILIELAHKNKQYRINSLEEISFKQAFC

IGIFQSLAMIPGTSRSGASIIGGLLLEFNRKVAAEFSFLLAIPTMIIATAYSIYKEPELLGNANSLIPLG

IGFITAFIVAVLVIKFFLKFISKFDFIPFGIYRIILGFVFFYLYYSGILNAGSEFKL

>CCK66350.1 oligopeptide transporter, OPT family [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMYKKQNLPELTLRGLILGSILTIIFTASNVYLGLKVGLTFSSSIPAVVISMAVLSLFKTSNILENNMVQ

TQASAAGTLSSVIFVIPGLFMCGYWSEFPLWQTFMICLCGGGLGVLFTIPLRRTMVVESKLAYPEGRAAA

EILKVANKDQSSKKGKQGIKEIALGSFIAAIFSLLSNGFKLAASESNFAFIWNKMAFGFSMGYSLALLGA

GYLVGLAGAIALFVGMFLAWGIFTPYLSNFEFDSTKNAVDLASSVWSSKVRLIGTGAIAIAALWTLIELL

KPVIEGIKEIVKNVKITNQEKNERTNIDLSLKSIFILFVLMVVGLFITFYSFVEDANLSIYYQMLFSFVG

TLVSVLIGFFVAAACGYMAGLVGSSSSPISGIGLIGVIISSIVFLVLGVELFQDPMLSKFAVALAIFTTS

VILATAAISNDNLQDLKTGHLVGATPWKQQVALLVGCVFGALAIVPVLNLLYQAYGFVGAMPREGMDASS

ALAAPQANLMSTIAQGIFHHNIEWGYMAFGVFVGILMIIIDKILKGTQKMSLPPLAVGIGIYLPPAVNIP

LVIGGILKYIVMQHLTKKYAKNSHKEEKLASCEQRGTLFASGLIVGESIFGVIIAGITVFSVSMGGSENP

LALNLANFHDSELFALIFFVGVVLYFIKRIVKKDA

>CCK66349.1 citrate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEIFLALLGFFSLGLIVWLLLKDYTTPALAFISVSISVACILLILERLGFGVGVALGVKGGVFDIKTLVV

FIKDGVKSVTDTAALFVFSILFFSVLNASGFFTKILNAFLSKMKANVYQVCILTVFIAAAVHLDGSGAST

FLIVIPALLPIYERLGIRKTSMLLIITSAMGVMNVIPWGGPTLRAATNIGMDANLLWHHIIPIQIVGLVL

SLLLAIWIAKIEIKRGAGAGNLSGINLNIEKSEHHNEKWFWLNLLVAIGVIGLLISGIIPSYICFMIGLA

IILPLNYPNLKTAKKVLDRASAGAMLMYITLIGAGILIGVFDKSGIMEKMGVLILNFVPDYLGAYIPLMV

GILAVPMAIIFCTDSYFYGVMPIVLSVTKAFGAEPLTIAIIMVIARNCATFISPVVPATLLGCGLAEVNI

KDHIKRSFFYIWGISIICLIFAEVAGII

>CCK66348.1 hypothetical protein BN148\_0202c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAYGSSNPEDLAKNFTKDLYSGDTKSVMSYIDLSEAKSDEEKTFVSDKITQVVAENAAKAKRMGGVKDIQ

IEEKTINKDSAKIRVLVLFNNDNNQSSNVFLAKKDRKWLVLLK

>CCK66347.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFYLNKILYFFLILFLLIGILGFFINSNPSNQIIKKPYLPFLEIGDLVFRAGIGSESFLIENLSQSPYSH

IAMVVKTSPTILIHATTDDDKNAKNQVILSSMDDFLKLSHKIAIKRLKFDEKTKQKIVAKDLEHLGRKFI

ISTDKDAFYCTTFLEQSINSITPFHLQYTLIKAPFNEGLYLFPQTFFENNQSVLIYESQNF

>CCK66346.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKSILFASALLASSMLFADSLKLEGTIAQIYDNNKTLLIDSIYGGQMAIKVLPNTEIEMDDCGIFGTDK

DGTFKDLQVGNFLESKISYGTPATPNTQAIPVARKIEIQCYKKAY

>CCK66345.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKWIFIVFCFILGFIIHIFYIGYTNELLFNKFIKNSNPDYTITDIYFKKGFLTSKGSFTLNHSHTQLST

KINLKFNNYFFLNKIIKGNFTNPFDFLDEVLKNNKLGTFTLKLHDNNSKIFLNIKDINLSNEGGDTIING

GYIEVLMNKNLEIKNMKIHFDMINFSQFYTKFVLQNLNYEQFFNNPVQFYELNLFSDSQQEINFDYLVLD

NNKINSFYSKNQVNFNEENSAVNLNIQGKSNEIDLKSLLGQNLNFDKTKFNITINKFFNSNFNISHFIQK

NLDLKIQNLILEKNKQNISLQGNLNINNSYQAKLQVISSDEPDEIFPWTKDYGGLNQYFLKENNNFFLNL

SYDSLANPQLKINGSEFSNMDLN

>CCK66344.1 recombination factor protein RarA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSLALTFRPENFDDILGQYELIEIFKKFTALQKLPHSIFFGTAGSGKTTFARVVAKEFGLDFYEFDGGNF

KLEELRKILDNYKNSLYKPLIFIDEIHRLSKTQQEMLLIPMENYRLILIGASTENPYFVLSSGIRSRSML

FEFKSLGAKELETLLLRVQEKMKFSIDKEAKDFLLKSADARAMLNLLEFVLVLDEKHISLENLKKLRNTI

NSEGVSSKDTHYILASAMIKSLRGSDVDAAIYYLARLIDAGESADFIARRLVIFSSEDVGNADPNALNLA

VSTLDAVKNIGYPEARIILAQCVVYLASTIKSNASYKAINEALNYVKNNEALEIPNYLNNNHQEKQNYLY

PHDFGGWVEQKYLGKNLKFYHSKGLGEEAKLLDNLYKLKNHKA

>CCK66343.1 dihydrodipicolinate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKIGIYGAKGRMGKQIEECLKSETQARISILYDKGGNLGELFEKSDVIIDFSSPSGTHELLNYARTMPK

PLVIGTTGLDEKILHLMQSASEVMPIFYATNMSLGVAVLNYLASKASQMLRNFDIEILEMHHRHKKDAPS

GTAMTLAQSVAKARNLELEKVRVSGRDGIIGERSKDEIAVMSLRGGDIVGRHTVGFYEDGEFLELNHTAT

SRATFAKGAIKIAIWLSKQEAKMYSINDFLGI

>CCK66342.1 amidophosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MCAVVGVINSKNASTYAYYALFAMQHRGQEASGISVSNGKNIKTIKAKGEVSQIFNPDNLKTLEGEIAIG

HNRYSTAGNSSLNDAQPIAATSVLGDIALAHNGNLVNKEEVRSRLIQDGAIFQTNMDTENVVHLIARSKQ

ESLKDRFIESLKECIGAYCFVLASKDKLYVVRDPHGVRPLSLGRLKDGGYIVASETCAFDLIEAEFIRDV

KPGEMLIFTQGNDKFESIELFSQTPRICAFEYIYFARPDSIVEGKSVYEVRKKMGEALAKKFAYKADFVV

PVPDSGVSAAIGFAQYLQIPLEMAIVRNHYVGRTFIEPTQELRNLKVKLKLNPMRKVLEGKEIVVIDDSL

VRGTTSKKIISLLRAAGASKIHLAIACPEIKFPDTYGIDTPTFEELISANKNAEEVREYVEADTLSFLSI

EELTQSIGDERKYSLISFDGDYFIK

>CCK66341.1 flagellum-specific ATP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLEKLRSKLGKENLSAIFGEITKISATSIEIRGLKTGVGDIVKLVSNENENLNTLAMVVEIKEQFSYLS

PFSFIEGFKIGDRAFISDAGMQIGVSDELLGRVVDPFMRPKDGKGAIEATKYMPIMRAPIDAMKRGLIEE

VFPVGVKTIDALLTCGVGQKLGIFAGSGVGKSTLMGMIVKNSKAPIKVVALIGERGREIPEFIQKNLGGK

LDDTVIIVATSDDSALMRKYGAFCAMSVAEYFKEQGKDVLFIMDSVTRFAMAQREIGLALGEPPTTKGYP

PSVLSLLPQLMERTGKEEGKGTITAFFTVLVDGDDMSDPIADQSRSILDGHIVLSRELTDFGIYPPINIQ

NSASRVMSDIISPEHKLWARKFKRLNSLLKENEVLLRIGAYQKGSDKELDEAISKKEFMQKFLGQNPEES

FEFNQTLELLSQIDTPNTPLPPTQNINVGSASATLPNPNLK

>CCK66340.1 GTP cyclohydrolase I [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKKFEDCVKTMLEIIGENPNREGLIKTPNRVFKAYEFLTSGYTQNVKEILNDALFESSNNEMVLVRDIE

FYSLCEHHLLPFFGRAHVAYIPNKKVVGLSKIPRLVEVFARRLQIQEQLTEQIAQALMENVDAKGVGVVI

EARHMCVEMRGVQKANSTTTTSALRGIFLKNEKTREEFFSLINSAKQVRF

>CCK66339.1 trigger factor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEVKAKQLDSVNATASVKIPSGMIKSEVENLAKKASKSVKMDGFRPGKVPVSAVLKRYERELTQDAEQNL

FKSAVNSALQELKKENKELVGEPYFEKFDRKDGEIIAELILSFKPEIKLEGYEKLIPEYQTPKVSKKEID

EKKDELLKRFATPEAIKTKRALKEGDFAKFDFEGFVDDKAFEGGKAENYVLEIGSKQFIPGFEDGMVGMK

IGEEKDIKVTFPKEYGAAHLAGKDAVFKVKLHEIQELKIPELDDEMLKKLLPGEEKASVEVLDEKLKEQI

KNEKLFKLVNDELKGKFADALIEKYNFDLPKGIVEQETDMQMRAAFNTFSEKEIEELKASKEKYQEKRDS

FKEEAQKSVKLTFIIDELAKLRKIEVNDQELIQAIYFEAYRYGMNPKEHLENYKKQGALPAVKMALIEEK

LFNDIFIPKTEKSEKVSKKEKEDK

>CCK66338.1 ATP-dependent Clp protease proteolytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFIPYVIEKSSRGERSYDIYSRLLKDRIIMLSGEIHDELAASIVAQLLFLEAEDPTKDIYLYINSPGGVI

TSGFSIYDTMNYIKPDVCTICIGQAASMGAFLLSCGAEGKRFALPNSRIMIHQPLGGARGQATDIEIQAK

EILRLKTILNDILAKNTKQKVAKIAKDTERDFFMSAQEAKEYGLIDKVLEKSFK

>CCK66337.1 peptide deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVRKIITYPNPRLFLNSEIVNKFDTELHTLLDDMYETMIASNGVGLAAIQVDIPLRVLLVNIFDENDEQK

KEDLLEIINPEIIPLDEEMITCTEGCLSVPDFFEEVKRYNHILLKYQDRFGEFKELEAKGFLAVAIQHEN

DHLNGHLFIEKISFAKRQKFDKEFKKKKKNHKKEK

>CCK66336.1 hypothetical protein BN148\_0190c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKLKCISFHEGLDIIEVESTFTRGLPNLSIVGLASTAIKESVERIKATLLSCDFAFPAKKITINLSPSG

IPKKGSHFDLAIALLILLQNEELDDFFVVGELGLDGSIKSTNELFSLLLFLSAKIKKAKIVVPKSIAQKA

SMIPNLEVYGLENLNEAIEFFKEKNYENFRFSHNHPLFANPLQIENEIFLQNMDFKLDFKDIKGQEKAKR

ACMIAALGMHNILFEGSPGSGKSMCAKRLVYIMPPQSLSEILMQNAYMSLDSKDCEFTKIRAFRHPHHTS

TRASIFGGGTKNARIGEVALANGGVLFFDEFPHFNKQIIESLREPLEDHKIHISRVNSKITYETKFSFIA

AQNPCPCGNLFSKNLSCVCSENEIKKYKNHISAPIMDRIDLYVAMDEISKDDKTSISSKEMSEKILQAFI

FSKKRGQKEFNGKLKDEDLSRFCVLEKDAKDTLDLAISRYNLSLRSLNKILKVSRSIADLEQSLNISKTH

ILEALSFRARN

>CCK66335.1 hypothetical protein BN148\_0189c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENKSIAIFIDAENIPAKYAKSIFDIASDYGEVIIKRIYGDWTQKNIQGWREQIAEYSLIAMQQFNFAAN

KNSSDMYLITEIMSIFYEKNIDIFVIVSSDSDYTSLIQKLRENKKQVIGMGLEKSIKSYVNAFSEFFYLD

KDESKKEDILSKDYLRALINITEQLIDEKGRAEYAQIRTNMNRKYSDFHPQNYGFKNFRALIQKFLPKMK

KFEEEREKNIYFLVKKDYESYY

>CCK66334.1 kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKAIIDNIKILEQNAINKGLDELILMENAGLNLAKLIKKEAKKIRIQRKIRKVKILFLLGGGNNASDGLV

ALRNLKHAKAYKIGFKENTLFKKQEQILQNYAFKFCKKEPNFKKFHIIIDCILGTGSNRCLDEKTSLIIQ

KVNQSKALKIACDIPTNLGFYPCFKADITFCMGALKEILLEDFAKEFVGRIKIANLGIRSKKFYPNSQAF

LLEKKDLKTIDRKINANKGNFGHIYIVANASAGTLAGLGALNFGAGLVSLVAQKSFSPLLMLKEKIENNA

SAIALGMGLENLDFLKDEILQNTPLILDANCFLSEALLWYLNRKDVVITPHPKEFIKLYKMCFDENLDIE

TLQKNRFFYARKFSQNYDCVLVLKGANPIIVQKEKLFVVNLGNQALAKGGSGDVLSGMIAAHLGFGFSAL

EAAKNATLAHGLVAKKYKFNKNSFDALKLIKGLKCL

>CCK66333.1 phosphoribosylglycinamide formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLVKLAVLFSGNGSNLENILEKLHKKTIGENTYEIVLCLCNKKDAFGIQRAKKFGLNTVIIDHKAYNTRE

EFDTILVQKIKESGANLTVLAGFMRILSPVFTKNIKAINLHPSLLPLFKGAHAIKESYESDMKVAGVSVH

WVSEELDGGMIIAQKAFEKRNLSFEEFEEKIHSLEHEILPLSVIEIFS

>CCK66332.1 TerC family integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFEWIFSIDAWITLATLSALEIVLGIDNIIFLAILVSKLPPEHRDKGRILGLAFAMITRILLLLSLFWVM

KLVTPLFSVLGNEISGRDLVLLLGGLFLIVKSIKEIKEQISHQEESQSHFKASNKLWIVVAEIAVIDIVF

SLDSVITAVGIAQDVTIMIIAVIIAVAVMLFASKPIADFVEKYPSIKILALAFLVLIGVVLVAESFDIHI

DKAYIYTAMAFALVVQILNILDQKKEKNG

>CCK66331.1 phnA domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKDANGIELNAGDSVSIIKDLKVKGASTTLKRGTTIKNIKLTSKEGEIEARVDKFGVIVLKTEFLKKI

>CCK66330.1 serine/threonine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRILLVLRGNYYAGQEEFIKNNKLQNYTLDLNALRLLSGSVKNIVSEYKILNVKNDEDLSKILLKLLEMR

MQKGEFSIINAYNETLKIYKDLAKQYRYKIYVIVFDSSLKQCQEKNLLEAKKNGYIIPYALLEKTQDLLK

KNPKKYPILDSRDWKKCLYQMPNLSKYKKIHHIGDLQGCYSVLKEYIKTIKEDEFYIFLGDYINRGIENG

KVIKFLLKICEKENVCLLEGNHERHLIKWANGELSNSKEFNENTLKDFRKEKLTPRDARKLYPHLKECLY

YKFQNKFIFCSHGGVNFIPSKPEKISFIPSHDFIYGVGGYEDSQKVANQFCNFTSDNLYQIFGHRNKEKL

PMKIAKRVFLCEGKIDDGGYLRVVTLDEKGFECV

>CCK66329.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDPSQVLDLNQTSTASFDAGYSILMVVVALALVFLNGFFVLSEFSIVKVRRSKLEEMVKEKKAGAKKALE

VTSRLDTYLSACQLGITLSSLALGWIGEPAIAKMLEIPLINLGFSTVIIHTMAFIIAFSIITLLHVVLGE

LVPKSIAIAVADKAVLFIARPLHWFWMLFLPCIKIFDFLAAISLKLFGIKPAKESELTHSEEEIKIIASE

SQKGGVLDEFETEIIRNAVDFSDTVAKEIMTPRKDMICLNKQKSYEENMQIICEHKHTRFPYIDGSKDTI

LGMIHIRDIIQNELNHKSQNLDTFVKPLILVPENISISKVLVMMNKERSHTALVVDEYGGTAGILTMEDI

MEEIIGEIKSEHEEDSYKKLAENIYEFQGRCDIETVEEMLVINYDEDLEQVTIGGYVFNLLGRLPMVGDR

IEDELCYYEVKKMDGNSIERVKVVKKTNKDEE

>CCK66328.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIMFSSFFKSKKWALWAYLGLFLLLFFLYIQTSLNVAINSWYSDFYNVLQKPKIELLDSNSTQKIEENLE

NNATLIQEANQRAEQNFQKANFINKGALYYYQNLLEYFFNSRAMIEKPNYSASDFYALILVFLAIAIPYV

LIATINIYFASVYAFKWREAMTFSYLKFWKNKDDNIEGSSQRIQEDTYNFSKIVESLGLSFIKALMTLVA

FIPILWSLSDVVSKALFANLSENSFFYFLKNIDGLLVYIALLISLGGLVVSWFVGIKLPGLEYNNQKAEA

AFRKELVYAEDNRKEYAKNETMIELFTGLKFNYKRLFLHYGYFNIWLILFEQMIVIVPFLIMAPGLFAGA

IGLGIVMQINNAFDQVRSSFSIFITNWTTITQLRSIYKRLKEFEKNISYKS

>CCK66327.1 TonB transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKSSVIFGFVLSLILHTLVLMFFLFSFYTQEKSSGVDFKQGAEFTSIMMVSEFPIGELKEVSIDQKKSNS

QDKNKKQDERISFNSQDKNAVLKVQKKIEKQDENQAQKEIANASENSKFKNESLSAPLQSNKDKTQTIVS

GNAKEQVKSYQALLMAHLTKFKKYPQEAIMQKQEGVVRIRVSIDESGNVLSKELKKSCPYAALNDEALSL

FKRASPLPKPPKEMLKNGDKISFVMPIDYNIKDYLGKK

>CCK66326.1 biopolymer transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIKTEMAHKEEELSEINITPFIDIMLVLLIVFMAVTPLITSSIKIELPKSSQQAEDKLKNPIILYLNTDN

TLAINDDKLSLENLSSALDIKTKGNKEEIIYFHIDKSVKYEDIMQVMQKLKENGYGKIALSSKKMD

>CCK66325.1 biopolymer transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKKCFYFVFLLLNLNAEANATDTNLSFDSSKIETEAPKIELSLSSLYQNADEVVKGVIYILVLFSILAW

AVFISKLMQFYFMKKNLDLSIQKIKELKNLNELDQTKDFAGVLSLEIQDELEKSEYKNDHIKERIELRLQ

NTISKQITASKNGLSLLASIGASAPFIGLFGTVWGIMNAFIGIANLGNASLAVVAPGIAEALFATAFGLI

AAIPAVLFYNYLTRKNLKLMHHLDELANFVYILFHRSYFNDKN

>CCK66324.1 TonB-denpendent outer membrane receptor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKLSLFCAVGLCFASFAFSEELEFDSLEISGSKIKNDEKPFVTPGATSTREGIGSDTQSIDSIVRSIPG

TYTNTDQAQGTVQVNIRGMSGFGRVNTMIDGVTQTFYGSASDDPARFHSQTGTSAFGAVIDTNFLIGVDV

TRGTFEGVGGANALMGSANFKTIGINDIVHDGNIFGFLGRFSYGSNGIGPSYMSAVAGKTELENNGYVGA

LFGYSAKRITQNYTVGGGGKIGSSMVDTDGDGIADTNIAPFDPDFLTQKPNSQLFKLEYVPNSFTNTIFS

YRRYQNELAGRKIHNDNYQLDFWHNPNEWLNVNTLIAYNQGIQTYGSKSTFAANDAIANTKAKNTATTFD

ISDTLEGEWHRFNLNIRFGANILLNDYKNTLNTSIQGVNSIPFQPRGKQNLFTYYLDNSLNYGIFTLDTN

VNLLDWNIKGHRPACDEVNFMCFPKAATDIDKNGLRLNASVMLSAAIHELITPFVSFARTNRAPNVQEMF

FSNNEGNGINSFLKPEQANTWQIGFNSFKHGLLKDDDRFGFKAVYYHTKIKDYIYNEQFYLEDPSKDPPS

SQFYMHLNSADDTIFKGVELELSYDLGFAYAKAMYSRQDTSSTISQTSGPLLGSFSASKIMELPKDYANV

ELGFRLNDKISFGGIAKYTGKAKRVNPNTDDWNKDPNNPYYPKPTTQDLPKIPIIVDLYWNIEWFKNLTM

RAEVQNLFDKNYMDALNAYNSLDNQLQYNGAGDPIYLFSNSARGRTFIVSFEYKY

>CCK66323.1 iron transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFYTILSILFISFMLSACAVLQKSSPLQENKDFYILDTHTQKKISFEDMILELLKADVILLGEKHDEVK

HKISQVMIFNALEGNLSSQNINFDVALEMLASTEQNHLDKAFKNKKTIKANELTNALNWDKVWKWKDYEQ

FVNVVFYSKSKILGANLSRSEITSIYNGAQPLKGYVSTTNEVKKQLFDIISLSHKLNPEENKELLDKLVE

IQQFKDRRMADVLVHHVNKVLLLAGSYHTSKKIGIPLHIQDFKSSKKIVVVNLSYGEIDLKDSDYVLIYK

GEE

>CCK66322.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSMKKIILFLLCVGFAFACSEHSHTDFKDLNKTEYNSQLKDKI

>CCK66321.1 iron-uptake ABC transporter,periplasmic iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIFFMFLTAVSFLGASELNIYSARHYNADFEIIKKFEEKTGIKVNHTQAKASELIKRLSLEGSNSPAD

IFITADISNLTEAKNLGLLSPVSSKYLEEFIPAHLRDKDKEWFAITKRARIIAYNKNTNIDISKMKNYED

LAKAEFKGEIVMRSATAPYSKTLLASIIANDGNKEAKAWAKGVLENLATNPKGGDRDQARQVFAGEAKFA

VMNTYYIGLLKNSKNPKDVEVGNSLGIIFPNQDNRGTHINISGIAMTKSSKNQDAAKKFMEFMLSPEIQK

ILTDSNYEFPIRNDVELSQTVKDFGTFKEDQIPVSKIAENIKEAVKIYDEVGFR

>CCK66320.1 iron-uptake ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYKTLKYYKLGAILLALFLALPIFGIFAELFYILFQNFNTSDLTQFSSIKENLSHFFDYLFLKFIKDTFI

ISMGVLCLSLILGVSSAYLIANYDFYFCKILEKLLILPLAIPAYILAFVYVGIMDFQGFFHENFGFRIDF

FNHYGVIFVLAISLYPYIYLFAKTAFKSEAKEAYEVAKIMKYSEFRIFTRVALLSARPAIFSGALLVLME

TLSDYGASAYLGVDTFSAGIFKLWYDLNDSYSSSVLSGILMLFVFLIMYVDYYYKNKHHYSFNQNLALFI

KKRKLNPIKQILSCIYCFMIAFVGFILPFIWLVYWGLKDHKLFESQFYIISFQTIILALITALITTFLAY

FLMFSSRIVKNHFFNLFILKISSLGYSIPAAALGISIIVLFVFLDKFFHMSLLGNSLLVLVFAYIIRFLA

SAIYSLEGGYNKIHLNIDEASLNLRTSYFILFFKIHTPLMKHFLFLAFIIVFIDTIKELPLSRILAPFGF

ETLSVKAFWFASDERIYDAALPSLFIVFLSLMVVVWMDKITRKDDVRN

>CCK66319.1 iron-uptake ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMLEIKNLSKNFGKIQALENINLHVKEGEFLSILGGSGSGKSTLLRIIAKLEQASSYDLFSCKGEVALMF

QNYALFPHLNVEKNILFALYDKKDKNQILNHLLKTFEIEDLRYKKIDEISGGQAQRVAFARAMARGCKLL

LLDEPFSNLDQNLKQDLRRELKKMIENQGITAIMVTHDIEDAYCMSDQIAFLEKGKILAHANPKELYFKP

DFKSAQILPDLNIIEEKLDLEDEFFAWIASKNYIFGYAELKIGNRFEAKILQKEFLGAFCRLKLLYKNII

FFILVSSSYDLEEKISFDIINF

>CCK66318.1 saccharopine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNLLIIGAGGVSRVATVKCAMNSDTFSKITLASRTKSKCDEIAAFIKERLGVQIETAQIDADDSNAVVE

LIKKTEAQILLNVALPYQDLSLMDACIKAGIDYIDTANYEHPDLAKFEYKEQWARNDEFKQAGILGLLGS

GFDPGVTNVFCAYAQQNLFDEISYIDILDCNAGDHGYAFATNFNPEINLREVSAKGRYWENGKWIETQPM

EIKMEWDYPEVGVKDSYLLYHEELESLVKNIKGLKRIRFFMTFGQSYLTHMKCLENVGMLGIKPVIHQGK

EIIPIEFLKTLLPDPASLGPRTKGYTNIGCVIRGKKDGKDKQVYIYNVCNHEECYKETGAQAVSYTTGVP

AMIGTKLIAKGIWQGKGVFNMEEFDAKPFMEELNSQGLPWKIIEMTPSLGE

>CCK66317.1 hypothetical protein BN148\_0170 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLEWILTLSQHSTQKGAKMDNSLSAYTQKYDKEGYGLQYPDGHVIRFYERILKYKLSKTSGKLLDFGCGN

GVHSKYFKNITGGGIEPYGIDIVPSLKKVWEKDPCLDSKNFHIISPNSSFKKLFNTKMDFIFANQSLYYL

TKQAFKEAVQEFYELCNEGAIIFATMMSDKGYSMYERGELMDNSLREVKGCPSGRLSGSSYIRFTKDIEE

LKEDFKPFKPLFWGDYELINLYNFEGSVEHFIYIGQK

>CCK66316.1 superoxide dismutase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFELRKLPYDTNAFGDFLSAETFSYHHGKHHNTYVTNLNNLIKDTEFAGKDLVSIIKTSNGGVFNNAAQV

YNHDFYFDCIKPSTGCGCGGSCQSIDANLQAALEKEFGSLENFKAEFIKGATGVFGSGWFWLVYNTKNQK

LEFVGTSNAATPITEDKVPLLVVDVWEHAYYVDHRNARPAYLEKFYAHINWEFVAKAYEWALKEGMGSVS

FYANELHPVK

>CCK66315.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKVVLISALLGAFAANVFAANTPSDVNQTHTKAKADKKHEAKTHKKTKEQTPAQ

>CCK66314.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDFYSLIFLSCALGMDAFAVSLCKGFSVKKLHLKHYLIVGIYFGGFQALMPTIGYFIGITFASFIASIDH

WIAFILLSLIGLKMIKESLENENCDSNANQFGFKTMLALAIATSIDALAVGVSFAFLNVNLLLAIFLIGI

ITFILCIIALKIGNKFGIYLKNKAELLGGLVLIILGVKILIEHLFFD

>CCK66313.1 tRNA delta(2)-isopentenylpyrophosphate transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFFEIALIGTTASGKTYIANTLAREFNAVVLSLDSLCVYKEINIASAKPSQDDLASIKYFGVNLLSVNEH

FNVELFIREYQKAKEFALARNLPLIIVGGTGFYLKTMIDGLSEKTLESKSSLNNDEIYALLLNIDPNYKI

EKNDTYRLKKWLGIYEQTREIPSEFLKRTQKTGVLKDIEIYELAWDKEILKKRIKTRTKEMLDNGLLDEA

KILFSKFDHKLKALNSIGLKECKEYLDGEISFKELENLITIHTTQLAKRQRTFNKKFQSKALEFDKALAT

LRMKFSIEK

>CCK66312.1 prenyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNTFWIKFKDILELVVFKHSIFALPFLFSSMIVASKLANDTAWFGFKALILGIICAVSARNFAMATNRLM

DEDIDKDNPRCANRPNVSGKIGRKSVWIFIIINALIFISCSYFINTLAFYLSFPVLLVLAIYSAFKRFSS

LAHLVLGFCLGLAPIAGSVIIMGEIHIYSVILCLGVTFWTAGFDLLYSLQDMEYDKKIGLHSIPAKFGSK

ATLFISSFCHILAVLFWLLFVWEVWGVALGKIALIGVIISGIILALEHKIVHKNFAHIDRAFFTLNGYLS

IIFFIFIWIDLLWN

>CCK66311.1 hypothetical protein BN148\_0163c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MELALFKAGFEAHLECCEIENNRFLGEYLKLGAISQILKWKKLALRIDFDEGEKIIFDLLLSLKEDILRL

ENSLDKNKELIPLKQKGVIESLNFEYLNFLDTILEEDKEYYLRFDLNNQKIAIFIKAQSQTLAKIIKIKP

EDKMAFDAFVVEIQRNMIRNKKGQE

>CCK66310.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSDDVLYLVFIIVLLIAMLAYMNIKERENNAKIAKLQNVIEDITKELHYFRKELGVKDDSEEDEDYKTSL

LKEEIMIELDKQISSKITPVLRTLKTMEHIIEDFQNEQQNRLLNLEQKAQSMAKLTPNYDTEEQKIENLF

KEGKSIEQIAKDLRIGTGNVELVLKFKKLIK

>CCK66309.1 molybdenum cofactor biosynthesis protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLIDQFGRKINYLRISVTQRCNFRCLYCMPKIPFDYQPKENLLSFEELFLFVKAAIDEGIEKIRITGGEP

LLRKDLSIFIKMISDYKSDIDLAITTNGFLLKDFAKDLKNAGLKRLNISLDTLDHKKAKTLAQKDVLDSV

LSGIDEALNLDLKVKLNTVALKNLNDDELISLLEFAKSKKAQIRFIEFMENTHAYGKLQGLKRDEIIQIL

SQKYQIQLIKKDEKAPVSIYKADDYEFGIIDPHSHEFCDSCNRIRLSAEGLLIPCLYFDEALSIKEAVRK

GDIKAAVEILQEVLRNKPEKNKWSVVDNETSSRAFYQTGG

>CCK66308.1 radical SAM domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQLVESFLSIQGEGKYNGKLAIFMRFAGCNFNCLGFNVKISKNDKTLIGCDTIRAVFTKDFKESYETLNA

NELLKRVIKLKKDFDPIVVITGGEPLIHYENPEFIEFIQMLLKNKFEIHFESNGSIEIDFDRYPFYKECI

FALSVKLQNSGIKKDKRLNFKALKAFKNYAKDSFYKFVLDANTLDNSFLEINEILKEAPNQIFCMPMGEN

EQNLKKNAQKIAEFCIKNGYNYSDRIHIRLWNDKEGV

>CCK66307.1 6-pyruvoyl tetrahydropterin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIIRKLFEFENAHIVRFCSSKRCKSSIHGHSYKVEVLLESKYLDNAGMVYDFGLLKTYIRQIIDSFDHAI

TLFKYDDAKYLEEMKKYSSRWICLPVNVSAENFCRVFFILIDALLKQTKMVNGEQGVTLQSIIVHETRTG

YAQGFREDAYSELMPKISLQDIEFSNGIKAEWNDIDFYNKLKNEEIFINPKEI

>CCK66306.1 heme-binding lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKAKILIALSFFLLVLSACSNDEKNISKTQNTDQEVVQIEQNDEKTELSDSNLPLPVDDEAQSSNDEHE

VNPSIINSLYKQKCATCHGEKGELKPKNSTAIKTLSNKIFIQKIKTIKDKNHSFLSDEQIQNLADFINKG

K

>CCK66305.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDQSYEFFLALHLYSLYASGFLMLFYLILTQGNFKTEFIFIRRIRLFLPIYYLFLALIIFTGCLLSAMKQ

FQMNVNIWVMIFSWILIFALAIFHFVCFKKARRFRKYATFRWISCLILPFEIFLLFLPFLIERYL

>CCK66304.1 16S ribosomal RNA methyltransferase RsmE [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQFLYNKQAGEEFIQLQGENFNHLKVRRVKENSELNLRNLQDNFLYNYTITNLTRNSCTLKFLNKKSQNI

KQSELNLALAIIDIKILEKTLPFLNELGVKKLHLVFTNFSQRNFKIDLERFEKIIISSCEQCGRNTKMDL

IIHQSTQEFVQKFPNAIMVDFQGEQQSHFDEKELYFIGPEGGFNNDERLLFNRKISLKSSNILKSQTAII

AIASKILL

>CCK66303.1 50S ribosomal protein L31 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKEIHPEYVECKVSCACGNTFTTKSNKAELRVDICSNCHPFFTGSEKIVDAAGRVEKFKKKYAMQ

>CCK66302.1 tetrapyrrole methylase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLYFIPTPIGNLSDISFRALELLKTCDLVFCEDTRVSKSLISLLNTKFHTDIHISKFIALHSHNEKEVLA

SIDLKIFEKNVAYLSDAGMPGISDPGKALVEFAQENNITYEILPGANAALVALVSSAFCQKEFIFIGFLA

NKGKERQKDIEKILNFPYPSIIYESPKRILSLVEQIMILDNQREIFLIKEISKKFEKKFKGNAKELSEIL

KKSNLNGEWVVVLQSKEQNFLQNTLCEKDIMDLELSLKAKAKLLSKINGKNAKEIYQKLLLSQD

>CCK66301.1 rRNA methylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIVYGKQIFFYILEYHKDCINELYLAKECDKITFSKIAKSGFKIKKLDFKTAQAYAKGGNHQGFLLDIKE

SSFANLNEIKKNDFIVMLYGISDVGNIGAITRTAYALGVGALIFIGEKLAMEGVIRTSSGAALDLPIVIS

NDALSVINELKQVGFYFYASDGSGKEIHSVKISNGKKVLVLGSEGFGLSSKIVKKCDECVGIAMKNNFDS

LNVSAAFAILCDRMLNA

>CCK66300.1 hypothetical protein BN148\_0152c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLNWKKIQELNLKEVAAKTQIELDFLEALVEKNFAVLSRFNVKGFVKILSREYELDFSDFNEEYEAYLNE

NNPTPQTKSKMITPKLDAYSQKSFNTWPFLIVLIVLVIIGSGIYYFDTLKTFFKDEQNNTSATVIDIIGQ

AQENLKSLGGNNVVVIDNNKAQETNRTESVLPSQNISLQENDKNISIENNISENNTTLLDEEKNTQIQED

TNTPKTDSLKEAHFKTSTKIWIGLIDLKSLKKTSFVKEKDFNISLDKDQLILTGAAALTMFDQENKEQKF

PAGISKRFLIKDGKITSISAAEFVKLNKGKEW

>CCK66299.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVKKIIILTFWVNISFAISSLELAKNLVNNPSKNSQLELLFSNNSYIDNNGNCDIAKISQILKTNSLIAL

TLSNPQSLRLNFKAKADEVMFFKILSDVLTDAGYIYFIPTDLILREGNIDYTIQVESQYVLDPGTLYNLL

KENSVYINNIKRIGVYDYEYDLNFSNAVLKTNTNVNLNTPKSLEKPLKDYVLDLKNATNLIIDANDLDNW

FPKIFFLDKNLNLIKAVKSENKNNHFSELIPNGAIYAIVSDMYSLDNIRRGLKITLKK

>CCK66298.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFDEIRFNTIERLPNYVFAEVNAIKMAARRAGEDIIDFSMGNPNGKTPQHIIDKLCESANKDKTSGYSTS

MGIYKLRLAICNWYKRKYNVNLDPENEVVATMGSKEGFVNLARAIINPGDVAIVPTPAYPIHTQAFIIAG

GNVAKMPLAYNEKFELDENQFFENLHKTLNESIPCPKYVVVNFPHNPTTVTCEKSFYERLIATAKKERFY

IISDIAYADLTYDDYKTPSILEIEGAKDVAVETYTLSKSYNMAGWRVGFVVGNKRLVSALKKIKSWFDYG

MYTPIQVAATIALDGDQTCVDEIRATYDKRMHILLEAFENAGWKLQKPRASMFVWAKLPESKRHLKSLEF

SKQLLQRASVAVSPGVGFGEAGDEYVRIALIENENRIRQAARNIKKYLKE

>CCK66297.1 homoserine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVAILGYGTVGSAVVKFLLENDKLIRARCGQSITPVIALARSPKKNALIPITHSVAEILNADVDVFVEL

MGGVDEAFKIVSEILKKKKAVVTANKAMLAYHRYELENLAKNLAFGYEASVAGGIPIIKVLKEGLSANNI

LAIKGILNGTSNYILSSMSQKNMSFKQALQIAQNLGYAEADPTFDIEGQDAAHKLLVLSSIAYNLKAKPE

DILIEGISEIAPEDMYFANEFEFTIKLLGIAKVRENKVELRVHPTMIDKEKMLAKVDGVMNAISINGDLL

GESLYYGAGAGGEATASAVISDLMDIARDQVKAPMLGFVNTLEYKLLSKDEIYTKYYLRVKVEDKIGILS

KITQLMSENNISIDSFLQKPKKNDENYSTLFFTTHLTYEKSIQNLLEILRKQDFIKTKPFMMRIE

>CCK66296.1 hypothetical protein BN148\_0148c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGVKAYLDGILGEDKACKFLKKQGFEILKRNFHSKFGEIDIIAKKDEILHFIEVKFTQNDYEVSERLDRK

KLEKILKTIEFYHLKNGISSDFQIDLICIKNDVIQFCENISF

>CCK66295.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGKYIELTSDNFAQAKEGVALVDFWAPWCGPCRMLAPVIDELSNDFDGKAKICKVNTDEQGDLAAEFGVR

SIPTLIFFKNGEVVDQLVGAQSKQAISDKLNSLL

>CCK66294.1 thioredoxin reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLDVAIIGGGPAGLSAGLYATRGGLKNVVMFEKGMPGGQITSSSEIENYPGVAQVMDGISFMAPWSEQCM

RFGLKHEMVGVEQILKNSDGSFTIKLEGGKTELAKAVIVCTGSAPKKAGFKGEDEFFGKGVSTCATCDGF

FYKNKEVAVLGGGDTALEEALYLANICSKIYLIHRRDEFRAAPSTVEKVKKNEKIELITSASVDEVYGDK

MGVAGVKVKLKDGSIRDLNVPGIFTFVGLNVRNEILKQDDSKFLCNMEEGGQVSVDLKMQTSVAGLFAAG

DLRKDAPKQVICAAGDGAVAALSAMAYIESLH

>CCK66293.1 TAT (Twin-Arginine Translocation) pathway signal sequence domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MERRLFLKGSALGSMVAFFASSNLSAAMLKDKDLLGFKAVSASTQDKVIVPQGYEAKVLISWGDPLFSKA

KPYDENKIIDMNAVKNAHLVFGDDNDGMSFFPLSKNRGILAVNNEYINPEIMFNHHGKNLSKEDILYEQA

SVGVSILEIEKKGDDWTVVLDSKYNRRIDANTKMQVSGAAKKEVLKNEKFVHGTFANCANGQTPWGTYIT

CEENFDDFFGSLDENLEFNDSLKRYGFNKTSLYGWEKFDERFDLAKNMDEANRFGWIVEINPFDAQSTPV

KRTSLGRFKHENAEIIVEKDGSVIVYMGDDEMNEFIYKFVSKHKYKKGADTSKILDEGILYVGQFNGNVG

DFKGQGKWIALEYGKNSLNEKNGFKSQAQVLINTRLAASIVGATPMDRCEWIASHKQSGSKEVFATLTNN

KNRQEPNAANPRTKNVYGQILKWMPKNSHKDDDFTWEIFALAGNPDNQQGLYKGSNNITSENKFNSPDGL

KFDRDGRLWIQTDGSYSNKDEYESMGNNCMLAANPKTGEIRRFLTGPIACELTGIAFSEDYTTMFVGIQH

PGEGLKGSTFPYGKTPRSSVMMIRKLDGGVIGS

>CCK66292.1 methyl-accepting chemotaxis signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKSVKLKVSLIANLIAVVCLIILGVVTFIFVKQAIFHEVVNAEINYVKTAKNSIESFKARNSLALESLAK

SILKHPIEQLDSQDALMHYVGKDLKNFRDAGRFLAVYIAQPNGELVVSDPDSDAKNLDFGTYGKADNYDA

RTREYYIEAVKTNKLYITPSYIDVTTNLPCFTYSIPLYKDGKFIGVLAVDILAADLQAEFENLPGRTFVF

DEENKVFVSTDKALLQKGYDISAIANLAKTKEDLEPFEYTRPKDGNERFAVCTKVSGIYTACVGEPIEQI

EAPVYKIAFIQTAIVIFTSIISVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFG

QISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARV

GSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLT

TSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAG

EHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNV

EIANESAIISSTVSDIANNILEDVKKKRF

>CCK66291.1 periplasmic solute binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIILFILSLGIFYTFTQAKNLEQEQNTSSNLVSVSIAPQAFFVKKIAANTLDVNVILPPNSNEHNFEF

KPSTMKKLEKSDIYFTIGLEFEKVFTDKFKQNFPKLQVINMQKNIALIQTHDTHEHSHEHEHHEHGHFDP

HTWLDPILVQTMALNIYDTLIQKYPQNENLYKENLDKFLAELDSLNLQIASKLEKLKNREFVVYHPSWTY

FAKRYNLTQIPVEILGKEPKSKDLQKLITLMKDKNLKVIFVQNGFPENAAKTLAKECDAKIYKIDHLSYD

WENELLKTADAFSHNL

>CCK66290.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLFFEISNLNYAYDNEIILKNINLSYDNKDFLSIIGPNGAGKSTLVKLILGLLKSKNEIHFKALQRKEIG

YVPQHTLANPNFCPRVLEIVLMGLVSKKIFGFYGKKDKEKAMQALKSVGMEKFWNKTIDSLSGGQRQRVF

IARALASECKMLILDEPTASVDNKSAIQIFELLISLHQKGMGILLICHDINLVLAYSDKIAHLNKELFLH

TNTKEKEKSSFLKHLYENHSHFCDVEMSLNTCFCNEENCDSKKLCEQEFTRRNLKKTEFKKENFCLKFSK

ENNA

>CCK66289.1 ABC transporter integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLEILNFTFFQNALLGAILVSIACGIIGTLVMINRLFSMAGGITHGAFGGIGIAFYFSLPILLSTGIFTL

FLAFLVAFLAKRYEHRSDSIIAVIWAFGMAVGIILIDLSPSYNTDLMAYLFGSILAVGTQDLWLMALVDS

VMVLLIFLFYRQFEALSFDVEFTKVRGINTSFFHYLLIALMAFCIVISIRLVGLILVMALLSIPSFIAEN

FTKRLGFIMILASFLSMIFCILGLILSYYLNLSSGACIIAIACFGFLVHLIGKFLKR

>CCK66288.1 hypothetical protein BN148\_0140 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNSIFSIIEHQAFSKEDLKEIFKEKAEGFYKELEDFAKNNENLLGFKNKNSLKAKNYVGIIQTKSGVLEI

LPKCTNLDSYKKEDSSSNHDKEKLRRCYELDNISKNNDFYEKDFKFNPKNLLINMLKTLKNSPFKKSQIS

SLQSSKIPLFEVFITMFLDEFDSVYKKGLMRSYLSCEENRAFLKGKLLFNEHIKQNLIHKERFFTSNDEF

VLDIAPNRLIKSTLNFLKSKTSLNKFRLIKAMQMLDEVEFSKNYEKDFSYKISRHFDYYENLLLWCKIFL

KNESFMPYHGKNEAFALLFPMEKIFEDYVAYMLKKVNSTQDIKVQNNGKYLISKNDENCFMLKPDLYIKN

KMILDTKWKIPNDSEDEKKQGIAQSDLYQMFAYACKFKIYDIKLVYPLCEKTQDLQRKIAEKFFVFKASE

HLYFKEQGQKDIKVQVFFAPLPF

>CCK66287.1 endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MWNLDEKKLQEMLDGFLNFQEVWTLEKVKNMTLEEYTNIKKDNPNRDDFTFWIESKLDNLGSIWGGSAFK

FGIYRRNDESQKESSSGRLYSQNYAWIAKYGNNENEAFNNIKEKIIQIIQASQDNNLKTIEKIDFGDAIK

WKIAFHYQDVKNIKIVNIFSKNVLDLISLNEFKEKLKIYQIHKKLLENKNLSLVKMIENIAIPLWNKYGM

DSQNYIDKMKNLFSEYLNKKKLDKNTINKYIQVIENISKEFLKENLYSCDLFSFDQNINKLNKNEEFKLK

NSNGHNMYSSALNYYRAFLIDYYEQDIFITERVQSEESNMKIIPLNQILYGPPGTGKTYHTIDKALEILG

ENLESRDEKKAKFDEYVRKGQIVFTTFHQSYGYEEFVEGIKPIIDNDENSQEVKYDVKDGIFKELCDKSL

KNYILSMQNENEIDLDKLIFEFANYINQDFLNKGNEFPLENKVSIKKILLNFKDEYRSFSLGGSIKSPQS

LTIDIIKRDYLNFKNKKILSFKDIKPKYDSQSDYHGNAIYYFMFYNKLKEFENIQNEKFKIKKEILKSYI

IIIDEINRGNVSKIFGELITLIEPSKRIGEKEELKVTLPYSGEKFGVPKNVYIIGTMNTADRSITSLDTA

LRRRFEFVEMMPDVSKLSMDCEGINLQELLKAINTRIEYLLDREKTIGHAFFVSVENLEDLKKVFQNKII

PLLQEYFYNDYALINAVLNDNDMIFEDKKDDKYLQKIKNLDSVNSERSIYNIASFDDKIWDKIEIYQAIY

NDEIANKLKNENE

>CCK66286.1 hypothetical protein BN148\_0138 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNLEALCKEAGLSFYDDELVSENGRKIYRIYVQKEGGVNLDDCARLSEILSPIFDVESPVNGEYFLEVSS

PGLERKLSKIEHFAKSIGELVKITTNEKEKFEAKIIAVDDENITLENLENKEKTTINFNDIKKARTFVEW

>CCK66285.1 ribosome-binding factor A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNPSEIKKLRTESILKELIPEALANLDDENLKNLCVVDVECKKGRYDAFVYLDKMFFNVHEQEKILSSLK

KASRALQNYCMSEQGWYRCPNFHFKFDDRLEYQNHMDALFEKIKKDKNES

>CCK66284.1 translation initiation factor IF-2 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKIRIHEIAKELGYDSKEIIEKANELGLGIKTASNAVEPEIAAAIYEYIQTREIPEAFKKNIKTPTAKK

PKKENIKEQEKLNESEKKEPKKEEKLKQEVKKEELKIEKENAKEEEKQEIIDAHKPQSLASATLAKRRGL

VIVKKKKDEEEIQVKKEEVKNSNDISINNEERLSLKTMFSNADESLKKKKKEKKSFVASKKESTEKMNFL

DEHDFGDISLDDEDEVVLPDFSVKEQEKPQNINKKQPNFIRQAVGNSAGFGFEGGIQRRSRKKPSKKIEK

KEVEEVGSVAISKEIRVYEFADKIGKSTSEVISKLFMLGMMTTKNDFLDEDAIEILAAEFGIEINIINEA

DEFDYVKDYEEETDEKDLVTRAPVITIMGHVDHGKTSLLDYIRKSRVASGEAGGITQHVGAYMVEKNGRK

ITFIDTPGHEAFTAMRARGASITDIVIIVVAADDGVKPQTKEAINHAKAAGVPIIIAINKMDKEAANPDM

VKTQLAEMEIMPVEWGGSYEFVGVSAKTGMGIEDLLEIVLLQADILELKANPKSFAKASIIESSVQKGRG

AVATVIVQNGTLTVGSTVVAGEAYGKVRAMSDDQGKALKEIKPGECGVIVGLSEVADAGEILIAVKTDKE

AREYANKRHEYNRQKELSKSTKVSIDELGAKIKEGNLKALPVILKADVQGSLEALKASLEKLRNDEIKVN

IIHSGVGGITQSDIELASASENSIVLGFNIRPTGEVKERAKDKGVEIKTYNVIYNLLDDVKALLGGMMSP

IISEEQLGQAEIRQVINVPKIGQIAGCMVTEGVINRGAKIRLIRDGVVVYEGNVSSLKRFKDDAKEVAKG

YECGVGIEGCDDMRVGDYIESYKEVEEQASL

>CCK66283.1 hypothetical protein BN148\_0135 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKHIPIRMCIVCKNRFEQNMLFRFKVVLGDIVPKAEHGRSGYLCQNCIEREDKVLQKAFSKICKNLNTK

ITQQGLKEIFLNGKD

>CCK66282.1 homoserine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKILVPATSANLGPGFDCLGLSLKLFNETQIQKSGVFSISIGGEGSDNIFLKKNNIFVNIFYEIYEKLSG

KKDNFRFIFQNNIPLSRGLGSSSAVIVGAIASAYYMSGFKVEKECILDEALIYENHPDNIAPATLGGFVC

SLVEKNKVYSIKKEIDKDLAAVVVIPNLAMSTEQSRQALAKNLSFNDAVFNLSHASFLTACFLEKKYEFL

KFASQDKLHEINRMKNLPELFEVQKFALENKALMSTLSGSGSSFFSLAFKDDALALAKKIQTKFKDFRVQ

YLEFDDNGFEIC

>CCK66281.1 glycoprotease family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIGIYQDDKLIKTYKSEEKASEFLPKILDELLKEYDFTSLIYANGPGSYMGIKISYVSLSTLSIVKNIPL

FAVSAFELNGYKPISANKNFCFVYKEGEICLEQNIPAEFFLPKNLQELKLNNDNLPFYFLDAI

>CCK66280.1 UDP-3-O-[3-hydroxymyristoyl] N-acetylglucosamine deacetylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKQLTLAKTVKGVGIGLHKGEPIEITLEPLEANSGIVFFRSDLNASYKASPENVINTQMATVLGDDRGFI

STIEHLMSAINAYGIDNVRIVLNANEAPVMDGSSISFCMMLDEAGVKELDAPKKIMVIKKPIEVRDGNKF

VRLTPTKEPRINYTIKFDNAVIGEQSYNFEFSKKNYIENIARARTFGFLKDVQALRSMNLALGGSLENTI

VVDENRILNPEGLRFKDEFVRHKILDAIGDLTLLGYRVFGDYTSYAGSHHLNHLLTKEVLKDKDAYEIVS

LEKTTQKAYEKVFA

>CCK66279.1 peptidase M23 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAKRKGKTYLSVLILVLIAILIFFISRLSIFEKNPPQILMPDVVYTDLKKPILVHIKDDESSIKNVQIIL

HKDDNTSAMVIADEKISNLKDITLQVALPKFGYKENVKSFVLEVIAKDSSFWNFFSGNEARKQIAVLVDN

TAPKINIISNSYQIEQGGAGAVVFKADDANLDKVYIETNKGKIFKATPYVKEGYYAALIAWDARDEEFRA

FVIATDKAGNISKERIRYYFVNRKYRVSNINLTDKFLDGKIENLANQYAPKDNNLNRYEKFKFVNETLRN

SNEKLIHEITSKVPEEKIDNFDLNLFLPLKNGMKVADFADHRYYSYNGQFVSDSYHMGLDLASVAQAPII

SNNAGKVVFAAENGIYGLNLIVYHGFGVYSLYGHCSSKNVDLDEMINKQSIIGKTGTSGLALGDHLHFGV

LVQGVETRPEQWQDKKWIENNIYNVLNDGKKIILGKN

>CCK66278.1 prephenate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIAIIGLGLMGGSLGLCLKENKLISCVYGMDLSKENEKDALQLGLIHELIEFKDLALCDMIFVATPVNA

IIEILQKLVDLPSNVTIIELGSTKRKIIESLPKNLIKQTLFAHPMTGTENSGPKAAFKELYKDAVCVLCD

SEIADDLHQKRAVEIFSHLGMKIVFMDSKAHDHHAAIISHLPHVISFSLANFVMKEEDKRNIVHLAGGSF

KGMSRIAKSSPQMWESIFLQNKDNLLSSIDFFQQELERCKQMIQLDKNDELREWMKQANTLREIL

>CCK66277.1 outer membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKHLISICALVAMANAATIKDIKFIGLNHLSNTSAINIAGLKIGEEINPAKINTAILNLYKQNYFENIA

VENNNGILEIIVTEKPTIAKVTITGIASNDRKQVESILGIKRGTLLDEGNIKEAIERIKAYYEAKSYFDT

IVEYKKKTLENTDGLELEFIVNRGENIIIDNVHLSGAKKFSYSDIEPAVVNKEKEFMGWMWGRNDGKLKV

FELSNDSSRIADEYMKKGYLDVQVSSPYLKTYTDTYQANLTYFIKEGKPYKIKSISIENPLFDDKQNAQT

VKDLRSSAGKTINIEDIRKDVKTIETQSADLGYAFVEVYPDIQKNDQTQEATVVFKVIPHDKVYIRNVII

SGNSRTVDRVIRRELYITEGNLYNRTDLSESKNALKRTSYFDDVNIKEEKVDDTHIDLIVDVKEASTGAI

SGGIGYGSSDGILLNASLSDTNIFGSGIKSSVSVDKSDDTLSGRISLVNPRVLDSQYSLGGTLYSNDYEW

DNYSEKNYGFDITIGRQFARYYNVSLTYNLEQSDIYHLSPTLLRTGYELGKSIKSSITPAITFNDTDDYY

LPRSGIIASTSLEYAGLGGDQEFISSSSKFNFYQGLQDYIGYDLIYRYKASFYKVWDEGYLPINQRIYLG

GIRSIRGFESRTVSPKNQWGDEIGGTIAFANSVELSFPLIDRIKLRGSVFFDYGMIGRKNLDEIKRMSTG

IGIEWITPIGPLQLVFAKPLNDKKGDDTNSFEFNLGTRF

>CCK66276.1 inositol monophosphatase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEFLDACLNANLQIRKYLNNIPQNDLKLCSKLGYDKNQGYELDLKCEQIFIKYLSCFGQIFSEESGLIG

KASPKQMILDPLDGSSNFVSKIPFYGTSIALMEKDQAKSAFVCNLVSQEIFAFNNKQAFKSNLSDPKYSP

LTPNLFSKIGIVEKISLYPELLDFLTKNQLKFRSLGATALSLAYASYFSFVLILGKTRIFDTAAALAIHQ

NLYIEKNENFLLLSQDKKIFDIILEFLKNN

>CCK66275.1 acetyl-CoA carboxylase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFADIFSKIRRQQPSVKEAPNHWVKCQSCHALMYYKEIESCFNVCPKCNYHMRISADERIKLLSDEGSF

IEYDANLEAIDPLKFVDSKSYKKRLSEGESKTGRKSSVISGECEINGLKTQLVVFDFSFMGGSLGSVEGE

KIVRAIQRAITSKTSLVIVSASGGARMQESTYSLMQMSKTSAALKLLSKEKLPYISILTDPTMGGVSASF

AWLGDLIIAEPEALVGFAGARVIKQTIGADLPEGFQKAEFLLEHGLIDAIVERGEQKQYLSDVLKFFSGK

>CCK66274.1 hypothetical protein BN148\_0126c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENNLQVNIFCIQKSDEFKTCSEKYSKLISKYATLKEINVFNKKIALAQNLNAIEAKKSYEEAFMPYKKG

YCIALDEKGKDLTSIEFAKLIQDKNELSFFIGGAYGLREEFNQSLDFRLSLSKLTLAHQFVKTLLLEQIY

RAFCINNNHPYHK

>CCK66273.1 hypothetical protein BN148\_0125c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKNEIQNFKNILEERKKAILENLQSNSNEIEALHNSVPSDSVDFSVIETGSQIDFAISTNLKEELIEIE

DSLDKIKNGTYGICESCDDEIDSQRLKVKPHARYCITCRQIAEQGKKHEN

>CCK66272.1 hypothetical protein BN148\_0124c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIKLFLLASFIYIALIFAFAWHLELGSYTLNISTYTFELPIMIWLVIPLFIYMILAVLHIAFYGFLRYL

KFKHFFKDAAKFEAYTQDLLLEKDLKTTFQTKEFRSVAQLFKTIKTHEKIPHSNKINEILDLIDGLNKNE

FFNLSKFKLENNNVLYLQNEKNHLKNDANYAYNKLKNLNEIKDEFEEIAFNTLIEKASYEQIKNVKIPKK

PSEVLTLIKRFKEGNLELSVAEYEVLLSHNILSEKDYLNAAKLSTKLLNPDAILGIFNKIKNEKSEALRA

YLYLLAEFGLLDELREQIHNDDKKFNDFKAFLALREKNIKIDLNQLIQ

>CCK66271.1 tRNA-dihydrouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIDFSKKPLFLAPMAGFSDLPFRNVVKKFGADITISEMISSNALVYESSKTLHMLERAELENPYIVQIAG

GDKEVLKKAVQMLNEMDFVDGIDFNCGCPVNKVVKQCAGSALLENLELFKNLVGVIKENNKKSLTSVKFR

LGFNEKYPEKMAKICESLGVDFISIHGRTRKQLYSGKADYGSIASAKASVKIPVIANGDINAQNAKEVYK

ITKCDGLMIGRASVGNPWIFYEIKSGKSVDEKLKKEIILTHFDEMIKHYKDQGVSIFRKHLHEYSKGHKD

ASTFRDTVNRIDNVEEMRKKIEEFFSLT

>CCK66270.1 hypothetical protein BN148\_0122 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MIVFPLSSFNRYFGNNPLQTLTKIRDESIENGNPELTKKQREELGNDLIDLYKISKKFSDKIELVEGSIE

DKLRNNELPESEVKNLFQWMDENAKHPRWMHIDGVSYDEAYVKIFHTSKSIDEFKEKYLELQKKYFVDFN

NIDSSQKKLQETSEEDKKAFKPIQVESKSETYKDDNKMNELLRKLLETKFGTSDELEILFGMNFSNDNAG

EFNKILSQNTSAKIIDIKA

>CCK66269.1 metalloprotease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MILSDEKCDFLESIASFLSPKDVELVFVDSKEMQEINLEQRKQDKTTDVLSFPLENIDESLPLGSVVINV

DLAKEKAKELGHSYEEEISLLFIHAMLHLLGFDHENDNGEMREKEKELIEHFNLPKSLIVRTLED

>CCK66268.1 recombination protein RecO [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQGFILHTQKVKDEDLIVYILSPKMLIKAYRFYGLRHSSILSGYKIDFALEENPSFLPRLKDVLHLGFLW

IMQRDKMLIWQEFIRLLYRHLKDVEELDSFYFDLLDECVKRFEKQNPKRVIVDAYLKILEFEGRLHKDFF

CFACDEKIQNSITLLRAFLPSHSQCALGFEFEEKKLKQFYSSKNCAIFDDEEIENLYHLIKEGL

>CCK66267.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKAFVLVDYQNDFIDGSLGFDKALKIKENILKALNQIDFNNTHLLLTYDTHDEHYLQSKEGLNLPVKHC

IKESLGWQMPKEFEPFLQKAHKIFYKNTFGSLELANFIQKSDYEELHFAGLVSHICVFCNIILAFGAKPN

ARIILHQNLSASFDENLEKSAFDILRAYGIEIV

>CCK66266.1 hypothetical protein BN148\_0118 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINLSKKLIRQVAQANAKFGLIKDGDRVLLGLSGGKDSLALAHLLNRMQAHAPFKFELEAVTLSYGMGED

YSHLHAHCEEHGIKHSVLDSNIYEVSGDTIRENSSFCSYFSRMRRGALYTYALEKGFNKLAIAHHLDDAA

ESFFMNFIHNGALRTLAPIYQSKRGITVIRPLIFVRERQLRDNATQNELSVIGNEFCPGMKLSEKNVKFP

HAREEAKQLLANLEKDHPKLFTSLKTAFANLHTESFWLQKA

>CCK66265.1 5'-methylthioadenosine/S-adenosylhomocysteine nucleosidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKIAILGAMSEEITPLLETLKDYTKIEHANNTYYFAKYKNHELVLAYSKIGKVNSTLSASVMIEKFGAQ

ALLFTGVAGAFNPELEIGDLLYATKLAQYDLDITAFGHPLGFVPGNEIFIKTDEKLNNLALEVAKELNIK

LRAGIIATGDEFICDEAKKAKIREIFNADACEMEGASVALVCDALKVPCFILRAMSDKAGEKAEFDFDEF

VINSAKISANFVLKMCEKL

>CCK66264.1 malonyl CoA-acyl carrier protein transacylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNAAFIFPGQGSQSLGMGKDFYENSIKAKELLQNASDFCKIDFKHLLFEENEKLNQSEFTQPAIVLNSLM

AYSVLLEKKPDLSSKFALGHSLGEFSALAVNGAFDFLEALSLVNKRGLFMQEDCAKVEAGMMVVLGLDDE

KVEELCQKAQKENKQIFAANYNCDGQIVVAGLKPDLASYESVFKEAGAKRAMLLNMSVASHCPLLENASA

KLCVELEKVLKPNFKAVISNANAKIYTSKEEALELLKAQLISPVLYKQSIKACENEVDYFIEFGASVLKG

LNKKITSKETYALTNMNDIDEFLKVV

>CCK66263.1 FKBP-type peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAIEKNSVVSMFYELKDANTNEVLESNLYSQPISFILGKGQILESLEEEVMKLDCPSNADVVIKKEKGLG

EYDENAVQTLPKEQFAGIDLKVGMELFGEGENGETVRVTVKEIGENDVTIDYNHPYAGRDLLFSLNIVDA

RAASEDEILTGIIAGSHSCGCGSGHGHDHHHGHGHGGGGCCGGGGCGCH

>CCK66262.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIFTVALLGATLLYAESSAFGAGDITSNSSYGLTSNEKLFKEKLDNLNNENIQTNARINEINERIEGL

QSTLEGINSQYAKSNSRLSQVEENNQNIENNFTSEIQKLKAYVEESRKIQEANNKQVKKVLAELSSLVDA

INANYVSKNELNDANLSVKTITPSVVVSTTDSNSTIENNNTQNTQDDKAKQIDESWKKKKNNEILELAIK

DVDKNAFEDSKAKLNFLITKQYKPARANFWLGEIEYKQKNYNNAIVYYKKSSSLSTKGDYFPKLLYHTAI

SLDKTGDTKTANGFYKALKTNYPNSPEAKASPNRK

>CCK66261.1 peptidoglycan associated lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILFTSIAALAVVISGCSTKSTSVSGDSSVDSNRGSGGSDGWDIDSKISQLNDTLNKVYFDFDKFNIR

PDMQNVVSTNANIFNTEVSGVSITVEGNCDEWGTDEYNQALGLKRAKAVKEALIAKGVNADRIAVKSYGE

TNPVCTEKTKACDAQNRRAEFKLSR

>CCK66260.1 translocation protein TolB [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIVAIFLVFLGSLWAEDPVIDVVNSGVVLPKIIVKDNSNLSDENLKKSFYNIIVNDLKVSSNFEVVAN

ATETSNYIFEYTLNKNGNTLSLNVKIKAGGSDKSEQTYTLNGLEQYPFLAHKSVKASVNALGLAPVDWMD

HKILIARNSSSKKSQIIMADYTLTYQKVIVDGGLNLFPKWGNKEQTLFYYTAYDHDKPTLYRYDLNTNKA

SKILSSGGMVVASDVNVDGSKLLVTMAPKDQPDVYLYDLNTKNLTQLTNYSGIDVNGNFIGSDDSKVVFV

SDRLGYPNIFMQDLNSNSAEQVVFHGRNNSAVSTYKDFLVYSSREPNQAGVFNIYLMSINSDYIRQLTAN

GKNLFPRFSSDGGSIVFIKYLGAQSALGVIRVNANKTFYFPLRVGKIQSIDW

>CCK66259.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKNYGLSNLNSFLLALAIYISIVILVFFRLVSEVEPAIQYTDIKDSFVDIELAEPSKQVITQSNTPKEIQ

KPTEQIDIEKLFAQTTNKTVKTEDIDQKASNFNELFGNIKEIQEEKTTKIQSSAKSGISSAPKPQASELV

KQLNDSLLQEESSTQGESTKAQKIGIYDEFLGKVVRIITQRWTQYYPNSEKISVKVKIFIDENGKFGYTS

VEKSGNPLYDAKVAEFLESQKGKFITYPPQNKNISITMNLRDEVKVKND

>CCK66258.1 exbD/tolR family transport protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MPFDDEKPELNITPLVDIMLVLLAILMVTAPSITYEEKINLPQGSQKNTSTPTVKSLIISINAKKEIFLN

QEKYDFISFADNLAQRKAQFNTEDPVFIRADKSLKYDDVISVLRSVKNLGFNKVALQTE

>CCK66257.1 MotA/TolQ/ExbB proton channel family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFEAIFHFFNSSSIITYIVLLWLSLYFILAFSILFARLTYLATWRNKEKESLETLLLGEKDLSRTDSIL

RKCNDTTSNHLEIYKNLASRRASAGLTWLSIIASTSPFIGLFGTVISILETFGGLGTQNSLSIIAPKISE

ALVATGCGILVAIPAYTFHLIIKRKAFELLSIIDSEIKVISSSK

>CCK66256.1 F0F1 ATP synthase subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNDLINFEIVTPLGVIYQGEVKSVTLPGSEGEFGVLKGHAALVSSLKSGVIDIEKADLNHELIAIDAGHA

KVDEDKICVLAKGAVWVCGSDESEIEKNLAQAKDLIKSMSSDNAALAATFSKLDNARMH

>CCK66255.1 F0F1 ATP synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQGFISQVLGPVVDVDFNDYLPQINEAIVVNFESEGKKHKLVLEVAAHLGDNRVRTIAMDMTDGLVRGLK

AEALGAPISVPVGEKVLGRIFNVTGDLIDEGEEISFDKKWAIHRDPPAFEDQSTKSEIFETGIKVVDLLA

PYAKGGKVGLFGGAGVGKTVIIMELIHNVAFKHSGYSVFAGVGERTREGNDLYNEMKESNVLDKVALCYG

QMNEPPGARNRIALTGLTMAEYFRDEMGLDVLMFIDNIFRFSQSGSEMSALLGRIPSAVGYQPTLASEMG

KFQERITSTKKGSITSVQAVYVPADDLTDPAPATVFAHLDATTVLNRAIAEKGIYPAVDPLDSTSRMLDP

NIIGEEHYKVARGVQSVLQKYKDLQDIIAILGMDELSEEDKLVVERARKIEKFLSQPFFVAEVFTGSPGK

YISLEDTIAGFKGILEGKYDHLPENAFYMVGNIDEAIAKADKLKG

>CCK66254.1 F0F1 ATP synthase subunit gamma [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSNLKEIKRKIKSVHNTQKTTNAMKLVSTAKLKKAEEAAKRSKIYAQKIDEILSEISFQINKIVHNEDDV

RLSLFHKKEQIKTVDLIFITADKGLCGGFNIKTLKTVSEMLKEYEAKNINIRLRAIGKTGIEYFNFQKIE

LLEKYFHLSSSPDYEKACEVIHAAVDDFLNGNTDEVILVHNGYKNMITQELKINHLIPVEPKSIEQTHNS

LLELEPEGTELLKDLMKTYFEYNMYYALIDSLAAEHSARMQAMDNATNNAKARVKQLNLAYNKARQESIT

TELIEIISGVESMK

>CCK66253.1 F0F1 ATP synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFKADEISSIIKERIENFDLNLEIEETGKIISVADGVAKVYGLKNIMAGEMVEFENGDKGMALNLEESS

VGIVILGKGEGLKEGASVKRLKKLLKVPVGEALIGRVVNALGEPIDAKGVINANEYRFVEEKAKGIMARK

SVHEPLHTGIKAIDALVPIGRGQRELIIGDRQTGKTTVAVDTIISQRGQGVICIYVAIGQKQSTVAQVVK

RLEEHGAMEYTIVVNAGASDPAALQYLAPYTGVTMGEFFRDNAKHALIVYDDLSKHAVAYREMSLILRRP

PGREAYPGDVFYLHSRLLERASKLNDELGAGSLTALPIIETQAGDVSAYIPTNVISITDGQIFLETDLFN

SGIRPAINVGLSVSRVGGAAQIKATKQVSGTLRLDLAQYRELQAFAQFASDLDEASRKQLERGQRMVELL

KQPPYSPLSVEKQVVLIFAGTKGFLDDIAVSRIKEFEDGIYPFIEAKHPDIFEQIRSKKALDSDLEEKLA

KAINEFKANHL

>CCK66252.1 F0F1 ATP synthase subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENIIARRYAKAIASRADINDFYQNLCILNSAFVLPKFKNIIESNEIKKERKMEFLDSFFDIKNSSFQNF

LRLLIENSRLECIPQIVKELERQKAFKENIFVGIVYSKEKLSQENLKDLEVKLNKKFDANIKLNNKISQD

DSVKIELEELGYELSFSMKALQNKLNEYILKII

>CCK66251.1 F0F1 ATP synthase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKLFFIIFLLPLYAFGASNGSGEYDIIPRTINFLIFVAILYYFVATPFKNFYKNRIVKISSKLDEIQKK

LLESKAKKLDTMKKLEEAKASAAAALITAKKEAEILVQNIKKETQDELDLLQKHFEEQKDYEFRKMEKEL

VSNTLNEIFSDPNMTLKQSEIIELMMKKVS

>CCK66250.1 F0F1 ATP synthase subunit B' [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFEDMHPSIMLATMAIFLAMIVILNSMLYKPLLKFMDERNDSIKNDENKVKENSQEVLGVNDELEAIHIN

TREEIQKIKQSAIAAAKEEAEQILRSKKEELERKMASFYADLAVQKKELQEHLNIHLSELKQALQNNIKK

I

>CCK66249.1 parB family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGLNKDRGLSSLISDMDTVYSKELGFDKNQSTMIEIDQISPNPFQPRKNFDQEALDELANSIKEFGLIQP

IIVFKKNNKFILIAGERRLRAVKALGKKEILAFIADIDENKLRELALIENIQRENLNPIELANSYKDLMQ

VHKITQENLAELIHKSRTQITNTLRLLNLDIRTQELIASGKISQGHAKVLVGLDQKDEKMLVDSIIGQKL

NVRDTEKIVKKIKNNESLPNQEFEDEIKKLKQILNRFGFDCKNKNNDFVIHLENIDKIKKLIKMLEKL

>CCK66248.1 parA family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSEIITIANQKGGVGKTTTAVNLAASLAVAEKKVLLIDVDPQANATTGLGFNRNNYEYNIYHVFIGRKKL

SDIILKTELPQLHLAPSNIGLVGIEQELAKGENNEKKMLLKNQIQEVIDEYDFIIIDSPPALGSITINAF

AASDSVIIPIQCEFYALEGVAMVLNTIKIIKKTINSKLRVRGFLPTMYSSQNNLSKDVVDDLKQNFKKQL

FTINGNEDDFIVIPRNVKLAESPSFGKPIILYDIKSPGSVAYQNLAYSILG

>CCK66247.1 biotin--protein ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKGLKVKIVCVESIDSTHLFLCKQIRNGKIDENFAIYALEQINGVGSRENSWQSSKGNLHLSFCIKEED

LPKDLPLASVSIYFAYLLKEVLQEKGSKIWLKWPNDLYLDDKKAGGVISAKISNFIIGGMGLNLKFAPQN

TALCDIEISLKDLVSEFLQKVEKKILWKNIFSKYMLEFEKSRKFSVHHEGKVFSLENSFLYEDGSILLGD

KRVYSLR

>CCK66246.1 methionyl-tRNA formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIIFMGTPSYATCILKALVENENFKLVALFTQPDKAVGRKQILTPSDTKAFLSQNYPSIPIFTPSSLK

DKNIIREIKDLNPDFIVVAAYGKILPKAILDLAPCVNLHASLLPKYRGASPIQSAILNKDEKSGVCTMLM

EEGLDTGAILESLECDIKDKNSSEVFELLANLAAKIILSTLLNFDKITPKKQEESLATLCRKIKKEDGLI

NLQNARELYQKYLAFTPWPGVFLENGLKFLELELVDELKQNAKMGEILELEKESFLLACKQGVLRIKKLQ

ESGKKALDGRTYLNGKRLKSEDSLC

>CCK66245.1 gamma-glutamyl kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKRIVVKVGSHVISEENTLSFERLKNLVAFLAKLMEKYEVILVTSAAISAGHTKLDIDRKNLINKQVLAA

IGQPFLISVYNELLAKFNKLGGQILLTGKDFDSRKATKHAKNAIDMMINLGILPIINENDATAIEEIVFG

DNDSLSAYATHFFDADLLVILSDIDGFYDKNPSEFSDAKRLEKITHIKEEWLQATIKTGSEHGTGGIVTK

LKAAKFLLEHNKKMFLASGFDLSVAKTFLLEDKQIGGTLFE

>CCK66244.1 GTPase ObgE [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFIDSVKITLASGDGGKGAVSFRREKHVPLGGPDGGDGGNGGDIIFVCDNNTHTLVNFKGKRELRAQNGA

GGMGRNKNGKKGENLELIVPEGTQVIDAQTNEILLDLTKEGQRELFLKGGKGGLGNTHFKHATNQRPDYA

QPGIKGESRLVRLELKLIADVGLVGFPNVGKSTLISVVSNAKPEIANYEFTTLTPKLGLVDVNEYNSFVM

ADIPGIIEGASGGKGLGLAFLKHIERTSFLLFVLDPMRQMPLKEQFIVLRKELEKFSNELFGRKFGIMIS

KSDSVRLGEEFAEQIALNINELDNYLKEINNPQSFLIKVSSLEKTGLKELKFMLLEEIKTLRNNKKNLTI

>CCK66243.1 50S ribosomal protein L27 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAHKKGQGSTQNNRDSIGRRLGVKKFGGEFVRAGNIIIRQRGTATHAGNNVGMGKDHTIFALIDGFVKFE

RKDKDRKKVSVYPA

>CCK66242.1 50S ribosomal protein L21 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MYAIIKHSGKQYKVSVGDELKLDHFEAESKASIEVSEVLAINDKELKVGAPFVAGAKVVLEVINHGKDKK

VVIYKKRRRKDSKLKRGFRRQFTRVVVKDIKA

>CCK66241.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIIKILFLGLFLSLSLNAKVITTTSTKSSTGEGTGLTREDAINNAIIEAIGKMSGVSINSLKKSNTSVS

TDNSGSNIQDNYSEQISKATKGRADTYEINSVEQDANGKYTANVTIFKTTTTKKYQAPGLSADNRRSITV

FDSTPDAAKRGIGSALQQKIISDLLQSRKFNVLDRDSSGYYEMEKALIKSGDAASDEVYKLKNMLATDYI

LLFSISGLEGKQKTSNLTGKSKTEIEVIVDYRVLLFATRQIKFSNTLSMKVNLKDNSLSANETALKQIAN

RIAGDILNAIYPLKVASVENNEVIFSQSLNQGDVYECFALGKVIKDTYTKENTGRVESKTGSIEITRTSP

KFSYAKITEGSVKVGDICRPLSNTGSGNGYTIGRDANYQTQEGGGVNLGF

>CCK66240.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKILFIGSLVMASLLYAQGSQPVEITQQDINTQNEMSDASTKDITPKSIEDFFEEFADNFGIEYGITKD

GKTFYTGKSTVAVNDTDPQFAQALQNAYQKAMLNLQSEFIRDAFGRIATSKIQNYEADNSTNAKEFDELP

KGDKVDQILNKLTQLAGAQLDKALKDLGIDTNSLSEDRKKTLLKQEFLNKTMTNAIGSMSGLVPVQTIVT

QRRGEYDVGVVAVISNKTRQLAKDMALARQSAIKGKGKAISEYLPKDTKGFLNEYGIRLVYDENGAPIIL

SYGNWGYVADPSNAKKTNILEDRAKETALTMADAAIIEFINTNLSLKDERTTGDTYEEIIKQSINVNDSS

TQEQTQNITNIIDKVNSKIKASASGKIRGIRTLKKWSYTSENGIEHVGAVRFYSYENLANTNEALNSKSN

ATKNEAKKSSSIQRSSNVVNSMDDF

>CCK66239.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKTKILGTALIGALLFSGCAQTAYTDGKASQVKKGDALTLGLDRQDFESAAETMINSMLSDPAFANIKP

GTRKVIAIGRVVNDTPQRIDTEKLTAKITSALRKSGKFVLTSAVAAGGALDSMSEDVRELRDNDEFNQKT

IAKKGTLVSPDFSLAGKIRQDNVKLSNGKTQVEYFFLLRLTDLTSGLVYWEDEQTIDKTGSSKSVTW

>CCK66238.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKNILFILMFLLSACAPSYQINSNQNTVILGSNLPKSLVKQFQKRINSNGYLEFEVILRSTFAKDVIYK

VDWLDKDGFVLRDVLNEDYQALRIPAGQEVILRKLASDTRANDFRLEIKAKN

>CCK66237.1 lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIKVGLIFSGIACLFLTACVNQVKQNTTFENTLTQKYCGDDFFNQNLEKIKKNDDVIYTGLNAGLIARN

CGDFNKSNVFFDAVEESYKYDVDLENVSPKAAKFIGTTLLNDNIVDYDGSLYERIMVNIYKALNYMEEDD

YENARVEFNRVLMRQDKAKEYFAKEIEKNRADLDKAKEDKNYDKNMNENSKVIEAQYDNLFKEFDTTKNF

INPYATYLASIFFFMDKDYRKAADLFREVAIIYPKNKTIKKEAKIFKEYATKIKVKKAKKYVFVVYENGF

GVVKDEFALTLPFIVDKKIISTNIALQTLKKREASFANLNINGQNTNDFVDLDNIVATEFKINMPAMIAK

ALAQTIIKTTLNVAVANNDSTGGWLSLATAVATAATNKADVRSWRGLPKSIAIATIENDGNLEIKDPQGN

ILFQKSLDKNKNALVIVRSFAPYLPASVAIMEK

>CCK66236.1 anaerobic C4-dicarboxylate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDIMIILQVIVLLGAIFIGIRLGGIAIGYAGGLGVVILGLVLGMKPGNIPWDVILIIAAAIAAISAMQQA

GGLDYMVRVTEKILRSSPKFINYLAPACGWLLTILAGTGNAVFSLMPVVVDVAKSQNIKPSVPLSLMVVS

SQIGITASPVSAAVVYMSGVLEPLGWNYPTLIGIWISTTFVACMLAAFIVSLITPMDLSKDSVYQERLKA

GLVKDAGAVLHGEDKPGAKLSVVIFLITVLAVVLYATAISSNIKWIDPVVVSRDAAIMSFLLTAATLITW

LCKVEPGKILDTSVFKSGMTACVCVFGVAWLGNTFVAGHEASIKEVAGDWVKQTPAMLAVAFFFASMLLY

SQAATAKAIVPVIITALGISAANPHDSYMLVACFAAVSALFVLPTYPTLLGAVQMDDTGTTRIGKFIFNH

SFFIPGVLAIAIAVALGFVLAPMLI

>CCK66235.1 aspartate ammonia-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGTRKEHDFIGELEISDEVYYGVQTFRAVENFDISHDRLKDFPRFVRALARVKKAAAMANHELGLLDKNI

QDAIIKACDKILEGGYYDQFVVDMIQGGAGTSTNMNANEVIANIGLELMGHKKGEYQYLHPNDHVNLSQS

TNDAYPTALHLALHDYLSDLAKAMEHLKKAYERKAEEFKDVLKMGRTQLQDAVPMTLGREFKTFAVMIGE

DIQRVLEARKLILEINLGGTAIGTGINSHPDYPKVVERKIREVTGFEYTVAEDLIEATQDTGAYVQISGV

LKRVATKLSKVCNDLRLLSSGPKCGLNEINLPKMQPGSSIMPGKVNPVIPEVVNQVCYFVIGADVTVTFA

CEGGQLQLNVFEPVVAYSLFNSVVMLEKAMYTLADKCIDGITANEKICSDFVYNSVGIVTALNPYIGYEN

SASIAKEAMNTGKRVADIALERGLLSKEQIDEILTPSNMLNPHMEAKK

>CCK66234.1 uracil-DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEEITINIDKIKINDDWKEFLRDEFQKKYFLEIKKQYLNAINQNIIIYPPANLIFNAFNLCPLKEIKIII

LGQDPYHQPNQAMGLSFSVPKNVKIPPSLNNIFKELQNDLNITPAKSGDLSSWAKQGVLLLNSILSVEAN

KAASHSSWGWQEFSDAIIHKLSNEKSGLVFMLWGNYAKNKEILIDNTKHLILKAAHPSPLARTGFLGCKH

FSKANEFLKKVGKIPIDWKIV

>CCK66233.1 amino acid recemase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTIGIIGGMSFESTITYYKTINQAINDKLKSLNSAKILLYSVNFEEIENLQSQDKWQEAAQILTQCAKK

LELAGANFIIIATNTMHKVFDEIQQNINIPILHIAKSSAKALKQENIQKIGLLGTKYTMTQDFYKKMLIE

ENISVITPSDEDIKIVNDIIFNELCKGEIKQDSKEKYLNIIKKLQEKGAKGVLLACTEIGLLISKNDTNI

KIFDTSLIHALDAANEALKDL

>CCK66232.1 cytochrome bd oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFFGLELEGLQIYWWLILSLLGGLLVFMFFVQGGQTLIDELSKDELEKTMLVNSLGRKWELGFTTLVLFG

GAAFAAFPLFYSTSFGGAYWAWLCILFCFILQAVAYEYRKKENNVYGSKTYEIFLKINGYLGVFLIGVAV

SSFFSGSEFILNEHNFVSWQNPLHGLELLLNPFNYLLGLALVFLARLLGAAYFMNNINDENIKIRAMKKL

MINSILFLPFFLGFLAWIFLKDGFSVDTNGVVSMSANLYLYNFLNQMIFAVLLVIGVILVLLGMVQGTKG

CSKAIFTLGLGTVLTVFALLSSIGLGQSAFYPSLSDLQSSLTLKNASSSYYTLSVMAYVSLLVPFVLAYI

IYVWNAMDKVKITREEIANDDHAY

>CCK66231.1 cytochrome bd oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNELSSVDWSRAQFALTALYHFLFVPLTLGLSFMIAIMETIYVKTKNERWKKITKFWLSLFAINFAIGVA

TGIIMEFEFGTNWANYSWFVGDIFGAPLAVEGIMAFFLEATFFAVMFFGWDKVSKGFHLLSTWCVAIGSN

LSAFWILVANGWMQYPVGMSFNPDTARNEMQSFFEVALSPVAISKFLHTIGSGYVISALFVMGISAWFML

KGRHIIEAKKSLVVGASFGLVCSIFLFFSGDESAYRVTQTQPMKLAAMEGVYQGEHRAGLVPFGILNPKK

TIDNNESVFLFDITIPYALSILGNRDPNSFVPGIEDLIYGNESKGIEPMQNRIDRGKIAIQTLKDYKLAK

ENNDTIAMANHKSILETHFKDFGYGYLEKPSDTIPPVALTFYSFHIMVALGSFFFLLFIVTLYLTMANDI

EKFRKVLWVCLLSIPLGYIAAEAGWIVAEVGRQPWAIQDLLPVHIAATQLGKVNVQISFWIFAVLFTALL

IAEVKIMLTQIKKGFDAHAGHTPLMGKGEK

>CCK66230.1 hypothetical protein BN148\_0080 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFYFVVFKGRIYMYLKHLYFSISQIFNFYKEGFKNLTLGKTLWKIIFIKLFVMFVILKLFVFDVNFNSIF

KSDKEKSTFVLKNLTLEGK

>CCK66229.1 cytolethal distending toxin A [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKIIVFILCCFMTFFLYACSSKFENVNPLGRSFGEFEDTDPLKLGLEPTFPTNQEIPSLISGADLVPIT

PITPPLTRTSNSANNNAANGINPRFKDEAFNDVLIFENRPAVSDFLTILGPSGAALTVWALAQGNWIWGY

TLIDSKGFGDARVWQLLLYPNDFAMIKNAKTNTCLNAYGNGIVHYPCDASNHAQMWKLIPMSNTAVQIKN

LGNGKCIQAPITNLYGDFHKVFKIFTVECAKKDNFDQQWFLTTPPFTAKPLYRQGEVR

>CCK66228.1 cytolethal distending toxin B [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIICLFLSFNLAFANLENFNVGTWNLQGSSAATESKWSVSVRQLVSGANPLDILMIQEAGTLPRTATP

TGRHVQQGGTPIDEYEWNLGTLSRPDRVFIYYSRVDVGANRVNLAIVSRMQAEEVIVLPPPTTVSRPIIG

IRNGNDAFFNIHALANGGTDVGAIITAVDAHFANMPQVNWMIAGDFNRDPSTITSTVDRELANRIRVVFP

TSATQASGGTLDYAITGNSNRQQTYTPPLLAAILMLASLRSHIVSDHFPVNFRKF

>CCK66227.1 cytolethal distending toxin C [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIITLFFMFITLAFATPTGDLKDFTEMVSIRSLETGIFLSAFRDTSKDPIDQNWNIKEIVLSDELKQK

DKLADELPFGYVQFTNPKESDLCLAILEDGTFGAKSCQDDLKDGKLETVFSIMPTTTSAVQIRSLVLESD

ECIVTFFNPNIPIQKRFGIAPCTLDPIFFAEVNELMIITPPLTAATPLE

>CCK66226.1 L-lactate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEQILTWQQIYDPFSNIWLSALVAFLPILCFLVCLVVLKLKGYQAGFLTVILATLVALFAYKMPWNLVGA

SFIQGFTNGMWPIAWIIIAAIFLYKLSIKSGSFEIIKKSVMSITPDHRIQVILIGFCFGSFLEGAIGFGG

PVAITAALLVGLGLRPLQAAGLCLIANTAPVAFGAVGIPIIAMANLVGIEQHSVSAMVGRMLVPLSLTIP

FFIVFLMDGFKGIKETFPAILVAALSFTTTQFLSSNHLGAELPDIISAVVSLAVTTVFLKFWKPKNIFRF

DNESNFTQDNTLSFNQILKAWSPFILLIVCIIIWTQPWFKALFDKDGILSYTSITLQFSNITTGILSPSI

TGIGEAKPLSLALGVDLINGKTVAQAGTAILLAAFLTIAILKIKAEDAAECFWVTLKEMAIPCITIGLVV

AFAFISKNSGMSTTLGLAFAHTGDAFSFFSPIIGWIGVFLTGSDTSANLLFGTLQQVSAQKLGISEALFL

AANSVGGVVGKMISPQSIAIACAAVGLVGKESDLFKFTLKYSVAFIILIGIWTCIIAFFLQGIIPEVIVK

>CCK66225.1 oxidoreductase iron-sulfur subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMKKVYFYATCLGSTAMQQSVLNAIKLLRREGIEVIFKKNQTCCAQPSFNSGYFDESREIALYNVDLFDK

DYPIVVPSGSCAGMMSHDYKELFKNRPEFSKIKTFSSRVIELSQYLDEVLKVDYEDKGVPIKVTWHSNCH

ALRVQKSIQASKNLIKKLKNVELVELQYEEECCGFGGTFSVKEPEISNAMVRSKIKDIQNSGAKYLISGD

GGCLLNIDGTMKRMGLDIKGIHLYDFLLKRLEGGRL

>CCK66224.1 iron-sulfur protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSQKIPHEQIVQIKLNDKQMQENLMTAMHTLQKNRLNVIDARFKDWQGLRAKAKQAKNNALMSLEERLLE

FEKNATKNGIKVHWASSDEDACEIVYEIMKEKNITKLLKGKSMASEEIGLNHYLEKKGLKAIETDLGELI

LQLNEEPPLHIVVPAIHRNRHEIGEIFKEKLGANLENDEPESLNAVAREHLRKDFEGLKLGLSGVNFAMS

REGAFWLIENEGNGRMCTTAPDIHIALCGIEKIMESFEDAATMVSLLTPSATGQFIPTYNNIITGPRKNG

DLDGPKEVHVILFDHNRSKMLAHEDYYEALRCIRCGACMNFCPVYDQIGGHAYQTTYPGPIGEVISPNIF

GIDHTGDILNFCSLCGRCSEVCPVQIPLADLIRKLRCDKIGQGKNPPLGANNVHHNALEAFAFKQFKNIA

TNGDKWRFSLSKAHYFNWTVQNFASILPVIKKWYAFKELPQIKMDLYKEVQKLEGVSYE

>CCK66223.1 hypothetical protein BN148\_0073c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKIDEISSKSKANILEHLKKAYKETTFTRIESIDPVEHIQTTQDMLTEMKQKMSDNKYIVENATKDTLE

EKINEIVAKYSFKSMIYGADLNLNLEQIKAEKKICFDKEIENLRSEVFHSDFSIIHARAGVSSHGVALIP

SSKTQPRMLSLAPKLCIVLLKKENVVKSLSEALNLVKKENEILPTNILFIAGPSRTADIELITVFGVHGP

QIAHIIIY

>CCK66221.1 hypothetical protein BN148\_0070c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDKFDYSYPILTKDTKCSFCENFFSIEYSSNLKTIEKECPFYNNKMDIKLKD

>CCK66220.1 hypothetical protein BN148\_0069 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKNIVFFEVKGGSDKGEDGYRKDTMPMVNALKAKGWNAEVIFFEVGKKDEIYKYVKENFDGYVSRINPG

NLKEENEYFDMLRKLCADKLVGMPHPDAMIGYGAKDALTKLADTDLVPSDTYAYYDIKTFKENFPKSLAK

GERVLKQNRGSTGEGIWRVSVEGNVSGDSLPLNTKIKCTEAKDNHVEHRELGEFMDFCEQYIIGDNGMLV

DMTFLPRIKEGEIRLLMLYNTPVNVVHKKPAEDADAFSATLFSGAKYRYDKPEDWKTLVDMFLGELPKVR

EKLGNYDLPLIWTADFILDTDEKGNDKYVLGEINCSCVGFTSHLELADEVASNIINIVSKTKA

>CCK66219.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQILKSFFKALGCGIKFINTYFKTFVLLLIVIWILIPSANSSSNLANLERIDLKGEIFDSSAVLEKIINA

KNDSNIKGVLFVIDSPGGAFAPSMELALAIKDLKIKKPVLVYASGTMASGSYLAGVGANKILANPASFIG

SIGVIMQGADLSGLANKLGIKEQTIQAGEFKSAGTFARAWNENERNFLQGLIDQSYDLFTGFVAKERALD

LNKKDQWANARVFLAAKAKELGLIDELSNYENAKKELEKLANVSNPVWKEEDKIDKFLNRLEGQTSSLIS

KSLIEIAYKTNSSFINAR

>CCK66218.1 chlorohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MFIVAARYLFLCDEDFTILENQAFVFEDKILELGELDNLKKKYPKAKIIKTPKNSVILPAFINPHTHLEF

SANSTTLHFGEFLIWLKSVINSRSILNAQAKEELILQSIKKMQKSGIGTIGEISSFGSDLDPCLKASHKG

MRIVFFNEILGTNENQVEDKKQEFLKRFENSLKFKNDFFIPAISIHSPYSTHPSLAHFALDLAKKQNLLA

STHFLESKAENIWLRESKGGFKKWLENFTLHPKPLYTPKDFVKLFKGVRTLFTHCVYLKEYEWLDKNLHS

ITHCAFSNRLLSQKSLDLKTALKSGLNIHLGTDGLSSNISLSLLDEMRANLLIHKNFDLLELASKLLQMV

TLYPARALNLNLGELKKGKIADFNVFELGECDKKQAPLQFILNAKEVDKLFIKGKECKF

>CCK66217.1 3-dehydroquinate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIMIIQGPNVNMLGVREVGIYGAMKMEEIHEQMKLAASQNNVELDFFQSNFEGEIVDKIQECLGTVDGI

IINAAGYTHTSVAIRDAIAAVALPTIEVHISNVYRREEFRQKSLIAPVCSGTIVGFGPFGYHLALMGIIQ

ICEQIKNLRAMQQAQQTNK

>CCK66216.1 2-amino-4-hydroxy-6-hydroxymethyldihydropteridinepyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MLKIQGVKHFEKSRFFPFFSQNIRSFKYLALIGLGSNIEPEKKRFDMLFRVMMDDKRFKILSTSPMLINE

AFGFKEQKDFTNAVMLIQTNLHARALLKVLLYYEVKFKRKRTFKNAPRTLDLDLLYFSQKVKRDKWCEVP

HKGAKERVSVILPLGMI

>CCK66215.1 flagellar biosynthesis regulator FlhF [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGQLIHTFTVEDTEQIIPKVKEDYGDKALIITNKQIRPKTLNRSALYEVMVAIEESDYEEHLKKQGKSLP

AKKSSPKPSSTSLAEEKIRSQIPQEDEDVVLDFSNTRLNTNLNTVKNNDLAKKTYQDFPQNKINPHQNKT

LGFDDFKEKLSEVSNEISKVTNTPLENYTPNPNYNKKIENFEKQFEKQINKLNDKIDLLADMMWDDKAEA

RKNLMIPPEFASIYKQAKESGMLENHLEAIMKATIENMPAAMKTNKDAVQRYFHSLLRNILPCRVESDIK

KQKIMMLVGPTGVGKTTTLAKLAFRYAYGDKRYKTGIITLDTYRIGAVEQLFQYAKMMKLPIIDSIEPKD

LDEAIKSLNNCEVILVDTIGNSQYDQSKLAKTKEFLMHSNAEIDVNLVVSANTKHEDLMEIYKNFSFLNI

DTLIITKFDETKVFGNIFSLVYETNIPLSFFSIGQEVPDDLEVANSDFLVHCILEGFNKGKNNE

>CCK66214.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNNQANKLRNLMSQNGTKKSQNTHFIAITSGKGGVGKSTISANLANVLANNGYKVGLFDADIGLANLDVI

LNVRIQKNLLHVLRGECSLEDILIEVKPNLWLIPGESGDEILKYNDKNIYERFLNQASILDELDFLIIDT

GAGIGGNILNFLEMADEVIVVTVPDPAAITDAYATIKTTSKTKENLLMLFNVVKNENEALKVFENIKKVA

DANIKNPLNLEFLGHLSASKDVSGSIKKRTLFSDENTASSDEIKALASKLLYRLERKVLDNVSNRSFSSF

FRKIIERF

>CCK66213.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRPENYVAFFTVCGFFIGLAFSIISIDEAFDILIFTCFITFMFYVFVHIAIMNFIDVKKISGRIFNKHDY

EKTSNNIINDLVIREKKMDIILEKLNEEREELKKNEFKERRRNAKRAA

>CCK66212.1 flagellar biosynthesis sigma factor [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNSKKDEEMLKEPPKAYAQMLKKEQDELVLSYMPALRAMAFRLKERLPSSIDVNDLISIGVEEMIKLSRR

YDKEQNDNFWGFARKRVNGSMLDYLRSLDVMSRNNRKIIKDIDAIMDEYFLEHECEPDDEYLAKKLDLDV

EKIKEVRTAHAISYTLPIDEQIELYNEDNTLEKIEKEELLEKIHEVLDDLKERDQLIIQLYYYEELSLKE

ISEILQISESRISQIHKKLLKKLRERLV

>CCK66211.1 flagellar motor switch protein FliM [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAEILSQEEIDALLEVVDDNTDTPIASNSKDEKDERNIVVYDFKRPNRVSKEQLRTIKGIHDKLARNLAS

QISSMMRSIVETKLHSVDQMTYGEFLMSLPSPTSFNVFSIKPLDGNCVLEINPSIAFPMIDRLLGGQGDS

YEASRELTDIELNLLDSILRIIMQRLKESWATVTEIYPSIEAKESSPNVVQIVSQNEIVIMVVMEIIIGN

SSGMVNICYPVVHLESILSRLANRDIMMGETSAKKSRNKELKTLIGRAEVVYEAILGKTLINVHEFLELK

QGDILRLDREADDKAIVSIDKKDVFLAQIGLHRFRKSIKILELIRTDKDEIKEILEKYEEERKAKASVYD

EPEEEDEEI

>CCK66210.1 flagellar motor switch protein FliY [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINDFLKMFTNECISTIEGLTGKSAEFSEYKEFDVNTSDTLKAPLVYAIFNIANGGKIGILAGAILMSAI

GEWMMGEEEITKNDKLGPDEMDAAKEAIQNIISAFSTTLGAQKDIPKMDFSIESCEFVPESVDFKDFKKL

FLYDVKIGDLEEQVSLAMDQTLHNILSGKPAETGNTSTDSNHNTEEKAIMLSEELKNINLIMDVRLPVRV

RIGNKKMLLKDVLTMDIGSVVELNQLANDPLEILIGDKRIAYGEVVIVDGNFGVQITEIGSKKERLEQLR

>CCK66209.1 peptidase C39 family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKILKILLFLPILALSTKAEWVVKSYQEIKNERVIRQTYEQSCGASSLATLLNILDDQKKFDELELLKI

MSGQELYTDMVSFADLNDAVKKLGFQSNSYQINRENLDKLVNIPMLVKIEDDPRFPHFVIIINHKGNYLQ

VLDPSHGEYISSKSQFFSIWDRYNKGGYALIVAPKKELKPFKLNTPKSLHFDFSPFSLF

>CCK66208.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIFLTFMVLVNCVFASDELNIDSLFKKQIGLRSITSFSLLSTGNANSYSLYPNITIGGDPTIWNDTKQ

VFLTQTFIYTLTPKFDILISGGGSYARQEYTNFFTNAYSHKDRIGFDNLWLGFIYTGDSIADLIPQITFQ

TAVVQREKAINQTKNFYLKSQSLQASLRGYSDPVVYSIYTGFGYNQSRKFKTLKIEYGNSIYVGGDLSII

LSPKITLDLGAEQRFQMKQKINGYQNSEVRSIPTLSLGSTYSINSDTAVSVNASFGGSSASPDSIFGISL

WKKF

>CCK66207.1 hypothetical protein BN148\_0056c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKEVKGGYITYLKRLSDNEVIAFAKPDWNLELTLFQDSNGDQYYWNREGLVRFGGMCGIETTNCLVNSKH

SYINQKRLWETMSIVGDDPYRNFLGYTVKRNIGISNLGKRFVYFSYGVAVINEQSGSWYRVKSSPVFE

>CCK66206.1 hypothetical protein BN148\_0055c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVGILSSKEEKLMINSLNSNLNYDYNTSNFKQDKNIDFKINKHGVAVITGEGALPYRGKKFEYNPKIFGL

DESISKKDMQEFNNFMKSNALKDPNKIEKSPLKDFNPAYTKWDPTTEKMMLGFFVSYSKMFHLGYDIIKK

ADEFYKEFDALISKDLSLNEFKTKYIDFKQRYDEFVKEYEMAMGDKMLLSSDDEIITQQSEKPFKAIQGE

SKNKETYKDDSTRNELVKKLLEGKFSTSKELELLFGMKFSDDDAGEFNKILSLNSTPKSIDIKA

>CCK66205.1 lysine decarboxylase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNEKISQDLEKFANIPNLKNAVTFFGSARLKEDNFYYQQAKILAQKCVQNGFCVISGGGGGIMRAANEGA

FSQNNNTNSMSSVGFNIFLPHEQKLNDFVEYNITFESLAIRKMALIEKSLAFVIFPGGFGTLDELCEILT

LKQLEFKKDVPIILFGSEFWRGFDEFVRNSLLKLEVISKGDELKYKITDDLDFIINTLKEI

>CCK66204.1 tRNA-specific 2-thiouridylase MnmA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKILVAMSGGVDSTVTAYKLKNLGHEVIGCYMKLHGKPNYHEENIKKVEKVANFLQIPYHILDLQEDFKN

KVYMPFVDTYKEGKTPNPCALCNRFIKLGKLLEFAKSLGCEKLATGHYARLENNLIKTAVDESKDQSYFL

ASADKEALKYLIFPLGEMKKEDVKKFASTIEVLKSFATQKESSEICFVEDTYVQVLDQFMDTKIPGEVLD

SSGKVVGKHEGYMHYTIGKRRGFEVRGAHEPHFVLKINPKQNQIIVGTKEELKISEFNLKNINLFIDAKE

LDCEVKIRYRSKSTPCKVEIYEDKSAKIILKDPVYGLASGQMAVFYDHDKVIASGFIE

>CCK66202.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVKWSRDFSIKNMQLDKQHELIFEITNLANDLALNIQDNNTQHKNDLKQILVKLFQYIKIHFKDEEKFM

ESIDFPLIEEHKKSHQILVEKTKELLEHSNDIVKMSQELSILTKDWILDHFANEDLWIANFTKKTLHLQE

IHYTLEQYIKLKSIKQDLRAEKTYDYICNCSLRIHAVPQTIHQELVSKENTLKCEKCGQILVHLDYFDLN

QNFEKFNAIFEDALQNHHFTTQENDMRGGG

>CCK66201.1 hypothetical protein BN148\_0044c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNFQVKTLETFNPFESLNHEQANTEQILDFRVIDFKLLCSSVKPAKTKTYERKDFDLFYADDFFVKNYNT

IVQKFLIEIYPKTQSFPFTVKLRSNSNLTHLKASINLTENFKYYPNLKFDILQNIYKIMIKQKFLILRLD

KNLFDKIDDFILSIQKSPSIKEIELEIAKGVDKIEHKSDEIIYHRDVNEECFDENINYDEGNYCKPIEKN

ELLFEYIYRILGKEGRNLRGEILHLNPIAFLDNPFIIKDESIYTEELEDRIKYFSANYGFLNKDHTGYCI

ANNLKLSQIGLKTTGSIKTNTDENINLEITNFDISDDAIKSGIVNVQASNIKVNGNVGATKLYGKNISIK

GLTHAKSEIFAQDIFITTHKGTLQADTVYIKNLENGTIIAKNVFVENCMGGKIEAENIYICNLLTDNTLY

PRKNLIITNNIKFKNNIVVSPLVSIENNSDTECENLKNLSLKIKSKLDDTISKMQNYYDYLIKNQIKIIK

LQKTKNPSAIEMKFSNLYHDIIKKYNHLSISYKKLVKLKYQIDAKLNFLNEMVYNVKIYIKAENIGEDNF

LKFYPNTNTNLELKHHINLKDYEKVLYLEKGQQVSYIKSSHNYSESDIEEIKIIFKKLEKDNS

>CCK66200.1 flagellar hook protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMNSFYNGISGVKSNSFGIDITANNIANVNTTGFKYSDAQFKDIFYTTITTQSTNPAQGGYGSGAASSQV

VFEQGSPVASDGEFDVALQGKGFFGVLGADGNAYYTRNGSFRRDANGYLVDSYGNFVLGTMNPAFTGINY

SDRVAGLMGDYLNTGTPVNNGFTVNSNNSFSIGTTASQGAIKVPVNMYLPPQVTQNVKWSGSLNTNTTTE

VVKVDLDPSKFNITKTEDGKYVVSGSVSKEDVFSAKAGDRIILNFTDDNGVKTSFEATLDENLNFKSNEL

DLKGLDENSIKLDTAQISTEQQKANKDILESPIYNADGSKSTLRVTLERVLPQEGDNIQYKAIAQIYDSN

GNAVGNPTEGNMVFDKNGALLQNNITSIANPNGGTINIDLGSPYDANKPGSGYSGIYIKQGVEKNVVTQQ

DGVAEGFFEQYNISDDGSIVAQFSNGKNAIVGKLALYNFINEQGLVAMGDNIFAATANSGDASFIMKDGQ

VVNTAKFKGGFLEQSNVDLSAELSNLIVTQKAFDASSKSITTSDQMIQKAINMKR

>CCK66199.1 flagellar basal body rod modification protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MISSSDWNLNTTATTSGTTSSGSTSGTTRTDSSSSSGIVSNPNATLDKDAFLKLLLIELQHQDPTDPMDS

DKMLTQTSQLSALEMQQNTNTTMQKMVETMQKLSDSFSTSMSTSALGAIGKMATVSDNKIKLTGADELIA

LKMYLPEDSDENGVTLEIYDSNNKLVFSEKSDAKSISQGLFTMEWPGRNNDGVYAGDGEYTVKMVYNNKN

GEKITANYGTYPIEGVVFKDGVAYAKMAGQEVPFDAIQEITDYKLGSSSSTGGSGSSGDSSGGSSDGDSS

GSGSTEDGDKEEKA

>CCK66198.1 flagellar hook-length control protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MMSNLAPQNDVLNLTPSKTSTTSSSFSKTSKNKEHESSDSKNSTQDDTESFLNSLLNSINETNEFLPDHM

KISQKEVVNEAMSRLQKGAFDESDKISIFESASFMQILSLLDKLKTDTADVKLANLSTQLSSLIKTEANF

NALKGASNLSELLDIAKDLGLNVKNIKVDRLLDLKATFPNLDKADFFKGAVDNVFKEIINNKISNVSKNL

NHNLENTTHTTSTHSMQKTNSKDSGSLLSQTLKNLDSILSSKESKHEKNDKVKSKIEEDTTDAKNTLKNI

KNDEFAKNLTEELNIKDKKNQDNLNKESKDLNKDFNKELNKNQEKNNLNQENIQDQNKNLKNNDQNLNLD

KNLNKEIVKDTQKLVSNLTQKDFNLNKEPKNNNKENKDIKQNFFDQKLNFENLNKTQVVQNKENNANFNN

NNTNNKETFTQEQTKTHSENVDKNSLDELNSLVKDLNKVTQNNARNITPKETLQYFSQDLKEAVDQYKAP

ITKLSITLNPNNLGEVEVTLIQRGNNLHINFNSNANAMNLFIQNQAEFKNSLVNMGFTGLEMNFSDQGKR

EQNQNQGKNRSGYGFKDALDGKNESEKVNLELVLAKYF

>CCK66197.1 hypothetical protein BN148\_0040 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKPLNEEIFVEFKSDLAERKNEVLLQVLELLETFRSDENEKMARISSELTEILENEENLEKILNAKNLE

ELLNILTALNEDKMIKVYEDSYLKEKFPNVMVDKFLK

>CCK66196.1 GTP-binding protein TypA [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MENIRNIAVIAHVDHGKTTMVDELLKQSGTFSEREQISERVMDSNDIEKERGITILSKNTAINYKGTKIN

IIDTPGHADFGGEVERVLKMIDGVLLLVDAQEGVMPQTKFVVKKALSLGLKPIVVINKIDKPAADPERVI

NEIFDLFVALDANDEQLDFAIVYAAAKNGYAKLDLNDESDNMEPLFKTILERVPAPSGSDENPLQLQVFT

LGYDNFVGKIGIARIFNGVVKKNQSVMLAKADGTKVNGRISKLIGFMGLEKMDIEEAGSGDIVAIAGFEA

LDVGDSVVDPNNPMPLDPLHIEEPTLSIVFSVNDGPLAGTEGKHVTSNKIAERLEAEMKTNIAMKYESTG

EGKFKVSGRGELQITILAENMRREGFEFCMGRPEVIVKVEDGVKTEPFEHLVIDVPEEFSGAVIEKLGKR

KAEMKTMAPTGDGQTRLEFEIPARGLIGFRSQFLTDTKGEGVMNHSFLEFRPFSGAVEKRNNGALISMEN

GVALGYSLFNLQERGVLFIEPQTKVYTGMIIGEHSRPNDLDVNPIKGKNLTNVRASGSDDAIKLVPPRKL

SLERALEWIEEDELVEVTPVNVRVRKRYLDPTQRKRMEKAKS

>CCK66195.1 poly(A) polymerase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDLKSLENNRLYILKRLGILKFLSIIEALLVGFLAFVFIRDALIAVILAVFVGVFFFRFTAKKLKLAQKE

LQINALNLFLRRFGAKFKKQSLSQKDFLKLGLTKDLKEFKSQNCFEFKDFKIYDIQFLDENKRFFCGILL

EISKANKNPSFENEEQIYIKLTDKNFTLNHIFSKENHYLITTLSNPFFIDIKKDLESNFKDLEENLNSIK

NKLFK

>CCK66194.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKHILLLGLCLSLSLSAKSVSDYKVGEELSDKEGVEYFKELSKRPVQEWPNKNLSINDVPKGKQGDLIR

YGIELLSKTESTLGPYSKLKKTSNEVNCISCHMDNDGNGLPGTKKYVIPFLNILNNYPRLDIETMKIISV

EDRIRGMGGTDSHRFPNDSKEMKAILAYFKWLKEAYGIKDGVKLEGDFFAKMNFPNRPADPVRGKKLFEE

NCVACHGERGLGVKNDNYEQGSGHLYPSLLIYPDGGHMAMIPFLARFLKSAMPFGASADNPILSDEDALD

IAAYVNTGFVRMPITTTENRAGLDTAYSKSPSLKPEYFASPQQNLDPKEYIKVKYGPWKNPNHFPGE

>CCK66193.1 hypothetical protein BN148\_0036 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQNLNQNEQIKCPSCGSFIDISTALYAQILDKAKQEMLKQKKEFDDEVNAKRAEYTKALNDLKTQKIEQE

KLINEQVSQKLLLEKQKFEQELLIQKQNFQKEFSEKFNKEHENEMKIMQEELEKKSKELSEFLSIKAENE

RLKREQKENEERLKFQAKEEAFKEFKEQESKNLEFEREKMRLEFQKSTQEQDLKYKELETNFKSVAQKLE

DAQRRIEQGSQQLQGEAAELLIEEYIQSEYLSDEVKEVPKGVNGADCLHIVKDNFGNICGSILYESKRTK

EFNKEWLDKLKLDSIAAKSDIAVLITKTMPKDKEKTHFKEGILICTFNEFKGVLAVLRESIINAYKLKNA

LQNKDEKNHILYEYLNSKEFNTQITFILKTYQNMKEELEVEKRALQNIWKKRERAIENLSFNSTAIVSSL

NAIFSDLQGGNLIGEEGIKSLENLAKDED

>CCK66192.1 efflux protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQKHTKIHGFAKFKLIVILALMSSIAPLSTDMYLPALSHVEQSFQTNSFLTQLSIASFFIAFALGQLIYG

PLSDIFGRKIPALVGIFFFIVSSLFCVIIDDIYAFIALRFFEALGGCAGVVIARAIVNDLFEIKEAAGIF

ALMMVFSSLAPMLSPTFGGILLEYFSWHSIFATLFALGILLFLMILFGLKESAPHLKNKKFSHHEAMKSY

KFVLSDKRFLVYILCASFALAAMFAYITGSSFVFTQFFSLSEQKFALLFGANALGFVICANINARLVLKY

ESEKILAKALMIMFISTVILLVNAFFHPNFLLFELSIFTSIAMLGFIAPNTTTLAMARFKEHSGTASAVL

GTVQFGFAGLISFVVGAINANTPIILAFVMCACVLVANMIYFLIKIKEKK

>CCK66191.1 periplasmic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTNNIFMALAIVLASLILAFGFNKALSDFKTLERSVSVKGLSQKEVEADTLILPIKFTRSNNNLTNLYE

ELEQDKENIIKFLEKQGIKEDEISYNSPNIIDRLSDPYSNDTQAAYRYIGTANLLIYTQNVKLGKSILEN

ISSLAKFGIVTKIDDYDIEYLYTKLNDIKPQMIEEATLNARNAAIKFAQDSNSHLGKIKKASQGQFSISN

RDKNTPYIKTIRVVSTIEYYLKD

>CCK66190.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEELTKEQRQIIEEEIKKEIKKANTFLKPELINKIIQDIIGDIKGKINNKFKCPKNLEEILSSIPQKVYV

SLGKEEIKQILKLDFCCFVDNVFYIDSAPKIEPYEHNQNKTAIEEQRIIQCSYDDLLYLFKTYPLIFNHC

IFDYKIDKKTPIEQIKKLSFLNCNFKKEVYLNFQECLDSFQMDNCVFEDRVTIKGKFNDNVYFNNSIFKN

YADFHECEFEKTANFYGVRFNKTPNFSQAIFRGNLNAVNANLNFTFDDLQERIKQEYEDFNKNIENKKSL

DKFANDFRDSFRTFKNALIKDNNLLDASNFHKYELYCKEIELKQNWDKRGENVKNTTDLEKNVSRIRDFM

DFLLLGFYRKLCDHHTDFLKVFNNLILLIALYALFVFGFTWLHDDKLEDTRAILTLFGFFDKFRLYFDII

STIFVVFGCGFFVCKLDSYEKKNNVSKKQNINFIYIIGDFLNLIKSLLFASFIPCVFYVLFSLFGFFLNL

GKDFGYSLLINTLFVSLYICLVYTKSLFFGRYVVLIFSYIVFIIMLIKQPNVIHPLIGKIANESDKFFNY

PSLIVLNILYTILLALVLFSLQKTARKNSIVPS

>CCK66189.1 type IIS restriction/modification enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MHFTLLNEKDFFNPYYRKKQIMQNEFDIFSKALMQYLERLESSQSENEDYLVANALSPFLTMLNFKTHIK

TKQKGKSEIDLSISKDEFSKDLEVLIEAKKPNSKEFITHTKVNSKALHETILYYFRNREYSFSLKFIIIT

DFYKFYIFKISEFEELFYKNPSFKKLFEEFCNPNSLFKGNTEEFYKEVAKLIENSKENLKGFLIDLTFLK

DKQKSNFKNLASIYKTFHRDFLLSEFNPNDANSLNNAFYKELLYILGLYESKQNSKLIIAKSEESKEEQG

TFYTAINSKLKEENFETILKLLILWLNRILFLKLIESNLVRFNDDKNLKFLNFKKIPDFDKLSELFFEVL

AKEKSTRKKSEFTYLPYLNSSLFEKQSIENTLEISSLSNDLKLFYYKNTVLKDDKCKAKKGQVGLLEYLF

EFLDSFDFGSDDEQSEILSQKELISSSVLGNVFEKLNGYKEGSFYTPSFITSYMCKESITKVVLDKFNAQ

FDLDAKDISELRKSLRKEDKKAQKELLNSIKICDPAVGSGHFLVSALNVMLSIYDELNLFDEEFYLEVQN

DEILITGRKGEFIEYKRPSTPKDKTHLIQQELFHTKKDIIENNLFGVDINPNSCEITKLRLWIELLKHSF

YQSFDDGNYHDLKTLPNIDINIKCGNSLVSYFETGKSLNHYPNIKERMGKYKRIVKDYKEGFYTDKSHIN

QEIKNLKISFKNFCFADKFKKEMKSFNDKCEKYSKKYGNFLAVDDENLKFFVSANLTLFDFDEKEAIKEF

ANLKKEYDNIFNLESNHPFEWRFEFPEILDDDGNFKGFDLIIGNPPYIRQEELKELKPHLAKNYKVYKGT

SDIYTYFYELGFNVLKDRGGVLSYITSNKYTRAGYGEALREFLLKNVKFLEYTDLNGIKVFDSATVDTSI

LCFEKSKSKDNKFKYLALSNEILKTCAYDIGLYKDFAEFSQNSLSKESFTFSDENTSALKAKIERIGTPL

KEWYGLNINYGIKTGLNEAFIITTEKRNEILANCKDEAEKERTAKLIRKMLRGRDIKRYSYEWAGLWVIG

TFPSLKIDIEQYPALKQYLSQFLPHIEQSGEKGCRKKTSNKWFETQDNIAYYEEFEKEKIVWAEMTKEAC

FVYDNSNFFTNQTCYFFTHCDYKYLLAILNSRLIVYYMQYISSHLGQGAFRWIRQYIEKLPIPKINSKNE

KLADELINLVDEILKAKEQDKNANTQELENKINSLVYKLYNLTEEEIKIIEGK

>CCK66188.1 hypothetical protein BN148\_0030 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEKFIERLLEEDIKFEKDVNNGLSDINIFDALNIETKENYHSKFIAYLIDINKDHYQKNFAKVFLEKLGK

SLVNTKFENLNIEDIKSVETEACIKDNRRIDILITLSDKRYIIIENKIYAKDQKNQLKDYINFVRKNIKN

IKDCYKNILTIYLHQDECASPSDYSLGNFTIKTNLIKDKNENNVSYYLKMDYMWIKEWIDECIKIYEEKS

TKDQKFILDIQNIIFTLNQYKSILQWYIADEYTQRDDVLEFIFQDIIKMQNLKNAMILYRYNKNKSELKN

LNEEKYKKAKDIIQHKWSNICEYIIEEFFDSFEHKEIKIGDITFIGNKIEENRVNHGVFIFYPVDYKNES

IYPCIYIYFKKKYYDIIGLTFEISNDDEEDIENEKYKECLKLFKDVKEENVRKYQNHYYCDKLINNEKLE

GEYAFIYWLIENQNSKKDFIQILNDFFIKKPIQEAYKGINDILNS

>CCK66187.1 cytoplasmic L-asparaginase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNMCDEI

WLRLAKKIAKLFAEGIDGVVITHGTDTMEETAYFLNLTIKSDKPVVLVGAMRPSTAISADGPKNLYNAVA

LVVNKEAKNKGVMVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNAPFD

VSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVSSRV

VAGCVAVSDSDEKLGFISAEDLNPQKARVLLMLALTKTSDPKKIQEYFLKY

>CCK66186.1 single-stranded-DNA-specific exonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKIINKNEIKKILASRFEKDLHTKLCDLPLPCCLKDAYKAANRIKEAVEKNEKVAIVGDYDVDGIISCVI

MAEFFDDIGFDYIIRIPNRFKDGYGLNAEIINELDVNLIITVDNGIAALEAAKLCKEKNIDLIITDHHMP

QDILPDAFAIINPKQKDCDFPEIEICGAQVAWYLIAALKEVCKLKYDMCKFLELLAIAIVADMMELRDLN

RALVRRGIDHINKSKRAAFRAIKHYYQKDKFALDNIGFLIAPLINSAGRMDDASISYEFLHTKDFNKALE

YLEQIVSFNESRKDEEKQLFEDSLNQIDENDSCIVVSGLNWHEGVLGIVASRLAKHFNKPAFVFSQNEEH

LKGSARSVGKIDILALISKTNSILSNYGGHKGAAGISLNSENFEQFKNKIKKECSQISESEFLDTDEILG

ILEPSEIDFEMLEILESFEPFGHKNPRPFFVLENLCVKNKKLLGKDEKHLKLVLTKENKTIEALFFNFDK

EPELNQNISLLGSISKNEFRGMVTPQFVVKEIL

>CCK66185.1 CTP synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKQTKYIFVTGGVLSSLGKGIAAASIATLLKNSGLKVSILKADPYINVDPGTMSPFEHGEVFVTDDGAET

DLDLGHYERFLDESLSQDNNFTTGRVYQSVIEKERRGEYLGKTIQVIPHIVGEIKDRIKKAGEGKDILIV

EIGGTVGDIEGLPFLEAIRALRLEVGKNNAMNIHLTLVPFIKAAGELKTKPTQHSVGELRRIGISPDMII

CRSEKALDRDLKDKIAISCGVEKNCVIESVDAASIYQIPLNFLKQDILSPIAEILDLKNLKPNMENWDSL

VKRVIAPSNEVKIAFVGKYVDLKESYKSLTEAIIHAGAALDTKVELKWVDSEKLENMESSEVFKDVSGIL

VAGGFGYRGVEGKIKAIQYARENKIPFLGICLGMQLALVEFARNVLKLKDVNSSEFNEKCQNPVVYLIDE

FMDTNGEKQIRTAKTPLGGTMRLGAYKCDIKEKSLLAKVYNEVKSVKERHRHRYEANPKYRADFEKYGLI

VSGESKGLIEAVELNCHPFFLAVQFHPEFTSRLEHVNPVICSFIKAAINYEDN

>CCK66184.1 FAD-dependent thymidylate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQITLLFHTPLSVCSHATRTCWQSFEKGDCGGEKDKELIDRVGNKFKHASTLEHLNYTFYIQGISRACLQ

EVARHRHTSPSVKSTRYTLKELRNEAEFKIGDFENASRYLVLCGNEEVDNASIKALENLRTILQKSISLD

IAKYCLPESYKTELTLTINARSLQNFISLRSSKSALWEIRNLANALFEALPQEHKFIFEHCLHKDIE

>CCK66183.1 sodium:dicarboxylate family transmembrane symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDKQFFQDFLMLSQAHTIATLAILCVVFYALKKMRDIKINFSLRMLFALLMGLGFGFALQYLANFPDAEE

ASNILWYSETKHWFAFVSSVFVAFIKMLVVPLVSICIIKVIIEIDKNIKISSLLGISLFWILFSTAIAAT

LGIFLGYSFDLGSNFAIYEGDKQIREIQTFSNIILGLIPSNIITAINKENIIAIVIFSFFIGISAKKISK

KEEYEQAFKSFHNFILTFYNIMMNMTATVIRFMPYAVVCMMANVLLSNGFEAIKTAGLFIMLIYIAMFIM

FGVHFLLLASQGLNPIKYAKKAFPVWLFAFSSRSSLGTLPMTTSTLQNKFGVNSAIANFVASIGTTTGLN

GCAGYFPALAAVFVAFATHTHIDFTFALMIVLVAVIGSLGIAGVPGSATMAASIMLAGIGFGNNFVMLSL

ILAIDPIIDMARTASNVSGAMTSALCTAKNLKALDKEIYNS

>CCK66182.1 ribonucleotide-diphosphate reductase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKVIKRNGRTEELDVSKIKKCTSDAVKDLEGVNLSELELDAKIQFRDGISTEEIQKTLIKTAVDKIDIDC

PNWTFVAARLFLFDLYKKVNGMNRYNHLREYFQKGEKEGRILLGLKEKYDLDDLNAYIKPERDMQFTYLG

IKTLYDRYLIKDSKGMPIELPQQMFMAIAMFLAQNEFNPQEWAKKFYDLISKFELMLATPTLSNARTTRH

QLSSCYIGSTPDNIEGIFDSYQEMALLSKFGGGIGWDWSKVRAMGGSIDGHKNAAGGIIPFLKITNDIAV

AVDQLGTRKGAIAVYIEPWHMDISDFIDLRKNSGEERRRAHELFPALWINDLFMKRVRANDKWTLFDPAD

TADLCDLYGEAFEKRYEEYEKDESITKEIVEAKELWKKILLNYFETGLPFLCFKDSANRANPNAHVGIIR

SSNLCTEIFQNTEPNYYQIKVVFENGDELHFDEEQKVVIDGGYEKPAKKISTLDSIEGNKVYIVEKYKND

GKTAVCNLASINLSKVYTKEDIERVVPTAIRMLDNVIDLNFYPHRKVKDTNLKSRAIGLGVMGEAQMLAE

AKIHWGSDEHLNKIDEIMEQISFEAINASSNLALEKGSYEDFEGSNWSKGIFPIDVASPKAKALTLREGL

FDQSECDWVKLREKVKKDGMRNGYLMAIAPTSSISILVGTTQTIEPVYKRKWFEQNLSGMIPVVVPNLSL

DTWQYYTPAYELDQKILVKAAAVRGKWIDQGQSLNIFLSLDKASGGYLNEIYQLAWELGVKSTYYLRSES

PDSEKVNVADRSIECEGCQ

>CCK66181.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MVERYSREIMAKKWDMQAKYDAWLKVELAAVKAWNKLGLIDDTDCEKILKNAKFDIARIDEIEKTTKHDV

IAFLTSVSESLGEESRFVHYAMTSSDCIDTAVALQIKESLELILEDVSLLLEAIKKRALEHKNTLMVGRS

HGIHGEPITFGLVLAIWYDEISHAKELLEHAKEVISYGKISGAMGNFAHAPLEFEEEVCKNLGLKAAPVS

NQVIQRDRYAQVISAIAILASSCEQIAVAIRHFQRTEVYEAEEYFSVGQKGSSAMPHKRNPVLSENITGL

CRVLRSFVTPALENVALWHERDISHSSVERFILPDAFITADFMLMRLTNLIDKLLVYPENMMKNLNLTGG

LVFSGRVLLELPFKGISREEAYKIVQRNAMKVWADLQNGKAAINEKNESLFLLALLSDEDLRKSLSEEDV

RKCFDYNYYTKNVDAIFKRTFK

>CCK66180.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAYIKIKLSNNGKKAFQVLMENLKISINEAQKLIDKKRLFCDGILVEEKNKILNGLVELIVYENNPKGVE

IVFENEDFAILEKESGILSHPNGRHCKYSLSDEIWHLWGKEACVAHRLDKETSGLILIAKNKKAQIDLKS

LFEKKLVQKEYLALAHGKIEENFIVDKAINLTKNYDDVKTRMQICKEGKQAITEFEILEYFPKINATLLL

CKPLTGRQHQIRVHLHYKNHTILGDPLYGLSKQQIESILDEKLNPKERLKLTGALRLCLHSYRLKFQYKN

QNFDINSKINIKEIFNNSIK

>CCK66179.1 fumarylacetoacetate (FAA) hydrolase family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKFVNFIQGQKPNLGVLNSSGKIVSFDDLGIETNDMNEFIIHFDKFKHKLTDLDSKIAYEIPQENYLAPI

IEPRQDIICLGINFLDHAKESAKFKGEKFEEREYPVYFGKRCNQATAPFGDIPLHADVTSQLDYECELAF

ILSKDAYKIKAKDAKDYIFGYTIINEISARELQKRHKQFYRAKSLEGSTIMGPYITSVDEISYPPKLQLQ

SYVNDELRQNSNTQLFIFDIAYVLEELSAGMLLKAGSIISMGTPSGVGMGLNPPTFLKSGDKVRCVIENL

GELCNKIKNINY

>CCK66178.1 cytochrome C551 peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIIMILCLSYANIVFAVDMITPIPNSISYDKEKAKLGKSLYMDKSLSKDGKVSCNTCHRLDQHGVDGL

EFSIGVDNQLDKPFNTPTTFNSVFNFVQFWNGRAKDLAEQATVPFFNPKEMGLSPELLLQKVNSNENYVK

TFKKLYGEVTVENIALAVAEFEKTLITPNSPFDRYLSGDQNAISTQAKKGYEDFKANGCISCHQGQNIGG

NMFQKIGIFEEYPNQEDLGRYEITKREADKMVFKVPSLRNIAKTAPYFHDGSIPTLDACVQFMAYYQLGK

FLDQETVDNIVAFLESLTGEYHDK

>CCK66177.1 MCP-domain signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MTNKKSSFLIKFIILSTLVLAFILVLLGIIFNNYSSSKDNKELINIVQQLEISDEKINSVFQNSFNFINY

DPSVQAIKKMQENFTKLKTFGIDINKAEEIFNAKLIQLNYFKSANSIAVNSKLYLFELAKNYFEELEQNH

ETNKNNYKTMSSMLSVLSTENILQKTTLNQLNNLMKEIKNDTKSENLQLFLKHYNMIVKQISIMQDNSSI

YENNSLMKELKQLNTFTQNTIEQSNLFKFYIALAVFGITLVLFVFFILLTLKKVIMPIHTLEKLSANLAS

KEANLHSRLNIDPKSELGQSAQYINSFISTVQNSIIEAIENAKSSHQNSQKLKNNSMMLENSSNSQHEQI

QGVKEITHVLDDHINLAGNLAQESIENMQDMHILMDKVELTLSELVNLINENNEKEQNIVANMDNLTQSA

DNIIEITNSIKDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVGQLADKTSKSLLNINATVNTIVQQI

NDNKALMDLIHDSMKETSSKTNDLQQELVNSMHKLESSIESTQTMKDKSMEVKDKMLILGTNIDKVNELA

NSVKDLSCEINNISQNVLNGASKLSEKLSSFQ

>CCK66176.1 disulphide bond formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MEFLELLLVLIALILIIKKPEKENLAFGLVMVAWLLMVFFYVGHKTGALLTIMNL

>CCK66175.1 disulphide bond formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNEINKTKNFYTLMCLAGFLIILLPVGIANLIFGYMLGDSPCTLCWGQREAMIFIGVMALFIVRYGMKGK

YLAALLIMTAVGLYQSFAHYGNHAHRDLDQGFGLAVFGIHTYFWAEVVFWAVVLLLGVIFAFAPKFNAFE

AELNGEKFRKYTKFSFAAVLISAIIVASNVFQAFVSTGIPPYVGQGDPVRFSLNPKYIIWSKEGWNGLWQ

NISFLGKRDVKAPDYAFAPASEKLGIKFDNDINNAPFAKINDELKITNEQTINFDKAINTLDYINNEFVA

SSKWDVAFLDNNFSVKEGFELDPYFSASIDPIIGIIPYMNDKFILMGSNKSFLRFAKNPNASEEDIAKQY

ADFVKGNDKFKGQGESLGRGRLDTVRAKFNHVASMTTDGNYLYLATVPNNKDAKTFVISKVSLKDRVLSG

EFTPKANLKEGKTLGDLYVTSMTFKDGEIYALSKNHNVIAVIDPVKEEVVKTIAFPSSITNARSIFFKDG

KINILSYQDGANKLYTLN

>CCK66174.1 transcriptional regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MSKKALCIISGGMDSTLCAYLAKKEGYEIIALHFDYEQRTQEKEKECFKQICKALKVEKSYILDVSFIKD

IGGNALTDKSIDIPKNELCTSDTPPITYVPFRNGIFLSIAGSLAEKENCESIFIGVVEEDGSGYPDCTDE

FIQKAQEFINEGTSKNFKVCIKTPLVRLNKAKIVELALKENVPLELTWSCYESEDEACGECDSCLLRLRG

FEKAGFKDKIKYKS

>CCK66173.1 hypothetical protein BN148\_0015c [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MINIKLIEHIFKAASISRWNDYPRMANLVELDKQAHKFIIAYFIAKMEKDVDMRVIIEGGIFEFLSRVVV

TDIRPDVYHEIVRQKKAEVNAWVLSKIEPMIEDIEDGEFLKRFEAYLNGNAYAKERLILKAASYFATRWE

FNIVYQTSAFLNDIDEIKNKVEEELEDYYELIGARKIALNQKIAKIIDLSGRLRFQKRWAQTPRIPETAV

LGHMLVVAILGYFYSLKIKACDKRLENNFYCALFHDLPESLTRDIISPVKYGIDGLHDIINDYEMKLINE

RILPFVPEGLRAEFSYILGIREGRNGESNFVKNEFENRTYKNAKIELCSGSLSSFNENEFGAIDGKALKY

CDKIAAYIEAGLSISYGVKSKELESGFLGMHEFFKENPTIDGVNFFEICESLREYFKI

>CCK66172.1 integral membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKYFQKRYTLAFFIGILAGIFGAIVKWGWEVPFPPRNPNVFWPADALERVTPPKIFLEQLGLPTDWTYM

FSGMQMPLSIFIVHVGFSIIFGVAYCMIAEKWHRITMWQGAVFGFFVYLFAHVIIMPLIAEVPPLSEIPF

DEHLSEIFGHIVWLWGMEIVRRDIRNRITKEIEE

>CCK66171.1 dihydroxy-acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRSDAIKKGHLRAPNRSLLRACGLKDEDFDKPFIGVANSYIDIIPGHYFLNDYAKIIKDEIRKNGCVPFE

FNTIGVDDGIAMGHEGMLYSLPSRELIANSIETVMNAHQLDALICIPNCDKITPGMLMGALRVNVPTIFV

SGGPMASGVTKKGEKISLSSVFEAVGAYESKKISEEEFKDIECSACPSGGSCSGMFTANSMNTLCEAMGI

ALEGNGTILALSKEREELLRKAARRICEIALDERFKIRNIITQKAVRNAMVVDMAMGGSSNTVLHMLAIS

REAGVALDIKDLNFISSKVAHIAKIAPSLNSVYMDDIHKAGGVSAVMAEISSRQGHILELDALTITGESL

KERLKNAKIKDENIIRKVDNAYSKVGGLAILFGNLAKQGCVIKTAGIIGERKFKGKAVCFNSQDEAIKGI

IKGKVQKGNVCVIRYEGPKGGPGMQEMLSPTSLLMGMGLGADVALITDGRFSGATRGLSVGHISPEAAEG

GLIGLLKDGDEIEIDVDAYTIHANVSEEEIAKRKKEFALPQKEVSSRWLRMYQKLVSNASKGAVLDME

>CCK66170.1 non-haem iron protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MRQYETYKCQKCGNEVEVQNVGGGKLSCCGEEMKCITTDLTAVNLMKAFAGESMARNKYDLFADVAEEEG

WHAVARHFREAAENEKWHARAEFKAYHEIVDGKPLEVTTKNLVTAAEGENYEHTTMYPNFAKIAEDEGKK

AIARLFTAIGKVEIEHEREYLALKKMLEEEEFFNSEVEELWVCEVCGHIHRGKKAPAACPLCKAPKEYFK

REFLG

>CCK66169.1 non-specific DNA binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKLLFLFFALTAFLFGAVNINTATLKELKSLNGIGEAKAKAILEYRKEANFTSIDDLKKVKGIGDKLFE

KIKNDITIE

>CCK66168.1 ribonuclease HII [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKTLFDTKELLNEFDINLIGIDEAGRGALAGPMMMAACKLNKQLDGLCDSKKLSEKKREELYEIIIKNSN

YLILAFSSEQIDALGLSTCLKKGLKLIKKHFKTENNFLYDGNTNLGINGIKTQIKADTSILQVSAASILA

KVSKDRVMNFLAKDFPCYEFEKNKAYGTKAHKEFIAKFGICKLHRKSFKLL

>CCK66167.1 glutamate synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MGNARGFLDFKRMDFKKIAPKERILNYKEFTIPLDKKEQEVQGGRCMDCGVAFCHTGVMSEGKDVGCPLN

NLIPEWNDLVYRSLWKEAYERLDLTNPFPEFTGRVCPAPCEDSCVCAINGVSVSIKNNELSIIENAFKEN

LVRVNKPKQYNGKKIAVIGSGPAGLACANTLNSLGYKVSVFERSDKIGGLLMYGIPDMKLDKSIVQRRVD

LLKKSGIEFKVNENIDSKDKVSKLLKEFDALVLCTGASKPIDLDIEGRKLKGVEFALDFLTQNTKTLLKT

GKGADMAKGKNVLVIGSGDTSVDCIAVATRQGAKSIVRFERSPKRPLQRSQNNPWPLKADIFTTDYGLEE

AIAVYGKDPREYQKMTKKFLGKTHVEGVEANDLKREFKEGKAINVEISNSKKTYKADLVLLAMGFSGCEE

AISKNFGVKLDEKNNISTENFQTTHKKIFACGDARKGQSLVVWAIKDGIECALSLHQNLAK

>CCK66166.1 hypothetical protein BN148\_0008 [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MAGFQSPITINEAMQRIKNNEYLLPAFQREYVWEPWQIEELFDSLIRGYPISSMLFWKVKDESKTAWKFY

RFLEYYRESYHTHNDYFNTSNHKDFYAILDGQQRLTSLYFALFGNYDIHRSYNKWENNDRYFKICHFYFN

LTQSKKPENENIEYEFLWLDKLETKEQNIYIDKYQQKWFKCQYLYQYDSGRVRKIAKEFNLNENEEDRLD

LLHQKIFDKNLINFYLEEEQDPDKAVNIFIRINSNGEPLDYSDILFSIAIANWNKIDARTEINNLVDKIN

ENFDISKDLILKGFLYLFHNNIKFQINSFDKNFIESIEAKWEGIKNAFIETFRLLRSFGFEAKTLSSNNA

ILPILYFIYHKNLTNNIVDSVKCNENRAIIKKWLLRAIILKPFGGSSDTVLSNMRKAFIKDFKQNSGFFD

REIELFPLEEIEKEAKYIQTIDEEYLENNVIECRKNSPEAFAVLSLLYPNLDYKNNNFHKDHLHPESAYK

EYEKLYKATDNCISFNIYDSLPNLQMLDANENESKNNKPLKQWVNEKCNGNRKEFLGKHLIPDVDLSLEN

FNNFIEERKKIIIDKLKSILNKE

>CCK66165.1 glutamate synthase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MDLENILENNQSIGLYHPKNEHDACGIAAVANIRGIASYKVICDALEILMNLEHRGGTGAEENSGDGAGI

LIQIPHDFFKTQELGFELPKKGDYAVAQMFLSPNTDAKEEAKEIFLQGLKDKKLEFLGFREVPFNPSDIG

ASALKAMPYFLQAFVKKPSKISAGLEFERVLYSTRRLIEKRAINVPKFYFSSFSSRTIVYKGMLLSTQLS

DFYLDFKDVNMKSAIALVHSRFSTNTFPSWERAHPNRYMVHNGEINTIRGNVDSIRAREGLMQSEYFENL

DEIFPIIAKLSSDSAMFDNTLEFLALNGRTLEEAFMMMVPEPWHKNENMESKKRAFYEYHSLLMEPWDGP

AAIVFTDGVIMGASLDRNGFRPSRYYLTKDDMLILSSETGALKLDEKNIKAKKRLEPGKLLLVDTARGRV

IADNEIKEHYANAKPYKKWLKNLVELEKQKSGVYKHQFLKEDEVLKLQKAFGWSYDELKMSVAAMAQNGK

EAIAAMGVDTPLAILSKTYQPLYNYFKQLFAQVTNPPLDAIREEIVTSTRIYLGSEGNLLKPDENNAKRV

KIALPVISNEELFEVKALNKFQVKEFSILYDYSKKTLEKALDELCVKIEDEVKKGVSIIILSDKGVDEKN

AYIPALLAVSGVHNHLVRKNLRTHTSLIIESGEPREIHHFACLLGYGATVINPYLVYESIQKLIANKDLN

LSYEKAVENFIKASSSGIVKIASKMGVSTLQSYNGSALFECLGLSSKVIDKYFTSTTSRIEGMDLEDFEK

ELIALHKHAFNDTHKALDSKGIHGFRSAKEEHLIDPLVIFNLQQACRNKDYKSFKKYSALVDEKQVNLRS

LMEFDFSEAISIDKVESVESIVKRFRTGAMSYGSISKEAHECLAQAMNKIGAKSNSGEGGEDEERYEIKE

GVDKNSAIKQVASGRFGVDLNYLSHAKEIQIKVAQGAKPGEGGQLMGFKVYPWIAKARHSTAGVTLISPP

PHHDIYSIEDLAQLIYDLKHANKDAKISVKLVSENGIGTVAAGVAKAGANLILVSGYDGGTGASPRTSIP

HAGIPWELGLAETHQTLILNKLRDRVRLETDGKLMNGRDLAIAALLGAEEFGFATAPLIVLGCTMMRVCH

LNTCPFGIATQDTELRDRFKGKVDDVINFMYFIAEELREYMARLGFERLDDMIGRVDKLRQKSVQGKAGK

LNLDKILKSLPTYNRTAVHFKDYKDNKLEKTIDYRILLPLCKNAVEKKEPIKLSLEVGNQSRTFATMLSS

EILKTYGKDALDEDSIHIKAIGNAGNSFGAFLLKGIKLEIIGDSNDYLGKGLSGGKIIAKISNEATFSPE

ENIIAGNACLYGATKGEVYLDGIAGERFCVRNSGALAVVLGTGVHGCEYMTGGQVVVLGDVGANFAAGMS

GGVVYIFGRHNEAHVNTELVDIKDLNAKDEKELKAVIEKHITYTDSKKAKDILEKFDKKDFFKVMPRDYE

KMLKMLDLCKNEKDPNLAAFLKITQK

>CCK66164.1 Na+/H+ antiporter family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MILTLLTNPIIISVVLMTLLCLFRFNVLLSLLISALVAGVFSHLELVDTMNILISGMKENLKTALSYILL

GAIAAAISKTNLTAYLIKIVSHFISHKKYLLLLSIALISCFSQNLIPIHVAFIPLLIPPLLSLFNKLKID

RRAVACALTFGLTTPYMVLPVGFGLTFQDLLKDNLNANNVSASLNDVTNTMYFAAICMIAGLFLALFVFY

RKPREYQEVEIAKVDLENLEMTRKEWGVLAGLVLTLILQILTMNLPLSGLLGFVLMVILGGVEFSKVNEV

FDDGLKMMGFIAFVILVAAGYGEVLKESGSVVDLVNSVVPWMEQSKFLAVFFMLLIGLIITMGIGTSFGT

IPIIATLFCPICLELGFSTALIIFILGVAGALGDAGSPASETTMGTTVGLNADKQHDHIKDTCIPTFIFY

NGPLLILGSIIAMFL

>CCK66163.1 molydopterin containing oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKQNDQKENRRDFLKNIGLGLFGISVLSNFSFENFLGSKALAKELPDFKIEGKKDLIYHGEKPLTAETEI

YALDSDFTKPENFFVRNNGLPPSLETIKERLHKGWTLEIDGESIINKKSYTIEDLKKKFKTYTYALTVEC

GGNGRSEVIPSTKGTQWGYGAVACGRWTGVRLKDILKDCGIKNDAVYIGYYGIDTKLNGEETSPISRGVP

ISKALQDETLIAWAYEGKDIPLVNGYPLRLVCGGYPASTSGKWLYKISVRNKIHDGEKMEGSYKVPVNPV

KPGDFNYKGEMKIIESMPIRSVITNIKNGSEIKANKKFEVRGKAWAGELEVSEVYVSNDYGVTWTKAKVE

KPLNRLAWQKWSAQISIPTKGYYEIWARAIDSQGNSQPMVLAQWNPGGYINNACHRVNVYGV

>CCK66162.1 monohaem cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKKIILILALFLSASWAQNLEINPDTGLIIDPDSPLVEANCLACHGSNLITNMHASRKAWLAAIRWMQDS

EGLWEIEPEDEEKILNYLEKYYGEKYDTRRRIPLAILLQNKTH

>CCK66161.1 DNA gyrase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MQENYGASNIKVLKGLEAVRKRPGMYIGDTNIGGLHHMIYEVVDNSIDEAMAGHCDTIDVEITTEGSCIV

SDNGRGIPVDMHPTENMPTLTVVLTVLHAGGKFDKDTYKVSGGLHGVGVSVVNALSKKLVATVERNGEIY

RQEFSEGKVISEFGVIGKSKKTGTTIEFWPDDQIFEVTEFDYEILAKRFRELAYLNPKITINFKDNRVGK

HESFHFEGGISQFVTDLNKKEALTKAIFFSVDEEDVNVEVALLYNDTYSENLLSFVNNIKTPDGGTHEAG

FRMGLTRVISNYIEANASAREKDNKITGDDVREGLIAIVSVKVPEPQFEGQTKGKLGSTYVRPIVSKASF

EYLTKYFEENPIEAKAIMNKALMAARGREAAKKARELTRKKESLSVGTLPGKLADCQSKDPSESEIYLVE

GDSAGGSAKQGRERSFQAILPLRGKILNVEKARLDKILKSEQIQNMITAFGCGIGEDFDLSKLRYHKIII

MTDADVDGSHIQTLLLTFFFRFMNELVANGHIYLAQPPLYLYKKAKKQIYLKDEKALSEYLIETGIEGLN

YEGIGMNDLKDYLKIVAAYRAILKDLEKRFNVISVIRYMIENSNLVKGNNEELFSVIKQFLETQGHNILN

HYINENEIRAFVQTQNGLEELVINEELFTHPLYEEASYIFDKIKDRSLEFDKDILEVLEDVETNAKKGAT

IQRYKGLGEMNPEQLWETTMDPSVRRLLKITIEDAQSANDTFNLFMGDEVEPRRDYIQAHAKDVKHLDV

>CCK66160.1 DNA polymerase III subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MKLSINKNTLESAVILCNAYVEKKDSSTITSHLFFHADEDKLLIKASDYEIGINYKIKKIRVESSGFATA

NAKSIADVIKSLNNEEVVLETIDNFLFVRQKSTKYKLPMFNHEDFPNFPNTEGKNQFDIDSSDLSRSLKK

ILPSIDTNNPKYSLNGAFLDIKTDKINFVGTDTKRLAIYTLEKANNQEFSFSIPKKAIMEMQKLFYEKIE

IFYDQNMLIAKNENFEFFTKLINDKFPDYEKVIPKTFKQELSFSTEDFIDSLKKISVVTEKMRLHFNKDK

IIFEGISLDNMEAKTELEIQTGVSEEFNLTIKIKHLLDFLTSIEEEKFTLSVNEPNSAFIVKSQGLSMII

MPMIL

>CCK66159.1 chromosomal replication initiation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-BN148]

MNPSQILENLKKELSENEYENYLSNLKFNEKQSKADLLVFNAPNELMAKFIQTKYGKKIAHFYEVQSGNK

AIINIQAQSAKQSNKSTKIDIAHIKAQSTILNPSFTFESFVVGDSNKYAYGACKAIAHKDKLGKLYNPIF

VYGPTGLGKTHLLQAVGNASLEMGKKVIYATSENFINDFTSNLKNGSLDKFHEKYRNCDVLLIDDVQFLG

KTDKIQEEFFFIFNEIKNNDGQIIMTSDNPPNMLKGITERLKSRFAHGIIADITPPQLDTKIAIIRKKCE

FNDINLSNDIINYIATSLGDNIREIEGIIISLNAYATILGQEITLELAKSVMKDHIKEKKENITIDDILS

LVCKEFNIKPSDVKSNKKTQNIVTARRIVIYLARALTALTMPQLANYFEMKDHTAISHNVKKITEMIEND

ASLKAKIEELKNKILVKSQS

>WP\_041353384.1 flagellar capping protein [Campylobacter jejuni]

MAFGSLSSLGFGSGVLTQDTIDKLKEAEQKARIDPYTKKIEENTTKQKDLTEIKTKLLSFQTAVSSLADA

TVFAKRKVVGSISDNPPASLTVNSGVALQSMNINVTQLAQKDVYQSKGLANDGGFVNAQLNGTADLTFFS

NGKEYTVTVDKNTTYRDLADKINEASGGEIVAKIVNTGEKGTPYRLTLTSKETGEDSAISFYAGKKDSNG

KYQKDINAEKIFDDLGWGLDVSASIDPDKDKKGYGIKDASLHIQTAQNAEFTLDGIKMFRSSNTVTDLGV

GMTLTLNKTGEINFDVQQDFEGVTKAMQDLVDAYNDLVTNLNAATDYNSETGTKGTLQGISEVNSIRSSI

LADLFDSQVVDGTTEDANGNKVNTKVMLSMQDFGLSLNDAGTLSFDSSKFEQKVKEDPDSTESFFSNITK

YEDINHTGEVIKTGSLSKYLNSNGGNTNGLEFKPGDFTIVFNNQTYDLSKNSDGTNFKLTGKTEEELLQN

LANHINSKGIEGLKVKVESYNQNNVTGFRLNFSGDGSSDFSIKGDANILKELGLSDVNITSKPIEGKGIF

SKLKATLQEMTGKDGSITKYDESLTNDIKSLNTSKDSTQAMIDTRYDTMANQWLQYESILNKLNQQLNIV

TNMINAANNSNN

>WP\_041337244.1 hypothetical protein [Campylobacter jejuni]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGL

>WP\_025096311.1 hypothetical protein [Campylobacter jejuni]

MGVAINTKIDTFTNNGFINSPGSGQWNNGIWISSNATIEKLVNNGTIKGGHSAIMVTSQHIKTVENTGII

HAEGEWGSSILLEYGGFIEHIINTGTISNNNVGIGSAYGVFGTLTIKDGGMVYGKYSAIGVGRSQTLGDL

YIDGRSNNGTVSGIYSEEHGILLENNSRTQKIELKNGGIIKGNIDGIRLINSASLSGEMILSGEGSRVEG

GRGVGILNRSGKIEGSIKVEDGATVTATSNRAIANSGSGSITGGITVSGKNTKLEGNIINTGNASIGSDI

KIEGGAKVEGGLVNQGNGSISGSVQVSGGSSIDSITNEGNGAISGSITVYKDSKLDSITNTSTSSTGISG

SITNNSDNKLEISNSGNIGGKIESTGSADMVISNSNGGTISGGISSSGSGSTSISNSQGSTINNGITVSG

SAQVEISNQGSVGKDENGNTVTNNGSGSVGIKDWLVSTDKNTGKLNTVVIGGSRAFNVKVENITVDQSNV

DLEELNDINNIISGVNQNNIGNIGTNGSGEISLSFDPITGKLTTDFNLNASISGATFRSLISTTSRRSTF

IDNVMGNSMQSFALASSSKSQSIAMSEKGNLYADASDYIKSDLNNGSYGSNKEHSLFILPYTSSQNVELS

LNEESKGHTKGTIIGYSTLKDSGIYGVYAGYEDTKMGSTYFDINNRTYYAGLKYFNTLFTTEKGQEVYIK

AQGKAALIKNDLTEKIGNNEAKAEPNSYAYGVNTALGMNFISNKDIFSPEIGLAYEGGYTEAFSMKDTIG

QATVKGGERTYANYLNLFSTKTSLTWFRDWLPNLKTSVELGAKFNINPKVEAEARFGNIKVSDEFDLPRV

QKFVSTSFIVPVNEAFYFSLNYNGMFDKDGNTHTGFAQFNYLW

>WP\_025096289.1 membrane protein [Campylobacter jejuni]

MFKTIGFKVSAAIFVVLLISFIVMQVILNLDFKNTANKMSRANLDTVSTSVFQTMRMAMNLGDPEKIKEA

IEDAKSIEGISDIKIYPSKDTIDLFEMKAPQISNDKRIIEQFSNPKIQALEENVNLRLIRPLIADESCVA

CHANANVGSVIGVMDISHSLEGVQKDISKTSQSYIVIFTIALIFTLCVVLLMLKVVVGKPVLELLNHAKE

LAQGSGNLKARISVKGQDEIALACGYIN

>WP\_025096279.1 altronate hydrolase [Campylobacter jejuni]

MKKIMGYRREDGKFGLRNKVIIIPSVHCANKVCENIARKCNGAVYINHQHGCSQLEFDALQTRDVLIGHG

SNANVFGVLIIGLGCEVIQAKAVAEKIKEAMPYKKVEYLVIQECGGSKNTIENGIKIVNEMLESAAKLQK

SEGDFSDLILGTECGGSDSYSGLSANPTLGSLSDFVIDEGGAVILAETTELIGCEAILAKRAKNDEIAKK

VYDKILAYENLVKSFHADIRGANPSPGNMAGGLSTIEEKSLGCVYKAGTRTLMDVIDYAKPVVSKGLTFM

NTPGNDIEQLSAMVAGGANICVFTTGRGTPTGSAIVPTIKMSSNTFCYENMNDAIDINAGSIIDGVKTKE

EVRDELIELIVRISDGELVKAELNEQNDFSAWRLATTC

>WP\_025096275.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni]

MFLPGIAVMLLMPLMLYFLSPLEIKSTPNASTFAKDKLKELVKMKNSEKIILSVFVSLLLLWAGALGLFF

WNFS

>AHK59714.1 O-acetylhomoserine aminocarboxypropyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLAN

VEGGAFGIPVASGMAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEKV

IDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSKYVSGQ

GTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAWL

LLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDYE

HARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQA

IES

>AHK59713.1 homoserine O-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPLIIPENIPAYELLKEHAFIMGLRRAKHQDIRPQEILIVNLMPKKIETENQILSLLANSPLQVNITLLA

TTSYVGKNTPFTHLEKFYKGLEEVKKHKFDGAIVTGAPVEQMDFEKVAYWEELLEIFDFLKQNVTSSMYI

CWGAMAALKYFYGVDKISLDKKIFGVYKHDKVSPDLLLTNLDEKVLMPHSRHSSMDEEQILALQKQGKLK

ILLRNKKIGSALLRDEKNIFILGHLEYFKETLHQEYVRDNFIQKAKNYYDKKGNIKYNWRSNANTIFANW

LNYDVYQSTPFVL

>AHK59712.1 hypothetical protein N920\_08650 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKSIAIIGGSIAGLSAALFFASAKNEELDFDITVFDEGKADLKAAAIYNVPFFPKGAKADEIYTHIKAQ

IASMLEVKYIDSKVVSISGEKGDFTVNDEQGLGIKADYIIVATGANKSDIKELEDFVIPHELMPKPNKFC

FKHHGRQIIKEGIYAAGLASGVTTMVACAMGSANEAACAILSDIKGAVSVYHDTPTTRV

>AHK59711.1 hypothetical protein N920\_08640 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVKFIPVILACSAILASANTISNVSAQTSAVAPAPATSYPVYPQYAVPPQDHFNGLPKILPVKFKISIQ

VLLS

>AHK59710.1 hypothetical protein N920\_08635 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDWEAYGYEIKLNNYMELYFDRNGNFLGQEFDN

>AHK59709.1 hypothetical protein N920\_08620 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKQIFEISNSVQQKSKDNTFNLLLQLSL

>AHK59708.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNTIIQKAVNKDLNSILEITKDALNAMKTMNFHQWDENYPNEIVFQEDIQAQELYVFKENDEILGFICI

NEKFKPEFYKQVIFNKNYDDKAFYLHRLAVKQNAKGKGVAQKLLNFCENFALENHKASLRADTHSKNFPM

NSLFKKLDFNFCGNFDIPNYQDPFLAYEKILNQKAF

>AHK59707.1 hypothetical protein N920\_08570 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLDIFEIIFITTVVIIGFGGIVFVVTKEKK

>AHK59706.1 50S ribosomal protein L29 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKYTEIKDKTAAELATMLKEKKVLLFTLKQKLKTMQLTNPKEISQVKKDIARINTAINALR

>AHK59705.1 hypothetical protein N920\_08400 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFDKIHYYYFNANYEKCLNLSEQFLKESPKFALEFATLSSYKLSLFQKALYYAQELFSLNPTSFNGLMLA

KSYIENLRLDEALNLLQTLLTRKDDLEDELKLELAFIYKLSNKLEESEQIFKELLSKDMYNLNLWKNYAE

IYFKHDFTKALNAHEHLCHFMQDLIDKLQKGIIAEQTNLNLVKLEDRLHSKTKENLTISKIEDFLTHQIL

PQKAYLLFKLFRISDSLELFQSLQEANQHHAQFWQNYAKVLEFNSNYQEAYHAYKKCLSLDSHATYQFDL

AYLLMRMGVDDNFEEGKKYYESRLFYAHNETFSTYHYNESLKAFNKFGVDAFKNKEVLVFCEQGFGDTIM

YARCLEKLCKIASKVLFAPQSAMYEMFKNQIKFLNQNDDIFKNVKVLKNLPTNFDYAIPICSLPFFIDIK

LDEILRLKTPILPQKKPHNQRKKLGIFYATPNAENSDLLRNVKFEFLFDVLKDLDYEIISFQMQLKEELP

KVIEDRSKLIKNWNDTLNYLYDIDCMLSIDSAIAHLSLAMDIPTIVLLHPRFDWRWGKFENPKSYFWPKA

KCFIIKEQEETKRNLQKLIKDILN

>AHK59704.1 hypothetical protein N920\_08395 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGVAINTKIDTFTNNGFINSPGSGQWNNGIWISSNATIEKLVNNGTIKGGHSAIMVTSQHIKTVENTGII

HAEGEWGSSILLEYGGFIEHIINTGTISNNNVGIGSAYGVFGTLTIKDGGMVYGKYSAIGVGRSQTLGDL

YIDGRSNNGTVSGIYSEEHGILLENNSRTQKIELKNGGIIKGNIDGIRLINSASLSGEMILSGEGSRVEG

GRGVGILNRSGKIEGSIKVEDGATVTATSNRAIANSGSGSITGGITVSGKNTKLEGNIINTGNASIGSDI

KIEGGAKVEGGLVNQGNGSISGSVQVSGGSSIDSITNEGNGAISGSITVYKDSKLDSITNTSTSSTGISG

SITNNSDNKLEISNSGNIGGKIESTGSADMVISNSNGGTISGGISSSGSGSTSISNSQGSTINNGITVSG

SAQVEISNQGSVGKDENGNTVTNNGSGSVGIKDWLVSTDKNTGKLNTVVIGGSRAFNVKVENITVDQSNV

DLEELNDINNIISGVNQNNIGNIGTNGSGEISLSFDPITGKLTTDFNLNASISGATFRSLISTTSRRSTF

IDNVMGNSMQSFALASSSKSQSIAMSEKGNLYADASDYIKSDLNNGSYGSNKEHSLFILPYTSSQNVELS

LNEESKGHTKGTIIGYSTLKDSGIYGVYAGYEDTKMGSTYFDINNRTYYAGLKYFNTLFTTEKGQEVYIK

AQGKAALIKNDLTEKIGNNEAKAEPNSYAYGVNTALGMNFISNKDIFSPEIGLAYEGGYTEAFSMKDTIG

QATVKGGERTYANYLNLFSTKTSLTWFRDWLPNLKTSVELGAKFNINPKVEAEARFGNIKVSDEFDLPRV

QKFVSTSFIVPVNEAFYFSLNYNGMFDKDGNTHTGFAQFNYLW

>AHK59703.1 autotransporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNITLTKIPIGEGKEPCLNSKKIVLSLATISFLASCANAKLNSEIKTYDEVNKNVKTRSASVYSPQAKI

NTTINSLHNQQVTITGNGTSNSLTIGSSGTLGSIGNTGKIIYAHANGSNTLTLANLTNNRTINGKIGIEN

NGNFTGTIAVNTFENTGQINGQIYMGIWGNNSGTLNIDKFDNSGTIIDNNKGVFLKERIPTYKPLITVVL

LVQIRV

>AHK59702.1 hypothetical protein N920\_08320 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKLGLVLAVLVALNVSAFADLIVINKKDLVPVSASEMQNKYFQESIKSTLTEPLFKKATFYEADIVAKV

DPRTYNSTQAIIQKEYSDKSNYVYYKQVLILTSDGKRARLSTLSCEIASFDKKGYLCGGTADHNYSIK

>AHK59701.1 hypothetical protein N920\_08270 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLLNTPCRGIIDTNFESKRISITSTLKFQEKKKK

>AHK59700.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQMIKKMVLSETFPGILLIFFTFLALLCKNSSLSVIYTDFFHANFTVGFDHFQISKSLDLWINDGLIAIF

FLCIGLELKYEILRGQLKNIRAVSLPIFGALGGMITPALIFIAINYSHDFAMKGWAIPTATDIAFAVGIL

MLLGNKIPTSLKLFLLSLAIFDDLGAIVIIALFYTDQLSALAIIICLFCIFALLLLNYYHITHLSLYVLV

GVVLWIAMLKSGVHATLAGVIISLFIPLDTKNKKPYLHEVLKDLNPWVVYFILPLFAFANAGIDIRDMHL

GSVFSPVSLGIILGLFLGKQLGVFTFCFIAIKLKLAKLPENIKYGKFYGICILTGIGFTMSLFIDGLAYK

NSDIFEYADKLAILVASFLSAIVGFIYLKIVK

>AHK59699.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNNIVHKLKTLVLNEAFGGVLLIVCTLLALLVQNGSFSEHYREFLNLKVGFSVGEFELNKPFLLWINDGL

ISIFFFAIGLELKKEFLHGDFKNPKNIVLPFMAALGGILIPAMLFALVNIGDAYTLKGWAIPTATDTAFA

LAILMMCGKHIPSSLKIFLLSLAIFDDVGAILIIAIFYTTKLSIAAFVIAGLAILVMLILNLLGITRKSF

YFICSVILWISVLKSGVHATLAGIVTAFFIPMQTKNGEAFLEEIYESLKFWIAFIILPLFAFANAGVNLS

NIDIGAIFSGVSIGIFLGLFVGKQVGVFLFSYLAIRFKFAALPQGSNLKQLYGVCILTGIGFTMSLFIDG

LAYEVSDIFNYADNLAILIASFCSGIWGFIYLKFFTTRS

>AHK59698.1 cell envelope biogenesis protein TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTLFLNHKYQASYITFIVFIPLLFVIFHSNDFFKMEIKNEDSFSLAIKQFTQTNPTNETKPTESIIEPI

KPKPQPKVIKKTPEKMQKKIKKTPPHPIPNKTPIAPTQEVKTFAKTTDTNVKPKITQLTQGKDNHPVLKE

IQKAIQQAQFYPRQAKKMRMQGTVKVEFLWKENKTLADLKIIEISGYDLLDKSALESIRKASLNFPHYNG

DLRITLPIIYDFKTLRG

>AHK59697.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFSGFFYARNDLRLFKIEKKNELKSFFYKDYTLSSYKDDLNLNNEIFFYQSLKEGLFKENDEILVSNLG

KKIILFRNFTQNCDNFNETKLKQILLLFFLLLASVFFASLAMINEFGAIDLLFLTICLLLLVMGVINLGL

LFKQIRILKSFSKEEMKEFLSQRMKKYTKV

>AHK59696.1 alpha-ketoglutarate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQELTRTKKIRSIIAASSGNLVEWFDFYIYAFTATYFAHTFSTSDNPVIQQINAFGVFAAGFFMRPIGSW

LFGSLADKVGRKKSMVISVVLMALGSFMIAALPSKDTVGDLAIILLLIARLIQGLSVGGEYGIAATYLSE

LATEGKRGFYSSFQYVTLIGGQLLAVASISIMFLFFSIDDMKDYAWRILFVIGGILALGSLFVRKMMNES

ATKLHQHEDRGTLKALCKSWKPFLMVLGVTSGGSLAFYTITTYTKTFMENTGMDKMLVNNLFLGALFILM

IIQPLFGYIGDKIGHKRSLIVFCILALVGIYPIFSLIANNAQNNPSLTFMLVVLLFVILSFYTSVAGIFK

AKLFPEHVRALGTGLGYAISNAVFGGSAPWVALQFKNAGIENGFFIYIAIFTIIMLIATLCLPKKSELN

>AHK59695.1 metallo-beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFNFITTLLKTNLYFLEEKTTSKNSNQTHIISLKQSDDEFLNLLFSFLVPQSDEDKNFIEKTRTKIKRNE

HNIVLIKNPNFNALIDTGFLDTIDTLKEKLHIHKTDFKDITHIILTHAHPDHIGALMSEENLFPKAQILI

DKKKYDFWIKSDRQEIKNTLLKLKNIEFIDHSKDLIFQNSGIKAIPAYGHTPGQNAIIIDDKIVFWGDLL

HLYDIQIPKPKIAIKFDIDQNEAIQTREKLLKEFKERKLKVIGTHVPFIKPKFLD

>AHK59694.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MANFKAFYKEAKYIFKDRIFNDYARCYAYGIDASCYFYIPKIVIIAKNEDEIKQIIQLANTYKTPITFRA

AGTSLSGQSSCDGVLVVIKFAFKKIKINKDANEITLGCGVVGIHANESLAFLKKKIGPDPATINSALIGG

IINNNSSGMCCGTKDNSYKTLRSIRVILANGSMLDTSDALSVARFKDENKKLINELREIKEEINANKELK

DLIIKKFKIKNTTGYSLNAFVDYDDEIDILAHLLIGSEGTLGFVSEVKLAVLDDLEFKACALLFFDNINN

AANTIKEFAKVDFVSSAEIMDYASLKAASTYDELRDILADIKEGNTCVLIQSEHSNELKLDENINKIKEI

SKLAYKSYFSKNKAEYDLWWKIRKALLPIAASLRKAGSTVITEDVCFNIEDLADGIKSIQELFYKYGFGD

NGIIFGHALAGNIHFIITPDLNNKLEFDNFSNLVKEMSNIVASYGGSIKAEHGTGRMVAPFVEVEWGKQA

YLINKKIKSIFDKDSLFNPDVIISDDKDIYKKNIKQVSWIDEKLNTCMECGFCERFCPSNEYTITPRQRI

AILREIKRLESLNDDESKAKLKDIKKYYNHLVDSSCAACGVCSFSCPLGINFADFSLKYRKNNIGFISKI

LGNLAYKNHEKTLKIAKFSLSIANKFDNLSLDNKLEKASNFLSIIPRTRAYLPKVNDYELKSHKRVCNVV

YFTSCLNKSFKPNEKMHDKRSLQEVFESLCKKANIGIIYAPNDLCCGKAYENFQDIQDKNIQKINDFLSN

IDSPIVLDHSACSAKLISDHSKYEIYDLSEYLLKFIAPKLRIDKINENVGLYIMCAARKLGLNENIIKLT

KLCTNGKVLIDNDTYCCGFAGYKGFFKPQLNISATKGFKKFYAKTNIKRGFSTSSTCEIGLSDATGISWQ

HIAYLLDECSEAI

>AHK59693.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAYTIKKVEKETKISAHTLRFWAKKGLFPFVQKDENSVKYFSKSDIEWVKWIEWLRISGMPIEQVKHYIK

LCSLGIKTAKERQEMLKQTKKKLQNQIKTLKESEKVLSKKIKIYEEMLANEVDGFNPESKDYQPCDKLHK

FKG

>AHK59692.1 permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIYVVFLIFLIFIISFVFSKFKEDSFLKHIPKNTKSSIFTQSAHNPSNFIFKQKSCCANTQDKSKNITIN

YKELFKESLKNYKKLLPYIVVAVFIGAFIHGFIPQEILQKYLNGNEILSIALAAFLGIFLYLRVETIIPI

GLALLQMGISQGVIMSFLIAGAGCSLPELVLLKQMFKMKFLFLFVMIILGVAISFGIFINLI

>AHK59691.1 hypothetical protein N920\_07770 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLSFTFASKKALKSGMVEQEQNGVKAPKNIALK

>AHK59690.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQSFLNTFKEFLYLFTELSVLFIAISFLVSIINQKYEGIFKNNLLVTKFQVILKLYF

>AHK59689.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKYHSLCPIETTLNLIGNKWKILIIRDLLQGTKRFGELRKSISFTKNQNISQNVLTQNLRELEEAKLIK

RKVYAEVPPKVEYSLTSLGNSLESILKSLENWGNSYKNIV

>AHK59688.1 dihydrodipicolinate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIAILCASGKVGKEISKEALKRNLEPVCFVRNSSKMNEFLPQAKIVQRDLFELDSKDLIDFDIIIDAFG

EWENLSLHKKHIECLSVILQGSKAKLFVVGGAGSLYMDENHTTRLMDMPDFPKEYLDIAKASAEVLEFLR

NEKGFKWVYVSPSAIFSPDLPKSNHYKIIGEKFEVNANNESKISYSDYASAMIDIVLNSCYENTRIGVIS

L

>AHK59687.1 type I restriction endonuclease subunit M [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKKKEIKLEDALWKSADKLRKNIDAAEYKHIVLGLIFLRYISDSFMQKYEELLKEQDDGADPEDADEYL

ADNIFFVPEKSRYNYIRDNAKNPKIGKMLDEAMDEIEKHNDTLKGVLPKVYAKDNLDSKCLGELIDLIGN

IAFDTGKSTDVLGHVFEYFLGEFALAEGKQGGQFYTPKCVVELLVTMLEPYKGRVFDPCCGSGGMFVQSE

EFVKSHQGRLDDISIYGQESNQTTYKLAKMNLAIRKIESSQVIWNNEGSFLNDAHKDLKADFIIANPPFN

DSDWSGELLENDGRWKYGVPPASNANYAWIQHFLYHLSPNGGVAGFVLAKGALTSNTTNEAAIRKALIED

DLIDCIVNLPAKLFLNTGIPASLWFIRRQKLPKTVKKTLFIDARDLGTRINRRNKTLNKDDINQIANIYK

AWKNGTDYEDIKGFCKSVSIDEIRELSYVLTPGRYVGLADSDDEFDFDTRFNELLAKLKSQIKTEQELSE

IILKNLEKIK

>AHK59686.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDFKFVLRLLEANQFENEVVEYKKNNKDFIVLGKNISALSNTAALLGIDKAYIIFGIEDGTLNIVGTNFK

PKQEKKGNEELESWLHKVLKPNIEFKIHEITEKEIRLVVFEIEATKISPIKFEEKAYIRIGSNRKELDKY

PEKEKKLWQVLSGFSFENEIAKSNLNIQDIYDLLDYSKCFDMLDISYDNYSSDEYIIEKLIEHGLVKNLN

DSFAITNLGAILFAKDLTKFKGLNRKRIRFIRYQGKNKIHTLEELEGRKGYAIGFQGLISYIMQYVPKNE

VIENAIRKDTTLYPEIAIRELVANAIIHQDFTINGRNPMIEMYSDRIEITNNGKSLIDIKRLIDMPSKSR

NDKLANLMRIMGICEERGSGVDKVIDSVEAYQLPAPDFINNEDYFQAILFSHMPLEDMTKQDRIRATYQH

CCLKWASREAMTNASLRARFKIGDKQHSKASKIISDTLEAGLIKQQDPENKSTKHVKYVPFFV

>AHK59685.1 type I restriction endonuclease subunit S [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNNWKKCKLGDIAEITMGQSPKSEFYNFDNIGMPFLQGNRTFGRKYPYFDTYCTEYKKIAKKGEILFSVR

APVGDINFANNDICIGRGLCSMNAKNGENEFLYYLLHNLRSVIINNESGSVFGSVNKNDLQTIEILLPLL

EEQRQIATILSSIDDKIELLHEQNKTLEELAQTLFLNWFKDREFNSTISDFISMQNGFAFKSKDFIDYGN

NGVIKIKNISNGIVDIVNTDKISQNTINEVNNKFNINSGDILFAMTGAEIGKMGIVPSTNKKLWLNQRVG

MVKERFLGARFLAYIHLTSEFGYDYVINSATGSAQENISATDIENCPFVKLTSEEIVSYSKQLNDFFEKI

IFNLGEIQTLENMRDILIPKLLNGEIKITN

>AHK59684.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKYKFVKFQVKNFRSLLDITLNIDNNNINTICGENNIGKTNFLRALNLFFNHNNGVEYNQNEDRPYHIQ

KGSTGGRKTELIGYFTKNNVTHILKVEFHKDKIVYILNGKMVEWKVARDIVESFKLLFIEASNVNMPSVI

SAILENDALLALDNKRKKQSEPLRTLKLFIEQSKKAIEDIEKDINIYLKQMLDFDNTLKDKEIKIRFAEF

EKLRDVVKTMTSVTLDDGNDHLMDHKGSGAQRIVLLSLMQYITDKITTDIIWAIDEPEAFLQPKLQKKIM

EIFKNIVREKKQPIIMTTHSQYFVDFNNLVNTHLFKLTKEEKIYARKKGRVFQEINTKPIYIGTAFEKLS

VIKKHLGIETNDNWDIMPYNILVEGEEDKKYLQMLIEILNLSMPNIIHSGGATKIAGFLEYFNNQCSYTS

FKPYFICIFDNDEEGRKQYNKISKDNLYPNIKLDAKKLKRYGESIQENNRDIWEIEDFMPIKIIVDAVNI

ILKYKQYNTITNSQISDRKKLAFKNMSILDYLEKCIADRNEEKERFILNTESRKKEICQNAFRAREKYTK

NDLEDYHVDFMNELIDSFNKVDLIKKDN

>AHK59683.1 restriction endonuclease subunit R [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKAKTSEFDLEQFVISSLLEHGWCYEKPVRATDEVLLETSLVNALCRLNPQLDLSKANEIYKELKSKNH

LSLLDSNENFHYKLVNGVNINTTKDGESRADIINLIDFNNASNNEFIATNQLSITEAKENKIPDVVLYIN

GIPLVLMELKSPSDENATINSAYNQINTYKQTIPSIFTYNAFCVISDGYFARAGSISADFSRFMAWKSSD

GINYAPNKSLEIKTLIDGMLNPKTLLDIICNFIVFEKEQIRDLNGILSIKTTKKIACYHQYYAVNKAISR

TITASSKDGDKKGGVVWHTQGSGKSLSMVFYSAKAIKALNNPTILLITDRNDLDDQLFGTFASCANLLRQ

EPKQANDKEHLKELLRVASGGVVFTTIQKFSPENDNVFECLSLRDNIIVIADEAHRTQYGFDAKVVEEKS

KSGDVLGQKIVYGFAKYLRDALPNATYIGFTGTPIESHDINTPAVFGNYIDIYDISRAVEDGATVSIYYE

SRLAKIELSEEGKRLVNELDEKLENQDSQKAKATKLEALVGSTSRLKQIAKDIVKHFETRSSKLGGKGMI

VSISRSVAIKLYDEIIKIRPSWHSDELSSGAIKVVMTSSSSDGVEFSKHHTSKIQKQFLANRMRNIDDEL

KLVIVVDMWLTGFDVPSLHTLYIDKPMKGHNLMQAIARVNRVYKDKPSGLVVDYLGIASDLKKALSFYSE

SGGKGDIITTQEDAVKVMIEKLEIVEQMLPNDYEKYFELDTGAKLEYILDVEEHILSNEDGKNRFIKEFA

ALDKAYTIAMPHEKALSIKNKIAFMYAIKARFLKFAKENENENLLNQALIKQVVDKAIVSSKVVDIFDAS

GIKKPDISILSDEFLLEVKNMKRKNLAFEMLKKILNDEIKAREKLSLTKAKKLAQMLSDAIKKYNNKLIS

SSEALDELINMSKSIVSMEDEAKKLGLKDYEYAFYSALACNDEYEKILGNEKLLALVSEILQIIKNNVSI

DWMIKENVRARLRVAVKRVLNKYGYPPDMQQLAIDGVLAQAEILAKELANE

>AHK59682.1 biotin transporter BioY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLELIGELSLQNYMGEWLEIARKPAFFQKSCLNSKAKYELKYKNGIPYVEIENFCSKKNEISSIKGKAKI

VSNRQLAVRFNIFMNLFNKVNYEIIFVDSEYKVAIVGSPDKKYLWILARNIIDEKNIKELLNIAKQRGFD

ISDVVFDKY

>AHK59681.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMKLKFRKSLILNALLFYILFPWLPVVFLFIAYFFTIKLDVVTANFVSISLVFLVEFARHRNARKLGEDM

MVILKAMAEIFISVVSIIIAAGVFAEGIKALGGVNILANAVSNLGTGNFAWFGILLSIAILSFLVYFATV

IMGSGIAAFNTFGKLALDIATKLGVAPITLVLPIEIASCLGRAASPIAGGIIALAGFAKVAPMDIIKRTT

PLLLIAMLVNVLVAFYLAQTNPLPKEQNTTKIELKIQK

>AHK59680.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MALKIVISSYAGLLLLACIYPVLISLKIRPITAVCVLSLIALDYGPKDGNSINMADMVGQSDNVVGLSLN

YQIYSVITYVVVNCHLDSFLFYLD

>AHK59679.1 hypothetical protein N920\_07610 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSVAGFTAYMKHINASAKLAFLANKPSGKIKK

>AHK59678.1 hypothetical protein N920\_07605 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPIFMICSTLLAVIVVAYYILKYNLIFVFFFQILSCLFLLFTSQEHLYQKPQAESIQAF

>AHK59677.1 CRISPR-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MARILAFDIGISSIGWAFSENDELKDCGVRIFTKVENPKTGESLALPRRLARSARKRLARRKARLNHLKH

LIANEFKLNYEDYQSFDESLAKAYKGSLISPYELRFRALNELLSKQDFARVILHIAKRRGYDDIKNSDDK

EKGAILKAIKQNEEKLANYQSVGEYLYKEYFQKFKENSKEFTNVRNKKESYERCIAQSFLKDELKLIFKK

QREFGFSFSKKFEEEVLSVAFYKRALKDFSHLVGNCSFFTDEKRAPKNSPLAFMFVALTRIINLLNNLKN

TEGILYTKDDLNALLNEVLKNGTLTYKQTKKLLGLSDDYEFKGEKGTYFIEFKKYKEFIKALGEHNLSQD

DLNEIAKDITLIKDEIKLKKALAKYDLNQNQIDSLSKLEFKDHLNISFKALKLVTPLMLEGKKYDEACNE

LNLKVAINEDKKDFLPAFNETYYKDEVTNPVVLRAIKEYRKVLNALLKKYGKVHKINIELAREVGKNHSQ

RAKIEKEQNENYKAKKDAELECEKLGLKINSKNILKLRLFKEQKEFCAYSGEKIKISDLQDEKMLEIDHI

YPYSRSFDDSYMNKVLVFTKQNQEKLNQTPFEAFGNDSAKWQKIEVLAKNLPTKKQKRILDKNYKDKEQK

NFKDRNLNDTRYIARLVLNYTKDYLDFLPLSDDENTKLNDTQKGSKVHVEAKSGMLTSALRHTWGFSAKD

RNNHLHHAIDAVIIAYANNSIVKAFSDFKKEQESNSAELYAKKISELDYKNKRKFFEPFSGFRQKVLDKI

DEIFVSKPERKKPSGALHEETFRKEEEFYQSYGGKEGVLKALELGKIRKVNGKIVKNGDMFRVDIFKHKK

TNKFYAVPIYTMDFALKVLPNKAVARSKKGEIKDWILMDENYEFCFSLYKDSLILIQTKDMQEPEFVYYN

AFTSSTVSLIVSKHDNKFETLSKNQKILFKNANEKEVIAKSIGIQNLKVFEKYIVSALGEVTKAEFRQRE

DFKK

>AHK59676.1 hypothetical protein N920\_07510 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFKIVLRPPGLNFAAQPAALTKCVKF

>AHK59675.1 hypothetical protein N920\_07410 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKALEYLIVIGLVAAAAITAWSVLTVNHLHIG

>AHK59674.1 hypothetical protein N920\_07270 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILTSALALGAMTLIVDCGDGDLVELKNNGNDQAMFDLGNQEIMKKYPNYKLYDYTSVRTISDINNPE

GKIKEMKRDLEIDKTPYSNYVFLLNPNDKKTIKL

>AHK59673.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDILKLAIKDFLSLKFLKFALIPLIFSLILMLFLGVLGFSALLDYFNSLFSVGEDSFWAWFYALHFVQIL

ITIISFLFSGFIVVFASVFLALFITSFLTPFIAKEINQKYYHYDNTNEVSTLKTIFEIFKIFIKFIGILL

LCTLALFLPFINIFVYYLAFYYLFHKLLMIDVTSTILDKESFKNFHSDFSPLEFKFSTLCFYLLSSVPLL

GLFLQVFFVIFLTHLSYQRILKLKAKA

>AHK59672.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPLLSVIIPFGLSKERPYIEERVLQKAKFFQSDENIEFIFVEGYSSKDHELKNFIQANHHIYLKDMDQKA

FSQGRCRNLGASYAHSNVLLFLDVDCYISLDNFEKILKLIQIKNISQNINALIVLPVVYLNKEANEKLKQ

YDDKFWDILIQEDLFTAKNTWVKFFAPSSTSSIVINKHQFLRLGGNDENFIGHGYEDFDLFARILKACVS

FEKMPTNLSYDARNWNFFNFKGFRSWFSLLGYEACFYGIYIYHFYHIEPNQNAYMQNKDKNHQLFYKHLK

NIKKHDLKPLQVFKAKGEKVLMLFKDQNYDFKDISVYVGEIIYKNISDFFIAKELKYELLLDFLQQEKIT

KIFLDASIKLQFNGIDYCDIFYFQKGILPHSWFFAKKLDLGYKQDLNLSEQKLYQVKEYFLTLKEDEKKV

ILDFLSQNNDDKYDLYKMLYYLINELYSFEHDGIFYQIIIDKEKMLIAQKHDKSFYPLRSFVYKPYLHEL

KSIRPFSFLMKILGLEYLGAMISHTKFYRLARKLFFNPKGFFEDFNYKIMKGKI

>AHK59671.1 UDP-glucose 6-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIVIVGIGYVGLANAILFSKNNENEVVLLDIDENKIQSINNHKSPIKDKLIEKFFVQNISKLHATSNIK

EAYFNADFAVIATPTDYDEQLNFFDTRSIENVLKDIKNINSKINVIIKSTVPIGYTKTIKQKFNMSNIVF

SPEFLREGSALYDSLYPSRIIIGDKSVLGKTIGDLFLKNIEKKNVDIFYMDSDEAESVKLFSNTYLAMRV

GFFNEVDSYARKHNLNSADIIKGISADDRIGKYYNNPSFGYGGYCLPKDTKQLLANFYNIPNSLIKAIVE

TNEIRKKFITQLILEKKPNILGIYRLIMKQNSDNFRNSVIIDIIKYLQEYNSNIELIIYEPLVKEKKFLN

IKVENDFNVFGAKVDLIIANRFDDKLKEIKDKVFSADVFYTDI

>AHK59670.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTVGVVIPIYNVEKYLRECLDSVVNQTYKNLQVVLVNDGSTDENSLNIAKEYTLKDERFILFDKENGGQ

STARNVGIEFFSKEYDFKNITQELKENSLVEFKLDNEDNPYNIYKIYKSSNFFKNKDELLNFKAPDIDYI

IFLDSDDYWELNCIEECVPKMDGVEVVWFDSCSIFEEGFKKQWSSLLKLYDLHEGVIKSKVWLEYSINKK

IYNFYFTWSGMIDFIYLKNIKLKFIDYIIHQDHHFGMLLFAKCKYIYIFPSSMHTYRIRSNSTINLSDSE

LQIHIPRYMQSIYDSFNINIKEAKEYYSSMSMFYVLKNCFNDKILMENRYNAYLLEKAFFKFICERCLRI

FLLKRDPCCIKIQIKKILKQYKNYRYVHLTNFYGAFIYFKIFKINIIKKYIRYLFFR

>AHK59669.1 UDP-galactopuranose mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYDYLIVGSGLFGSIFAYEATEKGYTCLVVEQREHIGGNCYTENIKNINVHKYGAHIFRTSDQNIWDYMN

QFCEFNHFINSPIAIYKDEIYNLPFNMNTFSKLWGIKTPNEARKIIEMQKQIIQHPPKNLEEQAISLVGT

DVYEKLIKGYTEKQWGRSCKDLPASIIRRLPVRYIYDNNYFNDPYQGIPKGGYTAIFDKMLKKSKVILNT

DFLKYKDKFKNKAKKIVFTGCIDAYYDYRYGALEYRSLKFEHKILNLDNFQGVAVVNYTDKEIPYTRIIE

HKHFEFGNTDTTVISEEYPLEWIKGIEPYYPINDEKNQALYEKYKQLAKHESNVYFGGRLGEYRYYDMQD

VVRSALLFCKNELKNKQG

>AHK59668.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISDK

KSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYILESNKGKYSKITPIDF

LYNQIISFKTHPNIFNFQSINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINEAFY

MLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLDFLK

RFSQDFRKILKDKELDENLFGDGDMKIIYSIVENPENYYFLYMGYCNDMFGKLYFGASERIKWQLSYRIG

KLLIDLKNPVQILKFPFKLFLEIKQFKFEQKIYKTTIKFYPNLQLPPLEEYSDYEQALKTKKHLSYILGK

SFINNPILFIFKIKKIYKQYKKDISSSKKNIKELSDYDFLLNRHKQIFDYTPDFKCPVTFNEKLIYRILY

DRSCIYSFLADKIKMRFYVASALSDNHEYSWDKIDILNEKSILFNNIDDLQDKIFETNKCKYLPKIYGIY

KNIYDINFNELPNSFVLKTNHDCGGYVIVENKQEFLRDTVVFSNAMKKLKKHLEWNYYSVFREWHYKDIE

PRVFAEELLLGENKKPADTYKFHIFDKENLSNNFIQVTTDRFDNYQRAMFDLSWNLAPFNFMYDNKNVTM

IPKKPNLLDSMINISLILAKPFDYVRVDLYQFDKKIYIGELTFTHGAAGEKVIPKEWDKKLGDLWRLKRL

DNASK

>AHK59667.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQANKNIQKLTPYLSIPHKIWNSSQSNILKLDWNEATIPPSPYVIESIKKFLVNGNLNWYPNTKNLYLLD

KIAEYTKQINSSFVELFEGSDSAHECIIDVFLDKCDKIGIVSPTYDNFRSRANGVGIETISFTLDDNFNL

DFDSLEYFIHEKRIKLLYLCNPNNPTGKSYNIQKIKSLIINNPNVMFIIDEAYYEFTSQSVCDLVEQCNN

LIITRTFSKAFALASFRIGYIISHPENIESINKLRNPKSVPMLSQIAANAALEDLQYMRDYVDEVSCARM

EFVKFLNTLTTGGGGIFNDSVANFVLIQNENISLFVGFLEKEGIFIRNYSHLISKNCRISIGTRNQMSYV

AEKIQEFAKKQGGFHLV

>AHK59666.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFDAIIVRIIFTFVFFKDLMLIKLNDYEKNITQKIKDLKNASGSHSPSIFTMAEQIPELNIKIDSCFLSN

PYATALFLRYLKEELIDGQKLRSVLEFYPSQNSIIAKTVADFIGIDPKNVFIGNGAIEIIQAVMHNFVGK

KIIVNIPTFSSYYEFAKSETNVVYYQLSKEDNYNLNIEHYLNFVKNENPDSVVLINPNNPDGGYINYEKL

RYILSELKYVKNIIIDESFIHFAYENKDYNGINIEYLFKEFHNTIIIKSMSKDFGVAGIRIGYAIMSEDK

IRGLLKNGYLWNSSGLSEYFLRLYVRKNFFDEYDKVRREYIQETQTFFRKLSGIKQFKVYPSMANFALVE

LLDGSSSTDFVAKMLIKYGIYMRTCNDKIGLEGEFIRIASRTLEENDMVLKSICDVFKE

>AHK59665.1 phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKEILALFDFCETLTNFQTLDRYLPLAGSKNINYTQSKNLARRERFQRENLPYPRYEWLIDLDVDLAEE

IAQEFVYTDVMANLNQNVMDRLFWHQDEGHTIVIVSGGLTIYIKEFARIYNIENIVAVDLEIYKNKLTGN

IDGIHTMQERKLYKLAQKFNLKQFDLKNSYAYSDCVSDIPLLSLVGNPNVIECGKDLQWARILGFNILLK

Y

>AHK59664.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISDK

KSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYIFAYGKTEYVNVLRNSC

EDIYNYKVNWNKDIRIFLGSDGINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINE

AFYMLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLD

FLKRFSQDFRKILKDKELDENLFGNINMQRINKIIENPVIYYYFSRGARARLQNQLVYRLGKVVVEAKSF

NKIIKLPFLMLKICLEHNFEHKVYRSIVQFRPDLKLLPLECYLDYHEALVIKEHLSYKFGKLILLSFKGW

YKGKIFILPFMLKKRYKEYKNKMI

>AHK59663.1 UDP pyrophosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQRFKKWFLSIIKNFKQHEKIKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNT

KIDLNNTKIDLNNTKIELSQLKKEHYKVLDFHLRKITPQAFLEIVEIHLAESCNLNCFGCNHFSQIAEKE

FPDIEIFKKDMQRLSEISKGIVGTFRLMGGEPLLNPNCIQFFDITRYFFPKSAIWLVTNGILLDKQNEDF

WNSCQRNKMQIRPTKYPIKINWDLIKDKCDQYDIPLIFFNNGELEKTSWKFSLDPSGNCDNYHSFTNCSM

ANHCVQFKDGKLFTCTFPAHVQHFNKKYGNHFEVCEFDFIDIYKAKDYQEILFFLSKPIPFCRYCKVSQW

AEIGKWRSSNKTKHEYLI

>AHK59662.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKKILLITPELEYTGALNSFKRICEVLLNNKYAVDIWTYNEGPYISEFDKLGVYVEVISEDDIDSKWVH

ERISKYSLVIANTIVVYKCVELIQNLTPVVWYIREAENLPDFFWKPERKLALEKAKKLYVVSEYAKDFII

HNYNKNVEVLHNYVDDVFYEKHDDFLKQIKSDKLKFLALGTIEKRKGYDVLLQAFIDLPVDIRDQCELHF

AGRFWEGAKDFFPKILSLAKKFPNIFYHGELRDRKKIHSLIFQCNVMVVPSRDESCSLVALEGAMMSKPL

ILTENIGAKYILDENSGWLVKTGSVDSLKNAFIQAYKNKNKLDAMGANSRNNYLQTSTYEIYEKNILKMV

RDEICKNQYLYRINQENYVLFSFDIFDTLISRNIAKPSAVFLIMKQKMRNMDFPLNLVKNFDRIRVEVEQ

YYYRNVCKNKYEDTNFDEIYNLLQQNFSLSFQQKEELMKLEINTEKETLYPIKKNIELVEELIKNEKRVV

LISDMYFSSSIIRTFLNKFSPIFNNIPIYMSSEFRLKKNSGNLFKAILNLEKVDPKKWIHCGDNWVGDYL

KPSNLEISTNFYINQLLPYEEFALNRNSLDMDLQKIIGISKKIRLENTLTNLQEIGVSFGAPMLLPYVQW

ILNIALKNSIRCLYFIARDGYVLQKMTDMLIQAKKINIKTKYLYGSRESWREPFRNKDKLKIQLIDEYLD

QEIDKQEIFAFVECCGTGETLDYIVKRIESNQQFKNMFFGSLYLYRSKLNKTKTQSLFMLPLNENYTYGI

ELFVRSLQGQVLGYDKKDGRVIPVFDFLEGEALQKFRYDEYIDGVMLFMEYIVKTDNYEKIFDNMNVTIL

YLNYLSNNYIDKKFIEIMGNVPFILNGVKDRVGIFAPRLNNKITLDQKNSFFNWSVLRSCKDIRVKYNMD

NDCYFGLIGAVDIIKSHLSYKLGKVILLNIKNPLKWIKLIVLIPILIFSHHEQKKIYLTEKKINIDLSFY

KDYNEAIMVRNFFSYQLGELILKTSRKWNVLAIVILPYKIAQLYRKKFKKG

>AHK59661.1 capsule biosynthesis protein CapA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDNSKPLIIAGRDDGFGERMRALLNALYISKKFGFKFGFVWRDINNIQNLLDGKVLIPWANLPTREYLFD

QDFIKSYYRQDIEFAYETPVLWSLYRQSIKNILKKPYEKEWGWYSTQGDLSEYFTDVDEGEYRTELVSCW

KQIDFSSHVKKIFEKAHSKFLDIGKFVAIHIRTGEVIHDEFYRNILYHCRYKIFPYPFALEIALKEIKKG

HRVIFFGDDLNLIQNLKEYCSFNKQAQENIFSIDDIIAFEQLDNGYDRLLFELVLMSKSEYIFGSGTTGF

SRCASWIENKIFINIFDHLSLIEQYEIILKYIDIENIDDLYRSCNYFFLFLLSEQLNLNFDIKLRYLSKS

LRYDSGSLNSEVFYINLLLQNEKFKEADDRLEQVICKNKKKFFDLLLGYGQNPTFPYDIYMNYYFKDFDQ

YSNIFYVACRIFSEFNIPESRVNTYYPNFHPIIFDQFKMFIFKDLPKSDQEIGAVKKIRNHLAYKLGVAA

IKNSKSLWGYIRMPYVLSYIRDMHKESQNKMDKKSISLEYYSDYESALKEKEGFVYKLGQIIIKAHKNWH

KGGYIMLWFEVKKLKKEFKKGK

>AHK59660.1 dTDP-4-dehydrorhamnose 3,5-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAIEFDIQESKILKGVYIITPNKFRDLRGEIWTAFTDEYLSKLVPDGIKFKHDKFINSHFNVLRGIHGDV

KTYKLVTCVYGEVHQVVVDCRKDSPTYLKWEKFIISYKNQQLILLPPNMGNSHYVSSKEAVYYYKLAYEG

EYMDAPDQFTYAWNDERIGIDWPTNTPILSDRDILATKNKG

>AHK59659.1 hypothetical protein N920\_07140 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKLLKELNNNIKLSNQLSYQILMSNIISNLDIDKKDKEILLLLLQARDRNYIRINNNEQCYQNIINYLN

LIRPLELPLCDLLRIGGNGDGGYVMYNGGGDMSDINAKALSLGVSDSSPWDLEMAQRGFKVIEYDASIEK

CPYDHENIVFHKKFIGNVNNENTITLVQALKDNNLDENKPNILQCDIENCEWDMLENIDISILNKYFSQV

IFEFHGCNPEEQDGVEKRISLLKKLNEYFVPMHTHFHNHGKIFYSQGLFFSTTLEVSYLRKNLINLDIMK

YRDVAGGFKNLDFPWISNPEIPIRFRGY

>AHK59658.1 GDP-4-keto-6-deoxy-D-mannose-3, 5-epimerase-4-reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQTNSKIYIAGHKGTAGTALVENLQKRGFNNLVLKTRQELDLVNQQAVAKFFKEEKPEYVFLTAVLPCGA

ANVAQRADFIYENLMIQNNVIHNSFLNNVKKLVFFGSGYMYPENAKNPLKEEYLFQGDLEYGAYSFGAAK

IAGAIMCESYNIQYGTNFITLVLNNLYGTKANFDFGKSRVLPALLRKFHLAKLLSEGNITQILQDLKMNN

FEEAKEYLHNFGISKKSVEIWGTGKVRREFIHSDDLADVAIYTMQNIDFKDLIKDRKSKNTHINIGTGID

YSIKEVALMVKNIVGFSGELVFNTSRPDSTMDRLMDCSKIHSLGWKHKIELKDGIKMMYEWYKTQN

>AHK59657.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKKVLITGGAGYIGSVLTPILLEKGYEVCVIDNLMFDQISLLSCFHNKNFTFINGDAMDENLIRQEVAK

ADIIIPLAALVGAPLCKRNPKLAKMINYEAVKMISDFASPSQIFIYPNTNSGYGIGEKDAMCTEESPLRP

ISEYGIDKVHAEQYLLDKGNCVTFRLATVFGISPRMRLDLLVNDFTYRAYRDKFIVLFEEHFRRNYIHVR

DVVKGFIHGIENYDKMKGQAYNMGLSSANLTKRQLAETIKKYIPDFYIHSANIGEDPDKRDYLVSNTKLE

ATGWKPDNTLEDGIKELLRAFKMMKVNRFANFN

>AHK59656.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKEQLEVLKEALNGLIYQIDNHQQARKPIADVERIISELQVLNHWNKQENVYNALHLIQGAIADPQGLG

RLNLLLDNARIPKQYYDIFYKMLYVDKYGGGDGYRPVCIDCGGHAGLITDIILHCGGQSYIFEPNIYLNY

FLRKKYENNINVKLFQKAVSDRNYETDFIMFGNRILSQGNRIVESVQDSQTEKTYKVQVIDLCEFIENEI

LTQHKRIYFLKLDIEGMEFEIMKKIIEKKIYKKIDYIACETHEYMFDDSEKKIGELKQLINKCNIQNILL

DWI

>AHK59655.1 dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTIRTQTPLRLGLAGGGTDINLYCDKYTGYVLNATISLYIHCTLIKREDGKIIFDSPDTNSYCEYESKE

FLGNDGKLDIFKSIYNRIVKDFTKKPLSFSLHTYSDVPSGSGLGGSSTLVVGVIKAFAEWLNLPLGEYEI

AKLAYEIEREDLGIVGGAQDQYAATFGGFNFMEFYNNKRVIVNPLRIKNWIASELEARTVLYFTNITREA

KDIEEHKKGKLGDEKSLEAMHAIKQDAIKMKEALFRADFGTLAQILGKSWRSKKIISEIVSNDELERIYK

LAIDNGAYSGKTSGAGAGGFMFFFVDPTKKYNLIKALRKEQGYVQDFSFTKEGVKSWRI

>AHK59654.1 D-glycero-D-manno-heptose 1-phosphate guanosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQAIILCGGLGTRLKSIIKDIPKPMAPINDKPFLEFIFEYLKKQGIKEVILAVSYKYEVIKEYFKDEFLG

IKIKYSIEKEPLGTGGAIKETLKFVKNEAYVLNGDTFFDIDLSKLKLNESKICLALKQMNDFDRYGTVNV

DEQDLVISFEEKVFKKQGLINGGIYLLTKDIFNDFALQEKFSFEEFLQENYKKLKARACIFDDYFIDIGV

PEDYYHFLINN

>AHK59653.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFVGFFLHTSGEKAMERFLKEVGVVLIGAFGYEDGKRY

ISIFNFLISEACACNDLKFAIGILDVNCQKYDKFCFLLQNKPVLILLRDPIDSLKSFINVRHQKNGFNEI

LKIDINNTDFDKINDRIVYVHESNGCFNPDTNQKFPSLESIKALSDTNHWMLMYNIRRNKTIEFFRFNKI

IYIDMMDIVGDKTLFTLEKLSKILNFSSPDKNNKIFYQQLYSPLTVLLPCIIKVNNKVKIFVSNRFSVKN

IQIMENCIDITDKFKEIFHENLIIFCSKDHFDSLINNQTLYNVVLEYINKFLISLKKRINVEKNKEVKVD

DVLDYFKKNISVAKSYKDILDEELVYIKQHRPDIVASWKYYQEFERMCKELDENNQNPSLSFSNQ

>AHK59652.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFMWFFSHGAGAFTLGQFFYHLFKINILDYFCGGDGDI

RYYKFYNKLLELKDKRNIITINDIDPSWYGNQHKRDKLFSSFQKITPILFQIRDPIELIKHAYGRKWGNN

LAKTKEFDLSYQFNDIITEVEVYNYNLPNTLEGQRPQSFLWKSLIECFDKFNDCFYLDISKIRGEETIHT

LNYLSNKFNLKQIKINDKEFVTKSYFKGNLYFLLPLTLYLNKEDLNTNIPNKKINKNNSLIININFFQND

NNLFNLYSELSILDMDSSVGFYIDKQDYNKLKNDSIFYKQVIDYLRNFAYELKNRIQIEEDLMLKVEDVL

RHLYNNKNARVSAKNILDEELVYIKQHRPDIVASWKYYQEFEKMCKELDGDI

>AHK59651.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKQGDFTKVAKHYHNRPAYSPFLLEKLVACINDKNKNLKDLNIVEVGAGTGKLTKMLGEMFGCQISAVEP

NDNMREEGQKFTQNLSNISWHKGSGEETCMSNNQADWVIMASSFHWTDPKKSLPEFNRILTGGGYFTAIW

NPRHIVEGSVFDEIEKEIKHIVPDLARVSSGTQNVKKWEEILVSTGDFIDCFFMECDYKEFWDKERYLGA

WHSVNDIQAQAGEKRWKEILEMIEAKISHMQSIEIPYKIRAWTARKA

>AHK59650.1 iron transporter FeoB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIKIALVGQPNVGKSLLINALCKANMKVGNFSGVTIEKASAKTFYKNYEFEVIDLPGTYSLDGYSEEE

KITRHFLNQNDYDVIVNVLDATNLERNLILSAELLSLNKKMLLALNMCDEAKKEGIELDTSILSQEFQSQ

VVEISAKTKENLELLLQKIIILFESKFIPRSQFYTPLCEKSPEKEDLLYFINELSKKIITHKKEERNLTK

KIDALLIHKFFGLPIFLFLMWLLFQLTFSLGQIPMDYIESGFNTLGEFVKNNISNTFIASALADGIIAGV

GAVILFLPNIMILFLGIALLETTGYMSRVAFLLDGILHKFGLHGKSFIPLITGFGCSVPAFMATRTLKNK

RDRLLTLFVINFMSCGARLPVYVLFIGAFFPSEKAGNYLFGIYILGAILGLCAAKFLRMTAFRGLDEPFV

MEMPKYRMPNWHLVWFMVYNKAKMYLKKAGTFILLASLLIWFASNFPKSEENLNDFNAQERAIEQSYLGQ

FGKGIEPIFQPLELDWKLSVSLISGLAAKEVMISTMGVLYSLGKDVDETNNDLKGIIAKNIPIPSAVAFI

LFVMIYNPCFAATIVFSKESGKLKYTLFLFLFTCTSAYIVAFIGLHIAKILLN

>AHK59649.1 2-methylcitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQVSIKPYPSCHFAHGLIDCAIALKNDGLKADEIKSIRCFVDEVPISFICDPLEAKYTPNSAYEAKFSMP

FLMALGFFDGKITLESYENLKREEVLEFAKKISYKKRKSQGFPKYFPGHLEASLQDGRIIQKDVFINKGN

FDNPLSFEELKAKFLANAQIYLDNTKANKILDQIINLENLNHFSF

>AHK59648.1 2-methylcitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFYSEILADFIFNLQYENIPNTVVQRAKELMLDSLGTAIAASKEECVLNAFKAFENLSTEKNTPVWVHDK

KLDPIYAAMLNGIASHALDFDDTHTEAILHASAILTPLCLSYGFHVSKDAKKIIKAFIIGWEIAARVGIA

SKGTFHKRGFHTTAIAGIFGSVSASAILLDLNKEQIINALGLAGSFASGINEFLSNGSNSKVLHIANAIK

NGILIANFAKNNMSEPLSIFKGRDNIFKCFGIEQECDKTELDKGLGEI

>AHK59647.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTGISVFDHRLLADSWSTQEMRAIFCEQNRIQKWLDVEAALAKAQAKLKIIPKKAADEIAKKAHYKFMDM

DFIFAEFKKTKHPLVPTVRGLEKACDNNLGEYVHFRVTTQDIIDTGLVLQFKEAMTLVKSELKAIAKALA

KLAKTHKNTAMMGRTLALQALPITFGHKVAIWLSELDRHFERILELEKRLYVGSIVGAVGTKASLSDECN

EVEKLTLENLGLEVPNISWQSTRDRFIELGFVLGNINATFNKIAHQLLILSHNEIDEVAEPFGKGQVGSS

TMPHKRNPAVSENAVTVSNAFKANLAILSDIERHEHERDGQVWKMEWKLLPEMFLMLSVVLANMKFALSD

LEVKKDKMLKNLDTLKGFVLAERVMFALSDHYGKQHAHEIVYENAMLGIEQQKTFKEVLLADTRVSQVLK

EKDIDALLDATSYVGYAPKLVDEFLAKIKNSAILK

>AHK59646.1 hypothetical protein N920\_06900 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILFLFCSFFLAFAKPSLEIPKLSKQAKQNFILENVKFNYNGTIYKIFIAKNKNENSNYKYKIIYLLD

GNAFFPLFLNLFNTPVKENLLIIGIGYDNNLAFDTQKRTKDYTPTTNLNKQGGGSKEFRNFLITQLIPYI

NKMYPIDFSHQILFGHSFGGLFAIDTLLYDSKIFSHYFIISPSLWWDNSEFLPNIIKLQTCPKIYIGLGS

LETNSSIIKGVAKLNAQKLSEKISKETNCKTHFKLFKNETHGSVISKAMLWMKKLLDLN

>AHK59645.1 peptidase S8 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKFFCLTLVCKLFALSEFELHHIDKVHKLGYSGDTIIIGVADDAFNQDHISLKDKILKSTYPTDTAGKQ

LIPDLKKSTHGSHVAGIAVGAKIGDSKPYGVAYGAKFYGAGVFPNGSYTQIPDIYNFFKDVSIINNSWGI

NFYPYFNLKASNSGLVDCTQTNQGTSYNICNTPLEYVMKADKVANDMMRLSKDKGVLNVFAAGNEGILSP

ALHAILPSYDESLRAWLAVGALDANEITLESDGTLIIKSQGLADFSNGFKGATNFSLVAAGVNINNVDSS

TNDKFTKKSGTSMAAPMVSGTAALVKQNFPFLDGKQIADILLSTANKNYKAPKFTVKQVTDGTNQPKFLI

VYISQDPPGIEDEIKRDLKQLYNGIQVQVNGQWIDYSDYIWDNRDSAQSQKLNTSTISSINGVVRVEKEE

LFGQGILDAQKALKGLSILDANRLSDQDVLKYEQEPNTAYYTINTAGYDAEFSNDISQRKWDESTHLSSA

INKPTHLANLNIGLSKEGEGILIISGQNTYEGATLIKQGELKLKGKVKNNAYVEQKAILSGNGIVGQNLN

NKGIVRPGNEDLNDLTVQGTYTQEGVDSKLQLDFGNYKNSKLIAKTYDIKSGNLEYIPLPKYYILNKPVK

INLGDLEKSLSSFNHVLIQNTYALNFDFVLSDDLVSINKTLIKPNLKPNAYEIPNTSLGNALRQLRSRAD

LSQTYQEFFASLDNGIDVKTKLNRIEGSGYLSTFSNHNQSNLMQNNMLFTLHPLNINNFAQNNNILLAST

YLPRIFSNEEYFWHLTPSYKYYKDKDFSGQKTGANISLGENFSSGFLAYALSLSSAKFNFNNGSDLKSYN

MDLLLNYNHDLDFIKILSGLGIGVGFNTLNRFVVEQPIEGKYKTLQTSAQLGVTKDIILGQDFIFNPLMY

FTHSFFYQEDFKENKSPFAKNYESLKHHSINANLGFNLAKNIEQDDYQASFSTFVIFEKRIYGRTLENKA

SFVDFPIAFIQKYKLKDNILSQGFNSEFLYKNNVFWQFMLMNRFSHNAYELHLMSSVGKRF

>AHK59644.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFFKHILSLKVLIALLLFFGMISLFIGVISINVKDILNLNSTQLEIITLTRIPRLIAILLTGMSLSICGL

IMQQLTQNKFVSPTTAGTMDCAKFGILISLIFFTGASFFTQAIIASIFALLGSFIFIQILRKIKLKDVIF

VPLIGLMFGGIISAITTFFAYALNYIQNIQGWLQGSMANVMQGNYELLYISLPLFILAYFLAHKITIVGM

GEDIALNLGISYNGILFLGLMIVSIITSLVIVSVGIIPFLGLIIPNLVALYLGDNLRKNLIYIALCGALF

LLVCDIISRLVIFPFEMPLSITTGVLGSLIFIFLLLKRKVYA

>AHK59643.1 hypothetical protein N920\_06740 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQTQYSLDMAGKIYRAEFYELRGANLQQLLEANINSKLIKNAKNLDLNTLKMARSKDKFLGSILVEFE

>AHK59642.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIVSKAYEIDSCDDVELGIKRESKLEFKLWYDDEKTPEALVFVVQGMGDDISSIQYVGDYMVRQFNTAVV

GVNYHCIGNRPQTGSSFFMDDIDKLILKASCEAADIKLPYDVDKIQDYKAMSEIFHFVNNQIVEGKQKGN

FTPNYFLNLHVSLQPTKNEYQNFGIMQAQDLLNVALYLKKHAPFDTMGGGIPIIMIGGSHGGYLAHLAAK

IAPWLVDGVLDNSAYAKFLWRVVGFGKEIDFMQYSEFATFDFFHHIKTHCSTKTFWTSNSSSPRFFSPAR

RKIRNLLEEDHLLKQSKCLKTCFISYHSLYDEYVSLKEKTMFYEELEKLGFDVTLHSITKESQVDGKFIK

NLNHGMGIPVKLLIKKELPLMLEKIKQNSKKDYKEKCISYPCEDLLYQFSEKDDKMSLKIDKI

>AHK59641.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTILEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELCSGKIYLVDIEEERVDIQL

LILFDMKDMFEYLSLYEMFVNNVYYKKFYEDVWHKADELCEKNIKVVIRNLNSSLCIGFECYSHLLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENKTSLNMLSCATHPSLVHFLDNKSVVLRDDPLYQRFNLNDFGYIDTGTHVSHFSYT

LALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRIKLE

YLFACNEQKAKFYNATEGGARINFTEELSFKECCEKLLTKEKPQFELPKSLTKNRSDKLLVKFKEKIQKD

QDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDGILKAVMYERGLKIS

LVYKENIIDNASFISAYIKAYHEWLLYFMEKLEQRINIIIDSFKELP

>AHK59640.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLLEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELKVYKVVLFDCVAKDLEIQI

AMIFDQQSILEYLSLYEMFISSHYYLKYYETSILSLNELCIKSASVAIRNADITCFLPLLTHGQFLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENLKQSIIALECATHPNIVRSLNAENCMIVLRNKALYQRFNLNDFGYIDTGTHVSHF

SYTLALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRI

KLEYLFACNEQKAKFYNATEGGARINFTEELSFKECCEKFLTKEKPQFELPKSLTKNRSDKLLVKFKEKI

QKDQDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDETLRGAFAYRGK

MIADVLKLHIQDKTHFITAYIKAYHEWLLYFIEKLEQKYKSLSKV

>AHK59639.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGFRINTNVAALNAKANADLNSKSLDASLSRLSSGLRINSAADDASGMAIADSLRSQANTLGQAISNGND

ALGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTVKATIGATQSSKIGLTRFETGGRISTSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALADEINKNADKTGVRATFTVETRGIAAVRAGATSDTFAINGVKIGKVDYKDGDANGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGQIDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TAITNLDQIRADIGSVQNQVTSTINNITVTQVNVKAAESQIRDVDFAAESANYSKANILAQSGSYAMAQA

NSVQQNVLRLLQ

>AHK59638.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGFRINTNIGALNAHANSVVNARELDKSLSRLSSGLRINSAADDASGMAIADSLRSQAATLGQAINNGND

AIGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTIKATIGATQSSKIGLTRFETGGRISSSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALAEEINKSADKTGVRATFTVETRGIAAVRAGTTSDTFAINGVTIGQVAYEDGDGNGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGRFDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TATTNLDQIRADIGSVQNQLQVTINNITVTQVNVKAAESTIRDVDFAAESANFSKYNILAQSGSYAMSQA

NAVQQNVLKLLQ

>AHK59637.1 PseE protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MREENNFNKNLKALSGFEYNNLRKKLEDLKELREFTFTQGKDNLDINIIKKRNLKKMYQDPIKELEKNLE

YFKDFTRYPVLFFYGFGNGILYKILLQNQALKRIIIFEKELELIFLALNFIDFSKDLSLGRLIILHHDDI

NLPKMDKVFRLIGDLFYRSYNLHIANDFYEHYKEDILKLNKLNMQIIKNHNLMHGNDPKDALQGIEQFVY

NLPSMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGIKPDYV

CMLERDEIVAECFNNDFKDFDKDIIFLVASLVHKKTISYLKKNKRKYILIIKGQPFARCLGLDDYGYINA

GMSVSHMAYELAENLGHNNIILIGQDLAYAKDGQTHSQGFIHANLHNGDYERDLDRFSTTAYGGNGKVQS

SEIWTLFRQIFENFIAFSKSKTYNCTEGGARIESAIEKPFKELCEDLLKNKKDKKFKKLQVLNTKEQVKL

GLKIYQKIKKNMNLSLNFKKECKKVQKQIHNLTHGKNKLSLEQINQNIDKIKEKLSNKKYLFLQEILGPT

LHHEQSILTPLYLKDIKDESDKQNKLFAWVYAHEALIENIIELLEVQDKRLKIAILPLLDFLEKKKAL

>AHK59636.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGGGYNENLLYQDPIKELQTMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWV

IFHILDFSNELQNARLMVLENDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAE

NFKNIILRNGNDPKDALQGIEQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYA

SKATIFCADSSYPILAKHGIKPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNL

VITQKVLAFPYYINLKDFSYAAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYE

SQMYEHILTEAYGGNGKVETHSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACEN

LLDKDLNKPFEKLEPLSLNKQNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLA

IRKIDEFKNKLENIKQMQDLYEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGH

IKAQENALIKNILPLEEKLKERKLDKWMERVRR

>AHK59635.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGL

>AHK59634.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MREELFLKNTQALFEVDEFLACTLRSLKYLTFALIQDENGINFKKDDIFLYENPNKELLENLTLFKTEYN

KYPVLFFYGFGNGMFYKTLCKNKQHKHIIIFEDNLEILTLAFHLFDFSEELKKEQLILFYTPNINTAQLT

TLFTYEIIQKSVKIFNLFIHNDFYQQFYSTQIQNINTQLIEMIRFIVLNKGNDPHDSLVGIKHTLDNLPK

MLNHGIFQEFLKERRAKVENAIIVSTGPSLIKQLPLLKKYANKATIFCADSSYPILAKHGIKPDYVCMLE

RDDIVSKCFDNDFGDFNKGILFILASVVHKEVLDFLEKDQRAYMLVHRPLNFAASLKLDEYGYLGVGHSV

SNMIYELAGALRFENIIFIGQDLAYGEDGSSHPKEHIHGSQGEEIRGEKYTLAYGGKGKVRTQLTWNLFR

QAFEKDIFWAKEKLNITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFDFPKFLDKKLAKEKLEKT

KKYLQKSILESKEFIKKTQTQLQKLRYTLEKNDKNFQTLEKIKNDLLNLFKEFKKLKLFNELCQAIYFHN

ECEILKFEVLNTNKQKENLIDFLKIQHNWFIQGLGYLDTQNKTIEKSLENWNFDDIIKK

>AHK59633.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMTFTPTQKELFNKNIEALSNLFLKESLKEIKSSKFELILGKDNLDINLKDTSDNTFLYENVIDELNSML

NTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQSARLMILQTS

SLDIELFSNFCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLVQDFKDSILSHGNDPLDALQGIEQ

FVYNLPQMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHNIKP

DYVLSLERIPLTSEFFNNDFGEFDKDILFVLKSYVHPHTTKYLQKNNRNFMLVSTYASFINYLKLDDFGY

FNMGFSVANMNFLLAIHLKHKNIVLIGQDLAYAKDGLSHTKDYSNLDKHEGHFQRDKNKYTTQAYGDNGK

VESSFVWTLFRHNFEQDVANAKKNYYITTYNCTEGGARIEGTIEKPFLWACENLLHKDLNKPFEKLEPLS

LNKQNEFLLKAYYKVYQSIKHCRDFSNKFIKSYDKIKNSFMSLQNSQENETLIKEIIKDIDKIKTQIDEL

YNTQKDLMQILGPLLTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNIL

PLEEKLKERKLDKWMERVRR

>AHK59632.1 flagellin modification protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLENKIIFVAGACGRIGKALCEKILLSKGIPILADINKECLNKLQENLETNFKTKLLSLELDITKQESLQ

TALQKSQERYGKIDAFVNSSYPFGKDWGKTPYYELKYEQICESLNLHLAGFMLAAQEFVKFFKQQGYGNI

INLSSIMGVYAPKFENYEGTSMQSSLEYSVIKAGINHMSSWLAKELFNQNIRVNTLASGGILDNQNELFL

KAYRKCCASKGMLDADDICGTLVFLLSDESKFITGQTLVVDDGWGL

>AHK59631.1 Post-translational flagellin modification protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAEILCTICARGGSKGVKNKNIRKINKLEMIAYSIIQAQNSKLFKHIVISTDSDEIASVAQKYGAEVFFK

REAHLANDRTAKLPVMRDALLRSEEHFKTCFETLIDLDASAPLRSSLDIKKAYESFVENDNSNLITAVPA

RRNPYFNLVEIQNNKVVKSKEGNFTTRQSAPKCYDMNASIYIFKRDYLLENDSVFGKNTGLFVMDESTAF

DIDSELDFKIVEFLISLKNLSPKDF

>AHK59630.1 flagellin modification protein PtmF [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVLIIGFGSIGKKHFLALKNLNHEVSLLSLSAKKEEFKNTPIYRSLKECDLNEFDLFIIANITTEHFNT

LKTLDELVKDKTILVEKPLFEKSQNFTSSKNHIYVAYLQRFNPVIVALKRLLKGEKIYFASLVCNSYLPH

WRALDYRQNYSAKKELGGGVLLDLSHEIDLAFFLFKDLELIYSQNAKISELDITSDDFAFLALKNSQEAK

IHIELDYFAKFNKREIIIHTLEKSFKADLINNKIEIYHKNQSQKILNFENDTIKTLQNLHHAVFEKDKEL

CDLKQALKVLELCDEVRKKNG

>AHK59629.1 alcohol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDINKLKLTPDSSIKEALKIVGQERVRLGIIVDKKDKFLGVISDSNIRKALISGKTLKDSIKDIYTKNPI

TIKENTSKEQLLKISAKTDIYDFPVLDEKGQILSIKSISSLLKANPNSIIIMAGGLGSRLKELTKDTPKP

MLKVGKKPILESIIQRLKNQNFENFIFCVNYKKQIIEDYFQKGQKFGVKISYIKERKKLGTAGALSLIKQ

EFKESFIVMNADILTELDFNALLKAHKKSKALMSVCVREFEQQIPYGVITQKQGFIENIEEKPTQKFLVS

AGIYVLENEILNLIAKNEYLDMPELIKLVLQKGKVNTYIINDYWIDIGRPDEFLKANEDFK

>AHK59628.1 UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKRKICIVSATRAEWYLLRNLCHEIQNDKDLSLQIIATGAHLSPEFGLTYKEIEKEFKITKKIPILLAN

DDKISLCKSMSLAFSAFSDAFEDLKPDMVVILGDRYEMLSVASVCLLMHIPLVHLCGGELTLGAIDDSIR

HSISKMSHLHFVSHEIYKKRLLQLGEEEKRVFNIGSLASTIIKNMNFLNKKDLEKALEMKLDKELYLITY

HPLTLNVKNTQKEIKTLLKKLDTLKNASLIFTKANADENGLLINEILQNYCQKNSHKAKLFDNLGSQKYL

SLMKIAKAMIGNSSSGISESPFFKTPCINIGDRQKGRLRTQNIIDSEINDLDQAFEKLESKEFKQNLKNF

KNPYDNGKNPNKIIKTCLKNVNLDTILHKNFIDL

>AHK59627.1 hypothetical protein N920\_06650 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKTLIIAEAGVNHNGDLNLAKKLIEIAADSGADFVKFQSFKAKNCISTKAKKAPYQLKTTANDESQLQM

VQKLELDLKAHKELILHAKKCNIAFLSTPFDLESVDLLNELGLKIFKIPSGEITNLPYLKKIAKLNKKII

LSTGMANLGEIEEALNVLCKNGAKRQNITLLHCTTEYPAPFNEVNLKAMQSLKDAFKLDVGYSDHTRGIH

ISLAAVALGACVIEKHFTLDKNMSGPDHKASLEPQELKMLCTQIRQIQKAMGDGIKKASKSEQKNINIVR

KSLVAKKDIKKGEIFSEGNLTTKRPANGISAMRYEEFLGKIATKNYKEDELIRE

>AHK59626.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDIIFANQSLYYIPLKELKQNILEFYELLNTGGILFATMMSKKNYYFSHSQKEEKNGLSKVEINGRLNET

SFIHFIDKAEDLENLFQPFETLFLGDYDPINFYNFEGSAHHYIYIGIKK

>AHK59625.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNSLEAYTMKYNENGYGLLFPDGHVVRFYERILKYKLNKINGNLLDFGCGNGVHSAYFQSKGFKTFGID

IVPSLKEIWEQNISGGGVL

>AHK59624.1 N-acetyl sugar amidotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIYCDHCVMPNTRPGINFTKDKEGKNICSACINHKNKENIDYKARFKELEVLCDKYRRMNGKFEYDCAIA

VSGGKDSHFQVHIMKEKLGMNPILFSVEDNFTMTEAGKKNLKNLSETFGCHIISLKPDIKTQKKVMLKTF

EKYGKPTWFIDRLIYSYPFAMALKFNTPLLVYGENVSYEYGGSDTEETPSAKEIFLNGVASDLNINEFID

DEIKEENLQLFFNPNKDKLDKLNPIYLSYFVKWNSYSNYIFAKSRGFTDLEGEWDRTMCAENFDQVDSIG

YILHAWMKYPKFGHACASDYAARFVRYGLLSRKEAIELVQKRDHKLDNKCVEDFCNFIGISKTTFWKIVE

KHYNMDLFYKNDFGEFKLKNKLQ

>AHK59623.1 hypothetical protein N920\_06630 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDDLNCDFIHFFNTIYIKLIELCGSNLERFTPLKDLKKLGFHIICSKGNRGALANLLLFNEISSFFKIIE

KYDYNFKECQTVYDLLYEKRNLLNIIDTIGIELCNKICKNLKEDDENFYHPKIFKKAL

>AHK59622.1 3-hydroxyacyl-CoA dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEINIIDFGLMGKQISALFYLLGYEIGVYNKSKLNIYEFEKQIKLLQRKIDFSNFNAGKINIYQHIEDL

KNSLTIESLNEDLNLKKEIMQILRDNNIVFSRVWMI

>AHK59621.1 NAD-dependent dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRNILVTGADGFIGSHLCESLVKKGFKVRALSQYNSFNFWGHLEKSPFLKDMEVISGDLRDSFFCEKITK

NIDAIFHLGALIAIPYSYTAPQSYVDTNVNGTLNMLEAAKKNEISHFIHTSTSEVYGTAFYVPIDEKHPL

QPQSPYSASKIAADMMALSYYNSFNLNVNIARPFNTYGPRQSARAIIPTIITQILSGAKEIKLGDLSPKR

DLNFVLDTCEGFISLLNLKHFGEVYNIGSGVEYSMQEVLDLIQKILDSKVKIIQDEQRLRPKNSEVFRLC

CDANKLKKATNWQSKISLEEGLRQSIEYFKENLENYKSELYNV

>AHK59620.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQNARLMVLE

NDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAENFKNIILRNGNDPKDALQGI

EQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGI

KPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNLVITQKVLAFPYYINLKDFSY

AAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYESQMYEHILTEAYGGNGKVET

HSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFEKLEPLSLNK

QNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLAIRKIDEFKNKLENIKQMQDL

YEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNILPLEEKLK

ERKLDKWMERVRR

>AHK59619.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGVIMKIYFIKIP

LKSCKLC

>AHK59618.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLINQTFEIDSCDDVELGIKRTSKLEYRISYDDEKDIKAIVFIVGGFGANANISFLDFDREYIAKNFDVV

VVHVFYHCFCARQSIDQKYNPKLIPNQDDLERVNGILKNINLGHLSVNKDNFEQIIPLIEQKVNKMKQAG

LVDESQKIELSCDFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGVCLPFLACILGREMNQGEFYFEGSGYRLYCFVYKYWNRNMNSSYYFGDENYLIRAVLN

SNHLQIQSNLNKNTIFVSYHSIQDMGAPVQNKIELYKCYQELGYDATLHLIKDENDIDGRFVKSLEHGLR

MTDRALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFVFKDLEDKFELEMIN

>AHK59617.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTAYLHIGTTNTGNQEKQGFLMQNEEKLLQKAYIYPKSLRVANRHWALVDMVLELVQKEDILKKESVLSH

ITNERLLRAIENFKSESALHKDKKFIFSAEGIVWDFSTKKHVEILEKIMRELGFTQIYIIVYFRDTLGYL

NSHCSQDHKNNMGYYSADFAPQDHPRKYIFDYEWICKTHAEVFGEENLIVRLLREDYVGGTLLKDFVYHL

GLEWDESFVLKQTKNESFNLLGMELMSRLNQKDLKQDNLNSLLFMARRKFEGSKEKRLKFAVQKDIAKAY

VDYFASSLEWVKNKYFPHKNSLFTPVNWEEYEQNYTLTHMLSKDWDDVADFIAQIIVSKNEIISSLKEQL

ELARKD

>AHK59616.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLINQSFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSTLADFTKDDLKLIEKVLRKYNIPCDQLANNTVVSHCEYLSEIMTELKMLN

RLPYDFEERLSATFIPSRGEYQNFGIMAAIDHINALKDLVKRFPKLADLPKIYGGGSYGGYLALLIAKIA

PWYVDGVIDNSGSAVPPLNYIIGRELEFKSKDTNGDMYMQGDHFFVSCFLKTHWTRKENSPYFFNNENYF

IRTLLNKDHLILQSQKNKNIIYVSYHSKEDPLTPANFKELTMQILKILGYDVSLNLIDENKIDGKFIKNL

DHGCGIPDKALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFTFKDVENQLKLIIN

>AHK59615.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLINQTFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSAYKYFQEEDIENIKNLLNQFHFSYGEINNDNALFLANSLVKHVENLKMQN

KLDHNFKLNFTSTFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGVLWRIPIFTHSKDS

SLVCGWCD

>AHK59614.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDGVIDNSGSALPPLNYILGREMEHSYGDYYEDFPHNRIIFFLKTHWTRKENSPYFFNNENYFIRTLLNK

DHLILQSQKNKNIIYVSYHSDKDPLTPANFKQQTMQILKILGYDVSLNLIDENKIDGKFIKNLDHGCGIP

DKALFRKELPLMLEKLQKRKSFMQENSISYPCGNKVFIFKDVGDKFELVIKD

>AHK59613.1 hypothetical protein N920\_06510 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNTTLNLPLHHIGVACKNLEKERECFFKLGFYKESEFIDEKQGVRGEFIIPCNEAFPQYRFELLQNLND

KGPLDSYLKNNTKMYHLAYESKNIAQDLILLEQQGGICIVPIMQASYFAKLCFIMMPNRLLIELVELK

>AHK59612.1 hypothetical protein N920\_06495 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKYLLEFENKKYSTYDFIETFYKLGLQKGDTLCVHTELFNFGFPLLSRNEFLQTILDCFFEVIGKEGTLI

MPTFTYSFCKNEVYDKINSKTKMGALNEYFRKQTGVKRTNDPIFSFAIKGAKEELFLKDTTSCFGENCVY

EVLTKENGKYMTFGGQGHTLTHYAEEQFNVFYRYHKIFSGILIDENNISYNKTISYYVRKLDISSEPNLI

NIINIVNNTKNFKKNNFAGDHINIYNAKEYIEILWKKLDINQTILIENYDTIY

>AHK59611.1 hypothetical protein N920\_06490 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKGAKADIFLKENSSCFGKDSVYEILTREGGKFMLLGLNYGHALTHYAEERNTSFCRYFKEFKGFVIDEL

GQKREKRINYYVRDLEKAYVCSLDKINEIVRQTRYYKSIKFAGDFLESYDAKEYVKAIGNALKQDKFAIY

EKLLL

>AHK59610.1 aminoglycoside N3-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKYFLEHNGKKYSDKDLIDAFYQLGIKRGDILCVHTELMKFGKALLTKNDFLKTLLECFFKVLGKEGTLL

MPTFTYSFCKNEVYDKVHSKGKVGVLNEFFRTSGGGRLGELATLFFPLL

>AHK59609.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQTFLVDENSRLDVFLAKKLNQSRNQVALLIEKDCVQVNDKIQDKNSFKLKNGDIISIASLKLCNEIKPQ

FEVDFDIDVLYEDEDLLVLNKPSNLVVHGASSVKNATLVDWLIEKKYTLSNLGGEIRAGLVHRLDKDTSG

AILIAKNNFTHQKLSEQLADKSMGRIYLALIDLPLKEDKIIVEKFLMRSPSNAIKKIAIDKENKFSKNAK

SAFINVVKTENLTLMAAKLFTGRTHQIRAHLASLNRYILGDSLYGYKGKYDCRIMLHAYFLYFIHPKTKE

QIFVKAPLMEDFKNIMFEQINLGENDEKISLEFLLEFFNSFA

>AHK59608.1 competence protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSLWNSFSYSFKEFHYLFFSVVVIFIFNILLEYNNFLNFKNQKHYLIDNALLTHQYIKYNKKNKKYWVLK

LQTENFTFYTTSFKDLNLSKNQFLSLRIITHNINFKDYLSKSFYAPSYDFEKLKEKEYNPIISYFLNQHT

NEKIKEFYGALFFALPISLELRNDVNYYGIAHLIAISGYHIGLLFSLIFFILAPIYSFFQKRYFPYRNLR

LDLSILIFALLLAYACLIGFVPSFVRSLIMAFWVFYLLCKNIKIINFVTLFCSILLCISLYPRLLFSIGF

LFSILGVFYIFLYMHHFANKFNNLINIILLNIWTFFAMVLPVLYFFPLISYQQILGIILSGIFVIFYPLV

LFLHLINYGDLLNFILDEFFKFKIYGTNIHIPFWIFISYLIASLISVRFKYLAFLCIFANFIPFIMIVI

>AHK59607.1 5-formyltetrahydrofolate cyclo-ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKTDFRALQKIRLFKHSKLNFKQDYKIFKECLKIIKLFKAKNILIFIPLHYEPNLIKFRHILNKNYKLF

VPFMQDKSLKIVKLRLPFIKKRFGVLEPIDSFFKAKIDLAIVPVIGVDKNLKRIGHGQGFYDRFFENLNY

KPHIIFIQSIDALSQNNLTQKHDISGKLYINPYKKYYKKERKNDRITYRTYSRYSRTRYRIFSCKKNQ

>AHK59606.1 biotin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVKNGLLLTIFLSVIGVLGVIFIHIFVGAIIFVLIAVLMIYLLRQHKDEQIMIDKLLVLCRELKEGNFDN

RIIYVKTKSKKLAEIADNLNNTIDGLEAYLREINTSISCSQKGEFYRKALPEGLKGIFAHNIEFINKALA

NIEVTARSTFKNALSRTLMDLSLGNQNKDMSQISSSLNQDISMMKNVYDTVDAISHTATENGSEVDSLQS

AMGSLMDVVNSSKETVQTFVANSQNITSVVEVIRDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVRK

LAERTQRSTSEISIAIQTMQQDFVNIQSGSEQVFNIVSESEERINKFSQAFKRLEENSSALGVNFGSFAK

RLILSVVKIDHILYKSNIYLNLNGAQNFNLESVDPISNLCQDERAQGVINELSSETELNLAKEFIKDNAK

KAIEESSQDYIDQKAYDAIVNDIKSLEQRSAEILAKLKI

>AHK59605.1 flagellar biosynthesis protein FliR [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEFVNYLGDKNVVTFMLLLARMGGLIVFFPFFSHNSIPMVIKSTIVLFLTMYLYPLARLESLHLDSFFVL

QLISEVIFGMIAGLMLQIIFAIIMMAGEQIAFTMGFTMASILDPSSGTSMPITSQILNLLALMFFLAFDG

HHLMLLFLSHSLGYISLGGFYPHENLMHYLNMGMFNIFIIGFTMSFPILGISLLADVIFGLLMKTMPQFN

LLVIGYPIKIALGFVVLIAILLVMMQYFKNLILELFTHMQTLFFF

>AHK59604.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKILLLNENPVVSRLVSLSAKKMSYDFEELNAYSENLGNYDVIVVDSDTPAPLKILKEKCDRLIFLAPRN

QNVEDIDAQILQKPFLPTDFLNLLNNKDANKHTSIDLPMLSNDENPYADISLDLDNLNLDDLPDENSLDI

NSEGMEDLSFDDDAQDDNANKTLETQNLEHETIKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEP

SLDELDDKNDEDLEIKEDDKNEEIEKQELLDDSKTNTLEMQEELSESQDDNSNKTLETQNLEHDNLEQET

IKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEPSLDELDDKNDEDLEDNKELQANISDFDDLPEV

EEQEKEMDFDDLPEDAEFLGQAKYNEESEENLEEFAPVVEEDIQDEIDDFASNLSTQDQIKEELAQLDEL

DYGIDSDNSSKVLEDFKDEPILDDKELGTNEEEVVVPNLNISDFDTLKESDIQEALGEEILEKNEEPIVS

DVTKDDNSEEIVNELSQSIAGAITSSIKDDTLKAALKGMNMNININISFKED

>AHK59603.1 hypothetical protein N920\_05800 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQQKCFCISKMIRFSKIIILLTVVSLAGIVVFGNVTDYNSNFQFVSHVMSMDTKPDLFR

>AHK59602.1 hypothetical protein N920\_05795 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAITSPVIYHIGYIAIILFETFIALTALKKVLMICLKLEI

>AHK59601.1 hypothetical protein N920\_05790 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFKARNLDAQSFHNAKIFWDYFFNLCILWFFAFQVVVAEWFGMWMSKVWKGLPDTIRLVTYMFLALIFIS

LKNDD

>AHK59600.1 hypothetical protein N920\_05730 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKQEISSFWYTPRGYKGIGLMELLSIKSFIDNGYKFILYTYNLDDKIFKKLDELFDDFELKDANEIVSFK

NYFRDDRGSGVAAFSDYFRYNLLYLKKKGGGYG

>AHK59599.1 hypothetical protein N920\_05725 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MICLNYIDLNEEYIFTQEVDEDNKKSRITTSFLKFSRYSDFGKNLIQEAEKIINKRKKISWGVIGPWFLA

DHVKKCGLENFVWDYKRTCQIPWCNVKIFLDNTSIDISQPFLHLFSEMWRLNNMEKNTFHQMGVYGQLLK

KHEIEKLYNQINTCLKTSMLDNIASFLTKFFIKKL

>AHK59598.1 bifunctional beta-1,4-N-acetylgalactosaminyltransferase/CMP-Neu5Ac synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTLFYKIIAFLRLLKIDKKLKFDNEYFLNLNKKIYDEKHKGFFDFDPNSKDTKSPLNPWAFIRVKNEATT

LRVSLESMLPAIQRGVIGYNDCTDGSEEIILEFCKQYPSFIPVKYPHEVQIENPQSEENKLHSYYNYVAS

FIPQDEWLIKIDVDHYYDAKKLYKSFYMASKNTAVRFPRINFLILDKIVIQNIGECGFIDGGDQLLIQKC

NSVFIERMVSKQSQWIDPEKTVKELYSEQQIIPKHIKILQAELLQWHFPALKYHRNDYQKHLDALTLEDF

KKIHYRHRKIKKINYTMLDEKVIREILDKFKLSGKKMTLAIIPARAGSKGIKNKNLALLHDRPLLYYTIN

AAKNSKYVDKIVLSSDGDDILEYGQTQGVDVLKRPKELALDDTTSDKVVLHTLSFYKDYENIVLLQPTSP

LRTNVHIDEAFLKFKNENSNALISVVECDNKILKAFIDDNGNLKGICDNKYPFMPRQKLPKTYMSNGAIY

IVKSNLFLNNPTFLQEKTSCYIMDEKASLDIDTTEDLKRVNNISFL

>AHK59597.1 UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIVFVSGTRADFSKIKSLMMKVENSNEFELFIFVTGMHMSKKFGSTYMEIEKCGFKNIYKYINHDKYY

QMDKALSSTIDGFSKFIHEIEPDLIVVHGDRVEPLAAAIVGSLNNILVAHIEGGELSGTIDESLRHAISK

LAHIHLVNDEIAKKRLIQMGEDEKSIFIIGSPDLELLNNTISLDEAKKYYDIKFKNYAIAIFHPITTEIN

SLYKQSEEFVNALIKSEKNYIVIYPNNDLGFELILQNYERLKNNERFKIFPSLRFEYFISLLKNANFIIG

NSSCIIKEALYLNINGILVGSRQDGRTDINKTIRVNAEEKDILEAILNTSKCTNITNKRLEILNSSEQFY

RLLKNNILFTINKQKIFMDKK

>AHK59596.1 polyhydroxyalkanoate synthesis repressor PhaR [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIKIDKLTISQKNPLIIPEIGINHNGSLEIAKLMVDAAKRAGAKIIKHQTHIVEDEMSQEAKNVIPGNA

NISIYEIMEQCALNYKDELALKEYVEKQGLVYLSTPFSRAAANRLEDMGVSAYKIGSGECNNYPLIKHIA

QFKKPMIISTGMNSIESIKPTVKILRDYEIPFVLLHTTNLYPTPSHLVRLQAMLELYKEFNCLYGLSDHT

TNNLACIGAIALGASVLERHFTDTMDRKGPDIVCSMDESTLKDLINQTQEMVLLRGDNNKNPLKEEQVTI

DFAFASVVSIKDIKKGEILSMDNIWVKRPSKGGISAKDFEAILGKRAKKDIKNNIQLTWDDFE

>AHK59595.1 alpha-2,3 sialyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSMNINALVCGNGPSLKNIDYKRLPKQFDVFRCNQFYFEDRYFVGKDVKYVFFNPFVFFEQYYTSKKLIQ

NEEYNIENIVCSTINLEYIDGFQFVDNFELYFSDAFLGHEIIKKLKDFFAYIKYNEIYNRQRITSGVYMC

ATAVALGYKSIYISGIDFYQDTNNLYAFDNNKKNLLNKCTGFKNQKFKFINHSMACDLQALDYLMKRYDV

NIYSLNSDEYFKLAPDIGSDFVLSKKPKKYINDILIPDKYAQERYYGKKSRLKENLHYKLIKDLIRLPSD

IKHYLKEKYANKNR

>AHK59594.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYKLKNKTQTIKENSLIEFNIEGNNPYEIYTVYKSYKAFNNEQDLTNFTYPIIDYII

FLDSDDYWELNCIEECVPRMDGVDVVWFDSIEYHDIEKSYFKHHSRLKDINIKKECRINPIEWLKLLRQN

KIKDFAFAWSGIIDFDYIKDKKMKFKDAIFAEDHLFGILLFSQAKNIYVYPKVFYYYRIRANSLTNQDKK

ITKDNILPYFKDIFIAFEENATLAKEYFKYVSWVETSLELVRFVENYHDKKISSLLKDTILYFYIKNAFK

IKKFDKDPLCIKEKLQLLKPYKISKIRYKVMKFLISLRN

>AHK59593.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIQQNNSLIYNTLTKKLSSFIPIKSTRRKLRNHIQYKLEHPKVTNYLSNNYINPFLEGKIPHFDFEKKH

YFKNDKIIWQFWYQGKNQASPMIQQCFNSVQSQMKDDYTIIILDKDNIKDYLDFPPFVIEKLENNFFGEK

TITFFSDLLRVCLLATYGGIWCDASIFLSSKIPSELCDKDFFTFERSKIKPSKEKLKKFIKSGYFSYGYF

NWNDDFKVKMLSSFMIAKTNNTFIQTLKDILMNYWKNEQSSENHYYFILHIIFELLKEHGFVNDIYKNMS

DIECHLLQFSAKEKFNSTLWEEIQKQSFLHKLTHFKSIKKDSMIDKIILQS

>AHK59592.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYETQYIEKENELNVFKIIGDNPQNIYKIYKYKNALASDKLEISKIDYIIFLDSDNY

WELNCIEECVVRMQNVDVLWFDHACIYDDGIEDKGQKTRMNVFNFTQECTITPRDYAKQAIKVGSRDISF

SWGGMIDFSFLKQLKLKFINKIINEDIHFGMVLFASADSIYILPKRLYLCRLRANSISNHDKKVTKANVS

EYFKDLYEFFGENAKEAKNYLKAASRMITALELIEFFKDQKNENSQAIKEAFLPFYVKKALMIKKFKKDP

LNLKEKLPIIKPFIQTKIPYDLWKIWQKIKGILDKINFAK

>AHK59591.1 glycosyl transferase family 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLKQISAIIIVKNAKQTLLECLNSLKDFDEIILLNNESSDNTLNIANEFKKDFANLHIYHSAFIGFGAL

KNLALSYAKNDWILSIDADEVLENECIKELKNLELQEDNIIALSRKNLYKGEWIKACGWWPDYVWRIFNK

NFTRFNDNLVHESLVLPSNAKKIYLKNGLRHYAFRDISHLIDKMQYYSSLWAKQNIHKKSGVLKANLRAF

WTFFRNYFLKNGFLYGYKGFIISVCNALGTFFKYMKLYELQKQKPKTCALIITTYNQKERLKLVLDSVKN

LAFLPNEVLIADDGSKEDTARLIEEYQKDFPCPLKHIWQEDEGFRAAKSRNNAIKASKSEYIILIDGDMI

LEKDFVKNHLEFAKRKVILQGSRVILNKNESEEILKNNNYSLAFNKKGFKNQRSIFLAKCVYKFSKLTKK

FFKKSQLVKGSKTCNMSFYKSDFEAIEGFNEKFIGWGREDSEFVARFLFNDGVFKRLKFNALAYHIYHEE

NSKNMLEINHQIYLETIKNEKTTWR

>AHK59590.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>AHK59589.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHFNNNLVVHYIVNPSPLGWIVINLLTICLICYIFPLKNSLKHKKLFSLKANVNSKNSRIIKYTGIAAFL

GGLIGIWYNFEGFYQLLFFFELENENLKTLWSLQVSVSSVITGMLLLLIYVINLAMVCENGIYIVSKFNL

FYMYFIKREDLEIVKIEKMKFLNQVEVCFVIKTKNKILLKCFESIYKKEDLEKLKNWYENKL

>AHK59588.1 ATP-dependent Clp protease ClpA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKYQENLQKYLDNAKNLSLINHHEFVTCEHVLFALLKLSTDFKDIFEEFSDGDLELLETELKNYISQNNQ

VIKQEIEPTISVVLDEILLSSKNKNNEIKIIDFLEKLIQDSRSYSSYLLKKHNINLNKIQELQNHENIQN

LNNHTSDLTLLAQNGKIDPLIGRKFELERMMQILSRRKKNNPILVGEAGVGKTAIVEGLALAIAEKKVPK

NLQNAKIFSLDMASILAGTKYRGDFEKRIKEILSELEKIPNAILFIDEIHTIVGAGSTGESHTDFSNLLK

PALSNGTLKCIGATTFMEYKNTFDKNKPLSRRFAKINVDEPSQEESLQILKGLKNKYEEFHHIKLNDEIL

QYAVIWGKKFFNDKFLPDSAIDLIDELGASFALNPRAKKNANLKDLENVLAKMTHHHKMFEFDQNKALMN

LKTNLKAKIFGQDEVIDSLVSSLKQSFAGFKNSNTPRGVFLFTGSSGVGKTELCKALAEFLGLNLERFDM

SEYAEKHAISKLIGSPAGYIGFEEGGLLSNAIRKNPFSLVLFDEIEKAHPDLSNTFLQIFDNAELTDNSG

LKVDFKNTIIIMTSNLGLKESNELGFLSKNEEKSNRAIKDFFAPEFINRIDKILHFNDLNDAILVKIIEK

ELDEISKNLNNIKLSVDDKAKIYLAKKAYNKEFGVRLLKRIISEEIGEKISDEILFGKLKKGGIAKIKLG

KNEKLEFIF

>AHK59587.1 hypothetical protein N920\_05435 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAIFNKGGISPTSSSSSETTVISSGARIEGKFYFASMLHVDGELSGIIHSESIVVIGKNGNLKGELQADK

IVVNGCFEGQLEANSLEILAGGVVNGDISTQKISIENGGRFNGTSKIKEDTIKLIENNNEE

>AHK59586.1 hypothetical protein N920\_05315 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLENPIPNSIIITTIAVVLAFSALAVFLIKKTKENK

>AHK59585.1 sulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRKILLQIFIFSVLFIATFAINRILMQNSFIPTGLISDKNEIFLMYLLGVFHDIRFLSAAFLPFLLCGFL

SLIFSNIKINNKLVIYSKNFYFIFSSVYIIVLSCLCIGFSYVKYYYYEIYKTKFDIFMFTLKDDNTKTIL

SIIYHDYPILKILALMLIFGVFVFFLNLKILNLKLKPVNLRLFPLIALNLILIIVYVIALRGPFKHVAIN

VQNYSFSEYSVVNDTMLNPIMAFSWALKQYKEEAALKVITPLKAQELKEKLFDYLHQSPINLKAEKNHPS

VFVNLMESFGLNLADFTNTEHNFLGSLDKHFKQDFLFKRFLSSSNGTIPSFANLFFVSPFSNISTSKFQK

TYLDLTPIAVYKKAGYKVIFVSAGNGSWQNIKNYLSILGVDEIIDENILMKEYNGAKDSENGYGIADEFL

YKKVYDLLQKNPHKTLIIALTISNHPPYKIPQNDLPKLQNIPQTLLNMLPYEKDKQDNIIKAYTYANNEF

GKFLDKVKQSPFKNSVIIAATGDHRVREMSMDLNSQKAFAYSVPFYLYIPKDLQDNIYYDKDRVGSHKDI

FPTLYALSLNNVKYLSVGGRNMLARPSDEKLEFGINDAVWIDKKGIYSGGKGYYFESNDTLKDMNKAFNL

DGYTKDFDKFYRELNLYQLAERLGISK

>AHK59584.1 restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MITKDNLKQVLENLGFKNKNENYVKTINNYTLLIDYKNQSINYPKEIKIHDKTTSNFSHPENFVVFECVH

RLLEKGYKAEYLELEPKWNLGRDKKGGKADILVKDNENNPYLIIECKTTDSKNSEFIKEWNRMQEDGGQL

FSYFQQEKGVKYLCLYTSDFSDKLEYKNYIIQAYDNEEYLKEKELQNSYKKSNNNIELFKTWKESYELQY

FKQGIFEENVNAYKILEITPTFDNLKELKEEGKYHEFAKILRKHNISGKENAFDKLVNIFLCKIYDETFN

KNNLKFGYFGVMADTYANMQDRLMWLYKEAMKEFLGEKITFVSNEDIEKDFKQLKIKTLKEVMQNYIKEL

KFYSNNDFAFLEVHNKELFLKNALVLKEIVELFANYKLTQNSTNQFLGNLFELFLQKGMKQDEGQFFTPI

QICEFIMYSLPLQEMLSKSSKALRVIDYACGAGHFLNTYANELKRYLTEDELKEHYKNIYGIEKEYRLSK

VSKVSSAMYGQNEINILYADALASFELANTNNLEGEKAKPQIESNSFDLLIANPPYSVKGFLETLSDKSK

NTYKLFNDDINIETNNSIECFFCERANQILNDNAKAAIILPSSILNKDSIYKNTREILFQNFDFIAIVEL

GNQTFGATGTNTIILFLRKKETFKQENHLISQDYSLIKERIEAENLKDNENFYQNYLSAYCDFRKFDKEL

YSNFLNGNLDSKLAELEAFKDYRNAFRQTSDYKKLKESKIYKESKDKQDLEDKAFLAYTQAIEKDKLLYF

CLSLNQEVLIIKSPSDIKEQKKFLGYEWSNRKGDEGLKELHEPYLSPLFERGNPQNETKLNTLICKAFLK

TLSDIPKDLQGYASKARLIDMMDFEKVEFNKAISLNVKSRDELNPFKNSKYELVRLGEVCDLNKIRNQAS

ATEIEKMNLNSGNVKLLPSSKNYEWWTDEKTAGQFINEGEVITLGVARYANIKKHKGKFVSANNHILSVK

DKSKIIFDFLYILLEICGQKLYKQGQQYPQFDTNIFYSFKIPLPPLEIQKQIVAECEKIEEQHNTLSLSI

KEYQKLIKAMLQKSGIIEDNQEYELNSILENLQKLESKLDFNLLLSLIEEQISHSEVLVEETQSKERKQD

FNAFKNFSKTIQELLQTLSTPPKDGWKRISLKNEQYMELNPSKKEISKLDENMLVSFIEMASVSDKGYIQ

SKIDRSLNEVRKGYTYFIENDILIAKITPCMENGKCAIAKNLTNNIGFGSTEFHIFRAKTGLDSSFLFYN

LNQQNIREKAALAMTGASGHKRVPISFYENLTIPLPPLEIQEKIVQNIELVEQQIDLLNLKLEFLEKEKE

KILQKYLFS

>AHK59583.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MASFKKIFWINVTIVIIVAFNLRAPITAVGPIIDIIKDKYYLNSTVAGILTSLPLIAFGSISFIVGYFSP

IRAIVFGIFLIFLGEIIRSYFGVYGLFLGMLAMGCGIAIANVLLPSFIKEKFPKKMASIMGIYSLVLSIS

SIMGIALAIPLLSVFDLAGAMFFWAIFSFVALVVYYPQAKNGRFFRIKKKTHKKINLFTNLTTWKITLFM

GFQSFLAYSLFFWYVQIVVEKGFDKEFSTSMVLFAQLVAAPVSLFGPLLLGKLRQNLHTFYIAGLCSMYV

IAFGMLFIFDSKISIIISAFIMGFPWGGVFGIALLFIAQKSSNAQIAARLSALAQGFGYLIAAQGQWIIG

FLHDKFENFSFAILMLVFVGILVNIFGYLSYKSQIIK

>AHK59582.1 branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKLTLTLSVLTMVNCLYAKDINIGVVLPLTGTVAAYGQDVFNGIELANKLQPKLSNGDVIKLITIDTKG

DKLETSNGVNRLIATDKVLGIIGEATTPNTIQAISIAEEKKIPLIAPVASGDKLLDKKKYASRVCFKDSF

QGDKFATYVSKDLGLKNAVIIIDQSNVYSLGLARAFENSFKNNGGKIIKKLVINSGDKDFRAVVSQLKSL

NPDFVYMPIYHPEAALIARQARQIGFDKLLVAGDGVNNQTFIDLGGSAVNGVIFTDSFDYNSPSTQLGKD

FVAAYEKVKGTKELPAFSAMGADAYFVMLNAMNACVDNLSSECINSKIHQTKDFQAVGGVISIDESGNAI

RSVVIKEIQNQKQNYKTIINP

>AHK59581.1 branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKSLILASILSLSLSAAEVKIGVVLPLSGATAAYGQSALEGIKLANSMQSALSNGDKVSLAIIDTKGDK

LESSSGANRLVSQDKVIGLIGEMVTANTLQVMRVAEDNKIPLIAPAATGDRLLDKKIYSSRVCFMDSFQG

SSLAKYVFSKLNYKSAVIVVDQSTDYSLGLAKAFEKQYKSNGGQILRILRVNSGDKDFRAIVAQVKSLNP

EFIFLPLYYSEASLFARQSKLAGLNIPMGSADGVADQTFISLAGDASEGYIFTDSFDANNPTTKLSKEFI

SVYEKAKGTKEVPNFSAMGADAYFVMLNAMNACVENLTSKCVNEKIHQTKNYQGVSGVISIDQTGNATRS

VVVKEIKNQKQNYKDIINP

>AHK59580.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLTIFLIFLNILCYFLISYDYYNILGLNILFFNGAYWQLLSSMFLHGNLTHLILNMIVLFQFGRMLETYL

GALCFIFIYFIGGLLCSLLSVFYVYFDFKYFGENINVIGASGAICVLMGFYAVIDKNSTKGLIVAILLMS

FVPLLMGVNVAWYGHIFGFMCGYILAKIKEVK

>AHK59579.1 hypothetical protein N920\_04945 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKIPYFSFLKLDFEIYHLNTSKNFYGFFILYFSFFIFKLIYKFSKSNKKIYKKIIKLKKIIKDNKYLIF

LCYILINI

>AHK59578.1 hypothetical protein N920\_04940 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKSLLFHFRRIGVEFIIFSVYAVFSISWAATGSLMPLISNDLALNTQQATLITSMIVVAKIFGASFTAF

LVYKFGLKKGYFLGCILMSSGIFLSFVDSYSGILIIRFLTGLGSACALVCLVPIAQQWFEKKALHFVISF

NITSNLVGITLGLVLAESISNYFGNWRDSLSFYAWINLILLILWLFVGKDENKKEEKKNNAKDLIYALKS

RVTWGMIIFYIGPILFLNSLFTFLPTFYAQYAGFSKELADFAKKEIPALANFAIIFGPYLGLFFKRKNIS

FKIMLLSGGACIFICGFCMLFLQNLVLIQIFAVLSGIFYSM

>AHK59577.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSAFWSITFVILSFNLWVVSWSVDKTHSFTLGFVYIFALIFISAILAQFVLPRREKFIQGEK

>AHK59576.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLEQSPYKEDANSKNYNNTLKVKDGVIIIDHSNTSDDNNSKTINTKKNTQKNQPNLSNDNTLKTKTPNSN

TPSLKNTSKEESIHKVSFSFHITNKNINFKDLGLDEQVLQEALNDYKKESISVQDLQDIANIISYYVQVS

GYPAATAYIPQQELKDQIQINITLGVLGKYVVQNNSSVRDYAIESKLPNHKGEIITTKLVEDAVYKVNEM

YGIQTLASLKAGDNPGETDVVIETTPSDSFVSVLFYGDNYGIKESGRYRDGASMSFNNIAHQGDSLNAYL

QRSDEAQTNYSISYTTFLGNLKITPSYSKRNYALGGAYKNANFIGTSENLGIDLKYPLWITTYNSFYLTS

SYYHKKLSNSRLNIMTIDKSSDTISFSIEGVYNGISNDSFSYSANVSYGNVKDGGTTILGMSSKTDGDGF

GKFAKLNVNLNNAYFFNDTFTHLFSLNYQQVVNGATLDSSETISLGDPYGVRAYNNGDGEGDNAVVASFG

LRMATPLKDFYITPFYNIGYSWYENDSKLYRASETNYMDAYGLQLLYNKTGNFYVKLDLARALKKYKLDD

DYSSKAYVSFGKYF

>AHK59575.1 hypothetical protein N920\_04875 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKMIKIQKVKSLLDLVKKLKNKQSLKIKNQTNTKENLNKTHYLTI

>AHK59574.1 hypothetical protein N920\_04870 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLQLFIQTTDEDPNINEDDKQASIDEASTQESGNVV

>AHK59573.1 hypothetical protein N920\_04865 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKGQENAQKTYDTAVNAYNEAVKACNTALSGITGNNGDKVIAGLKQAIDKVSSDLQQATIALQIATAST

NSSLENSNKTLASASINGTSHLTVNENIVQTISQYPL

>AHK59572.1 hemagglutinin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSIRSNKGLTGPGGDPTDTIGYKETSDLIAKDNISNEVLNSIFNDLKFNSSVDISDLSKFYKDGKILTAD

ELTSINQSMDFITALYGQTQDSNNATFANALKEVLGNSYGDLGKANQVIIKTKEILSQNS

>AHK59571.1 hypothetical protein N920\_04855 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEFTKDGKLSAFKGNPKTISPVIKSNAGNVINLETITVGERVAMAGNQVSNMKYGGTDYGKFIFTNKKE

QSNTVYLNVYSNDTFVIRGPASNTIKKKTL

>AHK59570.1 hemeagglutination domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKLNKLSLSLVVGSLLFTQSYALPSGGKFTHGTSGSISVSGGFNIASNETVNFGQGKTNQNYLNIVYGS

KSSHYRWNTQ

>AHK59569.1 hypothetical protein N920\_04845 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MREDEVLSFKARHGVNTAGHSIKTVRVLPFLITAKTDHADASYNKLILEQGELSSVFYLKPKDTHIKNPS

NSKSNQRMNFLMSSTFTHYGNASYNQTILQKDAHISMGVENTYDLALNGAPYLIGAIATYGDSTNNSLNI

EAGSSVEFFTSLPKKDKNGNNTFDERITHLVGGLAYQGNVKNNKIFIKDANMIIHGPSKAYASLAAAHIS

AGYIDSGTDKNFQASKNLLDIDGFNLDMYMNHDKQPLAYNSVLFADFWGGKTEQGQALDNTINLKDIKNL

KKDKNNENIFAQALFNFYAGASNNGEANYNTLNIELKHPLEIANNFLGYNQHSFYGGFATKGANHNTINI

KNDLTTTDLSQSYKDALNIVAARTLEGSADYNKVYINNSMSTLPVYIYTAKKNILNNQDFYPSSANNNEV

VIKDFASFRNLTVLTEAKEASYNTINYNNVQSITDVSNIDKGSKIIIRALDKANHNTIDIKNYSSNAADN

AYLIMAYNEAAYNKIIINDTLFGVASDKREGILSIIAGLSNNAHDNTLIINNLNLDEYKNNNSIFIAPSA

ITGLSEAKSYNNTLYIGGNLNIFKNTFIDILAGALVHYEDNYSASNAAAPSDISLSKNNRLILNTKVEAR

IINNFEHYYLIVSNKINTTPLLKSYDAPINISS

>AHK59568.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFKTIGFKVSAAIFVVLLISFIVMQVILNLDFKNTANKMSRANLDTVSTSVFQTMRMAMNLGDPEKIKEA

IEDAKSIEGISDIKIYPSKDTIDLFEMKAPQISNDKRIIEQFSNPKIQALEENVNLRLIRPLIADESCVA

CHANANVGSVIGVMDISHSLEGVQKDISKTSQSYIVIFTIALIFTLCVVLLMLKVVVGKPVLELLNHAKE

LAQGSGNLKARISVKGQDEIALACGYIN

>AHK59567.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSNKANSANEKSFLLLEQMLKSLFNVANKVSTVSQNENELAKKVENMVNQAGNIQKATQMMDEIADKTNL

LSLNAGIEAARAGAFGRGFSVIAEDVRQLAQNSEEFLGNVAQITKELLQSINEVSAELKKNAQSVQALND

DTALLVDDANEVKLCNEDARALVTQCTEKIKISQENIQNLLSRMQENVEVSEKNEEISKILLQVADELKI

VCHNLESELNQFQI

>AHK59566.1 hypothetical protein N920\_04650 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSSKFSKIGFILAVAGSAVGLGNAWKFPTLVGQSGGSAFILLYIILTLGVGFVIFLAELSIGKISEKDPV

NAYEKLAPSNKKAWSYVGFTMVGAILIVSFYTLVIGWIVKYVFLSITGNLPMDLEVSKAQFGFFISEDFL

SQFICFTLVFLCVFYIVSKGVKNGIEKLNVWMMPSLFILLILMLVYAISKDGFIMAVKFLFVPDFSKINT

SNVLEALGLAFFSLSLGVGTIITYSASLPDKTNFITSTLNIIFINLLVGLLMGLVVFTFIFEFGYNPNQQ

GPGLVFISLATLFEKIGVIGCIFGAAFFISLIFAGITSAVSMIEPFTFYLINTFGMSRKKALILIGIVVY

ILGMLCILSSLKSTQFGFFGMSFFDLLDSVSSKVIMPLGGILAAIFVGFVMKKEALKILFKPYMRGIFFE

LWYVFLRFISPLAVVIVMIAAFLK

>AHK59565.1 sodium:alanine symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRTYFSKIGFVLTVAGGAVGLGNAWKFPTLSAENGGFVFVLLYLFFTLTIGFSIFLAEVAMGRLSKSDLA

NAYSNLAIKYGNRWRYGGVFMLGGIFVLSFYLVIMGWVLKYTVVSLYYLPKTLDEAASNFQNLITTNLTS

SVFFFTLSFFLTLLIVSKGLIKGIEKLNVVIMPSLFLMLVFMLFYCMGFKQGFANAFSYLFYPDFLHFKF

SSIAEALGLAFFTLCLGIGCIVTYSSALDKKTNFIKSSVYIVLINLLISFIMGLIVFTFIFEFGADPHTQ

GVGIVFISLMSLFNQLGALGYIFAFCFFLALFFAGITSAVSMIEPLTFYMINNYQISRVKALFLIGLFVF

VFGICCILSLNLNFFSMFSFFGKDFFTLLDKLTSNFLLPLGAIVCSIFVGFFMNKKQIYKIFSKFISRKI

FLIWLFFIRFISPIAIILVMCYQIFV

>AHK59564.1 hypothetical protein N920\_04555 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFKKFKYYYEKAERFFHPLVGLSSYDKYLEHMKQKHPGKIPKTRGEFFKECLDKKYNSGGLNKC

>AHK59563.1 hypothetical protein N920\_04480 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEILDFILIVIFVFLMIVLVIGFNHQMMQKNKEREERFKKYKKGEQNE

>AHK59562.1 hypothetical protein N920\_04360 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKFSIVLTLLLCGSCALALDPNLEKTKSATGIDLPTAKWNLPKELNEDGTIDETKMPKNSEYSKMVILG

NKILNETSKYVGPQAKDPKKKICGK

>AHK59561.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNQSGFVGIWARFPQYNARGDKVITLADRINGCFERSTNGKRMPSDTPEMKAMLTYMQWLSQGVPVGAK

IEGQGLKKIDFILKAADPKKGKAIYMDKCAVCHQENGLGLKNEDSTGAYYLYPPLWGDDSYNTGAGMYRL

SKLLLILKKICLKVRLT

>AHK59560.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPQGAPDLSLEDAYDVAAYMNSQARPIKANRNKDFPDRKIKPLDMDVGPYDDSFSTTQHRYGPYTNMIKK

>AHK59559.1 protein-disulfide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRNFFCKFVLALVFYSSFALANNSFITLNPSLPSSENSVIEAFSYKCIHCYNHHKFGTLEKLREAFPNLH

FKLYPVSLMNGEFSKEMNELFTFAQYKDEQNGKDASYSDSLSHKLADVYFVSYFLNKQRNFSNLDEFYDI

GLKAMNVNKNEVLNFLNTPKAKEILSEFQRANDIAKTYGTPAFVVNGKYQINPSAINSMQDLEDLVKKLS

NMK

>AHK59558.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAFNLSKGVSLGEPKPKIDEFNWGAKEPSVQIQFSGSGTDYQAMPFSVDQAFNPKK

>AHK59557.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MCDTIIEVDENGNVVDDWRLYKILDPYRSTIIKTLDQSAVCLNIDASKVGKTLSDEELAKMDESDKFGDI

AGIGRNWAHIKGGIKNFKNIYCNL

>AHK59556.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNWGNIYNRGIMISFRQNKDGALTWGFGQRYVKYDVWEEKFSIANYLLSI

>AHK59555.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVEFLFLDFILLIVKVSYTKTANGKSQKVIDEIYKITTPWASIEPSGRH

>AHK59554.1 arylsulfate sulfotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRLSKTLCMAILAGSTLLAPNALMAMGGPSRVKIDWQIQGQMGMIKMNPYGLSPLTAIIMNNGYVLSDIK

KSNGQTIS

>AHK59553.1 thiol:disulfide interchange protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFPVKLARSIVVCAFLAGISASALSEGKEYVILKNPIANADNYSVGLKAMNVSKADFENFLKTPEAAEL

LKSYEIANPISQNYGTPAFVVNGKYQIVPSAINSPEALIEITKELSKQK

>AHK59552.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGVFLVLLGGIFWAISGVLAEYLFKNNYSVDWVCFYRLLSTGLILIFLSFKAQKILVFTNLKESLSICMF

GFFGLLLTQFGYFKAIYYTDAGTATMIQYCAPLIIMLYLCFKNKKFPKLIEIFALILIIFALFLLATKGD

IEAVVLNYWGIFWAVIGAFGVAFYSLSAREVILKYGLFWIMGWASLFASFVFLLILQFDKGLIHYAFNLK

AFFSMGGIVFIGTIGAFCLYLKGVEYIGALRASMIASIEPVAAALMSFLFLKTRYSLLDIFAFVLIILSV

ILNAKKTKVS

>AHK59551.1 hypothetical protein N920\_04285 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQINNSLNSLSQYVKVNSNEENQNSKNQEQNALAQDPAVEVNISKEAKEKSNTSNQNNSQAPAQALNAQN

NTQQDSSSNSEDKLTELTQKLAEIQAKIVELTAKMSKANEDQIKSIESQIATLNAQASTIQAQIQELQSQ

QA

>AHK59550.1 hypothetical protein N920\_04200 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIYSVILGAFLLGACSLKDQAIVDTNLKSQTLMFTQKYKITQDKINAIITMSYLNPILDKTSKDDVLAL

SFTPNTLKIQNLEVFINNKKANIEKLDDEYLKYIIQNNYTDYFKASLPSVKEETRLVAKICLDHLPCFEL

NFQKYPKSLYYRSEDVDTQYN

>AHK59549.1 hypothetical protein N920\_04085 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLEFIFTLILDFTFYSIKTLEKVFLGRTALVILFVVFIALFCVKGLFLYILLALELFLLLYLFLGILFLR

FYKS

>AHK59548.1 hypothetical protein N920\_04080 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKVAFFLLFLFLSCTVLNAAREYCKYAYQEDRAIPLILNYGIRLGVVGAGVANAPAPGGSTYNSKIDMM

AARCH

>AHK59547.1 flagellar basal-body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MITQTMQSKESKESKENSKISFANAFLKQNASKLNEIQNANSQTLARSEALNSTNTTNTSNNTNFSISSK

TSSPNYDISSEFKNSIYTLKYKQVDISNTSTNTAYGYSVDKDGYMGSDFNKAAGLPEDFKIHKSTLDEIK

KAAENDPVVSSTKEYLGVSSYYSNIDIANTIKQYYNLFSNALGQSFSNDKTSFSEADINSMPSGYGVSGT

QWMDFNEPSNRMNITGLKDFSNSLISNVYKTPEQAKEADEI

>AHK59546.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKSLVFKNFIINALGILFSRILGLARDVLIALFLGAGLYSDIFFVALKMPAFFRRIFAEGAFGQSFLPNF

VKAKKKGAFCVSVMMQFSLIVFLFCLLVSFFSSFFTKLFAFGFNADTIALAAPLVAINFWYLFFIFLVTF

LGAILNYRQKFFITSFSAALFNLSIVIAAFFVDKNAPQNTLYYFSYATVLSGVAQLILHLLVLKNNPVIR

AMTLSIKFKKTKAKLQGFYGNFFHGVLGSSATQFSSLLDTTIASFLMSGSISYLYYANRVFQLPLALFAI

ALTQVSFPKILKHLKSDQENLALKFMQRALALLSILLIASSIVGSVFALEISKLLFERGNFTHEDSVITA

YVLIAYLIGLLPFGLQKLFSLWLYAKFKQKTAAWIAVKSLIISALCSMAFIFLIKDESLKVIAVALSSSI

SAFYLLGANIKEFGFKKFFALISIKICLLVIVALIVFTILLILIKPYILSFFIGIFTSFKGVF

>AHK59545.1 ferric enterobactin uptake receptor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKICLSVCAIGLLSSNAISQNVELDSSIVSASGFTQDIKEAPATINVITKKELQSKPYRDVAEAIADIP

GVDLYASKGKTGSYNITMRGITGYTLVLIDGRRQGIGGEVGPNGFNEISNSFLPPISSIERIEVIKGPMS

TLYGSEALGGVVNIITKKVSDKWETSVSLDALLNENKDWGNTYGTSIYSSGPLMNDKLGLTLRFREFYRQ

QSNVEFTNGSGQRVQGDQAQSPTKANNFNIGTRISYLANDYNTFIFDIDFSRNHYDNKQGQLGTITSPGR

TPGSLTGGYADIMEVDKFVTYLSHEGVYENFSITSGLQYNRVSNDGREVVGQSTQPFLGENRDIVAEDII

LDTKSVIPLGQSHILSVGGEYRLEKMQDKIASPTNFDQYLLAIFAEDEYSIKDDLRLTFGARYNHHEIFG

NNVSPRAYVVYNPTNELTLKGGVSTGFRTPYANRLINGTYSYSGQGRFPTYGNPDLKEETSLNYEIAAIY

NNDLFYVSATGFLTNFKDKISSQSYNNSEPIPGIGTCDADRCSRAINHGKVEYKGVELGAGISPLDNLNV

NFAYTYLDTEVKEAQDRSVIGKPEQDSLKHNIMLKTEYSFYNKITPWIKGEWQIDRYMGDTNINREYYKD

IFLASMGVRYDINKQWSINAAIYNLFDKSFTNGWESYASGSGSTWVNTYNRIEEGRRMYISINGNF

>AHK59544.1 cell envelope protein TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTFISNHKNQSSFITLFVFTPLFFVFLYSKDFLHIQPNETIKENKFNMAIKHFVQNSSDMKPTQPTQTI

QEPSNVQPKEPVQEIKKIKPRKEKPIAKPKKIIPPANAKAISQPKKDTNMQQQTPQASSYQSVSLTSNSE

LLKEIKSAIDEALIYPRQARKMRMSGEVLVEFTWTKEKKLENLKILKPSKYDFLNKSALETIRIASKKFP

QYEKTFHIKIPLVYKLS

>AHK59543.1 transposase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLAVEDLQIKNMCKRAKLKNIKAKSGLNKSILNISFYQFSQYLEYKAKHNGKFFIKVNPQYTSKTCSVCG

NIKKNLMFKDRVYLCEKCGNTLHRDINAANNILKRGLKSFGLGISLEDYKLKAFRIS

>AHK59542.1 transposase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNTFFKMRYHRDLPNTYKFNQITIIKNHNKYYLAFSIIYDESNVSLMSSKDFDIKKAVDIDLNINEITLS

SGELIATNSKLLSRAEY

>AHK59541.1 hypothetical protein N920\_03765 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGVVYDEINIAVNTCKGLVLSKKRLLALNLSFFIQ

>AHK59540.1 hypothetical protein N920\_03735 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGIRFQTPLEGLYSTPFYDIGYSWYENKEYQSENHYLMDAMGI

>AHK59539.1 hypothetical protein N920\_03730 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNVGVNFSYPVFLYTEYSLYLVSGFTHKKIKDYYLDGLVSNEKARNSVNLGIERTYRGLENNVLSYTLNF

IYGNVENDGDFSGFNGVNLGNFGKMNLNLSNKYQF

>AHK59538.1 hypothetical protein N920\_03725 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKNLKGKVITTKNVENEIYKINEIYGIQTNANLQSGDGCGESDVIIEVNKGEIV

>AHK59537.1 hypothetical protein N920\_03720 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRKILVVLVLLQVFSHAEELNNNKIRELIESSPEANEPQNKNLKNTLKNQKSPVNFKEQNTTNITNSQTD

QNEAKVFVREYVLHIDNKDLTFKKLRISEK

>AHK59536.1 hypothetical protein N920\_03715 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEIGEADARSSGLRCIVSDNFKTMNICVNAK

>AHK59535.1 hypothetical protein N920\_03710 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQYNNEVTGKKDFDSAVRKKFNDIKYLDNNSYAFADSFTKATDAVKLSKDDFDPKLLQRILDDLMNGKYT

YDFDTKTWTYTDSKGVVGKDEASEITQSLNFLNAFKDTGVEQEFLKLWQGSQEQNYKNYTNLYEKWTQKK

TAMDKIKTGEGYFASFKEELQKYQEALAQLDKENKNYEKIKESGLVSDETLRAIYEKLLEQKEALEKQFA

DLSGNEGFRYKLENEILNSQGFSIEGKDVDGKVYTGNFNFKGKLASLPEKPNISIYEPDKQGGEDPDKPS

VLPPEIPEKVVEAPIKIQTEVDAKKRRR

>AHK59534.1 hypothetical protein N920\_03705 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSAGNYKTQAGKVIGDPGISVNNNFSNIYVYHNLENGYIDEGQNFLSLCNIIMK

>AHK59533.1 hypothetical protein N920\_03700 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGGIGRQIDGGNFNNVVVNDIEKLITSGNDSKTGGFTGKVGNLKINNAYLFYKMEQF

>AHK59532.1 hypothetical protein N920\_03695 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTVNDLVINTAVNTKVGGIIGWGNGSGGNNTINFTNVAINNISIVAKKVLMWVA

>AHK59531.1 hemagglutinin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKMSKHIVLSFAVSSLLFSQAYALLSGGKFTHGTSGTIHTSGNTVTITGKGQNHVIQWGGGFNIGQNES

VNFNGKNQNYLNIAYQKDASKIDGALNRGNNNIFLVNPMGVLIGKTGTITAGKFVASTTALSDDNVKTFL

EKGASFSPAFDVSKQGNIINLGKINADNIVLIGNKVEINKGKITLDVLKLEGNKVYVDAGVVKDTKNIVA

KAEQEAIIQQSITSFEEDGALLGNSSSKFSFDDSSKVKNWTKYGSIADATEWNKFADFWNVNKEKFRTAF

DHFRLIDDIDFSGVKTYIVGDNTSNAFAKSFDGSGYALKNVNINSSNQYVGIFGVVQNSYIRNFNIQGLK

IASTGYDA

>AHK59530.1 hypothetical protein N920\_03685 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGVENIYTLPLNGVPYISGSVAFDGEAKDNKLILESNTKIDLHNSQYFSDEEGKDIYDERITRLMGAFGI

NSNLQNNKVLIDSANIVLHGPDGEYTARSTFEILGALADVNNLKKYNVSKNSVIIKNLNLDLMVNSQNKI

TFYDAVLFGEIYGGRTLQGNAEKNSIEVYHFNSLDHLNKNIKTHASLNLYGGYSNDGEANGNKIVFRLKK

PLKISDNFYGKNYYNLYGCFATEGANFNVFDIQNDLTYEKVPQNYSDKFTVYAARTLSGKANNNTLSIKD

SVISLPLYAFITSETTLDGIDYIADESNNNEVNFENIKSSKNLSLMINAKNVSNNKINYNLIQSLTEASS

LGKGSKIILKATQNANNNLIKLKDCSSAAVESSCIIKADKESAFNKIINNNTAFSTASDKRQGYVGLIAG

VSANSHDNIMELVNLNIDEYKNQDAIFLAPSGTSDISNFKSYNNTLYLGGELNFFKDVNIDLLSGSVFHE

VNKKGKIITQILPHQEDFSKNNRLIIDTQDVKSEVVNNFENFTFILPNKIKNPILTIEKLINLPANGSME

ILTKNKPTKGKYILIQSDVGIYDGDNGLLNQQELENLLEKMKNNKNKFNYNKIEKLAKSTLKNVNFSFEV

SDDAKIIYINIL

>AHK59529.1 glycerophosphoryl diester phosphodiesterase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKVILTSAMLCSVLFGVQEYEANLAGHIIIDSKSTVKPPKDAPDFFKTYGKFANIAREEKIGTFKSKGN

RETDFYLPFKNQPIQGHSGIKYIPKKDVFWVISDNGLGKKYNSYDAMLYAHEFKFDFKNSKYELLKTVFF

KDSDKKYPYPITTETTKERYLSGVDFDTESIQVINDEFYIGDEFGPYLLHFDKNGNLKEVFDVYVEGKKL

ISPDNPSLKFSDKPDGENEKFNIKRSKGFEAMASSKDGSKLYLLLEGSIYNNNAYENEKGKEYLRIIEFN

VKNKKFTGKTYKYFLEDKSHSIGDFNMIDDKYGIIIERDQKEGTKDKACKEGEDTKHCFNNVAQFKRIYK

VKLDDKTHEAQKISYIDLLNIKDRNKISKKPLVNDKFVFPFETIEGVDIVDDSHIVVENDNNFPYSSSRE

PNKTDDNEFILLEVKDFLKSK

>AHK59528.1 restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNYYQELKKYLNNNLFTSYSLEIDFPKIYNFNANQKAFRDILTKITKIYDKNKFIKQNEHQFEDEFISKV

LEILGWCFVRQDEKIIQGKLEKPDFLLFSNDKLKSKYENLDKETKKSSNDFTIILESKAYNIEIDNKKVK

DNPHFQILRYLGNLKKNYGFLTNGRFWRFYDNSILNSNKVFYEINLEKIIEDQNIEAFAYFYSVFSAFNF

TEKEDHLEITLQNNKLSKIKIEDDLKSIIYGTNGNESLFEFIGSRIYNKTKADLKLIYENSLYFIFRLLF

IAYFEDKFEIILEKHKYFKSKISLRTLLENLQEDESSSGGFGELENIFNIYNKGKGNFDMPVFNGGLFDE

SKTALLSTPKIFNDKDLKFILNQLLNFKDKNLSFKRDYKTLSVEHLGTIYEGLLSYFFEIANEDIYYVSY

KEKSKEIECYFDNYDFKILEKSKKVEKYTFYKKGQIYLKNTSNSRKASASFYTPQSIANFLIQSALKDKL

NNENILKFKILDNACGSGHFLVGVLNAITHIVLSDFDHFTNLKELYEEEKENILNHIKDFVQDYEVDESD

ILKRLLLKRIIYGVDLNPFSIELTKLSLWIDSFIFTTPLSFIEHHIKCGNALINSNLSDFKDLIKQNSSN

LFTNSITQEFEILQEVFEKLDNLKDTNEEQIKQSKQIYQNEITPKLNKLNLYLNYINTLHFVNKEELQIL

KALSQDDIQNLSQNEQAKAIISKYQKEFNFFNYELEFPEIVENQVFKGFDIIIGNPPWDKTKFSDSDFFP

QYKSDYRSLIASKKKEIQDNLLAKDYIKQNYEKQKAYINDLSEYYKKAYPLNKGSGDGNLFRLFVEKNLS

LLKQDGNLAYVLPSALMFEDGSLILRKEILENKTLEYFYSFENNKAIFIDVHRSYKFALMLIKNTQANHT

HKIKMMFYKTDINSLKNKDEILTLNLKDIKKLSPTHLALMELKDKQALEILRKSYNAFQNLSFDYIDFRR

ELDMTNDKDLFIEEFREGLLPLYEGKMIHQFDANFSQATYFLEKAKFDERLKSKELYRAKKATGKELNPK

LIKYDREFFRLGYRKIASDTNERTLIASLLPKNCGGADSTYSNIPKQYVLKDDVICMDIVPYERILFVLA

LFNSLVVDFIIRNMVQINVSKSYLERIPLPQPSDEEIQNNEIYKTLAKNALLLQLYNDQNRHFDELKQEF

NIKNEEIPKTKKAYDILRAKNDLLVKELYGLSDDEFSYMISTFKVLNEKQSEYITLLKTI

>AHK59527.1 invasion protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNLLFYIKNNLTPTLAQILLQALKNSNNEKFFTFVLENIETICTWLNSNKFRDRYLSTKHPYPPLINPN

FIEIDSSRHCAELAWDLNLPLPKHYKFIYISPHGVGAAAFLRYLNQCCDVTCFASWVLPPDSKERYCINY

MCLNDNTIAQYAINISEINLPYFDKYLSLLDFNSKIICGVRDPIGLLKHSWGRDWSKVLRNYPPEFNLTY

DWRYYINYLTHQNHKIKIDINELQQGVFIISYLLKYFNKDNVYYLDMEEIRQSKAFDTMNLLAINFNFTP

PHKDKLDLFKIKEFRGYIRYLFPITLYANSKDINNTFYLNTPKNNKNFNIDRTSSIPIILDRKHINHEKI

DVIQEIIKNDLCNDMGVYIDKNDFKQLEQNNLLFSTIKHYLYDFLYQIKITIDETESKMMKEKDVIDYFI

KNKSLIYTFLIYLKMN

>AHK59526.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQRQSPEQILKKLEVKAKEEEKNKLVKLKIFLGYAAGSGKTYAMLSEARTLRDNGVDVVLGYIEPHDRPE

TMALAQGFESIANLEIPYKNIVLKEFDLDATLKRKPALVLVDELAHTNAKGLRNEKRFQDIEELLKAGID

VYTTLNIQHLESLNDLVANISKIEVKERIPDRIFDEADQVELVDIEPNKLLKRMQDGKIYKEKQAKLALE

NFFRQERLIALREIALRRLASRVNLRASEQRLINDDLAYHTGEHILVCINASNAKVIRAAARLALAFHAK

LSALYIKNPNIKEAKALEENIELAKSFDAKIISVYDDIARQIAEYSSLSNVSKIVLGKNKDKKSLKKRFL

KLSLKKHPILIYILSMKIKFLLLKYEVKKSFDFLGFLKITGVLLLATFIAFVFHKFNTQPSNIVMIFILA

VFASSFISDNKIFAFYSSLVSVLIYNFFFLEPIFSLKVHDSGNIITFTTMFIVGFLTAVFTRRLKLQSKE

LTKRAYRTAILLENSENLARVKSKQELWEQLGNQALKLLNLPIIIYPINKNNILSKPLLFFNDDKQMLKN

CFSADEIAIAQWVATNKERAGVCTNTLPNANAMYLPIEDGKKLKGL

>AHK59525.1 hypothetical protein N920\_03400 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHVYSFFMALAIAILTAKTLTFSSPKIPKI

>AHK59524.1 hypothetical protein N920\_03395 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIPRISQSSKITKEELEKIIQENTESKF

>AHK59523.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MICLETLLSFFVVMLILCTLVYPFALNTVAKFIFPYQSSGSLVDKEGRPTLDVSKAVGSKLLGQDFNKPY

FLHSRTSVSNYNTSDTNESSVSSGGFNYAMSNPALKERVQKYLQKFLDENPQITKEQIPLDFRIRS

>AHK59522.1 potassium transporter KtrB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVKNPVMFMVEVGSILTLILSIFPTLFNGNSDERIYNILITFILFIILFFANFAESIAEGRGKAQAATLR

QSKKDSKARHIKSDGSEEMLNSSELKIGDIVLVKAGELIPNDGEIIEGTASVDESAITGESAPVMREAGG

DFSSVTGGTTVLTDFLKIKILVGAGESFLDKMINLVEGAARQKTPNEIALNTLLIVLSLSFLMVVVSLYP

FMQFLGVSLPISWLVALLVCLIPTTIGGLLSAIGIAGMDRVTRFNVIALSGKAVESCGDVDTMILDKTGT

ITFGNRLANEFYEVQGISKEEMIKACVLSSLKDETPEGKSIVALAQKMGYELEGNDIKEFIEFSAQNRMS

GVDLQDNTKIRKGAFDAIRAYISEMNGKIPSDLETKVMEISNLGGTPLVVCKNEKILGVIYLKDTVKPGL

KERFDELRKMGIKTLMCTGDNPLTAATITKEAGLDGFIAECKPEDKIKAIKKEQAQGKIVAMTGDGTNDA

PVLTQADVGIAMNSGTQAAKEAANMIDLDSNPTKILEVVEIGKGLLITRGSLTTFSMTNDIAKYFAILPA

MFSVVLPQMQILNIMHLATPKSAILSALIFNAIIIPLLIPIAMRGVKFKPMKSEHLLLRNLSIYGLGGMI

APFIGIKIIDIPTAWILRILGV

>AHK59521.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGIIFIISLLLIYFSEKMSNPNLDSLGLNANLGNLEGKEIRFGTDGSSLFSAVTTAFTTGSVNNMHDSLN

PLSISATLLNMMLNVAFGGEGVGLMNMIIYVLLTVFICALMIGRTPEFLGKKIESAQMKLIALVILIHPL

LILVLSALAVVFAKDSISNPSFHGLAQILYEFSSSAANNGSGLEGLKDDNLFWNLSTAFAMFCGRYLVLI

AQLAIAGSLLAKNTQENTANSLKTDNLTFMFVLVCIIYIFAALTFFQCLLYQALQNIYLYGIKESQCLKN

KINSLQKKF

>AHK59520.1 hypothetical protein N920\_03375 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLTLENKFQSIATGPVAALESIKHLGTNGGGFFGTNSSMPFENPTLLTNFLQILSMMLIPSACVVAFGLM

VYHRKEIQGFALMGKEEGGGLFLVQWGLFLSFLCF

>AHK59519.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLNTVISFITNTNLQHYSGENALSLLSQNTGILLAMFVSSASGYSACMAFCRALCSMQMGNFMKILRVL

LRV

>AHK59518.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLEILITLIIAFILALIFGNYLYKIASCKKTIFDFIFNPIDNLIYKICAIDRKNMTWQKYSLHLIAFNAL

VAIFSFVIFYLQDKLF

>AHK59517.1 hypothetical protein N920\_03360 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRKGYPMDIIFALLLLLAFGSLCFFICFCEIQTKDTRMIFLLVLSLILALYLFYALLYPEKF

>AHK59516.1 hypothetical protein N920\_03335 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFQKLIFFAKIAFMRVDKFLNVVNITKRRAISEDMCKSGVVGINGVIVKASKEVKVDDIITLHFTEYTQK

YKVLALPSTKSIPKNAQNEYVVKL

>AHK59515.1 hypothetical protein N920\_03330 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEQNLLTPLLYFFKKIASKNFSLMKFGYNFIIFKSILTKDIL

>AHK59514.1 hypothetical protein N920\_03290 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKQEIQKLDTNFLGHRKPLFSLSMVELWERFAFMVFLQELVFSSTLPGGWITDNYSGQKRLYF

>AHK59513.1 hypothetical protein N920\_03285 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFFLGLTFIVIGTGFFKTNASVTVGILYKQNDTRCDTGYTIFYIGINIGAFIAPLICGFVQAKWNYHLGF

G

>AHK59512.1 di-/tripeptide transporter domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLISLLILYFKAALELEEFHKNCTLKQNWEQPFKKVKNLTLILSISLLSIIGFFLMFINLVNINPI

>AHK59511.1 amino acid transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVIYFIYLFVFKALNKREKQQLIILIVLFFAATFFGVLLNKNPTAYNLFAQDFTNRNIFDWKIPTNWFQS

FNPIFIIILAPIASYIWIFLEKKIYIFLPLENLL

>AHK59510.1 di-/tripeptide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDIFREKNIYFSSIGKFTLGILFAGIGFMMMTFASQNLINNNGLPISMAWIIISIFFLTLGELCVSPIGL

SIMTKVAPDLIKNQVMGLWFVASALGNALAGFIGGKASEENIAYLPNLFYQCMWILLGAVIILLILKKPI

NKILKINIKEKI

>AHK59509.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRRNLSAYKAKFNGAYVFLGFFFLIYQILGSTFVYTPLLYGIFFCYMFCLLEERERTFSKLDFRWYFSLF

FLFFTDITYNFFIFSSWLAFFIFYYLCADWIKTNLKIGKFIPVVFVLCAYGIILFLDMILSYIGDEKIKI

LGWAYIVSVFIECCLAYVFFKGKI

>AHK59508.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFGNSYGGYLANLCAKIAPWSIDFILDNSSFVNLFGNIFRLIGFGKEIDFTRYHGTYDDTLFKNIFLYLS

DKTYWNNNKFSKNYFSNARKIIREPLNKEHLIIQSLYPNPKYILYHSIFDERSPFKNKENFVHILKELNF

KVEFFAISQVDNKFIKNLNHGMGLSTKLFFKKHLLQILKEPLQDKICKKEVSYKCDELVYTFKEENHQII

LNITN

>AHK59507.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIINQIYSIDSCDDVELNIKRGSKLEFRLTYDDSKEIEAIVCIIPGGAEDMNSYIYIDDYLTRNYKVAVI

NINYHCIGNRPHLGSSFYLDDIDKFILDTSLKAINLKCINVYGINSYENLNNAFIRIDQEIQKLKLNQQL

HQNYKLKTHVSFLPFKNEYQNFGIMQAMDILNAIFYIKENSPFKLMRGGVLERFCLEIHMADI

>AHK59506.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQENNSPKAQAVVKKNEIYVSVKRKKSTIEYEKDLKNLQIELLKFQNHVKAKGLKVLILIEGRDAAGKGG

AIKRLIEHLNPRGCRVVALEKPSDVEKTQWYFQRYIAHLPSAGEIVIFDRSWYNRAGVEPVMGFCTPQQH

KDFLREVPLFENMISNSDIIFFKFYFSVSKDEQKKRFEKRRSDPLKQYKLSPVDQKSQELWDKYTLAKYS

MLLASNTPTCPWTIISSDDKKKARLNLLRFILSKVEYPNKKTGDFSKIDAKLVRSGEEEIRKMEANLEKL

DSKKADEKIKDLD

>AHK59505.1 RNA pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENEKNYRPNVAAIVLSSSYPFECKIFIARRSDMDNIWQFPQGGIDKGESVKNALFRELKEEIGTDEVEI

IAEYPEWLSYDFPSKIVKKMYPYDGQIQKYFLVRLKHGATININTKHPEFDDYQFVSVKQIFEMINHFKK

NIYVRVIKYFEEKGYI

>AHK59504.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNHLLILYNPYYQEDVIKQHLSILQEKSQVAFGKIKSKLNDQEKQNSLEEIYQSTNEENFLQLFLSDYAN

LFVAKVVKISKNVDESLIPSYYKEKNLEVEDFFIISDLRELVREDFSRLRDKFLANFITPNDHTYAIYGN

HYTYPLPVRLKEECSYFLGDEKHYLSVYKSKEYLAMQENFIRFVFGKRIFYLLHSDSISNIIHAELELLQ

SENDLLNDFTSIIVKYSKTLEYEIYAFAKKVLLKACMKDPSLYDLAYNVQGKSFILKDFFTQKPNLGSIK

FLLRHENIQCHLGKSLTQFINYPFSKSLTIIQEIRNEAVHAKAPSLNEVKKLRNEILGIEGVSLLKRILT

HKEIS

>AHK59503.1 hypothetical protein N920\_02845 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENKFKINYDQTTTNGRNGTNGKVDNLSMKNHHLKSIGHSPDIFGLFVSIVNQFTNTSTFVSNGKIITID

TNTFELQGGNFIAKIFCGFFNWFGHLASDWCGSSGGKERGAGIPMPFYNLFLLCDFGNFGQHRQTLAQIA

TQVFEQGYDLRHGVTMSIPVMINKMLIRFMYIIKAKFYHKKEWKECIPKDNIPELNKMLLIGSGTFLLID

TGGAWIKSKNPITNPVVFLSEINLINVIRFSTLILKEIYILYNNGKIDNKKLEKYLDDTCKILLIEAHNK

SKPFKEILK

>AHK59502.1 hypothetical protein N920\_02840 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MITYSNLSDVKKRIEDEFTHRNAECDKYDYLIAITCGAIAGIMDIFLVGNPKDSYLGKKVDKTVEKMTQK

FAQLCGWDKQKALDKNKDLTKSV

>AHK59501.1 hypothetical protein N920\_02835 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDKIQENTKIEKAILAEKQQIFLIQNKLSEIEKNIKE

>AHK59500.1 hypothetical protein N920\_02830 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENICQFIIENIDKNSLNTKKIKLVFNMQEQEITTISKIFKVSSEHIIAFYDTSTSFNYFSKTTGICFTG

KEVIFKRKEDEVLMKINYEDFKEANKSLPEKTTTLQDIKFPISFHNLGTSYLSFDDFKKKNYIEENDELI

INFLHILTSKNNIESFKNESMFPQALEKTNESIKENYIKVIIKIILDQYGFLDEKRSIKIFALMNKINVA

SETRYKIQDFLHNKHSSFEDLLNIIKQESRFMQFKYILISLIKDLIDIDFEDNKIYNFLYENKDIFKIKD

LKEIYWVKEIIKKEYQIILDDNKEIQQIFNFISETATKNNISLNGLHLSGMTIGMSVSIMELLGFGELIK

LPLIDSSKKYHNKNKQQLRLFIIQEILKENQKTITQIIDIINNLIEQCNTNTQNLQELIKLLKLASKNNE

TFKEREKLLYCPETLSLITINNHLKEDDIQFIEQYYTYNQNTHKYERNDNLSSSDLEKLSNFFKLKNL

>AHK59499.1 hypothetical protein N920\_02825 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGLQSLIKIGGFKSYQIAVIVANQVMKVLLGRGLSLAANATLTRALSLFSGPVGWTIMTTWTALDLASPA

YRVTIPAVLQIIILRLKHNTKN

>AHK59498.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGIILGILSLIAGFVAIVLMCGLYFIAFMVFVGIAILIFLSMQPYPYNIIFCAIYLITILALVLWRKT

>AHK59497.1 multidrug transporter MatE [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSSIFSTLSPFRLFVKYAVPNVISMAFISFYYIVDGIFVGKYLGSDALAALALIIPFIMMSFALADMIAI

GSAVQISMHLGLGKKNLARKIFSSSMLIIFIISCFIGILEYFLGPVLIDCLNVSDEIKTMTKECMFVFAL

FAPFTMLSFALDNYLRICGKTAYSMVMNVIIALSNIVLDYIFIVELGWGLFSAALATCLGLVLGGIFGIF

PFLFQNLELKISSLYMNLKIFKNILYNGSSEFFGNISGSLYSIFANFVLLKISDTQAVAAFSIVLYIDSF

IIMLIIAIGDAMQPALSYNYAKKDFSRIKAIIKVVFFAGGFLSLFSIVLILIFGENLITLFTKENNQEFK

TFAYTALMLFAFNYFFAWFNVLSGSFLTAFNKASFSLVLSLAQNLFIPLFFLLFLSCFMGLNGVWLSPFF

AEFCVLILAWIFLKRIFKDLSL

>AHK59496.1 aminodeoxychorismate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTIPFLSTINKANISTTKNTTIYKIFFFIRNFFLIFILGIFYYLTQPLKSNSVVFIPQGSISQIITYLKQ

NKYQMSNIDKYILFFLGHPQSGWINIGTKDLNRAEFLHKLTIAKAALQTITLIPGETSVIFLEQAAKQLG

LDKDILLKEFQAQAPYDEGVFLPETYKIPKGITENLLIQMLLNHAEISNKKTSEKIFGDYNPKKWHQYII

IASVIQKEAANDNEMPIVASVIYNRLKKGMKLQMDGTLNYGIYSHVKVTPQRIRQDNSSYNTYKFTGLPK

EAVCNVSLAAIRAAIFPLKTDYLYFVRDKNTGVHIFSTNIDDHNKAINLQKGK

>AHK59495.1 Na/Pi-cotransporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MISLVKFSDTAIEALRKESEHLYNNTYAVVAHAIGFSRKDIQSDKSFKEILENKKWFSKNVDLDYLYQTR

IKVLFEAIIDFSTKAQVYINDETKNHKIFTFKMAAKNLAETTKNLKIIQANIKKYSSSSNEFLALEYNKI

RSNLGELLRSIEELRVVEDREKLYLIIKNLQKGKEILKEIDTLTLSNVEHLISVRKITTAEGISILNDTT

FAAKIAEELIGAVEVIFSKDISN

>AHK59494.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLTGVIQSSTVIMAIIVAALLAQQISLENSLAATLGTSVGGVVTAVLASLSTNIEGKKLAFANCIFNFGI

AFLIVLIFPYFIHFLIFYPLR

>AHK59493.1 sodium:phosphate symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTNLGIGFKVFSGDLLEKILVKSTDTKIKSILFGTLSTLIMQFSILVSIVTISFLSAGLISLGAGIGIIF

GVNLGNTASSWLIVGLTNIKILMLAIPLLIIGVLFFFQKDSILKGLGNIFIGIGFFFLGVDYIKSGFENF

KHIIDLSRFDFAGFKGVFVF

>AHK59492.1 molecular chaperone ClpB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MANIQDFLTDNMLSNLESAASLAIHSKNNEVVPLHLLWALSVDSTSILNQILNKLNISKEALELEIKSRI

SKLATSSNVNRENIRFSNELINSLENAKGLMSANGDSYLSVDTWLISESQKSPIKEILAQFLDLREFQKE

LESLRAGRKMDSKTSDETLDSLNKFGIDLTLKASEGKLDPVIGREEEIERLMQILIRKTKNNPILLGEPG

VGKTAIVEALAQRIIKKDVPKSLQNKKVIALDMSALIAGAKYRGEFEDRLKAVVNEVIKSENIILFIDEI

HTIVGAGASEGSMDAANILKPALARGELHTIGATTLKEYRKYFEKDAALQRRFQPVNVGEPSVNEALAML

RGIKEKLEIHHNVTINDSALVAAAKLSKRYIADRFLPDKAIDLIDEAAAELKMQIESEPSSLRKVRKDIE

TLEVENEALKMENDEKNQKRLDEIAKELANLKEKQNALNSQFENEKSVFDGISAKKKEIDLLKNEASLAK

ARGEFQKAAELEYGKIPSLEKEVEILEDKWKKMSENGVLLKNQVDEDLVAGILSKWTGISVQKMLTSEKQ

KFLEVEKHLKESVIGQDKALSALARAIKRNKAGLNADNKPIGSFLFLGPTGVGKTQSAKALAKFLFDDEK

AMIRFDMSEFMEKHSVSRLLGAPPGYIGHEEGGELTEAVRRKPYSVLLFDEVEKAHKDVFNVLLGILDDG

RATDSKGVTVDFKNTIIILTSNIASNAIMNLSGKEQEDAVKNELKNFFKPEFLNRLDDIITFNPLGKDEA

YEIVKLLFKDLQMSLENKGIKASLSENAALLIAKDGFDPDFGARPLRRAIYDLIEDKLSDMILADELHEN

DSIIIDAKDDEIIIKKA

>AHK59491.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKILKYIFSFFTLLFITGFIYVAYLFTSADTEGYTFKEYKPPLTTQIYDRNGKLVANIFEQHRFYAPYEE

LPPRLIEALVAIEDTSFFEHNGVNIDAIFRAAVKIIKSGGKTMEGASTLTQQFIKNTELTPERTIARKIR

EALLAYKMETILTKEQILERYLNFIFFGHGYYGVKTAALGYFHKNLNELSLKEIAMLVGMPKAPSSYDPT

KHLDLSISRANNVISRMYNLGWISKADYDTAIKEIPQVYDDTLTQNAAPYVVDEVIKQLSPNIKDLKTGG

YKIILNIDLDVQNMAQNALKFGYDEIVKRDKDANLSTLNGAMVVVNHQSGDVLALVGGVDYEKSNYNRAT

QSMRQPGSSFKPFVYQVAINLGYSPMSEIADISRIFEGGAGNNEDWKPKNEGGKFLGLITLKEALTRSRN

LATINLALDMGLDVLYSKLMEFGFKDIPPNLSIVLGSFGISPLEYSKFYTMFGNYGTIKDPQIIRQVQDK

TGKTIMEFNSNERKVSDEAQSFLVLDMMRNVVEKGTGRNARVKDIEIAGKTGTTNKSVDAWFCGLTPEIE

AIIWYGNDNNKPMRYTEGGARTAAPVFREFLTQYIEKFPDTTRKFSIPNGVYRGNYKGESAYYTTKSPLP

KANMKFNESEIIF

>AHK59490.1 ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHGIGGVCEGIATGLFASVKANPNVITKNALGGGIFYQWKFRAFKRANSYYYDLYDFFSSHKLYYFLRSF

LVLQT

>AHK59489.1 ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNCFIAFGVITLQWVVLGFSFSFGKDEGLGLVGNFENFLLEGISGYNASGVSNILFMIFQMMFALIASAI

ITGSLVGRIKLGVLVIFLLFWSTLVYDVLAHMIWSSEGFLLKRGSLDFAGGGVVYISSGVAGLVGALIVG

ARKSDDEDKNAHSISYAFLGVILLFIGWLGFNAGSAGEMNDIAINAFIVSIISAACGFLSWVVLEGSSIK

TDYFRWA

>AHK59488.1 aldehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQEQGKTRVLASIEINFTADYMDYTAEWARRYEGEIIQSDRANEHIYLYKSAIGVIGGILPWNFPFFLIA

RKMAPALLTGNTIVIKPSSETPNNAFEFAKLVSQSSLPKGVFNLVAGKGSVVGYELSSNENIGMVSLTGS

VEAGTRVMEAAAKNIIKVSLELGGKAPAIVCKDADIDLAVEAIKASRICNNGQVCNCAERAYVHTSVYDE

FVDKFVKAMSKVSVGNTLKGDFDMGPLVNQAGVDNALAMLQRATAKGAIVECGGKITDTSGYYFPASVLT

NVKHEDEIMQKEIFAPILPIAKFDTLDEVIDMANDCEYGLTSSIYTQNLDIAMRASREIKFGETYINREN

FEAMQGFHAGFRKSGIGGADGKHGLEEYLATHVVYLQYNTNKQ

>AHK59487.1 aldehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTTYLNYIDGKFIPHNGEFIEVLNPATKEVISRVASASLEDTKRAIEAAKKAQKVWEAKPAIERANHLKE

IAS

>AHK59486.1 hypothetical protein N920\_02435 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQRYGQIIKIKKEKIEEYKELHTKPYEGVCEMIKECNIQNYSIYLFGEYLFAYFEYIGADFEADMAKMAR

DESTQKWWKVTDPCQISLGYAGQKWLNMEEVFHLD

>AHK59485.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKIFDAHLHLWDLEKIPISWIKDDEKLEQNYDFFRMKQEYKEFEFIGAMYVEVNSDDLEKEALFALEQK

KLHNLLFCLADFKHKEELSSFREVMHTSKKGAKRLFEADFEEKIEILKTFNIPFEACIKNEELGFLEKFL

SKNPNLKVVLNHLGSPKINRLNEYKKDLSFLKKFQNLYIKLSIPDGFSQETPKEFIFELFAFLKENFSEN

KFIFGSNYPVAKITPAKWAKLIIESKIFDDLDKIFYKNALLIYKGG

>AHK59484.1 major facilitator transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTDSKNIKIAIVLVTSLFFLWGVSYGLIDVMNKNFQNHLHISQHESGFLQFAYFGAYFIIALPAGYIANR

FSYKMGIIFGLALYAIGALLIIPATNLASFHLFLFAFFILACGIGSLETSANPYMTKLGDEKNASFRINA

AQSFNGLGQFVGPIIGGALFLSITKQEEGASKEQIQAALVANMGNVQLVYIGIAVIVILILIAFVANKLP

EGSAVSDDYKQKDDSKPIYVFKHRHFNLGLLAQFLYIANQVAAGAFFINYVVEHNEGLKDAQGAYYFSIA

LVAFMLGRIVSTPLMKIIKGEKILGFYSLINVLICFSLYFASGFFSIVLLIALFFFMSISFPTIFAVATK

NLPLNQVKLGGSLLVMSIVGGAIMPIIIGFINDHYGTGAGYLAMAPLFLYVAWYGFIGSKVRKNAKDF

>AHK59483.1 short-chain dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDLKIKNKVCIITGGAKGIGYGIAKLWASEGGIPVIFSRSMPKEHDKELKKLSSEYEFYEIDLKNYEQIE

KLVKKVAIKHGGIYALVNNAGTNDNLHIENTSTQDLIKSYENNLFHYYTMTKECLPYIKKEQGSILNIVS

KTGITGQGRTSAYASAKAAQMGFTREWACAFAKDNVRVNAIAPAEVMTPLYEKWLQNFPNPKEQYEKIAK

AIPLGHRFTTIEEIANTAVFTLSPLASHTTGQILMPDGGYVHLDRALNWDEN

>AHK59482.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKHANSIKLELVCKKISWRILPLIVLMFCLSMLDRTNISFVKSHIEIDAGIGEAAYALGAGIFFIGYAIF

EVPSNLFLHKLGAKIWLSRIMITWGLVTMAMIFIQGEISFYVLRFLLGLTEAGFSPGIILYLSYFFPAIY

RSKAYGIYQMGVPIAFVFGSLISGFILDYTPNIYFKNWQWMFLIEGGITVLVGIFCLFYLDSHPKDAKWL

DIKEKDILLKHIEISNTKAKDYSIKDIFKSILVWKFVFVYFCIQLSVYGVLFYLPSKIAQILQINVGFEV

GLLNAIPWIFVFIALPIFTSLADKKHSWNLHAILFLLLASLSMIASTFVTNLAAFLFFISLAAIGFIVIQ

PIFWNLPTQVLKGKGAAAAIALIGSLGNLGGFVAPTLKTYIENHFGVEFGLIVLALIAIL

>AHK59481.1 altronate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIMGYRREDGKFGLRNKVIIIPSVHCANKVCENIARKCNGAVYINHQHGCSQLEFDALQTRDVLIGHG

SNANVFGVLIIGLGCEVIQAKAVAEKIKEAMPYKKVEYLVIQECGGSKNTIENGIKIVNEMLESAAKLQK

SEGDFSDLILGTECGGSDSYSGLSANPTLGSLSDFVIDEGGAVILAETTELIGCEAILAKRAKNDEIAKK

VYDKILAYENLVKSFHADIRGANPSPGNMAGGLSTIEEKSLGCVYKAGTRTLMDVIDYAKPVVSKGLTFM

NTPGNDIEQLSAMVAGGANICVFTTGRGTPTGSAIVPTIKMSSNTFCYENMNDAIDINAGSIIDGVKTKE

EVRDELIELIVRISDGELVKAELNEQNDFSAWRLATTC

>AHK59480.1 altronate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKGYIIVNEKDNVATALRDFKKGEKVANIELLNDIASGHKFALKDIKKDEIIIKYAEAIASASCDISTGE

WVHIHNTAGIRGRGDKE

>AHK59479.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGILKGTLPALLTPYKDDGSINEKEFIRYCEFGISKGLNGLFCNGSAGDSQALSVEEQVKLMKLTKKATK

NNIPIITGITSTIYENTFILAQKAYELGLDALLLAMPYYYKLSEDALFEYVKYLASEVKLPLYVYNIPLF

APALSLKFIEKVSKLDNVVGIKDSSGDALLLNHILDVVPSNFDVFVGREEFYVGALLAGVKGSMTSIGGV

FPELMSEIYKSINEKNIGRALLIQKSLLKAIRFGMSIAFPMGFALLLKARGFEFVNASIHPLSPATKEEL

NTRFDEAKELIKTIEKETGIKL

>AHK59478.1 ArsR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHQPTLRVLNILELLAKEKLTLSAIAKKLNIPAGTLWPILQTLQEKKYIKCDLKNKSYYLDFKIIELGCN

IKNENNIFEIIKKHMKNIRNLTNQTCQMGILKDGNVLYLEKIDANNTVQLKSFIGTSYPAYATSLGKALL

SNKNKKELEKLYPKNFDKITENTLNNINELYQQIKQIKKEKIAIEIGEMNPQIECMAIGIEHKNKIIAAI

SISYLIYCSNKAFREKNKKILLEEKNKIEKVLKIYFNDLDTLY

>AHK59477.1 group III hemoglobin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFETINQESIAKLMEIFYEKVRKDKDLGPIFNNAIGTSDEEWKEHKAKIGNFWAGMLLGEGDYNGQPLK

KHLDLPPFPQEFFEIWLKLFEESLNIVYNEEMKNVILQRAQMIASHFQNMLYKYGGH

>AHK59476.1 3-ketoacyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRLYFSLFAFFIRNLLRLQFLKLNLLRIDNEI

>AHK59475.1 hypothetical protein N920\_02080 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFKKVILFFLMGFALLQANSLDKCDNTAVVSNLKEKIPSEIFKNLYELSGLKAQGIDYEDYAKGLKEIAK

HDGMVNYTDMIEVNSISNFDLNFDSCMATINAALKGEQRKGLWSVVYKVSNINQVKITDITYINGDFQ

>AHK59474.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKFLSICSLIAMLLSGCGSDFPGQPSDVARVQQNKYPNGNLKKEIPYNKDSRIHGLKRAFYDNGQLRAE

ENYKNGKKDGISREYSRNGQLLEEVHFKDNRGYGDFASYYENGNMRAKGKLLGYNEDGMPEFEGNYKEYY

ENGTLMCDYNFDNKGKFDGVQKRYDENGALEDEENYKNGLKNGVFREYKKGEIVREEEYKNGILVAKPKN

>AHK59473.1 hypothetical protein N920\_02040 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNILHANSSHRFHKCMPKEVHQIYDTLKLMEQQEGTKKSRSQKRRAK

>AHK59472.1 hypothetical protein N920\_02035 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MITLSSFNRYFGNNPLQTLTKIRDESIENAKI

>AHK59471.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENQKNEFDDIILEKSNKSEKVKKILLRVIALVILFLAIMIVMKLINGSGDENTQNQSVLPSEPIATQDN

NNDTSFESMPITDNTSAEDQFEALRKQFQDEQNTTQNTTTSSSNNNDTTNFAMPDQEVPAEPTATTSANT

TPQASTPKQEVTQTAKSKEEAKKQTAVKKEKESAKQTPKKEQNANDLFKNVDAKPVHPSGLASGIYVQIF

SVSNLDQKSKELASVKQKGYDYKLYKTTVGSKEITKVLIGPFEKADIAAELAKIRKDIAKDAFSFTLK

>AHK59470.1 hypothetical protein N920\_01855 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNYQQLECDYFNLYNQFLSVDFQISLFEKDHKGLIKDFIFFYYQILKQKDLSYLLEVRNKISLKVYNYMQ

EHSTSPKDLSLICLRENKHIEFFQIFYKALAYFVAFRKKLDGEQKIKNLISNINDCFGYHFLNSDFNNLQ

NFQKSDLFTLPEKHLKYFHFAMIHLCFMVLNPLNFKDSNRHLDKAINYLVDGTFEIYELIFKEYFLLFSK

DKELKDELRKLKKLEFKILMQETSKIKLLNHYKEFCEEIFYNIELEKITQN

>AHK59469.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKLKNFLILKNIEDTQIYKELKCAKNEALILRELCRNYVVSISSINAFTLLSTIFGNDKYLYLDALEDL

KKLIERGFVNQNSSFFKSLENNKTQTLTLALLQSELSLSEYFLEFLEAKPRLNFEKQEAYADYLEYLKDE

FARIQLYERLSFIQKSAYNSEIKNQIKLYERHIKERLKKSKFYNVLADIFKEYNLEHKEQIIFLALLKEE

YALSNESSISREMNSLLSLISENDLERHKNKKLLQENAPLLNLIECDEYLNAFGDISKSFFIIDEILQRI

INFEPKQSKKIKIESVLKDQDIFELIEPSTDINDIIMPENTKELLENILKQQDKKVLERLHSWGIKSNKN

IEAKIIFYGPAGTGKTMSALAMAKSMKKSVLSFDCSKILSKWVGESEQNVRKIFDTYKNIVQTCKQSPIL

LLNEADQFLSTRVDGSSGSDKMHNQMQNIFLEQIERFSGVIIATTNFLESLDSAFSRRFDYKIEFKKPDF

KDRLKIWEKFLPKKALFEKDFDINILSNYELSGAQILMVVKNTALKVAVSKDGVFKIQDFIESIQKELNS

SFDKSKIVGF

>AHK59468.1 hypothetical protein N920\_01750 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQTFLAKFKDNYNKAKIKKFKQALKLELVWNLIVQV

>AHK59467.1 hypothetical protein N920\_01675 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFQNIIKYKDFIIFILNLKQNLYLLIKINLDFKNFHKSLNF

>AHK59466.1 hypothetical protein N920\_01650 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTNQQIDGIADKNFNTPEGRKVFKKAVFSCWLGTAMEYADFALYGLAAATIFSEVFFPEQTPVIALLLSF

VTYGIGFIARPIGALFFGHLGDKHGRKNVMMATIALMGISTTLIGFIPSYAVIGVWAPICLVALRFMQGF

GAGAELSGGTVMLAEYAPSKRRGLVSSVIALGSNSGTLLASFVWLLMVQMDEASFKEWGWRVPFMGSILI

ALFAVYIRFHVKETPVFEKQKNEMMKLRLNNEKHMKKDERSFWQRSRAFWTMVGLRIGENGPSYLAQGFI

VGYVTKILLLDKSVATTAVMIASLVGFLVIPLAGYLSDKFGRCITYRMFCLLLMIYAFPAFMLLDSKNEI

IVILTIIVGMSLASLGIFGVQAAWGVELFGVKNRYTKMAFAKELGSILSGGTAPMVASALLAYYGSWWPI

ATYFVLTAGIGFVTTFFAPETRGRDLNKIEDAI

>AHK59465.1 beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKITLFLLFLNLVFGQDKILNNWFKEYNTSGTFVFYDGKTWASNDFSRAMETFSPASTFKIFNALIALD

SGVIKTKKEIFYHYRGEKVFLSSWAQDMNLSSAIKYSNVLAFKEVARRIGIKTMQEYLNKLHYGNAKISK

IDTFWLDNSLKISAKEQAILLFRLSQNSLPFSQEAMNSVKEMIYLKNMENLELFGKTGFNDEQKIAWIVG

FVYLKDENKYKAFALNLDIDKFEDLYKREKILEKYLDELVKKVKNDG

>AHK59464.1 3-methyl-2-oxobutanoate hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRKSMISFLEKKAKNEKITMVSAYDYHSARILDNSDIDIILVGDSLAMTVLGMQDTLSVTMDEMLIFTKA

VSRGAKKSFVLADMPFMSYQSSDRDAILNASRFIKESHANGVKVEGGIEIASKIKLISQSGIPVVAHLGL

TPQAVNMLGGYRVQGKDLQSAQKIIDDAKAVQDAGACMLVLECVPVKLAQKISSILEIPTIGIGSGKYCD

GQVLVYHDLLGLNKDFKAKFVKHFDKIDPQVGVEKYRDEVKSGIFPSQEHSFDYLDDELLDKLY

>AHK59463.1 pantoate--beta-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQVITSVKEAKQIVKDWKSHQLSIGYVPTMGFLHDGHLSLVKHAKTQDKVIVSIFVNPMQFGPNEDFSSY

PRDLERDIKMCQDNGVDMVFIPDATQMYLKNFSTYVDMNTITDKLCGAKRPGHFRGVCTVLTKFFNILNP

DIVYMGQKDAQQCVVVRHMVDDLNFDLKIQICPIIREEDGLAKSSRNVYLSKEERKASLAISQSIFLAEK

LVREGEKNTSKIIQAMKDILEKEKLIKIDYIELVDFNTMENIENITDNVLGAVAAFVGKTRLIDNFLVQG

LK

>AHK59462.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLRKADIKDLNACLSLFEQSVKTLCAKDYTKDQICAWIKIDRQQWEEKFKYDEIFVYEKRGKIASFISVK

QEQKLLDLLFTHPDFVRQGLAQNLLDFILKTYLHNEIYTFASLSAKDFFLKNGFELIRENKVIKEGQNLK

KILMKKDVIYKN

>AHK59461.1 glycerol-3-phosphate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRTWSLSGVFIGYMGYYLVRNNITLSTPFIQNQLNLSKSDIGTITGSMLIAYGISKGAMSVISDKADPKK

SWL

>AHK59460.1 hypothetical protein N920\_01410 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MALGLILCALVNVLLGFSNSFYAYVGFVIALGVFQGMGVGPSFITLANWYPKKERGIYTAVWNISHNIGG

GIVAPIVSLSGFALAALLGVSMANFNETYWHMNHFYTPAACAVIISLYALYAVKGNPKNEGLVDITEINE

MRGIKTEEIKAIETPNLSSFEIFYHYVLKNKNAWYVAWMDTFVYMVRFGLISWLPIYLLETKGFNKEQIG

IAFWLFEWAAIPSTLLAGYISDKIFKGYRMPPAIGAMVIIFFMIIGYFTSNNLYMVIFFAAMAGCLVYIP

QFLASMQTMEVVPAFAVGSCVGLHGFMSYVVGASLGTKA

>AHK59459.1 hypothetical protein N920\_01405 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLINSYNVTKILLKSNFCLVFLQAKVKIVIDASF

>AHK59458.1 ipid-A-disaccharide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTFLVCALEPSANLHLKEVLKAYKKDFGEFELHGIYDESLCKEFDLNSKPLYSSHEFSAMGFIEVLPLI

FKAKKAIKELANLSFTQKINGILCIDSPAFNIPFAKALKKAGSKIPRIYYILPQVWAWKKGRIPIIESHF

DILASILPFDNQFFNKSTYIGHPLLDEIKEFKNQEDINHTFSKKDDEKTIAFLPGSRRSEIRRLMPIFKE

LSQKFKGKKILCVPSFNLEKLEVYGDISEFKIESNTPKVLKKADFAFICSGTATLEAALVGTPFVLAYKA

KAIDIFIAKLFVKLKHIGLANIFCDFAGKEALNPEFLQDKVNVLNLYEAYNKYDYKAFFAKVDFLKEYLQ

FGSAKNLAKILNEI

>AHK59457.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIFISFVVLATCLWAKNTAYTDEVVSLYLNKDDTKVIGRLLPTNPFEVLKSENNRVLLKIDGYVNPKA

PSVIYFNDSQRIIVAAFSKNTKLNFSQRITGKNGKWDKVSLEIWADKKEFVKDNKEMLNRAKELFVNNCG

ICHAIHKEKEFTANAWPAIFRSMADRTGIDKKDRWLVIEYLQKNAKDFKTK

>AHK59456.1 trimethylamine N-oxide reductase I catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLDRRKFLKIGASLSALPLIPSLSAGKTVEASKVSLGLVKNGEVITAAHWGILKLTIKDGKIVKSEPWEK

VTKMDNPLQHYTADMVYKSRVKYPYVRKSYLENPDNPKPELRGKDEFVRVSYDEAIKLIAKELKKTRDSK

GASAIFGGSYGWKSSGNMQNSRILLHRFLNVTGGFVGATGDYSTGASQVIMPYVVGSIEVYEQQTSWENI

LSDSKYVVIWGADPLSTLRIAWTSNEQRGLAYFEKLKDSKIKVICIDPVKTTTAKFLNAKWIAPRPNTDV

ALMMGMASHLIAKKKVNYEFLDTYTTGFDKFKDYLEGKEDGVKKDTKWASKICGIDEKTIKNLAETFYDN

STMIMSGWGMQRAHHGEQPHWMLVTLCAMLGQIGTKGGGFGLSYHYSNGGVPTCKGGVIGGMTAGSLGIW

KNGKFKGLSKAEASSEGAEWLQNAASYSFPVARIADALLHPGKTIDHNGAKITYPDIDFIYWVGGNPLVH

HQNTNTNVKAWRKPRTVVVNEIYWTPTAKMADIVMPVTSSYERDDITMTGDYSNMHIAPMKQAVEPVGES

KDDYVIFSDICKIYGKDVFNAYTENGKKAKDFIKEYYNSALKQTQSFGEAFATPMPSFEEFWAKNEPITF

EPTAESLEWTRFSEFIEDPILNALGTDSGLIEIYSETIKNYNYDDCKAHPTWFEPIEWLGNASKEAPFHL

LTNHPRDRLHSQLCHTSLRDTYAIKDREPILINSKDAKKLGIKNGDVVRVFNKRGEVLAGAVVSDEIMQG

VVRLCEGAWYDPNENGLCKCGNANVLTMDIPTSKLANGNISHTGLVNIEKFKGELPKLTAFSAPKGAN

>AHK59455.1 hypothetical protein N920\_01260 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVKNLIIKFGRLILDAIAVISFVVALLYSLFMMFSIGFLAGLLSLIVSFIALFLSFFCNLSCYRYQRCSC

K

>AHK59454.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAYEDEEDLNYDDYENEDEEYPQNHHKNYNYDDDDYEYDDDNNDDDFYEMD

>AHK59453.1 chemotaxis sensory transducer [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MILFSEDMIENLCTNKIKLFSDIKDYTERKKLIEKEVLFINIPFEAHCINTLYYLIYDGLSQSESSLLEL

LYKHNPYPCALVGGGSSGNMDFSGAFIFYNGEILKNQALSIHVQFKPKYRFNLMKSQNFNPQSNITFTIL

DVSLYDKTVRELINKKPFRLKLYVIILTALLKNLKIKCKNILLL

>AHK59452.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQEYTFALKIGEDYLISPMEINPNKTLFSYCDIESAQELSLLKKTNFIEAIKKDYEKFSLNKPKPLGAIF

NDCILRRLHNKEHLNQIHFNDFPIVGFSSFGEIYGVGIAKSLVAIFFYEVENFNDFKPRYLKTFIQKYSD

FKYYYLNIRAQKLEMTNEINKIILNQLKQNTSEIDKNTSIFKEIFEELENIRRSLTTISESFTNFTNYLE

YNLYQSEEKMNLEKEVQSSLKNIDQLNSILDLISGIAEQTILLSLNAGIEAARAGKLGRGFAVVADEVRK

LSENTQMGLGEMEGAIKLVIQTIQSIAKSSNSSTQEMNFIRDKTNEFSKIISNLINSGKEISDKLEQRSN

VSEDFEKNVNQLKCYEDVLAKLNQY

>AHK59451.1 serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFINLGNDYKLNDKTRFNFEFEKTFFGDLNVDWSANANLRYSF

>AHK59450.1 hypothetical protein N920\_01075 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYADPIKAGDQILEDQASQRRYEGKKIKECL

>AHK59449.1 pathogenicity protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHKRMGELRNNPYESGVWLRTFGWGTSDEYNSGKYFEIQSGHDKLNEYSNFELYSGVRFL

>AHK59448.1 hypothetical protein N920\_01065 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSNLQVEKSAIYRKVDAKKLSANNTIFKINADFENSKSDYINSKESTQGVNNTLVLIFLNNPSKKRV

>AHK59447.1 boa domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSANTDKALIFDGNIYNKEGVFRTENAKLNFQGHARIHAYVSKEQAKKLQEHGLSALTKPVSFTQEDWED

RVFVLKELNLEKKRVLFRA

>AHK59446.1 hypothetical protein N920\_01055 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKPKKMIFFNKMGEGELVVKSQSVDTGLRMGEDQGKS

>AHK59445.1 hypothetical protein N920\_01050 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYFSQNGSINLNSDVDLGASVLNLIKIQIGK

>AHK59444.1 hypothetical protein N920\_01045 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKDGKKIENVSLISKTNVGYVSYKNSFDDKIIVIRELKKCKIARICIFLKMEV

>AHK59443.1 hypothetical protein N920\_01040 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKFKSQFDLLEICLYYWQNQDILENNFGSIAEAKR

>AHK59442.1 citrate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEIFLALLGFFSLGLIVWLLLKDYTTPALAFISVSISVACILLILERLGFGVGVALGVKGGVFDIKTLVV

FIKDGVKSVTDTAALFVFSILFFSVLNASGFFTKILNAFLSKMKANVYQVCILTVFIAAAVHLDGSGAST

FLIVIPALLPIYERLGIRKTSMLLIITSAMGVMNVIPWGGPTLRAATNIGMDANLLWHHIIPIQIVGLVL

SLLLAIWIAKIEIKRGAGAGNLSGINLNIEKSEHHNEKWFWLNLLVAIGVIGLLISGIIPSYICFMIGLA

IILPLNYPNLKTAKKVLDRASAGAMLMYITLIGAGILIGVFDKSGIMEKMGVLILNFVPDYLGAYIPLMV

GILAVPMAIIFCTDSYFYGVMPIVLSVTKAFGAEPLTIAIIMVIARNCATFISPVVPATLLGCGLAEVNI

KDHIKRSFFYIWGISIICLIFAEVAGII

>AHK59441.1 hypothetical protein N920\_01005 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAYGSSNPEDLAKNFTKDLYSGDTKSVMSYIDLSEAKSDEEKTFVSDKITQVVAENAAKAKRMGGVKDIQ

IEEKTINKDSAKIRVLVLFNNDNNQSSNVFLAKKDRKWLVLLK

>AHK59440.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFFLLKKIENGLFYLNKILYFFLILFLLIGILGFFINSNPSNQIIKKPYLPFLEIGDLVFRAGIGSESFL

IENLSQSPYSHIAMVVKTSPTILIHATTDDDKNAKNQVILSSMDDFLKLSHKIAIKRLKFDEKTKQKIVA

KDLEHLGRKFIISTDKDAFYCTTFLEQSINSITPFHLQYTLIKAPFNEGLYLFPQTFFENNQSVLIYESQ

NF

>AHK59439.1 PhnA domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKDANGIELNAGDSVSIIKDLKVKGASTTLKRGTTIKNIKLTSKEGEIEARVDKFGVIVLKTEFLKKI

>AHK59438.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDPSQVLDLNQTSTASFDAGYSILMVVVALALVFLNGFFVLSEFSIVKVRRSKLEEMVKEKKAGAKKALE

VTSRLDTYLSACQLGITLSSLALGWIGEPAIAKMLEIPLINLGFSTVIIHTMAFIIAFSIITLLHVVLGE

LVPKSIAIAVADKAVLFIARPLHWFWMLFLPCIKIFDFLAAISLKLFGIKPAKESELTHSEEEIKIIASE

SQKGGVLDEFETEIIRNAVDFSDTVAKEIMTPRKDMICLNKQKSYEENMQIICEHKHTRFPYIDGSKDTI

LGMIHIRDIIQNELNHKSQNLDTFVKPLILVPENISISKVLVMMNKERSHTALVVDEYGGTAGILTMEDI

MEEIIGEIKSEHEEDSYKKLAENIYEFQGRCDIETVEEMLVINYDEDLEQVTIGGYVFNLLGRLPMVGDR

IEDELCYYEVKKMDGNSIERVKVVKKTNKDEE

>AHK59437.1 biopolymer transporter TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKSSVIFGFVLSLILHTLVLMFFLFSFYTQEKSSGVDFKQGAEFTSIMMVSEFPIGELKEVSIDQKKSNS

QDKNKKQDERISFNSQDKNAVLKVQKKIEKQDENQAQKEIANASENSKFKNESLSAPLQSNKDKTQTIVS

GNAKEQVKSYQALLMAHLTKFKKYPQEAIMQKQEGVVRIRVSIDESGNVLSKELKKSCPYAALNDEALSL

FKRASPLPKPPKEMLKNGDKISFVMPIDYNIKDYLGKK

>AHK59436.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKTEMAHKEEELSEINITPFIDIMLVLLIVFMAVTPLITSSIKIELPKSSQQAEDKLKNPIILYLNTDN

TLAINDDKLSLENLSSALDIKTKGNKEEIIYFHIDKSVKYEDIMQVMQKLKENGYGKIALSSKKMD

>AHK59435.1 TonB-denpendent receptor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKLSLFCAVGLCFASFAFSEELEFDSLEISGSKIKNDEKPFVTPGATSTREGIGSDTQSIDSIVRSIPG

TYTNTDQAQGTVQVNIRGMSGFGRVNTMIDGVTQTFYGSASDDPARFHSQTGTSAFGAVIDTNFLIGVDV

TRGTFEGVGGANALMGSANFKTIGINDIVHDGNIFGFLGRFSYGSNGIGPSYMSAVAGKTELENNGYVGA

LFGYSAKRITQNYTVGGGGKIGSSMVDTDGDGIADTNIAPFDPDFLTQKPNSQLFKLEYVPNSFTNTIFS

YRRYQNELAGRKIHNDNYQLDFWHNPNEWLNVNTLIAYNQGIQTYGSKSTFAANDAIANTKAKNTATTFD

ISDTLEGEWHRFNLNIRFGANILLNDYKNTLNTSIQGVNSIPFQPRGKQNLFTYYLDNSLNYGIFTLDTN

VNLLDWNIKGHRPACDEVNFMCFPKAATDIDKNGLRLNASVMLSAAIHELITPFVSFARTNRAPNVQEMF

FSNNEGNGINSFLKPEQANTWQIGFNSFKHGLLKDDDRFGFKAVYYHTKIKDYIYNEQFYLEDPSKDPPS

SQFYMHLNSADDTIFKGVELELSYDLGFAYAKAMYSRQDTSSTISQTSGPLLGSFSASKIMELPKDYANV

ELGFRLNDKISFGGIAKYTGKAKRVNPNTDDWNKDPNNPYYPKPTTQDLPKIPIIVDLYWNIEWFKNLTM

RAEVQNLFDKNYMDALNAYNSLDNQLQYNGAGDPIYLFSNSARGRTFIVSFEYKY

>AHK59434.1 iron transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFYTILSILFISFMLSACAVLQKSSPLQENKDFYILDTHTQKKISFEDMILELLKADVILLGEKHDEVK

HKISQVMIFNALEGNLSSQNINFDVALEMLASTEQNHLDKAFKNKKTIKANELTNALNWDKVWKWKDYEQ

FVNVVFYSKSKILGANLSRSEITSIYNGAQPLKGYVSTTNEVKKQLFDIISLSHKLNPEENKELLDKLVE

IQQFKDRRMADVLVHHVNKVLLLAGSYHTSKKIGIPLHIQDFKSSKKIVVVNLSYGEIDLKDSDYVLIYK

GEE

>AHK59433.1 hypothetical protein N920\_00850 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDFIFANQSLYYLTKQAFKEAVQEFYELCNEGAIIFATMMSDKGYSMYERGELMDNSLREVKGCPSGRLS

GSSYIRFTKDIEELKEDFKPFKPLFWGDYELINLYNFEGSVEHFIYIGQK

>AHK59432.1 hypothetical protein N920\_00845 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDNSLSAYTQKYDKEGYGLQYPDGHVIRFYERILKYKLSKTSGKLLDFGCGNGVHSKYFKNITGGGYRAL

WH

>AHK59431.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKSVKLKVSLIANLIAVVCLIILGVVTFIFVKQAIFHEVVNAEINYVKTAKNSIESFKARNSLALESLAK

SILKHPIEQLDSQDALMHYVGKDLKNFRDAGRFLAVYIAQPNGELVVSDPDSDAKNLDFGTYGKADNYDA

RTREYYIEAVKTNKLYITPSYIDVTTNLPCFTYSIPLYKDGKFIGVLAVDILAADLQAEFENLPGRTFVF

DEENKVFVSTDKALLQKGYDISAIANLAKTKEDLEPFEYTRPKDGNERFAVCTKVSGIYTACVGEPIEQI

EAPVYKIAFIQTAIVIFTSIISVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFG

QISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARV

GSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLT

TSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAG

EHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNV

EIANESAIISSTVSDIANNILEDVKKKRF

>AHK59430.1 mcrBC 5-methylcytosine restriction system component [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNSIFSIIEHQAFSKEDLKEIFKEKAEGFYKELEDFAKNNENLLGFKNKNSLKAKNYVGIIQTKSGVLEI

LPKCTNLDSYKKEDSSSNHDKEKLRRCYELDNISKNNDFYEKDFKFNPKNLLINMLKTLKNSPFKKSQIS

SLQSSKIPLFEVFITMFLDEFDSVYKKGLMRSYLSCEENRAFLKGKLLFNEHIKQNLIHKERFFTSNDEF

VLDIAPNRLIKSTLNFLKSKTSLNKFRLIKAMQMLDEVEFSKNYEKDFSYKISRHFDYYENLLLWCKIFL

KNESFMPYHGKNEAFALLFPMEKIFEDYVAYMLKKVNSTQDIKVQNNGKYLISKNDENCFMLKPDLYIKN

KMILDTKWKIPNDSEDEKKQGIAQSDLYQMFAYACKFKIYDIKLVYPLCEKTQDLQRKIAEKFFVFKASE

HLYFKEQGQKDIKVQVFFAPLPF

>AHK59429.1 endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MWNLDEKKLQEMLDGFLNFQEVWTLEKVKNMTLEEYTNIKKDNPNRDDFTFWIESKLDNLGSIWGGSAFK

FGIYRRNDESQKESSSGRLYSQNYAWIAKYGNNENEAFNNIKEKIIQIIQASQDNNLKTIEKIDFGDAIK

WKIAFHYQDVKNIKIVNIFSKNVLDLISLNEFKEKLKIYQIHKKLLENKNLSLVKMIENIAIPLWNKYGM

DSQNYIDKMKNLFSEYLNKKKLDKNTINKYIQVIENISKEFLKENLYSCDLFSFDQNINKLNKNEEFKLK

NSNGHNMYSSALNYYRAFLIDYYEQDIFITERVQSEESNMKIIPLNQILYGPPGTGKTYHTIDKALEILG

ENLESRDEKKAKFDEYVRKGQIVFTTFHQSYGYEEFVEGIKPIIDNDENSQEVKYDVKDGIFKELCDKSL

KNYILSMQNENEIDLDKLIFEFANYINQDFLNKGNEFPLENKVSIKKILLNFKDEYRSFSLGGSIKSPQS

LTIDIIKRDYLNFKNKKILSFKDIKPKYDSQSDYHGNAIYYFMFYNKLKEFENIQNEKFKIKKEILKSYI

IIIDEINRGNVSKIFGELITLIEPSKRIGEKEELKVTLPYSGEKFGVPKNVYIIGTMNTADRSITSLDTA

LRRRFEFVEMMPDVSKLSMDCEGINLQELLKAINTRIEYLLDREKTIGHAFFVSVENLEDLKKVFQNKII

PLLQEYFYNDYALINAVLNDNDMIFEDKKDDKYLQKIKNLDSVNSERSIYNIASFDDKIWDKIEIYQAIY

NDEIANKLKNENE

>AHK59428.1 hypothetical protein N920\_00605 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIVFPLSSFNRYFGNNPLQTLTKIRDESIENGNPELTKKQREELGNDLIDLYKISKKFSDKIELVEGSIE

DKLRNNELPESEVKNLFQWMDENAKHPRWMHIDGVSYDEAYVKIFHTSKSIDEFKEKYLELQKKYFVDFN

NIDSSQKKLQETSEEDKKAFKPIQVESKSETYKDDNKMNELLRKLLETKFGTSDELEILFGMNFSNDNAG

EFNKILSQNTSAKIIDIKA

>AHK59427.1 hypothetical protein N920\_00455 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILFIGSLVMASLLYAQGSQPVEITQQDINTQNEMSDASTKDITPKSIEDFFEEFADNFGIEYGITKD

GKTFYTGKSTVAVNDTDPQFAQALQNAYQKAMLNLQSEFIRDAFGRIATSKIQNYEADNSTNAKEFDELP

KGDKVDQILNKLTQLAGAQLDKALKDLGIDTNSLSEDRKKTLLKQEFLNKTMTNAIGSMSGLVPVQTIVT

QRRGEYDVGVVAVISNKTRQLAKDMALARQSAIKGKGKAISEYLPKDTKGFLNEYGIRLVYDENGAPIIL

SYGNWGYVADPSNAKKTNILEDRAKETALTMADAAIIEFINTNLSLKDERTTGDTYEEIIKQSINVNDSS

TQEQTQNITNIIDKVNSKIKASASGKIRGIRTLKKWSYTSENGIEHVGAVRFYSYENLANTNEALNSKSN

ATKNEAKKSSSIQRSSNVVNSMDDF

>AHK59426.1 hypothetical protein N920\_00415 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLHALFLLAWPLVIYLSYKFIMLNINQLEKDSKL

>AHK59425.1 2-amino-4-hydroxy-6-hydroxymethyldihydropteridine pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKIQGVKHFEKSRFFPFFSQNIRSFKYLALIGLGSNIEPEKKRFDMLFRVMMDDKRFKILSTSPMLINE

AFGFKEQKDFTNAVMLIQTNLHARALLKVLLYYEVKFKRKRTFKNAPRTLDLDLLYFSQKVKRDKWCEVP

HKGAKERVSVILPLGMI

>AHK59424.1 hypothetical protein N920\_00300 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKILKILLFLPILALSTKAEWVVKSYQEIKNERVIRQTYEQSCGASSLATLLNILDDQKKFDELELLKI

MSGQELYTDMVSFADLNDAVKKLGFQSNSYQINRENLDKLVNIPMLVKIEDDPRFPHFVIIINHKGNYLQ

VLDPSHGEYISSKSQFFSIWDRYNKGGYALIVAPKKELKPFKLNTPKSLHFDFSPFSLF

>AHK59423.1 hypothetical protein N920\_00295 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIFLTFMVLVNCVFASDELNIDSLFKKQIGLRSITSFSLLSTGNANSYSLYPNITIGGDPTIWNDTKQ

VFLTQTFIYTLTPKFDILISGGGSYARQEYTNFFTNAYSHKDRIGFDNLWLGFIYTGDSIADLIPQITFQ

TAVVQREKAINQTKNFYLKSQSLQASLRGYSDPVVYSIYTGFGYNQSRKFKTLKIEYGNSIYVGGDLSII

LSPKITLDLGAEQRFQMKQKINGYQNSEVRSIPTLSLGSTYSINSDTAVSVNASFGGSSASPDSIFGISL

WKKF

>AHK59422.1 hypothetical protein N920\_00290 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEVKGGYITYLKRLSDNEVIAFAKPDWNLELTLFQDSNGDQYYWNREGLVRFGGMCGIETTNCLVNSKH

SYINQKRLWETMSIVGDDPYRNFLGYTVKRNIGISNLGKRFVYFSYGVAVINEQSGSWYRVKSSPVFE

>AHK59421.1 hypothetical protein N920\_00285 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINSLNSNLNYDYNTSNFKQDKNIDFKINKHGVAVITGEGALPYRGKKFEYNPKIFGLDESISKKDMQEF

NNFMKSNALKDPNKIEKSPLKDFNPAYTKWDPTTEKMMLGFFVSYSKMFHLGYDIIKKADEFYKEFDALI

SKDLSLNEFKTKYIDFKQRYDEFVKEYEMAMGDKMLLSSDDEIITQQSEKPFKAIQGESKNKETYKDDST

RNELVKKLLEGKFSTSKELELLFGMKFSDDDAGEFNKILSLNSTPKSIDIKA

>AHK59420.1 2-oxoglutarate translocator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFFIVQLALGAPPLFYAFIMIASGNVMMALTHYAIGTAPVIFGTGCVTLKKWWSTGFVISIVDIVVMIAV

GLFWWKILGFY

>AHK59419.1 2-oxoglutarate translocator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MALLGLSLVLISGVLTFGEVLAEKAAWNTLVWFSALVMMATLLGKLGVTQFLAEA

>AHK59418.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFLPGIAVMLLMPLMLYFLSPLEIKSTPNASTFAKDKLKELVKMKNSEKIILSVFVSLLLLWAGALGLFF

WNFS

>AHK59417.1 anion transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFITATAPNPLVVDLIAQATNLEVHLTWGGGNRL

>AHK59416.1 anion transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MISIIVARGVIKTGLGEHLAYHFISILGKKT

>AHK59415.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVKWSRDFSIKNMQLDKQHELIFEITNLANDLALNIQDNNTQHKNDLKQILVKLFQYIKIHFKDEEKFM

ESIDFPLIEEHKKSHQILVEKTKELLEHSNDIVKMSQELSILTKDWILDHFANEDLWIANFTKKTLHLQE

IHYTLEQYIKLKSIKQDLRAEKTYDYICNCSLRIHAVPQTIHQELVSKENTLKCEKCGQILVHLDYFDLN

QNFEKFNAIFEDALQNHHFTTQENDMRGGG

>AHK59414.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEELTKEQRQIIEEEIKKEIKKANTFLKPELINKIIQDIIGDIKGKINNKFKCPKNLEEILSSIPQKVYV

SLGKEEIKQILKLDFCCFVDNVFYIDSAPKIEPYEHNQNKTAIEEQRIIQCSYDDLLYLFKTYPLIFNHC

IFDYKIDKKTPIEQIKKLSFLNCNFKKEVYLNFQECLDSFQMDNCVFEDRVTIKGKFNDNVYFNNSIFKN

YADFHECEFEKTANFYGVRFNKTPNFSQAIFRGNLNAVNANLNFTFDDLQERIKQEYEDFNKNIENKKSL

DKFANDFRDSFRTFKNALIKDNNLLDASNFHKYELYCKEIELKQNWDKRGENVKNTTDLEKNVSRIRDFM

DFLLLGFYRKLCDHHTDFLKVFNNLILLIALYALFVFGFTWLHDDKLEDTRAILTLFGFFDKFRLYFDII

STIFVVFGCGFFVCKLDSYEKKNNVSKKQNINFIYIIGDFLNLIKSLLFASFIPCVFYVLFSLFGFFLNL

GKDFGYSLLINTLFVSLYICLVYTKSLFFGRYVVLIFSYIVFIIMLIKQPNVIHPLIGKIANESDKFFNY

PSLIVLNILYTILLALVLFSLQKTARKNSIVPS

>AHK59413.1 hypothetical protein N920\_00175 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKFIERLLEEDIKFEKDVNNGLSDINIFDALNIETKENYHSKFIAYLIDINKDHYQKNFAKVFLEKLGK

SLVNTKFENLNIEDIKSVETEACIKDNRRIDILITLSDKRYIIIENKIYAKDQKNQLKDYINFVRKNIKN

IKDCYKNILTIYLHQDECASPSDYSLGNFTIKTNLIKDKNENNVSYYLKMDYMWIKEWIDECIKIYEEKS

TKDQKFILDIQNIIFTLNQYKSILQWYIADEYTQRDDVLEFIFQDIIKMQNLKNAMILYRYNKNKSELKN

LNEEKYKKAKDIIQHKWSNICEYIIEEFFDSFEHKEIKIGDITFIGNKIEENRVNHGVFIFYPVDYKNES

IYPCIYIYFKKKYYDIIGLTFEISNDDEEDIENEKYKECLKLFKDVKEENVRKYQNHYYCDKLINNEKLE

GEYAFIYWLIENQNSKKDFIQILNDFFIKKPIQEAYKGINDILNS

>AHK59412.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKYFQKRYTLAFFIGILAGIFGAIVKWGWEVPFPPRNPNVFWPADALERVTPPKIFLEQLGLPTDWTYM

FSGMQMPLSIFIVHVGFSIIFGVAYCMIAEKWHRITMWQGAVFGFFVYLFAHVIIMPLIAEVPPLSEIPF

DEHLSEIFGHIVWLWGMEIVRRDIRNRITKEIEE

>AHK59411.1 hypothetical protein N920\_00040 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAGFQSPITINEAMQRIKNNEYLLPAFQREYVWEPWQIEELFDSLIRGYPISSMLFWKVKDESKTAWKFY

RFLEYYRESYHTHNDYFNTSNHKDFYAILDGQQRLTSLYFALFGNYDIHRSYNKWENNDRYFKICHFYFN

LTQSKKPENENIEYEFLWLDKLETKEQNIYIDKYQQKWFKCQYLYQYDSGRVRKIAKEFNLNENEEDRLD

LLHQKIFDKNLINFYLEEEQDPDKAVNIFIRINSNGEPLDYSDILFSIAIANWNKIDARTEINNLVDKIN

ENFDISKDLILKGFLYLFHNNIKFQINSFDKNFIESIEAKWEGIKNAFIETFRLLRSFGFEAKTLSSNNA

ILPILYFIYHKNLTNNIVDSVKCNENRAIIKKWLLRAIILKPFGGSSDTVLSNMRKAFIKDFKQNSGFFD

REIELFPLEEIEKEAKYIQTIDEEYLENNVIECRKNSPEAFAVLSLLYPNLDYKNNNFHKDHLHPESAYK

EYEKLYKATDNCISFNIYDSLPNLQMLDANENESKNNKPLKQWVNEKCNGNRKEFLGKHLIPDVDLSLEN

FNNFIEERKKIIIDKLKSILNKE

>AHK59410.1 Holliday junction resolvase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYKFYLKFYKKRLKSAFVFYFSKGMNLKILGIDPGSRNCGYAIIEADKGKNILIEAGLIKIKPSTLQYQI

TELCEGLDLIFKNHSFDEVAIEDIFFAYNPKTVLKLAQFRGALSLKILQIHGDFAEYTPLQVKKAVTGKA

KATKEQVAFMVKRLLGLSKDIKPLDITDAIAVALTHAANLRVRV

>AHK59409.1 flagellar hook protein FlgE [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMRSLWSGVSGLQAHQVAMDVEGNNISNVNTTGFKYSRADFGTMFSQTVKIATAPTDGRGGSNPLQIGLG

VSVSSTTRIHSQGSVQTTDKNTDVAINGDGFFMVSDDGGLTNYLTRSGDFKLDAYGNFVNNAGFVVQGWN

INWDDQTIDSSRTPQNIFIDPGMHIPAAKSTEVAIKANLNSGLNIGTSSRNLYALDSVHGWNTKTQRAED

ENDTGTTQFYTTSKNSVEVTEKGVDAGSLFNAKGQGLNLRDGQGIWVSYADATYSTNKVGVNAFDPNLQQ

NQTAAFWGTANQKVNLDITLNGVRIQNADIQSIDDAIAYINTFTAPTDTRDGTGVKAVKNKDGSGIDFVN

DNADGTTDNMKNINLVVANTNTAGELWNAVWNNNNQTFTFNNNGNGQAGTPTINKNGSSLWTATNITFTP

QPPQAATNVQLTGGLNAQIITAHKYIYSSNPVDIGPMYNPDGGPAFQPGANATTRPTEPGSAAYWDAVNG

GLLNTNVRTFRTTEDLRELLQRDARYGVDYDGSGTFAAADINQNIKVVVTADGHFAISNANEQSTVPPNA

INGVGNATTTDPKNMSFNITAYSNKQGTVSTNDAFTAIFKAFDGPLVIGNQIKESEQLKLSAFSAGLEIY

DSLGSKHTLEVQFVKQSTTQDGGNEWQMIIRVPEPAEINTTGEGPNNIIVGTARFNNDGSLASYTPRTIN

FSPNNGAAPNQQIKLSFGTSGSNDGLVSSNSASTLTGQATDGYTSGNLKPDAIRVDDKGNILGEFTNGKT

FAVAKIAMASVANNSGLEEIGGNLFKVTANSGNIVVGEAGTGGRGEMKTSALEMSNVDLSRSLTELIIIQ

RGYQANSKTISTSDQMLQTLIQLKQ

>AHK59408.1 7-cyano-7-deazaguanine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRYGEKEIKEFDVENMEIWPNDAKNDYIIKITLPEFMCCCPRSGYPDFATIYLEYMPDKFVVELKAIKLY

INTFMYRNVSHEASINEIYNTLKDKLKPKWIKVVGDFNPRGNVHTVIECRSDMVVPK

>AHK59407.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKKFLSIIAGIALFSSSAFAEEKSGFFIGADAAYVQTKVQGNLKHNQTGAVFNGDLSSSIPILGLKAGY

RFNDLHRLYLAYNYSDEFSDIIRTPKLKIESDFSTHKFLMGYDFTPKIFERVRAVAGGYLGYAKTNLDLK

TSLLSLSQKFDGFVYGVKIGAIFELGASNEIEAGFKVEKIEYNTRDFYQKAIGSNLYDPRQTNYGLYLGY

TYKF

>AHK59406.1 hypothetical protein N920\_08625 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKELLEIKKEMEPVIHEANVKLNVLAREVIVRKKEYEIYGPMVDRVYLDNAIYVKVMSSGRDVKTDNVT

IKNGFYMVFVAPEKESTKDIKNKLKVAYEGLDNKFIATLIRSCQRFKEIINKTQATLAKASKMNVVVKTN

LGEASAALKFNITIEYTKENQKLTRENSKSAGSFRDTKTYINLVVEKNTDSQICEKLLDDVEKYFIGGG

>AHK59405.1 2-isopropylmalate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKDNKIIIFDTTLRDGEQALGSSLGINQKLQIALALENLGVDVIEAGFPVSSQGDFKAVQKIASKVKNST

ICALSRALDKDIDMAYEALKVAKHFRIHTFIATSTLHMQDKLKKDFDEILSMAKRAIIRARSYTDDVEFS

CEDAGRTPIDNLCFMVENAIKAGAKTINIPDTVGYTLPSEFANIIKILFNKVPNIDKAIISVHCHNDLGM

ATGNSLSAILQGARQIECTINGLGERAGNCALEEVVMAIKTRKDYLKGFYTDIKCENIFKTSKLVSAITN

ESIPSHKAIVGSNAFSHSSGIHQDGVLKNRQTYEIISPSAIGIHENRMLMTARSGRAMIKTCLENLGYDE

NTYNLDDVYERFLRLADKKGQVYDYDLEALMFLSYESEEENEFVLEKLSVISGNIPTACVCMRIKEELKT

EACTGNGPVEAVFNCIARITNLKPALKAYSINAKSSGVDAQGQVDVDLEFKGRKFHGKGLSTDVIEASAQ

AFVSAYNAIYRSLKVEERKMA

>AHK59404.1 3-isopropylmalate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTYKVAVLAGDGIGPLVMKEALKILTFIAQKYNFSFEFNEAKIGGASIDAYGVALSDETLKLCEQSDAI

LFGSVGGPKWDNLPIDQRPERASLLPLRKHFNLFANLRPCKIYESLTHASPLKNEIIQKGVDILCVRELT

GGIYFGKQDLGKESAYDTEIYTKKEIERIARIAFESARIRKKKVHLIDKANVLASSILWREVVANVAKDY

QDINLEYMYVDNAAMQIVKNPSIFDVMLCSNLFGDILSDELAAINGSLGLLSSASLNDKGFGLYEPAGGS

APDIAHLNIANPIAQILSAALMLKYSFKEEQAAQDIENAISLALAQGKMTKDLNAKSYLNTDEMGDCILE

ILKENDNG

>AHK59403.1 3-isopropylmalate dehydratase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKTLYEKVFDAHVVYEGKNELPILYIDRHLIHEVTSPQAFSGLKMAKRRMARADLTLATIDHDVSTKSM

DLNACSDMAKEQITTLMQNTKEFGVRLLGLGDKNQGIVHIVGPELGFTLPGVTLVCGDSHTATHGAFGAL

AFGIGTSEVEHVMATQTLKQAKLKTMKIECKGQFQKGVYTKDLILYLIAQYGTAKGTGYAIEFCGELIRN

LSMEARMTLCNMAIEFGAKVGMIAPDEITFEYIKGKEFAPKGEEFQKYCEYWKSLRSDEGAKYDASITLD

VSKIKPQISYGTNPSQVIGIDEKIPKISDFKNQSEQKSLLDALYYVNLEQDQVIEGVKIDIVFIGSCTNG

RLEDLKIAADILKGRKIHKNVKALIVPGSMQVRKEAENLGLDKIFIEAGCEWRYAGCSMCLGMNDDKANS

GQRVASTSNRNFVGRQGKGSITHLMSPASAAACAIEGVICDNRKYLGV

>AHK59402.1 isopropylmalate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKFIIHKGIACPLEYANIDTDQIIPKQFLLAVSKQGFGKHLFHDLRYLDDKESVLNMDFNLNKKEYQNS

SILVSFENFGSGSSREHAPWALVDYGIRAIIAPSFADIFKNNALGNGLLTIELAKDEVLEIVDELKKSQD

KNIEISLLEKRVFFKDKIFSFDLDDFHRICLLEGLDNIALTLKHEAQIKAYEKNSKSFLV

>AHK59401.1 50S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKELVNILDFLPEELGEKIKPMFRVKQIYQWIYQKYANNFSDMSSLPKDLRLELARNFHFSPVKCVKNEQ

SKDGSIKYLFELIDGLRVESVLLPMKEEKIDAEGKRISHARYTICVSSQVGCKSGCSFCLTAKGGLKRNL

SAGEIVGQILWIKKQNNIPYERRVNIVYMGMGEPLDNLKNVSKAVKILAQNEGLAISPRRQTISTSGLAK

QIKELGQMNLGVLLAISLHAVNDELRTELMPINKAYNIAAIMDAVREFPIDQRKRVMFEYLLIDGINDKL

EHAKELVKLLNGIKAKVNLILFNPHEGSLYKRPSLENAIKFQDLLSNKGVTCTIRESKGLDISAACGQLK

ERAKEQ

>AHK59400.1 purine nucleoside phosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIICAGGNENFSFAKAIGIGLVESAFHLSQLCFKEKPSKLIFIGTCGLYDKGEILEIYRSSHAFNVEFSK

ISHAFYTPAKYEICLEKENVSRETIKINSSNYICQNSKAAKEFSKLGFFAENMEAFSVLSVAKNLNIDAE

CILCATNFCNENAHEDFIKNHQKAKENLEEYLKKYHYI

>AHK59399.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVKAKKQYGQNFLIDKSVLAKIIQAIPKEMNNIIEIGPGLGDLTQELLKISQVKAYEIDNDLIPILKKKF

QKELECGKFNLIHQDASEAFNPSLDEKPYFLVANLPYYVASHIILKALEDKNCLGLIVMAQREMAEKFCA

KEGNSEFSSLGVLSAMICERKILFDVDPQCFNPPPKVMSAVMSLIKTKDFDELCEIENFKNFLKDCFKAP

RKQLLGNLKTYKAKVLEVLSTLGLKENIRPHEICVDLYLKIYDKLKDEYGRKQRDK

>AHK59398.1 ribonuclease J [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDENKEINKNEQNPNSNSKNNKRYKYKNRRKKLADSLQNENDTPKIDQNSNKENSENSENKTEKKKKKNR

NLPSKLTGNEDWQIALAECIEANRISHENRLHPLKYNNSSEHKIRITPLGGLGEIGGNISVFETNKDAII

VDIGMSFPDGTMHGVDIIIPDFDYVRKIKDKIRGIVITHAHEDHIGAVPYFFKEFQFPIYATPLALGMIS

NKFEEHGLKAERKWFRPVEKRRVYEIGEFDIEWIHITHSIIDASALAIKTKAGTIIHTGDFKIDQTPIDG

YPTDLGRLAHYGEEGVLCLLSDSTNSYKEGYTKSESSVGPTFDQIFARTKGRVIMSTFSSNIHRVYQAIT

YGLKYGRKVCVIGRSMERNLYTTMELGYIKLDRKIFIDADEVSKYKDNEVLIVTTGSQGETMSALYRMAT

DEHKFIKIKPTDQVIISAKAIPGNEASVSAVLDYLLKAGAKVAYQEFSEIHVSGHASIEEQKLMLTLTKP

KFFLPVHGEYNHITKHKETAMKCGIPERNIYLMSDGDQVELCQKYVKRIKTVKTGKVFVDNQINKQIADD

VVIDRQKLADSGIVVIIAQIDKATKTLINKPRVFSYGLVADKHDHAFSKDMAEVLGQFFINVKDEVLNDP

RFLENQIRQVLRKHIFRKIKKYPTIVPTIFVM

>AHK59397.1 ribosomal large subunit pseudouridine synthase B [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRINKFISHNTRYSRREADELIKQGLVKINNKIALLSDEVKFDDKVFVKGKRVQKRTQFSVIIYHKQKGE

IVSKKDDRGRKTIYDTLPRQFSTWLSVGRLDYASEGLLLLTDSPVIADALMHSDLEREYYLKVKGTVSKQ

VIEAMQNGLEIKNEKKGAHAKTKITSMSFAPFIDFEIFGSSGGYTKLRVVINEGKNRELRRFFGHFDLEV

MDLKRVAFGALDLGMLKAGKHRYLENGEYEKLRDFLKFNEIRY

>AHK59396.1 30S ribosomal protein S10 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MERIRLKLKAYDHRVLDRTVAAIVEAVKRTGADIRGPIPMPTKIKRYTVLKSPHINKDSREQFEIRIHAR

MLDIVAATPDTVDSLTKLDLAPEVSVEVRAMGK

>AHK59395.1 50S ribosomal protein L3 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEYIVEKIGMSRTITNPSIAVTLLRVVNAKVCEVEGGKALVAYPKGKASNKCVAGQQKKYNLSAEYNRFA

TLEVANTEAGDLDETPLNEAKILKVSFNTKGRGYSGVMKRHNFAGGPASHGSRFHRRHGSIGNREWPGRV

QPGMKMAGHYGNTKVTIKNEVVSYDAENKILVVKGAVPGYNGAMGKIRIAK

>AHK59394.1 50S ribosomal protein L4 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKVVVLNDKLEKAGELDLPSKYAEVNPHNLYLYVKSYLASLRANTAHTKGRSDVSGGGKKPWRQKGRGG

ARAGSTRTNVWVGGAVAFGPTNERNYFQKVNKKQKRLALERALADKAAKGVLFTADSLAIESGKTKDANA

VIKKLGVKDALIVKDLLDEKTLLAYRNLANCYVVDVTEVNAYLVSVFNAVIMEKSVLESITKEG

>AHK59393.1 50S ribosomal protein L23 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MADITDIKTILYTEKSLNLQEQGVVVIQTSPKMTKTGLKAVLKEYFGVTPKSINSLRMDGKIKRFRGRLG

QRNNYKKFYVKLPEGVSLENTEA

>AHK59392.1 50S ribosomal protein L2 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAIKTYKPYTPSRRYITGLSSEDITAKPSVRSLLVKLPAHAGRNSYGRITSRHKEAGAKKLYRIIDFKRR

KFGIEGKVEAIEYDPYRNCRIALIAYKDGEKRYILQPRGLSVGDIVAAAESGLDIKPGNAMKLKNIPVGT

IVHNVELKPGKGGQMIRSAGAYAQLMGKEEKYVILRLASGEMRQVLAECMASIGEVGNEEWANVTIGKAG

RNRHRGIRPQTRGSAMNPVDHPHGGGEGKKNSGRHPVTPWGKPTKGAKTRRKKASDKLIISRRKGK

>AHK59391.1 30S ribosomal protein S19 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MARSLKKGPFVDDHVMKKVIAAKKANDNKPIKTWSRRSTITPDMIGLTFNVHNGKSFIPVYITENHIGYK

LGEFAPTRTFKGHKGSVQKKIGK

>AHK59390.1 50S ribosomal protein L22 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKALIKFIRLSPTKARLIAREVQGMNAELAMASLKFMPNKGAKYIANAISSAVANGGFEANEVIVKSCR

VDAAAVLKRFRPRARGSASRIRKPTSHILVEVAKAEVKSEEKKTVAKKTTTTKAPAKKTTSTKKATVKKE

S

>AHK59389.1 30S ribosomal protein S3 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGQKVNPIGLRLGINRNWESRWFPTKANLVENIGEDYKIRAFLKRKLYYAGISQILVERTAKKLRVTVVA

ARPGIIIGKKGSDVDNLRKELQDLIGKDVNINIKEERKAGASAQLAAESVATQLEKRIAFRRAMKKVIQG

AQKAGAKGIKVSVSGRLGGAEMARTEWYLEGRVPLHTLRAKIDYGFAEARTTYGNIGVKVWIFKGEVLHK

GMQPEKTEESAPAKKPRRTRRGK

>AHK59388.1 50S ribosomal protein L16 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLMPKRTKYRKMMKGRNRGYANRGTEFTFGEFALKATEAGRINSRQIEAARIALTRFVKRQGKTWIRVFP

DKPLTKKPLETRMGKGKGAVEEWVMNIKPGRIIYEMAGVSEEMAREALTLAMHKLPFKTKFVTRESQNEI

Y

>AHK59387.1 30S ribosomal protein S17 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAFKREIQGVVVKIAGEKTASVLVERKVVHPRYRKIVKRFKKYLIHDERNEVKVGDTVVAVECRPLSKRK

SFRLKSVLATGVE

>AHK59386.1 50S ribosomal protein L14 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIQSFTRLAVADNSGAKELMCIKVLGGSKRRYATVGDVIVASVKKALPNGKVKKGQVVKAVIVRTKKEIH

RDNGSLIRFDENAAVILDNKREPIGTRIFGPVGREVRYGGFMKIVSLAPEVL

>AHK59385.1 50S ribosomal protein L24 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAVKLKIKKGDSVKVITGDDKGKTGKVLAVYPKTLKVVVEGCKIAKKAIKPSEKNPNGGFINKEMPMDIS

NVAKVQE

>AHK59384.1 50S ribosomal protein L5 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMRLKEKYNQSIKPALVKEFDIKNPMLIPVIEKVVISVGAGELAKDQKVLQNVADTISLIAGQKAVITKA

KKSVAGFKVREGFPVGVMVTLRKENMYAFLDKLISIALPRVKDFRGLSRDGFDGRGNYNFGLDEQLMFPE

VEYDKILRTHGMNISIVTTAQNDKQAQKLLELIGVPFTKGK

>AHK59383.1 30S ribosomal protein S14 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKKSMIAKAARKPKFKVRAYTRCQICGRPHSVYRDFGICRVCLRKMGNEGLIPGLKKASW

>AHK59382.1 30S ribosomal protein S8 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINDIISDSLTRIRNAGMRKLETTKLLHSKVVEALVGIFQAKGYIESFNVIEEDKKKFINVVLKYDEKGK

SVINELKRISKPGRRVYKGKDEIKRFKNGYGTIVVSTSHGVLANDEAYKAGVGGEILCTIW

>AHK59381.1 50S ribosomal protein L6 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSRIGKQPIAIPAGVEVKLEGNLLKFKKGNLAKELDTKANVNVEIKDNNILFSPKGEDRQSRAYWGTYRA

LAYNIVVGLTQGFSKTLEINGVGYKAALKGKVLELSLGFSHPINYDIPEGIEIVVDKNTIAVKGSDKQVV

GQVAAQIREFRPPEPYKGKGVKYSDERIIRKAGKTSKK

>AHK59380.1 50S ribosomal protein L18 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRANVLKRKLTLRIKRKKRIRAKISGCENFPRISVFKSNRTLYIQAIDDVKAVTLAAVDGRKLGVKANKE

GAKKIAAEFAKTLKVKKIEQAVFDRNGYVYHGVIAALAESLRENGIRL

>AHK59379.1 30S ribosomal protein S5 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKYNREEFEEVIVDIGRVTKVVKGGRRFRFTALVIVGNRKGLVGVGYGKAKEVPDAIRKAVDDAFKNIV

EVKTKGSTIAHDVEVKYNASRILLKPASEGTGVIAGGSTRPIVELAGIKDILTKSLGSNNSANVVRATIK

ALTMLKG

>AHK59378.1 50S ribosomal protein L15 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLTKAAGSTHKTKRIGRGQGSGMGKTATKGGKGQTARKGYNEKRGFEGGQQPLQRRLPKVGFTSKIQKP

YVINVEKITAVKELSEITFESIKSVHKISKSVNKIKLIGASAKDLVSKIKDENISVTGSK

>AHK59377.1 preprotein translocase subunit SecY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNRALTNKILITLAFLFAYRVLAYVPVPGVNADVIAEFFNNNQNNALGLFNVFSGGAAERFSIISLGIMP

YITASIIMELLAATFPNIGKMKKERDSMQKYMQIIRYATIVITLVQSIGVAIGLQSLHGRGGAGAIMVED

LNMFIALCAISMLAGTMLLMWLGEQITQRGIGNGISLIIFAGIVSGIPRAISGTVGQINSGEMNFLTAFA

IFALILITIGVIIYIELGERRIPISYSRKVVMQNQNKRIMNYIPIKLNLSGVIPPIFASAILMFPTTILQ

TSTNPYLQAINDFLNPNGYLFHVLTFLFVIFFAYFYASIVFNAKDIAENLKKQGGFIPGIRPGEGTSSYL

NEVASRLTLSGSIYLGLVATLPWVLVKFMGVPFHFGGTSVLIVVQVALDTMRKIEAQIYMSKYQTLSAVG

L

>AHK59376.1 multidrug DMT transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNDKTYKFHPNDTKMDKKIIQITEKSGFKAAVFSMAAMTMLGSVVISSALPAINRHFEELLTQSGATLAS

SFTLAHLDILVRLVLTIPAIFVVILSPFAGILMDKFGKLKFILPAMVVWTLSGISGFFLNDIYAILTSRA

IFGMATAFIMTGASALLGDYYSRGGFNRRENALSLQGFFCAVGGAVFISIAGFVSSYSWRYPFLVYGLGI

LITLMAIIYLFEPRKFKFYNHTKIETKTNYWQFFPIYFIGFFIMVVYYISPTQLPYYIEEHLGLDPKYIG

ISMSVSALCYGFFSLSYRYIIKFLSIKTIYVLTLFIVSCSFLLLFLVDSFFTVLIALALLGMGGGIMLVN

NTAYLFSICPENARSRAYGILASCIFLGQFLSPIISQPIVRQMGLVDAFLIWSIVIFIVCIVFLFLKQKP

RIN

>AHK59375.1 DNA topoisomerase I [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKNLIIVESPAKAKTIGNFLGKDYEVIASKGHIRDLPKSSFGIKIEDDEFIPEYRITSDHSALVKELKS

KAKDAKEVYLATDEDREGEAIAYHIAKAIGKDENTLPRIVFHEITKSAIENALKNPRKLNMHSVNAQQTR

RLLDRIVGYKLSPLLGQKIQRGLSAGRVQSAALKIIVDREKEIRAFVPLEYFSIDMIFQKDLDAELVEFD

KAKIEKLTITNKDRAKLILEACKNEVYSISDIESKERKIAPPPPFMTSTLQQSASNRLGFNPKKTMMIAQ

KLYEGVNTHEGVMGVITYMRTDSLNLAKEAVENARKFIQANFGKDYLPSKANVYTTKTKGAQEAHEAIRP

TNLSFTPEIAAKFLDKDELKLYTLIYNRFLACQMSPAISQTQNVFVKNDRVVFKISGRKILFDGYYKVYG

DMDKDKILPNFKIGQNLKVQNLEMNSHFTEPPSRYSEAGLVKKLESLGIGRPSTYAPTISILTSRDYVTI

DKKQLIPSDVAFNVTEVLEKNFSDIVDSKFTSNLENTLDEIAEDKADWQETLKEFYYPFMRKIEEGKTKI

ASQKTVTKLGESCPDCGGELAIRKGRFGEFVACLNFPKCKYSRNLKSESKNESENTAAKAKANGTGITCP

SCQKGEIVERFSKRGKFYGCSAYPKCNFISKYKPSEEKCEECGETLVIKELKKGTFLECLKCKIKKEMKD

>AHK59374.1 biotin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIMLCAISNIASGNCSEDCKYCTQSAHVKTDIQKYRRKELSQIVLEAKMAKKNEALGFCLVTAGLGLDD

EKLEYVCEAAKAVQKEVPNLLLIACNGMASVEQLKELKKAGIFSYNHNLESSKEFFPQICTTHTWESRFQ

TNLNAKEAGLMLCCGGIYGMGESEEDRLSFRKSLQELQPFSTPINFFIANENLKLQVPRLSADEALKIVR

DTKEALPQSVVMVAGGREVVLRERQYEIFQAGAGAIVIGDYLTTKGEEPSQDIIKLKEMGFTFASECH

>AHK59373.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHQSVIDTQALIDLKILIVIALCLLFSPHIAKILRLPLSATEIILGAIIAHFGFIGKSENFALLANVGFY

YLMFIAGMEVNLRAFFNMDKEIAKKSFFYIFLLYALSSFIVWIFGLSLVFVIIIPVMSVGLLSLLFKDFG

KECYWLNIAMIVATLAEVISIVLLTIAGAFLREGTGIIDVAQSILYLNIFLGLCLLGFKMLGVLFWWYPQ

LKVVLMPWEDKNEKDIRFCMAIFILIIVAMVITKLEIVLGSFIAGSFIATFFDHKKDLEHKLSTFGHGFL

IPIFFIHIGSTFDLKMILDYKIVLQAFLLMFVMVGLRILCASVFLKRIGFKNMILFGLSHSMPLTLLIAT

ATLGYSGKVIDEKLYSALILTALFEAIIVMSMIKFLSNSKK

>AHK59372.1 type II citrate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSNSVTITDNRNGKSYEFPIYDGTTGPSVVDMSSFYKQTGMFSYDEGLTSTATCKSKITYIDGENGILMH

RGYPIEWLAENKLYLDVVHLLLYKELPDATRLEAFRYEMKKRSFIHEGMHRLFDSFPDNAHPMAVLQGAV

SSLSAFYPDHLNMNVKEEYMEMAARIVAKIPTIVATAYRYKHGFPMAYPNLDRGFTENFLYMLRTYPYDH

VELKPIEVKALDTVFMLHADHEQNASTSTVRAVGSTHAHPYACIAAGIGALWGHAHGGANEGVIRMLEQI

GSVDRVDEFIKRAKDKNDPFRLMGFGHRVYKNFDPRAKVLKKLRDQLIDELGIDTNLIKVATRIEEIALS

DDYFVQRGLYPNVDFHSGLILKALGIPNEMFATLFVIGRTPGWIAQWIEQKEQESLKIVRPRQLYLGETS

KI

>AHK59371.1 CysQ protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNLDKFLEIAINASNQASKAILEERKNFKTWEKEDKSPLTSADLASNKILNDILGSTDIKILSEEKLLS

KEECEELKTFWLIDPLDGTSGFLKGSDEFCVMISLVHDNRPVLSLIQNPSKGDIFYAHAKTKVYKNDKPL

QIDQQEYEKNKYKALLSVNHLSKEDEDFAKEHQLEAINIGSGLKFCAILEARAGVYKRFEKLNIWDIVAG

DFLINQNGGFMGDFSKKYILYNPLSYKSNPFICVSSRNFLQDFL

>AHK59370.1 hypothetical protein N920\_08405 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRYCFILFLSLVLSSNLLANNFSQKKVIKIEKSADSFEVIDLNQNVANPNLNQQKALFDSSTLIEKKSQI

TKDKDIDFAIVLTSRKNFGYFLDGFRVSDKEFSTLFAKNLIQSLKLNWVNSAANGIYQSPKTLSYFSPKD

AKLINVSPFLTQEKDKAKMYAKFTDYVVVVNLQDFYVNITNYFITTSKEGVANVNFKIISTSNGKILVAK

NAELNLTLKDQDAKQNYQDIINQMPKMLADVIKNQIFHLKLLN

>AHK59369.1 UDP-N-acetylenolpyruvoylglucosamine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIIDFKKYSSVRIGNEFEVLVLDQICDFDGFLIGGANNLLVSPKPKNIGILGDGFNFIQILDRNKDFIHL

RIGCKTKSSKMYRFAKENNLKGFEYLSKIPGTLGGLLKMNAGLKGECISQNLIKIATSQGEILRANINFD

YRFCPLNTHFFWAEFKLNFGFDTLKDEALKNARSNQPSGASFGSIFKNPKNDFAGRLIEAVGLKGFSKGD

AMLSDKHANFLINKKNASFEDAFFLIELARKKVFEEFGTNLENEVIII

>AHK59368.1 flagellar biosynthesis protein FliQ [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDESTLVALGVQTFKITLLLSLPMLLAGLIAGLVISIFQATTQINEMTLSFVPKIILVVVILIFLMPWMT

TTMIDFTENILNQIPTFIK

>AHK59367.1 succinyl-CoA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKITIAHSPDADDIFMYMAIKFGWIGNDFAYENTALDIQTLNEFALKNEFDATAISFGLYPLIASEYAL

LRTAVSFGEGYGPKLIKKKDTHLKRNFKVALSGANTTNALIFRMKYPEARIIYKNFLDIENAVLSGEVDA

GVLIHESILNFDQSLYVEAELWDIWLEFAKENLPLPLGGMALRRSLPLSDAIKIERDLTNAVKIADANRK

ILAPMLMERKLIRVDEEKLDTYLNLYANKNSISMNQTQLLAVDTLFKLGYDYKFYDKIIHVNDFLIPSEY

EEARNS

>AHK59366.1 recombinase RecA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDDNKRKSLDAALKSLDKTFGKGTILRLGDKEVEQIDSIGTGSVGLDLALGIGGVPKGRIIEIYGPESSG

KTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDLI

VVDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTT

GGNALKFYASVRLDVRKVATLKQNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVK

LDIVDKSGAWFSYKDKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMISGSEDDEGEE

>AHK59365.1 enolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLVIEDVRAYEVLDSRGNPTVKAEVTLSDGSVGAAIVPSGASTGSKEALELRDNDERFGGKGVLKAVANV

NETIADEILGLDAFNQTQLDDTLRELDGTNNYSNLGANATLGVSMATARAAAAALGMPLYRYLGGANASI

LPVPMCNIINGGAHANNNVDFQEFMIMPFGFTSFKEALRSVCEIYAILKKELANSGHSTALGDEGGFAPN

LANNTEPIDLLMTCIKKAGYENRVKIALDVASTEFFKDGKYHMEGKAFSSEALIERYVELCAKYPICSIE

DGLAENDFEGWIKLTEKLGNKIQLVGDDLFVTNEDILREGIIKKMANAVLIKPNQIGTITQTMRTVRLAQ

RNNYKCVMSHRSGESEDAFIADFAVALNTGQIKTGALARGERTAKYNRLLEIEFESDEYLGEKL

>AHK59364.1 hypothetical protein N920\_08360 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIFWAFLVVIGAIYFGNMFFGQYSLDTLLSLENTKEELNKKIILLKEQNAKAQKDYFELKGLYPNEN

>AHK59363.1 hypothetical protein N920\_08355 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTRILAIFFIFTSLLYADENPFKTDQNITLVAPPEFQKEEVKFNSSARILKSITFNYINLDGSEDKIDL

DVNKSIDWHDTYTISRFKSPDPSKVLDVSVTIPEKNSSKQESNSTANVEIPLQVAKIYDFISYAVYKNKI

KLNTSDEMITDFSVGNPSKIVIDFRSKMISPTKNIRLSNSIFKRIDFGSHKGYYRLVIYLDGTYNYNIQK

DATGYMINLL

>AHK59362.1 DNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRFVFLICCACLVFANEILLLSKFDKQDFNSKDFNAYLMSEKLDGVRGIWDGKYLKTRQNYKIKTPDFFT

KNFPPFAIDGELWIARNKFDEISALIRSGDSNLTLWKEVTYNIFDVPNACEEFQISTCTLKNRLAVLEEY

LQKYPSAYIKIISQIPVENQNNLNQFYESIIKNQGEGIVIRKNLSPYEKGRSKNATKLKPYDDAECELVG

FRKGKGKFENQVGALLCKMPNGQIIKIGSGLKDEDRKNPPKIGSIVTYKFNGLTKNSLPRFPVFLRIRDE

NP

>AHK59361.1 hypothetical protein N920\_08315 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKTILTILFLLTLTQAKEIQIYESPTCGCCDLWADYMKAKGYEVSVHKTNDFLKIKEKMGIKDEYQSCH

TGVIEGYAIEGHVPESAIAWLLENKPKDVIGISAPGMPQGSPGMEQGYSEKYPVILMKKDGSYELYGYFI

GDKKL

>AHK59360.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGIFRIQAYFFALIIALFFVACDSGENFKALNSDKTYNFAYNGFEKSLKLNDKAQNFALVFFTKDCGVCK

EQIPILQNLAKNYDFNIFVVLGDANDANDAKAWADEKGLSNLAMFYEKRAAKYLSSAIGEIYGVPVLSFF

KEGKMDEKFIGLTPYSILEKEIKKVKS

>AHK59359.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKSLLILSILFLLNACSFENSKDTGKVGEKSAEISAKDTLGKAVKLADDNTSLKVLVFFQNGCPSCLKE

LPSLDEFIQNHPNKISVYAINSIDNANVVKVLAEQFDFKNVKVLKDDLKITNDRYAVFATPTTIIIKDGM

IKDRILGEKPWEFFESKLISLL

>AHK59358.1 GTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKELIKINNLNKEFGKVKALNNINLSVYEGEWLAIMGPSGSGKSTLLNILSLMDTPSSGEYILDNENLE

QMDEEQKITLRREKIGLVFQQFHLIPYLNALENVMLSQYYHSSVDEEDAKMVLEKVGLSHRLTHLPSQLS

GGEQQRVCIARALINNPELLLADEPTGNLDEANEQIVLQTLQKLKNEGKTIVLITHNPDLAKFADRTLIL

QHGVLK

>AHK59357.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVDKFFLNELFKSISFSYQRLFIIVLSVFIGALTCSAFLNIYFDIDIKLSKELKAYGANVMISPKQDENF

ISNTEYEKIKENLKARALTPFLYDFLNLGSTSGVVLGTDFRALKITKPFLEVKEGSFSLNDFDENSAFLG

VNLAKQLGLKAGNELQIYNPNNGKSIKLTIKGILSSNDEFDSIVLAPLSVVQNLSDRAGINYANAVVYGN

FDEVKAKTQAISNEFIDAKPISSVSLSEGLVLGKIKALMFLIILVVLIIVTTSVNTTLSSIIFSRKKEIA

LRLALGAKKSEIFKLFASECFIVSFFASLIGAFCGIFLANVFGYLIFNSSIDFRFIAVFIALIISLIFAF

LAAFFPIKRALKINVCENLKGE

>AHK59356.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLAKMIFNSIFKNKIQKFLAFLTCFLATLLLSTMLNITLSIGDEVTKQLKSYGSNILVLPKGSSLSIEIG

NELYEPLKNKNYLEEKNLYMIKDIYWRNNITALAPFLEGKITIENSQQKALIYGAYFQKAIKIKDDDDFI

TGIKSLYPYLAVQGEWAKDDSNEIMLGEDFAKNNKLKLGDTIKFIGENNQSKEAKIVGILLHANPKMSNK

IIAPLNLAQDLLNKQGLYSSTEVRAFTIPESALSEKVRRMGEEKLDQLEYDKWYCSAYVGSIASQISDGL

PGADAKALNAISDAQSLVVKKIQSLMGITCIICLIVASIAISSLMSSEIHRRKKEIGLLKVLGANTFQIY

LIFASENLIVALFAALLGFIFGTALSQIISLSIFGYFIDIAFVALPLSFIFAGLIALLGCLLPIKNITQL

SAAGVLYGR

>AHK59355.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSIYFVHFLISVLPLSILMAFITPNKKYIFKSFFVVFLGFLFGYFAFFIAAQFLKTENLIFNFDFVFIGL

LLVSFIFYFWKKIEILNFILLGILSFCTALHYYFLSQDFPIFTSSLIDSEGISSLGFIALALLVCILIFF

FLKWQKNFNQKTSFMLFLLLILIESDKALANILLTLMRNSIIETHAFLVSFVGKSNYFGVFGIYVYLIFI

TFLAFLSLKIRKKNISKKQILDINYRKNEAKTSLINRYFSSVFISCVVSFCIVLYFFMVSSKPLTIDEPK

EILPDKNGKFIFDIALLRDNKLHRFAYISAEGKVIRFFLINKREDKDSPVAVFDACMICGDMGYIKKDGQ

LICISCNVRIFLPSVGKSGGCNPIPLKYEYDGNKITIDVKDVIAGSNYFSQIKEIEVQDPVSKTKVINTQ

APFSYSYKGVTYYFSNQNNYEEFKKDPTKYVEENEAQFLIQRRNDVG

>AHK59354.1 iron transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKKVLSVVAAAAVISTNLFAGEVPIGDPKELNGMEIAAVYLQPIEMEPRGIDLAASLADIHLEADIHAL

KNNPNGFPEGFWMPYLTIAYELKNTDTGAIKRGTLMPMVADDGPHYGANIAMEKDKKGGFGVGNYELTFY

ISNPEKQGFGRHVDEETGVGKWFEPFKVDYKFKYTGTPK

>AHK59353.1 iron permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIFKIIFLIISIFLSSSAFARVDDYINEANLIKDMLKQSIETYKKGDNLGAKKLSEDAYFQHFENMEGS

IGRNIGRKAITMERKFVNLRRMYKDEAPLTQINALIDSLYYDLDEVAPILQNGYRLKAEASDINYDKAKA

EKSSLEANAKREADAEALIAQMMGVDKKDLAQSSLTTQAPIPINNDTSKLTDDNASTDLQAAAAMDVRLQ

FILDNISTKFSQAANAFKEKNYQTSKDFLNDALFSDYRNTKVEILVNKFTKAGNDQKIQQAIRTLIRQIN

DAKIDEKGLRDGLDNIEEQIFDVFLQIPNSELSSLQISGFNDETKGKDYAKVSNDIKLALDEILKNYDGF

SASIVDDLQGIYLDIFEASGMENKIGAVDSGLKLKIESLFSKSVALIKASTDKKELEATFNDLEQLIASS

VDKIQDSTPYSLFIWALGIILREGLEALIIVVAIVSYLVQSGNKNRLNIAYSALFTGVILSFVTAFGVSW

LFKENAGQSRELIEGITMLIAVLLLFYVGFWLLSNAQNKKWTSFIKQGAIDAISNNSAKTLWITVFLAVY

REGAETVLFYQALLFDAKTSTDFGAVFGGLGLGILILIVLYFLLKAGAIRIPVKQFFYITSYIIFYMVFV

FTGKGIAELIEGKVIIPSLIPMNFEPILWLGIYPYYETLIPQFIVLIMLIIGILITKQISKKGVKS

>AHK59352.1 hypothetical protein N920\_08265 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVSDVSMGNVNLMTAVNTSVLKKSMDTNEALMNELIEGMEGVSQASAPQASSSSGLDIYA

>AHK59351.1 hypothetical protein N920\_08250 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRHIFFIITIIFFISGCSFYQNLNYRPSYNTNKEARLKVIANEWKKTPYVLGGTSKKGADCSGFTQSALA

QLNIRIPRTTKTQLGSGRKVSKSKLQTGDLVFFKTGRGPNGMHVGIYMSKGKFIHLSTKDGVKEVELNSS

YWKARYIGARRY

>AHK59350.1 glutamate racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDTIIKFCLEALDFFEQFQIDMLIIAC

NTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIATKATIKSEEYQKRLLSQGYTNINAL

ATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLLGRSLSKYFGDKTKLIHSGDAIVEF

LKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>AHK59349.1 methionine aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIELKKPDEIEKLRIANQIVAKTLNFLENEIKIGMSLKQIDKMAEDYILSLGAKPSFKGLYGFPGAICTS

LNQVCIHGIPDDKIIKEGDILGLDVGSLIDGYYGDAARTIAIGEVSPADKALISCAKDALYHAIDIIRDG

MRFKELSAALGEFIHVRGFVPLRGYCGHGIGRKPHGEPEILNYLEKGASAKSGPKIKNGMVFCIEPMICQ

KDGTPKHYNGKWDAGSIDGLNAAHYEHCVAVINGRAEILSMI

>AHK59348.1 hypothetical protein N920\_08235 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKSDLDIFKKHLGEIQGVNEFKANQICSQINDANDFIGALQVLDMSLKKIEKSILERIDENSDDMQKRTL

DATASQLIQNCSFMGTALFGNIFNVYVGKKLFEFEIANPLLILQTSNYEGVLAYIQDKRDEIKIILSELS

TAITMGETMDNAGIYNSTMDFKNLFK

>AHK59347.1 hypothetical protein N920\_08230 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKQLFCILTFIFMLCGCSLRHETINKNENIILKDEGIDSNIFFKKTGKILKIRNANAPLYLNSRAIVYI

DNGFSNKYAHYFWGDLPSNLYSFLILSKFEQSNIFTTLLSSTSSLSADYSLESRINSFEQILNNNENYAQ

ISISVNFINLENNQIIAHKIFNTKEKIEKKDIRSTYNAFQKALNKIGNEIVFWVNSNLS

>AHK59346.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENRANYFFVGLFVFGVFFASLGFILWLGGYSKEESFKYYEIHTQESVAGLGIKAPVRLLGVEVGSVEEI

SIYNQDELGVNIRIKVKNNTPIKEDTFATLQLQGITGLKFIQLQGGSKNSKDLVSMQGKLPVIPFKESFL

ATIDRQSEHIFSLVKTADDKSKELLSEKNLKNLEILLQNLAELSANLNANSKNLSLNLSNASLKIGKMAD

NISLSAQNFNSSLKNIKESTMILKNFIKKADEKLNTYDDIKASLMQNLELFKRVLIESNILIENLQNSPA

DLIFKETKPKLGPGEK

>AHK59345.1 phosphate ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVIKAQNIITKFGEKIVHDGVSFEIKKNEIFGILGGSGSGKSVLLKQMLMLEHFDDGEYEILGYKLKNIN

EEDALALRKKWGVVFQFAALFSFFNVYENIAIPLKEYTHLDENSIQELVLMKLKMVGLNESVLKQFPSEL

SGGMQKRVAIARALALDSKLLFLDEPTSGLDPHSSREFDDLVLELKKSFDLNIILVTHDKESMKNLLDRF

IILENKKVGFCGTYEELRLQNERLFKRFME

>AHK59344.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNTNFKFQNNTLFIFGIWDKTSIYKLKIKDFLALIQSKEVIFDFKDLKAIDTAGVRFFLALENDLKNKNI

KITKEGLNSRFQTLFELCEKNYQRLGKTKKSHQNFSEYFIDLGKLSLELLKILRKFINFTGAFFTSLFLC

LKNPKNFRFIAFLYHIENSAFKALPIVILTALLVGVVLAYQAAYQLAQFGANIFIVDLMGISATRELAPL

IAAIVIAGRSASSYTAQIGVMKITDEIAAMNTMGFRSFEFIVIPRVMALVVAMPLIVAISDAISIIGGMM

VAKLNLDISFAEFLRRFREAVDIKHIFIGLAKAPIFGFLIGLIACFRGFEVKNTTQSIGIYTTKSVVNAI

FWVIAFDALFSVILTSTGI

>AHK59343.1 transketolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNIQILQEQANTLRFLSADMVQKANSGHPGAPLGLADILSVLSYHLKHNPKNPTWLNRDRLVFSGGHASA

LLYSFLHLSGYDLSLEDLKNFRQLHSKTPGHPEISTLGVEIATGPLGQGVANAVGFAMAAKKAQNLLGSD

LIDHKIYCLCGDGDLQEGISYEACSLAGLHKLDNFILIYDSNNISIEGDVGLAFNENVKMRFEAQGFEVL

SINGHDYEEINKALEQAKKSTKPCLIIAKTTIAKGAGELEGSHKSHGAPLGEEVIKKAKEQAGFDPNISF

HIPQASKIRFESAVELGDLEEAKWKDKLEKSAKKELLERLLNPDFNKIAYPDFKGKDLATRDSNGEILNV

LAKNLEGFLGGSADLGPSNKTELHSMGDFVEGKNIHFGIREHAMAAINNAFARYGIFLPFSATFFIFSEY

LKPAARIAALMKIKHFFIFTHDSIGVGEDGPTHQPIEQLSTFRAMPNFLTFRPADGVENVKAWQIALNAD

IPSAFVLSRQKLKALNEPVFGDVKNGAYLLKESKEAKFTLLASGSEVWLCLESANELEKQGFACNVVSMP

CFELFEKQDKAYQERLLKGEVIGVEAAHSNELYKFCHKVYGIESFGESGKDKDVFERFGFSVSKLVNFIL

SK

>AHK59342.1 geranyltranstransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLKELFIHHLEKNLPKVESFHPFFNEALALMLKAGGKHFRAQLLLSVVQSNKPELLNQALDVALALEFI

HTYSLIHDDLPAMDNADFRRGIPTLHKSYDETTAILVGDALNTEAFLVLSHAHLKDEIKIKLIKTLAFNA

GLNGMVIGQAIDCFFEDKRLSLNELEFLHTHKTARLIAAALKMGCEICELNNEESNQIYKLGLKLGLIFQ

INDDIIDVTTSQEQSGKPTNNDIHKNSFVNLLGLEQAIKTKENLLSECEQDLEKLNEKLAQMIQNLIIQY

L

>AHK59341.1 peptide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILIICMLFTLSFGIERPKFEDFLAGYERNKASMLNYEGMPAFALSENLLAVLKQPNAKLNKYVKYDP

FLNLYLVRTDFSLIPTPMGDEEKLTRNDWVGIWDPNKPYIGHIKYLAQNIDEKDQLDFNSKIGLLGTPCC

EMMGIALNNSSFIGNRYLKHFMKYNDVYWGDIGVDFVVRENKIYVNNVRKNPQFLINDQVISVDGLPAND

LRKLNEKILFADRGSTLYFQVLRDNMDLNISTEVFAKDLSKFNLPDSKPKPKITNFTSNLGLTVNASLVV

TKIDPKSKVSNAGFMVGDKILRVNNIILNNFKELQNILSAGNDFSILIERKSTKLPLSNFNNELGGNANS

GGDGKFQFFIRLTK

>AHK59340.1 hypothetical protein N920\_08195 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFENMDFSKMGELLNQVQEKAKNIELELANREFSAKSGAGLVKVSANGKGEIIDVSIDDSLLEDKESLQI

LLISAINDVLAMVAQNRSSMANDVLGGFGGMKL

>AHK59339.1 UDP-N-acetylmuramoylalanyl-D-glutamate--2,6-diaminopimelate ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLKLENSFITDNTLECEKECFFLQTTQNAKFHAQALEKGAKIIDVNECKKLLKIDEKIQIIGITGTNGK

TTTAAAIYSILLDLGYKCGLCGTRGAFINDEQIDEKSLTTSPILKTLEYLQIATQKKCDFFIMEVSSHAL

VQNRIEGLNFAAKIFTNITQDHLDFHGTFENYKEAKELFFTDESLKFINKDALAIKFNVRNAFTYGIENP

ALYQIKAYSLEEGISTIVTNKNQTFHIDSPLLGLFNLYNLLVASACVNELVKPDLKDLEKAISGFGGVCG

RVEQVAKGVIVDFAHTPDGIEKVLDTLKNKKLIVVFGAGGDRDKTKRPLMGKIVEHFAKIAIITSDNPRS

EEPKTIMEEILSGFTKKEKVLMIEDRKEAIKKALELKENDDLVVILGKGDETTQEIKGIKYPFSDKVVVN

EILKNQG

>AHK59338.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNYKKLGIEHFYKKDFKTAKMYFSMAYEKRKNKRLLNFICLCDLALKSPKEASLLFDFYIEHYKISSID

KDLEEILSTIEFKKQENKQENEFEDGHALNYQDFLKSEEELGFQKSFENIINSTKLVIDNRDDFLDFLEK

LLDNGYKDMTLNYIENVMPHFWANDRFIKLQEKLMGFKSEIKT

>AHK59337.1 nitrogen-fixing protein NifU [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMPFSDEELINPVKASLEKSLPMLERDGGGLEFLGIKNGIVYVHLIGACKGCASSGTTLKYGLERQLKID

IHPEITIINLNGGADEFAKL

>AHK59336.1 DNA primase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MITKESIENLSQRLNIVDIIENYIEVKKQGSSFVCICPFHADKNPSMHINPIKGFYHCFACKAGGDAFKF

VMDYEKLSFADAVEKVASLSNFTLSYTKEKQENKKELKSILPSLNAYFKDNLKHHKEVLTYLYQRALNDK

DIAKFELGFAGASEDSIRLLQNQKIPLEDAMSVGALKKDENNEFYASFIWRITFPIYDHKDLLVGFGGRT

LNPNVPAKYVNSPQNILFDKSRIFYAFNIAKENIAKKKEIIVCEGYMDAIAFHKAGFNNAVAVLGTALTE

HHLPLIRRYDAKVILCFDNDEAGLKAATRSAFLLSTNKIDGKVAILQGGKDPAELVAKNESTKLHNILDE

GIELGEFYIRRLISTHSIISALDKQKALETIQKFTFNLEPLVANSYTSLVSNLLKVDEKFIVLSQNSKKT

IQTPLISQNKYNFPKEKIHIAELELIAFLKQHPDICNDFKQISDSVCFKHKILLDKILEKKGYEDSDIRE

FESKNIRKNLNYSEFLLGICKVNLAFLNNVKIKNSTLALKKQLFTLIDKNLNLLIKNLNTAELNNFLKEY

LSFLKYEKNEEILQQSFRNLNGIFGNKNFTAYDLGFSIQNNDEPF

>AHK59335.1 hypothetical protein N920\_08170 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDFFFVEYRDPLVGLIILTILVFVVAVANYIWKIFANKDEEQKLEKFIKKFEMDNAHKELLRNSSLSFGN

LSFLAEIFTKSGEFEKATQIYLIALEKCKDKQEREFIFLSLAKVYFKAGFLERAKEVLLQALKLRPRNIQ

ALKLLKIVYLKLRSYKENLELLECLFELNEDVQKERDFIKALELCTFNITDEEKKKKLLEFKIEDNPMLG

RLVFEKYHMFLGQNFFDICDLLYRENEAFNLENQDFLEFFYALGKISKHDDTHQFVFKNSNFKMLKILKD

NSFNAGLEFSYRCSECKNVMPLFFYHCPVCYEFNTCKIIYEVKNNETH

>AHK59334.1 ribonuclease H [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKHIEIYTDGSCLNNPGFGGWAYILRYKEYQKEGFGAEANTTNNRMELMAIIESLKALKEPCEISLFTDS

NLMVQSINEWLEGWIKKDFKGKKNIDLWKEYIKVAKSHKIKAFWVKAHNGHLENERCDTLAREAALKIAR

ENDEKH

>AHK59333.1 ribonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAVLDLVVGEYLFHKFAKDAEGDLSKL

RAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALEAIIGAIHLEAGFEFAKTIALRLIE

KNFPQIDAKILIKDYKTKLQEITQGKIGQTPQYETVRAFGPDHLKQFEIALMLDGKELARAIAGSKKEAQ

QMAAKIALEKLGAL

>AHK59332.1 chorismate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNTFGTRLKFTSFGESHGVAVGCIIDGMPAGVKFDEEFLQNELDKRKGGSKFATPRKESDKAQVLSGVFE

GYTTGHPIAIVVFNENAHSKDYDNLKDLFRPAHADFTYFYKYGIRDHRGGGRSSARESVARVAGGAVAAM

LLREFDICVQSGVFGVGTFVSNLKEEEFDFEFAKKSEIFCLDPKLESDFKNEILNARNSKDSVGAAVFTK

VSGMLIGLGEVLYDKLDSKLAHALMGINAVKAVEIGEGINASKMRGSCNNDALKDGKFLSNHSGGILGGI

SNGENLILKTYFKPTPSIFAKQESIDKFGNNLKFELKGRHDPCVGVRGSVVASAMVRLVLADCLLLNASA

NLNNLKNAYGLK

>AHK59331.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKALALFSGGLDSMLAMKLITAQGIEVKALNINIGFGSTSDKSEIMKKRAAMVGADFEMIDVRNSYLQEV

LFNPQYGYGKHFNPCIDCHAFMFKTALAMLKEENASFIITGEVLGQRPMSQRSDAMAKVKKLALDEEDLI

LRPMCAKNLPLTKPEREGWVDREKLEGIIGRSRKRQLELAAKFGLEDFESPGGGCLLTLDSFAKKIRDFI

EFDKDMQVNDAQLLKYGRHLRLPNGAKMIIGRNELENTLLKGLKTPKYEAIEIGDLIGAYSLVDEKISEK

DLELALKIALTYTKHEVGKSYELKFKNQAYTSIAFENKADINQFFIS

>AHK59330.1 hypothetical protein N920\_08145 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKIILVLSILSSFAFANSCANYEQELKKCNSLKNSHERKMCRLGLFAKCKKG

>AHK59329.1 hypothetical protein N920\_08140 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIDTSASLTHSLTNNVDKKELSVLKKEDQDKIPVQDLSSLNSDGVKVVFENKQGELIALNLSDENYSSL

QKNFGSYMNYVARNDGSIRLNGEVNQFVSNWFESVKDNFGSLNSNLNNKQQSVKLNFNTSTLQQSMQNLG

FKTSDEKISDDANIEEKLNFFIDKDVNKDGKVDDSDVKEPSMREILSDIKEASGGGANAMKTIDPQKINK

KDDKENNIKEKEDEDLLQKAQEKGLSALSADEQAKLEASNPEEFEKLKQKSLQELSQNLSKDFQNKIENQ

EAQIVDKRV

>AHK59328.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKLPKNEGLNIVPFIDIMLVLLAIVLSISTFIAHGKIQISLPSSENATNISNNEKKLLITIDEKNTFYL

NDKLADLNEVQNAIFSLDKKTIVELKSDKNAKFESFVKIIDFLKAKEHENFQILTEKNK

>AHK59327.1 biopolymer transporter ExbB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEFLKDYIDLIIFLILGIMAFIAFWCVVERMLFFRKINFKNYENQEQFDDAISENLTTIYIIYSNAPYIG

LLGTVIGIMVTFYEMGLAGNIDVKSIVVGLSLALKATALGLLVAIPALMAYNALLRKVSLLSNAYKANKN

A

>AHK59326.1 hypothetical protein N920\_08120 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTIDLNHNFTSFVLLDEVDFNFSELKSILEDKFNIKIADENFTKEGVIFSYENMLVTLNLINNPIPNHEV

EYYANFNFMWKDALEQTKKHKAHLLIAVLSQDQSKLEQAKMFTKIAALCLDNKHALGFYTGAVVLEPSFY

IENAKMLDDNRLPVYNWIYVSVYPSENGVNAYTYGLRNFDKLELEVCDLNIEEKELFFCIYDIVLHILTY

DINLKDKDILKFEDGKEIKFIKSQGISVENESLKIIF

>AHK59325.1 hypothetical protein N920\_08115 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKAKLTLLALLGTTVLLAKDMVVPASELPNNAKEFISKNFKTAQIGLVKKDIDSYDVILNDGTEIDFMIN

GEWKEVDGKYKALPHTILPNVMKKVSATQPNAQILEVDKEINGYKFKFNNNMEVYTDMQGNILGQKLD

>AHK59324.1 serine/threonine transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>AHK59323.1 serine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSNLSIFKIGVGPSSSHTLGPMLAGNLFCKKVAKKLDEIDRVEVTLYGSLSLTGKGHLSDKAVIWGLNGL

EAKNLSAAIQDEVNKNAIENAQIDFCGEKKLSFNYEKDLIFSKDFLPLHENGMKIKAYDCKGGLVDEETY

YSVGGGFVLTAAELEKKGKNSNQNKKKKLDIELNNAKEALELCDKRDWDLAELSYRYELQFHTKEEICAY

CLEIWEVMQEVYYNGTHPNEDYLPGKLHLKRRAKGLKERVAMTADPMGIIDFISLYAIAIAEENASGAKV

VTAPTNGACAVIPAVMLYLKNHTIGFSDEKVIEFLLTAMLIGSFYKKNASISGAEAGCQAEIGSASSMAA

AAMATVLGANAFKACNAAEMAMEHHLGLTCDPVAGLVQIPCIERNAFGAIKAISAARMAMTRKSTPMVSL

DEVIETMYETGKDMNYKYKETSLGGLATNLKTVC

>AHK59322.1 riboflavin deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEFYMNLALNEAWKYQFLTYPNPAVGCVILDKNEKILAIKAHEKAGLAHAELNAIAHAFKSLRPEISLP

KEANALHEFICKNHQGVFKDSIAFVTLEPCSHQGKTPPCAKLFSELGFKKIFISVKDENKIASGGAEFLK

KQGIEVEFDILKEEGKKLLKPFLKWQKGQFKLFKLALSMNGSPFGKIVSNELSRTYAHEIRAVIDLLVVG

GETIRKDCPILDARLCKAKAPNLCILSRQNIDNFDKNIPLFKVPNRQIYTQIPSEAKFLMYEGGENFLKI

FKDEIDMFLIFQSSSLNDEKNVTIPLNFKPLYRNFLGSDTYGIYEL

>AHK59321.1 hypothetical protein N920\_08070 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLAFFKGLGVGFLCLLLFVAGVVFNVEFLGKKDSNHDLYFSRNIEVSNTLKPDILYANINFWANENLSSK

ITLDNSEKAEITNTFNQILERSKKENFCSGGSFSLEPNFSYKDGIQTPKGQRFDANLECEFKENQLADFN

KLLNDINSIIAKNNFISVSTPAIQTKFSKDTLNNNKENLYKELLKTSYEYEKTYSLDLNKTCVLKNLQVN

ANTNIAPRMLNAKSDNIELSSPIISKKEQILNAKALFICK

>AHK59320.1 adenine glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKKELEKLQENLLLWYEKNGRKTLPWRNLQSQNCDESLKHIDRAYGVYISEIMLQQTQVKSVLERFYFP

FLQKFPTLESLANANEDELLKAWQGLGYYTRARNLKKAALECVDKFGAKLPKDVEDLKKLSGIGAYTAGA

IACFGYDQKVSFVDGNIRRVLSRLFALENPSMKELEKRAKELLNLNHAFDHNQALLDIGALVCVGKNAKC

RICPLYDFCQGKFHTELYPRAKKILYESLNLNLFLFEFNKKFAIQKSQDKLYKGMYNFPFFKEGEYKLSK

DMGFVGEFKHSYTKYKLNIKVYHQILNNENKNYEFKTLKELESTALSALSLKALKLIKL

>AHK59319.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFKKIYIELSDICGLKCDFCPSQKGIRGVMSEEKFQNLAYEISNKAELFTFHLLGDPLLLPNLENYLKI

AKDEAMKLEITTSGFYLNSKNQALLLGYENIHQINISLMSFLSQSKISLEQYFKPILELCKKHLEQKSLS

FINLRLWNLDANFKAPKSNLKIYEFLAKEFEAKIDANLSKNRLQRHILLHQNKLFKWPNLKDEPLYKKGK

CHALKEQIGILSDGSLVPCCLDTKADINLGNVFENNFDKLFRSPRIKMMKKAFEEDKRIEKLCQTCEFFK

ARLGD

>AHK59318.1 hemin transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILIIMSLFLIALNAKERLVVLDPASIETLFMLKAEDQIVGIATLQHSNIYPKDQTSKLTSVGTFSNP

SLEKIVALKPSLVILSSYSLNLEEGLKNFGIKSINLKAERLEDITKNITTLGQITKKEKEAELLKQEFNQ

KFKKLSDKPLNKSAIYLYSSNPLMAFNDNSLIADILRLIGIKNLSPQSQISRPVISAEYILKQNPDILIL

GINAKNNLLDTNALLKNTKAVKTGSIYFNKDTPILLRLSPKIIDRIQEFKTKLENNNF

>AHK59317.1 heme ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKIHNLSFAYHQKDLLKNIHLELKNQAFIGILGPNGSGKSTLLKLILKNLSPNKGVISLFNTNIKDFSL

KEFAKICGFVPQKSELNTPLKVIDVLLMSKYPNLKHAFSSYSKEDILEIKEFAKDLRLENFLERSILSLS

GGEFQRMLLARALLKKPKILFLDEPTSALDLNYAIELLNLCEKLVKEKNIAVVAILHDLNLASIFCDKIL

FLKEGEIKYFGTSKELFTQEILKEIYDLNCEIIYKNSKPYILALKEKK

>AHK59316.1 iron ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNLNTHSKILVIIGLLVAYIIASFTALCLGDENLNPKELFSYIFSQDEILRQIIIDGRLPRIIMAILIG

MLLASSGAITQNVFSNPIADPYIIGIASAATFGAVLAYLLKLNDYYYGILGFVCSAFFALGVFKISSKAS

IATLLIIGIAASSFLGAFTSFFTYLIGEDSFKIVAWLMGNIGNASWFRVGILILPLIFCLFYFYAHKNEL

NILLSGDDEARNLGVNAQKLKINLLIVSSLAVSFAVAFSGLIGFVGLIIPHTIRLLLKNYNNALVIPLCT

AFGGLFLLICDTLARTLLAPVQIPIGILTAFFGAPIFLYLALSARRFL

>AHK59315.1 ligand-gated channel [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHPNKKAFKLSLFALLLITNLNAQESNKAINLQKVVVSTTGFEQDADSNLRNVISIEGKDLQNKGYVSLE

QALERISSISFVNFGLGRNIDMRGQGNKSNIAVKVMIDGHAINVLDNSHGVTPLDSINLDNVERIEIIPG

GGSVLYGSGTRGGVINIITKKQKSDAFAINLKSSAYDHGGLGGNLGINGAKQINENLAFSFDIQSFNLDG

YQEGYNEKGYFINTKTYIDINDNSDLTLGYNYFKSKNTSSGYLTKAQAQSDPTQKGKSDNITQINRPEIS

LDYHYYFDDIWEFNLEAFWQNQKINYLKDVSTMSYMNMSLPVYQNGSGFEDTLTGISLKNKLNYANNSYF

IFGYEFANHDAKRKSLVYYSVPSVINYHRMTTLIDMTKQSHSIFALDSHNFNEFFTLSGGARYEFSSYNT

DRSYRNEMSMNGRPPSPTIIDSTTLFDTNKNANNFAFEITPNFKYSDTGKLYIKYERGFVSPSPAQFVNK

DKNSQKYYSANLNPEIFDTFELGIDDFWWDFYGFNLTLFYTLSKDEISYLGNPHSTSGSWWKYYNIDQTR

RLGVELSLSQNFLDDDLIFRESLTYLDAKISKGVNDGMRIPYVSKIKATAGLEYAWNKNFSNFIDLTYFS

RAKDGGTIDENTGKMSKNSWIRDYFLTDIGMKYNYKKLQILAGIRNLFDKRYYTYQDSINDQYLVGNGRN

YYVEFKYAF

>AHK59314.1 hypothetical protein N920\_08030 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFESIISHMNDHHKSNLVDLCKKFGGIEQVQDVFLKSVDFNGLDLVYNDKENLRVEFPKKADENTIKDA

IISLCMSAKSEQNFSGVEKELNEFMLSFNSVALATLNANGEVVCSYAPFVSTQWGNYIYISEVSEHFNNI

KVNPNNIEIMFLEDESKAVSVILRKRLRYRVNASFLERGERFDQIYDEFEKQTGGEGGIKTIRKMLDFHL

VKLEFKKGRFVKGFGQAYDIENGNVAHVGASGNPHKFLHKH

>AHK59313.1 peptide chain release factor 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLASKLDPFFKRFEELNSLLSSSDILNDISKMTTLSKEQKNLEPIVLKAKEYLKTLDNIEENKALLNDPE

LGELAKEELKTLEELKPKLEEEIKILLLPKDPNDERNIFLEIRAGTGGDEASLFVGDLVKAYARYAENRG

YKLEIVSSSEGSVGGFKEIIMLVKGTGAYSRLKYEGGTHRVQRVPQTESQGRVHTSAITVAVMPEVDDIE

IEINPNDLKVDVMRSSGHGGQSVNTTDSAVRITHIPTGIVVVNQDGKSQHKNKESAMKVLKARLYEMQES

ERLAKESEARKSQVGSGDRSERIRTYNFPQNRISDHRINLTLYRLDAIMQDGLFDEIIEPLITHHQAQAL

QEQNL

>AHK59312.1 30S ribosomal protein S20 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MANHKSAEKRARQTIKKTERNRFYRTRLKNITKAVREAAANGNKNAANEALKVANKSIHAMVSRGFIKKQ

TASRRVSRLALLVNKIA

>AHK59311.1 phosphatidylglycerophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKLFLTFFYSGSVKKASGTFGTIAALIPAFFILKYLGINTLFLLSILIFVASIRVIDDYEKKTGIHDDK

HIVIDEVAGVFLACAIAASVENSIVNFILAFVLFRLFDITKPSIIGKIDKKVKGGLGVMLDDMLAGLFAG

LLSAVIYGFLLKFNLVFWDINLKDLF

>AHK59310.1 sulfate adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKSARKNKNIIIDQNEFGILSLIKEGLLGTCTHLMNEKEVNEIIKSGKFKGESFPYPLSFAPKNAEEALN

DIKSGDRIDLMLDEKVVGHIDFKSQFKNNKNFSDIFSPNTCSLEDMGTTCISGKIEIYNSQIEKIKENFQ

QIKNNLNAQKITAIVSSFDPLHRAHERMFRWTIDKADLVVIFLVESFDVNGFEFELKEAYLKKFIQNYLP

PDRIFIFPLKNINIFHAHLNPGLESIIAKSLGCTKLVVGQNHTGLGMFYDDNQPKTILDDFSKDYGIEVI

VLPEFVFCDQCRMIVSTRSCPHGCHHHLHYNSQSLKDLLRAGIIPPAIFIRKEVSSVILTSLFPNRLKNM

QKIYNELFPTDGILEYKNDEEFYQKLLEIHQMSYMV

>AHK59309.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVLIIENEIYLAQSISIKLSDAGYSCEIINSFDEYNGEKYYDIILLSTNTNNFLKAVGQFKHSIIILLI

SYISTDTVSNPLKLGASDYIQKPFMIEELIRKIKHYQDFRKLSILNKAYQSYIKSRLETIKIPEYNYKKL

KLPLILKSNKQSSADAFVFNYANECDITLSFIDLTSTNSVEKVMKLPTENNLLFLSNFQALKAAEKEKLL

DFIQNKNVILHTNSNTDDLKINCINLNDNEKNINSNEILTIDEYVKYVIINYQNIFPDTDLSKKLGISRK

SLWEKRKKYEISKKK

>AHK59308.1 2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSEMSLIMLAAGNSTRFNTKVKKQFLRLGNDPLWLYATKNLSSFYPFKKIVVTSSNITYMKKFTKNYEFI

EGGDTRAESLKKALELIDSEFVMVSDVARVLVSKNLFDRLIENLDKADCITPALKVADTTLFDNEALQRE

KIKLIQTPQISKTKLLKKALDQNLEFTDDSTAIAAMGGKIWFVEGEENARKLTFKEDLKKLDLPTPSFEI

FTGNGFDVHEFGENRPLLLAGVQIHPTMGLKAHSDGDVLAHSLTDAILGAAGLGDIGELYPDTDMKFKNA

NSMELLKQAYDKVREIGFELINIDICVMAQSPKLKDFKQAMQSNIAHTLDLDEFRINVKATTTEKLGFIG

RKEGMAVLSSVNLKYFDWTRL

>AHK59307.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEQILEKLKTVKYPGFEKDIVSFNFVKDIKIQDDGVFIDIEIVSANPEVANEIRKNTIEALSSLALKNI

ELNIITPKIPEEKSNSRSGKNIAPQVKNFIMVSSGKGGVGKSTTTVNLAISMAKMGKRVGILDADIYGPN

IPRMLGETKTQPEVVGQRLKPILTHGVYMMSMGVLIEEGQGLMWRGAMIMKAIEQLLADVIWPELDVLFL

DMPPGTGDAQITSAQSIPIAAGVCVSTPQTVSLDDSKRALDMFNKLHIPIAGVIENMSGFLCPDNGKEYD

IFGKGTAEDMAKAYKSEVLAQIPIEMIVREGGDEGKPVSFYHPESVSSKRYLMAAEKIWSFIEKINNEGG

ADNSAIQPVMNGKSACSH

>AHK59306.1 2,3,4,5-tetrahydropyridine-2,6-carboxylate N-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINTKEDFLLLIKQIEQKSGYKKPKAFGIARLDRGQLNKNKILQASFALINYEQNFGSAAIMLEAFMQRG

VEIDFNASEFVQTLKLEDIDFALSCFKPFLEEDGHQNIDLLKIIKDKFKDDEFSFVCLFEDKEPLSVESI

YLKLYLLSTKKVPLRSINLNGAFGLLSNVAWSDDKPIELEYLRANEMRLKMSNQYPKIDFVDKFPRFLAH

IIPEDNTRILESSKVRMGASLAAGTTIMPGASYVNFNAGTTGACMVEGRISSSAIVGEGSDVGGGASILG

VLSGTSGNAISVGKACLLGANSVTGIPLGDNCIVDAGIAVLEGTKFLLKDAEELAKLNPYFNFDKEIYKG

LELKGLNGLHFRQDSISGAMIVALNKKAVKLNEALH

>AHK59305.1 phosphoribosyl-AMP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNFKELNEKIAWQKVDNLLPVIIQDAKTCEVLMLGFMNNEALEKSLESGKVVFFSRTKQRLWMKGEESG

NFLNIIDLSLDCDNDTLLILANPVGPTCHTGDISCFEKISKNADFVFLARLEKLINARKNADENTSYTAK

LFKSGTKRIAQKVGEEGVETALAATVKDKEELICEAADLMYHLSVLLADANLSFSDVISKLKERHKA

>AHK59304.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLTKRIIACLDVKDGRVVKGTQFKNHKDMGDIIELARYYSQNGIDELVFYDIAASARKERISREWVSEVA

KNINISFCVAGGIKSEEDAAELLANGADKISINSPALNDPSLITRLAKSFGVQCVVVGIDSFKDENGNLK

VFQYTGDEKTSKHSGKSTLEWVKKVQDLGAGEIVLNMMNQDGVKNGYDLEQLEAVYKICKVPLIASGGAG

KMEHFLEAFKLGIDGALAASVFHQKLIDIKELKIYLKNQGLSIRI

>AHK59303.1 HrgA protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSSKLSYKELTLEILKQSDRPLSVNEIWQKALEQGLDKKLSSIGQTPIATLGARIYVDIKELQHNSLFIK

ASQKPTTFWLKERENELLKLDNKNEITNEKQEKNKFHERDLHPLLVKFLYENLDFNLNCKTIYHEQSKKG

KGGEDKWNYPDIVGVYFPYDDYEKETITLLENIKQNSYKLFSFELKIALNFSNLKECYFQAVSNSSWANE

GYLVVLQEIDSEVLSELRRLNQSFGIGVIKLEKDISNSQILISAKEKELDIQTLNMLINKNPNFKEFIDD

INKQIKVGKEAKIQANFDEIKSDEEMEKYLKEKCILEK

>AHK59302.1 1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)methylideneamino] imidazole-4-carboxamide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTQIIPALDLIDGEVVRLVKGDYEQKKVYKYNPLKKFKEYEKAGAKELHLVDLTGAKDPSKRQFALIEKL

AKEVSVNLQVGGGIRSKEEVKALLDCGVKRVVIGSMAIKDATLCLEILKEFGSEAIVLALDTILKEDYVV

AVNAWQEASDKKLMEVLDFYSNKGLKHILCTDISKDGTMQGVNVRLYKLIHEIFPNICIQASGGVASLKD

LENLKGICSGVIVGKALLDGVFSVEEGIRCLAN

>AHK59301.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIIIIDTACANLASLKFCLDRLGFNATISRDLKELESADKLFLPGVGTAKEAMKNLEQFNLIDFIQNTK

KPLLGICLGMQILGNFSEELNQETLKLIDFTTQKFKAKEGFTFPHMGWNEVYSSHALFKGLEGAYFYFVH

SYCVGLGKYTIADCEYSQKFSASVMKDNFYGVQFHPERSSEAGEILISNFIKDIG

>AHK59300.1 imidazoleglycerol-phosphate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSQKILFIDRDGTLIEEPKSDFQIDTLEKLRFEKDAIPTLLKLKKFGFKFVMVSNQDGLGTPSFPKENFE

IAHEKMLDILKSCGIEFQDIFICPHFENENCACRKPKTAMLEEYIKHELYDKEQSFVIGDRESDMILASN

LGVRGLKYGELSWKEIENEILSSFRSASYQRTTKETDIKVKVCLNGGKVSIKTGIDFFDHMLEQIAVHGG

IGLEISCKGDLEIDEHHSVEDVALALGACIKKALGDKIGIARYGFALPMDECLASCAMDFCNRPHLVYKA

KFKKSHLGALSTEMIEHFFYSLSYAMGVSLHLKVKGKNDHHKAEGLFKAFAKALKMAVKIESENLASSKG

VI

>AHK59299.1 bifunctional histidinal dehydrogenase/ histidinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQILVYDNLDEKQKEEALKRPAISAKDEISKIVSSIIKEVQEKGDKALIEQALKFDKAEISKIKITQEEI

TQASNRLDKDLQEAILVAYENIKKFHEAQIPHEIALETTKGVKCEVLTRPIEKVGLYIPGGLAPLFSTVL

MLAIPAKIAGCEKIVLASPAKINDAVLFCAKLCGVDEIYQMGGAGAIAALTYGTQSVLKVDKIFGPGNAF

VTEAKRQVSSDINGAAIDMQAGPSEVLVIADDLANEKFVASDLLSQAEHGADSQVILVCLSQDFAKKASD

EVQSQLELLPRKELASKSIANSRIIIAKDLNQALEISNLYAPEHLIIQTQNPRELLKGVKHAGSVFLGAY

SPESMGDYASGTNHVLPTYGLTKTHSSLGLADFSKRMTVQELSKEGFLALGKSVEILAQNEHLDAHKNAV

TFRLESLK

>AHK59298.1 ATP phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQENTRLRIAIQKSGRLSKESIELLSECGVKMHIHEQSLIAFSTNLPIDILRVRDDDIPGLIFDGVVDLG

IIGENVLEENELERQSLGENPSYKLLKKLDFGYCRLSLALPQENKFQNLKDFEGLRIATSYPQLLKRFMK

ENGINYKNCTLTGSVEVAPRANLADAICDLVSSGATLQANNLKEVKVIYESRACLIQKENALSKEKQALV

DKIMLRVAGVMQARESKYIMLHAPKEKLDKIQALLPGVERPTILPLAHDEKNVALHMVSKENLFWETMEA

LKEEGASSILVLPIEKMLK

>AHK59297.1 50S ribosomal protein L17 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRHKHGYRKLGRTSSHRAALLKNLTIALVNSGKIETTLPKAKELRGYVERLITRARLGDFNAHRAVFASL

QDKNATNKLVTEIAPKFKDRNGGYTRIIKTRIRRGDAAEMAFIEFVA

>AHK59296.1 DNA-directed RNA polymerase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRNITTSAYTPTEFTIENISDTVAKISAWPFEIGYGITLAHPLRRLLYTSTIGYAPTAIHIDGVAHEFDS

MRGMLEDVALFIINLKKLRFKIKGDSNKEIVEFSFKGSKEIYGKDLNNDQVEVVNKDAYLATINEDAELK

FTLIVEKGIGYVPSEEIKELINDPKFIALDAFFTPVREATYDIEKVLFEDNPDYEKVVLTVTTDGQITPN

EAFQNALEAMYKQLSVFDKITNVRSVIKNQATSNELENTKLLQNITDLNLSARSYNCLEKAGVVYIGELA

LMSVSELAGLKNLGKKSLDEIKNIMESIGFPVGTSKLSDNKEILKNKIAELKAQNEG

>AHK59295.1 30S ribosomal protein S4 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MARYRGPVEKLERRFGVSLALKGERRLAGKSALDKRPYAPGQHGARKGKISEYGLQLREKQKAKFMYGVS

EKQFRRLFAEAARREGNTGVLLIQLLEQRLDNIVYRMGFATTRRFARQLVTHGHVLVNGKRVDIPSFRVE

AGAKIEIIEKSKNNPQITRAIELTAQTGIVAWVDVEKDKRFGIFTRKPEREEVVIPVEERFIVELYSK

>AHK59294.1 30S ribosomal protein S11 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKRKIVKKKVVKKNIAKGIVYISATFNNTMVTVTDEMGNAIAWSSAGGLGFKGSKKSTPYAAQQAVEDA

LNKAKEHGIKEVGIKVQGPGSGRETAVKSVGAMEGIKVTFLKDITPLAHNGCRPPKRRRV

>AHK59293.1 30S ribosomal protein S13 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MARIAGVDLPKKKRIEYGLTYIYGIGLFTSRKILDKVGISYDKRVHELSEDEAAAIRKEIQENYMVEGDL

RKQVAMDIKALMDLGSFRGLRHRKGLPVRGQKTKTNARTRKGKRKTVGAKS

>AHK59292.1 50S ribosomal protein L36 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVRPSVKKMCDKCKVVRRKGVVRIICENPKHKQRQG

>AHK59291.1 translation initiation factor IF-1 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKDDVIEIDGTVLEALPNANFKVELDNKHVILCHIAGKMRMHYIRIMPGDKVKVELTPYSLDKGRITFR

YK

>AHK59290.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRKSKFGTKEIKILGLSSLGGTLEFYDFIIFVFFAEYIANVFFPKDMSEFWALLNTYGAFAAGYLARPLG

GIVMAHFGDKFGRKNMFMLSILLMVLPTFVLAFIPGYETLGFLAPVLLILIRIFQGIAIGGELPGAWVFV

REYCQEKQKAFFLSCLNSAMALGILLGSIVFLIINAFFSIEEIAAYAWRIAFFVGGIFGIISIYLRRFLQ

ETPVFKQMKKESSLSSFPLKDLFKEKDIVKNLFSSMMMTWVLTGCVIVLVLLMPKFMPSILNLSGVEGSY

LQILGILGIALGGAFMGYLVDKFGLFKICIFFSLTFVFFSFLYFYALYELKNLVLVCILYSIICFLGGIN

VFAPILMSEVFRAKIRFSGISFSYNISYAISGGITPQLVFWLNTLASKNENPFLYGMSIYMIFLALLAIC

AVFIVKDKIKF

>AHK59289.1 multidrug ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPFIMELLKQNKLKLISFLLFSFITSAVGVLTLVFINDYLLKNAQNIPIFYFIVLLLIFFISSTIVELGL

SIFGQNFIFKMQRRVVKQILDTPLLRVAKVGKARILASLGSDVRNISFGLLRLPDFLQSSILILCTSVYL

CYLSPQIFALCVVWIMVIFITNNFLMMKVYQYFRKARENDDALQNNYQNILDGHKELLINRDRAKLYYED

EFENNARLKKKNSTLGNLFNNLSNNWTNVTLLALVGVEFYLALKFEWASVADATTIALSILFLRTPLVSM

IGSFPTLLLAKIALDKIAKLELDDYIEGFKKTHYISEWKKISFRNTQFAYEENFHLNPVNIELKKGELVF

LIGKNGSGKSTFCMLLTGLFKPSKGGIYVDDTLIDDKNLDEYRSLISAVFSDFHLFTKTLNKENFASEEK

IAFWLEFLELKNKTSVKDNELTLTKLSTGQKKRLAMLIALLEERDILVLDEWAADQDPVFRRFFYKKLLP

LLKEQGKTIFAITHDDAYFDSADRIFLAQNGEISELKGENIKELAKNLVEKFD

>AHK59288.1 globin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKEQIQIIKDCVPILQKNGEDLTNEFYKIMFNDYPEVKPMFNMEKQISGEQPKALAMAILMAAKNIENL

ENMRSFVDKVAITHVNLGVKEEHYPIVGACLLKAIKNLLNPDEATLKAWEVAYGKIAKFYIDIEKKLYDK

>AHK59287.1 peptide ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLRWFVLLFLLFLNLEAKIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKS

WDISKDGLVYDIFLRDDVLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLF

KPYPAFLDALSIGMLPKHLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLI

IKHIFDPSIASAELKNGKIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALN

YAVDKESIVKNLLHDYAFVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEF

EIWAMSNDPLRVSLAGILQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQD

SALNDEGWNFGHYHDKKVDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGI

KTRTLGHHGVGFTWNVYEWSK

>AHK59286.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKRLVFSIFIAFFSTFLCFVLLHFSKGSIAYANGVNSQSKEFVQRIEQNLGLDKPLLEQYKIWLFKALK

GDLGVSFLSGESVLKLIKERIFNTFILGFSALMLLFLLSVFLALLGYYYKESFIDKIITFLAFNFFALPP

FVLALLFVLIFGIFWKILPVMGSSDIGFEDDFLNRLEHLILPVLVLVLSHLALFLRIARNFINESFSQIF

IQNLYARALREKDIYFLVLKYSLSPIVAYFGGSALSFMMGTYVVESVFAYKGLGSLLFKSIIFKDYPIVL

ALIFFSVLLAAFFTFLSDIVARILNPRLRRLDFV

>AHK59285.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFKFLIILAPLIFLFLCALFAPFLALFDILSTHLENLHQAPNFTYILGTDFLGRDLFSRLLFALRNSLII

GVGGSLLSIIFALCYLFLARCFFYVFCMRILEFFLALPAFLLMMFFQSMITSDVFLMIFLIALIHWCFIA

RIIESELKRLENLDFYKANIVLGRTKFRAFFKDLIPALKTLIFTLFIFNIVHAIATEATLSFFGLGLGFE

IPTLGTLLSESSKAVFIGAWWMILFPLLSLLLLFLPLLWLGNFLQKIWGIRS

>AHK59284.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVRNLNISSKNNLLLKDINLDIKTGKTLMILGQSGVGKSLLGKALVRLLDSNFTISFDELSFHNSCIFN

FNKEELRNFRSKVALVLQDAELSLYPYLDIGNLCHLVLKTHTKLKQKERKDYAFSYFQKLGFENLDRLWH

SYANELSLGMARRVSLALALLNQPQILICDEITASLDKENASKIISILKELKNTTALVCITHDLNLVNSL

ADEILMLEKNSSNLYSLNEFLRYYNA

>AHK59283.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKVCNLSKFYELKKHWYLKKERHIIFDNVNFSLNENDNLIILGKSGAGKSTLARILCFLEDPSEGEVWY

ENLNLHKLDKNKQRLLRKQIQYCFQDQKMALNPYKKIKNLIQDGLENFNLQKNDDLILEFFDFFSLKKQI

LEQKSYELSGGEATRVGLIRALVLNPKLLILDEITSAFDIKTSKEILTFLYDYQQKNNISYIFITHQSDL

FYKFNHKKLKL

>AHK59282.1 NADH dehydrogenase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSHIDASHPYFGIFLMLVLASVIFFGLVFLASKIGNNFAAKNRKKLGLGIYECGPIPVKQANKINSQFFI

IALIFILLDIEVVFLFPWALIFKDLGWFGFLEVFVFIVLLGVGFLYAYKKGAFAWQSIK

>AHK59281.1 NADH dehydrogenase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAEHQVNYASGLPVVLTSVDKLVQWGRSNSLWALSYGLACCAIEMMAAGGSRYDFDRFGTIFRASPRHSE

VMIIAGTLCKKHAEFTRRLYDQMPDPKWVISMGSCANTGGMFNTYSTVQGVDRIIPVDIYVPGCAPRPES

FQFALMILQKKIRKEKASRKIAPKRLI

>AHK59280.1 NADH dehydrogenase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRKYSDKKNAQTQNYYKDRFYHAPHTVKSDVNESVFKEDFEVLKTQVEILNSFVELDFWVIEIKKEDNVK

TLQMLKTLGYLSFTEASAIDFIADKNGFEVFYQLLNLEKKLRVRIKTFVGVKERLQSVAHVFKGANWSER

EIYDMFGIFIINHPNLKRILMPDDWFGHPLLKTYPLKGDEFARWYEIDKIFGKEYREVVGEEQRDSGFAD

DKDTLNFARLYHEVPKGGQKKEISFKQEYQEDEGVAFVKKVKRDEAKILEKRR

>AHK59279.1 NADH dehydrogenase subunit D [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIPSKLKPYYENIAFEQEDSKMIINLGPQHPSAHGNLRLILELDGEQVVKARPCIGYMHRGMEKMAENM

IYQEFIPTTDRMDYIAASANNYAYCAAVEKLCGLEIPRRAAVIRMILLELNRITSHLLWLATHALDIGAM

SVFLYCFREREYVLDLIEKYCGARLTHSSMRIGGVMLDLPENYLEEMLAFCDKFPNDLKDYEDLLDDNRI

WRLRTENVGVVTKEQALNWGCTGVMLRGSGIKYDIRKEEPYLLYNEVEFGVPYATQGDSYARYKVYMQEF

RESLKILRQCAMLYKDTSPEILATHPEYVSASKEQILTQNYSLMQHFVLITQGLKPPKGEVYVPTESPKG

ELGFFIHSDGTGRPYRLKARTPSYWHCAFFEEMLVGTYLADVVAIMGNVNIVLGEIDR

>AHK59278.1 NADH-ubiquinone oxidoreductase chain E [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRRVDLRKSKELFEDLAQIIKEAKQGEVLVVLFEIGDFSPVEKSFSFVKEQGCELLNSLKFNQVDWTIVI

KKERV

>AHK59277.1 NADH dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIYDNALCFLDMPSLKNKNLCEKIGVNSINISCLEDKNLKAKFYKCEIASLSFVLALLCKLSDEGQFCDL

DEGYLSAESCFGEEEAGEVLAFLKEVKYLIIDKNIHSYKDSENIKYFLNFLSVKYGLKILDSDEEECDFK

KAKLNTLKELDNYDGLVLFRANLQDKNLHCSKQFLQIAKCKDQSEVEILAKDFSFKTKLCLDENLQGTIA

FLNYENNGFDFTPIRIKEAK

>AHK59276.1 NADH dehydrogenase subunit G [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTVKINGIDCAFEEGEYILNIARRNDIFIPAICYLSGCSPTLACRMCMVEADGKKVYSCNTKAKEGMVVE

SDLQNLWDERNEIMQAYCINHPLECGVCDKSGECELQNFTHKSRVNVQKHWIKDTHKPHKHWGMINYDPA

LCIVCERCITVCKDKIGESALKTVPRGGDSVDNSFKESMGKDAYAIWTKFQKSLIGPANGDTLDCSFCGE

CTSVCPTGALIGSKFQYTSNIWELKRIPASNPHSSDCELMYYDIKQSGISNQKEKIYRVSNDFAFASLNK

AARFAFDTQNEADKDEKAFKELVELFEKNEIKNIKFNSFITNEEALILQNLKKKFNLSLINEEALKFKEF

LQEFIANSGEFYSANTQDITKSDFLVVAGMLLRYDAPTLSYKINNALVMNKGSGLYFHPMEDMGIAKYSK

NFIPHIHKNGDEEQILYFLLQKFSQDEGIKTHLAEFFVSENKEIEESINEEVVEQVIEKDEEGNEIQKEV

KKVVPKKVKKIIEVQRSVFAKNLGIDEDKLEDLLLKKANFTLVAGSDFYFHKNAKKLAKLLALIQNTTPF

KVFLNPTHTNTLGVAMICDLDNNTQEGKTLGYNEKGDFSFSYEEHANLASASLNQQEGTFLNYDKRVVPT

NAALEFKGYFLNDLANALGFDEEYTINYTKRLPINKGFSPIDFDHLDNFYTNAGDCKRGYELNLECFKQV

AKKEFISPNFENLSLKEDEILLYSANPSYQFGRFSNRASAINEVIFLGVSENLAKEKNLKDKDLVKLKIK

DKELSLSVRVDKDIKNGAFLPYFDEKLDTLSFFDERFVVANLEKLGANHE

>AHK59275.1 NADH:ubiquinone oxidoreductase subunit H [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSDFAFFALETLIKCIIIIAIFASLAGLATYAERKVLAYFQRRIGPDMVGPFGLIQLVADMIKLFTKEDI

IPSNSQKFIFAIAPLISAICAFVSLAAIPMLPEFTLFGRVIQPIVADINVALLFVIGTSGLCFYAVFLGG

LASNNKWSILGAARGLVSIISYESVGALALIAIIMLVGSFSLVDINNYQSDGFFSWLIFKQPLAFVLFII

ALFIETNRTPLCLTENDAEIVAGYGTEYSGLRWGMFFIGEYTSMIAGAILVTLLFLGGFNSFWIIPGWIM

MIVKSSFIFFWYFWARAAFPQLRPDQVMKMCYLILIPLAVLNLLITALTVLL

>AHK59274.1 NADH dehydrogenase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNYYLVDEKRKTPVSTWEKISQALRRSVKLELFVGLFVMMRELLKRNNSATIKYPFEKVKLDNRYRAVH

RLMRFIESENERCIGCGLCEKICISNCIRMETSLDENGRKKVENYSINLGRCIYCGFCAEVCPELAIVHG

TEYENAAEQRSYFGYKQDFLTPIDKLKNQVEFEGAGSLRKDANLWVKKTPNYYDVMIERALENQNTQEQG

ENK

>AHK59273.1 NADH:ubiquinone oxidoreductase subunit J [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIENLAFVFFSVVVLGFFGIAVLSKNMLYSLSALAGGMVFLSGFYFLLDAEFLGVIQIIVYSGAVLGLYS

FAMMFFDASKEFKEQLKAKKSFFTLVVLSTILLLAMLIGFKYQNISTDLPLNDPALFDFNKQLALAIFSK

YLLAFEFIAILLLIALVCAIVLTHKELTKEKQ

>AHK59272.1 NADH-quinone oxidoreductase subunit K [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIEKYFFVAILMFVIGLVGILKRQNLIMLFISSEILLNSANLALVAASKMHNDLNGQVFALFIMGVAACE

VAVGVALCVLWYRRKGTLELKSLKEVEA

>AHK59271.1 NADH:ubiquinone oxidoreductase subunit L [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNLALISLFSPFVAFLFASCFALSEKKQFVGIICSLLVALSAFCSLYLLFCNEAFNVSLFEWFAGVNFG

FDIDAISLTMMSVVGIVATCVHFYSIFYMAHDEGFNKFFAYLGLFVFSMLFLVMSDNFLGLFVGWEGVGL

CSWLLIGFWYKNDTYSFAANEAFIMNRIADLGMLLGIFWLYLQAGTLKYDEVFSMAQSLDHNALILIATC

LFIGAMGKSAQFPFHTWLADAMAGPTPVSALIHAATMVTAGVYLVIRASTLYDLVPEVSYIIALLGAFVA

IFAASMALVVRDLKRIIAYSTLSQLGYMFVAAGLGAYGIALFHLATHAFFKSLLFLGAGNVMHAMNDKLD

IKKMGGLFKPLKITAILMCIGSLALAGIYPFAGFFSKDLILGYSFISFHHGIFLVLLIAAFLTAFYSFRL

LMLVFFTPARHDEHPHEASKIALLAMSPLMVLAIIAGFFEHSFFEYLSTKLVFIDAQNQIVMICASVAAI

LGAILAIFAYKNSWFKESIEENKIHKLLSNDYFIPQFYHQFIVSKYESLCAILKHCDLYIFDRIVEKIAL

YSQNISQKMIMPNSLNLMLRFLVAAFVILLILVWMV

>AHK59270.1 NADH-quinone oxidoreductase subunit M [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNYLIFFPLISAFVVLLLNRGGVKVFSVVVSFMILALNLDIFADFLQGVSFDYNLSFKILKFFSFHVGV

DSIALVLILLSSLMIFLSFLFLKLEQKALISCIFFLEFAIMGLFSAKDGLLFYVFWEFSLLPLLYIMGVY

GKDFRAGVKFFIYAFAGSILMLVALIYQAYLNYQLLNIFTFDLEIWKNNASAVNFTEQLLLFGAFFIAFA

IKAPLFPLHTWAPKVYANSPILVSVMLVVFKMAPFGFLLFCLPLFPDASVYFMPLIVALCIVSIVYNALI

AYRAENIKELIAYSSISHLGVMILGIFSLNALGISGAVFYMFAHGIVTGALFLMVELLYQRYHTYDISFY

HSLAKKAPLFSIFFMLILLASVSLPLTVSFVGEFLILLGIAKINLFYALLAGLVIILGAIYMFAVFRKIF

FMQKQSFIEGFSLLFREIVALVCIVVMIFGLGLMPNILLKPIQKDVDNLIKTMNIRAVEQNTLDFLSKIG

EANVK

>AHK59269.1 NADH-quinone oxidoreductase subunit N [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNNFLNLELLNISLSYPFLFLITTAIVLLLCSGFWKFHRSFYIGISSLSLIVSAFLILNNANAQGLEAK

AFLATLNNDIVSFYASLVILCFSFLYLLMQKEENQGEFYALFLFMIASLLLMVSSSNLVLIFIGLESSSL

ALYTLIAMRGSDNAISSAIKYFSVAAVGAGFFVMAVAFIYLKTGTLDLSANLALKNEFQKDPMLLGAGVM

IFVLCAIKLSLAPFHFWLKDVYYAAHTNLVAFISVVPKVAMLVVVIRLFDFLNNTGFEYIIIVLAIFSML

IGAFAALSQNNIKKMFAYSSVVHSSLVLVACIPLLKEQNFDGILLAIFGYWTLFAFANYAVFMILSNYEN

NSYESLNGLLVKKPLIAFCLSISVLSLAGIPPFGVFWGKFMILNTAILNGYWYLALFVALSSVIMLYAYL

KILIHALFMKNDRVHNIKFSFIQNFILAFCVCVSTFVILLML

>AHK59268.1 paralysed flagellum protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRILFLILLSFLNAFAFELVLNTGRENNQAFAVLHASNDLEFTCQKFITEAKVHFECDIVGMVDNKLKDQ

SFSAFDLKFIQEAQKIKMIILPKIQARMFDTSQNIYIDKELSSSSSHKSKAFTFIFTPELAPIKDYDGLD

FNINFPHESLPYVGALDLNSDPVVIPQSADINTYLRIKKEYDKANYNQVVIDAQNAINRYRGSIFTSEFI

LYKLRAQNKLYTQDPSMRDQQILEKMIDDAKNWTRTFTSDKNFSEVLHIMLRTYIALAQRADVEYTMSIL

DNEQPNNYFTQLSKLDYADYIYNLNEKEKAVNIYENTYFNTKNLDLAARAAMSLAKNLLSNEQVNKAIEY

INTILKANPEYFGKDIPRSLELAKLFNQKGQFDISASIYEDAFAKMSKLDPSYEETLKDLALVLSHANRS

SDAKKYLDLYMDDYLDGKYLDEIKKASDEVFFALGDNNASFLHQRYTDLMKQYANKDENIANKALDEDVA

LYYKEGNFSAILAYKDLIESKKIPNATQFLEKAAINDLKNAIKADNCINAANIFMRFSAYDIGQKIENKK

QMLACLIRTSNVEQALDYIDKNYNEDSIFYGLQKASILFDNKQYPQVIKISKDIANSRILKSDDENFKAY

YLQFLSLLRLNDYNQAIKILQILESFPMNFSMVEAYDALLSYANDHNMQTTILTYAPKAIDYQNFKGINL

FSPNLEFIYLDALTKINKNEESLAVLTDLLKLKLSDEDRARALYIQALTYERMQNIQAEKESLKQCLEIK

SASNWQNLCKSKNQILNQ

>AHK59267.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNSIKIKLSLIANLIAIFALIVLGIVSFYFTKTSLYESTLKNQTDLLKVTQSTVEDFRSTNQSFTRALEK

DIANLPYQSLITEENIINNVGPILKYYRHSINALNVYLGLNNGKVLLSQKSNDAKMPELRDDLDIKTKDW

YQEALKTNDIFVTPAYLDTVLKQYVITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTPGNTFLFDQKNK

IFAATNKELLNPSIDHSPVLNAYKLNGDNNFFSYKLNNEERLGACTKVFAYTACITESADIINKPIYKAA

FIQAIVVIIVVVFSVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFGQISNAINE

NILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARVGSDMNAIH

KIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLTTSSNSQAQ

SLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAGEHGRGFAV

VADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNVEIANESAI

ISSTVSDIANNILEDVKKKRF

>AHK59266.1 NADP-dependent alcohol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQYKILENNRIASKGYAMLSKDAKFTPFEFSRHAIGDNDILIKILYAGICHSDIHTARSEWGEATYPCVP

GHEIAGEVIAVGKNVSKFKVGDYAGVGCMVNSCGECDACKRSQEQFCENGKTIFTYNSCDVFHGNENTYG

GYSNNIVVSEKFAVCVPKDAPMEKVAPLLCAGITTYSPLKFSNIKEGSSVAVAGFGGLGMMAVKYAVKMG

AKVSVFARNENKKADALAMGVSSFYTSCDKNAVKERFDLIISTIPTPYNPAIYLDLLKFGGEMAIVGLPP

HEVAPSISVITFVHKAGKKVYGSLIGGIAETQEMLDFSLKHGIYPETELITPQEIDKAYENLTSGKAKFR

YVIDMTKE

>AHK59265.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKENSPCNFEECGFNYTLALINGKYKMSILYCLFRYEIVRYNELKRFLSSISFKTLTNTLRELENDGLI

IRKEYAQIPPKVEYSLSKRGQSLIPILQAMSKWGKKDKKGKKCLN

>AHK59264.1 NADPH quinone reductase MdaB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNILLLNGAKEFGNSKGQLNLTLHNHALEILKTLGYEVDQTHIDQGYDPKEEIQKFIKADAVIYQMPAW

WMGEPWIVKKYIDEVFGLGAGVLFKNDGRTHENPSKNYGKGGLDHGKKYMFSLTWNAPLEAFNDKNEFFE

GKGVDMVYWHLHKAHEFIGMKALPTFMCNDVVKNPQVEKYLNEYELHLKKIF

>AHK59263.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTRTKYLYILLVIAMFLWGSSWPTSKILANYTDTSIITFWRFFFVVLGSFFVLNFLKIPLKIEKTALKWV

LIAGVLNGLYAFVFFIAIKHGLAGKGGVLVTTMIPIFSYLIFMIAIFFQKNKKSTHKITKSEILGLFLGL

LSGFCLLNLGSLEDLFGKFNILFLTCSFIWALMAVFNHKAKGAHPLAINFYINLISILMFSWILFDVKSY

EIFHFEFKFWISMFVVAFLSTIIGTSIYYYGIHILGSVKANSFVLITPASALICSYFILDEVPNALTLLG

CALAIGAIYFINIYGKKA

>AHK59262.1 allophanate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSIKIIEASINSSLQDFGRKKFAKFGIARSGAMDEDALRMANILLGNKQDEAGIELCLKGGKYEFLDENY

FVLSGAEFEAKLDNQKIKTCKVYQANKGDILELDLAKIGFRGYLCVAGGFEVKSFLNSKSSDAKMGAGVF

EGRALQKDDILNTHNTFIPFNLEARECENPLFKSPKEPIIRVILGTNEDAFTQKGIETFLNTTYKVGLKS

DRMAIYAESSESIEHKNSADIISDPAVFGSIQVPKSGIPIILMAGRQSTGGYTKIATVIENDLSLLAQAK

LGSSFKFQSISMQEALELYKQREMKFKAMDQKINLDFENLI

>AHK59261.1 allophanate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFSVHFSGSKALLLRFEQEISPQINAYVLSTEQRIQKALKEGEIYGIDELVSAYASLLIYFNPCVLSLNS

LLDFLEKIKKDIKLAEQNSSLCIEVPLCYDEEFGLDLEFVCKHNQISKEELISLHTKPYYLVFMLGFMAG

FPYLGGLDERLFTPRLSSPRAKIEAGSVGIADKQTGVYPISSPGGWQIIARTPLEFFDKEDEKNPTLLKA

GMFLKFKAISKDEFFDIQEQVAKKVYQKEIYEYKNH

>AHK59260.1 LamB/YcsF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFKVDLNSDLGESFGAYKMGMDEEILKFVSSVNVACGFHAGDPCVMDETLNLAKQNGVCIGAHPSYPDLL

GFGRRNMQISFEEAKNYALYQLGALFGFAKAKGMKIQHFKAHGALYNMAAIDENLALALCEAVASFDENI

IFLGLSNSAMNEAAKKKGLRYANEVFADRAYNDDGTLVSRKLEGALIHDENLAIKRVIKMIKESKVTSIN

GKEIDLKADSICVHGDNAKALEFVKKIKENLKKEQIQICALENFI

>AHK59259.1 tungsten ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIISLALALALSASAAELKMATTTSTDNTGLLDALKPLYEKESGNTLKWVAVGTGAALKMGEDCNADV

LFVHSPKAEKEFMKKGFGVDRTPVMYNDFIIIADKSLASKFKGKNLKESLELIKNEKLTFISRGDKSGTD

NKEKSLWKNLGGVPEKQSWYQQSGQGMLASIKIAEEKKGVILTDRGTYIKYEANEKGKPNLVIVNEGDDS

LKNFYSVIATNPKHCKNVNYTEASKFIKWVTSDKTLNFIADFKLLNKPLFVIDAKTRKD

>AHK59258.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDYIFDGFKQALFLLFNADESVISAIKTTLLSSSISIVLALLIGFPLGFILGFFEFKLKRFIKLIVDTSL

SFPTVAVGLILYALISSRGPLGEFGLLFTIKALILGQFILALPIVIALFSNLIENMNKKHFLLIKSFHLS

PLKLVLTMIYELRFALISVVALAYGRIVAEVGVAMIVGGNIKYDTRTITTAISLETNKGEFASGIALALV

LILIAFCLNFITHKLKRT

>AHK59257.1 metal ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIEISNLFFNYQNKEVLKIKNLKLDTSKISILMGANGSGKSTFLRILKFLEGDFSKNISYFGNFKPNNKQ

KREIYLLFPEPILLNRSVRANFLFTLKTYGIKEDIEERIKESLMFLNLDESLLSKHPNELSSGQSQKIAF

AIALSVRAKYYLLDEPSAFLDKNTTLLFKKTILKMHENFNTGFLIASHDKHFLDSLAQKKLYLHSGEILE

FENTNVFELENQGVKFCNFIDFSNCKKYKDFKKPPSKIAIDPYKISFFNSKNIPKNNYDFILEKCYIIAL

RSRKSDVFIRVSCMDKILEFALEKQEFLRFDLKLYEELSLYFYEDAICFLN

>AHK59256.1 acetyl-CoA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNQNNQELFKPSKEFSRNARIKNLCEYYDLCDEAKEDFEGFWKRQAFEKIEWFSPFSRVLNEDKAPFYK

WFEGGTLNVSYQCLDRHMKTRRNKAALIFEGEMGDYEVYTYRRLLHETCKAANLLKKFGVKKGDRVVIYM

PMIPETAIVMLACARIGAIHSVVFGGFSPEALRDRIIDAGAKLVVTADGAFRRGKPYMLKPAVDKALSEG

CESVEKVLIVIRNNEPIEYIKGRDYVYNELVKNESYKCEPEIMDSEDLLFLLYTSGSTGKPKGVMHASAG

YILWAQMTMEWVFDIKDYDNYWCSADVGWITGHTYVVYGPLACGATTIMHEGTPTYPNSGRWWRMIEEYQ

ISKFYTSPTAIRMLHADAPNEPRKYDLSTLEVLGTVGEPINPSAWKWFYDEIGGTKSPIVDTWWQTETGG

HMITPLPGATPLKPGCATLPLPGIFAEVIDEEGNKKDEGEDGLLCITKPWPSMIRGIWGNDERYIESYFS

QAKKDGKAVYFSGDGAFYDKNGYITITGRTDDVVNVAGHRIGTAEIESAIAKHPSVAESAVVSILDTIKG

ESLFAFVVLSPASSCDLGGAIETLKELNDILRVEIGPIAKIEKILYTPGLPKTRSGKIMRRILRTIARGE

EIKQDISTLEDSKVVETIVKLAKAEFE

>AHK59255.1 UTP--glucose-1-phosphate uridylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLQTCIFPAAGYGTRFLPATKTLPKEMLPILTKPLIHYGVDEALEAGMENMGFVTGRGKRALEDYFDISY

ELEHQISGTKKEYLLDEIRSLINRCTFTFTRQNQMKGLGDAVLKGRPLVGDEAFGVILADDLCVNEEGLN

VMAQMVKIYEKYRCTIIAVMEVPKEQVSNYGVISGNFVEENLIMVNSMIEKPSPDEAPSNLAIIGRYILT

PDIFGILENTKAGKNGEIQLTDALLTQATNGMVLAYKFQGKRFDCGSVEGFVEATNYFYEKSKC

>AHK59254.1 glucose-6-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNNTLFFKQSEIHTISSYANRINDEVKSGDIGYYHLIDTSLNLIDESLQFIQDKEYVKNIVLVGMGGSS

CGVKALRDMLFNEKSNQRELFILDNTSSHSFNKTLEKIKLEESLFLIISKTGSTIEVVSLFKLLIEHFKL

DMQELKKYFVFITDKDSKLHQEGENLGIKCFFIPANVGGRFSILSAVGIVPLCFCGYNAKALLEGAKACF

EDFFTHKKDEILQKAYHYCTHKNANINVLFSYSDAFKGFNEWYIQLIAESLGKKQGYKRIGLTPIALIGA

RDQHSFLQLIMDGPKNKTVTFLKIKDAQKAPIIPDIHFKFLDSLSNKVNLHELLNAQCDATMHALIAENL

SVDVIELEKLDAWHAGYLMYYYELFTSTCGVMLGINTYDQPGVEVGKLILKNILNS

>AHK59253.1 DNA polymerase sliding clamp subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSVTKQLLQMQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEMAELFDSCAERVLQLGEKAITCQK

VLMENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLWMIG

ATLQGACKM

>AHK59252.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVLNFFYENHPKFEVSYERKNQISKPNIIIKGPRFCGKKTLIFNFLSQFKASEILFLDLYDTRFEKQSL

ERLADFLNENLQIKILCLYNLDFIPNLEKINIPIILSTNIKDLNVNGFEELELDYFDFEEFISVSKKNLP

INNLVGLFLQSGRSKFGEKNILLRQSFTLLELEILKYLALNLGQQISISKIFIELKKRLKTSKDSVYQAI

KKLENTYVIYTLKHDEKKLQKIYFKDFGLRNNLCISKDFSHLFENLVLSELFKFKEEFFYNKYFNFYSQI

SKIAYISSPTLDIDLIKLRAKKILPKALELGIFHVIFITLSSEDNFFEQGVKFEVISFDKFSLGF

>AHK59251.1 mannosyl-glycoprotein endo-beta-N-acetylglucosamidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKPIIIFFSLFLIPLFADDLKSGFGEEYYKLDIDQKRQIFFIKMNEMFDQSFKKIEQERAFIEAFFKDAY

KTGFRTSNQINLEKLITIKNKYRIENLYDFAEYKKRIQKIPKSMGIAQALVESATGTSRFAREANNLFGE

WTWGEKGLIPDLRHPDKKHKIKIFDSLQDSVDSYVLNLNRHFAYEKFRDARAKFESEGKEITGLEAIKTL

DSYSERKGYYINLITKIIKRYNLEKYDTNSNNT

>AHK59250.1 diaminopimelate epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFYKYCASGNDFVITNADRKEDRSALAKELCNRYEGIGADGFIVILPHEKYDFEWEFYNNDGSRAAMCG

NGSRAAAHFAHHINKINPNMSFLTGAGIIKAKVNQDKVEVSLGKIKSVQNTFEELGKTWQLCNTGVPHLV

HFCQNLDEFDTMLCQKMRQKYNANVNFVKILDENHLKVRTYERGVEDETLACGTGMGACFYLAFLNKKVQ

NKVKITPKSGEEVGFAYKNEELFFEGKVKYCFEANYNFF

>AHK59249.1 dephospho-CoA kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKIDRKI

LGEIVFNNKEAKKILENFTHPKIRAKILEQMQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPKELS

LKRIMQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNM

>AHK59248.1 phosphoribosylaminoimidazole synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKISYEDAGVSIDNGNTFVEAIKPLVKETFNDNVVGGIGSFAGAFRMPSGFKKPVILGATDGVGTKLRLA

IDAKKYDTIGQDLVAMCVNDLICNFATPLFFLDYYATAKLEVEVAKAVVSGIAKGCKMANCALIGGETAE

MPGMYAKDDFDLAGFAVGMAEEDEIDRSKFVKNGDILLALSSSGLHSNGYSLARKVLFESLKLKFDDKIE

GKNLIDILLEPTRIYVRDFLTLKPYISALAHITGGGLVENLPRVLPRGMGATIRKHHLKTPEIFYTIGQA

VEESEMYRSFNMGVGLVMVVDPSNVSKILENSDAFIIGEICINEGIVLE

>AHK59247.1 CRISPR-associated protein Cas1 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSYDEAFKTLLISSNAKLNLELNHLVIKQDENIAKLFLKDINIIVLESLQISISSALFNAFAKYKIILLT

CDETHSINGVFTPFLGHFQSAKIAKEQMNVSAQKKAILWQKIIKNKILNQAFILKKHNKIEQSNELINLA

KKVSLNDSKNIEAVAAALYFKTLFGTSFSRDELCFENSALNYGYAIIRACIIRAVCISGLLPWLGIKHDN

IYNSFALCDDLIEVFRASVDDCVLKLKGESEFLSKDDKRALIGNLQSKINFDGQNYPLNRAINHYVANFK

NALLYEDELKIVKFDD

>AHK59246.1 CRISPR-associated protein Cas2 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIEDKFMRVLLMFDVPTKSKKEQKLASKFRNNLIKLGYFMLQFSVYMRICKGLSSAKSSIENVKKILPPY

GNVRALIITEKQFDKMELLLGGIVFNEKVNNETNLTLFDIDSHGEFKYKNSNNEEIQINKKQEKYHQQNL

FEF

>AHK59245.1 molybdenum cofactor biosynthesis protein MoaA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLMSYEESLKILHSHIKTYEKIEKIALTECLGRILAQDIKAPKNQPEFPTSAMDGYAIKFEDQDKPLKIL

GLTPAGTMPQFSVQNGTCVKTFTGSLMSEGSDTLVPVENIRIENNTLFIEKKVPQAFAVRAVGENYKKDE

ILLKKGTRLNYSEIALLAELGFFHISVFIKPIVGVLSSGSEIKDLGEALENPAQIRSSNHIAIANLAKNL

NCDTRVFPLLKDDEKATFSTLESALQSCDILVTTGGVSMGDFDFLKKAIKEYEIIIDKADIKPGRHIKIA

KANEKFIIALPGFPYSAMVMFNLYTREILNSWLLQPKDYICKAFLQGSYKKKTPYLEFVACNIEFKNGRI

LANLEGKKEGSSAIINNLNNKAALMVVPKECEMLENESLVDIIFMP

>AHK59244.1 molybdenum cofactor biosynthesis protein MoaE [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKHFTLYQGSLDIPKIYSQWYEFSKDKNCGALLTFCGIVREEGGIEALSFDIYESLLKKWFDEWQKRVDF

DGISLLFAHSIGDVAIHESSYFAGILSKQRKLGLKLLNEFVEDFKASAPIWKYDVINKERIYAKERSTKL

CGAGLLKG

>AHK59243.1 molybdenum cofactor biosynthesis protein MoaD [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVKVEFLGPINKENLELEVKNLKELKEILQKDESLKEWLELCAVSLNDEIIFNENTKLKDGDKIALLPPV

CGG

>AHK59242.1 bilirubin oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNRRNFLKFNALTLASMGVAYANPMHDMHSMHKNHSINHDLDTSFINFAPKNLKLLDPKQFPQGEILKAL

PLLKNESKEKNIFRATLEIKENHIELIKGKKTLFYTYNGLVPAPKIEVFEGDKLEILVKNKLKEATTIHW

HGVPVPPDQDGSPHDPILAGEERIYRFEIPQDSAGTYWYHPHPHYTASKQVFMGLAGAFVIKAKKDALSH

LKEKDLMISDLRLDENAQIPNNNLNDWLNGREGEFVLINGQFKPKIKLATNERIRIYNATAARYLNLRIQ

GAKFILVGTDGGLIEKAIYKEELFLSPASRVEVLIDAPKDGNFKLESAYYDRDKMMVKEESNTLFLANIN

LKKEKLELPKNLKIFKPLEEPKEFKEIIMSEDHMQMHGMMGKSENELKIALASMFLINGKSYDLKRIDLS

SKLGVVEDWIVINKSHMDHPFHIHGTQFELISSKLNGKVQKAEFRAFRDTINVRPNEELRLKMKQDFKGL

RMYHCHILEHEDLGMMGNLEVKE

>AHK59241.1 carboxynorspermidine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFYEKIQTPAYILEEDKLRKNCELLASVGEKSGAKVLLALKGFAFSGAMKIVGEYLKGCTCSGLWEAKFA

KEYMDKEIHTYSPAFKEDEIGEIASLSHHIVFNSLAQFHKFQAKTQKNSLGLRCNVEFSLAPKELYNPCG

RYSRLGIRAKDFENVDLSTIEGLHFHALCEESAGALEAVLKVFEEKFGKWIGQMKWVNFGGGHHITKKGY

DVEKLIALCKNFSDKYGVQVYLEPGEAVGWQTGNLVASVVDIIENEKQIAILDTSSEAHMPDTIIMPYTS

EVLNARILATRENEKISDLKESEFSYLLTGNTCLAGDVMGEYAFDKKLKIGDKIVFLDQIHYTIVKNTTF

NGIRLPNLMLLNAKNELQMIREFSYKDYSLRN

>AHK59240.1 hypothetical protein N920\_07560 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGALMDLEKLRLARSLYYQCLGELFVFSFSEERLSKLQEYLKTMQECLFDENLKSNFDILLKHLDDENSI

QAFFKEYDLLFLSLKNSIPTTFSYIEEGFENSNPLLCVRQILVKSKIRRNEKFFKESEDSVGFCLLLMSE

FLRQNEDDLAKELFEKVINKSIDEFLGDVFMNKNANLYKEIASIASAFMEFERLCFEVEKPAKINSKKVQ

NDLSRSEFLRREANKQRRTREKSQGIS

>AHK59239.1 Tat pathway signal protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNRREFLKKSAFALGAAGVLGSTTLALAKDEERKDLVKGKSKKKEVLFQRSANWENYYIKAE

>AHK59238.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSSVGENIKLTRRSFLKMAALSSLATPLLARSETLREASADELKEAYEGSKKVKTVCTACSVGCGIIAEV

QNGVWVRQEIAQDHPVSSGGHCCKGSDMIDMVRSHVRLKYPMKKENGEWKRISYEQALSEIGEKLAAYRK

ENPESVMFLGSAKLNNEQAYYIRKFAAFFGTNNVDHQARI

>AHK59237.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTNHLGDIQRSKCIIIIGANPAVNHPVGFRHFLKAKEKGAKLIVVDPRFTKSAAKADIYARIRPGTDIAF

MYGMLKIIFDEGLEDTKYLDERVFGIDKIREEAAKWTVEEVENVTGISKELLVQITHEVAKNKPTTLIWA

MGLTQHTVGTSNTRLAPIVQMVLGNIGKFGGGVNILRGHDNVQGASDMACLSENLPGYYPLNEATWRYYA

KIWGVDYEWLLGNFVSKDWMHKTGLSLARWWAAALNGKDGNDAIDNAGTPLKALVVMGNGITSTAQQVKV

KEGLEALELLVLADPFVNEAGIIAERKDGIYLLPAATQFETSGSVTATNRSGQWRFKVVDPLYESMEDQE

ILFELAKKLGFYEDFTKTLRDEKGEIVWPENATREIAKAVRSIGLNGWSPERLKKHTLYWDKFDEVTLEG

KDEVAGEYYGLPWPCWSDKHPGSPVLYNTDIEVAKGGMGFRNNFGLEYEGESLLAKNAPLNSPIDTGYPQ

ITKDNIEKVLGITLSAQEKEKMGSTWSYDDSNIIATKCIEKGIVPYGNAKARAVVWTFKDKIPLHREPLH

SPRNDLVQKYPSFEDQKALYRVDTKFVSVQQAKDYSKEFPLNLVTARLVNLNGAGMENRASMYLTRLTPE

MFCEINPELAKEQDIKAGDMIWVHSPEGTKIHVRVKVNPGVAKDMIFLPFHFTGVMQGVDLTHNFPEGTK

PYASGESANTVTNYGYDIMCQIPETKGGLCRISKDGK

>AHK59236.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKVNFANLEKERLKFFCDNERCIDCNGCAVACDEAHELPIHIRRRRVITLNEGIQGKEVSTSISCMHCD

DAPCSIVCPVDCFYIRADGIVLHDKEICIGCGYCLYACPFGAPQFPKDSVFGNKGIMDKCTMCAGGPEAT

NSEKERELYGQNRIAEGKVPVCAAMCSTKALLVGESSKIEEIYHNRLMNRNYGIPNPSESLEWKIAYTGK

ERL

>AHK59235.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRKVFVTLLLSVVSLFAYGSERMGQDTQIWDFHRITNIPNYDTFGKLWTTLQGEYIATIALIAVIAVLSA

FALHYMVIGPKQFSHDGKKIYAFTLFERLFHFIAAISWVILVPTGFVMMFGEVFGGGVFVRVCKNLHAFA

TILFIISIIPMFLCWIKRMLPASYDIRWMMIVGGYLSKIKRPVPAGKFNFGQKSWYYIAVFGGFLMIITG

GFMYFLDFNSTAIQGLFGLTQIELLRISAIVHNFLGIVCAVFFGVHIYMAVFAIKGSIHSMISGYKEEEE

VYILHSYWYKELSNKKQIEPSFSYDPNVKI

>AHK59234.1 formate dehydrogenase accessory protein FdhD [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDPLFTTQILKYKGDESFTCNDTLVREIKLEIFINDEKVGALMATPVDEQALAIGYLMSENIIAKVSDIE

SIETKDDGMSVHIKAKIDKENLAKLNAEGVVISGCGRAHTANIDPEAIEASKISSDAKFSKDEILKQMST

FYTQCELYEKTGCVHTAKLFVDEKTFFIGEDIAQHNTIDKALGKACLAGVDLSQCFLMVSGRLSSEMVAK

AVMHKIPVLVSRTAPTCLGVMIARKFDLTLCGFARENKINIYSGEFRIHG

>AHK59233.1 regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDKNQEKEIISYMRELLNSNEKLDCGTAFKIAKKFNINIEKIGQLADENHMRIDNCELGQFGHLDFEKAK

IEVLKKIEPSLDEKRRIFCKDARDIAKEGCGLKSMRSALKTYKVDVKYCQLGCFKEKKGKQFIVRTKTWI

ENADGDLLFGRGKTELLELIGQTGSLLHASKLMGINYKKAWMHLQTLQKNSQEILVSTRQGRSKESGTKL

TPRAMELMENYSILQKDIEEYANKRFKELFLKGKK

>AHK59232.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFKSLNIGLKLIFSVAAVVVIGLVILISLITKQVSQNITKNTEDILASITKEYATQTQGIFGEMIALNKS

ISGTLTEMFRSTSKEDLDIDNITNIITNTFDNSAYSNFTYLYLIDPPEYFKEESKFFNTQSGKFVMLYAD

EEKDNKGGIKAIQASDEIANLQVVQDILKKAKYGENKVYIGRPIKMNLEGQDFDAVNVAIPIFDRKNQVV

GVIGMTLDFSDIATYLLDPKGQKYDGELRVLLNSDGFMAIHPNKNLVLKNLKDINPNKGAQETYKAISEG

KNGVFNYIASDGDDSYAAINSFKVQDSSWAVLVTAPKYSVFKPLKKLQLIILGASFIFIFVVLGVVYYCV

RKIVASRLPVILSSLESFFRFLNHEKIEPKAIEIRANDELGAMGRIINENIEKIQISLEQDQNAVDESVQ

TAREIEKGNLTARITKNPINPQLVELKDVLNRMLDVLQSKIGSNMNEINRVFDSYKALDFSTEVFNAKGE

VEITTNILGKEIKKMLLASSNFAKDLANQSEELKNSMQKLADGSNAQASSLEQSAAAVEEINSSMQNVSG

KTVEVASQADDIKNIVNVIKDIAEQTNLLALNAAIEAARAGEHGRGFAVVADEVRQLAERTGKSLSEIEA

NINILVQSVNEVAESVKEQTAGITQINDAIAQLETVTKENVEVANVTNNITNEVNQIAAAILEDVNKKRF

>AHK59231.1 regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIDCRNLSCPQPIVETKNALEKLQENEILEIVLNSIISKNNVVKFLNSLNLNPVVDENAQEFCIKVQKK

NFDSSEVNIHDYNVLFLKTDKVGEGELGQNLLVGFLSTLKNLDHAPSKILCVNESVLINVDENHKAHLAM

KELENLGIEIISCGACLEFFNKSKELKIGNIGNAYEILNELFGKAKIITL

>AHK59230.1 segregation protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKTPALLSDIGNNEDASVYQISPDLALVQTLDFITPIVDSAYHFGAIAAANALSDVFAMGAEVINALNI

VGFDTCNHDLNILKELLEGANDKVKECNALVVGGHTIESTELFFGLSVTGKVHPSKFIANNTSKIGDCII

LTKPLGTGILSTALKAQMLNQKHLDIMLKNMIELNYKASQIALKFHPSAMSDVTGFGLLGHLKEMLNKNI

SFEIFESELPFLDGVKEYFNMGLIPAGAYKNLEFIKELTPDLNEEKLLLCDPQTSGGLLISISEKDSLEC

LKKLEDENIQAKIIAKVVNKQENDIIIS

>AHK59229.1 1-pyrroline-5-carboxylate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIQKALALAEELQGQIEANISNSEKEFHAKMQKLLNNPKNKVMLIELLDRSFRCKDKNASFELIEYTLSK

YGIADFFSTFEKFLLFSFLNFGKFAPNLSVPFFVKHLREDTKAMVLDANPSVLEPHIKKRKEQDKITLNV

NLIGEEVLGEAESKYRMQKYEEALKSSYITYISIKITTIFSQINIIDFNYSKEEVVKRLDYLYALALEEE

KKQGVSKFINLDMEEFRDLELTVAAFMESVAKFDIKAGIVLQAYIPDSYKYLKKLFAFSKERVLKGMKSI

KIRFVKGANMESEETIASQRGWELPTFYKKIDTDSNYNKMLDFILEGDNYKYINIGIASHNIFEIAYAYT

RISEVGALDSFTFEMLEGMSLQCSYELSKMHDLILYTPVCDEAHFNNAIAYLVRRLDENTSEDNFMRYFF

NLKVGDKNWNIQKELFLKSLEGIKTLDNTTHRKQDRNKESNIISSYEGKKFSNESDTDFILAQNRVWAKE

IKTKYENLKDYDVYPVIGELDFKAENLNVLEVKDKIEDRVIGKAYLAGEKEIKQALEVAKNSKFTQKSHD

EIYQILAKSAKLMRERRGDLIGLAALEVGKTFLEIDPEVSEAIDFIEFYPHSLEELKKQNPKVTFTPKGI

GVTIAPWNFPIGISVGTIAAPLAAGNVVIYKPSSLSTLTGYMLCKCFWDSGIPKDALIFLPSKGSDISKY

LLIDEAIKFSILTGGEDTAYAMLKANPTLLLSAETGGKNATIVSKFADRDSAIKNIIHSAFSNSGQKCSA

TSLLVLEEEVYHDEEFKKTLVDAASSMAVGNPFEFKNKLGTLADKPSSKVQKALDELQPYEEWALKPKFL

EDNPYLMTPGIKYGTKKGDFTHMNELFVPILSVMKAKDLKEAIDIVNSTGYGLTAGFESLDEREWEYFHT

HIEAGNIYINKPTTGAIVLRQPFGGIKKSAIGLGRKVGIYNYITQFLEIKQEDFDDHLIEDKFSKKLAQI

DLKEAQDFINNLIKMSQSYAYHYKNEFSVSKDYVNIRGEDNLFSYTKIKNMVLRLCGNESLKDVLGVVLG

ANIANIDLSISYDEQDVSMIERIVQSIGAKVLFLKENKENFIKSIKEYERVRYLAKPDVNDEIYKEAAKL

AKIIIREKPLLNGRFELLNYFNEKALSISFHRYGNLGIRAIS

>AHK59228.1 sodium:proline symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEVVQINTPIAVMFVVYALLMLYIGFYFYKQNKNSEDYFLGGRTMGPVISALSAGASDMSGWLLMGLPGA

LYVSGFIDSYIAIGLTIGASLNWIFVAKRLRIYTSVIANSLTIPDYFETRFDDDKHILRIVCAVVILIFF

TFYVSSGLVSGAKLFESTFGIRYDYALTTGTIIIVAYTFLGGYKAVCWTDMIQGLLMMMALIIVPLVMLY

HLGGFGEAMNIVREIKPQALSMGEGVGIVSIISALAWGLGYFGQPHILVRFMSIRSTKDIPMATFIGIAW

MAVCLLSACMIGILGIAYVHKFELSLQDPEKIFIVMSQLLFNPWIAGILLSAILAAIMSTASSQLLVSSS

TIAEDFYKKIFREDAPSHIVLNLGKLGVLLVAVIAFLISTDKNSSVLSIVSYAWAGFGASFGSVMLFSLF

WSRMTRVGAILGMITGAATVVLWKNFANSGLYEIVPGFLVASVVIIIASLFTNVRSGTKAAYEKMLKEF

>AHK59227.1 hypothetical protein N920\_07490 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKITYSLNLQGEACPYPAIATLDVLPKLKSGEILEVLCDCPQSINSIPQDAKNRGFKVLEIDQSGPTLRF

LIQKP

>AHK59226.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNSFKQKYLINFWDNSRSMIALGILSAVYFGIFGGVWAVTGEMTRWGGEFLELLGMNLDGYSYYQKQNLN

GTPLTRTDGIMLIGMFIGCLVAALLANKVKFRLPASNIRIFQAIVGGILSGYGARLAFGCNLANFFTGLP

YFSLHTWLFTVFMVLGIYLGVKICNTSFFKPKAKLERVNKENLPLNKQSLRTKLYFNLGILLFIAFLVWV

FYLVFTNGNISTQNKQSLLALALIFGFVFGFVISRGQICFTSCFRDLFLFGRDNAIKGALIGMIIASLIA

FAFILQGHTSKLIELSPAVAVGAFLFGFGIVFAGGCECGWTYRAFEGQSHFIIVGIANIIGTMILALSYN

FLPKAFKEGIKINLLTEFGNLNGFFINLILFILMFVFVVFYKKHFFKNQLKG

>AHK59225.1 adenylosuccinate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKADIIVGIQWGDEGKGKVVDKLCENYDFVCRSAGGHNAGHTIWVNGVRYALHLMPSGVLHPRCINIIG

NGVVVSPEVLIAEMAQFENLKGRLYISDRAHLNLKHHSLIDIAKEKLKGKNAIGTTGKGIGPSYADKINR

TGHRVGELLEPQRLCEALIKDFEANKTFFEMLEIEIPSAEELLADLKRFNEILTPYITDTTRMLWKALDE

DKRVLLEGAQGSMLDIDHGTYPYVTSSSTISAGTLTGLGLNPKEAGNIIGIVKAYATRVGNGAFPTEDKG

EDGEKIAQIGKEIGVSTGRKRRCGWFDAVAVRYTARLNGLDALSLMKLDVLDGFEKIKICRAYEYKGMEI

DYIPSDLENVQPIYEEMDGWDKVFGIKDYDLLPENAKKYIARLEELAGVKVKYISTSPERDDTIIL

>AHK59224.1 hypothetical protein N920\_07470 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKSKYNSVVKVRKQQLDKAESNLNQAKQRQLEHEKAYELSRQECESLGVLPKSGSIAELRSNLSMAQVGR

EALARAKEKVELSKKEMNHYQFLYQKAHLDYEKMKVLEAEEIKQKQKELAKAEEKFLDEIAISRFFKGEK

DD

>AHK59223.1 hypothetical protein N920\_07465 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKKFILLVFISSVVFGAEQDCEQYFEARKAQIELQTREFDEARQSLEAYKASFEALQKERLENLEKKEA

EVNATLAKIEELKLENARLVEEQQKILNSINDKTQGRVKEIYSQMKDAAIADVLSQMDAEDASKIMLSLE

SRKISGVLSKMDPKKASELTLLLKNLDNNASN

>AHK59222.1 competence/damage-inducible domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRIKLPHIPYIANKMMLDIANSSFVEIKDQLEKLKVCIIEVLEKDILNERKLDERVKELLEQQEDEMELM

QVDRKNMFWLVKKKLAPEFNVILDSEDRHNHLAHQILEELVENDYINFIVSENRVKNLIFSSIESYLKIY

EKLEDEVYEKISNYKTKPIPGSEEYDLIFEKLYQEELRKKGMF

>AHK59221.1 carbamoyl phosphate synthase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKAYIYLENDIFLSAKAFGKSGTFFGELVFNTSLTGYQEIISDPSYAGQFIVFSMPEIGIVGTNENDNES

KEIFASGVLMRELSSSFSNFRAKESLQDYLEKHGKIGIYELDTRYLVKMIRNNGNLRAVISTEISNKEDL

KIALEKSAKIDEVNFVKEVSTKKNYSHKQGVWNASFQKFNDAKRSEKKVAVIDYGVKTNILNELVEVGFE

VEVYPYNVKADELITLYKKGEIQGVFLSNGPGEPRILKQEIAEIKKLAEAKIPMLGICLGHQLLSNAFGY

ETYKMKFGQHGANHPVINLDTKTVEITAQNHNYNVPEELAQVAHITHRNLFGDNVEGVRYKDYPIISVQH

HPESSSGPHESKYIFKEFMNLM

>AHK59220.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSIDFLAIISVAFLSSFGHCYSMCGGFNLLFINLNSKSNNLFLLTFIYNLFRIFAYIVLGIIFGTFGNIL

AINAKVQSLSFFILGIFMMILGFALIFRGNMLSFIENNVFFDSFVKKIIKKSKNFKGLKSAIFLGFSNGF

VPCGLVYFFIANAMSKQNIFEGILVMMIFGISTLPAMLFFSKISQFFSDFLKNLFNYLSYGVIVCYGINL

AYIGFKAFQ

>AHK59219.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKDFFKDQFFKALEKNTIFSRADVQGNLIFVSDKLCQISGYSKKELIGKKHSIFKHPDVEECYIEELLKK

LSYKKPYQVIFKNIDKLGKTFYLETLLIPILDKNNELIEIVAFSHDVSNSFKLNEELALNHAKLRELSIN

LENTVKNHQQEFIQLGKKFEKKMQIALEKNEKDIKIAYEEILKSSLEQMISDIAHQWRQPLNELGIAMFQ

MKQNLKDEKGFAEIYSQSKDMIKNMSETIDVFRTLFNKGVEQCVFIKETLNKALEIAFETIEKNHVNINI

VSKSDYEVLAYENGLIRVFLNLILNSIEAFKNKKRKIITINFSKFGKNYLKITIKDNAGGIDKENLDKIF

QPYFTTKHPSQGIGVGLYISRQIIESFQGKIKVKNGKDGACFEIFLKLKERVE

>AHK59218.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSQECKELIILVVEDEVKARESMINILSERFSKVIGAQNGDEGLKKFKKFKPDLVITDIAMPIMDGLDMA

REIKEISDDVPIVVLSAYSEKERLLRSIDIGIDKYLIKPVDIEELFKVLDYLIGEKIEANMLVKISEEYQ

FNKTKRTLIYSGGEIVLTKKELAFISLLLKQPGALVLHEDIKKNVWIGEHVSDTAVRTFIKRVRDKVGED

FIKNVPSLGYKININK

>AHK59217.1 cytochrome oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHPGNVLNYDYTVARYFMFATILFGIVGMAIGTLIAFQMAYPNLNYLAGEYATFSRLRPLHTSGVIFGFM

LSGIWATWYYIGQRVLKVSMAESRFLMAVGKLHFWLYMLTMVLAVISLFMGVTTSKEYAELEWPLDILVV

LVWVLWGVSIFGLIGIRREKTLYISLWYYIATFLGIAMLYLFNNMEVPTYFVTGMGKWWHSVSMYAGTND

ALVQWWYGHNAVAFVFTVGIIAQIYYFLPKESGQPIFSYKLSLFAFWGLMFVYLWAGGHHLIYSTVPDWM

QTMGSVFSVVLILPSWGSAINILLTMKGEWSQLRESPLIKFMILASTFYMFSTLEGPILSIKSVNALAHF

TDWIPGHVHDGTLGWVGFMTMAALYHMTPRVFKRELYSKSLMEAQFWIQTTGIVLYFASMWIAGITQGMM

WRATDEYGNLLYSFIDTVVAIVPYYWIRAIGGLLYLIGFFMFTYNIYKTIACGRVLDKEPKSASPMAA

>AHK59216.1 peptidase S13 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFSWLEKNPFFFAVAVFVVIAYAGIVEVLPNFAENARPIEGKKPYTVLQLAGRAVYIKDSCNACHSQLIR

PFKSETDRYGMYSVSGEFAYDRPFLWGSKRTGPDLARVGNYRTADWHENHMWDPTSVVPDSIMPSYKHMF

KNNADIETAYAEALTVKKVFNVPYDAENGTKLGSWEDAQAEVKAEAQAIVDQMKNQEVKDAFAKGEIKEI

VALIAYLNSLK

>AHK59215.1 cytochrome B561 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEHLSIVFDVIKNLITFDLATVQKHEWEIFQGYGFFALVMFLSIVLYAYWYHLYRTEKKGERNYENYANL

ALKDDIDDSVLESKRSA

>AHK59214.1 cytochrome CBB3 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQWLNLEDNVNLLSLIGAILIILITLVIVGRMFKQMKEKKGESELSEHSWDGIGEYKNAVPTGWAVVFFL

TIVWAIWYFLWGYPLNSFSSIGQYNEEVATHNTKFEEKFKNLSPEDKIAMGQNIFLVQCSACHGITGDGI

NGKAQNLNIWGSEEGIINVIKHGSKGMNFPGGEMLGAADLGVAEEDIPAIAAYVAKDLSAIKKTANENLV

AKGKEAYATCAACHGEDGKGQDGMFPDLTKYGSAAFVVDVLHSGKAGFIGTMPSFPTLNDIQKEAVGEYV

ISLSRGE

>AHK59213.1 hypothetical protein N920\_07415 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENNNRCVFSLSGVTGMLIATVLLLVILAVLTIWGLKAQQEVMQKPYSLKDVQSVKMFGSKEQDHRSIKE

AQ

>AHK59212.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILQDGFFLAIFFFVLLPSRVFALDAVLFNENILSQKVSNEINLIGKELYQKSNIFIGVMVGDKTEIE

TLLNKQKELPQSYILLLLSKNSHKVDIVGSKGALALIDKEAVLSPYPGTGSILPILATNKGDIYNAAILN

GYADIVDRVAKSLGLQLEHSIGNANRDTINILRILIYGFICFALLYYAQRRIKRKKNVRN

>AHK59211.1 hypothetical protein N920\_07400 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLETKKSFWPYGILLSLLAIIIACIVTIFIASHHPVYEDDFYFDSYQNVENNYNQIQKQQVNFDKFFKVN

FQNDKITFIGKRKIPSYEVDQNSYVANFKISALQNINSNDLKVQVLLTRPFTKNFDQKLEGQVKNGILSI

ALPKLDKGRWELKLKFYANQETVGFFSYELNAQ

>AHK59210.1 hypothetical protein N920\_07395 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLRIFSSSRQIREYYNQKKQQNALLDSAIHIGEFLDKVCLSNFHKASSYESLLLMQEACLKSKDLEKKL

GISVEFFAFLKNNEYLFSFFKELSLEKKSIEDLKNNDYYATYNEHLEILDEVYKNYLALLEKNSFYDDLS

LPKNYTLNKDFLDEYEAIVYDLQGFLSKFEENLLSEISQIKEVVLSFKTSKFNLEYLLKLDFLKIFDLKI

NTHYEINLSKQEILKEEIFKTKNSKMKLKSFELRALQCAFVMDEISHFVRKGLKPENIAVITPDESFCEF

LRLFDKDNMLNFASGISIKESLFYQKFQALYESASSASFVYKNQEDYFEDTQMIFDYHNTLLHSLKLDFI

EFKKYFDEKCDFEYFEKLLALFLENEKQELMYLIRKELYFIKDLLKNQSLTLKELIHLFFMQISQLSLSD

VGGGKVTVMGLLESRGLCFDGVILVDFNEEFIPKRSVNELFLNNEVRKKAGLISYDRRENLQRFYYESLM

KNALEVSICFVENEEKSKSRFLDELDFDFFYETHIHQKAYLNALKLDYEGIKPNLTPIKAPILKHNPFEF

PLSFSRFNLLENQKRTYYYRYILNLAEPRVLSEESKAKNQGNFIHKMLEIYYKNYANNDFDIKVFANLLD

KEYQKYNISELDLEVFKLKFMQFAKNEKEHFSKGFYVVHTELELNNILKLGTDSIKLKGTIDRIDSSKEG

NLIIDYKSGKVPSNSYQLAFYQALYDENASVGFYDLNSMQILHQKAKSLDELRERLKDLVLMSKEEIEFE

NEQDEYCPYKLIYKKELK

>AHK59209.1 recombinase RecB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSQFEPFLALEASAGSGKTFALSVRFVALILKGARINEILALTFTKKAANEMQKRIIETFLNLEKENKTS

ECNELCKLLGKDKEELISLRDAKKEEFLRTELKISTFDAFFGKILRVFALNLGLSSDFTMSEERLDVREI

FLKLLKKDELKDLAYYINLVDEKENFFNELEKFYENAYFQNRPKILNPTKAYINKAYSELRSYCLGLTHV

KNYKNLCDNFKSEVLDLSVFMQSSFMTKFESTKYLQDLESTNLHFSAKRMEFINALNTYAIELENYKIAN

LMNLLNHYSEAKNIFHKDKNTLNFQDVSKKVYELITSEFKDMIYFRLDGFISHLLIDEFQDTSVIQYQIL

RPLIAELVSGEGVKKNRTFFYVGDKKQSIYRFRKGKKELFDLLKQEFSQIKSDNLNTNYRSKELLVDFVN

ETFKEKIKDYKEQFALESKKGGFVRIVESKEQKVKNQAQEIKEKTLETLFEQINFLRSKNISYDDICILC

WKNSDADMVLDFLREQNIPAFTQSNVLLENKASVRLVLEYAKYCIFGDEFYLVFLKELLGFEPRKITLDF

SKNAMENVLFLIKELKLDLNDIALIQFIEYAKTKENFLKLLFEPCALKIVSEQNMGISIMSVHKSKGLEF

DHVILLDSLSKNNSNNEDIMLEYDINQGWQLHIKDKIRELTKEPIYTLFKENITRANYEDDINKLYVAFT

RAKESLIIIKRNEESVNGNYPSYFKGGFLNIHSQERGFLESKEQILSVKKESIQTLQKFEKITLQEIQSE

ERLDSKELYFGNAFHFFMQNLKLPKGENFQILTQRCKSKFRHFLDESDFEKLFKRIEILLKNIQFQNLIG

DGKLLKEQALSFNGEIKQLDLLALKDEEAFIIDYKTGLAMQDKHKEQVGTYKIAISEILQKDKVRAFIVY

CLENEIQILEI

>AHK59208.1 50S ribosomal protein L13 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKITKPNEVKREWIVLDAEGKRFGRLLTEVATILRGKNKPCFTPNVDCGDYVIIINASKAVFTGANKAE

DKLYHRHSGYFGSVKSEKFGDLLEKNPAKLYKLAVRGMLPKTNLGRAMLKKLKIYAGSEHPHTAQIAKEG

K

>AHK59207.1 30S ribosomal protein S9 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MATTYATGKRKTAIAKVWVKPGSGKISVNGVDLNTWLGGHEAIKLKVVQPLLVTKQETSMDIKATTLGGG

YSAQAEALRHGISRALAAMDADFRALLKPKGLLTRDSRTVERKKYGRRKARRSPQFSKR

>AHK59206.1 outer membrane fibronectin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIFLCLGLASVLFGADNNVKFEITPTLNYNYFEGNLDMDNRYAPGIRLGYHFDDFWLDQLEFGLEHYS

DVKYTNTNKTTDITRTYLSAIKGIDVGEKFYFYGLAGGGYEDFSNAAYDNKSGGFGHYGAGVKFRLSDSL

ALRLETRDQINFNHANHNWVSTLGISFGFGGKKEKAVEEVADTRATPQAKCPVEPREGALLDENGCEKTI

SLEGHFGFDKTTINPTFQEKIKEIAKVLDENERYDTILEGHTDNIGSRAYNQKLSERRAKSVANELEKYG

VEKSRIKTVGYGQDNPRSSNDTKEGRADNRRVDAKFILR

>AHK59205.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKTILFDLDGTLIDSTDAILNSFQGAFKALGLTSKNNEEIKNLIGYPLEQMFRMLYPDKVNLSKEFVLA

YREIYAQIYLEQTTLLPKAKEALELGSEIADLGIVTTKGGKFTPILLDYLGVKKFFKTLITLEDVTNPKP

SSEPIILALKGLNKTQENAYMIGDTILDIQAAISANITPLALTCGYGNENELKAHSMVFLNAYEAVNYIA

RLN

>AHK59204.1 Pyruvate-flavodoxin oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGKIMKTMDGNEAAAYAAYAFTEVAGIYPITPSSPMADYTDMWAAAGKKNLFGVPVKIVEMQSEAGAAGS

VHGSLQAGALTTTYTASQGLLLKIPNMYKIAGQLLPCVIHVAARSLAAQALSIFGDHQDIYAARQIGFAM

LCSHSVQETMDLAGVAHLAAIKGRVPFLHFFDGFRTSHEIQKVEVMDYAHFDRLLDREALLEFRNNALNP

ENPKTRGTAQNDDIYFQTREVSNRFYDALPDVVNEYMQEISKITGREYKPFTYYGHKEPECVIVAMGSVT

QALEEVVDYLNAKGEKVGILKVYLYRPFSLKYFFDVMPKSVKKIAVLDRTKEPGSLGEPLYLDVKSAFYG

RENAPVIVGGRYGLSSKDVDPAQMIAVFENLKLDNPKDGFTVGIIDDVTHTSLSTGEKISLGDESTIECL

FYGLGADGTVGANKNSIKIIGDKTDFYAQAYFAYDSKKSGGYTRSHLRFSKKPIRSTYLVSTPHFIACSV

AAYLEIYDVLAGIRKGGTFLLNSIWNAEETIRQLPDAVKKTLAEKEVNFYIINATKLARDIGLGNRTNTI

MQSAFFKLAKIIPYEDAQKYMKELAYKSYSKKGDAIVEMNYKAIDVGADGLVKVEVDPNWKNLELKEKEQ

TNAYKGTEFVEKIVKPMNAAKGDDLPVSAFLGYEDGSFEHGTTEYEKRGVGVMVPRWIEANCIQCNQCAS

VCPHAVIRPFLINDEEMANAPRGVKDHALEAKGTKGEKLSFKIQVSPLDCTGCELCVHECPTKEKSLVMV

PLQEEMDFGEQENADYLFKEITYKDDILNKETTKGAQFAQPLFEFHGACPGCGETPYITLITRLFGERMI

VANATGCSSIYGGSAPSTPYRKSVKNGHGPAWGNSLFEDNAEFGLGMKIATENTRHRIEHIMNESMQEVP

NALSALFKDWIANKDNGAMSVEIKDKMIPILEQNKNIKAVQDILELKQYLSKKSHWIFGGDGWAYDIGYG

GLDHVLASGENVNILVLDTEVYSNTGGQSSKSSRTGAVAQFAAAGKPIQKKDLGQIAMTYGYIFVAQVNS

TANYTHLIKAITAAEAYDGPSLVICYSPCIAHGIKGGLGYSGEQGELATKCGYWPLYTFDPRLEEQGKNP

LTLTGKEPDWDLYEQFLMNEVRYNSLKKANPEHAAELFERNKKDAQRRYRQLKRIAMADYSNEVES

>AHK59203.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MCFSTLFAQDNFEEYFKLIDKENRINFNTLQNPFVNPTFEKLRHIKITAIMLDKVKIYDRWYKKGDMIDD

AIIYEINTKEIKFQYDNLEIAIQINKNDKINININ

>AHK59202.1 type II protein secretion system D protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIRLILILINILFCHYLYALDCQKRLFDISINEKLSIQESLDELAKYCSFSIIVKDKIAKEKLETLQNSV

NIHQMSLDEIFNFFIKEHDLSYDFDGKILRISGINTKIFKISYITSIREGQSITKASVDAKPRQSEYSGS

FDDAEDNMIKSMEKFDFWQNIEKEIIVLLKNSHEDYEAKTPIINPNAGLIIVTGTNSQLKSVKNYLQKLE

NRLKKQVIIDVSILAVSLNESHSSGINWQNFNIGLNSQVNNENSFIQFQNGQGFVKNLGLRANLNFDSII

NFLSQNGKTSVLSNPKLMALNNQQAIISVGDTINYQVKESSKGTENGTTVSESYNNYSIFVGILLNILPE

ISDDGKIMLRINPSLSDFKYPEDNKRQKEPRTIAPDTIQKKLSSVVQVENNQTLILGGLISHDKSNEKNS

INFLSKIPILGSLFKGEVLNSKATEIVFIITPSIVDSVNAPSLKDLGFKHYE

>AHK59201.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKIIPFREEIFHQINQILESQKAFIFLWGKSGSGKSVLLQRLAKKYNVDFINENFKDQSFLKEKIEFLI

SQGQSLIILDEVGMYDYAMLESIRIYSDSISFVLSSHKKLNILKKEHFKSRLSACFKLKNISLLELDDYI

KLKFGMNFSNKCLKFLQKISQGNLRYIDKTLKSFYEINSFFDKNKSQEYILKLSALENGLLR

>AHK59200.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQERIKELELRYKYFLLKKYLKYLLLIILISVIAFCFFVLMQKYNKQKNIYLQAIEHKKHLEQKILQAQI

LQEKNKISREKLYKELEEVKAVQENTHISKIEIDSKILNISDLKKSFYQNPSYEKALNLAKKYFDIKAYQ

KTIFWALKANELDKQKQDSWLIFAQAKRALGEEKEAQSALDAYINYYGLMELDGK

>AHK59199.1 type II protein secretion system E protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MESRMDKIFQAYIDNEISLDEICTKFNITSWDFFNKLANFCNLHFVDLDEDNDFIYEGIPFSLLLKFKFL

LIKNNDGFMIIRSKPCSLELLEQVKTFMICEKIDTAIADELKIAKILNQIRIQEEIKRLSIKLRLEWQEN

HKRDDQSCISQIFDFLLHEILSFHASDIHIEARNNDALIRFRVDGILREFAIFEKDIYEALVFHVKFLAC

LNLAESRKTQDGSFELDFENERYDFRVSCLPLIYGESVVIRILKHDKEILDLYKLNLGNKNLEILKKILH

RPNGMILLTGPTGSGKSTTLYACLNELKSIEKKIISAEDPIEYKIPLVQQILLNSKVGVEFNSVLRAILR

QDPDIIMIGEIRDEESLDIALKASLTGHLLLSTLHTNDALSTIDRLLDMQAKSYLIASALSLVIAQRLVR

KLCPWCKQKSKKHYIEFEGEFFEPKGCERCHHSGFFGRELIAECLEINEDLACAIRENQDKTILMELAKK

YGFQTMFEQGLKKAKEGLTSIDELLRVVR

>AHK59198.1 general secretion pathway protein F [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFYEVEFLKNNQNYTKTIKAENLNTAQAKALSKNWKIIDIKEIQKSNFQRLKDENFILFFKELALLCEV

GLSVQEAIRELYFMHSCKIMKKILDNLILAQNLNQAFENANFGLNRAELALIKTAEKTGKISEVFSQISK

LREKSLESQKQLKKAFRYPTLVFLSIIGAFLFLMLFVVPNFKDLFENLGASLPFITHVMLEIYNFLDDYG

IFCIFLFVIFIVMLILAYKNFHSFAFSCDFLFLKVPLISRLIIYNQNYYFFMVFSLLLKNGISISKAFDL

AIIGLENKFLIFQYKKLFSFIDSGLELSQAFKKIDIFDSLVFSMLSVAMKSGRLEVLSEEIAKYYQQKSE

NLMDRFLIFLEPMMTLFVALLVLFLALGIFLPMWELSSGVNFN

>AHK59197.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGFEHLNTIYYFILFFVALFAGFIDSIVGGGGLITLPALIACGIPAHLSLATNKLQSVFGSFTATLTYFK

STTLPRLAWGVFFTALGAAIGSYSVLFVKDEQLKLIILIFLTLTFLYTALRPNLGKHESEPKIKNIKIFH

LICGLTLGFYDGFLGPGTGSFWIFACVMLLGFNMRKASINTKILNFTSNIIALAIFLWQYELLWAVGLLM

GVGQVLGAYLGSKLVLKTNGKFIKTLFLIVVGATIIKVAWDYFS

>AHK59196.1 hypothetical protein N920\_07325 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNFIHLKAKLDFLANQKNTNHSLFETPDPLQIAKIHNDEFIALICALFAYGNAKNIVNFLKKLDFSLLN

LQEKQIKKELKNLKYRFQNEKDIQEIFITLSRLKNEISLYELFYQAYQERENTTDAILAFMQKIKTLNSY

SSYGYDFFFGKIWQNTPTSPLKRYNMYLRWMVRKDELDLGLFTKIHTKDLLIPLDTHAHKISLTLGLLKR

KIYDYKSVLELTQNLKKLDANDPIKYDFALYRLGQSKEIDKFKE

>AHK59195.1 flagellar hook-associated protein FlgK [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGIFGTLYTGVTGLKASEVQIATTGNNISNANATFYTRQRVVQTTNGYITTGGVQVGTGTAVESIVRLHD

EYSYYKLKGASTQLEYTKYMASTLQEIAQRFPDLQNTGILQDLENYNKAWNDFASNPNENATKIALVKAS

QTLTESVNNTFATLDKIQKKVNDDIKNTVDEINRIGEEIATINKQIYGQEALPTEHANELRDRRDELELT

LSKLVSAVASKNEINQDNRLDTTITDPGHQYNLSIEGFSIVDGINFHPLKLDYDDKNKSYSIYYETPDEK

VRDLTAKISGGQLGAQLDLRGRNYSKSEGKYEDGIIQGYMDSLDTFAKTMINETNNLYASSAKSSVTSDY

LSGLKGDIPLVNYDRTIQPGSFDIVIYDDKGDKKLTKTITIDVNTTMNDIMRQINANTDDNDNKNSNDDV

DDHINASFSYDAKTGDGLFQINAKSGFKVAIEDKGTNFAGAFSIGGFFSGTDASDMKVKDSILNDPSTVR

ASSNGVDSGNDMANKIIQLQYKKVNFYNEDGTIDNLTMEEYYRKLTGKIASDGENNNVVNSSNETLYNSV

YSEYQSKSGVNTNEELAALIQYQSSYGAAAKIVSTVDQMLDTLLGLKS

>AHK59194.1 hypothetical protein N920\_07315 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKQRLDEVNAILAKLIALTEEDIENIKVAKHESVTPSVEEKNKLIAEFITAKKQLDVALVELNNSSTKG

LSELLDDEDKQKLDLLKKNLQNLHSKNKEYAKFVLIVKDFLDGLVNKMFDINDGTNNAYGDKKTNPESIF

KINV

>AHK59193.1 hypothetical protein N920\_07310 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINPIQQSYVANTALNTNRIDKETKTNDTQKTENDKASKIAEQIKNGTYKIDTKATAAAIADSLI

>AHK59192.1 hypothetical protein N920\_07305 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVDNFLNTYSMNSALLDRAAKARSLESSIKINDNDIVTKSKEDKALKEQTNAFEAFFLKQVLDVSLKSQ

NSLFGKDASDEIYSSMYNDTMSKALSGGMGFSKLLYDFLKERG

>AHK59191.1 flagellar P-ring protein FlgI [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRVLTIFLLFMTSIFAVQIKDVANTVGVRDNQLIGYGLVVGLNGSGDGTSSKFTLQSISNLLQGMNIKVD

PNDIKSKNTAAVMVTAKLPAFAKSGDKLDITVSSMGDAKSLQGGTLLLTALRGIDGEIYAIAQGSISTGG

LTPRPGGTGSHSTAATVMGGANVEREIPQNFSQNNDLTLSLKVADFKTANNIERVLNTVFGEEVAKAIDS

RTVKLKKPEDLSNVDFMARVLEQDIAYKPQSKVIIDERTGTVIAGVDVEVEPVLITHKDITIKIDPNNNT

VANQNEIDMKDGGFVDPSSNTLRINNAKSTVANIARMLNKLGATPNDIIAIMENLKRAGAINADLEII

>AHK59190.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMNDEFISVKDFFNHNEKRKKFLQKQEIKPPKEKTKKTKETKLYTNIESGKYKGKKLLLPSLTTTRSTKS

IVKSCVFNVIREDLRSKIFIEAFGGSALIAAEALSNYALKAYAIELDIKAYKIALENAKNIDPNLEVIHA

NTFEILPKLIENSKNEIILYLDPPFDIREGFSDIYEKIYHFLENLDLKTLNLIIFEYHSTIKTPEKIQNF

QKVKEKKFGSTSLSFYSS

>AHK59189.1 Ornithine carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKISLECKDLIIEKTLELFLKDHLVMKKNCDFIISDEKIHTAKPLFIISKNSPFLSIPFSKETLFESLNE

FDNALKAAALQLALEQKRLLEEKIDAIALEFKKDYENKIDLAIKDLKNKLVKALNDE

>AHK59188.1 hypothetical protein N920\_07285 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKLELRIFRFDKTKDYEAYYKPYIYDNYENFASFYDLLLQVQNDDIYFDFDKDEDTYIVVNKQIIPLFT

PLEKIAKEFDFNLCIEPLSTKRAIKDLIIDKNDFLDKYKYLEKFGDEEDKKLYAKYDYLYYATEILDYLP

EYMGDGVFYLASKMIEKYPEKKIEILKTLADKEKGIFYHLESKNEILETTIKNLQNEILNLGLFDKNILH

FDLPKTNAFDNEIKELKEIKHNFKDFNIAFYGFNACDTLKSKLKAKFISYENSIKNNGFSLLNLNPTLSY

KIAADIVLDAYDSGADFMVVKEEKDFYLFDTCAKKLMQTSKRDFEDFYILSRFEFLALIEGIQAPSLKNH

TLKVSLI

>AHK59187.1 thiamine monophosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKEDFIIKAFLNKKNGDDGAIIDDWCFSKDLFFENVHFKREWFSLEQIATKAMLVNISDAISMNAVPKY

ALLGLALPKNLSENEIKALQKGFLKTARKFNIKIIGGDTISNDKIDISLTIISKINDKAVFRKGLKKGHL

LAYTGKLGRSLKGLEILQNGGTLKPNHVFIKPKLRASFFYEIAPLISCAMDISDGLSKDLSRLLALNKCG

ISWFKKLDDYALYSGEEYEILFAFDEKERQNIEIIAKKHGVKLNIFGKAVKGKYEFRGREHHF

>AHK59186.1 tRNA pseudouridine synthase D [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLEEENTIFKPLYSLKHSPINAYFSKNSDDFVVRERPLYEFSGKGEHLILHINKKDLTTNEALKILSEA

SGVKIRDFGYAGLKDKQGSTFQYLSMPKKFESFLSNFSHPKLKILEIFTHENKLRIGHLKGNSFFIRLKK

VLPSDALKLEQALMNLDKQGFANYFGYQRFGKFGDNYKEGLEILRGKKMKNVKMKEFLISAFQSELFNRY

LSKRVELSHFANDFSEKELIQIYKISKEEAKELKKQEQFFKLLKGEVLGHYPFGKCFLCEDLSAELGRFK

ARDISAMGLLIGAKAYETGEGLALNLENEIFKDTLEFKAKMQGSRRFMWGYLEELKWRYDEEKAHFCIEF

FLQKGSYATVVLEEILHKNLFE

>AHK59185.1 peptide chain release factor 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDNYEFSELLKTLKNKVGNIASIIKPENIQTRLKEIEELENSPSFWSDVKQAGIIGKEKTKITNLLKNYE

NAFNALNDASELFDLANSENDTETLEALFNDAPKLEDTITSLEISMLLSGENDGKNAIVSIHPGAGGTES

NDWASILYRMYLRFCEREGFKVETLDFQEGEEAGLKDVSFLVKGENAYGYLKAENGIHRLVRTSPFDSAG

RRHTSFSSVMVSPELDDDIEIEIEEKDIRIDYYRASGAGGQHVNKTESAVRITHFPTGIVVQCQNDRSQH

KNKATAFKMLKSRLYELELMKQQDSANTGEKSEIGWGHQIRSYVLFPYQQVKDNRSGEAFSQVDNILDGD

IKKMIEGVLIALKAE

>AHK59184.1 ribosomal protein S12 methylthiotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKLYLMSLGCNKNLVDSEIMLGHLSAYELCDEPSKADVLIVNTCGFIDSAKKESINAILDLHEQRKKDS

LLVVTGCLMQRYREELMKELPEVDLFTGVGDYERIDEMILKKTNLFSNSTYLQSENSKRIITGSNSHAFI

KIAEGCNQKCSFCAIPSFKGKLKSREISSIIAELKDLVARGYKDFSFIAQDTSSYLFDKGEKDGLIRLID

EVEKIKGIRAARILYLYPTSASEALIKRIIASEIFINYFDMPLQHISDNMLKIMKRGANSTRLKEMLNLM

KSAPNSFLRTGFIVGHPGESEADFEELCEFVKDFGFDRISVFAYSKEEDTAAFDMEQVPFKVINKRLKII

EKIVDEVIEKSFEKEVGQKRLVVCTGKSSEGEFFIAAKDLRWDREIDGEILINESECGNLEMGQIYECEI

LQNLDKKLLAKALRKVDAN

>AHK59183.1 tRNA(Ile)-lysidine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIKDEILSLLKRGKNLLAFSYGSDSSVLFYLLMQEKIDFDLVMINYKTRKNSDLEELKAKELALKFHKK

IFIKHAPKFQSNFEKKARDFRYDFFEKICLEQGYDHLILAHHLNDQFEWFLMQLSRGAGLAEILGMQECE

KRSNYTLLRPLLFISKDEISSFLKEKDIFYFHDESNENEKYFRNYIRKNFSNAFVSEFHQGLKRSFSYLD

EDRKKLYDFENIKEIQGLLICPKNESLIARAVKMKGLLLSTAQRKELLKGDCVLGGKIALAYKNEQAIVF

EYETCQKLPKNFKEECRIAKIPRLLRAYLYNHKIDISSLSF

>AHK59182.1 dUTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTNIEILENMLKLQQKLNDETNGLNWENGYTKEGKLISWRRCIYMECAELIDSFTWKHWKNISSLTNWEN

VRIEIVDIWHFILSLLLEEYRDKNNKDFKAIATEVNAVSVFQDFCKEEEYPNEGDIYGILNDIELIIHKC

SGFGFNLGELLSTYFTLAIKCGLNLEILYKTYIGKNVLNIFRQNNGYKDGSYKKTWNGKEDNEVLAQILE

QELDFDTIYKKLEECYKKA

>AHK59181.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIDASKNQSFSMDYTTKSGKHLALSMYDNQSVSYANNEEGKTLNLKRQYGFSFTFEGSKLTQNDLDEIK

NAMKEVEPMIKDFLANSKVGELKPKEIIESAMQMANVLPTPNDENHQNAIMNNFTNKLSDLLKQNQTDDK

DINASMLEDSKKLLDEVLEQMKKQLEKQQEKAKENQDKTDDSLNLYA

>AHK59180.1 hypothetical protein N920\_07235 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDERILEFIKNEQLLSWAMIDEKGVYTASAFYAFDEKNLAFIIASHEDTKHIRLASENSSIALNIAKESK

IAFLKGVQAKAEFKMASKEQMKIYFSKFPFAKFDKSAKIYALELFWLKFTNNALGLSKKLEFYKK

>AHK59179.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNVIYALFFRELKTRFGKNRYLGYIWVVGEPMSIVLLVTIIGTIVREYHHQVMPEGISIFMFLISGIMP

FFMFRSIVTQLMNGTQANLALFAYKPVKPIHVFIARTLLEFCIYFVIFIIILFFAGWFFRLDVFPVHLLG

VLFCIFLLICSAFALGICFAIIWHFVEPLRTLLAYFSIVFYWTSGIIFPTWLTPRPLLDIFYYNPLLHIF

ELLRFNFFENYPLQDEYSYFYAIFWILLVLFIGLFIYYYNRQALTAVKKE

>AHK59178.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKLINLTKSYPLFSGGRHYVFKNFTFEFPENCSIGLMGYNGAGKSTLMRLLSGAELPDSGKIITNKKLS

WPLGLNGAFQGSLTARDNAKFVARVYGYKGKELQEKVKFVEDFAELGKFFDEPMKTYSSGMSARIAFGLS

MAFDFDYYLIDEAGAVGDPAFREKSVKLYRERLSKSKVIMVSHNVAEIKEWCDKIIYMKNGQITVYDDVD

EGIAVYQGKV

>AHK59177.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEENKTLLEKIKDLSIFDSFKIVWFIMIFVVIYYTLIAAPRYVSTMILDVRSTSGESAQTSGILSLLSST

STASEDLNYLKGYIESSDMLKILDEKIKLKNLYQEQHIDLPFKIWDSSSIESYLKYYQARVKVHTDETTK

LLKVEVEGFTPKSAHLIAQAIMQESEKFINEISHKAAREQMAFAENEVQKYKERYQKAQNDLIAFQNKYG

VFDPLKQAETKASLVAQIEANLAQKEAKLLTLQSYMNDAAPEVVALKAEIEAIKKQLLREKSKISANNSS

QKLNDLAAKFQDLTIEATFAQKAYEAALKAYESARIEALRKIKQLVIIQSPDIPESAKYPERIYDILTAF

IVLSLIFGIVKFIKMIIEEHKY

>AHK59176.1 sugar ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILILLFSCILCFGAVDVSQIISAEDQGSATTSIDQNLSSNYDIANKENNLTKIHQILVFGAHLFNGN

FKNYNQRVYNPDYKIAVGDQISLKIWGAVEFSQVLVVDSQGNIFIPKVGAVNLLGVKNSALVSVIKARVN

KIYKSNVFVYADMNAYQNVSVFVTGNVNAPGLYQGLSSDSVIQYLDKAGGINLEYGSFRDIQILRNNSVI

KNIDLYDFLLKGQMDLFPFRSGDVILVGNVQNYAFVNGDVQRPFRFELSNDIKTLADLARVSGAKPIVTN

AIVKSYGEDHKLDVSAYNKMQFSKVLLRTGDEVEFHPEYVSENITISVNGEHNGLKTLVVGKGTTLEDIS

KLIKANPQSNMQALQVFRKSVARTQKELINAQLKELETLALTSGSVTAQGAAIRAQQAKTILEFIQRAKQ

VEPKGQIVIDNPKSYNSVILEDGDTINVPSKNNLIIVQGEVSLPGAFVYDKGKDLRYYINLAGGYGERAD

TSKVLVIRSNGKAEKYHSGIDMKRGDSVLVLPKVDSENLQIFSMLTQILYQIAIATNVVLNL

>AHK59175.1 arabinose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNTLEIAKEVFEKEAQAILDLATNLDENFNQAVNLMLNTKGRCIVSGMGKSGHIGAKIAATLASTGTPSF

FIHPGEALHGDLGMLTSEDVLIAISNSGETEEILKIIPAIKKREIPLIVMCGKKNSTLVKQGDIFLNIAV

EKEACPLQLAPMSSTTATLVMGDALAAALMKVRNFKPDDFALFHPGGSLGRKLLTKVKDLMVSSNLPIVH

PDTEFNDLVDVMTSGKLGLCVVLENEKLVGIITDGDLRRALKASDKPRFDFKAKEIMSINPKVVDADAMA

SEAEGIMLKHKIKEIIVGKEEKVVGIIQLYAIGNV

>AHK59174.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENLNSYIKGHFADSILVKEQILKDENLITLIKNASLEVIKAYKNGNKTLLAGNGGSAADAQHIAGEFVS

RFYFDRPGIASIALTTDTSILTAIGNDYGYENLFARQVQAQGVKGDVFIGISTSGNSKNILKALEFCKQK

EIISIGLSGASGGAMNELCDYCIKVPSTCTPRIQEAHILIGHIICAIVEEELFGKGFSCKQ

>AHK59173.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKLVEQVWDYTKHAKFYSYRPNYAPKTIDMLISLVGKKDIKVADIGAGTGNLSIMLLERGCKVVSVEPN

DAMREIGIERTKDQKIDWVRATGLNSTLQNSEFDWVTFGSSFNVMDRNEALEEAHRLLKSEGYFSCMWNH

RDLNDPVQKIAEDTIVEFVPNYTRGTRREDQRPIIESRKDLFDNIVYIEEDFYFHQSIENYINAWKSVKN

PYWDLETDEGNELFNKISNKISQRLPKEFSIKYTTRCWSAKKI

>AHK59172.1 hypothetical protein N920\_07085 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAELKFKTKAQNLKNLQTKLKKAKVLPLVLTSLEELISNEDKVLQDIQTLKANRLIIRSSSLSEDSMKNS

NAGAFLSLANIKADSKDELLKALYEVANSMPSKSDEILVQPMLENITLCGVGFSVDKDNFSPYFCLQYDE

NGSNSSITDGSSKSAKTYYHYRNYLEFKDIRLQKIIELIKELEVLYDCHFLDVEFAFAIQDDKEELFCLQ

VRPLVMHEKNNLFHSLPKEALYRFYKRFESLKESRSRVLGDKAIFGVMPDWNPAEIIGLRPKRLAFSLYK

EIITDNIWAYQRDNYGYRDLRSHPLIHSFLGIPYVDVRLSFNSFIPKKLDENIAQKLVNFYLDKLNKNHE

LHDKIEFNIVYSCYDFNSSKKLEELLNHGFNENEIKRLEFSLLELTNKIINPRSGFYLKDIQKAYKLKER

YDGIINSNFSLIDKIYWLIEECKRYGTLPFAGVARAAFVAMQLLNSLVEIDFITKEEKDDFLNSLNTVSK

NLSKQTNHLNFHNKDQFLKDFGHLRAGTYNILSPRYDEDFELYFDADQKDSKVYLQDKAFVFSKEKTRAL

NALLKEHGLEINACEFFDFLKQAIEGRELVKFEFTRLLSKAIVYIEELGKYYDIEKEDLAHLDIKSILNL

YSSLYSINPKEQFIEEINRNKKEYELTQAIKLPSLLCNADEIFSFYNHSIIPNFITQKSITAFTAKENDK

DLEGKIVLIYAADPGYDYLFTKNIAGLITCYGGANSHMAIRASELGMPAVIGVGEENFEKYLKAKKINIE

CESEQIFCL

>AHK59171.1 glutamine amidotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFIGITQRLICNDSYHEKRECLALDWGKLFNKDLFKNFTPLPLSYEIDFSYYKHLIKAVILSGGNDLSFY

SPNVLSKKRDLYEKQVIEICLEEKIPLLGICRGAQMIAHYFNSHISPCENHIGKHEVFFSKEKFISNSFH

NFAIEKLGEDLVELCLAKDNTIEAFKHKYENIFGIMWHIERENGLNNIQILKEWFSLIKE

>AHK59170.1 sugar nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNAIILAAGFGSRLMPLTKDQPKCMVEYKNKKIIDYEIEALKSAGINEIAVVGGYLNDVLKNYLNKYDIE

HFFINSKYDKTNMVHTFFCAKDFMLKCIEEKQDLIISYADIVYFQDCVQKLINAKEELAIVVDKSWCKLW

SKRFANPLEDAETLKMTNGYIIELGKKANAYDEIEAQYIGLFKFSYQFLSEVIAFYEMLDRDILYDNKNF

ENMYMTSFLQALIEKYNNAKAVEIDGNWCEIDFMSDLEVQIEK

>AHK59169.1 adenylylsulfate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNNPYIIWLTGLAGSGKTTIGQALYEKLKLKYKNLIYLDGDELREILGHYAYDRQGRIDMALKRAKFAK

FLNDQGMMVIVTTISMFNEIYDYNRKQLKNYYEIYIECDMHELIQRDQKGLYTKALNKEIDNVVGVDIEF

DKPEADLVINNSCRNNLEEKVELIIKKLAL

>AHK59168.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKYYSISKKLIANVRNFYTISLYKKNLKIKKDDLFFGWGRKKSGLKAMNLAKKYKAKFILLEDGFIRSLN

LGVENSPSFSMVKDDIGIYYDATMPSKLENLLNTCEFKDEEIKQAKKAIELIKKYKISKYNNNLDIPDNY

FQKDEKRVLIITQTANDASLEFGLAKDFKTLDMIKDAIKENPKSTIYIKIHPDVLSGKKQSDLDLNSLPK

ECILITENFNPIALLEFFDKVYTKTSGMGFEALMQECECICYGMPFYAGWGLTKDKLECKRRMQKRSLEE

VFYAAYILYAEYFNPYLNQKSNIFDTIQTLAKYKDIEKVNSNKLFMLGFTLWKRHFIKPFFKAKDNEIIF

LNSLKSLARYKLKENDKFFIWGKRIDYNALKTTLIKKAQDENLLHFTPKISLVEDGFIRSISLGSDLTRP

FSLIVDDKGLYIDPNKASKLEELLQNEIFDENMLNRAKNIIKILLENRFSKYNGLKHEDLKINAKIGQKI

ILIPAQVEDDASMILGGFGLSTLDLLKEVRAKNQDAYIIFKPHPDVLSGNRVGLKDETLILEFCDEIVKD

CSIDSAIKIADEIHTITSTSGFDALLRAKKVFTYGMPFYAGWGLTKDKYRCERRIRKLSLEELVAGALII

YPRYINPKTKTLCEIEVCLDIMLNLQKAYFSKKYIKLAIDFKTFMLRKIRRFYEFLAKK

>AHK59167.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRFSTKIKKEFSGKNVLLLQGPVGNFFHHLAVKMRKNQTKVFKLNFNGGDFFFYPSGTRCKCDEKDLENF

YRDFFQNKKIDAILMYNDCRIIHAKAIKVAKELGIEIWIFEEGYLRPYCITLEKDGVNANSSLPRDKNFY

LSQNIFTKESIKEIPGGFKFMAFDAFLYWLFAFILAPFFNNKLHHRTLYPFEFLFWFRSLYRKYLYKITE

KKLNEKIYNLEKKYFLAILQVYSDTQIKYHYKKSIEHFIEETILSFANHARAKSYLVFKHHPMDRGYKNY

FKLINDLSRKYHVEGRVLYVHDTHLPVLLRKALGCITINSTVGLSAILEGCPTKVCGNAFYNFEGLSYPK

KLQFFWREAHAYKPNPVLVCNFKKYLLQTNQFNGNFYKNFFLDK

>AHK59166.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDREVFYIAGYDPKSYRFYYDLFKKNLKDYSHAFNIKADLSKIEKNEQFPFFQISCEGVQTKYHFLTWND

IVKKNWSENYKDALADCYSFFRIYTITGLFIKFGKESIYQLITGYYPFFYVLFSLLFSLVLAFGSFAFLQ

NYMHFSLAIIIGCFLGFLLNHFLFKLGKKLAVFWIARICAFCATWQDKKTGTMQERIKLFANTIVDKLKQ

NENKQDYELVLVAHSVGTIVCIEVLECILRQNLDLSLLHKLKILTLGECIPLVSYQKKADEFRKKLEFVS

RFDLKWYDYTSIIDGACFPQVDFFRTSGVNAKFTPPFLSAKFHTLYEKHEYKKIKRDKNKAHFLYLYSIS

VKGDYDFFSFIIMPKFLEEKVKI

>AHK59165.1 cytochrome P450 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSECPFFPKPYKNKASTLLTFLLKRRSWLDGLYERSYKMQTGYVKMPNFDLYVINDTKEVKRMMVDEVRE

FPKSAFLHELLSPLLGESIFTTNGEVWKKQRELLRPSFEMTRINKVFNLMSEAVADMMDRFSKYPNHAVI

EVDEAMTFITADVIFRTIMSSKLDEEKGKKILNAFVTFQEQSVHTAMRRMFRFPKWLSYVLGDCKRAKAG

DVIRQVLSDIIKPRYDMADNAEFEDILGSLLLVVDADTNKRFSFEEILDQVAMLFLAGHETTASSLTWTL

YLLSLYPKEQEKAYEEITQVLQGGVIEISHLRQFKYLTNIFKESLRLYPPVGFFAREAKKDTQVRDKLIK

KGSGVVIAPWLIHRHEEFWTNPHGFNPSRFEGEYKKDAYLPFGVGERICIGQGFAMQEAILILANILKTY

KLELEEGFVPDVVGRLTVRSANGMRIKFSKRKL

>AHK59164.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKRVRTKIRANFRRRVKRTLKGSLKEKLAGTILLCAIVPLAVLGYLFIVIIGIFFNTARARQGVRALDHF

VNASLFNGYAWESVSSHAWRERNRKKWARIVIKITDFFQKDHCKRANKREQPVVDFILSRNLDKQTIGK

>AHK59163.1 4'-phosphopantetheinyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRVGCDIIAISRIEKIHSRHGKNFLDKFLNPKEQILIKNPATLAGLWAAKEAASKALGVGICELCSFFDI

EISKDEKNAPKLKYSQKITKDFNITQTSLSISHDNGFAIAIVAVV

>AHK59162.1 flagellar basal body protein FliL [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDEELENEETKKKKGGSLVIIIVILLFVLLLSIMGVIAWLISSSSSDESEVKEAPKEEAKADKPKVSAPA

QRGSDFANIGPMYPLDPFTLNLLSDSGSRYVKCTIELEQNSELLKPELDKKVPVIRDIIIRTLTAKTFEE

VSTQKGKERLKDELVGKINEILTDGFIKNVYFTDFVVS

>AHK59161.1 phospho-sugar mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLDVIFREYDIRGLYDKELNEKSVKAIGFCLGQTMLNRGCKNVSVGYDARYSANELFNYLVSGLNKAGIK

IYDIGLVPTPLGYFSLYEGLKFDANVMITGSHNPKDYNGFKITINKESFFGVELKEFSKEVYKHLDDDIE

ENLEVEKYDILNLYVKFMCEQFSFLKDFNYKFGVDCTNGAAGVVIKPLIKALNLKAHVMFAEPDGQFPNH

APDPTEEENLSAIREFLNQNQDYSLAFAFDGDADRMVALSKTHVFCGDELCYLFAKDIPNPRILGEVKCS

KNLFDEVAKFGTIFMGKTGHSNIKKMMKEKDIDLAAEVSGHIFFKHRYFGYDDGIYAFLRALELVYKGFD

LESMIKALPKLYTTPEIKIPVNEEEKFKLVEEFQKEIEKGALKGVKSLCEIDGARIDFGDGWALLRASNT

SPYLITRFEATSLERAKELESMVFTLFNDIKARFKN

>AHK59160.1 hypothetical protein N920\_07020 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQERIDLIVKILDEKKAENIKTIDMSEQEYFVKYVIIAATLGERHALSLIDELKTRLKAKGEEFLNIDSS

EEWSVIDLGDILIHLLTPEHRGIYNIEELLENLKKGRV

>AHK59159.1 nicotinate-nucleotide adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIALFGGSFDPPHNGHNSVVLEALEKLDIDKLIIMPTYINPFKQSFSADEKQRFLWVKKLWGHLPKVEI

CDFEIRQKRPVPSIESVKYLYKLYNPSKFYLLIGADHLEKLHLWHDFEKLNSLVEFVIANRNDIGIPKNF

KDLKTNKKIASSFIRDTLNTNEVCEEIKDEVKKYYEKLQKN

>AHK59158.1 glyceraldehyde-3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAVKVAINGFGRIGRCVARIILERNDIELVAINDTTDIELTKYLFKYDTVHGEFKGSVDSEGDDLVVNGK

KIKVFKSRNVKDLDFAKHGAQIVLECTGAHLTMAKCQEFIDMGVQKVIMSAPAKDDTPTYVLGVNSELYK

GESIISNASCTTNCLGPVCRVLQDNFGIEKGLMTTIHAYTNGQSIIDAKAKDKRRSRAAAQNIIPTSTGA

AKAMKLVMPELNGKLHGQSMRVPVIDVSSVDLTAQLSRKVSKDEINEAFRKAAATNLKGILMVDDDERVS

SDFITCSYGAIVASDLTQVIADDFIKVIAWYDNEWGYSSRLVDMAVYIANKA

>AHK59157.1 phosphoglycerate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSDIISIKDIDLAKKKVFIRCDFNVPQDDFLNITDDRRIRSAIPTIRYCLDNGCSVILASHLGRPKEISS

KYSLEPVAKRLARLLDKEIVMAKDVIGEDAKTKAMNLKAGEILLLENLRFEKGETKNDENLAKELASMVQ

VYINDAFGVCHRAHSSVEAITKFFDEKHKGAGFLLQKEIDFASNLIKHPARPFVAVVGGSKVSGKLQALT

NLLPKVDKLIIGGGMAFTFLKALGYDIGNSLLEEELLEEANKILTKGKNLGVKIYLPVDVVAAPACSQDV

PMKFVPAQEIPNGWMGLDIGPASVRLFKEVISDAQTIWWNGPMGVFEIDKFSKGSIKMSHYISEGHATSV

VGGGDTADVVARAGDADEMTFISTGGGASLELIEGKELPGVKALRSKENE

>AHK59156.1 triosephosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIFAANLKCNHTRASFKIYAKILNKTMGVKCDDIIVFPPSIAFLENENNFIQGAQNFYPCVNGAFTGELG

KEHLDEFGIKCVLIGHSERRALGDEEFIKAKFDFAKEHGYKIVFCIGENLDTKNSGKTLEFLKKQLEIID

LNYEKLIIAYEPIYSIGTGVSAQSTDIAKVLEFLASLTKVPLLYGGSVNENNIKEILSVNHCGGVLIGSA

ALKVENFIKLIKG

>AHK59155.1 enoyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIMKGKKGLIVGVANNKSIAYGIAKACFDQGAELAFTFLNDALKKRVEPIAQEFNSNFVYELDVNNNEHL

DSIAEKIKKDLGEIDFVVHAVAFAPKEALENSFLETSKEAFDIAMQTSVYSLLSLTRAVLPILKDKGSIL

TLSYLGGVKYVPHYNVMGVAKAALESSVRYLARDLGVKGIRVNAISAGPIKTLAASGIGDFRMILKYNEI

NSPLKRNVSIEDVGNSAMYLLSDLANGVTGEIHYVDAGYNIMGMGDVEKNEEGQTVLCWDNQKG

>AHK59154.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKLSNEELKNILEDRIKKLENSTLKEDKVINEESVKILARHLSLGNEIPALAQRFFQIAPKTKLVWLHL

CECTGCSESLLRSELPSFDELIFDFFSLEYHETLMAANGTKAEELLEYVLEEDFILAVEGGVAAIDTFFL

TIGAQGESGYEILEKLAAKAKAIFAVGTCSSYGGIQAAYPNPSKTCGISEVLSQKVVNIPGCPPSDINII

ATLSFFALFGVLPELDEQNRPVWAYGKCLHDMCERKAKFESGIFAEHFDDEAAKNGACLFKIGCKGPYTY

NNCPKVKFNAKTSWPVAAGHGCIACSEKNFWDEFGNYEKPMANIFSYAKLCNEELKQEFFLEEQIKILEQ

IDFEFESNIKLILQNIAKNKLGALLVENYKKSFEKNYAFIEQNFDENPMPSKDFWKYLEISFILVKGAFL

KDKNDFLIVAKNYAFKHASPYDFKLNMNAEKPKLDVSKSFRMTLIYLCGGLDFEGVAYSILKAFEDNIAK

ISSLKAS

>AHK59153.1 hypothetical protein N920\_06980 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTLNELKDGQKAIIVNLNAHKELKNRLLSFGFIKNKNLKKIHSSLKNATIMVELDTSCVILRSDEAKTIE

VNLI

>AHK59152.1 endoribonuclease L-PSP [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSNYPKAIGPYSAYREVNGLLFISGQLPINPASGEIESSDIKEQTKQSLKNIGAILEENGISYDKVIKTT

CFLADINDFVAFNEIYAEFFKAPYPARSAFAVKDLPKKAKVEIEIIAQKG

>AHK59151.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDEGQKQQFIKLTYFLGEVLGEQYEIVFHVITEDGAYIAAIANSHISGRSLDSPLTAFASELMQNKKYLE

KDFLCDYKALVGKSKLIRGSTFFIKNHDKLVGILCINHDTSIMRDLICKMIDLEKIGDMGDILGNISFSQ

NDSSIETLSHSIEDILVQSVDSSYLNSDYQLSITQKEEIAEKLYEKGIFNIKGAVPIVAKFLKISEPSVY

RYLKKFKK

>AHK59150.1 ankyrin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTTLSLEEEKRFEELCKMAFNFARNNECENLKIMIEAGLNVNLKTHKGDSLLMLAAYNNSYESAKMLLEK

GAKVDEKNDRGQTPLAGVCFKGYLPMCELLVKYGANIDENNGLGMTPYTFAIMFGRKDVAEFLLKKSKNN

FLKKISLKILKFIKKF

>AHK59149.1 catalase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKLTNDFGNIIADNQNSLSAGAKGPLLMQDYLLLEKLAHQNRERIPERTVHAKGSGAYGEIKITADLSA

YTKAKIFQKGEVTPLFLRFSTVAGEAGAADAERDVRGFAIKFYTKEGNWDLVGNNTPTFFIRDAYKFPDF

IHTQKRDPRTHLRSNNAAWDFWSLCPESLHQVTILMSDRGIPASYRHMHGFGSHTYSFINDKNERFWVKF

HFKTQQGIKNLTNQEAAELIAKDRESHQRDLYNAIENKDFPKWKVQVQILAEKDIEKLGFNPFDLTKIWP

HSFVPLMDIGEMILNKNPQNYFNEVEQAAFSPSNIVPGIGFSPDKMLQARIFSYPDAQRYRIGTNYHLLP

VNRAKSEVNTYNVAGAMNFDSYKNDAAYYEPNSYDNSPKEDKSYLEPDLVLEGVAQRYAPLDNDFYTQPR

ALFNLMNDDQKTQLFHNIAASMEGVDEKIITRALKHFEKISPDYAKGIKKALEK

>AHK59148.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSVLVIGADEITPIRAVLHDLGAKKIEHWDARNENRVNRKPIPCDTECIVMLTSFLNHNTMKKIKNEAKK

RKIPLVCAKRSVSCVYCEYCKIFNLNKEFSCYKG

>AHK59147.1 hypothetical protein N920\_06935 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLFGFDDKQEFIPQIYRYLNNQELMLTFLTQYNASVDSALKIPLLYAKNTKSLKMIFGNFLHNIMHVSFG

KIQNINIKLNTYAFYFQKRKSLIFNTKISKNVDLLRLLRIYLYGICFDAQILFSSYVYDKVSFQNNGKNI

DQDGDLIIIDKKFAILPLCKEINTHNLEIENEIYELLNLIKENNFEKFYIVCPRNKNFTHFIEIKHFLCD

LNKTMLKLVPYKISNQIIRRK

>AHK59146.1 flavodoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSVAVIYGSAMGNTEGAANTIASKLGISDVFNISDIDAAKMNSYDKLICGTSTWGSGDLQDDWDGFDFSG

LSLGGKTVAVFGMGDSESYSDTFCGGMGKLAQNLKDAGANLVGEVSTDGYTFEASDAVVDGKFVGLALDN

DNQEDQTESRIDAWVEQIKPYFA

>AHK59145.1 hypothetical protein N920\_06925 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKFALILSFFIALFMSACTNATFTQSFIQTSNEGIFIRSQKQQSFKISFQNPSQLQTTLDRDLALKLKN

LGLKEVKENADYEILINLVDMKKHSYAQKITTSARFFYDFDPLESDGEWMVENYYTMQVNLQINSKNHNS

QKTSLLARTAYLGNKERCQLSLENKIINQIVSFFYF

>AHK59144.1 hypothetical protein N920\_06920 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKLSLILVCSASLFAASNSEISDFYSKSIKAQFPNATVSVSNRQKVGNTGFESVIVSVELNGQKQENIL

FTKDSLITPDLIDLKTGISYAQEYEMKKFQEARENFTKNAKAVAQKETMVIALGDKNKPAIYVFSDPECP

YCREHLAQIDDELKNYQVNYILTPVHGKSAFEKSALIYKEAKKAKNDKEKIAILNKYYDANIKNYPKVSD

AELKEVFSLYEKYRSLGLSATPTIIK

>AHK59143.1 translation elongation factor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKSVIIGTAGHIDHGKTSLIKALNGFEGDSLKEEQERQITINLSFSNLKLKDKNISFIDVPGHKDLVKTM

VSGAFGFSVCLFVVDINEGLKEQSLEHLEILKILDIKNIILVLSKCDLCENIEQKSVEILEELKNLDYPI

LKVFHTSIKNNQGIEELKNYLYTIENKENDEELIFHYYIDRVFSLKGIGTVVTGSLNEGSITLNEKIICL

DTQKELIVKNIQNHDTNLEQIKACNRVALSLNCDYKELKKGYLLSKKGYFKAFKECDALVKAKNLQNSKM

IFCVGSRQIECKINILKKLENDEFFVHFSFDKNVFLSFDEAFILLQNNRVIGGGKVLNPLSEPLKKEQKN

KFLMFLKNKDFKAAFSFLKDAHKYGFGLLSSYQRFKLSHQKALKLAKELNQVFVDEKNLNVYHLQSLEEI

KNFIKFILEKNPYAMLSAHSLALRITWASENFCELGLKEMSNLLDFQNGIYFKKGIDFEKLQEKNNNQMY

EILKKQGIKPEAPYNLYDFLELDRKSGDNILKKLTQKGLVVRLSHNLFIEKQALEKLMQECLNLLKNQSL

DVQSMKEYFNLSRKYAIAYLEYLDKFPQVSKEAEKRFLTNI

>AHK59142.1 selenocysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKFRTFPQINTLIEDESLKSYPFYIKAFFCKKVVAKLKENFFQDEISKDKLLLEIKKEIKTFYRKDLQS

VINASGVVIHTNLGRSVIHEELYEACKDIICNYSNVEFDLENGKRGSRYALVLEKLKMLFECEDALVVNN

NAAAVFLVLNSLCYDKEVISSRGELVEIGGSFRVPEVIKAAGVKLCEVGTSNKTHLKDYEQAINENTALI

LKTHKSNFALMGFHSEVNIKDLHELAKEKELLSYYDLGSGWCENLNEKLIKNEPKIRKLVQECDILSFSG

DKLFGSVQAGIILGKKELIEKLKQNQLLRMLRVDKLTLSFLNESLKAYLQKDYEKIITLKLLNDDLSFIE

KKALRVQKELKFQTQLKKSKSLVGGGSMPDKSLDTYILTFQGDALKLQTRFRKENIIGRIENDEFVLDFR

TIRENELQKLILTINQMENL

>AHK59141.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQDFVYIKNDVLIPLPDAIEILDQANDKEALICNDKNQKAQIYAPEINFYLKNSQDEILEQSKNVLTLYE

ARASVYDLGLDLEQSKEVQNRLIVADGDAQTVEFLKEHEFKVIALSSAEILAVFGSVGELCAVVKNQGEE

VEIDFDFLLFKAEDLSVVRKDFTRQSGCYNLLNFENLEVLFEFLQSKSPKYHYKTYISYNASVCQYHERR

SEHCAKCAEICPTVAILKDDENKHLEFSQVDCLGCGGCISVCPSGSLDYAPMPRESFFTLCEFYKDKKIL

IIPKKMSLENLNLALPKDVLPFMIEGEKWLSSMHFLTLLQNSGANLVFYTDFVSRGSNEAIVLLNTFFER

KFQKKAIFVAKDEKELQNVLKEQEFIQDLKYDFHNNTLTTRENFAKRMQEMIKNEDFGSMESGEWLRYGK

VEINPNTCTLCLSCVGACNVGALIADKQENALKFNASLCTTCGYCELSCAEKDTLKLFRSGMEFRASYFE

YQTMAKDELFACIECGKEFATKKAVEKIANLMKPKFGNDENKIKTLYCCADCKAKVMIKAMIN

>AHK59140.1 major facilitator transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNNVLPLSFIVGTRFFGLFIVLPVLSLYALKLEGANEFLVGLLVGVYALTQMILQMPFGILSDKIGRKK

TMLIGLIIFIIGSLICSFAENIYTMLLGRMLQGAGAIGAVATAMISDFITEENRGKAMAVMGSFIGLSFA

ASMVISPLMSAKWGLSSLFDLSAALSLLCIILLYTVVPKENKITHENEKTPFFHLIKQKNLALMNLTNFM

QKMLMSIAFLSIPIILVKHLGFASDKLWIVYSASMVAGFIAMGFAGSLGEKKGLAKQILLLGIVFFILSY

LFFAFSNSIDFFIIAVVIFFIGFNLHEPIMQSCASKFCKVHEKGAALGLFNAFGYGGSFIGGIIGGIFLH

LDTLNLLAIILVILALIWLVALFFLKNPADFKNLYLPLETPLNFSTFGENLGVVDIYKNSKNLVVKFDSK

LTSKEELEGKL

>AHK59139.1 nucleoside-triphosphate diphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIILATSNKHKVLELKEILKDFEIYAFDEVLMPFEIEENGKTFKENALIKARAVFNALDEKQKKDFIAL

SDDSGICVDVLEGNPGIYSARFSGKGDDKSNRDKLVNEMIKKGFKQSKAYYVAAIAMVGLMGEFSTHGTM

HGKVIDTEKGENGFGYDSLFIPKGFDKTLAQLSVDEKNNISHRFKALELAKIILKILNKG

>AHK59138.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFAKLLKFFISRPKSTFFGTLFICLFLSFFAFKLSVDASAESLLLEDDADLKTFREISKHYKSDNFLLLA

FKPYDEKPFSNENLAKLKKLHEELEKAPLVERVFSIINAPLLQSSQNTDLKELLKNIPNIESQDINRTKA

QNEILNSPFYKNNIISKDGKVTGLIIYLKPDTVYNNLIEKRDLATDEKEKDQIRLAIKEHQDKQKVITKQ

SLDTIKSIVRNYEKNKDTLYLGGVSMIADDMIAYIKSDLVLYGVSLVFLLGLALYYFFRSWRFVFLPLFI

CFISLSAASGVFALLNFQITVISSNYVALVLIITLSVVVHLITHFIESTQNHPKAKVERIVLETLLAKAN

PSLYAIVTTMIGFFSLILSNIEPIIKLGIMMSIGIGLALIFSYLFLASILVLLKPKNYHKKEFKFNLLAF

CAKTALDPKKRRMIYEISVLAIILALIGISKLRVENSFVNYFKDGSEIKKGLLVIDKNLGGTLPLEVIIR

FPNNKNDQNASDTLDSFESEFENLATQETYWFDSKKTRIAKKVHEFLENKEFVGSVLSLNSLLTLGKNIN

DGKELDDFALAFLNENLPAKFKQDLLSPFVSIENNELRFSMRIVDSDPNLRRNEFLIDLKKQLNELVKND

GVEVQITGIMVLYNNMLQSLFSSQFDTLIFVILAIFILFIIVFRDLKFSVAAILVNVIPLSVVFALMGLL

GIPLDMMSITIAAIAIGIGVDDAIHYIYRFREEIKNKSLEEAIMISHLSIGSALYYTTISIVLGFSVMMS

SNFIPTIYFGILTVFVMILLLSGSLFLLPSFLITIYSKKTKFPNQHKEHILKQ

>AHK59137.1 toluene tolerance protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIFLILTLFFNAFALQLDEISSTMQKNIDASLKLLQDNKEDKKQAANGIFKLFDSIIDYKLMAKLSLS

KNYSKLTPKEQEKFTTAFETSLKKSFTDKLSLYKDQVLKVKNGELKNEKRYFLTTSMVVDGEEKNIIFKF

YNDNNNWLIYDVDVLGVSIVQTYRSQFGDILANQGFDALLQKLESIVIE

>AHK59136.1 hypothetical protein N920\_06875 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRIKFISFILIFFTIFAFAKEQNLDDFEQEYQNYQVNDPLSGYNKAMTSFNVALYDYGLRPVLKGYNAIT

PEFIRLGARNFFDNLLAPLRFVSNVLQFKFEEAGEEFKRFTANTIMGFGGLMDVASKMGLKKHPADLGTV

LAHWGVGSGFHIVLPILGPSNLRDTLTLPATWYASFTAYIDPTWASIAISAYGFGNELSFRLDEIDEIYH

NTPNLYPFLRDAYEQRRNELSK

>AHK59135.1 nicotinate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIFYSYEEFKEDVKILAKEIKEDFNPDALLAIARGGMSLGHSLAVALKTRQLFALNSIHYDNTKKLDTIE

IFNIPDLSKHKKILLIDDIVDSGESLAEIKKVLLEKFPHIELKITTIFYKKTALLEPDFKVKEATEWVDF

YWDINLD

>AHK59134.1 guanine permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSFFKLKENNTSFKTEVIAGLTTFLAMVYIIPVNSSIVGNTGMPIEALITATALITIVASAFNAFFANTP

VAMSVGMGLNAYFTFAVCLGQNIAWQSALGAVFISSIIFLILSFTHFRLWVIRNIPKDLRLAICAGIGCF

IAFLGLSQMGVIMHNKDTLVSIGNFKSPHVLFGIFTLALIIFFWAIKLRGAFILGVLASSIIAWIFHLDN

ASFPVQIFSWPNFSMENGLGAIFLQLDIKSALNITMIPIILTFFITQLFDSIGTITGVGERGKIFDDPKN

GEKKLSKTLMADATGSALGAMTGTSTVTAFVESTTGVESGGRTGLTALVVAICFAFTLFLLPLFKAIPAN

AIYPVLVMVGILMFMEVKNIDFKDSAIAVASFFTIIMMPFTYSITTGFAFGFLSYLLVRIFKREWDKINL

GIIVLSLLSLGNFLLMALQ

>AHK59133.1 hypothetical protein N920\_06860 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNLITKLENEERLNQEEANALWDLDLFTLGKYAHKKRTKLHGKKVYFNINRHINPTNICADTCKFCAFS

AHRKNPNPYLMTHEEIMKIVDETVKRETKEVHIVSAHNKDTTWQWYLEIFKMIKEKYPNLHVKAMTAAEI

DFLHRRFKMSYEEVIEKMLEYGVDSMPGGGAEIFDEEVRKKICHGKVSSENWLKIHKLWHEKSKQSNATM

LFGHIEERHHRIDHMLRLRDLQDQTGGFNAFIPLVWQRDKSFIQTDKIMDSEEILKTIAISRLVLDNIKN

IKAYWATMTLNLAMVAQEFGANDLDGTIEKESIQSAGGAKSAKGTSLKTFIDMIKTSNLIPVERDSLYNE

LKTY

>AHK59132.1 nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNKELEIFKKNLSSYTQSCRKFFLKQGAFSLYHSKNMDNFIKKAYDIVLKDYFDDFSPPSDNIPFCVLA

SKAYANNSLCFNESISLIFVYKDIKAFHLKPMIKAFIEILNDAHLQIDSVILEFNGLYNASNELKTSIIQ

TRFICGSRILFKGIKIKFESIIKENKNDFAKLLLENFKEFDIPFIKQEFNILKDFGGLNHLRSLESLLVL

FKTSPKNYALNFIDEKKLSELRLAGDFLLSLKSAMNLLSAKDEDEFLLINVHDLSELMYKKAKKHFGANE

LLVQKALQSMHTIGFYTHFLAKQIQDGLNHTLKQEYKFKTLVEVLEYLLKLEDKHVIFDLNLVFALGRLK

YGKKDIEKALILFEKIFYKRHSFCVLKLLLDSGILKDLCKPFWTVRFLSDEEGNYSFDEQVFLMLSEFEK

YEDELEILQKLKTDEKMILKLVILLSAIESENEISLAGIYRAYCSKFDLKNEILEWGLKIFKNNNALKDL

VEKEDIYNPIVVSSLVSKLENLENLELLYTLTWLKAKALNYNAFYFRVLDKLLENAKQGFEDENLLEESA

RRVKKELTLKRSKIFLEQDEILQDKIIHIKSNLFIIKNTFEDIVMISKLAKENDFKFWFSNETNLSLQIV

APLHFNIAIILSSLTNLNLIFMNFFELFDDKIYLRFEYDNIISDEQKLKLCELLNSNLSGFNLKKIKKPI

IKKDELKLDLNYSKMYAKLGLNTKDQQGLMAYLMNVFNELELVLCAAKIQTIRQRTRNIFIFQKNEKLEH

SEQKLVNLLISE

>AHK59131.1 glucosamine--fructose-6-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MCGIVGYIGNNEKKQIILNGLKELEYRGYDSAGMAVMQEGELSFFKAVGKLENLANKCTDFESQGYGFAI

GHTRWATHGKPTEINAHPHLGQYSCVIHNGIIENYKEIKDKLEKEGVSFLSQTDTEVIVQLFEFYARNLG

VFEAWQKTIKELRGAFATLLVTKKDPNHVYFAKNAAPLIIGKNANKEWYFSSGDAPLIGSCDEVMYLEDL

SLGYASKDELVVYENDILKSLCFSKLSGDKAYAKKDGFRFFMEKEIYEQSRVMSEVLMGRIQGDEVVFDE

LNNEDLSQVDEITLCACGTSYHAAMASAYLFERIAKVKAKVEIASEFRYREAIIKKDSLFIVISQSGETA

DTLEALKIAKEQGAKTFAICNVDNSNIVRLAHLSLLTRAGIEKGVASTKAFATQVLTLWMLAIFMAQKRN

LNVSAEIKALLHTPNCVSVKQALHEKIHRLSKRYLDGHGFFFIGRDVFYPLALEGALKLKELSYLHAEGY

PAGEMKHGPIALADSKLYTIALMPKHMLYEKTKSNVEELIARDSTVLSISPLEFDLSDDFIKTNEQDHYM

CEFFEMMVITQLLAMEISIRLGNDVDMPRNLAKSVTVE

>AHK59130.1 fumarate hydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEYRVEHDTMGEVKVPNDKYWGAQTERSFENFKIGCEKMPKVLIYAFANLKKSLALVNNKLGKLDDAKKN

AIVQACDEIIAGKFDDNFPLAIWQTGSGTQSNMNMNEVIANRATEIMGGDFRKEKLVHPNDHVNMSQSSN

DTFPTAMSIVAVEQVEKKLIPALDELIATFEKKVKEFDGIIKIGRTHLQDATPLTLAQEFSGYLSMLLHS

KEQIIASLPTLRELAIGGTAVGTGLNAHPELSQKVSEELTQLIGTKFISSPNKFHALTSHDAINFTHGAM

KGLAANLMKIANDIRWLASGPRCGLGELIIPENEPGSSIMPGKVNPTQCEAVTMVAVQVMGNDVAIGFAA

SQGNFELNVFKPVIIYNFLQSLDLLADSMHSFNIHCAVGIEPNRAKIDHNLHNSLMLVTALNPHIGYENA

AKVAKNAHKKGISLKESTMELGLVSEEDFNKFVDPTKMIGPKA

>AHK59129.1 hypothetical protein N920\_06835 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNGKFFLISFILVILFLLLYLFKGFLLVIIIASLMAVATSNINAKFLNLTKGHKFLASILTTTCMVLLF

FAPFVYAMIELAKALKNFDINLVTQTLDYVKNYQFTLPESFNFLEPKIKEFLASIDLNSISKQILSYASS

FTKSGAKFLIDMVLICVFYFFANLYGTELVIYLKSIIPIDKKELDDVLSEVGNVMAVVLYSMVIVAIFQG

ALFGLITIFYGYDGILMGVIFAVSSLIPAIGGALIYMPVSLYEFASNNLNSALVIFIYSVIVISFIADTL

IKPLIIKWINKKLVKTPTKINELLIFLAMIAGISTFGFWGIILGPAILTFFVSTLRMYVILKDKNLI

>AHK59128.1 Holliday junction DNA helicase RuvB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDRIVEIEKYSFDETYETSLRPSNFDGYIGQESIKKNLNVFIAAAKKRNECLDHILFSGPAGLGKTTLAN

IISYEMSANIKTTAAPMIEKSGDLAAILTNLSEGDILFIDEIHRLSPAIEEVLYPAMEDYRLDIIIGSGP

AAQTIKIDLPKFTLIGATTRAGMLSNPLRDRFGMQFRLEFYKDSELALILQKAALKLNKTCEEKAALEIA

KRSRSTPRIALRLLKRVRDFADVNDEEIITEKRANEALNSLGVNELGFDAMDLRYLELLTAAKQKPIGLA

SIAAALSEDENTIEDVIEPYLLANGYIERTAKGRIASAKSYSALKLNYEKTLFEE

>AHK59127.1 histidine phosphotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGILTKLELDYEIDDIEKFLQFFRTMCDRFEPLIIKLGSDSVRYKEAIKELETLAHNTAWAARRLNLEEV

TDFCVFCEEMMAQANRFNGPASDEFTDWMLLMSDQFEKYCRSYENDDSVLAVFNPLIVNVPNIISK

>AHK59126.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQTSPDMFINRELSWLRFNSRVLDQCSKNLPLLEKLKFIAIYCTNLDEFYMIRVAGLKQLFSAGVNASSS

DEMTPLQQLKAIRKYLHQEKELLERYFNEITSELEKENLFIKHYENLDENLKQKCDEYFFSNIFPVIVPI

AVDATHPFPHLNNLSFSLAVKICDKAHPELVKFGMIRIPRVLPRFYEVSANIYVPIESIVHQHAEEIFPG

YKLLASAAFRVTRNADMVIEEEEADDFMMILEQGLKLRRKGAFVRLQIQKDADEQIVEFLNTHMKIFHKD

VYEYSILLNLPSLWQIAGNKTFTHLLSPLYTPKTLPPFDENLSIFDAVEKEDILIIQPFESFDPVYKFIK

EASKDPEVISIRMTLYRVEKNSNIVQALIDAASDGKQVTVMVELKARFDEENNLHWAKALENAGAHVIYG

ITGFKVHAKVSQVIRKQGDKLKFYMHLSTGNYNASSAKIYTDVSYFTSKAEFARDTTSFFHILSGFSKNR

RLQTLSMSPNQIKEKVLEMIRIETSKKNEGVIVAKMNSLVDSDIIQALYEASMEGVQIDLIIRGICCLKP

DEEYSKNIRVRSIIGKYLEHARVFYFKHSEPNYFISSADWMPRNLERRLELMTPIYDERSKAKLAQFLRL

QLSDNVLAYELKNNGEYEKIPSSEKIIDSQQTLEEYVSKIYKTLKKDTDQSRATHLASKLFKEN

>AHK59125.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKTSNLFTIFLVLLFVFFAVGFYTFYNAKGTSYLSNASESCNNCHIMNEVYNEYMAGPHSQKVKGEPRA

TCVDCHLPHNFVAKWIAKAQSGLGHAYAFTFKLDELPTNLSATEKSRKMVQENCIRCHADFAQTAINATT

NPHADKSLNCASCHKDVGHKHGI

>AHK59124.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKNILRLGIVVLVLLIAGVLWLNNDINQKKEDEANKNAIAANADFSLLSDDDPNFEKWGKVFPEQLKMY

LTVEKEEPKATEFGGNLAYSKLIRFPQLTILWAGYPFSLDFNEERGHFWVQVDQMKTARNNKDFLNAHGL

AAFKGQPAACMNCHSGWTPWLIKNVAKGDFTAFNSTNYWTMIKNIPAVDGIVENSPEHAGPHGGKRMGVT

CADCHNPNDMSLRLTRPAAINALVSRGYEKDPVQGVKATREEMRTLVCSQCHVEYYFKPTGEKVKVMGET

IVDDSSKKWWNGTQKNYDEYEFWRDGNKVKEIETDGIVLTFPWSEWKKGQPFRIEMLDDYYDKVRGVFGA

DFTHKLTGAQIIKIQHPESELYSGGVHAANGVSCVDCHMPYVREGAKKVTQHNITSPLRDINSACKSCHK

QSEDYLKAQVLDIQNSVAHDQRTAEYAIVSLIMDTKKLRDELGNMEKFQSDGKADAKKISEELKEVLELH

RKAQMRADFVNAENSTGFHNPREASRMLLQAVDMARMGQTKLVEIAAANGIKDFKTSNLGFEDIQKFNPG

ELYYKVDVNNHKAGERYYADEKDVNGNPPKELLEHDKELAPYNYQVIDKK

>AHK59123.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINKNKLFRQVHIYLSLFFLPCALLFALTGIAYIFGINQDVGLKVEQYQLSKVIESGKEREALIEYLKTN

GLKVPSNTNIIKSKDKGITIGGTHYSANITQNSTNEYNITLKTRSLLGDMIMLHKDKGAWYFSVLSVGFG

ITLFMLYISGLMITLFANKKDRSKQFAVLGVGVVVTLLLAYLSL

>AHK59122.1 enterochelin ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKSLVFAFFAFFLSLILTACNSNSNENNASSTTKTNTATVKVLPISMSDEGDSFLVKDSLGENKIPKNP

SKVVILDLGILDTFDALKLNDKVVGVPAKNLPKYLQQFKNKPSVGGVQQVDFEAINALKPDLIIISGRQS

KFYDKLKEIAPTLFVGLDNANFLSSFENNVLSVAKLYGLEKEALEKISDIKNEIEKAKSIVDEDKKALII

LTNSNKISAFGPQSRFGIIHDVLGINAVDENIKVGTHGKSINSEFILEKNPDYIFVVDRNVILGNKERAQ

GILDNALVAKTKAAQNKKIIYLDPEYWYLASGNGLESLKTMILEIKNAVK

>AHK59121.1 iron ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKLKNITKFYDNKVIISDLSLDFHKGKITSIIGANGAGKSTLLALASRLIKPSSGEIYIDGMNLKNYKE

QILAQKISILKQQNNINLRLKVEELVAFGRFPHSQGRLNTNDKIKINEALEYMELSNLRNEFLDTLSGGQ

KQRAFIAMIIAQDTEFIMFDEPLNNLDMKHSVQIMQLMKNLVKDFNKSIAVVLHDINFASIYSDEIIALK

DGKLLKQGSKDEIINQENLKQIYDMDIPVSQINGKKICIYF

>AHK59120.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRKKMLILSFLTLNMIGIFIFVGLNGFDEYALKSRFLQIAAIIIVAICIAVSTVIFQTLCNNKILTPAII

GLDSLYMLLQSALIFSFGAANLSVYKNDINFLITLVCMVVFSLGLYKILFSSDRSIYLIMLLGLVFGTLF

STLSSFFEVLIDPDEFMVIQGRMFASFDNIAFDVLILAYIISFLSFIWIFRYMKFLDPLNLGKDLAINLG

INYQKISKQLMIIIAILTSISTALVGPITFLGLLVVNITYELFKTAKHSILLSACILISILALLGGVFFV

SRVFDYNATISVVINFLGGIYFIYLVLKGNKL

>AHK59119.1 phospholipase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRKIALFLSLCVFIWASDLQQALEYEKQGDYKKAMEIYKKLALKNSSVLISQEQNNSSQATQTQNSITIK

KEEKQDFSRLALANYLGENESFNPLGISSYKMNYFLPFAYSFNSLGVNNNKSEAKFQLSVKKRLFENLLG

LDEKYYIAYTQTSWWQIYEHSSPFRETNYQPEFFIDLPLYLKDYEFFNNLRVGILHESNGKGDENLQSRS

WNRIYVSTAILYNKFLFVPRLWYRIPENKKDDDNPAILHYMGNFDVNLAYLGDDYFINLMLRNNLKFHNN

KGAIQVDLGYDIFNNGIYWYLQYFNGYGESLIDYNKHLQRLSTGFLISY

>AHK59118.1 molybdopterin-guanine dinucleotide biosynthesis protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQLNELNCVILCGGKSSRMGQDKSKLILKNQNLTQFQVDKFSKIFKNVYVSAKEDKFENHFSLIKDSLEF

EVYSPMLALYSILSNFKNEFVFVLSVDSPKVGENELLKMLPFLEQNYKIIIAKTPLHKHPLCGFYHSSLA

QTCKNFLEKNEQKIGLLFSEIKTKFVEFEDEDAFLNLNFYEEYEKFKSKLK

>AHK59117.1 ferrous iron transporter A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKYTELLQLQTFFSRFKKIDFIKRINDNILELSFDRERFIFDLTRAMSAIYTAKFNAKNYNAPFDFMLKK

YFSNAFIKEVKVLEGNRILCFSVKANKAYKSYESKIYFEFTGKNTNVILTDEKDLIIEALRHIDKSYRVV

KPNVILESLKPYKMDENFEEIKDFADYFSRKFTSIYESKIKQIKNLKLAQVDKKIQNLQELFSSLDEENS

LLLKALEYRKRADVLFANLSVLKDYEREFKLDDFEGKELEFKLEFNPKQSANLYYKNAKKLEQKAKNLNI

QRQNLKEKLDFTLSLKELLLQAKSEIELEILLPKKNSKKNQDHKQEDLVANFYFNEFKICVGKNEKGNEF

LLKNAKKDDLWLHVRDIPSAHTLIVSNKQKISLDVIEFAARLCVSFSKLKKGSYWVDYTLKNFVKVQQKA

FVNYTNFKSINITKD

>AHK59116.1 coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPVSPLGNINYINQNMAYPATQASNELAKEGFAATLNMAEFNEKEKTLNKLEKVNETHEIKEEIKEKAEQ

EEKKKKHNQEAKTSDDEKNEEDESKDPNFKDAQSIHRLDISI

>AHK59115.1 phosphatidate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFNTTRIISALVMIGAIIIIALIDQFFINFIVFAVLLYLSFSEAKKLFALENISIIPLAIAFILGSLSHK

ALLFGILVLLLVVGYLVYKKASLKPALIYIYPSLPILALWQVYLDQGMFALFWLIIIVAACDSGAYFIGK

LMGKTPFSPTSPNKTLEGVIGGLICASVIGTILGVFVYSFWLSLLCSFFVAIFAVIGDLLESYFKREAGV

KDSGDLIPGHGGVLDRIDAVIIAAFVMVALL

>AHK59114.1 1-deoxy-D-xylulose 5-phosphate reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MILFGSTGSIGVNALKLAALKNIPISALACGDNIALLNEQIARFKPKFVSIKDSKNKHLVKHDRVFIGQE

GLEQILTECQDKLLLNAIVGFAGLKSTLKAKELGKNIALANKESLVVAGSFLKGAKFLPVDSEHAALKFL

LEGKKNIAKLYITASGGAFYRYKIKDLNQVSVKDALKHPNWNMGAKITIDSATMANKLFEIIEAYHLYDF

KEIDALIEPRSLVHAMCEFKNGASTAYFSKADMKLAISDAIFEKQDTPILEAVDFSKMPALKFHPISTKK

YPIFKLKNTFLKEPNLGVIINAANEVGVYNFLENKSGFLDIAKCIFKALDHFGVPKISSIEEVFEYDFKT

REYLRS

>AHK59113.1 protein kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>AHK59112.1 hypothetical protein N920\_06730 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKAFTILELVFVIVILGILAAIALPKMSSSKDEAEVSKSLNNLKTLINDISIYTLKNDHLSSIKTMSNV

SGVENVDLSNFNGIKEVNFRVGDDKECLKLVFINKADFILMGISSNEASKNAIINAANQSHEDLENIDFT

SSSSNKACVILSKNENFKNLASKTYLLIGGM

>AHK59111.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFKKEISFIKSLFNKENIALHEPCFIGNEKKYLLECIDSGFVSSVGEFVTRFEEALKEKTKARFVIATNT

GTAALHIALLANGIDENCEVITQSISFVATANAIAYTGAKPVFLDIDENTLSLSPKALEHFLENQTYQKD

NLSYNKTTHKLIKACVIMHTFGLSAHIKAIKELCEKYHILLIEDAAEALGSTYENKALGTFGKCGILSFN

GNKIITGGCGGAILSDDENLAKLARHLSTTAKIPHPYEYDHDRIAYNYRLCNINAAILFAGLENLELFLE

NKRELAKIYKDFFKNHDKCKFIDEKSNEKSNFWLNTLLFKNENLRNIFLEECLKNNIFVRPVWKSLPSLK

AFQNCQSNELMNTKKLEKRLINLPSSVRIANKKE

>AHK59110.1 N-acetylneuraminate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIGNFNTDKKVFIIAELSANHAGSLEMALKSIKAAKKAGADAIKIQTYTPDSLTLNSDKEDFIIKGGLW

DKRKLYELYESAKTPYEWHSQIFETAQNEGILCFSSPFAKEDVEFLKRFDPIAYKIASFEANDENFVRLI

AKEKKPTIVSTGIATEEELFKICEIFKEEKNPDLVFLKCTSTYPTAIEDMNLKGIVSLKEKFNVEVGLSD

HSFGFLAPVMAVALGARVIEKHFMLDKSIESEDSKFSLDFDEFKAMVDAVRQAESALGDGKLDLDEKVLK

NRVFARSLYASKDIKKGEMFSEENVKSVRPSFGLHPKFYQELLGKKASKDIKFGDALKQGDFQ

>AHK59109.1 pseudaminic acid biosynthesis PseA protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFCKKCVMPDTKPDLHFDEEGVCDACRSQEAKNQNINWQEREKEFFELIKKYKKHPVYDCVIGVSGGKD

STFQVVKMLELGLNPLCVCFEPSVPTKIGRKNLDNLNHLGVDLIHIKRDPKVYQKLAREAFIRTGDNEWQ

NHLGIFTSVPRIAVNFGVPLIIWGESPQIEYGGPASSKNKNILGREWLEEFGGLLGNRASDMLGVNGITE

KDLFLYTYPSDEELQRVGVTGLFLGYYFKWDYKKILEISKKYGFLTLDHPVETTYENFENLDCYSNHVHD

YLKYCKYGFGRATDNACLDIRLGYISREEGVRLAQKYDGKPPKKAIKKYLEFSGFSEEEFQKIVDSFTNK

KIFKRDENGKFIRDYDGSLVRKDECVLK

>AHK59108.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MCFKMIALIDYKAGNLNSVAKAFEKIGAINFIAKNPKDLQKADKLLLPGVGSFKEAMKNLKELGFIEALK

EQVLVQKKPILGICLGMQLFLERGYEGGVCEGLGFIEGEVVKFEEDLNLKIPHMGWNELEILKQVPLYQG

IDNKSDFYFVHSFYVKCKDEFVSAKAQYGHKFVASLQKDHIFATQFHPEKSQNLGLKLLENFARL

>AHK59107.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKTRIIPCVLLKNSQLVKSIEFKDFRTIGHLTSTMRIYNARNVDELIILDIDASKSGEIDFESIEDLAK

ECFMPLTIGGGIKTLEDIQKILNLGADKISINSKALEDMDFISKAGNRFGSQCIVCSIDVKRKGDQFCVY

DRGNLLEKSPLELALEYEKKGAGELLLTSVDFEGKAKGYDLELLKIFQNKLKIPLIINGGLSKPSDGVEA

LNLGADALAGAYIFHFSKYTPKDVKEELARQGFAVRLL

>AHK59106.1 N-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKLKNFAELNSQEIKLIFKWRNHPDISQFMKTKHIDFEEHLRFIRNLHQDSNKKYFLVFQDEQIIGVID

FVNITTKSCEFGLYAIPDLKGVGQVLMNEIKKYAFEILKVDTLKAYVFKDNHKALKLYQQNHFTIYDEDK

DFYYVCLKQSHCKALPS

>AHK59105.1 nucleotidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVLFRSDSSSQIGFGHIKRDLVLAKQYSDVSFACLPLEGSLIDEIPYPVYELSSESIYELINLIKEEKF

ELLIIDHYGISVDDEKLIKLETGVKILSFDDEIKPHHCDILLNVNAYAKASDYEGLVPFKCEVRCGFSYA

LIREEFYQEAKENREKKYDFFICMGGTDIKNLSLQIASELPKTKIISIATSSSNPNLKKLQKFAKLHNNI

RLFIDHENIAKLMNESNKLIISASSLVNEALLLKANFKAICYVKNQESTATWLAKKGYEVEYKY

>AHK59104.1 CMP-N-acetylneuraminic acid synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNLCIIPARGGSKRIPRKNIIDFLGKPLISYSIENALNSGIFDEVVLSSDDEEIIEVALKYGAKAPFVR

DKNLSDDYASSTAVVQNAIEILQSQNQIYDHVCCLYATAPLLNKDILKQAYEKFIQNQSKFLFAATEFEY

PIQRAFYLNENNQVYMFDEKHYKSRSQDLTKAYHDAGAFYFGTSKAWLEEDFIFKPHSSVFVLPRNLVCD

IDTIQDLEFAKILYKVNHESAF

>AHK59103.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQEIKQFFINIERTDINESMENLVSEDFIDSIDIMALVAEIEKFYKKPLKAEFITPENFESFENIKKMLE

TAMKD

>AHK59102.1 amino acid adenylation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTTHIYDFLEKSLIKFSEKTAFVEPFVKERKEITYKDFDLFSKKLASEILKTLGNDNPTQAPVLIILPKG

IDCLISFFGVALSGNFYTLLDEKSPKERVEKVIEVLKPKLFITSKDLNFNLDLPTLYTQDFESFNIDESL

IKHAKEKHIDTNLLYVFFTSGSTGIPKGVSIAHKSVIDYTFWVCETFKFDENEILANQAPFYFDNSILDI

FSSVKSGATLHLLPNHLFAFPNKILECLEKEKVSTIFWVPSVLIYFANTEALNNFSLNALKKMLFCGEIM

PNKQLNIWRKHLPNALFANLYGPTEITDVCSFYIINRTFKDEELLPIGKACKNTELLVFDENMNFISPKQ

IGVKGELFVRGTSLSLGYYNDKEKTKQAFIQNPLHDNYLDLLYKTGDIVSYNEFGELLCYGRADNQIKYM

GHRIELGEIESVINSHVNIKNSACIFKEDIICFYESEEEINFKDFLKDKLPSYMIPKNFIKLDKFKLNQN

GKIDRKVLKELV

>AHK59101.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKTEFLEELKEAMHRDEDLNEDMLLDDIDEWDSLAFVSVMVLYKNLFTLKITAEDLKNCQKVSDLINLA

KLD

>AHK59100.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTRFDKAKISGICVSVPEHKICIDDELESVFSNDIKTLKRMKKVIGLNTRYICDENTCVSDLGKHAANT

LLQGLNIDKNSLDALIVVTQSPDFFMPSTACYLHQLLNLSSKTVAFDLGQACAGYLYGLFVAHSLIQSGL

GKILLICGDTLSKFIHPKNMNLAPIFGDGVSATLIEKTDFNEAFFELGSDGKYFDKLIIPKGAMRIPKAD

IFNDDSLMQTEEFRQLENLYMDGANIFNMALECEPKSFKEILEFSKVDEKDIAFHLFHQSNAYLVDCIKE

ELKLNDDKVPNFIMEKYANLSACSLPTLLCELDTPKEFKASLSAFGAGLSWGSAVLNFKDLYTKNILIYT

KEK

>AHK59099.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLFSPHLKRNELIKFAKELDFSKSQDLLINVHRNHAFEGVQSIIAPFLHFANLRAEFNFSSYDDSLSFD

NFKEASLELLWLDLTRYKNNVQNFIEERLLELRKISQNPILVLSLGEFKTDKKILNCEIFNIEKLIKEYF

DEEDILDLAKEELTGSKLNNKALIFLAQILGLSLIPALVKPALKALVLDLDNTLYQGILGEEGIDNLNLS

PLHKTLQEKIKTFKKQGFLLALASKNEEKDAKKLFEIRKDFILQWDDFDARMINWEPKGENILKIAKKFN

INTNAMLFIDDNIAELENTKITGVKTLLCDENILYKIKLFPNLLKLSNTKEDQIRAKDIAANALREELKS

LSDEEYFQNLEISLNFSKNDLQNIPRISELLGKTNQFIANYTRLNQEKVAQHMQKELIVSVSMSDKLSDS

GIIAIFVFSCKEGNLFIDDLCISCRALGRKLETRMFFKAFELALHFFDLKNNNARLYYQKGERNMPFLSF

LEQISKEFEKNSALIPFQNLNFKGLIIHEN

>AHK59098.1 SAM-dependent methlyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKENIEKLFQAIAQKNPIHSKYLKKIEFSQEDEEEFDKLISYYIQDGISIKEQCDCYLLILNDTLEETKF

FIENGAYRYSSFDEVKDKVYFNESYMKQYMIGLALSSFVWIAHIKVRKYFSQYLQNFTPKTTYFEIGPGH

GEYFARAVKSGKFSAFYGLDISPTSCELTQKMVKQQVGGLITKCDFLCQDFFTYDFDKKADLIVIGEVLE

HVEKPLEFLKRSKELLSDGGEIFATIPINAPAIDHIYLFSHPDEVKDLIEKSGLKFKAYECFMANDYSLE

KALKFKNAITMAVVLNA

>AHK59097.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKQFYEILENILETKVDENTNLSMENCKNWTSLAHIDIIMSLEEEFEIKFNKEDLSLLKSQSALLEKIQ

TLKAEK

>AHK59096.1 C4 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>AHK59095.1 N-acetyl glucosamine/N-acetyl galactosamine epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFNKKNILITGGTGSFGKTYTKVLLENYKPNKIIIYSRDELKQFEMASVFNAPCMRYFIGDVRDKERLSA

AMRDVDFVIHAAAMKHVPIAEYNPMECIKTNIHGAQNVIDACFENGVKKCIALSTDKACNPVNLYGATKL

ASDKLFVAANNIAGNKQTRFGVTRYGNVVGSRGSVVPFFKKLISEGAKELPITDTRMTRFWISLEDGVKF

VLSNFERMHGGEIFIPKIPSMKITDLAHALAPNLSHKIIGIRAGEKLHEIMISSDDSHLTYEFENYYAIS

PSIKFVDKDNDFSINALGEKGQKVKDGFSYSSDNNPLWASEKELLEIINHTEGF

>AHK59094.1 deoxycytidine triphosphate deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGLKADNWIRKMALEHKMIEPFCEANIGKGVVSYGLSSYGYDIRVGREFKIFTNVNSTVVDPKNFVEENV

VDFEGDVCIVPANSFALARTIEYFKMPDNVLAICLGKSTYARCGIIVNVTPFEPGFEGHITIEISNTTPL

PAKIYANEGIAQVLFLQGDEKCDTTYKDKKGKYQAQTGITLPRILK

>AHK59093.1 acetyl-CoA carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKEEIKELVNLFAEANISKIKIKEQDGFEIELERDMCCDVPAPVCPPVPAPQPINVSVVNEAQPSQSVK

SNKPSINSPMVGTFYQAPSPGAAPFVKVGSTVKKGDTIAIIEAMKIMNEIEAEFDCRIAEILVADGQPVE

FGMPLFAVEKL

>AHK59092.1 biotin carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEIKSILIANRGEIALRALRTIKEMGKKAICVYSEADKDALYLKYADASICIGKARSSESYLNIPAIIAA

AEIAEADAIFPGYGFLSENQNFVEICAKHNIKFIGPSVEAMNLMSDKSKAKQVMQRAGVPVIPGSDGALA

GAEAAKKLAKEIGYPVILKAAAGGGGRGMRVVENEKDLEKAYWSAESEAMTAFGDGTMYMEKYIQNPRHI

EVQVIGDSFGNVIHVGERDCSMQRRHQKLIEESPAILLDEKTRTRLHETAIKAAKAIGYEGAGTFEFLVD

KNLDFYFIEMNTRLQVEHCVSEMVSGIDIIEQMIKVAEGYALPSQESIKLNGHSIECRITAEDSKTFLPS

PGKITKYIPPAGRNVRMESHCYQDYSVPAYYDSMIGKLVVWAEDRNKAIAKMKVALDELLISGIKTTKDF

HLSMMENPDFINNNYDTNYLARH

>AHK59091.1 hypothetical protein N920\_06455 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILLSFAFFASLASANTINAIAVVVDKEPITTYDIDQTMKALKIDRNKALGVLINEKMEISQMKQLGI

VVNDLELDDAINKMLAQNKTTLNAFKANLKSKNQSYEQFRTNFKKDLEKRKLYEKIASMAKTDFSDDGAK

KFFEQNKDKFTFYTQINANIYLSNNPQTLENIKNTKKTILKPQNASLNTSNADPRLLGLLSQIPVGSFSP

VLNGKNGYELYEVKSKDGTQTPEYEQVKNEVLNAYVSEQRQNFIQDYFDKLRSKINIEYLR

>AHK59090.1 glutamyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHEKLTTRFAPSPTGYLHIGGLRTALYNYLYARKNGGNFLLRIEDTDLKRNSKEATKAIIEAFKWCGLEH

DGEVTYQSERFDLYKEYVKKLLDEGKAYYCYMSKEELEELRAKQEAAKERPRYDGRYREFTGTPPQGIEP

VVRIKAPQSGEIVFEDGVKGEVRFKAEDIMDDFIIARSDGTPTYNFTVVIDDALMGVSDVIRGDDHLSNT

PKQIVLYEALGFKIPKFFHVAMIHGEDGKKLSKRHGATDVMEYKEMGILPQALLNFLVRLGWSHGDDEVF

SLEDLKKLFDPYHINKSASCYNAKKLEWLNAHYIKTLPFEEINRQLKDLGFDLSVYEKAGFLLDLLRERA

KTLHDIINGAKSIVNAPQNYDENAVQKFVNKNNLELLQAFANTLKDQKTGKDFEDFTNDFLEKKEAKLKD

LAQPIRIALTGSAVSPSIFEVLEFLGVDECKKRIDNFLKVRGK

>AHK59089.1 malate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLKEEALKYHLGGKIDIVPSKPMATSYDLSLAYSPGVAEPCLEIAKDNELAYTYTNKANLVAIVSDGSA

VLGLGNIGAQASKPVMEGKACLFKKFANVNAYDIEINVHSIEEIVNFCKALAPTVGGINLEDIAAPKCFE

IEAALQDLGIPVMHDDQHGTAIISTAGLMNAMEISGKKFKDIKVVVSGAGAAGIASAKMYRNLGVENIIL

VDSKGVISKDRNDLTPQKLEFAVDSKEKTLKEVLKGADVFLGLSAPKILDDEMVLSMAKDPVIFALANPI

PEVMPEDVARLRKDAIVGTGRSDYPNQINNVLGFPFIFRGALDVRASKITENMKVAAAKALADLAKLPVS

DAVKKAYNLSTLEFGRDYVIPKPFDERVKAAVSTAVAAAAVKDGVAKVKNFDEKAYFESLK

>AHK59088.1 uracil phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNIHCINHPLIEHKLGILRAKETKPFQFRMLIDEISSFLLFEASKDFSLKEIEISTPIQKTTVKKLDEK

IMICPILRAALGMLESVFKMIPDASVGFLGFVRNEETLKADFYFQKLPKDAKKRTAIVIDPMFATGGTAI

DACNFLKSQGVKKIKFISILAAPQGLKKFSQMHDDVEVFVACIDEGLNEKGYIIPGLGDAGDRVFNTL

>AHK59087.1 hypothetical protein N920\_06435 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIFGKIDYINLLPLHIYLKKYPLPNGYKASMEYKKGVPSKLNKDLFYRRIDAAIISSIESARKKYKNLDL

GICANKRVLSVLVEKNTSNAKDPSSATSNALAKVLKQDGKVIIGDKALKLYLKDPSKYIDLCAKWHEKTG

LPFVFARFSCVQKKALYKQILKKFPKTKIKIPYYILQNYAKTRDLDIKDVRYYLDEVIYHKISTKEKTAL

KRFVKACKALNLA

>AHK59086.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNLNYGIIGLGKFGSVVADELIAGGHTVIVADKDEEALKSIQNPPSYAYILDSTNISALKEAGFHDVEV

VIVSIGENVEKSILTLMALKDIGVKNIIAKATSNIHGQILSKLGATKVIYPEKESAKRLVKEFLTKDADY

EVFDLSANTIRAIKINIDEKLAGNSLKHVAQNMKVISYKKLNSDWEILPDLETTTVYSGDVVILLGTVKE

LREFEH

>AHK59085.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKQFGLDRRTFKILLAGYIIIALFGALLLHSSWAHTTPIDFLDAFFTSTSAVSMTGLVVKNTAVDFTLAG

QIIILALVQIGGLGYMGIGLFVYILIRKKVGFSARNLLKESLFYPSMDGLFKFFKKVLLFIFTIELIGAI

LLTMRFALEMNFKKALWFGIFHSISAFNNSGFTIFEHGFIAYKHDIAINLIITSLIIIGGLGYFVLVELY

FFQRKKLQNLSLHTKMVVVASIFLIFSSTLIIFAFEYSNPQTIGHFSFFDKILSSYFIAINYRTAGFNTL

DMGHLHDASLFFGSLFMVIGGAPGGTAGGMKVTTVMVLLLYAYWSIRDGRVRIFGHEIPRETISKAFIIA

VGSAVYIVIAVILLSLLESKFDFIALLFETSSAFATVGISVGNGGTLSLCALFSDPSKVIIIIMMLSGRI

GVFAFLLSVFKQDKAIHLKFPEGKVNL

>AHK59084.1 rod shape-determining protein RodA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFRLDRRILTHFDYIQPILFLPIILISFFLIFEANPFLAEKQFVYACVGLFAFMVFFFFPIRKFIWIIPV

AYWINIFLLLSVDIFGVEKLGAKRWLEIPFTHFTIQPSEIFKPSFILMLAYLIYQNPPPKNGYKLKQFIK

LSFYIILPFLLIAKEPDLGSAMVLLLVGFGVLFIMGVHYKIWLSIVIAISVSSPIIYTHLLKPYQKQRIH

DFISEKPSYQVAQSMIAIGNGGLTGKSQDEATQTHFKFLPISTSDFIFAYMIERFGFIGGLTLIIFYILL

IFHLLSLNYKLKDDYFARVAINCVALFIFIYAAVNISMTIGFAPVVGIPLPFFSYGGSSFTIFMIFFGIL

QHLITFRYFWTDIKAK

>AHK59083.1 ferrous iron transporter A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKRFRLSFYLSFLTLLLSACSVSQMNSLASSKEPAVNESLPKVESLKSLSDMSNIAFEWEPLYNENIKGF

YLYRSSDENPDFKLVGTIKDKFQTHYVDTKLEPGTKYRYMMKSFNEQGQISEDGKVIEVSTAPRLEAVPF

VQAVTNLPNRIKLIWRPHPDFRVDSYIIERTKGDDKEFKKIAEVKNRLNAEYIDSDLKPNENSSYRIIAV

SFNGIKSGSSQVVSSTSKALPPQVEHLSASTDGSSKIILTWDAPTYEDFSYYKVYSTSSSFLPFSVLAKT

DKNSYEDIVEGAGKSKYYKVTMVDKDGLESPMPKDGVEGKTLGNPLAPSIILAQSTSEGINLEWSDNDTR

AVEYEVRRYGGEQNAVFKGIKEKRLKDVKALPGVEYSYEVIAIDSAGLRSEPSSKVKAAQ

>AHK59082.1 tRNA (guanine-N(7)-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPNFKSKKIKEINLPYSKDDVEFLWLAKNDNVSLIYTKVQEESFFLQIKKAQNGFVIKGDKHTKPSKIGY

LQKALKIFKEGFCEDIINEAFGLKNNALIEKTPFIVDNFDELLSRLQGKIYIEIGFGSGRHLLYQAKENP

NVLILGVEIYNPALTQVAKLAKAQNVNNILLIQSDARLLLSVLKSKSVEKIFLHFPVPWDKKPHRRVIGK

DFCKECARVLVQNGRFELRTDSFEYFNFTLEQFLTFPAPKFSLRKNENLEISSKYEDRWKKQEKNIYDLW

VWNFNQECKNYELNEFNLSSVEFSKEDLKKIEQNFKNITIKKDDFFLHFESIYKQDENLLLKVAFGAFNK

PEHCYLHLDKTIDFAFKEPFKIQENIKAINELKEILKVQFKI

>AHK59081.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPNLIQANKLTLGYDELVIKEASFAFKDDDFVFITGKSGSGKSTLLKSFYGDLEPISGKLEVCGSLMNKI

GNLELLKLRQRIGIIFQDYKLVQEYSVEKNVMLPLMIKGYSKKVCHDQATKLLKHVNLTFKADKLPNQLS

GGEQQRVAMARALAHNPKLLLCDEPTGNLDEYSSDIIWTLLKSARELLGTCVIVVTHRIPSNLRVDYRRF

NIENGKMNEIF

>AHK59080.1 cell division protein FtsX [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFFKTHLSLILPLLFMMFAFEFILITNATLKHYEELVNKDYNIIVVSKTELDQNVVKTKVPFFAGLESL

DPKDLIDRLKNDVSEKNLKVLKDSLPKFYTLKLNSLPDQNELNSIKNQLLNIVGVSKVETFSKTHDKIYS

LLILMKFVFWLFLFIIILLAFVLFLKQMRIWLYEHTDRIEIMCLFGAPFWFRSFMLYKVVVVDCFIAFVI

LLAFFTQIFDLSIIQESLKAVDIIFPPINFILHLTLIFLATLFICLLCVNTVMFKVKR

>AHK59079.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRKNILIFFCFFLFVDISLANAINEKTKSLEENKRIQEQLNKKLEDLASDILNGEKSLKDLSLQIESLNS

QTSKLEASAKAQNQELNTLTSQNEDLLKSKSNMEGKLISLMAKDFAYDLPIPQGYIESEESFMAFEILGS

LNKVLNEEIFKISKDYEGVSRLIDDKQAQIKKINESLKDYNAQLAKLQSLKQKQISEINKQKTDRAIYAK

KLDDLQAQQEELRKTLNQLKIINDKEDANSNKNDTKIVKNNQKIRQLGSSYQGSSVKRYTGKKTIAPLDS

FTVKQKFGNYVDPVYNLKIFNENVVLRSNKSDAVVKNVLDGKIVFAKDTSMLARVVIVEHDNGIHTIYAH

LDKIAPNIKVGKNIKKGAVVGRIKNDLTFEVTQKNFHINPLELISLN

>AHK59078.1 uridylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQERKRVLVKFSGEALAGENGFGIENSILKFIASEIKELIKNQIEVGIVIGGGNIIRGVSAAKGGLIKRT

SGDHMGMLATVINAIAIQEALESSGLEVRVQSAIQMEAFCETYIMRRAQRHLEKGRVVVFAAGTGNPYFT

TDTTAILRAVEIDADMVIKATKVNGVYDKDPKQFDDAVFLNTLSYDEAMQDNIKVMDDTAIALAKDNKLP

IVVCNMFEEGNLLKIIQGDTSLCSTVKNN

>AHK59077.1 DNA-directed RNA polymerase subunit omega [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDKRIEEVAAKALEKMGNDRYRLSLVVAKRAEQLANGATPLVDFDKNKNKLADIALYEIAENKITLEGLV

ETNR

>AHK59076.1 potassium-transporting ATPase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKPIDEELLLEQLIDNVKNCKDLEAAKALLFEICGHDAILEKAVDYCIFCHEGQFRKSGEPYAVHPILVA

TLVGFLSENKSNILAALLHDVIEDTNCTEEELREQFGSEVLKLVLGLTKIIEIREDNLISSKSKKSLTKS

ALTFRNMLLASIEDVGVLIVKLCDRLHNMLTLDILREDKQKRISEETLVVYAPIAHRLGISSIKNYLEDL

SFKYLMPDEYKLIDNYINSNNQEMQLGLNEFISKIELLFLSNGFRQGSFEIQKRIKHSYSIYLKMQRKGI

GIEEVLDLLGVRILVEKVSDCYLALGILHTHFNPLVSRFKDYIALPKQNGYQTIHTTLFDAKSIIEAQIR

TFDMHKIAEFGIAAHWKYKEDGSVVAPRLDWLTDISMQSINNLENAEDYNAIELYEYAKDSLYVEDVAVY

SPKGEIFTLPRGATVLDFAYEVHTKVGLHAKSAYVNRIKVPLLTELKNGDIVRVVTSNDKFYRCSWIDSV

KTGKAKASIREFCKQKIREINLASSINMLSFIFGVDKNRIETWIEKENLVRRIRQVATDSAYLKDIVNGL

KKYAKKSYWFDKYEIKEQKIGNFTLYCNHKIANVDFDFCCHPKRGDAVLAFVKGGNAIVHHKLCDRADKM

IDNNQDMVFIKWDSNIPKSYKLIFSLENKKGVLAEFLAFLAKMQINLLTINLSSDLNSAVDYFEITMEIP

DNINPDSVKDRLKSRCKILDFTSLNDAYKES

>AHK59075.1 tyrosyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDIKKILAEVKRGCAELIDEERIENLIKNYYEKGENFFIKAGFDPTAPDLHLGHSVVLTKMAFLQKHGAI

VQFLIGDFTGQIGDPSGKSATRKKLDKEQVLINAKTYKTQVFKVLDKEKTQIKFNSTWLNELGAAGIVEL

TSTFSVARMLERDDFTKRFKEQSPISICEFLYPLLQGYDSVALKSDIEMGGTDQKFNLLMGRQLQRVYNI

GKEQAVIMMPLLEGLDGVNKMSKSLNNYIGVTEKANDMYAKILSISDELMFRYYELLSQKSLEEIAQIKK

DIEQGNLHPKKAKENLALEITERFHSKEEANNAKSEFDRIHSQNALPSDMAEFEIQGKIWLAKALVECGL

ESSTSAARRSISANAVSVNSQKVSDEQMYLEQGEYILQIGKRKFAKLKVKE

>AHK59074.1 2-nitropropane dioxygenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLQPLQIGKHTIKYPIFQGGMGLGISWDRLASAVSLNGGLGIISSVGTGYYEERKYASKELNAKPYGSE

NFYSRKGLQALINNARKVCGDAPLGCNILCASNDYARIARDACEVGFNVIVSGAGLPTNLPEFTADFPDV

ALVPIISSAKALKIICKRWQSRYNRLPDAVVLEGPKSGGHQGFTYEQCLDPNYQLEKLIAPVVEEAKNWG

SFPVIAAGGIWDKKDIENAISLGASGVQMGTRFIGTFECDASEEFKSVLLASKEEDIELIKSPVGYPARG

VRTNLLNLVDKRMGPKINCISNCVAPCGRGKEATKVGYCIADRLFDAWSGKKETGLFFTGANGYRLDKLI

SVKELMEKLVNGE

>AHK59073.1 N-acetylmuramoyl-L-alanine amidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKIFVFLVFVFTTLFGVYENELANFDKNFIGSKSEVQVKFHHQLKSLYIQSVINEDEKTKIEILKRLII

SSNTLNLDDKSYANELKESGISETSINALRKAVIKDIKVQNISQDTEKSTFEPIKTVQKNEKKSSNEQIK

NTEKTNSKTSQAPKSSIVSKAKSDDKIYVLKSSKTNQGVEFELNADLDKDQLKSFALDEKGNYRFISDFD

GVLEGGKKEFKFDDYRLVISQFNPKTIRIVVYAKEKIPIDISFKEEKIIFSKETTSQKKTEQVSKISEKK

QDQKTEIKTKVLETKKQDKKTNNEKENQEPLYVLDVDKISNAVVLNLSDDLDEKEIAVFDTKDQKFRYVV

SFKGVLEGNRKSFTFGQNVITVTQYNPKTVRVVLSAPKEFKLLKELDNNNLTLGFYIQTTNQNANKKATQ

SSSKTLNTNYKSGKLVVIDAGHGGKDSGALSDKKGSLKEKDIVLSTALKLGNELKKRGYKVLYTRSSDKF

INLRDRTKYANDKRADLFISIHANAAPNATKAKSSEGVETFFLSPARSERSKKAAEKENQGDFEEINYFS

KQSILNFLNREKIVASNKLAIDVQKNILTQTRKKYKIVDGGVREAPFWVLVGAQMPAILIEIGYITHPNE

GKRIANKAFQDLLVKGIADGVESYFYNNR

>AHK59072.1 FAD-dependent cmnm(5)s(2)U34 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKAKLIFKDNTPFSLDFDDFYFNFKDGLNESKFVYTHSFEWKNQENFIIAESGFGIGLNFFLTLKRFLE

TTPSKRPKKLFYISVEAFYIEKEQLREIYQKLEFYEEFKELLEQFLKFYPKAKEGIYRFYFEDCFLDLVF

EDIAVLKELDFKADVWYLDGFSPNKNSQMFDENLIFEVARLSKKNTQICTFSSASFLQKNLKKYGFRVEK

TKGFRKREMIKAYLENELEFKDKEAYFSRTFSSLKNKKVAIIGAGISSAVLAYELSLRGFEIDIFEKHLE

LGKGASGNESGILSSLILKPKVNLGEFSELSFIEASRFYRQILDLEFKGVVEFAHNDLMQERFDTQRENV

LFKISKNQAFLEEGGVIFPKKLVKNLFEKSKACIYFNHEFQAYKFENGCFSLKFKNDVVKSDYAVLIYAM

GADAKDFVFYDEMKLSKVRGQVTHLKPFLDTPFPLSSKAYICPVKDDLQVIGASYDRLNASLESKEEDDK

QNIENIADFMDKNTKLEIIGSKVGFRSYSSDRFMIVGNAYDEAFYKEEYKALLWTKNKEQKPAKMSCNLY

FNFAHGSRGFSTSVLAARYLCALINNEPLCLEKKYIHAIHPARFLIRKLKKGL

>AHK59071.1 quinone-reactive Ni/Fe-hydrogenase small chain [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIDYHQIESRLSALEKLPSLKDNDSITKALEKSGFSRRDFMKWAGAMTAFLALPASFTPMVAKAAELADR

LPVVWLHMAECTGCSESLLRSDTPTIDSLIFDYISLEYHETVMAAAGWQAEENLESAIQKHKNKYILMVE

GGIPMGDTEHFLTIGAHGKTGYELSKMASENALAIFAIGTCSSFGGIQAARPNPSNAQPLSKVTSKTVIN

VPGCPPSEKNIVGNVLHYLLFGELPALDVYNRPKWAYGLRIHDLCERRGHFDAGEFVHAFGDEGAKQGFC

LYKVGCKGPYTFNNCSRERFNQHTSWPIQAGHGCIGCSEPNFWDTMGPFEEPMASRKFDTVFGLGADSVS

DKIGIGVLTLTGVAIAAHAVISSMQKDKE

>AHK59070.1 hydrogenase 2 large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSQKIIVDPITRIEGHLRVEVVVDDNNVVKEAYAGSTLWRGIETIVKGRDPRDAGFMTQRICGVCTFSHY

KAGIVAVENALGITPPLNALLTRTLMNAALFLHDHIVHFYQLHGLDWADVVSALSADVKKASDEAFKYTS

NPYATGADKLLEVQQRLKTFVDKGNLGPFANAYYGHPTYRLSPEQNLIVLSHYLECLRIQRIIAQCMAIF

GAKNPHPQSLTVGGVTCVMDLLDPARMGEYMVKFQEVQDFVNRAYYPDLVMAGKAYAHEASVLNDIGVNN

LYTFKEFQIGRDEWLFESGIIKNGDLSKVYEVEEDKITEEATHSWYADNEPLHPYDGKTNPNYTGLVDGE

SVDHHGNNVHSKVFDTKGKYSWIKAPRYEGNPMQVGPLANVVVNYAKGNQNVVPVVDEFLKETGLPLNAV

FSTLGRTAARCIEAKIVANNALKAFNNLVENLKVDQSTCAPYVIDNSKEYKGRYMGHVPRGTLSHWCRIK

NGVIENWQAVVPSTWNASPKDANGVGGSYEQCLIGLKIADVKQPLEIIRKIHSYDPCIACAVHVMDTKGN

NLSEYKVNVNL

>AHK59069.1 quinone-reactive Ni/Fe-hydrogenase B-type cytochrome subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNKEEKLQRKAEYEFSIGLRLTHWVRAIAIVILIGTGYYLSYVFQSPISNGEPVNFMQAKYRLVHQAVG

FVLIACIIFKVYLFFCDKVSAKERRSVWDIFNIKLWIEQVKFYIFLGKHPHLKGVYNPLQFVTYFFFYLV

ILGIILTGLILYTHTYHEGLGGLLYHILRPLEAAMGGLADVRTYHRILMWVIMIFVPVHIYMAIFNAVKG

KDGAMDAIISGYKFVKEEQH

>AHK59068.1 hydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFLVLGIGNIMFADEGLGVHLCKQLEKNYKFTHSEFTLDFVDGGTLALQLSYIIARYDRLIVLDCIEAQ

GASIGDVFFFPYDAMPNKISWSGSAHEIEMLQTLQYMELAGDLPKTHILACVPKRIEAMSFKLSDELIQG

AKIMEKTLLDFLSKEGFAYEKIADFSLQELADISYKNY

>AHK59067.1 recombinase RecR [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVKGLEKFNELVESFANLPTIGKKTAIRLAYHLCINNQIDGMKLAHNIENAIRFIKPCEQCGALSENELC

EICSDKERNKNILCIVESPKDILTLEESQSYNGLYFVLDELNEEKLEKLKQIILKLNISELIFALTHSIN

SDATIFFIEDKFKGLNLTFSKIAQGIPSGVNLENVDLISLNKAMNFRTKI

>AHK59066.1 sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKNYSIHTKLIILFVVTFFLVCVLFIVLLKIEGNTYNEEESLKQENLIKNLLISYENTSGVEIGAYLGN

SGFNAIQNPNLVKAIRNNGQSLFKAGGELCTLSSLKYHSNLYFDVQCKDFDGLYEENTSDRVYNLLLIGF

FSFSLLVVFMYFSVLKSLEPLKKLRRQVAEVANGEQPDFLDYQEDEVGKIAFEFQKAFKKNQELIQSRQL

FLRTIMHELKTPIGKGRIISEMIKEDRQKERLIAIFLRMDSLINEFAKIENLFSKNYNLHFKPSRFSTIL

EEAKEHLMIDDFNKVVKVDIRYDALINVDMEIFSVILKNLIDNALKYSNNGTCELFCCKECFTIKNPGKP

LAEPIEHYLEAFTREKHNQVKGMGLGLYIVSEVCKLHNFDLIYFYDDGKHCFKIFFGDKEK

>AHK59065.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINVLMIEDDPDFAQLLSEYLAQFNIKITNFENPKSALNVGIQGYDCLILDLTLPGIDGLEVCREIRQKS

NIPIIISSARGDLSDKVVGLQIGADDYLPKPYDPKEMYARIMSLIRRTKRVEHTNNENINSAFKIDERRH

EITYEDKVLTLTPAEFEILEYLIQQHGYSVSREQLVSRCKNLKDKDSKSLDVIIGRLRVKIGDSSKSPKH

IFSVRGIGYKLIG

>AHK59064.1 molecular chaperone DnaJ [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEISYYEILEITQNADKETIKKAYRKMALKYHPDRNQGDKEAEDKFKLVNEAYEVLSNDEKRAIYDRYGK

DALKGGGFGSSSSGFGGFEDLGDIFSSFFGEGFGSSRRRKSSNDEKIPSDFIVNLKLSFKEAVFGCKKNI

DFTYKCSCKTCNGTGAKDGKLQTCPKCQGRGQVGVSQGFITFAQTCPDCQGIGEKASEKCSDCKGLGYNE

SKDSVELNIPEGVDTGMKLRVNAKGNILKNGTRGDMYVKIIAAEDDTFIRDDDDIYIEFPVFFTQAILGE

SIKVPTIRGEATLNLPKGAKDGQRFVLEKEGVKDVHSSRMGNQIVQISIKFPTSLNDEQKELLEKLSESF

GIKDGMHQEQKGLFEKITNWFKS

>AHK59063.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLVKLSLVAALAAGAFSAANATPLEEAIKDVDVSGVLRYRYDTGNFDKNFVNNSNLNNSKQDHKYRAQV

NFSAAIADNFKAFVQFDYNAADGGYGANGIKNDQKGLFVRQLYLTYTNEDVATSVIAGKQQLNLIWTDNA

IDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGADLLGHSNISTTSNQAPFKVDSVGNLYGAAAVGSY

DLAGGQFNPQLWLAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKTHANGNLFALKGS

IEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNET

VRVGADFVYGGTKTEAANHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQA

LYKF

>AHK59062.1 phosphotyrosine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILFICLGNICRSPMAEFIMKDLVKKANLEKEFFINSAGTSGEHDGEGMHYGTKNKLAQLNIEHKNFT

SKKLTQKLCDESDFLITMDNSNFKNVLKNFTNTQNKVLKITDFSPSLNYDEVPDPWYSGNFDETYKILSL

ACKNLLVFLSK

>AHK59061.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENFNRTLLVCWFGVFTTSMGLSQIAPILPFYIKELGHVDTSEIAFYSGLAFGITPLFMAVFSPLWAFLG

AKYGYKNMLLRASFGMSVLTLWLSFAHSALEVVFVRGLTGIISGFTSAAVVFIAVIAPKEKVAYALGTLS

TASISGSLLGPLFGGFVAEFFSISAVFDVVAFLIACSFVTIYFFIHGRKIQKEAKKNTQKVKENKTLIIV

LFITTFVIQFGTFGVMPILSIYVEQIHQGGNLALWAGIVVAASGISNLFFAPKLGKIADKIGPSKIIFGA

LIFCGICFYLQAVASNVYTLIFVRLLIGVGLGGLLPCVNALLKKSVSAKNLSVIFGFNQTCQFLGNFCGA

FGGGLMASHFSVEFVFTFVCLIFIINAFIFLAFEKKYIFSNQGL

>AHK59060.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEMILFVLVMILLVLLFVVLFRQYKSPKIEEKSTQSFSDIMQLKSIGELSVFQVFSKEIVTKKDSAFNGI

WKNLLGWSLSERQIALIFEFEITFLYDLRDKNFDILPLGDDAYKIIMPECRYKHSIIDMKFYDEKNAKFL

PFLLPDSINSTGISFSESDKNKLIKEAKDEVKDLSLNLIQNLESKIHKSAKDTLEAIAKGFGAKRVEFEF

KDNTQKLDVS

>AHK59059.1 tautomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPFVNIRITKENGEPTTEQKQELIAGVTDLLAKVLNKNKSSTVVIIDEIDTDNYGLGGKSITQARKEKS

>AHK59058.1 DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSEFLTHPFEPFFDKDSKILILGSFPSIKSRQDGFYYQHPRNRFWPILETLFNAKLENITEQQAFLRKKH

IALWDVLQSCKIKNSDDKTISYAKANDLNLILSQTKIQAIFTTGQSAYRFFVKFHPRLEAIALPSTSPAN

LNFSFEQLLQNYEIIKKFTK

>AHK59057.1 polynucleotide phosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNILKNFTNLLSGKKGKIMQYSIEINKNTEIFDIDKVAKQAAGAVLMRQGKSVVLATVAREEKQVEEDF

LPLTVQYIEKAYAAGKIPGGYVKRETKPSDAETLTARIIDRSLRPLFPKGYAYPTQIVVMVLSADPKVDL

QVMSLNAASVALYLSDIPMKAPVCGVRIGKIDGNFILNPNNEELQNSTLDLYVAGVKDELLMIEMRALPD

QKENEIFIEAPYADVLTQTTSQNMNELSEDEILEALNLAQKAILNGSNAYEEAFSKHKKNSQIELKNEIE

HPEILAFIENNFQKQIKEAINQMAKSERASELNKIAKEILNLEITKDWSEESVLNTLAKVKRKLIREQIL

NEGKRADGRSLNEVRPISIETNILPNAHGSCLFTRGQTQALVVATLGGENDSQMIDLLTEKNPISERFMV

NYNFPGFSVGEASPIKAPGRRELGHGNLAKRALYPSVDENYPYVIRLVSEILESNGSSSMATVCGGSLAL

KAAGVPSLKLVAGVAMGLIFEDNKYAVLTDIMGLEDHDGDMDFKVAGSKDGVTALQMDIKLGGIDQEILK

QALYQAKEGRIHILNIMEEAAKEIIVNEEVLPKLELFSVDPSKIVDIIGQAGKTIKEIVEKFGVSIDLDR

EKGEVKIAGSQNEQIKAAKDYIINITSSQKGTKKGPKDKDISGFELGQEFQGIVKKIAPFGAFVELKNGV

DGLLHSSKIKHLNLSENQSLKVKISEIKNGKISVDLCE

>AHK59056.1 hypothetical protein N920\_06265 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MWRKFSLLLGTSIALNAAQVDIYALDAKKEGDILTANNDVIIFSDFYFITANKAIYNEKTGDVELFGDVN

ILRGQNERSHSDYAKINLNSNQADFSNFFFSNNNLEVWFQSKTSHLNDKVFESKVSAVSSCNVEDPDWEI

RFSKGWLNRETNFVHLYNARLYVKNTPVFYLPYFGFSADTHRQSGLLIPKIVLKSSEGLYYEQPIYIATQ

ENWDLELDPQIRTNRGFGLYSTLRFLDSPYSTGELNFGAFRENSSYFHDENLKNQTHYGIELKYSRDDLI

KSLLSDNFQEGLWIDATYLNDVDYLNLGSRDYRDLNSLVTSKINYFLADENNFYGAYARYYIDTSKLSNN

TTLQEYPSFQYHRFLNNLFDERLRYSFDASFHNFYRPAGSYANELNLDLPISYHNAFFGDFLHFTFTERF

YASFVNYSNDPERNHEHYFRNTHDFNLYTDLSKAYENFFHTLNLGVNYILPGAKSGKITQDYLEEYDKEN

EHTSLYTVQYFYNNEGQKKLKHRISLDYLNKQNEFYELENLLTYYFNENINLNSEVLYSYEQSRFTNVIS

QIEVNTNSKFNWMFSHAYQNDEYGKYSFIGTRANYIATPNYNLFGGIWFDTQRAHANMWELGYTYQRKCW

NYSLMYRERIDPQLTSGGITAKNQSGVYFIFNFYPLGGVKYDFSLAESENKI

>AHK59055.1 RDD family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKENLQDRLERENLKIASFGKRVLAFLIDDMVISLIVFIIFYDRLIQAKDLFETTQIVGNFYLGFILLHF

SYQAIFTYLYGASLGKILCKIIILDENLLDKPNLIQSCIRSAVRQVSAMAFMLGFAWALSNDLRKAWEDY

LARTIVVDVA

>AHK59054.1 phosphoribosylamine--glycine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIMILGSGAREYSIALALRRVDKNLEFYFAPGNGATESLGTNLNLKDPVVLATYAKEKGFDLCIVGSES

FLAEGVVDIFKQQGLAIFGPSKAAAMLETSKSFMKSFLKKYRIKTAKFLNTNDIEKAKNFIYSLTPPIVV

KADGLCAGKGVIIAKTHEEAIEETAKMLSGESFGDAGKLVVIEEFLDGYELSIFAVCDGNDFVLLPAAQD

HKKLLDNDQGPNTGGMGAYAPSSLANESLLRKVQKDIILPTLAGMKKEGAEFCGVLFIGAMIVGNKPYVL

EFNVRFGDPECEVLMPLIEDPLELILAATQRRLRHSKIKIKKEFAVGVVCASENYPYKSSPKSEITVNNI

PENSHISYAGVSLEDGKLMADGGRVLVCVGTGKSIEEAQKNAYKLCDNVNFKGKQYRKDIAHQVLK

>AHK59053.1 hypothetical protein N920\_06250 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHGKIAIYMDSTGRGTVTNSANTFFDFNRQIWNDKKSMPSVGMLVEFRTLSSEKKAEDGKLVQTSKTITG

IKPSKFQEFKEGDFITEHDFWKTDNDDELEDLQNSRRSAYITELYRTTDFDTIEKIPLSFTIPQAIQKYF

AHEILSVETLQANLQDEKEIPCILDYLILKRFLFKAYDTLIFMDNSIDQTQFSALKSIMMHLENSYKQMM

ADQKPNITKIFNETFLSLQCHYQALVATIDTRKNRLASLEAQMKTLQSEINLKSNATDADPEKLKARQER

LAKLQKEAEYYRTTLKRLDAIREDFYKKNYNIFENAFKLSREKLFKKIVTGLNLCATIMDVKIWHLSLKS

SGVKNSYFTMSNIENSFCSLSFAEHYLSRLNKSALNPFDQKLLVYIQKITKEQRKKFLVVTSDLDLLCKL

KIENFSQNPYYLVKYAPKKVNYQSLMRDNTFDIVYIDEKHVWENVADIILQGKHFDKSGKTKFKLI

>AHK59052.1 GMP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKADILVLDFGSQYTQLIARRLREQGVYAEILPFNVSLADIKAKEPKGIILSGGPASVYATDAYFCDKG

IFDLNLPVLGICYGMQLMAHHYKATVAPAGHKEYGKANIEIKKDNALFKNLPKKQTVWMSHSDKVENLPQ

GFEVLATSENSPFCVFGNEDKKFFALQFHPEVQHSEFGKNILKNFAKYACNCESIWNMGSFAKTQAEKIR

EEVGNDKVLCAVSGGVDSSVVAALLASAIKEQIIVVFVDNGLLRSGEKEQVEFMFKNTLGIDLISIDASE

IFLSRLVNVTDPEQKRKIIGNTFIEVFEEEAKKHKDVKYLAQGTLYTDIIESSVVGASKTIKSHHNVGGL

PEKMNLKLIEPLKEIFKDEVRALGLELGLSKEVVYRHPFPGPGLAIRIMGEVNRASLELLRKADVILLEE

LKSTGWYDKTWQAFCVLLNVKSVGVMGDNRTYDNAVCIRVVDASDGMTATFSHLPYEILENISRRIINEV

EGINRVVYDISSKPPATIEWE

>AHK59051.1 hypothetical protein N920\_06240 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGKRNNIKMTKNASAVINELMDKPHYKPLKTLFFCKDFLSSFPLAKQRLIAKIYVKNHILNIITLHPAAY

QELNHDDSKIYIKFLIKAYGQKYPLSGFVDIKDIKIFSQKYTYAANKNKNDEKLSKNSYLELSKGEFKNC

FKDKKLFKKFEDLRELIKKGSNLD

>AHK59050.1 excinuclease ABC subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKENLENELKTLPNSTGVYQYFNQEGKLLYVGKAKNLKNRVRSYFAFTPNLHANPRNSLRIQKMIEETV

HLEFIATNSEADALILENSFIKQLHPKYNILLRDDKTYPYIYVDFEEEFPRFEITRKLVKKSKIKYFGPF

FKGARELLDALYLYYPLKQKASCKSPCIFYQISRCLAPCDKLISREKYLEILDEAIHALLNPSVLLKNLE

KQMLVLAQNENYEEAAKVRDQIAMIKDLEVKVEIDIAKLEDFEVFALAFKNSVLSTLRFVVQNGKIISAN

SKITPIKNDIQWDQNEIYKQLILENFSMDIPLLANVIYVYEEFEDRVLLEEILSQRFDKKISIKIPKIGE

KRRICDLAFQNALLNIEKEQKNHDFTIQKELKSYFELENLPNDIEIFDNSHLQGVANVGAMVTYRINSWD

KSKYRKFHLKHKNDYDQMREVLTRRALDFDKIPPPDLWLIDGGKALLDLAKEIIVSSGVNVDILAISKEK

IDAKAHRAKGGAKDKIHSLKGEFSLSINDKKLQFLQKLRDEAHRFAISFHQNTKKKQDLKSSKLANLGLS

SGVMQKLLAYYGNFESIYKADFKDLTMLVGRKAAQKIKEN

>AHK59049.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MILAGIIFIFNLILAYLSIDISKLDSVTEQLKIGMFSSIFVLSLTLFIFAFRQNRNINKIYQKIFCMQND

FLNFQKKIDVDSALDLLKEKFETTSQNLTKISHEKDRYLHLLEENLYQLINISNAMRCLNEGYNKEINSL

ILNALNSQKDQIRLELNEALEHHKSIIGTSHGKVLQFEASVAIVNNDELENFLLANLLSYFGIESTCFKN

LSFDVNDFHLIFIKDKIFNKNVKKNYDFIVMGRHKNTHYEYFLTLPFEKKDLENILQNKLDKVCTLKFKT

PYQNNVLLFKQNDFDATLFFNIIEKQCDKNICINSFSQLKQELSKETYRLILLDYELIKFDLEQMRNLLS

AYKKQHPQSHIIFFSKEKVRDFDCVSEVLSDVSRNDLITLLRKYLPKA

>AHK59048.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKILFGPVSSRRFGRSLGIDLSPSKKQCNFDCVYCELDPKKAQEKQDEIISIDKIISEVKAMLEKNVEFD

FLTLTANGEPSLYPYLNELILSLRSIAKDKKLLILSNGTAVLDEDKFNALLKLDVVKFSLDSAVAKTFYR

IDRALKNIDLEKMIEKMADFRARFNGDLIMEILVVKDLNDNEEEFEALNQALKKIMPLRVDLSTIDRPPA

YAVKKVSEEKLLELSKLIDSTPVLLAKRHYEGEKLSFNEEELLKMLHLRSQSEIDIEVKFDEQSKTLLNQ

LIKEKKVKILDLAGVKFYKV

>AHK59047.1 uroporphyrinogen decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIFIDACFKKPTPYTPIWMMRQAGRYLPEYMEVRKQAGDFLSLCKDYKKASEVSLQPIDILDVDAAIIFS

DILVVPLEMGMNLRFEKGEGPVFGNPISTLEDLEKLDDQNAHKKLNYVYDALKLTREKLSQNKALIGFCG

SPWTIATYMIEGSGSKNYAKCKKMLYQNPELLHKILNKLTQVLKLYLEEQIKAGANAIQIFDSWASALEY

DKFFEFSFNYMLEISNFIKSKYPNIPVILFPKGISGYLDRIDGNFDVFGVDWSTPLDLARDKLSHKYTLQ

GNMEPCRLYDKNAIKEGVEKILKTMQNKAHIFNLGHGILPDIPVENAKYFIKLVQESSAK

>AHK59046.1 hypothetical protein N920\_06215 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVVDNTQKTSNAIFSTTTKVKEKNTSADEFQATLNEVKNKEEKEDKKTNSSKFTNEDIDLGAVREDFRSY

AWQKMREDQYKKNEETLLNKLFTTIDAGNATNNTKA

>AHK59045.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNYKKALFALALSAFCMGVTEFVMAGVLVDVEAYFSVDAKTAGYLTTLYAIGVVIGAPLITIPLSRFHR

HTQLLINLGIFALANFIIFFSQNFYLTAFARFIAGTQHGVFFVIATLAVSAITPDDKKSSALAIMVTGLT

VALVTGVPLGTFIGHYFGFKFIFLLIFIITSLAFFGVWHMMPKNLHPSPTNLKNLIPAFSHQNLLKTYTI

TICSCGAQFVLYTYLQKILVEISGFKVQDTAYILLLYGICAICGNLWGGKIVDKKGAIFSLRLILSIQVL

VFLSVFLTMHSKILIIFSVALIGFFAFSTIPALKMLSITKAKRHTYKVIDSTVSVNEAAFNVGIALASFL

GGIVLARLGIEFNALFSALFVSPALIFALLFAKDKLNYKKFQRKSFTKV

>AHK59044.1 hypothetical protein N920\_06205 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIILLLGLSLASLGALSFDELIYKDEVKPSFDCSKIKYDGKSDDELMICNKIGVRNEFDNKKLALVDN

IYSSLYQNISKKADKKMKKDFKAISKKMLKERKICIKNMQNTKAGENPLLSLLNASDCMQEAYIKVLLEL

MQRAKKDTKTKEVLEQIFKNKVDKYENLLTQSLNTNKDLQDFIDSLAKEDLIDSRAKFKL

>AHK59043.1 4-hydroxythreonine-4-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYEFNF

IKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKAWED

AGLKYKGHTDALRDFFKKNAIMMLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKKMGL

LGFNPHAGDYGVIGGEEEKIMEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPYPLV

ADTAFTKTGLKNCNRLVAMYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINTKSY

FEAAKFAINLHSKA

>AHK59042.1 pyridoxine 5'-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLLGVNIDHIAVLRQARMVNDPDLLEAAFIVARHGDQITLHVREDRRHAQDFDLENIIKFCKSPVNLECA

LNDEILNLALKLKPHRVTLVPEKREELTTEGGLCLNHAKLKQSIEKLQNANIEVSLFINPSLEDIEKSKI

LKAQFIELHTGHYANLHNALFSNISHTAFALKELDQDKKTLQAQFEKELQNLELCAKKGLELGLKVAAGH

GLNYKNVKPVVKIKEICELNIGQSIVARSVFTGLQNAILEMKELIKR

>AHK59041.1 exopolyphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLGIDLGSNTLRAVQMDEKLNKLKEYEFVIGAAKNLNQSGEISKEAIQRLKNTLSILAKEQDLSKARAVA

TAAFRKASNTNEIFAHLKKEFGIDFKLIDAKSEAKISVLGMQSGLRRLKIWGEFAYCDLGGASCELSFGK

SFKSFDFGIISFYEKNYHSYYKSCISYKKLIKKYPKFIINIKDKKLKIHFLIANPYLKHLAFRAFDEVAM

IKKELRSLGAKTVVLNSGVPTTLSALKQNISYEKYEATKVNGKKLCHKDFLNYAIKLFHMEEKKAIKEVG

TMRKNYLSAGCLLFYALFDKHKLLVIDEGLREGVCLASMKNIKF

>AHK59040.1 hypothetical protein N920\_06185 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFSDFFHAWLHESYYKNAVSIGKNGDFFTAVSVGNLFGTLLAKHFLNLIDEKILKPPLELVEIGANEGY

LSRDFLAALLELRPEIFSQISFFIIEPHEKLRTLQKKTLEGVEFTHKNSLKECHFKNAFFFCNELFDSFT

CELIDHDKMAFVENFKLIFKNMDENLITKCKALNLTKGELSLELENFFKDLNQTCERFIFAGFDYGTLNP

QSFSLRIYQKHEVFSPFEVSLKDFFGKSDLTYNVNFTHLQKLIKEYDFKPLAFKKQSLAFMDFGFEDLLE

YAKNKNIKTYESFLSQAKILFFNFDEKFHFFEFQKN

>AHK59039.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKALWILLSLTLWLFGAQNLELIKGQALFLELDKKDFLSLKNNDKNIPTFAHPKNQEKILAIFSLPYKNP

PQNTKLIAFYKDKKEEIFIKTLEGNYKSEKLQIENKKIFPPKTIQERITKELKEANAIYSSYTPKALFNG

AFNIPLNSFITSDFGKARTFNEKVASYHSGTDFRATTGTPIYAANSGVVKIAKDRYFAGNSVVIDHGFGI

YSQYYHLSKIDVKIGQKIKKGELIGLSGATGRVSGPHLHFGILAGGKQVDPLDFVSKFNAIFQ

>AHK59038.1 glycyl-tRNA synthetase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSELLIEIGTEELPAIPLLKELANIEKKWNNVLEEYRLVSDFKFYYTPRRLVFFHENFADKQEDSFAEFI

GAPKNVAYKDGVLTPAGQSFLQKARISENELSFKEIKGKEVLYHQKAIKGLQSQEILGEMVEKFLKSLSF

GKSMRWGANSFEFIRAIRSIACILNDELVNFQSYGVKSTKKTFIHRSVSYDLQDFNNAKEYFELLEKNYI

ILDPIKRKEKILEQFKLIESQKNIQIGEDEELLAEVVAITEYPNALLGSFEEEFLEIPSEVIITSMRENQ

RYFAVFNDKGLSNHFIVVSNAVCKDYSKIIHGNERVLRARLSDAMFFYQNDLQNGLKPEKLAKMTYLEGL

GTMQDKSLREIKIAEILCQMLHNDKIENISTALKYAKADLATQMVYEFTDLQGIMGSYYAQKMGLDYQIC

LAIKEQYLPNSEQAPLPSTEFSSIVALANKLDTLIGLFSIGKIPSGTKDPYALRRAANGIIKIALNLNKE

FDIQILLEKLSNHYKSFDMQILKDFIFERLYTFYTVNASFVKAVLSSQNTDLIHINQSVNALIKLSKKDN

FNENFATFKRLANIATKNPHKVDESLFVQEAESKLYKAFQEKTKANSLQEKLENLFALKPFIDEFFNQVM

INAEDEKLKNNRQALVYEIYAEFLKIADLKELSL

>AHK59037.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINVFFDMDGTLIDSANAISCAVNEIRQDLNLAPLSREIIMQTINTPNIDWAKELYNIENFHHSSFKEGY

EKYFVKHYEQSVVLFEGVKELLEFLKSKNCFLAIATNAPQSSLSNILKKHDIIPYFDKILGVSLGIEPKP

HPMMLELLKSEAPYKTSVFIGDSQKDKECAKNANLPYFHAKWYQKNLKENEFSNASELKGFLQKYL

>AHK59036.1 hypothetical protein N920\_06165 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKNEEKALRVKYLRNLEKFFNGAISALKKEDFDKTKFEERMLKNAKFFEKNPAVNLNSTYAKNLEFFVN

ACLDFSKEKSELLNLANALDKQKKQGEKKEKHKNYLKDYE

>AHK59035.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDNFLEIFLITVAIAIVLNVIFKKFEIPTIIGYIAAGEIISEIYHLSGKGEITHIAEFGIVFLMFTIGLE

FSFKHLMAMKQEVFLNGSLQMLTCGFVFMLLAIGILGLGDKSATIVGFALALSSTAVVLKILNDNGDINE

QYGRKALGILLFQDIAVIPLLLLVDIFSSNNQNIEKLLFTSLISALILITLLFFIGKYLVDRIFRLIIHT

SSQEIFISTVLFMVIGASFLANYFGFSYSLGAFIAGALIAETKYKHKIEADLIPFRDLLLGLFFITVGMQ

IQLDVVAQNWFLIIVLTLLVMALKFGIVFGFLFLYTKKRVALKTAFAIAQIGEFALAIFSLLQAKNMLDI

KTSQILIVVSILTMIITPFILNNIRKITNVVEDIALNTNAVQNIDSNIKLKNHLVVFGYGRLGQEVVQKI

KNTGVPYLVLESDLNLVELGVSRGENVVFANAAQEETLKIANIEECAVAIITVTNEAKLEILCQVLANYP

KPIDTIIHVNGTLKKMLFSSIDENIRIIRSEKVIARNLVQEALECRIHKNT

>AHK59034.1 MerR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEQHYDEPVYLISVVAKVLSIHPQTLRQYEREGLIEPSRTDGKIRLYSQRDIDRIKLILRLTRDMGINLA

GVDVILKLKNQLHEFENLIDELRLELSKQQDKEAASKAVVKHKNSFDLIFYEKK

>AHK59033.1 cobalamin ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNSLYETLGVSKNASADEIKKAYRRLARKYHPDINKEKGAEEKFKEINAAYEILSDEKKRAQYDQYGDSM

FGGQSFHDFSRNTGGVNLDDILKDLFGGGFGGRSRGGFNGFSSKGFSSGFGGFGGFEEEILDSNLELHIP

FEKAVKGGEHSFNFQGETIKFKIPHGIKEGEKLRIRSKGKQSRNGARGDLIIIVKIEESPIYTREDDDLY

QKVDISLKTALFGGKINIKTLKEGKEEAIINITPNSKNNQKIRLKGYGVQNRKSDIYGDMYLILNVVLPN

LDTLDEKFIELLKEKLP

>AHK59032.1 serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIFLSLSLASALFAASINFNESTATANRVNPAAGNAVLSYHDSIKDAKKSVVNISTSKTITRANRPSP

LDDFFNDPYFKQFFDFDFSQRKGKNDKEVVSSLGSGVIISKDGYIVTNNHVVDDADTITVNLPGSDIEYK

AKLIGKDPKTDLAVIKIEANNLSAITFTNSDDLMEGDVVFALGNPFGVGFSVTSGIISALNKDNIGLNQY

ENFIQTDASINPGNSGGALVDSRGYLVGINSAILSRGGGNNGIGFAIPSNMVKDIAKKLIEKGKIDRGFL

GVTILALQGDTKKAYKNQEGALITDVQKGSSADEAGLKRGDLVTKVNDKVIKSPIDLKNYIGTLEIGQKI

SLSYERDGENKQASFILKGEKENPKGVQSDLIDGLSLRNLDPRLKDRLQIPKDVNGVLVDSVKEKSKGKN

SGFQEGDIIIGVGQSEIKNLKDLEQALKQVNKKEFTKVWVYRNGFATLLVLK

>AHK59031.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTNILMIEDDLELAEITAEYLEKFDMKVDIAHEPYIGLSKLALKEYQLIILDLSLPGLDGLEVCEEIRKK

YDTPIIVSSARHDITDKVNALELGADDYLPKPYNPKELQARIKSHLRRISNTKSAIAKSVKDLVYDQYKH

IITMKGQELTLTNAEFDILSYLIKKEGGVVSREELVYNCSSISEDSSNKSIDVIISRIRQKMGDDPKTPK

YIHSIRGIGYKLTQ

>AHK59030.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKSSIFYTITFIFIFAGVSVILGFLWLIEYDQQNYTRELNTKYSLIANARLLNFAGVISEKEFEEQTKN

YNKMDEITEAKQIRKILFRGDVLARVEVNNGLIEIISYNRQVYLNIIYDGKVYLYKDQDYQTYRYFIIKA

IAVAVICILVLLYIYIFKKLKPLKRLKKQIDKFAQGKLGDIEDVSTGVDEISQVSEAFYQAIVQIRKLNQ

SRQFFLRNIMHELKTPITKGLLTLEMIEDNKYKERLNGVFTRLEILINEFAAIEQITSGAAFINRKKYNI

LDVLDEAKEIAMRDDSNIRIFMEESFFVNVDFKLFTTAIKNMIDNGIKHSEDGFVQIDIIDDYICFKNRG

PELNNTLEYYTQAFTQGSKQKSSFGLGLYIVNTILETHGMKLDYLYEDGVNLFYFRNLKSVIVKE

>AHK59029.1 CopG family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKRNVKTYSFRMPLELKERLDNLSKNLSKPKSTIVKEAIEAYLNEVEDFSFAVNALEELKDGDYQKASKK

IDKIVKNLKQTK

>AHK59028.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLPKWDNSYSVHNAKIDEQHKKLFKLAAKVEVVSDRSVSKNEVKELLAEFFNYMKDHFNDEEKYMQLIGY

PNLEEHRKIHKEIIQTMINLIKDIKSTNDLKEKLYIVAKKWLLEHILYEDMKVEKWRSSSLSTDDGGDVS

FEAAEDEDNEHPQFYLYTCNCPGKIHDVPYSIHQKIELQGRKFTCKTCKQAIKFYKKYS

>AHK59027.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAAKILLLEDDLSLSEIIEEFLNDEGYEVFLCDNAQEALDMAYERYFDLWILDVKVPLGDGFSLLKELRK

SGKQTPAIFMTSLNTTNDLKQGFDAGCDDYIKKPFELAELSIRVKALLKRAFSHKNEDFEDLGDGFRFEF

TTQILYHNNKALTLPSKEIKLLSLLLKNKNNFLSTERIFEELWDYDEEPSELSLRAYVKNLRKILGKEKI

INQRGRGYCYG

>AHK59026.1 sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKKVIRQILLIYLTTTGIFLTIFFALWYQKLYEELVVLKGATLRENHRNIVISILNSRFTPIDISAKNI

AQSTALKFAIFDAKKIVFSNIDFDLRKAKIELKGRGICDNKVFFLASMSADHYFLRHASNEEVNTNDGLQ

ILIQGEDVGKDLFWIRTKVFSFAIMAFCILGLISYILVKIALKPLEDKISTLNRFIKDSTHELNTPLSVI

LMSIEQLEHQNLGDNTKFTRIKLAAKSLSQVYSDLVFYNFPNTLETEKQKFDLRILLEERLEYFKVFFEQ

KKITLKLDLNQANIFAPKSQISKLIDNLISNAIKYNKKGGVISIILKANFLSIADTGCGISKSNLNHIFD

RYTRFNTDQGGFGIGLSLVKKVCDDNDIKIICESVENQGSVFKLNW

>AHK59025.1 molecular chaperone GroEL [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKEIIFSDEARNKLYEGVKKLNDAVKVTMGPRGRNVLIQKSFGAPSITKDGVSVAKEVELKDSLENMGA

SLVREVASKTADQAGDGTTTATVLAHAIFKEGLRNITAGANPIEVKRGMDKACEAIVAELKKLSREVKDK

KEIAQVATISANSDEKIGNLIADAMEKVGKDGVITVEEAKSINDELNVVEGMQFDRGYLSPYFITNAEKM

TVELSSPYILLFDKKITNLKDLLPVLEQIQKTGKPLLIIAEDIEGEALATLVVNKLRGVLNISAVKAPGF

GDRRKAMLEDIAILTGGEVISEELGRTLESATIQDLGQASSVIIDKDNTTIVNGAGEKANIDARVNQIKA

QIAETTSDYDREKLQERLAKLSGGVAVIKVGAATETEMKEKKDRVDDALSATKAAVEEGIVIGGGAALIK

AKAKIKLDLQGDEAIGAAIVERALRAPLRQIAENAGFDAGVVVNSVENAKDENTGFDAAKGEYVNMLESG

IIDPVKVERVALLNAVSVASMLLTTEATISEIKEDKPTMPDMSGMGGMGGMGGMM

>AHK59024.1 molecular chaperone GroES [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFQPLGKRVLVKRVEETKTTASGIIIPDNAKEKPLMGEVVAVSKEITDIANGDKIVFAKYGGTEIKLDN

NEYLVLNLDDILGILK

>AHK59023.1 hypothetical protein N920\_06095 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIFYGIVAFVVVLLIALYTILFTSFGNNIVANIAQKKIKENAGLDVNITRFNLRFSSLELQANIANMA

DCNLQGALSPFKLGFDLDYLISLNQNYAKNLGLNLNQNLSFGGKIQGKASDFTLDGKGYLLGSNVLLNAR

MYNYSPIALNLDAQNLKIEEILHLLSYPSYAKGFLNAQAKISAQNLKPDGNIIIKLDTSYINYEAIKKDF

SLDLPLNSNPKAEILANVKEDKIYAVSKIYNDYLNLQTQKTLYDMSKNILSTDFNLNIPSLAKLEKLTKT

RLNGSLGVIGETSVVNNALSSLNAQVIGLGGEVKASLKNNKIFADINEASLEKLLALAGYGALVSGNLNA

KLLNADLDFSNFDLEAKINNAKINTNELKKLAKIELPNTIFSFDAKANAKNSNIAYNALLASNLLNIKKL

QGTYNLKNSELNTDLNAFIDDLSQFSAIAGQKLQGKADLTAKAHIIGTQIQNLNANANLADGVIKADSNG

KKLDLNIDKLDLSKLFVIAGMPNYASGIVNAKVNLDNIDFSNLNGKANLEAKGILNAATLSKILNKNFPN

NTSYDLNTKINFKNNIAQFDSVLNSSLADLTKLQGSFDISKMLLNSDFNLKINDFSKLGFLLDRKLKGKA

EFNGKVGFDKNLNFVVNSPNLFEGKLQSTLKDNLLLADLNGVDLSSLAQGLDFMDVYQGKADVKANYNLL

SEEGEVNLDMKEGKLKPNLITNALKILTLKDITNDVYRTANAKALIKKENIKFDLNMQADRSYILVQSGA

LNSKSGALNLPFDIKFDRANFKGSITGTTENPKVNLNAGSVLNSIKNVVGGGMSDGAKSTGDKVDKAVNK

LLNKIF

>AHK59022.1 riboflavin synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFNGLIREIAKVQSYQNNTLSLKAKYCPNLGDSIAVNGACLSVTKLYEGGFEVELSRESRTHIVIENLKD

KVHIEPALRYGDRIDGHLMQGHIDFIGTLEKIQKDENGVDFYISLPKEAMKFMAEKGSIGVDGVSLTINE

ILKNGIRLTIIPITFKETLFKDYQVGRKINIESDLLARYIYAQLQGKNKGLSWEEVERISYLY

>AHK59021.1 laccase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGRSRKNFLSLLENDKVGIFCAFDKDYNVFRAKIHNENLFSHLGFKDIEKCVFMDQIHSHKVIIYDENLK

NLSCDGLISKEKNIALCVLSADCLPLILYHESGIIAALHSGRKGSFENILKECVDQITMQNSHLDKNKFH

LFILPGICAKNYEIDGEILEFAKKEFKEFVQDDKLDLKALVKFQAQNLGIENIKDCGICSFDDESFFSYR

RDKTTKRFVSVVYLKD

>AHK59020.1 hypothetical protein N920\_06080 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYERKDLRVLKIIQKAREFGDGDLLNEALVKQLIDADFCEINEKEKEELATLLHSLINAKDKALLSN

>AHK59019.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKLLLLFIFVVQSFAALSVEELTWDNGDTLLKFLQRNSIPMSLYYGLDREDQELASDIAYKIKYQVLKD

ENNNIEQVLIPISDDLQIHIYKDKDGQYTLAFTPVSYQKEDRILHLTIKSSAYQDVYEESGSSTLARAMV

RAFRGSINFRNIQKGDEVTLYYEQKRRMGKLWGDINIKMAMVEINKSAREVFSYNDIFYDRDGKELESFL

LTKPVNYTRISSPFTTARYHPILKRYRAHLGIDYAAPTGTPVKSAGKGVVTFIGTKGGYGNVIQIKHDSG

YMTLYAHLSRFAKIKNGQKVNQGQVIAYVGSTGMSTGPHLHFGVYLNNKAINPASVVKIAKSELSGKAKE

NFKHIIAGYEQVVKEALASNQPNPPKEEDFENYIEF

>AHK59018.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFKTIVCFLALNLSLFAVGFDLKPIKSELVKVDDIYGYIKDSDDIKLYSSGVVVQHFSNSQSIIARASVI

DKKNGLAKLEFSVFSALKQDALPLPNVLPKVGDEVVLNFLYDRGLVIAPDEQTYNELVREFPQIYFTHID

IFGAQLIRTATLSPKRSDFRQFCDDNAVGILVVALENHAEVVDCQDFNKLYEVPISKPTSVQVPFYSRIG

GYKSNFFDFNSQEIGNYYRYYDALINLPKVQ

>AHK59017.1 FAD-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKEFEQYFKRFLGEENAYFDEIHKRAYSYDATKKHYLPDGVLFPRNEEDIARILKFCNENNIIVIPRGS

GSGFTGGALAVNGGVVLAFEKHMNKILEIDLENLVAVVQPGVINIHLQKEVAKYGLFYPPDPASMEYSSL

GGNVSENAGGMRAAKYGITKDYVMALRAVLPSGEIIRAGKRTIKDVAGYNLAGILIASEGSLAVLSELTL

KLIPLPKFKKTAFAIFPSVKSAMNAVYKSLASGVSPVSMEFLDNLSIRAVESKFNKGLPIEAGAILIADV

DGNVKEAIDEDLRNLEHYFLEAGASEFKIAKDEQETADIWFARRNCSQSIAMYGTLKLNEDITVPRSKLP

TLLEGIDEISKKYGFKIPCFGHTGDGNVHTNVMVPDKNDKEQVKKGYEAVEEIFKLTVKLGGTLSGEHGI

GLSKAPFMNLAFSEAEMNLMRNIKKAFDPNNILNPFKMGL

>AHK59016.1 ribonuclease BN [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNFFTILLNLRDKEILNYAAALSFYTVLSLIPILFVCFSVFTQISSFKAYYEKAKQVIFAFLIPTQQDV

VATYIDTFLKNSVNLGIVGLIAMAFTSLAFFSGYDFVINRITKNEPKGLWQSISSYWTLLTLVPLGLGLS

FYISGFIQQTLDDYKIGFNFFEILPFVIIWGLFFISYSSSVHKGTLKSLALVSFGAGTIWYIGKNLFVYY

VVYNKTYASVYGSFSTILFFFIWIYISWIIYLFGLKLYYFLNHNHNEGNKIRKNTKKS

>AHK59015.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQDMIDTLIKYGYIVLFFYSLGGGMVGILAAGVLSSQGKMDLSFCIALAFIANTIGSTLLFILGKYYKKD

IMPYFKKHRRKIALAMIKTKQHGIILLVTQKFIYGLKTFIPIAAGMAKYNFIKFFIINTLASLAWAIVLG

FTAYTFGYVIEAIFDKLSLYPYAAPLFLLFLAGIIWLYLSKFSKK

>AHK59014.1 ribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIESLIALIAAIVGLGIGYLVAKKINDAKYEIFVEQAKAKAKAIEYEAELILKDAKNSILNAELEVKKKY

EEKTHKFQKDFNQKFDDLSKKEQKLQQEEEKLKEDKEYLCKSQKHIQNLQSDVDKLKNKYQEKLDDVLKI

LEHSTGLTQNEAKEIILKKVEENSREQIAHIVRKYEEEAKNEAKRKANFIIAQATSRFAGEFAAERLINV

INIKNDELKGRIIGKEGRNVKTLEMVLGVDIIIDDTPGAIIVSCFNLYRRAIATKVIELLVEDGRIQPAR

IEEIHEKVCKEFDSAILEEGETIVMDLGLNKIHPEIVKLIGKLKYRASYGQNALAHSLEVAHLAGIIAAE

CGGDENLARRAGILHDIGKALTHDFEGSHVDLGAELCKRYKEHPVVINAIYAHHGHEEATSIESAAVCAA

DTLSAARPGARREVLEAFLKRVSELEDIAKSKEGIKNAYAINAGREIRVIANAQLVNDDESVLLAKEIAA

EIQEKMQYPGEIKVNVIRELRAVEYAK

>AHK59013.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIKKILLLVAISCLFVACSNDKEKQQNDVNLSTEASINQSDDMNFKLNLIDGGSISVKKENAVLNFNDE

DKVTLFVFFTTWCTPCIAEIPHLNKLQEKYNNDFNIVGVLLEDKSNDEIQKFIEQHKISYKVANGENNYL

LAKALGGVNGIPTMFLYNKHSKLINQYLGLIPEEMLEIDIQKAIL

>AHK59012.1 cell division protein FtsY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFNFFKKGLAKTLENIVGVKGENKKITKDLLEEILLEADVSYEIVEEIIYYLPPQNEVKKEDLKRVMGSY

FLYEKKETNQEKPFVELILGVNGAGKTTSIAKLAYLYKNQNQKVILGACDTFRAGAIEQLKLWAQKVDVD

IVLTAQGHDPSAVTFDTISKAKAKDFDRVIIDTAGRLQNQKNLAHELEKIVRISNKALEGAPHRKILVLD

GTQGNAGILQAKAFNELVKLDGVIITKLDGTAKGGALFSIARELELPIFYVGVGEQMTDLQEFNASAYLD

TLLDPIFE

>AHK59011.1 DNA repair protein RadA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKNKALFECQACGNQQSKWLGKCPDCGAWDSFVELKAEQIKVLKELAQVSMKTSEAVCIEDVELEHFTR

YSTDDNELDLVLGGGLVEGSLVLIGGSPGVGKSTLLLKIASNLAKQGKKVLYVSGEESKAQIKLRADRLE

ANTPNLFLLTELCLENILEELHKKDYSILIVDSIQTLYSNKITSAAGSITQVREITFELMRVSKAYNIST

FIIGHITKEGAIAGPRVLEHMVDVVLYFEGDATKEIRLLRGFKNRFGGTNEVGIFEMTAKGLISAKDLAN

RFFTRGKAISGSALGVVMEGSRALVLEVQALVCESSYPKRSATGYEKNRLDMLLALLERKLEIPLGHYDV

FVNISGGVKVSETAADLAVVAAIISSFKNRPLSKDSIFIGELSLNGEIREVFSLDTRLKEAKMQKFKNAI

VPSKPLEDIGLKCFVAKELSQVLEWM

>AHK59010.1 F0F1 ATP synthase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKDLFLFSSLLDASHTFSYFFHIGLVALIAVIVAMMATRSMQLVPRGMQNLGEAFLEGVLSMGRDTMGSE

KGARKYLPLVATLGIIVFFSNIIGIIPGFHAPTASLNLTLSLAIIVFVYYHFEGIRAQGFVKYFAHFMGP

IKLLAPLMFPIEIVSHLSRVVSLSFRLFGNIKGDDLFLMVILALVPYIAPLPAYVLLTFMAFLQAFIFMI

LTYVYLAGATVVEEGH

>AHK59009.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIYILEFFKGASLALMLFGALFFFFKYNSFFYLCLGIIPGLLLSLIFVLLIENHKLKNENKLR

>AHK59008.1 5,10-methylenetetrahydrofolate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MCSFSFEVFPPRKDENIKNLHAILDDLGQLSPNFISVTFGAGGSINSQNTLEVASLIQEEYQIPSIVHLP

CIHSSKEKITQILQKCKEKNLNQILALRGDICENLKKSKDFSYASDLISFIKKQEYFEIYAACYPEKHNE

SKNFIEDIHHLKTKVNAGTDKLITQLFYDNEDFYTFKQNCALADIDIPIYAGIMPITNKRQVLKISQLCG

AKIPPKFVKILEKYENNTLALEDAGIAYACDQIVDLITSGVDGIHLYTMNKSKAAIKIYEAVKHLLKEEL

HA

>AHK59007.1 5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNSIISYPRIGANRELKFAIEKYFKNQSSKEELLKSAKDLRIRHWQEIQKAGIDFIPSNDFSLYDNVLD

AAVLFNIVHTKYKNLNLDALDEYFAQSRGYQGENGDVTALAMKKWFNTNYHYLVPECDNADIIALTGDKI

FKEYLEAKELGIESKPVLIGIFTLFKLIAFKDEKTQKLAKEKLLNAYIELFDKLNELKVTWLELDEPYLV

YDLSKEDIALFEEFYQELLNHKKDLKILLQSYFGDLRDIYPKLLESKFDALGLDFIEGKQSLALVQQYGF

AKDKILFGGLINGKNIYANDYAKSLKLIKELQKYTQNIILNTSCSLLHVPYSTEFESKLDSSYLKLFAFA

KEKLQELKDLKEILNSSEENPLFRANQELFKNIPERLDEKVKARLKALKKEDFTRTPSFKERALIQKEFL

KLPLLPTTTIGSFPQSADVRSNRLAFKQEKISAQNYTEFNQQKIKECIQIQEEIGLDVLVHGEFERNDMV

EYFGENLKGFLFTQNGWVQSYGTRCVKPPVIWGDVSRTKPITLAWSKFAQSLSQKIVKGMLTGPVTILNW

SFPREDISLKESTEQIALAIRDEVLDLENAGIKIIQIDEAALREKLPLRKSDWHSEYLDWAIPAFNLVHS

GVKAKTQIHTHMCYSEFSDILKEIDAMDADVISFEASRSNLSLLDTLKAIRFKTEVGPGVYDIHSPRVPS

VEELSLTIEKILNKLPKEQIWINPDCGLKTRAYEEVITSLKNLVTATQKIREQL

>AHK59006.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTLFTKAFCVATLFTGFAWANEELKVGSSITPHADILRFIKSALQKQGYDLKIYEFNDGVIPNVMVENGE

LDANYFQHEPYLKEFNQRQGTHLVKVASIHIEPMAVYSKKHKEFHPKEGQSISIPNNPTNESRALRIVVS

KGLIEVKDNELITPLDITKNPKKLKFVELKDAQLTRSLDDVDYSLINSNFAILAGLNPVKDGLYTESKYS

EYGNIIAVKEGNENLPKIKALVKALQSNEVKKFIEEKYQGALIPTF

>AHK59005.1 2-oxobutyrate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLPILDLQAYEKDKSTFLKNLREIASKIGFFYLINTSIDKNLNEKLFKLGKEFFNLSRSSKELISMVHS

PQFRGYTSEGFEYTAGSKDYREQLDIGTERDALNWNLNSPLWQRLEGPNLWPSEIPELKKTFLTWHKQTK

KACLKLLKAFAQALDLPNNAFDKLYGENSYEHCKIIHYPKSSKNITQGVGSHKDGGLITFVFQEKQSGFE

AFIDGKWLSIPPLENSVVVNIGEFLELATNGYLKATIHRVNLSPKERFSIAYFLGVQLDKDIPIFKLNPE

LAKESKGVDTDPKNPLLRNVASNYFKRMIRSHPDVASIYHSDLIEKFSFA

>AHK59004.1 S-ribosylhomocysteinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPLLDSFKVDHTKMPAPAVRLAKVMKTPKGDDISVFDLRFCIPNKDIMSEKGTHTLEHLFAGFMRDHLNS

NSVEIIDISPMGCRTGFYMSLIGTPDEKSIAKAWEAAMKDVLSVSDQSKIPELNIYQCGTCAMHSLDEAK

QIAQKVLNLGISIINNKELKLENA

>AHK59003.1 glutamyl-tRNA amidotransferase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFEVVIGLEVHAQLNTKTKIFCSCATSFGEAPNTNVCPTCLALPGALPVLNEEAVKKAIAFGKAVNATIN

KKSVFNRKNYFYPDLPKAYQISQFDIPIVEKGELFINVKGENKRIGITRAHLEEDAGKNIHESNFSKVDL

NRAGTPLLEIVSEPELRSSDEAVAYLKKLHSIIRFLDISDANMQEGSFRCDANVSIRPKGDTKLYTRVEI

KNLNSFRFIQKAIEYEVKRQSEAWEDGTYEQEVVQETRLFDTTNLVTRSMRGKEEAAEYRYFPDPDLLPV

LLKDEFLDIKIPELPDEKKVRFIDKLGIKESDAEVLISSLEMSRFFESLISQNLNPKLCVNWLNTELMGL

LKGELTIENSPVDAQKLGVLIKRIEDGTISAKAAKDVLAFVFENTSVEIDEAIEKLGLKQVSDDSAIEAV

IEQILNANADKVAEYKSGKDKLFGFFVGQTMKEGKGAFNPAKVNEILKTKLG

>AHK59002.1 glycerol-3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRIAVIGAGKWGSALHLALKENHNCFISSLHQRDLEDFVSIKEALECEYLVFALSSQGMRAWLKENFINK

GQKILIASKGIEDQSCQFLDEIFLDFVPKENFCVLSGPSFAAEVMQKLPTALMISGINQELCKKFASFFP

DFIKTYIDNDVRGAEICGAYKNVLAIASGISDGLKLGNNARAALISRGLIEMHRFGKFFGTKEETFLGLS

GAGDLFLTATSVLSRNYRVGLKLAQNQKLDSILAELNEVAEGVKTAYAIEKLAKMKGIYTPIVNEVVAIF

KGKSVQEATQNLLKQND

>AHK59001.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIIKNAKIYGDSLQDIEIKEGKITNIDSNLQGEEILDAKGMTLLPSFVDLCVSLKNDKFSLANLELLENE

CLKGGISSIVLRDCMDFDEESFALFLQNLAQRKMQIFSSVRVKDANGKLKNLATLLNKGACALELDSSLD

ANTLKVSSQYAFMKDSPIFVRCYDKDFDDNGVMNDCEMSFELGLIGMSKIAETSQIAKMKELAKFYKNKV

IFDLLSLKDSLVLLDEKDLKLVSIHHLIKDDSACEDFNTAAKLMPPLRSKEDVLALREVLKEGKISFLTS

LHSAKSISLKDLAFDEAAFGIHSVCEFISLCYTFLIKEGFLNWQELCRFTSKNPSEFLGLNSGVIEVGKE

ANLVLFDENEEIFAPKSSLYSEDKLFGKIKMHIIKGKNILEK

>AHK59000.1 phosphate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKDNLIAFVIFIISTIAFVIWGFGYISQHQLILFILASIFGIFMAFNIGGNDVANSFGTSVGAKTVTIK

QALIIAAVFELSGAIFAGAEVTKTIRSGIVIFPNSLDPMLFVIIMLAALLSSGVWIFIATKKGLPVSTTH

SIVGGIVGASIMMGLLKFDGIQTLSMVKWSEILRIAISWIASPLLGGIVAYIIYSYIDKKILKPSEKLND

DLKNIKKERKKFKEEYFLNLKTKSQEEQIKELSAIALDEEEQENNFYRNKMKEFKDQEKDIDIYSILKTH

MPIIACIAAAIISAMFLFKGLNNVSTLDILQNFWIIGIIGTISYVVTFAIVKIVKKTELNKTTDRIFSWF

QIFTASSFAFSHGANDIANAIGPFAAILDVLKNGTINATSPVPFAALAMFGVALVVGLWFLGKEVITTVG

SKLATIRPTTGFSAELGASIVILLATQFGIPVSSTHILIGAILGIGVYNKNANWIMMKPIGLAWIITLPA

AGIMAALVFLGFKLSLGI

>AHK58999.1 hypothetical protein N920\_05965 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRGIFYIIALFSLLNGDELTEALAKNNNQNSWEHFDYKNTKEAPKIQEENVDFKSTFDSLLSKTLENNNG

IDKTDGNLDFQNENAQVKNLSSLYEGENNSLLFQKELFVAQDNYNYSGGLINRYEKDDFLFGVNGFIDKQ

KEQKDTKSFGTEFGYSKFIKAYSNYYIPNEAEKKLQLGMSFVIPTYTAFAFDISKDNDKTNYQVSYSPYS

VFSLNLLRRDYSARETVDDTVVQVGFSFNFNESFLKQFRKKDNTLEEVNRYDFLQRTH

>AHK58998.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

METLSQTLAERKPPLYKRIIKSLGFWVIIGIITGIVLGYTDKELAIASKPGVDYFIGALKVLIGPIIFVT

LVLGIISLESLKKVGSIGAKAVIYFEVVSTLALAIGIFMANVMQPGHGMNLDPSQLDTKSVQKYISQTTE

VSASSEIMHILKDAMPTDIITPFTEGKTIQVLVIAIITALIISLMRIEDKQAIQRVFEVVQNFVFKILQI

IMYFSPIAAFSAMAVLIAQYGIGSLINLAYLLLVMLISCLVFIFGILGLICYFAKVNIFKFMRFISREVL

IVFATSSSESALAPLMRKLEKAGLSKATVGLVLPTGYSFNLDCTNIYLAMSLIFLAQAFNVNLSLAHEIS

ILIVLMIASKGAVGVTGSGFIVLGSTLAALGNMEISEANATLAQVLPVAAIGVLLGVDKFMSEMRAVGNL

CGNSVAALIVAIWDKQIDWEKFRYAMDNPEKFHNAGMN

>AHK58997.1 PAS sensor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEIVLSENALITSKTDLKGNIIYANNDFLKYAGYKVDELLYKSHNIVRHEDMPRTVFKCLWDYIQKGDE

IFAFVKNKAKDGNFYWVFANVSASFDTNGNIINYYSVRRAPNRKSLSIIEEVYKILLEKEQKSGINAGVS

ALMDIVSSYKMTYNELIFNLQENN

>AHK58996.1 PAS sensor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSREIFLQEDSLITSKTDLKGKIVYANDDFLKYAGYTMGEVLNKPHNIVRHEEMPKTVFKYLWDYMKEGK

EIFAYVKNKTKDNNYYWVFANVTPSIDVNNNIIGYYSVRRMPNKSAISTIESLYSDLLRAEQQQGLNKGV

EMLKNFCKDADKTYNELIFSLQEAK

>AHK58995.1 tRNA uridine 5-carboxymethylaminomethyl modification protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFDVIVIGGGHAGVEASAAAARMGKKTLLLTTLIEQIGAASCNPAIGGLAKGHLVKELDAMGGLMGEITD

EAGIQFRILNESKGVAVQGSRAQIDMDKYRIIARNKLLKLPNLEISQEQASVLIVENDEVKGVKTNLENI

YFAKKVILTTGTFLNGLIHVGENKLQAGRVGELASVNLGNYLQTLGLKMGRLKTGTCPRVDAKSIDFSVL

EIQDGDVNPKAFSFRSRNFNPTQLPCYIARTNTTTHEIIKNNFYRAPLFTGQIEGVGPRYCPSIEDKINR

FSDKESHHLFIEPQTIDATEYYINGFSTSLPYEVQTQMLRSVEGFENAKITRFGYAIEYDYIEPTELKHT

LELKKIKNLYCAGQINGTTGYEEAAAQGFMAGINASLSIDMKEPLILRRDEAYIGVLIDDLVVKGTKEPY

RMFTSRAEFRLLLREENAILRLGKYGYDLGLLSEQDFTYIQNIANNLQKGLEFLLSKEFTPNNQNNAFLE

SLGEDKISSIVNLQKIVARASFDIEKLKKLDPIFETMDHYSLREILNEAKYYHYISMQKAQVEKMKNLSE

LKIPENFDFKSVSGLSNEVVEKLNHHKPPTIFAASQISGITPAALDILQIYIKMQKKKA

>AHK58994.1 arsenic transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLAFFIFLSTLVLLFWRPWNLPIWVFSSLGAFFVFIFQLVDFKDACFVFSLVWDSSLTLVGLIILSFSLE

ALGFFDFIASKILYFSREKNQEKIYISTKKMMLFLLIFVFFLSAFFANDGAILIITPIIIALFSTLKDCK

NHAFILSSFLLSLSFLCDASSNALVISNLTNIITANYFKIEFLEFAKNMFLPNFFVLLSTIVTVFVLYVR

VLPKRLEFKLIKKEQISLKLFFLCIVFLFLFVISFFIGEIFDIKISFFALLWAGIFWLIVLKIQGKKSIK

ILFEAPYGVLLFSFGLYMVVFALHKIGVSEILVKSYAFLMQDKSGIFGVALISAFGSSVFNNLPMVLIGD

LALKEYFENFSFDSLMIYAHLLGVNIGPKLTPIGSLATLLWLGVLARKGINISFWQYCKFGFLITLPVLV

FSLFALIV

>AHK58993.1 ubiquinol cytochrome C oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MATSESRRSFMGFAFGSVAAVGGVFSLVAMKKTWDPLPSVKAAGFTTVDLSGMQDGELRTIEWRKKPIFI

LKKDASMPKDEKRDVVVDNAAYTVVIGLCTHLGCIPAYQPSEQLFKCACHGGEFDTSGKNVFGPPPKPLE

IPPFKIDGTKLVLGEEGPEYKKMIAEA

>AHK58992.1 ubiquinol cytochrome C oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAQIRKANGLVDWLDQRLAVHKLLDVLMVKYWIPKQINFLWAMGVILTTLFAVLFVTGLLLVMYYKPDTA

LAFDSVNKTIMQEVDYGWLWRHMHGVAASVVFLIIYIHMLTGIYYGSYKKGREMIWVSGMLLFVVFSAEA

FSGYMLPWGQMSYWAAQVITNLFGGIPFIGPELVIWIRGDYAVSDPTLTRFFMLHVCLLPIVIIAIIAFH

FYSLRIPHVNNEISEELDFDLEAEKYMAGDTKGSKVIPFWPGFLSKDFMYISFFMIFFFYLVCFKFEFAM

DPINFDPANALKTPAHIYPEWYFLWSYEVLRGFFFDIAGIKAFDIGLAAFGIAQVIFFLLPWLDRSDVVK

PAHERPLFFIWFWILLIDLIVLTVYGKLPPTGVNAWVGFYASIVFLLLLIVVLPVITIMERKGAKQ

>AHK58991.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MREIKIFLVVVVFTALVYWGVEPYAHSVMKPHVAPANFDFAVEDTTFAKGIVEAKELALKDAQASGDAKR

IESANKELEKAKEELSKVETLWVDVAKIDFAKGDAKKGKEFFENNCFACHGVKEDGIAANITDSSMGVIP

PDLSAAGAIFDEKFLAALIMHPALALKVDHKFGDAFIMTAYNKDTSGESEEATNANIANVIAYLKDVSVK

FEANEDATIKKDVEAKYAKMENSAQKAALMEKDIKFAKDKATFIEACGRCHDMKYDSFFTPSNQNDLKTY

LGSVPPDLSMMIRSRGEQYLHDFINNTQKLLPGTAMPRVGLTEAAQAKVVSYIDQVGDSKKEERKTTGIY

VMIFFVILSIFAIGWKRSVWSKLH

>AHK58990.1 SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLEKTLIKSILKKWDYGDFRVVFWDKEEFFIGNKPAKFSLIFKEKIPFLELFGDTSLVFARHYMQAKLDI

EGDYDEMAKVLYYFSNQQFFKTKKDVLSKITQKQESKNIKSHYDIGNDFYKLWLDDTMSYSCAYFKEPNN

TLYEAQINKIEHTLKKLDLKEGEKLLDIGCGWGWLSIMAAQKYGVKVVGITISEEQCKKAKERVKELGLE

DKIEIRLQNYQDLEFENYFDKVVSVGMFEHVGKENLGLYFMKVKQVLKPGGSMLLHSILAMFEGKTNAWI

DKYIFPGGYLPSLREVVSAMSEWDFHLLLAESLRMHYAKTLDLWDENFNKVLDKVREKYDEEFIRMWDLY

LRSCASAFRVGSVDLFQFLITKEINNNLSLTKDYIYK

>AHK58989.1 30S ribosomal protein S2 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVSMRDLLECGVHFGHQTRRWNPKMKKFIFGERKGIYVIDLQKTLRYFRYTYNIVRDAAAEGKTILFVGT

KKQAGGAIKEYAEKCGMPYVNHRWLGGMMTNFGTIRQSIRKLEVIEKMEEDGSIKLLTKKEALMLTRKKE

KLLAYLGGIRYMKTQPDMIFVIDTVKEKIAVQEANRLRIPVVAPLDTNCDPDLVTYPIPGNDDAIRSVQL

FCQEMAEAINEGKALREQDGEALVNEEKEITDEEKKEVLDEAMSEEDFGEEQE

>AHK58988.1 elongation factor Ts [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTEITAAMVKELRESTGAGMMDCKNALSETNGDFDKAVQLLREKGLGKAAKKADRLAAEGLVSVKVSDDF

TSATVSEINSETDFVAKNDQFIALTKDTTAHIQSNSLQSVEELHSSTINGVKFEEYLKSQIATIGENLVV

RRFATLKAGANGVVNGYIHTNGRVGVVIAAACDSAEVASKSRDLLRQICMHIAAMRPSYLSYEDLDMTFV

ENEYKALVAELEKENEERRRLKDPNKPEHKIPQFASRKQLSDAILKEAEEKIKEELKAQGKPEKIWDNII

PGKMNSFIADNSQLDSKLTLMGQFYVMDDKKTVEQVIAEKEKEFGGKIKIVEFICFEVGEGLEKKTEDFA

AEVAAQL

>AHK58987.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MELLRAENLSHSFDYPLFEGLNLTLNTKDCIAIQGSSGCGKSTLLHILSSLLIPKKGEVFFKGSNLYQMD

ENERLKIRRYDFGIIFQTHYLFKGFSALENIELASVLSGQDLDEKILKRLGINTLLHQKIGKLSGGQQQR

VSIARVLCKKPKIIFADEATGNLDFDNAKNVIELLISYVKENDAALFFVTHDSKLASFCDKTYTINANGI

C

>AHK58986.1 guanylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQGFVLLISGPSGAGKSTLLKKLFDEFEDELYFSISSTTRKPREGEKNGIHYHFISHEEFQKGIDSDHFL

EWARVHENFYGTSLKHTQNALDNGKIVVFDIDVQGFKIARKKMADKIVSVFITTKNKDELKKRLIKRNTD

TIIQLEKRLQNASDEMKELSEYDYLIINDELKQSYEALRAILIAHKFRTKGQNLGQIQNIWNEGE

>AHK58985.1 preprotein translocase subunit TatA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGGWSSPSHWLIILLIVVLLFGAKKIPELAKGLGKGIKTFKDEMNNDDEVAKNTQKIEENKNTTNNTNAD

ASIDETKKA

>AHK58984.1 arginyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKSIIFNEIKKILECDFALENPKDKNLAHFATPLAFSLAKELKKSPMLIASDLASKFQNHDCFESVEAVN

GYLNFRISKTFLNELANQALTNPNDFTKGEKKQESFLLEYVSANPTGPLHIGHARGAVFGDTLTRLARHL

GYKFNTEYYVNDAGNQIYLLGLSILLSVKESILHENVEYPEQYYKGEYIVDLAKEAFEKFGKEFFSEENI

PSLADWAKDKMLVLIKQNLEQAKIKIDSYVSERSYYDALNATLESLKEHKGIYEQEGKIWLASSQKGDEK

DRVIIREDGRGTYLAADIVYHKDKMSRGYGKCINIWGADHHGYIPRMKAAMEFLGFDSNNLEIILAQMVS

LLKDGEPYKMSKRAGNFILMSDVVDEIGSDALRYIFLSKKCDTHLEFDISDLQKEDSSNPVYYINYAHAR

IHQVFAKAGKKIDDVMKADLQSLNQDGVNLLFEALNLKAVLNDAFEARALQKIPDYLKNLAANFHKFYNE

NKVVGSANENDLLKLFSLVALSIKTAFSLMGIEAKNKMEH

>AHK58983.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYIFIIVLSALLDIVANLLLKKSDGFKHKIWGLAAIVNAILAFFLLSFSLKYVPLSIAYSTWGAIGIIGT

CLGGWILYKEKLNKIGILGIIIVIIAVFLLNY

>AHK58982.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNIAKKELFVAWFFLIAAIVFEVLGTSFLKMENQILGYIFMALFIAFSYFFMGKAIKKIQVGIAYAVWEL

LGIILILLVSFIVFKESLTLTQILGIVLSIVGIIMINIGEVKE

>AHK58981.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGRAFEYRRASKEARWDKMSKLFPKLAKAIQVAAKEGGTDPDMNPKLRSAIATAKANNMPKDNIDAAIKR

ASGKDSADIKNIHYEGKAAHGALVIVECMSDNPTRTVANVKAIFSKNGGEVLQNGSLGFMFTRKAVFHLE

KFAGDLEELELDLIDAGLEELEQNEEELVISGDYTAFGELSSAIEAKGLVLKKAGLEYIPNNPVSFSEEQ

LSDIEKLLDKLEDDDDVQAVYTNID

>AHK58980.1 peptidylprolyl isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKTIDTSKVNEYKFALIETEKGTMKLKLFGDEAPQTVCNFATLANEGFYKDLNFHRVIPNFVIQGGCPH

GNGIGGPGYEIICECDDQEHKHERGTLSMAHAGRDTGGSQFFICHSPQAHLDGVHTVFGQIDPKDEESLE

VLDSIRQGDKILDIKICDKI

>AHK58979.1 hypothetical protein N920\_05850 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTRFSLILSACLLSSSLFAKNTDDEITKLQKQLAQIQAELAQIRKEREAQVKQNEAVKAELADLNDRAD

ETEFQAALSKVKFGLEFSTAVSNTNYKVSGQDYSANNKWMNELHLNMNADINDKTKFYGRLSMAKNWSQM

GWSGTPYDLDAGRNTRSSGPVLYVDRAYLDYYITPEWIATVGRQPGTDGPGSNLRNNALRQSTYPALAIN

ALGDAAVITYKPESLQDHKVAIRAAYGKTYQWDEESGKVRDWMSDQKDADANLYYAAVEGELPIEGMGDN

LIIFNVAHMTDFALPIPGSMLLGDDDEVVNLGNLTLANIHFENYKAFGTNFNWFASLGYSNGSNNEINPL

LSTALQSKGYGNGKFNEKDGYAVHVGGRYDFTKALKVGYEFFWGSRYWYTMSRPSINDPLNIRMTRGTAH

DFYVIYQLDRYQFLRLSYTNIQNIWGNRGLPFGGAKKDKARADNIMLMYNVKF

>AHK58978.1 hypothetical protein N920\_05845 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRKILFASLLPIIALADCASLMAKYEAPEPESKTMKQVERWINKKVSDPADAAVLKECMIARAADNPNQV

SVAGK

>AHK58977.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQEIISFIVETASAWGYLGIIILMTLESCFIPFPSEVVMIPAGYLAHKGELDITLCILSGTLGSVLGALI

NYYICFFWGKNFVLKWGKYFGINEAKFAKFEEFFNKHGEFSTFTCRLLPGIRQYISMPAGLVKMKLINFI

LFTALGSAIWVAILVFLGYYIGQNEELIKTYLTQILIIIIVFVILASLIYIKIKKPFKKA

>AHK58976.1 lactate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKIGIVGLGYVGAASAYSIVIQGICSELYLYDIKQDLALAHARDLEDMSAIHFSYTKIFHVPNLENLAS

CDIIILAFRKESLKELPSRLVELKNNILELKDIVLTLKNANFKGKYIVATNPNDTITYYTQVLSQLPKNH

VFGSGTNLDSSRLKKLLAKDLNINSKDIFACMIGEHGDSQFAALSNASVLGQNLLDFYKQKLGKDLDIQE

LEKAVISEGYFIYERKGRTEFGIGTSCANLAKAILEDRKSLYPVSVVFDDIAFSMPAIIGKDGIEKVFEL

KFNEKEKIKLENSKQQIKNAIQSVKDKI

>AHK58975.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKPDIQRLTNFLIIYTKTLLGAGTYTARVAKCVGRIAEVYGYEININFFFHHITLNVVDMDDNSIQRTY

VIPNHHAHVNFKLIFDLSALSWAIYDHKYDLEKAKVVFGQISQQKKHSYLLNLLFVSMANSAFCRLFGGD

FGAGNLVFFATFVGLLLRYILTKAKIDLRIQYILCSFISSWFVFFGLDMGYTNTSDVALGSSILYLIPGV

FFINSVIDILKDHILMGLSRIISVAILICCIALGIYMTLSISDFGILR

>AHK58974.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIEFILRDMFFAAVAGFGFAYACNPPLKTLILSALLAAIAHGLRFTLVEYFHFQTLAIATFVASFCIGCL

GIVLAKIIKTPAEIIAFPALIPMIPGIYAYKAILYLISFIRSDDLKAKSEFLVQFFDYFFTTVSVTLALA

IGVSVTLLIFFEQSFMMTRHAKKH

>AHK58973.1 hypothetical protein N920\_05820 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLCPVCNVDLVMSDRSGVEIDYCPKCRGVWLDRGELDKIIERSVPNTANFNQAPRQESRYNDSAYHQHND

YYKKKKKESWLGELFDF

>AHK58972.1 cation transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYKFLSHEPLANKSCHHNHEEHSHEHHHSHADARSVDKKILKISLLMTFSMMLVQFIYSILSNSLALLSD

TLHMFSDVFALALSFLAIIAVEKWQDHQKTFGYFRLEVLVAFINALTIILSALFIIYEAIEKFINPKEID

AKTMIIVAILGFLVNGINALMMFKGANLENVNMKSAFLHMMSDLLGSLAVIIGGIVVYFSDIVYIDTILA

IVLSILLLRWAIILLKQSANVLLESSPVDIEKVRQVLLLNPSVDEVVDLHITQITNKMLVASMHLKVRVC

NLKEFEKLSQDLSHKLLHEFEIGHITIQPIRSENEI

>AHK58971.1 heavy-metal-associated domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFKVKNVNCMNCVNLIKNSLEDEFGNIEVDLEQKILSLNLEENQVSNFTKEFQDLGFEIVERL

>AHK58970.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEELRIKIGKMTCVNCSNAIERACKKIDGVKDASVSYVNSSGVFLLEDQKKRKDIIAKIKNLGFEILEDE

QSLNAYKAKKHLELRKNLLLSIVLSVIIMYFEMFVKSSFSQNIQMALSFFGIFYCGRDFFSHAFLGFKSK

NLDMNTLVALGTLSAFVYSFLVYLQIFKEEDLYFSGAMMIISFVLLGKYLESKAKFKAQDYQRILENIDT

KKTKILLEDESIKEISSSFVKSGDVLLVKEGESIVADGVVLLGSAELDMSFLNGEFLPVLKKEGDEVQAG

AVVLNGALRIKANKKAMDSTLEQIKNLVFEAGSIKSPLANLADQISKYFVGGIIFFAFLVFVFWVLKADL

NTAFLHSCAVLLISCPCALGLATPIALVVASANAAKNFILIKNPAALEKLALVKYAFFDKTGTLTKENLS

IFKHNLSKDDFDKLCQIESLSSHPIAKALHKDHFFDLKGEGRVIVGSGIKYKEDNDNYLVGNAQFLHENE

IDTKESDIFFDTFKEYVRVYFAKNKKCLGGVLLSNALKDGAKELVLNLKKQNLKTFILSGDHVKNVEKIA

KELQIDEFHAQLKSEEKLQIIQKFKKTLFVGDGINDAAALSAASVSMSFSKANELAKKTGDFILIKDDLS

AIFKCFKLAKKTRGIIKLNLFWAFIYNVLCIPIAAGFIPFISLSPHIAALAMCFSSITVVLNSLRLKRI

>AHK58969.1 DNA polymerase III subunit gamma/tau [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLQALAIKYRPKTFDELIGQKTVSVSLKYALNHNRLAHAYLFSGLRGSGKTSSARIFSRALVCEQGPSDT

PCGTCKHCLAALEGKHIDIIEMDAASNRGLEDIQALIEQTKYTPSMARFKIFIIDEVHMLTPQAANALLK

TLEEPPSYVKFILATTDPLKLPATVLSRTQHFRFKQIPQSEILNHLKEILLKENVKFEEEALKFIARSGN

GSLRDTLTLLDQAIIFCQNEISISKITDMLGFLDPQKIKAFYQAILTKDKEKVFVYLEELQDYEASSVID

EMLFYLKESFFAKSTEFSTLIYERFFRILSKAKNMLCDDDGFTLCVMAFMMMEASHLKEIDAQIQEIKQE

NTTNIISRITPSPIIPHLEKKTEKNAYEILLDSIYDRDFDLAECFKQSTNFISFENNTLNINSNAQGQNR

DTLNKGFKLIQELFKAKFGENAKINVQKALTIDENKLQSLTQELPNNENKNIDIQSSINMLKEGAKKFDP

QEDLKEALKDCFGEPSIEN

>AHK58968.1 transcription termination factor Rho [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKEKKQHQRTHVPVEGYKIEELKLLDLENLVKIANECEIENPREFRRQELIFEILKAQTKKGGFILFTG

ILEISSEGYGFLRGMDSNLSDSVNDAYVSNSQIKKFALRVGDIVTGQVREPKDQEKYYALLKIEAINYLP

LQEAKERPLFDNLTPIFPTEKIKLEYDAMKLTGRVLDLFTPIGKGQRGLIVAPPRTGKTELMKELATAIA

KNHPEMHLIVLLVDERPEEVTDMQRCVKGEVFSSTFDLPAYNHVRVAELVIEKAKRMVETGKDVIILLDS

ITRLARAYNTATPSSGKVLSGGVDANALHKPKRFFGAARNIENGGSLTIVATALIDTGSRMDDVIFEEFK

GTGNSEIVLDRNIADRRIYPAINIIKSGTRKEELLQGVANLQKIWAIRSAISQMDDVEALKFLYSKMLKT

KDNVELLSIMNE

>AHK58967.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKCEHCKLDYKQAQMIEYKGKFFCCKGCESVWEILHESGLDEFYEKLGNQTLSPVNFQNEMKNYDEFITK

TKEGFSEIYLMIHGIECAACVWLNEKILTKQEGILELDINHLNHKARIVFDEQSISLVQILRLIESIGYK

ASAYDASKASKKADLLKREFYSKLVVAIACVMNIMWIAVAKYAGFFSGMDKDTKDILNFAEFILCSPVLF

YTGSHFYKSAFKTLKMHSLNMDVLVISGASLAYVYSLWAMFFRVGEVYFDSVAMIICFVFIGKYLEMFSK

KRALDTIDGLNDFLQNEVLVFNGKEFVSKEVQKVCLGDRILLKTGDKILIDGICKSGEMSVDTSSLNGEN

TPKLIQKEDEIFSACIVLDGSVEYEATKFYKDSKLSQIIQLLELASSKKAKLESLVNSLLAYFSRTVLLI

AFICFAFWFFYKEESFEISLVNAIAVLIIACPCALALATPVSNLVALGRALKKHILFKSSSVIEDLSKCD

CVVFDKTGILTKIELELKEVFLDKALDLNELYNFVKLSKHPISQNIVLYLKQKGAKDLNLDFKKHSSIQA

KGLSAELNEGLLLGGSSKFLQEKGIVAKEFDNTHFIFAKEGKILAFFEFDSVLREGAKELIAYLKKEKKE

LMILSGDHQKAVEKIAKKLEIQNYQASCLPEDKMKTIENLSKNYKVLFVGDGVNDALALKYASVSMTLRE

GSDLAIESSDVLLLKNDLLSLKKAIKLSKNTFKIIKQNLAFSLFYNACTIPLAFLGMINPLFAAISMSFS

SIIVVLNALRIKE

>AHK58966.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNSIIMMMIGVSILAFFIILATLLWGIKNKQFDDDYKFTTLNDDEDSLRDAIELERRKKEALDKKRLS

>AHK58965.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKLLVVSALACLGVSAFAADGATLFKKCAVCHGANADKVYLNKVPALKTLSSAERLQYMKEYSEGKRNA

YGQGAIMKLNLKGLTEEDFKAIEAHIETLK

>AHK58964.1 D,D-heptose 1,7-bisphosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFIFFLKKLYYNVFMKTKALFLDRDGVINIDKKYVYKIEDFEFCDGIFELCRYFLARNYLLFIATNQSGI

ARGYYKESDFFKLCDYMLKEFAKQDIKIDKIYHCPHLEGCECRKPKAGMLLKAKDEFDLDMKNSIFIGDN

LSDMQAGLNADIGTLILVNEEKKEGDFFRQFKNLKEILNFFKEKDI

>AHK58963.1 ADP-L-glycero-D-manno-heptose-6-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIAITGGAGFIGSQLALNLQEKHEILIIDKMRSSATFENGNLQSFGHFKNLLEFDGELFAGDINDEKVL

KKIEDFKPEIIFHQAAISDTTVFDQTKVLQTNLNTFKDFIELSIDLNAKLIYASSASVYGDAKSPQTVGK

DEEPKNPYAFSKLMMDKLAKKYYDKAHLVGLRYFNVYGKGEFYKNKTASMVLQFGHQILAGKNPRLFEGS

DQIYRDFTYIKDVISANLIALDSKCGVYNVGSGKARTFQDIVDILQKELKTDLPCEYIPNPYVKSYQFHT

EAKLDQTWNYQPKFSLEEGIKDYLGEIKRLFEKEVNA

>AHK58962.1 cytochrome C biogenesis protein CcdA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLEFLSQQKPKILIIGDFMVDNYTWCDCSRISPEAPVLIAKTLKEDKRLGGAANVYANLKSLGADVFALG

VVGDDESGKFLQENLKGEFLIQKGRKTPFKNRIMAHNQQVLRLDEEDISEILLENELIALFDEKIKDFKA

VVLSDYAKGVLTPKVCKAVIEKAKVLNIPVLVDPKGSDFNKYSGATLLTPNKKEALEALKFENLEGENLE

KGIKKLKEDFSLRYSIITLSEAGIALFDEGLKIAPAKALEVYDVTGAGDSVIAVLAFCLANEIEIFKACE

LANEAAAVVVSKIGSVSVSFDEIKSFKRVDFEKKIKSKEELLVLLKQNNKKIVFTNGCFDIVHFGHIKYL

DKAKRLGDVLIVGLNSDASVKRLKGESRPVNSEFQRACMLAAFYFVDFVVIFDEDTPLELISFLKPDILV

KGADYKDKLVVGADIVSRVELIDFEEGFSTSKIIEKIKDKK

>AHK58961.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINLVEKEWQEHQKIVQASEILKGQIAKVGELLCECLKKGGKILICGNGGSAADAQHFAAELSGRYKKER

KALAGIALTTDTSALSAIGNDYGFEFVFSRQVEALGNEKDVLIGISTSGKSPNVLEALKKAKELNMLCLG

LSGKGGGMMNKLCDHNLVVPSDDTARIQEMHILIIHTLCQIIDESF

>AHK58960.1 ADP-heptose--LPS heptosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIFIHLPTWLGDTVMASPALYTIKEHFKDAQFILYGSFVSTALFKEFPNSKIIIENKLSRYKQALSLRK

ELGKIDLSFAFRSAFSSKIILHILKTKQRYFFDKNKYKEEHQVLKYLYFIENSLSIKAHFKDLKLPFKLK

FQNPLILRNGKKILGLNPGASFGSAKRWDASYFAKVALNFSQSHDILIFGAGKAEQELCNEIYQILKEQN

IKVKNLCNKTTIKTLCQNIAFCDLFITNDSGPMHLSAVYKVKTVAIFGPTKFTQTSPWQNENAKLVHLDL

ACMPCMQKTCPLKHHKCMKDLKPEKVIEQAKNLLKNSHL

>AHK58959.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPQLSIIIPLFNSCNFISRALQSCINQTLKDIEILIIDDKSKDNSLNMVLEFAKKDPRIKIFQNEENLGT

FASRNLGVLHSSSDFIMFLDSDDFLTLDACKIALKEMKKGFDLLCFDAFVHRVKTKQFYRFKQDEFFNQK

EFLEFLSKQRHFCWSVWAKCFRKDIILKSFEKIKIDERLSYGEDVLFCYVYFMFCEKIAVFKTCIYHYEF

NPNGRYENKNKEILWQNYQDKKKSNELVKKLCLNFKNNDFHKKLFEVLEKEEFDLQRRVDEARN

>AHK58958.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSQISIILPTYNVEKYIARALESCINQTFKDIEIIVVDDCGNDKSIDIAKEYASKDDRIKIIHNEENLKL

LRARYEGAKVATSPYIMFLDSDDYLELNACEECIKILDMGGGGKIDLLCFEAFITNAKKSIKKLNIKQGK

YNNKEFTMQILKTKNPFWTMWAKIIKKDIYLKAFNMLNLKKEIKINMAEDALLYYPLTILSNEIFYLTQP

LYTQHVNSNSITNNINSLEANIQEHKIVLNVLKSIKNKKTPLYFLIIYLLKIQLLKYEQNFNKRNINLIY

YKINILYQKYQFKWKKFLYNLIP

>AHK58957.1 lauroyl acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNSDRIYLSLYYILKFFVTFMPECILHFLALIVARIAFYLNKKHRKIINTNLQICFPQYTQKERDKLSL

KIYENFAQFGIDCLQNQNTTKEKILNKVNFINENFLIDALALNRPIIFTTAHYGNWEILSLAYAAKYGAI

SIVGKKLKSEIMYEILSQSRTQFDIELIDKKGGIRQMLSALKKGRTLGILTDQDCVENESVRLKFFNKEV

NYQMGASLIAQRSNALIIPVYAYKEDGKFCIEFFKVKDSQNASLEELTLYQAQSCEEMIKKRPWEYFFFH

RRFASYNKEIYKDAK

>AHK58956.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIAIVRLSALGDIIQSAVVLQFIKNFKKDIEIHWFVDEKFEGILKNHPLINKLYALPLKDKKILKSLKI

LLKARKNNYNAVIDLQGLIKSAIVSRILSRNNFGFDKNSLKESFAHNFYNQKLELDYNENVFVRYLSLTS

FMLNTDFNVKNLAFKQDIFSVDENLKQLLNNKLKLDKNEKNILIHVGSSVENKIYPKTKLAILCKLLINE

FQQTKIWLAWGNVKEYEFAKEVLNLSGIDETHIELAPKFNLEELMAFTKMMNLIIGNDSGPTHLAFALNK

ASITIFGATPSYRNAFQTHINKIIDAGKKIQNAKHIDKSDFCITRIEEEDIFKLAKGLLNEK

>AHK58955.1 polysaccharide biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKNEGYICVFDCESVPDVELIRKTLGFEGSDLEVSLKALQWQKEQSGSEFLPLPYHKIISICAVLSDNF

GKFIKVNKIDGQNEKEMIENFFNFIENYEPKLVSFNGKNFDMPVLVLRALKYNLKAATYLDTQSDKWNNY

KTRFSELKHCDLLESLGSNGRGIKLDTLCSMVGLPGKYDVHGDEVMKLFYENKLEKIHEYCESDVLNTYM

LFLKYELIKANVDEEDYVGFLSYMRDFLCAKKSDRSYTEVFAKACESEISKVRS

>AHK58954.1 UDP-galactose-4-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKILISGGAGYIGSHTLRQFLKTDHEICVLDNLSKGSKIAIEDLQKTRAFKFFEQDLSDFQGVKALFERE

KFDAIVHFAASIEVFESMQNPLKYYMNNTVNTTNLIETCLQTGVNKFIFSSTAATYGEPQTPVVSETSPL

APINPYGRSKLMSEEVLRDASMANPEFKHCILRYFNVAGACMDYTLGQRYPKATLLIKVAAECAAGKRDK

LFIFGDDYDTKDGTCIRDFIHVDDISSAHLAALDYLKENESNVFNVGYGHGFSVKEVIEAMKKVSGVDFK

VELAPRRAGDPSVLISDASKIRNLTSWQPKYDDLELICKSAFDWEKQC

>AHK58953.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKISFIIATLNSGGAERALVTLANALCKEHEVSIIKFHAGESFYKLENEVKVTSLEQFRFDTLYHKIASR

FKKFFALRKALKESKSDVFISFLDTTNIACIAAKIGLKTPLIISEHSNEAYLKPKIWRFLRRVSYPFCDA

LSVLGSSDKVYYERFVKRVKLLLNPCHFSDEISFDSSFEKENLVLFIGRLDHNKNPVMFLKAIAHLDKNL

QENYKFVIAGDGQLRQELEYKVKSLGIKVDFLGRVENVKALYEKAKVLCLCSFVEGLPTVLIESLYFEVC

RISSSYYNGAKDLIKDNHDGLLVGCDDEIALAKKLELVLNDENFRKELVNNAKQRCKDFEISHIKEEWLK

LIAEVKNA

>AHK58952.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPKLSVIVPTFNRQVLLEKAIKSIQNQDFKDLEIIVSDDNSSDDTKSVVQNLQKDDDRIKYFLNQNYKQG

PNGNKNNGLDQASGEFVTFLDDDDELLSGALSTLMQKANEGYAHVFGNCLIEKEGNLSKEFSGKGLEKDS

EISKKDFLMAKFSGEFFSVFKKSLLENKRFNEEFYGNEATLWVNLYKEKSFYIHKAFRIYRIFRQDSVTL

GASKNAYRVYLGYLELAKILENELRMSKDKDYKKTCASYYKMAAYYAKLAKNYKALYKCLFKSLSIKINA

PALILLILSIIPNNMIEKLSKIRVALCKN

>AHK58951.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKLGIFIYSLGSGGAERVVATLLPILSLKFEVHLILMNDKISYEIPECQIHFLECSKPSENPILKFLKL

PFLALKYKKLCRNLGIDTEFVFLNRPNYIALMARMFGNKTRLVINECTTPSVMYMKNNFNSLVNKFLISL

LYPKADLILPNSKGNLEDLVQNFSISPKKCEILYNAIDLENIGQKALEDIALKDKFILSVGRLDKGKNHA

LLIRAYARLKTDLKLVILGEGVLKDELLALIKELNLEEKVLLLGFDNNPYKYMAKCEFFAFASVFEGFSN

VLIESLACSCAVVCTDHKSGARELFGDDEFGLLVEVDNENSMFQGLKTMLEDDKLRKAYKNKAKTRAKAF

DKVKIARDALKYLLG

>AHK58950.1 peptide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKKEYLKNPYLVLFAMIVLAYVFSVFCRFYWVWWASEFNEYFFNNQLMIISNDGYAFAEGARDMIAGFH

QPNDLSYYGSSLSTLTYWLYKITPFSFESIILYMSTFLSSLVVIPIILLANEYKRPLMGFVAALLASVAN

SYYNRTMSGYYDTDMLVIVLPMFILFFMVRMILKKDFFSLIALPLFIGIYLWWYPSSYTLNVALIGLFLI

YTLIFHRKEKIFYIAVILSSLTLSNIAWFYQSAIIVILFALFALEQKRLNFMIIGILGSATLIFLILSGG

VDPILYQLKFYIFRSDESANLTQGFMYFNVNQTIQEVENVDFSEFMRRISGSEIVFLFSLFGFVWLLRKH

KSMIMALPILVLGFLALKGGLRFTIYSVPVMALGFGFLLSEFKAILVKKYSQLTSNVCIVFATILTLAPV

FIHIYNYKAPTVFSQNEASLLNQLKNIANREDYVVTWWDYGYPVRYYSDVKTLVDGGKHLGKDNFFPSFS

LSKDEQAAANMARLSVEYTEKSFYAPQNDILKSDILQAMMKDYNQSNVDLFLASLSKPDFKIDTPKTRDI

YLYMPARMSLIFSTVASFSFINLDTGVLDKPFTFSTAYPLDVKNGEIYLSNGVVLSDDFRSFKIGDNVVS

VNSIVEINSIKQGEYKITPIDDKAQFYIFYLKDSAIPYAQFILMDKTMFNSAYVQMFFLGNYDKNLFDLV

INSRDAKVFKLKI

>AHK58949.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRIGFLSHAGASIYHFRMPIIKALKDRKDEVFVIVPQDEYTQKLRDLGLKVIVYEFSRASLNPFVVLKNF

FYLAKVLKNLNLDFIQSAAHKSNTFGILAAKWAKIPYRFALVEGLGSFYIDQGFKANLVRFVINSLYKLS

FKFAHQFIFVNESNAEFMRNLGLKENKICVIKSVGINLKKFFPIYVESEKKELFWKNLNIDKKPIVLMIA

RALWHKGVKEFYESATMLKDKANFVLVGGRDENPSCASLEFLNSGAVHYLGARSDIVELLQNCDIFVLPS

YKEGFPVSVLEAKACGKAIVVSDCEGCVEAISNAYDGLWAKTKNAKDLSEKISLLLEDEKLRLNLAKNAA

QDALQYDENIIAQRYLKLYDRVIKNV

>AHK58948.1 UDP-galactose phosphate transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYEKVFKRIFDFILALVLLVLFSPVILITALLLKITQGSVIFTQNRPGLDEKIFKIYKFKTMSDERDEKG

ELLSDELRLKAFGKIVRSLSLDELLQLFNVLKGDMSFVGPRPLLVEYLPLYNKEQKLRHKVRPGITGWAQ

VNGRNAISWQKKFELDVYYVKNISFLLDLKIMFLTALKVLKRSGVSKEGHVTTEKFNGKN

>AHK58947.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLQQRNLMARTEKIYIYGASGHGLVCEDVAKNMGYKECIFLDDFKGMKFESTLPKYDFFIAIGNNEIRKK

IYQKISENGFKIVNLIHKSALISPSAIVEENAGILIMPYVVINAKAKIEKGVILNTSSVIEHECVIGEFS

HVSVGAKCAGNVKIGKNCFLGINSCVLPNLSLADDSILGGGATLVKNQDEKGVFVGVPAKRM

>AHK58946.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>AHK58945.1 UDP-GlcNAc C4,6 dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIFYKSKRLAFFLTSDIVLILLSVYLAFSLRFSGDIPSIFYHGMMVSAIILLVLKLSFLFVFRIYKVAWR

FFSLNEARKIFIALLLAEFCFFLIFYFFSDFFNPFPRSAIVIDFVLSYMFIGTLRISKRMLVDFKPSRMK

EEETPCIVVGATSKALHLLKGAKEGSLGLFPVGVVDARKELIGTYCDKFIVEEKEKIKSYVEQGVKTAII

ALRLEQEELKKLFEELVAYGICDVKIFSFTRNEARDISIEDLLARKPKDLDDSAVAAFLKDKVVLVSGAG

GTIGSELCKQCIKFGAKHLIMVDHSEYNLYKINDDLNLYKEKITPILLSILDKQSLDEVLKTYKPELILH

AAAYKHVPLCEQNPHSAVINNILGTKILCDSAKENKVAKFVMISTDKAVRPTNIMGCTKRVCELYTLSMS

DENFEVACVRFGNVLGSSGSVIPKFKAQIANNEPLTLTHPDIVRYFMLVAEAVQLVLQAGAIAKGGELFV

LDMGKPVKIIDLAKKMLLLSNRNDLEIKITGLRKGEKLYEELLIDENDAKTQYESIFVAKNEKVDLDWLN

KEIENLQICEDISEALLKIVPEFKHNKEGV

>AHK58944.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYIKDIQRFEDNRYRARAYMSYILTRNLPNKLPDIHLETIKTALDKIAHEVVVFDALYILDISGMQIENA

ISLNKAHEIGQGEDRSTRSYFYRAVKLRRCVLSDPYPSVLNNELCVTASMPIYDDKNNLLFVVCIDIKLE

DILKIIQAGKFEFVFTQFSRLVYFCFALVLFVITCFLFQKGFFSLFDNQAIGIEHMFESTIAITLALAIF

DLAKTLIEQEVLGRTKKEEGGIQKTMVRFLGSIIIALAIEALMLVFKLAIGDLSQMIYAIYLIGGVSLLL

LGLSVYLFTVKYKNNNI

>AHK58943.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLLVVDDSSTMRRIIKNTLTRLGHDDVLEAEHGVEAWDLLTKNEDVKVLITDWNMPEMNGLELVKKVRA

EKKYEDMPIIMVTTEGGKAEVITALKAGVNNYIVKPFTPQVLKEKLEDVLGTGSGEGAAE

>AHK58942.1 ribosomal protein L11 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKKYYELFFIVEEQYKNLFLDFAFDLGIEAIEEKDNGVYIRSHESLEEFSWALEIFAQKLTTTFNLNHK

IISNLSLVEKENKDWIQEYKKGIKPILVDNVYIHTTWQEEKKNCINIKINPALAFGSGHHESTYSCVKFL

QKFSKSKLRALDLGCGSGILGIIMAKFGCNVEICDTDELAIDSSLENARLNGVDFHKAWCGSIDKANGLY

NLIVANIIADVILILEKDIKNHLEDNAILILSGILDKYSTRIKEKFQDLELIDEMQINEWCSFVYKNNKK

G

>AHK58941.1 cell division protein FtsH [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNNNTQNNKGNPQGNNFFNKNPIFIFAIFAIIMIIIFKGFFDGNGSFGGALNGNEVNKNVPYSELKKLIE

SGQINQVSIGQTTIKAISSSHNTVYTAKKVNDPELVSLLDSKNIAYGAYSETNWFTDILFSWVLPVFIFF

GIWMFLASRMQKNMGSSILGIGSSKKLVNSEKPKVKFSDVAGVEEAKEEVKEIVDFLKYPERYIKLGAKI

PKGLLLVGPPGTGKTLLAKAVAGEADVPFFSVSGSSFIEMFVGVGASRVRDLFENAKKEAPAIVFIDEID

AIGKSRAASGMMGGNDEREQTLNQLLAEMDGFGTESSPVIVLAATNRPEVLDAALLRPGRFDRQVLVDKP

DFKGRCDILKVHMKDVKISPKVKVEDIARLTAGLAGADLANIINEAALLAGRDSKKYVEQNDLVEAVERA

IAGLEKKSRRINEKEKKIVTYHECGHALIAETTKGAKRVSKVSVIPRGLAALGYTLNTPEENKFLMQKHE

LIAEVDVLLGGRAAEEVFIGEISTGASNDLERATDIIKAMISMYGMSEIAGLMVLEKQRNTFLSGGQTIK

DYSEKMAESLDDYVKKTLDERYKDVKDTLNTYKGAIETMVAALYEEETIEGNKVREIIKEFEDQNSLPTR

LQELEEVKTEVKVEE

>AHK58940.1 phosphatidylserine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKDFIAKDGYLSLIILSLVFIFMWIFYSFSILLLALIVICIFLFRTPKRELVCSDEKAIFAPIDGRVTKI

ENIHHKDLGECVEITIKNALYDAGNFNTPFAMSIIDIRLRHGLFLCSELKSAKMMNERAFILAKVKENKT

IALRIYAGSFDRKLKLDNISHDLKAGDRMGFLINGSISLLLPKDTRIHIGLNDEIKAGSLLGYFA

>AHK58939.1 CDP-diacylglycerol--serine O-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNNRPQLIYILPNLFTAASAFLGVISIIASIHGNYYTALIYIILSLICDGLDGRVARLTNSTSKFGVEFD

SLADLVAFGVAPAVLFYMAIGYDFGKLGSLITAFFVVFGAIRLARFNVTTGTYEPSVFIGLPIPTAAVVS

AIWTYAFISYDFLKPYGVVFLVLQAILGLLMVSNIRYPSFKKLDFNRSSVLKVLIILIIIFSFLYLYPLE

SLVILASLYVLYGIIRVLYTIIVSKFKTRNQE

>AHK58938.1 hypothetical protein N920\_05570 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKEFFQELQDILYEKNITIKFHSFQNFYEDFKSHKFIFNHEHQSIFKKNTSQQITLFHPTRIRRPKFLN

STHALAKIIHSVAHIEFNAINLALDASYRFKNLPLQFYYDWLEVADEEIKHFKLLNSALEELGYKYGDFP

VHDNLESALEATKDSLSFRMGIVHRGLEAKGLDANPFVVQKLQSSNHSIKNLLMEYLEIILNDEIKHVKK

GDTWWKFANQNKYNFIELCKTFKQFSLAGKKLNIQARIKAGFTQEECEVIEKFYS

>AHK58937.1 methionine sulfoxide reductase B [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKELNEEEKKVILNKGTEAPFSGKYNDFYEKGIYQCKQCGASLYKSEDKFKSGCGWPSFDDEIKGAIKRI

PDKDGIRTEIVCANCNGHLGHVFEGEGFSAKNVRHCVNSISLEFVKTKD

>AHK58936.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFSSMGSELYLMFFAAITLLAILNPFGNLTQFLAMSDGLPLMLRKKLFRTILYTAFTIVLVFLLSGPLFM

NYIFRVSLDDLRVSGGLVLIIMAIKNLLFSTKIATKDFSSYQDMDDKEILRQSLIPMAFPMLVGPGTLAS

VIVIAEDGGLDVALGGVMIAFIFMFILFHFAATIEKIVGKLILHVFSRIAQVFIVAMGFKMIIVGLKDIF

NL

>AHK58935.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFGAKKNNTKIIEQLEKKCNGLGDILRSIGNTMAVIEFTTDGVILEANQNFLTTMKYSLSEIKGKHHSMF

CLPEVVNSSAYSDFWKDLRDGKARSGLFRRIAKGGIDVYLEANYLPISDNNGYVYKIIKFANDITQRHYE

MLDLRNTIAAANRSMAIIEFKPDGTIITANENFLRAMDFNIDEIKGKHHSMFCDSNYRHSKDYVQFWEDL

REGKFQSGKYIRYGRNNKKVYLEASYNPVKNDDGKIYKVIKFATDISEQVKKDQEKLRLISELAEKNDNL

TQDGDRVIENTVSNVQNIADMMSQSSNLVSSLNQQSDEIKSIIQTISDIADQTNLLALNAAIEAARAGEH

GRGFAVVADEVRNLAERTGHSVNEITTTINSIRNVTSQVVESIKSGLEDVNQSVELAKEARECMEKIRES

SAEVAKAMS

>AHK58934.1 leucyl/phenylalanyl-tRNA--protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKSSNLYSKLLNAPKNAPVFLSQNLEADFIVKAYTFGLFPWTSKPVTWWCPDPRCILIPNQIHIQKNMKK

FINLYQIKLDYDFLKLITLCRDTRSQSWIDDEFITTYYKLFTQGYAHSLELYENNELIGGIYGLILGKVF

FGESMVSIKKNASKVAMIKLCDLLKPYDFIIDCQVYNQHLEFMGAHNISRKEFLNILKEKCNQESGFKNF

KDLIT

>AHK58933.1 ATP-dependent Clp protease ClpS [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPKTQTLEQTKLSEPKMYKVILLNDDVTTMDFVIEILMNIFHQNLEKASQTMLEIHHNGSGICGIYTQEI

ALSKQKKVMDAAKLANFPLQAKVEEE

>AHK58932.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKISALFLISLAFFLNACSKEEEIQNDFMFEEYHKGDKIVLNSVNGGSKTLIRTDKGFVVEGEEGKVLM

FDFFGTFCTPCKEEALDLSKLWKNNSSKFIIIGLTHFEDVSDETVKKFAGDYGAYYFLSNGSSNDRIIAQ

ILKDIDYQNMEQLPFKVVLKNGIYQKISDYWNNNTPTNFYLGKIPTELMQEDLNKIYKGK

>AHK58931.1 single-stranded DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIIARNKKALFDYSIIERFEAGIVLKGSEVVALRAGRANLKDSFVRIIKNEIFLLNSHISLLHTTHSFY

KHEERGARKLLMHRKQIDKLLGKVSIEGYTIVALDLYFNTKNKVKATLALAKGKNLHDKRETLKKKQADL

EARAAMKNYK

>AHK58930.1 4-diphosphocytidyl-2C-methyl-D-erythritol kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKAYAKANIFLKLTGFDSRKYHLLESRFILLKDVFDELELVDKESDSKKEFEIISNFKCENNIIQKAYLL

LSRRYNNELKELFSKKSLKLTKNIPVCAGLGGGSSDCASFLLLINETLNLKLNLQELINLSIQLGSDIAF

FLSGFHSANVSSCGEIIEEFEDDIPNLKWTFPQISCQTKAVYDEFDRGIFDFQKNNNQAQIYKKLSTKEL

LQNFKNKELNDLFTPCATLYPKMKSYLQEDFFLSGSGSSVFKVDR

>AHK58929.1 carbon storage regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLILSRKENESIIIGEGIEIKVVQTGKGYAKIGIEAPKSLMILRKELVQQVKDENLHSVVQNDIKLDDLS

KKLIK

>AHK58928.1 tRNA pseudouridine synthase B [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKIFAAFKPRGLSSNAFLSTLKKKYKNKKAGYSGTLDPFAKGVLIVAFGQYTKLFRFLKKTPKTYKATL

WLGVYSLSLDDQNIKEIKNIKEFDLPNLQQIIDQMQGIISYTPPQFSAKRINGTRAYELAKKGIEVNLKP

CQMEVFDCKILSYNHPFLNIEITVSEGAYIRSYCELFARKLGINATLSSLERIKEGKFVYNNEKSLNVLK

YINLKPNFIKDLNKLENGAKIFVEELEFHDKGDYYIETEKYFSIINIKENTVKYLLNKVEKC

>AHK58927.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLFEDLNDSQKQAVSHIDGAMLILAGAGSGKTKTITTRLAYLIGEVGIPSHNTLTLTFTNKAASVMRHR

ALNFLQGNHNPLLCTFHKFGLLFLKLHFERLERKNSFIVIDTDDTKKIIKDLIHDKNKDNVYDIIQYISY

CKNEGKRVSNVFEDLNLLKEHNFEKYQNEYKFANYYRAYEEYLLKQNFVDFDDLLLLSNLILENDINFAK

EQSLLYNYITVDEYQDTNTLQYKILKNLCCMHENITVVGDDDQSIYSWRGAKIENILNFQNDFKNVKLVK

LEQNYRSVGTILQAANNLISHNEQRLGKTLICTKDTGENIKILKNENEKDEGLYIAQEVKKLLNSGVEAK

EIAILFRVNALSRAIEEAFMKKQISYKLLSGMRFYERLEIKDLISYLRLILNPSDDLSFKRIINRPKRSI

GEKALKNLEEYAKKRQISLFDALCESDGGVGILTTKKAQNEANIFIQNIHTLKSYDNAKKVFDNIEELFK

IKDYFSEQDDGDERIRNLDEFYANLREKLKEDPEASLEDLLSEISLLSDQDNLDEECVCLMSIHASKGLE

FDYVFIIGFDEGFFPLNSEENLEEERRLAYVAITRAKKFLTISVANSRFYHGSRANINPSRFLEESKLIN

EKSKNQNIQKTSFCKGDLVKHKIFGIGRVVEANKSGKEEKLNINFGGIMRVIMASFVEKAV

>AHK58926.1 hypothetical protein N920\_05505 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLETILKNENFIHTMQKHCYEVISHLIEENIEFSIVANTNFIDFNPELPKELDIKQNPYALFALGGYTFE

SIQLNKDFIQFHAGFGNDDFDSFVKVDLGAITQIQVENSILFVNFSLYKREDSKNLQKSKNIFLNNPKNK

DIFKK

>AHK58925.1 oligoendopeptidase F [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLEWDLSALFHDKEALQNFTQDQIQQSLNFKKNYENKLYTLNANEFLQALKDYENLNQALGKIMTYAYLL

FAKNTQNGSFYAQYEEECKKIEENLLFFELEFCELAPEKSREFTTFCKDYDFYLSNLLQNKRYNLSKNEE

RIMLYLSNTGANAFSRLFDESMSALKIPFEGKKLSEEEILSKMYDENRKIRKKAAKKFSKVLQKNSRLLS

FIINMIKTERKNISLLRGYENAEISRHISNQISQKSVDSLIASAQKHFNLVSQFYKRKKQILGYDELKDY

DRYAPIGKEASFDFKTSKNIVLEAFQAFSPQFYDIAKNAFDQGWIDVYPQENKQGGAFSHSATSDAHPFV

LLNHTNKRRDLFTLAHELGHTIHQKLSYNVSYLNQNTPLTTAETASVFAEMLVFDFIKDKLKKEELLSLY

ANKIEDIFATFYRQINFTCFERRLHAQENELSTEEINKIWMEESQKMFQDSVKLTKNYASWWSYIPHFIH

SPFYCYAYAYAQLLVLALYGLYKSKKCENFKELYIKMLSLGGSVSPKELVGMFGFDIEDENFWEIGIKEI

QKLINEFMELQSC

>AHK58924.1 aspartate carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRHLITTKDFNKVEIMELFKEASDFLDEKPRTFLEGKSITTIFFENSTRTLSSFESAARRLGARVLRLDV

SRSSSSKGETLYDTAANLDAMSPNAIVVRHANSGVPLILAKHMHCPVVNGGDGKHAHPTQALLDLFTIYN

HFQGNVEGKKICIVGDIKNSRVAASNIELLSRFNLDITLVAPPHFMPNTHLKKHYKLDENIIANSDIIMS

LRTQTERHNKTVYASLKDYANDFCIQKSLVKDKKLILLHPGPVNRNIDISDEMMSNERTLVLKQVKNGVA

IRMAVLKKLILENEG

>AHK58923.1 serine/threonine transporter SstT [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFSKIIQSYAKGNLIVQICIGIALGILIGISSKEISEIANLLGILFTSALKAIAPMLVFILILTSICTKD

FSQSGAKIKNIIILYIVGTFFASACAVLANFFFPVKLVLDGVQTATNSSPTHMSDIFKDLLFKIVDNPIN

ALSSGNYLGILTWAIAGGIALKHCSNEAKQVFIDINEGVLKIVKFVVKLAPFGIFGLVANSVAQTGAQGL

LSYVKLLILLVATMLFVTFVINALIVFFYTRKNPFPLIFICLRHSAFFAFFTRSSAANIPVNMALCAKLG

IDKEFYGISIPLGATINMAGAAVTIAILSLTAANTVGIEISLLQAFLLSIIATFAACGASGVAGGSLLLI

PLACSLFNIDYDIAMKVVAIGFIIGVIQDSVETALNSSTDVLFTAICSKNELNYNIK

>AHK58922.1 S-adenosylmethionine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYLFTSEVVSAGHPDKCADIIADTIVDILLKNDKNSRVASEVFVAGNKVVIGGEVKSNHKLSKADYDNLV

KDVLKNIGYDGAGHFSKEQCLHPDEVDVMVFLNEQSPDINQGVDQEDGETGAGDQGIMFGFASCEAEEYM

PAAISYARMLCDRVYAYAKANPHELGVDIKTQVTIDYGTKANFENCKPQSIHTIVVSAPCVESMKIEDLR

SLVMKLILDSNLPKELFDPNKTRILINPTGKYVNHSSLHDSGLTGRKLIVDSFGGYSPIGGGAQSSKDYT

KVDRSGLYAGRWLAKNIVAAGLAKKCIVQLSYAIGVAKPTSVSVDCMGTNTSVNDDVLSDFVMQNFSLTP

NWIRDKFHLDKPSKETFLYADVAARGQVGQKDYPWEKLDALEQFKKLL

>AHK58921.1 apolipoprotein N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLKLNFLPYFSFIPKKLNTNSIIFKIIKVFFIAILLSNSIYLSFFENIFTQTISPFLAIWGLVLLLKSK

TSKQYFWIGFFVGILWFWWIGLSSIYFNLNYLVPIIPIIIGFIYGLLFRLCYLLKFDFLRLCGIFCISFI

HPLGFDWFNWGIFTVYGFFDPSYRGIICIFLIAYFIYEGYISRYYKIAIVLILFFSGFQYNEKQAQTLNL

NYKLINTNISQDQKFLQENLKSNSDILIQDILQAINEKKELVILPETAFAFDLKNTKYELMLKELSYKIT

IITGAFHVEKEHTYNSTYIFKKGNVYILNKHFLVPFGEEIPFFKDLTKKYFLKNIEEFSKGPIQSKYKLD

NQIITNAICYEATKEQNYQNSQIIIALSNNAWFNNSSEYKLQQLLMKFYASKYGVSVYHATNGKENIVIL

PKKLLSKDWKNLSKEIFNDKK

>AHK58920.1 preprotein translocase subunit YajC [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAENSILTSLLPLVVLFAIFYFLVIRPQQKQAKAHKQMLESLQKGDKIITNGGLICEVVKPEEDFIKVKL

NEDNVTAKISREFIAKKIDA

>AHK58919.1 preprotein translocase subunit SecD [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRNSKINYRLIIFIAVFIFGVAFSLPSFLQSERGAKINLGLDLQGGLYMLLGVDNEEAVKSKIKSIASSL

SYSFNKENILNDGLNTHDDILEFTLLDNADIAKVENLLKEIKGINIQSENMHYKISFTSKEVKNIENFAL

LQAVETIRNRLDQFGLAEPTVAKQGDDKILVELAGIKTKEDELRAKERITKAAHLQLMEVDDSKMGQAST

MSDAEAASYGLILVPDSRNPNLKYTLKSIPILDGSMLTDARVGLSDKSNYPVINFTLNAEGSKKFADYTG

ANVGKRLAIVLDNKVYSAPSINERIGGGSGQISGAFTQEEARDVAVALRSGALLAPVKLLEQRSIGPSLG

ADSIKMSMIALIGASVFIVVFMMMYYGVAGIFANIAMLVNVLVVVAVMAMFGATLTLPGMAGLVLTVGMA

VDANVIINERIRELLRDGVNIRVSIEQGYKNAMSAIIDSNITSLVTSVALYAYGTGAVKGFAVTLGIGIV

VSMITAILGTHGMFDYFMQRIEKNNNTRFWFGYRRR

>AHK58918.1 preprotein translocase subunit SecF [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQFFSEKKIYDFMRMRFAAISLSFILFFGSIYLLWDRGLQYGIDFSGGTLVQLKYENAAPITQIREILEN

QGTFQNLSVTEFGSNEEVTIRFLGSNDNVSNDIGEHISTLLKDTGKFEVRRADVVGPKVGDELRNKGLMA

IAVSLIAILIYIALRFEWRFALAAIISEIHDVVITLGAISLFKIDVNLDTLAAVLTVLGYSLNDTIIIFD

RIREGIKTSKKTELAPIINESVSATLSRTVLTSGLTLATVVILYFFGGEMIQGFSLALIVGIIAGTLSSI

FVASPTLLWFKFSVLEFRNKEIEKAKRKQDKERNRAMYEKGTV

>AHK58917.1 leucyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAYEASLIEKKWQKIWDENEYFEPKDDLNLPKKYILSMFPYPSGRIHMGHVRNYTIGDALARYYRKIGFN

VLHPIGFDSFGMPAENAAIKHKIHPKSWTYENIAYMKKELFSLGFSFSKKRMLATSDPLYTKFEQEFFIK

MFEKGLIYTKEANVNWCEQDQTVLANEQVEDGKCWRCGHEVVQKKMPGYYVKITAYAEELLKDLEELKDK

WPNQVLTMQENWIGKSEGLEFSLNLDEESKQKTKESSLEVFTTRADTIYGVSYIALAPEHKIVQNLLSQN

LLNQDVLNKIKVIQNQSPRERQSSEKEGYFLGIYAIHPLSGEKIPLWVANFVLADYGSGAVMAVPAHDER

DFEFATKYNLAIKQVIQTQENLPYMQKLGKLINSQEFDNLDCNEARLKIISQFEAKNIGKRVVNFKIRDW

GVSRQRYWGAPIPMIKCQSCGIVPQKLENLPITLPEDVQITGEGNPLDKHPTWKNCICPKCGKEAQKESD

TLDTFFESSWYFARFASDEKTWQEKALDEKSVKYWMSVDQYIGGIEHAILHLLYARFFQKALRDLGYLTQ

NEPFDRLLTQGMVLKDGAKMSKSKGNVVDPDEIIEKYGADTARLFILFAAPPAKELEWNDDAVEGAYRFI

CKLYDRAQNVKKGELVELKQENLNKEEKYARLKVYEALKKSFEVYHQSFAFNTLIAACMEALNALALCKN

EALEQEAFYIILNILEPIIPHVCFELSEELFKCKNFKKLELKEEVFVKDTLNLAVSINGKKRAEFEISSS

ASKEEILAFAKENTAKWLEGKSIVKEIYVEGKLVNLVIK

>AHK58916.1 hypothetical protein N920\_05455 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILIFCIGLFLGACGYIPTSKIANNIFDEKVYVNVELSQQDPKNSIYVADTLKEMVISKLGRKLALKH

EADDVINVKMNNLEFIPLAYDKNGYVISYKAKLNLDFNVVFKDGSSQAFSTSGSYNFEISPNSIISDSAR

YEAIRAASSEAFDEFISVIAIKGQKRDSKY

>AHK58915.1 hypothetical protein N920\_05450 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIPNTNEIAKQTLIALKERKLKPTPENYTEIFEELSLKYGITSSNKAKLDKYKTLLLPIYQQELNSKTIR

SLEELISFLISVLNRQSGKQFSEFFDFLYTISKTLQISKDKKIRDLAKVTSIRISKTMDSESIYLLTKKW

KELERNYDENDLEEQARKYGISKYDDYDSVIKKLLVKLEERSYEHFSELLCLGLNPSLVEDLKIQGFIQN

LTQKPFVIGEENFKNELMEFINHRIMVDNMYVQKNLNFFNDNLKKIYELLVLLNKSNEKNMDFINTLKPD

ENGEVKLSFEDLKLKFKQLGEKITSLNNQIEFTQSLEEREAWSVLKELDKMDENFNKYKVNYSLALFSIV

NYRFIMEKYGMGSLNEIFVRFKKILKDSCSEFDELWMIDEKSYLIVSPGKSKDEITQLVNTNLKTIENFR

FIYKQDIITPKIHVAYLDKQSKPSINILDELIKQIAAVNEQHNES

>AHK58914.1 folylpolyglutamate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVENFLAQKSINYDKIDRFLMFRMYEKYKKYFKNIPIIQLIGTNGKGSTGRYLTQLLENLNYKIGHYTS

PHIFSFNERFYLDGKIANDEELEQAHIRLEEIFKQDLQKLSYFEYATFLAMILFQKCDFIVLEAGVGGEY

DATSIFERRMSIFTRIGFDHIQILGNSLEDIARTKLKVMAPIALISDEQEQNVLNLAKKIAFLKKANLQV

SSLNPFLKEKFEIYCKKFVLPYFLKHNLKLALKACEILTSQEKTLEALKKLQELNLQGRCQEISPNFFVD

VGHNPMAAKAMLDKFQGEKINLIYNAYLDKDIFQILNTLKPIIDTIQIYKYKSAERKLADDEIYSIASKL

GMQCKEFVKLEENKKNLVFGSFMLVENFLKEWCGKK

>AHK58913.1 peptidase M24 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVKNKFTITITDINGSRHFYLNQIIKKIVFYIIAFIVLFLVFSGFYIKYLDSKLSDISEKREELLKKSKE

LELSNSQMQKSIEEKTQQYAAIEDKIASFEEALGLEAENNLTISARLDNLQLTNEQQLGILGQIPNGWPI

ENKGITGNFGWREHPLLKRREFHPGIDLRAEIGTPIYAPASGVVEFSGYSDNGYGYNVILLHNFGFKTVF

AHMMRKEVVKAGQFVNKGQLIGYSGNTGLSTGPHLHYEVRFINKTLEPLYFLNLQRKNMNDFFNQERRVP

WQSLIKAVSAQHPALAQKQQ

>AHK58912.1 transcription-repair coupling factor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQASFYEYLQNPKICELFLCKDEKQADLLAQVSRFKGLKTFVLPDFRAQFGDDLRAFSKELFDLCKILNA

YHKEEEKKILISPLNTVLKKLPSKKHLQNYHIDKKQNFDLKCFEDEISRLGYEFVDIVQDKGEISIRADI

IDIFCINEENPIRILLFGEEIESIRYFDLQSQKSIPNELEHFEICPFLKYFDKENYEIFKDKLEDFQSDA

LIHDINSLGFWCIDDFFDYLELDFLACEKFDINEYEKDISFVNAKILPQAKKFKELQSSYNKDFFEFHKN

KKITLLAKNEALFKALELEDTQNIHFVKSDLRLNLISPEELIISLNQKEKQKTRKKASLIIDELKNGDYI

VHEDYGVGKFLGLEMIVISGAKKEFVAIEYQNSDKLLLPVENLYLIDKYLGVSGSIPSLDKLGKTSFIKL

KEKLKTKLLAIASEIVIMAAKRSLVQAKKITVDLNRQTDFIASAGFIYTSDQDKACHEILQDFQSGKVMD

RLLSGDVGFGKTEVAMNAIYPVVKSGFCAFLFAPTTLLSHQHYKTLKKRFDPFDIKVFKLDRFTSSAEKK

QVLQNLKENKACVVVGTHALLSVECENLALVIIDEEHKFGVKQKEKLKEITQNSHILSMSATPIPRSLNQ

ALSSIKSYSVLQTPPEDRMDVRTFVKENDDALLKEAIARELRRGGQIFYIHNHIASIEQCKKHLLELFST

LRILILHSKIDAKMQEEEMLKFENKEYDLLLSTSIVESGIDLPNANTIIVEKSDRFGMADLHQLRGRVGR

SDKQGYCYFLIEDKNAITKDALKRLVSLESNSFLGAGSILAYHDLEIRGGGNLLGVDQSGHIEQIGYSLY

LKMLEDELNALSKNEVDQKENKLDLKLNVNAFLNSELISEDRLRLELYRRLSKCEQVHEVYEIESEIEDR

FGKLDIYTKQFLSLITIKILALNKFKSISNYEQNIQFTALNDEKELIKAKSKDDDDILEAILTHLRKA

>AHK58911.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDWNKTYAAIYRARKDYLKPIFEIDPIALKDLVGMESQKKALYENTLNFIQDKGANHALLWGSKGTGKSS

LIKAIFNEFKEQGLRLVELNKEDLFALADIIDEIRLENFKFILFCDDFSFEKGDDSYKFLKPLLEGSIEK

APNNVIIYASSNRRHLLSESITDNLDTQITHTELHLSDAAEERLSLSDRFGLWLSFYQGNLEEYLKMIDF

YFKDYSCDKELLHAKAKEFATLRASRSGRTAKQFYLAFKENFK

>AHK58910.1 nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTGAQIFTKLLNLDLNYHDFDWLENQGLSEFELLISVVLTQNTNWKNVLKALENLKKENIASLEQINTLS

NLELATLIKPSGFYNTKAKRLKGLVESIINTYENLENFKTNVSRKWLLNIKGLGFESVDGILNYLCKREI

LVVDSYSLRLAFHLGYEFENYEELREFFQSGIESEQENLCKILGRKCELYELYQIFHALIVAFAKQSFKG

QKLSPKGEEWIKILKEDL

>AHK58909.1 phosphomethylpyrimidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKAKGSELIPVLTIAGSDCSGGAGIQADLKTFSAHNLFGMSVVLSVVAENTARVISVHDIPTQSVDEQML

AVFEDIVPKATKIGMIGSCELMSCVAKNLSEFKPQNIVIDPVMFAKNGYALMPQENCDFFKQTIVKFADI

LTPNIPEAEFLCGFKIANEEQMIKAAKHLCSLGAKAVLLKGGHSEINANDVFYDGKEIYILKGERIETKN

THGTGCTLSSAIASNLAKGKDLFHAVSEAKEYVRNAIYYSLNLGKGCGPTNHFFKFLDEK

>AHK58908.1 thiamine-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNKLDLSLYLVATKGSKSEECFLNTLENAIKGGVSIIQLREKELNAREFYKLGLKVQKLCKSYKIPFLI

NDRVDIALALDADGVHLGQEDLEAKLARKLLGDEKIIGLSLKKLEQLEFIQGVNYLGCGAIKATPTKESS

LLSLELLSQICDKSPIGVVAIGGIDKEALVELKGINLSGVAVVRAIMDAKDAFLAAKELKRKIYENLSLK

>AHK58907.1 uroporphyrinogen-III synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIYLLNETPFEGVENLILNEIVFYDFSVDLSLYDALICTSKNALKALQHAKITLNFKLNLYAVGQSTAQ

YAKNLGFKKIKIPSKAYGKDLFLEFKEELKMQKCLYLRAKNIVSTLNLDLKNVGVDLDEMIVYENVFKKG

DKKLIHPAIFIFTSPLSVENFLKFYSLKEEDKVVVIGQSTAKKLLNFKNLYICENQSLLNCVKLAKTLV

>AHK58906.1 hypothetical protein N920\_05400 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKAYVLIWTIFLILLISLWMSLTLNISSYTPKIIQDSYYYLQAQILSHNATQFSKYFLYQAKQENKECL

DNIYFNYTKALIKIKYFYPIAQCVNFKFSNFNPDANLSKDGVIIAHISIALNRDKNVNDEILLTKSIIIY

PKENFWNLKN

>AHK58905.1 hypothetical protein N920\_05395 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKAFTLFELIISLILFTFITSLLSKPLMDFYHLNFTALHTNNLITQAHLNLLKIEKLIQNCINITFSQN

TLKCLLKDELISLKDNKLYLINSALILENNHTLYSPHSDFKTQLQNRKDLYNDNEHISYAYKINKIEKIS

ILENGISANFTGSFIPLQAQLVIKLQNEELIYEIKPKFNEQLNQQGLISKNISSFNLQNNKLKICLKRQT

KHCLEKRILL

>AHK58904.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKAFILIESISAITIISLIFIGIFYYYIQLYKNYENLNIFERLYKLQEELYEKPIFKTIILQTSALKPI

VLQEQFVNDGIFQFQKLYFQDQNYSVYFKE

>AHK58903.1 pyrroline-5-carboxylate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLYILANGSMATALAYGLKDDYEICIVGRSIEKLQALAKEGFKTLLYKDFNIEGKDVILAFKPYALENIA

QMLKGQARILISVLANVDFEKLQTIKAQNYVRIIPNTAAKYKASTTPYILKNSHFENEILDILKTFGSAY

KLDNEIQMNAAMAISGCAPAFLALIAESIANAGVYEGLSKELSLNLTRSLFKSSNALLEHEHPAIIKENI

CSPGGVTIKGIKILEQKGIRGSFFEAINASSAK

>AHK58902.1 flagellar assembly protein FliW [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTLAVKCPILGFEETKNMEFSTIDEVFVRLKSLDGKDFSFVLINPYLIRPDYEFDIPTYYQELLSLTPES

NMKIFNIVAIAKSIEESTVNFLAPVVINLDNNTMVQVILDTVNYPDFFQADQIANYIKK

>AHK58901.1 hypothetical protein N920\_05375 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKGIFLLVFLSVFFSACSTKNDEGLYNLSASEWYKQIIKDLQDKDLEKADDHYNGMASEHVADPLLETT

LIILAQAHMDEEEYKLAEFYLDEYNKKFGNSRNADYIRYLKIKAKFDAFAVPNRNQALMLESQKEIDTFL

KDYPYTEYEPLVQTMLTKFNLAVFYLNSTIENLYQRIGHDESAQIYKQRLQESEFYQQSIIKPELPWYRS

IFERF

>AHK58900.1 Lon protease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIEEIQNYPANLPVLVEDELFLYPFMITPIFINDSSNMKALDLAIKNDSMLFVAPSKLENGRNFDEIYN

CGVIGTIMRKVPLPDGRVKILFQGYAKGKIIEQISNKPLEAKIELIKEDFLEGTKKEALLEVLKEKVKNL

ANISHYFSPDLLRTIEEGFDASRICDLILNTVRIKKQVAYEFFVLTDLEQKLVKLIDLIAQEIEANKIQK

EIKNKVHSRIDKVNKEYFLKEQLRQIQKELGSDTQKEDEVREYQKRLELKKKFMHEDAYKEIKKQIEKFE

RIHQDNSEASMIQTYIETALDIPFEKISKKKLDIKEVSKQLNHDHYALNKPKERIEEYFAVRELLEKRKI

AEKDGAKVILCLYGPPGVGKTSLANSVSKALKRELIRIALGGLEDVNELRGHRRTYIGAMPGRITQGLIE

AKQINPVIVLDEIDKLNRSFRGDPSAVLLEILDPEQNSKFRDYYLNFNIDLSKVIFIATANDISNIPAPL

RDRMEFIELSSYTPSEKFHIMKKYLIPDELKKHGLKSNELSIDDETIELIISDYTRESGVRNLRRKVAEL

CRKSAKKLLLENIKKVIINTKNLNEFLDKKVFEIEKNNGENQVGQVNGLAWTSVGGDVLKVEAVKIKGKG

ELTLTGSLGDVMKESARIAFSMIKVLIDEGKIKIPKKIIIDPKVNVYDSYNIHIHVPDGATPKDGPSAGI

TISTAIASIFSDKKVKADVAMTGEIDLKGKVLPIGGLKEKLIAAYKADIKTALIPRKNYERDLKDIPSEV

RDNMEIIAVDTFSDVLEYTLV

>AHK58899.1 30S ribosomal protein S18 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAEKRKYSRKYCKYTEAKVEFIDYKDTAMLKHALSERFKIMPRRLTGTSKKYQEMVEVAIKRARHVALIP

YIVDRKEVINNPFEGL

>AHK58898.1 single-stranded DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFNKVVLVGNLTRDIEMRYAQSGSAIGASAIAVTRRFTANGEKREETCFIDISFYGRTAEVANQYLTKGS

KVLIEGRLRFEQWSDQNGQNRSKHSIQVENMEMLGNSNAPQQGGNFGNNSFSNNNYSGNYENQSYDPYMS

ENQNFNKAKANPAPQRNQSPQHEEKLKEIDIDAYDSDDTNLPF

>AHK58897.1 30S ribosomal protein S6 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKHYEVLFILKPTLTEEEVNTKLEFVKEVLTKNSAEIETVVPMGTRKLAYKIKKYERGTYFVIYFKAPTN

LIAELERVLRITEEVIRFLIVKYENKKEIAAWEKLSHGIKQSKKEIKPLDAPEIQ

>AHK58896.1 hypothetical protein N920\_05350 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKKFSYPIPNFTDRRKSIIFWRYLRFQARKILYFPQVRLLEKTLNKEKNKHLKDFFSQRPYACYNATRR

FCDKSFKANERVKTLIYDVDKGLACFKFLPEEQIIFSFDEDFELFLGYNYNVCEEGFWAFSLKFKKYTIL

QCNFCFTLENNLLLSCIQGHKYKDFNILEINKILTKKCHGLRPVALLIECSKMLCEILKLQATLGVHEKN

QIRSQKGKEKGYFVDYQKIWLENGGELIKINKHKYYKLHHSQKNLEEIPSQKRSMYKKRFAMLEEIKTNL

DKTLSIQD

>AHK58895.1 zinc metalloprotease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRSLLLLIVILILGIKFYSIEFLATVLVISFLIFFHELGHFLAARSLGVKVEVFSIGFGKSLIEREFKGT

NYRLSTLPLGGYVKLKGQDDMRPGFENLDKDSYSILSPLKKIYILFAGPFFNLILAFFLYIIIGNLGLNK

LAPQIGNIAPNSAAQEIGLQKNDTILEINGIRIQTFDEISKHLSLDPLKILINREGKNLEFILTPKIGQG

YNDFGQIVEKPQLGVSPNGTSTLVKHQGLESFKYAAQESFQASTLIIKGIVKLISGEVEAKNLGGIITMT

EITSKAAQNSFTLLLFITALISINLGILNLLPIPMLDGGHILFNLYEMIFRRKVPQRTFEYLSYTGMAIL

LSLMLFATYNDISRIIGE

>AHK58894.1 CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLPNILAIFRMVLAPLLFFLLIHKFENIHQSWINYFAALTFSLAALSDFFDGYIARTWKQTTKLGGILD

PLADKMLVLAAFLGLLLTGKANEWVIYIILVREFFITGFRVVMISENLNVNASFAGKLKTAFQMTAIGFL

IMEWIGGEILLYIALILTLYSGFEYIYTYIKAQKKGEK

>AHK58893.1 nitroreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKELEIFSTRYSCRNFKNEKLKKEDLNSILEIARLSPSSLGLEPWKFIVVQDEKRKEELSKICNQQKHV

KDCAALIIIISRLDFLDYFEEKLRKRDMSETEMQKRLDTYMPFLKSLNQEQKISYAREQAHIALASILYS

ANALNIASCTIGGFDKEKLDSYLSLDIQKERSSLVVALGYCNDKKNPQKNRFSFDEVVKFI

>AHK58892.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEIKLKEDLEKIYPLIKQLRNNLSLKDFLDKIQLATQTQHYKLFAYENEGSYKAACGVMPFNVLYHNHC

LYICDFVVDEALRGKGIGQAFLKKIQIWAKDQGYEELELSSSFFRTQAHEFYIQKMGFEKSGFVFKKNIK

L

>AHK58891.1 competence damage-inducible protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKHLLYLIGDELTINEKFKNYIYRTYEEKFKEINEIRIQNKTDKDLPFLLENLLNQYDFITLFTSPLHYA

TVAKILATLNDDNLILKDDTLVPDKAEFSKNSFVCNFSNSKINVVKINPSEKLPDLLGHIKLNFAYFCIF

GMDDESAILLLQTLTKSYEISIKSTKFLDNLVLIKATCANFGKLDGFLNSVKNLFGQKVFLGKDPIHFIS

SKLLEKKLKISFAESCTGGLCASTLTKISGVSEIFEGSIVSYSNRIKHEWLGISESVLENNGEYSERCVY

FMLKGIFKTANPDFALAISGVVGEKDEGKIKSGTIYIGAMFRDGTFIQETLYLDGDREFMQEQAVLATFC

LLLKLKPEIFEI

>AHK58890.1 isoleucyl-tRNA synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDYKETLLLPSTTFAMRANLAELEPQRFKKWFEQNYAYEKMKENRKNAKKSFTLHDGPPYANGHIHIGHA

LNKILKETIIKTHYFKGESVRFTPGWDCHGLPIEQQVEVKLGEKKKSLSKKEIREFCRQHASEFVDIQRE

EFKDLGIIADWDKPYLTMKFEFEAAIYRTLCEIAKKGLLCERSKPVFWSWAAKSALAEAEVEYQDKEDYS

IFVAFDLDVKACEKLGVSKASAVIWTTTPWTLVANQAIALNPNENYVITKEGLIFASALLKSMVEKGLTS

GEIQKELNAKEFEKLEAINPLNGRKSVLIMGEHVLMDGGSGLVHTAPGHGEDDYYACLKYGIEVLMPVDD

SGCYDETLRAKGLLPSHLLEEFIGLHIFKANEKILELLGEKLLHSSKFIHSYPFCWRTHKPVIYRATKQW

FILMDEPKLQGKTLRECAKEQLLKTTFYPQSGVKRIGSMVENRPDWCISRQRDWGTPIAFFRDKNTKEVI

FDDELFDFVAAIFEKHGADAWWEFEIKDLIPTNSKYKAENLEKVYDILDVWFDSGSTFNAVLNSGLYDAG

EKRASMYLEGSDQHRGWFQSSLLVGTAINESAPYESILTHGFTTDEKGQKMSKSKGNVIASEYVAKTYGV

EILRLWILLSDYSSDLKISDNILKQVGEQYRKIRNTIRFLLANTNDLKDLEVKEFSFIDKWILSRATKVF

KASKEAFFAYEFAKGFSLLLNFLSADLSGIYLDISKDRLYCDSENAQRRKSAQVAMALMAKELLNLLAPN

LSYSVDEALEHANVLIKGDAKDVFDLSLTQDFDYDFGIDDTFLMSAREKFFEQIDILKKDKIIKSTLELN

LNISFNKFPNEELADWFMVSQISNENEEILAEFEVENEKFKITKASLCKCPRCWKLQSKNEETPCLRCEE

VLKGVQC

>AHK58889.1 aspartyl/glutamyl-tRNA amidotransferase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MITLKEALKYSKEELENLKKELNEKAKKEKKLGAYIEQFLDKDLSVSGEGVPVAIKDNISVKGWELTSAS

KILQGYIAPYDASAIVNLKANGFSPFGRCNMDEFAMGSSTASSCYGKTLNPLNFERVPGGSSGGSAAAVA

GGLALASLGSDTGGSVRQPAAFCGCVGFKPSYGRVSRYGLASYSSSLDQIGVLTQNVEDAAILYDAIAGY

DKMDSTSANIEFIKTVPNLNANKKLKIAVIENYVNDADSEVKNALLKTIDMLKANGHEIVYKNLLDSKFD

IAAYYIIATAEASANLSRYDGVRYGKRSENIQNLKEMYVNTRSEGFGEEVKRRILLGTFVLSSGYYDAYY

IKAQKARAFIKAKYEEILQDCDLIFMPVTPTTAFKFDTQKSPMQTYLEDVYTISVNLAGLGGISVPVAKD

KEGLNISAQLICKAYDEQTLLDGALSLEQMIKN

>AHK58888.1 inosine 5'-monophosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISAAMDTVTEHRAAIMMARLGGLGVIH

KNMDIASQVREVKRVKKSESGVIIDPIFVSPKASVAEALEIMAEYRISGVPVVDEDKKLIGILTNRDLRF

ESDFSNLVENVMTKMPLITAPKGCTLDDAEKIFSTNKVEKLPIVDEQGRLEGLITIKDLKKRKEYPDANK

DNFGRLRVGAAIGVGQMDRVDALVEAGVDVVVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAA

KALCEAGVDAVKVGIGPGSICTTRIVSGVGVPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVG

ASSVMIGSLLAGTDESPGELFTYQGRQYKSYRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYV

GSIRSVVHQLLGGLRSSMGYVGAKDIEDFQKRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>AHK58887.1 coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSFEENLKHANESLEKLNNQELALDESVKIYKEGLESIKKARLELEKAKLEVEQIDE

>AHK58886.1 carbon-nitrogen hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKIAALQFPTLALSESRLDYYLKASKDNGANLVVLGEYVINSFFTELLHMPKNMIKEQSEAKKESLIKL

AKKYELEIIAPYVSVEAKSYKKLCLKVTPNGVKSYEQQILMPYEHWNEEKFFSNKTPSELKIFTFNYEKL

KCALLFGFETHFDIFWQQIMAKKIDLVIVPSACTFESKQRWEELLKTRAFLNSTSILRVNRIGKTKDEWN

FYGDTLFINAFGEIESKLGSEEEMLIIEPKKSDEARKLWGFDKILKNF

>AHK58885.1 UDP-N-acetylmuramate--alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNIHFIGIGGIGISALARFLREKGFKISGSDLKESKITKELEKEGVKVSIPHHKDNILNKDLVIYSAAI

KEENPEFKYAKELGIKCLSRKEALPLILEDKRVFAVAGAHGKSTTSSILASLLDDASVIIGAILKEFGSN

MIYKESQNLVFEADESDSSFLNSNPYLAIVTNAEAEHLDHYGNEVSKLHHAYTQFLDVAKIRVINAEDEF

LKNYKNESIKLYPSKDIKNCTMCIENFKPFTSFELKDLGEFKVFGMGYHLALDASLAILAALNFLDIETI

RTRLKNYQGIKKRFDILHADENLVLIDDYGHHPTEIKATLSAAQEYVKLGGYKKITAIFEPHRYTRLATN

LKEFAKAFEGVDELVILPVYAAGEEPIELDLKAVFPKALFVEDIKREGKFLVASKGQVFEEGLIIGFGAG

DISNKLRQKNE

>AHK58884.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSRVFLYFLIILILALITFALREKLGKKTKPFFGILLVIFIVLAVFFEFENTQKSHLRTDIIVAFNQNKN

ILCKDINVSKAYFNYEFGTGSFISKDNNQSFNSLIIDIKDCRLNDE

>AHK58883.1 DNA strand exchange inhibitor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNDTKEELISKLDLNSYLEEFKALFARDKEIFLQGDSNLHFKRIHELCEVEFPTMPELSNLDKALVHLSK

QGILHLDEIFEFVKIFRYFEKLKKIKLGTNLGSWLQKIEFVSGALELCLNFDEKGELKESLDERLVNLNA

ALRLKNESIIAEFKKFCYTKALMPYLIDTQIHLINNLEALLVRGGFNHAIKAKIIGRSSGGGFYIVPLSV

ENLQNDIEKIKNQKEEIYYEYAKNFSAFLAKNLPFLKFINTAFDLFDHYSARVLLAKKRDFEFVLCDQST

DLVLKNFAHPALKNPKSVSLEFKKQVLIITGVNAGGKSMLLKSMLSAAFLAKHLLPMHIKASESKIGTFK

EFDAIIEDPQNVKNDISTFAGRMLHFSRLFSKKNLLLGIDEIELGTDFEEAACLYSVLISKLIANNLKII

ITTHHKRLAMLLAKNEQVELIAALYDEELSRPKYEFLKGTIGKSYAFETALRYQIPPNLVSEAKKLYGED

KENLEELVGKNINLELELKAKLENVEKKEQKVDEILLSLKEQKEKNEQEFRTSLRNLEFKFHKAIEEAKK

TIQLKDIKDKQRSLNKTNELKKEIILPSMEQNEELRVGDFVKYEKIKGKIISISKNDAMVESDGIKLRVP

LKLLKKSTPTPKISPKTSISVAKPTNLSVSLDLHGLRSDEAISRLDKFISDALLAGFDEVLVYHGIGTGK

LAFAVREFLKTHKSVKGFNDAPINQGGFGAKVVRL

>AHK58882.1 NAD-dependent deacetylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNIMILSGAGLSAPSGLKTFRDNDGLWEEYDVMEVCSATGFRKNPKKVLDFYDARRAQLQNVKPNHAHE

KIAQLKEKWGKNLFVITQNVDDLLERAGCKDVVHLHGFLPELRCLKCEGIFNIGYEKFTDKQCPKCKSKD

LRHNIVMFEEQAPAYATLYSLLHQTSLFISIGTSGAVLPVGQYASMCEKSILNIYEKDVNLERYFDKIYI

EDIISAIDKIALDIENFMKDGNV

>AHK58881.1 lysine transporter LysE [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFDSFLSGVFLGFGVSVPFGPVNILILTYALKAFKNSIAVGLGAFSMDMLYLFLLQFGLLNFLDNVIFMR

FLAIFGFCFLTYMAYLMLRKKKESLNLEHKEFKESLLKSYIKGAFLNGSNPFVIGFWLSAASVVLSSDHA

YLMTLGLVVAILFWVSALAFVVARYSHVFSAKVVFIINIISAIIIEYFALNLLYKTFLG

>AHK58880.1 succinyl-diaminopimelate desuccinylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNAKEFLIELLKFKSVTPNDDGALNFIAMELSDFEAFFIEKEGIKNLLLTKKFKDEGEHLAFGGHVDVVP

AGEGWSNNAFAPVEKEGFIYARGAQDMKSGVAAFVDAAKNADFKGARLSLILTSDEEGEAIYGTKAVLEW

MQERDMLPDYAVVAEPTCVKKIGDSIKIGRRGSINGKLLIRGKQGHVAYPEKCINPVHDFAPVLKLLAGF

DLDPGSAEFSPSKIVITDIRGGMGVCNVTPNDLKLMFNVRNSPDTSLEDVKSYVEKICHGLNYELELKQS

SEAFLTNIDNKIVQKMNESVQKITHEVPELNTKGGTSDARYFAKYGVKVVEFGVCNDRIHAIDERVSIEE

FEKLCLVFKDLIENF

>AHK58879.1 thiamine biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIINGQKLELKELKFMDFIKEKGFKIELIALELNGEIVPKSEFENLILKENDKAEIVSFVGGG

>AHK58878.1 thiamine biosynthesis protein ThiF [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMRVKFNGKELDTDFKTSLEFFENISKNENDVWIINGFATKENIALNENDELFCIEKNTLPPKDALDAMM

RARHTPKLHDKLKNGRVAVCGLGGLGSHIAINLARSGVGYLKLIDFDVIEPSNLNRQAYRVSDLGKFKTE

ALKEQISEINPYISVEICTLKIDEDNLESLFKDIDIVCEAFDSAIAKAMIAQNFHRFYKDGILICASGLA

GYGDSNSIQTRKIAKNFYVCGDLVNGAKLGNGLMAPRVNICAGHQSNLVLELLANKE

>AHK58877.1 thiazole synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQENLKNDKLKIGKYEFDSRFILGSGKYSLELIKSAIEEAKAQIITLALRRANTGEIANILDYIPKNITL

LPNTSGARNADEALRIARLSRELGCGELIKIEVISDSRYLLPDNYETIKACELLAKEGFTPLPYMHADLY

AARAMRDAGAAAIMPLAAPIGSNKGLCAKEFIQILLNEIDLPIIVDAGIGSPSQACEAMQMGVSAVMVNT

AIAEAKDIALMARAFSLAVNAGRVAFLAGVASVSEAKASSPLTGFLRD

>AHK58876.1 thiamine biosynthesis protein ThiH [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQDYMQHLPHMQEIKSEILNKVLTQVQSYDESQFSAKDVKNALNQTHLSIEHLKALLSSAAEDFIEELAF

KSAKVKQKYFGNSISLFTPLYLSNYCNSKCVYCGFQKGNKIARAKLNEAEIHEEMQAIAKSGLEEILMLT

GEGREFASVEYIANACKIAREYFKVVGVEIYPMNEDEYKILHEKGCDYVTVFQETYNPLKYSKIHLAGEK

RIFPYRFNAQERALKAGMRGVAFAALLGIDDFRKDALATALHAHFLQQAYSHAEISISVPRLRPIINNAK

IHPKDVSEKRLLQVLCAYRLFLPFAGITISSRERIGFRDEVIKLGATKMSAGVSVGIGEHKGEKKGDEQF

EISDDRSVDEILAMLKRSNLQAVMSDSIYVG

>AHK58875.1 thiamine-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MWDKKIIAISDRKCVEIDFLKQIEKLAKAKVDAIVLREKDLSEFEYYDLAKEVLSICAKQKVTCFLHFFD

RECLKLGHRYFHAPLSLLRKEPKLTKYFHILGTSVHSKEELLEAMSYKVNYAFVGHIFESSCKMGLEPKG

IDFLKSLLEFSQIPLYAIGGINAQNIENFKDINVVGVCMREILMKEKDLKKYLLECRQNLR

>AHK58874.1 AraC family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKILSLPEDLKQLKGVNYKKIKSCTFAKYTQTDTSHSTFVNVGSHLLTFVRKGYKILHTASKDYKINSY

ETLFLKAGSYTLSNVGLSKGVYEAYLFFFDNAFLIELIYKYKDFFKLDQKFQNYEIFWVKNDKILQGILE

SFSPHFEENTQILDPIVSLKFEEIFLHLLLNKNIYFISFLSGILKEFRLDLSQLFEYCGREFLSVNEMSN

FAKLDLATFSKEFKKCFGQSPKKWLDEKRLQKAKILLKFSKKNINEIANECAFSSVAWFIERFKEKYEQT

PKQYQKTKNLYFLSKN

>AHK58873.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKYVLSLALLGSLLGASELKYQEFDGFKSPESIFVDKNYVYVSNVGEKLEPLAKDNDGFISKLDKNGKV

LEYKFLTHLNAPKGMMEIGKTLYVVDIDVLRGFDLKTKKEIFNLPIKGAIFLNDIEKLDDNTLLVSDTGT

GLILKVDLKTKQYDELLKLDLAKFGGPNGLYLDRKKHKLFIAGYHPDGVSGGVVMAYDLNTKELSIIKNE

KESYDGIVPYKDGLLVSSWGNNLNGYIYNLDNVKSVKLELPLMKGPADIFIEGNILWIPKMVEGKIFKVE

LNK

>AHK58872.1 UDP-diphospho-muramoylpentapeptide beta-N- acetylglucosaminyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTIALTGGGTGGHLAIVRCLLESAIKKNIECVYIGSQNGQDKAWFENEVRFKEKFFLSSKGVVNQSKFDK

ISSLLHTLKLSKDCREIFKKYHIQAVFSVGGYSAAPASFAALFSHLPLFIHEQNSKSGSLNMLLKPFATK

FFSAFEKEISPYPVADKFFDNARIRKELKNIIFLGGSQGAQFINELALNLAPKLQEQNIKIIHQCGKNDF

EKCKKHYQSLNIQADIFDFSLNLEEKMKNADLAISRAGASTLFELCANTLPTIFIPYPYAAKNHQYFNAK

FLQDQALCQIFMQNSINLDEFFKSILKLNLENISTRLQNITQKNGADMLIQKALFDNLTFIR

>AHK58871.1 cell division protein FtsW [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVADKRLFYLSCILITIGIVFSYSLTAFTVLFLDYSEFHFFIRQLFFGISGILIMFFISRLDPDKALSKK

IILAILIVSFIFIIILPFLPSVLATASGGAKRWIRLGPLSISPVEFFKIGLIYFLAWSYTRRIDDSKKAI

RHEALILLPYCILASIVIGYIYITQNDLGQSVISFFLILALAFFAGASKRLFAFGTLIIMMIGIMVIFSN

QRRIQRIASWWGNIQDAFLPMLPDWLANALRVSSNSEPYQISHSLNAIAHGGMFGEGLGLGTFKLGFLSE

VHTDFVLSGITEEIGLLGLGVICYIYLWMILRIFRIAGRCEAKQDFIFCSGIALLLLFSFFMNAFGIISL

TPLKGVAVPLLSYGGSSMWAICIGIGYVLMISKKVKL

>AHK58870.1 acetyl-CoA carboxylase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNQIHKILIANRAEIAVRVIRACRDLHIKSVAVFTEPDRECLHVKIADEAYRIGTDAIRGYLDVARIVEI

AKACGADAIHPGYGFLSENYEFAKACEDAGIIFIGPKSEVIHKMGNKNIARKLMAKNGIPIVPGTEKLNS

YSMEEIKIFAEKIGYPVILKASGGGGGRGIRVVHKEQDLENAFESCKREALTYFNNDEVFMEKYVVNPRH

IEFQILGDNYGNIIHLCERDCSIQRRHQKVIEIAPCPGISDNLRKTMGVTAVAAAKAVGYTNAGTIEFLL

DDYNRFYFMEMNTRIQVEHPITEEITGIDLIVRQIRIAAGEILDLEQSDIKPRGFAIEARITAENVWKNF

IPSPGKIGEYYPALGPSVRVDSHIYKDYTVPPYYDSMLAKLIIKATSYDLAVNKLERALKEFVIDDIRTT

IPFLIAITKTREFRRGYLDTSFIETHMQELLEKTEDRHQENKEEVIAAIAATLKKIRESRE

>AHK58869.1 hypothetical protein N920\_05195 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDFLDSLKSIKKEMQANTNTSKLAKKSSKSGASVKNLEKLAKDIREKNQETNIDKEMQEIFLKQEKLQDE

FSEFIKNADIKKI

>AHK58868.1 arginyl-tRNA-protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLEIGFCTLEDQCPYLKDKRSRIEYKYIENCPKEINNELIKRGWRRFGRYFSRPICKDCDECLSLRILVN

EYNFSRSERRVVNKNINTKVILRTPNLSNEHLFLYDKYHRFMEEKKNWKRYDLSFKQYYNLYVDGFMNFG

YELAFYIEDKLVCVDLIDILEDGISSIYCFYDPDFSYFSLGKFSLLNEIQIAKKMNLDYIYLGYFVKKCQ

SLSYKADYTPNEILKGTKELFENEVLWEK

>AHK58867.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIVQTLETINVNTDDISVFQYFKDLITKNFTKVIGRKNKIFSFFEENEIPQRRYFLKVLDQKYRKSTNE

GIENLQDAHFKTFRLIFEQNNMLKPMLFIKIDFVAGRILMKLSSNEKLFITYIRNYFQDHNIEYNEMTNI

LILEYKNENTLELFEAFADESEHLKYCVNFEVDREEYKKFRQNIHNKENMKWKFNALAKLFSNYFNTLEC

TPQNDLSEIRQKYLILVKLYHPDFHQGKSAIEKAYAREQFEKIQIAYDNLKALYKNNT

>AHK58866.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFKLAINRPITVLMFFLALMIFGLISAFSMSVNLFPNVSIPLIKITSKINGDLNFVESKVTKEIENALSE

IDGVKTITSAAYDNFSVSVVEFKLGKNLEVAANDVRDKIGTLSLPSKPEIEKISSDSGSAISLFLYSKDK

LQLMREINDKIKPFLQRVEGVGKIEAKGFLEPQIRIELKPNQLRKYNLNALDVANIIKSQNFKQALGELN

NNQDNYIIKGYFEATNLEELSNLRIKTGVFLSDIANISSLYEDEKQSALYEGKEGVLLELGKITNYNTLE

MIKNVKNALPILEKQIPKDISINMLYDKSLNIHKHLSQVIFDMVLGIFLTLVIVFLFLRNLSTTLIACIA

IPTSIISTFFIIDLLGYDLNRLTFIALTLSIGIFIDDAIVVIENIAKKLKTYPPLQAAFLGINEIGFSVL

SISIVLLCVFIPISYMNSISGLFFNALGISVASGIVISFLVSVFLIPSIGARFLNPKENKFYEKTEAFFE

KIEQKYENLLYKILQNKVKFILATLVFIGLSFALATRIGLDFLPMEDDSEIQVLLESKKDLSLEAMKEKS

LNLLEKIKNDSNVKYAFLLVGYDDAKDATKAKIYVKLKNLDERNLRQSAIVSLYRQKFQDESLKIKILEL

PKIEGAGIDDPVQFLILGDDLNTLKEAASQAKEILGTNARIVDISDNANATKDEVALHINKEKAKLLDVN

PQYIAGVLGYSFSQLSVGSMDRGNSKDDIILSFAPEFKKDIEALKRISIKNNQGINLELSSVVDFIYSKD

LKTINRYNKNRSVKITAGVNDLSLGAVQKLLLDNMDKILNNNPSLSYAFSGFINLLGETVQGFAMAVALA

FVLIYLVLAALYESFILPLIIMITMPLAFGGASIGLFITGHNFSLFVLIAIILLFGMVGKNAILLVDVAN

KKCHEGLDPDKALLIAGKSRLRAILMTTFAMIFAMLPLALSRGAGYEANSPMAIAIIFGLISSTLLTLLV

VPALFKFCFKLDSKLRKIYEREKLN

>AHK58865.1 hemolysin D [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILFLLLVFNCAFGEEIYASFNVEASKQSKLALESIGLVQKIPVEIGQKVSKGELLLALDQESEKIAL

QNAQNSYQLALVEYENTKSRMQKIKAVENVIDKQSYEDMKAKFDAANLNLNKAKINIAYYKNIMAKKELR

APYDAIIANKFIQVGEGVGGVAQPLIEIFSYPQSKLILSFDEKYKDKVRLGDDFFYKIDQNGTELKGKIN

LIYPSIEVKTRKIYAEVQTTNLTPGLFGEGRIITKD

>AHK58864.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFEKYLKSAIFLALYPLAMLASNLHEFIALSQNNESYLIKQMQSEQANLDKEQAFRNYLPSLSLNSAYVA

NNKDRFIIDPQESLFAKVSLNFLLFDGGAREANLRALESREKLSLLDKEQNKNYLALNAITLYFNTLSLE

KILLANQQKVSFLKSTFERLQKFYDAGLSPKDELESIKAKYHLSLLELSQNELKLANIQKEIKILSDTDF

KVQGNAFLENPQQEKSQNYEVMIAKEQINLAKESVNLAKAEYFPKFYIQDNFNFYKNNYNPKVPAPFANL

ADQFLEKYSQGNQFILGMEWKIFDFNARAKEVEKERLNVQIANANARFSERKNKEELNYLDKSLKVLQEQ

ILALNLSLNAANLAFESVDKKYQAGLVSYVEYLQALEVKFKAQSDLELAKNEFEITKANYYFNAGIDLNS

KVKE

>AHK58863.1 elongation factor 4 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSVKNIRNFSIIAHIDHGKSTLADRIISECGAISDRQMSSQVMDTMDIEKERGITIKAQSVRLNYKFNNE

NFVLNLIDTPGHVDFSYEVSRSLASCEGALLVVDASQGVEAQTIANVYIALENNLEIIPVINKIDLPNAD

VEKVKHEIEHIIGIDCKDAICVSAKTGVGIKELIETIITKIPAPKTDDEAPTKALIYDSWFDNYLGALAL

VRIYEGSIAKNDEVLVMSTDKKHIVQDLFYPHPLSPIKTQSLQSGEVGVVVLGLKTVGDVQVGDTITLVK

NKAKEAIGGFEKAKAFVFAGLYPIETDKFEDLRDALDKLKLNDSSITYEPETSLALGFGFRVGFLGLLHM

EVIKERLEREFNLDLIATAPTVTYEIYQTDGELIKIQNPSELPPVNKIDHIKEPYVKATIITPSEFLGNL

ITLLNRKRGVQVKMDYITPERVLLEYDVPLNEIVMDFYDKLKSLTKGYASFDYEPIEFRVGDLVKLDIKV

AGENVDALSIIVPNEKAQSKGRELVSAMKEIVPRQLFEVAIQASIGNKIIARETVKSMGKNVTAKCYGGD

ITRKRKLLEKQKEGKKRMKAIGKVNLPQEAFLSVLKID

>AHK58862.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFKKFLIFIVPILFLSACATKQDTFAQVNQISKNSQCSSCESPGGFEAKIKGLLYISDVGIQCCANKRTL

DTGIALKKVYLHRFYDLKEGQKVLNAKGKKLFVDVNFNAVFYTYLKQELEARGIVVLDNNDQNSPYVSKI

DLEFISYGATQDAIGLHSKLVGVLQVSDINKNKKFTIRTKQDVQGFDDLKETTFYTHLLIKQMANKAASL

ISEL

>AHK58861.1 phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRCINCGAFALLCFCELCELELSEFSLNVRKLDNNFKVYSFYKYHEIQHLLHSKHYFYGYFVYKMLAKLS

FAKFKDFFDPRMTINVIALDDKVEDMLYSHSAILARYLKTKFVKPVFNVLKAQNSVKYSGKSLEFRQKHK

RNYKLLKTIHEPVILVDDIVTTGSSLLEAKKVLEENKISVLFALVLADAKV

>AHK58860.1 DNA gyrase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENIFSKDSDIELVDIENSIKSSYLDYSMSVIIGRALPDARDGLKPVHRRILYAMQNDEAKSRTDFVKSA

RIVGAVIGRYHPHGDTAVYDALVRMAQDFSMRYPSITGQGNFGSIDGDSAAAMRYTEAKMSKLSHELLKD

IDKDTVDFVPNYDGSESEPDVLPSRVPNLLLNGSSGIAVGMATNIPPHSLNELIDGLLYLLDNKDASLEE

IMQFIKGPDFPTGGIIYGKKGIIEAYRTGRGRVKVRAKTHIEKKTNKDVIVIDELPYQTNKARLIEQIAE

LVKERQIEGISEVRDESNKEGIRVVIELKREAMSEIVLNNLFKSTTMESTFGVIMLAIHNKEPKIFSLLE

LLNLFLTHRKTVIIRRTIFELQKARARAHILEGLKIALDNIDEVIALIKNSSDNNTARDSLVAKFGLSEL

QANAILDMKLGRLTGLEREKIENELAELMKEIARLEEILKSETLLENLIRDELKEIRSKFDVPRITQIED

DYDDIDIEDLIPNENMVVTITHRGYIKRVPSKQYEKQKRGGKGKLAVTTYDDDFIESFFTANTHDTLMFV

TDRGQLYWLKVYKIPEGSRTAKGKAVVNLINLQAEEKIMAIIPTTDFDESKSLCFFTKNGIVKRTNLSEY

QNIRSVGVRAINLDENDELVTAIIVQRDEDEIFATGGEENLENQEIENLDDENLENEESVSTQGKMLFAV

TKKGMCIKFPLAKVREIGRVSRGVTAIKFKEKNDELVGAVVIENDEQEILSISAKGIGKRTNAGEYRLQS

RGGKGVICMKLTEKTKDLISVVIVDETMDLMALTSSGKMIRVDMQSIRKAGRNTSGVIVVNVENDEVVSI

AKCPKEENDEDELSDENFGLDLQ

>AHK58859.1 hypothetical protein N920\_05145 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIYFMLAIAGIFAGCVPSANSATKNSSANSTAPSQDVIVQKVDKDDVRDIIREEKMLAPDASETELSF

TAVGEGIAPMNTVSTAQALALAKRAAITDAYRQLASKLYGVKVNGKDTVKDAMLRSSTITAQVNGLIKNA

SIIDENFNQGLYRVNLELKIDADKWKELFAY

>AHK58858.1 hypothetical protein N920\_05140 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MERIVCLLIFLSFKLFAQDEFIFWAELSSKNFILFHQNQNLSLAMTQSENVEEQWVCEISYSDQDLKVLP

RTSLGLIDDNMPKTIKFNFLNSHKDELSDCFIGARISVKDIVNTDLLRAQSETYVKILPLRFTVEFGEQN

AIIYYLKKK

>AHK58857.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLVIVEDDINMRKSLEIALAEYEEFNIKSYKSATEALKKIDDNTDLIITDINMPGIDGIEFVKACENKY

DFIIMTGNATLSRAIEAVRLGVKDFLTKPFDVDTLVEAIKRAKIIREKTADKKSKKNEKKEENKDFFSTS

PNLEKTLNLSQKAAKTDASVMFFGESGVGKEVFSRYIHTHSKRSNKPFIAINMAAIPANLIESELFGFEK

GAFTDANATKIGLFEMANEGTLFLDEIGEMPYEIQAKLLRALQEKEITRLGSTKSIKIDVRIISATNANL

DEKIKNGEFRSDLYYRLNTVPINIPPLRERKEEILGIAQKVLEDTCKEYDFKEKQLSQEAKNALLEYDFP

GNIRELISVVQRACILSENDEISSEDLFLEARSIKKDVKNLEKELICEVLLSVDYDKDQASQILGMDIKI

LNEKIKKYQIKDK

>AHK58856.1 aspartate-semialdehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKKQKIAIVGATGAVGEELLNVLDELDFPVESILPLASAKSVGSEVEFKGKAYKVKELTENVFKENPID

IAFFSAGGSVSEKYAKFAVESGAVVIDNTSHFRMEKDVPLVVPECNPEDIKDWKKTGIIANPNCSTIQMV

QVLKPLNDAFNLKRVDVSTYQAASGAGKEGMQELVEAMQSFFAFKLDEFEPQTFPYTLALNLIPQIDVFM

DNDYTKEELKMVNETQKILHKNLEVSATCVRVPVLRSHSEAITMHFEKEIDVKKAKEILKKAPSVIVIDD

PKNKKYPMPLMTSDTNETYVGRIRADVYDKKILHLWCVADQIRVGAATNAVRIAQKWLELKNK

>AHK58855.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLEKIFESLLVRSRIVTILPVIFGLIGAFVLFFIASYDVLKVIFYTYNYFFDAGSNVDLHEDVVALIIGA

VDLYLMALVLFIFSFGVYELFISEIEEFKQTKQSKVLEVHSLDQLKDKLAKVIIMVLVVNFFQRVLQMKF

ATPVDMAFLAGSILALCVGLYFLHKGGH

>AHK58854.1 hypothetical protein N920\_05115 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIFLIGMILNHFVFAAPLDEVFKDIEVSGTVRYRYDIKKEKKYNKKTHRYQNKTQTEITIK

>AHK58853.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIARWLFISSIFVVALFGINLKSFFTYTFDANKQYDMEKAKALYFQNKCNTCHGDNAEKSVIGSRILKDM

SPEDIKGALIGYTLDSSSSTTASQMAFYARNLSHEDIDNIIAYIKGGNFALDLQVKDLLEEEPAQKTKHN

IFLK

>AHK58852.1 branched-chain amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDSTLFLQQLVNGLSLGSMYALIAVGYTMVYGVLRLINFAHGDIMMVGAYAALFCMTNLNVPFLGALSLA

MIFAACVGIATDRIAYKPLRQAPRISLLITAIGISFFLQNLFNMLFTSTPRTFTPPSYFEESVNFGGVIT

TYGSLMVPALTFVILIAVLWILYKSKYGIAIRALAFDIQTVNLMGIDANRIIAIVFALGSALAAVGGVFW

AANYYSVEPTMGTLIGLKAFAAAVLGGIGSVVGAVLGGLIIGFTEVVVVAFFPDLSGFKDAFAFIFLVFI

LLFRPTGILGINFEKSRF

>AHK58851.1 branched-chain amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMVRIKVSHLIFLIASIIFIFISPYIFGDYGLNIVNQIAIFIILAVSYNLINGVTGQFSLEPNGFVAIGA

YAAALVLLSADAKNDQFFLDGPSSFILAIHSNSFILALIVAGICSSLLALILAFAVFRVRGDYLAIVTLG

FGIIIKIAAINFPSITNGSRGLVDIPQFSTIYWTGGIAIVAVILILNIVYSKYGRAMKAIRDDEDAASAM

GINTFWIKTLAFSTSAFLEGVGGGLLACLLTTVSPTQFDFLLTFQLLIIIVLGGLGSTTGAIIGAILVIG

GSEWLRFLDELNIKIDSLNLDIQSTPGLRMVVFSIVLILVMLFARKGIMGYYELSDVIRGIKKRFKRSKK

>AHK58850.1 branched-chain amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MILELKQISKSFGSVKAINETSFKINEGEIFALIGPNGAGKTTLFNIITGNYKPSSGSVEFLGERIDHLK

PHKIVHLGIARTFQNIRLFSSMNVLENVLIGFNKQMKYNIFEAFLHLGRFGKIEQVFKEKAYAILEELGI

AEFAYEKATSLSYGQQRKVEIARAMATQPRLLLLDEPAAGMNSSESDELAGLIFKLRKDYKISVLLIEHD

MKFVNKLCDRVLVLDYGKTIFEGKLCDAVNHKEVIAAYLGDFDANS

>AHK58849.1 amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLIVKDLHVYYGLIEAVKGIDFKVETGHIVSLIGSNGAGKTSTLNALLNSVKRTGEVNFLGYDTKRHLTH

TLVQKGIALVPEGRRVFINLSVEENLKIGAFNNAENYEHLREQMYKLFPRLASKKHALAGTLSGGEAQML

AISRALMSEPKLLMLDEPSLGLAPKIVGEVFDIIVRLKEEGITILLVEQNAYSALKISDYAYVLENGRIV

MENEAKNLIGDDEIRKKYLGL

>AHK58848.1 cytochrome C biogenesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNIIKSIGDLRVSVVLFLLFALFCALATFIESAYGTPTAWAMVYDTFWFEYIQLLLGINLLCGMFRYKM

FGLKKLPLMIFHISFLFILVGSAMTRYAGFEGILPIREHTQNSLIESSKTSLRISAIKDGERYSAVNDRY

IGNLPFANSFKLKLNLGDDQAVLKYKDLILNAHYTYKENNNSDPLLVLMLSQKGSQGVDVKFEKGEVKNI

EGVNFAFMNDNVKAPFVKIDENLTLSSSENLHFLSMLDGQNLDLKIGEKANAKERRLYEINDISFVVKAA

SLHAQEALEGSNRPQDESFWLWFKSAWLEVGRTMLISTFGEPQNWKNSLLLHFKDFALSNENKNLELTGS

NALKLELSYKNESKEFYIFEYNKPIMIELADQKFFISWALSYEQLPFDIYLRDFVLDRYPGSMSPASYAS

EITVKNNNENFDYRIFMNNVLDYDGYRFYQSSYDQDEKGTVLSVNKDPGKIPTYIGYFLLCLGMFMNFLN

PHSRFRTLARLINKDTLKHTSVIIFILLLSFGSEKTFAQDLNSTLPVVNTNHAKALATLIVQKSADGRMV

PFDTLSREILEKIHQSDSYKGQNSNAVMLSMLVDVDKWQLEPFILMPQNQAVRDAIANILEIPSAKYIAY

KDFFDENNRYKLQKYVENANRKNPNARGVFDKEIIKLDERANVVNLVFSGELFKFIPVQNNPNNVWLAPF

SAVTTLKGDEGHIVLALIQNYFSAVENAFKDGNWIRADEGLKFIKEYQEKIGYKVMPSKTKVEMEIFSNK

AEIFVKLAPVYLIAGFLLLILVFSKMVVPNLKISFIFKVVYVLNVLAFVIHTVGLGLRAYLSGHAPWSNG

YESMVYIAWALSLSGIFFSRKSPIALSLTSILSGVVLMVAHLSEMNPQITNLVPVLNSYWLSIHVSVITA

SYGFLGLCALLGIFTLFLMCFLKKDGKYNLNILRNITEATRINEMAMIFGLCLLTVGNFLGAIWANESWG

RYWSWDSKETWALVSILVYAAILHLRMIPKYCNQFVFALWSMFAYWVIIMTYFGVNYFLTGLHSYAAGEA

AQIPNYVYWGFALMVVLAFFARRKRNFVGKL

>AHK58847.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVIFCAALALLLFLGVIAYLITSDGKKTIKKQKTSQKQHVAEKTKKFDTDLDKMIIAASDVKLTDIELKE

LAKLYVQTHKLGSKTSKELDEAAKKKLEFVSALAANINASAQTVSYLNKELKKIYGSYKKEIDAYEHMGL

AKRKIKEDK

>AHK58846.1 magnesium transporter CorA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLELHENLKKILQAKNLETFYSEIYGQKIFVYVGLNLETWLFNDEKIYKLQDGEFKLSSIEEFSNFIKSI

LEDFKVQNTHFQNLLEHKEGIILKGGFVKNFYKKSFVLRQKINKNLKQINLLSEAFNLLLSEQAQYKKHL

KILNLSISILSKNTKEHLARIDTLYTLTNAIKNEKMNKSIYLLSILSSIFLPLNLIVGFFGMNTNNLFFK

DSPYGTLYIFSLICCILIVGFIFYYSKKTKEFDLDEGKKAKKQTK

>AHK58845.1 queuine tRNA-ribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEFKLKHKDGMARVCEITTAHSTFLTPVFMPVGTVGAVKSLDANDMKNELDAKIILANTYHMYLRPTSKV

VKDFGGLHGFTKFDRSFLTDSGGFQAFSLSKNSKHFNEGIEFKSHIDGSRHLFTPKSVLDTQYDFNSDIM

MILDDLVALPATKERVKISVDRTILWAKEAITYHKNMQNKGIGIGQNIFGIIQGGTDYEERKRCALSLNE

MPFDGLAIGGLSVGEENALMYETVQNLNPYLDENRPRYLMGVGTPEDLVENVERGVDMFDCVMPTRNARN

GTFFTSFGKFNIKKAEFINDHEVIDSTCSCYTCRNFSRGYLNHLFKAKELTFFRLASLHNLHYYLELARK

MREAILNNSFTQFKRNFYHLRGK

>AHK58844.1 potassium transporter TrkA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNNILIIIDGILAKHFLERLCFEKGLGYFFTVVCQNSEKNNLNISSEYIDLHYFDPTSTARLENIMSKDF

KQAFIYMQDEFETKKSYEALRSLNPNLEIEIMDFWGLSVNDTHANLADARMTLSRRFMDFLPDIALTAQY

IGLGVGEIMEVKIPAGSIFAYRHISSIQQKRWRIVLIYRNSKIYFVKPSFVLEPNDSILIVGDPVVLQSI

FHNIRGKAGQFPMPFGSNVFALIDMKNMNQNMQERVLDTTLKLTQKSNAKRFFIHVINPKLGVMYEKLKK

LSEDKEGVFFDYFNTDFKQISMWLQNNDIGLVVTDIKNFEKEKQAFFDLKIPIMKVGEASFDELKEAIIL

SADESELENNANVITDLSKQLDFGVILYYYNPNSQNTTDMEEYFRSLSKLYDKNIQIINKNDENPLLNLQ

YREDLLQFVSFQKELLNRDFARNLSTNLNRHYYKMRQNYQLFIPVE

>AHK58843.1 3-dehydroquinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQVEVKLKENAYKVYIDELEELEFDSKVFILSNPKISGLHLKTLLSKIKAKEIFIATVKDGEEYKNLSTM

EEILNQMFNSKLDRKSVLISFGGGVISDMGGFAASIYQRGIDFINIPTTLLACVDAAVGGKTGVNNNFGK

NLIGTFYQPKAVYCESFFLKTLSSRELAAGMAEFIKMAAMFDYSILDFIEKIDEKSFLNATCENEIFTQI

IAKSIELKSRVVEQDEKESRLRMLLNYGHTFAHVIENFTDYKLYLHGEAVAIGMVMANQLALNLGLLDKM

QSQRIKDILLKFGLPISYKINNVDEFYEAFFMDKKSSNKKINFVLASPLGKGLIKGDISKEDIIATLREF

Q

>AHK58842.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIIILTFFVVFAFGDVNRTIINNINEKINTLNTVISASIWNIRYENFIKYQDINDELIILNLNLKKTS

DIHQQEELKRKIANLEEQLNLLKEYKDLNFAQSLSAPDNIETLSKLTNPLAIIGAFSHIKKLKGEKEEYI

FKFNDFKNLVDKIREKNSELKELVELKPSVENIEALKASDKKLEEFEQALNFASVSYSVYEKKIDEELSR

VSAEIKVQSLRAVNILVAIVIVIAIAFMLKFIAKKYIKDSERYYTATKIINFININIIFLILLFAYIENI

TYLVTILGFASAGLAIAMKDMFMSMLGWCVIIFGGSFRVGDRVKVFQNDTTYIGDIIDISFLRITLYEEL

TLETYNKNRRSGRIIFIPNNYVFTNLLANYTHHGMKTVLDGIDISVTFDSNLDKAQEIVENIVTRHAKGY

TELARKNIARLQHEYSIKNPKVEPRFFMFFEHWGMRISAWYMTNAYAALVLRSTISKEIIKEFNKHKDIK

IAYPSQNLYLGNLNQNHFEQHHENMYFHARNKD

>AHK58841.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEKVFFKTFGCRTNIYDTELLKSYVKDYEIINDENKAQIIVVNSCTVTNGADSGIKSYVNTMQKKGIKV

ILTGCGAVSKGKELLDKKQVFGVLGASNKDKINEFLGAKTSFYELGNLNFIDKDIVCEYENHTKAFVKIQ

EGCDFACSYCIIPSVRGKSRSVDEKALLKQVEILGANGYSEIVLTGTNIGSYGLKNGTTLGKLLQKMGQI

LGIKRIRLGSLEPAQLDESFLEILDEAWLERHLHIALQHTSEKMLRIMRRRSHTDNDLKLFNTIASKGYA

LGTDFIVAHPGESEELWQEALRNFKEFPLTHIHAFIFSPRNNTHSATMKDVINGTLAKERLNTLKSIVEK

NNYEFRKKNQVSLEVLVENQKDGFFEGYDQFFNKIKIKSDKDIAKEWIVISEYEVQEKSNFTNLKG

>AHK58840.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNKKIILASFMVLCMLLGILYFKNEPKYIDENLYQSLLSQNLIQKAVIDKDEIWLKAEGENYVIIKDGI

DIKTLLSKVPVEVKKDNTLWVFFVLLIFIIALFISLGYFARKKELAKYPISNKNQNHTQAQNSNINLESS

HIKPVISNITFNDVAGVDEVKMELSELVDFLQNPKKYKEFGVKMPKGVLMVGPPGVGKTLIAKAVAGEAG

VPFFYQSGSSFVEIYVGMGAKRVRELFSKAKMMAPSIVFIDEIDAVGKARGEMSNVERDSTLNQLLTQMD

GFEDNSGVIVIAATNKIELMDPALLRSGRFDRRIFLSLPDFKDRLKILEIYMKDKNNNINLNKIAKASVG

FSGAGLETLVNEAAINALRRNSALVEESDFYAVLNKVLLGKKKILSFNNEEKKIQATYQAAKALSAYYFD

IGFEKITLIEDRFKEYEHNIRSKSELINRIKVYLAGSRAMRLIYNESYTNSQDDFLKIKELLDYMLSFDM

LKESNLSEQKKEMDEFLNSMKDKILKLSELLLEKEKIEYDDVKDIMQV

>AHK58839.1 hypothetical protein N920\_05025 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIKFLNIITILSLSLNADIIISADNLPNVSKEFLQHNFKAPIGIVQKDKNSYEVYLSDGTELEFDIDGA

WKEIENKAFPFDLDFLPQNLANIIKNEFPNTKAREIERKINHYKIKLDNDIKILIDFNGTILYKEFDD

>AHK58838.1 phosphoglycerate mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIYIIRHAKASKSEDIDDFERKLTKSGKEDLKKLFKNLASHEIHPDLVLSSPAVRTAKTAKKIAKFYN

FDKNRICFDERLYLCNVENLLKILQDIDDEFNEVFLVGHNPSLMELGELLSSLCLASFPTSSILCLEFDI

KEFKNLKKHSGKLVFFEHVRKLKEEKDLGF

>AHK58837.1 RNA polymerase sigma factor RpoD [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNAKTQEAELEELFQENAKDYITYEKLVKYLTKQPSASTTKKVQALMKKHKVQLFSAAEIAQMKNIEDAK

RLQEEKQKLQDTSLENEFDLANENDLLEWSRSDSPVRMYLREMGQIALLNKDEEIEISKKIELGEDIIID

AFCSVPYLIDFILDYKEPLINRERRVKELFKSFDDEEKSDDKLDELDIDEDEENETELESDEENTKKNSK

KEDERTLKVIEKFKALEKAKKDWLKTSKDKESGDELLDKLSIAFKKNILKEKLMDLGPTSKLISEIVKSM

ETALKSDEEFDKELKRLEYRLPMFSDELKKRHADILKDITKLSKEEITERALETTMVSTYMEIKKLFQTK

EASEKSFDLEKSRLKEILEQIKRGKKISDEAKGRMAKSNLRLVVSIAKRYTNRGLPFLDLIQEGNIGLMK

AVDKFEYKRGYKFSTYATWWIRQAISRAIADQARTIRIPIHMIETINQINKIIREHLQKDGKEPDVSVIA

KEVGLSVDKVKQVIKITKEPISLEAPIGNEDDGKFGDFVEDRNSLSPMDHILKDDLKEQIDEVLDQLNDR

EKAVIRMRFGLMDDESDRTLEEIGKELNVTRERVRQIESSAIKKLKHPKVGRKLKNYIEGWK

>AHK58836.1 LysR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIKDIEIFLDLLNTQSPTHTANNFSITQPNVSIVIKNLENKFDGILFERLGKKLLPTPKALELGKNWLK

IIQAYYQSLEKLNDESMLLGEIKIASTQSISEHFLAPILFDFKAEFKNIEIRSQTQNSKECLNLLKNGNI

EFAIIEAELDPALVEYENLEINFWQDDELIVATSDKKLNEKEFYIDELLEQKWILREVGSGLRDKFLNEI

GASSKKLNIFLELDRMAAIKELVLQKKAISIFSKKSIEKELKNSTLYEIKLKNIDLKRKFYTLKRKNYNF

NRALEKFEKIFKS

>AHK58835.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTSFLAHSVAIVRSNFKGLLFTACIVIFAMYLSSVQSIKDTTHLAATAFAIIIGVLLSPWFFKYQHHFQ

AGVHFSAKKLLRLGIVLYGFNITLTELLSVGLKGFLLSAIVIFFVFIIALFVGTKIFKLDKETSMLVGAG

SAICGAAAVLALESSLKSDPFKGILAVGTVVIFGLVFMFLYPIAFSLNLFPFFDQNAMGVFMGATLHEVA

NVAGAAEMAKDMAGFEQGASNVAVIIKMMRVILLVPFLLIVTYFFAKNQHSSSGKTAKSITIPYFAFAFL

GMIVLNTYLASKESILGIATSDIISLGKTLCTLCIVFAMAALGLQIDFKKFLKSGSRVFGLAFVLGLVLI

FGGYFLTLAFKGILW

>AHK58834.1 hypothetical protein N920\_04995 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILVSVLSSCLLASALSAVSFKEDSLKISFEGYKTKDMIGTKGEFKNVEYKFSKNIKDLASYLKGAKA

TIKPSNAFMGEGNDIITNNITKVFFPALLGDTDIKVVFQDVIAGENKGVISAKITMDKKSTIVPLTYTIK

DNKFEAKGQLDLHTFKNGSKALKALSDVAAGHGGISWPLVDISFNADLAE

>AHK58833.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIFKDYDFLQNYDLKNFEEKVKIYKELLSKFNRIHNLTHLKNIDENIFDSIKILDFYDFSKAKNIADIGS

GAGFPVVFLAFLLQSNFHLFEPNPKKAAFLRTLKIECELPNLHIYKEKVQEYKNTFKADIITSRALMDVK

PLLEICKNLKDENTVFILWKGSEIYQELENIKDYEIFENNLRRYCILK

>AHK58832.1 GTP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEIKISEIANLPSKWGNFQMQSFKENDKEHLCIFKNTPKDTLNLRIHSECLTGDALGSLKCDCGEQLEFS

LKYIEKNGGMVIYLRQEGRGIGLFNKVNAYALQDKGFDTIKANHQLGFKADERTYEIVEFILKHYEISKV

NLLTNNPEKLDSIKEKIITRIPILIEPNRFNVEYLNIKQTQMGHLK

>AHK58831.1 delta-aminolevulinic acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFKRFRRLRLNENLRSMVRENSLSVNDLIYPLFVVNGTGIKKEISSMPDVFQMSLDEILKECQNVVNLGI

KAIILFGVLENEKKDSCGSDALDDEGLVARSIREIKKNFPDLFIISDLCFCEYTDHGHCGIIDPKIKSVD

NDATLEISAKQALVHARAGVDMIAPSGMMDGVITTLRKALDKEGFENLPIMAYSTKFASSYYGPFRDVAE

SAPSYGDRKSYQMDFANGKEALEESLEDEAQGADILMVKPALAYLDVVKEISLHSNLPLCIYNVSGEYAM

LKAAKNAGVIDYEKVLYETIIAFKRAGAKLIITYHAKELAKMLKGEK

>AHK58830.1 ornithine carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAMIFEKNSTRTRMAFELAITELGGKALFLSSN

DLQLSRGEPVKDTARVIGAMVDFVMMRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWNK

MQNGIAKVAFIGDSNNMCNSWLITAAILGFEISIAMPKNYKISPEIWEFAMKQALISGAKISLGYDKFEA

LKDKDVVITDTWVSMGEENEKERKIKEFEGFMIDEKAMSVANKDAILLHCLPAYRGYEVSEEIFEKHADV

IFEEARNRLYVVKALLCFLDNQRGRE

>AHK58829.1 hypothetical protein N920\_04970 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKELEKYSTCLKRIDEFSQNLGIKKKDRTIFKMKQSENENEKCLVLENGSFDSPEPWFVIDENDEIHTLL

SLQSLKNILESLKQSQKENFELRLEKAIYQQIPVDFNDVWTVAMDEIKQKAQNGTMEVSIDLEKLISKIK

QEHPNLFVDMQAMIERVNQNERL

>AHK58828.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRDYKAFVKYSKAGPRYTSYPTAVEFNANFKYEEYIEILKKQDRSLSLYFHLPFCRSACYFCGCNVIYTA

KEESKERYLTYIFKELDILSTILDTKREVVQMHFGGGTPTFFSAKQLQSLILKIRSVFGNFSKDAEISCE

IDPRFLNEEQAIVLTQNGFNRISFGVQDFDEKVQKEIHRIQSFELTQNALNLVRNKGIKSVNMDLIYGLP

YQNLQSFTQTLEKVMLLNPDRLAIFNYAHVPWLKKNMRKFDENTLPSPDVKLEILEFCEKFLSKNGYKMI

GMDHFAKENDELFKALENGTLHRNFQGYTTKGGADLVGVGLTSIGEGQRHYAQNFKDMSSYEAALDRGVL

PFERGVILSDDDELRKAVIMELMANFKLDIKSIEKEFSIDFKEYFKEDLKALEEYKDFVNFDENFIKVNE

TGVLLIRNIAMCFDAYMKNISEDKKVFSKTV

>AHK58827.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFSQISDACVKCGKCIPVCTIHEENRDEITSPRGFLDLLTAYKEGSLELDKEAKKVFESCFLCTNCVEV

CPSKLRVDNAIEEVRYDIAKKFGIAWYKKLIFFFLRRRKILDLVAKLGYVFQSCAFKIQNENENTGMKAR

FSMPFVKKGRLLTSFNKKSFLNSNPKFINNDGEKTIGFFVGCLANYFYIDTANAVLKITKELKINVDLMK

EQVCCGAPQFFTGDFKSVEVLAKKNIEYFEKKLEKLDAIIVPEATCSAMLKIDYEHFFIMQNDLDWAKRA

KCVSSKIYMASEYFYKFTSLEEILKTKNKFNYSITYHDPCHARKMQGVFKEPRELLKTNYHFVEMSNSNT

CCGFGGVSMQTDYYDRALSVGLKKAQMIDESKASVVSAECSACRMQISNALEQNSSKVVFASPLELIAKA

L

>AHK58826.1 hypothetical protein N920\_04955 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMKIVFKGKSSEYEIQRSCFCVDAFVIKDKIEERDGVDFITSNVDLLEFSDDSFTFEEIVKHFNICDTED

MIIVEDFDMKSNKDNQNQEDDIEHNILKSEKIIHENTKQTSMQFKNLKFFSRIFKNENFLSDFKESKQEV

VTIKKHEKLEIFKNLSQEDQEISFVKIEILNYDSNEDSLSFNLDIFPSGMSYKYGILKGSMHIILQGKTS

STMLFPFLKSMIYKNKSENSSEKIFTLMINQKKHYKLIANLS

>AHK58825.1 hypothetical protein N920\_04950 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEFLAFIFLIIIFLFVVFIIVTRYEKKIKLLNQNIQNMKEDIADLKETTQKNRSLIEKNRSNIENIIK

>AHK58824.1 peptidase M20 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLIPEILDLQGEFEKIRHQIHENPELGFDELCTAKLVAQKLKEFGYEVYEEIGKTGVVGVLKKGNSDKK

IGLRADMDALPLQECTNLPYKSKKENVMHACGHDGHTTSLLLAAKYLASQNFNGALNLYFQPAEEGLGGA

KAMIEDGLFEKFDSDYVFGWHNMPFGSDKKFYLKKGAMMASSDSYSIEVIGRGGHGSAPEKAKDPIYAAS

LLIVALQSIVSRNVDPQNSAVVSIGAFNAGHAFNIIPDIATIKMSVRALDNETRKLTEEKIYKICKGIAQ

ANDIEIKINKNVVAPVTMNNDEAVDFASEVAKELFGEKNCEFNHRPLMASEDFGFFCEMKKCAYAFLENE

NDIYLHNSSYVFNDKLLARAASYYAKLALKYLK

>AHK58823.1 hypothetical protein N920\_04925 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKILFSPSESKNENCVKNPINENSFIFKELFPYRMEALKHYEEFIKNASLQNLQELFGIKNENEIDKFKH

DLKQAPTQEAILLYTGVSYEYLNFKALDKKSQAYILENTLIFSNLFGIVRANDTLPFYKFKQGAKIGNFA

IEKFYKEHFSKALDEYLENEEILDLRAGFYDKFYTPKKKFYTYKFVKNGKVISHFAKAYRGILLSISAKN

QVKNNKELLANLPSNLKLKEIQIKGLKEEIVLEILD

>AHK58822.1 hypothetical protein N920\_04920 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKGIFLSIGIAVLFSACGNSIDEKTVKKYENQLNQTVKQEIASLSQDSGIKIEFSDFKCNADGDFIACL

SPNFKTLTKDNNDEYQELFQAKNIKIRSNEIYKGKANASISIKEYYNDLFKNQKSIQSNLVFEDFKLGEK

VVSDINASLFQQDPKISSFINKLSSDSYTLSFDNSINKQENNYLDNLDIKFYNAKLNFNTNLNINLKEDL

LNYLDSKGIKFNTQTLVMDKQAINELLNIANYEQASDFSNTIQKYIILNNFKIDSTLKTEGVFSSYIATA

KENLQTLKAQSQNEEQALIFDKALAILNNITQNDDYKLNLDLKFKNIPVSDYSTQGIDSIEKLSINNQDA

TEALKIILPFIMFSMLMGGASF

>AHK58821.1 glutamine ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILLSVLTAFVAVVLAACGGNSDSKTLNSLDKIKQNGVVRIGVFGDKPPFGYVDEKGNNQGYDIALAK

RIAKELFGDENKVQFVLVEAANRVEFLKSNKVDIILANFTQTPQRAEQVDFCSPYMKVALGVAVPKDSNI

TSVEDLKDKTLLLNKGTTADAYFTQNYPNIKTLKYDQNTETFAALMDKRGDALSHDNTLLFAWVKDHPDF

KMGIKELGNKDVIAPAVKKGDKELKEFIDNLIIKLGQEQFFHKAYDETLKAHFGDDVKADDVVIEGGKI

>AHK58820.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKKYKNIIYASLGGILEFYDFVLFAFFLDIFAKVFFPQNDAFWMQINAYIAFGAAYLARPFGSIVMAHF

ADRYGRKNIFYISMLLMVLPSFALAFLPSYESIGIFATLILFTIRILQGLAVGTEVSGAWIYVSEFVKGR

QIPLALGFISATLTIGLLLGNIATLGIRSYFTPEEVQSYAWRIPFIIGGFFGILALFLRNKLSETPEFIK

VQNEKKILSFPLFEALKTHKMSMLVCFLMTMVLTSGVATLMILPKYFESLLAMSKTSALWVQNFAILAVI

FGALFQGFLASKWGSYKICSIFSIAFIIFGMLFGFYDENFLFYFLLACFAQGIITFAPVFMTQIFKSELK

FSGLSFAYNISYAILGFLTPFIVNAFYKEYLGIYLAIVGSCSLLCVFLLKRVFARSKIKELSIVF

>AHK58819.1 aminoacyl-histidine dipeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNVIENFKQLCKIPHCSYETEQMKEFLSSYAKDKGFKVSVDKAGNIHAIKGKPKICLQSHYDMVCMGDA

PNLEVYEENGFLRAKNSSLGADNGIGIAIMMSAMAEFENLECLFTNDEEVGLMGVNLLEHTLESKMLLNL

DHESDDEIMIGCAGGVDIEASLSFNTLRKKGKIYELCAQNFKGGHSGINIIRNEKSSIKEMAKFIQENEG

EIISFEGGERINSIPKHAKALVHFKDEVKSNNWIKCEFKEENEFEICDQSKKLLSLINSFTHGVRAYDEN

LDIVQTSINLATLRMQDNQIKFALFARSNILDGLKQVEFETLEFFKAFDFKIRSFNFYPPWEGKPNALSD

MVFKALKKVSPNAKVSAIHAGLECGIIEKKQELLCASIGPNIHNPHSTDEHCEIASVEKISKVVFEVLKD

NA

>AHK58818.1 nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRINYKKIFNLRKLLSDPKKLFSVLIFTLVVVFIQNYIAQNSSFEGKVVRIIDGDTIEVNHENKLARIRF

FGIDAPELKQSFGKQSKEALSRILSGKQVEIIYKNKDTYGRIVAIVKLNDVDINRFLVSKGYAWADTYYS

NAYTKEQENAKKNHLGLWKESNPIEPYKWRKHNKF

>AHK58817.1 hypothetical protein N920\_04895 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKYTLMVLLVLGISGCFVNERGISNRFYDDCKEYYDGSGTYHKDCPKNWVDIKMTP

>AHK58816.1 Hot dog fold protein HP0420 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKKDNFEEYAQLEEYASAEDISRVRAELLTCPELNTSLAGTIIEIDKNYAKSILITTSEMVADDQGLIF

DAFIFAAANYVAQASINKEFSVIIGSKCFFYAPLKLGDVLELEAHALFDETSKKRDVKVVGHVKEVKMFE

GTIQVVSTDEHIFKLKRPPLNTVKPTENQEQGAKINNPEAVAAALMASVGGK

>AHK58815.1 tRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQENLLEKQFLNHPLYAKIQELKALNLACNFSLGDSVNLSTNSQAKDEILAIAKELKPWRKGPFKIDDLF

IDTEWQSFIKFNILKPFMNEISQKCVADIGCNNGYYMFKMLEFNPAKLIGFDPSIKYRLQFELINALAKT

PIKYELLGVEDLPSYSLKFDVIFCLGVIYHRSDPIKMLKDLKAGLNKNGVVFLDTMYIEDEREIALVPNK

TYSKIPNIYFVPSISALKNWCERAGFKEFEVLATKKTDENEQRKTEWIDSFSLENFLDPKDKNLTIEGYE

APKRVYIRIKI

>AHK58814.1 acyl-CoA thioester hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKMRVYYEDTDAGGVVYHSNYLKFCERARSEIFFNKKVDIFDASKGHFLLAKANCNFLKPAKLGDMIEIK

TKILEVKNASVEILQEIYKDEILLFKMELTLAFIKNEKPARMDMQLKKLFEELF

>AHK58813.1 hypothetical protein N920\_04835 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIFLIFFLSCFLLNAKEQKLVDVKPVENFYPKLSVQECNTNCLFDLLESRLYLSFLSEFADQNDQFLS

NVYAKLLNSITDFEKNVQKITSVKLAIIIPEKTIKSYSNTIINSSIAYLLRQRAEIKVKVFLTGTEDNDK

IRAALDAAQAQGYQYAIAGFTLKGANELKNYSGNMKIFIPTIHKNNIQISNQNIIFGSIDYDAQIATLLS

KSNANIAIFSDGSALSSNLNSRILAQNNNARIYTIEGEKLDFSRLLRSQGGVNNASIFFNTPLIKTALAS

SQLRIYNIHPYVLLSTQINYNPTFLSLTQQGDRENFIIANSINNHDDNLVYLNEIFNQSIDYNWIAYATS

IGVDYFYTEFLNKKSESLFDEKIKNSQVDYKVRLMQGKQASFEELK

>AHK58812.1 family 4 uracil-DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIRSLYYLKAMGFNFVDTHTNHFEQVQNFQELKQLVSSCTLCQFSKTRKFSLMEPKIKNAKLLILDVFGQ

KSENESGILLNSKKGEKLKHYIYQILGLCDEDFYFSYLFKCFCNGKFDDFSLQSCLPFFWNELKLIQPAF

LLCLGEYTFKSLGFKDYHILKGEVFAYKNFFIMPSYDLDFIEKNPSYEKNFIQDLKKIKGFL

>AHK58811.1 diadenosine tetraphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSEFKIIDLRQEDLDILQEMIIEFAKYEDMLDFLQCTKEKLEHSLLKNKFARAFLLKENEKTIGYMIYFY

TFSSFWGSGGIYLEDIYIREDFRKKGYGKAVFKFLGEICKKENLKRLDWVCLNDNILGINFYESLNAKHL

KQWRNYRLSGENLEKLCDL

>AHK58810.1 50S ribosomal protein L34 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKRTYQPHGTPRKRTHGFRVRMKTKNGRKVINARRAKGRKRLAV

>AHK58809.1 ribonuclease P [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNFDKFSTNEEFSSVYKVGKKWHCEGVIIFYLNSYEKKIAVVASKKVGKAVVRNRSKRILRALFAKFER

YLQDGKYIFVAKNEITELSFSRLEKNLKWGLKKLECFK

>AHK58808.1 membrane protein insertion efficiency factor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGIEKTRMFQMICLKILRFYQKFLSPLKPAACRYYPSCSEYALWQFQKKNFFLAFFSTFFRILRCNPFFK

GGFDYPRVSKNFYPINLCFKPIFLAEKQLCFLYIPYKNKSFYLIKIIFKRTNQ

>AHK58807.1 insertase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNNSNNIFQQKRILLAVVISFLFFVIYDYFFIPKQPLKIEQNITQKNQQNTSINNTPNIQNATTNTPSAA

LVSQDSVISKVQSKHFEAQIDSFGRISAFYLKDRKYQNEKGEFINLVSKENSPYPLEMRFSDPSINSEAF

KIPYVANASNLFVDENGSQVLKLTQNLSGLKIEKDITFYPKGNYEIEVKLSKNANYFISPGYRPNIAVDS

YTVHGALVMDNKETIETYKDGDVEKDESANNVVMTSAFDRYYATFFYNFDKPLNVAISKDANQNPIVFAY

SDNEFKAGGYIGSKEHVILRSIDPRLEAVVEYGWFTFIAKPMFEFLNFLHQYIGNWGWAIVVMTLIVRII

LFPLTYKSMISMNKLKDLAPKMKDIRERYKGDPQKMNMHMMELYKKHGANPMSGCLPILLQIPIFFAIYR

VLLNAIELKAAPWAFWIHDLSVMDPYFILPILMGATMFLQQLITPMTIQDPMQAKIMKFLPVIFTFFFIT

FPAGLTLYWFVNNLCSLVQQWVINKIFAKEHHKKTSGA

>AHK58806.1 hypothetical protein N920\_04800 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIEAIDLQSALTEASRSLECSVMDLEYEIIQHPRKGFFGFGRKKAIIEAKAKKRILKKNPKKEFTSSKN

HKPETHEPKQENKIEIKNEKNKSQKEKYTVKSDEIFDSFHRESKGVRNTQDILDEIRIQLVKLLESSQFK

IELSELRMYDEDCVLIRLDGEDAALMIGKEAHRYKAISYLLHNWINLKYNLLVRLEIAQFLENQIQGMQL

YLQSVIEKIKIHGRGQTKPLDGVLIKIALEQLRAEFPDKYVGIKQNNDQRFVVINDFFKKDE

>AHK58805.1 tRNA modification GTPase TrmE [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSDTIAAIATAHGVGSISIVRLSGERALEFALKLSHKTKLTPRHATFTKLFNQNNEIIDEAIMIYFKAPY

SFTGEDIVEFQTHGGFSVSEVLLEELVSLGARLALAGEFSKRACLNGKMTPLKALNIQDLILSKSALAAK

IIARNMQGNLGELLEKIRTDLVKTLAFVETSIDYADDDLPSDLLEQISTMCEENSKILKEIYTLSQSKKG

LIEGFKIAIVGKPNVGKSSLLNALLSYERAIVSDIAGTTRDTIEENFKLGTHLLRIIDTAGIRESKDVIE

QIGVALSKKSLEDADIILAVFDASRVQDKEDEKIFDLLANTDKKIFWILNKSDLENVFKNTQNKNFIKLS

AQKDITLLKEELQNYLNSFDSEGIMVSSLDLINACKISSEAIFRAKGLLEESSLEFFAFELNLAINELAR

FTKDFQRDEILDEMFGNFCLGK

>AHK58804.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDKETIKAHKISDEEYAQILEILGREPNLLELGVISAMWSEHCSYKSSKKYLNGFPTKAPWVIQGPGENA

GVIDIGQGMAAVFKVESHNHPSFIEPFAGAATGVGGILRDVFTMGARVVAGLNSLKFGDIHDEKCGKHQK

YLVKGVVNGISHYGNCMGVPTIGGECAFDECFNGNILVNAFALGVCKSEDIFYAKAEGVGNPVIYVGSKT

GRDGLGGAVMASDSFNEESKSLRPTVQIGDPFSEKLLMEACLELFKTDYIVGIQDMGAAGLTSSSFEMAG

RSGSGMKLYLDKTPMRESGMTPYELMLSESQERMLICAKKGYEDKVIEIFKKWDLDAVVMGEVTNTGKME

LFWHDELVGLIPIEPLSEKAPILSRPTSEPKYLSEIKNYKFELKSSVQELFIQMLQNENINNKAFIYDQF

DSSVQTNTIKADGRLGASVIRIKENGASVAMAIECNSRLNYVNSKIGAALAVASAGRKVACTGAKPLAIS

DCLNYGNPQNPEVMWQFAQGCEGIKEACKELNTPVVSGNVSLYNETEGVSIYPSPTIVSVGVLEDANKTL

KASFEKENLSVYLLGESLGEFSGSMVMKIQDKKVSGSLKELDYKAELALWDLLYKANQNSLLECANSVGI

GGIAMTLAKMFAISSVGANLTSDFDDEKMIFDESASRAIIGLSKENEEAFLNLAKEFGVKAYKLGVSTSQ

KHFKLDSIELSKAELDKLYFESFKEQIQ

>AHK58803.1 molecular chaperone DnaJ [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTLVLIILVVLVFYWYYKTWGKQDFLNSATRGAKGFAKGFARGVMEERMDEFKRRMNYYVIALLAKIAKS

DGRVSENEAEMIKDLLDANAKDEKERAFLKASFNEHKENLSDAFYVAKDFLKEVPLPKNERFNVLRVLVF

MALIDADFNAKKREILEQIAKAFDIAKSELDAFIASLSNLKSTKKELSLDEAFAILELPNNADLNAVKKQ

YRNLAKKYHPDILNANNVSEEELKIGVEKFQKINEAYEKVKKHLER

>AHK58802.1 phosphoribosylaminoimidazolecarboxamide formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRALLSVSDKEGIVEFGKELENLGFEILSTGGTFKLLKENGIKVIEVSDFTKSPELFEGRVKTLHPKIHG

GILHKRSDENHIKQAKENEILGIDLVCVNLYPFKKTTIMSDDFDEIIENIDIGGPAMIRSAAKNYKDVMV

LCDPLDYEKVIETLKKGQNDENFRLNLMIKAYEHTANYDAYIANYMNERFNGGFGASKFIVGQKVFDTKY

GENPHQKGALYEFDAFFSANFKALKGEASFNNLTDINAALNLASSFDKAPAIAIVKHGNPCGFAIKENLV

QSYIHALKCDSVSAYGGVVAINGTLDEALANKINEIYVEVIIAANVDEKALAVFEGKKRIKIFTQESPFL

IRSFDKYDFKHIDGGFVYQNSDEVGEDELKNAKLMSQREASKEELKDLEIAMKIAAFTKSNNVVYVKNGA

MVAIGMGMTSRIDAAKAAIAKAKEMGLDLQGCVLASEAFFPFRDSIDEASKVGVKAIVEPGGSIRDDEVV

KAADEYGMALYFTGVRHFLH

>AHK58801.1 hypothetical protein N920\_04765 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKMLQIALAATFFAGCASTSLTSSTSKGNNELVQNQLFKIEKIIVNGKTFDPKNAEESPNISFENNKFY

GYSGCNRFFGSYQTKADTLQIEGDRVASTQMLCHPMDVMDFENSFLSNFKGTFKISNENGKLVLSNDEMK

IFFK

>AHK58800.1 agmatine deiminase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKSIPEWSEQEYLMLSLPHEKSDWNPYLEEILQSYKEFVKVVSEFQKVLLIAPKQSDFENFKDIKNVEF

FKCDTNDTWIRDFGAIDIVENGRLKALDFTFNAWGNKFQSELDNAVNSKLFKEKFKEELKKVDFILEGGS

IDFNGEGVMLTSSHCLLNENRNSHLNKTQIDTKLKEIFGLKQIIWLENGFIKGDDTDHHIDTLARFIDKN

TIAHCICEDEEDEHYLPLQKMKEELKKTGFDLLELPIPKPLYYEERRLGATYANFVFINNALIVPFYKDK

NDEIIAKRLSKALPNHKIIGVDARVFLRQNGSLHCSCQNRFKGLR

>AHK58799.1 cation transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSLQKKATLVASLCAIVLALVKFIVGLTSGSVAVLSSAIDSLMDFAISAFNFLALKKSSQKANENYNFGF

SKIEALMGLLEGVFIVGVGIFIFYESILKIYYKEEIKDLNSSIYVMIFALIMTFFLVLFLNYVAKKTKSL

IIESDALHYKTDCLTNACTLGALVLIYFTNLHIIDAIFGIVISLYTAFSAFKIIKKALAFLMDEALPKEQ

VDKICTLISNNPEIISYHELKTRKTPSCNYLSVHLVFCPIISLLNAHKISDEIEEGVRKMFENEKWDIQI

HLDPYDDAEQERQRQ

>AHK58798.1 apolipoprotein acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIALIQQKFHLNKEQTIKKTCEFIEEASKQGAELVCLGELHQSEYFCQSENVDFFDYANDYEKDVKFWA

NIARKNQIVLIASLFEKRSAGLYHNTAVVFEKDGSIAGKYRKMHIPDDPCFYEKFYFTPGDLGFEPINTS

LGKLGVLICWDQWYPEAARIMALKGAEILIYPTAIGWFDKDKDEEKQRQLNAWLGVQKGHAIANGLYVVA

INRVGFEKDVSGVEEGIRFWGNSFVFGPQGEELCLLDSQNECVKIIEIDKKRSENVRRWWPFLRDRRIEY

FTDLTKRFID

>AHK58797.1 hypothetical protein N920\_04745 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKSCLYFTFIVLFLTACSTKNLTSLHRENLEQKNENQHYVKLEYEQNVNILPQFAYDINFDAKRYKKYFF

NPWHDSFKNYKGQNIFWSFPLYLNSKNTYYFFNKQIIPLSWFKNAINNANIQEFGKLNQKALIIQNTIIK

NLPTQRAILKNPFFENEGIPFDYASDGILNTGAPVLISHFSKDKRYAFVLGEAGFGFVESKNLEFFSNDR

AKIYENLNFITPLKEKFAIYSEDGKFLFESRIGAIYPYYKEDKNYFYGKIGSKKYKISKKDVSKFPLQFN

DKNLKNQLSQVLNLPYGWGGYNFERDCSLLTRDIFSAFGLYLPRNSAAQKNSFNHFDISTLSNSQKKDFL

NRFGKAYLSLLYLPGHIMLYAGQITDNNIAIHNIWGLRKDATQRLLISSSVITSLEIGKNEILEDNLLLS

RLKEISFINLNEQEKEQIKSYLENIQNK

>AHK58796.1 helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFDKLEKILAYDNVFLSGGAGVGKSFLTNELIKSYRKQKKLAIALGSSALSAFNIGGVTLHSFFCLGYCD

DMMKLSVLDRNQKQKEKLTKLKELLKTIELIIIDEISMVSANVFEMIGFRLKNSQFNGKILVVGDFFQLP

PVIKEKKETLFNHSYYAFSSFFWQDLNFKNIKLSQPKRTQNMEFYNHLSLIRQGFLDEKILSFFESLRID

YKELENLEDDYTLLCGINKKVNNINQEKLSKLETPLVCFKAQVKKEDKRIKDEELDSWIRSLNILEELNI

KIGARIIFCVNNWDKNYYNGEQGIIEDILYEEEKIYISIIKNNGMKILLEPYTFFMEELEQSGKDFVVNI

LASVTQFPIKLAYAITIHKSQGMSIEKLVCDIDHIFENGQLYVALSRATNPNTLKIYSTKKINFGFYFAN

ILKIDSNVIEFYKKHNFLDLEIQEQII

>AHK58795.1 hypothetical protein N920\_04735 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIFLSVFLVLSLNAQNLEIDKIRTDLYSKSGANVLKKVEISLEFDGNNLKENENKLIDAVNTVISGFF

YEDIFTEIGKNNFKKTLEKFLDKKYKIKLDDIYIISLSGVEKFDLEEFKRFLESTEAKEKGMGSEVKKAL

ENLEVPKTQVPSVEKIPTPSVPNLEVKQVEQLFKDPDEENKNDNGEINIDNLNTPKMTPDIEEKIKRDLI

ANPPQIFKENNASKPYHLPQTGYDIKLDENSTQN

>AHK58794.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKTFLIFFIFIGQLFALDLNFNTFSSNFTQIVKSKNSTLSYSGHFILSKDQAYWSYDTPSKKEIYINKN

QVTIVEHDLEQVIFSHLDNIPNLNEIFKKASLIDKDKLVAKYDNINYTIKLNQEQIQSISYKDEFENDVI

INLNNQIKNPKINSDVFKAKIPQNYDIVR

>AHK58793.1 preprotein translocase subunit SecA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFLNALKAVFGTKNDREVKKYFKRVAQINALEGNYQNLSDDELKAEFAKFKEQILSGEKNENDVLNDVFA

IVRETGKRTLNMRHFDVQLIGGMVLHDGKIAEMKTGEGKTLVATLPVVLNAMSGKGVHVVTVNDYLAKRD

AEQMSAIYNFLGFSVGVVLSSQNSDIEHKQAYDCDITYGTNNEFGFDYLRDNMKFSKAEKVQREHNFVIV

DEVDSILIDEARTPLIISGPTNRTLDGYIKANEVAKQMQKGEAVLPPAKPEGDFVVDEKNRNILITEAGI

AKAEKLFGVENLYSLDNAILAHQLDQALKAHNLFEKDVHYVLRNNEVIIVDEFTGRLSEGRRFSEGLHQA

LEAKENVKIQEESQTLADITFQNYFRMYNKLAGMTGTAQTEATEFSQIYSLDVISIPTNIPIKRQDKDDL

IYKTQNEKFKAVIEEIKKANAKGQPVLVGTASIERSEVFHNMLVKEKIPHHVLNAKNHEQEALIIQDAGK

KGAVTIATNMAGRGVDIKIDDEIRALGGLYIIGTERHESRRIDNQLRGRAGRQGDPGISRFYLSLEDNLL

RIFGGDRIKSIMDRLGIEEGESIESRIVTRAVENAQKKVESLHFESRKHLLEYDDVANEQRKTIYRYRNE

LLDENYDIRAKISQNIAEYSANVMNDYMLDESGSNVNFENLKAKILYECSTQISEKDFENLSVIEMQDKL

SQILENSYNEKMLRLEIKELRNIERILYLQVLDNAWREHLYQMDILKTGIGLRGYNQKDPLVEYKKESYN

LFLELVNRIKFDSIKLLFSVQFNQEEAQNLENKANEENEKLLQSSVEMGASEDNLGEAEFKKVPRNAPCP

CGSGKKFKECHGKSGPKQGILA

>AHK58792.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKSVLKYLLFKYLRFDKEQPFINLSMLLAFLGVCVGLCVLLVAMAIMNGFDKEFEKRFFVMNYPITILP

KFYAPVNDEFIDELRKTFPNLLFSPYLSTQVVVKGDNRFEGGVLFGVNFNDEKKINEVVAKALKDENLSG

FDILVGSALTDEFGLHKNDKLSLIFSNLNPSGFSLVPQTKRFDVKARFTSGLAFYDKAYMYTDVDALKKV

LGIPKNPNYDGIHVYSDNAFKDVEKIKSYLKDDYAVVGWWEQNKNFFSALELEKRALFIVLMLIILVASL

NIVSSLLMIVMNRRSEIALLLALGASKNEVKKSFFALGMLIGGGGMIVGVVLAFFALWLLGNFDIVTLPV

DVYGTSKLPLDLSLMDFSLTIVGALIIIALSSFYPAKKATQINILDTLRNE

>AHK58791.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSLFTQKNKNFKPLKPLSKSKIITNLILLILFLILFCYCSFSISAYHFDFSAIATYKEKFLQGFLNTLII

SFFSLLLSIILGGVFCAFSLSSIVFLRFLSTFYIELVRGTPLLVQVLLIYYIIANNLGLDNRYVAGVIIL

SCFSAAYLAEIFRAGILSISISQLESARALGLKEMQVFAYVIFPQALKNILAPLSGQFANLIKDSSLLSV

IAVNELTQSAQEINSYTFATLEAYVILAITYLVLTLPISIFSRYLERKCQK

>AHK58790.1 hypothetical protein N920\_04675 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLIIGHKLLKNLDFSFIESVEEVKDNKVYCIVYDEKLISYLSQNDFEFAILVQNKDEIFLANALGAKFLL

CNDKKLAKFASKVAEFYVFDSRVLMIVDKLENFKKFYKLKIDGIILKDNIDNFPKN

>AHK58789.1 2-acyl-glycerophospho-ethanolamine acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKKSFLKIYGLIPFLLIAFINAFVDLGHKIIIQNTIYKAYEGSEQLFLNAIVNALILLPFILMLSPSGF

LADKYPKNIVMKISAIFNVILTLIICICYYSGAFWMAFIFTFIMGAQAAIYSPSKYGFIKELVGKDFLAM

GNGVINAVSIVAILAGMALFSLSFESLYSSMYNQTDEILKEVAPLGIVLILFSCIEVFFAWRLPKLKQTN

KDLVFNKKDYIRGKLLINNLKLVFKNKTIWLCIIGISFFWAISQLYLVSFPVFAKNELFIENTFYVQISL

AFSGIGVILGSLVAGKFSKNYIELGFIPLGALGMFLMAFLMPYFISLLSYSFLFFFFGFCGALFIIPLNT

LIQFHAKENELGQILAGNNFFQNIAMLGFLLLATLFVKFEINVIYLFYFIALVTFIGSFYILLKLPFSLV

RILLSIAFLQRYRLLVEGFENIPEKGGALLLGNHISFIDWAVVQMAIPRKIYFVMERSIYSKWYIKIFLD

KFGIIPVSSTGSKTSLELIAKHIKEGNLVCLFPEGTLSRHGQLNEFKAGFELACECLSEDDGKIIPFYIR

GLWGSAFSRSDEEFSARNRTLNKRKIAIAFGKAMPLHSKKDEVKAKVFELSFMAWKSQCEAMHTIARAWI

DTAKKNLNQIAIIDTLAGDISYRKMLTLSLFLNFFIKRKSKELNINLQRGSYAPKEEAIGILLPASFASS

LTNLSVLIAEKIAVNLNFTAGEKALKAAIKNAQISQIYTSKTFLEKLANKGINLNFDTNIHLIYFEDIVE

DFKMQKTKIFSMMLAVSIIPSFILKSIFTPSKNNLAIAAILFSSGSEGSPKGVMLNNRNILSNIAQISDV

LCTRNNDVILSSLPPFHAFGLTVTTFLPLLEGIKSITFSDPTDALGVAKAVAKNNVTIMCGTSTFLGIYA

RNKKLDALMFESLRIVVSGAEKLKNEVRTTFEMKFKKSIFEGYGATETTPVASVNLPNHFDVDYWLIHRA

NKEGSVGMPLPGTAVRIVDPNNYENLKTNEDGLILIGGHQVMVGYLNDKEKTDEVVKEIDGIRWYNTGDK

GHLDEDGFLYIVDRYSRFAKIGGEMISLGAIEEEIAKFIDTEVVKFCATSLEDEKKEEQIVLLIECNNEI

FEGVCEAIKNSNIPTLFKPRYYFQIEKIPLLGSGKVDLKKVKELAKNLAI

>AHK58788.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFVFIPLFTIFILLAGGYFAKRIGVLKQKQARTFLDFAIIFALPCLIFDKAYHLNFDFSLIIFIFIGLFS

CILAAFFAILIGKVFHFSKVTLVSMFLLSCFGNTIFVGMPIVAGIFNDPQFSAEVIFYDALATTLPISLF

GPFILSLGNGEKVSLLANVKKILSFPPFLALLFGFLCKLITLPEFIFSPIRLFGASATPVALFAIGLGLG

FMAIKTSYKPTIVVIFAKMILAPLFFVFCLKIFNLELKDSTIVAIIESAAPTMTLAGAMVMKAKLDSNLA

VSAVAFGVLFAFVSMPILIWTLL

>AHK58787.1 F0F1 ATP synthase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKVLFLLLACTAVAFAAETNAPVEQEAINVWIKAFSVLAAGLGLGVAALGGAIGMGNTAAATIAGTARN

PGLGPKLMTTMFIALAMIEAQVIYALVIALIALYANPFIVLQ

>AHK58786.1 biotin attachment protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKKFIDVMDTSFRDGFQSVYGARVLMDDFFPAVEAAKEAGITHFEFGGGARFQSLYFYLNEDAFTMMDR

FRAIVGKDANLQTLARGVNTVTLDTGSSELIDLHAKLFAKHGTTTIRNFDALNDINNLKFSGECIAKHGL

KHEIAITLMDLPPNCKGAHDVPFYEKILKEILAAEIPFHSICFKDASGTSNPNKIYETIKMARKILPQDM

HIRLHTHETAGVSIACYLAALEAGVDGIDLAAAPVSGGTSQPDILTMMHALKGKDYDLGGLEEEKILKYE

EVLKDCLKEYFLPPEATMVNPLIPFSPMPGGALTANTQMMRDNNILDKFPQVIHAMREVVEKGGFGTSVT

PVSQFYFQQAFNNVMFGSWKKIAEGYGKMVLGYFGKTPVAPDANIIELASKQLNLEPTTELAINIADKDE

SKSIAYTKTLLEKEGIETSEENIFVAAACKEKGIAFLKGEAKVNIRKLASMPKPMSADENKFTVAVNGNK

YHVEVSYGFDKDVNVKSVKKVEENKNIISSNSTSSVDAENEVLAGISGNVFKIYVNEGEEVKSGQAIMVL

EAMKMEIEVNAPKDGIILELCIKIGDTVNEGEVLAIYKN

>AHK58785.1 phosphoenolpyruvate carboxykinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKFDKLGLDNIKEIFHNLSYDELNAHEKANNEGLSTDNDTFCVDTGIFTGRSPKDKYFVKQDPSSKYIA

WGKVNQPITKELFDKLLTKAKQELSGKKIYVQDVFCGASLQSRKAVRFVTEIAWQAHFVKNMFIRPSQEE

LENFKADFIVYNACKCINEDYKQDGLNSEVFVIFNVEENIAVIGGTWYGGEMKKGIFSMMNYWLPLENKL

SMHCSANVGEKDDVALFFGLSGTGKTTLSTDPKRRLIGDDEHGWDDEGVFNFEGGCYAKTINLDPEHEPE

IYGAIKRNALLENVVLRADKSVDYADASKTENTRVSYPIEHIENHEPSLKAGHPKNIIFLSADAFGILPP

VSKLSKEQAMYYFLSGYTAKVAGTERGITEPQATFSACFGEPFMPLHPTVYARLLGEKIEKHEVNVYLVN

TGWSGGSYGVGKRMSIKATRACINAILDGSITKCEFENFEVFDLAIPKALEGVESVLLNPINTWLDKNAY

IATRDKLAHMFIQNFKRYEDVKEGIEFSKFGPKI

>AHK58784.1 argininosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNEMWSGRFSGASDELLKEFNASLNVDKTLFNEDIQGSIAHATMLESCGILKKEELDAIIKGLEQVRSE

IEQGKFIFDIKDEDIHMAVEKRLSEIIGSEIGGRLHTARSRNDQVATDFKLFVKKSHIELIKLLKELIQT

MLEHAKVHKKTIMPSFTHLQHAQPVSFSFYILAYAFMLMRDIKRLQNSLELADFSPLGSCACAGTSYAIN

RELSAKILGFKDIMPNAMDGVSDRDFALDLLYDIAVIFTHTSRLCEEMILFSSSEFSFITISDSFSTGSS

IMPQKKNPDVCELIRGKTGRVYGNLISLLTIMKALPLAYNKDMQEDKEGIFDSVKTAKDSLIILNAMLKE

IQINKENMLNACKKGHLLATDLADYLVREKNIPFRKAHFIVGNVVAQAEAQGIDISEIKDLSKIDPVFDE

KAMELLNFEFSLNSKQSEGSSSIASVEKQIQILEGFIQNL

>AHK58783.1 GTP-binding protein YchF [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSLSVGIVGLPNVGKSTTFNALTKAQNAQSANYPFCTIEPNKAMVEVPDLRLNELAKIVKPERIMHSLIE

FVDIAGLVKGASKGEGLGNKFLSNIRETEVILHIVRCFDEENITHVEGGVDPLRDVEIINTELILADIEQ

LSKKIEKLTKEAKANQKGAKESLELANSLLDHLNKGLAASSYPEKESEIYQALIKELRLLSAKEVIYGAN

VDENGISEDNDYVKALKEYAKKNDHEVIKLCAKIEEELVGLSDEESHEFLSSLGVNESGLDQIIRTAFAK

LGLISYFTAGVVEVRSWTIKKGWKAPKAASVIHNDFEKGFIKAEVISYEDYIQYKGENGAKEAGKLRLEG

KDYIVLDGDVMHFKFNV

>AHK58782.1 aminopeptidase A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFELNDKKLDAIKADFELVFIQDKNLKIFNKEKDFFKLNNYKGEGALLDLNNKKLYLELKSLAYEDIRL

SLCTAYKTLEKLNIKSVKLPSIIGDCVVRSFASLVEGVLFGAYKFDKYKSEKKTSTLEKFIISNEELNGK

KFNKDEAKIGLERGEILANATNFTKNIVNEIPEIYTPLKMAEDAQNLAKENKNIICKIYDEKFLAKEKMN

AFLAVNHASVHPPRLIHLSYKAKNAKKRVVFVGKGLTYDSGGLSLKPADFMLTMKADKSGAAAAMGIIKA

VAELALDLEVHCILGATENMIGGNAYKPDDVLISREGVSIEVRNTDAEGRLVLADCLSFAQDLKPDLLID

MATLTGACVVGLGEFTSAIMGNNEELQNDFYLSSKKSGEYTTILHFNPHLRELIKSNIADVSNTASSRYG

GAITAGLFLDKFIRKEYKDKWLHLDIAGPAYTEKSWGYSSFGAGGAGVRMCVNYLIQILRKAK

>AHK58781.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEEFLKNLLYQYKDLAYIIIFLWCILEGELALILAGIFAHQGHVNLGFVIFIAGLGGFVGDQIYFYIGRY

NKCYIQKKLKTQRRKFAVAHLLLQRFGWPIIFIQRYMYGFRTIIPMSIGITRYSAKKFAIINLFSAWVWA

SITILLAWYFGEQIWKMVTWAEEHWYYAAIIIIAFLSLLLFGFKQMEKAILKDKRKKS

>AHK58780.1 adenine phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKLTQEEQKYLLDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFI

FASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKVELHKDAFKNIQNARVLLVDDLIATGGTAIA

SYELIQKAGAKCVEACFLINLKDLNGANKLEKLTSVYSVLEI

>AHK58779.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFTNWLVLTILICATIYLIVMLFYYKTLLNKEKTSKDFIKNNLDDTEIVIRKLQIQLQRSLGNIDILTEE

LNKIKADLTSLRTRNSQYRLENDKLRQRIKELEAKIEALL

>AHK58778.1 ribose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLREKIYIASDHAGFELKEKICVFLKEKNIIFNDLGTNTCASCDYPDYAHLLAEKINKRSFGILICGSGI

GISIAANRHKNIRCALCHESLSAELARRHNDANVLALGGRLIGVELAIDIIEKFIQTPFEEGRHMQRIQK

IEVKI

>AHK58777.1 chemotaxis protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLILIGSSTGGPNQLKFLLKDIDVKNTCVVIAQHMSASFIPSFVGQFNKEAFSEVCLLNDKEILSNKIY

ICPKNTILSGNLNIVAAWQDVASSFKPSVDLLFHSAVSLAKTNKILAIILTGMGDDGAKGLFELYKTGVR

CLCENEADSVVYGMPKRAKDMNPHLKPMSLKEIKKEIVNFIDQD

>AHK58776.1 chemotaxis protein CheR [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKKITPSELELNEFIKIINEMSGIDLTDKKNILALKLNKFLEGTNTKNFSEFLGKLKSNRQLKQETLDF

VTIGETYFLRELAQLKEIIYYAKSLEKRVNILSAPCSSGEEVYSLALLAAQNFIKDMYILGVDINSSVIE

KAKLGKYQGRTLQRLSESEKRRFFLESEDKFYTINKNELCTCKFELCNVFEEKFSRLGKFDIIASRNMII

YFDHESKLKLMERFHRILNDKGRLYVGNADLIPETIYFKKIFSPRGVYYEKV

>AHK58775.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIELKNVNKYYGTHHVLKNINLSVKEGEKLVIIGPSGSGKSTTIRCMNGLEEVSSGEVVVNNLVLNHKNK

IEICRKYCAMVFQHFNLYPHMTVLQNLTLAPMKLQKKSKKEAEETAFKYLKVVGLLDKANVYPATLSGGQ

QQRVAIARSLCTKKPYILFDEPTSALDPETIQEVLDVMKEISHQSNTTMVVVTHEMGFAKEVADRIIFME

DGAIVEENIPSEFFSNPKTERARLFLGKILKN

>AHK58774.1 amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVFRKSLLKLAVFALGACVAFSNANAAEGKLESIKSKGQLIVGVKNDVPHYALLDQATGEIKGFEVDVAK

LLAKSILGDDKKIKLVAVNAKTRGPLLDNGSVDAVIATFTITPERKRIYNFSEPYYQDAIGLLVLKEKKY

KSLADMKGANIGVAQAATTKKAIGEAAKKIGIDVKFSEFPDYPSIKAALDAKRVDAFSVDKSILLGYVDD

KSEILPDSFEPQSYGIVTKKDDPAFAKYVDDFVKEHKNEIDALAKKWGL

>AHK58773.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNESVGFVEHLRQILTSWGLYDENSISPFAVWKFLDALDNKDAFINGFIYTLEVSILALLIATIFGTIGG

VMATSRFKIIRAYTRIYVELFQNVPLVIQIFFLFYALPVLGIRLDIFTIGVLGVGAYHGAYVSEVVRSGI

LAVPRGQFEASASQGFTYIQQMRYIIVPQTIRIILPPMTNQMVNLIKNTSVLLIVGGAELMHSADSYAAD

YGNYAPAYIFAAVLYFIICYPLAYFAKAYENKLKKAHLTR

>AHK58772.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENVFNAQNIEFLMQGLFLTLKIALATCIISIVFGTFLAITKNYGDRLSKFLAACYIDIFRNTPLLLWML

AACFVLPVFFGQFPQAFWGTIGFSLYTSSVMAEIIRGGLNSIPKGQFEAAYSQGFGKFFTLFYIILPQTF

RKIIPALLSQIVTTVKDTAYLAGLGIAELTYNSKTILAKLTSFEEILAMIGVVAGIYFIICFSLSMLVRY

YAKKTAYIS

>AHK58771.1 ribose-phosphate pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRGYKIFSGSANVEFARQVSKYLSLPLSDAGVKRFSDGEISVQIDESVRGKDVFIIQSTCAPTNDNLMEL

LILTDALRRSSANSITAIIPYFGYARQDRKANPRVPITAKLVANLIQAAGIDRVATIDLHAGQIQGFFDI

PVDNLYGSIVFNDYIKAKHFKNAIIGSPDIGGVARARSVAKHLGLDIVIVDKRREKANESEVMNIIGDVK

DKEVILVDDIIDTAGTIVKAAEALKEKGAKSVMACCTHAVLSGKAYERIASGVLDELVVTDTIPLKEQLP

NIKVLSVTPVFAEVIRRVYHNESVNSLFI

>AHK58770.1 carbon starvation protein CstA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTQLSTKILWLFVAALGAICFGYLALQNGESVSAIYLVVAAVCIYMIGYRFYGSFVAYKVLELDKNRATP

ALVENDGRDFVPTNKAVLFGHHFAAIAGAGPLVGPILAAQMGYLPSMLWILVGGVLAGAVHDFVVLFIST

RRKGRSLGEMIKDEMGKFTGGVAMVAIFGIMLIIIAILAMVVVKALAESPWGLFTIAMTIPIAIFMGIYM

RFIRPGRVGEASIIGFVLLILAIHYGSVIAADPYWAKIFTLEAPTLAIVMMAYGFIASVLPVWFLLAPRD

YLSTFLKIGVIVVMAVAIVLVAPDLQMPKANTQYFDGTGPVFAGGVFPFLFITIACGAISGFHALISSGT

TPKMLENETHTLAVGYGSMLAESAVAIMALICACILHPGLYFAINSSSALIGTDVVNVAQTISSWGFSIT

PEEITTLTTNIGEYTILSRTGGAPTFAIGVALILHELFGGVDLMAFWYHFAILFEALFILTAVDAGTRAC

RFMVQDILGNVYKPLGDIHNYPAGLLATALSVAGWGYFLYQGAIDPKGGIYTLWPLFGVSNQMLAGMALL

LATTILVKMGKARYTWVTLVPAVFVLVATLYGGIQKIMPYEEGNKIANAVSHVAAVSIQSQKIKDLEFKL

NNTKDEKEISTIRKEISIATQNKVGNLLNAILCVFFMIATLLVIISCIGICLGKIKIPLKETKYIKIDEF

QKI

>AHK58769.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRDMGEPKLKIVAMPSDTNPAGNIFGGWILSQIDLAGAIAARELSPERVVTISMDKVVFKEPVFIGDIIS

CYSKVVNVGNTSISVEVEVTAQRVDSQGCTSCINVTSALVTYVSVTRDGKKNPISEELKRIHGFLNA

>AHK58768.1 CiaB protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNNFKEIAKLVRKYKERNNALYEFLDKEDVGEYFRSLISLSELKQDKTTMLAILRRLIDLKEENLVQEWK

KNNFKEDKIIELKHKFYEEVRKFYEKEHQNLINEIKEKKLLNNFYQSLIQGVHNIGLIMNIFEISWTKEI

IEKNNKILSTQFPNLDDAMEFLRKNHLYQKTPEGEICERSYGVLVRIGNLWKFVPYARFFENEILKLEFA

FENMIDQLKIFASSEEEKAYIEYFEKLKLAFCEKDEDRVIKAWQEAEFAWMKVKSPLQVGHPLEYYEDNY

THAVALEWDIRIEDENDFDVLKFGNEIKESFEHVYKNIGLEDCELEKEVLSNIEKTQLYICTPMIFYGAE

LKGLFSAQVVPNDEFVSSKAGKKIFAFINFVYENAKTKPFMKISSEVFDKEFLDFGRNILFYQEKIWKRV

YEVSTIGHEFGHIFFIANDTEKTMNQSGFFKNIEEYKATTGGLINFFYHEQDDLIMPVFHELIKRAIGLI

SWQRVDEVRPYYTEGLIHLSLLFESEVLIFENNNLKINFDLGYYEKFKELTLKNYHELAKHYALRLDAKE

FLSRFCEIEDNIFLPIMPKCKEFVKFYYDLYEKIGNEIDNSGEFERYKKK

>AHK58767.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKADFISLVAQTAGLTKKDATTATDAVISTITDVLAKGDSISFIGFGTFSTQERAAREARVPSTGKTIK

VPATRVAKFKVGKNLKEAVAKASGKKKK

>AHK58766.1 cysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVHEKVSELIGNTPIIHLKKFGINVFAKCEFLNPSHSIKDRAAFEMIKDALDSKKINQDTTIVEATSGN

TGISLAMICADLGLKFIAVMPESMSLERRKMITLFGARLELTPANLGMKGAVDKANEILLNTPNSFMVSQ

FENISNKNAHRKNTALEILRDLDNELDIFVAGFGTGGTISGVGEILKEKLEKVHIVGVEPLNSPLLSKGE

AGSHKIQGIGANFIPAILNKEVIDEVITVSNEDAINTAKELAKSGLMVGISSGANVFAASMLAKKFPDKR

ILTMLNDTAERYLSTDLFA

>AHK58765.1 hypothetical protein N920\_04530 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKNIILFIVIVAIILGVIFFIKNHQNSYDFILKSDLKEETTLKDFKGDKLIIYFGYTYCPDVCPATLSL

VGKALKQINNPKAHLLFISLDPNRDNNLSNTNEWLRYFYPKADALIAKDEKTLQKITKQYNVQYQKIDLN

DSFMGYSIAHSNMLYLIDEKGHFYKEINDLNPQEILRELRIFLNSQ

>AHK58764.1 hypothetical protein N920\_04525 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRKIIFILAFAFVIAILYIIFDFYVIKDSQKITKTDFSTPLTCDLNVKDCTYSFNNKKVLISLNPKPLQS

LDVTNLKIVNLGNYNNLGIKIYGLNMYMGEIKPKIHRLNSTDYESKIVLAACVLDTMRFRVEFMDNNKPI

GFYFDFELKK

>AHK58763.1 hypothetical protein N920\_04515 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIRNFFIGMSFLGILFLAFYTLYDKKKESIFSLNTCQPLTCDLNLQDCVFSFNKKNIEVSAYPKPIKIFN

KTTIKIKNFPHYSNLKIKIYSLNSYIGDIIPKFNIVNGDILINFIGRSITDDSRFRVEFLNNNAPTGFFF

DFDVTMQKNFQTGNTH

>AHK58762.1 hypothetical protein N920\_04510 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKRLALLIALSSLMLHASDLVKIYLNQGLDAVGVAIEKELTQKDFWLSEIGDKNISLGYYDDNVAIVLT

NKTDKILRVYSYEDGKIRKDFEQKEIITGLMGDKKIEGDLKTPVGFYELGRKFNPGDPYYGPFAFATTYP

NLLDKVQGKTGGGIWIHGYPLDGSRLDEFKTRGCIALFNNNLEKFAKVVQDKKVFVMTEEKEKIRAKKDQ

IASLLADLFTWKLAWTNSDTNAYLSFYDEQEFKRFDKMKFEQFASMKKSIFSRKEDKKIKFSDINISPYP

NLENETMYRISFYEDYYTKNYRFRGDKILYVKIDSKGKMKILAEQ

>AHK58761.1 alanine racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSLIKIDQKAYEYNLRHIAKKIGSFQRLICVFKDNAYGHGAKLLAPLAKNLGVSFVAVKSEEEAREIEEF

FENILILSHRPHGNENSRFIYALNDISQVKNYKQDIKIHLKIDTGMHRNGICVENLEHAINLIQGSDLKL

TGMFTHFASADEMDGSFFVQKENFQKAKKIVKKYFSNLLFHSYNSAALFRGKIPEDEYCRVGLVQFGYGD

SNLKRVLSLYAHRLSQRILQKGQSIGYGGIFTAAKDMEVATYDLGYADGLFRYNGRGELVLGNGKAMLGK

MSMDSFSCENSGEEICVFKDADIWADFFHTINYEILVKLNPNIQRVLV

>AHK58760.1 RNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFNIVLVHPRIPQNTGSIGRMCFNAGFKLHIVKPIVFDISQKAVRRAGLDYWDKLEPIIWENLEEFLNEN

MIYKNRFFFATTKSQKAYFDAEFQKNDFLFFGSESYGLPMELMQLNWENAITIPMKSYGRSLNLATSVGI

ISYEALRQNFRNFAS

>AHK58759.1 amino acid carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLDIMLDFANKASDIIANKIVPNTDIIMVVLLIVCGLYYSFLTRFVQFRMLSSVFKILTEKNEGHAKEH

ISPFQALMISTASRVGIGNIAGISLALATGGAGALFWMWVMAFFGGASAFAESTLAQVYKSKDDTGGFKG

GPAYYIKKALGSHFFGAFFAFILIITYAYGFNGLQSQTMTSSFKVYYDMFNPNAAVDFASSSWPMIIGIV

LTIFGAWMFFSHHTKIGKISSLIVPFMALAYVLLAVIAVLMNFDKIPSVIHMILQSAFDFKAIFGGFAGS

ALVIGIKRGLFSNEAGMGSAPNAAAAALTSHPAKQGVIQAFSVLIDVVVCTSSGFLVLFSMAYLGLGENK

IDGGMPLVQEAMREYYGSFGIHFITIAIVLFAITSLIGNYYYAQANVKYLTNSKFVMNLFRITAVAMIFI

GSQMNLKLAWNLADLTMAFMATTNIISLLLLGGIVNKVLKDFNTQQKSGIDPKFNASKLGIKNAECWD

>AHK58758.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIEVKNLQKKYGELEVLKNINTTISKGDVIAIIGPSGGGKSTFLRCINRLELADSGEILINKQNILDKEI

DINKIRQKVSMVFQHFNLFANKNVMENLCLTPIKTGILSQEEAIKKAKLLLAKVGLADKENIMPHKLSGG

QKQRIAIARSLMMNPDVILFDEPTSALDPEMIGEVLSIMKDVAKEGLTMLVVTHEMGFARNVANRIFFMD

KGKIAVDASPKEVFENPSNERLREFLNKVLNH

>AHK58757.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNQKNIRIFVFFVIIILWGYFSFPIEILKIQDPSGVASYGYTENAKAYLKSYLITLLLTACAVIIGVIIG

FSLAILRFSKFKTLNFIIDEYIDIIRGTPVILQLMIFAFVIFTFIDNLYAAILALGLNSSAYIAEIVRSG

INSVDKGQMEAARAMGLDYKTSMKEIILPQATKNILPALANEFISLFKETSVVGFISVIDITMQSQSLQA

VLYNPKPIIFTGLVYYVSVKIFSYFAKKLELRMNKND

>AHK58756.1 4-methyl-5(B-hydroxyethyl)-thiazole monophosphate biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKKVLIPLAQGFEEAEFIGIADVLKRAKELNPDLEVVIASLNSELLVKGANSISIKADCSIEDVDIENL

DAIALAGGFEGMMNLKNSNVILNIIKQLHSKNKIVAAICASPIVLNEAGVLEGEFACYPSCEVGLNGNRV

NKAVVVNKNVITSAGPATAILFGLELAKKLCGDEIYQKLYEGMLLPLTK

>AHK58755.1 hypothetical protein N920\_04470 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQEKTIFELIVEGKLPCNKVLESDDFLAFHDIAPKAPIHILIIPKKYFKDFQEFDPELMAKMTSFIQELA

VLLGVDKSGYRLVTNCGKNSGQEVFHLHFHMLGGFELPKEKTKKENPQALF

>AHK58754.1 phenylalanyl-tRNA synthetase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNFIEQIQKCENLNDLEAIRISVLGKKGILTEGFTKLKELEDEAKKEFAAKLNAQKEIFNEAYLAKFKD

LENLALEERMKQDALNFNYFDESITTGALHPVMSTMDKIIEYFIALNFSIEKGPLIEDDFHNFEALNLPK

SHPARDMQDTFYFDDKRLLRTQTSPVQIRTMLAQKPPIRMIAPGAVFRRDFDITHTPMFHQVEGLVVEEG

QKVSFANLKSVLEDFLRYMFGDVKVRFRPSFFPFTEPSAEVDISCVFCKGKGCRVCKHTGWLEVLGCGIV

DPNVYNFVGYENVSGYAFGLGVERFAMLLHQIPDLRSLFEGDLRLLEQFR

>AHK58753.1 phenylalanyl-tRNA synthetase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIITKSWLNDWLELEEISSDKIAKTLNSIGIEVDRVGALKAPDKVVVGYVKEKIKHENSDKLSICQVDIG

SETLQIVCGAANVDAGQFVAVATKGAIMSNGMEIKEAKLRGVDSCGMLCSSLELGFEKINEGIMLLDESI

GKLELGRPLNTYEIFNDELIEVELTPNRGDCLSIYGIARDLAAALNLNLKEPKPFKESENVLGIGRILRL

AAEKELNGLYNYRAIGLKEEIQTNLLLSLRLAQIEGLGKNSIENLLNYATHSTGVLFNAYDLSSFSEKDE

EFTINLSKQVHGETKVSYKDKLLSFSGIFQNNESRCKDDSKIIIIEANYTDPLVIADAKIYHKDQDEKML

YRSFRGSEPKLNLGMDFLLGIFEQIPNLVIYSSSQQILTDKELPIIPISIEGISDIIGQNVDKDEVLKIL

KKLGFELILSGEGLINVKAPLHRPDIKNLSDICEEVVRIIGIDNIASKGLEFIEKNRLNSAYKNYIEFLN

LRKRAVASGYFESLHYVLDNGEELKRLGFDSVKLKLINPITAELNTLRTTLLNHLLNAASLNAKNSKKII

KLFELGAVFNVNNQELNRIAFIHSGLKEEAKISNKAKPESVQFYDFLLDIKNIIGDFKLKSSKYNILSPY

EQADIYLSDIKVGFIGRLHLKIENERDLPKTYICELDLDLIRQDFKIAKPYSKFPAITRDLSVLIPKGFE

YNQIKNCIEELNLEILENFRLVDIYSDENLKEFYSITISFSFRDINKTLEDNQVNECMDKILNTLKNLGL

DLR

>AHK58752.1 3-phosphoshikimate 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIYKLQTPVNAILENIAADKSISHRFAIFSLLTQEENKAQNYLLAQDTLNTLEIIKNLGAKIEQKDSCV

KIIPPKEILSPNCILDCGNSGTAMRLMIGFLAGISGFFVLSGDKYLNNRPMRRISKPLTQIGARIYGRNE

ANLAPLCIEGQKLKAFNFKSEISSAQVKTAMILSAFRADNVCTFSEISLSRNHSENMLKAMKAPIRVSND

GLSLEINPLKKPLKAQNIIIPNDPSSAFYFVLAAIILPKSQIILKNILLNPTRIEAYKILQKMGAKLEMT

ITQNDFETIGEIRVESSKLNGIEVKDNIAWLIDEAPALAIAFALAKGKSSLINAKELRVKESDRIAVMVE

NLKLCGVEARELDDGFEIEGGCELKSSKIKSYGDHRIAMSFAILGLLCGIEIDDSDCIKTSFPNFIEILS

NLGARIDY

>AHK58751.1 4-hydroxy-3-methylbut-2-enyl diphosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIIELAKNYGFCFGVKRAIKKAEQIKDAATIGPLIHNNEEISRLQKNFNVKTLENIQALSNEKKAIIRTH

GITKQDLEELRKKDIEIFDATCPFVTKPQQICEQMSKEGYEVVIFGDENHPEVKGVKSYVSTKAYVVLDK

KELQNIKLPNKIAVVSQTTKKPEHFMEIVNFLILKTKEVRVFNTICDATFKNQDAIKELSLKSDVMVVVG

GKNSANTKQLFLIAKTNCEDSYLIETEEELKKEWFLDKKHCGISAGASTPDWIIQKVIAKIENFRIN

>AHK58750.1 30S ribosomal protein S1 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSEVNKKVQDGVDDYLEEEDFGQLLEAFDKSREEATTEGVIVEIKNDEVYVDIGKKSEGILALSEIQGDN

SKLLFNVGDSIKVAVMGSRGGRSLLSHKKALRKEKVIEFIKNYQENQDDIFTVKVVGKNKGGLIVVDEND

VEFFLPKSQYGFKETNNIIGKTFKVKIIKIDKDEQSIIVSRKKTLDDERRKRKELINNVAQQEDLIEGIV

KKITTYGMFVDVGGVDGLVHYSEISYKGPVNPGTLYKEGDKVPVKVIKYDKERKHLSLSIKAALPDPWSE

IKDTLDIGDTIKVIVSNIEPYGAFVDLGNDIEGFLHISEISWDKNIKNPKDYINKGQEIDVEVIEINPNE

RRLRVSLRNLLSRPFDEFMKSYKIADVVEGEITSVTSFGAFVKLGGIEGLLHNEDASWDRNDKCKDKFSQ

GDKIKVKIIKIDEENQKISLSTKELSSSPVQEYAKIHKVGDIVKGAIRDIKDFGVFVELSKNVDALIHKE

DISTSMLENLKIGDDIEAAIVFIDEKKNRIRLSVKNLVRIKEREVLNEINNDDKVTLGDIIKDQLA

>AHK58749.1 hypothetical protein N920\_04440 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKYITISILSILLLILLAVVFTLLWQFKANVNFIPQFAKDTNTQPSIQTQNQDLSWQEELAKWPTRDFT

PAAEKFTLYFDADTSELKEKNKYYQLIVGKYDIYSMFCLRQTLNSFNVKYFLLKSGHSPEIFLDTGNEKL

IDDIIKELKKYKINTEVKEIWL

>AHK58748.1 3-phosphoglycerate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKKIIVCDAILDKGVDILRKAEDIELIEAAKFPKDELMQMLSDIEVAITRSSTDVDVNFLNHAKKLKAL

VRAGVGVDNVDIPECSKRGVIVMNVPTANTIAAVELTMAHLLTSARSFVNAHNFLKIERKWEREKWYGIE

LMNKTLGVIGFGNIGSRVAIRAKAFGMKILAYDPYISASKITDLDMEQAKNLDEILEKSDFITIHTPKTK

ETNGMIGKQEIAKMKDGIRLINCARGGLYTEEALYEGLKSGKIAWLGIDVFDKEPATNHPLLDFENISVT

SHLGANTLESQDNIAREACEQALSAARGVAYPNALNLPIKTEDLPPFVAPYIELVSKMAFLAVQIDKNPI

KSIKLEAEGIIGEYANSMLTFAAVGALGGILGEKINYVNAEFVAKEKGVELSCETLPNSGYNNKLSVKII

TENSNISVSGTVFNENEQRIVGLNGFKTDFKPKGKMIIFKNKDIPGVIAKISSVLAAKNINIADFRLGRD

GFGYALAVVLIDEKVQKEVLDELKQLEACVFVQYVEI

>AHK58747.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKFKILIIEDDIDLNELLVLKLKSSGYEVISLADFFGVEDLLDNEQIDLLIVDRNLPSGDSLEKIQDLR

EQGYKEAVIFLTAKALHQDLLEGFESGCDDYVCKPFDFNELLLRIKAILKRHKKEEEKLSFGDFILDLVS

YEFFYKNQKLEISNLDYELLKCFFENPNTLLTRQFLSESVWKDDTTSDKTINIALTRLRNKFPKLKDHII

SVRGIGYKLC

>AHK58746.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKTKNIFIVFFVVLALIFGFIFYTFTNSYLNFLLIKQYEQKIKSLDDVLKFSLLEHLNDANIKDFAKDT

RADFIILNNDMKISSVKNPDFFSNLKEGEILNFNSKKILTKSFIYKGYKYIIIVYPRFLDLELFWTKMAI

GFGVCLLFVFILMLLLGRRIEKNFNKILDFLDSIGDHKVVILEKGIFKEFNLLNEKLLKTKDKILKNTQK

NKKQSDKITLKNTQLASVISAISHELKNPLSVIDLSLEMLKDEKLEDKKLKKELLEKISRQSVKLNALTH

KLNFVFNLNSEALQMQEFDLFSLCEKITKNPGFERVALQGKSTKVKADEFLIEQVIINLLSNALKYSQKK

VILTARDQKIIVQDFGKGIEEDKIKLITKKFYKIDVKSDNSFGLGLFLVKKILNIHKSYLEISSTLGYGS

SFSFKLSQG

>AHK58745.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MALIDLIEASKKFGDKIVLNEVNFSANEGEKIAIIGKNGEGKSTFLKTLLGALPLDSGRIIRQNGKSIAM

LSQTVDFNANLSVKEAIKQELVEIYNTLEEYEILHKKLEEDPSNKDYLQKIDTLMTLIDSKDAWSIESKI

IRVLKEFSLLEYENRIISTLSGGEIRRVGLCILLLKNPDILLLDEPTNHLDVYMTSFLEELLKNSKMCVI

FISHDRYFIDAIAHKCVEVEQGKLSIFKGGYANYLEKKTQILQSLAKSHETLLKQLKSEEEWLRRGVKAR

LKRNEGRKERIFKMREEAKKNPGAIKRLKLEISRAALNFNGEKTINRKKMLFELKNISKNINNKNLFKDF

STRILQGERIAIVGRNGCGKSTLLKILLGQIKQDSGEIKRGELKIGYFDQARSLVNSDKSLLEIFCPNGG

DRVEVRGKNMHVYGYLKNFLFPKEFLDKSVALLSGGEKNRVALALLFAKEYDVLILDEPTNDLDIATINI

LEEYLLSFEGAILLVSHDRYFVDKIATKLYAFEGNGYINILHTLYTEYLENEKEIEELDNFALELQTQEQ

NNNQKEKSSKKLSYKENEILKNHPEKIDFLEQKIAKLNQDLSDPNVYQEIGINKLYQELEVMQKELEILE

NEYFLVLEKSENL

>AHK58744.1 lagellar hook-associated protein FlgL [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRITNKLNFTNSVNNSMGGQSALYQISQQLASGLKIQNSYEDASTYIDNTRLEYEIKTLEQVKESTSRAQ

EMTQNSMKALQDMVKLLEDFKVKVTQAASDSNSQTSREAIAKELERIKESIVQLANTSVNGQYLFAGSQV

ANKPFDSNGNYYGDKNNINVVTGAGTESPYNIPGWDLFFKADGDYKKQISTNVSFTDNRWDLNKDPDKTK

YLTGDSKWQQLIGQSYVKDNSLDADKDFEYDDSKLDFPPTTLYVQGTRPDGTSFKSAVLVKPEDTLEDVM

ENIGALYGNTPNNKVVEVSMNDSGQIQITDLKQGNNKLDFHAVAFTPQADDKTELNNIIQAAQDEGITME

DVTNRVMTAALGNPNNGDITNLNNPVTIQINGQNFEIDLKQTDFIKSKMTDTDGNAANGADYDNVYFEKN

GNTVYGNVSQVIKGSNAYATDSTKLSEVMAGDSLNGTTLNLKVNSKGGNSYDVTINLQTSTVSYPDPNNP

GQTISFPIMHTNPATGNSGVVTGSNDITYGQINDIIGMFAADKIPTTTIQANNGQINNADYTQIQQLMKD

SQATVDVSMDYKGRISVTDKLSSGTNIEISLSDSQSGQFPAPPFTTTSTVQNGPNFSFSANNSLTIDEPN

VDIIKDLDSMIDAVLKGNMRADSESENPRNTGMQGALERLDHLADHVSKLNTTMGAYHNTIEGVNTRTSF

LSVNVQSIKSNVIDVDYGEAMMNLMQVQLAYQASLKASTTISQLSLLNYM

>AHK58743.1 cell division protein FtsK [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGEWVYKANLFLFGEFAYYYPFFLFILNYVYYKRNYKLANFTRRELFGIGFAFFSSLLLFAVFYPNSGYI

LELAYAIFSTILGHTGSGIFALLLLLFSLVLLFPKFAKEILKIELDFTYLLKVEQAFKSLLMRVFGGENE

KEDVGKSEPIVPKLNILQDSIYGNLQINKKGETNNLEQIIKDSNINASKNSITTAKENFEKLKNQILDET

IEIDKQSLKESRSFVHEHSQQVRNFAQKASKMSISLDEDFNFISEEEVDMIPERFLKPKKLEDIKQIDTN

KNLDEPSYKRKNIEIPVSNQEVKPKIFTKELELRENLIKKEKLEQEYKAYQNEILENKVKQEIKKLEEYD

AINSSDIIEGNKYSFNSPKTIKTETEESDKINENKNLDKADNIFEFAPIVEELNHPYIEPTPIKNINEIV

IEEKNTLDFIQNTETKIDNEKTNDQEIKLQKAVLAKEIAINQALLREIEQGEIEKPKDFTLPPLDFLANP

KEHKQEINESEIDKKIYNLLEKLRRFKIGGDVISTYVGPVVTTFEFRPSADVKVSRILNLQDDLTMALMA

KSIRIQAPIPGKDVVGIEVPNDEIQTIYLREILQSEVFKNAKSPLTIALGKDIVGNAFVTDLKKLPHLLI

AGTTGSGKSVGINSMLLSLLYRNSPKTLRLMMIDPKMLEFSIYNDIPHLLTPVITDPKKAVNALSNMVAE

MERRYRLMADAKTKNIENYNEKMKELGGEKLPFIVVIIDELADLMMTAGKDVEFYIGRLAQMARASGIHL

IVATQRPSVDVVTGLIKANLPSRISYKVGQKIDSKVILDAMGAESLLGRGDCLFTPPGTSSIVRLHAPFA

SEFEIEKIVDFLKDQQSVEYDESFLKDQQSVGVTTNESFDGEADELYEEAKRVILEDGKTSISYLQRRLK

IGYNRSANIIEQLTQNGILSEPDAKGQREIL

>AHK58742.1 30S ribosomal protein S15 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MALDSAKKAEIVAKFAKKPGDTGSTEVQVALLTARIAELTEHLKIYKKDFSSRLGLLKLVGQRKRLLSYL

KRKDYNSYSKLITELNLRDK

>AHK58741.1 Rrf2 family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLFTKASEYALLSLIYISQKETPQDVDSLALELDIPKSFLAKILQTLAKDGLLKSFKGAKGGFVLIKEPS

QYTIKEIVNSAEKKDISVFECSGGTCPNNKEENCTLMPMLVNLQNKVDEFLDSITLEDIMKNNGKK

>AHK58740.1 flagellar biosynthesis protein FlhA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKNKIVDLVFPFLGPLIAPVLKAKSLTIVGFLVCILAIIIVPLPSPILDFFLALSIALSVLIILISIYI

PKPTDLTTFPTLILIITLFRLSLNIATTRMILSEGQNGPEAVSEIIAAFGEFVVGGNMVIGVIVFCILVL

INFMVVTKGSTRVSEVQARFTLDAMPGKQMAIDADLNAGLIDEQTARARRQEVIAEANFYGAMDGSSKFI

KGDAVAGIIITIINIIGGFLIGSFQHDMALSDAASTYTILTIGDGLVSQIPGLITSTATAIIITRASKDE

ENFAEGTLTQLLSEYRTLLIVGFVLFIFALVPGLPTLSLGFMALVFLSLGYLTKQVKEGKIDITTVKKSK

PSAAAASQSGAGGTTAAPAKKSEEEILKEEEHKINDILKVEILELELGYGLIKLAENELTERIRSMRRSI

AESLGFLMPKIRIRDNLRLKPNEYSFKLKGVSIASAEIYPDKYLAMDSGFITEEIEGIATKEPAFNSDAL

WIDANLKDEATLNGYIVIDPASVISTHMSELIKAHASELLTRQEVQNLLDKVKNDYPIIVEGALGVAPVS

LIQKILKDLLKHHIPIKDMLTILESVSDIAEVSKSFDMIIEHVRASLARMITNMYLDDKGNLDIFILDSA

SSAVLMENVQFRDGSYHLPLSVAQTGTLVDTLRAEVAAVANGRIKPFILCVEPQLRKFIADICYNFSINI

VVLSFAEIAENTNFNTEGIIRIEL

>AHK58739.1 hypothetical protein N920\_04380 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIYHLSHTDLDGYACQFIVNFYFKSVKFYNSNYGKEINENFNSIIGDIEKDENFGKAIILITDLNLNLN

QCEEFEKICKEKNTKIFLLDHHQSGEECAQKYSWYLLDSKRCATKIVYDFFSKICTPVLELSKFVDVVNA

VDIWLSEDENFELGKVFLGLIANAKEINRVMFKESQIDYMFFLLDKAWKFIGKENANILLDNATHFIKKD

YFARKNDDTLSNLISYFVVEKLSELKENFSIEYEGHKGILTSNIGNTSVIGNDFLVKNPDYDFFIDVSSR

KTLSFRANGKIDVSLMAKNLVGGGGHKNASGGLFATFKDGANYNYIKAQIIDLIKSKELKKENNESKQ

>AHK58738.1 cell division protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNQNNNKTLKNELEDLQYELSIVLEAMLLYAGVKREKLENAIEAYIDNIDNVLENSNKEGVDEILEVVEF

LKNKYKDFFQ

>AHK58737.1 hypothetical protein N920\_04370 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKCILIFFSLYSLSFANIYEKLNDFAYEKKPNKDFKIQEVKLVQFSQENKDCLELLIEASQVRILNSYN

SCQKLSKDESFQKFLNEDFLKLYKNNGYLINENLQNLKNTMQDIMIYYKLRYSFSKDVKDMSKNKNLDIL

NIDEKDGGTLLYKINNQACVGIELTRHDSRMAMKIYGIENLDKECKLFIQSPSFKDLSYTKKDFKWYYLE

>AHK58736.1 hypothetical protein N920\_04365 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNLSIQEKKDLDNCVFQNLGRQDTFTLSVVFKNFYLKIKAFILNNTT

>AHK58735.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSCIKMKDKCRNFSLSKWQDTRKPWLILIIVTIGLTCIAHFLFQEYLFMKPCEQCVYIRFDMLVMAIGGM

IALINPANNIIKIFSYSLAFYGIWLGLEHCLTLNHIHEVVHSENPFAGVDGCREIPIYPFNLPLYKWASS

WFLPTGECGMDTPVVPENAYNHLNAFQKFFIGTPPDFENGLYSNGWYLIPSLKFMNMAICCLIAFLCCFV

VLFAMFIAYVLDKNKPNAKIFALVIVALVLVLKFIGESKNPNQNIASLNQVVLRYS

>AHK58734.1 integrase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKYPLDCEENFEKSFLFWLAKYVKFKLNSLSNKELKNPQALAEVNFALTKGVKNIDELDALAKKARNAGL

SGVNTYFNPLKKVFEYLNFYKLYSLKQIDEELIVEVLASITGALSDASKKNYRIAVINFFDFLDKQNEED

EKAHIFDINLKNWAGIAGSKGVKLPEFMSKEELKKFLDAIENADFKNNTIRNKLIIKIIIFTGIRVSEAI

NIKMGDISEENDLYIIRIRAKGNKYRVVMIKKELIYDLLKNVSINYISKDALLFVNKKGTPLTQSYVSRI

VEQLLFRAGIRKQKNGAHMLRHTFATLLYKKQKDLVLVQEALGHASLNTSRIYTHFDNDKLKLAAQVAKE

LSDS

>AHK58733.1 para-aminobenzoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTLENYAVFGKYFYHDLKHTLKAFNHKESKKCFKFIEKYKNDFYILMLTDYELYRYFQDKNFTSKKAYLS

VFAFKKRKKFQKEDIDEEKFIPEFINFLDQDNYKENFIKVKEAISKGRVYQINLTQNFKFHSKMDSFELF

KLLLSRQDTEFKAFIKDETREILSFSPELFFKTKKRKIFTKPMKGTIKRDKDPIKDEENKIFLQNDTKNL

SENVMICDLLRNDLSKIITKKSLKTKLFEIQSHPTLHQMTSRAQGKLKKNISLHQIFKALFPCGSITGAP

KLESIKFIEELEQRDRGIYCGTIGLIHKNKNKFSVAIRTLEKQDEIYTYSTGSGLVWDSKFKDEFEELKL

KSAILNPCDFHLFETMYFKNSQILFLKEHLLRLINSALKFNFNTHKLFKDFYNILNQKSSYKKYQNFTLF

KLDEKIFHKKHSLFYNFPLPFKNPHKEGILKLILYKDGRYEFQQSALKQNSNDILLLSDDKINSKSDNLY

HKSSLRTFYNQHSYKWQQNLCYDIAFFNEKDELCEGSRTNLILEKNSQFYTPQIQSGMLNGVYRNFLINL

GLIKEKALFKQDLFEAENIYCINSVRGLKKVKLQ

>AHK58732.1 para-aminobenzoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILFIDNYDSFSYTIIYYLKELSFECKVIKNDGFKKAKELEKFDFTHLIISPGPHSPKESKLSLKAIK

YFKKNKKILGICLGHQCIAEIFGGRVSKMQNPMHGKISKLYFKKDPIFKGIKKEIEICLYHSLHISSMPE

KCKILAHNSENIIMAIKHKKYPIYGLQFHPEAVLTQKGKKILKNFMKL

>AHK58731.1 UDP-N-acetylglucosamine 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTYLEIEGTNHLSGNVTISGAKNAALPLIVSSILAKNEVKINNVPNVADIKTLISLLENLGAKVNFQNNS

ALLNTNTLNQTIAKYDIVRKMRASILTLGPLLARFGHCEVSLPGGCAIGQRPIDLHLLALEKMGANIQIK

QGYVVASGNLKGNEILFDKITVTGSENIIMAAALAKGKTKLLNVAKEPEVVQLCEVLKDAGLEIKGIGTD

ELEIYGSDGELLEFKEFSVIPDRIEAGTYLCAGAITNSKITLDKVNATHLSAVLAKLHQMGFETLITEDS

ITLLPAKEIKPVEIMTSEYPGFPTDMQAQFMALALKANGTSIIDERLFENRFMHVSELLRMGADIKLNGH

IATIVGGKELNAADVMATDLRASSALILAALAAKGTSKVHRIYHLDRGYENLEEKFKDLGAKITRLEE

>AHK58730.1 molybdopterin biosynthesis protein MoeA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNIFETLKDLENQISCLDESELISLEKAKDRILAKDLYARKNLPSFDNAALDGYAFNYTDINEALEIKG

TIFAGDKNFYTVAKNECYKIMTGAKMPKNADTILMLEDECIEENKLIIKKVPKQYNAYRYKGEELKKGEI

LLQKGTKLNDKHIALLASQGLYKIEVIRKIRIGIFSSGNELKEPWQECDEESIYNANALPLLTMLQNASY

LGIIKDDFKSTKEALENTNFDLLITSGGASVGEADFMEKALDELGFTPLFKGLKARPARPTKLYRKGENF

VLILPGNPMAAYLSCFIFAKKIINLLSGNLDNPLTFYGKMGMDLKLKSGRNNLILGNLEKGIFTPFNENK

FGSGMILPLIKSEFLLISEENTGELKKGDEITLLKI

>AHK58729.1 signal peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEILKKLYKFSQSWTGTVVIVLLVIFFFIQAFVIPSGSMKNTLLVGDFLFVKKFSYGIPTPHIPWLEIPV

LPDFNKDGHLIKAQGPQRGDIVVFRNPRNEKEHFVKRCVGTGGDRIVYANKTLYVRMHEGDEFMKEHYPN

DLVTLGGQIYVKEPYKQKGIHYDPKKDIESDILRFLSIGDFAMSPAYIKELGNHIGFSGGNAYVFDVPEN

EYFMMGDNRDYSYDSRFWGSVPYRLIVGKPWFVYFSWDKDKNVRWERIGRFVDTLENDEQYIHDHDDEDK

LS

>AHK58728.1 bifunctional 5,10-methylene-tetrahydrofolate dehydrogenase/ 5,10-methylene-tetrahydrofolate cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTLLDGKALSAKIKEELKEKNQFLKSKGIESCLAVILVGDNPASQTYVKSKAKACEECGIKSLVYHLNEN

ITQNELLALINTLNHDDSVHGILVQLPLPDHICKDLILESIISSKDVDGFHPINVGYLNLGLESGFLPCT

PLGVMKLLKAYEIDLEGKDAVIIGASNIVGRPMATMLLNAGATVSVCHIKTKDLSLYTRQADLIIVAAGC

VNLLRSDMVKEGVIVVDVGINRLESGKIVGDVDFEEVSKKSSYITPVPGGVGPMTIAMLLENTVKSAKNR

LN

>AHK58727.1 hypothetical protein N920\_04260 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIVLMFFLFSISLFGADFITLKEYSKMLYENPRGISCKECHGADGSEQILGYYMKNGIKTAYKVPSIQN

LSFENFKNSLNQSKDAKSIMPNYSLTNDEIVTLYNYIKQFSKEEK

>AHK58726.1 glutamate-1-semialdehyde aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTNKKAFKETCKFIAGGVNSPVRAFANVQSEPKFISHGKGAYIFDIDGNSYIDYVQSWGPLLFGHCDKDI

QKACQKALHKGSSFGAPTLLETELAKLVLSDFPHLEKIRFVSSGTEATMSAIRLARGFTKKDKILKFEGC

YHGHSDSLLVSAGSGAATFNSPSSLGVLEDVAKHTLVAKYNDINSVKELFEKNKDIACVIIEPIAGNMGL

VPAKQDFLEELAKICKNNQTLLIFDEVMSGYRASYLGSYGINHIQADIITFGKVIGGGLPAAAFASRAEI

MDILSPLGGVYQAGTLSGNPLAMAAGIASLTKAKKKTKLYDKLGKLAKKLTQGMKKLADEKGLPLQACHV

GSMFGYFFTKDPVSNYQDALKSDLALFSKFHKNMLENGIYLAPSQFETGFICSKMDDKIIDTTLEAVRES

FKRI

>AHK58725.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSNILKEEKNHLENSNSKRQKIIRKTLEAADGLSLGISMVVAVFIGVGIGYLLKKFTPYPWLFWLGVFWG

ISAAILNVYKAYKVQVKSYEEFKERDELIKEKIQKEKNK

>AHK58724.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEHKKALFCIFAIIHLFFWIIFSSLNHFKLDTFLSYEIAFFSVLLIIFASYLNYKKVIIKKSKNYEKDFN

FISSLFIKKKQNLSKIIHFKVLKDDLKPNVKEKIHFFAMFFTLFKLMAYVILVAGFLFLHRQDKLDIFAY

ICGISSLLVCVFIFILYIKKYESKKNY

>AHK58723.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSPKKIIKSMTALFAGMAFLFAGNALIVSSIGVILKENGESSLAVGVVSSCFFVGALIGTISTHKIISRI

GHIRSFGLFGAIFGISAMLHTVSENLIFWAVLRFFIGICYYGLLMVIESWLNEKSKNAIRSRILGFYEIV

FYLAFGIGVLIIALNLSKHSVFILSATLILLSSLPLNLIKIKEPVLPASSPISIPKIFDIAPLAIVTSFI

AGMLINGFFSMASLFILLQGFDTKAVSYFIFCGVLGGFIAQTIIGTISDKLGRKFAIITCASIGFITMLI

FIFFKLHLYMQYFLGITLGIGIFCLYALALARANDVLVSKNKGVELGRGVLFCYSLGSLFGPLILGFLMQ

YFEIKGFIWFYIVSLAFLILFAINKPNILNKKFKKKPGNMVIFDD

>AHK58722.1 hypothetical protein N920\_04235 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINTQLASQIANTQKNDLKVDNSASKDKTNLKDNPKEALAQALKQNLGLSKDASSEEILAKFVQNETGTK

LKELVNKLLDQINAQKNPDSPVLKQGKNLNLAPNFANELKILSTELAKSDTFTQVLDRLNQILKPASEIK

NNNLAPLFKNSGVFLEAKLKDALNEELLPKSFHSLLSTIKGLSSEKLSVQIAQLANTNLSPKDTLKELKN

IINSSKNENKQILNQSSFKALLNLSSKLENFKNYISKNPSHAQEKITPIANKILKELNSIKNDFFKALNK

PENLMIKDPNILKQTATAFEKLENTLKNILGNQASKIQDKENILENLLSNKENMKEEKLNHNTKNQDEEK

HIKASKEDENLDSGIKTHEEDTQDTKNDIQNNETENKPDNDIKNSTPNQEKIKDEKQEKSKENIKENPKF

YETKTENKTSINTNTNTSNPNTNNTQNLNNTQNIQSNNNQTMQNIFKNQEFIKQNIVKNLAFNVENLDLE

QVQDLSKNLSNLSRRLNESLKELEPYTQNAKLNQAELKNLEHKLNLSIKDLAQIKPKTEQDIAESLHHDV

KSTLLQISNLAKNEGNEAVYNQANRLLAQIEINQLMSLANDSINTYLPFSWDDLNDSKIMFRRGKKDKFF

AQIKLEFAKLGDLEILISLNNEKYIDINIMAENIEFRKTIYENAHELKRNINKAGLLSANFFVGDIIRSK

FDTRNMKNLDLEMGMDKKV

>AHK58721.1 hypothetical protein N920\_04230 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKIKRSIKKAVALGYQKEKNSAPKVLASGKGESAAKIISLAKEHGVPIKEDEDLIEILSKLDLGDEIPP

NMYKAVAEVFAFIYQMANKTPKN

>AHK58720.1 phosphatidylserine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSFSKESSRLFGFVAGIKFPKMIQKVINENYVKYFNINMSEFKAPCEYESLNALFTRTLQIPRKFEEGFI

SPSDGKILECGSTFLANEEHFAFSIKGHAYSVEELLKDSFEKDELKNGLDYVNIYLSPKDYHRYHSPCDM

QILSATYTSGVLYSVNEKHLERISNLYVKNERVSLKCQNEKGIFWLVFVGAQNVGKMRFNFDASIQTNAK

ISHNFTRKYENLNFKKGEELGNFELGSTIVLISQKGLLTFNLKVGQGIKFGEKIAD

>AHK58719.1 metallophosphoesterase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIFLIFSFIVLLIFGLANVYIYKRLIKKITLFKYFYKIFSFIFIVLFLAQAVFLIFRRDEYLSDTWYEIL

AMFYAPTYCLFFMTLAWDFVKLILALMGKRDKTYNLILRLIFELSLIVLSVFLIYASINNALKTPEVKSV

DVEIPNLKKDLKIVMLTDIHLGKNLHENFLDKLITKVNLQSPDMVVIVGDLIDTNPKDLKNYISKLNDFN

STYGTFYALGNHEYYHGINEVLDLLRKHTNMKILVNQNLDLGFIDIAGLGDLAGLDRGLYAPDLARIKVD

LNTSKASILLTHQPKTALLYDLSDFDLVLSGHTHGGQIFPFMFLVKLQQGFVHGLYDLGEKTKLYVSSGA

GFWGPSLRVFAPSEIVILNLKGKK

>AHK58718.1 glutamyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYRFAPSPTGDMHIGNLRAAIFNYICARQKNMDFILRIEDTDKARNIAGKEEEIKEILNLFSISWQHYYI

QSENLKFHRQMALKLVSEKKAFACFCTEEELEAKKELAKKQGKAYRYDGTCEKLADIDVLECEKPFVIRL

KKPTHTMKFTDFIKGELSFEPENIDSFVIMRTDKTPTYNFACAVDDMLENVTCIIRGEDHVSNTPKQEHI

RASLGYNKAMTYAHLPIILNEEGVKMSKREAHSSVKWLLESGILPSAIANYLIMLGNKTPCEIFTLEEAI

KWFDISKVSKAPARFDLKKLLQINREHIKMIKDDELNKILDLNKDLAQLAKFYTQETSTIKELKEKMQAI

FNAKDFGEFETEYKILKELLKDIELFENYEDFKNELLNKSNLKGKKFFMPLRIILTGNIHGPELSDLYPY

IKNFIHELARI

>AHK58717.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVIDSFIISIFQVLQIVINIYTWIIIITALLSWVNPDPYNPIVQILYKLSYPAYALVRKIPTRIGNIDLA

PLIIVLALQFLGIFLGNILRSIL

>AHK58716.1 lytic transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKKILVFLFIFSSLNATQYSIEKLKKEENSLAKDYYIYRLLEKNKISKKDAQDLNSHIFRYIGKIKSEL

EKIIPLKPYINPKYAKCYTYTANTILDANLTCQSVRLNSLVFIASLNSKDRTTLAQTFKNQRPDLTNLLL

AFNTSDPMSYIVQKEDINGFFKLYNYSKKYDLDLNTGLVNKLPNHIGFKDFAQNIIIKKENPKFRYSMLE

INPENVSEDSAFYLGVNALTYDKTELAYDFFKKAAQSFKSQSNKDNAIFWMWLIKNNEEDLKTLSQSSSL

NIYSLYAKELTNTPFPKIESLNPSKKKNNFNMQDPFAWQKINKQIRDANASQLDVLAKEFDTQETLPIYA

YILERKNNFKKHYFIMPYYDNIKDYNKTRQALILAIARQESRFIPTAISVSYALGMMQFMPFLANHIGEK

ELKIPNFDQDFMFKPEIAYYFGNYHLNYLESRLKSPLFVAYAYNGGIGFTNRMLARNDMFKTGKFEPFLS

MELVPYQESRIYGKKVLANYIVYRHLLNDSIKISDIFENLIQNKANDLNKS

>AHK58715.1 molybdopterin-guanine dinucleotide biosynthesis protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKQLIIAFSGPSNSGKTTLITKIADNFLQQNLKVLIIKHDPADKAQFDFNGKDSFKFFQSGAEVMVLSPT

RTTFFSHENRDILKALKLSPDFDICLVEGLKTLDLPRISVFCKEIDESYFIFSNAIASYEKISHPYLTWL

DLNDIQAICQYILKNAKNLQGEL

>AHK58714.1 fructose-1 6-bisphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>AHK58713.1 hypothetical protein N920\_04185 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNEVRDEFEQDMDKKKEILLSCQNSKNLNSCYNCDEIFNCQTRKNYVDAVYNSMSKGKTEGGFDF

>AHK58712.1 methionyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRYITTPIYYVNDVPHLGHAYTTIIADTLARFYRLQGHETRFLTGTDEHGQKIEEAAKLRNSTPQEYADK

ISFEFKKLWDEFEITYDIYARTTDTRHIEFIKAMFLKMWQKGDIYKDEYEGHYCISCESFFTQSQLINDC

SCPDCGKQTRILKEESYFFKLSKYQDKILQWYEEKDPILPKNKKNELINFVQNGLKDLSITRTSFDWGIK

LPQEINDDKHIIYVWLDALFIYVSSLDFQNKGENAKFWPAHVHLVGKDILRFHAIYWPAFLMSVDLPLPK

FIGAHGWWTKEGEKMSKSKGNVVKPKEVVDAYGSEAFRYFLLREVPFGNDGDFSENMLINRINAELSNEF

GNLLNRIIGMSTKYSQGNISKEGVLKFYNAELNQAKEHLNLAVEFLENLQCNRYLEELFKALSVANLAIS

KYEPWSLIKENKHEQANALVALCANILAKTSLLLSPTLPKSSQKVALALNFEISSANYTKMILDNELLDF

KANPCEALFPKVEKALLKQEIKEEPKKEESPKIKIDDFAKIEIKVAKVLDCQNIEGSEKLLKFQLELDDK

EIRQVLSGIAKYYKASDLIGKQVCVISNLKKAKIFGHESDGMILSAKSGDKLVLIAPEQLVQNGSLVG

>AHK58711.1 hypothetical protein N920\_04175 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQISNLGELLNATLIHEGSVLSVEGFAINLNELKTGFAFFNNDKKEIAQAVKKGAYAIITENDITIEDKE

IFYFRVENLERALVRFLRFFCEDKECEFLLFKSYELSLCKAFYFNILKGNIFADFEKLIKAKKGEIFCYC

EENYLNKLCTYSHSLKDANFTLLSRSSFFFTTLICENLYFKNLNLPFFYANSFAKIISFLKEKSQKIIFD

FNKIDDFKIYFIDDKFEITPFGSSSQAFIVSNNQNTFEFWKEKFKNIKDFKIASKNSLFCDFSYNQLSDL

RKLKNFKYCLILENYDIFEQEFENKENQTPSLF

>AHK58710.1 methylated-DNA--protein-cysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFKVYYKMPLCYLSLHSDGKFLTRVDFCDNKRSEKNCSLLDLAKYELDLYFTHKLRKFSIPVLIQGTDFE

SKVYKALMEIPYGKIATYKDIAEKINHPKAFRAVGNANSKNQIPIFIPCHRVIASNGIGGYNGGLEIKRF

LLENEGVNLK

>AHK58709.1 bifunctional aconitate hydratase 2/2-methylisocitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSFMQEYNKLVEERAALGIPPLPLNANQTRELCKLLENENNEELANLLENRVNPGVDDAALVKCEFLDSI

LKGKISAPNIDKKRALRMLGTMLGGYNVKVLIDALKDENIAKDAAEVLKNIIFVHDNFHTIAELSKNNPH

AKEVLQSWANADWFNKKEKLPQVIKCIVFKVAGETNTDDLSPAGDAFTRSDIPLHANAMLKVRQTGSLEK

IKELKKSGREVVYVGDVVGTGSSRKSAINSIQWHLGKEIEGVPNKHSGGIIMGSTIAPIFFNTAQDSGAL

PIICDVTNLEMGDEFEIHPYEGKIIKNGSTIAEFTLSPNTLLDEVRAGGRIPLIIGRGLCTKAREFLGME

SENIFTKPEQPKSSSGGYTLAQKMLGRACGVEGVRPGMYIEPITLTVGSQDTTGPMTRDEIKELASLGFN

ADFVMQSFCHTAAYPKVSDSNLHKTLPNFMTSRGGVSLKPGDGVIHSWLNRFVLPDTVGTGGDSHTRFPI

GISFPAGSGLVAFAAVTGSMPLNVPESVLVRFSGELQAGVTLRDLVNAIPYYAIKQGQLTVEKKNKKNIF

AGKILEIEGLPNLKVEQAFELSDASAERSAAACSVDLSIESVSEYIKSNISLIEAMIEVGYENKATLARR

AEKMREWLKNPTLLRADKDAKYAYIIDINLNNIKEPILACPNDPDDVATLSEILADDKRPKNIDEVFVGS

CMTNIGHYRALGEILKDKGILKTRLWVVPPTKMDKAQLINEGYYSIFGAAGARIEVPGCSLCMGNQARVN

DGAVVFSTSTRNFDNRMGMGAKVYLGSAELAAVCAILGKIPSKEEYLQIVSEKLSNEHKANIYRYLNFNE

IENFKLEN

>AHK58708.1 ankyrin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRLKISNLKINSNLILNNKIKIFKGKILKLLFTSFCCFASLMASDAINCDNIKNNKTLLNESSNLDYLNI

ASSCKESLKNQDFTKKLYAISNEIRGSNSSCNGVAYLPKLQQFDFLLLKIAIDPIAYQKTLDTPENLEKK

YDILKSYFRYWAYQSIGNFRLYKAFWQEYNNAIEPLEKYFESNFNFDKGSNIYYTSNALNEFLNWAVGET

KIYKDISPLAKIMSNKNYSVSYIQDFIFSNNPSQDDLTIALQAALLNQREKEILELLIRFGARIDEGYES

AIFYALESYENTNFLIQNGANVNQANAFGKTPLFYAIEFNRLDIIKLLLDNGANVNQKYINNNEKLALSA

NIGSNTPYFITFCALEHTSKNVLMHAAAYGNVEILKLLISKGANFNAVDDLGFNALDFALSAGKKENADY

LKSLGLKANENLFYGGSLE

>AHK58707.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTAFITGASSGFGRACVEAFIQEGYKAIALARRKERLEELKNAYKDKIYTLCIDVRNQKEIFEAIENLP

KEFQEIDVLFNNAGLALGVDEFDKLNLEDINTMVDTNIKGFLYVAKAIIPILRKQKNAYIFNLGSVAGRN

PYFGGNVYCGTKAFVGQFSLALRNDLRGSNIKVTNIAPGLCKTEFSEVRFKGDIQKADAVYENTQFISAN

DIAKVVMSIINLPSHINVNEIELMPVTQTWNGFYIERDE

>AHK58706.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKFLVSLFLPLVAFANSSEAAANANLFGAFTLIPPLVAIALAFITKDVILSLFTGVLSGTFLLSLSTNI

FKAQHLTFVNYYNTTVESFSKIISYILGSTSDPVNAGIILQILCIGGLVALITKMGGAKAVALKFAKRAK

SAVSAQVNTWFLGLLIFFDDYANLLIVGPIMRPLADKFKISREKFAFIIDSTAAPVAGIAVISTWIGLEV

SLIKTAYEHIGISNISAFGIFVETIPYRFYNIFMLFFVVMTAIMGREFGSMYKAEVRARTTGQIAPLPKS

GTLDTTELEDQFLAPKEGIKIRAFDAIVPIFTLIILAILGFYFNGLSTLEGEELAKASTNPLSFETFRAA

FGNADSSVVLFQAALFAAIVAIFIGVRRKIFNLKEAVETWIYGWKTMIFTIVLLLFAWSLSSIVKDLGTS

LFITSLLADKLPEFILPATIFAFASAISFAIGTSYGTMGILMPLAVPLAHEIAKINGMDANAMHHYMVIN

ISCVLTGAIFGNHCSPISDNVILSSMSAKCDHMEHVRTQIPYALFICGISLIAGYIPVSLGLSVWFVLPL

NFILIALLLRLIGKKVP

>AHK58705.1 tRNA (uracil-5-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSLENFGNFLTLDEKHSFIKKYFKEFYTKDFKLFASKDKHYRTRAELSFYHENDTLFYAMFDPKSKKKYI

IEYLDFADEKICAFMPRLLEYLRQDNKLKEKLFGVEFLTTKQELSITLLYHKNIEDIKSNLENLSNILHI

NLIARSKGKKLIFKTENLRQTLNIQDRKIFYEFNNDCFIQPNTAINEKMITWVCEILNTQKRMDLLELYC

GYGNFTLALAPFFFKILATEISKSNINFALKNCELNNTTNIHFARLSSEELSLAIKKEREFFRLKDIRLD

DFNFSHVLVDPPRAGLDKSVIDLIKKYGNIIYISCNPMTLKENLKELSLTHRVEEFALFDQFVNTPHLEC

GVFLSKV

>AHK58704.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEEFYPYTLTIHLLCAILFIGYLFVDVFVLGVVKKKNPNFDKSLFSATGVKIMPFVVLLLFLSGGALAGF

HFKPLNLLFAVKIILAFGILSLVVFSLFCHFILKKKNPLGVFIHPFVFVLCIAIVILAKLMNYFFIPC

>AHK58703.1 CoA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNEKETISYIINTSKNIVIFALSPDKTKASYRVAEFLQRKNYKIFPIYPKEEFILNEKVYRNLDQIEEKI

DTLILFRKGEVALEILPKLVEKNIKNLWLQLDISNETAKEECKKLDINFIQNRCIMLEYPHFKTKEK

>AHK58702.1 threonine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLELNKIYKAKQQISGFVNKTPFIYSSFLSDICQSEIYLKNENLQITGAYKIRGAYNKIANLSTEQKQHG

VIAASAGNHAQGVAISAKKFSIKAVIVMPESTPLLKVSATKALGAEVILRGDNFDEAYAFATSYAKENNL

SFIHPFEDEFVMAGQGTLMLEMLDEISDLDMIIAPVGGGGLISGISSTAKQINPNIKIIGVGAKGAPAMY

ESFHAKKIKNAKSVRTIADGIAVRDANPINFNIILECVDDFIQVDDEEIANAVLFLLEKHKIIVEGAGAA

SVAALLHQKINTQNHKKIGVVLSGGNIDAQMLNIIIEKGLFKSYRKMQIYVTLVDKPGALLHLTDSLKIA

NANIVKIDYDRFSTKLDYGDAMISITLETKGKEHQEEIRKILTQKAFNFYESF

>AHK58701.1 tRNA pseudouridine synthase A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIKIIFSYDGSAFLGSATQPHKKGVQDALSGALSHLGIFSPLLMASRTDKGVHASYAVASVECGDYFTN

LEYLQKQLNKFSHPFIHIKKIEKVKDDFEVRFDVKSREYRYIFSHASYSPFMASYVHFYPKFDLGKANEL

LGFFVGKKDLKFFCKSGGDNKTTLREIFIARAYAYKDFSIFHFKANGFLRGQIRLSVASVLKVLEGKMSE

KELKEQIEAKKQYNHFLAPPNGLYLSRICY

>AHK58700.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLSLRYVLNQFLSTNLSIFFVLFAIVSMVFFIQLAKLTSSIEISFLDLLKLYGFMLPRILIFTLPISFF

ISLTLALFRLSKENESIVLFTLGFSPMILAKFFLKIASLISAFMLVVALVMIPIVFELQDNFVNYKSTQV

KFNYKTGEFGQKFLDWMIFIEKQDSDKYENIIMYRPKHKADDKEQLIIAKEAHVQRKDDSFAFSLNQGKM

YNFEQGQSIFSGEFDTLVVNTQFNTDNLQTKKFYEYWNDLNENLQRAREFVIYTTIALFPLASTLFALCF

GLVTYRYEKGYVYLGMFGVIAIYFGLLSSFSQPPILACLGIFSLSLFVSAYCFKKMILSRY

>AHK58699.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIFFIIILGACLGSFCTSLASRIIEKKLFFISRSFCFSCDTKLKYYEIIPIFSYIFLKAKCQTCKCHLSI

SLLINEILGAILLILVYSLSQNFYDFLFLSLFLFNLFLLSLIDIKLKAVPQILLWSAFLFAFFYAFRESE

ILHFLIFKEFSGGFLLNAFSFGGFVFLLKSLVFFLMNFQKKDEILENLGDADIIIMSCIGGILGFEYGFL

VLFIASILTLPFFIFFRIKAIKEQELAMIPFLNIAFVAVLFYKNLGLF

>AHK58698.1 UDP pyrophosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNELKHLAVVMDGNRRWARAKGFLAKLGYSQGVKTMQKLMEVCMEENISNLSLFAFSTENWKRPKDEIDF

IFELLDRCLDEALEKFEKNNVRLRAIGDLSRLEDKVREKITLVEEKTKHCDALCVNLAISYGARDEIIRA

AKRVIEKKLELNEENLTQNLDLPLDVDLMLRVGNAKRLSNFLLWQCSYAEIYFSETLFPSLTKREFKRII

KEFRNRERTFGK

>AHK58697.1 hypothetical protein N920\_04105 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSMINSTLPIQMKVLAKSGYGHYTLLLNHKKIQTKSMIELEIGAEYLAELYMQNGGVIQFKHLSKRPNFK

PFEEGLALIIAILEDKISYKKFIIQNLLDCKDIERYQILKEMLFASFENIYHIPFNFENKSCLFQMRKRA

KYLEIYLYFSVFGALKILIDSQGISVFTPFAKVQKFLNEHLDFNVSQENKIEPLFVFKRLFDFKG

>AHK58696.1 phosphopantothenate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTILLAISGSIAFYKSYELISLFKKEGFRVKVLLSNGLLKFASKMSFEALVDEVLCEENESWQNSNNHI

AFSKDVDLVLFTPASVNSINKLAFGIADNLFIQTLIAANKPLIIAPAANTNMFHHFSTQNSLKILKENKA

LIIEPICKVLACKDEGVGALAEVKDIFNITKRELLKEKFWCNKSVVITGGGTRERIDDVRCVSNFSSGKM

AKAIADAFYFLGARVKLLSSVEFDTPYELCKFESSKDLKELLDKNLSHDFLIMTAAVSDFIPQSVKGKIK

KNEHLQGLNLHLSLNEDLLKTCKFQGKKIGFKMEFDSQNALENAKKSLKDKQLDMVCLNIIDQKNYFGSD

QNELYFITLNNENKSTLQSKEKLAFELVKWCEKL

>AHK58695.1 N-acetylglucosamine-1-phosphate uridyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTSILILAAGLGTRIKSQKPKVLQELCQKSMILHILKKAFALSDDVSVVLSHQKERVEKEILEYFPKTQ

ILEQDLQNYPGTAGALSGFEPKNERVLILCGDMPLVEQTSLEALLGNNAKLNLAVFKARDPKSYGRVVIK

NDSVEKIVEFKDANTQEKEINTCNAGVYVIDSRLLKELLPLIDNNNAAKEYYLTDIVKLAKEKDVMIKAV

FVDEDEFMGINDKFELSIAENFMQKKIKKYWMQQGVIFHLPQSTFIGADVEFVGECEVYENVRIEGKSKI

INSIIKSSSVIENSIVENSDVGPLAHLRPNCELKNTHIGNFVECKNAKLNTVKAGHLSYLGDCEIDSGTN

IGCGTITCNYDGVKKHKTIIGKNVFVGSDTQFIAPVKIEDEVIIAAGSTVSINVEKGALFINRAGHKMIK

DYYYKKFQK

>AHK58694.1 flagellar biosynthesis protein FliP [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILLFLLLSMSLFAAEATIPTVNLSLSAPNTPNQLVTTLNIVIVLTILALAPSIVFVMTSFLRLIVVF

SFLRQAMGTQSMPPNTILVTLALILTFFIMEPVATKSYNEGIKPYLAEKIGYEEAFIKGAKPFKDFMLKN

TREKDLALFYRIRNLPNPKTIDDVPLTVLVPAFMISELKTAFEIGFLIYLPFLVIDMVVSSVLMAMGMMM

LPPTMISLPFKLLIFVLVDGWNLLVQRLVESFVT

>AHK58693.1 amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIILIFISFFALNLSAKDLVVGMELGYPPFEMSDKTGKASGISVDFLEAFAKKNGYKLVVKNIAWDGL

IPALKTAKIDLIMSSMTITDKRKKVVDFSIPYAKANLAILTPLNSDITNIKDLDKKGKVLALKRGSTGHL

YAVKNLKNATINLFDKENAAILEVIQGKADGFFYDQLTIYRTWQKHQDTTRAILAPFQENPEFWGIAVRK

GDEALKDKLDNFIDESRKNGFLDFLGNKYLKDIKEVFKQNNITFFL

>AHK58692.1 3-deoxy-manno-octulosonate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDAKMIIIPARLKSSRFHEKILCDIGGVPMFVATARRVSSVDEVCIALDDEKVLSIAKEYGLNAVLTSKD

HESGTDRINEACKKLALKDDEIIINVQADEPFIECENLLKFKEFASFCLDKKAFMASCYKKITQEEAMDP

NLVKVLCDKEGYALYFSRAKIPYERENYEESFKGHLGIYAYSVKALREFCSLSSSALERAEKLEQLRAIE

NGKKIKMLEISTTSMGIDTKEDYERALKIYLEK

>AHK58691.1 threonine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLVESRNVNNVSSFKEALINPNAPEGGLYSPLNLPIFEGEKYANLSYKDFALKLIESFGFGEEELFKKA

LKSYESFDDKNTPISLQKISEKTYINELWHGPTRAFKDMALQPFGVLLSEFSKDKNILIICATSGDTGPA

TLKSFENAKNVKVACMYPKGGTSGVQELQMRALDKDNLKVFAIDEDFDAAQRTLKELLFSKDFQNEIKAL

NYELCAANSVNFGRILFQIIYHYYASLKLFNEFLEEVQIIVPSGNFGNALGAFYAKKMGAKISKIKIASN

ANNILSEFFNQGVYDLREKSLKKTISPAMDILISSNIERLLFAKFKDKRTKELMNLLKNERYFKLEKEEL

QSLQEDFEADFCTDEECMQFIKQSKILIDPHTATCFKMLDPLKPSIITSTAEWTKFTPSMIKALYDRDSK

NEKEDLKFIAKEFNVQVKDEILALFDLKNSDEKVFEARNIKKEILDWMQK

>AHK58690.1 tetraacyldisaccharide 4'-kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNEEKNYELWLDNYFFKPNFWQKCLAFILLPLSVLYAFFAILNTFFRKKIVFKKPVISVGNLSFGGNGKT

PLCKAIAREFDGVFIVLRGYKRKSKGLFVVKNQNEILCTLTQSGDEAMEYAFEENIKGVIVSEDRVKGIE

KAFELGAKIVVLDDAFSKFHIKKFDILLESKIKPYFNFTLPSGAYRLPKFYEKRADFIALEGRDFVRYSF

VKENPKAVLVTAIAKPFRLYEHFIKARACYFFKDHYEFKKEELENLLKKHNCDTLMLTFKDFVKVKDFGF

KCQIIELNIELKDSLREKIKTYIKEFEQ

>AHK58689.1 NAD synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDWQKITEKMCDFIQEKVKNSQSQGVVLGLSGGIDSALVATLCKRALKENVFALLMPTQISNKANLEDAL

RLCADLNLEYKIIEIQSILDAFIKQSENTTLVSLGNFAARIRMSLLYDYSALKNSLVIGTSNKSELLLGY

GTIYGDLACAFNPIGSLYKSEIYALAKYLNLHENFIKKAPSADLWENQSDEADLGFSYTKIDEGLKALET

NDEKLLRTLDPSLIAMLKNRMQKNAFKGKMPEILEI

>AHK58688.1 beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIIKQACGVYETNCYILFTPKGEFIIDPGTDALLFIKKHVKNPLAILNTHGHYDHIWDNAKVKKEYNIP

IYIHKNDAFMLHDDFNQGYDSSDADFLVDNEDILNICGVDFKFHFLPGHTPGCTMIEIVGKNIMFSGDFL

FYRSIGRWDFPYSDANLMKQSLEKVMTYKEDFKLLPGHGQETTLKEEQVHLPSWLRYF

>AHK58687.1 hypothetical protein N920\_04040 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MELDQILLYAFIFLNLFALFGLFLGNKKKNQFNDKKFYKICPCKKMAENGSLSTICIYSAVGGFFYSVLS

IGFVGFGNWTLNFIFLLALLSVFLGWKLKLD

>AHK58686.1 7-alpha-hydroxysteroid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNTEFQGKTLVISGGTRGIGKAIVYEFAKVGANIAFTYNSNAQIADEMVQDLEKNYKIKARAYEFNILEP

ETYKELFEKIDVDFDRVDYFISNAIISGRAVVGGYTKFMKLKPKGINNIFTATVNAFVVGAQEAAKRMEK

VGGGSIISISSTGNLVYIENYSGHGTAKAAVEAMARYAATELGEKNIRVNVVSGGPIETDALRAFTNYEE

VKQATINLSPLNRMGQPEDLAGACLFLCSSKASWVTGHTFIVDGGTTFK

>AHK58685.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAVETC

KGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLYNVP

GRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNGGKGVISVT

SNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFRLPLCSPSK

ENFAKIEEVMKKYKIKGF

>AHK58684.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIAYEKIQLKNKLEVYALPVNKNSDVISVDIFYKVGSRNEIMGKSGIAHMLEHLNFKSTKNLKAGEFDEI

VKGFGGVDNASTGFDYTHYYIKCAKKNLDKALELFAELMANLNLKDEEFQPERAVVLEERRWRTDNNPLG

YLYFRLFNHAFMYHPYHWTPIGFFKDIENWSIEDIKEFHSIYYQPKNAILLVSGDIESKEVFELSKKHFE

KIKNTKTIPKIHTKEPKQDGVKRIYLHKNSDTELLALAYKIPNFKHKDIPALNALSELLGSGKSSLMSEI

LIDKLNLINDYYAYVNDCIDENLFIFICNCNPNVNAEKVEKELLKIIDKLKMGKISQKDLQRVKNNVKSD

FIFSLNNASAVANIYGSYLARGDINPLLNYEKDIQNLELKDLISCAKKYFIQENSTTVILRKDSNG

>AHK58683.1 diguanylate cyclase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAYEMIKLLLFKLNPEHAHALVEYSLRALSASFPGALSFLAHKYIVDDESLRQNLLGLDFNNPVGLAGGF

DKNATMIRPLSALGFGFLEVGTFTPKPQEGNEKPRLFRLVKQESIQNAMGFNNEGAEKIALRLAKTYPFV

LPLGVNIGKNKITPNDKALEDYFTLFRDFKDLCDYFIVNISSPNTKNLRELQNDDFLNTLLEEAKKITSK

PILIKIAPDMKIDDALNLCENAIKKGADGFILANTSVDYSLLDNNRTFGGISGRLITEKSGIFFKEVTKI

LFGKTLLIASGGIDSADIAYERIKNGANLVQVYTALIFKGPSLVKNINQNLIELLRKDGFLHISEAVGVN

LK

>AHK58682.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHNEMNLKEVLIRFKPFYKRYWKQFAIAIFGMILASGGTAGSFYALEPILNYIFVEKNEALLYTVPFLLV

LMYFFKNLGTYLQSFYVSFIGTDMLRVLRARVLKNVLRLDMDFFKRYRSGELVSRCTNDINALQSIVSNI

IPDFFRELLTAIGLLAVVLYQSPTLAFFALVILPLAIFPLVWFAKKLKKYARNIQETNSDLLSYLGEIFS

NIELIKANDNEKKESDKFAKHNDTLCKLNLKSARIDALTSPLMDMMGSVGVAVVIIVGGREVINGSMSVG

SFISFVSALFAIYTPLKRLSSLYGKLQGAVAASERTFYLLDLEPQIKGGSKELKNIEKISFENVEFAYEN

PHKSVLKGVNFDFVKGQMLALVGTSGGGKSSIINLLMYFYEKQKGKILLNQEDISTFTIESLHAKIGLVT

QNIYLFNDSFAANIAYSEELEEEKVIQALKLANAYEFVKEMGGIWAEVKEHGKNLSGGQKQRIAIARALY

KNPDVLIFDEATSALDNESEKAIVKTIENLKQDRLILVVAHRLSTIENADKIVVLDKGKVLAIGKDEELL

QTCSLYQKFKSKEKTKPSFS

>AHK58681.1 cysteinyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRLLDSVTKEKIKLDKKDISIYLCGPTVYDDAHLGHARSSVCFDLLRRVLLAQGNRVKFARNYTDIDDKI

LKKMAQSGQTLEEITEFYIKSYEEDMRVLNVLDPDFKPRATHYITAMLDLIKKLAKDGFVYTLEDGIYFD

TSKDEKYLSLSNRNLEENISRLSNEVQKRNESDFVLWKFDENFYESEFGKGRPGWHTECVAMIDSIFENT

LDIHAGGIDLLFPHHENEAAQCRCGCKRKLANIWLHNGFVKIDGEKMSKSLNNSFFIKDALKEFMGEALR

FYLLSSHYRSHFNYSLSDLENAKKRLDKFYRLKKRLDLGEISDFDVLNDIGIKSEIAKQILEILNDDLNV

SKALALLDDFISSANLELDKESKNKILKQNIKEALSELAKIFGFGFMDATLYFQWGVSKEEREEIEKLIL

ERTEAKKNKDFNTADAIREQLNSKKITLLDTPNGTIWEKINA

>AHK58680.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MALDEKIIAYTENPARELLSVASRTNLSLNELDFSLLAFSTQYRFGDLEWEKISEKELTLFDKDEIFLKN

DLQIKQEYKIEIFHGINQSKASQAVKLVANKNLTKIVAQIDFTNLDFHEKLALELLQNIYKKMLKLKFLI

GIRIFDFKKKLMSFCNQYKNTPLNKTIQITVAQGIDPIESQDESLILTYKEKTKNYTIDEKRSGIIVVDE

NEVVLKHVKFKQGKEGKDLNLHTLKVLAANENKVKFSCSSAFKQVEQDGYTEYIALKKGYVVQDGEKFDI

ANELDFNGVDFKNIGIIRAGLDKNVKINIKFLSEVKDAVNSGVGIECEELNVVGSVGSNTQLNATKMKIE

GTTHSKAKIQAKQAYIKTHRGFAEAEILNIDLLEGGTIKAKEVRIKKSLGGNIQADKIYIENLESNNSCV

FFENTTIERINGDNNKFHAKIKTLDKNYDEEFAILGEQISKLNHKINKIRQYILSSKNGILSVEKKITEL

KNQGQNVPVQYEKALKDFSLQNLELNKLQNEEKELLERKKSLQLELINLQKMLFEATFINKSGKWTDMNE

IKFSLLEPKEDIFCSSFVNESAKFIGIKKVIQNNQESIEIHKKLDYEEKDIAWLSASKE

>AHK58679.1 Holliday junction DNA helicase RuvA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVVGIEGIITKKEPTFIIVKCASGLSYGIFISLFCSAKIQTQEKHEFFITQIIKEDSNKFYGFLDKDEQK

MFEMLLKVNGVGANTAMAVCSSLDVNSFYKALSLGDESVLKKVPGIGPKSAKRIIVELSDTKTKLENVSD

DKSEALAALLTLGFKQEKIISVLVSAQATGTSELIKEALKKLG

>AHK58678.1 D-alanine--D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFAILFGGNSYEHEISIVSAVVLKKVINQNLEFIFCDEERRFYHIPSEKMNSKTFSTKAYKKEKELFIK

QGGFFSKGFLKENKLECECVINLIHGRDGEDGKIAALFEFYSIKFIGPRLEASVLSFNKELTKLYAKSVG

VKTLDYTILRKNQNSKEKLSFPCIIKPARLGSSIGISIVKDEKDLEYAKDVGFEFDNDLVVEEFKNNIKE

YNLAGCMINDEFVFSIIEEPKKKEFLDFEQKYLSFSGHNELIEADLSEELKEKLKDSFKKIYNPLFKGAL

IRCDFFILDNEIYLNEINPNPGSLANYLFKDFNTTLNALADQISLEKMIKINYNFLHSINGQKGKL

>AHK58677.1 prevent-host-death protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLSFKQDEIYTATEVVRNFSPIMEKLKKSESGKIVILKNNKFEAVMLSMKEFERLQNAMQLLENIYKNQK

A

>AHK58676.1 2-hydroxy-6-oxohepta-2,4-dienoate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAQTQLSYKNKTYQISYEILGDLSLPQILILHGWGADKKLMKQSFCPFLKDFCQIYMDLAGFGNSSVEEI

LNTQDYANITELFLKQKKLNVCFFMGHSFGGKVSTLLAKEKDTLILLSSAGILAKKSLKVRFKIRIFKIL

KLFGLGKFYRYFASKDGANLSPIMYETFKKVVDEDFSEIFAKQKAKSLIFWGKSDEATPLYCGEKMHQFL

KNSTFYPLEGDHFFFLKHSAFIAQKIKEI

>AHK58675.1 UDP-N-acetylmuramoyl-tripeptide--D-alanyl-D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLINTLYFINSLFFNFCIAFYLMSALQWYSYKFKRVFFHYHKPLWHLYFLFIPYFLFLAFPLYSLVYFAL

IHTPILYFWNKGIDKKLVFTSKVKWFFVFVFVYNAIFTILALRFSFLFNLFSLPFALLSLKIYEFFTNLY

YKKQAKAKLRANENLKIILITASFGKTSIKNFLYELLKDDFKSYKTPRSVNTLLGIVADINANLSQDTQI

YIAEAGARLKGDIDEITHFLQPQISIVGEIGNAHLEYFKSVENIRSTKLEALNSERLEKAFLHSSTQKEE

DKLISLYDDKLSLIHSSLEGLEFKVDIENKSYDFKSQILGDFNAQNLCVCILCAHYLGIKLEKIQKQVLN

INSVEHRLQVLSREPKFIIDDGFNGNFKGMSTSYKLCKSYKGRKVLVSPGIVEVSEEENIKLAKIINECF

DLAIISAQINAEIFKKELKIKTIILKEKSQLVQTLAKETKHGDLILFSNDAPSFM

>AHK58674.1 signal transduction histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNESILKSLDSNEKETLQKGLESLIEQTYVIENEYKTLNENYNSLRAMVDEIIEVLPSALWILDKEKNII

LQNQEALKNPKLLSIISLDKIRDELEFEGRFYAVKIIAHNEKTIVSATDISDEKRNERLASMGSVAAHLA

HEIRNPIGSISLLASTLFARSELKNKHIVLEIQKAIARVERIVNSTLLFTKGVHINALNFNLLELKEECE

SAINSYNFTSQIDFEISFLDKQICADKALLGLVLQNLIYNAIDAIEESECEKPMIKILASYDNEKICIRV

YDNGCEIKDEKLVFEAFKTTKLKGNGLGLSLSKEIINAHKGELSFQSDPKNFYFTLPLV

>AHK58673.1 hypothetical protein N920\_03965 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHKNLSLSKLFDFYSVFEGFEKLNILNFEDDVFTNIERILLDDYLKIKSYFALDETSSYALTLLAKNNRK

RFSINRKIQHFKALSTLKYLLETGIIKLEYSKEAKKIKDKRQKIKKELRSYVVQDKIIFSNHFTRFFFYF

LKPNEKLILQNRYKEVLECIKEKFELYQSFCFEQLSRELLEKKFNINGVQSYWDKNLELDLYYQDENLCF

VGEVKFKNKKICKNILNLLKSKAKSLNLAPNYYIIISKNGFSKEIDKICEQNLLLLDLNDFKILLEE

>AHK58672.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQISDLKKELILKKGILHFDFTASALALKCVEKEILKILPTYANTHSDSSLNSFKTQQTYEQARKDIKKS

LSLDENFALIACGTGSSSAIKKFQELIGIYIPPLVKERYFTQIDKNTLPLVIVGPYEHHSNELSFREGLC

ECIRIPLDKNGEIDFDFLEKTLQKNKKRKIIASFSLASNVTGILSDYKRISEMVRKFKGIVAFDASSFIP

YKNISCQYYDALFISSHKLIGGIGGSGLLAIKKDLCGNKPSFAAGGTVGYVSRTSQCYLCNEEALEEGGT

PGILQLIRASLAFKIKDSIGVKNIEKKEEILKDYFFEKLKTIPNLILYAKNLKTRLPIFAFNIKGISPFD

IAYELSKKYHIETRAGCACAGPYGHDLLGLKDNQKLKTKPGWLRISLHYTHEKEDIDYFFNALNKTIVKL

SH

>AHK58671.1 formyltetrahydrofolate deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MISVLKICTKDQKGLIYRISDVIFKYHINIVKNDEFVGEGMFFFRALLEGEFDKEAFIGTLEAMLGQEAL

IELCEKRKKDIVVFATKESHCLGDLLIKHYSNELEANIKAVISNHNSLKDLVEKFEIPYHFISAENLDRK

EQENQILKCLEQYKFDYLVLAKYMRILSPDFVRHFEGKIINIHHSFLPAFIGANPYKQAFERGVKIIGAT

AHFVNNNLDEGPIITQAVSPVNHEFTWQDMQQAGRNIEKDVLSKALDLAFEDRIFIHNNKTIIF

>AHK58670.1 multifunctional Cca protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVGGSVRDLFLGLKICDYDIELYDIKPKDFEKIMQKLGAQGFGKSFFVYKFKNYDLALARTENKISYGHK

GFEVQICNDEKLGAKRRDFTINSMMINLFNDEFLDFYGGLKDLGVGFLRHIDKQSFQEDSLRVLRAVVFA

SRFNFKITSESLKLMQSMDITDLSKDRINAELCKFFKSPRLDVGYRYLQELGLEKQVFGFESVFKSSEFQ

NLLRQSREFVKSDALFLYLYLNFFNLEKDIFFKRTKLKKEYLKYANQAFYLDDISDFELAKIAFEMPLKE

WLGLWSKKRIEQAKRLGLYENKFESKILAKDFINAGFCGKILGLKLQEARENELKEYIKGLAK

>AHK58669.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLEDLAKKTISEVSSIMEEQRRQNEILKEQELNRKTEIKDELPPMEFVCEELDTPQDLEDKISMAKFEE

EQKIQNNIEISTQENKEFKKEEPFLQNEILNPSVMTEVQTLNEDIFLKHLRERILVLFEGLNSIKKDDLE

NRLNLTINFLEFLLANIEDKLKK

>AHK58668.1 hypothetical protein N920\_03940 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNTVTEASIYEAQGLKDEALEIYKNILKEDPNNQNAIDAVRRLSGFRSKHKDLNTQMLDFFINMKSDEE

INEFKRWLIKI

>AHK58667.1 hypothetical protein N920\_03935 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVFLIPLLIIIGVIFGIDYVYFKNQDLKVQVKKEQKELNSSLEKEKKEYIEKLFKTK

>AHK58666.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNNLSSVLILAKEEYINDLKKAISEIPFCSVELCENEKIIVVIESENLEDELNSYKMLEKLPNIISINMV

FSYQDLNDDIQKAINSGAIETIEKNENAENVRYYGSVFNQFS

>AHK58665.1 hypothetical protein N920\_03925 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKFLFILSLFCVLSYAYELKLNANITALKLDKQNLYIGTDKGEILQYNIKDKSLKELLSLPKIKNYYGD

DFAKIYNIDIFKHTLLILSEGDFGAKNLSFYKENLQIKKLEENSIIKAFFINENTYLLISIGSEIELIDK

SLKNIKKFNFSHSSLNDAVLNEDKSRLIAGFESGEVELFDLKNWKMLKNYDKMHKDNIYQVDFKNNVILS

CGTDRRIGVVKNEEQNFLQKDFLIYTCALSPSGEFAVYSDNEAGVSEVFSTSDFKPVKTFNNENLMSEFI

IFLNNKDFIVSGFGDSIMFRSIDE

>AHK58664.1 nitrate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKKLVLLGSAAVVFFAACAMNSGVSSEQIGLRKASLENENKVNLVEANFTTLQPGESTRFERSYENAPP

LIPHAIEDLLPITKDNNMCLSCHDKAIAADAGATPLPASHYYDFRHNKTTGDMISDSRFNCTQCHVPQSD

AKPLVGNSFKPEFKNEQLKSRSNLIDVINEGVK

>AHK58663.1 quinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKYLIARRIVQLGILALFSFKATDFILQGNLSSSRLFNTIPLSDPFAVLQIILASWSIDLMALIGALIIF

FIYGLLLGRVFCSWVCPVNLITDFAAFVRNKLTLNNKFLILPKNLRYFVLVLVLVLSFVFSLPVFESFSY

IGMIHRGIIFATSSWIFVAFILFCIDTFLSPRAICSHFCPLGAFYAFISRFALLKIKHDSDKCTKCYECI

RICPEKQVLWMVGKESTSVKSGECIRCARCIEVCNDDALNFNIFDLRNK

>AHK58662.1 quinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKGRREFFVSAFKAACLCTGGGFLANLALKADDNYALRPPGAENEARFLSKCIRCGLCVKACPYDTLKLA

SLLDSPKNGTPFFKAREIPCYLCKDIPCIRECPTDALDKKHLEQGIESLKMGIAIVDSASCVAHWGIQCD

ACYRACPLIDRALKLELKRNERTAKHAFLLPSVDHEVCVGCGLCELACITEKPAIRVLPREYVLGKAGSH

YVKGWDEKDEGRIKNADTSKHFNVKKATNYLNDGEL

>AHK58661.1 nitrate reductase catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNRRDFIKNTAIASAASVAGLSVPSSMLGAQEEDWKWDKAVCRFCGTGCGIMIARKDGKIVATKGDPAAP

VNRGLNCIKGYFNAKIMYGEDRLVMPLLRMNEKGEFDKKGKFQQVSWQRAFDEMEKQFKKAYNELGVTGI

GIFGSGQYTIQEGYAALKLAKAGFRTNNIDPNARHCMASAVVGFMQTFGVDEPSGCYDDIELTDTIITWG

ANMAEMHPILWSRVSDRKLSNLDKVKVVNLSTFSNRTSNIADIEIIFKPNTDLAIWNYIAREIVYNHPEA

MDMKFIKDHCVFATGYADIGYGMRNNPNHPKFKESEKDTVEKENVITLDDEEATSLSYLGVKAGDKFEMK

HQGVADKNWEISFDEFKKGLAPYTLEYTARVAKGDDNESLEDFKKKLQELANLYIEKNRKVVSFWTMGFN

QHTRGSWVNEQAYMVHFLLGKQAKPGSGAFSLTGQPSACGTAREVGTFSHRLPADMVVANPKHREISEKI

WKVPAKTINPKPGSPYLNIMRDLEDGKIKFAWVQVNNPWQNTANANHWIAAAREMDNFIVVSDCYPGISA

KVADLILPSAMIYEKWGAYGNAERRTQHWKQQVLPVGAAMSDTWQILEFAKRFKLKEVWKEQKVDNKLTL

PSVLEEAKAMGYSEDDTLFDVLFANKEAKSFNPNDAIAKGFDNTDVKGDERKIQGSDGKEFTGYGFFVQK

YLWEEYRKFGLGHGHDLADFDTYHKVRGLRWPVVNGKETQWRFNTKFDYYAKKAAPNSDFAFYGDFNKML

TNGDLIAPKDEKEHSIKNKAKIFFRPFMKAPERPSKEYPFWLATGRVLEHWHSGTMTMRVPELYRAVPEA

LCYMSEKDGEKLGLNQGDLVWVESRRGKVKARVDMRGRNKPPVGLVYVPWFDENVYINKVTLDATCPLSK

QTDFKKCAVKIYKA

>AHK58660.1 thiol peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSIVNFKGNPVKLKGNSVEVGADAPKVNLKAKDLSVIEIGAAGKTQIILSVPSLDTPVCATEAREFNKKV

ASYNGAEVIVVSMDLPFAMGRFCSTEGIENLSVASDFVAKEFGEKYGVLINEGALEGLLARAVFVIKEGK

VAYKELVNEITEMPDIAKLDAFFGGSSCCGGCGCH

>AHK58659.1 hypothetical protein N920\_03895 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILILSLAASFLNAEILVYGPGGPAPVLKELALKFEEKTKEKVIVTAGPTPAWVDKAKENADLIFSGN

TSMMDDFAKKIPSLSLENLSVLNVRPSGIIVRPNNPKNIKNFEDILKDGINVMVVDGAGQVGLYEDMALK

SAKRENLVKLRKNIKIYAKNSKAAVDEWNNNPNIDALIIWSHWAKALGDDKALFIKDKNAVIYRAAEIAP

TKKGLENKKALEFVDFIKSQEAQKVWKKYTWKEVK

>AHK58658.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPLSKLNNEQYLAATADFGHNLVIASAGTGKTSTIVARISYLLSKGVAPQKIMLLTFTNKASKEMIGRLG

KFFDKNITSKILAGTFHSTAYTLLRNADKNIALKQASELKTLLKSVYEKRTFRHLSDIKPYQSSYLYDLY

SLFQNKAHNQDFYTWFCQNYEDQSIYAEIYEDILKEYDNEKKRFNYVDFNDLLINLKDLLKEEKYEFDEI

LVDEYQDTNTLQSSLIEAFHSKSLFCVGDYDQSIYAFNGADINIIGGFKDRFKDAKIFSLNKNYRSSRSI

LALANKVILNNERLYPKELIVTRNDEFKAPSLLTFEELFDQYQNIAKMILTSGVSLEEIAVIFRNNSSAD

GVEVALREQGIASVRKGSGSFFESLEVKAFSSMLALVVNPKDIMAFIHLVQYTKGVGGVLAKEIFDALLK

LGHGNLIKGFLDPDKNVNLQNHQKRNYQLGLFADLEELASETRFKFESEFDAHPILRLSKINDLCARNLE

KIYLFLKKAMEIKHSLTLVNLICENSFYREICEELATKRATNKAGQVDLLRKSENLEKIETKFNVLKELT

KNYSDIYKYYNFLTLGASEMSSGKGVNLLSVHASKGLEFDLVFVIDLAQGRFPNQKLMGMGGSLEEERRL

FYVAVTRAKNILYLSYAKYDKNKKTSFAPSRFLIEAGLCKGELTID

>AHK58657.1 hypothetical protein N920\_03885 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLKIFSIIVGILIAVIVILGGTYYYLFEYSKPKNYTLNTNTYTEQKSYTNNYDNPYSPSIQTNNSSSNV

NTNNNTIQKQETNPLLDENQSLNNDTFNISISENNQSLNNDTNTSNNINTNENKQILDTDKEKLKQENKQ

AKIEALKKEISKQQKILERERAIKKELQSNKSNKNKYLNTAREYLSIGKNSRLEPELSTENMKVYILDGK

FLSQYRINLLKDMLSIIQDNAKDYYLSIFVKMLPKGEMKLTIYNKEIIFSDMKKAYKYISLDRLSPYLNN

PKELNEHVAREEILERLKLQIKKDGKGSDFSKHIKSLKTGLNTAQYFFPFCEIIEISSIK

>AHK58656.1 valyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYDKNLEKEYYQICEERGYFEIDGNKTIQEKDKNFCIMMPPPNVTGVLHIGHALTFTLQDIMTRYKRMDG

YKVLYQPGLDHAGIATQNVVEKQLLTQGIKKEELGREEFIEKVWEWKEQSGGKILDQMRTLGITPAWSRL

RFTMDEGLVNAVKKAFVELYDKRLIVRGNYMINWCTHDGALSDIEVEYKENKGKLYHIKYFLKDSDEFLV

VATTRPETFFGDTAVMVHPDDERYAKFVDKEVILPISKKAIKIIADKHVEKEFGTGVVKVTPAHDMNDYE

VGLRHNLDFISVFDEKGILNEHCLEFQGLERLEAREKIVAKLESLGFIEKIEEYNNQIGYCYRCNNIVEP

YISKQWFVKKEIAQESIEKVALGESKFYPNHWINSFNAWMKDLRDWCISRQLWWGHQIPVYYCECSHEWA

SQHTPKTCPKCQSQNFKQDEDVLDTWFSSGLWAMSTLGWGNENWGKDKIWSEKDLKDFYPNSLLITGFDI

LFFWVARMMFQSTNVLHQLPFKDIYLHALVKDEQGRKMSKSLGNVIDPNESIKEYSADILRFTLALLAIQ

GRDIKLSNDKLLQVRNFTNKIYNAKNYLLLNESKFEDLENITLHSELAKYIYAKFQTCVKDVRENLDNYR

FNDAANTLYKFFWDDFCDWGIELSKAEKSSVKELGSIFKEALKLLNPFMPFISEYLYHKLSDTELKTSPS

IMISKYPKFKEQDKNIEKIFSLLIESIVSIRRAKSLIDLGNSKIEKAYIKFNDKKIKDEIKAYMNFIIML

AKCEQIEFSEEKLPKAICDVSENLEIFITLENVDLSGILTRLENQKNKLEKESFKLNSMLSNEKFIANAP

KEVVEQNKEALENLKIQLEKISVELQNLRG

>AHK58655.1 methionine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKIKNLKKYYGKELVINDVSLEIKKGEIYAIVGHSGAGKSTLLRCINGLENYQEGSLKVFDQEIKDLSQ

KKSKELRMLRKDIGMIFQNFALMERKNVFENVAMPLRTHYTQCKFHAKLFNKEYMSEKEIAQKVNSLLEI

VGLDHKNKSYPRELSGGQKQRVAIARALALNPKILLSDEATSALDPNTTKNILELISKINAEFGITVVLV

THEMDVVKDIAQKALLLEHGQIIGSGAIDELFLRPNAKMKEFLGESDFLPEHGLNIKLYFPKEVAQNSVI

THMARTLNIDFNIVWGKIEKLNGKALGNLVININEKDKDKVLDYIEKSGVLWEVAS

>AHK58654.1 methionine ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNEENISIVSAFFSRISQFFNEFSWQDIKEVSLSSITSFNENYENILKPALNETIYMSLMAVLFGFLLAI

IPGILLAIWDKNGIKENKIAYSILDFITNILRAFPFLILIVVLLPLSKIIVGTSIGTNAAIVPLAIGIAP

YLAKMLESAFKEIDKGIIEAAKSYGASNIQIIFKVIFSEALPAIISGITLTLIFTIGFSALAGTVGGGGL

GDVAIRYGYERFNKEVMIQTVVILLILVQLVQILGNLFYTWAKNSKTTYIIATLLILLGVSIVININNDE

NFFWQVIVFILFLGSLLYKGFKK

>AHK58653.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIKSLFIASILTLSLNANALETITVAATPVPHAEILEQVKPDLEKQGYKLEIKEFTDYVLPNLAVDNGE

ADANFFQHTPYLEEFNKNKGTKLIKVAAIHIEPMAVYSKKYKSLDDIKEGVKIAIPNDPTNESRALDIIA

KKGLVKFKDKALKTPLDIIDNPKKIKFVELKPAQLPRALNDVDFAVINSNYALSANLNPAKDSVFIEDKE

SPYANILVVRVGHENDPKIKALIQALQSDKIKQFIIEKYNGSVLPAF

>AHK58652.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLFKIIILACILNLSSLFAQNITIGATPNPFGSLLELMKDDFKNKGYELKIVEFSDYILPNRALEEKEL

DANLYQHKPFLEEYNLKKGSNLIATTPVLIAPVGVYSKKIKNLENLKEGARVAIPNDATNESRALELLEK

AKLIELNKNTLKTPLDINKNPKKLKFIELKAAQLPRALDDVDIAIINSNFALGAGLNPSKDTIFREDKNS

PYVNYVVVRSEGKNSEKTKVIDEILRSDKFKAIINEHYKDILIPAF

>AHK58651.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNIKKIFLSVLFTISLSFGADKTIIIGATPTPYAEILNFSKPLFQEKGWKLIVKEFNDYNIPNIALNEKD

LDANLYQHKPFLDDFNTHKGTKLSSLGAIVLVPMAIYSNSIKDIKDIPNGAKIAIPNDATNESRALDLLA

KANLIEFKSQSTLKTPIDISKNPKKLKFIELKAAQLPRALNDTDLAIITTNYALGAGLNPLKDGIFMEDK

DSLYAIVLATRKGEETSQKSLVIKEILTSDKIKNFIIEKYKGSVIPTF

>AHK58650.1 flagellar basal body P-ring biosynthesis protein FlgA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIIFLTFFIVINYIQAASLEEIKTALAKEFRNNFPKIIISQIDLKITSLPKDFDQYEFLRIANGRFNQA

QGFLRAEFKTPQNIQKNVFFRYFIQANLEVLKSERAIKRGDKLGAFDYKSVLIDFDKVPLNALTLDDVDN

LVAKSNINKNAILRANMFKTTALIRRNDPIIGVLSEANVDVLIELVALQSANMGERIRAKNKEGKVMQGI

VVGKNRMIIQ

>AHK58649.1 3-octaprenyl-4-hydroxybenzoate carboxy-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVLLGISGSSSVNLGLKLLKNLENQCELYCILTQGAKLNFKTENQANLEEICQENFKYTHFLDDKNLSL

SVASGSFGIEKTIIAPCSISSLAKIHAGFADTLLMRAAAVALKERKKLILGVREMPFSTLNLEHMLKLSQ

MGVIIAPPIIASYSKANNLEQMENFIAGKWLDLLEIKHNLYEKWQNF

>AHK58648.1 phosphopantetheine adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTCLYPGTFDPITNGHLDVIKRALKIFDEVIVAIAKSEHKKPCYDLEKRKELALLATQNLKNVKIIAFDN

LLVDLAKELKVNTIIRGLRAVSDFEYELQIGYANHALWEDMETIYLMPSLKHAFISSSIVRSIVAHGGDV

SSLVPKEILPFLKDQSCM

>AHK58647.1 thymidylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYVVFEGIDCVGKSTQISLLKEIYKDAIFTLEPGGTELGKHLREILLNKTHPINKRAELLLFLADRAQHF

EEILKTNQNKLIISDRSFISGMAYAKDFENDLLFALNSFALENFFPQKIIFLKGDANLIQERLSQKELDS

IEKRGIEYFLSVQDKLEKVLHFLKEKISVEILTLDAKESKEKLHQQIKEFLQ

>AHK58646.1 histidyl-tRNA synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINALKGMKDLLDKDAYYYEKVIKICEEVAKNYGFTFINTPHLELCTLFKRSVGESSDIVGKEMYEFIDK

GENHVCMRPEGTAGVVRAYIEKKLDKNTSVKRWFYYGSMFRYERPQKGRLREFHQFGVESLGIPNVYEDA

SIILMLVEIFSRLGIDFKLQLNSLGCSQCLPKYRDRLVEFLDSKEGFCEDCLRRKNLNPIRVLDCKNEHC

QNLLENAPLLINNLCTSCQKDFETLQQILKDNGVKFELDSKLVRGLDYYSKTAFEFISDEIGAKAAIAGG

GRYDRLIEYLGGKSGYGIGFAMGIERIITILEQKEEKIQREGIYLCAMDEIYIQKLLHIATNLRKEYKVL

LSYEARKLAKHLENADKNNTEIFLCMGENEAQNESLFYKNLAKKEEKMIKISDLKKVL

>AHK58645.1 arginine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDYGIDIWGNENFIIKNGKVCINYEKKPAIIDIVKELRDDGYKGPLLLRFPHLIQKQIENIYGNFNKARK

EFGYKGGFNAVYPLKVNQYPGFVKNLVKLGKDYNYGLEAGSKAELLLAMAYNNEGAPITVNGFKDRELIN

IGFIAAEMGHNITLTIEGLNELEAIIDIAKERFKPKPNIGLRVRLHSAGVGIWAKSGGINSKFGLTSTEL

IEAVNLLKENKLLEQFTMIHFHLGSQITEIHPLKKALNEAGNIYTELRKMGAKNLKAINLGGGLAVEYSQ

FKNEKSRNYTLREYANDVVFILKNIAEQKKDLEPDIFIESGRFVAANHAVLIAPVLELFSQEYAENKLIL

KKQNPKLIDELYDLYKSIKPSNALEYLHDSIDHLESILTLFDLGYVDLQDRSNAEILTHLITKKAILLLG

DKQNPADLLAIQDEVQERYLVNFSLFQSMPDFWGLEQNFPIMPLDRLDEEPTRSASIWDITCDSDGEISY

SKDKPLFLHDVDVEKENYFLGFFLVGAYQEVLGMKHNLFTHPTEAIISINEKGYEVEGIIEAQSILDTLE

DLDYDIHAIMDILNERISNSKLVNDKQKKHILGELYLFLNDNGYLKSIGV

>AHK58644.1 serine acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFWGIIKEDFSQPKAQDPAFNSCIELFFNYPGVWAVVNYRFAHFFYIRNFKRIARMISGISQFLTGVDL

HPGAELGRRIFIDHANGVVIGQTAIIEDDVLIYQGVTLGGTSLEKGTKRHPTIKKGVIIGSGAKVLGNIT

IGENAKIGSNAVVVKDIGANLTAVGIPAYIIEERKNKNIRAIDANCDDKLEKLEKKILELENLILKQPES

QK

>AHK58643.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLTKRSQVLEESITLAITALANELKAKGEDIISFSAGEPDFDTPQTIKNAAISAIEKGCGKYTAVAGIPE

VLKAIQTKFKKDNNLDYETNEIITNVGAKHSLFECIECLVEKDDEVIIPSPYWVSYPEMVKFAGGKPVFI

EGLEENGFKITAEQLKKAITAKTKVLMLNSPSNPVGSIYSKEELTQIAKVLEGTQITVLSDEMYEKLRYD

GFDFVAFASVSKDALKRTVTINGLSKCGAMPGWRFGYMASKNKALISAVKRLQGQSTSNICSITQHAAIP

ALNGECDKDIEKMRQAFEKRRNLALDILKQIPNISVYKPEGAFYLFVNIQKIEKDSMKFCQKLLEQEKVA

VVPGVGFGMDGYFRLSYATSDELIKKGLERIANFIKNYK

>AHK58642.1 cupin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIIQWNGAEFSPKEVKINVLIDNEKGKEIQILLAKDSVMKEHKAPFAIHVQVLSGKIWFEVEKEKFELN

ALDMISLEANVAHSLGGLENSIIRLSLNKSDSVQRVNAVLKKP

>AHK58641.1 zn-dependent hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLSFKIFDISNTQRSKAKKVQGKKYEIFLNENEHSLITPKVSFKEILRYYYLYPKNAIPSFKLPFFKPD

LSGFSTPHITWLGHSSLFISFKEYKILIDPIFNTHASPISFINKAFKNAPVYNINDFNEIFAVIITHSHF

DHLDAKSVKALKDKAKFFITPLKVGNYLKSYGVSEKKIIELDWWSGIEFGDLKIMATPAQHSSSRGDGKN

KTLWASFVMEFLSVDKRVFFSADGGYFTHFKKIGEYFGSFDLACLESGQFNIAWPYSHSFPEQILKEAKD

LNAKAVMPIHWGRFLAGTHAWNEVVKFLYENLDLPLITPKMGEAYEVGAKFKQDFWWKEE

>AHK58640.1 molecular chaperone DnaK [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKVIGIDLGTTNSCVAVYERGESKVIPNKEGKNTTPSVVAFTDKGEVLVGDSAKRQAVTNPEKTIYSIK

RIMGLMINEDAAKEAKNRLPYHITERNGACAIEIAGKIYTPQEISAKVLMKLKEDAEAFLGESVTDAVIT

VPAYFNDAQRKATKEAGTIAGLNVLRIINEPTSAALAYGLDKKDSEKIVVYDLGGGTFDVTVLETGDNVV

EVLATGGNAFLGGDDFDNKLIDFLANEFKDETGIDLKNDVMALQRLKEAAENAKKELSSANETEINLPFI

TADASGPKHLVKKLTRAKFEGMIDSLVAETITKINEVVSDAGLKKDEIKEIVMVGGSTRVPLVQEEVKKA

FNKDLNKSVNPDEVVAIGAAIQGAVIKGDVKDVLLLDVTPLSLGIETLGGVMTKIIEKGTTIPTKKEQVF

STAEDNQSAVTINVLQGEREFSRDNKSLGNFNLEGIPPAPRGMPQIEVTFDIDANGILTVSAKDKATGKA

QEIKITGSSGLSEEEINNMVKDAELHKEEDKKRKEAVDARNAADSLAHQVEKSLSELGEKVAAADKENIQ

KALDDLRETLKNQNASKEEIESKMKALSEVSHKLAENMYKKDEPNTANDKKKKDDDVIDAEVE

>AHK58639.1 heat shock protein GrpE [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSEQKQEFENENAENSEHLQDENLQNIEDVEQNKLQKDYDELKDKYMRANAEFENIKKRMEKEKLSAMAY

ANESFAKDLLDVLDALEAAVNVECQDEISLKIKEGVQNTLDLFLKKLEKHGVALIKDEKEFDPNLHEAMF

HVDSENHQSGEVVQVLQKGYKIADRVIRPTKVSVAK

>AHK58638.1 HrcA family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKSRDKKDLILESIIQTYLLDNAPIGSNELNSNLCIPASTIRVYLKRLSDEGLITQLHISSGRIPTILTM

QNYWQNFWEKEQDKNIHIKNESFLKELSKEFEIYCLVYGGRSLVLKEVLDLNTKFIVLDFEDEELVLKYE

KEAWNFLQSLIGLDLSSIEKIALRVHFIDLVEKIASLRQNLICYRSNEERAYQIYQNDEFVKLLDCQIHR

HFKESLEFEPLFKEGFMGLKVDAQFLGEDVNIILAGSVYTDYKKILQYIKEAA

>AHK58637.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILSIALVALVGLFLGACSDSKNKESNASVELKVGTAPNYKPFNYKENSKLTGFDTDLVEEIAKKNGI

KIVWVETNFDGLIPALKAGKIDMIASAMSATDERRQSVDFTKPYYMSKNLYLKLKNNDSLQTKNDLEGKK

IGVQLGTLQENTAKAIKNAQVQSNKDLNIAVLALKNNKIDAIVADQDTAKGFLAENPELVSFYQETDGGE

GFSFAFDKNKQKNIIEIFNKGIDEAKTDGFYDTLIKKYELE

>AHK58636.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLVLFDLDDTLIQGDSAKLWLKFCVEKGFLPQEYLEKIVFYQKQYQEKKFDMDEFMTFFLQSVKGKNED

RISSLVDEFIKIYIKPYEKAKELIIKYQDQRCIIISATAEFLVRKIASFLGVRESIAIKCERVGDKFSGK

AYGIYSFKEGKVLRLKEYLGKDYEKWMKDSYFFSDSINDLPLLESVSKAFVCNGDEKILKIAKERKYEIL

TF

>AHK58635.1 spermidine/putrescine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAYLKIKNFKKAYGDKIIFEDINFSAKKGEFITLLGPSGCGKSTLLRCIAGLSQINGGKISLNDKDLTKL

SPQKRNIGMVFQNYALFPNLNVFENVAFGLKIKKMDKKDIEKRVKKMLKLVELEEYAKTYPHKLSGGQMQ

RVALARSLVIKPDLLLLDEPLSALDAKIRKYLRVQIKEIQKELELTTIFVTHDQEEALELSDTIILMNEG

KIIQNSNANNLYLLPESHFVASFIGNYNILSPKELDSLGLKHDFKKDIALRPETIEISNEGLEAKIKEKS

LLGNIIRYRVRVQEIEFKVDTLNFSTHSTYEAGDKIALKFNLSLAKELK

>AHK58634.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNENLSLKAKIYHYAVLFLVFLFLALPLMATFLYSISTSWGVSVLPDDLTLKWYQELFHDERFLLALWHS

LLVCVGSILLSVILVFPLVFVLNYYFLKLKAFVNILIIMPFAVPPIVSCVGLLQLYADNIGGTAWILIFT

YFTIALPFIYRALDNAISNVNLNELITSNAMLGGSLMGAIFKLILPNLRNGILVAVFLSFSFLIGEFLYA

NILVGSAYETLQVYLYNIKNQSGHYSSALVIVYFVLIFITTFIASLIKE

>AHK58633.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEKFLAFLSILPFFIVFTFFMIAPLIWIVFNAFYVEEDEIYSLANFIHIFESKFYLQSIINSLQISFIS

SIFGLLIGLLASYSLFVLAPSKICKFLFSLNTMISNFSGVPLAFAFIIVLGSNGVVNVFLKNLGIEPFVS

VYANFGVNIVYVYFQIPLAILLLLPAFKSLENSHLNACKMLGGGNFLYWLKIALPLLAPALFGVFVILFA

NAFGAYATIYALSSGNFNVAPVRIAALIAGDINLDPYMASALSIIITIIMLVVTFIANFLSKKYNFKVL

>AHK58632.1 hypothetical protein N920\_03655 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKAILVVLDGLNCKSASINMGYLNALCKENLGKFYSLECELPSMSRPLYECLLTGVKPVLSGIINNKLS

FSKQTSIFDLCKEQGLKAGGAAYHWVFELYNKKEFIPSLHRHIEDENLTLPYGHFYYEDDYLDSHLFADG

EHLRNKYNLDFTLIHSMNIDDAGHKFGSHSIEYANKTKKVDILISEYLPTWLEQGINVIITSDHGMTEGK

SHGGLSEDEILVPFFTFGSAFSYENAKIKQDEICGSICEILGLKHDKRYNDEILKAKK

>AHK58631.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKKFFLSLGLVALLFSNSQAIDENLIKAAQAEGRVNSLAMPDTWANWKDTWADLKNLYDIEHSDTDMSS

AQEIAKFKTEKKNASGDIGDVGASFGEIAVKQGVAQPFKTSYWDQIPTWAKDKDGNWLLAYTGTIAFIVN

KDVVKDIPKTWQDLLKGNYKITVGDVSVAAQAVSAVLAANYALGGDEKDLSPALAFFNTLAKQGRLVNND

VSIANLEKGEVEVGLVWDFNGLGYRDKVGKDRYEVLIPADGSVISGYTTIINKYAKHPNAAKLAREFILS

DKGQINLAKGYARPIRIDHITLPDDIKAKLLPSEQYKNARAIKDQKAWEKSAKELPQLWQEKVIVDMK

>AHK58630.1 magnesium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLYIYIKTQNALVQRINFNLDSQELPQNILWIDLLHPSAAEIAFISSEFNLEFPTKEEREEIELSAKYWE

DNATITINAHFLVRDLKSDEEDRNLIKLRTEIVTFATAKNILFTIRYNEFSTFEEIQARILASPKNFEDG

FDIIDKMFEVRVEKDADLLEWIDKEARRLRTSVLEKKDEYSYDEMLKDISSLQELNMRVRDSLFDKRRAM

TSLLKSDKIDKDIKQNLTIVLKDLNSLVEFSVSQLNILDNIQTILASQINIEQNKVIKIFTVATVAMMPP

TLIGTVYGMNFKFMPELELHYAYPIVLGVMVISIILPLVVFKKKGWL

>AHK58629.1 molybdopterin adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDTINIGILTLSDRASSGIYEDKATAEIERVLNSYIKNDIIYHKELIPDDYDLIIKKLLYLADEKKCDLI

VTSGGTGPALRDVTPEATEAVCDKMMPGFGELMRLESLKYVPTAILSRQSAGIRNKSFIINLPGNPKAIK

ECLEPVFPAIPYCIDLIEGAYIEANDEVIKVFRPKKKCQN

>AHK58628.1 molybdenum cofactor biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFFKKKISQKQKEKPKIPINDVILDDRLCKFKNKVQKISKDEASASLLARQLSRLIRANKF

>AHK58627.1 peptidase M48 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTLIAILCLYTALLSWISYAQIRFLEREKDKQAQILSEKDYQNAADIAIENEKFKLFSNFYNLIISIAWI

GFGFLYLKELLILNNTRFENTLFLLSFLIITSILNLPLSIYESFIKDKAHGFSNMTVKLFIKDTMKSLIL

TLIFGFLILYTLLFCYDFFGTFWWIAAFIFAFCIIVIINLIYPTLIAPIFNKMKKLDDENLLKKISSLMK

QCGFSANGVYVIDASKRDKRLNAYFGGLFKSKRVVLFDTLLKALNERELLAVLGHELGHFVHKDIIKALF

NGAITMFLLFFVFANLPEFVYLESHLEGVNGGVFALLFILANIFSFLISPMLNALSRKNEFAADQHGAKV

TSKEDMKNALIALARENKAFIKTSKIYTFFYLSHPSISDRIKALS

>AHK58626.1 N5-glutamine S-adenosyl-L-methionine-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTIKNALMEAKSSLKGYENEAVFILCEYLKKDKAWLFLNQDIKIDHEPYFELIKRFKSGEPFEYIFEKVD

FWGLEFKIKKGILIPRYDSEILLFQILNLCKKNTFNGILEIGFGSGILSIVLAKELGLKITACDINPKAL

ELALENAQLHKVDHLIDFKLCNFKQIKENYDFIFSNPPYIKNSYPIDIWVQKEPKEALFGGEKGYEILEE

IIHFSLDKKVKFLACEFGYDQKEILEKILYQNNFIVDFFKDEQGYNRAFIAKFTNMRYDKK

>AHK58625.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKAVNLFLLASIIGVELILGIVVAPTIFFPQNLIGEGVLSHFQSGLMMTQIFIKMGYLLIFVSVVNFLYE

IYSLIKDEMKFQIKFSKFMLSLLILILSLIFVFYFTNTIIELQNLGENATKTQEFISIHNASEVVIKIIL

IMQVFLYFLSFKIAKK

>AHK58624.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMISDATMMQQNYYLNNAQKASDKALENIAAVRAISGVDSANLAIADSLRSQSSTIDQGVANAYDAIGVL

QIADASLTNISQSADRLNELSVKMNNAALNDSQKGMLRTEATRIQESINDSFNNATYNGKNVFQTMNFVV

GSGTETTNLNPLATDGLSIDSQDSITNFMDQLGSLRSEIGSGINAITSNINASVQNSINSKAAENNLLNN

DMAKNVNDFNANYLKENAAAFVAAQSNMQLQSKIANLLQ

>AHK58623.1 YggS family pyridoxal phosphate enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTLEQILEKTKNVRLVAASKYVDASIIEKLFDQGIVEFGENQVQALAQKKENLDEKKLDIKWHFIGTLQS

NKINLLIKQKPILWHSCNGIKIAKAMDKRLDYKLNTLLEINSANENSKSGLDPNQAVEEYLQIQEECSNL

NLCGVMSIGSHSQDKENIIKSFETTFKIYEILQKHGAKICSMGMSNDFEIAIKCGSNLVRLGSILFKNLK

>AHK58622.1 DNA polymerase III subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSQFTHLHLHTEYSLLDGANKLKELALTLKEQGATSVAMTDHGNMFGAIDFYQTMKAQGLKPIIGIEAYL

HNHDELDDKSSRQRFHLCLYAKNEIGYQNLMYLSSQSYIKGLYYYPRINKKLLEDYSEGLICSSACLQGE

VNWHLNTYSERNVRFGAKGYEAAKEAALWYKKVFKDDFYFEIMRHGIGDQRMIDDDIIRLSKELNIKIIA

TNDTHYTFKERAAAHEVFMCIAMGKKLNDPDRMRHSVHEFYVKSPEQMSELFADIPEAIENTQEIAQKCN

LELNLGNPTPPNFKFTREYAKDHNIILPEETKEFSFDNDDMVFEELCKKGLEERLKFIDESKHEEYKQRL

EVEINIIKNMKFSGYMLIVHDFIKVAKDKGIPVGPGRGSAAGSLVSYCLRITDLDPIPYSLLFERFLNPE

RVSMPDIDVDFCQDRRAEVIDYVIDKYGADKVAQVITFGKLLAKGVIRDVARVCDMSIQDADELAKLVPE

ELKITLDAAYEKEPKIKEFIDRHPKGLEVWEYARALEGLNRNAGMHAAGVVISNESLWKKTPLFRQSKND

ERHLVTQYSKDHLEDVDLIKFDFLGLKTLTVINNAIKLIKKRYNKDIIWETIDVNDSKVYKTIQSGNTLG

IFQIESGGMQSLNARLKPERFEDIIAVLALYRPGPMESGMLDDFIDRKHGLKSIEYPFDSLEKVLEPTYG

VIVYQEQVMQIVQIIGGFSLGGADVVRRAMGKKDPEKMKKLKTDFADGAEKQGYDRAKAEDLWELIVKFA

GYGFNKSHSAAYALITFQTAYLKTYYPSEFMAALLTSEENNVDKIAVYIDEMKKMNIKLLPPSINKAIRE

FSALEQDGKDAIIYGLGAIKSVGIPAVENLLEARQDGEFKDINDFLGKIDPTKINRRTLESLIKAGAFDE

FGFTRKALFDNMENLSEASRKMAEVRKNAASSLFGEEELTSGVQVNFTPKNEEFEVMEKLGYEKEILGIY

VSGHPLDRFYEQINAIDYVKSLDFESLKNNGEILSIGKIEDFKSMMSKNNKRYGRIEILDYYSSFDATVF

ESNVEEIENIIKDENLKNNAYGFVLGFKAEGGEKPSFFLKAIKDLQSLEDGEIKAIKKFGAKKDFKNKEE

NHFTAEPKEFEKNIIELDLTRLNRELIYEIHEIARNAHNPNEKNNKKLVLKVISAGSCLLYHTDFIISDS

IVEEISNKYA

>AHK58621.1 ArsC family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLYGIKNCNSVKKAMDALTQKGIVFDFMDIKKINQDILYTWLKQKSFEELINTAGLTSKKLGLNKEKVK

NLNEKELEKIVLENPSCIKRPIIEYEQNIYIGKEYEKML

>AHK58620.1 phospho-2-dehydro-3-deoxyheptonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MWAKNSWKNYPIKQQPIYPDQEEMNRVLARLEKLPPLVFAGEVRNLQKSLARVCKKEAFLLQGGDCAESF

ENFGAVNIRDMFKILLQMAIVLTFAGGCPVIKIGRIAGQFAKPRSSDFEELDGISLPSYRGDIINGFEFS

EQARIPDPHRMLEAYYQSAITLNLLRGFAKGGLADLHEVHRWNLGFLKKSELHKQYTDISEKISQALAFM

EACGINTSNTPSLREVSVYTSHEALLLPYEEALTRVDSLSGEIYDCSAHMLWIGERTRALDEAHVHFLSG

VKNPLGVKIGPSASADDIIALANVLNPNNEEGRLNIIIRMGADKIINNLPKIFSKLKSEGLNLVYSIDPM

HGNTVKAGNFKTREFDKIMQEVRSFFEIAISEGVYPGGVHLEMTGKDVTECTGGASNVTAQSLEDRYETQ

CDPRLNADQALELAFLIADLVKKTRK

>AHK58619.1 hydroxyisourate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFSIKKTLLILASVPMFLSATEYQLSTHVLDITSGQPAPKVKVELYKLEANQQWKKVSEEFTEENGRIGD

LLPYEKAENRAFGIYKLKFFTKDYYTSHKINTFYPFVEVSFELSKDQKHYHVPITLSPFGYSTYRGS

>AHK58618.1 50S ribosomal protein L19 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNKYIEQFEAKQIEGKNVPDFRAGDTLKLAIRIKEGDKTRIQNFEGICIARRGNGVSETFIVRKIGANN

VGVERIFPIYSESLESITVLRRGRVRRARLFYLRDRRGKAARIKELKK

>AHK58617.1 tRNA (guanine-N1)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFSFVSLFPNLMEFYFQDSILARAKEKKLFKLNFYNPRDFSKNSYHKVDDYKIGGGAGLLMQAEPMYEV

LRSIQEKKENPYFIFLNPSGKTFNQKDAKRLSKKEHIVFVCGRYEGIDERVLEIFANEVFSIGDFILTGG

ELPALVMCDAILRNVNGVLGNMESLEEESFENNLLEAPAFSKPFIFEKKNKKFYTPSEFLKGNHARIASL

KTTLASCKTKFFRPDLFLEHERKK

>AHK58616.1 ribosome maturation protein RimM [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSEKDFVQVAKLGKTVGLKGYVKLHNLSDFSSQFKKDATFFIKNTKEMLKIKHYNANNSTVLFENYEDIE

KAKELTNLILFQSIEKSRQTCKLKKDEFFYFDILECEVFEEDKRLGKVVDILETGASYLFEIQSDEKWVE

KKYPKIFFIPYLDKFVKNIDIEKRQIFCTQDAFLILENS

>AHK58615.1 RNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVENFLREYAKLIADYPEQIDTQKIELSENFFEIVLFAHKVDTGKLIGKNGKMINAIKTVISAYKSKDAS

SYRVTVKALE

>AHK58614.1 30S ribosomal protein S16 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTVIRLTRMGRTKRPFYRIVVTDSRKRRDGGWIESIGYYNPMVEPEVIKVDAERLAYWKSVGAKLSDKVA

SITSK

>AHK58613.1 signal recognition particle [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFELVSESFKSAINKLRFVDDEKALKNALETLKKALLKADVHHKVTKELLTLIEEDAKQNGIGQKQFLNA

IKINLENILSVNGKNQGFVFASKPPTVVLMAGLQGGGKTTSTIKLANYLKLRNKKVLVAACDLQRLAAVE

QLRQLCEANEIELFFIENEKDPIRVAKEALKKAESSMVDVLLVDTAGRLAIDEALMDELRAVKDVLNPDE

IFYVADAMSGQDGVKTAASFNEVLGISGVILSKFDADTKGGVALGIAKQIGIPLRFIGVGEKVADLEVFI

PDRIVSRIMGEGDLATLAEKTAAIIDEKEAKKLNQKIKKGEFNFNDFLNQMESIKKLGSMKSLIGMIPGL

GGMANAVKDIDLDNSKEIIRIKAMISSMTPKERENPDLLNNARKRRIAEGAGLSQVEVNRFLKQFSNAAK

LAKRFSGKKGMESLTQMMSQARRQF

>AHK58612.1 ribosomal large subunit pseudouridine synthase C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQEKAYKLLALQEKISNREAKDLIDKGCVFSYGKKVVVARALMSDKARFNVIKAKNPQIIFEDDKIIAIN

KPYAYVSEDLEKKFNAKLLNRLDKETSGVILLCKDEDFRKLCIEEFKKHRVYKSYIAVLDGVLAEEVEVN

EPIFTIKVKGGALSKVSKDGLSALSIITPIMMQSKKTLAKIVIQTGRTHQIRVHAKFIKHGVVGDEKYAK

ISSDRMYLHSYEIKIFNYHFRANLDSGFAKFGFDIKNLDF

>AHK58611.1 3-deoxy-D-manno-octulosonic acid transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIFFYYFLTWTAFLFCAVFILLLSFLKSKYKISLKSRFFLYKNLHQEKADVHFHACSYGEVRSIKALVLK

FDSRITTITQTGFECAKEFCKKVNYLAFENFLPFWLKPCKVLVIFEAEYWLMLVFMARIYKAKIILLNAR

ISDKSYHSYQRFSFFYKKIFSYIDEVFAQSDLDKARLESLGAKNVKIFKNIKANLEIKNNKIYTKPKEKL

IIFASTHKDEEELLLDHFKLEENEKLIIAPRHPERFKEVENLLLNKGLEFEKFSSLKDENKKFSKKILLL

DALGELVNFYAISDVVVLGGSFIEGIGGHNPIEAAYFDNVLISGKFIHNQKVLFEEVENVYFCEKLKDLN

DKVHYLNLKAKISKKENLDLIIQTIQKGIDARKSL

>AHK58610.1 zinc ribbon domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKYLEQLVLLSKIDQEIDSYEPKIDSINKTLKDAELKIEKINADLEKIDEEIKDIENQKIQNNAHISEF

SAKIKDLSKKSGVVKTEKEANALKIEEDIAKEQLDAANDEIVRLDKILENKETYKKELEEEKIKQEQNIN

EIRVSIKSEMEVLEKDRMSVYDKKTKLVSEMNQKVLSFYEKIRKWAKNTAVVPVKKQACYGCFMKIYDKT

YLSVVKGEEIVTCPHCGRILYKEQEEQN

>AHK58609.1 hypothetical protein N920\_03535 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLSEIYNFLDQLSPFNIQESWDNSGILLGDRDSEISTVYLSLDIDENIIKEASENSLIITHHPLIFKGL

KDLYDKTYPRAFIKEMIYKNISLISMHTNYDLSHLNTYFTEEILGFKISFKDKFLIYVENSMSFEALCDW

VKKKLNLQILRVSDCGKKDIKRIAICTGSGGDLISKVDADCFLSGDFKYHQALEALSNQISLIDLGHFES

ERYFSQCLAKDLKNLPLQVIITVSKNPFQYF

>AHK58608.1 glycyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTFSQMILNLQNYWQEQGCAIMQPYDMPAGAGTFHPATFLRSLGKKPWAAAYVAPSRRPTDGRYGENPNR

LGAYYQFQVLIKPSPDNIQELYLKSLENLGFDLKSHDIRFVEDNWESPSLGAWGLGWEVWLDGMEVTQFT

YFQQVGGIAVDLVSAEITYGLERIAMYLQNVDNVYDIVWSEFNGEKIKYADVHKQSEYEFSKYNFEVSDV

KILNEQFENSYKECKNILEQGLALPAYDYCMLAAHTFNLLDARGAISVAQRQDYMLKIRELSKNCAEIYK

KNLNEAE

>AHK58607.1 hypothetical protein N920\_03525 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQTYLELEEFCKLVHLNEDVVKGMMANGALNFKEEEGKIYIEAHQGTFSVVPSSAKSQTAMVNSMTLAGE

SFVEKTIGTILNLHEKVLDAKDETLEALKNENKFLKDALYSMQELYDEDRKTIETLNNELKHAREEIEFL

KRKYKLMWSKTAEIFGAKTEPDLEMNKNLEKPIENMEQ

>AHK58606.1 N5-carboxyaminoimidazole ribonucleotide mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFVSILMGSKSDYETMKEAAKTLESFGVKYELIISSAHRSPKRTKEYIANAEEKGVKVFIAAAGMAAHL

AGAVAAYTTKPVLGVPMSGSNLASMDSLFSTVQMPSGIPVGTLAIGKAGAINAAYLAMQILAIYDVDLAQ

KLKEDRLEKEKKLVSDSKEVEVLL

>AHK58605.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIIPEIVAPAGNFTKLKIALAYGADAVYAGVNNFSLRSRTAREFNYESFEEAIKYTHERGKKIYVTLNGF

HLSSQIEGLKRHILKLREMKPDAFIVASVGAMRLVKELAPEISLHVSTQANILNYLDAQVYKDMGAKRVV

IARELGLKDAKALKENCDIELEAFVHGSMCFAYSGRCLISSVQSGRMSNRGSCANDCRFNYELYAKNPEN

GTLFRLEEDENGTHIFNSKDLNLCSYIEKIMQENCISAFKIEGRTKSEYYVALTTRTYKMAIQDALEGKF

ESSKYEKEIATLKNRGFTDGYLVSRPLEKTDTQNHNTSIEEGSHQVHAISEDGRFFKCKGKIVLNTPYEI

LTPLGDVIQTCDNELGKIYQKEGKYFIEFKKLIAKNNKEFSEIHSGNEHEIQLPNKISALSFLRKEI

>AHK58604.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTQEELDALMNGDVDLDSETEAEVKTEESNTEEDALMLEDVKIADYKPNPSVVWPPPPPNQEHKVVHQLD

DVTKDSELKATEMMDKLESINNFFADSESLLKEINKAIEKNIDIFSKLNEKFPNVESFSEALELNNQAKK

SSKEIVGNLQSGQDEVMMAMDAMQYQDIHRQKIERVINVMRALSRYMSSLFEGKIDDKKRVSSAVHIEGD

STADVVSNDDIEALIASLGQK

>AHK58603.1 glutamine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGKFVNNIDDFFKFCKQNEVLFVDFRFTDMIGTWHHITYNLHAINEETFQTGIPFDGSSIHGWQPIEKSD

MILKPDAQSAFLDPFTADPTIIVFCDVYDIYKGQMYEKCPRSIAKKAIEHLKNSGIADTAYFGPENEFFV

FDSVKIVDTTHCSKYEVDTEEGEWNDDREFTDSYNTGHRPRNKGGYFPVQPIDSLVDIRSEMVQTLEKVG

LKTFVHHHEVAQGQAEIGVNFGTLVEAADNVQIYKYVVKMVAHLNGKTATFMPKPLYGDNGNGMHVHMSL

WKNGVNLFYDKDGYSGLSQTAINYIGGILKNARSVAAFTNPSSNSYKRIVPGFEAPCILTYSCQNRSASC

RVPYGIGKNSARIEIRFPDSTANPYLAFVSLLMAGLDGIKNKTIPVGPMDENLFDLTLDEIREKGIEQLP

HTLRGSLEALIRHNSYLKPVMSDIFIDDYQHLKFETQVWPVEARPTAYEFKTCYSC

>AHK58602.1 flagellar basal body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMRSLHTAATGMVAQQTQIDVTSNNIANVNTAGFKKSRAEFADLMYQVMKYAGTSTSATTLSPSGIEVGV

GVRPTAVTKVFTEGNLKSTSTDGLDMAIAGNGFFQIQLPDGTIGYTRNGQFTKDNEGNIVNSDGYRLLPE

MTIPEGATAINVATDGTVSVMLPGEQQETQIGQVELVQFINPAGLHSMGDNLYLETGASGAPVAGIAGQD

GLGTIRHGFIELSNVQLVEEMTDLITGQRAYEAGSKAITTSDDMLGIVNQLKR

>AHK58601.1 flagellar basal body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNGYYQATGGMVTQFNKLDVITNNLANINTSGYKRDDVVIADFKRIFKETQDELPIENHTRDASRFVNT

TIDGIPQVSQEYTDFSLGSLKATNNPLDLAMTREDAFYLVQTKDGEVRLTKDGNFQLDDEGYLVNKQGYK

VLSSDYFNNPQNAGIRIPNGAVQISVDKNGSIEVDGAQNARLFVAQVDDIRALQKDGDNVYKIDDLTRIR

DLKNSNAIRQGFSQGSNVNPVTEMVGLIEANRMVEMYQKVMTAHMDDLNQEAINKLAAVK

>AHK58600.1 cell division protein FtsZ [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSEFLVEEMQHNKGAKIKVIGCGGGGGNMINHMVKMGLNDLDLIAANTDAQAISISLAKTKIQLGEKKTK

GLGAGMLPEVGAESARESFEEIKASLSQSDIVFIASGFGGGTGTGATPVIAQAAKEIGALTVSVVTMPFA

FEGKQRKKLAESGLLELKKESDSILVIQNEKLLSIIDKKAGIKDAFRLVDDILARAVKGMVSILLDNGDI

NVDFADVRTIMSHRGLALMGVGSASGENAIEEALSNAIESPLLDGMDIKGAKGVILHFKTSSNCSLFEIS

AAANSIQEIVDENAKIIFGSTTDDSMEDRVEVTIIATGFEDKDTVAKKSTEEAQASKKNPYLSLKKVSGG

YDEEIMAQIETPTFLRRQMD

>AHK58599.1 cell division protein FtsA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNILGIDLGSTQTCAIIAQKDEDGLKIIGFSKSKTNGVKKGAITNIELASKSIEEAVRSAEMMSGVHYDR

VVVSISGAYTKSVDSIGVVNIPNHEIGIKEIHRAVSTAKHTANLPSGYEIIHVLPYNFKVNDLEHVDDPL

GMSGNRLEVSTHIVISQESHIKNLKKAVELADLRVDNIVLSGYASAIACLDDSEKELGAVLIDMGGAICD

MVVHTGNSIRYNDCLQIGSINITQDLSMALHTPLKEAEKIKLNYAALSQQPNTLIQIPSMGDERKVNEVS

LDIISNVIYARAEETLMILAKILSDNRYANAIGGGVVLTGGMTKLAGIDELAPATFDNRSVRLATARKDL

ITGFSEIFNDPENTCAIGLCLYGAGYFTPYELDSNEKLRYKGEIENFNRQIKQDIVLQKDAESEIKSDFF

DENLQENDTIAIQEQLDFKEPKEKKPSVFSNIWHKIMNQF

>AHK58598.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLTWMQHHKKYLVVTIWVSTIAFVGAGFLGWGAYDFNLNRSSSVATVGNEKIGFSEFDTRYRQILSYYNQ

ISNGALTPENAEQLGIKNIALSSLVEDKLLLNFAKDLGIGVNENQILQKLANTREFQDPTGDFNKTIYYE

LLNANNLAPKDYETQLANEVITDKLNQIFNIPSKDEELKMLASSYFMQDALSIAKIDYDKKNIKINEEDL

KKLWNEHKEDYKTKKIYEISTYFLPVSNEKIDDKELEKFYNQDENKLKYKDFAGKVMDFQSAKNEVAKDY

ALMQLKNVANAKFLDLKNGKDNFQKDQNISESDVYYPIDLLNKAKNGDVLRPAPYNNGYIIVKLNKVDPI

RNKTFEEAREEVLPMYLSEQARKNLEEKAKNSLVNFKGDDIGFVSRDSSRESVKVSDKILNDSEFAYFLM

NVFNTDQNSSYVVINDNKAILYKINKQKLDMNSDKFEQYKTMLEQNLQNLKANELKQELVDELKKIYPIK

IYYKGN

>AHK58597.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEIPHIPVLLNEVQEIFKNLKTGYFLDCTLGFGGHSEALLKNHPDLKFIACDQDQQALKFSKKRLKDFRN

RITFMQSNFSEVLEKISHKEELRGILADIGVSSFQLDNNERGFSVNSDFLDMRMNQNSKISAYEIINTYT

KEQLTSIFKDYGELHDAHFIAEKICLERSKNLIKSAKELYQIIGKGKQNHRKISKATLAFQAIRIEVNQE

LKVLKDFLEHLENLKPKNCILAIISFHSLEDRIVKQFFKKWSKNCICNEKIMRCECGNNHSLGQIITKKA

ISASKEELLKNSRSSCAKMRAFYFNNLDNK

>AHK58596.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLEDDFIKERQNIRQKMLKFSRAINQGKPLDDDLRDEISSDDILRRRFKKKTPNKFLEELDEEYESKHTK

KSNIYLKEDLINVKLEEKQSLAKKIFSKMKERRKEENKKTKKNFLFSRKKANEIKNIQTKTQIQTKSNQA

TTQTKQEKKELTNSIEKIQKTETKIQKPLIIEKKLDVKNQPNIKKSLENLQKKITPQENKQELPKPSNQA

QEKQQNDEDAQKAKNILLEGFSNATKEDRNLNFNHLLFAALLVSFALFLFAPQIYIRNQIYYLSREIATL

RTEESVLNEENKDLKRRLENMRFQNQILDYLE

>AHK58595.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKFKEFSLRFLFKVSEQPVLIRDLLEANALFNDGMLVDPSKLNFNFKILNSYIYFGVFCAVILLPLLLI

THYFLTKLDFHISIVSAVMVTACVFIGYDIFKVYTRKIISKKIIQKAWALHFPYFAYEKYSTMAGEFYKE

ALKEEIPKANLEQYVLDKIIHSK

>AHK58594.1 acetate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKILVLNSGSSSIKFKFFDNKVVKASGLVEKIGEQNSKVVLKNTLNNESFERELTINNHEEGLSIVNELF

KESGILADLNALDGCGHRIVHGGRNLSEHCLVDDYVLKEIDRVSIFAPLHNPAHLAGIKTMIKAAPSVAN

AAIFDTAFHRTMPDFAYMYALPYDFYDKHNIRRYGFHGTSHAYVSSRAAKFLQKDQNELNVISAHLGNGA

SVCAIEKGKSVDTSMGFTPLEGLVMGTRCGDLDPAILPFISHLKGLTIEEIDTLMNKKSGVYGICGYNDF

RDIEREIEQGNDKARLALDMFCYRLVKYIGSYFAVLPKTDAIIFTGGIGENDSLVRQKVCERLAHLGIEL

DFELNKQRISGERMINHANSKVKVLVIPTDEELEIARITEELIGKN

>AHK58593.1 phosphate acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MANLYLMRSRSDELNTIISTNLLKNYSKIYKNIAIYCPVIYIHRVPVLQGWLEEFNINQTVKSAYGFTFR

EAMEEFSKDPHNFFNVILEEYEELKRKYDFVLVNSFCEFGILDGFDLSIKLAKNLNTPIAAIINDEDKLI

AQKYFDHALDGRNYVLINENFNFEEVQKLKEYDFITPHRFKYELIKQSIKNKKTVVLPESNDERILKAAE

ILLKSKVVDLILLGDEEKIKQDATRLSLDLSAMQIMNPLNSEYNQKFTSILYEARKSKGMSLEEAKMLVQ

DKTYFGTLLIHTGKADAMVSGASTTTAETIRPALQLIKTKEGISSVSGIFFMGLEDQVLAFADCAVNPSP

TAEQLATSAYVSAMTAKSFGLEPRIALLSYSSGDSGKGESVDLVKEALKIAKEKYPELNIDGPMQFDCAY

DPKTAAKKMPNSKIAGHANVYIFPDLNAANICYKAVQRTANALAIGPILQGLKKPVNDLSRGCLVDDIVD

TVILSAIQAQ

>AHK58592.1 flagellar L-ring protein FlgH [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKVLFYVLPFAFFGCSATVDPQISMKPPAYVEELAPKQSNNVESAPGSLFGKGDNPLFSDKKAMNVNDL

VTVVIQESTTQSTQANKATSRTNTSNLGGGALTGSSGVVANALNKVNAYSNIGFQTNSSNNYTGTGSQSR

NESFNTTISTRVIKILSNGNYFIEGSRELLINGEKQIIQLSGVIRPYDIGQDNTIDSKYIADAKILYKTE

GEVDRSTRKPWGSKVIEAIWPF

>AHK58591.1 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEYKRFKTRQIKVGNVLIGGDAPISVQSMLFTKTRDIEGSLEQINRLYFAGANIVRLACLDMADARALKE

IKAKSPLPLIVDIHFNHNLAVYCAEFIDGVRINPGNIGSKENIKEVVKACKERGIPIRIGVNHGSIEKQF

SDKFGYGVDAMLESAMYNIKLLEDLDFFDIKISMKTSDAQKTIEAYERLRPLCDYPFHLGVTEAGTKFHS

TVKSSIALGNLLLKGIGDTMRVSMTGELEEEIRVARAILQDSGVQKSGVNIISCPTCGRIQSDLLSAIKI

VEEKTKHIKEPLNISVMGCVVNALGEAKGADVAIAFGKNQGLVIRHGEVVAKLKESELVDRFLAEVEDEV

KSRVVKE

>AHK58590.1 primosome assembly protein PriA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQRSDIRYYELAICGLYLDNLTFHSFDEIKPLTQVLVDLKTKKNLKAIVLKECQKPDFKTVEIKEITEYF

LTPLQFELANFIVYYYASKLGFVLGFFETSPKYECHKMFFKDTPKLSNQQQNALSFLQKENNSLLFADTG

SGKTEIYISLIKECLEQGKQALLLMPEIALTPQMQKRLEVYFKDNFFLWHSKISKKKKQEYLERFCKGEV

LLVAGARSALFLPFRNLGLIVVDEEHDNSYKASNQPFINARDLALFLGQKNNIQVILGSATPSLTSFYKQ

KSFRLKGTFFESKKHFLYDENELGITPMLLSELEKSLKHQKQAIVFLPTRANFRQIICKDCGETIKCPFC

SIAMSMHKKKNILKCHYCNYTSLIEQNCPSCKGEMLEARKIGTAELLELLQNALPLAKIAKFDSDEITSV

KKLNTILKNFNENKIDILIGTSMLAKGHDYHSVDLSVILGLDEYLLRPSFRASEETLALAMQVAGRAGRK

GEARVLLQTKNRAFFERYIENYDAFLKDELENRKDLYPPFKRLLRVLIEDKDQKSAQKLCEKFASQFRNI

KQVELVGYGICGVEMLYGKYRFYLLLRSENHKALVAIENYILQFKNASADIDPIDFV

>AHK58589.1 hypothetical protein N920\_03425 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKAFTLLELVFVILILGILSSLSLSFINTTKDEVKILKLKMDYEMLSSALALMRSQMRLKNLNFPEILD

NAQNNQAKEKLFYCLNDCDYSLLDTPIYSDFKSWIKIGKNHYRFALNAKEMVEFIYDSKEGLLKCIGSSR

CKDLI

>AHK58588.1 hypothetical protein N920\_03420 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MADNLKQVIVNVNAKDFIVKCSEEFANFLEDDIALISGGTKKIELKRFVDAFVKKSYENYILERELKKLI

KAINEELPTK

>AHK58587.1 ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFDEKIINTMTDKVNELIEKYNEVCEANEALRNELVSVKAQNEAKSNQIMRLEEELKSRNIESEDIYKKI

EAVLGR

>AHK58586.1 excinuclease ABC subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLELTSEFKPSPDQQEAIKGIVKSIKKGNKYQTLLGVTGSGKTFTMANVIKELNIPTLIMSHNKSLCAQL

YSEFKGFFSKNHVEYFISYYDYYQPEAYIPRTDVFIEKDSSTNEDLERLRLSATASLLSYEDVVCIASVS

ANYGLGNPNEYIGMVLIFELGMQISQKELLKKLVDMGYKRNDNFFDRADFRVQGDIIDIYPAYYEDEVVR

LEFFGDELDAMYHYNVLENKKGKDLKRFILYPTSQFSVGETRLKQAIKDIKAELNERLAYFEHENKLVEY

QRLKQRVEFDLEMLTSTGMCKGVENYARHLTGLKEGDTPYTLFDYFAIKDRKFLVIVDESHVSLPQFRGM

FAGDRSRKQTLVDYGFRLPSALDNRPLMFDEFIHKNCQFLFVSATPAPLELELSKENIFHQIMRPTGLLD

PLIELKDSDNQVEILFDEAKKVIQRNERVLVTVLTKKLAEELTRYYLELGIKVKYMHSDIDAIERNEIIR

GLRSGAFDMLIGINLLREGLDLPEVSLIAIMDADKEGFLRSTTSLIQTMGRAARNVNGKVLLFCKKITKS

MQEAMDTTNERRKLQMAYNKKYNITPTSVKRHIEESLKNEEDLGEIYRKGKKLEKMPASERAKLVKELRK

QMLEAAKALEFEKAAAIRDEINKLRDL

>AHK58585.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDFLTSLSEAGQFAIQIIIVLICLFYGAKKGGIALGLLGGIGILMLVFAFHIKPGKPAIDVMLTILAVVV

ASATLQASGGLDVMLQIAERILRRNPKFLTILAPFVTCFLTILCGTGHVVYTIMPIIYDIAIKNGIRPER

PMVAASISSQMGIIASPVSVAVVSLTALLLNANHKLAGFDGYINLLQITIPSTLFGVLCIGIFSWFRGKD

LDKDEVFQEKLKDPEFKKYVYGDSKTLLGVKLPKSNWVAMWIFLGAIALVALLGVFDFLRPNWGQVVKNG

IPQVDALGNPKMDVLSMVSVIQMFMLLAGSLIIIFTKTDAKKIGSNEIFKSGMIALVAVFGISWMADTMF

AVHTPMMKAALGDIVKEHPWTYAVMLLLISKFVNSQAAAISAFVPLALGIGVEPGVIVAFAAACYGYYIL

PTYPSDLATIQFDRSGTTHIGKFVINHSFILPGLIGVITSCIAGYFIAMAAGYL

>AHK58584.1 RNA polymerase sigma54 factor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKQKITQAPKTKISQTLRSWLPILQANIEDLKENLDKFAEDNPFLNVQDSIQTHDKGKNYFDSFYKHNV

NSAFVDSKGLAKKSVYELLNEQILPPLFPTSKSQELAKKIIECLNEEGYFEHDEEFLKEYSLEEIERVRA

RFKFLDPVGVGAKDYKEAFLFALENMELDEDIDEFCRMLIMDFENIQNYTKEPLYKEALAVLKRFSTPPF

LEYFEDSRIIVPDIFVYKENGEIKVKINDDYYPEISIQTDGLEHDFLSHYIKEAKNLVDALAMRKATLYK

IGLMIVEYQYDFFMGKEIKPMTFKDLALDLERNASTISRAVANKYLSCERGLIPLRDFFAFALDEEGETS

NVGVKEFVANLVKNEDRNKPLSDSKILELIKEEFKVDIGRRTITKYRKHLNIASSTDRKKLYELEG

>AHK58583.1 lipopolysaccharide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKESMKFMSKLEIVNLEKIIKKTKIIHGISLEVNSGEVVGLLGPNGAGKTTTFYMICGLISPSSGKVLL

DGLDVTKDPLNKRARSGIGYLPQESSIFKDLSVEDNLLLAAQIFYKDKKILHDKVEQMLELLSIEPIRLR

KGLSLSGGERRRCEIARSLMCEPKFLLLDEPFAGVDPIAVAEIQTLIKELKRLGIGVLITDHNVRETLAI

CDRAYVIRSGSLLASGNADEIATNKDVKKYYLGAEFKLLD

>AHK58582.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEFILAKNEIKTMLQIMPKEGVVLLQGDLASGKTSLVQAWVKFLGLDVRVDSPTFSTMQKYENHDICIY

HYDIYQEGLEGLLANGLFENFFEKGLHLVEWGGENLKKTLMKFGISTIQIKISIKDDKRKYEIYE

>AHK58581.1 argininosuccinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNEVKKVVLAYSGGLDTSIILKWLQDEYNCEVVTFTADIGQGEELEPARKKALSLGIKEENIFIKDLRD

EFVKDYVFPMFRANAIYEGEYLLGTSIARPLIAKTQAQIALQTGADAVSHGATGKGNDQVRFELGYLAFS

PDLKIIAPWREWDLNSREKLLAYAQKHGIDISKKKGKSPYSMDANLLHISYEGLVLEDPAHAPEEDMWRW

SKSPKDAPNESEIIELDFQKGDLVAINGEKLSPAGLLTKLNELGCKHGIGRLDIVENRYVGMKSRGCYET

PGGTILLKAHRALESITLDREAAHLKDELMPKYASLIYNGYWFSPERMMLQALIDESQIHANGRVKLELY

KGNVMVIGRESANDSLFNAAYCTFEEDEVYNQKDAAGFIKLNALRFIIAGKNGRKF

>AHK58580.1 50S ribosomal protein L9 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVLLIKDVKALGKAGEIKEVKDGYGQNFLIAKGFAKAATNEVLRKYESDKKKEAENLRFEIANLEKLKE

ELSKITLEISKPVGANGSLFGGVTKDEIAHALKEQSHIEIDKKSLECDTLKSLGIHEVSVKLGHAIHAKF

NINIKAE

>AHK58579.1 peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFHATTILAYKGKNKSVIGGDGQVSFGNTVLKGNAVKIRKLNNGKVLAGFAGSTADAFNLFDMFENLLQS

SKGDLLKAAIDFSKEWRKDKYLRKLEAMMLVLDRNHIFLLSGTGDVVEPEDGQIAAIGSGGNYALSAARA

LAKHTDLDEEELVKSSLQIAGEICIYTNTNIKTYVIEDEK

>AHK58578.1 ATP-dependent protease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLTPKEIVKFLDDYVIGQKKAKKIIAIALRNRYRRMQLSPELQDDIVPKNILMIGSTGVGKTEIARRLA

KMMGFPFIKIEASKYTEVGFVGRDVESMVRDLANAALNLVKNEQREKNKDKIDEFIENKILEKLLPPLPK

GISDEKQEEYKNSLEKMRTKLRNGDLDESTIEIEISQNMFDTNPNLPPEMGAMQDIVKVIGVGSKKVKKE

MKIKDAKNALKNEAGEKILDQESIKSEALKRAENEGIIFIDEIDKIAVSSGNSNRQDPSKEGVQRDLLPI

VEGSNVQTKIGTLKTDHILFIAAGAFHLSKPSDLIPELQGRFPLRVELDSLDDKALYEILTRPKNSLLKQ

YSQLLKTENLELEFDDEAIKEIAKIASRANEEMQDIGARRLHTVIEKLLEDLSFEADEYAGKKFVVDKKM

VEEKLGDIIENKDLARYIL

>AHK58577.1 GTPase Era [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKSGFVSIIGRTNAGKSTLINSLLEEKIALVSHKQNATRRKIKAIVMHEKNQIIFIDTPGLHESGATLNQ

LLVQSAIKSMGDCDVILFVASVFDSTKDYENFLSLNPQVPHIITLNKVDLTDNATLLKKLSEYAKFSQHF

KAIIPYSSKKKSYKKGLLDEIVKYLDEHEYFYDPEFLSASSEKEIYRDFILESIYENLSDELPYSSEVLI

HRTKDTPNLLILEANIITDTNSHKGMLIGKEGATLKRIGKDARFKISKLAQKKVLLKLFVTVKKNWQKDE

EFLKKLLNDEN

>AHK58576.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKINSLNKINFIKSTDLLYAQRTGISKEDELFNNLTADFKLSKPFDYQIAFFKHNEIYHCFLAPVYKLKK

SRFCFPEPLIFQALFDERFIEESDYCVLNLYDQTLYLYFYQEGKFINLKKIENFNPGNMDLFFKQNRFTE

LLKHYESKLLLYQDLNTIKHYFSSQIKCLNLNDILDKNSLLKLSSYSIKNLDQNCNFIKHNKIKISISFK

IILIFIFSFSLSMMILLFKDFIEYKQNKEIQNKNFIIQEEISKLKQDKQKLLTNIQDLNFTLSNKISSTQ

QQFHILSTITKEINLDKNKAIILNQIISWLNSNDLKITNLEFEQTKIILSFIDENHFKRALENLNSAFKI

LDKNEETFNIILEVIHE

>AHK58575.1 hypothetical protein N920\_03295 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKIEVFLQNLNPREKFLFISFICLCALFLAFKIHDHFLEDIFQKTLVEHNYLALNEAKIENSHLKEIET

KLTKQIKIEEEKLKYYKEKLHLFSYDKDFFNKKINNLSKNLIINEIKFSQENKNFIHYNYVSLSLNGNFK

DLLNFIQNLENLPIALKIDKIKLYNTQGLKLKLDLMFKFVNL

>AHK58574.1 peptidase M24 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSIYKQRVLELRRLMKENNIDAYLILSADPHLSEYLPEYYKNRVFISGFKGSVGTVLITQEEGFLWVDGR

YWLQAQKELEGSGILLQKQDAKNTFTKWLEKNLSEDQILGIDFALLPLSLQKDLKINCKANLKHIDLISP

LWKDRPTLPQEKIYEHELEYCSYSRKEKLALVRQKMKNLNATSHLISSLDDIAWLTNLRGNDVNYNPVFL

SHLLILEDKALLFVDQKKVNSELEKKLNLDGFWLKNYDEIIMELEELANTNLLIEPSKMTALLINSLDKS

VKIIQEINPSTHLKAAKNTKEIAHIQDAMIEDGVALCKFFAWLEEAIKNKELISELDIDVKASEFRAQSK

YYISDSFATIAGFNENAAYPHYKATKESFAYLKKDGLLLIDSGGQYKNGTTDITRVVPIGKANAEQIHDY

TLVLKAHIAISSAIFPKDITMPLLDAITRAPLWKEQIDYIHGTGHGVGYFLNVHEGPQVLSYLSPVLEKT

KAKEGMLTSIEPGIYKVGKWGIRLENLVIHTKVENPKNKDFGEFLYFKPVTLCPFEISCIDTKMLDEKEK

EWLNNYHKEVFEKLSPKLGDYPKALVWLEKRTKAIF

>AHK58573.1 penicillin-binding protein 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRMRLVVGFILLFFIFLLSRVYYLSIKSNVYYEELAKQNAIKTEFLPPVRGQITDRNGTLLAINDLGFSI

SIKPYLSIKKSNKGILDKELSELTNLFPDLNASKLAEIYKRNDSYYNQDFIKVVDFIPYDEIISHYSELN

LNKTIKIDPVVKRKYPFGKLASHIIGYVGKANLQDVQENEIAKLSNYTGKSGIERYYNDILQGEKGTRVY

KVNALNQEVEQLSYTPAMSNDIELTIDIELQSYLTSLFEGNAGAAIIMNVNDGSILAAGSFPEYDLNPFV

TGISFKDWDELSNSLDHPFTNKLINGYYPPGSVVKMGVGLSFLNSKNISPSTHYVCNGSIELGGRFFRCW

NRSGHGPVDLKHAIKYSCDVYFYNGSLQVGIDQISETLSRIGFGVKTGVDLPSEFVGTLPSKEWKMQRYR

QSWFQGDTLNTAIGQGNFLATPMQIARYTAQIAKSGEVIPHFLKSIENNNTTIENQMDENKKEIFTLFEK

SQLPYIRDAMYAVANEQGGTSYRYLHNLDVKVAAKTGTAQVVGFSQTDKNRVDEKQFEYYTRSHAWLTSY

APYSKPKYVVTVLLEHGGRNITSGATVAKIYQKMIELGYFK

>AHK58572.1 GTP-binding protein YsxC [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIISAKFITSLVKFDENLSSNFSEVAFLGRSNVGKSSLINSLCKQKNLAKSSATPGKTQLINFFEVICRR

NEEKFNINFIDLPGFGYAKVSKNLKEIWNQNLDEFLKLRTSIKLFIHLIDSRHTHLEIDVNLNDYLKRFL

RPDQKILKVFTKCDKLNQSEKAKLKNEFKDSILVSNLNKFGLDSLEDIIINQTLGLDK

>AHK58571.1 organic solvent tolerance protein OstA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVARQIILLLVCVSVTWATQIEVKALNFYSDENKGESILSGNVEVIRGDDILNSEKLIIYTDKNRKPIRY

EAMQNARFKIVLKGKTYKGSGDKFIYNVIKDTYEINGHAYINELGSNQKLFGDKIIVDRKANIYRVESKD

QKPARFVFDLKDK

>AHK58570.1 hypothetical protein N920\_03240 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAIKIFGILIALFTITFTILSLQDPYSLNLQTNALNFKNIEAKNLKAYESNTSIIKAYYKANSWVRYADR

DEFNDFITLNLDFNLSANRLEFFNKDMSKVLFEGNVTYIGSNNVKIISQEVEYQPKDKILHTNTNFKALI

NGSIINGNTLNYDVKNKILNIQGVNAWLQDK

>AHK58569.1 3-deoxy-D-manno-octulosonate 8-phosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTELIFLDVDGCLTDGKIIYTSNGEFIKEFNVKDGAAIEAWLKLGKKIAIITGRNCPCVEKRAKDLKIKI

LYQGIKDKLACAKEILQKLNLDFSQCAAIGDYFNDKALLESVGLSFKPKDGHKDLNVDIVLSKKGGKAAV

AQMIEILVEKNHLEEEWNKLWL

>AHK58568.1 RlpA-like lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIKTITLKLSAVSLGALFFSGCLGTSFFSSLDNAQVYYPSNDFKSSPSSSGTKGTMKPYTINGKTYYPT

VVAVGETADGIASWYGPGFHGKKTSNGETYNQNALTAAHKTLPMNTILKVTNLNNNRQVTVRVNDRGPFV

NNRIIDLSKGAASQIDMIASGTAPVRLEVIGFGSSNSGNNIVHSNVNYGNSGEIANNGQIYEGGNFMVQI

GAFKNPAGAQTIAARYKTYRTYSSTIRTSSVDGLNRVFLTGFRSEDEARDFAASGAFAGAFVVRE

>AHK58567.1 lytic transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILLCFLICFNFLFAQINTPEFYERQMNVLRNLDINPSFISDLIFVQTQQDIKSKHAQTLIDSMQNFS

KVTPMIRKILAQQEVPDEILYLAMVESGLKTHSVSNAKAVGVWQFMQPTARNLGLRIDAYVDERRDPVKS

TYAATNYLKELKEEFGKWYLALLAYNCGNGKLRQAIKQAGSDDLSVLLNPDKKYLSLETRNFIRKILTLA

FLANDRDFLLDKDASLMNYALSNEFAKVDVPSSASLKEIAKNLNMDLATFKKYNPQFKHNFTPPGKGYYM

YIPLNKVAFFDKNFKAEKLAKVDTTIPMTRTYTVKSGDSLYKIAKNYNISVDEIREFNKIAKNHLSINQK

LIIPIKENKNANKNNYTKVVSR

>AHK58566.1 TatD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFLNLDFQDGLRIVDTHCHLDSEAFKDDLDETLNRAFKNGIEKIIIPGADIKDLPYAATIAHKYKNIFFA

AGVHPYEIDNYDEKILRQYLCDEKCVAVGECGLDYFRFKSDLAEEIQKEKENQKKIFIAQLELAIEFKKP

VIIHSREANHDTYEILHGYSKDLVGGVLHCFNASEHLLTLFEEGFYFGIGGVLTFKNAKKLVEILPKIPK

DKLLLETDAPYLTPEPYRGKRNEPLLTQFVVNKMCEVLNLSRKELLEICFNNSEKLFFKGY

>AHK58565.1 diguanylate cyclase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKKILIIDDNKMLGKLLAKKIQMTLDYEVDIAFGFAEAKELMNNDYFLAFVDLCLPDAPNGEVVDYVIE

KKIPAIVLTASGDKATKEKFMDKDILDYIFKESETCIDEIISSIVKLNQYAKTKVIVAMSKLPERNEIKK

ILTQRQFNVLAAAHGEEAMSYLNDNNDVKLIIADVNMPVISGFELLTQVRERFSDDELGVILLGDHNDSF

EANSFKNGVNEYLFKPLSKESFNCRLDRCLSYMDDKKFLSTYNVLDPVSGVKNYNALIDGIDDYFNEIAT

KDEEFAFAFLDIDNLQMINDEYGREVGDEVIKICANEIVNETKGRDLVGRYSAEKICILLKNISQERAIK

IFSRIRVNIKKAGVLVNLDEVFFTASIGVVFGKSGDKIDSLADKASKILSQAKDNGKDRVEVCS

>AHK58564.1 DNA repair protein RecN [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINRIFMKENLGFKKAELEISKGLTVFTGLSGAGKSVLFKGILSAFSLSESEAKIVEIEVDDKLDLESFG

IESEEENVFKLLKEKNTKYFINNQSIAKKSLQNLSKTFIKYLSAKENNEFGNEKFLNLLDALEMQENTNF

VSFLEDFKKDFNAYSQISNELNAILEEEKKVEELKELARAQIEKISSINPKIGEYEELLILKKKLSKKDK

LEEAWSKAERIFELEKVVIEALNLSEVDASFFSECLNELRVICENQKMEDLDFDVEALLDRIENLSYLIK

RYESIENALEVLKQKKYELEHYENLSFEKKELEKKFQELKQKLEEKAQILTQTRKKNLKKLEKCLNNYLK

DLYMKDASLTLKENEKISILGKDEIMLDINLAHLKNLSSGELNRLRLAFIATECNILNAGKGILFLDEID

ANLSGKEAMSIAKVLEELSKFYQIFAISHLPQLSSKAHNHFLVEKNGEESKVKKLDQEERIKELARMVSG

ELVSDEAIEFAKTLFKN

>AHK58563.1 inorganic polyphosphate/ATP-NAD kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNKIDYKNIKKIGLVTRPNVSLDKEILKLQSILSIYKVELVLLKESSEILDLPKYGLDDLFKISDFVIS

LGGDGTLISLCRKACEYDKAVLGIHAGHLGFLTDFKVDEAENFFQAFFQGEFRIEKPYLLSIFLEDRQGK

ILEKLAFNDVVISKNNQASMAHIEVFRKEKKFNEYFGDGLIVATPAGSTAYNLSANGPIVYTLAQAFILT

PVCSHSLTQRPIVLPKGFEIEIMAKDCMLCIDGQENYKMNDFKSIKVGLSDKNVALIHPKNRDYFQILKE

KLHWGN

>AHK58562.1 aspartyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRSHYNTDLGISHVGQSVKLCGWVNSYRDHGGVIFIDLRDRSGIIQLVCDPNDSKEAHEIASNARNEFVL

ITEGTIRPRGEGLVNPKLKTGEIEVVVSKLTIENESAVPPFAIADESVNEELRLKYRFLDLRNPKLYENF

ALRSKACIAARNSLANMGFLEVETPILTKATPEGARDYLVPSRVHQGEFYALPQSPQLFKQLLMCSGFDR

YFQIAKCFRDEDLRADRQPEFTQIDVEMSFCEQKDVIKVAETFLKDIFKACGKEIQTPFRQMQYKDAMEN

YGSDKPDLRFDLKFIDVIDIFTKSNNEIFANIAKDTKKNRIKAIRVPKGDTIFSKRQMQRFEEFVRKFGA

QGLAFIQVKKDGLKGPLCKFFSEEDLNELSKRCELEVGDVVFFGAGAKKTVLDYMGRFRIFLANELKLID

PNALEFLWVVDFPMFEQNDDGSYSAMHHPFTMPKNIDETDLEEISSIAYDVVLNGVELGGGSIRIHKNDI

QQKVFKLLNIDEEQQKEKFGFLLDALSFGAPPHGGIAIGLDRLIMLVTGANSIREVIAFPKTQRAQCLMT

DAPSPASNEAMRELGIKLRENIK

>AHK58561.1 adenylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKELFLIIGAPGSGKTTDASLIAQADATNITHYSTGDLLRAEVASGSELGKTIDSFISKGNLVPLDVVIN

TIVYALKAAPTKTIIIDGYPRSVEQMMEFDKVLSEQNEICLKGVIEVRVSEEVAKERVLGRNRGADDNEE

VFYNRMKVYTEPLNEILDFYQKKKLHFIIDGERTIEPIVADMKELIKKIQSI

>AHK58560.1 inorganic pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLSKIKIGDIPNKINAVIEIPYGSNIKYEIDKDSGAIMVDRVMASAIFYPANYGFIANTLADDGDPVDI

LVLNEYPIQAGAVIPCRLIGVLIMEDESGMDEKLLAVPNSKIDARYDNIKTYTDLPQATLNKIKNFFETY

KILEPNKWVKVQDFKDEKAAIEILEKAIKNYK

>AHK58559.1 methionine sulfoxide reductase A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNIVLGGGCFWCVEAVFERLKGVINTEVGYSGGKPNPSYESVCNGDGNIEVVKINYDEKQISLLEILTL

FFKIHDPTSIDKQGGDIGIQYRSIIFYENEEDKILAQNFIEEQQKIFSKKIVTKISRLQTYYKAENYHQH

YFINNPDQGYCQAVIAPKLQKIQSD

>AHK58558.1 hypothetical protein N920\_03180 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLSRIEKLYTKDEMQNILSSFAQEKNVCVFANTLKTSIEELEKEFLKQNLKFKKINVYCYLFDAKDKAIL

SSMKAFNEAHFYIQNYSSYLCALNLEVKAGQSVLDMCAAPGGKSINLANFMQNTGYLACNEMSRDRFFIL

QKNLKNYGVNAKVFMKDGKNIGNLCPLKFDKILLDAPCSTFAKIGFDLEKSYKEIKNIAKTQKKLLHSAL

KALKIGGELVYSTCTFTKEENEEVIENALKSEFKLELLDIDLENVEAKAGQSEEFAEISKCRRILPSLDY

DGFFIAKLRKLC

>AHK58557.1 Holliday junction resolvase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRALALDVGLKRIGVALCIDKKIALPLDAVLRKNRNQAANEIKNLLKIHEISLLIVGIPKGGSSEEEMTR

RIKHFVSLLEFDKEICFVDESGTSKEALGYGVANTRKKDGKLDSLSAFIMIKDYFAL

>AHK58556.1 DNA processing protein DprA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MASEILPDEFLELFKDLKKPPKKLHYKGNLSLLKQDKIAIIGSRRMSVYTKNCVFSLASMLKNAHLCVVS

GGALGVDITASMAAMPNTIGIFANGLDQIYPRTNEKIIKQIYENALALSEYEDDYLPKNYDFLLRNRLVI

ALSKAVVVAQADIKSGSMQSAKLALELNKPLYVLPQRLGESTATNLLLKENKAKLICDFKEFVSEFASID

MNQDEFLEFCKKGVSVDEALKIYGQKVYEYELEGKISIEGLFIRVLA

>AHK58555.1 hypothetical protein N920\_03165 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKKKLVQIQRYLIIAILFLLCIALALGILVKYQNSQDVSSVKPDYFIDKQEDLISLNKDHYEIGIFQEN

EFDNNKSVSILEQKIQEIDDLNTSLNEQNLSSVEQNLSLEQNQSLEQNFILKDTNLTQDQNLTFNEDIHL

NKISKKPKLAIIIDDMANASQVRGLKALNLKLNPSFFPPDKNHSETPKLALKFDFYMVHLPLAAINYNKP

ELDTLNPNDSKERIFKKIKQIKKDFKDLRYINNHTGSLFTSNEEAMKKLYEALKNQNIFFVDSKTIGNSK

ANKIAKELSIPYIQRDVFLDNEDDVNYVKKQLENAVKLAQKKGFVIAIGHPRKNTFKALEQSKDLLKGVD

LVYLSEIYGK

>AHK58554.1 ketol-acid reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAITVYYDKDCDLNLIKSKKVAIIGFGSQGHAHAMNLRDNGVNVTIGLREGSVSAVKAKNAGFEVVSVSE

ASKIADVIMILAPDEIQADIFNVEIKPNLSEGKAIAFAHGFNIHYGQIVVPKGVDVIMIAPKAPGHTVRN

EFTLGGGTPCLIAIHQDESKNAKNLALSYASAIGGGRTGIIETTFKAETETDLFGEQAVLCGGLSALIQA

GFETLVEAGYEPEMAYFECLHEMKLIVDLIYQGGIADMRYSISNTAEYGDYITGPKIITEETKKAMKGVL

KDIQNGVFAKDFILERRAGFARMHAERKNMNDSLIEKTGRNLRAMMPWISAKKLVDKDKN

>AHK58553.1 ribonuclease R [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEFLNSLSYGISSHEVNNEFKQIFRELLTNHIIKEHKNKYYLNNGFAFGVLDISSKGTGFLQCFDESFK

KDLLIENKNLKGANYKDIVAVKLLPLKKKRPSAKVILVLKRANETSLMITKRYGEAVLGMNIKTGLSTAL

KASQKSLKALPLGTILKIENENNNIIEVLGHIDDESVDEKISLALFNKNNEFSDACIKEALANGDSVDAS

MYENRMDLRALPFCTIDPIHAKDFDDAIYFDTQKREIYVAIADVSEYVYAYSAIDKEARNRGFSIYFPHI

AIPMLPRPLSENICSLKPHLDRLAYCFKITLNHENKVIKEELFEGIINSKRRFNYDEVDEILIQKPDLKE

LSWLYELFEITKNLRKMRLKNAFEFRTEELRMNLDENLSLKSTVFEKDTPSHNLIEDCMLLANKAAAKLI

DIGVFRNHLSADVRKIDKLLNELRELGIDVNFKPNLPELIRDIQALADELNLRAEVDKLIIKAQKKAEYS

SVNAGHFGLGFDKYSHFTSPIRRYSDLILHRLLKAKQKNDEKLFNYLLLNIESTCENLSTLEREADKVAF

DFMDRKFARWAAKNIGKKFKALVVQNDGVCIAKLDDEIKGADIILYDTRVNLLENVEVQIMEADIVMAKI

YAKITQRLIKEENV

>AHK58552.1 DNA polymerase III subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYRKELQILLSKDSIPNFFFLYGADNFQSELYAEFIKEKYKPDETLKLFFEEYNFTRASDFLSAGSLFSE

KKLLEIKTSKKIPTKDLKVLVELCKNNTDNFFLLELYDESSKQSDIEKIFSPHFVRFFKANGAKEGVELL

SIKAKQLGVEITQNALFTLFTSFDENLYLAASELNKFSGLRVDEKTIEQYCYSLNTGSFESFFDKILKKQ

DFKSELEKILDNFNEIALINSLYNSFYRLFKIALYAKINGKIDFKELLGYTPPPQVGQNLSSQAFSLKIE

QYKEIFTLLLKSEYELKTNPKLVKKEFLISNLLKLARILKN

>AHK58551.1 hydrogenase nickel incorporation protein HypA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHELSIVESLIELCEENALNNKAYNVQEIYVKIGRLSGIEVDLFKRCFETFKENSNICKNAKLFIELAPL

EILCLKCDQTSILEENVFKCPKCQSIEYKIIQGEDLHLMRLVMK

>AHK58550.1 hydrogenase assembly protein HupF [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNISLAHGGGGEEMNELLTKLFKIFDNEILNANNDAAILGNLALSTDSFVLSPIFLDEEVNIGKLCVCG

SINDVLMVGAKPKYLSLGLILEEGFELEKLERILKSIKEECEKCGVMLVCGDTKVVPKGKADEIYINTTA

LGEIISKKESKNIKAGLSILLSGDIGRHGASVLIKRNELEADIKSDCKALNKEVLELLEKDIKVVAMRDA

TRGGLSAVLNEWAKQSGNDLLIFEEKIIVQDEVLGLCELFGYEAYELANEGTFILCVEKEDELKALEILK

KYNVNASIIGEVLEEKKARVILQNAYGAKRFLESPKGELLPRIC

>AHK58549.1 hydrogenase formation protein HypD [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFIDEFRDKESILALKKLIEQELKNPINIMEICGGHTHSIMKYALPSILPKEINFIHGPGCPVCVMPRV

RIDTAIKLASMKDTIFCTLGDLLRVPGSEISLLDLRAKGADVRALYSPLEVLEIAKQNLNKNIIFFAIGF

ETTTPMSALLLQKVIEEKINNVFFHINHITVPAPVEAIMNDENVKINAFLGPSHVSVITGYGIYEPLAAK

FKTPIAVSGFEPVDILESVLNIIKQSNEGTFKVYNQYKRAVSKEGNVKAQNLVKKYFRVCDFEFRGLGLI

KDGGLELKEEFSAYDASKKFDCTVQSKNESKACICGQILRGLAKPYDCKVFGKACTPRSPIGSCMVSGEG

ACAAYYKYSKVNA

>AHK58548.1 hydrogenase formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MCLSIPSEILEIDELNNALVQTLGVKRKVNLDLIDEPLKQGDYVLIHVGVAMEKIDKEAALESIKTYQEI

VEKMNSGEIKSDEGDLGLNEFHR

>AHK58547.1 hydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MCKDCGCSINSSHTHGHHHDHHHENPSLKEGKTIEVISKILSKNDEEAKHNRAHFNEANTLCINLMSSPG

SGKTTLLESTIKALKNELKIAVIEGDLETNNDALRVKNAGALAYQITTGQSCHLDAFMVHEALHHLAIDD

VDLLFIENVGNLVCPASYDLGEHLNVVLLSITEGSDKPQKYPVMFKKADIVLITKADLAHHFDFDIKEAT

RLIKELNPRADIITLDAKNGTNMELWYKVLKLKKELF

>AHK58546.1 3-hydroxydecanoyl-ACP:CoA transacylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MCHLGYKIKISGLVQGVGFRPLVYELALKSKLFGEVRNDGFGVEIILACTQKECENFIENLKNHLPPLAR

IDQLIITQISISNYENFSITPSLENTKSTPMLSDFAFCKECKKEFFDEKNPRFLYPFITCTHCGPRFSII

KSLPYDRAHTSMQELLMCEFCKSEYEDPKNRRFHAQPISCPKCKINVFLKNPKGEILAKDQEAFMQSAKF

LKEGKILAIKGIGGFHLMCDAFNEEALKTLRLRKNRPKKPFALMCKDLQSAKELAFIDEKEEALLGGVLA

PIVILKAKKAFSLIAPDVDKIGIMLAYTPLHLLLFEYFKGSLVATSANLSGESIIKDEFNLCKKLDKVFD

FYLDYDREIINASDDSIAQVVNGETMFLRTSRGLNPFYLERNFNKKGTFLALGAELKNEFVIFYENKLLI

SPYIGDLKSLDVHERFFKLLEFFKQNYDLKFDAILCDKHPHFSYAKEFEERIKISHHYAHFCAAYFEYEE

NFAKDEKALAFICDGTGYGEDGKIWGGEVFVGNLKEYERIAHFENFTLINSDIKNIQNLALSLIFHYDLE

DKAKDFLAKIPKIKLKNLKKIYSHSNLQTSSLGRIIDAFGSIVFNLEKSSYEAQVGLMCEAFYDKNLDFS

YKLFVEKGQVNFKNLILGALQDEKTKAITGMFNALANFIIDFSKDYDLKVLLSGGVFQNKTLLEILKAKN

FDFFIPLKYPCNDSSIALGQMVHFLNLEK

>AHK58545.1 hypothetical protein N920\_03115 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTLDFDFIYNADNDIFEYLLRFYAKNYNYILSKEENTYHFSIDADEENLKTFCDSLNFMSHSVFLKKFDV

KAGQGFNPCIPEDKEFSRFSYITHLNSNAYQEKKLLNKNEWGVFCECEFSSNLSEFEKINEENFNTFLNL

AFDLLSQEKKIYLKDKNGIYEFSLFKNEFIGDFLLPCDIKAINSVFVCSNENLKLLASLEKPLMKLRLNA

MFRKNHNLDFSDFKIRLARDLFCFALGLKLFENEYKFLSVKKIEEYQKDFYISALDEQVVVLEGFEFINA

KARELIFSKEDKNMARISYLVSRYKEKAFILELSKDYEDILLINKELNLLKLCLPKHSKELYEEIKKDEI

GARLLENFNKEFPLLDENFELQNNFYSLLGLLGRVLNLGRNLQESASELLKIADESKMPRGVKIDYRLKE

DKSFDYTRTLRSAMSFMLAGVDSANIAYGAVESLAYFLRDTYDELREKKQSDLALISGSLFEHKSLLKNT

LKHLKNCQLSDVPLRI

>AHK58544.1 hypothetical protein N920\_03110 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MARQSSSLKSFIYKDECYFYSKKCIKTLRLRLNEKGEFVLSIPYFCTFKSVYEFLDKSSSWMNEAKKRFE

KKVLKDDELIFLAKKYKIIFDENTKKTYFDKDKIICQNKAKLDLFLRQNAKKIFTFYLKKWSQKTGLFYT

HLSIKNMKTRWGSCNHNKAYVNLNLKLIQKSLRAIEYVILHEISHLKFPNHSKEFYTFIEHFMSDFRQRE

KEFLS

>AHK58543.1 multidrug transporter MatE [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKKQLSLTRLSFPIFWDLLSKYLTVIINTAMVSHYSNFLVGAMGAGNQILDLFITIFSFLSVGCSVLIA

QAIGAKDHVLARKVIHQSLFLNALLGFVCGVLILWHGEYLLYLLKIPQELLKDSEIYLHMLAICLFFDAI

GIVLAAIVRVYNMAYWVMFIGFLMDIVVICGNYYVLHYTKSELFGVGLSNIFARIVAIVALFAILFYKLK

IHLKIKEMIKLEKEVLKKVLNIGGFSAGENLLWIVQYTIAFAFVASLGEASLSVQTIYFQISMLIMLIGQ

AISIANEIIVGKLIGARYENIAYKHAWRALYFSVIASALVAFLNYLCQDFTMQILGLKEELKNLMIPLFA

LSIFLEISRTFNIVMVNSLRASGDAKFPFFSGLVFMMGVSLPVGYVLCFHFNLGILGVWIGFCADEFLRG

MVNSYRWKSKKWQGKALV

>AHK58542.1 phosphate ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIAKTTNLNLFYGKKQALFDINMQIEQNKITALIGASGCGKSTFLRCFNRMNDKIAKIDGLVEIKGKDVK

NQDVVALRKNVGMVFQQPNVFVKSIYENISYAPKLHGMIKNKDEEEALVVDCLQKVGLFEEVKDKLKQNA

LALSGGQQQRLCIARALAIKPKLLLLDEPTSALDPISSGVIEELLKELSHNLSMIMVTHNMQQGKRVADY

TAFFHLGELIEFGESKEFFENPKQEKTKAYLSGAFG

>AHK58541.1 phosphate ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKLFKKRQKASKSFKRLCKMGLYINLIFLCIFLGSVAYLGFPAFKQTYIFVEANRNSPAYDLLSRAEQR

KIRTGQITEKSWLLANSEVDQYMKQKYNRLSEKQRTLVDDLMQKGEIELKFNSNFFLNGDSKSPENSGIL

SSVVGTLLVMLVCMVVSVPIGVAAAIYLEEFAPQNILTHFIEVCINNLASIPSILFGLLGLGVFINLFGM

PRSSALVGGLTLAIMSLPIIIVSTKAALKSVDINMKNAAYALGMTKVQMVKGIMLPLAMPMILTGSILTL

AGAIGETAPLMIIGMIAFIPDVASSIFDSTSVLPAQIYSWSAMPERAFLERTAAGIIVLLGLLVVLNLSA

ILLRKYFQGKLK

>AHK58540.1 phosphate ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKEKIIKFALFLCAFVSVIVSFAIMLTILIEALKFFQKESVVTFLFSSQWAADAAFMNADGTSKQGVFG

ALSLFWGTFYISLIAMLTALPLGVMCAIYLGVFAGKKSKNYLKPILEIIAGIPTVVFGFFAAIVVAPFIV

WFFSLFGIQASFQSALGAGFIMGIMIVPIVASLSQDCIEAVSEKRINGAYALGMTKKEVVFAVILPEAIP

GIVAACLLGLSRALGETMIVVMAASLRPNLTLNFLEDMTTVTVKIVEALSGDQAFDSSLALSAFSLGLVL

FVITLIINMFSVYLINRFHKRKNL

>AHK58539.1 phosphate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILSLSVTSLALCGALNAVDLKIAGSSTVYPFTSFVAEEYASIKNTKTPIVESLGTGGGFKVFCEGTT

DISNASRPMKLSEFETCKKAGVTDIVGMMIGYDGIVLAQNKTNAPLNITKKELFLALAKEIPQNGKLIPN

PYTNWNQINKNLPNRKISVYGPPSSSGTRDTIEELVMSDVSKKIPEYKGEYKTIRQDGAYIPSGENDNLI

VSKLTIDKDAFGIFGYSFLVSNSDKINAANIDGVTPSEESIADEKYELARSLFIYINAKKNPKEAFDFAK

IYMSDDLAKSGGELEKIGLVPLSDDKLKASQKHVEDRKILNDELVKAGKVF

>AHK58538.1 ferritin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLSKEVVKLLNEQINKEMYAANLYLSMSSWCYENSLDGAGAFLFAHASEESDHAKKLITYLNETDSHVEL

QEVKQPEQNFKSLLDVFEKTYEHEQFITKSINTLVEHMLTHKDYSTFNFLQWYVSEQHEEEALFRGIVDK

IKLIGEHGNGLYLADQYIKNIALSRKK

>AHK58537.1 acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTYFSLEFSILMIAFFAIYWTFKNDYKIQNILILIFSYIIYILINPYFALVLFIYTFFIHYFALLIFVRR

KRYIFATCMAFIILNLCFFKYFPSIKGSVDEILNFFGLEFLNIDLVLPIGISFYTFTSITYLVEVYQKRR

LESFLNLATFLSFFPTLLSGPIMRSSFFFEQAYQKREFKHANLIIILLVFGIVKKVLIANYLGIYAKSIL

DFPQSYNFIQLLSAIYAYAIQIYCDFSGYVDLVCAFALMLGFTLPPNFNMPYLAKNLKDFWARWHISLST

FIRDYIYIPLGGNRKGIPRTVANILIAFILSGMWHGNTLAFIVWGLLHGIGIVFIHLLTLSKFSLQKIPA

LGRFLTFQFVCFTWIFFYYSKNLEDAIEYFKACYYNFFQIPSYNDIYMLVAFGVLFMIYPLFINFKEYCI

KILNLTPFLLKPFIIAFILLLVFAFMPDGIPDFIYSSF

>AHK58536.1 hypothetical protein N920\_03060 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSVVRFFFILIIVLGLVVVVMNQSISSYIEQKYHFAFYPHNDLLKEANGFKIKLEQIRAILSNEPLPQTN

EETTNQENKSIDENLSKIDKVLNTLENDENTSHKETNPTLIQDANISFIDNTKLELQNGDEFLFIGDSLM

QGVAIALNRDLRNLNLKVTDLSKQNTGLSYKSYFDWSKATNEAFIKNSNIKYLVVLLGANDPWDIKKGGN

YHRFGSLSWIDIYTSRVDEIIKIAKKHKAKVFWFEIPPVKKEDLNKKIQVLNKIYSDEILKNKEIFINTK

LFFSVNDEYSAYIKDENNRSIKVRTDDGVHFTPSGAREMSKLLLEHIKLKEENASK

>AHK58535.1 hypothetical protein N920\_03055 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLVNKFKVILLFFIIFTSSYAQNLNTNDTIDSILNQNKNHSALTSYVSKKDLKNLEKKLEKNQNIGIRIY

GDSHMAADFFPRVIRGYLIRSNSIGFAYPLQPKYQQNLNLVYSYKNFEILNSRNPANAGHNFPLGGIIAK

AKTKGAKINLDTTLDKKNFKIGFLFKAKQNTNAFSIKDAKNQSYELRTTQINKWSYKELELDLPLQISAL

QKDAELGGYFITNKDNNVFLDTIAINGAKSDLWLSWNQEVVKKELELLHNDLIILAYGSNDALFKGFEKQ

KFKNNLKKWISILKTYNKNAVIMLISPPTVVQKQGKNYKLAPDFFTIRKALYEVAKEEKTLIFDMHQFMQ

DSGGKNKWIEQKLSLNDVHLTIKGYELMAKKLLEDLKNIIDY

>AHK58534.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIILSIFLAFFLSACGVKLSLPKEVDLTQEQMKDLNLTYDWYRSYDNAKLNEFLNFVLLNNSDINIARK

TLLSALARADLIDYDLYPTLSGNLGFGADKDLNSGKQSKNFNNSLNLSYELDIYGKLRDSASASEFSAKA

SAYDLENLKISMINTALNDVFELAYFNDVDKLLRAYLSNLEQMKELYNYKYKLGKIEELDLLNIEQSLLR

AKQNLLSNDQNRNLLIKNLQDLLARQEGFAYIEYFKTLSLNDFKTLSPDFNIPLKALAYRADVRSKLNSL

KSAFKDYSSMQKSILPSISLGGALSGSDKKIDDSFKFEILSGNVKISLPFLDYGRVKQNIKISQFAYEQL

LISYEQVLQSAMNEFALNYKDYQSDTLLLQNLQNINIKQELITKAYYEKYILGKSELKDYLDANNTLNST

QQEFLRARFNLLKTINSYYQITALSFNNENLEFPKY

>AHK58533.1 macrolide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIFLKNICKNIGENAILKNVSLSIEKGEFVAIIGQSGSGKTSLLNIIGTLDTPSSGTYVFDEYEVTKLNN

DEKARLRREKIGFIFQRYNLLSLLSAKENVSLPAVYAGKNLQERSQNAKKLLNDLELAHKLDSKPNELSG

GQQQRVSIARALINGGELILADEPTGALDSKSGIMVLEILQKLNEQGHTIVLVTHDPKIAAQAKRVIEIK

DGEILSDTKKEKAQEKLILKTMPKEKKTLTLLKNQAFECFKIAYSSILAHKLRSILTMLGIIIGIASVVC

VVALGLGSQAKVLESIARLGTNTIEIRPGKGFGDLRSGKTRLNFSDLETLRSLEYLEAVDAHSNTSGVAT

YTNISLSARAEGVGVNNFAIEGLRIDAGRILNNDDVKNSTNVAVLDFNAKKNLFPDEKSENILGRVVLFN

SQPFKIIGVLQKDTDKPIEDNVVRFYIPYTTLMNKLTGDRNLREIIVKVKDDVSSTLAENAIIRILEIKR

GQKDFFTFNSDTFKQAITANKRTTTILTACVAVIALIVGGIGVMNIMLVSVSERTREIGIRMAIGARRED

IMMQFLIEAVMICTIGAILGVILSIFVIFAFNTLSTDFPMILNAYSVLLGLLSSMFIGVVFGFFPARNAA

NLNPISALSKE

>AHK58532.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKKIVLIILIAILGSVGAYFIFFNNDEKISYLTQKIQKKDISQTIEAVGKVYAKDQVDVGAQVSGQIIK

LYVDVGTHVKQGDLIAQIDKDKQQNDLDITKAQLESAKANLESKKVALEIANKQYQREQKLYAAKASSLE

NLETQKNNYYTLKANVAELNAQVVQLEITLKNAQKDLGYTTITAPMDGVVINVAVDEGQTVNANQNTPTI

VRIANLDEMEVRMEIAEADVSKIKVGTELDFSLLNDPQKTYHAKIASIDPADTEVSDSSTSSSSSSSSSS

SSSSSNAIYYYAKFYVANKDDFLRIGMSIQNEIVVASAKAVLAVPTYAIKSDPKGYYVEILENQKAVKKY

VKLGIKDSINTQILEGVNEDEELIVSSSADGLAPKMKLRF

>AHK58531.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKLVENLALKYYDKVVDLRHQIHMHPELEFEEENTAHLVCKILDEFGIKYQKNIAKTGILAIIEGKKKS

QKKPKCVLLRADMDALPVQEKTNLSYASKIDGKMHACGHDGHTAGLLGAALILNELKDEFCGTIKFMFQP

AEEGSGGAKPMIESGVLENPYVDAVFGCHLWGPLLENTAQIVSGEMMAGTDIFDLEFIGRGGHGAHPHTC

IDPIIMTTQFVNNIQSVISRRLAPYEAGVITVGQICAGTTYNVIPTNAYLKGTVRFLNDKTQDILKSSLE

EVAAATAKSNGGDYKLKYTKEFPPLINDEKAVLIARKAFAKVLGEENIIVSSKPDMGAEDFAFLTRERMG

AYVFVGISKDLNHPALHHSSTFCWDDENLKVLMQGDVMMALEFLNL

>AHK58530.1 thiol:disulfide interchange protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRIFGIILLSFCLCFASILSLNEAFNVKSNSYNNSISIDIELGKDIYLYSNKLKLYINEKDISSLINLPQ

SSTRGNENVYYQKLNLALPNLLLERFAKNTTNLIKLEFQGCSEQGLCYNPQTWYFDLISKKDAFEISKPY

KAQKTDKKTKIESEESSIANFLATDNFFWILLSFFGYGLLLSLTPCILPMIPILSSLIVAKSNAKFSKKY

SFFLSFIYVFFMSLAYAIAGVIASFLGASIQGILQKPIILILFALIFIAFAFAMFGAFRFELPLRFQTFI

HKKSEKGKGVVGIAIMGFLSALIVGPCVAAPLAGALIYIANTGNALLGGSALFIMSFGMGIPLLFIGLGL

GFIKPGFWMEKVKIFFGFVMLAMAIWILSRIIEENYILIAYGILGVFFSVFMGIFEKSFTIISKIKKSIL

ILILAYSLSIFLGGLFGAKNFLNPLNFNTISASKHALSYDYINNFEQLKQEIQTNTKPIMLDFTASWCEN

CKLLDELTFSDERIIQKMQNYKLIKVDVSENNNEQIKTMKEFNVFGPPVLIFFENGKEKLKITGFISADD

LLKKIEP

>AHK58529.1 sulfurase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIQSLQIGKIKNYKNFQSAFIKDTYLEETQIDFLGVLDDQIADKIHHGGYHKAIFTNSCQNYPIWERFL

NKKLNFGSMGENLSIDGLCEQNVCIGDIHQFSNAILQVSEPRKPCVKISKIHNNPNFTHEIFKTGLSGWY

YKVLQVGQIRKHENIKILEKNSTSLSVFELNQLFYSPHQILKQNPNLLDKLEKLNSLISQNWHETIHKRL

KNTYDISYMDSL

>AHK58528.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQRQTWSSTLTYILTVAGATIGFGATWRFPYLVGENGGGAYVLVFCIAMIIIGIPVILVENVIGRKAMTN

SVDAFKQKWQSIGYMGLLGSFGIMAYYMVLGGWVLVYIWELTLGNFSLANVVSKEFTHQFFNDKIAFNPL

GVGIFTTVFVIINYIILKRGIIDGIEKSVKFLMPLLFICLIIVVGRNLTLDGAMAGVKFYLEPDFSKILS

PKLLIDVLGQVFFALSLGFGVMITLSSHLNKNENMAKTAIYTGVLNTIIAVLAGFMIFPALFSAGLAPDS

GPSLVFETLPIAFSHIHFGTIVCILFFVLLLIAALTTSLPIYQVIISVLEEKFKYSKNLSINLTLGFIFI

LGNLPCILTYGPWRDIVIIKGKNIFDSFDFISGNILFVLTAFFCCIYVGWILGKQESLKELSNNNTLKSS

WFGIWFYYVKYIVPLIILIIFIYGILN

>AHK58527.1 1-aminocyclopropane-1-carboxylate deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFIKTISPIQKINFNGFEFYIKRDDLLGEINGNKARKLAFYIHQRYPKNQSFVSYGGSQSNALAALSIF

AKQRSYKLVFACEKISTFLKNNPCGNYALALENGVDFVENIHSLSLKQFALSLCKKDDVFIEQGIANLEA

QYGYMELAQEIQMQSQSLKLDFDIFLPSGTGTSAAFLAKYSKFKVFTCACVGDIKYLKKQILTLDPSYDF

SNLEFLTSDKKYHFAKPYKEFYELYMDLKLKCNIEFDLLYDILGLSIALKQEWKKPLLYIHQGGILGNST

MLERYKFKKSV

>AHK58526.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNESKEDSNFWIAYADLMAGLLFVFILLIGAIVVKYVLTQSDLKEIKDNLNKQEARLEESKEELRNKEA

IVFKLSSDLNNASSALNLANSQKAELEANITNYKQLSKDLNSTLDNKDKQILILLGQLEKKDEELKNLQE

DFQKAKEKVQNLGLIRENLSKELQSKLDNNITIDEKIGSISLPAEVLFDKDSYVLKNEAKASLRKILSEY

FDAILEDPKIFSNIENIIIEGHTDSDGSYIYNLDLSQKRAYEVMNFIYTFYKSDKLQKLLMASGRSFSDP

VFVNGVEDKDKSRRIEIKFSIKNDNALKDVEKFFEFH

>AHK58525.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDIKSDEISELVLPEGKDARGSLVYFKIIFIPAFLYILILLGYFNVIDFKVELHTVIMTGVIFFTALIFA

RHSAEYAYSIFEQQKDEFKQALKRHIMRHFLAIGKDTKSNANFDDFAYTYIKGARNENFASIGSAIFPMM

GILGTFISIAFSMPNFSSSDTAALEQEIADLLSGVGTAFYVSIYGIFLALWWMFFEKYGKSKIDRLLNRQ

KNATSGFFWTKEELDQRYLTESLQHFEKIGAIFKQVSNDDFFAELDHAIDRKFGIFQDMLNVEEKAIRLS

SEHIKQTMGELSKAQRDQRDLGKLYSEMLNGIGLLNQNLKEINTRMSEQYNRLLDISSDKIHHLDKTLSA

FDEKIERFGKNFELYEKAMLESQEKVFEGFKASLFEGMHKFKEVYEEEKSIDAKIKMMDELKKEMKALDE

ETSQMMSKLSGDENQNKENETKQIEDFSESKTEENQDEIQAEISKQESNDELKNEDKENK

>AHK58524.1 fructose-bisphosphate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGVLDIVKAGVISGDELNKIYDYAKAEGFAIPAVNVVGTDSINAVLEAAKKVNSPVIIQFSNGGAKFYAG

KNCPNGEVLGAISGAKHVHLLAKAYGVPVILHTDHAARKLLPWIDGLIEANAQYKKTHGQALFSSHMLDL

SEESLEENLSTCEVYLQKLDALGVALEIELGCTGGEEDGVDNTGIDNSKLYTQPEDVALAYERLGKISDK

FSIAASFGNVHGVYKPGNVSLQPEILKNSQKFVKDKFALNSDKPINFVFHGGSGSELKDIKNAVSYGVIK

MNIDTDTQWAFWDGVREYELKNRAYLQGQIGNPEGDDKPNKKYYDPRVWLRSGEESMIKRLEIAFEDLNC

INKN

>AHK58523.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKFSLVAATLIAGVVLNVNAATVATVNGKSISDTEVSEFFAPMLRGQDFKTLPDNQKKALIQQYIMQDL

ILQDAKKQNLEKDPLYTKELDRAKDAILVNVYQEKILNTIKIDAAKVKAFYDQNKDKYVKPARVQAKHIL

VATEKEAKDIINELKGLKGKELDAKFSELAKEKSIDPGSKNQGGELGWFDQSTMVKPFTDAAFALKNGTI

TTTPVKTNFGYHVILKENSQAKGQIKFDEVKQGIENGLKFEEFKKVINQKGQDLLNSAKVEYK

>AHK58522.1 endonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKRNLEIKELFLKHFDKPVTELKFSNLYELLVCVMLSAQCTDKRVNLITPDLFKAYPDIKSLANANLSSL

KTYIQTCSFFNNKAQNLIKMAKAVCENFDGEIPLDEQNLKSLAGVGQKTAHVVLIEWCGANFMAVDTHVF

RVSHRLGLSKAKTPEATEEDLTRTFKDNLNYLHQAMVLFGRYTCKAKKPLCKECFLNHLCKSKDKELK

>AHK58521.1 endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIFIFLLTISLNIFALEPYKPSADFSSYFNNINCSQILDKFFYLNCYDYKLKGTKAVAYKVEASNLKDR

QIKKRPRFEDDTNIPKKYRTTWSNYKNSGYTRGHTAPNASFSFSKAAQNSVFLMSNITPQNAQINNKIWN

EIEQRERNLALEFQSIEVLNLVLYDKEPQYIKNRIAIPSFYVKIIKTPKFKECYQAPNHEVNDENIKQYQ

INCDKF

>AHK58520.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEINALTITTLYIIGISAEGMTGALAAGRHKMDLFGVIFIALVTAIGGGSIRDVLLGHYPLTWVKHPEYI

ILICFCALVATKIPRVVTKLETLFLTLDAIGLVVFSILGAQIAIDQNHGFIIAVAAAVITGVFGGILRDI

LCMRIPLVFQKEIYAGIAIIAGAIYYSLIIWLELNALVCTLLTLFIGVFARLLAIKYQWSLPIFSYNEEK

>AHK58519.1 hypothetical protein N920\_02970 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRRLSILLAILIVINITACDSKTENYYKNLPSEAKEKAKECKESGTLSEDCINALKVGVKPTNEEGKYSP

NTPKKSDNQILEALKQNDLKKEKTTKDINQSSENNESIIIPPIAETPSEIYPSKTTENNQSSIFSDDVNM

TQEK

>AHK58518.1 hypothetical protein N920\_02965 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKITLFLSLIGIFFAACEQTKSVEYYQNHPEEAKKRSLECRHKAIISQDCVNAYKIGFPKDEWEDENISN

P

>AHK58517.1 tRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKDELFKQSPKKQFEFDKSVASVFDDMINRSVPFYRENLELCGNLLAKILPTNASVCDLGCSSANFLIFL

ANLRKDFKLFGVDNSASMLEVAKSKAKAYGLDISFFEANLCEFDFFTCDVFVANYTMQFIRPPKRQELLD

QIYKNLNSKGILIMSEKILYEDAFLSKNIIELYADYKEKQGYSKFEIAAKREALENVLIPYSQKENLNML

EKAGFKKIESIFKWANFETFIAFKD

>AHK58516.1 riboflavin kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNIFTTISKINITSLAIGCFDGMHLGHLKLVKCLDENGALLVINKFKGQFLCSNRQKEEISGKKVIEVD

FESIKSLDGRDFLSFLKKEFVNLKFIVVGYDFSFGKNRAYNAKDIESLSGIKTIIVDEFSIDGIGVHASL

IKDFLSKANLQKAKEFLGRDYSIKGKMIKGQGLGSKELFATINLDCEGYFLPQNGVYVTLLKSQRKTYKS

VSFLGVRSSDENFAIESHILEELGENFTQGEFFELEFISFLRENQKFQDLKKLKNQIAKDIEQARELLRK

NDER

>AHK58515.1 hemolysin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRFDFFVSKRLNISRNKALELIENEEILLNGKSFKASFDVKNFLENLKKTQDLNPEDILLANELKLDLLS

EIYVSRAALKLKKFLEENDIEIKHKNCLDIGSSTGGFVQILLENQALKITALDVGSNQLHPSLRVNEKII

LHENTDLRAFKSEEKFELVTCDVSFISLINLLYYIDNLALKEIILLFKPQFEVGKNIKRDKKGVLKDDKA

ILKARMDFEKACAKLGWLLKNTQKSSIKGKEGNVEYFYYYIKN

>AHK58514.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVLLMSLLKNSSYILTLLSLFGFLLTWQRSAFSLFFLISIFLTLFWEFFLFLKLRKNIIKEATLIKGSL

FYRVSMGDFYLYIFSFFLAIFGLVSLFLNFLNLEKIDFVFIFIILPLLMIFLKKELHLQFVDNAYNDFRI

VVIASFFTALFYAFYGLFFTYNELLNLELFSRKIIAYKSASFVYFDFLSEFLHFVSNLKFFIFSYFGYLG

FRALNFIFDFFNFFMFCSLLAFVFNFVLKIKIKIIVLFLCFIMVLGNYFLKEQRNNALKSEQEQILLWMN

NFNFLKDNNLSLIQKEKDLFEKDLKDLREIFKKNAFEIGIWWFSKEKEDLEKRINESLK

>AHK58513.1 NAD-dependent DNA ligase LigA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKEEYLEKVALANLWMRAYYEKDEPLASDEEYDALIRELRVFEEQNKDEISKDSPTQKIAPTIQSEFKK

IAHLKRMWSMEDVFDESELRAWAKRAKCEKNFFIEPKFDGASLNLLYENGKLVSGATRGDGEVGEDITLN

VFEIENIPKNIAYKERIEIRGEVVILKDDFEKINEKRALLNQSLFANPRNAASGSLRQLDTSITKERNLK

FYPWGVGENTLNFTKHSEVMQFIRELGFLKDDFVRLCANLDEVLKAYDELLALREKKPMMMDGMVVRVDD

LALCEELGYTVKFPKFMAAFKFPALEKTTRLIGVNLQVGRSGVITPVAVLEPVNLDGVVVKSATLHNFDE

IARLDVKINDFVSVIRSGDVIPKITKVFKERREGLEMEISRPKLCPTCQSELLDEGTLIKCQNIDCEDRL

VNSIIHFVSKKCLNIDGLGENIVELLYKHKKITTLESIFHLKFNDFEGLEGFKEKKINNLLNAIEQAREC

ELFRFITALGIEHIGEVAAKKLSLSFGKEWYKQSFEAYANLEGFGEQMALSLCEFTRVNRTRIDEFYKLL

NLKIEKLEIKSDGVIFGKTFVITGTLSRPRDEFKALIEKLGGKVSGSVSKKTDYVLFGEEAGSKLSKAKE

LEVKCIDESAFNELVKE

>AHK58512.1 dihydropteroate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFFKINPNTDFNLLCSFINPHKMGQKIMSEKTKIHFIFIKDISTPAANILKQDALRVGAELITHKEVIT

AKITHSNALLMASKEQIQKLVVKEKLQDFGLKNLALFLQKDFLKPKKAELMAVINVNEDSFNAKSRVSEE

DFEKRLNDFLALKPEYIDIGAVSSRPGSEYCGKEEEFKRLKKVLDLIYEKNYYEQAIFSLDSFDEYCLEY

ALNKGFKLINDITSLRNLNLAKLASKYGAKYCLMHMQNNPNNMQDNPFYEDLLDEMTLFFKEKLELLESF

GVKESILDVGIGFGKSAGHNMILIKHLEHFLQFNKPLLIGASRKSVINAYFQSEIKDRLAGTLYLHLKAF

ENGASIIRVHDLYEHKQLFALAQAMDNIGV

>AHK58511.1 DNA polymerase III subunit delta' [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFISKIIISEDFLGIKEEMINNFGIKKLRFFIPQNEFLLDDARAVEKESYIAETEEKIIVLMADSYRIEA

QNFLLKLLEEPPKNIKFLIVIPSKNLLLPTIKSRLICEKRKVEKEVKKLDLDLKRMDLRMLFDFLQKNEN

LDKNELMDQIALLAKECVKYKDFNAEELEFFYESYELAKLNSKSGVLLATLLLNYYTKK

>AHK58510.1 hypothetical protein N920\_02925 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSDFLSFTLENIRNGGAFMAWLESRRLEWAPLMAARLKYLLEGRTFVLMCDEQRSWYEEYFLKNINSKAT

RPMLPFVSLNSLCKKKVQSSEDIALLNDLLDISFPNGYVYFYIGSASDNKSLIAKSRDDSLLWLFDEQLQ

DSFYLNSKDKDLDIKLISLYQLFDVSLDAILFSKVQLG

>AHK58509.1 aspartate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLIVQKYGGTSVGTLERIEAVANRVIQSAQQGNQLVVVVSAMSGVTNTLIEQAEYFSKTPNGKDMDMLLS

SGERVTSALLSIALNEKGCPAISFSGRKAGIITDSVFTKARIHHIDTKAIKSELQNGKIVVIAGFQGVDE

EGNVTTLGRGGSDLSAVAVAGALNADLCEIYTDVDGVYTTDPRIEPKAKKLDKISYEEMLELASLGAKVL

QNRSVELAKKLNVNLVTRSSFNNNEGTMITKEDGMEQALVSGIALDKNQARVTLRNIEDKPGIAAEIFSV

LANENINVDMIIQNVGVDGATNLGFTVPQNELELAKNAMQKILSSKTTIESDSAVLKVSIVGVGMKSHSG

VASKAFKALADEGINIGMISTSEIKISMIVHEKYGELAVRALHECYGLDK

>AHK58508.1 preprotein translocase subunit TatB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSFGEIIVILVVAILVLGPDKLPEAIVQIAKILKAVKRNIDDAKSSIEKEIRINDLKEEAKKYKDEFSST

NENIRKKLSFEEFDDLKRDILDKTKVDLTFDSRDDKVKNNLSGQNLNTEEKPNLSKLETQDKNGKINV

>AHK58507.1 preprotein translocase subunit TatC [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFEELRPHLIELRKRLFISVACIVVMFIVCFALRSYILDILKAPLIAVLPEVAKHVNVIEVQEALFTAMK

VSFFAAFIFSLPVIFWQFWKFVAPGLYDNEKRLVVPFVSFASIMFAFGACFCYFVVVPLAFKFLINFGLN

EDFNPVITIGTYVDFFTKVVVAFGLAFEMPVIAFFFAKIGLIDDSFLKRHFRIAVLVIFVFSAFMTPPDV

LSQFLMAGPLCGLYGLSILIVQKVNPAPKDKESDE

>AHK58506.1 S-adenosylmethionine tRNA ribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKDLLLSSYDYTLANELIANYPTNPKEDARLLVFDRKNKEIFHTTFKNLQDFLPNCAIFFNDTKVIKAR

IYGNKASGGKIELFLHQPFLNSHNPLFLAQIKGRIKKDEILYFKEDLKVRVVELLNDGLRKVQFFQNDKT

LDTSNLYNLLDKIGHIPLPPYIKREDEKSDLKDYQSIFAKNLGAVAAPTASLHFSETMLENLRKKHEIYH

LTLHVGAGTFKSVECENIQEHKMHSEFFNIPQQACEIIDSKQAILGVGTTVTRTIEYYTRTKTKNGFCDL

FLHPQNPPIRQNHLLTNFHLPKSTLIMLVSAFIGREQCLKLYELAIKEKYRFYSYGDAMLIL

>AHK58505.1 UDP-3-O-(3-hydroxymyristoyl) glucosamine N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLSEIAEFLSLEYKGEDIEISALNSLLKANFTELTYCDGEKNTKDIPHTGAAAILVSKEYENLVPKDTK

ALITQSPHLSFAFLSKLFAKPLISTAKEKVQNIAKSARIMPNVYIGDNVNIGENVIIMAGAYIGDNVSIG

DESIIHPNVVIYNDTKIGKKCHLLANCVIGSDGFGYAHNKNGEHYKIYHNGNVVLEDFVEVGACTTIDRA

VFDSTIIKAGTKVDNLVQIGHNCNIGQNCIIVAQTGISGSSELGRNVIMGGQSATSGHLKIGDFSTIAAR

GGVSKNLEGGRVYGGFPIMLQKDWLKLQAKIAINFKEKSQD

>AHK58504.1 acetolactate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRRVLSVIVLNEHGVLSRIVGLFSGRGYNIDSLTVAPLENKEFSRINIVTSGNERTFEQIVKQLHKLIPT

YKVIESEEFIDKEMALVKIPLNENLGGLDAVLKAYNGTIANSNENFLFLMVADDANRIDNFLKTIKKYNP

SDIVRSGSVLMEIK

>AHK58503.1 acetolactate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKELSGSAMICEALKEENVKIVFGYPGGAALNIYDEIYNQKYFKHILVRHEQAALHAADAYARMSGEVGV

AIVTSGPGFTNTITGLATAYSDSIPLVLISGQVANSLIGTDAFQEIDAVGISRPCVKHNYLVTCIEEFPR

ILKEAFYIARSGRPGPVHIDVPKDVSATLGLWEYSKEISMKTYKPVYKGNSKQIKKFAELLKEAKRPLFY

LGGGCISSNASEQIRELIKFTKIPAVETLMALGTLRSDDVFNLKMAGMHGSYAANMALSECDLLVSVGAR

FDDRITGKTSEFAKHATIVHVDIDPSSISKIINAHYPIVGDIKEVLKELLEELKKENFNTTFKEWHETLK

RYNELYPLSYEDSNEILKPQWVIEECAKMAPDARIITDVGQHQMWVAQFYPFNYPRQLATSGGQGTMGYS

LPAALGAKLAVGEEVVINFVGDGSVLMNIQELMTAYEYGIKAINIILNNAFLGMVRQWQSMFYKEHFSQT

DLSTQPDFIKIAQGFGCEGYEISNKEEFIQAFSQALKSDKTSLLNVKIDRFEDVLPMVPAGGAIYNMILP

KAKDRQ

>AHK58502.1 aspartyl-tRNA amidotransferase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTLKEQILNDIKEAMKQKDDFKRDSLRTLNAAFKQIEVDERIELDNERIYKIIASEIKKRKDVIELYLKA

NREDLAQKEQNEISLFEIYLPKQLSDEELTLALKQLIEELGVSSLKEQGLVMKEAKIKLGASVDGKRLNL

ALKELLQ

>AHK58501.1 3,4-dihydroxy-2-butanone 4-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFVSVEQAIKDLQAGKMLVMVDAEDRENEGDLIFPAQFSTQEKVNFMIKEARGVVCVALDETLAKKFEL

PLMVPKNTSNHETAFTITVDAKDATTGVSAYERNMTIQIFADDNAKASDFVRPGHINPLIAKKGGVLERT

GHTEGTVDLCKLAGLKGACVICEIVKDNGDMARREDLEIFCQKHDLNMIAVSDLIEYRLKHESLIKLEEK

SQSVLAGFKAEKFIFSDHNQTQHIAFCFKDIKKCENVKFHISGSDFELLTSDKFSKLLEQIKFLSENGGV

IVFMQGEKSSTTQYKNYGIGAQILRYFGIEEIKLLSQSCDKDYIGLEGFGLNLKACNFN

>AHK58500.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEYDKLSIRLVQILSKFNNGESLSAQELAQEFNVDTRTIQRDLNERLTFMPIKKENGRYVLESFALGKL

SFKDIQNFATLSGIAELYPKLDQGFIVDLLSHRVNKVLMVKNEGFQKVDYELFKDLSVAILKHNVLNFFY

KEKERQIKPYKLVNYKGIWYLLGDENDKLKHFNLDKISKLRTKNENFIPNEKLEEQIQNDPNIWLGESKE

VILKLDKNAKEYFFRKEILSNYQIIDKDETSYTLSTQVSYEDEILHLVKQWIPYIKILAPIELKIRLEDI

LKSYLNNLSK

>AHK58499.1 hypothetical protein N920\_02815 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKQIAFGSIALTATGYGIKKLYEKLSKPERKFDTHAIVPSCKDVINTEEYKLKRELEIEQKKNQIQEFL

CECMECYSGFSKYFNSKEFLEFEQNFTSKNNHKTEFLLSSYKDQMIKVIDYAKKFKCLSAFLETQSEKND

LAVVKMISESMERKTQRFYLQTKFQTFPQYIFPSVWSSPMWDKQWE

>AHK58498.1 replicative DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQQEYYDLDLERAILSSCIMSEEAYASIAGDISPKDFSLKAHQDIFKAVIACSNNKEPISVSFLRKHKKI

DEQILAEILATPSMIDLPAYVNELHEKSVKRQLLSFAHLLPTRINEDRAVSEIADEIGKEIFSITNRVNS

RDIKDVDMVISELFEEFKKQKTLENKGIIGLDTGFEGLNKMTKGFKGGELIIIAARPGMGKTTLCLNFID

KVLRQKKGVALFSLEMPATQIMQRMLSSKTSIPLQKILTADLNDDEWERLGDACNDYSQKKLYIYDSGYA

TIADVRAILRRLKSQDESIGLCVIDYIGLMMSNSNFNDRHLQVSEISRGLKLLARELDMPIIALSQLNRG

LEQRANKRPLMSDLRESGAIEQDADAILFVYRDEVYREQEEKERENKAKAEGKAYQRLFIPNPMQENAEI

IVGKNRNGPVGTIEVVFLKEKSCFVDKPIGYETTEFTG

>AHK58497.1 hypothetical protein N920\_02805 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKYLFSCVLASILTQSATAVEFQEGFSGNLSIGVGARDIKSNISTLANSDYLSSHNADNSDSSFIPFIG

AELYYGNLIDNDRIFIKNYNGRDISGIALGYERAYLERFSTSFSVISSLREKAYANPYAIGNREETDVDR

YGFKISQLYESDFGKFTTSYLFSKNKYDKDTIAQSSLKREGYYHEIELNYNYSLLNLGLNYDYNDADGKA

QSYSRYGFSIGTNLAFANDYIFTPNLNLSKYEAVGTDPIFHKKQDGNIVKLNLKVVKNQFLGYNGLYGFA

NYGIEKRNSDIGFYDETYQIVLTGIGYKF

>AHK58496.1 pyridine nucleotide-disulfide oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIDLIVVGAGPTGIGCAVEAKLKNKEVLILEKSNNICQTLMQFYKDGKRVDKAYKGCEGTNHGHVPFE

DGTKESTIETFQNALKEHNIEVEFGSEVESVKNENGVFLVSTAKGVYECKNIIVAIGRMGKPNKPDYKLP

MTLTKIINFNANSVLGNEKILVVGGGNSAAEYAVDLANSNQVSLCYRKKEFTRLNDINLKDIHEAGNSGK

VELKLGIDINEVEDDNGKAKVNFTDGTSDIYDRIIYAIGGSTPLDFLQKCGINVDDKGVPLMDENKQSNV

KGIFVAGDIATKNGASIVTGLNDAVKILSVL

>AHK58495.1 gamma-glutamyl phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRNLLENIKKNSQKLLNLTPKDKEKIILKLAQILRENFKIILEANKKDMANFTKSGAMKDRLLLDEKRIL

ALCEGLEKIAYIEDPIGKISKGWKNYAGLSIQKMSIPLGLICVIYEARPSLSAEIAALMIKSSNACVFKG

GSEAKFTNEAIFTLVNKVLKEFDLQDCFAMFTQRDEILQILAFDDLIDVIIPRGSSNMIQEIANNTKIPL

IKQNKGLCHAFVDQSANLDMALKIILNAKCQRVSVCNALETLLIHEKIAKNFISLLIPEFEKFKVKIHAH

ENALAYFNNSNLKIFKANENTFDTEWLDFALSVKLVKDCDEAIEHINKHSSLHSETIISNDASNIAKFQR

LINSSCIYANASTRFSDGGEFGFGGEVGISTSKLHARGPMGIEDICTYKYIINGEGQIRE

>AHK58494.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKIEILKQHFKEIAKLNSSEQVWQMPFFAALGVGIVLGLSVFFGKLNYGLIAMIGALSFLYVPSTPLYH

RMAVVMCCSFGIVSSFFLGILTHFLPAIFAFIPIGIMAMGSSILIRYYNIGAPGYFFFVFSCVLGAYSPF

EAKDFIFLVGLVFLGAMVANLMALLYSIVVIYGFKNALPSEIPPREYIGFDAVFVDSLIMGSFVAFSIFI

GTFLELERSYWIAISCTAIMQGVTLNSIWIKQIQRIIGTALGVCFAWWLLSKQFHDIELILLMMSLFFIG

QFLVNRNYALAMIFFTPYATYLSEAANFMSENADKLILARLIDVVIGSILGLLGGFVIYKPYLRVHFERI

AKYIFRIKQKA

>AHK58493.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIDTHAHIFLKKLNTVANARYKPDYDASFKDYKANLDHYDFNKGVLVQPSFLGIDNEFLLQSIEKDENI

KAIVVVDENIKFDELKKLKERKACGVRLNLIGKELPNFKSMVWTQFFENLSKLKMQIEIQRDLDNNLVDI

VENLIPYGCNIVIDHLARANANLTNLEDLICLKNSRIFFKISGFYRAKIDYANNEQAVKFAKKIYEILKE

HFPLSNFVFGSDWPHTNFEANINFSSALVAFNEVVVSKKEQEQILGDNACALFGF

>AHK58492.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVFLIISSIIVAIILGYITRHNVGIFAMIFAYIIGAFFMDLAPKKIIAFWPISIFFVIFAVSLFYNFATV

NGTLEKLAGHLMYRFANHPYLLPFVIFVVSAIIAALGAGFYTVLAFMAPLTFLLCDKIGLSKIAGAMAIN

YGALGGANFITSQSGIIFRGLMENSGIEANEAFANSSIIFAFTIILPIVVLSFFVFNAFKNNIKISVISK

PDPFDYKQKTTLILMFMMIVVVLIFPVLNIIFPHNETISYFNKKIDIAMIAMIFVAIALFLKLADEKQVV

ALIPWGTLIMICGVGMLISIAVEAGAIKLFSDLVENEINVIFIPLIMCAIAAFMSLFSSTLGVVTPALFP

IVPSIAASSGLSEALLFSCIVVGAQASAISPFSSGGSLILGSCPDKYKEKLFKDLLIKAVPIGFIAAILA

TIIMSFIL

>AHK58491.1 hypothetical protein N920\_02770 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKFIKQFSFIALENIFRELPNKITHSFNDINDIKPPKLMYPIFYGSYDWHSSVHSHWLLVKILKDFSHF

APKDEIIKALDSQFSKEKAEGELKYLQNPAHKGFERPYGWGWFLKLTLEINLLAKENDKAEIWAKNLEGI

ADFFVKEFKEFLPKMDYPIRVGTHFNSSFALYFALEYARFKKDQELEYCIIQSAKKWFLNDKNMQALEPC

GDEFLSPVLMEAVLLSAVLHKNDFVKFFKAYLPNLEAKEPATLFTPVSVSDRSDGKIAHLDGLNLSRAWC

FKILSNFCDENLKILLRNNATEHFDKAIAHIEDDYLGSHWLGSFALLALDVDIL

>AHK58490.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MISLDLLYYIVGILFLVFGILSFSNQAKDIKSRISGGVFWISYSFTFLLAGVLPHFVMGCIVILLALIAG

FNLLKPAKIEVSKEEKEYEIKHANIYKNKLFIPALMVPLITLIGTFLFPYLSFFENKNATLMALIIGIII

SSVVACFMFKASPKRAVKDAAHTMDHISWAALLPQILATLGVVFVSTGMGDQVSKLLSSYISLDNAFIAV

AVYCIAMALFTIVMGNAFAAFPVITAAIALPILIIQMHANPAIIGAIGMLSGFCGTLMTPMAANFNIVPA

ALLNLDDKNGVIKAQFMSGLVLLVANIFLMYFLAFRF

>AHK58489.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEWLLLASIPLIVLGFALKINPFLVVTSVGIYAGLVSGFDFVKVVSDIGKSFVDNRYVAIIWLILPLLAV

LERKGLREQAKNLISKIKVASTGRILMCYFVFRQVTAALGLLSLGGHAQMIRPLIAPMAEAAAKLKFKNL

THKDSQKIKAFSAGTDNVAVFFGEDIFIAVHSILFIKAFYESNGIIVEPLHLSVWAIPTGILALIIHCSR

LYLFDKRLEKTYKGLSDDKS

>AHK58488.1 elongation factor P [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MASYSMGDLKKGLKIEIDGIPFKIVEYQHVKPGKGPAFVRIKIKSFIDGKVLEKTFHAGDKCEAPNLEDK

TMQYLYDDGENCQFMDTQTYEQVAISDDDVGEAKKWMLDGMMVDVLFHNGKAIGVEVPQVVELKIIETAP

NFKGDTQGSNKKPATLETGAVVQIPFHVLEGEVIRVDTVRGEYIERANK

>AHK58487.1 hypothetical protein N920\_02750 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKQWLSDFKLALIQEDVNKLENLLDELDMKAFIKNLAKESPSEDFLKENANDVFYQVQALLQEAVILIEQ

KKKTKAVEIQKFQKALTYFKS

>AHK58486.1 flagellar biosynthesis protein FliS [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNNLAYNAYSQNQVGIESPQKLIEMLYEGILRFCARAKVAIRNEDIEQRVYFVKRTTAIFIELINTLNY

EKGGEVAHYLSGLYTREIQLLSLANLENNEDRINEVINVTKGLLEAWREVHNNETVAQ

>AHK58485.1 flagellar cap protein FliD [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAFGSLSSLGFGSGVLTQDTIDKLKEAEQKARIDPYTKKIEENTTKQKDLTEIKTKLLSFQTAVSSLADA

TVFAKRKVVGSISDNPPASLTVNSGVALQSMNINVTQLAQKDVYQSKGLANDGGFVNAQLNGTADLTFFS

NGKEYTVTVDKNTTYRDLADKINEASGGEIVAKIVNTGEKGTPYRLTLTSKETGEDSAISFYAGKKDSNG

KYQKDINAEKIFDDLGWGLDVSASIDPDKDKKGYGIKDASLHIQTAQNAEFTLDGIKMFRSSNTVTDLGV

GMTLTLNKTGEINFDVQQDFEGVTKAMQDLVDAYNDLVTNLNAATDYNSETGTKGTLQGISEVNSIRSSI

LADLFDSQVVDGTTEDANGNKVNTKVMLSMQDFGLSLNDAGTLSFDSSKFEQKVKEDPDSTESFFSNITK

YEDINHTGEVIKTGSLSKYLNSNGGNTNGLEFKPGDFTIVFNNQTYDLSKNSDGTNFKLTGKTEEELLQN

LANHINSKGIEGLKVKVESYNQNNVTGFRLNFSGDGSSDFSIKGDANILKELGLSDVNITSKPIEGKGIF

SKLKATLQEMTGKDGSITKYDESLTNDIKSLNTSKDSTQAMIDTRYDTMANQWLQYESILNKLNQQLNTV

TNMINAANNSNN

>AHK58484.1 flagellar protein FlaG [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEISKANGQMDTALANISQRTSETQASLNIQTDRSQGQEGDDGQQRGVSEKLADITKKLNEQMDSLDTNV

RFGYSDKIGSMYISVTEKSTGREIRQIPSEEAMRLAEYFRDVIGMIFDKES

>AHK58483.1 3-octaprenyl-4-hydroxybenzoate carboxy-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEFIQILKENDLLRVIEEPVDVDLEIAHLAYIEAKKGEKGKALLFKNPIDKKLNKQYKFPVLMNTFCNK

KALNLAFGRDYKEVAEEISKLIKLHIPTSFKAKMDFFMNLLSFKNIPPKRLKKNKALYDYEILNSLEELP

ILKTWEDDAGKFITMGQVYTQNLDKTQNNLGMYRLQMSDKNELLIHWQIHKDGANFYHEYKNAGFKKMPV

SIAIGGDPLYIWCSQAPLPKGIFELLLYGFIKKTPAKITPCENGIFVPYDSDVVIEGYVDLEEFKIEGPF

GDHTGFYTPAELFPVMKVEKIYAKKDAIYQATVVGKPPLEDKIMGLGTERIFLPLLQTSVPDLIDYNMPE

NGVFHNLILAKIDAKYPAHAQQIMHAFWGVGQMSFVKHAIFVDKNAPSLKDYDALIPYMLDRFNTKKILI

SEGICDQLDHASPNSCFGGKAGLDACEEIQVEELEILEDEKLLELFKTKVELLNLKQFYKESKSPIVCIL

LDKKEKIEQSFDKLLEFKKYFRILVFLDAENKLENSYMLVWRVVNNIDAKRDIFIKEERLGVDASAKGEA

EGYLRAWPKQTDCTKSVIEDLILRNILENNPDLFNKFEIF

>AHK58482.1 porphobilinogen deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLIIATRKSQLALWQSEHVAQILKNTHQIEVLLEGFKTKGDVLLDSPLAKIGGKGLFTKELEESMLRKE

AHLAVHSLKDVPSFFPQGLVLAAVSKREQSNDAMLSQNYKDFLSLPKGAKIGTTSLRRKMQLLLLRPDLE

IISLRGNVNSRIEKLKNNDFDAIILAMAGIKRLNLDKQVNFVYEFSKDELIPAASQGALGIESINDEKIL

ELLKCLNDENALIETSIEREFIATLEGGCQVPIGINAELLGDEICVRAVLGLPDGSEILKDKRMIKKNDF

KGFGESLAKEFIAKGAKELLKKAESMI

>AHK58481.1 integral memnbrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNYKLSLSPLFVLEIIASVLFIVFFGFGNFLFFILLSMIFGAVLLGIFWKNMLEFQMGGLKDMLTQFSFV

IAGFLLIFPGIITSVFGIFVFFFGIALKLITKSKYQYTKQEYQNSNEEIIDVEIIEDRK

>AHK58480.1 prolyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMRFTKFYAPSLKEAPKDASLPSHIFLTRAGFVEQIGSGLYNFLPLGKRVLDKIKNIVKEEMDKAGAQEV

NLSFITPASLWQESGRYNVFGKELLRFKDRKENEFVLGPTHEEAMLSLVKNKITSYKQLPLHLYQIGLKF

RDEARPRFGLLRCREFLMKDGYSFHANEEDLGREFELMYKTYSQILQRMGLDFRAVEADSGAIGGSGSKE

FMVLAKNGEDDILICENCDYAANVEAAKRAKKTCQDERPEANYASKFHTPNIKTIDSLAQFFKINAFYTI

KAVVKKAIYENESKLVVFFIRGSDDLQEVKAQNTCSALELVDASEEELKKAGLVAGFIGFVGLKDIDFYI

DFELENEKQMIMGANEKDYHLIGIDVVNLNKDRFKDLIEVKEGDCCVKCGAKLKQSKGIEVGHIFKLGQK

YSKAMNANFLDENGKSQPFYMGCYGIGVSRLLAVAIEANHDEKGCIWNKTLAPFVLEIIVSNLKDEKALE

FANKLYRDLTNLGLEVLLDDRNERFGVKMNDFELMGFPYALVIGKGLENNEIELIQREGLVKELIKTDEL

MEILKKKVL

>AHK58479.1 glutamyl-tRNA reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYYCISFTHKNTDIALREKLSFSNEAKKGEFLKIISTHENIEECLVISTCNRVEIVAFVKMACAEFIVKS

LALLCDVDKDILLEKADIFEDSGAIHHLFSVASSLDSLVVGETQIAGQLKDAFAFAVKNNFCGVHLSRAV

HSAFKCAAKVRNETQISKNSISVASVAVAKAKELADLTQKKAVVIGAGEMGELAAKHLIAAGAKVIILNR

DLQKAKDLCERLGVLSEYDSLENLKKYLNQYEFFFSATNAPNAIITNSLIEELSYKRYFFDIAVPRDIDI

NENENISVFAVDDLEIVVQKNLALREQEARMAYGIIGRETSEFFRYLNDLALMPIIKAIRLQAKEYADKQ

LEIALKKGYLKKSDKEEARKLIHQVFKAFLHTPTVNLKHLQGKMQSDTVINAMRYVFDLQNNLEGLNQYK

CEFDMENNDEIY

>AHK58478.1 octaprenyl-diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKIDELIKQFLQELGYEPILNMLSNVKSGKKLRSKLLLAIADESEIAFKICAAIELIHLASLLHDDIID

ESELRRGARSVNAEFGTKNALMLGDILYSKAFYELSKMDARFASIISDAVVKLAIGELMDVDLGEKFNIN

KEAYLKMIYNKTAVLIEASARCGAILAGLYEKDFAEYGKNLGLAFQMIDDILDIKSDEKILGKPAMNDFK

EGKTTLPYIYLYENLQEQDRIYLQTLFKKDLNENEKEWLKTKFEEQKALEKAILEAKTYAKKARKAIEKY

DNNKLNDIIKAMIDREF

>AHK58477.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFKISPYLICIFFIFSNVLASEPTFDYTYKFILKKDERASVQIKEIGYEDKVQNFDFYWTLFDNTNIIVH

SKFRKYPRQFVMSLRRNLDWVTQTLIPDYTNPHIDRARLILEFSGYNKGLATFTVYIEDKESRLMVEFLD

PRKKALQNPPQNNQVVPMINFNEPQVKPLTSKENNNSN

>AHK58476.1 hypothetical protein N920\_02695 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDFFDEMFNKTPKEKFIEIIQNGNLGALEKVFEEFFADHIAMVELLEKQGLTEMDVKNFILENGDFIEER

QNDIYIELGAKILGHEG

>AHK58475.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKYQLRFGGEGGQGVITAGEILAEAAIKEGRQAFKASTYTSQVRGGPTKVDIIIDDKEILFPYAVEGEVD

FMLSTADKGYKGFRGGVKEGGIIVVEPNLVHPESEDYKKWQIFEIPIITIAKDEVGNVATQSVVALAIAA

YMSKCIDLDVLKETMLHMVPAKTRDANAKAFDLGVKYATQAKPHS

>AHK58474.1 2-oxoglutarate ferredoxin oxidoreductase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAFNYDEYLRVDKMPTQWCWGCGDGVVLKCIIRAIEKLGWNMDDVCLVSGIGCSGRMSSYVNCNTVHTTH

GRAIAYATGIKLANPSKHVIVVSGDGDTLAIGGNHTIHGCRRNIDLTHIVINNFIYGLTNSQTSPTTPKG

FYTVTAQFGNIDPNFDACELTKAAGASFVARGNVIEANKLENLIYKALAHKGYSFVDVFSNCHINLGRKN

KMGEAVAMLDWIKNRVVDKAKFESMDFEERKDKFPTGILHEDNSQPEYCHAYEEVRRAAKEKRMVDLGAL

K

>AHK58473.1 2-oxoglutarate ferredoxin oxidoreductase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MREVIATGNVLIAKAAIDCGCKFFGGYPITPSSEIAHELSHMLPANDGTFIQMEDEISGISVAIGAAMSG

VKSMTASSGPGISLKAEQIGLAFIAEIPLVIVNVMRGGPSTGLPTRVAQGDLFQAKAPTHGDFASIAIAP

ASLEEAYTETIRAFNLAEKYMTPVFLLMDETVGHMNGKAVLPDLKDIKVYNRKKFEGDKKDYKPYAAGEN

EPATLNPFFTGYRYHVTGLHHGDIGFPTEDGVIVKKNMERLIGKIKNNQEDICTYEEYMLDDAEFLIIAY

GSVSRSAKEAIQRLREQGIKVGLFRPITLYPVAEKKIAEVVSKFKKVMVSELNMGQYLEEIERVTSRRDF

ISLHRANGRPITPSEIIAKVKENI

>AHK58472.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSMTAPKDTPVWVDEHRCKACNICVSYCPAGVLAMRDDVHAVLGQMIEVVHPESCIGCTECEIHCPDFAI

MVAKRDEFKFAKLTAEAKDRAVAVKNNKYKKLA

>AHK58471.1 succinyl-CoA synthetase subsunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSILVNKNTKVIVQGFTGKEATFHAEQCMAYGTNIVGGITPHKGGQTHLGKPVFDTVADAVKATKADVSL

IFVPAFAVGDSVIEAADAGIKLAVVITEHTPVKDMMFAKQYANKKGMKIIGPNCPGIITSEECKLGIMPG

FIFKKGCVGLISKSGTLTYEAANQVVQGGYGISTAVGIGGDPIIGLAYKELLSEFQKDDETKAIVMIGEI

GGSLEVEAAKFIKENISKPVVAFIAGATAPKGKRMGHAGAIVGSADESAAAKKEALKSYGIHVVDSPALI

GEEIQKILG

>AHK58470.1 malate--CoA ligase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNIHEYQAKAIFVDNGIPTLKGKVAFSVDEAVANAKELGGSVWAVKAQIHAGGRGLGGGVKIAKNLDEVK

DYASKILGMNLVTHQTGPEGKLVQKLYIESGANIVKEYYLAILFNRMAEQITIIASSEGGMDIEKVAKES

PEKIAKVGIDPQIGFKMFHGLEVARVLGLDKDEGKKLISMIAKLYKLYMDKDMNMLEINPLIKTAEGDFY

ALDAKCSFDDSALYRHPEIAELRDTTEENPAEREAAEFGLSYVKLDGDVACMVNGAGLAMATMDIINYSG

AKPANFLDVGGGASPETVAKAFEIILRDKNVKVIFINIFGGIVRCDRIANGILEATKNVEVNIPIVVRLD

GTNAAEAKTILDNSNLKNIKAATNLKNGAELVKSLVG

>AHK58469.1 malate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKITVIGAGNVGSSVAYALILREIANEIVLVDINEDLLYAKELELTQSIAALNLNIDLLCTKDYTHTKNS

DIVLFSAGFARKDGQSREELLQLNTSIMLDCAKKIKDFTEDPLFIILTNPVDFLLNTLYESGIFSSKKII

AMAGVLDNARFKYELAKKLNVKMSRVDTRLIGFHNDDMVLVKSYASVKNKNISEFLNEEEFEDLENEVKT

GGAKVIKHLKTSAYLAPASACIRMLESIRSGEFLPMSVILHGEFGVQNKALGVMARLGLEGVIEIMKMDL

SLQEKDKLEKSLIKYQYKGE

>AHK58468.1 isocitrate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTKTNFKLTLAFFFICNILKNENKNKYFKGLKMQITYTLTDESPALATYSFLPIVKAFLSRAHIGVKTS

DISLSGRILATFSEYLKEEQRCEDALELLGELVKRSDANLIKTPNISASIPQLKAAIKELQDKGYMLPNY

PDEPKNDEELQIKTKYQKVLGSAVNPVLRQGNSDRRSTKAVKDYAKNNPYRVVEFNPNSKTRVSYMKEGD

FFSNEKAVLIDQDCVANIEFTSVDGKKEILKEGLKLEKNEILDATFMDVQKLQEFYAKEIKASKDDDVLF

SLHLKATMMKVSDPILFGYAVKVFFKELFIEFQDEFEKLGINPNNGLSELLSKIENSSKKDEILKKYSEI

LAKSADISMVNSDKGITNLHVPSDVIVDASMPAMLKNGARLWDKEGKEKDTNAVIPDQTYATIYEAVIED

LHKNGTLNPSKLGSVSNVGLMAKKAQEYGSHDKTFVAKEEGTFKIVSNGKVLLEHKVRKGDIYRANQAKF

DAVLNWIDLGIERSELSGAEAIFWLDSKRASNKIMITLVQNRLKEKGKNVAILTPKEACLRSLELIREGK

DVISITGNVLRDYLTDLFPILELGTSAKMLSVVPMLNGGAMFETGAGGSAPKQVEQLVEENHLRWDSLGE

FLALQASLEFYANKCGNHKAKVLAECLDEAIGEWLENNKAPSRKVKEDDNRTSHFYLAMYFANHLARQAS

DMELQSFFKDIALELSSNEEKIRAEFNDAQGVKVDLGGYYKFDDEKANKIMRPSATFNAILEKIGQR

>AHK58467.1 hypothetical protein N920\_02650 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKKILYIVVFFVVLILALFIVLKNGIVISSIQFDFLKLEQLYIKLDKKLIVRAKNITINETQNSEISSQ

THSSDNASTEILKITKNLKYLYTFVKEIDIQNLNIKDNHVRILFKDNEFFIDNDLLFLKLTLQRQNKELI

ADIKKLLLKDYDLSIDGNLSINTKSEFYYFQGRASGELLDFNASISYKDKNLAYKIEDLNIRNITEIFKR

VNKRIELPQSLNLWVAYRAKGEFYHLDYLQGFIDFTKDNYYLDNISASGYVNNVKVRLDDKMNAIEIPKL

DLNLNKQKLDFVFNKAFYNGADLSSSKVYLYDLFDEKKVGIYLRIKSDNLKFDEKLAKALEDYHFSLPFY

QKSGKIKSDLELKIDFHDKGEISYSGILALENASISLADFNITKAFVKLNQNDLNIENASVKNGFLEADF

NAKFDLQKQQGNFNTQISRLYFDNAELLDLKNQNVEVKLDYSQNVNISIPQWNLILNFKDGLEANLNNPK

ILFSFSPLLKKLGFINAKNVYYKTLNFEDFNASVNDAYFKNNLLINGQTPYENDSFDIVKNKGIMEIHTQ

SDTASAKISSDNKEIHLKNLSYIYRKHSNSSNSTFDIATNTQNISFGGANVALILADSNKTLAFDRVEAD

LKGNALDLKGSRGNAKFDLYYSSNDLNLNVSNIDDNYLNEFLQKQAVQDGVFNLSIKGSGLEYFDGQIDF

KNTYVKDLKGINQLISFIDTVPSLLMFKSPTFNQKGLSLHDGKIIFNRKKDLLSVSAINLNGDSVDIYGL

GSANLRLNTVDFSLELKTLKSASEAISKVPILNYVILGKNQEISTNLKIDGSIDDPKFHTEILTDTLKTP

FNLIKNIIQLPANLLN

>AHK58466.1 flagellar basal body rod protein FlgB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINPFKSKELVTGALAGRNLRNQLINANLANVDTPFYKARDIEFETALVNRANEIFKKNDNKELQLAVTE

EEHQKPWKFPDPSKSTIYLRDGHLARNDANTVDLDVETTEMSKNTVMITALDGVLRRQSNIFSSILDASS

KLS

>AHK58465.1 flagellar basal body rod protein FlgC [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAYLSDFDISGYGLSAQRFRMNVISSNIANANTTRTAEGGPYRRREVIFKATDFDKLLNEQINKDNNFLK

YENPLNDPSSPEEAKPAIQSVVVDKVVRDDKDFRMKYDPSHPDANAEGYVAYPNVNPVIEMADLIEATRA

YQANVSAFTSAKTISQSAIDLLRG

>AHK58464.1 flagellar hook-basal body protein FliE [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNNINDLRLNNNISNTNKSQNSTGIGDEFAKMLKNEINDLNKAQESGEAAMTDIATGQVKDLHQAAIAIT

KAESSMKFMLEVRNKAISAYKEITRTQI

>AHK58463.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQEYKKNRVSKVAFAYCMALLFMIIFISSTFFLTSKRHIPNTEKDQYALALRGSIITKDNFTITSSKQIY

RAEIDLRSINKDKFDLFLKLFQIYSGISNDQVADIKKRMQNQKKRSYNFVLLQNLDSKQASYLKDLAKKL

YIQGFFKAFTNNSGRVETRGLNIIEHEEDRIYMSKDSFTPIIGYTKMILDPESGILKNIGVKGLEKYYDA

CLSPVQNEKIQGLKDIGGNIILNLNSLQQKKINGCDLYLNLSLKLQKSIEKAIDQRNEDLKANEIIVGVM

ESKTGRILALASSRRYDPQNRGKDLSVLNASAIEYGYEAGSVIKPFIFTTALRLGKIKMDEVINTYGGSY

KLGRFTIKDDHKMDKMTMEEVIRYSSNIGMIQIAKRLNNIEIVSGLKIFKFGEKSGIDLPYEQKGEIPNP

KRLRDIEKSVLSYGYGLKTTFIQLLAAYNVFNNDGFYITPRLAEKFYQNGRFTNLDDDVKKEKILSSEAA

KTMQNVLINVIEKGTGKKAITQGIIAGGKTGTARIAERQGYTSNRYNASFFGFANDLNHAYTIGVLVRHP

TKPYSYYAAQSALPMFKDVVDILINEEFLTPIQDNNQTSTNN

>AHK58462.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLGIYLLIAALSFLALYFAVKKLTLNIDERTLLEPIKMDIYPKFCDLIDEKIREFKENIQNANLTLKNSN

QKDEFLEKLGDLSRELTFIQTMNLSNKNDSIWQNELFSFLKELENLLLEYLEKGEEEAENLREFLMDEFE

KLKG

>AHK58461.1 rhodanese [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIENISASLWTKQDLNAYQIFDVRTPLEWEEGILPNAQCVALYDNQGLLNAKFLDEFQSKRDESKKLAFI

CRSGHRSMVAAEFIAEKLGLESINLDGGMLALKGC

>AHK58460.1 heat shock protein Hsp90 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQFQTEVNQLLQLMIHSLYSNKEIFLRELISNASDALDKLNFLSVSDDKYKSLKFEPKIEIKIDKDKKTL

SISDNGIGMDKDDLINNLGTIAKSGTKSFLENLSGDAKKDSQLIGQFGVGFYSAFMVASKIEVLSKKALD

DKAYLWSSDANGYEIDDANKEEQGTSITLYLKDDEFANAYKIESIIEKYSNHIQFPIFMEKEEFTPAKEG

EEEGKTELKISQINKANALWRMQKSSLKAEDYERFYEQNFHDSNKPLLYLHTKSEGKLEYNSLFFIPQNA

PFDLFRVDYQSGLKLYVKRVFISDDDKELLPTYLRFVRGIIDVEDLPLNVSREILQENQILKGIKEASVK

KILGELEKLKNNDKEKYLSFFKTFGKVLKEGLYGFGGEKDSLLKLMLYKSTKGENLRSLEEYKNDLQGEQ

KEIFYIAGNNESLLRTSPLLEEYKQKNIEVLLMDDEIDSLVTPMLEFEGLKFVSINQVEDKNELSDEEKN

TFAPLVAKFKELLKDQVEDVRLTSRLKDSPSCIVYDKNKPDFAMQQLLKQMGQEQNFKPILEINPKHAIF

TGLKNNESFSADIATLVLNMAKLSEGMGVDNPAEFNASLTKIINKAFS

>AHK58459.1 chromosome condensation protein CrcB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNTLLVVGFGGFIGAILRMLSINLVNKFFPYSISFGTLFVNVLGSFIIGLLFSYAQNKGLSPLLKSFIS

TGFLGAFTTFSTFSYQNLLLLQSGNYLHFALNIILNVFLCLFAAWLGFLIFK

>AHK58458.1 1-acyl-sn-glycerol-3-phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIYKKIKALYFWIFFVLSVALVIFCFCFTKSQNTLWKIRKIWAKFQRYTISYKQEIIGTFNPQAQMILMN

HQSALDIIALEELYPKNLCWIAKKELGEIPIFKVAMKKPKLLCIDRKNPRDLVRVLKEAKERISEDRVLA

IFPEGTRSKNEKMLKFQSGAKILSEKLNLKVQPILIVDSAKILDTKSFSASSGVLKIICMDLVDTNDEKW

LENTRKKMQELLDQERAKLC

>AHK58457.1 hypothetical protein N920\_02575 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKILLTLIFSIVVLFGRGEISVFSGQDENMQKELQKLPQEEQKIYQNIPPSDENNDFESNVDDPFVAKGS

LVLTNDEYPSRVYVGEVFPITIYARTTENIKFDFNISVEKTNLSFLNPDAKWEFINNEYKTTLWFEAKNS

NASLSKISIKLLRNNEAFQEADINLNPIKFENTLFNKDFSHLVASSLEIKKVKASYFDDANIIMMIELNA

TNTNLKSFFIEGIQKQGIENLKGDFNASSAFYYAILPLSKTNFEFSYFNKDSKKLENINLKLKISDDEIS

TQSDLNPVNKDLNIYKQYALWFLAVLFGVLFVWRKNYIILALAVVCFALSFLVDTNTQNAIIKAGSRAKI

LPTEPSTYFYTANADEKVEVLGKRQNYIKVLFSDGKIGWVNKDDLQKN

>AHK58456.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVAIIRFPGTNCEFDTTYAFEKLGVKTQIVWHEEKEFDADLVVLPGGFSYGDYLRCAAIAKLAPAMQGV

FNHAKKGGYILGICNGFQILLESGLLKGAMKHNNNLSFISKNQSLRVVSNDNAFLKNFKKDEIINLPIAH

GEGNYYADETTLKELQDKDLIILKYEPNPNGSVFDIAGICDENKKIFGLMPHPERACEKVLGNDVGLKML

KGFLLENFINFNF

>AHK58455.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEVIVNISLKNGVLDPQGKAVEKALHSLNFNSVKEVKIAKQIKISLDEKDEKLAKEQVKKMCEELLVNSV

IEDYELIIEKE

>AHK58454.1 phosphoribosylaminoimidazole-succinocarboxamide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKKEMLYEGKGKKLFKTDDENLLISEFKDDLTAFNAEKRGNESGKGALNCKISTEIFHLLEKNGIKTHL

VEIISDTEQVVKKCKIVPIEVIVRNVATGSLTKRLGIKDGTVLPFALVEFCLKDDALGDPFINDEHCLIL

NLVQNEAQISEIKNMARKINSILTPFFDNKNLRLIDFKIELGLTKDNELVLADEISPDSCRFWDKFSNEK

LDKDRFRQDLGNVKMAYEEVLKRILN

>AHK58453.1 peptidase S41 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMELILKTKRFFAGLAGFATTFILCLFLTSHLQAKVDQKEEQVQKRLEALDKLTKTLAIVEQYYVDDQNI

SDLVDKSLSGLLSNLDAHSSFLNEKDFNDMKIQTNGEFGGLGITVGMKDGALTVVSPIEGTPADKAGIKS

GDIILKINDEATLGINLNDAVDKMRGKPKTQITLTIFRKGATKPFDVTLTREIIKIESVYAKMIENENIL

YLRVTNFDKNVVDVASKELKKYPNVKGVILDLRNNPGGLLNQAIGLVNLFVDKGVIVSQKGRIASENQEY

KADPKNKISNASLVVLVNGGSASASEIVSGALQDLKRGVIVGENTFGKGSVQQIIPINKTEALRLTIARY

YLPSGRTIQAVGVKPDIEVFPGKVNTQEDGFSIKESDLKQHLESELEKIDKNKKEDKQENKDNKNLISQK

QINDDAQLKSAIDTIKILNIKQGQ

>AHK58452.1 hypothetical protein N920\_02550 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MCQEKHTHTHSQKHLKAVCNRLSRTIGHLSAIKRMVENDKDCSEILIQLAAVKAEVNNTAKVVLKEHLAH

CMVHAVEENDIQSIEELNKAIDMFMK

>AHK58451.1 septum formation protein Maf [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLILASSSISRANLLKTAKIDFRQVSFDYDENLNKNISPFLYVQKIVLEKERQFLSTLGKDFQNQNLLFA

DSIVCIDEKILTKAKDKKEAYEMLALQNGKYASILSAFLLVKPEKRVFSLSKTTLYFKNFDENALRDYVE

NDLYKGKAGCIMCEGFHQNFITQQVGNLSTALGLDIQTLKAYL

>AHK58450.1 alanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDIRKAYLDFFASKGHEITPSSPLVPDDATLLFTNAGMVPFKSIFTGEIPRPNPPRKTSCQTCIRAGGKH

NDLDNVGYTARHHTFFEMLGNFSFGDYFKEQAIAYAWEFVTEVLKLPKDRLYVTVHENDDEAFNLWQKHI

QKERIYKFGDKDNFWQMGDTGPCGPCSEIFYDQGQEHFNSSEDYMGGDGDRFLEIWNLVFMQYERSADGV

LSPLPKPSIDTGMGLERVTAIKEGKFSNFDSSLFMPIINEISKLCNKTYVYESGASFRVIADHIRSSVFL

LAQGVSFDKEGRGYVLRRILRRALRHGYLLGFKQAFMYKLVDVVCDLMGGHYTYLNEKKDFIKEQIRLEE

ERFLSTIENGIEIFNEELKNTKEIFSGEVAFKLYDTYGFPLDLTADMLREKNLKVDEEKFELFMNEQKAR

AKASWKGSGDKTASGDFKNLLEKFGENHFVGYEKAECESKILALLDEDFKEVSTLKDAGWVMLENTPFYA

TSGGQSADSGFIAKREVLDTQKFFNLNLSFIKAGEELKVNDIVHARIDTEKREQIARHHSATHLLHHALR

EILGSHVSQAGSLVESNKLRFDFTHHKALNKEELESIEKRVNKMIINSSEAILENMPLEEAKKSGAIALF

NEKYQGNVRVLTLGESKELCGGTHVKNTAQIGSFYIVKESGVSAGVRRIEAVVSKAALEFVKNQLEELSK

VKDELKNNDILSGIKKLKNEILSLKNELKNSSKTELDSKNIQGVEICVKRIDNGDIKAMIDDFKNKFAKA

VILLIQVKDEKITLAAGVKDVPLKAGALVKEAAQILGGNGGGRDDFATAGGKDLSKINEALKQSLETIEK

AL

>AHK58449.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFINLQAQYLAYKDEINAEIESVLSSSSFIGGAKLNEFEQNLAHFLGVKHAIGCSSGTSALYLALRVLD

IGKDDEVIVPSFTFIATAEVVALVGAKPVFADINLSNYNLDFKAVQKAITSKTKAVIAVSMFGQMSDLRA

LEEILKDKNITLIEDGAQSFGASFKGEKSCSIAKISCTSFFPSKPLGAYGDGGAIFCHDDEIAKKIRILL

NHGQTQRYKHEFIGINGRLDTLQAAILNVKLKYLEKELDKRQKLAQIYNANLKNCQIPQINPNAFSAYAQ

YSVLVEDRASVLRKFEKANIPYAIHYPTPLHKQPCFSEFSNLELKNSEYASEHILSLPFSPFLSEEEQEQ

VICIFKD

>AHK58448.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIGIIGLGKMGQNHLNELSKNSHFKLNALFDLCKNPNLNIFDDIFYDDLDKFLNQNNDIIIIATPTNSH

LTIAKKVFKQCKCVLIEKPLALNLKEIDEISNLAKEYSIKVGVGFCERFNPAVLALKKELENEEIISINI

QRFSPYPQRISDVGILQDLAVHDLDLLCFLSKQEITKTNLLKKYTQDQTRESESIILCGLEKCIASIHQS

WNSTQKLRKIHLITKNHFYEANLNDFSLLKDGNFIELTQQSPLFSEHEALLKLIDNQPNHLASTSDAYKV

QEILERFA

>AHK58447.1 ferrochelatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLVLFLNMGGATNLQDCEVFLKNMFNDPYILGIKNRFLRKFVAWIITKARVKAMQENYKKMGGKSPLNE

LTQSLCDKLNLKQDEFKFDFVNLYVPPFATEILQKYTLNASDEIILFPLYPHHSCTTVTSSLEVLQNEIS

KQKIQAKVKTIDIFYKNELYNEMIVSHILAKKSKFDAKILIFSAHSLPQSIIDKGDLYEKHVNDHVEILK

EKLKDHFDEFILAYQSKLGPVKWLEPNTSDVLANLNDKALIYPISFCIDCSETIFELGMEYKHLSKYNYD

LISCPNDSDEFMEFILKYLSDLN

>AHK58446.1 tRNA 2-selenouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFWLLKMLSEVEFVEFQKENFSLLIDARSPREFLHSHLIGALNFYALNDEEYQEIGTIYKKNQALAKAMG

ASYICQNTTKHILEITQNFRIGEKVGIYCSRGGLRSKSIAVILSELGFRVVRLKGGFKAYRTFVTHYFEN

EINFDFFALCGNTGCGKTELLEQLPQAINLEKMANHLGSSFGDILGKQPTQKAFEAELFHNIQNLENFAF

IESESRKIGDIILPLKFYEKMQKAFKIYCFCSLENRVRRIQKIYQEKMTPLKFQQCVQKISPYISLNLRQ

DLLQSYERKEWQKLIVMLLEYYDKTYKKPDKIDLELNTDDILKAKEELLDHFKVQLLF

>AHK58445.1 HIT family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQYLYAPWRSEYFEKVKSICPFCDCANKIKSDEELGVIFRAKHCFGVMNRYPYSAGHFMVIPYIHEEHIE

NLSDEIWQEMSYFVRLGVKILKEQIHANGVNIGMNLSKDAGAGIAFHCHYHLVPRWSGDTNFITTIGETR

VCGTNIEQVYQKLVLAFKNAQ

>AHK58444.1 indole-3-glycerol-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MILDKIFEKTKEDLKERKLKLPYDMLGRSLASNPFFPKDVIKALKRVEKEVKIIAEVKKASPSKGVIRED

FDPLSIALNYEKNKAAAISVLTEPHFFKGSLEYLSLIRRYTQIPLLRKDFIFDEYQILEALVYGADFVLL

IAKMLSMKELKKLLEFARHLGLEALVEIHDKEDLSKAIFAGADIIGINHRNLEDFTMDMSLCEKLIPQIP

NSKIIIAESGLENKEFLEHLQNLGVDAFLIGEYFMREKDEGKALKALL

>AHK58443.1 hypothetical protein N920\_02485 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYRYLLFVLAAFFLAACGSSKINVVYPDYTKYKSNDFDLRVMKAYNYEYYKQYKEARDEFLSLYQDYNNT

NFLENAFLLTLANNLDKQAELDNLAKPYLNQNDNLKRLSALYALNSNDINNAQKLMKELLTKKDSDPRNL

ELYGDILVKKNDLKNATKYYRSAYNQVQNEEILFKLIGIYAILNDTLNIKNVLEFSRKTNGCTLKTCVLL

AKIYFDEKNIEALKSIYKELYQLTKNKSFVLALVELLNSQGKTEEALKISLQYDLDDDIKLALYQNLKRF

DDAKKMSLALYHKTKNKEYLLRAAVFEFEAANEAKKITPKVIDSVKEKFEQAIDKDSNALYLNYYGYLLI

DYDLDVKKGIELVKLALEKDPQNLYYLDSLAWGYYKLGDCKQAWEILKQTLDDKEFANSDESKAHIKAIK

ACIKP

>AHK58442.1 hypothetical protein N920\_02480 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIFDKNFSYAFDENACEKCGGKCCTGESGNIFASKEELEVLRKHLNLESKEFAEKYLRKVGFKMSFKEVE

CEDGFACIFFDTQKRNCSIYDFRPKQCRTFPFWEYFKTHQKELEKECIGICYLS

>AHK58441.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSDLITLAQLSQGYRYNSDSLILADFILKQGIKGAVFDVGAGCGIIGILLKKNIANLSLSLIDIQKENIE

LIEKNLKSNKIQGDIFHDDFNQFQIIKKFDFIVCNPPFYRQGAYKSEDQHKAISKFQEFLPLHSFLAKTN

SMLKPNGTLYFCYEALALDEICFILKDMKMKITKLCFVHTHQSKKARLVLIQVKKGSKSPCEILPPFFVY

ENEILSKQMQEIHLRFRLKSYDI

>AHK58440.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKIAFFITFVISFLAAQSPVNFKEDNNITKERNIFKEQLPKRIKIPTH

>AHK58439.1 elongation factor P [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSRSTPLKKVRNIGIAAHIDAGKTTTSERILFFTGMSHKIGEVHDGAATMDWMEQEKERGITITSAATTC

FWKDHQINLIDTPGHVDFTIEVERSMRVLDGAVAVFCSVGGVQPQSETVWRQANKYGVPRIVFVNKMDRI

GANFYNVEDQIRNRLKANPVPLQIPIGAEDNFKGVIDLVTMKALVWEDDTKPTDYVEKEIPAELKEKAEE

YRTKMIEAVSETSDELMEKYLGGEELSLEEIKTGIKAGCLSLSIVPMLCGTAFKNKGVQPLLDAVVAYLP

APDEVANIKGEYEDGTEVSVKSTDDGEFAGLAFKIMTDPFVGQLTFVRVYRGCLESGSYAYNSTKDKKER

IGRLLKMHSNKREEIKVLYAGEIGAVVGLKDTLTGDTLASEKDKVILERMDFPDPVISVAVEPKTKADQE

KMSIALNKLAQEDPSFRVSTDEESGQTIISGMGELHLEIIVDRMLREFKVEAEVGQPQVAYRETIRKTVE

QEYKYAKQSGGRGQYGHVFLRLEPLEPGSGYEFVNDIKGGVIPKEYIPAVDKGVQEALQNGVLAGYPVED

VKVTVYDGSYHEVDSSEMAFKLAASMGFKEGARKAGAVILEPMMKVEVETPEDYMGDVIGDLNKRRGQVN

SMDERGGNKIITAFCPLAEMFGYSTDLRSQTQGRATYSMEFDHYDEVPKNVADEIIKKRNG

>AHK58438.1 30S ribosomal protein S7 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRRRKAPVREVLPDPIYGNKVITKFINSLMYDGKKSTATTIMYGALEAIDKKGGEKKGIDIFNDAIENIK

PLLEVKSRRVGGATYQVPVEVRPARQQALAIRWIISFARKRSERTMIDKLAAELLDAANSKGASFKKKED

TYKMAEANKAFAHYRW

>AHK58437.1 30S ribosomal protein S12 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPTINQLVRKERKKVLEKSKSPALKNCPQRRGVCTRVYTTTPKKPNSALRKVAKVRLTSGFEVISYIGGE

GHNLQEHSIVLVRGGRVKDLPGVKYHIVRGALDTAGVAKRTVSRSKYGAKRPKAGAAK

>AHK58436.1 DNA-directed RNA polymerase subunit beta' [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKFKVIEIKEDARPRDFEAFQLRLASPEKIKSWSYGEVKKPETINYRTLKPERDGLFCAKIFGPIRDYE

CLCGKYKKMRFKGVKCEKCGVEVANSKVRRSRMGHIELVTPVAHIWYVNSLPSRIGTLLGVKMKDLERVL

YYEAYIVENPGDAFYDNESTKKVEYCDVLNEEQYQNLMQRYENSGFKARMGGEVVRDLLANLDLVALLNQ

LKEEMGATNSEAKKKTIIKRLKVVENFLNSNLNANTDSDEAVPNRPEWMMITNLPVLPPDLRPLVALDGG

KFAVSDVNDLYRRVINRNTRLKKLMELDAPEIIIRNEKRMLQEAVDALFDNGRRANAVKGANKRPLKSLS

EIIKGKQGRFRQNLLGKRVDFSGRSVIVVGPKLRMDQCGLPKKMALELFKPHLLAKLEEKGYATTVKQAK

KMIENKTNEVWECLEEVVKGHPVMLNRAPTLHKLSIQAFHPVLVEGKAIQLHPLVCAAFNADFDGDQMAV

HVPLSQEAIAECKVLMLSSMNILLPASGKSVTVPSQDMVLGIYYLSLEKAGAKGSHKICTGIDEVMMALE

SKCLDIHASIQTMVDGRKITTTAGRLIVKSILPDFVPENSWNKVLKKKDIAALVDYVYKQGGLEITASFL

DRLKNLGFEYATKAGISISIADIIVPNDKQKAIDEAKKQVREIQNSYNLGLITSGERYNKIIDIWKSTNN

VLSKEMMKLVEKDKEGFNSIYMMADSGARGSAAQISQLAAMRGLMTKPDGSIIETPIISNFREGLNVLEY

FISTHGARKGLADTALKTANAGYLTRKLIDVAQNVKITIEDCGTHEGVEINEITADSSIIETLEERILGR

VLAEDVIDPITNSVLFAEGTLMDEEKAKILGESGIKSVNIRTPITCKAKKGICAKCYGINLGEGKLVKPG

EAVGIISAQSIGEPGTQLTLRTFHSGGTASTDLQDRQVSAQKEGFIRFYNLKTYKNKEGKNIVANRRNAA

VLLVEPKIKTPFKGVINIENIHEDVIVSIKDKKQEVKYILRKYDLAKPNELAGVSGSIDGKLYLPYQSGM

QVEENESIVEVIKEGWNVPNRIPFASEILVEDGEPVVQNIKAGEKGTLKFYILKGDGLDRVKNVKKGDIV

KEKGFFVVIADENDREAKRHYIPRESKIEFNDSEKIDDANTIIASAPKKERKVIAEWDAYNNTIIAEIDG

VVSFEDIEAGYSADEQIDEATGKRSLVINEYLPSGVRPTLVIAGKGDKAVRYHLEPKTVIFVHDGDKIAQ

ADILAKTPKAAAKSKDITGGLPRVSELFEARKPKNAAVIAEIDGVVRFDKPLRSKERIIIQAEDGTSAEY

LIDKSKHIQVRDGEFIHAGEKLTDGVVSSHDVLKILGEKALHYYLISEIQQVYRGQGVVISDKHIEVIVS

QMLRQVKVVDSGHTKFIEGDLVSRRKFREENERIIRMGGEPAIAEPVLLGVTRAAIGSDSVISAASFQET

TKVLTEASIAGKFDYLEDLKENVILGRMIPVGTGLYGEQNLKLKEQE

>AHK58435.1 DNA-directed RNA polymerase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLDNKLGNRLRVDFSNISKQIEIPNLLQLQKKSFDYFLNLDNGESGIEKVFKSIFPIHDPQNRLSLEYVS

SEIGKPKYTIRECMERGLTYSVNLKMKIRLTLHEKDEKTGEKVGVKDIKEQEIYIREIPLMTDRVSFIIN

GVERVVVNQLHRSPGVIFKEEESSTVANKLVYTAQIIPDRGSWLYFEYDAKDVLYVRINKRRKVPVTMLF

RALGYKKQDIIKLFYPIQTIHVKKDKFLTEFNPNDFMDRIEYDIKDEKGKIVHQAGKRLTKKKAEQLIKD

GLKWIEYPVEILLNRYLANPIIDKESGEVLFDSLTLLDESKLAKIKEQKSFDIANDLANGVDAAIINSFA

QDGETLKLLKQSENIDDENDLAAIRIYKVMRPGEPVVKDAAKAFVNDLFFNPERYDLTKVGRMKMNHKLG

LEVPEYVTVLTNEDIIKTAKYLIKVKNGKGHIDDRDHLGNRRIRSIGELLANELHLGLAKMQKAIRDKFT

SLNADLDKVMPYDLINPKMITTTIIEFFTGGQLSQFMDQTNPLSEVTHKRRLSALGEGGLVKERAGFEVR

DVHATHYGRICPVETPEGQNIGLINTLSTYAKVNELGFVEAPYRKVVNGKVTNEVVYLTATQEEGLFIAP

ASTKVDAKGNIVEEFVEARQDGETILARREEVQLIDLCSGMVVGVAASLIPFLEHDDANRALMGSNMQRQ

AVPLLTASAPIVGTGMEQIIARDAWEAVKAKRGGVVEKVDNKSIFILGEDDKGPFIDHYTMEKNLRTNQN

TNYIQHPIVKKGDIVKAGQIIADGPSMDQGELAIGKNALIAFMPWNGYNYEDAIVVSERIIREDTFTSVH

IYEKEIEARELKDGIEEITKDIPNVKEEDVAHLDESGIAKIGTHIKPGMILVGKVSPKGEVKPTPEERLL

RAIFGEKAGHVVNKSLYATASLEGVVVDVKIFTKKGYEKDDRAIKSYDKEKMALEKEHHDRLLMMDREEM

LRVCALLSKASLNSDQKIGDKNYKKGQTADISELEKINRFTLTTLIKAYSKEIQKEYDDLKNHFQNEKKK

LKAEHDEKLEILEKDDILPSGVIKLVKVYIATKRKLKVGDKMAGRHGNKGIVSTIVPEVDMPYLPNGKSV

DIALNPLGVPSRMNIGQILESHLGLVGLRLGDQIQEIFDRKQKDFLKELRAKILEICSIPRLANEKEFIK

SLSDEELLNYARDWSKGVKFSTPVFEGVNIEEFSKLFKMAKIDMDGKTELYDGRTGEKIAERVHVGCMYM

LKLHHLVDEKVHARSTGPYSLVTQQPVGGKALFGGQRFGEMEVWALEAYGAAHTLREMLTIKSDDVEGRF

SAYKALTKGENVPATGIPETFFVLTNELKSLALDVEIFDKDEDNE

>AHK58434.1 50S ribosomal protein L7/L12 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAISKEDVLEYISNLSVLELSELVKEFEEKFGVSAAPVMVAGGAVAGGAVAAAEEKTEFDIVLTDGGAKK

IEVIKIVRALTGLGLKEAKDAVEQTPSTLKEGVAKAEAEEAKKQLEEAGAKVELK

>AHK58433.1 50S ribosomal protein L10 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTRSEKVEIIAKLEEGFKASEAIVVCNYRGLSTKKLEELRNNARENNVKVQIVKNTLANIALNNSGKTGL

VLKDTNIYLWGEDQLSVSKVAAKFEENNDKFEIKTAHIEGEVADVAKVKALAKMPSRNELLAMLLQVWNA

PITNFTIGLNALKNKKESE

>AHK58432.1 50S ribosomal protein L1 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKIAKRLKELSQKIDSNKEYALSDAIDTIKTLKSAKFDETVEIALKLNVDPRHADQMVRGSVVLPAGTG

KKVRVAVIAKDAKADEAKNAGADIVGSDDLVEEIQKGNMNFDVLIATPNLMGLVGKVGRILGPKGLMPNP

KTGTVTMDVAQAVNNAKSGQVNFRVDKQGNIHAGLGKVSFSKEQLWDNVSTFVKAINKHKPAAAKGRYIK

NAALSLTMSPSVKLETQELLDMK

>AHK58431.1 50S ribosomal protein L11 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKKVVGEIKLQIAATKANPSPPVGPALGQQGVNIMEFCKAFNERTKDMAGFNIPVVITVYADKSFTFIT

KQPPATDLIKKAAGISKGTDNPLKNKVGKLTRAQVLEIVDKKIADLNTKDRDQAAKIIAGSARSMGVEIV

D

>AHK58430.1 transcription antitermination protein NusG [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSTHKWYAIQTYAGSEMAVKRAIENLVKDNGIEEQLKEIVVPTEDVIEFKNGKEKISERSLYSGYVFALL

DLNTELWHRIQSLPKVGRFIGESKKPTPLTEKDINLILEKVHNRAAPKPKISFEEGENVRITEGPFANFT

AIVEEYDMVRGLLKLNVSIFGRSTPVEILYSQVEKII

>AHK58429.1 preprotein translocase subunit SecE [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKLITYFKLSKAELRKVIFPLKEQVRNAYITVFVVVAVISLFLALVDWLMSSIVSAIV

>AHK58428.1 50S ribosomal protein L33 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRIKVGLKCEECGDINYSTYKNSKNTTEKLELKKYCPRLKKHTLHKEVKLKS

>AHK58427.1 elongation factor Tu [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKEKFSRNKPHVNIGTIGHVDHGKTTLTAAISAVLSRRGLAELKDYDNIDNAPEEKERGITIATSHIEY

ETDNRHYAHVDCPGHADYVKNMITGAAQMDGAILVVSAADGPMPQTREHILLSRQVGVPYIVVFMNKADM

VDDAELLELVEMEIRELLSSYDFPGDDTPIISGSALKALEEAKAGQDGEWSAKIMDLMAAVDSYIPTPTR

DTEKDFLMPIEDVFSISGRGTVVTGRIEKGVVKVGDTIEIVGIKDTQTTTVTGVEMFRKEMDQGEAGDNV

GVLLRGTKKEEVIRGMVLAKPKSITPHTDFEAEVYILNKDEGGRHTPFFNNYRPQFYVRTTDVTGSIKLA

DGVEMVMPGENVRITVSLIAPVALEEGTRFAIREGGKTVGSGVVSKIIK

>AHK58426.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSILKIENLQKYYGSHHALKDINLEVKAKEVVVILGPSGCGKSTLLRCINGLEEIASGNIYIDNEKIDKD

FKEWPRMRQKVGMVFQSYELFEHLSVEENILLGPMKVQKRKKDEVLKEAKIWLEKVGLLHKIHAYPRELS

GGQKQRIAIVRSLCMNPELMLFDEVTAALDPEIVREVLEVMLNLAKEGMTMLIVTHEMGFAKAVADKIIF

MDEGKIIEENDPKSFFKNPKSERAKKFLNLFDYHNIDKNNIGL

>AHK58425.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLELLNTDTLLRLWQGLFVTLEISFISIIITSIGGLFLGILMSFKNTYIYAFCRLGLEFVRVMPLLVWLF

VVYFGFPRWFGWDLSSVSAAIIVFSIWGCFEMMDLVRVSLQSIPKHQYESASSLGLNTVQSFAYVIIPQA

MRRLTPMSMNLLTRMIKSTTFAYLIGAVELVKVGQQIIEFHNRNDFAPFIIYGLIFFIFFILCYPITLYS

RKLEKKWS

>AHK58424.1 polar amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDFDFILAQAPAFLTAAWLTIKLSFFGIIFSLIIGLFCILMSYFKIKILENICKLYIEFSRNTPLLIQLF

FLYYALPKFNIHLEQIPPLDLICLSVEETLRPSFACAIVGLSFLGGSYMAESLRAGFEAIRKQQFEAGLS

LGFSKFGNLRYVILPQALAISMPSISANIIFLIKETSVVSIIALPDLVNLMKSLNSLTYKTDELLFLLFM

GYLCIILPLSFILLKFEKRLLHA

>AHK58423.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKDYLELLSSVGKLKKFQKNSILFYEGEEAKNFFILLKGKIRIYKSTASDKEITLHYFNPPNFIAEMPAF

KKLNYPANAVFEEDGEILEIDFINFQNLCSENKEFNFLLISSLFDKIKILEKKLSQNALDLRTRLLKYLL

ENEKNLDTISQKQIAIDLNVRAQSLSRVLKELKISELIDTKKGRIEILNKDMIMKELW

>AHK58422.1 ATP-dependent DNA helicase RecG [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIKESDFEFFKKLKIRSAIDLALLLPKKIENLNPSKNPKENEICTQKITIKSVSSRKNQLFGLGFCEEW

QENISFVFFHPRAWHFGICKVGKELIFNAKLSHFNHTWQFNNPKILTSFEGFSPKYQILGLKDTKIAAFI

HKYLNYENLKESGIEDKYIHFLLNLHAYDEKSFFMFENLQNFSKDLKYIEIYNFLKRLKAKKTHFKAHQI

NVFNIANWLKDLPFSLTKDQLNALKDIEKDLHSKEAKRRVIMGDVGCGKTLVLLGAALMVYPKQAILMAP

TSILAYQLYEEAKKFLPDFMNILFIKGGKKEKDLEQNIQKANLVIGTHALIHLESHNAVLVMIDEQHRFG

SAQREKIHSLNKQEFAPHFIQFSATPIPRTLSMIQSELLNFSFIKQMPFKKDITTYCIQNEGFSKLSEKI

KEEIAKNHQIIIIYPLLSASDKIPYLSLEQAKEYWQSHYEKVFVTHGKDKQKDEILERFRDEGNILLSTT

VVEVGISLPRLSMIVIVGAERLGLATLHQLRGRVGRVGLKSACYLYTKLKEIPSRLKEFASTLDGFKIAE

LDLKNRLSGDLLDGFMQHGNEFKFFDFSKDEEILEKVKKDLAKKLPN

>AHK58421.1 peptidase M16 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQYLESRGIKIPFIFEKNSDFPIVVLKLVFRNCARSYDEIAGLAKMFSRILNEGVDDKFFKDLEFRAINL

EASSGFESLEINLSCLKENFDFALKSLEKLLLKPRIEEKTLQKLKINALGELASKNSDFDYLAKNLLNAQ

IFKCKEFQSPNDGDEKSIETLSLKDLQNFYKNFIHLSDLVVILGGDLEEKQAKEDLLKLLSKLQIGKKNT

PKKYELGKNIKDEILVRPESEQAYIYFATPFFADFKDKDLYLAKIALFVLGQGGFGSRIMEEIRVKRGLA

YSAYAMLDMNMSFSRVFGYLQTKNESAKEAKKIVKELFEDFIKNGMTQNELDQAKNFLIGSTPLRYESLS

KRLSMSFNEFYQGLNLGYYKEELKLMEKVKLETINAYIKKHQELLNISFASIQNEN

>AHK58420.1 hypothetical protein N920\_02280 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKRLDKKEALDLLHHASLTELGEMAYKRKLELHPEKITTFVVDRNINYTNVCCIDCSFCAFYRHHKEDDA

YILSFEEIGKKIEELEAIGGTQILFQGGVHPKLKIEWYEELVSWIKEHYPNITVHGFSAVEIAYIAKASK

ISITEVLKRLQAKGLFSIPGAGAEVLSDRVRDIIAPNKCDTATWLEVHRQAHKIGMKSTATMMFGTVEND

EEIIDHFEHLRKLQDETGGFRAFILWSFQSDNTALIQKHPEIMKQSSNKYLRLLALVRLYLDNFKNLQSS

WVTQGSLIGQLALKFGANDLGSTMMEENVVSAAGASYRMNQDEMIRLIRSLGENPAKRNTAYEILERF

>AHK58419.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNYIELLKNNKNIRILASVQFIVYFGAWFSQTGVFTLLVELNAPTWATATSAMLAFLPGVLLAPINGVIV

EKNKPKKLLLSMISIELISIFCLIFVTSLSMLWLLFILIFIRLCVASIYFQAEMSLLAKILTPQELKLAN

EMHSVIWAISYTAGMASAGIFIYFLGVKTAFLFDCILILIGISFLVRLSIPDFHQKTQSRFFTMIKEGFF

YVLNNKIIFHLILLHAFIGLTAYETLVTLLAQHQYKEVLSAALVIGFLNAVRACSLAIGPMVLSKFINDK

NLFYMYLGQGLGIILWALTQFNFYISFLGLIGAGFFTSALWAYTYTMIQKNADKEYHGRVIAYTDMIYLS

FSAIISMLMGFLFEIGLSLELITGLLGMIFIFAAFYWKWFYKKYL

>AHK58418.1 transcription elongation factor NusA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKIADIIESIANEKNLNLENVREKVATALINTAKRIYGQEYEFFVDPKNLNLYQKITIVADNDERLQNK

SESFIALSKAKSEAPDVEIGDELTYECSLENLGRTAVNTLHKELEYHIQKLLEQTIFEKYKNKVGQMVFG

TVVRVDNEENTFIEIDELRAFLPRKNRIKGEKFKIGDVVKAVIRRVYTDKGIKIELSRTSPKFLECLLEA

EVPEIKDGYVNIIGCARIPGERAKIILQANGTNIDPVGATVGVKGVRINAVSKELHNENIDCIEFTNESE

ILISRALAPAIVNSVKIEDKKAIVSLNSEQKSKAIGKNGINIRLASMLSGYEIELNELSSSQLNNAISNE

EAMKNLQDLFKI

>AHK58417.1 hypothetical protein N920\_02265 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MELKLARTLINEKPKNISLEKIEEAIEKEGQKFFYFDKDNTHKQLIALVNHFEKKGVSIYHRTVKYGLDD

NDFMYEVHIL

>AHK58416.1 (dimethylallyl)adenosine tRNA methylthiotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSAKKLFIQTLGCAMNVRDSEHMIAELTQKENYALTEDIKEADLILINTCSVREKPVHKLFSEVGGFEKV

KKEGAKIGVCGCTASHLGNEIFKRAPYVDFVLGARNISKITQAIKTPKFMGVDIDYDESEFAFADFRNSI

YKSYINISIGCDKHCTYCIVPHTRGDEISIPFNIIYKEAQKAIEKGAKEIFLLGQNVNNYGKRFRNEHKK

MDFSDLLEELSTIEGLERIRFTSPHPLHMDDKFLEVFANNPKVCKSMHMPLQSGSSEILKAMKRGYTKEW

YLNRALKLRELCPNVSISTDIIVAFPGESEKDFEETVDVLEKVRFEQIFSFKYSKRPLTKAATMPNQIDE

EIASRRLSTLQNRHSEILDKIVKKQENKTFKVLFEELRAGNSIAGRTDNNFLVQVEGSEELLGQFKEVKI

TNAKRMVLYGEIV

>AHK58415.1 hypothetical protein N920\_02255 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGKSFKIHCLTYIIFILQWLIFLSCKKHYKGEKVDRKAGVILFWHGKLALMPFAFRHYRQKNKKAYVMIS

HHKDGEQIAKIIKLFGLDTVRGSTSRGASSALRAAFKVLEQNDDIVITPDGPRGPYHSISDGSIILAQKK

ELKIRILNYEANRFWKFKSWDKMILPKPFSKITYSLSEPLDILSLDKEKAKEFLMKQFDKISLADQFKE

>AHK58414.1 clan AA aspartic protease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLFLLKKIFPQLFISIILEDKKNIVKASIYRGNKLISSNEKTFDKSENLLEYIKNLSKHFLFYHTALFLD

AKEQGLIPSTNIQDCEHFNIGKISLQHILLNNALVYTATEHVEYYSELFEEYRGLDFLYSPFALLYYNMQ

KEKQPDDQILLYGFKQGYLLAIIVAKGNTILYGDFKIFEQELGLELELPSEDNQEIENNNDDTEVTLDNF

NEALNNKFDLLDQENNLETLDNNDNFNLDELNQFSNDMELCRYIITSIEKFYNDDKYAGVFINGILLYSE

SDININAIDFLESETFLEIKTKQINTLDLMIELMRKEVK

>AHK58413.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTYSFIQPRKKPIFTLFDKIWLGLFGFSILFILLVYFTYTIKIALINSSIDDEKQQVIVLQNQTKQNEML

YEILFDQSQIAKNFNTQNQIVKESLRNLFDIIVKTDNITLESVEQDEYSLKLIGVTPTREMFTLLLETPL

KSIFDQSYTTYYRLDNGWYRFVSISKQIPGVADER

>AHK58412.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKDKSLEEIDLLKLIICALSFISVCTALILFLLLPTLKNYKQANLRENSQLAILKAAKSKFDFSEDKIST

LRSENNKSLEQFEQNFNIGNFNIFLQKYFQNVKIQETKPEKQEKYLKNRLAIKATMNNPRRLYDFIDALK

NYNNLIKLDYPLNLKAGEQGISIDLTLKVYSS

>AHK58411.1 phosphomethylpyrimidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTQMNYAKEGIFTKEMQIVAQKENLSKDFLLENIACGKIIIPANINHKSLDPNGIGFGLRTKVNVNLGV

SNDCVDYSEEMKKVELAHKFGIEAIMDLSNYGKTSRFRDELVNVSKAMIGTVPVYDAVGFLEKDLKQINA

KDFLDVVYHHAKSGVDFMTIHAGINSRAAHIFKQSKRLTNIVSRGGSVLYAWMMMKDAENPFFEYYDDLL

DICLKYDVTLSLGDALRPGSTHDASDGAQISELIELSLLTQRAWDVGIQVMIEGPGHMAINEIEANMQLE

KRLCKGAPFYVLGPLVTDIGAGYDHISGAIGGAVAAASGADMLCYVTPAEHLRLPNLEDVREGIVATKIA

AHAGDIAKLPKERARDDEMSKARQEIDWEKMFKLAIDGEKAKKMFNERRPDDLNSCSMCGKMCAMNTMNQ

ILKGEDVSLA

>AHK58410.1 DNA polymerase III subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSLQQIDQIISILNKQSKPYDWVMQEFAKVEELKNFDLDLETFELLGLGLTLNKDNIFTLKTRTTKIKDE

IFCIVDIESTGGVSKGEILEIGAVKIQNSKEIGRFQSFVKVKEIPKNITELTGITYEMVENASSLAKVLS

DFRLFLKDSIFVAHNVRFDYSFISKALNECGFGILLNRRICTIEFAQCCIESPKYKLEVLKEFLGVENMH

HRALDDALAAAEIFKYCLGKLPYHIKTTEELINFTKTARIKQK

>AHK58409.1 ribulose-phosphate 3-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYVAPSLLSANFLKLEEEVKAIEAAGADLLHIDVMDGHFVPNLTFGPCVIEKISTISKLPLDVHLMVKDV

SKFVDLFISLKPKFISFHMESEVHPIRLCEYIRSQGIHPAIVLNPHTPIDSIKHMLEFVDMVLLMSVNPG

FGGQKFLPLIHEKIKELRQMIDKKNAKVFIEVDGGVNGLNASDLEESGADILVAGSYIFSSNDYKTAISS

LKLEF

>AHK58408.1 50S ribosomal protein L28 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MARVCQITGKGPMVGNNVSHANNKTKRRFLPNLRTVRVTLEDGTTRKMRIAASTLRTLKKQNSK

>AHK58407.1 hypothetical protein N920\_02215 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLHEYRELMSELKGKDAHFDKLFDRHNELDDMIKDAEEGRTSLSSMEISTLKKEKLHVKDELSQYLANYK

K

>AHK58406.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFGSKINHSDLQKLEEENKNLTHKIEKFQSENLELKNKITSLEQAALESKLKTDLLNVLLTGVLKNITII

QGDMLENVNKAEVISSYSKTSLAEMDELNHIANSINASLGNITESANKTRDVAGTLHRSVDEITNVINLI

KDVSDQTNLLALNAAIEAARAGEHGRGFAVVADEVRKLAEKTQKATTEVEMNINLLKQNANEMYTQSEQV

EKISIDSNAHIMSFSEKFTHLVNEAHSTNSNAVGIASEAFVSLAKLDHIAFKLNGYKEIFSKSGKQLADH

TSCRLGKWLASTGKERFGQNKSFLKINEPHEKVHENMNNAITIANTEDISKDITQHSIINKCEVAENASL

DLFNVFKEMLDESDH

>AHK58405.1 NUDIX hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAFKNLKELSFEKSNYIKPKRFAYESNGRLCTWDFIESKDSVSVLLYHKELESFIFVRQFRIPLWYHQMH

DKDYVKDDDMGYTIELCSGLVDKKLSLEEIAKEECIEELGYAPKNLEKIGDFYTGFGSGVSKQSFYFVEV

DEKDKISSGGGVDDEEIEAVYVKVQDFEKKCKNMIRTPLLDFAYMWFLKEKWGKLKII

>AHK58404.1 acetyl-CoA carboxylase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MASYLDFEKNIQQIDEDIINAQIKGDTEAVSILKKNLEKEISKTYKNLSDFQRLQLARHPDRPYALDYIE

LILNDAHEIHGDRAFRDDPAIVCFMGYLGEKKIIVIGEQKGRGTKDKIARNFGMPHPEGYRKALRVAGLA

EKFQIPILFLIDTPGAYPGIGAEERGQSEAIARNLYELSDLKIPTIAIVIGEGGSGGALAIGVADKLAMM

KNSVFSVISPEGCAAILWNDPAKSEAATKAMKVTADDLKSQGLIDDVIDEPTNGAHRNKEAAAVAIADYV

KKSLNELENIDVRELSANRMQKILKLGAYQEA

>AHK58403.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKRVVVTGIGMINALGLDKESSFKAICNGESGVNKITLFDATDFPVQIAAEVKNFDPLEVVDGKEVKKID

RFIQLGIKAAREAMQDAGFSEELDKEEFGIVSASGIGGLPNIEKNSIICSERGPRKISPFFIPSALVNML

GGLISIEHGLKGPNISCVTACAAGTHAIGEAYKSIALGNAKKMLVIGAEAAICPVGIGGFASMKALSTRN

EDPQHASRPFDKERDGFVMGEGAGALVFEEYEEAKKRGATIYAELIGFGESADAHHITSPTLDGPLRAMK

KALNMAGNPKVDYINAHGTSTPVNDKNETAAIKELFGNNIPLISSTKGQTGHCLGAAGAIEAVVSVMVLR

DGVVPPTINQLVKDDECDLDYIPNISRKVDLKVVMSNSFGFGGTNGCVVFKKVD

>AHK58402.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MATFDDVKAVVVEQLSIDADAVKMESKIIEDLGADSLDVVELIMALEEKFEVEIPDSDAEKLIKIEDVVN

YIDNLKK

>AHK58401.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLFSNLIKENQKIWNAYLHHDFVKKLEDKSLKQENFLFYLKQDYIYLLNYAKCYARLALNSNTAKELRFA

MKFQNYIVEGEMELHRAILSLGINADELDIKDESLVNIAYSRYMLSVGENGDFLDMLVALSACAIGYAKI

GAEIINRLKNENLKDHPYKEWILTYGSENFQNEAKEFEDFVNSYTSSVGAQKFQKLSEIFHTVTRLEVAF

WEHSLRMELNL

>AHK58400.1 heterodisulfide reductase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKEYAFFPGCVLSQAAKESKISLEAIAPILGWKLNEIKGWSCCGASQAQCVDPIATLVANARNIALAEE

MKMPMLTTCSTCMLTLTKAKNTLDKGAKERINIFLAQGGMKYQGSTPITSLLWELYEDLDNLKSKVKKPL

SNLKVALFYGCHSLRPEDAFGKKESSTNPKSFESVVEVLGAKIVPFEKRLDCCGFHASYPAEKSVKKMSS

QIVNNASENQADCVVTPCPLCQMQLDIYQERFQDYTNSKARLPIIHLSQLVGLALGLSKEMVGLDYNIID

ASKIA

>AHK58399.1 (2Fe-2S)-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>AHK58398.1 succinate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGEFSRRDFIKTACISVGALAASSSGVYALDDSSKMDKDINLPSCDVLVIGSGGAGLCAAAAVRKENPKL

SVVVATKMMPSRNATCMAEGGINGVTDFSNGDSYKLHAYDTIKGGAYLVDQDAALKFCELAGKAIFNMDF

IGTLFSRNEQGGVAQRLMGGASKKRCNYSADKTGHILMHSCLDDAISSGVKFLMNHELLDIGVVDGKCEG

VVLRDIQSGGIYPVLCKALVIATGGYTRIFYNRTSTPFIATGDGVAAALRAGLGFEDPEMIQFHPTGVAN

GGTLITEAARGEGGYLLNNRGERFMKNYHEKMELAPRDVVARAIETEIREGRGYGEGLGAYVLCDVRHLG

KEKILKDLPKIRHTAMLFENIDLVDTPVPIRPTAHYSMGGIEVAKFEDMGTKIAGIYVGGEASCISIHGA

NRLGGNSLADAVVTGHLAGIGATNYAKDASFGKGAKTHELAQKWQVRFKEITNNGGNGQEMYELREELGS

QNWDNMGIFRTQEKLDLLAKKLEDIQARYEKIRIPNPNEVMNTAFTDYVELGNLILLSRCACLAARNRLE

SRGAHTREDYPKRDDKNFLKHSIVNLENDELKLSYKDVVVTEFSLDGRRVQ

>AHK58397.1 pyridoxamine 5'-phosphate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDLKEIAQFLDDNAPAFLATLGTCGNPRVRPIQSPLLVGDKIYFCTANTKGLFKHIKNYNDIEFCSCAKD

GTFLRLRANAVFEPNLEVKKMMFKKYPYLVNLYETPQNPKFEVFYLDHLSARMQFMNGEFKLFKA

>AHK58396.1 3-ketoacyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFSGKNVLITGASKGIGASIAKTLAGFGLKVWINYRSKPELADALKDEIIASGGVAAVIKFDASKEDEF

ENGVKTIVESDGELSYLVNNAGVTNDKLALRMKLEDFSGVVDTNLSSAFLGCREALKTMSKKRFGAVVNI

ASIVGEMGNAGQVNYSASKGGMIAMTKSFAKEGASRNLRFNCVTPGFIKSDMTEVLSNEIKQTYQDNIPL

KRFAEPEEVANCVAFLLSDYASYVTGDVLKINGGLYM

>AHK58395.1 phosphoglyceromutase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKQKCVLIITDGIGYNKNSKFNAFEAAKKPSYEKLFKEVPNSLLKTSGLAVGLPEGQMGNSEVGHMCIGS

GRIIYQNLVRINKAIENKELEKNENLKKLLAKCKRVHIIGLYSDGGVHSMDTHFKAMLEICAKNGNEVFA

HAITDGRDVSPKSGLNFIKDLKEFCENLGVHFATLCGRFYAMDRDKRWDRVKEYYECLLGKAYKVPNLLE

YLQKSYDENVTDEFIKAAQNENYKGMREEDGIIFINFRNDRMKQLVEVLNSKDFKEFEREKIFENLLTMS

VYDDKFKLPVLFEKEKIENTLAQVISKAGLSQLHTAETEKYAHVTFFFNGGKEELLENETRVLIPSPKVK

TYDEKPQMSAFEVCDAVKKGIEKGEDFIVVNFANGDMVGHTGDFNATIKAVEAVDTCLGEILECAKKHDY

AFIITSDHGNCEAMQDEKGNLLTNHTTFDVFVFVQARGVSKIKDNMGLSNIAASVLKILDLEIPKEMNEA

LF

>AHK58394.1 phospho-N-acetylmuramoyl-pentapeptide-transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYYLSDLSHYAFFTYISVRAGFAFFIALCLSLFLMPKFITWAKAKNASQPIYEYAPETHKTKCHTPTMGG

LIFISSAVIASLFCIKFDNIFAISALLCLILFCLIGLIDDLGKVLKKDNHSGLSPRMKLLAQIIAGLICI

LPLYFSSELSTELFIPFYKHPLFDMEIFAIAFWILVLISSSNAVNLTDGLDGLATVPGIFSLSTLGIFLY

LSGNLNYSEYLLLPKIQGLGEVVIICAALIGALMGFLWYNCYPAQVFMGDSGSLALGGFIGFLAVISKNE

ILLLLIGFVFVLETVSVILQVGSFKIFNKRVFKMAPIHHHFEKVGWVENKIIVRFWMIALLSNLLALASI

KLR

>AHK58393.1 UDP-N-acetylmuramoyl-L-alanyl-D-glutamate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKISLFGYGKTTRAIAENLVDKFGPFDIYDDHFTETKKDTLGNLLLNPNDFDDNLSDIEIPSPGFPPKHK

LIQKAKNLQSEYDFFYDIMPKSVWISGTNGKTTTTQMATHLLSHIGAVMGGNVGTPLAELNPYAKLWILE

TSSFTLHYTHKAKPEIYALLPISPDHLSWHGSFDNYVQDKLSVLKRMNECDVVILPKIYANTPTKAHKIS

YEDEKDLAVKFGIDTEKISFKSPFLLDAIMALAIEKILLDTLSYKLLNSFVMEKNKLEELKDSQNRLWVN

DTKATNESAVMAALSRYKDKKIHLIIGGDDKGVDLSNLFDFMKGFDIELYAIGISTEKMLDYAKKANLKA

YKCEVLSKAVNEISNHLRVNEVALLSPACASLDQFNSYAERGKVFKECVNKI

>AHK58392.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKAFSLLEFVFIILILGIVFNLGSLYLKKDNLLEGAIQILNDIQYTQSLAMMQEGIRVDELTIAKREWF

KSKWQIYFIKSAATGYDQTYTIFLDKNGDGNANLGKTEINIDREIAVDVINHNKLMNSGQSGVISKDDEK

TTQRFNLTKRFGIEKVEFKGSCSGFTRLVFDEMGRVYSPLKNANYAYEKTLAKNNSDCIIRLLSKKHALC

IVIDTLSGYVYIPDFKTLKSQFVNIKNKNYECSKI

>AHK58391.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKIKNYKLIIILLSLDLLALLYGTSTLSISADEADIYFGEQGKSLIFSHSLLYYISHFGTFIFGQNDFG

LRLPFLFFHFLSCLLLYLLALKYTKTKIDAFFSLLLFVLLPGTVASALLVNAASLVIFLTLAILCAYEYE

KKWLFYILLIIVLFVDKSFNILFLTFFFFGIYKRNAILFTLSLVLFGASISFYGFDTGGRPRGYFLDTLG

IFAACFSPLVFVYFFYTIYRLTFQKYKNLLWFLMSVTFVFCLLLSLRQKLFLDDFLPFCVICTPLLIKTL

MQSYRVRLLVFRLRYKIFIECSIIFLIFCYFLIVANQLLYYFINNPNRHFANNYHFAKELALELKKQDVL

ELATAPSLQKRLRFYGIKNSNKFYLKALKQADKHDMDKKIVKVKLGKYEKVYQILNYD

>AHK58390.1 phosphoenolpyruvate carboxykinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQTIDQIFQTQIDIKKSTFLSFLCPFKDFKFLIETLKKEHPKAVHFVYAYRVLNDFNQIVEDKSDDGEPK

GTSGMPTLNVLRGYDLINAALITVRYFGGIKLGTGGLVRAYSDAANAVINNSSLLSFELKKNTTIAIDLK

NLNRFEHFLKTYSFNFTKDFKDCKAILHIKLNEKEEQEFEIFCKNFAPFEIEKL

>AHK58389.1 hypothetical protein N920\_02095 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQVNYRTISSYEYDAISGQYKQVDKQIEDYSSSGDSDFMDMLNKADEKSSGDALNSSSSFQSNAQNSNSN

LSNYAQMSNVYAYRFRQNEGELSMRAQSASVHNDLTQQGANEQSKNNTLLNDLLNAI

>AHK58388.1 hypothetical protein N920\_02090 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKFRIQYSAGFGHYTQNHKGFGPTIYIEEVVEFDNGKDYFDYIDFYKTYSKSDDTYFHISFLEDRPLSD

KEITIRNEYRKMRDENCKKAKEEFIANNELDVEHLPTHHD

>AHK58387.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVEVKNLTMRFANQLLFENVNLKLVRGQRYGLIGANGAGKSTFLKILSGEIESSSGEIVFDEGLKIAVLG

QDQFAFENYTIKDAVMCANKRLYEALKEKEKLYMSEEFTDEINERLGELEIITAEEDPNYDCETRCEKIL

SSLKIKDFDALMSTLQSADKFKVLLAQVLFLGADALFLDEPTNNLDLEAISWLENELLRHEGTLVVISHD

RHFLNKICTRILDVDFKQIRDFAGNYDDWYMASTLLAKQAELKRDKTLKEREELENFIRRFSANASKAKQ

ATSRAKALEKLELEEIKISSRRDPSIVFRTNREIGNEVLEIKGIGKAYDKQLFSNLELKIEKNDKIALIG

ANGVGKSTLAKIIAHAISPDSGSIHLGATIELGYFPQDTSNLICENLKLYEWLMSEKFKDLDEIRKCLGR

MLFSGSDQEKMAASLSGGEKHRLMLSRLMLERPNFLLLDEPDNHLDLESIIALGEALYNFKGVVLCISHD

RELVSAFANRIWHLENGKLTDFRGTYQEFLGENDG

>AHK58386.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEGASGGSIFVTILLFILYMLPAIIGLSRKHSNWLIISLLNLFFGWTIIVWLVCLIWSFTGSFKQTIIIK

EKNEK

>AHK58385.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTKKSKRDMAYELDIDVSTLYNWRKYKPNLYRIVMLGFKFDELLDNSKKTHEELLHIEQTIQDEIAKFK

>AHK58384.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFLLDFLISLSFIFEISALVLSFYFKNSKIFFLTLVLLGAKLPYFYTSFFQANLFVALFLPMIFTLFCVG

KHHVLILNKKNIASITTLIFIGILSIILPRNTTFNSAGLEFHFIALDFFKPVSELGFLFFLVGLILIFIK

TFKTKEYYLLIAFFTAYFQFLFQEGAGIRYFEFASLVFCFYLLNHAYRLAFFDTLTKLPNEKSLTRFTKG

KNNYIIALLHFNELKDTKESYTKLILKQIAKILKRFRAKIFIVENDFILIFNDKNQALNHLAFLESTLKN

TEFNLENENFKPDFKLIWQESEENLDKNLQSLRARLLD

>AHK58383.1 hypothetical protein N920\_02055 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKVLLSSLVAVSLLSTGLFAKEYTLDKAHTDVGFKIKHLQISNVKGNFKDYSAVIDFDPASAEFKKLDV

TIKIASVNTENQTRDNHLQQDDFFKAKKYPDMTFTMKKYEKIDNEKGKMTGTLTIAGVSKDIVLDAEIGG

VAKGKDGKEKIGFSLNGKIKRSDFKFATSTSTITLSDDINLNIEVEANEK

>AHK58382.1 histidine triad (HIT) protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIYENDLIYIEKEEAQVPWLKIFTKEIYKEFSDCPLELQKELFEKILFCEKAMIEFYKPEKINIASFANY

VPRVHFHVMARFKEDAFFPECMWGKQQRETIKLDLPKFEEFVKFLNSKIF

>AHK58381.1 hypothetical protein N920\_02045 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQISSSYNSYDYYSSKPSFDKTNQSDSTQKDEKNLSENKDDKEKNGEQTQMVNGVELSQKEVAQVRELQS

IDRNVKAHEAAHQAAGGGLAGAASFTYTRGPDNQMYATAGEVPISMQKGNTPEETIANARQIAAAAMAPA

DPSPQDYKVAANATKMEFEARAEAMKLKAEEAKEKEEENKEKDDKNSENSLEKTDKDSKNNDKNSNFDKD

FKNLVTRTYQQNSQNNDIKFSIAS

>AHK58380.1 GMC family oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAEVLKKVDVVTVGAGWTGGIVAAELTKAGLNVLSLERGHMQSTENFNYIHDEWRYGINYGLMQDCSKDT

VTFRHDPSGLALPYRKMGSFLLGNNVGGAGVHWNGWTFRFMPYDFEIQTLSKQRYGNKLGNDYTLQDWGV

TYKDMEPYYDRFEKTCGVSGEPNPLAEKMGAFRSSPYPQEPLENTKMLKRFESAAKSSNLHTYRLPASNS

KGGYTNPDGQDLAPCQYCAYCERFGCEYGAKASPLNTVIPKAMSTGKYTIRTYSNVTQILKKDGKVTGVK

FVDTRTMKEYIQPADIVVLTSYMFNNAKLLMVSNIGEQYDPKTGKGTLGRNYCYQMNMGTTAFFDEQFNT

FMGSGALGTTSDDFNGDNFDHSKEKFLHGAMIYSVQLGTRPIQSAPLPAGAPTWGAEFKKALNYNFTRAI

TVGGQGASLPHKNNYLSLDPTYKDAFGMPLLRLTYNFTDQDRALHKFITDKTAEVAKRMQGVKSIKKGAY

LKDYSVVPYQSTHNTGGTTMGADRETSVVNTYLQHWDADNLFVVGAGNFQHNSGYNPTDTVGALAYRCAE

GILKYHKSGKSLA

>AHK58379.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQDNIIDRRSFFKLGLLGGSVVAASTIGGGAVLKAAELTHSHQASQGKSNKIRGRMFFQTQTEFDTLSAA

CERIYPKDEQGEGAIGLGVPYFIDNQLASAYGYNDREYMQGPFMEGKAEQGYQTPMQRKDIFLEGVHALE

ENAQKRYKKSFSLLKGGDQDKILSDFEKGKIQTTGFKSSYFFTLLRDMTVAGVLADPIYGGNDNKNGWRM

MQYPGAQMSYVDKIASDEFFNIEPMGLADMES

>AHK58378.1 hypothetical protein N920\_02020 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRIFLTLFLFFNSLFALSELEEGLKLYEANKFDKAYEIFKSLCEKDISKACFSLAFMHESARGVSKDLNQ

AYKFYDKACKLGLANACSNMALLLQNQGYENEALLAFNKACTLGESLSCNNIALFYEKEKDGQMASSFYK

RSCDLKNARACYQLGSLYDKGELVKASVKSALAFYSKSCTLGFGEACYLLGRYNQLEKQDLTKAKRYFGM

ACDQKHQEACAAYKELNSKDIELY

>AHK58377.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQINLLNDFIKAYENTYSVSFDDSFKGRIQELCKELNEPFMHASYALENELKELVFSLDKNVNIAIIGQF

SSGKSSLLNLILGRDCLPTGVVPVTFKPTFLRYAKEYFLRVEFEDGSDIITNIEKLAFYTDQRNEVKQAK

SLHIFAPIPLLEKITLVDTPGLNANENDTLTTLDELKNIHGAIWLSLIDNAGKKSEEDAIKANLELLGEN

SICVLNQKDKLSAEELDNVLNYAKSVFLKYFNELIAISCKEAKDEQSYEKSNFQSLLDFLTQLDTTVLKE

KFVKRKILNLCEILEDENQLFVGIFDRLLNQFQSYEKHLLLAYENFLKEIEILNHQILEQLKSISERISS

EIFASVKEKDAYFYKESKGFLKKDLYTRYDYKAPYISSDDAFLAMFYNSDVMSKEFKKIKNELYKSFEEI

KMKLKDFINILEREILLFKAEFSNIQKDHIFQSDKNFSELRAFCNASDEYFLKDFKELLFKSILELDLFF

EKLNLKAFTNYENATKLSLAFFSRKINESRVLYELDSSEFVLFYPKKSEIYERVLNELNVYEFETLLINK

PILTKIAKNFLEQSQNLIQEKNKFLDLKKAELQKRRAQILNVRESIKED

>AHK58376.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKELFQKIWQNELQFLNFDAKFQDKSKLDTAECAIILSVNKDNYERYFLLKEFQELCKKIDLRVDIFSMQ

NAQICILNLFKSGFISKQDLLKALKILEKISKNTEIFDFILQEKVQSIDQKALFQNDFKELNTINLELQK

LSFDENLKSRLQKTLEKFQNLEFNIAITGVMNAGKSSLLNALLKEDFLGVSNIPETANLTVLSYGKSEEA

KIYFWDKKEWQNILESSHFNADLKEFIDKLDKSVNIEDFIKDKPLIQNIALCELKNFSSAKNKISALIKK

IEIKSHLEFLKNNISIVDTPGLDDVVVQREIVTNEYLRESDFLIHLMNASQSLTQKDADFLVHCLLNSRL

SKFLIVLTKADLLSKKDLEEVIVYTKESLKSRLVDLDENLVEKIDFLCVSAKMASDFYKGLASKESLQKS

GMQEFENYLFNELYAGEKSKIALRAYKKELHLELKNILSEYEMQNRLIKENKQGVSEENQKLLLELQKQN

TLLKEAQDEISNSIAKLKNIDSGIDNLVLLLAKKLKERLIDEFKYLKNNAQKLNLSRILNIVDITTKDGI

NDILREIKFENIKKIEELKTNLSLKYDFLKDDFDNGFEGFKDGISKNIDSIFQSEKFALLRLKIEKLSNL

KSDLYELETNLDTVIFDTFKEFKMSEILNSLNINGAFFEFLNDKLKHYEKNQKSKLESLEKVLQSLKNQD

ANILNSFEENLEKIEKLKQLEMGLLNAD

>AHK58375.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>AHK58374.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNIQYSDALVIGGGLAGLRAAIEVAKSGQSVTLLSICPVKRSHSAAVQGGMQASLANGAKGEGDNEDLHF

ADTVKGSDWGCDQEVARMFAQTAPKAVRELAAWGVPWTRVTKGPRTVVINAQKTVIEEKEEAHGLINARD

FGGTKKWRTCYIADATGHCMLYGVANEAIKHQVKIIDRMEAVRIIHDGKKCLGVIARDLTNGQLIAYIAR

GTMIATGGYGRIYKQTTNAVICEGTGAAIALETGLCRLSNMEAVQFHPTPIVPSGILLTEGCRGDGGILR

DVDGYRFMPDYEPEKKELASRDVVSRRMMEHIRKGKGVKSPYGDHLWLDISILGRAHVEKNLRDVQDICK

TFNGIDPADEGPKGWAPVLPMQHYSMGGIRTKPTGESQWLNGLFACGEAACWDMHGFNRLGGNSCAETVV

AGMIVGDYFADYCKNNGEVIDTNVVKDFLTKEYQYLKSLVDKEGKHNVFEIKNRMKEIMWDKVAIFRTGE

GLKEAVDELEKLYKDSQDVKVHCKELDCANPELEEAYRVPRMLKIALCVAYGALLRTESRGAHYREDYPK

RDDLNWMKRTNTFWVEGETLPRIEYEELDIMKMEIPPAFRGYGAKGNIIENPLSEKRQAEVDAIREKMEA

EGKGRYEIQNALMPYELQAKYKAPNQRIGVDYE

>AHK58373.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRELIEGYLGKSIEGKKSKMPAKLDFIQSASGLFLGLFMWVHMLFVSTILVSEDFFNSVVHFLELKFVYD

NPVMSYLTSFLAACVLVVFFVHALLAMRKFPINYRQYQILRTHSKKMNHSDTSLWWVQAFTGFIMFFLGS

AHLIFIVTNADKISGDMSGDRVVSHFMWLFYAVLLVCVELHGSIGLYRLCVKWGWFEGKNVKESRKKLKT

AKWIISIFFLVLGVLSLAAFIKIGYENYQNQTQTTAMIKNYNGANYEYTI

>AHK58372.1 prolipoprotein diacylglyceryl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEFWQHIYSNFNVIAFSIFGLKVHWYGIMYVIALLLALLLAKFFVRKFQLDINEKHLDSYFIWVEIGVIL

GARLGYILIYDANTMYYITHPWQIFNPYINGEFVGIRGMSYHGAIIGFLIATLLFCKKYKTNPWIFLDLV

ALSVPLAYVFGRIGNFLNQELFGRITNVPWGIYVDGVLRHPSQLYEAFLEGIVVFIIVYLARFKQSFQGE

LILVYAGAYSLARFICEFYREPDFGIGFVLWGMSMGQILSFIMFITALLVYICIKFKKVNI

>AHK58371.1 hypothetical protein N920\_01985 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKYILLASSMLILAACGGTSSNFVNVSMPNFKPQVPTKVEPIDSGVSIALVPINIEQNNNYSDYFENSV

LKIRIEKEIDLLKQNLEEQIKTIAQLKGYKIVTTNPDYTLKSSISIYTEEKNVQKTSNFMSGDYVKSNLG

INFKGKIDFIDAHNPQNSTNLSSSTKLDSLVALNYPIKNDDGVNMFKTTISTVPTQLNKGLEQPAFEIDK

SFLAFYKNTLNTLYNNLPKATDIGKTIPNTNSGFNSFDGDATFEESLPQTNSNQNNTIENAPTQNIPTNP

SSTNQNNQSKNQDGVEIFE

>AHK58370.1 shikimate 5-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFLAVIGDPISHSKSPRMHNNAIKALGLDSIYTRYHLRNANCLREDFFKLGLSGANITLPFKEKALDIA

DVKDDFARNIGSANTLCLKEDKIYAYNTDALGFLEAIKDFDNIKKALILGAGGTALALAYVLKQKGVEVY

IANRSKERFKDFLAYPTYLYKNLQDFDFDLVINSTSAGLKDENLPCDRELLDRILPKAKFAFEVIYGRET

PFYRLCKEYHLKIKDGLDMLLWQGVFAFELFFEIQDKREMIKNAMQQALILK

>AHK58369.1 ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MISPMDMSLIKIIGDHYYIRRDKIVNKITHRGRLFFDKFERVDAPLNLNVMREHAAKKIVVAHDLITKDN

KVENIVFDYNGFNAERFYHRAQLILREEGFINFTAYKTKTPGHLHLYIHKGHTALNEGYSLASKLSMMFA

SKMPVEWKVFPSMDVPREFNILILPYEVYQKERGSSWSKHM

>AHK58368.1 serine hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSLEMFDKEIFDLTNKELERQCEGLEMIASENFTLPEVMEVMGSILTNKYAEGYPGKRYYGGCEFVDEIE

TLAIERCKKLFNCKFANVQPNSGSQANQGVYAALINPGDKILGMDLSHGGHLTHGAKVSSSGKMYESCFY

GVELDGRIDYEKVREIAKKEKPKLIVCGASAYARVIDFAKFREIADEIGAYLFADIAHIAGLVVAGEHPS

PFPYAHVVSSTTHKTLRGPRGGIIMTNDEELAKKINSAIFPGIQGGPLMHVIAAKAVGFKFNLSDEWKVY

AKQVRTNAQVLANVLMDRKFKLVSDGTDNHLVLMSFLDREFSGKDADLALGNAGITANKNTVPGEIRSPF

ITSGLRLGTPALTARGFKEKEMEIVSNYIADILDDVNNEKLQENIKQELKKLASNFIIYERAMF

>AHK58367.1 lysyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFDNILEQQRIEKAKELKNLGINPYPHFLEKEMSLKTFKDKFSYILEQVEKRDESVNAVVAGRLKLLRIA

GKSIFANIEDEDTNLQIYFSKDSVGEELYTILKKNLEVGDIVLVKGFPFVTKTGEFSLHASEVKLATKAI

VPLPEKYHGLTDIEQRYRKRYVDMIMNVEVRKDFLVRSKVVSLIRHFFENKGFLEVETPMMHPIAGGANA

KPFVTFHNSLGVERFLRIAPELYLKRLIVGGFEAVFEINRCFRNEGMDLTHNPEFTTIEFYWAYHNYKDL

MDLTEELFALLLDKLNLGKTIEFDGKMINFSKPFERITYKDALCKYGGLDRDLIEDKEKILTKLKADGFE

ANEKLELGHLQAELFDNYVEEKLINPTFVIDFPISISPLSRRSDEDSQIAERFELFICGRELANGFNELN

DPLDQYERFLKQIEAKNAGDEEACEMDEDFVNALGYGMPPTAGQGIGIDRLVMLLTNKKSIRDVILFPAM

RPLKSELKEKE

>AHK58366.1 Fur family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLIENVEYDVLLERFKKILRQGGLKYTKQREVLLKTLYHSDTHYTPESLYMEIKQAEPDLNVGIATVYRT

LNLLEEAEMVTSISFGSAGKKYELANKPHHDHMICKNCGKIIEFENPIIERQQALIAKEHGFKLTGHLMQ

LYGVCGDCNNQKAKVKI

>AHK58365.1 colicin V synthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFYWFDAFILGFTLLLGLKGIINGLIKEIFGLLGIIGGVFIASKYATQAAEFIQSTFYKIENQSLAGFA

GFLAILIIFWIACLLAGNFLSKLIKLSGLGFLDRIGGFIFGGAKIFLIFAILVFCVARIDFLNDKLDNFA

KNSYTLNLLKETGSFIMNQPLTENSLDHASEKLQDIVSDLNNTQKGE

>AHK58364.1 glutamyl-tRNA amidotransferase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIDEKLLSKLEKLSALQITKNRNETIAQLSEIVNFVEKLNELDLDSQEITVSTIKGGAPLRIDEIRNSN

VIDEVLDCAPKKQEHFFVVPKIIE

>AHK58363.1 hypothetical protein N920\_01940 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGLKDNLKAVKNELNTEEQFIENFIKGERFIRKYKFYISAVVIILVAWFAGNFIISKINDYKTKEANEIY

ANLIQDPSNKNLLEQLKNKNTNLYAIFLLKENINDFNNTTLQNELKQIYNNAQTNTLLKNIIALSLGDKS

IFLKNYDKLLEAYKLLEQNKIEEANVLLSQIKENSSLNQIAKNLKHYQGITQ

>AHK58362.1 hypothetical protein N920\_01935 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIFLTLFCLIFLCACGTKRQYFEPKQTDGDLSHNSNLKSKIVDWNLVSAKLSNNTTILKNNISIDKFK

LPKNYMLLAYQDGEYFTADNNGNLKIFDNSYNEIYNFQFDASVVGVASNGDDLALVLANNTIVLANRSLG

IKFSQTLTSAPAQDSRTANPIFLDNIIVYPTLDGKILILSRNNLQIIKDVVISAENFFNNVIHLSVIGDK

LIAATAKKIIVVSPARTLYLDADIKDVALSDDGIFILEKDGTIIKTDYNLRKIAEKKFEFAIFVKSNIYN

NYLYIFEKTGYLIKMNLNLDNAQVFKLSEAVDKISFMGNGKFYYGDKILDLL

>AHK58361.1 tram-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKILEQTIKALKLNLKPYDLSMLTRKKSYICAKDQNNILFMYTGKTKFLMKDALFLENLAQQININNKY

FFSMASLCSKAKNHLEMKGFNIYVAL

>AHK58360.1 pantothenate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLLCDIGNSNANFLDDNKYFTLNIDQFLEFKNEQKIFYINVNEHLKEHLKNQKNFINLEPYFLFDTIYQG

LGIDRIAACYTIEDGVVVDAGSAITIDIISNSIHLGGFILPGIANYKKIYSHISPRLKSEFNTQVSLDAF

PQKTMDALSYGVFKGIYLLIKDAAQNKKLYFTGGDGQFLANYFDHAIYDKLLIFRGMKKIIKENPNLLY

>AHK58359.1 malate:quinone oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSQQEFDVLVIGAGISGAALFYELARYTNIKNIALIEKYNTAATLNSKGTSNSQTIHCGDIETNYTLEKA

RKVKRTADMIVKYGLMQNAQNNFMFSHQKMALAVGDIECDYMKKRYEEFKELYPYIKFFDKAKIKQIEPK

VVLGEDCNQDRPENICAMGVESGEVFTTVDFGKMSINLIEQAQKQNKNTFVAFNQEIIHIEKKDDIFILK

TSNHQEYHAKSVVVNAGAHSLYLAHKMNLGMDKSCWPVAGSFYLTKQKLLNGKVYMVQNPKLPFAALHGD

PDLLADMNTRFGPTALVIPKLERYHGLKSVPEFFEALKLDKTVLKVTFNMFKDATIRNYIFYNYLFELPF

VDKSLFVKDAKKIVPSLKASDIYYAKGFGGVRPQVIDKTKGELMLGEASITETPGIIFNMTPSPGATSCL

GNAERDAKLVCNYLGMEFNEDKFSSELL

>AHK58358.1 pyruvate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKKTKIVATVGPASEKEEILRQMIINGVNVFRLNFSHGTHEYHKKNLDTIRRVAKELHTRIGILQDISG

PKIRTGELKEPFELKKGDRLDFYRETILGEKIAQNHYKISINQKSILDMLKIDEYIYLYDGSIRAKVVNI

DNQKIETIIENDGFLNSNKGINFPNTKINIDVITQKDKNDLLWGIKNEVDFLAISFVQNAHDIDEVREIL

AQNNAKISIFAKIEKFDAVENIDEIIKSSDGIMVARGDLGIEVPYYKVPNIQKEIIQKANNASKPVITAT

QMLFSLAKSKTATRAEISDVANAVLDGTDAVMLSEESAVGIDPANAVDIMCQTIIETEKRYPYNKFNDFN

DLDNTDKIMRSSAHLATDLNADAIFSLTSSGKSAIKIARYRPNIEIIAVGHSEKTLNSLSIVWGVNPAIL

VNKSNELTELLKDSVRSSVEKGFMDEDKCYLLTAGFPTGVEGTSNLIRILNKEQIAYYLQ

>AHK58357.1 hydrogenase-4 component G [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQVNTFSNIASMARTQVSNKKADDAKENTKDKNVQSANSSKDVDKNTLEKLNALGGKGITQIYLVQFQQQ

TMNAVIGSSNAQTGLDSLLNGANLDTAKSILTNIDFASLGYSSKNPLDMNTDELQQLVSEDGFFGVENTA

NRIADFVIKGGGDDVEKLKKGLEGMKKGFEQAEKMWGGELPQISQNTIDAALKKVSDRIDELGGKTLDLQ

A

>AHK58356.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAEQEDIILEKPEDGLNQPRLDESLEGFKGQEGQAPEDEEFASLPEELPQENSESGFKFTRESAPEDVST

FEEVESQEPTPWYKDRKFMSLVGLSLGIICILVFTLFYLTFSEGKIKPDIIASKPLEQPVIMPDESYKYN

DMQRIDGMIQKANALYLKGEVEQALKVYEQVAVYNESLSNYNLGVSQMNENKFQEAFESFKKAIANGENQ

SVAAINAAVCALKLNDKEKFRYYIDLAQVYLPKEGKSKLYDYYLSLINYYKGYYPEALQMLQRTDVEPYS

DVAKYLSAKIYAKMDFDSKAIQQLNSQGNFESSLSLGLLYARIGEYAKAKVALSTAMKIERDFNQSLAAL

TLVDIKTGNYQDMLARLQNSYDNDKDRYKILDTYKIQVRLNKDLFNIAVAQNSFSKDLLKKQKDQFDLLF

YFAPYQVFDSKQAALYIKKANVTDFVDDSTDAGIYLNISKALSSTNVKIANIINYALNQKLRLANQEFQK

LIKDYPEHSILHYNLALTYAQMQNYELAYKHFSSSYHLNPKNYLAGAFAMFCAKLIDIDTTKLYNEILDN

IAADSNFKANMQKSMLFLVNNNYISMLPYLDETKKDTPLSLIFEAIVAKNNNLNNQVDVKIAKLRSELPE

DILANILYFNSLNSNLNIKEYAQNAQIHFKNLKLDYRSVFGGPNIAREFYVNLMHIAGLLNLERQKFKEL

INVSGAKDEGILQTLAYLDIFAQQYEEAYALYNSLIDDYGAKDTKTLFLAAVAAVGANNPNSAIALLQLS

KLTDKNNKESKAALGMLYQEVKNYEAAISQYKTLPNNFKSEFFTFDINNN

>AHK58355.1 seryl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLDLKNLQNNFDEVAKKLKNKKVDENILKKLAELFASLKKEKIALEEFQAFQNKFSKELATAEDKESLKA

KLSENKSKINEQSAKVNALENELEEIAHAIPNIPDECVPVGEDENENVELKKVLNPPSFDFTPKEHFELG

ESLNWLDFMRGVKISQSRFCVLKNEGALLSRALVNYMIDFNRSRGFEFVNVPFLVNGATMFGTGQLPKFK

EDMYKVDDEDLYLISTSEIPVTNLYSGEILASETLPIKMTCYSACFRKEAGSAGRDTRGIIRQHQFEKVE

LVSITKPEQSDSVFNEMLECASDLLSSLGLAHRHLMLCTGDLGFSAAKTVDLEVWLPGQNKYREISSVSN

CRDFQARRAKIRYKNEQGKNELVHTLNGSSLAVGRTLVAIMENYQDKEGKIHIPDVLKKYF

>AHK58354.1 tryptophanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRVLTGLQPSGDLHIGNYFGAIKQMVDAQEKSQMFMFIANYHAMTSSQDGEKLKQNSLKAAAAFLSLGID

PQKSVFWLQSDVKEVMELYWILSQFTPMGLLERAHSYKDKVAKGLSASHGLFSYPVLMAADILLFDTRIV

PVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKMSKSYQNTIDIFSSEKTLKKQ

ISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEAREK

YNELLEKPSHLKEILDFGATKARKIAQEKMQKIYEKIGL

>AHK58353.1 shikimate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKAKNIVFIGFMGSGKSTLARALAKDLDLVFLDSDFLIEQKFNQKVSEIFEQKRENFFREQEQKMADFFS

SCEKACIATGGGFVNVSNLEKAGFCIYLKADFEYLKKRLDKDEISKRPLFYDEIKAKKLYNERLSKYEQK

ANFILNIENKNIDELLSEIKKVIK

>AHK58352.1 GTP-binding protein Der [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQSIILIGKPNVGKSSLFNRMARQRIAITSDISGTTRDTNKTQIHIHSKKAMLIDSGGLDESDELFKNVK

KNTLKVAKESDIILYLVDGKLAPDDEDRQFFYSLKKLGKPIALVINKVDNKKDEERAWEFANFGVKEIFN

LSVTHNVGLDELYEWLEKFLHEEFLIPDEEENLEDFLEYYEEGKEFQFKEVDQNHIRVGIVGRVNVGKSS

LLNALVKQERSVVSSIAGTTIDPVNESVVHKDKVIEFVDTAGIRKRGKIQGLERFALNRTEKILSHSQIA

LLVLDAHEGFNELDERIAGLVAKHYLGVIIVLNKWDKSEMDFDKTVKELRLDRFKFLAYAPVISVSALSG

KRVHVLLDKILQIFENFTQKIQTSKLNTLIENATRAHPLPHDYGKLVKIYYAVQYDLAPPKIALIMNRPK

ALHFSYKRYLQNQIRKEFNFEGVPLVIASRKKGSKENDES

>AHK58351.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKVIKHNLGIYFMILACLDFALMGACAKILSKEMSSIEIMFFRNIIGIFFIVYLLKRSKAHKEGGYFWL

LVFRGVVGTLSLYMFFYNVSNITLGGAFAFQKTAPIFITLIAFVVFKENIGIKGWIGILIAFGGVLLIAQ

PWVHNLNHSGFDLKNSVIGITSGFLAALALTSVRELRKSYTTEQIAFSFILLGTLMPLISMISAEFFEPQ

HLDSLHLDFILAPFVMPSLTAWLIIAIMGTLGTIYQIHVTKAYGIAKQAGVVAGVSYLDVVFSMIVGIIL

GDNLPSTMVFLGIIGIIFGGLILVKNKGKK

>AHK58350.1 2-dehydro-3-deoxyphosphooctonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKMILIAGPCVIESKDLIFKVAEQLKNFNENPNIEFYFKSSFDKANRTSINSFRGPGLEEGLKILQSVK

DEFGMKILTDIHESNQANPVSEVADVLQIPAFLCRQTDLLVAAAKTKAKINIKKGQFLNPSDIKYSVKKV

LQTRGIEDEGYEAAQRNGVFVAERGASFGYGNLVVDMRSLVIMREFAPVIFDATHSVQMPGAAGGSSGGK

SEFVEPLARAAAAVGIDGFFFETHINPCEALCDGPNMLNLTRLKNCVNTLLEIQNIIKENK

>AHK58349.1 6,7-dimethyl-8-ribityllumazine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNIIEGKLNLDSNTKIAIINARFNHIITDRLVEGAKDAFLRHGGKEENLSLILVPGAFELPYALKKAIES

KKFDAICCVGAVIRGSTPHFDYVSAETTKGIANVSLNHNIPVSFGVLTTDTIEQAIERAGSKAGNKGFEA

MTTVIEMLNLSKEL

>AHK58348.1 transcription antitermination protein NusB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MATRHQVRQSVISLLYAFELNSQNNVFVDEILDEKKIRNEQKNFTLNLYNGILDNLNNIDETLNSFLNDN

QITALGHVERAILRLGAYELLFTDTPSAIVINEAIELAKELANDNSPKFINGVLDALIKAKK

>AHK58347.1 orotidine 5'-phosphate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEELKKVDDFKIFLDLKFHDIPNTMAD

ACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSALTSFDEENFFSIYRQKIEEAVINFS

KISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQKRVANLAMARENLSDYIVVGRPIY

KNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEEWIKTRPDKEHALKEFYAKCGIKY

>AHK58346.1 sulfoxide reductase catalytic subunit YedY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLITPEKLYKQRRNFLKLGAGALISSSVLASKLSALNFTSDTNPNKLEISDEELATNYVNFYEFSTDKRK

AVSLAQNFNTQNWKIDISGEIEKPLTLSMEDILKFPLEERIYRFRCVETWSMVVPWVGFELRRLIEMAKP

TSEAKFVKFTTLLDKSQFPDQDALFPTIDYPYVEGLRMDEAMHPLTLLAVGMYKKALKPQNGAPIRLVVP

WKYGFKSIKSIVKIEFTKEQPKSTWESYAPSEYGFYANVNPNVSHPRWSQANERALGDFFTKPTLMFNGY

EKEVASLYKNMDLKVNF

>AHK58345.1 ferric reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQTKYFKFLAYFSFIISLIYGFYHIIKAFDFVKEAYIYTGIFALIFLNLSLLFSLLKFKKTKNYPKILGI

FAAFWAILHFLNYFIFDRNAQILRLFDDISHRLLEAIGFIAFLIIFLMLLSSFKIFKKLSKIRKLGYLCL

ILASYHYFLTPKIPMFWEWSALIIALFYFIVRYTKTLKS

>AHK58344.1 hypothetical protein N920\_01835 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFFLLVFCFVNLALAKVYKGELHFYHLQDKEIFAIVYDNAPMTPLFDRDKNQTSSSFLIVDDINGNLEI

PLVKINDFWQDERKKYKINSSKMLTYDNKNFQGENLGTTTLELVETQDGIRIKRSLDFIGFNDDFKEFHP

VHKGVFSFEQIRQKPIFLQDGKISFEEWYYFYEDGMSRAILELNNFVYDINAHAFVKLNDLYNTENQKFQ

NLLHEKLKNTCDECFEDLQNLQFNNNFLLNNGKLKICYLPFEGHFLDENICVEFNEDELKEFKK

>AHK58343.1 hypothetical protein N920\_01830 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKHCLALCFVFFLCACSVKNQNFSSQSLMVLIASPMIKINDTAFLKKENNALNLEVYKLGQAFFELKIKD

KICINAVCYDKQVFNQKFFKNVYYDDILSDILKANPLWQGKNLEKTDCGFEQNLKAKNYEIFYQVCDNKV

SFFDKISHTKIILTHIQN

>AHK58342.1 hypothetical protein N920\_01825 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MASEHSFDISAALDKQELKNAFEQAKKELDSRYDLKGIKCEIDLSEKESIFKLSSSSEGKLDVLKDIVIS

KLIKRGINPKAIKELSRESGAMFRLNLKANDAIDSENAKKINKVIKDSKLKVNSSIRGEEIRVAAKQIDD

LQAVMKLVKELDLELNISFKNLK

>AHK58341.1 2-hydroxyacid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIVCLDAATLGDYDLSVFEKFGSLQIYTTTNKEQTIERLKDANVAMTNKVVIDKDVIDACKNLKLILET

ATGVNNIDIEYAKEKGIIVKNAAGYSTMSVVQHTFAFMFAFLNQVLYYDKWSKEGKWCESPIFTDYSRIL

NTLSGKKHGIIGLGTIGKEVAKISKAFGAEIYYYSTSGANKNADFVHLELKDLLKTCDIISIHAPLNEKT

KNLLAFEELKLLKDNAILINVGRGGIVNENDLAKIIDEKNIRVGLDVLEIEPMMKNHPLLSIKNKENLII

TPHVAWASKEALNALMDIVYNNLKEWIENGK

>AHK58340.1 glutathionylspermidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQLLQVDKLQKDYLENIGFSWHTDEDGSDYISNKLVCVKESEANAYYEAVNELYDMFIAAAQEVINNDRF

DELGIPFNLIDAIKMSWENEVHWHLYGRFDLAGGLDGKPIKLIEFNADTPTALFESAILQWALLKQNGMD

ESAQFNSIYESLMDNFKRLITLDESVEGFEEHYQGWKILFSSVAGSKEEEITTKLLAHIANEAGFQTNFS

FVDEVEFSEEGIFKEGENYEYWFKLIPWEDIAIEEGELAMLLTQIMRNQRAIILNPAYTLLFQSKGILKI

LWELYPNHPLLLETKDTPLEGKNYVKKPVFGREGANISIIKDGKTLHENVGPYGNNKAIYQEYVEFNSCE

NEYYQAGVFFAYEGCGLGFRKGGLVLDNYSKFVGHIIKD

>AHK58339.1 hypothetical protein N920\_01810 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIKKIIQIGMIGGLAAVAGGALAGCGSNNDNADTLNQAANAQGAFVIIEETAPGQYKIKDQYPSDETR

VVLKDLNGTERILSKEEMDALIKEEAAKIDNGTSNLTKDNGQISSGGLSLGETLLASAAGAILGSWIGSK

LFNNQNFANQQRGAFSNQSAYQRSVNSFNKAGTTSSASSAKKSGFFGGGSKATSSSSSFGS

>AHK58338.1 30S ribosomal protein S21 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPGIKVHPNESFDEAYRKFKKQVDRNLVVTEVRARRFFEPMTEIRKKQKISARKKMLKRLYMLRRYESRL

>AHK58337.1 4Fe-4S ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQGHITNYTKKRYFVYLIASIIIFSLPFIRINENHFFLLSFDHSKLNLFFISFSTQEFYLMPFVLIFLFL

FIFFITTLGGRIWCAWSCPQTIFRVIYRDIIQTKFLKIRKNINNKQKEYERQYFKKFLGVIIFYFISLVA

VSNLLWYFIPPEDFFNYIQNPGEHLLLLGILFCASLLFTLDITYLQEKFCVYVCPYARIQSVMFDHDTMQ

VIYDEKRGGLIYDGHTKLHKKPPEGECIGCEACVSICPTHIDIRKGMQLECINCLECADACSKVQSKFNR

PSLINWTSAKAIETRSKVHYLRFRTIAYFIVLLIALLALIIMGSKKESMLLNINRSSELYNISNVKGELV

ISNAYTFLFQNTDSKPHEYYFTANLEGINDGIEIIRPNKPFKLKAGEQVKKIVVIRATKNLANNDKKDVI

FPLHIKAYAKDNEKISVFRKSIFVYPKSTLIKDKNELK

>AHK58336.1 TetR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNSNRTPSQKVLARQEKIKAVALELFLTKGYQETSLSDIIKLSGGSYSNIYDGFKSKEGLFFEILDDICK

KHFHLIYSKTQEIENGTLKEILTSFGLAFIEIFNQPEAVAFGKIIYSQVYDKDRHLANWIENNQQNFSYN

ILMGFFKQQNNSYMKKNAEKLAVLFCTMLKEPYHHLNVLINAPLKNKKEQKEHVEFVVNVFLNGINSSKA

>AHK58335.1 hemolysin D [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLFQKNTILALGVVLLLTACSKEEAPKIQMPPQPVTTMSAKSEDLPLSFTYPAKLVSDYDVIIKPQVSG

VIENKLFKAGDKVKKGQTLFIIEQDKFKASVDSAYGQALMAKATFENASKDFNRSKALFSKSAISQKEYD

SSLATFNNSKASLASARAQLANARIDLDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYAD

FFISDTDKLNLVRNTQNGKWDLDSIHANLNLNGETVQGKLYFIDSVIDANSGTVKAKAIFDNNNSTLLPG

AFATITSEGFIQKNGFKVPQIAVKQNQNDVYVLLVKNGKVEKSSVHISYQNNEYAIIDKGLQNGDKIILD

NFKKIQVGSEVKEIGAQ

>AHK58334.1 RND transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFSKFFIERPVFASVVAIIISLAGAIGLTNLPIEQYPSLTPPTVKVSATYTGADAQTIASTVASPIEDAI

NGADNMIYMDSTSSSSGTMSLTVYFDIGTDPDQATIDVNNRISAATAKMPDAVKKLGVTVRKTSSTTLAA

ISMYSSDGSMSAVDVYNYITLNVLDELKRVPGVGDANAIGNRNYSLRIWLKPDLLNKFGITATDVISAVN

DQNAQYATGKIGEEPVTQKSPYVYSITMQGRLQNPSEFENIILRTNNDGSFLRLKDVADVEIGSQQYSSQ

GRLNGNDAVPIMINLQSGANALHTAELVQAKMQELSKNFPKGLTYKIPYDTTKFVIESIKEVVKTFVEAL

ILVIIVMYMFLKNFRATLIPMIAVPVSLLGTFAGLYVLGFSINLLTLFALILAIGIVVDDAIIVVENIDR

ILHENEQISVKDAAIQAMQEVSSPVISIVLVLCAVFVPVSFISGFVGEIQRQFALTLAISVTISGFVALT

LTPSLCALFLRRNEGEPFKFVKKFNDFFDWSTSVFSAGVAYILKRTIRFVLIFCIMLGAIFYLYKAVPSS

LVPEEDQGLMIGIINLPSASALHRTISEVDHISQEVLKTNGVKDAMAMIGFDLFTSSLKENAAAMFIGLK

DWKDRNVSADEIAMELNKKFAFDRNASSIFIGLPPIPGLSITGGFEMYVQNKSGKSYDEIQKDVNKLVAV

ANQRKELSRVRTTLDTTFPQYKLIIDRDKLKHYNLNMQDVFNTMNATIGTYYVNDFSMLGKNFQVNIRAK

GDFRNTQDALKNIFVRSNDGKMIPLDSFLTLQRSSGPDDVKRFNLFPAAQVQGQPAPGYTSGQAIEAIAQ

VAKETLGDDYSIAWSGSAYQEVSSKGTASYAFALGMIFVFLILAAQYERWLIPLAVVTAVPFAVFGSFLL

VYLRGFSNDIYFQTGLLLLIGLSAKNAILIVEFAMEERFKKGKGVFEAAVAAAKLRFRPIIMTSLAFTFG

VLPMIFATGAGSASRHSLGTGLIGGMIAASTLAIFFVPLFFYLLENFNEWLDKKRGKVHE

>AHK58333.1 outer membrane channel protein CmeC [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNKIISISAIASFTLLISACSLSPNLNIPEANYSIDNKLGALSWEKENNSSITKNWWKDFDDENLNKVVD

LALKNNNDLKLAFIHMEQAAAQLGIDFSSLLPKFDGSASGSRAKTAINAPSNRTGEVSYGNDFKMGLNLS

YEIDLWGKYRDTYRASKSGFKASEYDYEAARLSVISNTVQTYFNLVNAYENENALKEAYKSAKEIYRIND

EKFQVGAVGEYELAQARANLESMALQYNEAKLNKENYLKALKILTSNDLNDILYKNQSYQVFNLKEFDIP

TGISSTILLQRPDIGSSLEKLTQQNYLVGVARTAFLPSLSLTGLLGFESGDLDTLVKGGSKTWNIGGNFT

LPIFHWGEIYQNVNLAKLNKDEAFVNYQNTLITAFGEIRYALVARKTIRLQYDNAQASEQSYKRIYEIAK

ERYDIGEMSLQDYLEARQNWLNAAVAFNNIKYSYANSIVDVIKAFGGGFEQSEDTSKNIKEESKNLDMSF

RE

>AHK58332.1 chain-length determining protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDKAKIVQNLNALFKQRAEFYSYFDENIAKINNTEVFDFKNAKNLNPEEVYKQFYHFDYAIRKLLPAIYK

AYEITDADLDKDF

>AHK58331.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLFQNLALKYSHTMMEKSLQKGFNVELLKQPEEKIPKQDKSYMLYAHVPFCHTFCPYCSFHKYYYDENL

AKVYFQNLREEIKIMKNKGFDFTSMYVGGGTTLIDEEELLKTLELCKKLFNIKEISCESDPNHIDPNKLS

MFKGIIDRLSCGIQSFDDETLKKVARYNKFGSSKELQEKISKALGILPIFSIDLIFNLPGQNEKQLLNDL

EIAKNLAPQQITTYPLMKSNLTKDNIAKSLGVSIKDNEFTYYQIIREFFKDYTQNNGWSFSLEKNKLNDE

YVSSHHEYLGVGSGAFSFLDGELLINAFNLNDYAKFIQEKQNANIAKACFDKKEIIKYVFLTGIFSGKIE

IDKFNKTLNCNLEKELFIELLGLKTSGAIIKDQNALIATEFGQYLFVVLMKDFYTGMDLVRAVFRDDKRL

KNKDYIDIMKENIDPLNSASMEFKAETN

>AHK58330.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTEWINDYYFWIKWVHYLAFVSWMAGLFYLPRLFVYHAEHKDNKGFVEVVKIQERKLYYYIQTPAMIVTL

ITGSLMLHAHKEVLMVGAGFMHVKLTCVTLLIIFHIHNYYCLKALANDTSTKSGKYFRIYNEFPTIMFII

IALMMVVRPF

>AHK58329.1 peptidase A8 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKTFKFIFYFWGAFVLVFALDQWVKSLTLAGFRWQSEYLDLTYALNTGVAFSMLSFLEHNLKYLHLALI

GVLFIYLFWQRTLLKTHSIAFGMMLGAGVSNLLDRFIHGGVVDMFFWHKWFNFAIFNVADVMINISVALI

LIQEIFKKRKKDDRMD

>AHK58328.1 phosphoglucosamine mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLFGTDGVRGKAGEFLDSFLAMRLAMAAGIYFKDKSITNNILVGKDTRRSGYMIENAIVSGLTSIGYNV

IQIGPMPTPAIAFLTEDMRCDAGIMISASHNPYYDNGIKFFDAHGNKLSEDIEKKIEEIYFDDKLIQASK

VDMEKIGQAKRIDDVIGRYIVSIKNSFPKDLTLKSLRVVLDVAHGAAYKVAPTVFKELGAEVIVMSDKPN

GLNINENCGALHPANLAAEVKRLRADVGFAFDGDADRLVVVDEKGEVANGDSLLGVLALYLKEQGKLQSS

VVATIMSNGALKEFLNKHGIELDTCNVGDKYVLEKLKANGGNFGGEQSGHIIFSDYAKTGDGLIAALQFS

ALMLSKKKSASSILGQVKPYPQLLTNLKIAEKKDLDKIKGLKELKKDLENKNINTLFRYSGTENLIRLLL

EARDIKLLEKEMKNVVEFFKKALNG

>AHK58327.1 cytochrome C biogenesis protein CcsA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVKSLLIASLVAFSSLNAASLIDEAKNSGLVALPKDQKGVDEILKQNGVKASEFTLEKAELGKKLYFEP

RLSKSGIISCNTCHNVGLGGTDGISTAIGHKWTANPHHLNSPTVYNAVLNNTQFWDGRAGTLADQAKGPI

QADPEMATPAKLAVEKISSLPEYVSEFKKIYGKSGVNFDNIADAIANFERTLITPSRFDKFLEGDEKALT

KEEQKGLKLFIDKGCVACHNGVNLGGNMQAFEVAGKYKFANLGDFKGDANGMVKTPTLRNVAETAPYFHN

GAIWNLKDAIKEMGSVQLGIKISDKEAKSIETFLKSLTGTKPAIVYPQLPISTEKTPKPEL

>AHK58326.1 glycerol-3-phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENLIIYAFIYLLGSIPFGLILAKFFAKTDIKKEGSKSIGATNVLRVVKEKNPKLAKKLAIATIILDFAK

AAIPLLTLKFLHYDQALLWSVAVLAILGHCFSIYLLFEGGKGIATGAGAMIVLLPLEVLTAFIVWVVIGK

IFKISSLASLAALLAFVVSSFIFNYDLEIHTHAPVFIIAFIIVYKHLPNIKRLIFKEECKVI

>AHK58325.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRILVIEDEISLNKTIIDNLNEFGYQTDSSENFKDGEYFIGIRHYDLVLANWTLPDGDGAELVNTIKHKS

PRTSVMIMSSKTDKETEIKALKAGADDFVKKPLDFDILLARIEARLRLGGTNVIKIEDLVIDPDEEKITY

KGQDIELKGKPFEVLTHLARHSDQIVSKEQLLDAIWEEPELVTPNVIEVAINQIRQKMDKPLNISTIETV

RRRGYRFCFPKKS

>AHK58324.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSLLITKDCVCCDACREECPDEAIYENSPIYVIDPDLCSECVNDFSEPACIVACPYECIIPDPDNVETIE

ELKLKHRDREF

>AHK58323.1 guanosine polyphosphate pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKKTAVVDLGSNSIRMVIFEKTSRYGFYTTCEYKRKVRLGENAYNNGKILQEEAMQRAEDALAFFKQCA

LKHKCKKIFIVGTSALRDAPNSKNFIKRIKDNLSLNIRCIDGKSESYLGGLAALNLLSPFKDGTTLDIGG

GSSELCLIKNNRIISCISLDIGTVRLKELFYDTGKMDSLEEFIKPILEQIPKEFCNQNLIAIGGSLRAIS

NSIMQKNSYPLKNLHDFRYMLDEEKGHILKIFNSNLDSLINFGIKKDRFDTIKEGIFIFLKIAEKIKAKQ

VITSGVGIREGVYLQDLLRPKITFPPNFNPSLKCLQDKFLQSKQKNKTPHFALQIFTTLKNLHKLNDNYK

HTLLNAAKLCHIGEYLNFYFANEHSAHFVLGGLNYGFSHKEKALIASIIKLNGKKVNPYNLEPYKQLLPN

IHTISWLNFILCLAKTLSANEDKIDFAFANNTLYIYQENKILNLPKDELKKIAKPATIALAINQKI

>AHK58322.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRLLVLFFLILPLYSVELISYNIYDRNDRVDLMLSFDNAYNGKISQKKEKNLTLLTFSDLTYSKDELKEL

NSQLVDKISISSKNNNTYIMLQNKQNINLELSSINDKFGVRIRAIEQGKANIESAPTTTANNSQELMPKP

KSTSLEGYDYTNYILVMLILVILLIVLWWFKKTMVYKNNNVSRDFTMIFQRFLDKNNQLVVFDHANKRYT

MIIGNSNVLLESIEIPEEQTIKHTEKTEKNFDSFFEENKKRIQNLIEQRQKGKKS

>AHK58321.1 flagellar motor switch protein FliN [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSDDIEFNIHHGLLQSYEDILDITVDFVSELGTTNMSVAELLKLEVGSVIDLEKPAGESVELYINKRIFG

KGEVMVYEKNLAIRINEILDSKTVLQYFKKEI

>AHK58320.1 hypothetical protein N920\_01705 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKILEYSITHFCEHILRLRIEAAQDISGELYGASIPIMGKSEGECNFYLFFPKEFLKKIAEILINDEKF

KEDDWCDLTKECANQIIGYAKNLLNDAKGDDEYKLGIPEYLGKVDFSEIVLDEALTYKFENCYFRIGYCK

>AHK58319.1 tryptophan synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVDFRKFYKENANVAYTVLGYPNLQTSEAFLQRLDQSPIDILELGVAYSDPIADGEIIADAAKIALDQGV

DIHSVFELLARIKTKKALVFMVYYNLIFSYGLEKFVKKAKSLGICALIVPELSFEESDDLIKECERYNIA

LITLVSVTTPKERVKKLVKHAKGFIYLLASIGITGTKSVEEAILQDKVKEIRSFTNLPIFVGFGIQNNQD

VKRMRKVADGVIVGTSIVKCFKQGNLDIIMKDIEEIFKK

>AHK58318.1 tryptophan synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKAYYGDFGGQFLPESAMFALNELEGAFLKFSKDKLFKKELNELLKTYVGRPTPLYFARNLSKKYQHEI

YLKREDLNHTGAHKINNAIAQALLAKKMGKKKIIAETGAGQHGLATATAAALLGLECEIYMGATDVQRQA

LNVYKMELLGAKIHAVQSGLKTLKEATTAAIQAWVGDIKNIFYVVGSAVGPYPYPKMVMHFQSIIGKECK

MQLQKLNKKVDYIIAAVGGGSNAAGIFYDFIKDENVKLIGIEAGGLGIDTPYHAATLNKGKTGIIHGMKT

KVLQDDLGNILPVHSVSAGLDYPGIGPLHAFLFESKRAQYHAISDEECMQALKLLCKEEGIIAAIESSHA

LAFLEKLCPTLKKKSVIVVNLSGRGDKDMQMIRDYKKGVIYG

>AHK58317.1 N-(5'-phosphoribosyl)anthranilate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKLKICGIKDEKNAKDLAFLNIDFFGLIFAKSPRRVSLEQARNLSAIFHEKDKKVVGVFVDENLEQILR

CIKEAKLDGIQIYRTITKEEFEILKVQNVFVWQVISVENSLDLKSEIFANLVLFDAKGILKGGNGISFDW

TLLGSYTKDFILAGGIGLDNVHKAVKTGAKILDLNSKLEDEKGLKDINKIKQILKELKK

>AHK58316.1 anthranilate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MILLIDNYDSFVFNVKSMLEQLSNDEILVRRNDAISLSEIKNLNPTHIILSPGPKHPSQSGICLEIFKAR

LNIPVLGICLGHQALALAFDSLVVKMQEPMHAKNSLIKQCRENELFSNLPSNFSVMRYHSLEVKQLSDEL

EILALDEKGVIMALGHKNLPYYGVQFHPESYFSEYGLQLFSNFLKQDIKKPQKQENPLSFYLQKMSENHF

LQSDDFEQICKIIMSKDYEILQVVALLILITEKSLNEKSLSAFVRQILRYSQTFSDESEMIDICGTGGDG

FKSINVSTTSAFILAALGVKVAKHGNRAISSSSGSTDVLEALNITTPNTLESVLKQLNNQGLSFLHAPFF

HPLVGELKEIRSRLGVRTVFNVLGPLLHPNLKLKYQLMGNYHAPVHRLLIEVLKNLGRKKALVVRGNDGM

DELSICDESKIYELCEGEILEYSICPEQFGFKRAFHSEIIGSSAYDNAKDLKDILSGRMQGAKFDLVVLN

AMFALYTANKASSPLVAKDMILEAIYSGKVIEYFKEYQAYAKA

>AHK58315.1 anthranilate synthase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFVKNVNFYYRQILEKFENSYFAEDLTKVIIGIDCDYLDANELSFSEFKAKYYEALSKNKICDFAGFFGV

FSANFVSLFEKIPLSSKKNYDFPLFLFANAKAYLIYEKNSKMFFKFGASKYFEYLKDDIEPMKKKQKNDF

EILNSLEDEKNDFLKMCEKAKEYLLSGDIFQVVLSKQLCIKHQVNAFDYYESLSALNPSAYMFYFPSKYG

VVLGSSPEFLLKIKKREIYLAPIAGTRNLENNCDLLALEKDLLSDEKELSEHKMLVDLARNDASKFGTQT

RVENLFSIIKNKFVMHIVSEVYANMKEDASIFDVIEAVFPAGTLSGAPKIRALEITSELEDCDRGIYGGA

VGFLNFNEDITLAILIRCAFFTQDKAYLASGAGIVLQSESQKEYAEICAKRKALLVAFENLKKENQ

>AHK58314.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEITDLPYLIIGIISGIASGLFGIGGGMIIVPSMFALGASAHHAIGISVLQMIFAAVFGSYINYKKKNLN

LKDGIMIGFGGLIGASFSGMLLKALSDVALTSVFLAVSCIFFIKYAFGIKENIVQNQRSVWVKNVILFIA

GAFTGIFAISLGIGGGLLIAPILAYFLGYDSKKVVSLSLFFVIFASVSGIISFSNSGVIDSEVIHKGILV

GIASMVGVFIGIKIIEKMHISAHRKILLCVYALSILGTTHSLLNKLNFINF

>AHK58313.1 UvrABC system subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNDTIKIIGARENNLKNIHLEIPKNKLIVFTGLSGSGKSTLAFGTLYAEGQRRYIESLSAYARQFLDKVG

KPDVDKIEGLTPAIAIDQKTTSKNPRSTVGTITEIYDYLRLLYARVGIQHCHRCGQKISSMSVSDIVSEI

LKFPKGAKIIIYSPLIREKKGTYADLLENLRNKGYVRAQIDGVLVRLDEEIELAKTKKHTIKLVIDRLEI

QEDLLSRLASDIEKGLQESFGEIEIEVLNHEEINLNKHYHFSEHSACFDCKISFVPLEPLSFSFNSPKGA

CEACDGLGIRYTLDMKKIIDENLSLENGAVKIMYGFNKSYYYKFLIAFCEQNEIPIKIPFMQLNEVQKRL

VLYGNAKTIEFLWKRNRLKRTFEGVVKMAYEMLKDEKDLAEYMSEKICKDCGGHRLKPESLAVKVAKKSL

GEILDMSIEDSTAFFADEKNFSYLSEQQKLISKPILKEINERLFFLYDVGLGYLSLGRDARTISGGEAQR

IRIASQIGSGLSGVMYVLDEPSIGLHERDTAKLIKTLRNLQQKGNTLIVVEHDKMTIEEADFIVDIGPKA

GKFGGEVVFSGTYKELLKSKSETALYMNGKKQISQLQNRTQKEWLELKNVNINNIQDLSVKFPLQNLVAI

TGVSGSGKSSLILQTLLPFAQEELNRAKKVKKLGGVQIEGLEKLDKVIYLDQSPIGRTPRSNPATYTGAM

DEIRNLFAATKEAKMRGYKAGRFSFNVKGGRCEKCSGDGEIKIEMHFLPDVMVVCDTCGGKRYNDATLEI

KYKGKNISEILNMSVLEASEFFTAVPKIKQKLDTLVKVGLDYLTLGQNATTLSGGEAQRIKLAKELSRSD

TGKTLYILDEPTTGLHFEDVNKLILVLQHLVDLKNSVFVIEHNLDVIKNADYIIDMGPEGGVKGGKVIST

GSVEKVAKEHKKTRSYTGYYLDLELKNTQKS

>AHK58312.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFDFLYNDISYLGLFMVCFLSSTLLPLASEAFVLGFIKLDFNPNLVLIVATLGNTLGSLSTYALAYFGKE

KILEKYFSKSLKKLENFNANFAKFGSIFAFFTFLPLVGDLFALGLGFAKYSFLKTIFFILLGKLSRYTFI

IFIANSF

>AHK58311.1 nucleoside hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRLILDTDIGNAIAGANTDDGLALALILSSKEIKLEMLSTVCGNVPSLVAYSVAKDLFQRLNLNIPVYLG

ANEALKEPSKAWRQRLDESVKNFKLEYLWENIKSPEILENINPDAIFKMGELVSKNPKEISICAIGPLTN

IAMTMKIFKDFDINLKELFIMGGSFDMPYYTKDTNFGFDPEAASIVLNSRAKITLIPYNATMQTLLTHED

LKELQGKNILCDFIVETLGVWIDYASKTRGTKGTWIHDALTIACALDSSIADFDECYADVICDSSLARGM

SWRCFREPKMSMGVDLSTKNCVKILKNVDNARLLKLIKERLLKGVCYENYESITT

>AHK58310.1 DNA polymerase I [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTLTIVDTFGFFFRLYYALKGFKNSQGQASGMISGFANFIYSLKNEYKSDYIVFALDSKGKTFRSEIDP

NYKQNRTPPPPELLEQIPICIKMIEKMGFISVSQEGYEADDIIASFVKTCENRDIFVRIITQDKDLYQLI

KDGKTSIYSPISKNDYDEAACLEKYGVKPNQIRDFLALCGDSSDNIPGVKGIGAKGAKTLLDEFGSIEGI

YENLTLVRNERSRNLLLEGKENAFLSKKLASLYDNLEVQNLIEKATYPDEEPLLKILEILEHYELNTLLK

KLRQNPDNKDKNLGFKATLVQDENKLFEILNTLDKESIIAFDTETTGLDTKEAKIVGFSFCMNENEAFYV

PLTHNYLGVGEQISLQSAKKAIEVIFNHFVIGHNLKYDFKIIQNNFDLNLPQKYADTMILAWLKNPSLRV

NMDDLALRLFNYETLHFESLVKKGENFASVELEKACKYAAEDAYITLRFYLYFLKNLETPLLELAKNCEF

DFIKIIMMMEENGIKLDTNALEILMKKFENEIKNLSEEIYTLCEDRFNLNSPKQMGDILFEKLKLPSGKK

GKTGYSTDEKVLNILLDKHPVIAKILDYRELAKLYSTYCEPLLKLALKDKNSRIYSSFLQTGTATGRLSS

KDPNLQNIPAHGQYAKDYKSCFVAKDGFSFISLDYSQIELRILAHFSEDEKLLNAFANDEDIHARTAIMI

FGESNYETRSVAKSINFGLIYGMGYKTLSQNLKIEANLAKSYIEKYFENFTSIKKYFEKVKNEAKQNGFI

VTLSGRKRYFDFENAKPMQIAMYERESINSILQGSAADVIKLAMLEINKELNEDKKLILQIHDELIFEVK

DDLCENFVKKTRDIMENIVKLKVKLKTSSSIAKNWGDLK

>AHK58309.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDLSTILGMVLAVTSISVGDILEGGNPLHVVHLSSFLIVMPTAAFCAMTSTHKKIVKAAYKELKVVFKGS

GVNLPERIAQLIEFAIIARRDGLLALESRTSEIENEFLKNAMMMLVDGKSFEEIHESMEIQTEQLEEHYK

ECAEYWIVFGETCPTMGLVGAVFGLILALKLLDNPQAMAAGISGAFTATVTGIFGAYALFAPWGKKLKAN

GMDLVKEQIVITEAIKGIAEGANPRDLEAKLFNFLSHDDPRISQFDKG

>AHK58308.1 flagellar motor protein MotB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKKHKCPECPAGEKWAVPYADFLSLLLALFIALWAISKTNPAKVEALKTEFVKIFDYTSTQTVKEESKT

QEKYKGAAKEESDELKSLKQMTMTQQETIKRLQAALDQSDNQVALNLPSKVEFERGSAQIVSADIQDYLK

RMAELTTYLPPQAKIEIRGYTDNSDSIIRSYELAYQRAENVLKYFIEGGANLKNISIKSYGLNNPINGNP

QTLENNRVEIYFKVDTADTSTQKSVLELINKIGTKAP

>AHK58307.1 flagellar biosynthesis protein FlhB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAGEDQEKTEEPTSKKIEDARKEGNVPKSQDAAAIVTLIIGVTITLFMMSFMGERIVNLYRYYQSFIGVE

FDLRIIQAIMIKSIFEVLIILAPIVLSIMIAGVLGNIMQFGFIFTTKPIMPNLGKINPLKGLKNLFSLKK

IVESIKIILKVGIVFTIAFIVLLKFMQELPRVELYTMVAQLTWLRDRAIVLAAIVIVAFLIIAVLDVFLV

RFQYFKGLRMSKQEIKDEYKQMEGDPQVKGRIRRLQMEAARRRMVQDVAGADVVITNPTHYAVAIRYDTG

KEQAPRVVAKGVDFLALRIKQVAYENNVVVYENPPLARELYKACDVNDLIPREMFKAVAEVLGFVYNTNN

KSRLAGQVKKGN

>AHK58306.1 peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIVTKKALDFTAPAVLGNNEIVQDFNLYKNIGPKGAVVFFYPKDFTFVCPSEIIAFDKRYQEFKNRGIEV

IGISGDNEFSHFAWKNTPVNQGGIGQVKFPLVADLTKQIARNFDVLYAEAVALRGSFLLDADGTVRHAVV

NDLPLGRNIDEMLRMVDTMLFTNEHGEVCPAGWNKGDEGMKANPKGVAEYLGKNEAKL

>AHK58305.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAVKITDICIACGSCIDECPVNAIVDDTNNPEGEDRYYVYANKCVECVGHNDQPACASACPTDGCIVWSA

VESGQPSRDNIGADMRSGDTPVFA

>AHK58304.1 nucleoside diphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMISGPV

VVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>AHK58303.1 hypothetical protein N920\_01610 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIPFSKINTKEYPFKLNLENIIFEGNLVKINPKLVKINAIMQGFIYRPCDSCGTELELEIKENLELFAS

DGIFKDEANELSNTIEFFDGHIDLIEVAISELEAYLSDYFYCINCNN

>AHK58302.1 50S ribosomal protein L32 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAVPKRRVSKTRAAKRRTHYKVSLPMPIKDKDGSYKMPHRANPTTKEY

>AHK58301.1 phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINIAIDAMGGDFGEKPIIEGVLKALETKPFNAILVGNSKILKPLIPKKLEQYIQYEEASEIFSMNGNAT

DALKNKETTIYKAINLLKEKKVDAVVSAGHSGASMSLATLKLGRLKGISRPAIATLMPNIVNKTLLLDVG

ANTDCKAENLFQFAIMGEVYAREIMQIQKPRLALLSNGEEECKGNELTKESHQLMKKIPNFIGNAEGRDI

FNGEIDVLVCDGFDGNVILKACEGVATAIFQLLKNEVKQSFISKIGALLMKPSFKKLKKHTDWQEYGGAP

LLGVNGCVIISHGKSDSRAIKNAIFQAINFSQSHINKFIENELGKYNA

>AHK58300.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKASLKSIASYIPEKILSNADLEKMVDTTDEWITRRTGIKERRIASENENTSDLGTKAALKAIERANLK

PEDIDAILVATLSPDYFTMPSTACKIASNLGLVNISAFDISAACSGFIYLLEQAKALVESGLKKNVLIIG

AEKTSSIMDYNDRSICILFGDGAGAGVVSLDNENHILDVHTASNGNYGDLLMTQRSQKSSLCQTLSMQMK

GNEVFKIAVNTLSNDVVEILAKNNILAQEIDLFIPHQANLRIIKAVQEKLNLSDEKCVITVQKYGNTSAA

SIPMAMNDAYEEGRLKKGNLILLDAFGGGFTWGSALLKFGGENF

>AHK58299.1 endoribonuclease L-PSP [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKRFDECDRMSQIIVFDKYFKTAGQVAFEPSGDIKKQTKEALAELDALFEKIGANKGDLIQIQIWLANM

QDFDAMNEIYDAWIKNYPKPVRACVGSALAEGYLVEIQAFGKLREN

>AHK58298.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRKINFSAGPSTLPLEILEQAQKELCDYQGRGYSIMEISHRTKVFEEVHFGAQEKAKKLYELNDDYEVLF

LQGGASLQFAMIPMNLALNGVCEYANTGVWTKKAIKEAQILGVNVKTVASSEESNFDHIPRVEFSDNADY

AYICSNNTIYGTQYQNYPKTKTPLIVDASSDFFSRKVDFSNIALFYGGVQKNAGISGLSCIFIRKDMLER

SKNKQIPSMLNYLTHAENQSLFNTPPTFAIYMFNLEMDWLLNQGGLDKVHEKNSQKATMLYECIDLSNGF

YKGHADKKDRSLMNVSFNIAKNKDLEPLFVKEAEEAGMIGLKGHRILGGIRASIYNALNLDQVKTLCEFM

KEFQGKYA

>AHK58297.1 exodeoxyribonuclease VII large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTPTELNLKAKALLETHFDDIVLSGEISKITLHGSGHWYFDLKDERSSIACAMFKGANLKVGFKPAVGDF

LELCGSVSLYPESGRYQFIATSMKKAGFGDLEAQFLALKERLQKEGLFDPRFKKSLPKFPKKVGIITSKT

SAALQDMLKLIHQKEYFLAKIYIFDALTQGNNAPFSLIQALKKADDMDLDVLIIARGGGSREDLFCFNDE

NLAREIFKAKTPIISAIGHEIDYVISDFVADFRAPTPSAAIDTLFYSKLDIEQSLDLMEEKLMQLWNYKI

QNYENLLLNLSKFFKFNSLPKIIDEKIKQSHNIEKQLNHLLANQMRYNELKLDKLQNAYLQHENFFNKSK

KFICIRKNGKIANLEDLKSDDIVILSSQTSQKEAKIL

>AHK58296.1 ubiquinone/menaquinone biosynthesis methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKQEKIIEMFNQIAPTYDKANRILSFGADVAWRKKACQRVMSLYLKKDLKIADIACGTGDMIEIWQESA

LKMEKNILNIKGIDPSSGMLNVAKEKFPNVEFIKAGAQNLPLESQSLDILSISYGIRNVVERQKALSEFA

RVLQKDGILVVLEFTKREKGGFIAACRDFYLKNILPSIGGIISKNKSAYEYLPNSIEGFLSKKEFILELK

NAGFEMLDYKSFSFGVSSMFIAKKL

>AHK58295.1 hypothetical protein N920\_01570 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVYEIQKNFLLSDCTLLENLKKDNIPFRNSKFETFYTQITSNHSVKFQSFCNEFYKITKFNNSILEQNQE

EKISKKKFEKARKKIIGKSIKKERFEFKFCSLKSYIDIYEEPKICILKIFFPTLDSSNEFKIPKDFKIQK

ELHHDLNSKHIVLYGFEYQNFDIEKYFKIIEKNQNFSLDFPNYINAYDGFRIFLFYLFKKLKFYWTLSLE

RKDKQSLCEFLFYSRSLYIVLSSMNTILDKNLSNILALKFKDITKKTQDILASENSNQDLLLFLSDEKIQ

DLFNDFDFFIKENSFYEGDCKDRFFKQLVALELRKKIILFRKNILKNFDLELFENSFFELAIFLEYFYHF

LEIKNLNKLYEKYSKDRDKNIFSKIINNKNKFCKLLKKSSKNLKIYKG

>AHK58294.1 peroxide stress regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MELLQMLKKHELKATPQRLCVLKILKRHEHPNIDELYIEIKKEYPSISLATVYKNLNTLQEQGLVVEINV

LNQKTCYDIYEEEHIHVVCTKCGGIEDLSFKDAKLYEYQEHLEKKIGNLVNHLSVCAYVDNCKKCH

>AHK58293.1 1-deoxy-D-xylulose-5-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKKFAHTQEELEKLSLKELENLAASMREKIIQVVSKNGGHLSSNLGAVELSIAMHLVFDAKKDPFIFDV

SHQSYTHKLLSGKEEIFDTLRQINGLSGYTKPSEGDYFVAGHSSTSISLAVGACKAIALKGEKRIPVALI

GDGALSAGMAYEALNELGDSKFPCVILLNDNEMSISKPIGAISKYLSQAMATQFYQSFKKRIAKMLDILP

DSATYMAKRFEESFKLITPGLLFEELGLEYIGPIDGHNLGEIISALKQAKAMQKPCVIHAQTIKGKGYAL

AEGKHAKWHGVGAFDIDSGESVKKSDTKKSATEIFSKNLLDLASKYENIVGVTAAMPSGTGLDKLIEKYP

NRFWDVAIAEQHAVTSMAAMAKEGFKPFIAIYSTFLQRAYDQVIHDCAIMNLNVVFAMDRAGIVGEDGET

HQGVFDLSFLAPLPNFTLLAPRDEQMMQNIMEYAYLHQGPIALRYPRGSFILDKEFNPCEIKLGKAQWLV

KNNSEIAFLGYGQGVAKAWQVLRALQEMNNNANLIDLIFAKPLDEELLCELAKKSKIWFIFSENVKIGGI

ESLINNFLQKYDLHVKVVSFEYEDKFIEHGKTSEVEKNLEKDVNSLLTKVLKFYH

>AHK58292.1 flagellar assembly protein FliH [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVNRSNVISGGASDQHVVEGYRFKVISEFDNHTGEKKHTQTPDEENTNISLNDEKPVEENQVIASTQAVM

ETQIPTFQPSFVEDLLKKTDEMSSNIIKLQMQIESQENEFNNRLNSELENAKEKFTKEGYEKAKEEFQKE

LSDFKDKYLKSIAKLDNACENLENFIEKNEKELADTAIDIAKEVILKELELNSSKIAYALAKDLIGELKG

ASAIELKVNAEDYEYLKEQFDQNAHIKISLDDAISKGSVVIISDAGNIESNLNSRLTKIKKMVNNE

>AHK58291.1 flagellar motor switch protein FliG [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKLSEEQKMVYDDLSMPEKVAIFLIQLGEDATTSVFSHMEIDVITEISRYIAMAKNVDRSVATAVLEEF

YTLLQSNQYIKSGGLEYAKEILFRTFGPEIANKILEKLTKSMENNQNFAYLAQIKPQQLADFITKEHPQT

IALILAHMDSIHAAETLEYFSDELRAEVVIRMANLGDISPSIIKRVSAVLESKLESLTSYKVEVGGPRAV

AEVLNRLGQKASKSTITYIEQSDERLAETIKELMFTFDDIQKLSTQAIREILKVADKRDLMIGLKGASEE

LKQKFLANMSTRASEAFLEEMGFLGAVRVKDVEDAQRKVVEVVQKLAEQGLVQTGDADEMIE

>AHK58290.1 flagellar M-ring protein FliF [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDFKNMLHQIGQLYQNLTRKQRIVIAASIIVVVGFLVFLALFRGSGSNANNGYAVLVENVSPSSSAAIVA

KLEQNNIPYKLESENKILVPQDQVYRQRMFIASEGLIKDSRVGFEAFDTQAFGATNEEQKVKYQRAIEGE

LARTIETLEPIRSAVVHIAFPKDSVFTERQIPPTASVVVNVREGLKLTRKQIDGIKNIVSAAVPKLTKEN

VKISDQSGVPLDEQEAYEDDLVRAQIKFKSDQEKALEDKIIENLAPFAGGMDKVKVSVNIDFDFSKQESQ

SEIYDPNPIVRSEQTLNEERTGRKDPEIQGVPGAVSNIGPVEGLDNKGQIDTYKKNQVTTNNELSKTITN

TKKQFATVLRTSAAVTIDGKYQDVVDENGDVKSEYVPLTKEELASVESIVKNTINFSATRGDSVVVQNLP

FHRESIRVESKVKTFYNRFVEPFIPPVKYFIAAILLFIFYKKVIAPFTQKMLEDVAAQEEMQQGPNAVLD

DAEDALEKFNAARKKVEEQLGFGDNFNEDSIQYEVLLEKLRGLVSDKGEEIAALLQNLIQNDSEFGEKDM

>AHK58289.1 histidinol-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFNEFLNNLSNYEPGKDIEVIAKEYGVKEVIKLASNENPFGTPPKAIECLRQNANKAHLYPDDSMIELK

STLAQKYKVQNENIIIGAGSDQVIEFAIHSKLNSKNAFLQAGVTFAMYEIYAKQCGAKCYKTQSITHNLD

EFKKLYETHKDEIKLIFLCLPNNPLGECLDASEATEFIKGVNEDCLVVIDAAYNEFASFKDSKKHLEPCE

LIKEFDNVLYLGTFSKLYGLGGLRIGYGIANANIISAFYKLRAPFNVSNLALKAAVAAMDDDEFTEKTLE

NNFSQMELYKEFAKKHNIKIIDSYTNFITYFFDEKNSTDLSEKLLKKGIIIRNLKSYGLNAIRITIGTSY

ENEKFFTEFDKILR

>AHK58288.1 chloride transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPNLEEFRNKIDAVDDKILDLLNERMTYVKSIGELKQSSGGSIYRPERERAIINRLKNANLGLLDQNAIE

AIYQEIFAVSRNLEMPQTIAYLGPEGTYTHQAARSRFGAMSRYIALANIEDVFKELSNKEAKYGVVPIEN

NTEGAVGITLDCLGKYNELKIFGEIYMDIHHSFVGINENLKEIKRIYSHPQGYNQCRKFLESHELSAIEF

VPSKSTANAAYLASQDKYAAAICSRIAAKLYNVPVLFDKIEDNAANKTRFLILSDIKNPKMPNCKTSILA

HTAHKPGGLSFLLEQFKKENINLTKLESRPVKSKEFLHSFYIDFEGHIDDENVKKALKDIQEIVWLGSYL

SGEKDEI

>AHK58287.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFFLDVQGTLISDHDKSLIHGAKELIDFLNAKNLPYLIITNNTKKLDFLEKLQQKGLVIKENAYIDPFSV

LKHLLRPCKVAAFGADEFVKSLENLGFELDFVNPSAVLVASYDDFKFKDFATMIELARREVRFIAMHETS

IYKKDGRPYPGVGSIMAMLKNAIDFEYEVVGKPSIAFYKEALNLIRRQNSKIDFEDIKIISDDFRGDLLK

AKELGMKTLLVLSGKISDTKGLDTDLLDGVYPSVFEFLKDLKCQI

>AHK58286.1 diaminopimelate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDYKQLKQEFNTPFYIYNFDFIKERFLNLKEAFKARKSQIFYAVKANSNLSLLQMLANLDSGFDCVSIGE

VKRALKAGAKAYKIIFSGVGKTKEELRQALEYDILYINLESEAEMMLLESVAKELNLKARISIRVNPNVD

AKTHPYISTGLNENKFGVEIDIARKMYLYAKNSSFLEPVGVHFHIGSQLLDISPIHEAAAIVAKLVRELK

ALQIDLKFFDIGGGLGVAYEKNECEPDLYDYAQGILAQLHGLDLTIGMEPGRYLVAKSGEFVCSVLYEKQ

NKTKRFVVVDGAMNDLIRPSLYEAYHEIILPYNQGEESLCDVVGGICESGDFFAKARSLPSTQSDDIMVI

KNTGAYGFSMSSNYNTRNKVCELALEEGQVRLIRQRENFEDQIALEEKFLKA

>AHK58285.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MWIFFRFISGIYLKNFFIIFFSLLGFYCGIDLLLNFKDLPKAANLDLLYVMFLSFSAVPYVLPISLIFAL

VVSLISMIRANEFVSLYALGLSRNYVILFPFLWALFFCCIYIGLNFTSFAYANDYKRNILKNGTIMNQSG

EVFLKFNNNFVYISKINNGQNSAQNIKIFNINDLNLSSFASAKNAHFEGESWILRDGNITLLPKNYELAN

DGLKIQDFSELKSLEGFKPKIIEGVASNSDYSISDALESFELFKAQNVNTDTLKINLYKFVFTPFFAPFL

MLIMYYFFPVIARFFNLAFVTFIAFVVTLMIWGVLFLLTRLSENSVIASEIGIVVPIIILGCLSAYMYYK

HR

>AHK58284.1 peptidyl-tRNA hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MILVVGLGNIGVEYENTRHNVGFMLIDLLLKESNFTNLTNSKFKGELFKIGSSLLLLKPSTYMNNSGLSV

KAVNDFYKCERMIVIHDDIDINLGALRFKKGGSSGGHNGLKSIDTLCGNDYERVRIGVGKGENVISHVLG

KFKSEEEITLSKVLEHAKKALLELIENDDLSAISSKYSLKA

>AHK58283.1 50S ribosomal protein L25 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLEGIVRESIGRKAAKALKRDGYLIANIYGKGLENINAAFKVNEFIKEVRKKTTLIFDVKVGSQTLSVVV

VDYQKDPVTAELKHVDLKVAQKGVISKYMVPVKITGTAIGLKNKGVLIQSKRRLKVKCAAENLPNFFELD

VSKLDVGDALLVRDIVVPAGVTMIDADRVAVVGVEKAR

>AHK58282.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNEKFNINIAWFLIILGGIIECFWVSGLKYSTEIWQYILTAIGVCISFTCFLKACERLEVSITYSVFVGI

GTIGVVLNEMFIFNEAVSIIKLVLIAILLLSIIALKWVSKEA

>AHK58281.1 quaternary ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEWFYLFLATACEIFGVVIMKELVSTKNKLYLLALIVCFGFSFTFLSLSMQNIAMSVAYAIWTGAGTAGG

VMIGVLFYKESKSFLKLFLIAVIITCTAGLKFLS

>AHK58280.1 ATP-dependent dethiobiotin synthetase BioD [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQIYVSGIHTDVGKTHFSAAFCANFNYDYFKLIQAGTPTDSEFIAKFSPKTKIFKEGIFLQTPASPHLGK

IKEKLDYKALDIILPKSKNLLIELAGGLFSPMDENYTMIDFVNIFKHPTILVAKYYLGSINHILLSIEAL

KQRNINLLALVMMGKKDILQDDFIKNYAKIPIINLDFFDENSILNKDFKEQMQEILQLKIP

>AHK58279.1 adenosylmethionine-8-amino-7-oxononanoate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNQILKNLDLKHIWHPCTQMKDHETLPLIPIKKAKGVWLYDFDDKAYMDCVSSWWVNLFGHCNEKIANA

IKKQVDELEHVILAGFTHEPIIKLSARLCEKVGRNFNKCFYADNGSSAIEVALKMSFHYHLNKGVKKSKF

LSLSNSYHGETLGALSVGDVALYKDTYKALLLECLSTPVPQGKDYTKELEILKDILEKNASEICAFILEP

LVQCAGNMHMYEARFIDEAIKLCHKFGVQVIFDEIAVGFGRTGTLFALHQCKQSPDFICLSKGITGGFMP

LSVVLTRDEIYNAFYDTYESQKAFLHSHSYTGNTLACAAANAVLDIFEDENILVKNQILSEFIKKEFSRL

EKFDFLGNFRTCGMISAFDILSTKYKRVGLFVFQKALEKGLLLRPLANTIYFMPPYIITKEQIVYVLESL

EQIFKEF

>AHK58278.1 8-amino-7-oxononanoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLEKILQDLEQNHNLRTLTPLKHENKFVYKQDHKLLNLVGNDYLYLASSKELKAEFLNTLKEQDLFFSS

SSSRSLSGNFEIYEKLESFLKTKFKDKEILHFNSGYHLNISCIAALSSVSKTLFLTDKFIHASMIDGLRL

GRADFFRFHHKDMNHLESLIQKHYENYENIIVLSEALFSMDGDFSDFKTLCELKRRYDKIKLYIDEAHSV

GCFDEEGLGLVKKLALENEVDFLVFTFGKALASMGACIICDEKYKKFFINKARAFIYSTALPPINVAWTQ

FIFKKMPYFKKEREKLELLSTFFKSKLQEKNHIVLGDAYIICLLLGENKKALEISQKLQKAGFFAPAIKE

PTVPKNTARIRFSLHAGLNTEELERIIELL

>AHK58277.1 hypothetical protein N920\_01480 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKYEFLCKNPDSKKLIVVFGGFASHSSHFSHLKSDKNVILFYDYENFDLNFDFKAFDELFLIAFSMGVCV

ANRLLKELNFKQKIAINGTNLGIDKSKGIHPAIFRKTLQNFKLENFKEALFKERKNLTKDFIFKDEKALK

IELEKLFDFALVKQEENLLWDKVYSSKKDEIFPPNALKNAFSKLIFLNEPHFAFFHFKTWDEL

>AHK58276.1 biotin biosynthesis protein BioC [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFLKAKDYEKHAKVQDFMGLKLCEILKNLRISHFEKVFEFGCGRGELSKKLQNFITFDEYLKNDILDFK

ENSSILIFDMNEIAKQDLSKEKFDLIVSNATLQWLDLKRIIPSLRDMLNQNGILLLSTFAEQNLKEIKQS

TGFGLNYFSLNELEQIFKVYFNEVKITQELIKLSFDNALDVFRHLKLSGVNSLGFYPLNKGFLKEFEEKF

QNKLTYHPVFILCKNDIK

>AHK58275.1 molybdate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKFVVFFGILLFVSCLNAQNLSIFVASSASKAMSEVKDEFLKTHPEDKIELVFGASGKYYELLKQGREF

DLFFSADTKYAKAIYDDKNALIKPKVYVLGVLALYSLDENLLQGGVENLKEKANKITHLSIANPKVAPYG

VAAKEVLENLGLNELLKDKIVLGENISVPVLHVDSKNSDIAIVAYSLVSSINHPKGKAVIIDAKYFSPLE

QSYVITKYAKDKKLAFEFNEFIGSSKAKEIFKKYGFSTP

>AHK58274.1 molybdenum-pterin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLIKGQICELLNQEDIVIVKILSKEVIFSVLMLELKSLENLKIGVSVELLFKEHELCFSASKTLLSVEN

SFLAKITKIKKGKLLYQVFFDFKGNELSSIITKEKALELEICENQEWLCFVKANDIVLRSHSA

>AHK58273.1 molybdenum ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLDPAFLQTLYLTFKLAFITTFILFFIGVFLAYLLSFVRFPFKTILQSFISLPLILPPSVLGFYLLVTFS

ANSFLGQVLKEYFNLSLVFSFEGLVFASLIFSLPFMVNPLQSAFSSINPNLLDASYSLGKSKIYTLFRVI

LPNSKAGIFSACAMSFAHTVGEFGVVMMIGGHKQGETLVASIAIYDELEILNYSLAHQYAFILFIFSFLV

LFSLYFINKKMSFQ

>AHK58272.1 GTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIRIDINHPMNTAKGRLDLNFKKDIESGKITALFGESGAGKTTLLKIIAGLIKPKLGRIEVDNELWFDSS

KNFSLALQKRKIGFVFQDYALFPNMNIKENIAYAASSKAKVSELLALMKLENLAKIYPKHLSGGQAQRVA

LARALAREPKILLLDEPLSALDFKMRANLQDELTKILEYFKISTLLVSHDLAEIYKLSHRILELKNGKII

KDFPKNEFFTHSNISAKLRLSATLLEIKKSDILVVLTLLLNQDIIKITLSEEEFLKAYQDVKIGDTLLLS

IKAFNPIIVGKLDK

>AHK58271.1 aspartate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNITLLKSKIHRASVTEARLDYIGSISIDEKLLQASGILEYEKVQVVNVNNGARFETYTIATQEEGVVCL

NGAAARLAEVGDKVIIMSYADFNEEEAKTFKPKVVFVDENNTATKITNYEKHGAIF

>AHK58270.1 MoeB/ThiF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNDRFTRIKWLVGEEKFQKISQTKVLVCGLGGVGGICVDALYRSGFKNLTLIDADKFEITNQNRQIHSEN

IGEEKAKVFERIYKVKGIVSKIDENFLKNFDLSEFDLIIDAIDDIPAKVALAHLIDFKKQIFISSTGGAR

KLDPTRIKTTSIFKTHGDALAKKFRYELRKSGFKGNFDVVFSDEEAHCKDLGSFMGVTASFGLALASLAL

RKVLAKKS

>AHK58269.1 stationary phase survival protein SurE [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEILITNDDGYESEGLKKLIKMLTKEFKAKITIVAPASEKSACSHSITLTKPLRFVKVGKRFYKLDDGT

PADCVYLALHALYKKRLPDLVISGINKGANVGEDITYSGTCAGAMEAVLQGIPAIALSQFYKKSEKELDY

KNALQITKKIIQNIFDKGFPLEKKEFLNINFPAKSKIKGIKICKAGKRVYNFEAHSNVNPRGVEYYWLAA

ANLDFEDEKNSDIALLKKGYATITPIMLDLTAYERMKKVKKWLKANDE

>AHK58268.1 ABC transporter ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIITLFGACALAFSMANADVNLYGPGGPHTALKDIANKYSEKTGVKVNVNFGPQATWFEKAKKDADIL

FGASDQSALAIASDFGKDFNVSKIKPLYFREAIILTQKGNPLKIKGLKDLANKKVRIVVPEGAGKSNTSG

TGVWEDMIGRTQDIKTIQNFRNNIVAFVPNSGSARKLFAQDQADAWITWIDWSKSNPDIGTAVAIEKDLV

VYRTFNVIAKEGASKETQDFIAYLSSKEAKEIFKKYGWRE

>AHK58267.1 transcription elongation factor GreA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKEPMSQFGYDKLAAELKDLKDNQRPAVVIEIDTARSHGDLKENAEYHAAREKQALIESRIAELSDLLA

RAQVIDPSSYEHDSVKFGSSVVIMDLDTEKESKYTLVGICEGNLDKGYISIASPIAKAMLGKKEGDDFKV

RLPKGESEFEILSINYEPLKF

>AHK58266.1 UDP-2,3-diacylglucosamine hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLIGEISATHEFAKPYIELLEELALKIEIIYLEGNHDFNLSCFFKRVKIFNLQEQPIKLNLHTSKGNNLV

LNSAFIKLAHGDIFLPPLLQFTLKTLRNHYLLVFLNFLNIITRNFISNKILQNQNKKNLFYQIKDFENLA

KKRYEKYENLGFWVCEGHYHQNHQINKENIKYLNLASFAYERSFFVVEYQQEIKFREQKLRGQNV

>AHK58265.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFDENIVKTGSNEMELVDFRIFKQGHDKVYEGIYGVNVSKVREIIKIPSLTELPGVPDYIEGIFDLRGVV

IPVVNLAKWMQITEPESTMLKPRVIITEFSNILIGFIVHEAKRIRRINWKDIEPATFSTGSGALDKGKIT

GVTRIENDEVLLILDLESVVEDLGIYAPKTDIDFGKIEKFTGTALILDDSMTARKRVKEMMQQMGFQVVE

AKDGVEGINKLEELSQIYGESLNDTLKIIVSDVEMPQMDGFHFAARIKEDPRFKDIPIVFNSSLSNEFMN

EKGVQEAGGEGYLVKFNASDFFNEIAKVIKKHQSQEQG

>AHK58264.1 chemotaxis protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEDMQEILEDFLVEAFELVEQIDHDLVELESNPEDLELLNRIFRVAHTVKGSSSFLNFDVLTKLTHHMED

VLNKARHGELKITPDIMDVVLESIDRMKTLLNSIRDNGNDTAIGMDIEPICARLTAISEGESPVVATDSN

EKSIPQAELEAPKQEIATPEPEVDVNQLSDSEVEAEIERLLKVRKAEDQARRAQKKQTTNAAPKPTNNTA

NKPTESGEKKVPASGSNASSMDQTIRVEVKRLDHLMNLIGELVLGKNRLLKIYDDVEERYEGEKFLEELN

QVVSQLSIITTDVQLAVMKTRMQPIAKVFNKFPRVVRDLSRELGKQIELEITGEETELDKSIVEEIGDPI

MHMIRNSCDHGVEDPATRAANGKPEKGIVQLKAYNEGNHIVVEITDDGKGLDPNGLKAKAIEKNLITERE

ADQMTDKEAFALIFKPGFSTAAKVTNVSGRGVGMDVVKTNIEKLNGVIEIDSELGKGSSFKLKIPLTLAI

IQSLLVGTQEEFYAIPLASVLETVRVPIDDIYTIEGKNVLRLRDEVLSLVRLSDVFGVKQVLESGDQTYV

VVIGVAESKLGIIVDTLVGQEEIVIKSMGDYLQNIQGIAGATIRGDGRVTLIIDVGAMMDMAKEIKVDIK

AQLESSAKKPKEQPSDYKVLIVDDSKMDRTLMQKALEPLGVSLIEATNGVEALNIIKSGEHDIDAMLIDI

EMPRMDGYTLAGEIRKYSKYRNLPLIAVTSRTSKTDRLRGVEVGMTEYITKPYSPEYLENVVRKNLKLG

>AHK58263.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSNEKLEQILQKQQTQMAGPDVDQREDDIIQLVGFVVGDEEYAIPILNIQEIIKPIEYTRVPSVPDYVLG

VFNMRGNVMPLIDLAQRFHLGSSKMTPQTRYIVLRGETNGTGVGGNAGFVIDRLTEAIKIHRNRIDPPPE

TLVKDKGMIYGIGKRDENILTILKVEALLKREF

>AHK58262.1 phosphoserine phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKLCVFDFDATLMDGETIDILATAHGKGNQTSEITRHAMTGELDFFESLQKRVSFLKGMSYKKVLELSS

TLPLMRGAHELIQYLKSKNIQIVIFSGGFHEGINPAMQKLGINLGFANYLHHKNDILTGLVGGEMMFSNS

KGLMLQRLKSFLNLKTDEVMCVGDGANDLAMFNESGLKIAFCAKEILRSQADICIDIKDLKEIIKVI

>AHK58261.1 transaldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNFSLWCDFIENSFLDNEFLNLLSHGINGATSNPAIFKNAILNSPIYKDKILKLKEKKTKDIYEELAIS

DIQKAADKLAPLFYQKNDGFISIEIDPRLHDNTTLSLGEAKRLYSAIGKENIMIKIPATKASYEVMYELM

KNGISVNATLIFSLEQSQKCFEALNAGLVEFRKNNIALKEQNTRTPQAVISIFVSRFDRLLNPKAKEQNR

IGILNANLAYNNIYSKNEPNIRALFASTGVKGDDLPKDYYIKELLFENSVNTAPLDAIEAFKGKMHFKKP

LMNFEIYTELNQIISQSEREKACNDLLSDGLEQFCIAFEDILKAL

>AHK58260.1 Sua5 YciO YrdC YwlC family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIYLAQTDTTVGFLSKNLEEINALKGRDKNQPCLITSAKFCELKSLARIPKSFKNLVRRSKKTTFIYPNN

QAIRIVKECKHANFLSKNGYFYSSSANKHGKEFDEEWARSVADIILDEKFFENIPSKILKLSKNKMIKIR

>AHK58259.1 carbamoyl phosphate synthase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPKRTDIKSILLIGSGPIVIGQACEFDYSGTQAAKTLKELGYRVVLINSNPATIMTDPEFADATYIEPIT

KESILSIIKKEKIDAILPTMGGQVALNVAMEVYESGLLGDVKFLGANPEAIKKGEDRQVFKECMKKIGMD

LPKSMYAYNYDEALKAVDEIDFPLMIRASYTLGGAGSGVVYNMDEFKELTNTALALSPIHEILIEESLLG

WKEYEMEVIRDRADNCIIVCSIENIDPMGVHTGDSITIAPALTLTDKEYQVMRNASFAILREIGVDTGGS

NVQFAINPKNGRMIVIEMNPRVSRSSALASKATGYPIAKVATLLAVGFSLDEIKNDITGTPASFEPVIDY

IVTKIPRFTFEKFPGANTTLGTAMKSVGEVMAIGRTFKESIQKALCSLERSLSGFDRVKFEDRNDLVFKI

RNANEKRLLYVAQAFREGFSVEELYELCKIDPWFLTQIKEIVDFEEQIDMDILNNKALLRKAKTMGFSDK

MIALLVNLKDNLELSQNDIYYVRMKQKIIAEFSEVDTCAGEFEALTPYLYSSINVSELTQSKNDAKDKKE

KKVMIIGGGPNRIGQGIEFDYACVHASFALKDMGIKTIMYNCNPETVSTDYDTSDILYFEPIDFEHLRAV

IEREKPDGVIVHFGGQTPLKFAKRLSAFGAKIIGTSARVIDMAEDRKKFAEFITKLGINQPKNSTATSVE

EAVLKASDIGYPVLVRPSYVLGGRAMRVVNDEAELRLYMQEAVDVSDKSPVLIDQFLDNATEIDVDAICD

GKDVYVAGIMEHIEEAGIHSGDSACSLPPCNIDEKMQEFIAQKTADIALNLGVVGLLNIQFALHNNELYM

IEVNPRASRTIPFVSKATGIPLAKVATRVMWQGNLKEALKFYDTFKVVNFDTKILRPKTPKYMSVKEAVF

PFAKLSGSDLELGPEMRSTGEVMGISKDFANSYAKSQIASFNHLPEQGVVFISLKDKDKKYTKKIAAEYV

KLGFKLMATGGTCKEILESGFECELVHKISEGRPNVEDKLKNGEIHLVINTSDSHSFKGDTKKIRENIIR

FKIPYFTNLRSALAGAKSIKAIQSKSCLDVKSLQEWLKS

>AHK58258.1 rod shape-determining protein MreC [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNKIFYVLVLAFLVFISFYYGGLIKQNVLRVNDFVIGNFYNIKDYLGEKISEHFNQANQIQQLKARNKE

LEDIAVKVTSFANQLNRILEDQNSTKYLPQVSLTRVISYVQLNDYKKLWLDWSKIPVGKNRGLIYQGYTA

GIAINKNGRAMALLQGDDQCVFSVYIGKSKAPGLIQGEDGRIVVKFIPKWAKINTGDEILTSGLDNIFFS

DIPVGIVNRVNDEDMYQSVEVKPYVKISIPAYLYVVDNL

>AHK58257.1 rod shape-determining protein Mbl [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MILDQLIGFFSSDMGIDLGTANTLVLVKDKGIVINEPSVVAVERERYGSKAKILAVGKEAKDMVGKTPGN

IEAIRPMKDGVIADFDMTEKMIRYFIEKTHRRKSFLRPRIIISVPYGLTQVERKAVRESALSAGAREVFL

IEEPMAAAIGASLPIQEPKGNLVVDIGGGTTEIGVISLGGLVISKSIRTAGDKLDMSIVNYVKEKYNLII

GERTGEEIKITIGSAIQLPKELSMVVKGRDQVSGLLSRIELTSEDVREAMREYLKEIADALKMVLEMMPP

DLASDIVENGVVLTGGGALIRGLDKYLSEIVRLPVYIADEPLLAVAKGTGKALEEISLLQQLTNEE

>AHK58256.1 ATP-dependent protease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPRKCSFCNEVENPQRRILANENDDAFICEYCVEGAYSIIYGEEKEFKEPKQSHNTEFKDITPKELKAYL

DRYVIGQDRAKKVFSVGVYNHYKRLFKAELQDDDTELFKSNILLVGPTGSGKTLLAQTLAKFLDVPIAIC

DATSLTEAGYVGEDVENILTRLLQAADGDVQRAQKGIVFIDEIDKIARMSENRSITRDVSGEGVQQALLK

IIEGSLVNIPPRGGRKHPNQEFIQIDTSNILFVCGGAFDGLETILKRKLGDKVVGFFDDAKEENKALLEK

IEPDDLVHFGLIPELIGRLHVIASLNELNEEDMVRILTEPKNAIIKQYQKLFAIDGVNLKFEEDALRAIA

QLALERKTGARGLRSIIEEMMVDLMFELPEYKDYDIVITKEVVKDNAKALLIKRKIS

>AHK58255.1 UDP-N-acetylglucosamine acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIHPSAVIEEGAQLGDDVVIEAYAYVSKDAKIGNNVVIKQGARILSDTTIGDHSRVFSYAIVGDIPQD

ISYKEEQKSGVVIGKNATIREFATINSGTAKGDGFTRIGDNAFIMAYCHIAHDCLLGNNIILANNATLAG

HVELGDFTVVGGLTPIHQFVKVGEGCMIAGASALSQDIVPFCLAEGNRASIRSLNLVGIRRRFDKDEVDR

LSRAFKTLFRQGDLKENAKNLLENQESENVKKMCHFILETKRGIPVYRGKNNA

>AHK58254.1 3-hydroxyacyl-ACP dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIDVMQIQEILPHRYPFLLVDKITELKVKEVVLGYKNISISDHVFMGHFPGHPIYPGVLILEGMAQTGGV

LAFESMEDKVDPKSKVVYFTGIDGAKFRNPVRPGDRLDYEMSVVKNRGNMWIFKGQAFVDGNLVAEAELK

AMIVDK

>AHK58253.1 hypothetical protein N920\_01320 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLVHICCSVDSHYFIEELRKTYPDEKIIGYFYDPNIHPLSEYELRFLDVKRSCDKLGIKLYKGEYEYEKW

LNAVRGYEDEPEKGARCEICFDVRMGSSVKFAAKIGEKKLTTTLLTSPKKDLEQLKNALQKECEPYGVEF

LAPDFRKNGGTQRQFALAKKEMLYHQNYCGCIYGLKKQKQDKNFIDELMSSVNKQILPVSIEARIALYKK

VVLWEKKGIKFEILREKFLNYRLLSALIKLDKKPVKSHILFYSHFKNAYTRFSLDEENLKQNLKEGFYRS

TKDEIVLVEFWRFNAFFKNKWKNFEDFLKKPLSVQAEIKWRNKLFGTYNLSPIIILENILPSRYEVIAKS

EIYHDNQEVLVKI

>AHK58252.1 bacterioferritin comigratory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSLNIGDKAPQFELLNQDGVKIALKDFIGKKVILYFYPKDNTPGCTTEACDFSANYDKFGGKNAVIIGIS

PDSVASHEKFISKFDLKHILLSDSEKEVAKAYGALGLKKNYGKEYEGLIRSTFVIDETGKIAQIYSNVRV

KDHALKVLESL

>AHK58251.1 tautomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPLVNIKLAKPSLSKEQKAELIADITELLSTKYNKSKERVVVVLEDVENYDIGFGGESVEAIKAKASK

>AHK58250.1 branched-chain amino acid aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MISADKIWMDGKLVDFKDATLHFLTHSLHYGNAVFEGTRAYKTDKGLAIFRLEDHTKRLLESAKITLLNC

PFSQKELENAQIELLKANNFKSNVYIRPLIFLGDGVMGLYHIKAPVRVGIAAWEWGAYLGEEGLEKGIKV

KISSFARNSVKSCMGKAKASANYLNSQIAKFEAIEAGYEEALMLDEEGFIAEGTGECFFIVKDGVLITPP

NDFSLKSITQDTVLKIAHDLGITVLRQRISRDEVYTADEAFFTGTAAEITPINNIDARIIGNGLRGSVTK

KLQDAYFDVVYGRNEKYASMLTYI

>AHK58249.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPADLNDYFNKKNGNSNNNGNNNRQNFNFKAPEFNFKGFGKFSPFVYGVIIIILFLIVAKPFMVINSGEM

GIKSTTGKYDPNPLEPGLHFFLPFVQKITIIDTRVRQINYASIEGSNENLSSGSGVINKNSISVLDSRGL

PVSIDVTVQYRLNPLQVPQTIATWSLNWENKIIDPVVRDVVRSVVGKYTAEELPTNRNTIATQIEEGIRK

TIEAQPNEPVELRAVQLREIILPSKVKEQIERVQIAKQEAERTKYEVERANQEALKKAALAEGEANATII

SAKGKAMAVKIEADAQAYSNKEIANSLNTPLLNLKQIETQKEFNEALKVNQDAKIFLTPGGAVPNIWVDT

KDAKKQSAANMN

>AHK58248.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKLREIVLFYTTHLYLVDYMLILLVFFLFTCVLLLCVFLRHRPIAALFIIAFDIIICFLVYIYGYKLID

NEVRTRKIAITDQKMIQSSNDLIVDFNITNNSKNNFKECKITAKIFADKIPNDNIIEEYKKKFIPFRQKS

REIKDLKKNATQVQRIAFENFNYENNYTIRLVSECF

>AHK58247.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MHFTIFHIIAFIILLICFALICILIFLKVKQKEMALISYTIATIFTALLIYSIFLTINQFTTQADLSKLT

YTRDLRHESVIVSGKVQNLTKFEIKKCYLILSILNQQQVGGEIFNDKNIRNAKMQNTSVSYTIEIIDTLP

GNTYKEFRASVPFPPTFNNPEFYHTLKCI

>AHK58246.1 hypothetical protein N920\_01275 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQFTFEQIFIAMLLTLFAGFSTAIGSIIAFFSRKDDLRVLSLGLGFSAGVMIYISFMEILPTALKDFKNH

YDSHWAELLGLACFFGGILISLLIDKLIPEDVNPHEPKEDLSELKICPLPQKGQNPPKFHPGEKLHQINT

KALKRTGIFTALAIAIHNFPEGFATFISSLDNLTLGIAIAIAVAIHNIPEGLAVSLPIYHATGDKKKAFI

YSALSGFAEPLGAFVGALILLPFIGDLTLAISFAVIAGIMVFISLDELLPAAKTYDKAHDSLYGLIAGMA

IMALSLNLLGQ

>AHK58245.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQSINSGKSVGISAKLTLWVGILVVLILAITSAISYFDSRNNTYELLKDTQLKTMQDVDAFFKSYAMSKR

NGIQILANELTNRPDMSDEELINLIKVIKKVNDYDLVYVGFDNTGKNYQSDDQILDLSKGYDTKNRPWYK

AAKEAKKLIVTEPYKSAASGEVGLTYAAPFYDRNGNFRGVVGGDYDLANFSTNVLTVGKSDNTFTEVLDS

EGTILFNDEVAKILTKTELSINIANAIKANPALIDPRNQDTLFTAKDHQGVDYAIMCNSAFNPLFRICTI

TENKVYTEAVNSILMKQVIVGIIAIIIALILIRFLISRSLSPLAAIQTGLTSFFDFINYKTKNVSTIEVK

SNDEFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLD

VLQARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQT

AVQSLTTSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAI

EAARAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQ

TTKDNVEIANESAIISSTVSDIANNILEDVKKKRF

>AHK58244.1 SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLWDKKAKTYARYQNTLNTIQKQTFEYLQNLKISFQDKSIIDIGCGTGVWTLHLAKEAKEILALDSANA

MLEILQEDAKKLNLNNIKCKNLSFETWMQNNPNVKFDLAFLSMSPALQNEKDYTNFLNLAKIKIYLGWAD

YRKSDFLDPIFKYFNTEFKGFYKKDLENYLLEKNIFFHKIVFDETRKVQRTKEEAIENALWHLSMNKITA

SKETVSSFVENNITETIESKIKLLIINNL

>AHK58243.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLKNPLDMHLHLRDNQMLELIAPLSARDFCAAVIMPNLIPPLCNLEDLKAYKMRILKACKDENFTPLMT

LFFKNYDEKFLYSAKDEIFGIKLYPAGITTNSNGGVSSFDIEYLKPTLEAMSDLNIPLLVHGETNDFVMD

RESNFAKIYEKLAKHFPRLKIVMEHITTKTLCELLKDYENLYATITLHHLIITLDDVIGGKMNPHLFCKP

IAKRYEDKEALCELAFSGYEKVMFGSDSAPHPKDTKECCGCAAGVFSAPVILPVLAELFKQNSSEENLQK

FLSDNTCKIYDLKFKEDKILTLEEKEWQVPNVYEDKYNQVVPYMAGEILKFQLKH

>AHK58242.1 ArsR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFENLIREILGKKRFELLKFLCENADENGFIMIKISDLEEKLHQSKPTIIATFKFLEEKKLFKRLKNGF

YQLNIGDKNET

>AHK58241.1 DeoR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKPKYHFLNNARYALEGLFALFKNEMAFRIELCIIIPAIVFSFFLKISFLEHLLLISVLILILIVEALNS

AIEACVDLITNEWHEKAKIAKDCASAAVFFSVLLALFVWGFILYNIYL

>AHK58240.1 sulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLRLTWFQFTFFNSLMIVLLNFNLFYFVYEKNTQNWLITFVFIVAYFALVHVICSLLFIKFFTKFFSILF

IISSFLSVYFISFYGVLIDSDMMQNVVQTDIKEVKDLLNLKLILFVVLALLLVFYVVKVKIDYYGSFKSH

IKIKIINIISGLIVVCAVLIPLSKTFLPFFRNYNEIRMYNTPFYQIYAVYRYYVRFVKAKPEFKTIANDA

YRENNHTKKLLVLVVGETARAANYSLGGYTKNDTNFYTKKDNVVFFDNFSSCGTATAVSLPCMFSISKRE

NYSSSEFQENAMDVLYKTGVDAVWFDNNSGGCKGVCDRLAYKQKLSSDLDENLLAPFKEKLNHLSDQNII

VLHLQGSHGPTYYKRYPSEFKKFTPTCDTNELSKCDSEALINTYDNTLLYTDYLLSEIIKLLKEQKSYES

SLFYLSDHGESLGENGIYLHGMPYAIAPSYQTHIPAIFWSNDKNLMNLAKEYKGLKLSQDNLFSTLLGYF

DVKTSVYEPEYDLLNPKLKANP

>AHK58239.1 exodeoxyribonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLLSWNVNGLRAICDKNALDWIAQEQIDFIGFQEIKAHEDKFPKKIYEYPFKHMYFNSAKRAGYSGVMS

LCNFNSEVKKCEFFDDEEGRVLEHRFKNIALFNIYFPNGQKDEERLNFKMQFYADFLVYLDKLLKDGFEI

IICGDVNTAHKEIDLTHPKANANTSGFLPIERAWIDDLLKLGFIDTFREINGEIKEKYSWWSYRMKARER

NVGWRIDYFFISKGLKDKLKNAFIRDDIFGSDHAPVGIEIDI

>AHK58238.1 hypothetical protein N920\_01230 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNTLIIFENSLSNLGKDEASDLLEDLSFNLAYKQISHNPHETKKVLNSLLVEFLTILKKLDFFDDENVT

KVIKALVKASIVDAQNSLYEYISEAELLNKQIENQKNLIKNQISDNFFEFENILQECSFCDEFSGGLNDA

ILFDIEMLGILKETAESAFLTTLEKAEDIELTSSEIAKNLVYNAICEAHFEKERILKISSIILNTAFEIA

NESMAYAKDLCLGVIKGTRDGIVLAMEKFKASLTYANFEEDVSLKSKELIGIEDDFIALLKKEIQLQNDP

CKSIVENLLEHELDNLFAKFRRLAGESREQLILVLNDIKKNPKINDFNKLTQRKLNRFKQEIFELEKIAS

EKYKDLNSKKAKKLGVRLWEKAKKFVKK

>AHK58237.1 hypothetical protein N920\_01225 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVNLCDLKKEPQINYPTFWDYKVIFEVHVKASEIFEEILGQREYKFKHSNSSASGKYQSYLLNVYVDSKK

DRLDIFDKLKAKAKFVL

>AHK58236.1 molybdenum cofactor biosynthesis protein C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLSHLDEKNHPKMVDVSDKNITLRIATASGIIYMSQEAFDVIKNNTAKKGPVLQTAIVAAIMGVKKTSE

IIPMCHPLMLSKVETNIVEFVKECAFKLIVTVKCEGKTGVEMEALSGVSIGLLTIYDMIKAIDKSMRITD

IVLESKEGGKSGKFVRS

>AHK58235.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKTLNQKDIKVLGLSSLGGTLEFYDFIIFVFFANYISTNFFPKDLSSFWQMFNTYGIFAAGYLARPLGG

VILAHFGDKFGRKRMFMISILLMVIPTFTLAFIPNYESIGFLCIVLLVFIRICQGIAIGGELPGAWVFVY

EHAPQGQKRTYLGILTASVVGGILLGSLVFLIMNKIYTQEELHEWAWRIPFFLGGIFGIISAYLRKFLRE

TPVFEQMKKDKALEKFPLKEVFKKAKMGIVLSMMITWVLTGCIVVMILLMPSYMAKILQINTSIQTYLQI

GGILLICLGCIISGILADKIGVIKSCVFFSVFFGIASLLYFNTLYRQNADFNLVACLYLLVCFFSGVMNF

CPLIMSEVFDAKIKFSGLSFSYNIAYAIAGGLTPQLAFFLHSFALNNLSNFWRFSLGLYVFFLAIIALLC

AFIFSYLNNTQRTYSQ

>AHK58234.1 cysteine permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKSLILPPNEFLDHYILNAEFHRFAGISKNAYKFWKNAEIGRYQGTRIIFLHRNCILEKHQQALRQCSGL

NGFVLASAFCSFTGLAPSHLVEKNNSSIYKLLELKEICGIKFVNLKKFYDFLGLNYHQHIYIEKCHFFSP

APFEKRIKITESMCVGYY

>AHK58233.1 hypothetical protein N920\_01200 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIGDMNELLLKSVEVLPPLPDTVSKLRKYVSEANSNIETMKVAEIISSDPLMTAKLLQLANSPYYGFTRE

ITTINQVITLLGVGNIINIVMADSIRDNFKIDVSPYGLNTQNFLKTCNEEATFIANWLNDEDKKLSHLLV

PCAMLLRLGIVIFSNFLIQNHKDKDFLAFLNKNENLALAENEFLGVDHISFLGFLLHRWNFDDVLIESIC

FVRTPHAAREKVKKSAYALAITDHLFAPHDGSSPFNAKAAVALLKEAKTQGINFDLNNLLSKLPNKAKEN

LNKED

>AHK58232.1 50S ribosomal protein L20 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MARVKTGVVRRRRHKKVLKLARGFYSGRRKHFRKAKEQLERSLVYAYRDRRRKKRDFRRLWIVRINAACR

LNDLSYSRFINGLKKAGIELDRKILADLAMNDAAAFAKIAEAAKKAL

>AHK58231.1 50S ribosomal protein L35 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPKMKSVKSAVKRFKVGKNKIKRGSAFRSHILTKKPAKRMRGLRTAKYVHSTNVKAVEKMLGI

>AHK58230.1 hypothetical protein N920\_01175 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTINSANPYQNLTLSNPLQNSSALNLIKDSKALDQEGNENSLEQLSYIFNNTTYASEFGFRINEEGFFDK

DLNKIANIPESYDINIKSVRSIAKELAKQDENLNYNKIDLPYLLNSYHSSLKSINSEFLQDDNAYLSRDL

ISKLSSGFSTDNGEFLGQISRIYNNQEEIDLALSNITNLNTLMLDNKITNFHFDKAIENTSSNEILKPYL

TKNAEVSKSGLLMNFIYHDIKTQNEKEFNFFMKPATLELSSHQNLQKILKGETDIEDYIKKENEKKMSFD

LYLYINGVDKKTSTQDKLSVFFQQYINYQKDMDLREFANSSSIFQIYIDQNRNDFDALKKQYQNQSQDTQ

RLEEANQLRSSSIENFLDRRQKQANINKILNSYMSVMV

>AHK58229.1 bacteriohemerythrin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTYNEKIISMNNDLLDHQHKELFEISKKLSLMNQRHVGTKELKIVLRELLIMINRHFSDEEAFMREIEYP

YINHHTRIHRKIILEIEEIIISEAKFVNIMTEKLNLVVQDFIFKHTAKEDSKIVKYYEEKFKK

>AHK58228.1 cysteine desulfarase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVYLDNNATTMLDPNAYELMLPFLKDMYGNPNSLHQYGSATHPALREALDKLYAGLGANDLDDIVVTSC

ATESINWVLKGVYFDHILDKERNEVIISSVEHPAVTAAAYFLKSLGVKVIELPVNEEGVSTVEDLRKVIS

DKTALVSVMWANNETGMIFDIKAMAELAHEFGALFHTDATQAVGKIKVNLTQVGVDFASFSAHKFHGPKG

VGGLFIKKGLKLTPLLHGGEHMGGRRSGTLNVPYIVAMGEALRIANTMLDFEDSHIRRLRDKLEDQILAL

PDTTVVGKREHRVPNTILASIKGVEGEAMLWDLNKNGIAASTGSACASEALESNPIMEAIGAEHDLAHTA

LRLSLSRFNTEEEIDYAAKQIKNATQRLRAISCTYAYNPNNYK

>AHK58227.1 nitrogen-fixing protein NifU [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGKNSLIGGSIWDEYSQKVQDRMNNPQHMGEFSEEDAKARNAKLIVADFGAESCGDAVRLFWLVDEKTDK

IIDAKFKSFGCGTAIASSDTMVDLCIGKTVDEAVKITNLDVEFAMRDNPETPAVPPQKMHCSVMAYDVIK

QAAAHYKGISPEDFEDQIIVCECARVSLGTIKEVIKLNDLHSVEEITQYTKAGAFCKSCIKPGGHEKRDY

YLVDILAETRAEIDREKLKNTMKSDVAFDEMTVVGQLKAVESVLDAEIRPMLHNDGGDLEVIDIQKAEGA

AIDVYIRYLGACSGCSSGSGATLYAIETILQEELSPNIRVMPV

>AHK58226.1 mechanosensitive ion channel protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIIFSLCFFILHLGAQEFKFIDANISKEDEGIYALVEKYVDLNNQIKEFKKNNDENSSTFNGILSEFE

KDKKTILAKIPDMIVGQKINEEAVARFLKAKEKLLDVQKKNINKPYIYTDATLNLVYFNIVESFYSSLFE

VEKLFKNTASSEDLIATVDKAMENLQNSSNVNLDSFKSKITNPEELEKITLKERYISNAVDSYSEILKYL

RSNADLLESNYIFSLLELQVWIDRINEAIGVSFVNIGKIVISALVLVFFISLRRFFANIVYFFLVQLFYR

NKNDVDDIKVIFIENIKKPVGFLLIVYAISLCLTIATYPAPLSVNLSNFFHIVYAVLIAWLILRMLDGYG

VVLVSKLAQKSGKKEVVNLIIKILYFVIIIIALLYILAQLGFNISAIIASLGIGGLAVALAAKDIIANFF

ASILLLFDNSFNQGDWVEVSGIEGTVVETGLRKTTIRTFDNCLVFLPNSTIMGANIKNWSKRRMGRHVRM

YLGVGYDATPEKLEQCVKDLREFLHTSDLVAHDEDSALKYGDHTTKYRQNLVSINDLEGYKNACYVALSE

FADSSINIELYFYIKEIGGKDFREARQSLMLEFMRIIEKNGLTFAFPSRSIYIENLPPLDLQAKAIK

>AHK58225.1 carbonic anhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENLISGAIKFMQEDFKEHEELFESLKNKQNPHTLFIGCSDSRVIPNLITNTGPGELFVIRNIANIVPPY

RVGEDYLATTSAIEYALNSLHIKNIVVCGHSNCGGCNALYYSDEELNKIPNVKKWLTMLDPIKKDVMIFA

RDDLAMRSWLTEKLNLVNSLQNILTYPGVQEALDEGKIEVHAWYYIIETGEIYEYDFKAKIFTLIQDRKV

Q

>AHK58224.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSLYDRDYSRSKEFENTRSSELSIFIKQTYQLFAASLLAATVGAYVGIFALASFFIQSQVTFWILFAVEI

GLLFALQWKKREAPLNLVLLFGFTFCSGLTLTPLLISVLALPAGGIIIAQAFALTTVAFAGLSVFAMNTK

KDFTVMGKALFIVLIVIVAASLLNLFFQSSIVNLAISAVAAILFSFYILYDTQNIIRGNYETPIEGAVAL

YLDFVNLFVSLLNILRSFNSR

>AHK58223.1 preprotein translocase subunit SecG [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MITLLIILQFIIVVVICIAVLLQKSSSIGLGAYSGSNESLFGAKGPAGFLAKFTFVMGILLIANTIGLGY

LYNKASKDSLAEKIKVENNNTTIPSAPIVPTTPNTNSIAPSAPQLPSDVNSSK

>AHK58222.1 ribosome-recycling factor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNEIFNKQKTQSEKSLEALKKDFTTLRTGKVNIHILDHITVDYYGTQTPLNQVATVLASDASTISITPW

EKPLLKTIESAIAAANIGVNPNNDGESVKLFFPPMTREQREENVKQAKAMGEKAKVSIRNIRKDANDAVK

KLEKDKAISEDEAKKAYDEVQKLTDTYTTKIDEGVKSKESELLKV

>AHK58221.1 orotate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLEQIYKDCGAYLEGHFLLSSGKHSQFYLQSAKVLEDPKLAAKLCDELAKIIASYKIEFDSICSPALGG

ILAGYELARACSKRFIFTERVNKEMTLRRGFEVKKGEKFIICEDIITTGGSALESAKIIESLGGIVVGFA

ALANRGFCAVENLKSPRKDNAKLPENLPLFTLGNFEFEIYDETNCPLCKKGNKAIKPGSRGN

>AHK58220.1 ribonucleotide-diphosphate reductase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQRKRIYNPSSNETLGDRKVFDGNPHGILNFTKAKYTWALKLWDLMEANTWFPKEVDTTKDALDYRCNLT

AGEKRMYDLVWSQLISMDSFQTNNLADNINPYITAPEINAVLARQAYEEANHSKSYAVMVEAICDNTDLI

YEMEKHDETLREKNDFISSIYEELAGDVDDNKLLLAMVANQILEGVYFYSGFTAIYALARAGKMLGSAQM

IRFIQRDEITHLLLFQNMINSVRKERPDLFHDENINKIYDMFKKAGDLEIKWGKYITQNQIMGFTDDIIE

EYIHYLVDQRLSAINLDKLYNAKHPIKWVDDFSKFNDQKSNFFESKVTNYSKGSISFDDF

>AHK58219.1 nicotinate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTSKTSLALLCDFYEFTMSQGYFKNNKKDQICYFDIFFRKIPDSGSFAIFAGLEDILDFVENLSFDAEDI

EFLRKQGIFDTEFLDFLANFKFKGEIYAMREGEVIFPNEPLLCIKATTIEAQLLETFLLLSLNHQSLIAT

KTNRIVRAAKDSKILEFGSRRAQGSEAALKGARAAFIGGCIGSACTLAGKIYNIPINGTMAHSWVQMFEN

ELEAFKAYVKIYPKNPVFLIDTYDCLNSGLKNAIKVFKEFGIQEGGVRIDSGNLLELSLKIRQELDQAGL

QKCKIIVSNALDEWSIKKLKEQNAPIDIFGVGERLITASSDPIFSCVYKLAALEDQGIKPKIKISENNEK

STLPHFKKLFRVYDKNTQKILFDELYVFDENPNQDENLERKELLELVYKEKRLLKKSSLNTIQDYTKEQI

SKLDESFLDLDRFVKFEVKLSPKLQNITEDLLKTRF

>AHK58218.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLIKFKNHSPKLGQNVFVAEGAKIIGEIEIGDESSIWFNCVLRADVNFIKIGKRTNIQDLSTVHVWHREF

DEKGKLKDAGFPTIIGDDVTIGHNCVIHACVIKNRVLIGMNAVIMDNALIEEDSIVGAGSVVTKGKKFPP

RSLILGNPAKFVRELNDEEVSFLKQSALNYVDFKNEFLKDLQ

>AHK58217.1 protein-L-isoaspartate O-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNAFEQKRCQNMAEEIAQKVFINEELFNAFCQIPREIFSPLKAHAYRLDALPLANSQWISSPLTVAKMTM

ALDFKNADSILEIGCGSGYQAAILSKVIRRVFTIERIENLAKKAAQTFRELELFNINVKFDDGQNGWKNY

APYDRILFSAYATQIPEILLDQLSDDGILVAPILHNGKQFITRLRKNGTNLQKEILEECLFVPIVDGKE

>AHK58216.1 acetylornithine aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDYKEQSHIIPTYKRFDIVLEKGQGVYLFDDKAKKYLDFSSGIGVCALGYNHAKFNAKIKAQVDKLLHTS

NLYYNENIAAAAKNLAKASALERVFFTNSGTESIEGAMKTARKYAFNKGVKGGQFIAFKHSFHGRTLGAL

SLTANEKYQKPFKPLISGVKFAKYNDISSVEKLVNEKTCAIILESVQGEGGINPANKDFYKALRKLCDEK

DILLIADEIQCGMGRSGKFFAYEHAQILPDIMTSAKALGCGLSVGAFVINQKVASNSLEAGDHGSTYGGN

PLVCAGVNAVFEIFKEEKILENVNKLTPYLEQSLDELINEFDFCKKRKGLGFMQGLSLDKSVKVAKVIQK

CQENALLLISCGENDLRFLPPLILQKEHIDEMSEKLRKALKSF

>AHK58215.1 acetylglutamate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKYLEKANVLIEALPYIRKFNSKIILIKYGGSAMENEELKHCVMQDIALLKLVGLKPIIVHGGGKDISA

MCEKLGVKSEFKNGLRVSDKATIEVASMVLNHINKNLVHSLQNLGVKAIGLCGKDGALLECVKKDENLAF

VGTIQKVNSKILEELLEKDFLPIIAPIGMDENFNTYNINADDAACAIAKALRAEKLAFLTDTAGLYEDFN

DKNSLISKISLEQAKILAPKIEGGMHVKLKSCIDACENGVKKVHILDGRVKHSLLLEFFTDEGIGTLVG

>AHK58214.1 N-acetyltransferase GCN5 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLIRAMQKSDYEAVYKLWCEIKGFGIRSIDDSKENIENFLDRNPNLSVVAVIDEEIVGSILCGHDGRTGG

FYHVCVHKDHRKKGIAHEMAKFCLEALKAQKINKIALIAFKNNDLGNEFWKHYGFTLREDANYYDLSLNE

YNQTSFNA

>AHK58213.1 N-acetyl-gamma-glutamyl-phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIKVGILGASGYAGNELVRILLNHPKVEISYLGSSSSVGQNYQDLYPNTPLNLCFENKNLDELELDLLF

LATPHKFSAKLLNENLLKKMKIIDLSADFRLKNPKDYELWYKFTHPNQELLQNAVYGLCELYKEEIKKAS

LVANPGCYTTCSILSLYPLFKEKIIDFSSVIIDAKSGVSGAGRSAKVENLFCEVNENIKAYNLALHRHTP

EIEEHLSYAAKEKITLQFTPHLVPMQRGILISAYANLKEDLQEQDIRDIYTKYYQNNKFIRLLPPQSLPQ

TRWVKSSNFADINFSVDQRTKRVIVLGAIDNLIKGAAGQAVQNMNLMFDFDEDEGLKFFANL

>AHK58212.1 DNA modification methylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKENPSFLKEQIITYLGNKRALLSFLNNGFKVAKKELGKDKFSFCDIFSGSGVVSRFAKAHSNYILANDL

EDYSKLINECYLANKDKDLLQNIKKYYKNLIQNLDFQKGFISELYAPKDDDDIKKNERVFYTFKNALYLD

TIRQKIENEIPKELRHFFIAPLIYEASVHSNTSGVFKGFYKGKDGIGKFGGEGQNALKRIKGEIELKMPI

FSNFSCEFEVMQKDANMLAKELDFFDVVYLDPPYNQHPYSSNYFMLNLIANYKKPEEISKISGIPKDWNR

STFNKSKFAQDALFELINDLKARVILLSYNCEGFVKKEIFLKRLSTLGKCRILEQKYNTFRASRNLKNRN

IHLHEQLYILVKN

>AHK58211.1 translation initiation factor IF-3 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKEKEVLLNEEIRADEIRCVGDDGKVYGIISSDEALEIANRLGLDLVMIAADAKPPVCKIMDYGKFRYQ

QEKKQKEAKKKQKVIDIKEIKLSVKIAQNDINYKVKHALEFLEQGKHVRFRVFLKGREMATPEAGVALLE

KIWTMIENEANRDKEPNFEGRYVNMLVTPKKA

>AHK58210.1 threonyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKEVIAYLDNETIIDSQSVKNTNLKEIYFDNSKESLEVIRHSCAHLMAQAIKSLYPEAKFFVGPVIEDG

FYYDFRVESKIGEEDLVKIEKKMKELAEAKIEISKYEITKSEALAKFQNDDLKQEVLLRIPDRAVSIYKQ

GEFEDLCRGPHVPNTKFLRFFKLTRVAGAYLGGDEKREMLTRIYGTAFADKESLKEYLTIIEEAKKRDHR

KLGTELKLFTFDDEIGGGLPIWLSNGARLRSKLEHMLYKIHRLRGYEPVRGPELLKADAWKISGHYANYK

ENMYFTQIDEQEYGIKPMNCVGHIKIYQSDVRSYRDLPLKFFEYGVVHRHEKSGVLHGLFRVREFTQDDA

HIFCMPSQIKEQVLEILAFVDNLMKLFDFSYEMEISTKPEKAIGDDEIWEIATKALKEALDEQGLKYGID

EGGGAFYGPKIDIKITDALKRKWQCGTIQVDFNLPSRFKLEYTDSDNEKKQPVMLHRAILGSFERFIGIL

TEHCAGEFPFFIAPTAVGIVPIGEAHIAYAKEIQKELLELNIDSEVYEKNESLSKKIRIAEKQKLPMILV

LGDDEVAKRSVALRDRRAKEQKNLSLDEFIKLVKEKMSEVHF

>AHK58209.1 UDP pyrophosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENLYALILGIIEGLTEFLPISSTGHMILGTTILGIDIDEFWKSFLIIIQLGSILAVIFVFWRKLFQGLD

IWLKLAVGFFPTGVIGLFVAKYLNALFNGWVVVGMLIFGGVVFILIELAHKNKQYRINSLEEISFKQAFC

IGIFQSLAMIPGTSRSGASIIGGLLLEFNRKVAAEFSFLLAIPTMIIATAYSIYKEPELLGNANSLIPLG

IGFITAFIVAVLVIKFFLKFISKFDFIPFGIYRIILGFVFFYLYYSGILNAGSEFKL

>AHK58208.1 peptide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYKKQNLPELTLRGLILGSILTIIFTASNVYLGLKVGLTFSSSIPAVVISMAVLSLFKTSNILENNMVQT

QASAAGTLSSVIFVIPGLFMCGYWSEFPLWQTFMICLCGGGLGVLFTIPLRRTMVVESKLAYPEGRAAAE

ILKVANKDQSSKKGKQGIKEIALGSFIAAIFSLLSNGFKLAASESNFAFIWNKMAFGFSMGYSLALLGAG

YLVGLAGAIALFVGMFLAWGIFTPYLSNFEFDSTKNAVDLASSVWSSKVRLIGTGAIAIAALWTLIELLK

PVIEGIKEIVKNVKITNQEKNERTNIDLSLKSIFILFVLMVVGLFITFYSFVEDANLSIYYQMLFSFVGT

LVSVLIGFFVAAACGYMAGLVGSSSSPISGIGLIGVIISSIVFLVLGVELFQDPMLSKFAVALAIFTTSV

ILATAAISNDNLQDLKTGHLVGATPWKQQVALLVGCVFGALAIVPVLNLLYQAYGFVGAMPREGMDASSA

LAAPQANLMSTIAQGIFHHNIEWGYMAFGVFVGILMIIIDKILKGTQKMSLPPLAVGIGIYLPPAVNIPL

VIGGILKYIVMQHLTKKYAKNSHKEEKLASCEQRGTLFASGLIVGESIFGVIIAGITVFSVSMGGSENPL

ALNLANFHDSELFALIFFVGVVLYFIKRIVKKDA

>AHK58207.1 hypothetical protein N920\_00995 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKSILFASALLASSMLFADSLKLEGTIAQIYDNNKTLLIDSIYGGQMAIKVLPNTEIEMDDCGIFGTDK

DGTFKDLQVGNFLESKISYGTPATPNTQAIPVARKIEIQCYKKAY

>AHK58206.1 hypothetical protein N920\_00990 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKWIFIVFCFILGFIIHIFYIGYTNELLFNKFIKNSNPDYTITDIYFKKGFLTSKGSFTLNHSHTQLST

KINLKFNNYFFLNKIIKGNFTNPFDFLDEVLKNNKLGTFTLKLHDNNSKIFLNIKDINLSNEGGDTIING

GYIEVLMNKNLEIKNMKIHFDMINFSQFYTKFVLQNLNYEQFFNNPVQFYELNLFSDSQQEINFDYLVLD

NNKINSFYSKNQVNFNEENSAVNLNIQGKSNEIDLKSLLGQNLNFDKTKFNITINKFFNSNFNISHFIQK

NLDLKIQNLILEKNKQNISLQGNLNINNSYQAKLQVISSDEPDEIFPWTKDYGGLNQYFLKENNNFFLNL

SYDSLANPQLKINGSEFSNMDLN

>AHK58205.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSLALTFRPENFDDILGQYELIEIFKKFTALQKLPHSIFFGTAGSGKTTFARVVAKEFGLDFYEFDGGNF

KLEELRKILDNYKNSLYKPLIFIDEIHRLSKTQQEMLLIPMENYRLILIGASTENPYFVLSSGIRSRSML

FEFKSLGAKELETLLLRVQEKMKFSIDKEAKDFLLKSADARAMLNLLEFVLVLDEKHISLENLKKLRNTI

NSEGVSSKDTHYILASAMIKSLRGSDVDAAIYYLARLIDAGESADFIARRLVIFSSEDVGNADPNALNLA

VSTLDAVKNIGYPEARIILAQCVVYLASTIKSNASYKAINEALNYVKNNEALEIPNYLNNNHQEKQNYLY

PHDFGGWVEQKYLGKNLKFYHSKGLGEEAKLLDNLYKLKNHKA

>AHK58204.1 dihydrodipicolinate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIKIGIYGAKGRMGKQIEECLKSETQARISILYDKGGNLGELFEKSDVIIDFSSPSGTHELLNYARTMPK

PLVIGTTGLDEKILHLMQSASEVMPIFYATNMSLGVAVLNYLASKASQMLRNFDIEILEMHHRHKKDAPS

GTAMTLAQSVAKARNLELEKVRVSGRDGIIGERSKDEIAVMSLRGGDIVGRHTVGFYEDGEFLELNHTAT

SRATFAKGAIKIAIWLSKQEAKMYSINDFLGI

>AHK58203.1 amidophosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MCAVVGVINSKNASTYAYYALFAMQHRGQEASGISVSNGKNIKTIKAKGEVSQIFNPDNLKTLEGEIAIG

HNRYSTAGNSSLNDAQPIAATSVLGDIALAHNGNLVNKEEVRSRLIQDGAIFQTNMDTENVVHLIARSKQ

ESLKDRFIESLKECIGAYCFVLASKDKLYVVRDPHGVRPLSLGRLKDGGYIVASETCAFDLIEAEFIRDV

KPGEMLIFTQGNDKFESIELFSQTPRICAFEYIYFARPDSIVEGKSVYEVRKKMGEALAKKFAYKADFVV

PVPDSGVSAAIGFAQYLQIPLEMAIVRNHYVGRTFIEPTQELRNLKVKLKLNPMRKVLEGKEIVVIDDSL

VRGTTSKKIISLLRAAGASKIHLAIACPEIKFPDTYGIDTPTFEELISANKNAEEVREYVEADTLSFLSI

EELTQSIGDERKYSLISFDGDYFIK

>AHK58202.1 ATP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLEKLRSKLGKENLSAIFGEITKISATSIEIRGLKTGVGDIVKLVSNENENLNTLAMVVEIKEQFSYLS

PFSFIEGFKIGDRAFISDAGMQIGVSDELLGRVVDPFMRPKDGKGAIEATKYMPIMRAPIDAMKRGLIEE

VFPVGVKTIDALLTCGVGQKLGIFAGSGVGKSTLMGMIVKNSKAPIKVVALIGERGREIPEFIQKNLGGK

LDDTVIIVATSDDSALMRKYGAFCAMSVAEYFKEQGKDVLFIMDSVTRFAMAQREIGLALGEPPTTKGYP

PSVLSLLPQLMERTGKEEGKGTITAFFTVLVDGDDMSDPIADQSRSILDGHIVLSRELTDFGIYPPINIQ

NSASRVMSDIISPEHKLWARKFKRLNSLLKENEVLLRIGAYQKGSDKELDEAISKKEFMQKFLGQNPEES

FEFNQTLELLSQIDTPNTPLPPTQNINVGSASATLPNPNLK

>AHK58201.1 GTP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKKFEDCVKTMLEIIGENPNREGLIKTPNRVFKAYEFLTSGYTQNVKEILNDALFESSNNEMVLVRDIE

FYSLCEHHLLPFFGRAHVAYIPNKKVVGLSKIPRLVEVFARRLQIQEQLTEQIAQALMENVDAKGVGVVI

EARHMCVEMRGVQKANSTTTTSALRGIFLKNEKTREEFFSLINSAKQVRF

>AHK58200.1 trigger factor [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEVKAKQLDSVNATASVKIPSGMIKSEVENLAKKASKSVKMDGFRPGKVPVSAVLKRYERELTQDAEQNL

FKSAVNSALQELKKENKELVGEPYFEKFDRKDGEIIAELILSFKPEIKLEGYEKLIPEYQTPKVSKKEID

EKKDELLKRFATPEAIKTKRALKEGDFAKFDFEGFVDDKAFEGGKAENYVLEIGSKQFIPGFEDGMVGMK

IGEEKDIKVTFPKEYGAAHLAGKDAVFKVKLHEIQELKIPELDDEMLKKLLPGEEKASVEVLDEKLKEQI

KNEKLFKLVNDELKGKFADALIEKYNFDLPKGIVEQETDMQMRAAFNTFSEKEIEELKASKEKYQEKRDS

FKEEAQKSVKLTFIIDELAKLRKIEVNDQELIQAIYFEAYRYGMNPKEHLENYKKQGALPAVKMALIEEK

LFNDIFIPKTEKSEKVSKKEKEDK

>AHK58199.1 ATP-dependent Clp protease proteolytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFIPYVIEKSSRGERSYDIYSRLLKDRIIMLSGEIHDELAASIVAQLLFLEAEDPTKDIYLYINSPGGVI

TSGFSIYDTMNYIKPDVCTICIGQAASMGAFLLSCGAEGKRFALPNSRIMIHQPLGGARGQATDIEIQAK

EILRLKTILNDILAKNTKQKVAKIAKDTERDFFMSAQEAKEYGLIDKVLEKSFK

>AHK58198.1 peptide deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVRKIITYPNPRLFLNSEIVNKFDTELHTLLDDMYETMIASNGVGLAAIQVDIPLRVLLVNIFDENDEQK

KEDLLEIINPEIIPLDEEMITCTEGCLSVPDFFEEVKRYNHILLKYQDRFGEFKELEAKGFLAVAIQHEN

DHLNGHLFIEKISFAKRQKFDKEFKKKKKNHKKEK

>AHK58197.1 Fis family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKLKCISFHEGLDIIEVESTFTRGLPNLSIVGLASTAIKESVERIKATLLSCDFAFPAKKITINLSPSG

IPKKGSHFDLAIALLILLQNEELDDFFVVGELGLDGSIKSTNELFSLLLFLSAKIKKAKIVVPKSIAQKA

SMIPNLEVYGLENLNEAIEFFKEKNYENFRFSHNHPLFANPLQIENEIFLQNMDFKLDFKDIKGQEKAKR

ACMIAALGMHNILFEGSPGSGKSMCAKRLVYIMPPQSLSEILMQNAYMSLDSKDCEFTKIRAFRHPHHTS

TRASIFGGGTKNARIGEVALANGGVLFFDEFPHFNKQIIESLREPLEDHKIHISRVNSKITYETKFSFIA

AQNPCPCGNLFSKNLSCVCSENEIKKYKNHISAPIMDRIDLYVAMDEISKDDKTSISSKEMSEKILQAFI

FSKKRGQKEFNGKLKDEDLSRFCVLEKDAKDTLDLAISRYNLSLRSLNKILKVSRSIADLEQSLNISKTH

ILEALSFRARN

>AHK58196.1 hypothetical protein N920\_00940 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENKSIAIFIDAENIPAKYAKSIFDIASDYGEVIIKRIYGDWTQKNIQGWREQIAEYSLIAMQQFNFAAN

KNSSDMYLITEIMSIFYEKNIDIFVIVSSDSDYTSLIQKLRENKKQVIGMGLEKSIKSYVNAFSEFFYLD

KDESKKEDILSKDYLRALINITEQLIDEKGRAEYAQIRTNMNRKYSDFHPQNYGFKNFRALIQKFLPKMK

KFEEEREKNIYFLVKKDYESYY

>AHK58195.1 kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKAIIDNIKILEQNAINKGLDELILMENAGLNLAKLIKKEAKKIRIQRKIRKVKILFLLGGGNNASDGLV

ALRNLKHAKAYKIGFKENTLFKKQEQILQNYAFKFCKKEPNFKKFHIIIDCILGTGSNRCLDEKTSLIIQ

KVNQSKALKIACDIPTNLGFYPCFKADITFCMGALKEILLEDFAKEFVGRIKIANLGIRSKKFYPNSQAF

LLEKKDLKTIDRKINANKGNFGHIYIVANASAGTLAGLGALNFGAGLVSLVAQKSFSPLLMLKEKIENNA

SAIALGMGLENLDFLKDEILQNTPLILDANCFLSEALLWYLNRKDVVITPHPKEFIKLYKMCFDENLDIE

TLQKNRFFYARKFSQNYDCVLVLKGANPIIVQKEKLFVVNLGNQALAKGGSGDVLSGMIAAHLGFGFSAL

EAAKNATLAHGLVAKKYKFNKNSFDALKLIKGLKCL

>AHK58194.1 phosphoribosylglycinamide formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLVKLAVLFSGNGSNLENILEKLHKKTIGENTYEIVLCLCNKKDAFGIQRAKKFGLNTVIIDHKAYNTRE

EFDTILVQKIKESGANLTVLAGFMRILSPVFTKNIKAINLHPSLLPLFKGAHAIKESYESDMKVAGVSVH

WVSEELDGGMIIAQKAFEKRNLSFEEFEEKIHSLEHEILPLSVIEIFS

>AHK58193.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFEWIFSIDAWITLATLSALEIVLGIDNIIFLAILVSKLPPEHRDKGRILGLAFAMITRILLLLSLFWVM

KLVTPLFSVLGNEISGRDLVLLLGGLFLIVKSIKEIKEQISHQEESQSHFKASNKLWIVVAEIAVIDIVF

SLDSVITAVGIAQDVTIMIIAVIIAVAVMLFASKPIADFVEKYPSIKILALAFLVLIGVVLVAESFDIHI

DKAYIYTAMAFALVVQILNILDQKKEKNG

>AHK58192.1 serine/threonine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRILLVLRGNYYAGQEEFIKNNKLQNYTLDLNALRLLSGSVKNIVSEYKILNVKNDEDLSKILLKLLEMR

MQKGEFSIINAYNETLKIYKDLAKQYRYKIYVIVFDSSLKQCQEKNLLEAKKNGYIIPYALLEKTQDLLK

KNPKKYPILDSRDWKKCLYQMPNLSKYKKIHHIGDLQGCYSVLKEYIKTIKEDEFYIFLGDYINRGIENG

KVIKFLLKICEKENVCLLEGNHERHLIKWANGELSNSKEFNENTLKDFRKEKLTPRDARKLYPHLKECLY

YKFQNKFIFCSHGGVNFIPSKPEKISFIPSHDFIYGVGGYEDSQKVANQFCNFTSDNLYQIFGHRNKEKL

PMKIAKRVFLCEGKIDDGGYLRVVTLDEKGFECIEIKNQIYKKK

>AHK58191.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFSSFFKSKKWALWAYLGLFLLLFFLYIQTSLNVAINSWYSDFYNVLQKPKIELLDSNSTQKIEENLENN

ATLIQEANQRAEQNFQKANFINKGALYYYQNLLEYFFNSRAMIEKPNYSASDFYALILVFLAIAIPYVLI

ATINIYFASVYAFKWREAMTFSYLKFWKNKDDNIEGSSQRIQEDTYNFSKIVESLGLSFIKALMTLVAFI

PILWSLSDVVSKALFANLSENSFFYFLKNIDGLLVYIALLISLGGLVVSWFVGIKLPGLEYNNQKAEAAF

RKELVYAEDNRKEYAKNETMIELFTGLKFNYKRLFLHYGYFNIWLILFEQMIVIVPFLIMAPGLFAGAIG

LGIVMQINNAFDQVRSSFSIFITNWTTITQLRSIYKRLKEFEKNISYKS

>AHK58190.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKKCFYFVFLLLNLNAEANATDTNLSFDSSKIETEAPKIELSLSSLYQNADEVVKGVIYILVLFSILAW

AVFISKLMQFYFMKKNLDLSIQKIKELKNLNELDQTKDFAGVLSLEIQDELEKSEYKNDHIKERIELRLQ

NTISKQITASKNGLSLLASIGASAPFIGLFGTVWGIMNAFIGIANLGNASLAVVAPGIAEALFATAFGLI

AAIPAVLFYNYLTRKNLKLMHHLDELANFVYILFHRSYFNDKN

>AHK58189.1 hypothetical protein N920\_00875 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSMKKIILFLLCVGFAFACSEHSHTDFKDLNKTEYNSQLKDKI

>AHK58188.1 iron deficiency-induced protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIFFMFLTAVSFLGASELNIYSARHYNADFEIIKKFEEKTGIKVNHTQAKASELIKRLSLEGSNSPAD

IFITADISNLTEAKNLGLLSPVSSKYLEEFIPAHLRDKDKEWFAITKRARIIAYNKNTNIDISKMKNYED

LAKAEFKGEIVMRSATAPYSKTLLASIIANDGNKEAKAWAKGVLENLATNPKGGDRDQARQVFAGEAKFA

VMNTYYIGLLKNSKNPKDVEVGNSLGIIFPNQDNRGTHINISGIAMTKSSKNQDAAKKFMEFMLSPEIQK

ILTDSNYEFPIRNDVELSQTVKDFGTFKEDQIPVSKIAENIKEAVKIYDEVGFR

>AHK58187.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYKTLKYYKLGAILLALFLALPIFGIFAELFYILFQNFNTSDLTQFSSIKENLSHFFDYLFLKFIKDTFI

ISMGVLCLSLILGVSSAYLIANYDFYFCKILEKLLILPLAIPAYILAFVYVGIMDFQGFFHENFGFRIDF

FNHYGVIFVLAISLYPYIYLFAKTAFKSEAKEAYEVAKIMKYSEFRIFTRVALLSARPAIFSGALLVLME

TLSDYGASAYLGVDTFSAGIFKLWYDLNDSYSSSVLSGILMLFVFLIMYVDYYYKNKHHYSFNQNLALFI

KKRKLNPIKQILSCIYCFMIAFVGFILPFIWLVYWGLKDHKLFESQFYIISFQTIILALITALITTFLAY

FLMFSSRIVKNHFFNLFILKISSLGYSIPAAALGISIIVLFVFLDKFFHMSLLGNSLLVLVFAYIIRFLA

SAIYSLEGGYNKIHLNIDEASLNLRTSYFILFFKIHTPLMKHFLFLAFIIVFIDTIKELPLSRILAPFGF

ETLSVKAFWFASDERIYDAALPSLFIVFLSLMVVVWMDKITRKDDVRN

>AHK58186.1 spermidine/putrescine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLEIKNLSKNFGKIQALENINLHVKEGEFLSILGGSGSGKSTLLRIIAKLEQASSYDLFSCKGEVALMFQ

NYALFPHLNVEKNILFALYDKKDKNQILNHLLKTFEIEDLRYKKIDEISGGQAQRVAFARAMARGCKLLL

LDEPFSNLDQNLKQDLRRELKKMIENQGITAIMVTHDIEDAYCMSDQIAFLEKGKILAHANPKELYFKPD

FKSAQILPDLNIIEEKLDLEDEFFAWIASKNYIFGYAELKIGNRFEAKILQKEFLGAFCRLKLLYKNIIF

FILVSSSYDLEEKISFDIINF

>AHK58185.1 saccharopine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNLLIIGAGGVSRVATVKCAMNSDTFSKITLASRTKSKCDEIAAFIKERLGVQIETAQIDADDSNAVVE

LIKKTEAQILLNVALPYQDLSLMDACIKAGIDYIDTANYEHPDLAKFEYKEQWARNDEFKQAGILGLLGS

GFDPGVTNVFCAYAQQNLFDEISYIDILDCNAGDHGYAFATNFNPEINLREVSAKGRYWENGKWIETQPM

EIKMEWDYPEVGVKDSYLLYHEELESLVKNIKGLKRIRFFMTFGQSYLTHMKCLENVGMLGIKPVIHQGK

EIIPIEFLKTLLPDPASLGPRTKGYTNIGCVIRGKKDGKDKQVYIYNVCNHEECYKETGAQAVSYTTGVP

AMIGTKLIAKGIWQGKGVFNMEEFDAKPFMEELNSQGLPWKIIEMTPSLGE

>AHK58184.1 superoxide dismutase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFELRKLPYDTNAFGDFLSAETFSYHHGKHHNTYVTNLNNLIKDTEFAGKDLVSIIKTSNGGVFNNAAQV

YNHDFYFDCIKPSTGCGCGGSCQSIDANLQAALEKEFGSLENFKAEFIKGATGVFGSGWFWLVYNTKNQK

LEFVGTSNAATPITEDKVPLLVVDVWEHAYYVDHRNARPAYLEKFYAHINWEFVAKAYEWALKEGMGSVS

FYANELHPVK

>AHK58183.1 hypothetical protein N920\_00835 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKVVLISALLGAFAANVFAANTPSDVNQTHTKAKADKKHEAKTHKKTKEQTPAQ

>AHK58182.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDFYSLIFLSCALGMDAFAVSLCKGFSVKKLHLKHYLIVGIYFGGFQALMPTIGYFIGITFASFIASIDH

WIAFILLSLIGLKMIKESLENENCDSNANQFGFKTMLALAIATSIDALAVGVSFAFLNVNLLLAIFLIGI

ITFILCIIALKIGNKFGIYLKNKAELLGGLVLIILGVKILIEHLFFD

>AHK58181.1 tRNA delta(2)-isopentenylpyrophosphate transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFFEIALIGTTASGKTYIANTLAREFNAVVLSLDSLCVYKEINIASAKPSQDDLASIKYFGVNLLSVNEH

FNVELFIREYQKAKEFALARNLPLIIVGGTGFYLKTMIDGLSEKTLESKSSLNNDEIYALLLNIDPNYKI

EKNDTYRLKKWLGIYEQTREIPSEFLKRTQKTGVLKDIEIYELAWDKEILKKRIKTRTKEMLDNGLLDEA

KILFSKFDHKLKALNSIGLKECKEYLDGEISFKELENLITIHTTQLAKRQRTFNKKFQSKALEFDKALAT

LRMKFSIEK

>AHK58180.1 prenyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNTFWIKFKDILELVVFKHSIFALPFLFSSMIVASKLANDTAWFGFKALILGIICAVSARNFAMATNRLM

DEDIDKDNPRCANRPNVSGKIGRKSVWIFIIINALIFISCSYFINTLAFYLSFPVLLVLAIYSAFKRFSS

LAHLVLGFCLGLAPIAGSVIIMGEIHIYSVILCLGVTFWTAGFDLLYSLQDMEYDKKIGLHSIPAKFGSK

ATLFISSFCHILAVLFWLLFVWEVWGVALGKIALIGVIISGIILALEHKIVHKNFAHIDRAFFTLNGYLS

IIFFIFIWIDLLWN

>AHK58179.1 hypothetical protein N920\_00810 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MELALFKAGFEAHLECCEIENNRFLGEYLKLGAISQILKWKKLALRIDFDEGEKIIFDLLLSLKEDILRL

ENSLDKNKELIPLKQKGVIESLNFEYLNFLDTILEEDKEYYLRFDLNNQKIAIFIKAQSQTLAKIIKIKP

EDKMAFDAFVVEIQRNMIRNKKGQE

>AHK58178.1 hypothetical protein N920\_00805 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSDDVLYLVFIIVLLIAMLAYMNIKERENNAKIAKLQNVIEDITKELHYFRKELGVKDDSEEDEDYKTSL

LKEEIMIELDKQISSKITPVLRTLKTMEHIIEDFQNEQQNRLLNLEQKAQSMAKLTPNYDTEEQKIENLF

KEGKSIEQIAKDLRIGTGNVELVLKFKKLIK

>AHK58177.1 molybdenum cofactor biosynthesis protein MoeA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLIDQFGRKINYLRISVTQRCNFRCLYCMPKIPFDYQPKENLLSFEELFLFVKAAIDEGIEKIRITGGEP

LLRKDLSIFIKMISDYKSDIDLAITTNGFLLKDFAKDLKNAGLKRLNISLDTLDHKKAKTLAQKDVLDSV

LSGIDEALNLDLKVKLNTVALKNLNDDELISLLEFAKSKKAQIRFIEFMENTHAYGKLQGLKRDEIIQIL

SQKYQIQLIKKDEKAPVSIYKADDYEFGIIDPHSHEFCDSCNRIRLSAEGLLIPCLYFDEALSIKEAVRK

GDIKAAVEILQEVLRNKPEKNKWSVVDNETSSRAFYQTGG

>AHK58176.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQLVESFLSIQGEGKYNGKLAIFMRFAGCNFNCLGFNVKISKNDKTLIGCDTIRAVFTKDFKESYETLNA

NELLKRVIKLKKDFDPIVVITGGEPLIHYENPEFIEFIQMLLKNKFEIHFESNGSIEIDFDRYPFYKECI

FALSVKLQNSGIKKDKRLNFKALKAFKNYAKDSFYKFVLDANTLDNSFLEINEILKEAPNQIFCMPMGEN

EQNLKKNAQKIAEFCIKNGYNYSDRIHIRLWNDKEGV

>AHK58175.1 6-carboxy-5,6,7,8-tetrahydropterin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIIRKLFEFENAHIVRFCSSKRCKSSIHGHSYKVEVLLESKYLDNAGMVYDFGLLKTYIRQIIDSFDHAI

TLFKYDDAKYLEEMKKYSSRWICLPVNVSAENFCRVFFILIDALLKQTKMVNGEQGVTLQSIIVHETRTG

YAQGFREDAYSELMPKISLQDIEFSNGIKAEWNDIDFYNKLKNEEIFINPKEI

>AHK58174.1 cytochrome CBB3 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKAKILIALSFFLLVLSACSNDEKNISKTQNTDQEVVQIEQNDEKTELSDSNLPLPVDDEAQSSNDEHE

VNPSIINSLYKQKCATCHGEKGELKPKNSTAIKTLSNKIFIQKIKTIKDKNHSFLSDEQIQNLADFINKG

K

>AHK58173.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDQSYEFFLALHLYSLYASGFLMLFYLILTQGNFKTEFIFIRRIRLFLPIYYLFLALIIFTGCLLSAMKQ

FQMNVNIWVMIFSWILIFALAIFHFVCFKKARRFRKYATFRWISCLILPFEIFLLFLPFLIERYL

>AHK58172.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQFLYNKQAGEEFIQLQGENFNHLKVRRVKENSELNLRNLQDNFLYNYTITNLTRNSCTLKFLNKKSQNI

KQSELNLALAIIDIKILEKTLPFLNELGVKKLHLVFTNFSQRNFKIDLERFEKIIISSCEQCGRNTKMDL

IIHQSTQEFVQKFPNAIMVDFQGEQQSHFDEKELYFIGPEGGFNNDERLLFNRKISLKSSNILKSQTAII

AIASKILL

>AHK58171.1 50S ribosomal protein L31 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKEIHPEYVECKVSCACGNTFTTKSNKAELRVDICSNCHPFFTGSEKIVDAAGRVEKFKKKYAMQ

>AHK58170.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLYFIPTPIGNLSDISFRALELLKTCDLVFCEDTRVSKSLISLLNTKFHTDIHISKFIALHSHNEKEVLA

SIDLKIFEKNVAYLSDAGMPGISDPGKALVEFAQENNITYEILPGANAALVALVSSAFCQKEFIFIGFLA

NKGKERQKDIEKILNFPYPSIIYESPKRILSLVEQIMILDNQREIFLIKEISKKFEKKFKGNAKELSEIL

KKSNLNGEWVVVLQSKEQNFLQNTLCEKDIMDLELSLKAKAKLLSKINGKNAKEIYQKLLLSQD

>AHK58169.1 RNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIVYGKQIFFYILEYHKDCINELYLAKECDKITFSKIAKSGFKIKKLDFKTAQAYAKGGNHQGFLLDIKE

SSFANLNEIKKNDFIVMLYGISDVGNIGAITRTAYALGVGALIFIGEKLAMEGVIRTSSGAALDLPIVIS

NDALSVINELKQVGFYFYASDGSGKEIHSVKISNGKKVLVLGSEGFGLSSKIVKKCDECVGIAMKNNFDS

LNVSAAFAILCDRMLNA

>AHK58168.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLNWKKIQELNLKEVAAKTQIELDFLEALVEKNFAVLSRFNVKGFVKILSREYELDFSDFNEEYEAYLNE

NNPTPQTKSKMITPKLDAYSQKSFNTWPFLIVLIVLVIIGSGIYYFDTLKTFFKDEQNNTSATVIDIIGQ

AQENLKSLGGNNVVVIDNNKAQETNRTESVLPSQNISLQENDKNISIENNISENNTTLLDEEKNTQIQED

TNTPKTDSLKEAHFKTSTKIWIGLIDLKSLKKTSFVKEKDFNISLDKDQLILTGAAALTMFDQENKEQKF

PAGISKRFLIKDGKITSISAAEFVKLNKGKEW

>AHK58167.1 hypothetical protein N920\_00750 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVKKIIILTFWVNISFAISSLELAKNLVNNPSKNSQLELLFSNNSYIDNNGNCDIAKISQILKTNSLIAL

TLSNPQSLRLNFKAKADEVMFFKILSDVLTDAGYIYFIPTDLILREGNIDYTIQVESQYVLDPGTLYNLL

KENSVYINNIKRIGVYDYEYDLNFSNAVLKTNTNVNLNTPKSLEKPLKDYVLDLKNATNLIIDANDLDNW

FPKIFFLDKNLNLIKAVKSENKNNHFSELIPNGAIYAIVSDMYSLDNIRRGLKITLKK

>AHK58166.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFDEIRFNTIERLPNYVFAEVNAIKMAARRAGEDIIDFSMGNPNGKTPQHIIDKLCESANKDKTSGYSTS

MGIYKLRLAICNWYKRKYNVNLDPENEVVATMGSKEGFVNLARAIINPGDVAIVPTPAYPIHTQAFIIAG

GNVAKMPLAYNEKFELDENQFFENLHKTLNESIPCPKYVVVNFPHNPTTVTCEKSFYERLIATAKKERFY

IISDIAYADLTYDDYKTPSILEIEGAKDVAVETYTLSKSYNMAGWRVGFVVGNKRLVSALKKIKSWFDYG

MYTPIQVAATIALDGDQTCVDEIRATYDKRMHILLEAFENAGWKLQKPRASMFVWAKLPESKRHLKSLEF

SKQLLQRASVAVSPGVGFGEAGDEYVRIALIENENRIRQAARNIKKYLKE

>AHK58165.1 homoserine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVAILGYGTVGSAVVKFLLENDKLIRARCGQSITPVIALARSPKKNALIPITHSVAEILNADVDVFVEL

MGGVDEAFKIVSEILKKKKAVVTANKAMLAYHRYELENLAKNLAFGYEASVAGGIPIIKVLKEGLSANNI

LAIKGILNGTSNYILSSMSQKNMSFKQALQIAQNLGYAEADPTFDIEGQDAAHKLLVLSSIAYNLKAKPE

DILIEGISEIAPEDMYFANEFEFTIKLLGIAKVRENKVELRVHPTMIDKEKMLAKVDGVMNAISINGDLL

GESLYYGAGAGGEATASAVISDLMDIARDQVKAPMLGFVNTLEYKLLSKDEIYTKYYLRVKVEDKIGILS

KITQLMSENNISIDSFLQKPKKNDENYSTLFFTTHLTYEKSIQNLLEILRKQDFIKTKPFMMRIE

>AHK58164.1 hypothetical protein N920\_00735 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGVKAYLDGILGEDKACKFLKKQGFEILKRNFHSKFGEIDIIAKKDEILHFIEVKFTQNDYEVSERLDRK

KLEKILKTIEFYHLKNGISSDFQIDLICIKNDVIQFCENISF

>AHK58163.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGKYIELTSDNFAQAKEGVALVDFWAPWCGPCRMLAPVIDELSNDFDGKAKICKVNTDEQGDLAAEFGVR

SIPTLIFFKNGEVVDQLVGAQSKQAISDKLNSLL

>AHK58162.1 thioredoxin reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLDVAIIGGGPAGLSAGLYATRGGLKNVVMFEKGMPGGQITSSSEIENYPGVAQVMDGISFMAPWSEQCM

RFGLKHEMVGVEQILKNSDGSFTIKLEGGKTELAKAVIVCTGSAPKKAGFKGEDEFFGKGVSTCATCDGF

FYKNKEVAVLGGGDTALEEALYLANICSKIYLIHRRDEFRAAPSTVEKVKKNEKIELITSASVDEVYGDK

MGVAGVKVKLKDGSIRDLNVPGIFTFVGLNVRNEILKQDDSKFLCNMEEGGQVSVDLKMQTSVAGLFAAG

DLRKDAPKQVICAAGDGAVAALSAMAYIESLH

>AHK58161.1 transcriptional initiation protein Tat [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MERRLFLKGSALGSMVAFFASSNLSAAMLKDKDLLGFKAVSASTQDKVIVPQGYEAKVLISWGDPLFSKA

KPYDENKIIDMNAVKNAHLVFGDDNDGMSFFPLSKNRGILAVNNEYINPEIMFNHHGKNLSKEDILYEQA

SVGVSILEIEKKGDDWTVVLDSKYNRRIDANTKMQVSGAAKKEVLKNEKFVHGTFANCANGQTPWGTYIT

CEENFDDFFGSLDENLEFNDSLKRYGFNKTSLYGWEKFDERFDLAKNMDEANRFGWIVEINPFDAQSTPV

KRTSLGRFKHENAEIIVEKDGSVIVYMGDDEMNEFIYKFVSKHKYKKGADTSKILDEGILYVGQFNGNVG

DFKGQGKWIALEYGKNSLNEKNGFKSQAQVLINTRLAASIVGATPMDRCEWIASHKQSGSKEVFATLTNN

KNRQEPNAANPRTKNVYGQILKWMPKNSHKDDDFTWEIFALAGNPDNQQGLYKGSNNITSENKFNSPDGL

KFDRDGRLWIQTDGSYSNKDEYESMGNNCMLAANPKTGEIRRFLTGPIACELTGIAFSEDYTTMFVGIQH

PGEGLKGSTFPYGKTPRSSVMMIRKLDGGVIGS

>AHK58160.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIILFILSLGIFYTFTQAKNLEQEQNTSSNLVSVSIAPQAFFVKKIAANTLDVNVILPPNSNEHNFEF

KPSTMKKLEKSDIYFTIGLEFEKVFTDKFKQNFPKLQVINMQKNIALIQTHDTHEHSHEHEHHEHGHFDP

HTWLDPILVQTMALNIYDTLIQKYPQNENLYKENLDKFLAELDSLNLQIASKLEKLKNREFVVYHPSWTY

FAKRYNLTQIPVEILGKEPKSKDLQKLITLMKDKNLKVIFVQNGFPENAAKTLAKECDAKIYKIDHLSYD

WENELLKTADAFSHNL

>AHK58159.1 cation ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLFFEISNLNYAYDNEIILKNINLSYDNKDFLSIIGPNGAGKSTLVKLILGLLKSKNEIHFKALQRKEIG

YVPQHTLANPNFCPRVLEIVLMGLVSKKIFGFYGKKDKEKAMQALKSVGMEKFWNKTIDSLSGGQRQRVF

IARALASECKMLILDEPTASVDNKSAIQIFELLISLHQKGMGILLICHDINLVLAYSDKIAHLNKELFLH

TNTKEKEKSSFLKHLYENHSHFCDVEMSLNTCFCNEENCDSKKLCEQEFTRRNLKKTEFKKENFCLKFSK

ENNA

>AHK58158.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLEILNFTFFQNALLGAILVSIACGIIGTLVMINRLFSMAGGITHGAFGGIGIAFYFSLPILLSTGIFTL

FLAFLVAFLAKRYEHRSDSIIAVIWAFGMAVGIILIDLSPSYNTDLMAYLFGSILAVGTQDLWLMALVDS

VMVLLIFLFYRQFEALSFDVEFTKVRGINTSFFHYLLIALMAFCIVISIRLVGLILVMALLSIPSFIAEN

FTKRLGFIMILASFLSMIFCILGLILSYYLNLSSGACIIAIACFGFLVHLIGKFLKR

>AHK58157.1 ribosome maturation protein RimP [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNLEALCKEAGLSFYDDELVSENGRKIYRIYVQKEGGVNLDDCARLSEILSPIFDVESPVNGEYFLEVSS

PGLERKLSKIEHFAKSIGELVKITTNEKEKFEAKIIAVDDENITLENLENKEKTTINFNDIKKARTFVEW

>AHK58156.1 ribosome-binding factor A [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNPSEIKKLRTESILKELIPEALANLDDENLKNLCVVDVECKKGRYDAFVYLDKMFFNVHEQEKILSSLK

KASRALQNYCMSEQGWYRCPNFHFKFDDRLEYQNHMDALFEKIKKDKNES

>AHK58155.1 translation initiation factor IF-2 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKIRIHEIAKELGYDSKEIIEKANELGLGIKTASNAVEPEIAAAIYEYIQTREIPEAFKKNIKTPTAKK

PKKENIKEQEKLNESEKKEPKKEEKLKQEVKKEELKIEKENAKEEEKQEIIDAHKPQSLASATLAKRRGL

VIVKKKKDEEEIQVKKEEVKNSNDISINNEERLSLKTMFSNADESLKKKKKEKKSFVASKKESTEKMNFL

DEHDFGDISLDDEDEVVLPDFSVKEQEKPQNINKKQPNFIRQAVGNSAGFGFEGGIQRRSRKKPSKKIEK

KEVEEVGSVAISKEIRVYEFADKIGKSTSEVISKLFMLGMMTTKNDFLDEDAIEILAAEFGIEINIINEA

DEFDYVKDYEEETDEKDLVTRAPVITIMGHVDHGKTSLLDYIRKSRVASGEAGGITQHVGAYMVEKNGRK

ITFIDTPGHEAFTAMRARGASITDIVIIVVAADDGVKPQTKEAINHAKAAGVPIIIAINKMDKEAANPDM

VKTQLAEMEIMPVEWGGSYEFVGVSAKTGMGIEDLLEIVLLQADILELKANPKSFAKASIIESSVQKGRG

AVATVIVQNGTLTVGSTVVAGEAYGKVRAMSDDQGKALKEIKPGECGVIVGLSEVADAGEILIAVKTDKE

AREYANKRHEYNRQKELSKSTKVSIDELGAKIKEGNLKALPVILKADVQGSLEALKASLEKLRNDEIKVN

IIHSGVGGITQSDIELASASENSIVLGFNIRPTGEVKERAKDKGVEIKTYNVIYNLLDDVKALLGGMMSP

IISEEQLGQAEIRQVINVPKIGQIAGCMVTEGVINRGAKIRLIRDGVVVYEGNVSSLKRFKDDAKEVAKG

YECGVGIEGCDDMRVGDYIESYKEVEEQASL

>AHK58154.1 hypothetical protein N920\_00670 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKHIPIRMCIVCKNRFEQNMLFRFKVVLGDIVPKAEHGRSGYLCQNCIEREDKVLQKAFSKICKNLNTK

ITQQGLKEIFLNGKD

>AHK58153.1 homoserine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKILVPATSANLGPGFDCLGLSLKLFNETQIQKSGVFSISIGGEGSDNIFLKKNNIFVNIFYEIYEKLSG

KKDNFRFIFQNNIPLSRGLGSSSAVIVGAIASAYYMSGFKVEKECILDEALIYENHPDNIAPATLGGFVC

SLVEKNKVYSIKKEIDKDLAAVVVIPNLAMSTEQSRQALAKNLSFNDAVFNLSHASFLTACFLEKKYEFL

KFASQDKLHEINRMKNLPELFEVQKFALENKALMSTLSGSGSSFFSLAFKDDALALAKKIQTKFKDFRVQ

YLEFDDNGFEIC

>AHK58152.1 glycoprotease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIGIYQDDKLIKTYKSEEKASEFLPKILDELLKEYDFTSLIYANGPGSYMGIKISYVSLSTLSIVKNIPL

FAVSAFELNGYKPISANKNFCFVYKEGEICLEQNIPAEFFLPKNLQELKLNNDNLPFYFLDAI

>AHK58151.1 UDP-3-O-(3-hydroxymyristoyl) glucosamine N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKQLTLAKTVKGVGIGLHKGEPIEITLEPLEANSGIVFFRSDLNASYKASPENVINTQMATVLGDDRGFI

STIEHLMSAINAYGIDNVRIVLNANEAPVMDGSSISFCMMLDEAGVKELDAPKKIMVIKKPIEVRDGNKF

VRLTPTKEPRINYTIKFDNAVIGEQSYNFEFSKKNYIENIARARTFGFLKDVQALRSMNLALGGSLENTI

VVDENRILNPEGLRFKDEFVRHKILDAIGDLTLLGYRVFGDYTSYAGSHHLNHLLTKEVLKDKDAYEIVS

LEKTTQKAYEKVFA

>AHK58150.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAKRKGKTYLSVLILVLIAILIFFISRLSIFEKNPPQILMPDVVYTDLKKPILVHIKDDESSIKNVQIIL

HKDDNTSAMVIADEKISNLKDITLQVALPKFGYKENVKSFVLEVIAKDSSFWNFFSGNEARKQIAVLVDN

TAPKINIISNSYQIEQGGAGAVVFKADDANLDKVYIETNKGKIFKATPYVKEGYYAALIAWDARDEEFRA

FVIATDKAGNISKERIRYYFVNRKYRVSNINLTDKFLDGKIENLANQYAPKDNNLNRYEKFKFVNETLRN

SNEKLIHEITSKVPEEKIDNFDLNLFLPLKNGMKVADFADHRYYSYNGQFVSDSYHMGLDLASVAQAPII

SNNAGKVVFAAENGIYGLNLIVYHGFGVYSLYGHCSSKNVDLDEMINKQSIIGKTGTSGLALGDHLHFGV

LVQGVETRPEQWQDKKWIENNIYNVLNDGKKIILGKN

>AHK58149.1 prephenate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIAIIGLGLMGGSLGLCLKENKLISCVYGMDLSKENEKDALQLGLIHELIEFKDLALCDMIFVATPVNA

IIEILQKLVDLPSNVTIIELGSTKRKIIESLPKNLIKQTLFAHPMTGTENSGPKAAFKELYKDAVCVLCD

SEIADDLHQKRAVEIFSHLGMKIVFMDSKAHDHHAAIISHLPHVISFSLANFVMKEEDKRNIVHLAGGSF

KGMSRIAKSSPQMWESIFLQNKDNLLSSIDFFQQELERCKQMIQLDKNDELREWMKQANTLREIL

>AHK58148.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKHLISICALVAMANAATIKDIKFIGLNHLSNTSAINIAGLKIGEEINPAKINTAILNLYKQNYFENIA

VENNNGILEIIVTEKPTIAKVTITGIASNDRKQVESILGIKRGTLLDEGNIKEAIERIKAYYEAKSYFDT

IVEYKKKTLENTDGLELEFIVNRGENIIIDNVHLSGAKKFSYSDIEPAVVNKEKEFMGWMWGRNDGKLKV

FELSNDSSRIADEYMKKGYLDVQVSSPYLKTYTDTYQANLTYFIKEGKPYKIKSISIENPLFDDKQNAQT

VKDLRSSAGKTINIEDIRKDVKTIETQSADLGYAFVEVYPDIQKNDQTQEATVVFKVIPHDKVYIRNVII

SGNSRTVDRVIRRELYITEGNLYNRTDLSESKNALKRTSYFDDVNIKEEKVDDTHIDLIVDVKEASTGAI

SGGIGYGSSDGILLNASLSDTNIFGSGIKSSVSVDKSDDTLSGRISLVNPRVLDSQYSLGGTLYSNDYEW

DNYSEKNYGFDITIGRQFARYYNVSLTYNLEQSDIYHLSPTLLRTGYELGKSIKSSITPAITFNDTDDYY

LPRSGIIASTSLEYAGLGGDQEFISSSSKFNFYQGLQDYIGYDLIYRYKASFYKVWDEGYLPINQRIYLG

GIRSIRGFESRTVSPKNQWGDEIGGTIAFANSVELSFPLIDRIKLRGSVFFDYGMIGRKNLDEIKRMSTG

IGIEWITPIGPLQLVFAKPLNDKKGDDTNSFEFNLGTRF

>AHK58147.1 inositol monophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKEFLDACLNANLQIRKYLNNIPQNDLKLCSKLGYDKNQGYELDLKCEQIFIKYLSCFGQIFSEESGLIG

KASPKQMILDPLDGSSNFVSKIPFYGTSIALMEKDQAKSAFVCNLVSQEIFAFNNKQAFKSNLSDPKYSP

LTPNLFSKIGIVEKISLYPELLDFLTKNQLKFRSLGATALSLAYASYFSFVLILGKTRIFDTAAALAIHQ

NLYIEKNENFLLLSQDKKIFDIILEFLKNN

>AHK58146.1 acetyl-CoA carboxylase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFADIFSKIRRQQPSVKEAPNHWVKCQSCHALMYYKEIESCFNVCPKCNYHMRISADERIKLLSDEGSF

IEYDANLEAIDPLKFVDSKSYKKRLSEGESKTGRKSSVISGECEINGLKTQLVVFDFSFMGGSLGSVEGE

KIVRAIQRAITSKTSLVIVSASGGARMQESTYSLMQMSKTSAALKLLSKEKLPYISILTDPTMGGVSASF

AWLGDLIIAEPEALVGFAGARVIKQTIGADLPEGFQKAEFLLEHGLIDAIVERGEQKQYLSDVLKFFSGK

>AHK58145.1 50S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQVNIFCIQKSDEFKTCSEKYSKLISKYATLKEINVFNKKIALAQNLNAIEAKKSYEEAFMPYKKGYCIA

LDEKGKDLTSIEFAKLIQDKNELSFFIGGAYGLREEFNQSLDFRLSLSKLTLAHQFVKTLLLEQIYRAFC

INNNHPYHK

>AHK58144.1 molecular chaperone DnaK [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKNEIQNFKNILEERKKAILENLQSNSNEIEALHNSVPSDSVDFSVIETGSQIDFAISTNLKEELIEIE

DSLDKIKNGTYGICESCDDEIDSQRLKVKPHARYCITCRQIAEQGKKHEN

>AHK58143.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIKLFLLASFIYIALIFAFAWHLELGSYTLNISTYTFELPIMIWLVIPLFIYMILAVLHIAFYGFLRYL

KFKHFFKDAAKFEAYTQDLLLEKDLKTTFQTKEFRSVAQLFKTIKTHEKIPHSNKINEILDLIDGLNKNE

FFNLSKFKLENNNVLYLQNEKNHLKNDANYAYNKLKNLNEIKDEFEEIAFNTLIEKASYEQIKNVKIPKK

PSEVLTLIKRFKEGNLELSVAEYEVLLSHNILSEKDYLNAAKLSTKLLNPDAILGIFNKIKNEKSEALRA

YLYLLAEFGLLDELREQIHNDDKKFNDFKAFLALREKNIKIDLNQLIQ

>AHK58142.1 tRNA-dihydrouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MIDFSKKPLFLAPMAGFSDLPFRNVVKKFGADITISEMISSNALVYESSKTLHMLERAELENPYIVQIAG

GDKEVLKKAVQMLNEMDFVDGIDFNCGCPVNKVVKQCAGSALLENLELFKNLVGVIKENNKKSLTSVKFR

LGFNEKYPEKMAKICESLGVDFISIHGRTRKQLYSGKADYGSIASAKASVKIPVIANGDINAQNAKEVYK

ITKCDGLMIGRASVGNPWIFYEIKSGKSVDEKLKKEIILTHFDEMIKHYKDQGVSIFRKHLHEYSKGHKD

ASTFRDTVNRIDNVEEMRKKIEEFFSLT

>AHK58141.1 heat-shock protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MILSDEKCDFLESIASFLSPKDVELVFVDSKEMQEINLEQRKQDKTTDVLSFPLENIDESLPLGSVVINV

DLAKEKAKELGHSYEEEISLLFIHAMLHLLGFDHENDNGEMREKEKELIEHFNLPKSLIVRTLED

>AHK58140.1 recombinase RecO [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQGFILHTQKVKDEDLIVYILSPKMLIKAYRFYGLRHSSILSGYKIDFALEENPSFLPRLKDVLHLGFLW

IMQRDKMLIWQEFIRLLYRHLKDVEELDSFYFDLLDECVKRFEKQNPKRVIVDAYLKILEFEGRLHKDFF

CFACDEKIQNSITLLRAFLPSHSQCALGFEFEEKKLKQFYSSKNCAIFDDEEIENLYHLIKEGL

>AHK58139.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKAFVLVDYQNDFIDGSLGFDKALKIKENILKALNQIDFNNTHLLLTYDTHDEHYLQSKEGLNLPVKHC

IKESLGWQMPKEFEPFLQKAHKIFYKNTFGSLELANFIQKSDYEELHFAGLVSHICVFCNIILAFGAKPN

ARIILHQNLSASFDENLEKSAFDILRAYGIEIV

>AHK58138.1 PP-loop family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINLSKKLIRQVAQANAKFGLIKDGDRVLLGLSGGKDSLALAHLLNRMQAHAPFKFELEAVTLSYGMGED

YSHLHAHCEEHGIKHSVLDSNIYEVSGDTIRENSSFCSYFSRMRRGALYTYALEKGFNKLAIAHHLDDAA

ESFFMNFIHNGALRTLAPIYQSKRGITVIRPLIFVRERQLRDNATQNELSVIGNEFCPGMKLSEKNVKFP

HAREEAKQLLANLEKDHPKLFTSLKTAFANLHTESFWLQKA

>AHK58137.1 S-adenosylhomocysteine nucleosidase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIAILGAMSEEITPLLETLKDYTKIEHANNTYYFAKYKNHELVLAYSKIGKVNSTLSASVMIEKFGAQA

LLFTGVAGAFNPELEIGDLLYATKLAQYDLDITAFGHPLGFVPGNEIFIKTDEKLNNLALEVAKELNIKL

RAGIIATGDEFICDEAKKAKIREIFNADACEMEGASVALVCDALKVPCFILRAMSDKAGEKAEFDFDEFV

INSAKISANFVLKMCEKL

>AHK58136.1 malonyl CoA-ACP transacylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNAAFIFPGQGSQSLGMGKDFYENSIKAKELLQNASDFCKIDFKHLLFEENEKLNQSEFTQPAIVLNSLM

AYSVLLEKKPDLSSKFALGHSLGEFSALAVNGAFDFLEALSLVNKRGLFMQEDCAKVEAGMMVVLGLDDE

KVEELCQKAQKENKQIFAANYNCDGQIVVAGLKPDLASYESVFKEAGAKRAMLLNMSVASHCPLLENASA

KLCVELEKVLKPNFKAVISNANAKIYTSKEEALELLKAQLISPVLYKQSIKACENEVDYFIEFGASVLKG

LNKKITSKETYALTNMNDIDEFLKVV

>AHK58135.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAIEKNSVVSMFYELKDANTNEVLESNLYSQPISFILGKGQILESLEEEVMKLDCPSNADVVIKKEKGLG

EYDENAVQTLPKEQFAGIDLKVGMELFGEGENGETVRVTVKEIGENDVTIDYNHPYAGRDLLFSLNIVDA

RAASEDEILTGIIAGSHSCGCGSGHGHDHHHGHGHGGGGCCGGGGCGCH

>AHK58134.1 hypothetical protein N920\_00565 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIFTVALLGATLLYAESSAFGAGDITSNSSYGLTSNEKLFKEKLDNLNNENIQTNARINEINERIEGL

QSTLEGINSQYAKSNSRLSQVEENNQNIENNFTSEIQKLKAYVEESRKIQEANNKQVKKVLAELSSLVDA

INANYVSKNELNDANLSVKTITPSVVVSTTDSNSTIENNNTQNTQDDKAKQIDESWKKKKNNEILELAIK

DVDKNAFEDSKAKLNFLITKQYKPARANFWLGEIEYKQKNYNNAIVYYKKSSSLSTKGDYFPKLLYHTAI

SLDKTGDTKTANGFYKALKTNYPNSPEAKASPNRK

>AHK58133.1 peptidoglycan associated lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKILFTSIAALAVVISGCSTKSTSVSGDSSVDSNRGSGGSDGWDIDSKISQLNDTLNKVYFDFDKFNIR

PDMQNVVSTNANIFNTEVSGVSITVEGNCDEWGTDEYNQALGLKRAKAVKEALIAKGVNADRIAVKSYGE

TNPVCTEKTKACDAQNRRAEFKLSR

>AHK58132.1 translocation protein TolB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIVAIFLVFLGSLWAEDPVIDVVNSGVVLPKIIVKDNSNLSDENLKKSFYNIIVNDLKVSSNFEVVAN

ATETSNYIFEYTLNKNGNTLSLNVKIKAGGSDKSEQTYTLNGLEQYPFLAHKSVKASVNALGLAPVDWMD

HKILIARNSSSKKSQIIMADYTLTYQKVIVDGGLNLFPKWGNKEQTLFYYTAYDHDKPTLYRYDLNTNKA

SKILSSGGMVVASDVNVDGSKLLVTMAPKDQPDVYLYDLNTKNLTQLTNYSGIDVNGNFIGSDDSKVVFV

SDRLGYPNIFMQDLNSNSAEQVVFHGRNNSAVSTYKDFLVYSSREPNQAGVFNIYLMSINSDYIRQLTAN

GKNLFPRFSSDGGSIVFIKYLGAQSALGVIRVNANKTFYFPLRVGKIQSIDW

>AHK58131.1 energry transducer TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKNYGLSNLNSFLLALAIYISIVILVFFRLVSEVEPAIQYTDIKDSFVDIELAEPSKQVITQSNTPKEIQ

KPTEQIDIEKLFAQTTNKTVKTEDIDQKASNFNELFGNIKEIQEEKTTKIQSSAKSGISSAPKPQASELV

KQLNDSLLQEESSTQGESTKAQKIGIYDEFLGKVVRIITQRWTQYYPNSEKISVKVKIFIDENGKFGYTS

VEKSGNPLYDAKVAEFLESQKGKFITYPPQNKNISITMNLRDEVKVKND

>AHK58130.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MPFDDEKPELNITPLVDIMLVLLAILMVTAPSITYEEKINLPQGSQKNTSTPTVKSLIISINAKKEIFLN

QEKYDFISFADNLAQRKAQFNTEDPVFIRADKSLKYDDVISVLRSVKNLGFNKVALQTE

>AHK58129.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFEAIFHFFNSSSIITYIVLLWLSLYFILAFSILFARLTYLATWRNKEKESLETLLLGEKDLSRTDSIL

RKCNDTTSNHLEIYKNLASRRASAGLTWLSIIASTSPFIGLFGTVISILETFGGLGTQNSLSIIAPKISE

ALVATGCGILVAIPAYTFHLIIKRKAFELLSIIDSEIKVISSSK

>AHK58128.1 F0F1 ATP synthase subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNDLINFEIVTPLGVIYQGEVKSVTLPGSEGEFGVLKGHAALVSSLKSGVIDIEKADLNHELIAIDAGHA

KVDEDKICVLAKGAVWVCGSDESEIEKNLAQAKDLIKSMSSDNAALAATFSKLDNARMH

>AHK58127.1 F0F1 ATP synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQGFISQVLGPVVDVDFNDYLPQINEAIVVNFESEGKKHKLVLEVAAHLGDNRVRTIAMDMTDGLVRGLK

AEALGAPISVPVGEKVLGRIFNVTGDLIDEGEEISFDKKWAIHRDPPAFEDQSTKSEIFETGIKVVDLLA

PYAKGGKVGLFGGAGVGKTVIIMELIHNVAFKHSGYSVFAGVGERTREGNDLYNEMKESNVLDKVALCYG

QMNEPPGARNRIALTGLTMAEYFRDEMGLDVLMFIDNIFRFSQSGSEMSALLGRIPSAVGYQPTLASEMG

KFQERITSTKKGSITSVQAVYVPADDLTDPAPATVFAHLDATTVLNRAIAEKGIYPAVDPLDSTSRMLDP

NIIGEEHYKVARGVQSVLQKYKDLQDIIAILGMDELSEEDKLVVERARKIEKFLSQPFFVAEVFTGSPGK

YISLEDTIAGFKGILEGKYDHLPENAFYMVGNIDEAIAKADKLKG

>AHK58126.1 F0F1 ATP synthase subunit gamma [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSNLKEIKRKIKSVHNTQKTTNAMKLVSTAKLKKAEEAAKRSKIYAQKIDEILSEISFQINKIVHNEDDV

RLSLFHKKEQIKTVDLIFITADKGLCGGFNIKTLKTVSEMLKEYEAKNINIRLRAIGKTGIEYFNFQKIE

LLEKYFHLSSSPDYEKACEVIHAAVDDFLNGNTDEVILVHNGYKNMITQELKINHLIPVEPKSIEQTHNS

LLELEPEGTELLKDLMKTYFEYNMYYALIDSLAAEHSARMQAMDNATNNAKARVKQLNLAYNKARQESIT

TELIEIISGVESMK

>AHK58125.1 F0F1 ATP synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFKADEISSIIKERIENFDLNLEIEETGKIISVADGVAKVYGLKNIMAGEMVEFENGDKGMALNLEESS

VGIVILGKGEGLKEGASVKRLKKLLKVPVGEALIGRVVNALGEPIDAKGVINANEYRFVEEKAKGIMARK

SVHEPLHTGIKAIDALVPIGRGQRELIIGDRQTGKTTVAVDTIISQRGQGVICIYVAIGQKQSTVAQVVK

RLEEHGAMEYTIVVNAGASDPAALQYLAPYTGVTMGEFFRDNAKHALIVYDDLSKHAVAYREMSLILRRP

PGREAYPGDVFYLHSRLLERASKLNDELGAGSLTALPIIETQAGDVSAYIPTNVISITDGQIFLETDLFN

SGIRPAINVGLSVSRVGGAAQIKATKQVSGTLRLDLAQYRELQAFAQFASDLDEASRKQLERGQRMVELL

KQPPYSPLSVEKQVVLIFAGTKGFLDDIAVSRIKEFEDGIYPFIEAKHPDIFEQIRSKKALDSDLEEKLA

KAINEFKANHL

>AHK58124.1 F0F1 ATP synthase subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENIIARRYAKAIASRADINDFYQNLCILNSAFVLPKFKNIIESNEIKKERKMEFLDSFFDIKNSSFQNF

LRLLIENSRLECIPQIVKELERQKAFKENIFVGIVYSKEKLSQENLKDLEVKLNKKFDANIKLNNKISQD

DSVKIELEELGYELSFSMKALQNKLNEYILKII

>AHK58123.1 F0F1 ATP synthase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKLFFIIFLLPLYAFGASNGSGEYDIIPRTINFLIFVAILYYFVATPFKNFYKNRIVKISSKLDEIQKK

LLESKAKKLDTMKKLEEAKASAAAALITAKKEAEILVQNIKKETQDELDLLQKHFEEQKDYEFRKMEKEL

VSNTLNEIFSDPNMTLKQSEIIELMMKKVS

>AHK58122.1 F0F1 ATP synthase subunit B' [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFEDMHPSIMLATMAIFLAMIVILNSMLYKPLLKFMDERNDSIKNDENKVKENSQEVLGVNDELEAIHIN

TREEIQKIKQSAIAAAKEEAEQILRSKKEELERKMASFYADLAVQKKELQEHLNIHLSELKQALQNNIKK

I

>AHK58121.1 chromosome partitioning protein ParB [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGLNKDRGLSSLISDMDTVYSKELGFDKNQSTMIEIDQISPNPFQPRKNFDQEALDELANSIKEFGLIQP

IIVFKKNNKFILIAGERRLRAVKALGKKEILAFIADIDENKLRELALIENIQRENLNPIELANSYKDLMQ

VHKITQENLAELIHKSRTQITNTLRLLNLDIRTQELIASGKISQGHAKVLVGLDQKDEKMLVDSIIGQKL

NVRDTEKIVKKIKNNESLPNQEFEDEIKKLKQILNRFGFDCKNKNNDFVIHLENIDKIKKLIKMLEKL

>AHK58120.1 sporulation initiation inhibitor Soj [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSEIITIANQKGGVGKTTTAVNLAASLAVAEKKVLLIDVDPQANATTGLGFNRNNYEYNIYHVFIGRKKL

SDIILKTELPQLHLAPSNIGLVGIEQELAKGENNEKKMLLKNQIQEVIDEYDFIIIDSPPALGSITINAF

AASDSVIIPIQCEFYALEGVAMVLNTIKIIKKTINSKLRVRGFLPTMYSSQNNLSKDVVDDLKQNFKKQL

FTINGNEDDFIVIPRNVKLAESPSFGKPIILYDIKSPGSVAYQNLAYSILG

>AHK58119.1 biotin--protein ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEKGLKVKIVCVESIDSTHLFLCKQIRNGKIDENFAIYALEQINGVGSRENSWQSSKGNLHLSFCIKEED

LPKDLPLASVSIYFAYLLKEVLQEKGSKIWLKWPNDLYLDDKKAGGVISAKISNFIIGGMGLNLKFAPQN

TALCDIEISLKDLVSEFLQKVEKKILWKNIFSKYMLEFEKSRKFSVHHEGKVFSLENSFLYEDGSILLGD

KRVYSLR

>AHK58118.1 methionyl-tRNA formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIIFMGTPSYATCILKALVENENFKLVALFTQPDKAVGRKQILTPSDTKAFLSQNYPSIPIFTPSSLK

DKNIIREIKDLNPDFIVVAAYGKILPKAILDLAPCVNLHASLLPKYRGASPIQSAILNKDEKSGVCTMLM

EEGLDTGAILESLECDIKDKNSSEVFELLANLAAKIILSTLLNFDKITPKKQEESLATLCRKIKKEDGLI

NLQNARELYQKYLAFTPWPGVFLENGLKFLELELVDELKQNAKMGEILELEKESFLLACKQGVLRIKKLQ

ESGKKALDGRTYLNGKRLKSEDSLC

>AHK58117.1 gamma-glutamyl kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKRIVVKVGSHVISEENTLSFERLKNLVAFLAKLMEKYEVILVTSAAISAGHTKLDIDRKNLINKQVLAA

IGQPFLISVYNELLAKFNKLGGQILLTGKDFDSRKATKHAKNAIDMMINLGILPIINENDATAIEEIVFG

DNDSLSAYATHFFDADLLVILSDIDGFYDKNPSEFSDAKRLEKITHIKEEWLQATIKTGSEHGTGGIVTK

LKAAKFLLEHNKKMFLASGFDLSVAKTFLLEDKQIGGTLFE

>AHK58116.1 GTPase CgtA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFIDSVKITLASGDGGKGAVSFRREKHVPLGGPDGGDGGNGGDIIFVCDNNTHTLVNFKGKRELRAQNGA

GGMGRNKNGKKGENLELIVPEGTQVIDAQTNEILLDLTKEGQRELFLKGGKGGLGNTHFKHATNQRPDYA

QPGIKGESRLVRLELKLIADVGLVGFPNVGKSTLISVVSNAKPEIANYEFTTLTPKLGLVDVNEYNSFVM

ADIPGIIEGASGGKGLGLAFLKHIERTSFLLFVLDPMRQMPLKEQFIVLRKELEKFSNELFGRKFGIMIS

KSDSVRLGEEFAEQIALNINELDNYLKEINNPQSFLIKVSSLEKTGLKELKFMLLEEIKTLRNNKKNLTI

>AHK58115.1 50S ribosomal protein L27 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAHKKGQGSTQNNRDSIGRRLGVKKFGGEFVRAGNIIIRQRGTATHAGNNVGMGKDHTIFALIDGFVKFE

RKDKDRKKVSVYPA

>AHK58114.1 50S ribosomal protein L21 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYAIIKHSGKQYKVSVGDELKLDHFEAESKASIEVSEVLAINDKELKVGAPFVAGAKVVLEVINHGKDKK

VVIYKKRRRKDSKLKRGFRRQFTRVVVKDIKA

>AHK58113.1 hypothetical protein N920\_00460 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIIKILFLGLFLSLSLNAKVITTTSTKSSTGEGTGLTREDAINNAIIEAIGKMSGVSINSLKKSNTSVS

TDNSGSNIQDNYSEQISKATKGRADTYEINSVEQDANGKYTANVTIFKTTTTKKYQAPGLSADNRRSITV

FDSTPDAAKRGIGSALQQKIISDLLQSRKFNVLDRDSSGYYEMEKALIKSGDAASDEVYKLKNMLATDYI

LLFSISGLEGKQKTSNLTGKSKTEIEVIVDYRVLLFATRQIKFSNTLSMKVNLKDNSLSANETALKQIAN

RIAGDILNAIYPLKVASVENNEVIFSQSLNQGDVYECFALGKVIKDTYTKENTGRVESKTGSIEITRTSP

KFSYAKITEGSVKVGDICRPLSNTGSGNGYTIGRDANYQTQEGGGVNLGF

>AHK58112.1 hypothetical protein N920\_00450 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKTKILGTALIGALLFSGCAQTAYTDGKASQVKKGDALTLGLDRQDFESAAETMINSMLSDPAFANIKP

GTRKVIAIGRVVNDTPQRIDTEKLTAKITSALRKSGKFVLTSAVAAGGALDSMSEDVRELRDNDEFNQKT

IAKKGTLVSPDFSLAGKIRQDNVKLSNGKTQVEYFFLLRLTDLTSGLVYWEDEQTIDKTGSSKSVTW

>AHK58111.1 hypothetical protein N920\_00445 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKNILFILMFLLSACAPSYQINSNQNTVILGSNLPKSLVKQFQKRINSNGYLEFEVILRSTFAKDVIYK

VDWLDKDGFVLRDVLNEDYQALRIPAGQEVILRKLASDTRANDFRLEIKAKN

>AHK58110.1 hypothetical protein N920\_00440 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIKVGLIFSGIACLFLTACVNQVKQNTTFENTLTQKYCGDDFFNQNLEKIKKNDDVIYTGLNAGLIARN

CGDFNKSNVFFDAVEESYKYDVDLENVSPKAAKFIGTTLLNDNIVDYDGSLYERIMVNIYKALNYMEEDD

YENARVEFNRVLMRQDKAKEYFAKEIEKNRADLDKAKEDKNYDKNMNENSKVIEAQYDNLFKEFDTTKNF

INPYATYLASIFFFMDKDYRKAADLFREVAIIYPKNKTIKKEAKIFKEYATKIKVKKAKKYVFVVYENGF

GVVKDEFALTLPFIVDKKIISTNIALQTLKKREASFANLNINGQNTNDFVDLDNIVATEFKINMPAMIAK

ALAQTIIKTTLNVAVANNDSTGGWLSLATAVATAATNKADVRSWRGLPKSIAIATIENDGNLEIKDPQGN

ILFQKSLDKNKNALVIVRSFAPYLPASVAIMEK

>AHK58109.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDIMIILQVIVLLGAIFIGIRLGGIAIGYAGGLGVVILGLVLGMKPGNIPWDVILIIAAAIAAISAMQQA

GGLDYMVRVTEKILRSSPKFINYLAPACGWLLTILAGTGNAVFSLMPVVVDVAKSQNIKPSVPLSLMVVS

SQIGITASPVSAAVVYMSGVLEPLGWNYPTLIGIWISTTFVACMLAAFIVSLITPMDLSKDSVYQERLKA

GLVKDAGAVLHGEDKPGAKLSVVIFLITVLAVVLYATAISSNIKWIDPVVVSRDAAIMSFLLTAATLITW

LCKVEPGKILDTSVFKSGMTACVCVFGVAWLGNTFVAGHEASIKEVAGDWVKQTPAMLAVAFFFASMLLY

SQAATAKAIVPVIITALGISAANPHDSYMLVACFAAVSALFVLPTYPTLLGAVQMDDTGTTRIGKFIFNH

SFFIPGVLAIAIAVALGFVLAPMLI

>AHK58108.1 aspartate ammonia-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGTRKEHDFIGELEISDEVYYGVQTFRAVENFDISHDRLKDFPRFVRALARVKKAAAMANHELGLLDKNI

QDAIIKACDKILEGGYYDQFVVDMIQGGAGTSTNMNANEVIANIGLELMGHKKGEYQYLHPNDHVNLSQS

TNDAYPTALHLALHDYLSDLAKAMEHLKKAYERKAEEFKDVLKMGRTQLQDAVPMTLGREFKTFAVMIGE

DIQRVLEARKLILEINLGGTAIGTGINSHPDYPKVVERKIREVTGFEYTVAEDLIEATQDTGAYVQISGV

LKRVATKLSKVCNDLRLLSSGPKCGLNEINLPKMQPGSSIMPGKVNPVIPEVVNQVCYFVIGADVTVTFA

CEGGQLQLNVFEPVVAYSLFNSVVMLEKAMYTLADKCIDGITANEKICSDFVYNSVGIVTALNPYIGYEN

SASIAKEAMNTGKRVADIALERGLLSKEQIDEILTPSNMLNPHMEAKK

>AHK58107.1 uracil-DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEEITINIDKIKINDDWKEFLRDEFQKKYFLEIKKQYLNAINQNIIIYPPANLIFNAFNLCPLKEIKIII

LGQDPYHQPNQAMGLSFSVPKNVKIPPSLNNIFKELQNDLNITPAKSGDLSSWAKQGVLLLNSILSVEAN

KAASHSSWGWQEFSDAIIHKLSNEKSGLVFMLWGNYAKNKEILIDNTKHLILKAAHPSPLARTGFLGCKH

FSKANEFLKKVGKIPIDWKIV

>AHK58106.1 aspartate racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTIGIIGGMSFESTITYYKTINQAINDKLKSLNSAKILLYSVNFEEIENLQSQDKWQEAAQILTQCAKK

LELAGANFIIIATNTMHKVFDEIQQNINIPILHIAKSSAKALKQENIQKIGLLGTKYTMTQDFYKKMLIE

ENISVITPSDEDIKIVNDIIFNELCKGEIKQDSKEKYLNIIKKLQEKGAKGVLLACTEIGLLISKNDTNI

KIFDTSLIHALDAANEALKDL

>AHK58105.1 cytochrome C oxidase assembly protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFFGLELEGLQIYWWLILSLLGGLLVFMFFVQGGQTLIDELSKDELEKTMLVNSLGRKWELGFTTLVLFG

GAAFAAFPLFYSTSFGGAYWAWLCILFCFILQAVAYEYRKKENNVYGSKTYEIFLKINGYLGVFLIGVAV

SSFFSGSEFILNEHNFVSWQNPLHGLELLLNPFNYLLGLALVFLARLLGAAYFMNNINDENIKIRAMKKL

MINSILFLPFFLGFLAWIFLKDGFSVDTNGVVSMSANLYLYNFLNQMIFAVLLVIGVILVLLGMVQGTKG

CSKAIFTLGLGTVLTVFALLSSIGLGQSAFYPSLSDLQSSLTLKNASSSYYTLSVMAYVSLLVPFVLAYI

IYVWNAMDKVKITREEIANDDHAY

>AHK58104.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNELSSVDWSRAQFALTALYHFLFVPLTLGLSFMIAIMETIYVKTKNERWKKITKFWLSLFAINFAIGVA

TGIIMEFEFGTNWANYSWFVGDIFGAPLAVEGIMAFFLEATFFAVMFFGWDKVSKGFHLLSTWCVAIGSN

LSAFWILVANGWMQYPVGMSFNPDTARNEMQSFFEVALSPVAISKFLHTIGSGYVISALFVMGISAWFML

KGRHIIEAKKSLVVGASFGLVCSIFLFFSGDESAYRVTQTQPMKLAAMEGVYQGEHRAGLVPFGILNPKK

TIDNNESVFLFDITIPYALSILGNRDPNSFVPGIEDLIYGNESKGIEPMQNRIDRGKIAIQTLKDYKLAK

ENNDTIAMANHKSILETHFKDFGYGYLEKPSDTIPPVALTFYSFHIMVALGSFFFLLFIVTLYLTMANDI

EKFRKVLWVCLLSIPLGYIAAEAGWIVAEVGRQPWAIQDLLPVHIAATQLGKVNVQISFWIFAVLFTALL

IAEVKIMLTQIKKGFDAHAGHTPLMGKGEK

>AHK58103.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MYLKHLYFSISQIFNFYKEGFKNLTLGKTLWKIIFIKLFVMFVILKLFVFDVNFNSIFKSDKEKSTFVLK

NLTLEGK

>AHK58102.1 cytochrome C oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKIIVFILCCFMTFFLYACSSKFENVNPLGRSFGEFEDTDPLKLGLEPTFPTNQEIPSLISGADLVPIT

PITPPLTRTSNSANNNAANGINPRFKDEAFNDVLIFENRPAVSDFLTILGPSGAALTVWALAQGNWIWGY

TLIDSKGFGDARVWQLLLYPNDFAMIKNAKTNTCLNAYGNGIVHYPCDASNHAQMWKLIPMSNTAVQIKN

LGNGKCIQAPITNLYGDFHKVFKIFTVECAKKDNFDQQWFLTTPPFTAKPLYRQGEVR

>AHK58101.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIICLFLSFNLAFANLENFNVGTWNLQGSSAATESKWSVSVRQLVSGANPLDILMIQEAGTLPRTATP

TGRHVQQGGTPIDEYEWNLGTLSRPDRVFIYYSRVDVGANRVNLAIVSRMQAEEVIVLPPPTTVSRPIIG

IRNGNDAFFNIHALANGGTDVGAIITAVDAHFANMPQVNWMIAGDFNRDPSTITSTVDRELANRIRVVFP

TSATQASGGTLDYAITGNSNRQQTYTPPLLAAILMLASLRSHIVSDHFPVNFRKF

>AHK58100.1 cytochrome C oxidase subunit IV [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIITLFFMFITLAFATPTGDLKDFTEMVSIRSLETGIFLSAFRDTSKDPIDQNWNIKEIVLSDELKQK

DKLADELPFGYVQFTNPKESDLCLAILEDGTFGAKSCQDDLKDGKLETVFSIMPTTTSAVQIRSLVLESD

ECIVTFFNPNIPIQKRFGIAPCTLDPIFFAEVNELMIITPPLTAATPLE

>AHK58099.1 lactate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEQILTWQQIYDPFSNIWLSALVAFLPILCFLVCLVVLKLKGYQAGFLTVILATLVALFAYKMPWNLVGA

SFIQGFTNGMWPIAWIIIAAIFLYKLSIKSGSFEIIKKSVMSITPDHRIQVILIGFCFGSFLEGAIGFGG

PVAITAALLVGLGLRPLQAAGLCLIANTAPVAFGAVGIPIIAMANLVGIEQHSVSAMVGRMLVPLSLTIP

FFIVFLMDGFKGIKETFPAILVAALSFTTTQFLSSNHLGAELPDIISAVVSLAVTTVFLKFWKPKNIFRF

DNESNFTQDNTLSFNQILKAWSPFILLIVCIIIWTQPWFKALFDKDGILSYTSITLQFSNITTGILSPSI

TGIGEAKPLSLALGVDLINGKTVAQAGTAILLAAFLTIAILKIKAEDAAECFWVTLKEMAIPCITIGLVV

AFAFISKNSGMSTTLGLAFAHTGDAFSFFSPIIGWIGVFLTGSDTSANLLFGTLQQVSAQKLGISEALFL

AANSVGGVVGKMISPQSIAIACAAVGLVGKESDLFKFTLKYSVAFIILIGIWTCIIAFFLQGIIPEVIVK

>AHK58098.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMKKVYFYATCLGSTAMQQSVLNAIKLLRREGIEVIFKKNQTCCAQPSFNSGYFDESREIALYNVDLFDK

DYPIVVPSGSCAGMMSHDYKELFKNRPEFSKIKTFSSRVIELSQYLDEVLKVDYEDKGVPIKVTWHSNCH

ALRVQKSIQASKNLIKKLKNVELVELQYEEECCGFGGTFSVKEPEISNAMVRSKIKDIQNSGAKYLISGD

GGCLLNIDGTMKRMGLDIKGIHLYDFLLKRLEGGRL

>AHK58097.1 iron-sulfur protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSQKIPHEQIVQIKLNDKQMQENLMTAMHTLQKNRLNVIDARFKDWQGLRAKAKQAKNNALMSLEERLLE

FEKNATKNGIKVHWASSDEDACEIVYEIMKEKNITKLLKGKSMASEEIGLNHYLEKKGLKAIETDLGELI

LQLNEEPPLHIVVPAIHRNRHEIGEIFKEKLGANLENDEPESLNAVAREHLRKDFEGLKLGLSGVNFAMS

REGAFWLIENEGNGRMCTTAPDIHIALCGIEKIMESFEDAATMVSLLTPSATGQFIPTYNNIITGPRKNG

DLDGPKEVHVILFDHNRSKMLAHEDYYEALRCIRCGACMNFCPVYDQIGGHAYQTTYPGPIGEVISPNIF

GIDHTGDILNFCSLCGRCSEVCPVQIPLADLIRKLRCDKIGQGKNPPLGANNVHHNALEAFAFKQFKNIA

TNGDKWRFSLSKAHYFNWTVQNFASILPVIKKWYAFKELPQIKMDLYKEVQKLEGVSYE

>AHK58096.1 hypothetical protein N920\_00365 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKIDEISSKSKANILEHLKKAYKETTFTRIESIDPVEHIQTTQDMLTEMKQKMSDNKYIVENATKDTLE

EKINEIVAKYSFKSMIYGADLNLNLEQIKAEKKICFDKEIENLRSEVFHSDFSIIHARAGVSSHGVALIP

SSKTQPRMLSLAPKLCIVLLKKENVVKSLSEALNLVKKENEILPTNILFIAGPSRTADIELITVFGVHGP

QIAHIIIY

>AHK58095.1 hypothetical protein N920\_00355 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKNIVFFEVKGGSDKGEDGYRKDTMPMVNALKAKGWNAEVIFFEVGKKDEIYKYVKENFDGYVSRINPG

NLKEENEYFDMLRKLCADKLVGMPHPDAMIGYGAKDALTKLADTDLVPSDTYAYYDIKTFKENFPKSLAK

GERVLKQNRGSTGEGIWRVSVEGNVSGDSLPLNTKIKCTEAKDNHVEHRELGEFMDFCEQYIIGDNGMLV

DMTFLPRIKEGEIRLLMLYNTPVNVVHKKPAEDADAFSATLFSGAKYRYDKPEDWKTLVDMFLGELPKVR

EKLGNYDLPLIWTADFILDTDEKGNDKYVLGEINCSCVGFTSHLELADEVASNIINIVSKTKA

>AHK58094.1 endopeptidase IV [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQILKSFFKALGCGIKFINTYFKTFVLLLIVIWILIPSANSSSNLANLERIDLKGEIFDSSAVLEKIINA

KNDSNIKGVLFVIDSPGGAFAPSMELALAIKDLKIKKPVLVYASGTMASGSYLAGVGANKILANPASFIG

SIGVIMQGADLSGLANKLGIKEQTIQAGEFKSAGTFARAWNENERNFLQGLIDQSYDLFTGFVAKERALD

LNKKDQWANARVFLAAKAKELGLIDELSNYENAKKELEKLANVSNPVWKEEDKIDKFLNRLEGQTSSLIS

KSLIEIAYKTNSSFINAR

>AHK58093.1 chlorohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MFIVAARYLFLCDEDFTILENQAFVFEDKILELGELDNLKKKYPKAKIIKTPKNSVILPAFINPHTHLEF

SANSTTLHFGEFLIWLKSVINSRSILNAQAKEELILQSIKKMQKSGIGTIGEISSFGSDLDPCLKASHKG

MRIVFFNEILGTNENQVEDKKQEFLKRFENSLKFKNDFFIPAISIHSPYSTHPSLAHFALDLAKKQNLLA

STHFLESKAENIWLRESKGGFKKWLENFTLHPKPLYTPKDFVKLFKGVRTLFTHCVYLKEYEWLDKNLHS

ITHCAFSNRLLSQKSLDLKTALKSGLNIHLGTDGLSSNISLSLLDEMRANLLIHKNFDLLELASKLLQMV

TLYPARALNLNLGELKKGKIADFNVFELGECDKKQAPLQFILNAKEVDKLFIKGKECKF

>AHK58092.1 3-dehydroquinate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIMIIQGPNVNMLGVREVGIYGAMKMEEIHEQMKLAASQNNVELDFFQSNFEGEIVDKIQECLGTVDGI

IINAAGYTHTSVAIRDAIAAVALPTIEVHISNVYRREEFRQKSLIAPVCSGTIVGFGPFGYHLALMGIIQ

ICEQIKNLRAMQQAQQTNK

>AHK58091.1 flagellar biosynthesis regulator FlhF [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGQLIHTFTVEDTEQIIPKVKEDYGDKALIITNKQIRPKTLNRSALYEVMVAIEESDYEEHLKKQGKSLP

AKKSSPKPSSTSLAEEKIRSQIPQEDEDVVLDFSNTRLNTNLNTVKNNDLAKKTYQDFPQNKINPHQNKT

LGFDDFKEKLSEVSNEISKVTNTPLENYTPNPNYNKKIENFEKQFEKQINKLNDKIDLLADMMWDDKAEA

RKNLMIPPEFASIYKQAKESGMLENHLEAIMKATIENMPAAMKTNKDAVQRYFHSLLRNILPCRVESDIK

KQKIMMLVGPTGVGKTTTLAKLAFRYAYGDKRYKTGIITLDTYRIGAVEQLFQYAKMMKLPIIDSIEPKD

LDEAIKSLNNCEVILVDTIGNSQYDQSKLAKTKEFLMHSNAEIDVNLVVSANTKHEDLMEIYKNFSFLNI

DTLIITKFDETKVFGNIFSLVYETNIPLSFFSIGQEVPDDLEVANSDFLVHCILEGFNKGKNNE

>AHK58090.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNNQANKLRNLMSQNGTKKSQNTHFIAITSGKGGVGKSTISANLANVLANNGYKVGLFDADIGLANLDVI

LNVRIQKNLLHVLRGECSLEDILIEVKPNLWLIPGESGDEILKYNDKNIYERFLNQASILDELDFLIIDT

GAGIGGNILNFLEMADEVIVVTVPDPAAITDAYATIKTTSKTKENLLMLFNVVKNENEALKVFENIKKVA

DANIKNPLNLEFLGHLSASKDVSGSIKKRTLFSDENTASSDEIKALASKLLYRLERKVLDNVSNRSFSSF

FRKIIERF

>AHK58089.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRPENYVAFFTVCGFFIGLAFSIISIDEAFDILIFTCFITFMFYVFVHIAIMNFIDVKKISGRIFNKHDY

EKTSNNIINDLVIREKKMDIILEKLNEEREELKKNEFKERRRNAKRAA

>AHK58088.1 RNA polymerase sigma 70 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MLKEPPKAYAQMLKKEQDELVLSYMPALRAMAFRLKERLPSSIDVNDLISIGVEEMIKLSRRYDKEQNDN

FWGFARKRVNGSMLDYLRSLDVMSRNNRKIIKDIDAIMDEYFLEHECEPDDEYLAKKLDLDVEKIKEVRT

AHAISYTLPIDEQIELYNEDNTLEKIEKEELLEKIHEVLDDLKERDQLIIQLYYYEELSLKEISEILQIS

ESRISQIHKKLLKKLRERLV

>AHK58087.1 flagellar motor switch protein FliM [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAEILSQEEIDALLEVVDDNTDTPIASNSKDEKDERNIVVYDFKRPNRVSKEQLRTIKGIHDKLARNLAS

QISSMMRSIVETKLHSVDQMTYGEFLMSLPSPTSFNVFSIKPLDGNCVLEINPSIAFPMIDRLLGGQGDS

YEASRELTDIELNLLDSILRIIMQRLKESWATVTEIYPSIEAKESSPNVVQIVSQNEIVIMVVMEIIIGN

SSGMVNICYPVVHLESILSRLANRDIMMGETSAKKSRNKELKTLIGRAEVVYEAILGKTLINVHEFLELK

QGDILRLDREADDKAIVSIDKKDVFLAQIGLHRFRKSIKILELIRTDKDEIKEILEKYEEERKAKASVYD

EPEEEDEEI

>AHK58086.1 flagellar motor switch protein FliY [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINDFLKMFTNECISTIEGLTGKSAEFSEYKEFDVNTSDTLKAPLVYAIFNIANGGKIGILAGAILMSAI

GEWMMGEEEITKNDKLGPDEMDAAKEAIQNIISAFSTTLGAQKDIPKMDFSIESCEFVPESVDFKDFKKL

FLYDVKIGDLEEQVSLAMDQTLHNILSGKPAETGNTSTDSNHNTEEKAIMLSEELKNINLIMDVRLPVRV

RIGNKKMLLKDVLTMDIGSVVELNQLANDPLEILIGDKRIAYGEVVIVDGNFGVQITEIGSKKERLEQLR

>AHK58085.1 lysine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNEKISQDLEKFANIPNLKNAVTFFGSARLKEDNFYYQQAKILAQKCVQNGFCVISGGGGGIMRAANEGA

FSQNNNTNSMSSVGFNIFLPHEQKLNDFVEYNITFESLAIRKMALIEKSLAFVIFPGGFGTLDELCEILT

LKQLEFKKDVPIILFGSEFWRGFDEFVRNSLLKLEVISKGDELKYKITDDLDFIINTLKEI

>AHK58084.1 thiouridylase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKILVAMSGGVDSTVTAYKLKNLGHEVIGCYMKLHGKPNYHEENIKKVEKVANFLQIPYHILDLQEDFKN

KVYMPFVDTYKEGKTPNPCALCNRFIKLGKLLEFAKSLGCEKLATGHYARLENNLIKTAVDESKDQSYFL

ASADKEALKYLIFPLGEMKKEDVKKFASTIEVLKSFATQKESSEICFVEDTYVQVLDQFMDTKIPGEVLD

SSGKVVGKHEGYMHYTIGKRRGFEVRGAHEPHFVLKINPKQNQIIVGTKEELKISEFNLKNINLFIDAKE

LDCEVKIRYRSKSTPCKVEIYEDKSAKIILKDPVYGLASGQMAVFYDHDKVIASGFIE

>AHK58083.1 hypothetical protein N920\_00235 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNFQVKTLETFNPFESLNHEQANTEQILDFRVIDFKLLCSSVKPAKTKTYERKDFDLFYADDFFVKNYNT

IVQKFLIEIYPKTQSFPFTVKLRSNSNLTHLKASINLTENFKYYPNLKFDILQNIYKIMIKQKFLILRLD

KNLFDKIDDFILSIQKSPSIKEIELEIAKGVDKIEHKSDEIIYHRDVNEECFDENINYDEGNYCKPIEKN

ELLFEYIYRILGKEGRNLRGEILHLNPIAFLDNPFIIKDESIYTEELEDRIKYFSANYGFLNKDHTGYCI

ANNLKLSQIGLKTTGSIKTNTDENINLEITNFDISDDAIKSGIVNVQASNIKVNGNVGATKLYGKNISIK

GLTHAKSEIFAQDIFITTHKGTLQADTVYIKNLENGTIIAKNVFVENCMGGKIEAENIYICNLLTDNTLY

PRKNLIITNNIKFKNNIVVSPLVSIENNSDTECENLKNLSLKIKSKLDDTISKMQNYYDYLIKNQIKIIK

LQKTKNPSAIEMKFSNLYHDIIKKYNHLSISYKKLVKLKYQIDAKLNFLNEMVYNVKIYIKAENIGEDNF

LKFYPNTNTNLELKHHINLKDYEKVLYLEKGQQVSYIKSSHNYSESDIEEIKIIFKKLEKDNS

>AHK58082.1 flagellar hook protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MMNSFYNGISGVKSNSFGIDITANNIANVNTTGFKYSDAQFKDIFYTTITTQSTNPAQGGYGSGAASSQV

VFEQGSPVASDGEFDVALQGKGFFGVLGADGNAYYTRNGSFRRDANGYLVDSYGNFVLGTMNPAFTGINY

SDRVAGLMGDYLNTGTPVNNGFTVNSNNSFSIGTTASQGAIKVPVNMYLPPQVTQNVKWSGSLNTNTTTE

VVKVDLDPSKFNITKTEDGKYVVSGSVSKEDVFSAKAGDRIILNFTDDNGVKTSFEATLDENLNFKSNEL

DLKGLDENSIKLDTAQISTEQQKANKDILESPIYNADGSKSTLRVTLERVLPQEGDNIQYKAIAQIYDSN

GNAVGNPTEGNMVFDKNGALLQNNITSIANPNGGTINIDLGSPYDANKPGSGYSGIYIKQGVEKNVVTQQ

DGVAEGFFEQYNISDDGSIVAQFSNGKNAIVGKLALYNFINEQGLVAMGDNIFAATANSGDASFIMKDGQ

VVNTAKFKGGFLEQSNVDLSAELSNLIVTQKAFDASSKSITTSDQMIQKAINMKR

>AHK58081.1 flagellar basal body rod modification protein FlgD [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MISSSDWNLNTTATTSGTTSSGSTSGTTRTDSSSSSGIVSNPNATLDKDAFLKLLLIELQHQDPTDPMDS

DKMLTQTSQLSALEMQQNTNTTMQKMVETMQKLSDSFSTSMSTSALGAIGKMATVSDNKIKLTGADELIA

LKMYLPEDSDENGVTLEIYDSNNKLVFSEKSDAKSISQGLFTMEWPGRNNDGVYAGDGEYTVKMVYNNKN

GEKITANYGTYPIEGVVFKDGVAYAKMAGQEVPFDAIQEITDYKLGSSSSTGGSGSSGDSSGGSSDGDSS

GSGSTEDGDKEEKA

>AHK58080.1 flagellar hook-length control protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSNLAPQNDVLNLTPSKTSTTSSSFSKTSKNKEHESSDSKNSTQDDTESFLNSLLNSINETNEFLPDHMK

ISQKEVVNEAMSRLQKGAFDESDKISIFESASFMQILSLLDKLKTDTADVKLANLSTQLSSLIKTEANFN

ALKGASNLSELLDIAKDLGLNVKNIKVDRLLDLKATFPNLDKADFFKGAVDNVFKEIINNKISNVSKNLN

HNLENTTHTTSTHSMQKTNSKDSGSLLSQTLKNLDSILSSKESKHEKNDKVKSKIEEDTTDAKNTLKNIK

NDEFAKNLTEELNIKDKKNQDNLNKESKDLNKDFNKELNKNQEKNNLNQENIQDQNKNLKNNDQNLNLDK

NLNKEIVKDTQKLVSNLTQKDFNLNKEPKNNNKENKDIKQNFFDQKLNFENLNKTQVVQNKENNANFNNN

NTNNKETFTQEQTKTHSENVDKNSLDELNSLVKDLNKVTQNNARNITPKETLQYFSQDLKEAVDQYKAPI

TKLSITLNPNNLGEVEVTLIQRGNNLHINFNSNANAMNLFIQNQAEFKNSLVNMGFTGLEMNFSDQGKRE

QNQNQGKNRSGYGFKDALDGKNESEKVNLELVLAKYF

>AHK58079.1 hypothetical protein N920\_00215 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKPLNEEIFVEFKSDLAERKNEVLLQVLELLETFRSDENEKMARISSELTEILENEENLEKILNAKNLE

ELLNILTALNEDKMIKVYEDSYLKEKFPNVMVDKFLK

>AHK58078.1 GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MENIRNIAVIAHVDHGKTTMVDELLKQSGTFSEREQISERVMDSNDIEKERGITILSKNTAINYKGTKIN

IIDTPGHADFGGEVERVLKMIDGVLLLVDAQEGVMPQTKFVVKKALSLGLKPIVVINKIDKPAADPERVI

NEIFDLFVALDANDEQLDFAIVYAAAKNGYAKLDLNDESDNMEPLFKTILERVPAPSGSDENPLQLQVFT

LGYDNFVGKIGIARIFNGVVKKNQSVMLAKADGTKVNGRISKLIGFMGLEKMDIEEAGSGDIVAIAGFEA

LDVGDSVVDPNNPMPLDPLHIEEPTLSIVFSVNDGPLAGTEGKHVTSNKIAERLEAEMKTNIAMKYESTG

EGKFKVSGRGELQITILAENMRREGFEFCMGRPEVIVKVEDGVKTEPFEHLVIDVPEEFSGAVIEKLGKR

KAEMKTMAPTGDGQTRLEFEIPARGLIGFRSQFLTDTKGEGVMNHSFLEFRPFSGAVEKRNNGALISMEN

GVALGYSLFNLQERGVLFIEPQTKVYTGMIIGEHSRPNDLDVNPIKGKNLTNVRASGSDDAIKLVPPRKL

SLERALEWIEEDELVEVTPVNVRVRKRYLDPTQRKRMEKAKS

>AHK58077.1 poly(A) polymerase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDLKSLENNRLYILKRLGILKFLSIIEALLVGFLAFVFIRDALIAVILAVFVGVFFFRFTAKKLKLAQKE

LQINALNLFLRRFGAKFKKQSLSQKDFLKLGLTKDLKEFKSQNCFEFKDFKIYDIQFLDENKRFFCGILL

EISKANKNPSFENEEQIYIKLTDKNFTLNHIFSKENHYLITTLSNPFFIDIKKDLESNFKDLEENLNSIK

NKLFK

>AHK58076.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKHILLLGLCLSLSLSAKSVSDYKVGEELSDKEGVEYFKELSKRPVQEWPNKNLSINDVPKGKQGDLIR

YGIELLSKTESTLGPYSKLKKTSNEVNCISCHMDNDGNGLPGTKKYVIPFLNILNNYPRLDIETMKIISV

EDRIRGMGGTDSHRFPNDSKEMKAILAYFKWLKEAYGIKDGVKLEGDFFAKMNFPNRPADPVRGKKLFEE

NCVACHGERGLGVKNDNYEQGSGHLYPSLLIYPDGGHMAMIPFLARFLKSAMPFGASADNPILSDEDALD

IAAYVNTGFVRMPITTTENRAGLDTAYSKSPSLKPEYFASPQQNLDPKEYIKVKYGPWKNPNHFPGE

>AHK58075.1 hypothetical protein N920\_00195 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQNLNQNEQIKCPSCGSFIDISTALYAQILDKAKQEMLKQKKEFDDEVNAKRAEYTKALNDLKTQKIEQE

KLINEQVSQKLLLEKQKFEQELLIQKQNFQKEFSEKFNKEHENEMKIMQEELEKKSKELSEFLSIKAENE

RLKREQKENEERLKFQAKEEAFKEFKEQESKNLEFEREKMRLEFQKSTQEQDLKYKELETNFKSVAQKLE

DAQRRIEQGSQQLQGEAAELLIEEYIQSEYLSDEVKEVPKGVNGADCLHIVKDNFGNICGSILYESKRTK

EFNKEWLDKLKLDSIAAKSDIAVLITKTMPKDKEKTHFKEGILICTFNEFKGVLAVLRESIINAYKLKNA

LQNKDEKNHILYEYLNSKEFNTQITFILKTYQNMKEELEVEKRALQNIWKKRERAIENLSFNSTAIVSSL

NAIFSDLQGGNLIGEEGIKSLENLAKDED

>AHK58074.1 multidrug DMT transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQKHTKIHGFAKFKLIVILALMSSIAPLSTDMYLPALSHVEQSFQTNSFLTQLSIASFFIAFALGQLIYG

PLSDIFGRKIPALVGIFFFIVSSLFCVIIDDIYAFIALRFFEALGGCAGVVIARAIVNDLFEIKEAAGIF

ALMMVFSSLAPMLSPTFGGILLEYFSWHSIFATLFALGILLFLMILFGLKESAPHLKNKKFSHHEAMKSY

KFVLSDKRFLVYILCASFALAAMFAYITGSSFVFTQFFSLSEQKFALLFGANALGFVICANINARLVLKY

ESEKILAKALMIMFISTVILLVNAFFHPNFLLFELSIFTSIAMLGFIAPNTTTLAMARFKEHSGTASAVL

GTVQFGFAGLISFVVGAINANTPIILAFVMCACVLVANMIYFLIKIKEKK

>AHK58073.1 hypothetical protein N920\_00185 [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTNNIFMALAIVLASLILAFGFNKALSDFKTLERSVSVKGLSQKEVEADTLILPIKFTRSNNNLTNLYE

ELEQDKENIIKFLEKQGIKEDEISYNSPNIIDRLSDPYSNDTQAAYRYIGTANLLIYTQNVKLGKSILEN

ISSLAKFGIVTKIDDYDIEYLYTKLNDIKPQMIEEATLNARNAAIKFAQDSNSHLGKIKKASQGQFSISN

RDKNTPYIKTIRVVSTIEYYLKD

>AHK58072.1 L-asparaginase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNMCDEI

WLRLAKKIAKLFAEGIDGVVITHGTDTMEETAYFLNLTIKSDKPVVLVGAMRPSTAISADGPKNLYNAVA

LVVNKEAKNKGVMVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNAPFD

VSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVSSRV

VAGCVAVSDSDEKLGFISAEDLNPQKARVLLMLALTKTSDPKKIQEYFLKY

>AHK58071.1 recombination protein RecJ [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKIINKNEIKKILASRFEKDLHTKLCDLPLPCCLKDAYKAANRIKEAVEKNEKVAIVGDYDVDGIISCVI

MAEFFDDIGFDYIIRIPNRFKDGYGLNAEIINELDVNLIITVDNGIAALEAAKLCKEKNIDLIITDHHMP

QDILPDAFAIINPKQKDCDFPEIEICGAQVAWYLIAALKEVCKLKYDMCKFLELLAIAIVADMMELRDLN

RALVRRGIDHINKSKRAAFRAIKHYYQKDKFALDNIGFLIAPLINSAGRMDDASISYEFLHTKDFNKALE

YLEQIVSFNESRKDEEKQLFEDSLNQIDENDSCIVVSGLNWHEGVLGIVASRLAKHFNKPAFVFSQNEEH

LKGSARSVGKIDILALISKTNSILSNYGGHKGAAGISLNSENFEQFKNKIKKECSQISESEFLDTDEILG

ILEPSEIDFEMLEILESFEPFGHKNPRPFFVLENLCVKNKKLLGKDEKHLKLVLTKENKTIEALFFNFDK

EPELNQNISLLGSISKNEFRGMVTPQFVVKEIL

>AHK58070.1 CTP synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKQTKYIFVTGGVLSSLGKGIAAASIATLLKNSGLKVSILKADPYINVDPGTMSPFEHGEVFVTDDGAET

DLDLGHYERFLDESLSQDNNFTTGRVYQSVIEKERRGEYLGKTIQVIPHIVGEIKDRIKKAGEGKDILIV

EIGGTVGDIEGLPFLEAIRALRLEVGKNNAMNIHLTLVPFIKAAGELKTKPTQHSVGELRRIGISPDMII

CRSEKALDRDLKDKIAISCGVEKNCVIESVDAASIYQIPLNFLKQDILSPIAEILDLKNLKPNMENWDSL

VKRVIAPSNEVKIAFVGKYVDLKESYKSLTEAIIHAGAALDTKVELKWVDSEKLENMESSEVFKDVSGIL

VAGGFGYRGVEGKIKAIQYARENKIPFLGICLGMQLALVEFARNVLKLKDVNSSEFNEKCQNPVVYLIDE

FMDTNGEKQIRTAKTPLGGTMRLGAYKCDIKEKSLLAKVYNEVKSVKERHRHRYEANPKYRADFEKYGLI

VSGESKGLIEAVELNCHPFFLAVQFHPEFTSRLEHVNPVICSFIKAAINYEDN

>AHK58069.1 FAD-dependent thymidylate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQITLLFHTPLSVCSHATRTCWQSFEKGDCGGEKDKELIDRVGNKFKHASTLEHLNYTFYIQGISRACLQ

EVARHRHTSPSVKSTRYTLKELRNEAEFKIGDFENASRYLVLCGNEEVDNASIKALENLRTILQKSISLD

IAKYCLPESYKTELTLTINARSLQNFISLRSSKSALWEIRNLANALFEALPQEHKFIFEHCLHKDIE

>AHK58068.1 sodium:dicarboxylate symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDKQFFQDFLMLSQAHTIATLAILCVVFYALKKMRDIKINFSLRMLFALLMGLGFGFALQYLANFPDAEE

ASNILWYSETKHWFAFVSSVFVAFIKMLVVPLVSICIIKVIIEIDKNIKISSLLGISLFWILFSTAIAAT

LGIFLGYSFDLGSNFAIYEGDKQIREIQTFSNIILGLIPSNIITAINKENIIAIVIFSFFIGISAKKISK

KEEYEQAFKSFHNFILTFYNIMMNMTATVIRFMPYAVVCMMANVLLSNGFEAIKTAGLFIMLIYIAMFIM

FGVHFLLLASQGLNPIKYAKKAFPVWLFAFSSRSSLGTLPMTTSTLQNKFGVNSAIANFVASIGTTTGLN

GCAGYFPALAAVFVAFATHTHIDFTFALMIVLVAVIGSLGIAGVPGSATMAASIMLAGIGFGNNFVMLSL

ILAIDPIIDMARTASNVSGAMTSALCTAKNLKALDKEIYNS

>AHK58067.1 ribonucleotide-diphosphate reductase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKVIKRNGRTEELDVSKIKKCTSDAVKDLEGVNLSELELDAKIQFRDGISTEEIQKTLIKTAVDKIDIDC

PNWTFVAARLFLFDLYKKVNGMNRYNHLREYFQKGEKEGRILLGLKEKYDLDDLNAYIKPERDMQFTYLG

IKTLYDRYLIKDSKGMPIELPQQMFMAIAMFLAQNEFNPQEWAKKFYDLISKFELMLATPTLSNARTTRH

QLSSCYIGSTPDNIEGIFDSYQEMALLSKFGGGIGWDWSKVRAMGGSIDGHKNAAGGIIPFLKITNDIAV

AVDQLGTRKGAIAVYIEPWHMDISDFIDLRKNSGEERRRAHELFPALWINDLFMKRVRANDKWTLFDPAD

TADLCDLYGEAFEKRYEEYEKDESITKEIVEAKELWKKILLNYFETGLPFLCFKDSANRANPNAHVGIIR

SSNLCTEIFQNTEPNYYQIKVVFENGDELHFDEEQKVVIDGGYEKPAKKISTLDSIEGNKVYIVEKYKND

GKTAVCNLASINLSKVYTKEDIERVVPTAIRMLDNVIDLNFYPHRKVKDTNLKSRAIGLGVMGEAQMLAE

AKIHWGSDEHLNKIDEIMEQISFEAINASSNLALEKGSYEDFEGSNWSKGIFPIDVASPKAKALTLREGL

FDQSECDWVKLREKVKKDGMRNGYLMAIAPTSSISILVGTTQTIEPVYKRKWFEQNLSGMIPVVVPNLSL

DTWQYYTPAYELDQKILVKAAAVRGKWIDQGQSLNIFLSLDKASGGYLNEIYQLAWELGVKSTYYLRSES

PDSEKVNVADRSIECEGCQ

>AHK58066.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MVERYSREIMAKKWDMQAKYDAWLKVELAAVKAWNKLGLIDDTDCEKILKNAKFDIARIDEIEKTTKHDV

IAFLTSVSESLGEESRFVHYAMTSSDCIDTAVALQIKESLELILEDVSLLLEAIKKRALEHKNTLMVGRS

HGIHGEPITFGLVLAIWYDEISHAKELLEHAKEVISYGKISGAMGNFAHAPLEFEEEVCKNLGLKAAPVS

NQVIQRDRYAQVISAIAILASSCEQIAVAIRHFQRTEVYEAEEYFSVGQKGSSAMPHKRNPVLSENITGL

CRVLRSFVTPALENVALWHERDISHSSVERFILPDAFITADFMLMRLTNLIDKLLVYPENMMKNLNLTGG

LVFSGRVLLELPFKGISREEAYKIVQRNAMKVWADLQNGKAAINEKNESLFLLALLSDEDLRKSLSEEDV

RKCFDYNYYTKNVDAIFKRTFK

>AHK58065.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MAYIKIKLSNNGKKAFQVLMENLKISINEAQKLIDKKRLFCDGILVEEKNKILNGLVELIVYENNPKGVE

IVFENEDFAILEKESGILSHPNGRHCKYSLSDEIWHLWGKEACVAHRLDKETSGLILIAKNKKAQIDLKS

LFEKKLVQKEYLALAHGKIEENFIVDKAINLTKNYDDVKTRMQICKEGKQAITEFEILEYFPKINATLLL

CKPLTGRQHQIRVHLHYKNHTILGDPLYGLSKQQIESILDEKLNPKERLKLTGALRLCLHSYRLKFQYKN

QNFDINSKINIKEIFNNSIK

>AHK58064.1 fumarylacetoacetase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKFVNFIQGQKPNLGVLNSSGKIVSFDDLGIETNDMNEFIIHFDKFKHKLTDLDSKIAYEIPQENYLAPI

IEPRQDIICLGINFLDHAKESAKFKGEKFEEREYPVYFGKRCNQATAPFGDIPLHADVTSQLDYECELAF

ILSKDAYKIKAKDAKDYIFGYTIINEISARELQKRHKQFYRAKSLEGSTIMGPYITSVDEISYPPKLQLQ

SYVNDELRQNSNTQLFIFDIAYVLEELSAGMLLKAGSIISMGTPSGVGMGLNPPTFLKSGDKVRCVIENL

GELCNKIKNINY

>AHK58063.1 cytochrome C biogenesis protein CcsA [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIIMILCLSYANIVFAVDMITPIPNSISYDKEKAKLGKSLYMDKSLSKDGKVSCNTCHRLDQHGVDGL

EFSIGVDNQLDKPFNTPTTFNSVFNFVQFWNGRAKDLAEQATVPFFNPKEMGLSPELLLQKVNSNENYVK

TFKKLYGEVTVENIALAVAEFEKTLITPNSPFDRYLSGDQNAISTQAKKGYEDFKANGCISCHQGQNIGG

NMFQKIGIFEEYPNQEDLGRYEITKREADKMVFKVPSLRNIAKTAPYFHDGSIPTLDACVQFMAYYQLGK

FLDQETVDNIVAFLESLTGEYHDK

>AHK58062.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTNKKSSFLIKFIILSTLVLAFILVLLGIIFNNYSSSKDNKELINIVQQLEISDEKINSVFQNSFNFINY

DPSVQAIKKMQENFTKLKTFGIDINKAEEIFNAKLIQLNYFKSANSIAVNSKLYLFELAKNYFEELEQNH

ETNKNNYKTMSSMLSVLSTENILQKTTLNQLNNLMKEIKNDTKSENLQLFLKHYNMIVKQISIMQDNSSI

YENNSLMKELKQLNTFTQNTIEQSNLFKFYIALAVFGITLVLFVFFILLTLKKVIMPIHTLEKLSANLAS

KEANLHSRLNIDPKSELGQSAQYINSFISTVQNSIIEAIENAKSSHQNSQKLKNNSMMLENSSNSQHEQI

QGVKEITHVLDDHINLAGNLAQESIENMQDMHILMDKVELTLSELVNLINENNEKEQNIVANMDNLTQSA

DNIIEITNSIKDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVGQLADKTSKSLLNINATVNTIVQQI

NDNKALMDLIHDSMKETSSKTNDLQQELVNSMHKLESSIESTQTMKDKSMEVKDKMLILGTNIDKVNELA

NSVKDLSCEINNISQNVLNGASKLSEKLSSFQ

>AHK58061.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MEFLELLLVLIALILIIKKPEKENLAFGLVMVAWLLMVFFYVGHKTGALLTIMNL

>AHK58060.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNEINKTKNFYTLMCLAGFLIILLPVGIANLIFGYMLGDSPCTLCWGQREAMIFIGVMALFIVRYGMKGK

YLAALLIMTAVGLYQSFAHYGNHAHRDLDQGFGLAVFGIHTYFWAEVVFWAVVLLLGVIFAFAPKFNAFE

AELNGEKFRKYTKFSFAAVLISAIIVASNVFQAFVSTGIPPYVGQGDPVRFSLNPKYIIWSKEGWNGLWQ

NISFLGKRDVKAPDYAFAPASEKLGIKFDNDINNAPFAKINDELKITNEQTINFDKAINTLDYINNEFVA

SSKWDVAFLDNNFSVKEGFELDPYFSASIDPIIGIIPYMNDKFILMGSNKSFLRFAKNPNASEEDIAKQY

ADFVKGNDKFKGQGESLGRGRLDTVRAKFNHVASMTTDGNYLYLATVPNNKDAKTFVISKVSLKDRVLSG

EFTPKANLKEGKTLGDLYVTSMTFKDGEIYALSKNHNVIAVIDPVKEEVVKTIAFPSSITNARSIFFKDG

KINILSYQDGANKLYTLN

>AHK58059.1 7-cyano-7-deazaguanine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MSKKALCIISGGMDSTLCAYLAKKEGYEIIALHFDYEQRTQEKEKECFKQICKALKVEKSYILDVSFIKD

IGGNALTDKSIDIPKNELCTSDTPPITYVPFRNGIFLSIAGSLAEKENCESIFIGVVEEDGSGYPDCTDE

FIQKAQEFINEGTSKNFKVCIKTPLVRLNKAKIVELALKENVPLELTWSCYESEDEACGECDSCLLRLRG

FEKAGFKDKIKYKS

>AHK58058.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MINIKLIEHIFKAASISRWNDYPRMANLVELDKQAHKFIIAYFIAKMEKDVDMRVIIEGGIFEFLSRVVV

TDIRPDVYHEIVRQKKAEVNAWVLSKIEPMIEDIEDGEFLKRFEAYLNGNAYAKERLILKAASYFATRWE

FNIVYQTSAFLNDIDEIKNKVEEELEDYYELIGARKIALNQKIAKIIDLSGRLRFQKRWAQTPRIPETAV

LGHMLVVAILGYFYSLKIKACDKRLENNFYCALFHDLPESLTRDIISPVKYGIDGLHDIINDYEMKLINE

RILPFVPEGLRAEFSYILGIREGRNGESNFVKNEFENRTYKNAKIELCSGSLSSFNENEFGAIDGKALKY

CDKIAAYIEAGLSISYGVKSKELESGFLGMHEFFKENPTIDGVNFFEICESLREYFKI

>AHK58057.1 dihydroxy-acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRSDAIKKGHLRAPNRSLLRACGLKDEDFDKPFIGVANSYIDIIPGHYFLNDYAKIIKDEIRKNGCVPFE

FNTIGVDDGIAMGHEGMLYSLPSRELIANSIETVMNAHQLDALICIPNCDKITPGMLMGALRVNVPTIFV

SGGPMASGVTKKGEKISLSSVFEAVGAYESKKISEEEFKDIECSACPSGGSCSGMFTANSMNTLCEAMGI

ALEGNGTILALSKEREELLRKAARRICEIALDERFKIRNIITQKAVRNAMVVDMAMGGSSNTVLHMLAIS

REAGVALDIKDLNFISSKVAHIAKIAPSLNSVYMDDIHKAGGVSAVMAEISSRQGHILELDALTITGESL

KERLKNAKIKDENIIRKVDNAYSKVGGLAILFGNLAKQGCVIKTAGIIGERKFKGKAVCFNSQDEAIKGI

IKGKVQKGNVCVIRYEGPKGGPGMQEMLSPTSLLMGMGLGADVALITDGRFSGATRGLSVGHISPEAAEG

GLIGLLKDGDEIEIDVDAYTIHANVSEEEIAKRKKEFALPQKEVSSRWLRMYQKLVSNASKGAVLDME

>AHK58056.1 non-heme iron protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MRQYETYKCQKCGNEVEVQNVGGGKLSCCGEEMKCITTDLTAVNLMKAFAGESMARNKYDLFADVAEEEG

WHAVARHFREAAENEKWHARAEFKAYHEIVDGKPLEVTTKNLVTAAEGENYEHTTMYPNFAKIAEDEGKK

AIARLFTAIGKVEIEHEREYLALKKMLEEEEFFNSEVEELWVCEVCGHIHRGKKAPAACPLCKAPKEYFK

REFLG

>AHK58055.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKLLFLFFALTAFLFGAVNINTATLKELKSLNGIGEAKAKAILEYRKEANFTSIDDLKKVKGIGDKLFE

KIKNDITIE

>AHK58054.1 ribonuclease HII [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKTLFDTKELLNEFDINLIGIDEAGRGALAGPMMMAACKLNKQLDGLCDSKKLSEKKREELYEIIIKNSN

YLILAFSSEQIDALGLSTCLKKGLKLIKKHFKTENNFLYDGNTNLGINGIKTQIKADTSILQVSAASILA

KVSKDRVMNFLAKDFPCYEFEKNKAYGTKAHKEFIAKFGICKLHRKSFKLL

>AHK58053.1 glutamate synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MGNARGFLDFKRMDFKKIAPKERILNYKEFTIPLDKKEQEVQGGRCMDCGVAFCHTGVMSEGKDVGCPLN

NLIPEWNDLVYRSLWKEAYERLDLTNPFPEFTGRVCPAPCEDSCVCAINGVSVSIKNNELSIIENAFKEN

LVRVNKPKQYNGKKIAVIGSGPAGLACANTLNSLGYKVSVFERSDKIGGLLMYGIPDMKLDKSIVQRRVD

LLKKSGIEFKVNENIDSKDKVSKLLKEFDALVLCTGASKPIDLDIEGRKLKGVEFALDFLTQNTKTLLKT

GKGADMAKGKNVLVIGSGDTSVDCIAVATRQGAKSIVRFERSPKRPLQRSQNNPWPLKADIFTTDYGLEE

AIAVYGKDPREYQKMTKKFLGKTHVEGVEANDLKREFKEGKAINVEISNSKKTYKADLVLLAMGFSGCEE

AISKNFGVKLDEKNNISTENFQTTHKKIFACGDARKGQSLVVWAIKDGIECALSLHQNLAK

>AHK58052.1 glutamate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MDLENILENNQSIGLYHPKNEHDACGIAAVANIRGIASYKVICDALEILMNLEHRGGTGAEENSGDGAGI

LIQIPHDFFKTQELGFELPKKGDYAVAQMFLSPNTDAKEEAKEIFLQGLKDKKLEFLGFREVPFNPSDIG

ASALKAMPYFLQAFVKKPSKISAGLEFERVLYSTRRLIEKRAINVPKFYFSSFSSRTIVYKGMLLSTQLS

DFYLDFKDVNMKSAIALVHSRFSTNTFPSWERAHPNRYMVHNGEINTIRGNVDSIRAREGLMQSEYFENL

DEIFPIIAKLSSDSAMFDNTLEFLALNGRTLEEAFMMMVPEPWHKNENMESKKRAFYEYHSLLMEPWDGP

AAIVFTDGVIMGASLDRNGFRPSRYYLTKDDMLILSSETGALKLDEKNIKAKKRLEPGKLLLVDTARGRV

IADNEIKEHYANAKPYKKWLKNLVELEKQKSGVYKHQFLKEDEVLKLQKAFGWSYDELKMSVAAMAQNGK

EAIAAMGVDTPLAILSKTYQPLYNYFKQLFAQVTNPPLDAIREEIVTSTRIYLGSEGNLLKPDENNAKRV

KIALPVISNEELFEVKALNKFQVKEFSILYDYSKKTLEKALDELCVKIEDEVKKGVSIIILSDKGVDEKN

AYIPALLAVSGVHNHLVRKNLRTHTSLIIESGEPREIHHFACLLGYGATVINPYLVYESIQKLIANKDLN

LSYEKAVENFIKASSSGIVKIASKMGVSTLQSYNGSALFECLGLSSKVIDKYFTSTTSRIEGMDLEDFEK

ELIALHKHAFNDTHKALDSKGIHGFRSAKEEHLIDPLVIFNLQQACRNKDYKSFKKYSALVDEKQVNLRS

LMEFDFSEAISIDKVESVESIVKRFRTGAMSYGSISKEAHECLAQAMNKIGAKSNSGEGGEDEERYEIKE

GVDKNSAIKQVASGRFGVDLNYLSHAKEIQIKVAQGAKPGEGGQLMGFKVYPWIAKARHSTAGVTLISPP

PHHDIYSIEDLAQLIYDLKHANKDAKISVKLVSENGIGTVAAGVAKAGANLILVSGYDGGTGASPRTSIP

HAGIPWELGLAETHQTLILNKLRDRVRLETDGKLMNGRDLAIAALLGAEEFGFATAPLIVLGCTMMRVCH

LNTCPFGIATQDTELRDRFKGKVDDVINFMYFIAEELREYMARLGFERLDDMIGRVDKLRQKSVQGKAGK

LNLDKILKSLPTYNRTAVHFKDYKDNKLEKTIDYRILLPLCKNAVEKKEPIKLSLEVGNQSRTFATMLSS

EILKTYGKDALDEDSIHIKAIGNAGNSFGAFLLKGIKLEIIGDSNDYLGKGLSGGKIIAKISNEATFSPE

ENIIAGNACLYGATKGEVYLDGIAGERFCVRNSGALAVVLGTGVHGCEYMTGGQVVVLGDVGANFAAGMS

GGVVYIFGRHNEAHVNTELVDIKDLNAKDEKELKAVIEKHITYTDSKKAKDILEKFDKKDFFKVMPRDYE

KMLKMLDLCKNEKDPNLAAFLKITQK

>AHK58051.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MTLLTNPIIISVVLMTLLCLFRFNVLLSLLISALVAGVFSHLELVDTMNILISGMKENLKTALSYILLGA

IAAAISKTNLTAYLIKIVSHFISHKKYLLLLSIALISCFSQNLIPIHVAFIPLLIPPLLSLFNKLKIDRR

AVACALTFGLTTPYMVLPVGFGLTFQDLLKDNLNANNVSASLNDVTNTMYFAAICMIAGLFLALFVFYRK

PREYQEVEIAKVDLENLEMTRKEWGVLAGLVLTLILQILTMNLPLSGLLGFVLMVILGGVEFSKVNEVFD

DGLKMMGFIAFVILVAAGYGEVLKESGSVVDLVNSVVPWMEQSKFLAVFFMLLIGLIITMGIGTSFGTIP

IIATLFCPICLELGFSTALIIFILGVAGALGDAGSPASETTMGTTVGLNADKQHDHIKDTCIPTFIFYNG

PLLILGSIIAMFL

>AHK58050.1 molybdopterin containing oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKQNDQKENRRDFLKNIGLGLFGISVLSNFSFENFLGSKALAKELPDFKIEGKKDLIYHGEKPLTAETEI

YALDSDFTKPENFFVRNNGLPPSLETIKERLHKGWTLEIDGESIINKKSYTIEDLKKKFKTYTYALTVEC

GGNGRSEVIPSTKGTQWGYGAVACGRWTGVRLKDILKDCGIKNDAVYIGYYGIDTKLNGEETSPISRGVP

ISKALQDETLIAWAYEGKDIPLVNGYPLRLVCGGYPASTSGKWLYKISVRNKIHDGEKMEGSYKVPVNPV

KPGDFNYKGEMKIIESMPIRSVITNIKNGSEIKANKKFEVRGKAWAGELEVSEVYVSNDYGVTWTKAKVE

KPLNRLAWQKWSAQISIPTKGYYEIWARAIDSQGNSQPMVLAQWNPGGYINNACHRVNVYGV

>AHK58049.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKKIILILALFLSASWAQNLEINPDTGLIIDPDSPLVEANCLACHGSNLITNMHASRKAWLAAIRWMQDS

EGLWEIEPEDEEKILNYLEKYYGEKYDTRRRIPLAILLQNKTH

>AHK58048.1 DNA gyrase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MQENYGASNIKVLKGLEAVRKRPGMYIGDTNIGGLHHMIYEVVDNSIDEAMAGHCDTIDVEITTEGSCIV

SDNGRGIPVDMHPTENMPTLTVVLTVLHAGGKFDKDTYKVSGGLHGVGVSVVNALSKKLVATVERNGEIY

RQEFSEGKVISEFGVIGKSKKTGTTIEFWPDDQIFEVTEFDYEILAKRFRELAYLNPKITINFKDNRVGK

HESFHFEGGISQFVTDLNKKEALTKAIFFSVDEEDVNVEVALLYNDTYSENLLSFVNNIKTPDGGTHEAG

FRMGLTRVISNYIEANASAREKDNKITGDDVREGLIAIVSVKVPEPQFEGQTKGKLGSTYVRPIVSKASF

EYLTKYFEENPIEAKAIMNKALMAARGREAAKKARELTRKKESLSVGTLPGKLADCQSKDPSESEIYLVE

GDSAGGSAKQGRERSFQAILPLRGKILNVEKARLDKILKSEQIQNMITAFGCGIGEDFDLSKLRYHKIII

MTDADVDGSHIQTLLLTFFFRFMNELVANGHIYLAQPPLYLYKKAKKQIYLKDEKALSEYLIETGIEGLN

YEGIGMNDLKDYLKIVAAYRAILKDLEKRFNVISVIRYMIENSNLVKGNNEELFSVIKQFLETQGHNILN

HYINENEIRAFVQTQNGLEELVINEELFTHPLYEEASYIFDKIKDRSLEFDKDILEVLEDVETNAKKGAT

IQRYKGLGEMNPEQLWETTMDPSVRRLLKITIEDAQSANDTFNLFMGDEVEPRRDYIQAHAKDVKHLDV

>AHK58047.1 DNA polymerase III subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MKLSINKNTLESAVILCNAYVEKKDSSTITSHLFFHADEDKLLIKASDYEIGINYKIKKIRVESSGFATA

NAKSIADVIKSLNNEEVVLETIDNFLFVRQKSTKYKLPMFNHEDFPNFPNTEGKNQFDIDSSDLSRSLKK

ILPSIDTNNPKYSLNGAFLDIKTDKINFVGTDTKRLAIYTLEKANNQEFSFSIPKKAIMEMQKLFYEKIE

IFYDQNMLIAKNENFEFFTKLINDKFPDYEKVIPKTFKQELSFSTEDFIDSLKKISVVTEKMRLHFNKDK

IIFEGISLDNMEAKTELEIQTGVSEEFNLTIKIKHLLDFLTSIEEEKFTLSVNEPNSAFIVKSQGLSMII

MPMIL

>AHK58046.1 chromosomal replication initiation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-GSv]

MNPSQILENLKKELSENEYENYLSNLKFNEKQSKADLLVFNAPNELMAKFIQTKYGKKIAHFYEVQSGNK

AIINIQAQSAKQSNKSTKIDIAHIKAQSTILNPSFTFESFVVGDSNKYAYGACKAIAHKDKLGKLYNPIF

VYGPTGLGKTHLLQAVGNASLEMGKKVIYATSENFINDFTSNLKNGSLDKFHEKYRNCDVLLIDDVQFLG

KTDKIQEEFFFIFNEIKNNDGQIIMTSDNPPNMLKGITERLKSRFAHGIIADITPPQLDTKIAIIRKKCE

FNDINLSNDIINYIATSLGDNIREIEGIIISLNAYATILGQEITLELAKSVMKDHIKEKKENITIDDILS

LVCKEFNIKPSDVKSNKKTQNIVTARRIVIYLARALTALTMPQLANYFEMKDHTAISHNVKKITEMIEND

ASLKAKIEELKNKILVKSQS

>AHK58045.1 O-acetylhomoserine aminocarboxypropyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLAN

VEGGAFGIPVASGMAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEKV

IDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSKYVSGQ

GTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAWL

LLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDYE

HARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQA

IES

>AHK58044.1 homoserine O-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPLIIPENIPAYELLKEHAFIMGLRRAKHQDIRPQEILIVNLMPKKIETENQILSLLANSPLQVNITLLA

TTSYVGKNTPFTHLEKFYKGLEEVKKHKFDGAIVTGAPVEQMDFEKVAYWEELLEIFDFLKQNVTSSMYI

CWGAMAALKYFYGVDKISLDKKIFGVYKHDKVSPDLLLTNLDEKVLMPHSRHSSMDEEQILALQKQGKLK

ILLRNKKIGSALLRDEKNIFILGHLEYFKETLHQEYVRDNFIQKAKNYYDKKGNIKYNWRSNANTIFANW

LNYDVYQSTPFVL

>AHK58043.1 hypothetical protein N918\_08625 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKSIAIIGGSIAGLSAALFFASAKNEELDFDITVFDEGKADLKAAAIYNVPFFPKGAKADEIYTHIKAQ

IASMLEVKYIDSKVVSISGEKGDFTVNDEQGLGIKADYIIVATGANKSDIKELEDFVIPHELMPKPNKFC

FKHHGRQIIKEGIYAAGLASGVTTMVACAMGSANEAACAILSDIKGAVSVYHDTPTTRV

>AHK58042.1 hypothetical protein N918\_08615 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVKFIPVILACSAILASANTISNVSAQTSAVAPAPATSYPVYPQYAVPPQDHFNGLPKILPVKFKISIQ

VLLS

>AHK58041.1 hypothetical protein N918\_08610 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDWEAYGYEIKLNNYMELYFDRNGNFLGQEFDN

>AHK58040.1 hypothetical protein N918\_08595 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKQIFEISNSVQQKSKDNTFNLLLQLSL

>AHK58039.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNTIIQKAVNKDLNSILEITKDALNAMKTMNFHQWDENYPNEIVFQEDIQAQELYVFKENDEILGFICI

NEKFKPEFYKQVIFNKNYDDKAFYLHRLAVKQNAKGKGVAQKLLNFCENFALENHKASLRADTHSKNFPM

NSLFKKLDFNFCGNFDIPNYQDPFLAYEKILNQKAF

>AHK58038.1 hypothetical protein N918\_08545 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLDIFEIIFITTVVIIGFGGIVFVVTKEKK

>AHK58037.1 50S ribosomal protein L29 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKYTEIKDKTAAELATMLKEKKVLLFTLKQKLKTMQLTNPKEISQVKKDIARINTAINALR

>AHK58036.1 hypothetical protein N918\_08375 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFDKIHYYYFNANYEKCLNLSEQFLKESPKFALEFATLSSYKLSLFQKALYYAQELFSLNPTSFNGLMLA

KSYIENLRLDEALNLLQTLLTRKDDLEDELKLELAFIYKLSNKLEESEQIFKELLSKDMYNLNLWKNYAE

IYFKHDFTKALNAHEHLCHFMQDLIDKLQKGIIAEQTNLNLVKLEDRLHSKTKENLTISKIEDFLTHQIL

PQKAYLLFKLFRISDSLELFQSLQEANQHHAQFWQNYAKVLEFNSNYQEAYHAYKKCLSLDSHATYQFDL

AYLLMRMGVDDNFEEGKKYYESRLFYAHNETFSTYHYNESLKAFNKFGVDAFKNKEVLVFCEQGFGDTIM

YARCLEKLCKIASKVLFAPQSAMYEMFKNQIKFLNQNDDIFKNVKVLKNLPTNFDYAIPICSLPFFIDIK

LDEILRLKTPILPQKKPHNQRKKLGIFYATPNAENSDLLRNVKFEFLFDVLKDLDYEIISFQMQLKEELP

KVIEDRSKLIKNWNDTLNYLYDIDCMLSIDSAIAHLSLAMDIPTIVLLHPRFDWRWGKFENPKSYFWPKA

KCFIIKEQEETKRNLQKLIKDILN

>AHK58035.1 hypothetical protein N918\_08370 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGVAINTKIDTFTNNGFINSPGSGQWNNGIWISSNATIEKLVNNGTIKGGHSAIMVTSQHIKTVENTGII

HAEGEWGSSILLEYGGFIEHIINTGTISNNNVGIGSAYGVFGTLTIKDGGMVYGKYSAIGVGRSQTLGDL

YIDGRSNNGTVSGIYSEEHGILLENNSRTQKIELKNGGIIKGNIDGIRLINSASLSGEMILSGEGSRVEG

GRGVGILNRSGKIEGSIKVEDGATVTATSNRAIANSGSGSITGGITVSGKNTKLEGNIINTGNASIGSDI

KIEGGAKVEGGLVNQGNGSISGSVQVSGGSSIDSITNEGNGAISGSITVYKDSKLDSITNTSTSSTGISG

SITNNSDNKLEISNSGNIGGKIESTGSADMVISNSNGGTISGGISSSGSGSTSISNSQGSTINNGITVSG

SAQVEISNQGSVGKDENGNTVTNNGSGSVGIKDWLVSTDKNTGKLNTVVIGGSRAFNVKVENITVDQSNV

DLEELNDINNIISGVNQNNIGNIGTNGSGEISLSFDPITGKLTTDFNLNASISGATFRSLISTTSRRSTF

IDNVMGNSMQSFALASSSKSQSIAMSEKGNLYADASDYIKSDLNNGSYGSNKEHSLFILPYTSSQNVELS

LNEESKGHTKGTIIGYSTLKDSGIYGVYAGYEDTKMGSTYFDINNRTYYAGLKYFNTLFTTEKGQEVYIK

AQGKAALIKNDLTEKIGNNEAKAEPNSYAYGVNTALGMNFISNKDIFSPEIGLAYEGGYTEAFSMKDTIG

QATVKGGERTYANYLNLFSTKTSLTWFRDWLPNLKTSVELGAKFNINPKVEAEARFGNIKVSDEFDLPRV

QKFVSTSFIVPVNEAFYFSLNYNGMFDKDGNTHTGFAQFNYLW

>AHK58034.1 autotransporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNITLTKIPIGEGKEPCLNSKKIVLSLATISFLASCANAKLNSEIKTYDEVNKNVKTRSASVYSPQAKI

NTTINSLHNQQVTITGNGTSNSLTIGSSGTLGSIGNTGKIIYAHANGSNTLTLANLTNNRTINGKIGIEN

NGNFTGTIAVNTFENTGQINGQIYMGIWGNNSGTLNIDKFDNSGTIIDNNKGVFLKERIPTYKPLITVVL

LVQIRV

>AHK58033.1 hypothetical protein N918\_08295 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKLGLVLAVLVALNVSAFADLIVINKKDLVPVSASEMQNKYFQESIKSTLTEPLFKKATFYEADIVAKV

DPRTYNSTQAIIQKEYSDKSNYVYYKQVLILTSDGKRARLSTLSCEIASFDKKGYLCGGTADHNYSIK

>AHK58032.1 hypothetical protein N918\_08245 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLLNTPCRGIIDTNFESKRISITSTLKFQEKKKK

>AHK58031.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKKMVLSETFPGILLIFFTFLALLCKNSSLSVIYTDFFHANFTVGFDHFQISKSLDLWINDGLIAIFFL

CIGLELKYEILRGQLKNIRAVSLPIFGALGGMITPALIFIAINYSHDFAMKGWAIPTATDIAFAVGILML

LGNKIPTSLKLFLLSLAIFDDLGAIVIIALFYTDQLSALAIIICLFCIFALLLLNYYHITHLSLYVLVGV

VLWIAMLKSGVHATLAGVIISLFIPLDTKNKKPYLHEVLKDLNPWVVYFILPLFAFANAGIDIRDMHLGS

VFSPVSLGIILGLFLGKQLGVFTFCFIAIKLKLAKLPENIKYGKFYGICILTGIGFTMSLFIDGLAYKNS

DIFEYADKLAILVASFLSAIVGFIYLKIVK

>AHK58030.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNNIVHKLKTLVLNEAFGGVLLIVCTLLALLVQNGSFSEHYREFLNLKVGFSVGEFELNKPFLLWINDGL

ISIFFFAIGLELKKEFLHGDFKNPKNIVLPFMAALGGILIPAMLFALVNIGDAYTLKGWAIPTATDTAFA

LAILMMCGKHIPSSLKIFLLSLAIFDDVGAILIIAIFYTTKLSIAAFVIAGLAILVMLILNLLGITRKSF

YFICSVILWISVLKSGVHATLAGIVTAFFIPMQTKNGEAFLEEIYESLKFWIAFIILPLFAFANAGVNLS

NIDIGAIFSGVSIGIFLGLFVGKQVGVFLFSYLAIRFKFAALPQGSNLKQLYGVCILTGIGFTMSLFIDG

LAYEVSDIFNYADNLAILIASFCSGIWGFIYLKFFTTRS

>AHK58029.1 cell envelope biogenesis protein TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTLFLNHKYQASYITFIVFIPLLFVIFHSNDFFKMEIKNEDSFSLAIKQFTQTNPTNETKPTESIIEPI

KPKPQPKVIKKTPEKMQKKIKKTPPHPIPNKTPIAPTQEVKTFAKTTDTNVKPKITQLTQGKDNHPVLKE

IQKAIQQAQFYPRQAKKMRMQGTVKVEFLWKENKTLADLKIIEISGYDLLDKSALESIRKASLNFPHYNG

DLRITLPIIYDFKTLRG

>AHK58028.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFSGFFYARNDLRLFKIEKKNELKSFFYKDYTLSSYKDDLNLNNEIFFYQSLKEGLFKENDEILVSNLG

KKIILFRNFTQNCDNFNETKLKQILLLFFLLLASVFFASLAMINEFGAIDLLFLTICLLLLVMGVINLGL

LFKQIRILKSFSKEEMKEFLSQRMKKYTKV

>AHK58027.1 alpha-ketoglutarate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQELTRTKKIRSIIAASSGNLVEWFDFYIYAFTATYFAHTFSTSDNPVIQQINAFGVFAAGFFMRPIGSW

LFGSLADKVGRKKSMVISVVLMALGSFMIAALPSKDTVGDLAIILLLIARLIQGLSVGGEYGIAATYLSE

LATEGKRGFYSSFQYVTLIGGQLLAVASISIMFLFFSIDDMKDYAWRILFVIGGILALGSLFVRKMMNES

ATKLHQHEDRGTLKALCKSWKPFLMVLGVTSGGSLAFYTITTYTKTFMENTGMDKMLVNNLFLGALFILM

IIQPLFGYIGDKIGHKRSLIVFCILALVGIYPIFSLIANNAQNNPSLTFMLVVLLFVILSFYTSVAGIFK

AKLFPEHVRALGTGLGYAISNAVFGGSAPWVALQFKNAGIENGFFIYIAIFTIIMLIATLCLPKKSELN

>AHK58026.1 metallo-beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFNFITTLLKTNLYFLEEKTTSKNSNQTHIISLKQSDDEFLNLLFSFLVPQSDEDKNFIEKTRTKIKRNE

HNIVLIKNPNFNALIDTGFLDTIDTLKEKLHIHKTDFKDITHIILTHAHPDHIGALMSEENLFPKAQILI

DKKKYDFWIKSDRQEIKNTLLKLKNIEFIDHSKDLIFQNSGIKAIPAYGHTPGQNAIIIDDKIVFWGDLL

HLYDIQIPKPKIAIKFDIDQNEAIQTREKLLKEFKERKLKVIGTHVPFIKPKFLD

>AHK58025.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MANFKAFYKEAKYIFKDRIFNDYARCYAYGIDASCYFYIPKIVIIAKNEDEIKQIIQLANTYKTPITFRA

AGTSLSGQSSCDGVLVVIKFAFKKIKINKDANEITLGCGVVGIHANESLAFLKKKIGPDPATINSALIGG

IINNNSSGMCCGTKDNSYKTLRSIRVILANGSMLDTSDALSVARFKDENKKLINELREIKEEINANKELK

DLIIKKFKIKNTTGYSLNAFVDYDDEIDILAHLLIGSEGTLGFVSEVKLAVLDDLEFKACALLFFDNINN

AANTIKEFAKVDFVSSAEIMDYASLKAASTYDELRDILADIKEGNTCVLIQSEHSNELKLDENINKIKEI

SKLAYKSYFSKNKAEYDLWWKIRKALLPIAASLRKAGSTVITEDVCFNIEDLADGIKSIQELFYKYGFGD

NGIIFGHALAGNIHFIITPDLNNKLEFDNFSNLVKEMSNIVASYGGSIKAEHGTGRMVAPFVEVEWGKQA

YLINKKIKSIFDKDSLFNPDVIISDDKDIYKKNIKQVSWIDEKLNTCMECGFCERFCPSNEYTITPRQRI

AILREIKRLESLNDDESKAKLKDIKKYYNHLVDSSCAACGVCSFSCPLGINFADFSLKYRKNNIGFISKI

LGNLAYKNHEKTLKIAKFSLSIANKFDNLSLDNKLEKASNFLSIIPRTRAYLPKVNDYELKSHKRVCNVV

YFTSCLNKSFKPNEKMHDKRSLQEVFESLCKKANIGIIYAPNDLCCGKAYENFQDIQDKNIQKINDFLSN

IDSPIVLDHSACSAKLISDHSKYEIYDLSEYLLKFIAPKLRIDKINENVGLYIMCAARKLGLNENIIKLT

KLCTNGKVLIDNDTYCCGFAGYKGFFKPQLNISATKGFKKFYAKTNIKRGFSTSSTCEIGLSDATGISWQ

HIAYLLDECSEAI

>AHK58024.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAYTIKKVEKETKISAHTLRFWAKKGLFPFVQKDENSVKYFSKSDIEWVKWIEWLRISGMPIEQVKHYIK

LCSLGIKTAKERQEMLKQTKKKLQNQIKTLKESEKVLSKKIKIYEEMLANEVDGFNPESKDYQPCDKLHK

FKG

>AHK58023.1 permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIYVVFLIFLIFIISFVFSKFKEDSFLKHIPKNTKSSIFTQSAHNPSNFIFKQKSCCANTQDKSKNITIN

YKELFKESLKNYKKLLPYIVVAVFIGAFIHGFIPQEILQKYLNGNEILSIALAAFLGIFLYLRVETIIPI

GLALLQMGISQGVIMSFLIAGAGCSLPELVLLKQMFKMKFLFLFVMIILGVAISFGIFINLI

>AHK58022.1 hypothetical protein N918\_07745 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLSFTFASKKALKSGMVEQEQNGVKAPKNIALK

>AHK58021.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQSFLNTFKEFLYLFTELSVLFIAISFLVSIINQKYEGIFKNNLLVTKFQVILKLYF

>AHK58020.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKYHSLCPIETTLNLIGNKWKILIIRDLLQGTKRFGELRKSISFTKNQNISQNVLTQNLRELEEAKLIK

RKVYAEVPPKVEYSLTSLGNSLESILKSLENWGNSYKNIV

>AHK58019.1 dihydrodipicolinate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIAILCASGKVGKEISKEALKRNLEPVCFVRNSSKMNEFLPQAKIVQRDLFELDSKDLIDFDIIIDAFG

EWENLSLHKKHIECLSVILQGSKAKLFVVGGAGSLYMDENHTTRLMDMPDFPKEYLDIAKASAEVLEFLR

NEKGFKWVYVSPSAIFSPDLPKSNHYKIIGEKFEVNANNESKISYSDYASAMIDIVLNSCYENTRIGVIS

L

>AHK58018.1 type I restriction endonuclease subunit M [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKKKEIKLEDALWKSADKLRKNIDAAEYKHIVLGLIFLRYISDSFMQKYEELLKEQDDGADPEDADEYL

ADNIFFVPEKSRYNYIRDNAKNPKIGKMLDEAMDEIEKHNDTLKGVLPKVYAKDNLDSKCLGELIDLIGN

IAFDTGKSTDVLGHVFEYFLGEFALAEGKQGGQFYTPKCVVELLVTMLEPYKGRVFDPCCGSGGMFVQSE

EFVKSHQGRLDDISIYGQESNQTTYKLAKMNLAIRKIESSQVIWNNEGSFLNDAHKDLKADFIIANPPFN

DSDWSGELLENDGRWKYGVPPASNANYAWIQHFLYHLSPNGGVAGFVLAKGALTSNTTNEAAIRKALIED

DLIDCIVNLPAKLFLNTGIPASLWFIRRQKLPKTVKKTLFIDARDLGTRINRRNKTLNKDDINQIANIYK

AWKNGTDYEDIKGFCKSVSIDEIRELSYVLTPGRYVGLADSDDEFDFDTRFNELLAKLKSQIKTEQELSE

IILKNLEKIK

>AHK58017.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDFKFVLRLLEANQFENEVVEYKKNNKDFIVLGKNISALSNTAALLGIDKAYIIFGIEDGTLNIVGTNFK

PKQEKKGNEELESWLHKVLKPNIEFKIHEITEKEIRLVVFEIEATKISPIKFEEKAYIRIGSNRKELDKY

PEKEKKLWQVLSGFSFENEIAKSNLNIQDIYDLLDYSKCFDMLDISYDNYSSDEYIIEKLIEHGLVKNLN

DSFAITNLGAILFAKDLTKFKGLNRKRIRFIRYQGKNKIHTLEELEGRKGYAIGFQGLISYIMQYVPKNE

VIENAIRKDTTLYPEIAIRELVANAIIHQDFTINGRNPMIEMYSDRIEITNNGKSLIDIKRLIDMPSKSR

NDKLANLMRIMGICEERGSGVDKVIDSVEAYQLPAPDFINNEDYFQAILFSHMPLEDMTKQDRIRATYQH

CCLKWASREAMTNASLRARFKIGDKQHSKASKIISDTLEAGLIKQQDPENKSTKHVKYVPFFV

>AHK58016.1 type I restriction endonuclease subunit S [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNNWKKCKLGDIAEITMGQSPKSEFYNFDNIGMPFLQGNRTFGRKYPYFDTYCTEYKKIAKKGEILFSVR

APVGDINFANNDICIGRGLCSMNAKNGENEFLYYLLHNLRSVIINNESGSVFGSVNKNDLQTIEILLPLL

EEQRQIATILSSIDDKIELLHEQNKTLEELAQTLFLNWFKDREFNSTISDFISMQNGFAFKSKDFIDYGN

NGVIKIKNISNGIVDIVNTDKISQNTINEVNNKFNINSGDILFAMTGAEIGKMGIVPSTNKKLWLNQRVG

MVKERFLGARFLAYIHLTSEFGYDYVINSATGSAQENISATDIENCPFVKLTSEEIVSYSKQLNDFFEKI

IFNLGEIQTLENMRDILIPKLLNGEIKITN

>AHK58015.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKYKFVKFQVKNFRSLLDITLNIDNNNINTICGENNIGKTNFLRALNLFFNHNNGVEYNQNEDRPYHIQ

KGSTGGRKTELIGYFTKNNVTHILKVEFHKDKIVYILNGKMVEWKVARDIVESFKLLFIEASNVNMPSVI

SAILENDALLALDNKRKKQSEPLRTLKLFIEQSKKAIEDIEKDINIYLKQMLDFDNTLKDKEIKIRFAEF

EKLRDVVKTMTSVTLDDGNDHLMDHKGSGAQRIVLLSLMQYITDKITTDIIWAIDEPEAFLQPKLQKKIM

EIFKNIVREKKQPIIMTTHSQYFVDFNNLVNTHLFKLTKEEKIYARKKGRVFQEINTKPIYIGTAFEKLS

VIKKHLGIETNDNWDIMPYNILVEGEEDKKYLQMLIEILNLSMPNIIHSGGATKIAGFLEYFNNQCSYTS

FKPYFICIFDNDEEGRKQYNKISKDNLYPNIKLDAKKLKRYGESIQENNRDIWEIEDFMPIKIIVDAVNI

ILKYKQYNTITNSQISDRKKLAFKNMSILDYLEKCIADRNEEKERFILNTESRKKEICQNAFRAREKYTK

NDLEDYHVDFMNELIDSFNKVDLIKKDN

>AHK58014.1 restriction endonuclease subunit R [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKAKTSEFDLEQFVISSLLEHGWCYEKPVRATDEVLLETSLVNALCRLNPQLDLSKANEIYKELKSKNH

LSLLDSNENFHYKLVNGVNINTTKDGESRADIINLIDFNNASNNEFIATNQLSITEAKENKIPDVVLYIN

GIPLVLMELKSPSDENATINSAYNQINTYKQTIPSIFTYNAFCVISDGYFARAGSISADFSRFMAWKSSD

GINYAPNKSLEIKTLIDGMLNPKTLLDIICNFIVFEKEQIRDLNGILSIKTTKKIACYHQYYAVNKAISR

TITASSKDGDKKGGVVWHTQGSGKSLSMVFYSAKAIKALNNPTILLITDRNDLDDQLFGTFASCANLLRQ

EPKQANDKEHLKELLRVASGGVVFTTIQKFSPENDNVFECLSLRDNIIVIADEAHRTQYGFDAKVVEEKS

KSGDVLGQKIVYGFAKYLRDALPNATYIGFTGTPIESHDINTPAVFGNYIDIYDISRAVEDGATVSIYYE

SRLAKIELSEEGKRLVNELDEKLENQDSQKAKATKLEALVGSTSRLKQIAKDIVKHFETRSSKLGGKGMI

VSISRSVAIKLYDEIIKIRPSWHSDELSSGAIKVVMTSSSSDGVEFSKHHTSKIQKQFLANRMRNIDDEL

KLVIVVDMWLTGFDVPSLHTLYIDKPMKGHNLMQAIARVNRVYKDKPSGLVVDYLGIASDLKKALSFYSE

SGGKGDIITTQEDAVKVMIEKLEIVEQMLPNDYEKYFELDTGAKLEYILDVEEHILSNEDGKNRFIKEFA

ALDKAYTIAMPHEKALSIKNKIAFMYAIKARFLKFAKENENENLLNQALIKQVVDKAIVSSKVVDIFDAS

GIKKPDISILSDEFLLEVKNMKRKNLAFEMLKKILNDEIKAREKLSLTKAKKLAQMLSDAIKKYNNKLIS

SSEALDELINMSKSIVSMEDEAKKLGLKDYEYAFYSALACNDEYEKILGNEKLLALVSEILQIIKNNVSI

DWMIKENVRARLRVAVKRVLNKYGYPPDMQQLAIDGVLAQAEILAKELANE

>AHK58013.1 biotin transporter BioY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLELIGELSLQNYMGEWLEIARKPAFFQKSCLNSKAKYELKYKNGIPYVEIENFCSKKNEISSIKGKAKI

VSNRQLAVRFNIFMNLFNKVNYEIIFVDSEYKVAIVGSPDKKYLWILARNIIDEKNIKELLNIAKQRGFD

ISDVVFDKY

>AHK58012.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMKLKFRKSLILNALLFYILFPWLPVVFLFIAYFFTIKLDVVTANFVSISLVFLVEFARHRNARKLGEDM

MVILKAMAEIFISVVSIIIAAGVFAEGIKALGGVNILANAVSNLGTGNFAWFGILLSIAILSFLVYFATV

IMGSGIAAFNTFGKLALDIATKLGVAPITLVLPIEIASCLGRAASPIAGGIIALAGFAKVAPMDIIKRTT

PLLLIAMLVNVLVAFYLAQTNPLPKEQNTTKIELKIQK

>AHK58011.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MALKIVISSYAGLLLLACIYPVLISLKIRPITAVCVLSLIALDYGPKDGNSINMADMVGQSDNVVGLSLN

YQIYSVITYVVVNCHLDSFLFYLD

>AHK58010.1 hypothetical protein N918\_07585 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSVAGFTAYMKHINASAKLAFLANKPSGKIKK

>AHK58009.1 hypothetical protein N918\_07580 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPIFMICSTLLAVIVVAYYILKYNLIFVFFFQILSCLFLLFTSQEHLYQKPQAESIQAF

>AHK58008.1 CRISPR-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MARILAFDIGISSIGWAFSENDELKDCGVRIFTKVENPKTGESLALPRRLARSARKRLARRKARLNHLKH

LIANEFKLNYEDYQSFDESLAKAYKGSLISPYELRFRALNELLSKQDFARVILHIAKRRGYDDIKNSDDK

EKGAILKAIKQNEEKLANYQSVGEYLYKEYFQKFKENSKEFTNVRNKKESYERCIAQSFLKDELKLIFKK

QREFGFSFSKKFEEEVLSVAFYKRALKDFSHLVGNCSFFTDEKRAPKNSPLAFMFVALTRIINLLNNLKN

TEGILYTKDDLNALLNEVLKNGTLTYKQTKKLLGLSDDYEFKGEKGTYFIEFKKYKEFIKALGEHNLSQD

DLNEIAKDITLIKDEIKLKKALAKYDLNQNQIDSLSKLEFKDHLNISFKALKLVTPLMLEGKKYDEACNE

LNLKVAINEDKKDFLPAFNETYYKDEVTNPVVLRAIKEYRKVLNALLKKYGKVHKINIELAREVGKNHSQ

RAKIEKEQNENYKAKKDAELECEKLGLKINSKNILKLRLFKEQKEFCAYSGEKIKISDLQDEKMLEIDHI

YPYSRSFDDSYMNKVLVFTKQNQEKLNQTPFEAFGNDSAKWQKIEVLAKNLPTKKQKRILDKNYKDKEQK

NFKDRNLNDTRYIARLVLNYTKDYLDFLPLSDDENTKLNDTQKGSKVHVEAKSGMLTSALRHTWGFSAKD

RNNHLHHAIDAVIIAYANNSIVKAFSDFKKEQESNSAELYAKKISELDYKNKRKFFEPFSGFRQKVLDKI

DEIFVSKPERKKPSGALHEETFRKEEEFYQSYGGKEGVLKALELGKIRKVNGKIVKNGDMFRVDIFKHKK

TNKFYAVPIYTMDFALKVLPNKAVARSKKGEIKDWILMDENYEFCFSLYKDSLILIQTKDMQEPEFVYYN

AFTSSTVSLIVSKHDNKFETLSKNQKILFKNANEKEVIAKSIGIQNLKVFEKYIVSALGEVTKAEFRQRE

DFKK

>AHK58007.1 hypothetical protein N918\_07485 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFKIVLRPPGLNFAAQPAALTKCVKF

>AHK58006.1 hypothetical protein N918\_07385 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKALEYLIVIGLVAAAAITAWSVLTVNHLHIG

>AHK58005.1 hypothetical protein N918\_07245 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILTSALALGAMTLIVDCGDGDLVELKNNGNDQAMFDLGNQEIMKKYPNYKLYDYTSVRTISDINNPE

GKIKEMKRDLEIDKTPYSNYVFLLNPNDKKTIKL

>AHK58004.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDILKLAIKDFLSLKFLKFALIPLIFSLILMLFLGVLGFSALLDYFNSLFSVGEDSFWAWFYALHFVQIL

ITIISFLFSGFIVVFASVFLALFITSFLTPFIAKEINQKYYHYDNTNEVSTLKTIFEIFKIFIKFIGILL

LCTLALFLPFINIFVYYLAFYYLFHKLLMIDVTSTILDKESFKNFHSDFSPLEFKFSTLCFYLLSSVPLL

GLFLQVFFVIFLTHLSYQRILKLKAKA

>AHK58003.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPLLSVIIPFGLSKERPYIEERVLQKAKFFQSDENIEFIFVEGYSSKDHELKNFIQANHHIYLKDMDQKA

FSQGRCRNLGASYAHSNVLLFLDVDCYISLDNFEKILKLIQIKNISQNINALIVLPVVYLNKEANEKLKQ

YDDKFWDILIQEDLFTAKNTWVKFFAPSSTSSIVINKHQFLRLGGNDENFIGHGYEDFDLFARILKACVS

FEKMPTNLSYDARNWNFFNFKGFRSWFSLLGYEACFYGIYIYHFYHIEPNQNAYMQNKDKNHQLFYKHLK

NIKKHDLKPLQVFKAKGEKVLMLFKDQNYDFKDISVYVGEIIYKNISDFFIAKELKYELLLDFLQQEKIT

KIFLDASIKLQFNGIDYCDIFYFQKGILPHSWFFAKKLDLGYKQDLNLSEQKLYQVKEYFLTLKEDEKKV

ILDFLSQNNDDKYDLYKMLYYLINELYSFEHDGIFYQIIIDKEKMLIAQKHDKSFYPLRSFVYKPYLHEL

KSIRPFSFLMKILGLEYLGAMISHTKFYRLARKLFFNPKGFFEDFNYKIMKGKI

>AHK58002.1 UDP-glucose 6-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIVIVGIGYVGLANAILFSKNNENEVVLLDIDENKIQSINNHKSPIKDKLIEKFFVQNISKLHATSNIK

EAYFNADFAVIATPTDYDEQLNFFDTRSIENVLKDIKNINSKINVIIKSTVPIGYTKTIKQKFNMSNIVF

SPEFLREGSALYDSLYPSRIIIGDKSVLGKTIGDLFLKNIEKKNVDIFYMDSDEAESVKLFSNTYLAMRV

GFFNEVDSYARKHNLNSADIIKGISADDRIGKYYNNPSFGYGGYCLPKDTKQLLANFYNIPNSLIKAIVE

TNEIRKKFITQLILEKKPNILGIYRLIMKQNSDNFRNSVIIDIIKYLQEYNSNIELIIYEPLVKEKKFLN

IKVENDFNVFGAKVDLIIANRFDDKLKEIKDKVFSADVFYTDI

>AHK58001.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTVGVVIPIYNVEKYLRECLDSVVNQTYKNLQVVLVNDGSTDENSLNIAKEYTLKDERFILFDKENGGQ

STARNVGIEFFSKEYDFKNITQELKENSLVEFKLDNEDNPYNIYKIYKSSNFFKNKDELLNFKAPDIDYI

IFLDSDDYWELNCIEECVPKMDGVEVVWFDSCSIFEEGFKKQWSSLLKLYDLHEGVIKSKVWLEYSINKK

IYNFYFTWSGMIDFIYLKNIKLKFIDYIIHQDHHFGMLLFAKCKYIYIFPSSMHTYRIRSNSTINLSDSE

LQIHIPRYMQSIYDSFNINIKEAKEYYSSMSMFYVLKNCFNDKILMENRYNAYLLEKAFFKFICERCLRI

FLLKRDPCCIKIQIKKILKQYKNYRYVHLTNFYGAFIYFKIFKINIIKKYIRYLFFR

>AHK58000.1 UDP-galactopuranose mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYDYLIVGSGLFGSIFAYEATEKGYTCLVVEQREHIGGNCYTENIKNINVHKYGAHIFRTSDQNIWDYMN

QFCEFNHFINSPIAIYKDEIYNLPFNMNTFSKLWGIKTPNEARKIIEMQKQIIQHPPKNLEEQAISLVGT

DVYEKLIKGYTEKQWGRSCKDLPASIIRRLPVRYIYDNNYFNDPYQGIPKGGYTAIFDKMLKKSKVILNT

DFLKYKDKFKNKAKKIVFTGCIDAYYDYRYGALEYRSLKFEHKILNLDNFQGVAVVNYTDKEIPYTRIIE

HKHFEFGNTDTTVISEEYPLEWIKGIEPYYPINDEKNQALYEKYKQLAKHESNVYFGGRLGEYRYYDMQD

VVRSALLFCKNELKNKQG

>AHK57999.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISDK

KSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYILESNKGKYSKITPIDF

LYNQIISFKTHPNIFNFQSINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINEAFY

MLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLDFLK

RFSQDFRKILKDKELDENLFGDGDMKIIYSIVENPENYYFLYMGYCNDMFGKLYFGASERIKWQLSYRIG

KLLIDLKNPVQILKFPFKLFLEIKQFKFEQKIYKTTIKFYPNLQLPPLEEYSDYEQALKTKKHLSYILGK

SFINNPILFIFKIKKIYKQYKKDISSSKKNIKELSDYDFLLNRHKQIFDYTPDFKCPVTFNEKLIYRILY

DRSCIYSFLADKIKMRFYVASALSDNHEYSWDKIDILNEKSILFNNIDDLQDKIFETNKCKYLPKIYGIY

KNIYDINFNELPNSFVLKTNHDCGGYVIVENKQEFLRDTVVFSNAMKKLKKHLEWNYYSVFREWHYKDIE

PRVFAEELLLGENKKPADTYKFHIFDKENLSNNFIQVTTDRFDNYQRAMFDLSWNLAPFNFMYDNKNVTM

IPKKPNLLDSMINISLILAKPFDYVRVDLYQFDKKIYIGELTFTHGAAGEKVIPKEWDKKLGDLWRLKRL

DNASK

>AHK57998.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQANKNIQKLTPYLSIPHKIWNSSQSNILKLDWNEATIPPSPYVIESIKKFLVNGNLNWYPNTKNLYLLD

KIAEYTKQINSSFVELFEGSDSAHECIIDVFLDKCDKIGIVSPTYDNFRSRANGVGIETISFTLDDNFNL

DFDSLEYFIHEKRIKLLYLCNPNNPTGKSYNIQKIKSLIINNPNVMFIIDEAYYEFTSQSVCDLVEQCNN

LIITRTFSKAFALASFRIGYIISHPENIESINKLRNPKSVPMLSQIAANAALEDLQYMRDYVDEVSCARM

EFVKFLNTLTTGGGGIFNDSVANFVLIQNENISLFVGFLEKEGIFIRNYSHLISKNCRISIGTRNQMSYV

AEKIQEFAKKQGGFHLV

>AHK57997.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFDAIIVRIIFTFVFFKDLMLIKLNDYEKNITQKIKDLKNASGSHSPSIFTMAEQIPELNIKIDSCFLSN

PYATALFLRYLKEELIDGQKLRSVLEFYPSQNSIIAKTVADFIGIDPKNVFIGNGAIEIIQAVMHNFVGK

KIIVNIPTFSSYYEFAKSETNVVYYQLSKEDNYNLNIEHYLNFVKNENPDSVVLINPNNPDGGYINYEKL

RYILSELKYVKNIIIDESFIHFAYENKDYNGINIEYLFKEFHNTIIIKSMSKDFGVAGIRIGYAIMSEDK

IRGLLKNGYLWNSSGLSEYFLRLYVRKNFFDEYDKVRREYIQETQTFFRKLSGIKQFKVYPSMANFALVE

LLDGSSSTDFVAKMLIKYGIYMRTCNDKIGLEGEFIRIASRTLEENDMVLKSICDVFKE

>AHK57996.1 phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKEILALFDFCETLTNFQTLDRYLPLAGSKNINYTQSKNLARRERFQRENLPYPRYEWLIDLDVDLAEE

IAQEFVYTDVMANLNQNVMDRLFWHQDEGHTIVIVSGGLTIYIKEFARIYNIENIVAVDLEIYKNKLTGN

IDGIHTMQERKLYKLAQKFNLKQFDLKNSYAYSDCVSDIPLLSLVGNPNVIECGKDLQWARILGFNILLK

Y

>AHK57995.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISDK

KSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYIFAYGKTEYVNVLRNSC

EDIYNYKVNWNKDIRIFLGSDGINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINE

AFYMLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLD

FLKRFSQDFRKILKDKELDENLFGNINMQRINKIIENPVIYYYFSRGARARLQNQLVYRLGKVVVEAKSF

NKIIKLPFLMLKICLEHNFEHKVYRSIVQFRPDLKLLPLECYLDYHEALVIKEHLSYKFGKLILLSFKGW

YKGKIFILPFMLKKRYKEYKNKMI

>AHK57994.1 UDP pyrophosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQRFKKWFLSIIKNFKQHEKIKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNT

KIDLNNTKIDLNNTKIELSQLKKEHYKVLDFHLRKITPQAFLEIVEIHLAESCNLNCFGCNHFSQIAEKE

FPDIEIFKKDMQRLSEISKGIVGTFRLMGGEPLLNPNCIQFFDITRYFFPKSAIWLVTNGILLDKQNEDF

WNSCQRNKMQIRPTKYPIKINWDLIKDKCDQYDIPLIFFNNGELEKTSWKFSLDPSGNCDNYHSFTNCSM

ANHCVQFKDGKLFTCTFPAHVQHFNKKYGNHFEVCEFDFIDIYKAKDYQEILFFLSKPIPFCRYCKVSQW

AEIGKWRSSNKTKHEYLI

>AHK57993.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKKILLITPELEYTGALNSFKRICEVLLNNKYAVDIWTYNEGPYISEFDKLGVYVEVISEDDIDSKWVH

ERISKYSLVIANTIVVYKCVELIQNLTPVVWYIREAENLPDFFWKPERKLALEKAKKLYVVSEYAKDFII

HNYNKNVEVLHNYVDDVFYEKHDDFLKQIKSDKLKFLALGTIEKRKGYDVLLQAFIDLPVDIRDQCELHF

AGRFWEGAKDFFPKILSLAKKFPNIFYHGELRDRKKIHSLIFQCNVMVVPSRDESCSLVALEGAMMSKPL

ILTENIGAKYILDENSGWLVKTGSVDSLKNAFIQAYKNKNKLDAMGANSRNNYLQTSTYEIYEKNILKMV

RDEICKNQYLYRINQENYVLFSFDIFDTLISRNIAKPSAVFLIMKQKMRNMDFPLNLVKNFDRIRVEVEQ

YYYRNVCKNKYEDTNFDEIYNLLQQNFSLSFQQKEELMKLEINTEKETLYPIKKNIELVEELIKNEKRVV

LISDMYFSSSIIRTFLNKFSPIFNNIPIYMSSEFRLKKNSGNLFKAILNLEKVDPKKWIHCGDNWVGDYL

KPSNLEISTNFYINQLLPYEEFALNRNSLDMDLQKIIGISKKIRLENTLTNLQEIGVSFGAPMLLPYVQW

ILNIALKNSIRCLYFIARDGYVLQKMTDMLIQAKKINIKTKYLYGSRESWREPFRNKDKLKIQLIDEYLD

QEIDKQEIFAFVECCGTGETLDYIVKRIESNQQFKNMFFGSLYLYRSKLNKTKTQSLFMLPLNENYTYGI

ELFVRSLQGQVLGYDKKDGRVIPVFDFLEGEALQKFRYDEYIDGVMLFMEYIVKTDNYEKIFDNMNVTIL

YLNYLSNNYIDKKFIEIMGNVPFILNGVKDRVGIFAPRLNNKITLDQKNSFFNWSVLRSCKDIRVKYNMD

NDCYFGLIGAVDIIKSHLSYKLGKVILLNIKNPLKWIKLIVLIPILIFSHHEQKKIYLTEKKINIDLSFY

KDYNEAIMVRNFFSYQLGELILKTSRKWNVLAIVILPYKIAQLYRKKFKKG

>AHK57992.1 capsule biosynthesis protein CapA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDNSKPLIIAGRDDGFGERMRALLNALYISKKFGFKFGFVWRDINNIQNLLDGKVLIPWANLPTREYLFD

QDFIKSYYRQDIEFAYETPVLWSLYRQSIKNILKKPYEKEWGWYSTQGDLSEYFTDVDEGEYRTELVSCW

KQIDFSSHVKKIFEKAHSKFLDIGKFVAIHIRTGEVIHDEFYRNILYHCRYKIFPYPFALEIALKEIKKG

HRVIFFGDDLNLIQNLKEYCSFNKQAQENIFSIDDIIAFEQLDNGYDRLLFELVLMSKSEYIFGSGTTGF

SRCASWIENKIFINIFDHLSLIEQYEIILKYIDIENIDDLYRSCNYFFLFLLSEQLNLNFDIKLRYLSKS

LRYDSGSLNSEVFYINLLLQNEKFKEADDRLEQVICKNKKKFFDLLLGYGQNPTFPYDIYMNYYFKDFDQ

YSNIFYVACRIFSEFNIPESRVNTYYPNFHPIIFDQFKMFIFKDLPKSDQEIGAVKKIRNHLAYKLGVAA

IKNSKSLWGYIRMPYVLSYIRDMHKESQNKMDKKSISLEYYSDYESALKEKEGFVYKLGQIIIKAHKNWH

KGGYIMLWFEVKKLKKEFKKGK

>AHK57991.1 dTDP-4-dehydrorhamnose 3,5-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAIEFDIQESKILKGVYIITPNKFRDLRGEIWTAFTDEYLSKLVPDGIKFKHDKFINSHFNVLRGIHGDV

KTYKLVTCVYGEVHQVVVDCRKDSPTYLKWEKFIISYKNQQLILLPPNMGNSHYVSSKEAVYYYKLAYEG

EYMDAPDQFTYAWNDERIGIDWPTNTPILSDRDILATKNKG

>AHK57990.1 hypothetical protein N918\_07115 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKLLKELNNNIKLSNQLSYQILMSNIISNLDIDKKDKEILLLLLQARDRNYIRINNNEQCYQNIINYLN

LIRPLELPLCDLLRIGGNGDGGYVMYNGGGDMSDINAKALSLGVSDSSPWDLEMAQRGFKVIEYDASIEK

CPYDHENIVFHKKFIGNVNNENTITLVQALKDNNLDENKPNILQCDIENCEWDMLENIDISILNKYFSQV

IFEFHGCNPEEQDGVEKRISLLKKLNEYFVPMHTHFHNHGKIFYSQGLFFSTTLEVSYLRKNLINLDIMK

YRDVAGGFKNLDFPWISNPEIPIRFRGY

>AHK57989.1 GDP-4-keto-6-deoxy-D-mannose-3, 5-epimerase-4-reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQTNSKIYIAGHKGTAGTALVENLQKRGFNNLVLKTRQELDLVNQQAVAKFFKEEKPEYVFLTAVLPCGA

ANVAQRADFIYENLMIQNNVIHNSFLNNVKKLVFFGSGYMYPENAKNPLKEEYLFQGDLEYGAYSFGAAK

IAGAIMCESYNIQYGTNFITLVLNNLYGTKANFDFGKSRVLPALLRKFHLAKLLSEGNITQILQDLKMNN

FEEAKEYLHNFGISKKSVEIWGTGKVRREFIHSDDLADVAIYTMQNIDFKDLIKDRKSKNTHINIGTGID

YSIKEVALMVKNIVGFSGELVFNTSRPDSTMDRLMDCSKIHSLGWKHKIELKDGIKMMYEWYKTQN

>AHK57988.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKKVLITGGAGYIGSVLTPILLEKGYEVCVIDNLMFDQISLLSCFHNKNFTFINGDAMDENLIRQEVAK

ADIIIPLAALVGAPLCKRNPKLAKMINYEAVKMISDFASPSQIFIYPNTNSGYGIGEKDAMCTEESPLRP

ISEYGIDKVHAEQYLLDKGNCVTFRLATVFGISPRMRLDLLVNDFTYRAYRDKFIVLFEEHFRRNYIHVR

DVVKGFIHGIENYDKMKGQAYNMGLSSANLTKRQLAETIKKYIPDFYIHSANIGEDPDKRDYLVSNTKLE

ATGWKPDNTLEDGIKELLRAFKMMKVNRFANFN

>AHK57987.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKEQLEVLKEALNGLIYQIDNHQQARKPIADVERIISELQVLNHWNKQENVYNALHLIQGAIADPQGLG

RLNLLLDNARIPKQYYDIFYKMLYVDKYGGGDGYRPVCIDCGGHAGLITDIILHCGGQSYIFEPNIYLNY

FLRKKYENNINVKLFQKAVSDRNYETDFIMFGNRILSQGNRIVESVQDSQTEKTYKVQVIDLCEFIENEI

LTQHKRIYFLKLDIEGMEFEIMKKIIEKKIYKKIDYIACETHEYMFDDSEKKIGELKQLINKCNIQNILL

DWI

>AHK57986.1 dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTIRTQTPLRLGLAGGGTDINLYCDKYTGYVLNATISLYIHCTLIKREDGKIIFDSPDTNSYCEYESKE

FLGNDGKLDIFKSIYNRIVKDFTKKPLSFSLHTYSDVPSGSGLGGSSTLVVGVIKAFAEWLNLPLGEYEI

AKLAYEIEREDLGIVGGAQDQYAATFGGFNFMEFYNNKRVIVNPLRIKNWIASELEARTVLYFTNITREA

KDIEEHKKGKLGDEKSLEAMHAIKQDAIKMKEALFRADFGTLAQILGKSWRSKKIISEIVSNDELERIYK

LAIDNGAYSGKTSGAGAGGFMFFFVDPTKKYNLIKALRKEQGYVQDFSFTKEGVKSWRI

>AHK57985.1 D-glycero-D-manno-heptose 1-phosphate guanosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQAIILCGGLGTRLKSIIKDIPKPMAPINDKPFLEFIFEYLKKQGIKEVILAVSYKYEVIKEYFKDEFLG

IKIKYSIEKEPLGTGGAIKETLKFVKNEAYVLNGDTFFDIDLSKLKLNESKICLALKQMNDFDRYGTVNV

DEQDLVISFEEKVFKKQGLINGGIYLLTKDIFNDFALQEKFSFEEFLQENYKKLKARACIFDDYFIDIGV

PEDYYHFLINN

>AHK57984.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFVGFFLHTSGEKAMERFLKEVGVVLIGAFGYEDGKRY

ISIFNFLISEACACNDLKFAIGILDVNCQKYDKFCFLLQNKPVLILLRDPIDSLKSFINVRHQKNGFNEI

LKIDINNTDFDKINDRIVYVHESNGCFNPDTNQKFPSLESIKALSDTNHWMLMYNIRRNKTIEFFRFNKI

IYIDMMDIVGDKTLFTLEKLSKILNFSSPDKNNKIFYQQLYSPLTVLLPCIIKVNNKVKIFVSNRFSVKN

IQIMENCIDITDKFKEIFHENLIIFCSKDHFDSLINNQTLYNVVLEYINKFLISLKKRINVEKNKEVKVD

DVLDYFKKNISVAKSYKDILDEELVYIKQHRPDIVASWKYYQEFERMCKELDENNQNPSLSFSNQ

>AHK57983.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFMWFFSHGAGAFTLGQFFYHLFKINILDYFCGGDGDI

RYYKFYNKLLELKDKRNIITINDIDPSWYGNQHKRDKLFSSFQKITPILFQIRDPIELIKHAYGRKWGNN

LAKTKEFDLSYQFNDIITEVEVYNYNLPNTLEGQRPQSFLWKSLIECFDKFNDCFYLDISKIRGEETIHT

LNYLSNKFNLKQIKINDKEFVTKSYFKGNLYFLLPLTLYLNKEDLNTNIPNKKINKNNSLIININFFQND

NNLFNLYSELSILDMDSSVGFYIDKQDYNKLKNDSIFYKQVIDYLRNFAYELKNRIQIEEDLMLKVEDVL

RHLYNNKNARVSAKNILDEELVYIKQHRPDIVASWKYYQEFEKMCKELDGDI

>AHK57982.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKQGDFTKVAKHYHNRPAYSPFLLEKLVACINDKNKNLKDLNIVEVGAGTGKLTKMLGEMFGCQISAVEP

NDNMREEGQKFTQNLSNISWHKGSGEETCMSNNQADWVIMASSFHWTDPKKSLPEFNRILTGGGYFTAIW

NPRHIVEGSVFDEIEKEIKHIVPDLARVSSGTQNVKKWEEILVSTGDFIDCFFMECDYKEFWDKERYLGA

WHSVNDIQAQAGEKRWKEILEMIEAKISHMQSIEIPYKIRAWTARKA

>AHK57981.1 iron transporter FeoB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIKIALVGQPNVGKSLLINALCKANMKVGNFSGVTIEKASAKTFYKNYEFEVIDLPGTYSLDGYSEEE

KITRHFLNQNDYDVIVNVLDATNLERNLILSAELLSLNKKMLLALNMCDEAKKEGIELDTSILSQEFQSQ

VVEISAKTKENLELLLQKIIILFESKFIPRSQFYTPLCEKSPEKEDLLYFINELSKKIITHKKEERNLTK

KIDALLIHKFFGLPIFLFLMWLLFQLTFSLGQIPMDYIESGFNTLGEFVKNNISNTFIASALADGIIAGV

GAVILFLPNIMILFLGIALLETTGYMSRVAFLLDGILHKFGLHGKSFIPLITGFGCSVPAFMATRTLKNK

RDRLLTLFVINFMSCGARLPVYVLFIGAFFPSEKAGNYLFGIYILGAILGLCAAKFLRMTAFRGLDEPFV

MEMPKYRMPNWHLVWFMVYNKAKMYLKKAGTFILLASLLIWFASNFPKSEENLNDFNAQERAIEQSYLGQ

FGKGIEPIFQPLELDWKLSVSLISGLAAKEVMISTMGVLYSLGKDVDETNNDLKGIIAKNIPIPSAVAFI

LFVMIYNPCFAATIVFSKESGKLKYTLFLFLFTCTSAYIVAFIGLHIAKILLN

>AHK57980.1 2-methylcitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQVSIKPYPSCHFAHGLIDCAIALKNDGLKADEIKSIRCFVDEVPISFICDPLEAKYTPNSAYEAKFSMP

FLMALGFFDGKITLESYENLKREEVLEFAKKISYKKRKSQGFPKYFPGHLEASLQDGRIIQKDVFINKGN

FDNPLSFEELKAKFLANAQIYLDNTKANKILDQIINLENLNHFSF

>AHK57979.1 2-methylcitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFYSEILADFIFNLQYENIPNTVVQRAKELMLDSLGTAIAASKEECVLNAFKAFENLSTEKNTPVWVHDK

KLDPIYAAMLNGIASHALDFDDTHTEAILHASAILTPLCLSYGFHVSKDAKKIIKAFIIGWEIAARVGIA

SKGTFHKRGFHTTAIAGIFGSVSASAILLDLNKEQIINALGLAGSFASGINEFLSNGSNSKVLHIANAIK

NGILIANFAKNNMSEPLSIFKGRDNIFKCFGIEQECDKTELDKGLGEI

>AHK57978.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTGISVFDHRLLADSWSTQEMRAIFCEQNRIQKWLDVEAALAKAQAKLKIIPKKAADEIAKKAHYKFMDM

DFIFAEFKKTKHPLVPTVRGLEKACDNNLGEYVHFRVTTQDIIDTGLVLQFKEAMTLVKSELKAIAKALA

KLAKTHKNTAMMGRTLALQALPITFGHKVAIWLSELDRHFERILELEKRLYVGSIVGAVGTKASLSDECN

EVEKLTLENLGLEVPNISWQSTRDRFIELGFVLGNINATFNKIAHQLLILSHNEIDEVAEPFGKGQVGSS

TMPHKRNPAVSENAVTVSNAFKANLAILSDIERHEHERDGQVWKMEWKLLPEMFLMLSVVLANMKFALSD

LEVKKDKMLKNLDTLKGFVLAERVMFALSDHYGKQHAHEIVYENAMLGIEQQKTFKEVLLADTRVSQVLK

EKDIDALLDATSYVGYAPKLVDEFLAKIKNSAILK

>AHK57977.1 hypothetical protein N918\_06875 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILFLFCSFFLAFAKPSLEIPKLSKQAKQNFILENVKFNYNGTIYKIFIAKNKNENSNYKYKIIYLLD

GNAFFPLFLNLFNTPVKENLLIIGIGYDNNLAFDTQKRTKDYTPTTNLNKQGGGSKEFRNFLITQLIPYI

NKMYPIDFSHQILFGHSFGGLFAIDTLLYDSKIFSHYFIISPSLWWDNSEFLPNIIKLQTCPKIYIGLGS

LETNSSIIKGVAKLNAQKLSEKISKETNCKTHFKLFKNETHGSVISKAMLWMKKLLDLN

>AHK57976.1 peptidase S8 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKFFCLTLVCKLFALSEFELHHIDKVHKLGYSGDTIIIGVADDAFNQDHISLKDKILKSTYPTDTAGKQ

LIPDLKKSTHGSHVAGIAVGAKIGDSKPYGVAYGAKFYGAGVFPNGSYTQIPDIYNFFKDVSIINNSWGI

NFYPYFNLKASNSGLVDCTQTNQGTSYNICNTPLEYVMKADKVANDMMRLSKDKGVLNVFAAGNEGILSP

ALHAILPSYDESLRAWLAVGALDANEITLESDGTLIIKSQGLADFSNGFKGATNFSLVAAGVNINNVDSS

TNDKFTKKSGTSMAAPMVSGTAALVKQNFPFLDGKQIADILLSTANKNYKAPKFTVKQVTDGTNQPKFLI

VYISQDPPGIEDEIKRDLKQLYNGIQVQVNGQWIDYSDYIWDNRDSAQSQKLNTSTISSINGVVRVEKEE

LFGQGILDAQKALKGLSILDANRLSDQDVLKYEQEPNTAYYTINTAGYDAEFSNDISQRKWDESTHLSSA

INKPTHLANLNIGLSKEGEGILIISGQNTYEGATLIKQGELKLKGKVKNNAYVEQKAILSGNGIVGQNLN

NKGIVRPGNEDLNDLTVQGTYTQEGVDSKLQLDFGNYKNSKLIAKTYDIKSGNLEYIPLPKYYILNKPVK

INLGDLEKSLSSFNHVLIQNTYALNFDFVLSDDLVSINKTLIKPNLKPNAYEIPNTSLGNALRQLRSRAD

LSQTYQEFFASLDNGIDVKTKLNRIEGSGYLSTFSNHNQSNLMQNNMLFTLHPLNINNFAQNNNILLAST

YLPRIFSNEEYFWHLTPSYKYYKDKDFSGQKTGANISLGENFSSGFLAYALSLSSAKFNFNNGSDLKSYN

MDLLLNYNHDLDFIKILSGLGIGVGFNTLNRFVVEQPIEGKYKTLQTSAQLGVTKDIILGQDFIFNPLMY

FTHSFFYQEDFKENKSPFAKNYESLKHHSINANLGFNLAKNIEQDDYQASFSTFVIFEKRIYGRTLENKA

SFVDFPIAFIQKYKLKDNILSQGFNSEFLYKNNVFWQFMLMNRFSHNAYELHLMSSVGKRF

>AHK57975.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFFKHILSLKVLIALLLFFGMISLFIGVISINVKDILNLNSTQLEIITLTRIPRLIAILLTGMSLSICGL

IMQQLTQNKFVSPTTAGTMDCAKFGILISLIFFTGASFFTQAIIASIFALLGSFIFIQILRKIKLKDVIF

VPLIGLMFGGIISAITTFFAYALNYIQNIQGWLQGSMANVMQGNYELLYISLPLFILAYFLAHKITIVGM

GEDIALNLGISYNGILFLGLMIVSIITSLVIVSVGIIPFLGLIIPNLVALYLGDNLRKNLIYIALCGALF

LLVCDIISRLVIFPFEMPLSITTGVLGSLIFIFLLLKRKVYA

>AHK57974.1 hypothetical protein N918\_06715 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQTQYSLDMAGKIYRAEFYELRGANLQQLLEANINSKLIKNAKNLDLNTLKMARSKDKFLGSILVEFE

>AHK57973.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIVSKAYEIDSCDDVELGIKRESKLEFKLWYDDEKTPEALVFVVQGMGDDISSIQYVGDYMVRQFNTAVV

GVNYHCIGNRPQTGSSFFMDDIDKLILKASCEAADIKLPYDVDKIQDYKAMSEIFHFVNNQIVEGKQKGN

FTPNYFLNLHVSLQPTKNEYQNFGIMQAQDLLNVALYLKKHAPFDTMGGGIPIIMIGGSHGGYLAHLAAK

IAPWLVDGVLDNSAYAKFLWRVVGFGKEIDFMQYSEFATFDFFHHIKTHCSTKTFWTSNSSSPRFFSPAR

RKIRNLLEEDHLLKQSKCLKTCFISYHSLYDEYVSLKEKTMFYEELEKLGFDVTLHSITKESQVDGKFIK

NLNHGMGIPVKLLIKKELPLMLEKIKQNSKKDYKEKCISYPCEDLLYQFSEKDDKMSLKIDKI

>AHK57972.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTILEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELCSGKIYLVDIEEERVDIQL

LILFDMKDMFEYLSLYEMFVNNVYYKKFYEDVWHKADELCEKNIKVVIRNLNSSLCIGFECYSHLLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENKTSLNMLSCATHPSLVHFLDNKSVVLRDDPLYQRFNLNDFGYIDTGTHVSHFSYT

LALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRIKLE

YLFACNEQKAKFYNATEGGARINFTEELSFKECCEKLLTKEKPQFELPKSLTKNRSDKLLVKFKEKIQKD

QDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDGILKAVMYERGLKIS

LVYKENIIDNASFISAYIKAYHEWLLYFMEKLEQRINIIIDSFKELP

>AHK57971.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLLEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELKVYKVVLFDCVAKDLEIQI

AMIFDQQSILEYLSLYEMFISSHYYLKYYETSILSLNELCIKSASVAIRNADITCFLPLLTHGQFLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENLKQSIIALECATHPNIVRSLNAENCMIVLRNKALYQRFNLNDFGYIDTGTHVSHF

SYTLALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRI

KLEYLFACNEQKAKFYNATEGGARINFTEELSFKECCEKFLTKEKPQFELPKSLTKNRSDKLLVKFKEKI

QKDQDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDETLRGAFAYRGK

MIADVLKLHIQDKTHFITAYIKAYHEWLLYFIEKLEQKYKSLSKV

>AHK57970.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGFRINTNVAALNAKANADLNSKSLDASLSRLSSGLRINSAADDASGMAIADSLRSQANTLGQAISNGND

ALGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTVKATIGATQSSKIGLTRFETGGRISTSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALADEINKNADKTGVRATFTVETRGIAAVRAGATSDTFAINGVKIGKVDYKDGDANGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGQIDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TAITNLDQIRADIGSVQNQVTSTINNITVTQVNVKAAESQIRDVDFAAESANYSKANILAQSGSYAMAQA

NSVQQNVLRLLQ

>AHK57969.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGFRINTNIGALNAHANSVVNARELDKSLSRLSSGLRINSAADDASGMAIADSLRSQAATLGQAINNGND

AIGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTIKATIGATQSSKIGLTRFETGGRISSSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALAEEINKSADKTGVRATFTVETRGIAAVRAGTTSDTFAINGVTIGQVAYEDGDGNGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGRFDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TATTNLDQIRADIGSVQNQLQVTINNITVTQVNVKAAESTIRDVDFAAESANFSKYNILAQSGSYAMSQA

NAVQQNVLKLLQ

>AHK57968.1 PseE protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MREENNFNKNLKALSGFEYNNLRKKLEDLKELREFTFTQGKDNLDINIIKKRNLKKMYQDPIKELEKNLE

YFKDFTRYPVLFFYGFGNGILYKILLQNQALKRIIIFEKELELIFLALNFIDFSKDLSLGRLIILHHDDI

NLPKMDKVFRLIGDLFYRSYNLHIANDFYEHYKEDILKLNKLNMQIIKNHNLMHGNDPKDALQGIEQFVY

NLPSMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGIKPDYV

CMLERDEIVAECFNNDFKDFDKDIIFLVASLVHKKTISYLKKNKRKYILIIKGQPFARCLGLDDYGYINA

GMSVSHMAYELAENLGHNNIILIGQDLAYAKDGQTHSQGFIHANLHNGDYERDLDRFSTTAYGGNGKVQS

SEIWTLFRQIFENFIAFSKSKTYNCTEGGARIESAIEKPFKELCEDLLKNKKDKKFKKLQVLNTKEQVKL

GLKIYQKIKKNMNLSLNFKKECKKVQKQIHNLTHGKNKLSLEQINQNIDKIKEKLSNKKYLFLQEILGPT

LHHEQSILTPLYLKDIKDESDKQNKLFAWVYAHEALIENIIELLEVQDKRLKIAILPLLDFLEKKKAL

>AHK57967.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGGGYNENLLYQDPIKELQTMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWV

IFHILDFSNELQNARLMVLENDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAE

NFKNIILRNGNDPKDALQGIEQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYA

SKATIFCADSSYPILAKHGIKPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNL

VITQKVLAFPYYINLKDFSYAAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYE

SQMYEHILTEAYGGNGKVETHSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACEN

LLDKDLNKPFEKLEPLSLNKQNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLA

IRKIDEFKNKLENIKQMQDLYEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGH

IKAQENALIKNILPLEEKLKERKLDKWMERVRR

>AHK57966.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGL

>AHK57965.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MREELFLKNTQALFEVDEFLACTLRSLKYLTFALIQDENGINFKKDDIFLYENPNKELLENLTLFKTEYN

KYPVLFFYGFGNGMFYKTLCKNKQHKHIIIFEDNLEILTLAFHLFDFSEELKKEQLILFYTPNINTAQLT

TLFTYEIIQKSVKIFNLFIHNDFYQQFYSTQIQNINTQLIEMIRFIVLNKGNDPHDSLVGIKHTLDNLPK

MLNHGIFQEFLKERRAKVENAIIVSTGPSLIKQLPLLKKYANKATIFCADSSYPILAKHGIKPDYVCMLE

RDDIVSKCFDNDFGDFNKGILFILASVVHKEVLDFLEKDQRAYMLVHRPLNFAASLKLDEYGYLGVGHSV

SNMIYELAGALRFENIIFIGQDLAYGEDGSSHPKEHIHGSQGEEIRGEKYTLAYGGKGKVRTQLTWNLFR

QAFEKDIFWAKEKLNITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFDFPKFLDKKLAKEKLEKT

KKYLQKSILESKEFIKKTQTQLQKLRYTLEKNDKNFQTLEKIKNDLLNLFKEFKKLKLFNELCQAIYFHN

ECEILKFEVLNTNKQKENLIDFLKIQHNWFIQGLGYLDTQNKTIEKSLENWNFDDIIKK

>AHK57964.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMTFTPTQKELFNKNIEALSNLFLKESLKEIKSSKFELILGKDNLDINLKDTSDNTFLYENVIDELNSML

NTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQSARLMILQTS

SLDIELFSNFCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLVQDFKDSILSHGNDPLDALQGIEQ

FVYNLPQMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHNIKP

DYVLSLERIPLTSEFFNNDFGEFDKDILFVLKSYVHPHTTKYLQKNNRNFMLVSTYASFINYLKLDDFGY

FNMGFSVANMNFLLAIHLKHKNIVLIGQDLAYAKDGLSHTKDYSNLDKHEGHFQRDKNKYTTQAYGDNGK

VESSFVWTLFRHNFEQDVANAKKNYYITTYNCTEGGARIEGTIEKPFLWACENLLHKDLNKPFEKLEPLS

LNKQNEFLLKAYYKVYQSIKHCRDFSNKFIKSYDKIKNSFMSLQNSQENETLIKEIIKDIDKIKTQIDEL

YNTQKDLMQILGPLLTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNIL

PLEEKLKERKLDKWMERVRR

>AHK57963.1 flagellin modification protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLENKIIFVAGACGRIGKALCEKILLSKGIPILADINKECLNKLQENLETNFKTKLLSLELDITKQESLQ

TALQKSQERYGKIDAFVNSSYPFGKDWGKTPYYELKYEQICESLNLHLAGFMLAAQEFVKFFKQQGYGNI

INLSSIMGVYAPKFENYEGTSMQSSLEYSVIKAGINHMSSWLAKELFNQNIRVNTLASGGILDNQNELFL

KAYRKCCASKGMLDADDICGTLVFLLSDESKFITGQTLVVDDGWGL

>AHK57962.1 Post-translational flagellin modification protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAEILCTICARGGSKGVKNKNIRKINKLEMIAYSIIQAQNSKLFKHIVISTDSDEIASVAQKYGAEVFFK

REAHLANDRTAKLPVMRDALLRSEEHFKTCFETLIDLDASAPLRSSLDIKKAYESFVENDNSNLITAVPA

RRNPYFNLVEIQNNKVVKSKEGNFTTRQSAPKCYDMNASIYIFKRDYLLENDSVFGKNTGLFVMDESTAF

DIDSELDFKIVEFLISLKNLSPKDF

>AHK57961.1 flagellin modification protein PtmF [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVLIIGFGSIGKKHFLALKNLNHEVSLLSLSAKKEEFKNTPIYRSLKECDLNEFDLFIIANITTEHFNT

LKTLDELVKDKTILVEKPLFEKSQNFTSSKNHIYVAYLQRFNPVIVALKRLLKGEKIYFASLVCNSYLPH

WRALDYRQNYSAKKELGGGVLLDLSHEIDLAFFLFKDLELIYSQNAKISELDITSDDFAFLALKNSQEAK

IHIELDYFAKFNKREIIIHTLEKSFKADLINNKIEIYHKNQSQKILNFENDTIKTLQNLHHAVFEKDKEL

CDLKQALKVLELCDEVRKKNG

>AHK57960.1 alcohol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDINKLKLTPDSSIKEALKIVGQERVRLGIIVDKKDKFLGVISDSNIRKALISGKTLKDSIKDIYTKNPI

TIKENTSKEQLLKISAKTDIYDFPVLDEKGQILSIKSISSLLKANPNSIIIMAGGLGSRLKELTKDTPKP

MLKVGKKPILESIIQRLKNQNFENFIFCVNYKKQIIEDYFQKGQKFGVKISYIKERKKLGTAGALSLIKQ

EFKESFIVMNADILTELDFNALLKAHKKSKALMSVCVREFEQQIPYGVITQKQGFIENIEEKPTQKFLVS

AGIYVLENEILNLIAKNEYLDMPELIKLVLQKGKVNTYIINDYWIDIGRPDEFLKANEDFK

>AHK57959.1 UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKRKICIVSATRAEWYLLRNLCHEIQNDKDLSLQIIATGAHLSPEFGLTYKEIEKEFKITKKIPILLAN

DDKISLCKSMSLAFSAFSDAFEDLKPDMVVILGDRYEMLSVASVCLLMHIPLVHLCGGELTLGAIDDSIR

HSISKMSHLHFVSHEIYKKRLLQLGEEEKRVFNIGSLASTIIKNMNFLNKKDLEKALEMKLDKELYLITY

HPLTLNVKNTQKEIKTLLKKLDTLKNASLIFTKANADENGLLINEILQNYCQKNSHKAKLFDNLGSQKYL

SLMKIAKAMIGNSSSGISESPFFKTPCINIGDRQKGRLRTQNIIDSEINDLDQAFEKLESKEFKQNLKNF

KNPYDNGKNPNKIIKTCLKNVNLDTILHKNFIDL

>AHK57958.1 hypothetical protein N918\_06625 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKTLIIAEAGVNHNGDLNLAKKLIEIAADSGADFVKFQSFKAKNCISTKAKKAPYQLKTTANDESQLQM

VQKLELDLKAHKELILHAKKCNIAFLSTPFDLESVDLLNELGLKIFKIPSGEITNLPYLKKIAKLNKKII

LSTGMANLGEIEEALNVLCKNGAKRQNITLLHCTTEYPAPFNEVNLKAMQSLKDAFKLDVGYSDHTRGIH

ISLAAVALGACVIEKHFTLDKNMSGPDHKASLEPQELKMLCTQIRQIQKAMGDGIKKASKSEQKNINIVR

KSLVAKKDIKKGEIFSEGNLTTKRPANGISAMRYEEFLGKIATKNYKEDELIRE

>AHK57957.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDIIFANQSLYYIPLKELKQNILEFYELLNTGGILFATMMSKKNYYFSHSQKEEKNGLSKVEINGRLNET

SFIHFIDKAEDLENLFQPFETLFLGDYDPINFYNFEGSAHHYIYIGIKK

>AHK57956.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNSLEAYTMKYNENGYGLLFPDGHVVRFYERILKYKLNKINGNLLDFGCGNGVHSAYFQSKGFKTFGID

IVPSLKEIWEQNISGGGVL

>AHK57955.1 N-acetyl sugar amidotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIYCDHCVMPNTRPGINFTKDKEGKNICSACINHKNKENIDYKARFKELEVLCDKYRRMNGKFEYDCAIA

VSGGKDSHFQVHIMKEKLGMNPILFSVEDNFTMTEAGKKNLKNLSETFGCHIISLKPDIKTQKKVMLKTF

EKYGKPTWFIDRLIYSYPFAMALKFNTPLLVYGENVSYEYGGSDTEETPSAKEIFLNGVASDLNINEFID

DEIKEENLQLFFNPNKDKLDKLNPIYLSYFVKWNSYSNYIFAKSRGFTDLEGEWDRTMCAENFDQVDSIG

YILHAWMKYPKFGHACASDYAARFVRYGLLSRKEAIELVQKRDHKLDNKCVEDFCNFIGISKTTFWKIVE

KHYNMDLFYKNDFGEFKLKNKLQ

>AHK57954.1 hypothetical protein N918\_06605 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDDLNCDFIHFFNTIYIKLIELCGSNLERFTPLKDLKKLGFHIICSKGNRGALANLLLFNEISSFFKIIE

KYDYNFKECQTVYDLLYEKRNLLNIIDTIGIELCNKICKNLKEDDENFYHPKIFKKAL

>AHK57953.1 3-hydroxyacyl-CoA dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEINIIDFGLMGKQISALFYLLGYEIGVYNKSKLNIYEFEKQIKLLQRKIDFSNFNAGKINIYQHIEDL

KNSLTIESLNEDLNLKKEIMQILRDNNIVFSRVWMI

>AHK57952.1 NAD-dependent dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRNILVTGADGFIGSHLCESLVKKGFKVRALSQYNSFNFWGHLEKSPFLKDMEVISGDLRDSFFCEKITK

NIDAIFHLGALIAIPYSYTAPQSYVDTNVNGTLNMLEAAKKNEISHFIHTSTSEVYGTAFYVPIDEKHPL

QPQSPYSASKIAADMMALSYYNSFNLNVNIARPFNTYGPRQSARAIIPTIITQILSGAKEIKLGDLSPKR

DLNFVLDTCEGFISLLNLKHFGEVYNIGSGVEYSMQEVLDLIQKILDSKVKIIQDEQRLRPKNSEVFRLC

CDANKLKKATNWQSKISLEEGLRQSIEYFKENLENYKSELYNV

>AHK57951.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQNARLMVLE

NDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAENFKNIILRNGNDPKDALQGI

EQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGI

KPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNLVITQKVLAFPYYINLKDFSY

AAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYESQMYEHILTEAYGGNGKVET

HSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFEKLEPLSLNK

QNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLAIRKIDEFKNKLENIKQMQDL

YEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNILPLEEKLK

ERKLDKWMERVRR

>AHK57950.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGVIMKIYFIKIP

LKSCKLC

>AHK57949.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLINQTFEIDSCDDVELGIKRTSKLEYRISYDDEKDIKAIVFIVGGFGANANISFLDFDREYIAKNFDVV

VVHVFYHCFCARQSIDQKYNPKLIPNQDDLERVNGILKNINLGHLSVNKDNFEQIIPLIEQKVNKMKQAG

LVDESQKIELSCDFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGVCLPFLACILGREMNQGEFYFEGSGYRLYCFVYKYWNRNMNSSYYFGDENYLIRAVLN

SNHLQIQSNLNKNTIFVSYHSIQDMGAPVQNKIELYKCYQELGYDATLHLIKDENDIDGRFVKSLEHGLR

MTDRALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFVFKDLEDKFELEMIN

>AHK57948.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTAYLHIGTTNTGNQEKQGFLMQNEEKLLQKAYIYPKSLRVANRHWALVDMVLELVQKEDILKKESVLSH

ITNERLLRAIENFKSESALHKDKKFIFSAEGIVWDFSTKKHVEILEKIMRELGFTQIYIIVYFRDTLGYL

NSHCSQDHKNNMGYYSADFAPQDHPRKYIFDYEWICKTHAEVFGEENLIVRLLREDYVGGTLLKDFVYHL

GLEWDESFVLKQTKNESFNLLGMELMSRLNQKDLKQDNLNSLLFMARRKFEGSKEKRLKFAVQKDIAKAY

VDYFASSLEWVKNKYFPHKNSLFTPVNWEEYEQNYTLTHMLSKDWDDVADFIAQIIVSKNEIISSLKEQL

ELARKD

>AHK57947.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLINQSFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSTLADFTKDDLKLIEKVLRKYNIPCDQLANNTVVSHCEYLSEIMTELKMLN

RLPYDFEERLSATFIPSRGEYQNFGIMAAIDHINALKDLVKRFPKLADLPKIYGGGSYGGYLALLIAKIA

PWYVDGVIDNSGSAVPPLNYIIGRELEFKSKDTNGDMYMQGDHFFVSCFLKTHWTRKENSPYFFNNENYF

IRTLLNKDHLILQSQKNKNIIYVSYHSKEDPLTPANFKELTMQILKILGYDVSLNLIDENKIDGKFIKNL

DHGCGIPDKALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFTFKDVENQLKLIIN

>AHK57946.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLINQTFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSAYKYFQEEDIENIKNLLNQFHFSYGEINNDNALFLANSLVKHVENLKMQN

KLDHNFKLNFTSTFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGSALPPLNYILGREMEHSYGDYYEDFPHNRIIFFLKTHWTRKENSPYFFNNENYFIRTL

LNKDHLILQSQKNKNIIYVSYHSDKDPLTPANFKQQTMQILKILGYDVSLNLIDENKIDGKFIKNLDHGC

GIPDKALFRKELPLMLEKLQKRKSFMQENSISYPCGNKVFIFKDVGDKFELVIKD

>AHK57945.1 hypothetical protein N918\_06490 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNTTLNLPLHHIGVACKNLEKERECFFKLGFYKESEFIDEKQGVRGEFIIPCNEAFPQYRFELLQNLND

KGPLDSYLKNNTKMYHLAYESKNIAQDLILLEQQGGICIVPIMQASYFAKLCFIMMPNRLLIELVELK

>AHK57944.1 hypothetical protein N918\_06475 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKYLLEFENKKYSTYDFIETFYKLGLQKGDTLCVHTELFNFGFPLLSRNEFLQTILDCFFEVIGKEGTLI

MPTFTYSFCKNEVYDKINSKTKMGALNEYFRKQTGVKRTNDPIFSFAIKGAKEELFLKDTTSCFGENCVY

EVLTKENGKYMTFGGQGHTLTHYAEEQFNVFYRYHKIFSGILIDENNISYNKTISYYVRKLDISSEPNLI

NIINIVNNTKNFKKNNFAGDHINIYNAKEYIEILWKKLDINQTILIENYDTIY

>AHK57943.1 hypothetical protein N918\_06470 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKGAKADIFLKENSSCFGKDSVYEILTREGGKFMLLGLNYGHALTHYAEERNTSFCRYFKEFKGFVIDEL

GQKREKRINYYVRDLEKAYVCSLDKINEIVRQTRYYKSIKFAGDFLESYDAKEYVKAIGNALKQDKFAIY

EKLLL

>AHK57942.1 aminoglycoside N3-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKYFLEHNGKKYSDKDLIDAFYQLGIKRGDILCVHTELMKFGKALLTKNDFLKTLLECFFKVLGKEGTLL

MPTFTYSFCKNEVYDKVHSKGKVGVLNEFFRTSGGGRLGELATLFFPLL

>AHK57941.1 aminopeptidase domain containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDKLDFRSQDFSQTGKAMYELACELFPIPRSITGQGFRDSLEILNKTLGGGILKFHSIKSGTKVFDWIVP

DEWNVKEAYIITPKGEKICDFKKHNLHLLNYSEAIDQEIELEELQDHLYSIEEMPDAIPYVTSYYKRRWG

FCLTHNERKKLKKGKYKVYIDAKHDENGVLDYADFILPSTQNSKDEILISTYLCHPSMANNELSGPVVSI

FLAKWLLGLKERRYNYRFVIIPETIGSIVYLSKHLECLKKHVKAGFVLSCLGDDHTYSLIHTVKENTLSD

KVALHTLKNKENFKAFSFLDRGSDERQYNAPLVNLGIVGVCRTRYGDYDGYHNSKDDLNFISEKGLMGGL

QSMQEMILNLEINAVYENTIVCEPNLGKRGLYHTLSTTNDIPLACNFLAYCDGENDIIDIANILNMQAYE

FKELLEKIKFYGLVK

>AHK57940.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQTFLVDENSRLDVFLAKKLNQSRNQVALLIEKDCVQVNDKIQDKNSFKLKNGDIISIASLKLCNEIKPQ

FEVDFDIDVLYEDEDLLVLNKPSNLVVHGASSVKNATLVDWLIEKKYTLSNLGGEIRAGLVHRLDKDTSG

AILIAKNNFTHQKLSEQLADKSMGRIYLALIDLPLKEDKIIVEKFLMRSPSNAIKKIAIDKENKFSKNAK

SAFINVVKTENLTLMAAKLFTGRTHQIRAHLASLNRYILGDSLYGYKGKYDCRIMLHAYFLYFIHPKTKE

QIFVKAPLMEDFKNIMFEQINLGENDEKISLEFLLEFFNSFA

>AHK57939.1 competence protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSLWNSFSYSFKEFHYLFFSVVVIFIFNILLEYNNFLNFKNQKHYLIDNALLTHQYIKYNKKNKKYWVLK

LQTENFTFYTTSFKDLNLSKNQFLSLRIITHNINFKDYLSKSFYAPSYDFEKLKEKEYNPIISYFLNQHT

NEKIKEFYGALFFALPISLELRNDVNYYGIAHLIAISGYHIGLLFSLIFFILAPIYSFFQKRYFPYRNLR

LDLSILIFALLLAYACLIGFVPSFVRSLIMAFWVFYLLCKNIKIINFVTLFCSILLCISLYPRLLFSIGF

LFSILGVFYIFLYMHHFANKFNNLINIILLNIWTFFAMVLPVLYFFPLISYQQILGIILSGIFVIFYPLV

LFLHLINYGDLLNFILDEFFKFKIYGTNIHIPFWIFISYLIASLISVRFKYLAFLCIFANFIPFIMIVI

>AHK57938.1 5-formyltetrahydrofolate cyclo-ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKTDFRALQKIRLFKHSKLNFKQDYKIFKECLKIIKLFKAKNILIFIPLHYEPNLIKFRHILNKNYKLF

VPFMQDKSLKIVKLRLPFIKKRFGVLEPIDSFFKAKIDLAIVPVIGVDKNLKRIGHGQGFYDRFFENLNY

KPHIIFIQSIDALSQNNLTQKHDISGKLYINPYKKYYKKERKNDRITYRTYSRYSRTRYRIFSCKKNQ

>AHK57937.1 biotin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVKNGLLLTIFLSVIGVLGVIFIHIFVGAIIFVLIAVLMIYLLRQHKDEQIMIDKLLVLCRELKEGNFDN

RIIYVKTKSKKLAEIADNLNNTIDGLEAYLTEINTSISCSQKGEFYRKALPEGLKGIFAHNIEFINKALA

NIEVTARSTFKNALSRTLMDLSLGNQNKDMSQISSSLNQDISMMKNVYDTVDAISHTATENGSEADSLQS

AMGSLMDVVNSSKETVQTFVANSQNITSVVEVIRDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVRK

LAERTQRSTSEISIAIQTMQQDFVNIQSGSEQVFNIVSESEERINKFSQAFKRLEENSSALGVNFGSFAK

RLILSVVKIDHILYKSNIYLNLNGAQNFNLESVDPISNLCQDERAQGVINELSSETELNLAKEFIKDNAK

KAIEESSQDYIDQKAYDAIVNDIKSLEQRSAEILAKLKI

>AHK57936.1 flagellar biosynthesis protein FliR [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEFVNYLGDKNVVTFMLLLARMGGLIVFFPFFSHNSIPMVIKSTIVLFLTMYLYPLARLESLHLDSFFVL

QLISEVIFGMIAGLMLQIIFAIIMMAGEQIAFTMGFTMASILDPSSGTSMPITSQILNLLALMFFLAFDG

HHLMLLFLSHSLGYISLGGFYPHENLMHYLNMGMFNIFIIGFTMSFPILGISLLADVIFGLLMKTMPQFN

LLVIGYPIKIALGFVVLIAILLVMMQYFKNLILELFTHMQTLFFF

>AHK57935.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKILLLNENPVVSRLVSLSAKKMSYDFEELNAYSENLGNYDVIVVDSDTPAPLKILKEKCDRLIFLAPRN

QNVEDIDAQILQKPFLPTDFLNLLNNKDANKHTSIDLPMLSNDENPYADISLDLDNLNLDDLPDENSLDI

NSEGMEDLSFDDDAQDDNANKTLETQNLEHETIKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEP

SLDELDDKNDEDLEIKEDDKNEEIEKQELLDDSKTNTLEMQEELSESQDDNSNKTLETQNLEHDNLEQET

IKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEPSLDELDDKNDEDLEDNKELQANISDFDDLPEV

EEQEKEMDFDDLPEDAEFLGQAKYNEESEENLEEFAPVVEEDIQDEIDDFASNLSTQDQIKEELAQLDEL

DYGIDSDNSSKVLEDFKDEPILDDKELGTNEEEVVVPNLNISDFDTLKESDIQEALGEEILEKNEEPIVS

DVTKDDNSEEIVNELSQSIAGAITSSIKDDTLKAALKGMNMNININISFKED

>AHK57934.1 hypothetical protein N918\_05775 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQQKCFCISKMIRFSKIIILLTVVSLAGIVVFGNVTDYNSNFQFVSHVMSMDTKPDLFR

>AHK57933.1 hypothetical protein N918\_05770 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAITSPVIYHIGYIAIILFETFIALTALKKVLMICLKLEI

>AHK57932.1 hypothetical protein N918\_05765 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFKARNLDAQSFHNAKIFWDYFFNLCILWFFAFQVVVAEWFGMWMSKVWKGLPDTIRLVTYMFLALIFIS

LKNDD

>AHK57931.1 hypothetical protein N918\_05705 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKQEISSFWYTPRGYKGIGLMELLSIKSFIDNGYKFILYTYNLDDKIFKKLDELFDDFELKDANEIVSFK

NYFRDDRGSGVAAFSDYFRYNLLYLKKKGGGYG

>AHK57930.1 hypothetical protein N918\_05700 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MICLNYIDLNEEYIFTQEVDEDNKKSRITTSFLKFSRYSDFGKNLIQEAEKIINKRKKISWGVIGPWFLA

DHVKKCGLENFVWDYKRTCQIPWCNVKIFLDNTSIDISQPFLHLFSEMWRLNNMEKNTFHQMGVYGQLLK

KHEIEKLYNQINTCLKTSMLDNIASFLTKFFIKKL

>AHK57929.1 bifunctional beta-1,4-N-acetylgalactosaminyltransferase/CMP-Neu5Ac synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTLFYKIIAFLRLLKIDKKLKFDNEYFLNLNKKIYDEKHKGFFDFDPNSKDTKSPLNPWAFIRVKNEATT

LRVSLESMLPAIQRGVIGYNDCTDGSEEIILEFCKQYPSFIPVKYPHEVQIENPQSEENKLHSYYNYVAS

FIPQDEWLIKIDVDHYYDAKKLYKSFYMASKNTAVRFPRINFLILDKIVIQNIGECGFIDGGDQLLIQKC

NSVFIERMVSKQSQWIDPEKTVKELYSEQQIIPKHIKILQAELLQWHFPALKYHRNDYQKHLDALTLEDF

KKIHYRHRKIKKINYTMLDEKVIREILDKFKLSGKKMTLAIIPARAGSKGIKNKNLALLHDRPLLYYTIN

AAKNSKYVDKIVLSSDGDDILEYGQTQGVDVLKRPKELALDDTTSDKVVLHTLSFYKDYENIVLLQPTSP

LRTNVHIDEAFLKFKNENSNALISVVECDNKILKAFIDDNGNLKGICDNKYPFMPRQKLPKTYMSNGAIY

IVKSNLFLNNPTFLQEKTSCYIMDEKASLDIDTTEDLKRVNNISFL

>AHK57928.1 UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIVFVSGTRADFSKIKSLMMKVENSNEFELFIFVTGMHMSKKFGSTYMEIEKCGFKNIYKYINHDKYY

QMDKALSSTIDGFSKFIHEIEPDLIVVHGDRVEPLAAAIVGSLNNILVAHIEGGELSGTIDESLRHAISK

LAHIHLVNDEIAKKRLIQMGEDEKSIFIIGSPDLELLNNTISLDEAKKYYDIKFKNYAIAIFHPITTEIN

SLYKQSEEFVNALIKSEKNYIVIYPNNDLGFELILQNYERLKNNERFKIFPSLRFEYFISLLKNANFIIG

NSSCIIKEALYLNINGILVGSRQDGRTDINKTIRVNAEEKDILEAILNTSKCTNITNKRLEILNSSEQFY

RLLKNNILFTINKQKIFMDKK

>AHK57927.1 polyhydroxyalkanoate synthesis repressor PhaR [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQIKIDKLTISQKNPLIIPEIGINHNGSLEIAKLMVDAAKRAGAKIIKHQTHIVEDEMSQEAKNVIPGNA

NISIYEIMEQCALNYKDELALKEYVEKQGLVYLSTPFSRAAANRLEDMGVSAYKIGSGECNNYPLIKHIA

QFKKPMIISTGMNSIESIKPTVKILRDYEIPFVLLHTTNLYPTPSHLVRLQAMLELYKEFNCLYGLSDHT

TNNLACIGAIALGASVLERHFTDTMDRKGPDIVCSMDESTLKDLINQTQEMVLLRGDNNKNPLKEEQVTI

DFAFASVVSIKDIKKGEILSMDNIWVKRPSKGGISAKDFEAILGKRAKKDIKNNIQLTWDDFE

>AHK57926.1 alpha-2,3 sialyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSMNINALVCGNGPSLKNIDYKRLPKQFDVFRCNQFYFEDRYFVGKDVKYVFFNPFVFFEQYYTSKKLIQ

NEEYNIENIVCSTINLEYIDGFQFVDNFELYFSDAFLGHEIIKKLKDFFAYIKYNEIYNRQRITSGVYMC

ATAVALGYKSIYISGIDFYQDTNNLYAFDNNKKNLLNKCTGFKNQKFKFINHSMACDLQALDYLMKRYDV

NIYSLNSDEYFKLAPDIGSDFVLSKKPKKYINDILIPDKYAQERYYGKKSRLKENLHYKLIKDLIRLPSD

IKHYLKEKYANKNR

>AHK57925.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYKLKNKTQTIKENSLIEFNIEGNNPYEIYTVYKSYKAFNNEQDLTNFTYPIIDYII

FLDSDDYWELNCIEECVPRMDGVDVVWFDSIEYHDIEKSYFKHHSRLKDINIKKECRINPIEWLKLLRQN

KIKDFAFAWSGIIDFDYIKDKKMKFKDAIFAEDHLFGILLFSQAKNIYVYPKVFYYYRIRANSLTNQDKK

ITKDNILPYFKDIFIAFEENATLAKEYFKYVSWVETSLELVRFVENYHDKKISSLLKDTILYFYIKNAFK

IKKFDKDPLCIKEKLQLLKPYKISKIRYKVMKFLISLRN

>AHK57924.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQIQQNNSLIYNTLTKKLSSFIPIKSTRRKLRNHIQYKLEHPKVTNYLSNNYINPFLEGKIPHFDFEKKH

YFKNDKIIWQFWYQGKNQASPMIQQCFNSVQSQMKDDYTIIILDKDNIKDYLDFPPFVIEKLENNFFGEK

TITFFSDLLRVCLLATYGGIWCDASIFLSSKIPSELCDKDFFTFERSKIKPSKEKLKKFIKSGYFSYGYF

NWNDDFKVKMLSSFMIAKTNNTFIQTLKDILMNYWKNEQSSENHYYFILHIIFELLKEHGFVNDIYKNMS

DIECHLLQFSAKEKFNSTLWEEIQKQSFLHKLTHFKSIKKDSMIDKIILQS

>AHK57923.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYETQYIEKENELNVFKIIGDNPQNIYKIYKYKNALASDKLEISKIDYIIFLDSDNY

WELNCIEECVVRMQNVDVLWFDHACIYDDGIEDKGQKTRMNVFNFTQECTITPRDYAKQAIKVGSRDISF

SWGGMIDFSFLKQLKLKFINKIINEDIHFGMVLFASADSIYILPKRLYLCRLRANSISNHDKKVTKANVS

EYFKDLYEFFGENAKEAKNYLKAASRMITALELIEFFKDQKNENSQAIKEAFLPFYVKKALMIKKFKKDP

LNLKEKLPIIKPFIQTKIPYDLWKIWQKIKGILDKINFAK

>AHK57922.1 glycosyl transferase family 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLKQISAIIIVKNAKQTLLECLNSLKDFDEIILLNNESSDNTLNIANEFKKDFANLHIYHSAFIGFGAL

KNLALSYAKNDWILSIDADEVLENECIKELKNLELQEDNIIALSRKNLYKGEWIKACGWWPDYVWRIFNK

NFTRFNDNLVHESLVLPSNAKKIYLKNGLRHYAFRDISHLIDKMQYYSSLWAKQNIHKKSGVLKANLRAF

WTFFRNYFLKNGFLYGYKGFIISVCNALGTFFKYMKLYELQKQKPKTCALIITTYNQKERLKLVLDSVKN

LAFLPNEVLIADDGSKEDTARLIEEYQKDFPCPLKHIWQEDEGFRAAKSRNNAIKASKSEYIILIDGDMI

LEKDFVKNHLEFAKRKVILQGSRVILNKNESEEILKNNNYSLAFNKKGFKNQRSIFLAKCVYKFSKLTKK

FFKKSQLVKGSKTCNMSFYKSDFEAIEGFNEKFIGWGREDSEFVARFLFNDGVFKRLKFNALAYHIYHEE

NSKNMLEINHQIYLETIKNEKTTWR

>AHK57921.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>AHK57920.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHFNNNLVVHYIVNPSPLGWIVINLLTICLICYIFPLKNSLKHKKLFSLKANVNSKNSRIIKYTGIAAFL

GGLIGIWYNFEGFYQLLFFFELENENLKTLWSLQVSVSSVITGMLLLLIYVINLAMVCENGIYIVSKFNL

FYMYFIKREDLEIVKIEKMKFLNQVEVCFVIKTKNKILLKCFESIYKKEDLEKLKNWYENKL

>AHK57919.1 ATP-dependent Clp protease ClpA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKYQENLQKYLDNAKNLSLINHHEFVTCEHVLFALLKLSTDFKDIFEEFSDGDLELLETELKNYISQNNQ

VIKQEIEPTISVVLDEILLSSKNKNNEIKIIDFLEKLIQDSRSYSSYLLKKHNINLNKIQELQNHENIQN

LNNHTSDLTLLAQNGKIDPLIGRKFELERMMQILSRRKKNNPILVGEAGVGKTAIVEGLALAIAEKKVPK

NLQNAKIFSLDMASILAGTKYRGDFEKRIKEILSELEKIPNAILFIDEIHTIVGAGSTGESHTDFSNLLK

PALSNGTLKCIGATTFMEYKNTFDKNKPLSRRFAKINVDEPSQEESLQILKGLKNKYEEFHHIKLNDEIL

QYAVIWGKKFFNDKFLPDSAIDLIDELGASFALNPRAKKNANLKDLENVLAKMTHHHKMFEFDQNKALMN

LKTNLKAKIFGQDEVIDSLVSSLKQSFAGFKNSNTPRGVFLFTGSSGVGKTELCKALAEFLGLNLERFDM

SEYAEKHAISKLIGSPAGYIGFEEGGLLSNAIRKNPFSLVLFDEIEKAHPDLSNTFLQIFDNAELTDNSG

LKVDFKNTIIIMTSNLGLKESNELGFLSKNEEKSNRAIKDFFAPEFINRIDKILHFNDLNDAILVKIIEK

ELDEISKNLNNIKLSVDDKAKIYLAKKAYNKEFGVRLLKRIISEEIGEKISDEILFGKLKKGGIAKIKLG

KNEKLEFIF

>AHK57918.1 hypothetical protein N918\_05410 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAIFNKGGISPTSSSSSETTVISSGARIEGKFYFASMLHVDGELSGIIHSESIVVIGKNGNLKGELQADK

IVVNGCFEGQLEANSLEILAGGVVNGDISTQKISIENGGRFNGTSKIKEDTIKLIENNNEE

>AHK57917.1 hypothetical protein N918\_05290 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLENPIPNSIIITTIAVVLAFSALAVFLIKKTKENK

>AHK57916.1 sulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRKILLQIFIFSVLFIATFAINRILMQNSFIPTGLISDKNEIFLMYLLGVFHDIRFLSAAFLPFLLCGFL

SLIFSNIKINNKLVIYSKNFYFIFSSVYIIVLSCLCIGFSYVKYYYYEIYKTKFDIFMFTLKDDNTKTIL

SIIYHDYPILKILALMLIFGVFVFFLNLKILNLKLKPVNLRLFPLIALNLILIIVYVIALRGPFKHVAIN

VQNYSFSEYSVVNDTMLNPIMAFSWALKQYKEEAALKVITPLKAQELKEKLFDYLHQSPINLKAEKNHPS

VFVNLMESFGLNLADFTNTEHNFLGSLDKHFKQDFLFKRFLSSSNGTIPSFANLFFVSPFSNISTSKFQK

TYLDLTPIAVYKKAGYKVIFVSAGNGSWQNIKNYLSILGVDEIIDENILMKEYNGAKDSENGYGIADEFL

YKKVYDLLQKNPHKTLIIALTISNHPPYKIPQNDLPKLQNIPQTLLNMLPYEKDKQDNIIKAYTYANNEF

GKFLDKVKQSPFKNSVIIAATGDHRVREMSMDLNSQKAFAYSVPFYLYIPKDLQDNIYYDKDRVGSHKDI

FPTLYALSLNNVKYLSVGGRNMLARPSDEKLEFGINDAVWIDKKGIYSGGKGYYFESNDTLKDMNKAFNL

DGYTKDFDKFYRELNLYQLAERLGISK

>AHK57915.1 restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MITKDNLKQVLENLGFKNKNENYVKTINNYTLLIDYKNQSINYPKEIKIHDKTTSNFSHPENFVVFECVH

RLLEKGYKAEYLELEPKWNLGRDKKGGKADILVKDNENNPYLIIECKTTDSKNSEFIKEWNRMQEDGGQL

FSYFQQEKGVKYLCLYTSDFSDKLEYKNYIIQAYDNEEYLKEKELQNSYKKSNNNIELFKTWKESYELQY

FKQGIFEENVNAYKILEITPTFDNLKELKEEGKYHEFAKILRKHNISGKENAFDKLVNIFLCKIYDETFN

KNNLKFGYFGVMADTYANMQDRLMWLYKEAMKEFLGEKITFVSNEDIEKDFKQLKIKTLKEVMQNYIKEL

KFYSNNDFAFLEVHNKELFLKNALVLKEIVELFANYKLTQNSTNQFLGNLFELFLQKGMKQDEGQFFTPI

QICEFIMYSLPLQEMLSKSSKALRVIDYACGAGHFLNTYANELKRYLTEDELKEHYKNIYGIEKEYRLSK

VSKVSSAMYGQNEINILYADALASFELANTNNLEGEKAKPQIESNSFDLLIANPPYSVKGFLETLSDKSK

NTYKLFNDDINIETNNSIECFFCERANQILNDNAKAAIILPSSILNKDSIYKNTREILFQNFDFIAIVEL

GNQTFGATGTNTIILFLRKKETFKQENHLISQDYSLIKERIEAENLKDNENFYQNYLSAYCDFRKFDKEL

YSNFLNGNLDSKLAELEAFKDYRNAFRQTSDYKKLKESKIYKESKDKQDLEDKAFLAYTQAIEKDKLLYF

CLSLNQEVLIIKSPSDIKEQKKFLGYEWSNRKGDEGLKELHEPYLSPLFERGNPQNETKLNTLICKAFLK

TLSDIPKDLQGYASKARLIDMMDFEKVEFNKAISLNVKSRDELNPFKNSKYELVRLGEVCDLNKIRNQAS

ATEIEKMNLNSGNVKLLPSSKNYEWWTDEKTAGQFINEGEVITLGVARYANIKKHKGKFVSANNHILSVK

DKSKIIFDFLYILLEICGQKLYKQGQQYPQFDTNIFYSFKIPLPPLEIQKQIVAECEKIEEQHNTLSLSI

KEYQKLIKAMLQKSGIIEDNQEYELNSILENLQKLESKLDFNLLLSLIEEQISHSEVLVEETQSKERKQD

FNAFKNFSKTIQELLQTLSTPPKDGWKRISLKNEQYMELNPSKKEISKLDENMLVSFIEMASVSDKGYIQ

SKIDRSLNEVRKGYTYFIENDILIAKITPCMENGKCAIAKNLTNNIGFGSTEFHIFRAKTGLDSSFLFYN

LNQQNIREKAALAMTGASGHKRVPISFYENLTIPLPPLEIQEKIVQNIELVEQQIDLLNLKLEFLEKEKE

KILQKYLFS

>AHK57914.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MASFKKIFWINVTIVIIVAFNLRAPITAVGPIIDIIKDKYYLNSTVAGILTSLPLIAFGSISFIVGYFSP

IRAIVFGIFLIFLGEIIRSYFGVYGLFLGMLAMGCGIAIANVLLPSFIKEKFPKKMASIMGIYSLVLSIS

SIMGIALAIPLLSVFDLAGAMFFWAIFSFVALVVYYPQAKNGRFFRIKKKTHKKINLFTNLTTWKITLFM

GFQSFLAYSLFFWYVQIVVEKGFDKEFSTSMVLFAQLVAAPVSLFGPLLLGKLRQNLHTFYIAGLCSMYV

IAFGMLFIFDSKISIIISAFIMGFPWGGVFGIALLFIAQKSSNAQIAARLSALAQGFGYLIAAQGQWIIG

FLHDKFENFSFAILMLVFVGILVNIFGYLSYKSQIIK

>AHK57913.1 branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKLTLTLSVLTMVNCLYAKDINIGVVLPLTGTVAAYGQDVFNGIELANKLQPKLSNGDVIKLITIDTKG

DKLETSNGVNRLIATDKVLGIIGEATTPNTIQAISIAEEKKIPLIAPVASGDKLLDKKKYASRVCFKDSF

QGDKFATYVSKDLGLKNAVIIIDQSNVYSLGLARAFENSFKNNGGKIIKKLVINSGDKDFRAVVSQLKSL

NPDFVYMPIYHPEAALIARQARQIGFDKLLVAGDGVNNQTFIDLGGSAVNGVIFTDSFDYNSPSTQLGKD

FVAAYEKVKGTKELPAFSAMGADAYFVMLNAMNACVDNLSSECINSKIHQTKDFQAVGGVISIDESGNAI

RSVVIKEIQNQKQNYKTIINP

>AHK57912.1 branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKSLILASILSLSLSAAEVKIGVVLPLSGATAAYGQSALEGIKLANSMQSALSNGDKVSLAIIDTKGDK

LESSSGANRLVSQDKVIGLIGEMVTANTLQVMRVAEDNKIPLIAPAATGDRLLDKKIYSSRVCFMDSFQG

SSLAKYVFSKLNYKSAVIVVDQSTDYSLGLAKAFEKQYKSNGGQILRILRVNSGDKDFRAIVAQVKSLNP

EFIFLPLYYSEASLFARQSKLAGLNIPMGSADGVADQTFISLAGDASEGYIFTDSFDANNPTTKLSKEFI

SVYEKAKGTKEVPNFSAMGADAYFVMLNAMNACVENLTSKCVNEKIHQTKNYQGVSGVISIDQTGNATRS

VVVKEIKNQKQNYKDIINP

>AHK57911.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLTIFLIFLNILCYFLISYDYYNILGLNILFFNGAYWQLLSSMFLHGNLTHLILNMIVLFQFGRMLETYL

GALCFIFIYFIGGLLCSLLSVFYVYFDFKYFGENINVIGASGAICVLMGFYAVIDKNSTKGLIVAILLMS

FVPLLMGVNVAWYGHIFGFMCGYILAKIKEVK

>AHK57910.1 hypothetical protein N918\_04920 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKIPYFSFLKLDFEIYHLNTSKNFYGFFILYFSFFIFKLIYKFSKSNKKIYKKIIKLKKIIKDNKYLIF

LCYILINI

>AHK57909.1 hypothetical protein N918\_04915 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKSLLFHFRRIGVEFIIFSVYAVFSISWAATGSLMPLISNDLALNTQQATLITSMIVVAKIFGASFTAF

LVYKFGLKKGYFLGCILMSSGIFLSFVDSYSGILIIRFLTGLGSACALVCLVPIAQQWFEKKALHFVISF

NITSNLVGITLGLVLAESISNYFGNWRDSLSFYAWINLILLILWLFVGKDENKKEEKKNNAKDLIYALKS

RVTWGMIIFYIGPILFLNSLFTFLPTFYAQYAGFSKELADFAKKEIPALANFAIIFGPYLGLFFKRKNIS

FKIMLLSGGACIFICGFCMLFLQNLVLIQIFAVLSGIFYSM

>AHK57908.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSAFWSITFVILSFNLWVVSWSVDKTHSFTLGFVYIFALIFISAILAQFVLPRREKFIQGEK

>AHK57907.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLEQSPYKEDANSKNYNNTLKVKDGVIIIDHSNTSDDNNSKTINTKKNTQKNQPNLSNDNTLKTKTPNSN

TPSLKNTSKEESIHKVSFSFHITNKNINFKDLGLDEQVLQEALNDYKKESISVQDLQDIANIISYYVQVS

GYPAATAYIPQQELKDQIQINITLGVLGKYVVQNNSSVRDYAIESKLPNHKGEIITTKLVEDAVYKVNEM

YGIQTLASLKAGDNPGETDVVIETTPSDSFVSVLFYGDNYGIKESGRYRDGASMSFNNIAHQGDSLNAYL

QRSDEAQTNYSISYTTFLGNLKITPSYSKRNYALGGAYKNANFIGTSENLGIDLKYPLWITTYNSFYLTS

SYYHKKLSNSRLNIMTIDKSSDTISFSIEGVYNGISNDSFSYSANVSYGNVKDGGTTILGMSSKTDGDGF

GKFAKLNVNLNNAYFFNDTFTHLFSLNYQQVVNGATLDSSETISLGDPYGVRAYNNGDGEGDNAVVASFG

LRMATPLKDFYITPFYNIGYSWYENDSKLYRASETNYMDAYGLQLLYNKTGNFYVKLDLARALKKYKLDD

DYSSKAYVSFGKYF

>AHK57906.1 hypothetical protein N918\_04850 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKMIKIQKVKSLLDLVKKLKNKQSLKIKNQTNTKENLNKTHYLTI

>AHK57905.1 hypothetical protein N918\_04845 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLQLFIQTTDEDPNINEDDKQASIDEASTQESGNVV

>AHK57904.1 hypothetical protein N918\_04840 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKGQENAQKTYDTAVNAYNEAVKACNTALSGITGNNGDKVIAGLKQAIDKVSSDLQQATIALQIATAST

NSSLENSNKTLASASINGTSHLTVNENIVQTISQYPL

>AHK57903.1 hemagglutinin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSIRSNKGLTGPGGDPTDTIGYKETSDLIAKDNISNEVLNSIFNDLKFNSSVDISDLSKFYKDGKILTAD

ELTSINQSMDFITALYGQTQDSNNATFANALKEVLGNSYGDLGKANQVIIKTKEILSQNS

>AHK57902.1 hypothetical protein N918\_04830 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEFTKDGKLSAFKGNPKTISPVIKSNAGNVINLETITVGERVAMAGNQVSNMKYGGTDYGKFIFTNKKE

QSNTVYLNVYSNDTFVIRGPASNTIKKKTL

>AHK57901.1 hemeagglutination domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKLNKLSLSLVVGSLLFTQSYALPSGGKFTHGTSGSISVSGGFNIASNETVNFGQGKTNQNYLNIVYGS

KSSHYRWNTQ

>AHK57900.1 hypothetical protein N918\_04820 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MREDEVLSFKARHGVNTAGHSIKTVRVLPFLITAKTDHADASYNKLILEQGELSSVFYLKPKDTHIKNPS

NSKSNQRMNFLMSSTFTHYGNASYNQTILQKDAHISMGVENTYDLALNGAPYLIGAIATYGDSTNNSLNI

EAGSSVEFFTSLPKKDKNGNNTFDERITHLVGGLAYQGNVKNNKIFIKDANMIIHGPSKAYASLAAAHIS

AGYIDSGTDKNFQASKNLLDIDGFNLDMYMNHDKQPLAYNSVLFADFWGGKTEQGQALDNTINLKDIKNL

KKDKNNENIFAQALFNFYAGASNNGEANYNTLNIELKHPLEIANNFLGYNQHSFYGGFATKGANHNTINI

KNDLTTTDLSQSYKDALNIVAARTLEGSADYNKVYINNSMSTLPVYIYTAKKNILNNQDFYPSSANNNEV

VIKDFASFRNLTVLTEAKEASYNTINYNNVQSITDVSNIDKGSKIIIRALDKANHNTIDIKNYSSNAADN

AYLIMAYNEAAYNKIIINDTLFGVASDKREGILSIIAGLSNNAHDNTLIINNLNLDEYKNNNSIFIAPSA

ITGLSEAKSYNNTLYIGGNLNIFKNTFIDILAGALVHYEDNYSASNAAAPSDISLSKNNRLILNTKVEAR

IINNFEHYYLIVSNKINTTPLLKSYDAPINISS

>AHK57899.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFKTIGFKVSAAIFVVLLISFIVMQVILNLDFKNTANKMSRANLDTVSTSVFQTMRMAMNLGDPEKIKEA

IEDAKSIEGISDIKIYPSKDTIDLFEMKAPQISNDKRIIEQFSNPKIQALEENVNLRLIRPLIADESCVA

CHANANVGSVIGVMDISHSLEGVQKDISKTSQSYIVIFTIALIFTLCVVLLMLKVVVGKPVLELLNHAKE

LAQGSGNLKARISVKGQDEIALACGYIN

>AHK57898.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSNKANSANEKSFLLLEQMLKSLFNVANKVSTVSQNENELAKKVENMVNQAGNIQKATQMMDEIADKTNL

LSLNAGIEAARAGAFGRGFSVIAEDVRQLAQNSEEFLGNVAQITKELLQSINEVSAELKKNAQSVQALND

DTALLVDDANEVKLCNEDARALVTQCTEKIKISQENIQNLLSRMQENVEVSEKNEEISKILLQVADELKI

VCHNLESELNQFQI

>AHK57897.1 hypothetical protein N918\_04625 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSSKFSKIGFILAVAGSAVGLGNAWKFPTLVGQSGGSAFILLYIILTLGVGFVIFLAELSIGKISEKDPV

NAYEKLAPSNKKAWSYVGFTMVGAILIVSFYTLVIGWIVKYVFLSITGNLPMDLEVSKAQFGFFISEDFL

SQFICFTLVFLCVFYIVSKGVKNGIEKLNVWMMPSLFILLILMLVYAISKDGFIMAVKFLFVPDFSKINT

SNVLEALGLAFFSLSLGVGTIITYSASLPDKTNFITSTLNIIFINLLVGLLMGLVVFTFIFEFGYNPNQQ

GPGLVFISLATLFEKIGVIGCIFGAAFFISLIFAGITSAVSMIEPFTFYLINTFGMSRKKALILIGIVVY

ILGMLCILSSLKSTQFGFFGMSFFDLLDSVSSKVIMPLGGILAAIFVGFVMKKEALKILFKPYMRGIFFE

LWYVFLRFISPLAVVIVMIAAFLK

>AHK57896.1 sodium:alanine symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRTYFSKIGFVLTVAGGAVGLGNAWKFPTLSAENGGFVFVLLYLFFTLTIGFSIFLAEVAMGRLSKSDLA

NAYSNLAIKYGNRWRYGGVFMLGGIFVLSFYLVIMGWVLKYTVVSLYYLPKTLDEAASNFQNLITTNLTS

SVFFFTLSFFLTLLIVSKGLIKGIEKLNVVIMPSLFLMLVFMLFYCMGFKQGFANAFSYLFYPDFLHFKF

SSIAEALGLAFFTLCLGIGCIVTYSSALDKKTNFIKSSVYIVLINLLISFIMGLIVFTFIFEFGADPHTQ

GVGIVFISLMSLFNQLGALGYIFAFCFFLALFFAGITSAVSMIEPLTFYMINNYQISRVKALFLIGLFVF

VFGICCILSLNLNFFSMFSFFGKDFFTLLDKLTSNFLLPLGAIVCSIFVGFFMNKKQIYKIFSKFISRKI

FLIWLFFIRFISPIAIILVMCYQIFV

>AHK57895.1 hypothetical protein N918\_04530 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFKKFKYYYEKAERFFHPLVGLSSYDKYLEHMKQKHPGKIPKTRGEFFKECLDKKYNSGGLNKC

>AHK57894.1 hypothetical protein N918\_04455 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEILDFILIVIFVFLMIVLVIGFNHQMMQKNKEREERFKKYKKGEQNE

>AHK57893.1 hypothetical protein N918\_04335 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKFSIVLTLLLCGSCALALDPNLEKTKSATGIDLPTAKWNLPKELNEDGTIDETKMPKNSEYSKMVILG

NKILNETSKYVGPQAKDPKKKICGK

>AHK57892.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNQSGFVGIWARFPQYNARGDKVITLADRINGCFERSTNGKRMPSDTPEMKAMLTYMQWLSQGVPVGAK

IEGQGLKKIDFILKAADPKKGKAIYMDKCAVCHQENGLGLKNEDSTGAYYLYPPLWGDDSYNTGAGMYRL

SKLLLILKKICLKVRLT

>AHK57891.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPQGAPDLSLEDAYDVAAYMNSQARPIKANRNKDFPDRKIKPLDMDVGPYDDSFSTTQHRYGPYTNMIKK

>AHK57890.1 protein-disulfide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRNFFCKFVLALVFYSSFALANNSFITLNPSLPSSENSVIEAFSYKCIHCYNHHKFGTLEKLREAFPNLH

FKLYPVSLMNGEFSKEMNELFTFAQYKDEQNGKDASYSDSLSHKLADVYFVSYFLNKQRNFSNLDEFYDI

GLKAMNVNKNEVLNFLNTPKAKEILSEFQRANDIAKTYGTPAFVVNGKYQINPSAINSMQDLEDLVKKLS

NMK

>AHK57889.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAFNLSKGVSLGEPKPKIDEFNWGAKEPSVQIQFSGSGTDYQAMPFSVDQAFNPKK

>AHK57888.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MCDTIIEVDENGNVVDDWRLYKILDPYRSTIIKTLDQSAVCLNIDASKVGKTLSDEELAKMDESDKFGDI

AGIGRNWAHIKGGIKNFKNIYCNL

>AHK57887.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNWGNIYNRGIMISFRQNKDGALTWGFGQRYVKYDVWEEKFSIANYLLSI

>AHK57886.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVEFLFLDFILLIVKVSYTKTANGKSQKVIDEIYKITTPWASIEPSGRH

>AHK57885.1 arylsulfate sulfotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRLSKTLCMAILAGSTLLAPNALMAMGGPSRVKIDWQIQGQMGMIKMNPYGLSPLTAIIMNNGYVLSDIK

KSNGQTIS

>AHK57884.1 thiol:disulfide interchange protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFPVKLARSIVVCAFLAGISASALSEGKEYVILKNPIANADNYSVGLKAMNVSKADFENFLKTPEAAEL

LKSYEIANPISQNYGTPAFVVNGKYQIVPSAINSPEALIEITKELSKQK

>AHK57883.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGVFLVLLGGIFWAISGVLAEYLFKNNYSVDWVCFYRLLSTGLILIFLSFKAQKILVFTNLKESLSICMF

GFFGLLLTQFGYFKAIYYTDAGTATMIQYCAPLIIMLYLCFKNKKFPKLIEIFALILIIFALFLLATKGD

IEAVVLNYWGIFWAVIGAFGVAFYSLSAREVILKYGLFWIMGWASLFASFVFLLILQFDKGLIHYAFNLK

AFFSMGGIVFIGTIGAFCLYLKGVEYIGALRASMIASIEPVAAALMSFLFLKTRYSLLDIFAFVLIILSV

ILNAKKTKVS

>AHK57882.1 hypothetical protein N918\_04260 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQINNSLNSLSQYVKVNSNEENQNSKNQEQNALAQDPAVEVNISKEAKEKSNTSNQNNSQAPAQALNAQN

NTQQDSSSNSEDKLTELTQKLAEIQAKIVELTAKMSKANEDQIKSIESQIATLNAQASTIQAQIQELQSQ

QA

>AHK57881.1 hypothetical protein N918\_04175 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIYSVILGAFLLGACSLKDQAIVDTNLKSQTLMFTQKYKITQDKINAIITMSYLNPILDKTSKDDVLAL

SFTPNTLKIQNLEVFINNKKANIEKLDDEYLKYIIQNNYTDYFKASLPSVKEETRLVAKICLDHLPCFEL

NFQKYPKSLYYRSEDVDTQYN

>AHK57880.1 hypothetical protein N918\_04060 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLEFIFTLILDFTFYSIKTLEKVFLGRTALVILFVVFIALFCVKGLFLYILLALELFLLLYLFLGILFLR

FYKS

>AHK57879.1 hypothetical protein N918\_04055 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKVAFFLLFLFLSCTVLNAAREYCKYAYQEDRAIPLILNYGIRLGVVGAGVANAPAPGGSTYNSKIDMM

AARCH

>AHK57878.1 flagellar basal-body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MITQTMQSKESKESKENSKISFANAFLKQNASKLNEIQNANSQTLARSEALNSTNTTNTSNNTNFSISSK

TSSPNYDISSEFKNSIYTLKYKQVDISNTSTNTAYGYSVDKDGYMGSDFNKAAGLPEDFKIHKSTLDEIK

KAAENDPVVSSTKEYLGVSSYYSNIDIANTIKQYYNLFSNALGQSFSNDKTSFSEADINSMPSGYGVSGT

QWMDFNEPSNRMNITGLKDFSNSLISNVYKTPEQAKEADEI

>AHK57877.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKSLVFKNFIINALGILFSRILGLARDVLIALFLGAGLYSDIFFVALKMPAFFRRIFAEGAFGQSFLPNF

VKAKKKGAFCVSVMMQFSLIVFLFCLLVSFFSSFFTKLFAFGFNADTIALAAPLVAINFWYLFFIFLVTF

LGAILNYRQKFFITSFSAALFNLSIVIAAFFVDKNAPQNTLYYFSYATVLSGVAQLILHLLVLKNNPVIR

AMTLSIKFKKTKAKLQGFYGNFFHGVLGSSATQFSSLLDTTIASFLMSGSISYLYYANRVFQLPLALFAI

ALTQVSFPKILKHLKSDQENLALKFMQRALALLSILLIASSIVGSVFALEISKLLFERGNFTHEDSVITA

YVLIAYLIGLLPFGLQKLFSLWLYAKFKQKTAAWIAVKSLIISALCSMAFIFLIKDESLKVIAVALSSSI

SAFYLLGANIKEFGFKKFFALISIKICLLVIVALIVFTILLILIKPYILSFFIGIFTSFKGVF

>AHK57876.1 ferric enterobactin uptake receptor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKICLSVCAIGLLSSNAISQNVELDSSIVSASGFTQDIKEAPATINVITKKELQSKPYRDVAEAIADIP

GVDLYASKGKTGSYNITMRGITGYTLVLIDGRRQGIGGEVGPNGFNEISNSFLPPISSIERIEVIKGPMS

TLYGSEALGGVVNIITKKVSDKWETSVSLDALLNENKDWGNTYGTSIYSSGPLMNDKLGLTLRFREFYRQ

QSNVEFTNGSGQRVQGDQAQSPTKANNFNIGTRISYLANDYNTFIFDIDFSRNHYDNKQGQLGTITSPGR

TPGSLTGGYADIMEVDKFVTYLSHEGVYENFSITSGLQYNRVSNDGREVVGQSTQPFLGENRDIVAEDII

LDTKSVIPLGQSHILSVGGEYRLEKMQDKIASPTNFDQYLLAIFAEDEYSIKDDLRLTFGARYNHHEIFG

NNVSPRAYVVYNPTNELTLKGGVSTGFRTPYANRLINGTYSYSGQGRFPTYGNPDLKEETSLNYEIAAIY

NNDLFYVSATGFLTNFKDKISSQSYNNSEPIPGIGTCDADRCSRAINHGKVEYKGVELGAGISPLDNLNV

NFAYTYLDTEVKEAQDRSVIGKPEQDSLKHNIMLKTEYSFYNKITPWIKGEWQIDRYMGDTNINREYYKD

IFLASMGVRYDINKQWSINAAIYNLFDKSFTNGWESYASGSGSTWVNTYNRIEEGRRMYISINGNF

>AHK57875.1 cell envelope protein TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTFISNHKNQSSFITLFVFTPLFFVFLYSKDFLHIQPNETIKENKFNMAIKHFVQNSSDMKPTQPTQTI

QEPSNVQPKEPVQEIKKIKPRKEKPIAKPKKIIPPANAKAISQPKKDTNMQQQTPQASSYQSVSLTSNSE

LLKEIKSAIDEALIYPRQARKMRMSGEVLVEFTWTKEKKLENLKILKPSKYDFLNKSALETIRIASKKFP

QYEKTFHIKIPLVYKLS

>AHK57874.1 transposase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLAVEDLQIKNMCKRAKLKNIKAKSGLNKSILNISFYQFSQYLEYKAKHNGKFFIKVNPQYTSKTCSVCG

NIKKNLMFKDRVYLCEKCGNTLHRDINAANNILKRGLKSFGLGISLEDYKLKAFRIS

>AHK57873.1 transposase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNTFFKMRYHRDLPNTYKFNQITIIKNHNKYYLAFSIIYDESNVSLMSSKDFDIKKAVDIDLNINEITLS

SGELIATNSKLLSRAEY

>AHK57872.1 hypothetical protein N918\_03740 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGVVYDEINIAVNTCKGLVLSKKRLLALNLSFFIQ

>AHK57871.1 hypothetical protein N918\_03710 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGIRFQTPLEGLYSTPFYDIGYSWYENKEYQSENHYLMDAMGI

>AHK57870.1 hypothetical protein N918\_03705 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNVGVNFSYPVFLYTEYSLYLVSGFTHKKIKDYYLDGLVSNEKARNSVNLGIERTYRGLENNVLSYTLNF

IYGNVENDGDFSGFNGVNLGNFGKMNLNLSNKYQF

>AHK57869.1 hypothetical protein N918\_03700 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKNLKGKVITTKNVENEIYKINEIYGIQTNANLQSGDGCGESDVIIEVNKGEIV

>AHK57868.1 hypothetical protein N918\_03695 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRKILVVLVLLQVFSHAEELNNNKIRELIESSPEANEPQNKNLKNTLKNQKSPVNFKEQNTTNITNSQTD

QNEAKVFVREYVLHIDNKDLTFKKLRISEK

>AHK57867.1 hypothetical protein N918\_03690 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEIGEADARSSGLRCIVSDNFKTMNICVNAK

>AHK57866.1 hypothetical protein N918\_03685 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQYNNEVTGKKDFDSAVRKKFNDIKYLDNNSYAFADSFTKATDAVKLSKDDFDPKLLQRILDDLMNGKYT

YDFDTKTWTYTDSKGVVGKDEASEITQSLNFLNAFKDTGVEQEFLKLWQGSQEQNYKNYTNLYEKWTQKK

TAMDKIKTGEGYFASFKEELQKYQEALAQLDKENKNYEKIKESGLVSDETLRAIYEKLLEQKEALEKQFA

DLSGNEGFRYKLENEILNSQGFSIEGKDVDGKVYTGNFNFKGKLASLPEKPNISIYEPDKQGGEDPDKPS

VLPPEIPEKVVEAPIKIQTEVDAKKRRR

>AHK57865.1 hypothetical protein N918\_03680 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSAGNYKTQAGKVIGDPGISVNNNFSNIYVYHNLENGYIDEGQNFLSLCNIIMK

>AHK57864.1 hypothetical protein N918\_03675 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGGIGRQIDGGNFNNVVVNDIEKLITSGNDSKTGGFTGKVGNLKINNAYLFYKMEQF

>AHK57863.1 hypothetical protein N918\_03670 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTVNDLVINTAVNTKVGGIIGWGNGSGGNNTINFTNVAINNISIVAKKVLMWVA

>AHK57862.1 hemagglutinin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKMSKHIVLSFAVSSLLFSQAYALLSGGKFTHGTSGTIHTSGNTVTITGKGQNHVIQWGGGFNIGQNES

VNFNGKNQNYLNIAYQKDASKIDGALNRGNNNIFLVNPMGVLIGKTGTITAGKFVASTTALSDDNVKTFL

EKGASFSPAFDVSKQGNIINLGKINADNIVLIGNKVEINKGKITLDVLKLEGNKVYVDAGVVKDTKNIVA

KAEQEAIIQQSITSFEEDGALLGNSSSKFSFDDSSKVKNWTKYGSIADATEWNKFADFWNVNKEKFRTAF

DHFRLIDDIDFSGVKTYIVGDNTSNAFAKSFDGSGYALKNVNINSSNQYVGIFGVVQNSYIRNFNIQGLK

IASTGYDA

>AHK57861.1 hypothetical protein N918\_03660 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGVENIYTLPLNGVPYISGSVAFDGEAKDNKLILESNTKIDLHNSQYFSDEEGKDIYDERITRLMGAFGI

NSNLQNNKVLIDSANIVLHGPDGEYTARSTFEILGALADVNNLKKYNVSKNSVIIKNLNLDLMVNSQNKI

TFYDAVLFGEIYGGRTLQGNAEKNSIEVYHFNSLDHLNKNIKTHASLNLYGGYSNDGEANGNKIVFRLKK

PLKISDNFYGKNYYNLYGCFATEGANFNVFDIQNDLTYEKVPQNYSDKFTVYAARTLSGKANNNTLSIKD

SVISLPLYAFITSETTLDGIDYIADESNNNEVNFENIKSSKNLSLMINAKNVSNNKINYNLIQSLTEASS

LGKGSKIILKATQNANNNLIKLKDCSSAAVESSCIIKADKESAFNKIINNNTAFSTASDKRQGYVGLIAG

VSANSHDNIMELVNLNIDEYKNQDAIFLAPSGTSDISNFKSYNNTLYLGGELNFFKDVNIDLLSGSVFHE

VNKKGKIITQILPHQEDFSKNNRLIIDTQDVKSEVVNNFENFTFILPNKIKNPILTIEKLINLPANGSME

ILTKNKPTKGKYILIQSDVGIYDGDNGLLNQQELENLLEKMKNNKNKFNYNKIEKLAKSTLKNVNFSFEV

SDDAKIIYINIL

>AHK57860.1 glycerophosphoryl diester phosphodiesterase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKVILTSAMLCSVLFGVQEYEANLAGHIIIDSKSTVKPPKDAPDFFKTYGKFANIAREEKIGTFKSKGN

RETDFYLPFKNQPIQGHSGIKYIPKKDVFWVISDNGLGKKYNSYDAMLYAHEFKFDFKNSKYELLKTVFF

KDSDKKYPYPITTETTKERYLSGVDFDTESIQVINDEFYIGDEFGPYLLHFDKNGNLKEVFDVYVEGKKL

ISPDNPSLKFSDKPDGENEKFNIKRSKGFEAMASSKDGSKLYLLLEGSIYNNNAYENEKGKEYLRIIEFN

VKNKKFTGKTYKYFLEDKSHSIGDFNMIDDKYGIIIERDQKEGTKDKACKEGEDTKHCFNNVAQFKRIYK

VKLDDKTHEAQKISYIDLLNIKDRNKISKKPLVNDKFVFPFETIEGVDIVDDSHIVVENDNNFPYSSSRE

PNKTDDNEFILLEVKDFLKSK

>AHK57859.1 restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNYYQELKKYLNNNLFTSYSLEIDFPKIYNFNANQKAFRDILTKITKIYDKNKFIKQNEHQFEDEFISKV

LEILGWCFVRQDEKIIQGKLEKPDFLLFSNDKLKSKYENLDKETKKSSNDFTIILESKAYNIEIDNKKVK

DNPHFQILRYLGNLKKNYGFLTNGRFWRFYDNSILNSNKVFYEINLEKIIEDQNIEAFAYFYSVFSAFNF

TEKEDHLEITLQNNKLSKIKIEDDLKSIIYGTNGNESLFEFIGSRIYNKTKADLKLIYENSLYFIFRLLF

IAYFEDKFEIILEKHKYFKSKISLRTLLENLQEDESSSGGFGELENIFNIYNKGKGNFDMPVFNGGLFDE

SKTALLSTPKIFNDKDLKFILNQLLNFKDKNLSFKRDYKTLSVEHLGTIYEGLLSYFFEIANEDIYYVSY

KEKSKEIECYFDNYDFKILEKSKKVEKYTFYKKGQIYLKNTSNSRKASASFYTPQSIANFLIQSALKDKL

NNENILKFKILDNACGSGHFLVGVLNAITHIVLSDFDHFTNLKELYEEEKENILNHIKDFVQDYEVDESD

ILKRLLLKRIIYGVDLNPFSIELTKLSLWIDSFIFTTPLSFIEHHIKCGNALINSNLSDFKDLIKQNSSN

LFTNSITQEFEILQEVFEKLDNLKDTNEEQIKQSKQIYQNEITPKLNKLNLYLNYINTLHFVNKEELQIL

KALSQDDIQNLSQNEQAKAIISKYQKEFNFFNYELEFPEIVENQVFKGFDIIIGNPPWDKTKFSDSDFFP

QYKSDYRSLIASKKKEIQDNLLAKDYIKQNYEKQKAYINDLSEYYKKAYPLNKGSGDGNLFRLFVEKNLS

LLKQDGNLAYVLPSALMFEDGSLILRKEILENKTLEYFYSFENNKAIFIDVHRSYKFALMLIKNTQANHT

HKIKMMFYKTDINSLKNKDEILTLNLKDIKKLSPTHLALMELKDKQALEILRKSYNAFQNLSFDYIDFRR

ELDMTNDKDLFIEEFREGLLPLYEGKMIHQFDANFSQATYFLEKAKFDERLKSKELYRAKKATGKELNPK

LIKYDREFFRLGYRKIASDTNERTLIASLLPKNCGGADSTYSNIPKQYVLKDDVICMDIVPYERILFVLA

LFNSLVVDFIIRNMVQINVSKSYLERIPLPQPSDEEIQNNEIYKTLAKNALLLQLYNDQNRHFDELKQEF

NIKNEEIPKTKKAYDILRAKNDLLVKELYGLSDDEFSYMISTFKVLNEKQSEYITLLKTI

>AHK57858.1 invasion protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNLLFYIKNNLTPTLAQILLQALKNSNNEKFFTFVLENIETICTWLNSNKFRDRYLSTKHPYPPLINPN

FIEIDSSRHCAELAWDLNLPLPKHYKFIYISPHGVGAAAFLRYLNQCCDVTCFASWVLPPDSKERYCINY

MCLNDNTIAQYAINISEINLPYFDKYLSLLDFNSKIICGVRDPIGLLKHSWGRDWSKVLRNYPPEFNLTY

DWRYYINYLTHQNHKIKIDINELQQGVFIISYLLKYFNKDNVYYLDMEEIRQSKAFDTMNLLAINFNFTP

PHKDKLDLFKIKEFRGYIRYLFPITLYANSKDINNTFYLNTPKNNKNFNIDRTSSIPIILDRKHINHEKI

DVIQEIIKNDLCNDMGVYIDKNDFKQLEQNNLLFSTIKHYLYDFLYQIKITIDETESKMMKEKDVIDYFI

KNKSLIYTFLIYLKMN

>AHK57857.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQRQSPEQILKKLEVKAKEEEKNKLVKLKIFLGYAAGSGKTYAMLSEARTLRDNGVDVVLGYIEPHDRPE

TMALAQGFESIANLEIPYKNIVLKEFDLDATLKRKPALVLVDELAHTNAKGLRNEKRFQDIEELLKAGID

VYTTLNIQHLESLNDLVANISKIEVKERIPDRIFDEADQVELVDIEPNKLLKRMQDGKIYKEKQAKLALE

NFFRQERLIALREIALRRLASRVNLRASEQRLINDDLAYHTGEHILVCINASNAKVIRAAARLALAFHAK

LSALYIKNPNIKEAKALEENIELAKSFDAKIISVYDDIARQIAEYSSLSNVSKIVLGKNKDKKSLKKRFL

KLSLKKHPILIYILSMKIKFLLLKYEVKKSFDFLGFLKITGVLLLATFIAFVFHKFNTQPSNIVMIFILA

VFASSFISDNKIFAFYSSLVSVLIYNFFFLEPIFSLKVHDSGNIITFTTMFIVGFLTAVFTRRLKLQSKE

LTKRAYRTAILLENSENLARVKSKQELWEQLGNQALKLLNLPIIIYPINKNNILSKPLLFFNDDKQMLKN

CFSADEIAIAQWVATNKERAGVCTNTLPNANAMYLPIEDGKKLKGL

>AHK57856.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MICLETLLSFFVVMLILCTLVYPFALNTVAKFIFPYQSSGSLVDKEGRPTLDVSKAVGSKLLGQDFNKPY

FLHSRTSVSNYNTSDTNESSVSSGGFNYAMSNPALKERVQKYLQKFLDENPQITKEQIPLDFRIRS

>AHK57855.1 potassium transporter KtrB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVKNPVMFMVEVGSILTLILSIFPTLFNGNSDERIYNILITFILFIILFFANFAESIAEGRGKAQAATLR

QSKKDSKARHIKSDGSEEMLNSSELKIGDIVLVKAGELIPNDGEIIEGTASVDESAITGESAPVMREAGG

DFSSVTGGTTVLTDFLKIKILVGAGESFLDKMINLVEGAARQKTPNEIALNTLLIVLSLSFLMVVVSLYP

FMQFLGVSLPISWLVALLVCLIPTTIGGLLSAIGIAGMDRVTRFNVIALSGKAVESCGDVDTMILDKTGT

ITFGNRLANEFYEVQGISKEEMIKACVLSSLKDETPEGKSIVALAQKMGYELEGNDIKEFIEFSAQNRMS

GVDLQDNTKIRKGAFDAIRAYISEMNGKIPSDLETKVMEISNLGGTPLVVCKNEKILGVIYLKDTVKPGL

KERFDELRKMGIKTLMCTGDNPLTAATITKEAGLDGFIAECKPEDKIKAIKKEQAQGKIVAMTGDGTNDA

PVLTQADVGIAMNSGTQAAKEAANMIDLDSNPTKILEVVEIGKGLLITRGSLTTFSMTNDIAKYFAILPA

MFSVVLPQMQILNIMHLATPKSAILSALIFNAIIIPLLIPIAMRGVKFKPMKSEHLLLRNLSIYGLGGMI

APFIGIKIIDIPTAWILRILGV

>AHK57854.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLTLENKFQSIATGPVAALESIKHLGTNGGGFFGTNSSMPFENPTLLTNFLQILSMMLIPSACVVAFGLM

VYHRKEIQGFALMGKEEGGGVIFGAMGIIFIISLLLIYFSEKMSNPNLDSLGLNANLGNLEGKEIRFGTD

GSSLFSAVTTAFTTGSVNNMHDSLNPLSISATLLNMMLNVAFGGEGVGLMNMIIYVLLTVFICALMIGRT

PEFLGKKIESAQMKLIALVILIHPLLILVLSALAVVFAKDSISNPSFHGLAQILYEFSSSAANNGSGLEG

LKDDNLFWNLSTAFAMFCGRYLVLIAQLAIAGSLLAKNTQENTANSLKTDNLTFMFVLVCIIYIFAALTF

FQCLLYQALQNIYLYGIKESQCLKNKINSLQKKF

>AHK57853.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLNTVISFITNTNLQHYSGENALSLLSQNTGILLAMFVSSASGYSACMAFCRALCSMQMGNFMKILRVL

LRV

>AHK57852.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLEILITLIIAFILALIFGNYLYKIASCKKTIFDFIFNPIDNLIYKICAIDRKNMTWQKYSLHLIAFNAL

VAIFSFVIFYLQDKLF

>AHK57851.1 hypothetical protein N918\_03350 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRKGYPMDIIFALLLLLAFGSLCFFICFCEIQTKDTRMIFLLVLSLILALYLFYALLYPEKF

>AHK57850.1 hypothetical protein N918\_03325 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFQKLIFFAKIAFMRVDKFLNVVNITKRRAISEDMCKSGVVGINGVIVKASKEVKVDDIITLHFTEYTQK

YKVLALPSTKSIPKNAQNEYVVKL

>AHK57849.1 hypothetical protein N918\_03320 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEQNLLTPLLYFFKKIASKNFSLMKFGYNFIIFKSILTKDIL

>AHK57848.1 hypothetical protein N918\_03280 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKQEIQKLDTNFLGHRKPLFSLSMVELWERFAFMVFLQELVFSSTLPGGWITDNYSGQKRLYF

>AHK57847.1 hypothetical protein N918\_03275 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFFLGLTFIVIGTGFFKTNASVTVGILYKQNDTRCDTGYTIFYIGINIGAFIAPLICGFVQAKWNYHLGF

G

>AHK57846.1 di-/tripeptide transporter domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLISLLILYFKAALELEEFHKNCTLKQNWEQPFKKVKNLTLILSISLLSIIGFFLMFINLVNINPI

>AHK57845.1 amino acid transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVIYFIYLFVFKALNKREKQQLIILIVLFFAATFFGVLLNKNPTAYNLFAQDFTNRNIFDWKIPTNWFQS

FNPIFIIILAPIASYIWIFLEKKIYIFLPLENLL

>AHK57844.1 di-/tripeptide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDIFREKNIYFSSIGKFTLGILFAGIGFMMMTFASQNLINNNGLPISMAWIIISIFFLTLGELCVSPIGL

SIMTKVAPDLIKNQVMGLWFVASALGNALAGFIGGKASEENIAYLPNLFYQCMWILLGAVIILLILKKPI

NKILKINIKEKI

>AHK57843.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRRNLSAYKAKFNGAYVFLGFFFLIYQILGSTFVYTPLLYGIFFCYMFCLLEERERTFSKLDFRWYFSLF

FLFFTDITYNFFIFSSWLAFFIFYYLCADWIKTNLKIGKFIPVVFVLCAYGIILFLDMILSYIGDEKIKI

LGWAYIVSVFIECCLAYVFFKGKI

>AHK57842.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIINQIYSIDSCDDVELNIKRGSKLEFRLTYDDSKEIEAIVCIIPGGAEDMNSYIYIDDYLTRNYKVAVI

NINYHCIGNRPHLGSSFYLDDIDKFILDTSLKAINLKCINVYGINSYENLNNAFIRIDQEIQKLKLNQQL

HQNYKLKTHVSFLPFKNEYQNFGIMQAMDILNAIFYIKENSPFKLMRGGGIRTILFGNSYGGYLANLCAK

IAPWSIDFILDNSSFVNLFGNIFRLIGFGKEIDFTRYHGTYDDTLFKNIFLYLSDKTYWNNNKFSKNYFS

NARKIIREPLNKEHLIIQSLYPNPKYILYHSIFDERSPFKNKENFVHILKELNFKVEFFAISQVDNKFIK

NLNHGMGLSTKLFFKKHLLQILKEPLQDKICKKEVSYKCDELVYTFKEENHQIILNITN

>AHK57841.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQENNSPKAQAVVKKNEIYVSVKRKKSTIEYEKDLKNLQIELLKFQNHVKAKGLKVLILIEGRDAAGKGG

AIKRLIEHLNPRGCRVVALEKPSDVEKTQWYFQRYIAHLPSAGEIVIFDRSWYNRAGVEPVMGFCTPQQH

KDFLREVPLFENMISNSDIIFFKFYFSVSKDEQKKRFEKRRSDPLKQYKLSPVDQKSQELWDKYTLAKYS

MLLASNTPTCPWTIISSDDKKKARLNLLRFILSKVEYPNKKTGDFSKIDAKLVRSGEEEIRKMEANLEKL

DSKKADEKIKDLD

>AHK57840.1 RNA pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENEKNYRPNVAAIVLSSSYPFECKIFIARRSDMDNIWQFPQGGIDKGESVKNALFRELKEEIGTDEVEI

IAEYPEWLSYDFPSKIVKKMYPYDGQIQKYFLVRLKHGATININTKHPEFDDYQFVSVKQIFEMINHFKK

NIYVRVIKYFEEKGYI

>AHK57839.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNHLLILYNPYYQEDVIKQHLSILQEKSQVAFGKIKSKLNDQEKQNSLEEIYQSTNEENFLQLFLSDYAN

LFVAKVVKISKNVDESLIPSYYKEKNLEVEDFFIISDLRELVREDFSRLRDKFLANFITPNDHTYAIYGN

HYTYPLPVRLKEECSYFLGDEKHYLSVYKSKEYLAMQENFIRFVFGKRIFYLLHSDSISNIIHAELELLQ

SENDLLNDFTSIIVKYSKTLEYEIYAFAKKVLLKACMKDPSLYDLAYNVQGKSFILKDFFTQKPNLGSIK

FLLRHENIQCHLGKSLTQFINYPFSKSLTIIQEIRNEAVHAKAPSLNEVKKLRNEILGIEGVSLLKRILT

HKEIS

>AHK57838.1 hypothetical protein N918\_02840 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENKFKINYDQTTTNGRNGTNGKVDNLSMKNHHLKSIGHSPDIFGLFVSIVNQFTNTSTFVSNGKIITID

TNTFELQGGNFIAKIFCGFFNWFGHLASDWCGSSGGKERGAGIPMPFYNLFLLCDFGNFGQHRQTLAQIA

TQVFEQGYDLRHGVTMSIPVMINKMLIRFMYIIKAKFYHKKEWKECIPKDNIPELNKMLLIGSGTFLLID

TGGAWIKSKNPITNPVVFLSEINLINVIRFSTLILKEIYILYNNGKIDNKKLEKYLDDTCKILLIEAHNK

SKPFKEILK

>AHK57837.1 hypothetical protein N918\_02835 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MITYSNLSDVKKRIEDEFTHRNAECDKYDYLIAITCGAIAGIMDIFLVGNPKDSYLGKKVDKTVEKMTQK

FAQLCGWDKQKALDKNKDLTKSV

>AHK57836.1 hypothetical protein N918\_02830 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDKIQENTKIEKAILAEKQQIFLIQNKLSEIEKNIKE

>AHK57835.1 hypothetical protein N918\_02825 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENICQFIIENIDKNSLNTKKIKLVFNMQEQEITTISKIFKVSSEHIIAFYDTSTSFNYFSKTTGICFTG

KEVIFKRKEDEVLMKINYEDFKEANKSLPEKTTTLQDIKFPISFHNLGTSYLSFDDFKKKNYIEENDELI

INFLHILTSKNNIESFKNESMFPQALEKTNESIKENYIKVIIKIILDQYGFLDEKRSIKIFALMNKINVA

SETRYKIQDFLHNKHSSFEDLLNIIKQESRFMQFKYILISLIKDLIDIDFEDNKIYNFLYENKDIFKIKD

LKEIYWVKEIIKKEYQIILDDNKEIQQIFNFISETATKNNISLNGLHLSGMTIGMSVSIMELLGFGELIK

LPLIDSSKKYHNKNKQQLRLFIIQEILKENQKTITQIIDIINNLIEQCNTNTQNLQELIKLLKLASKNNE

TFKEREKLLYCPETLSLITINNHLKEDDIQFIEQYYTYNQNTHKYERNDNLSSSDLEKLSNFFKLKNL

>AHK57834.1 hypothetical protein N918\_02820 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGLQSLIKIGGFKSYQIAVIVANQVMKVLLGRGLSLAANATLTRALSLFSGPVGWTIMTTWTALDLASPA

YRVTIPAVLQIIILRLKHNTKN

>AHK57833.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGIILGILSLIAGFVAIVLMCGLYFIAFMVFVGIAILIFLSMQPYPYNIIFCAIYLITILALVLWRKT

>AHK57832.1 multidrug transporter MatE [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSSIFSTLSPFRLFVKYAVPNVISMAFISFYYIVDGIFVGKYLGSDALAALALIIPFIMMSFALADMIAI

GSAVQISMHLGLGKKNLARKIFSSSMLIIFIISCFIGILEYFLGPVLIDCLNVSDEIKTMTKECMFVFAL

FAPFTMLSFALDNYLRICGKTAYSMVMNVIIALSNIVLDYIFIVELGWGLFSAALATCLGLVLGGIFGIF

PFLFQNLELKISSLYMNLKIFKNILYNGSSEFFGNISGSLYSIFANFVLLKISDTQAVAAFSIVLYIDSF

IIMLIIAIGDAMQPALSYNYAKKDFSRIKAIIKVVFFAGGFLSLFSIVLILIFGENLITLFTKENNQEFK

TFAYTALMLFAFNYFFAWFNVLSGSFLTAFNKASFSLVLSLAQNLFIPLFFLLFLSCFMGLNGVWLSPFF

AEFCVLILAWIFLKRIFKDLSL

>AHK57831.1 aminodeoxychorismate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTIPFLSTINKANISTTKNTTIYKIFFFIRNFFLIFILGIFYYLTQPLKSNSVVFIPQGSISQIITYLKQ

NKYQMSNIDKYILFFLGHPQSGWINIGTKDLNRAEFLHKLTIAKAALQTITLIPGETSVIFLEQAAKQLG

LDKDILLKEFQAQAPYDEGVFLPETYKIPKGITENLLIQMLLNHAEISNKKTSEKIFGDYNPKKWHQYII

IASVIQKEAANDNEMPIVASVIYNRLKKGMKLQMDGTLNYGIYSHVKVTPQRIRQDNSSYNTYKFTGLPK

EAVCNVSLAAIRAAIFPLKTDYLYFVRDKNTGVHIFSTNIDDHNKAINLQKGK

>AHK57830.1 Na/Pi-cotransporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MISLVKFSDTAIEALRKESEHLYNNTYAVVAHAIGFSRKDIQSDKSFKEILENKKWFSKNVDLDYLYQTR

IKVLFEAIIDFSTKAQVYINDETKNHKIFTFKMAAKNLAETTKNLKIIQANIKKYSSSSNEFLALEYNKI

RSNLGELLRSIEELRVVEDREKLYLIIKNLQKGKEILKEIDTLTLSNVEHLISVRKITTAEGISILNDTT

FAAKIAEELIGAVEVIFSKDISN

>AHK57829.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLTGVIQSSTVIMAIIVAALLAQQISLENSLAATLGTSVGGVVTAVLASLSTNIEGKKLAFANCIFNFGI

AFLIVLIFPYFIHFLIFYPLR

>AHK57828.1 sodium:phosphate symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTNLGIGFKVFSGDLLEKILVKSTDTKIKSILFGTLSTLIMQFSILVSIVTISFLSAGLISLGAGIGIIF

GVNLGNTASSWLIVGLTNIKILMLAIPLLIIGVLFFFQKDSILKGLGNIFIGIGFFFLGVDYIKSGFENF

KHIIDLSRFDFAGFKGVFVF

>AHK57827.1 molecular chaperone ClpB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MANIQDFLTDNMLSNLESAASLAIHSKNNEVVPLHLLWALSVDSTSILNQILNKLNISKEALELEIKSRI

SKLATSSNVNRENIRFSNELINSLENAKGLMSANGDSYLSVDTWLISESQKSPIKEILAQFLDLREFQKE

LESLRAGRKMDSKTSDETLDSLNKFGIDLTLKASEGKLDPVIGREEEIERLMQILIRKTKNNPILLGEPG

VGKTAIVEALAQRIIKKDVPKSLQNKKVIALDMSALIAGAKYRGEFEDRLKAVVNEVIKSENIILFIDEI

HTIVGAGASEGSMDAANILKPALARGELHTIGATTLKEYRKYFEKDAALQRRFQPVNVGEPSVNEALAML

RGIKEKLEIHHNVTINDSALVAAAKLSKRYIADRFLPDKAIDLIDEAAAELKMQIESEPSSLRKVRKDIE

TLEVENEALKMENDEKNQKRLDEIAKELANLKEKQNALNSQFENEKSVFDGISAKKKEIDLLKNEASLAK

ARGEFQKAAELEYGKIPSLEKEVEILEDKWKKMSENGVLLKNQVDEDLVAGILSKWTGISVQKMLTSEKQ

KFLEVEKHLKESVIGQDKALSALARAIKRNKAGLNADNKPIGSFLFLGPTGVGKTQSAKALAKFLFDDEK

AMIRFDMSEFMEKHSVSRLLGAPPGYIGHEEGGELTEAVRRKPYSVLLFDEVEKAHKDVFNVLLGILDDG

RATDSKGVTVDFKNTIIILTSNIASNAIMNLSGKEQEDAVKNELKNFFKPEFLNRLDDIITFNPLGKDEA

YEIVKLLFKDLQMSLENKGIKASLSENAALLIAKDGFDPDFGARPLRRAIYDLIEDKLSDMILADELHEN

DSIIIDAKDDEIIIKKA

>AHK57826.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKILKYIFSFFTLLFITGFIYVAYLFTSADTEGYTFKEYKPPLTTQIYDRNGKLVANIFEQHRFYAPYEE

LPPRLIEALVAIEDTSFFEHNGVNIDAIFRAAVKIIKSGGKTMEGASTLTQQFIKNTELTPERTIARKIR

EALLAYKMETILTKEQILERYLNFIFFGHGYYGVKTAALGYFHKNLNELSLKEIAMLVGMPKAPSSYDPT

KHLDLSISRANNVISRMYNLGWISKADYDTAIKEIPQVYDDTLTQNAAPYVVDEVIKQLSPNIKDLKTGG

YKIILNIDLDVQNMAQNALKFGYDEIVKRDKDANLSTLNGAMVVVNHQSGDVLALVGGVDYEKSNYNRAT

QSMRQPGSSFKPFVYQVAINLGYSPMSEIADISRIFEGGAGNNEDWKPKNEGGKFLGLITLKEALTRSRN

LATINLALDMGLDVLYSKLMEFGFKDIPPNLSIVLGSFGISPLEYSKFYTMFGNYGTIKDPQIIRQVQDK

TGKTIMEFNSNERKVSDEAQSFLVLDMMRNVVEKGTGRNARVKDIEIAGKTGTTNKSVDAWFCGLTPEIE

AIIWYGNDNNKPMRYTEGGARTAAPVFREFLTQYIEKFPDTTRKFSIPNGVYRGNYKGESAYYTTKSPLP

KANMKFNESEIIF

>AHK57825.1 ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHGIGGVCEGIATGLFASVKANPNVITKNALGGGIFYQWKFRAFKRANSYYYDLYDFFSSHKLYYFLRSF

LVLQT

>AHK57824.1 ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNCFIAFGVITLQWVVLGFSFSFGKDEGLGLVGNFENFLLEGISGYNASGVSNILFMIFQMMFALIASAI

ITGSLVGRIKLGVLVIFLLFWSTLVYDVLAHMIWSSEGFLLKRGSLDFAGGGVVYISSGVAGLVGALIVG

ARKSDDEDKNAHSISYAFLGVILLFIGWLGFNAGSAGEMNDIAINAFIVSIISAACGFLSWVVLEGSSIK

TDYFRWA

>AHK57823.1 aldehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQEQGKTRVLASIEINFTADYMDYTAEWARRYEGEIIQSDRANEHIYLYKSAIGVIGGILPWNFPFFLIA

RKMAPALLTGNTIVIKPSSETPNNAFEFAKLVSQSSLPKGVFNLVAGKGSVVGYELSSNENIGMVSLTGS

VEAGTRVMEAAAKNIIKVSLELGGKAPAIVCKDADIDLAVEAIKASRICNNGQVCNCAERAYVHTSVYDE

FVDKFVKAMSKVSVGNTLKGDFDMGPLVNQAGVDNALAMLQRATAKGAIVECGGKITDTSGYYFPASVLT

NVKHEDEIMQKEIFAPILPIAKFDTLDEVIDMANDCEYGLTSSIYTQNLDIAMRASREIKFGETYINREN

FEAMQGFHAGFRKSGIGGADGKHGLEEYLATHVVYLQYNTNKQ

>AHK57822.1 aldehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTTYLNYIDGKFIPHNGEFIEVLNPATKEVISRVASASLEDTKRAIEAAKKAQKVWEAKPAIERANHLKE

IAS

>AHK57821.1 hypothetical protein N918\_02435 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQRYGQIIKIKKEKIEEYKELHTKPYEGVCEMIKECNIQNYSIYLFGEYLFAYFEYIGADFEADMAKMAR

DESTQKWWKVTDPCQISLGYAGQKWLNMEEVFHLD

>AHK57820.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKIFDAHLHLWDLEKIPISWIKDDEKLEQNYDFFRMKQEYKEFEFIGAMYVEVNSDDLEKEALFALEQK

KLHNLLFCLADFKHKEELSSFREVMHTSKKGAKRLFEADFEEKIEILKTFNIPFEACIKNEELGFLEKFL

SKNPNLKVVLNHLGSPKINRLNEYKKDLSFLKKFQNLYIKLSIPDGFSQETPKEFIFELFAFLKENFSEN

KFIFGSNYPVAKITPAKWAKLIIESKIFDDLDKIFYKNALLIYKGG

>AHK57819.1 major facilitator transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTDSKNIKIAIVLVTSLFFLWGVSYGLIDVMNKNFQNHLHISQHESGFLQFAYFGAYFIIALPAGYIANR

FSYKMGIIFGLALYAIGALLIIPATNLASFHLFLFAFFILACGIGSLETSANPYMTKLGDEKNASFRINA

AQSFNGLGQFVGPIIGGALFLSITKQEEGASKEQIQAALVANMGNVQLVYIGIAVIVILILIAFVANKLP

EGSAVSDDYKQKDDSKPIYVFKHRHFNLGLLAQFLYIANQVAAGAFFINYVVEHNEGLKDAQGAYYFSIA

LVAFMLGRIVSTPLMKIIKGEKILGFYSLINVLICFSLYFASGFFSIVLLIALFFFMSISFPTIFAVATK

NLPLNQVKLGGSLLVMSIVGGAIMPIIIGFINDHYGTGAGYLAMAPLFLYVAWYGFIGSKVRKNAKDF

>AHK57818.1 short-chain dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDLKIKNKVCIITGGAKGIGYGIAKLWASEGGIPVIFSRSMPKEHDKELKKLSSEYEFYEIDLKNYEQIE

KLVKKVAIKHGGIYALVNNAGTNDNLHIENTSTQDLIKSYENNLFHYYTMTKECLPYIKKEQGSILNIVS

KTGITGQGRTSAYASAKAAQMGFTREWACAFAKDNVRVNAIAPAEVMTPLYEKWLQNFPNPKEQYEKIAK

AIPLGHRFTTIEEIANTAVFTLSPLASHTTGQILMPDGGYVHLDRALNWDEN

>AHK57817.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKHANSIKLELVCKKISWRILPLIVLMFCLSMLDRTNISFVKSHIEIDAGIGEAAYALGAGIFFIGYAIF

EVPSNLFLHKLGAKIWLSRIMITWGLVTMAMIFIQGEISFYVLRFLLGLTEAGFSPGIILYLSYFFPAIY

RSKAYGIYQMGVPIAFVFGSLISGFILDYTPNIYFKNWQWMFLIEGGITVLVGIFCLFYLDSHPKDAKWL

DIKEKDILLKHIEISNTKAKDYSIKDIFKSILVWKFVFVYFCIQLSVYGVLFYLPSKIAQILQINVGFEV

GLLNAIPWIFVFIALPIFTSLADKKHSWNLHAILFLLLASLSMIASTFVTNLAAFLFFISLAAIGFIVIQ

PIFWNLPTQVLKGKGAAAAIALIGSLGNLGGFVAPTLKTYIENHFGVEFGLIVLALIAIL

>AHK57816.1 altronate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIMGYRREDGKFGLRNKVIIIPSVHCANKVCENIARKCNGAVYINHQHGCSQLEFDALQTRDVLIGHG

SNANVFGVLIIGLGCEVIQAKAVAEKIKEAMPYKKVEYLVIQECGGSKNTIENGIKIVNEMLESAAKLQK

SEGDFSDLILGTECGGSDSYSGLSANPTLGSLSDFVIDEGGAVILAETTELIGCEAILAKRAKNDEIAKK

VYDKILAYENLVKSFHADIRGANPSPGNMAGGLSTIEEKSLGCVYKAGTRTLMDVIDYAKPVVSKGLTFM

NTPGNDIEQLSAMVAGGANICVFTTGRGTPTGSAIVPTIKMSSNTFCYENMNDAIDINAGSIIDGVKTKE

EVRDELIELIVRISDGELVKAELNEQNDFSAWRLATTC

>AHK57815.1 altronate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKGYIIVNEKDNVATALRDFKKGEKVANIELLNDIASGHKFALKDIKKDEIIIKYAEAIASASCDISTGE

WVHIHNTAGIRGRGDKE

>AHK57814.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGILKGTLPALLTPYKDDGSINEKEFIRYCEFGISKGLNGLFCNGSAGDSQALSVEEQVKLMKLTKKATK

NNIPIITGITSTIYENTFILAQKAYELGLDALLLAMPYYYKLSEDALFEYVKYLASEVKLPLYVYNIPLF

APALSLKFIEKVSKLDNVVGIKDSSGDALLLNHILDVVPSNFDVFVGREEFYVGALLAGVKGSMTSIGGV

FPELMSEIYKSINEKNIGRALLIQKSLLKAIRFGMSIAFPMGFALLLKARGFEFVNASIHPLSPATKEEL

NTRFDEAKELIKTIEKETGIKL

>AHK57813.1 ArsR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHQPTLRVLNILELLAKEKLTLSAIAKKLNIPAGTLWPILQTLQEKKYIKCDLKNKSYYLDFKIIELGCN

IKNENNIFEIIKKHMKNIRNLTNQTCQMGILKDGNVLYLEKIDANNTVQLKSFIGTSYPAYATSLGKALL

SNKNKKELEKLYPKNFDKITENTLNNINELYQQIKQIKKEKIAIEIGEMNPQIECMAIGIEHKNKIIAAI

SISYLIYCSNKAFREKNKKILLEEKNKIEKVLKIYFNDLDTLY

>AHK57812.1 group III hemoglobin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFETINQESIAKLMEIFYEKVRKDKDLGPIFNNAIGTSDEEWKEHKAKIGNFWAGMLLGEGDYNGQPLK

KHLDLPPFPQEFFEIWLKLFEESLNIVYNEEMKNVILQRAQMIASHFQNMLYKYGGH

>AHK57811.1 3-ketoacyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRLYFSLFAFFIRNLLRLQFLKLNLLRIDNEI

>AHK57810.1 hypothetical protein N918\_02080 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFKKVILFFLMGFALLQANSLDKCDNTAVVSNLKEKIPSEIFKNLYELSGLKAQGIDYEDYAKGLKEIAK

HDGMVNYTDMIEVNSISNFDLNFDSCMATINAALKGEQRKGLWSVVYKVSNINQVKITDITYINGDFQ

>AHK57809.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKFLSICSLIAMLLSGCGSDFPGQPSDVARVQQNKYPNGNLKKEIPYNKDSRIHGLKRAFYDNGQLRAE

ENYKNGKKDGISREYSRNGQLLEEVHFKDNRGYGDFASYYENGNMRAKGKLLGYNEDGMPEFEGNYKEYY

ENGTLMCDYNFDNKGKFDGVQKRYDENGALEDEENYKNGLKNGVFREYKKGEIVREEEYKNGILVAKPKN

>AHK57808.1 hypothetical protein N918\_02040 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNILHANSSHRFHKCMPKEVHQIYDTLKLMEQQEGTKKSRSQKRRAK

>AHK57807.1 hypothetical protein N918\_02035 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MITLSSFNRYFGNNPLQTLTKIRDESIENAKI

>AHK57806.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENQKNEFDDIILEKSNKSEKVKKILLRVIALVILFLAIMIVMKLINGSGDENTQNQSVLPSEPIATQDN

NNDTSFESMPITDNTSAEDQFEALRKQFQDEQNTTQNTTTSSSNNNDTTNFAMPDQEVPAEPTATTSANT

TPQASTPKQEVTQTAKSKEEAKKQTAVKKEKESAKQTPKKEQNANDLFKNVDAKPVHPSGLASGIYVQIF

SVSNLDQKSKELASVKQKGYDYKLYKTTVGSKEITKVLIGPFEKADIAAELAKIRKDIAKDAFSFTLK

>AHK57805.1 hypothetical protein N918\_01855 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNYQQLECDYFNLYNQFLSVDFQISLFEKDHKGLIKDFIFFYYQILKQKDLSYLLEVRNKISLKVYNYMQ

EHSTSPKDLSLICLRENKHIEFFQIFYKALAYFVAFRKKLDGEQKIKNLISNINDCFGYHFLNSDFNNLQ

NFQKSDLFTLPEKHLKYFHFAMIHLCFMVLNPLNFKDSNRHLDKAINYLVDGTFEIYELIFKEYFLLFSK

DKELKDELRKLKKLEFKILMQETSKIKLLNHYKEFCEEIFYNIELEKITQN

>AHK57804.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKLKNFLILKNIEDTQIYKELKCAKNEALILRELCRNYVVSISSINAFTLLSTIFGNDKYLYLDALEDL

KKLIERGFVNQNSSFFKSLENNKTQTLTLALLQSELSLSEYFLEFLEAKPRLNFEKQEAYADYLEYLKDE

FARIQLYERLSFIQKSAYNSEIKNQIKLYERHIKERLKKSKFYNVLADIFKEYNLEHKEQIIFLALLKEE

YALSNESSISREMNSLLSLISENDLERHKNKKLLQENAPLLNLIECDEYLNAFGDISKSFFIIDEILQRI

INFEPKQSKKIKIESVLKDQDIFELIEPSTDINDIIMPENTKELLENILKQQDKKVLERLHSWGIKSNKN

IEAKIIFYGPAGTGKTMSALAMAKSMKKSVLSFDCSKILSKWVGESEQNVRKIFDTYKNIVQTCKQSPIL

LLNEADQFLSTRVDGSSGSDKMHNQMQNIFLEQIERFSGVIIATTNFLESLDSAFSRRFDYKIEFKKPDF

KDRLKIWEKFLPKKALFEKDFDINILSNYELSGAQILMVVKNTALKVAVSKDGVFKIQDFIESIQKELNS

SFDKSKIVGF

>AHK57803.1 hypothetical protein N918\_01750 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQTFLAKFKDNYNKAKIKKFKQALKLELVWNLIVQV

>AHK57802.1 hypothetical protein N918\_01675 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFQNIIKYKDFIIFILNLKQNLYLLIKINLDFKNFHKSLNF

>AHK57801.1 hypothetical protein N918\_01650 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTNQQIDGIADKNFNTPEGRKVFKKAVFSCWLGTAMEYADFALYGLAAATIFSEVFFPEQTPVIALLLSF

VTYGIGFIARPIGALFFGHLGDKHGRKNVMMATIALMGISTTLIGFIPSYAVIGVWAPICLVALRFMQGF

GAGAELSGGTVMLAEYAPSKRRGLVSSVIALGSNSGTLLASFVWLLMVQMDEASFKEWGWRVPFMGSILI

ALFAVYIRFHVKETPVFEKQKNEMMKLRLNNEKHMKKDERSFWQRSRAFWTMVGLRIGENGPSYLAQGFI

VGYVTKILLLDKSVATTAVMIASLVGFLVIPLAGYLSDKFGRCITYRMFCLLLMIYAFPAFMLLDSKNEI

IVILTIIVGMSLASLGIFGVQAAWGVELFGVKNRYTKMAFAKELGSILSGGTAPMVASALLAYYGSWWPI

ATYFVLTAGIGFVTTFFAPETRGRDLNKIEDAI

>AHK57800.1 beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKITLFLLFLNLVFGQDKILNNWFKEYNTSGTFVFYDGKTWASNDFSRAMETFSPASTFKIFNALIALD

SGVIKTKKEIFYHYRGEKVFLSSWAQDMNLSSAIKYSNVLAFKEVARRIGIKTMQEYLNKLHYGNAKISK

IDTFWLDNSLKISAKEQAILLFRLSQNSLPFSQEAMNSVKEMIYLKNMENLELFGKTGFNDEQKIAWIVG

FVYLKDENKYKAFALNLDIDKFEDLYKREKILEKYLDELVKKVKNDG

>AHK57799.1 3-methyl-2-oxobutanoate hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRKSMISFLEKKAKNEKITMVSAYDYHSARILDNSDIDIILVGDSLAMTVLGMQDTLSVTMDEMLIFTKA

VSRGAKKSFVLADMPFMSYQSSDRDAILNASRFIKESHANGVKVEGGIEIASKIKLISQSGIPVVAHLGL

TPQAVNMLGGYRVQGKDLQSAQKIIDDAKAVQDAGACMLVLECVPVKLAQKISSILEIPTIGIGSGKYCD

GQVLVYHDLLGLNKDFKAKFVKHFDKIDPQVGVEKYRDEVKSGIFPSQEHSFDYLDDELLDKLY

>AHK57798.1 pantoate--beta-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQVITSVKEAKQIVKDWKSHQLSIGYVPTMGFLHDGHLSLVKHAKTQDKVIVSIFVNPMQFGPNEDFSSY

PRDLERDIKMCQDNGVDMVFIPDATQMYLKNFSTYVDMNTITDKLCGAKRPGHFRGVCTVLTKFFNILNP

DIVYMGQKDAQQCVVVRHMVDDLNFDLKIQICPIIREEDGLAKSSRNVYLSKEERKASLAISQSIFLAEK

LVREGEKNTSKIIQAMKDILEKEKLIKIDYIELVDFNTMENIENITDNVLGAVAAFVGKTRLIDNFLVQG

LK

>AHK57797.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLRKADIKDLNACLSLFEQSVKTLCAKDYTKDQICAWIKIDRQQWEEKFKYDEIFVYEKRGKIASFISVK

QEQKLLDLLFTHPDFVRQGLAQNLLDFILKTYLHNEIYTFASLSAKDFFLKNGFELIRENKVIKEGQNLK

KILMKKDVIYKN

>AHK57796.1 glycerol-3-phosphate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRTWSLSGVFIGYMGYYLVRNNITLSTPFIQNQLNLSKSDIGTITGSMLIAYGISKGAMSVISDKADPKK

SWL

>AHK57795.1 hypothetical protein N918\_01410 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MALGLILCALVNVLLGFSNSFYAYVGFVIALGVFQGMGVGPSFITLANWYPKKERGIYTAVWNISHNIGG

GIVAPIVSLSGFALAALLGVSMANFNETYWHMNHFYTPAACAVIISLYALYAVKGNPKNEGLVDITEINE

MRGIKTEEIKAIETPNLSSFEIFYHYVLKNKNAWYVAWMDTFVYMVRFGLISWLPIYLLETKGFNKEQIG

IAFWLFEWAAIPSTLLAGYISDKIFKGYRMPPAIGAMVIIFFMIIGYFTSNNLYMVIFFAAMAGCLVYIP

QFLASMQTMEVVPAFAVGSCVGLHGFMSYVVGASLGTKA

>AHK57794.1 hypothetical protein N918\_01405 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLINSYNVTKILLKSNFCLVFLQAKVKIVIDASF

>AHK57793.1 ipid-A-disaccharide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTFLVCALEPSANLHLKEVLKAYKKDFGEFELHGIYDESLCKEFDLNSKPLYSSHEFSAMGFIEVLPLI

FKAKKAIKELANLSFTQKINGILCIDSPAFNIPFAKALKKAGSKIPRIYYILPQVWAWKKGRIPIIESHF

DILASILPFDNQFFNKSTYIGHPLLDEIKEFKNQEDINHTFSKKDDEKTIAFLPGSRRSEIRRLMPIFKE

LSQKFKGKKILCVPSFNLEKLEVYGDISEFKIESNTPKVLKKADFAFICSGTATLEAALVGTPFVLAYKA

KAIDIFIAKLFVKLKHIGLANIFCDFAGKEALNPEFLQDKVNVLNLYEAYNKYDYKAFFAKVDFLKEYLQ

FGSAKNLAKILNEI

>AHK57792.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIFISFVVLATCLWAKNTAYTDEVVSLYLNKDDTKVIGRLLPTNPFEVLKSENNRVLLKIDGYVNPKA

PSVIYFNDSQRIIVAAFSKNTKLNFSQRITGKNGKWDKVSLEIWADKKEFVKDNKEMLNRAKELFVNNCG

ICHAIHKEKEFTANAWPAIFRSMADRTGIDKKDRWLVIEYLQKNAKDFKTK

>AHK57791.1 trimethylamine N-oxide reductase I catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLDRRKFLKIGASLSALPLIPSLSAGKTVEASKVSLGLVKNGEVITAAHWGILKLTIKDGKIVKSEPWEK

VTKMDNPLQHYTADMVYKSRVKYPYVRKSYLENPDNPKPELRGKDEFVRVSYDEAIKLIAKELKKTRDSK

GASAIFGGSYGWKSSGNMQNSRILLHRFLNVTGGFVGATGDYSTGASQVIMPYVVGSIEVYEQQTSWENI

LSDSKYVVIWGADPLSTLRIAWTSNEQRGLAYFEKLKDSKIKVICIDPVKTTTAKFLNAKWIAPRPNTDV

ALMMGMASHLIAKKKVNYEFLDTYTTGFDKFKDYLEGKEDGVKKDTKWASKICGIDEKTIKNLAETFYDN

STMIMSGWGMQRAHHGEQPHWMLVTLCAMLGQIGTKGGGFGLSYHYSNGGVPTCKGGVIGGMTAGSLGIW

KNGKFKGLSKAEASSEGAEWLQNAASYSFPVARIADALLHPGKTIDHNGAKITYPDIDFIYWVGGNPLVH

HQNTNTNVKAWRKPRTVVVNEIYWTPTAKMADIVMPVTSSYERDDITMTGDYSNMHIAPMKQAVEPVGES

KDDYVIFSDICKIYGKDVFNAYTENGKKAKDFIKEYYNSALKQTQSFGEAFATPMPSFEEFWAKNEPITF

EPTAESLEWTRFSEFIEDPILNALGTDSGLIEIYSETIKNYNYDDCKAHPTWFEPIEWLGNASKEAPFHL

LTNHPRDRLHSQLCHTSLRDTYAIKDREPILINSKDAKKLGIKNGDVVRVFNKRGEVLAGAVVSDEIMQG

VVRLCEGAWYDPNENGLCKCGNANVLTMDIPTSKLANGNISHTGLVNIEKFKGELPKLTAFSAPKGAN

>AHK57790.1 hypothetical protein N918\_01260 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVKNLIIKFGRLILDAIAVISFVVALLYSLFMMFSIGFLAGLLSLIVSFIALFLSFFCNLSCYRYQRCSC

K

>AHK57789.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAYEDEEDLNYDDYENEDEEYPQNHHKNYNYDDDDYEYDDDNNDDDFYEMD

>AHK57788.1 chemotaxis sensory transducer [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MILFSEDMIENLCTNKIKLFSDIKDYTERKKLIEKEVLFINIPFEAHCINTLYYLIYDGLSQSESSLLEL

LYKHNPYPCALVGGGSSGNMDFSGAFIFYNGEILKNQALSIHVQFKPKYRFNLMKSQNFNPQSNITFTIL

DVSLYDKTVRELINKKPFRLKLYVIILTALLKNLKIKCKNILLL

>AHK57787.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQEYTFALKIGEDYLISPMEINPNKTLFSYCDIESAQELSLLKKTNFIEAIKKDYEKFSLNKPKPLGAIF

NDCILRRLHNKEHLNQIHFNDFPIVGFSSFGEIYGVGIAKSLVAIFFYEVENFNDFKPRYLKTFIQKYSD

FKYYYLNIRAQKLEMTNEINKIILNQLKQNTSEIDKNTSIFKEIFEELENIRRSLTTISESFTNFTNYLE

YNLYQSEEKMNLEKEVQSSLKNIDQLNSILDLISGIAEQTILLSLNAGIEAARAGKLGRGFAVVADEVRK

LSENTQMGLGEMEGAIKLVIQTIQSIAKSSNSSTQEMNFIRDKTNEFSKIISNLINSGKEISDKLEQRSN

VSEDFEKNVNQLKCYEDVLAKLNQY

>AHK57786.1 serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFINLGNDYKLNDKTRFNFEFEKTFFGDLNVDWSANANLRYSF

>AHK57785.1 hypothetical protein N918\_01075 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYADPIKAGDQILEDQASQRRYEGKKIKECL

>AHK57784.1 pathogenicity protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHKRMGELRNNPYESGVWLRTFGWGTSDEYNSGKYFEIQSGHDKLNEYSNFELYSGVRFL

>AHK57783.1 hypothetical protein N918\_01065 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSNLQVEKSAIYRKVDAKKLSANNTIFKINADFENSKSDYINSKESTQGVNNTLVLIFLNNPSKKRV

>AHK57782.1 boa domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSANTDKALIFDGNIYNKEGVFRTENAKLNFQGHARIHAYVSKEQAKKLQEHGLSALTKPVSFTQEDWED

RVFVLKELNLEKKRVLFRA

>AHK57781.1 hypothetical protein N918\_01055 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKPKKMIFFNKMGEGELVVKSQSVDTGLRMGEDQGKS

>AHK57780.1 hypothetical protein N918\_01050 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYFSQNGSINLNSDVDLGASVLNLIKIQIGK

>AHK57779.1 hypothetical protein N918\_01045 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKDGKKIENVSLISKTNVGYVSYKNSFDDKIIVIRELKKCKIARICIFLKMEV

>AHK57778.1 hypothetical protein N918\_01040 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKFKSQFDLLEICLYYWQNQDILENNFGSIAEAKR

>AHK57777.1 citrate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEIFLALLGFFSLGLIVWLLLKDYTTPALAFISVSISVACILLILERLGFGVGVALGVKGGVFDIKTLVV

FIKDGVKSVTDTAALFVFSILFFSVLNASGFFTKILNAFLSKMKANVYQVCILTVFIAAAVHLDGSGAST

FLIVIPALLPIYERLGIRKTSMLLIITSAMGVMNVIPWGGPTLRAATNIGMDANLLWHHIIPIQIVGLVL

SLLLAIWIAKIEIKRGAGAGNLSGINLNIEKSEHHNEKWFWLNLLVAIGVIGLLISGIIPSYICFMIGLA

IILPLNYPNLKTAKKVLDRASAGAMLMYITLIGAGILIGVFDKSGIMEKMGVLILNFVPDYLGAYIPLMV

GILAVPMAIIFCTDSYFYGVMPIVLSVTKAFGAEPLTIAIIMVIARNCATFISPVVPATLLGCGLAEVNI

KDHIKRSFFYIWGISIICLIFAEVAGII

>AHK57776.1 hypothetical protein N918\_01005 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAYGSSNPEDLAKNFTKDLYSGDTKSVMSYIDLSEAKSDEEKTFVSDKITQVVAENAAKAKRMGGVKDIQ

IEEKTINKDSAKIRVLVLFNNDNNQSSNVFLAKKDRKWLVLLK

>AHK57775.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFFLLKKIENGLFYLNKILYFFLILFLLIGILGFFINSNPSNQIIKKPYLPFLEIGDLVFRAGIGSESFL

IENLSQSPYSHIAMVVKTSPTILIHATTDDDKNAKNQVILSSMDDFLKLSHKIAIKRLKFDEKTKQKIVA

KDLEHLGRKFIISTDKDAFYCTTFLEQSINSITPFHLQYTLIKAPFNEGLYLFPQTFFENNQSVLIYESQ

NF

>AHK57774.1 PhnA domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKDANGIELNAGDSVSIIKDLKVKGASTTLKRGTTIKNIKLTSKEGEIEARVDKFGVIVLKTEFLKKI

>AHK57773.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDPSQVLDLNQTSTASFDAGYSILMVVVALALVFLNGFFVLSEFSIVKVRRSKLEEMVKEKKAGAKKALE

VTSRLDTYLSACQLGITLSSLALGWIGEPAIAKMLEIPLINLGFSTVIIHTMAFIIAFSIITLLHVVLGE

LVPKSIAIAVADKAVLFIARPLHWFWMLFLPCIKIFDFLAAISLKLFGIKPAKESELTHSEEEIKIIASE

SQKGGVLDEFETEIIRNAVDFSDTVAKEIMTPRKDMICLNKQKSYEENMQIICEHKHTRFPYIDGSKDTI

LGMIHIRDIIQNELNHKSQNLDTFVKPLILVPENISISKVLVMMNKERSHTALVVDEYGGTAGILTMEDI

MEEIIGEIKSEHEEDSYKKLAENIYEFQGRCDIETVEEMLVINYDEDLEQVTIGGYVFNLLGRLPMVGDR

IEDELCYYEVKKMDGNSIERVKVVKKTNKDEE

>AHK57772.1 biopolymer transporter TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKSSVIFGFVLSLILHTLVLMFFLFSFYTQEKSSGVDFKQGAEFTSIMMVSEFPIGELKEVSIDQKKSNS

QDKNKKQDERISFNSQDKNAVLKVQKKIEKQDENQAQKEIANASENSKFKNESLSAPLQSNKDKTQTIVS

GNAKEQVKSYQALLMAHLTKFKKYPQEAIMQKQEGVVRIRVSIDESGNVLSKELKKSCPYAALNDEALSL

FKRASPLPKPPKEMLKNGDKISFVMPIDYNIKDYLGKK

>AHK57771.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKTEMAHKEEELSEINITPFIDIMLVLLIVFMAVTPLITSSIKIELPKSSQQAEDKLKNPIILYLNTDN

TLAINDDKLSLENLSSALDIKTKGNKEEIIYFHIDKSVKYEDIMQVMQKLKENGYGKIALSSKKMD

>AHK57770.1 TonB-denpendent receptor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKLSLFCAVGLCFASFAFSEELEFDSLEISGSKIKNDEKPFVTPGATSTREGIGSDTQSIDSIVRSIPG

TYTNTDQAQGTVQVNIRGMSGFGRVNTMIDGVTQTFYGSASDDPARFHSQTGTSAFGAVIDTNFLIGVDV

TRGTFEGVGGANALMGSANFKTIGINDIVHDGNIFGFLGRFSYGSNGIGPSYMSAVAGKTELENNGYVGA

LFGYSAKRITQNYTVGGGGKIGSSMVDTDGDGIADTNIAPFDPDFLTQKPNSQLFKLEYVPNSFTNTIFS

YRRYQNELAGRKIHNDNYQLDFWHNPNEWLNVNTLIAYNQGIQTYGSKSTFAANDAIANTKAKNTATTFD

ISDTLEGEWHRFNLNIRFGANILLNDYKNTLNTSIQGVNSIPFQPRGKQNLFTYYLDNSLNYGIFTLDTN

VNLLDWNIKGHRPACDEVNFMCFPKAATDIDKNGLRLNASVMLSAAIHELITPFVSFARTNRAPNVQEMF

FSNNEGNGINSFLKPEQANTWQIGFNSFKHGLLKDDDRFGFKAVYYHTKIKDYIYNEQFYLEDPSKDPPS

SQFYMHLNSADDTIFKGVELELSYDLGFAYAKAMYSRQDTSSTISQTSGPLLGSFSASKIMELPKDYANV

ELGFRLNDKISFGGIAKYTGKAKRVNPNTDDWNKDPNNPYYPKPTTQDLPKIPIIVDLYWNIEWFKNLTM

RAEVQNLFDKNYMDALNAYNSLDNQLQYNGAGDPIYLFSNSARGRTFIVSFEYKY

>AHK57769.1 iron transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFYTILSILFISFMLSACAVLQKSSPLQENKDFYILDTHTQKKISFEDMILELLKADVILLGEKHDEVK

HKISQVMIFNALEGNLSSQNINFDVALEMLASTEQNHLDKAFKNKKTIKANELTNALNWDKVWKWKDYEQ

FVNVVFYSKSKILGANLSRSEITSIYNGAQPLKGYVSTTNEVKKQLFDIISLSHKLNPEENKELLDKLVE

IQQFKDRRMADVLVHHVNKVLLLAGSYHTSKKIGIPLHIQDFKSSKKIVVVNLSYGEIDLKDSDYVLIYK

GEE

>AHK57768.1 hypothetical protein N918\_00850 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDFIFANQSLYYLTKQAFKEAVQEFYELCNEGAIIFATMMSDKGYSMYERGELMDNSLREVKGCPSGRLS

GSSYIRFTKDIEELKEDFKPFKPLFWGDYELINLYNFEGSVEHFIYIGQK

>AHK57767.1 hypothetical protein N918\_00845 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDNSLSAYTQKYDKEGYGLQYPDGHVIRFYERILKYKLSKTSGKLLDFGCGNGVHSKYFKNITGGGYRAL

WH

>AHK57766.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKSVKLKVSLIANLIAVVCLIILGVVTFIFVKQAIFHEVVNAEINYVKTAKNSIESFKARNSLALESLAK

SILKHPIEQLDSQDALMHYVGKDLKNFRDAGRFLAVYIAQPNGELVVSDPDSDAKNLDFGTYGKADNYDA

RTREYYIEAVKTNKLYITPSYIDVTTNLPCFTYSIPLYKDGKFIGVLAVDILAADLQAEFENLPGRTFVF

DEENKVFVSTDKALLQKGYDISAIANLAKTKEDLEPFEYTRPKDGNERFAVCTKVSGIYTACVGEPIEQI

EAPVYKIAFIQTAIVIFTSIISVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFG

QISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARV

GSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLT

TSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAG

EHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNV

EIANESAIISSTVSDIANNILEDVKKKRF

>AHK57765.1 mcrBC 5-methylcytosine restriction system component [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNSIFSIIEHQAFSKEDLKEIFKEKAEGFYKELEDFAKNNENLLGFKNKNSLKAKNYVGIIQTKSGVLEI

LPKCTNLDSYKKEDSSSNHDKEKLRRCYELDNISKNNDFYEKDFKFNPKNLLINMLKTLKNSPFKKSQIS

SLQSSKIPLFEVFITMFLDEFDSVYKKGLMRSYLSCEENRAFLKGKLLFNEHIKQNLIHKERFFTSNDEF

VLDIAPNRLIKSTLNFLKSKTSLNKFRLIKAMQMLDEVEFSKNYEKDFSYKISRHFDYYENLLLWCKIFL

KNESFMPYHGKNEAFALLFPMEKIFEDYVAYMLKKVNSTQDIKVQNNGKYLISKNDENCFMLKPDLYIKN

KMILDTKWKIPNDSEDEKKQGIAQSDLYQMFAYACKFKIYDIKLVYPLCEKTQDLQRKIAEKFFVFKASE

HLYFKEQGQKDIKVQVFFAPLPF

>AHK57764.1 endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MWNLDEKKLQEMLDGFLNFQEVWTLEKVKNMTLEEYTNIKKDNPNRDDFTFWIESKLDNLGSIWGGSAFK

FGIYRRNDESQKESSSGRLYSQNYAWIAKYGNNENEAFNNIKEKIIQIIQASQDNNLKTIEKIDFGDAIK

WKIAFHYQDVKNIKIVNIFSKNVLDLISLNEFKEKLKIYQIHKKLLENKNLSLVKMIENIAIPLWNKYGM

DSQNYIDKMKNLFSEYLNKKKLDKNTINKYIQVIENISKEFLKENLYSCDLFSFDQNINKLNKNEEFKLK

NSNGHNMYSSALNYYRAFLIDYYEQDIFITERVQSEESNMKIIPLNQILYGPPGTGKTYHTIDKALEILG

ENLESRDEKKAKFDEYVRKGQIVFTTFHQSYGYEEFVEGIKPIIDNDENSQEVKYDVKDGIFKELCDKSL

KNYILSMQNENEIDLDKLIFEFANYINQDFLNKGNEFPLENKVSIKKILLNFKDEYRSFSLGGSIKSPQS

LTIDIIKRDYLNFKNKKILSFKDIKPKYDSQSDYHGNAIYYFMFYNKLKEFENIQNEKFKIKKEILKSYI

IIIDEINRGNVSKIFGELITLIEPSKRIGEKEELKVTLPYSGEKFGVPKNVYIIGTMNTADRSITSLDTA

LRRRFEFVEMMPDVSKLSMDCEGINLQELLKAINTRIEYLLDREKTIGHAFFVSVENLEDLKKVFQNKII

PLLQEYFYNDYALINAVLNDNDMIFEDKKDDKYLQKIKNLDSVNSERSIYNIASFDDKIWDKIEIYQAIY

NDEIANKLKNENE

>AHK57763.1 hypothetical protein N918\_00605 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIVFPLSSFNRYFGNNPLQTLTKIRDESIENGNPELTKKQREELGNDLIDLYKISKKFSDKIELVEGSIE

DKLRNNELPESEVKNLFQWMDENAKHPRWMHIDGVSYDEAYVKIFHTSKSIDEFKEKYLELQKKYFVDFN

NIDSSQKKLQETSEEDKKAFKPIQVESKSETYKDDNKMNELLRKLLETKFGTSDELEILFGMNFSNDNAG

EFNKILSQNTSAKIIDIKA

>AHK57762.1 hypothetical protein N918\_00455 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILFIGSLVMASLLYAQGSQPVEITQQDINTQNEMSDASTKDITPKSIEDFFEEFADNFGIEYGITKD

GKTFYTGKSTVAVNDTDPQFAQALQNAYQKAMLNLQSEFIRDAFGRIATSKIQNYEADNSTNAKEFDELP

KGDKVDQILNKLTQLAGAQLDKALKDLGIDTNSLSEDRKKTLLKQEFLNKTMTNAIGSMSGLVPVQTIVT

QRRGEYDVGVVAVISNKTRQLAKDMALARQSAIKGKGKAISEYLPKDTKGFLNEYGIRLVYDENGAPIIL

SYGNWGYVADPSNAKKTNILEDRAKETALTMADAAIIEFINTNLSLKDERTTGDTYEEIIKQSINVNDSS

TQEQTQNITNIIDKVNSKIKASASGKIRGIRTLKKWSYTSENGIEHVGAVRFYSYENLANTNEALNSKSN

ATKNEAKKSSSIQRSSNVVNSMDDF

>AHK57761.1 hypothetical protein N918\_00415 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLHALFLLAWPLVIYLSYKFIMLNINQLEKDSKL

>AHK57760.1 2-amino-4-hydroxy-6-hydroxymethyldihydropteridine pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKIQGVKHFEKSRFFPFFSQNIRSFKYLALIGLGSNIEPEKKRFDMLFRVMMDDKRFKILSTSPMLINE

AFGFKEQKDFTNAVMLIQTNLHARALLKVLLYYEVKFKRKRTFKNAPRTLDLDLLYFSQKVKRDKWCEVP

HKGAKERVSVILPLGMI

>AHK57759.1 hypothetical protein N918\_00300 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKILKILLFLPILALSTKAEWVVKSYQEIKNERVIRQTYEQSCGASSLATLLNILDDQKKFDELELLKI

MSGQELYTDMVSFADLNDAVKKLGFQSNSYQINRENLDKLVNIPMLVKIEDDPRFPHFVIIINHKGNYLQ

VLDPSHGEYISSKSQFFSIWDRYNKGGYALIVAPKKELKPFKLNTPKSLHFDFSPFSLF

>AHK57758.1 hypothetical protein N918\_00295 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIFLTFMVLVNCVFASDELNIDSLFKKQIGLRSITSFSLLSTGNANSYSLYPNITIGGDPTIWNDTKQ

VFLTQTFIYTLTPKFDILISGGGSYARQEYTNFFTNAYSHKDRIGFDNLWLGFIYTGDSIADLIPQITFQ

TAVVQREKAINQTKNFYLKSQSLQASLRGYSDPVVYSIYTGFGYNQSRKFKTLKIEYGNSIYVGGDLSII

LSPKITLDLGAEQRFQMKQKINGYQNSEVRSIPTLSLGSTYSINSDTAVSVNASFGGSSASPDSIFGISL

WKKF

>AHK57757.1 hypothetical protein N918\_00290 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEVKGGYITYLKRLSDNEVIAFAKPDWNLELTLFQDSNGDQYYWNREGLVRFGGMCGIETTNCLVNSKH

SYINQKRLWETMSIVGDDPYRNFLGYTVKRNIGISNLGKRFVYFSYGVAVINEQSGSWYRVKSSPVFE

>AHK57756.1 hypothetical protein N918\_00285 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINSLNSNLNYDYNTSNFKQDKNIDFKINKHGVAVITGEGALPYRGKKFEYNPKIFGLDESISKKDMQEF

NNFMKSNALKDPNKIEKSPLKDFNPAYTKWDPTTEKMMLGFFVSYSKMFHLGYDIIKKADEFYKEFDALI

SKDLSLNEFKTKYIDFKQRYDEFVKEYEMAMGDKMLLSSDDEIITQQSEKPFKAIQGESKNKETYKDDST

RNELVKKLLEGKFSTSKELELLFGMKFSDDDAGEFNKILSLNSTPKSIDIKA

>AHK57755.1 2-oxoglutarate translocator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFFIVQLALGAPPLFYAFIMIASGNVMMALTHYAIGTAPVIFGTGCVTLKKWWSTGFVISIVDIVVMIAV

GLFWWKILGFY

>AHK57754.1 2-oxoglutarate translocator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MALLGLSLVLISGVLTFGEVLAEKAAWNTLVWFSALVMMATLLGKLGVTQFLAEA

>AHK57753.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFLPGIAVMLLMPLMLYFLSPLEIKSTPNASTFAKDKLKELVKMKNSEKIILSVFVSLLLLWAGALGLFF

WNFS

>AHK57752.1 anion transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MISIIVARGVIKTGLGEHLAYHFISILGKKT

>AHK57751.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVKWSRDFSIKNMQLDKQHELIFEITNLANDLALNIQDNNTQHKNDLKQILVKLFQYIKIHFKDEEKFM

ESIDFPLIEEHKKSHQILVEKTKELLEHSNDIVKMSQELSILTKDWILDHFANEDLWIANFTKKTLHLQE

IHYTLEQYIKLKSIKQDLRAEKTYDYICNCSLRIHAVPQTIHQELVSKENTLKCEKCGQILVHLDYFDLN

QNFEKFNAIFEDALQNHHFTTQENDMRGGG

>AHK57750.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEELTKEQRQIIEEEIKKEIKKANTFLKPELINKIIQDIIGDIKGKINNKFKCPKNLEEILSSIPQKVYV

SLGKEEIKQILKLDFCCFVDNVFYIDSAPKIEPYEHNQNKTAIEEQRIIQCSYDDLLYLFKTYPLIFNHC

IFDYKIDKKTPIEQIKKLSFLNCNFKKEVYLNFQECLDSFQMDNCVFEDRVTIKGKFNDNVYFNNSIFKN

YADFHECEFEKTANFYGVRFNKTPNFSQAIFRGNLNAVNANLNFTFDDLQERIKQEYEDFNKNIENKKSL

DKFANDFRDSFRTFKNALIKDNNLLDASNFHKYELYCKEIELKQNWDKRGENVKNTTDLEKNVSRIRDFM

DFLLLGFYRKLCDHHTDFLKVFNNLILLIALYALFVFGFTWLHDDKLEDTRAILTLFGFFDKFRLYFDII

STIFVVFGCGFFVCKLDSYEKKNNVSKKQNINFIYIIGDFLNLIKSLLFASFIPCVFYVLFSLFGFFLNL

GKDFGYSLLINTLFVSLYICLVYTKSLFFGRYVVLIFSYIVFIIMLIKQPNVIHPLIGKIANESDKFFNY

PSLIVLNILYTILLALVLFSLQKTARKNSIVPS

>AHK57749.1 type II restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHFTLLNEKDFFNPYYRKKQIMQNEFDIFSKALMQYLERLESSQSENEDYLVANALSPFLTMLNFKTHIK

TKQKGKSEIDLSISKDEFSKDLEVLIEAKKPNSKEFITHTKVNSKALHETILYYFRNREYSFSLKFIIIT

DFYKFYIFKISEFEELFYKNPSFKKLFEEFCNPNSLFKGNTEEFYKEVAKLIENSKENLKGFLIDLTFLK

DKQKSNFKNLASIYKTFHRDFLLSEFNPNDANSLNNAFYKELLYILGLYESKQNSKLIIAKSEESKEEQG

TFYTAINSKLKEENFETILKLLILWLNRILFLKLIESNLVRFNDDKNLKFLNFKKIPDFDKLSELFFEVL

AKEKSTRKKSEFTYLPYLNSSLFEKQSIENTLEISSLSNDLKLFYYKNTVLKDDKCKAKKGQVGLLEYLF

EFLDSFDFGSDDEQSEILSQKELISSSVLGNVFEKLNGYKEGSFYTPSFITSYMCKESITKVVLDKFNAQ

FDLDAKDISELRKSLRKEDKKAQKELLNSIKICDPAVGSGHFLVSALNVMLSIYDELNLFDEEFYLEVQN

DEILITGRKGEFIEYKRPSTPKDKTHLIQQELFHTKKDIIENNLFGVDINPNSCEITKLRLWIELLKHSF

YQSFDDGNYHDLKTLPNIDINIKCGNSLVSYFETGKSLNHYPNIKERMGKYKRIVKDYKEGFYTDKSHIN

QEIKNLKISFKNFCFADKFKKEMKSFNDKCEKYSKKYGNFLAVDDENLKFFVSANLTLFDFDEKEAIKEF

ANLKKEYDNIFNLESNHPFEWRFEFPEILDDDGNFKGFDLIIGNPPYIRQEELKELKPHLAKNYKVYKGT

SDIYTYFYELGFNVLKDRGGVLSYITSNKYTRAGYGEALREFLLKNVKFLEYTDLNGIKVFDSATVDTSI

LCFEKSKSKDNKFKYLALSNEILKTCAYDIGLYKDFAEFSQNSLSKESFTFSDENTSALKAKIERIGTPL

KEWYGLNINYGIKTGLNEAFIITTEKRNEILANCKDEAEKERTAKLIRKMLRGRDIKRYSYEWAGLWVIG

TFPSLKIDIEQYPALKQYLSQFLPHIEQSGEKGCRKKTSNKWFETQDNIAYYEEFEKEKIVWAEMTKEAC

FVYDNSNFFTNQTCYFFTHCDYKYLLAILNSRLIVYYMQYISSHLGQGAFRWIRQYIEKLPIPKINSKNE

KLADELINLVDEILKAKEQDKNANTQELENKINSLVYKLYNLTEEEIKIIEGK

>AHK57748.1 hypothetical protein N918\_00175 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKFIERLLEEDIKFEKDVNNGLSDINIFDALNIETKENYHSKFIAYLIDINKDHYQKNFAKVFLEKLGK

SLVNTKFENLNIEDIKSVETEACIKDNRRIDILITLSDKRYIIIENKIYAKDQKNQLKDYINFVRKNIKN

IKDCYKNILTIYLHQDECASPSDYSLGNFTIKTNLIKDKNENNVSYYLKMDYMWIKEWIDECIKIYEEKS

TKDQKFILDIQNIIFTLNQYKSILQWYIADEYTQRDDVLEFIFQDIIKMQNLKNAMILYRYNKNKSELKN

LNEEKYKKAKDIIQHKWSNICEYIIEEFFDSFEHKEIKIGDITFIGNKIEENRVNHGVFIFYPVDYKNES

IYPCIYIYFKKKYYDIIGLTFEISNDDEEDIENEKYKECLKLFKDVKEENVRKYQNHYYCDKLINNEKLE

GEYAFIYWLIENQNSKKDFIQILNDFFIKKPIQEAYKGINDILNS

>AHK57747.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKYFQKRYTLAFFIGILAGIFGAIVKWGWEVPFPPRNPNVFWPADALERVTPPKIFLEQLGLPTDWTYM

FSGMQMPLSIFIVHVGFSIIFGVAYCMIAEKWHRITMWQGAVFGFFVYLFAHVIIMPLIAEVPPLSEIPF

DEHLSEIFGHIVWLWGMEIVRRDIRNRITKEIEE

>AHK57746.1 hypothetical protein N918\_00040 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAGFQSPITINEAMQRIKNNEYLLPAFQREYVWEPWQIEELFDSLIRGYPISSMLFWKVKDESKTAWKFY

RFLEYYRESYHTHNDYFNTSNHKDFYAILDGQQRLTSLYFALFGNYDIHRSYNKWENNDRYFKICHFYFN

LTQSKKPENENIEYEFLWLDKLETKEQNIYIDKYQQKWFKCQYLYQYDSGRVRKIAKEFNLNENEEDRLD

LLHQKIFDKNLINFYLEEEQDPDKAVNIFIRINSNGEPLDYSDILFSIAIANWNKIDARTEINNLVDKIN

ENFDISKDLILKGFLYLFHNNIKFQINSFDKNFIESIEAKWEGIKNAFIETFRLLRSFGFEAKTLSSNNA

ILPILYFIYHKNLTNNIVDSVKCNENRAIIKKWLLRAIILKPFGGSSDTVLSNMRKAFIKDFKQNSGFFD

REIELFPLEEIEKEAKYIQTIDEEYLENNVIECRKNSPEAFAVLSLLYPNLDYKNNNFHKDHLHPESAYK

EYEKLYKATDNCISFNIYDSLPNLQMLDANENESKNNKPLKQWVNEKCNGNRKEFLGKHLIPDVDLSLEN

FNNFIEERKKIIIDKLKSILNKE

>AHK57745.1 Holliday junction resolvase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYKFYLKFYKKRLKSAFVFYFSKGMNLKILGIDPGSRNCGYAIIEADKGKNILIEAGLIKIKPSTLQYQI

TELCEGLDLIFKNHSFDEVAIEDIFFAYNPKTVLKLAQFRGALSLKILQIHGDFAEYTPLQVKKAVTGKA

KATKEQVAFMVKRLLGLSKDIKPLDITDAIAVALTHAANLRVRV

>AHK57744.1 flagellar hook protein FlgE [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMRSLWSGVSGLQAHQVAMDVEGNNISNVNTTGFKYSRADFGTMFSQTVKIATAPTDGRGGSNPLQIGLG

VSVSSTTRIHSQGSVQTTDKNTDVAINGDGFFMVSDDGGLTNYLTRSGDFKLDAYGNFVNNAGFVVQGWN

INWDDQTIDSSRTPQNIFIDPGMHIPAAKSTEVAIKANLNSGLNIGTSSRNLYALDSVHGWNTKTQRAED

ENDTGTTQFYTTSKNSVEVTEKGVDAGSLFNAKGQGLNLRDGQGIWVSYADATYSTNKVGVNAFDPNLQQ

NQTAAFWGTANQKVNLDITLNGVRIQNADIQSIDDAIAYINTFTAPTDTRDGTGVKAVKNKDGSGIDFVN

DNADGTTDNMKNINLVVANTNTAGELWNAVWNNNNQTFTFNNNGNGQAGTPTINKNGSSLWTATNITFTP

QPPQAATNVQLTGGLNAQIITAHKYIYSSNPVDIGPMYNPDGGPAFQPGANATTRPTEPGSAAYWDAVNG

GLLNTNVRTFRTTEDLRELLQRDARYGVDYDGSGTFAAADINQNIKVVVTADGHFAISNANEQSTVPPNA

INGVGNATTTDPKNMSFNITAYSNKQGTVSTNDAFTAIFKAFDGPLVIGNQIKESEQLKLSAFSAGLEIY

DSLGSKHTLEVQFVKQSTTQDGGNEWQMIIRVPEPAEINTTGEGPNNIIVGTARFNNDGSLASYTPRTIN

FSPNNGAAPNQQIKLSFGTSGSNDGLVSSNSASTLTGQATDGYTSGNLKPDAIRVDDKGNILGEFTNGKT

FAVAKIAMASVANNSGLEEIGGNLFKVTANSGNIVVGEAGTGGRGEMKTSALEMSNVDLSRSLTELIIIQ

RGYQANSKTISTSDQMLQTLIQLKQ

>AHK57743.1 7-cyano-7-deazaguanine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRYGEKEIKEFDVENMEIWPNDAKNDYIIKITLPEFMCCCPRSGYPDFATIYLEYMPDKFVVELKAIKLY

INTFMYRNVSHEASINEIYNTLKDKLKPKWIKVVGDFNPRGNVHTVIECRSDMVVPK

>AHK57742.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKKFLSIIAGIALFSSSAFAEEKSGFFIGADAAYVQTKVQGNLKHNQTGAVFNGDLSSSIPILGLKAGY

RFNDLHRLYLAYNYSDEFSDIIRTPKLKIESDFSTHKFLMGYDFTPKIFERVRAVAGGYLGYAKTNLDLK

TSLLSLSQKFDGFVYGVKIGAIFELGASNEIEAGFKVEKIEYNTRDFYQKAIGSNLYDPRQTNYGLYLGY

TYKF

>AHK57741.1 hypothetical protein N918\_08600 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKELLEIKKEMEPVIHEANVKLNVLAREVIVRKKEYEIYGPMVDRVYLDNAIYVKVMSSGRDVKTDNVT

IKNGFYMVFVAPEKESTKDIKNKLKVAYEGLDNKFIATLIRSCQRFKEIINKTQATLAKASKMNVVVKTN

LGEASAALKFNITIEYTKENQKLTRENSKSAGSFRDTKTYINLVVEKNTDSQICEKLLDDVEKYFIGGG

>AHK57740.1 2-isopropylmalate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKDNKIIIFDTTLRDGEQALGSSLGINQKLQIALALENLGVDVIEAGFPVSSQGDFKAVQKIASKVKNST

ICALSRALDKDIDMAYEALKVAKHFRIHTFIATSTLHMQDKLKKDFDEILSMAKRAIIRARSYTDDVEFS

CEDAGRTPIDNLCFMVENAIKAGAKTINIPDTVGYTLPSEFANIIKILFNKVPNIDKAIISVHCHNDLGM

ATGNSLSAILQGARQIECTINGLGERAGNCALEEVVMAIKTRKDYLKGFYTDIKCENIFKTSKLVSAITN

ESIPSHKAIVGSNAFSHSSGIHQDGVLKNRQTYEIISPSAIGIHENRMLMTARSGRAMIKTCLENLGYDE

NTYNLDDVYERFLRLADKKGQVYDYDLEALMFLSYESEEENEFVLEKLSVISGNIPTACVCMRIKEELKT

EACTGNGPVEAVFNCIARITNLKPALKAYSINAKSSGVDAQGQVDVDLEFKGRKFHGKGLSTDVIEASAQ

AFVSAYNAIYRSLKVEERKMA

>AHK57739.1 3-isopropylmalate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTYKVAVLAGDGIGPLVMKEALKILTFIAQKYNFSFEFNEAKIGGASIDAYGVALSDETLKLCEQSDAI

LFGSVGGPKWDNLPIDQRPERASLLPLRKHFNLFANLRPCKIYESLTHASPLKNEIIQKGVDILCVRELT

GGIYFGKQDLGKESAYDTEIYTKKEIERIARIAFESARIRKKKVHLIDKANVLASSILWREVVANVAKDY

QDINLEYMYVDNAAMQIVKNPSIFDVMLCSNLFGDILSDELAAINGSLGLLSSASLNDKGFGLYEPAGGS

APDIAHLNIANPIAQILSAALMLKYSFKEEQAAQDIENAISLALAQGKMTKDLNAKSYLNTDEMGDCILE

ILKENDNG

>AHK57738.1 3-isopropylmalate dehydratase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKTLYEKVFDAHVVYEGKNELPILYIDRHLIHEVTSPQAFSGLKMAKRRMARADLTLATIDHDVSTKSM

DLNACSDMAKEQITTLMQNTKEFGVRLLGLGDKNQGIVHIVGPELGFTLPGVTLVCGDSHTATHGAFGAL

AFGIGTSEVEHVMATQTLKQAKLKTMKIECKGQFQKGVYTKDLILYLIAQYGTAKGTGYAIEFCGELIRN

LSMEARMTLCNMAIEFGAKVGMIAPDEITFEYIKGKEFAPKGEEFQKYCEYWKSLRSDEGAKYDASITLD

VSKIKPQISYGTNPSQVIGIDEKIPKISDFKNQSEQKSLLDALYYVNLEQDQVIEGVKIDIVFIGSCTNG

RLEDLKIAADILKGRKIHKNVKALIVPGSMQVRKEAENLGLDKIFIEAGCEWRYAGCSMCLGMNDDKANS

GQRVASTSNRNFVGRQGKGSITHLMSPASAAACAIEGVICDNRKYLGV

>AHK57737.1 isopropylmalate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKFIIHKGIACPLEYANIDTDQIIPKQFLLAVSKQGFGKHLFHDLRYLDDKESVLNMDFNLNKKEYQNS

SILVSFENFGSGSSREHAPWALVDYGIRAIIAPSFADIFKNNALGNGLLTIELAKDEVLEIVDELKKSQD

KNIEISLLEKRVFFKDKIFSFDLDDFHRICLLEGLDNIALTLKHEAQIKAYEKNSKSFLV

>AHK57736.1 50S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKELVNILDFLPEELGEKIKPMFRVKQIYQWIYQKYANNFSDMSSLPKDLRLELARNFHFSPVKCVKNEQ

SKDGSIKYLFELIDGLRVESVLLPMKEEKIDAEGKRISHARYTICVSSQVGCKSGCSFCLTAKGGLKRNL

SAGEIVGQILWIKKQNNIPYERRVNIVYMGMGEPLDNLKNVSKAVKILAQNEGLAISPRRQTISTSGLAK

QIKELGQMNLGVLLAISLHAVNDELRTELMPINKAYNIAAIMDAVREFPIDQRKRVMFEYLLIDGINDKL

EHAKELVKLLNGIKAKVNLILFNPHEGSLYKRPSLENAIKFQDLLSNKGVTCTIRESKGLDISAACGQLK

ERAKEQ

>AHK57735.1 purine nucleoside phosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIICAGGNENFSFAKAIGIGLVESAFHLSQLCFKEKPSKLIFIGTCGLYDKGEILEIYRSSHAFNVEFSK

ISHAFYTPAKYEICLEKENVSRETIKINSSNYICQNSKAAKEFSKLGFFAENMEAFSVLSVAKNLNIDAE

CILCATNFCNENAHEDFIKNHQKAKENLEEYLKKYHYI

>AHK57734.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVKAKKQYGQNFLIDKSVLAKIIQAIPKEMNNIIEIGPGLGDLTQELLKISQVKAYEIDNDLIPILKKKF

QKELECGKFNLIHQDASEAFNPSLDEKPYFLVANLPYYVASHIILKALEDKNCLGLIVMAQREMAEKFCA

KEGNSEFSSLGVLSAMICERKILFDVDPQCFNPPPKVMSAVMSLIKTKDFDELCEIENFKNFLKDCFKAP

RKQLLGNLKTYKAKVLEVLSTLGLKENIRPHEICVDLYLKIYDKLKDEYGRKQRDK

>AHK57733.1 ribonuclease J [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDENKEINKNEQNPNSNSKNNKRYKYKNRRKKLADSLQNENDTPKIDQNSNKENSENSENKTEKKKKKNR

NLPSKLTGNEDWQIALAECIEANRISHENRLHPLKYNNSSEHKIRITPLGGLGEIGGNISVFETNKDAII

VDIGMSFPDGTMHGVDIIIPDFDYVRKIKDKIRGIVITHAHEDHIGAVPYFFKEFQFPIYATPLALGMIS

NKFEEHGLKAERKWFRPVEKRRVYEIGEFDIEWIHITHSIIDASALAIKTKAGTIIHTGDFKIDQTPIDG

YPTDLGRLAHYGEEGVLCLLSDSTNSYKEGYTKSESSVGPTFDQIFARTKGRVIMSTFSSNIHRVYQAIT

YGLKYGRKVCVIGRSMERNLYTTMELGYIKLDRKIFIDADEVSKYKDNEVLIVTTGSQGETMSALYRMAT

DEHKFIKIKPTDQVIISAKAIPGNEASVSAVLDYLLKAGAKVAYQEFSEIHVSGHASIEEQKLMLTLTKP

KFFLPVHGEYNHITKHKETAMKCGIPERNIYLMSDGDQVELCQKYVKRIKTVKTGKVFVDNQINKQIADD

VVIDRQKLADSGIVVIIAQIDKATKTLINKPRVFSYGLVADKHDHAFSKDMAEVLGQFFINVKDEVLNDP

RFLENQIRQVLRKHIFRKIKKYPTIVPTIFVM

>AHK57732.1 ribosomal large subunit pseudouridine synthase B [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRINKFISHNTRYSRREADELIKQGLVKINNKIALLSDEVKFDDKVFVKGKRVQKRTQFSVIIYHKQKGE

IVSKKDDRGRKTIYDTLPRQFSTWLSVGRLDYASEGLLLLTDSPVIADALMHSDLEREYYLKVKGTVSKQ

VIEAMQNGLEIKNEKKGAHAKTKITSMSFAPFIDFEIFGSSGGYTKLRVVINEGKNRELRRFFGHFDLEV

MDLKRVAFGALDLGMLKAGKHRYLENGEYEKLRDFLKFNEIRY

>AHK57731.1 30S ribosomal protein S10 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MERIRLKLKAYDHRVLDRTVAAIVEAVKRTGADIRGPIPMPTKIKRYTVLKSPHINKDSREQFEIRIHAR

MLDIVAATPDTVDSLTKLDLAPEVSVEVRAMGK

>AHK57730.1 50S ribosomal protein L3 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEYIVEKIGMSRTITNPSIAVTLLRVVNAKVCEVEGGKALVAYPKGKASNKCVAGQQKKYNLSAEYNRFA

TLEVANTEAGDLDETPLNEAKILKVSFNTKGRGYSGVMKRHNFAGGPASHGSRFHRRHGSIGNREWPGRV

QPGMKMAGHYGNTKVTIKNEVVSYDAENKILVVKGAVPGYNGAMGKIRIAK

>AHK57729.1 50S ribosomal protein L4 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKVVVLNDKLEKAGELDLPSKYAEVNPHNLYLYVKSYLASLRANTAHTKGRSDVSGGGKKPWRQKGRGG

ARAGSTRTNVWVGGAVAFGPTNERNYFQKVNKKQKRLALERALADKAAKGVLFTADSLAIESGKTKDANA

VIKKLGVKDALIVKDLLDEKTLLAYRNLANCYVVDVTEVNAYLVSVFNAVIMEKSVLESITKEG

>AHK57728.1 50S ribosomal protein L23 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MADITDIKTILYTEKSLNLQEQGVVVIQTSPKMTKTGLKAVLKEYFGVTPKSINSLRMDGKIKRFRGRLG

QRNNYKKFYVKLPEGVSLENTEA

>AHK57727.1 50S ribosomal protein L2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAIKTYKPYTPSRRYITGLSSEDITAKPSVRSLLVKLPAHAGRNSYGRITSRHKEAGAKKLYRIIDFKRR

KFGIEGKVEAIEYDPYRNCRIALIAYKDGEKRYILQPRGLSVGDIVAAAESGLDIKPGNAMKLKNIPVGT

IVHNVELKPGKGGQMIRSAGAYAQLMGKEEKYVILRLASGEMRQVLAECMASIGEVGNEEWANVTIGKAG

RNRHRGIRPQTRGSAMNPVDHPHGGGEGKKNSGRHPVTPWGKPTKGAKTRRKKASDKLIISRRKGK

>AHK57726.1 30S ribosomal protein S19 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MARSLKKGPFVDDHVMKKVIAAKKANDNKPIKTWSRRSTITPDMIGLTFNVHNGKSFIPVYITENHIGYK

LGEFAPTRTFKGHKGSVQKKIGK

>AHK57725.1 50S ribosomal protein L22 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKALIKFIRLSPTKARLIAREVQGMNAELAMASLKFMPNKGAKYIANAISSAVANGGFEANEVIVKSCR

VDAAAVLKRFRPRARGSASRIRKPTSHILVEVAKAEVKSEEKKTVAKKTTTTKAPAKKTTSTKKATVKKE

S

>AHK57724.1 30S ribosomal protein S3 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGQKVNPIGLRLGINRNWESRWFPTKANLVENIGEDYKIRAFLKRKLYYAGISQILVERTAKKLRVTVVA

ARPGIIIGKKGSDVDNLRKELQDLIGKDVNINIKEERKAGASAQLAAESVATQLEKRIAFRRAMKKVIQG

AQKAGAKGIKVSVSGRLGGAEMARTEWYLEGRVPLHTLRAKIDYGFAEARTTYGNIGVKVWIFKGEVLHK

GMQPEKTEESAPAKKPRRTRRGK

>AHK57723.1 50S ribosomal protein L16 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLMPKRTKYRKMMKGRNRGYANRGTEFTFGEFALKATEAGRINSRQIEAARIALTRFVKRQGKTWIRVFP

DKPLTKKPLETRMGKGKGAVEEWVMNIKPGRIIYEMAGVSEEMAREALTLAMHKLPFKTKFVTRESQNEI

Y

>AHK57722.1 30S ribosomal protein S17 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAFKREIQGVVVKIAGEKTASVLVERKVVHPRYRKIVKRFKKYLIHDERNEVKVGDTVVAVECRPLSKRK

SFRLKSVLATGVE

>AHK57721.1 50S ribosomal protein L14 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIQSFTRLAVADNSGAKELMCIKVLGGSKRRYATVGDVIVASVKKALPNGKVKKGQVVKAVIVRTKKEIH

RDNGSLIRFDENAAVILDNKREPIGTRIFGPVGREVRYGGFMKIVSLAPEVL

>AHK57720.1 50S ribosomal protein L24 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAVKLKIKKGDSVKVITGDDKGKTGKVLAVYPKTLKVVVEGCKIAKKAIKPSEKNPNGGFINKEMPMDIS

NVAKVQE

>AHK57719.1 50S ribosomal protein L5 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMRLKEKYNQSIKPALVKEFDIKNPMLIPVIEKVVISVGAGELAKDQKVLQNVADTISLIAGQKAVITKA

KKSVAGFKVREGFPVGVMVTLRKENMYAFLDKLISIALPRVKDFRGLSRDGFDGRGNYNFGLDEQLMFPE

VEYDKILRTHGMNISIVTTAQNDKQAQKLLELIGVPFTKGK

>AHK57718.1 30S ribosomal protein S14 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKKSMIAKAARKPKFKVRAYTRCQICGRPHSVYRDFGICRVCLRKMGNEGLIPGLKKASW

>AHK57717.1 30S ribosomal protein S8 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINDIISDSLTRIRNAGMRKLETTKLLHSKVVEALVGIFQAKGYIESFNVIEEDKKKFINVVLKYDEKGK

SVINELKRISKPGRRVYKGKDEIKRFKNGYGTIVVSTSHGVLANDEAYKAGVGGEILCTIW

>AHK57716.1 50S ribosomal protein L6 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSRIGKQPIAIPAGVEVKLEGNLLKFKKGNLAKELDTKANVNVEIKDNNILFSPKGEDRQSRAYWGTYRA

LAYNIVVGLTQGFSKTLEINGVGYKAALKGKVLELSLGFSHPINYDIPEGIEIVVDKNTIAVKGSDKQVV

GQVAAQIREFRPPEPYKGKGVKYSDERIIRKAGKTSKK

>AHK57715.1 50S ribosomal protein L18 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRANVLKRKLTLRIKRKKRIRAKISGCENFPRISVFKSNRTLYIQAIDDVKAVTLAAVDGRKLGVKANKE

GAKKIAAEFAKTLKVKKIEQAVFDRNGYVYHGVIAALAESLRENGIRL

>AHK57714.1 30S ribosomal protein S5 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKYNREEFEEVIVDIGRVTKVVKGGRRFRFTALVIVGNRKGLVGVGYGKAKEVPDAIRKAVDDAFKNIV

EVKTKGSTIAHDVEVKYNASRILLKPASEGTGVIAGGSTRPIVELAGIKDILTKSLGSNNSANVVRATIK

ALTMLKG

>AHK57713.1 50S ribosomal protein L15 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLTKAAGSTHKTKRIGRGQGSGMGKTATKGGKGQTARKGYNEKRGFEGGQQPLQRRLPKVGFTSKIQKP

YVINVEKITAVKELSEITFESIKSVHKISKSVNKIKLIGASAKDLVSKIKDENISVTGSK

>AHK57712.1 preprotein translocase subunit SecY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNRALTNKILITLAFLFAYRVLAYVPVPGVNADVIAEFFNNNQNNALGLFNVFSGGAAERFSIISLGIMP

YITASIIMELLAATFPNIGKMKKERDSMQKYMQIIRYATIVITLVQSIGVAIGLQSLHGRGGAGAIMVED

LNMFIALCAISMLAGTMLLMWLGEQITQRGIGNGISLIIFAGIVSGIPRAISGTVGQINSGEMNFLTAFA

IFALILITIGVIIYIELGERRIPISYSRKVVMQNQNKRIMNYIPIKLNLSGVIPPIFASAILMFPTTILQ

TSTNPYLQAINDFLNPNGYLFHVLTFLFVIFFAYFYASIVFNAKDIAENLKKQGGFIPGIRPGEGTSSYL

NEVASRLTLSGSIYLGLVATLPWVLVKFMGVPFHFGGTSVLIVVQVALDTMRKIEAQIYMSKYQTLSAVG

L

>AHK57711.1 multidrug DMT transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNDKTYKFHPNDTKMDKKIIQITEKSGFKAAVFSMAAMTMLGSVVISSALPAINRHFEELLTQSGATLAS

SFTLAHLDILVRLVLTIPAIFVVILSPFAGILMDKFGKLKFILPAMVVWTLSGISGFFLNDIYAILTSRA

IFGMATAFIMTGASALLGDYYSRGGFNRRENALSLQGFFCAVGGAVFISIAGFVSSYSWRYPFLVYGLGI

LITLMAIIYLFEPRKFKFYNHTKIETKTNYWQFFPIYFIGFFIMVVYYISPTQLPYYIEEHLGLDPKYIG

ISMSVSALCYGFFSLSYRYIIKFLSIKTIYVLTLFIVSCSFLLLFLVDSFFTVLIALALLGMGGGIMLVN

NTAYLFSICPENARSRAYGILASCIFLGQFLSPIISQPIVRQMGLVDAFLIWSIVIFIVCIVFLFLKQKP

RIN

>AHK57710.1 DNA topoisomerase I [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKNLIIVESPAKAKTIGNFLGKDYEVIASKGHIRDLPKSSFGIKIEDDEFIPEYRITSDHSALVKELKS

KAKDAKEVYLATDEDREGEAIAYHIAKAIGKDENTLPRIVFHEITKSAIENALKNPRKLNMHSVNAQQTR

RLLDRIVGYKLSPLLGQKIQRGLSAGRVQSAALKIIVDREKEIRAFVPLEYFSIDMIFQKDLDAELVEFD

KAKIEKLTITNKDRAKLILEACKNEVYSISDIESKERKIAPPPPFMTSTLQQSASNRLGFNPKKTMMIAQ

KLYEGVNTHEGVMGVITYMRTDSLNLAKEAVENARKFIQANFGKDYLPSKANVYTTKTKGAQEAHEAIRP

TNLSFTPEIAAKFLDKDELKLYTLIYNRFLACQMSPAISQTQNVFVKNDRVVFKISGRKILFDGYYKVYG

DMDKDKILPNFKIGQNLKVQNLEMNSHFTEPPSRYSEAGLVKKLESLGIGRPSTYAPTISILTSRDYVTI

DKKQLIPSDVAFNVTEVLEKNFSDIVDSKFTSNLENTLDEIAEDKADWQETLKEFYYPFMRKIEEGKTKI

ASQKTVTKLGESCPDCGGELAIRKGRFGEFVACLNFPKCKYSRNLKSESKNESENTAAKAKANGTGITCP

SCQKGEIVERFSKRGKFYGCSAYPKCNFISKYKPSEEKCEECGETLVIKELKKGTFLECLKCKIKKEMKD

>AHK57709.1 biotin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQIMLCAISNIASGNCSEDCKYCTQSAHVKTDIQKYRRKELSQIVLEAKMAKKNEALGFCLVTAGLGLDD

EKLEYVCEAAKAVQKEVPNLLLIACNGMASVEQLKELKKAGIFSYNHNLESSKEFFPQICTTHTWESRFQ

TNLNAKEAGLMLCCGGIYGMGESEEDRLSFRKSLQELQPFSTPINFFIANENLKLQVPRLSADEALKIVR

DTKEALPQSVVMVAGGREVVLRERQYEIFQAGAGAIVIGDYLTTKGEEPSQDIIKLKEMGFTFASECH

>AHK57708.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHQSVIDTQALIDLKILIVIALCLLFSPHIAKILRLPLSATEIILGAIIAHFGFIGKSENFALLANVGFY

YLMFIAGMEVNLRAFFNMDKEIAKKSFFYIFLLYALSSFIVWIFGLSLVFVIIIPVMSVGLLSLLFKDFG

KECYWLNIAMIVATLAEVISIVLLTIAGAFLREGTGIIDVAQSILYLNIFLGLCLLGFKMLGVLFWWYPQ

LKVVLMPWEDKNEKDIRFCMAIFILIIVAMVITKLEIVLGSFIAGSFIATFFDHKKDLEHKLSTFGHGFL

IPIFFIHIGSTFDLKMILDYKIVLQAFLLMFVMVGLRILCASVFLKRIGFKNMILFGLSHSMPLTLLIAT

ATLGYSGKVIDEKLYSALILTALFEAIIVMSMIKFLSNSKK

>AHK57707.1 type II citrate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSNSVTITDNRNGKSYEFPIYDGTTGPSVVDMSSFYKQTGMFSYDEGLTSTATCKSKITYIDGENGILMH

RGYPIEWLAENKLYLDVVHLLLYKELPDATRLEAFRYEMKKRSFIHEGMHRLFDSFPDNAHPMAVLQGAV

SSLSAFYPDHLNMNVKEEYMEMAARIVAKIPTIVATAYRYKHGFPMAYPNLDRGFTENFLYMLRTYPYDH

VELKPIEVKALDTVFMLHADHEQNASTSTVRAVGSTHAHPYACIAAGIGALWGHAHGGANEGVIRMLEQI

GSVDRVDEFIKRAKDKNDPFRLMGFGHRVYKNFDPRAKVLKKLRDQLIDELGIDTNLIKVATRIEEIALS

DDYFVQRGLYPNVDFHSGLILKALGIPNEMFATLFVIGRTPGWIAQWIEQKEQESLKIVRPRQLYLGETS

KI

>AHK57706.1 CysQ protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNLDKFLEIAINASNQASKAILEERKNFKTWEKEDKSPLTSADLASNKILNDILGSTDIKILSEEKLLS

KEECEELKTFWLIDPLDGTSGFLKGSDEFCVMISLVHDNRPVLSLIQNPSKGDIFYAHAKTKVYKNDKPL

QIDQQEYEKNKYKALLSVNHLSKEDEDFAKEHQLEAINIGSGLKFCAILEARAGVYKRFEKLNIWDIVAG

DFLINQNGGFMGDFSKKYILYNPLSYKSNPFICVSSRNFLQDFL

>AHK57705.1 hypothetical protein N918\_08380 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRYCFILFLSLVLSSNLLANNFSQKKVIKIEKSADSFEVIDLNQNVANPNLNQQKALFDSSTLIEKKSQI

TKDKDIDFAIVLTSRKNFGYFLDGFRVSDKEFSTLFAKNLIQSLKLNWVNSAANGIYQSPKTLSYFSPKD

AKLINVSPFLTQEKDKAKMYAKFTDYVVVVNLQDFYVNITNYFITTSKEGVANVNFKIISTSNGKILVAK

NAELNLTLKDQDAKQNYQDIINQMPKMLADVIKNQIFHLKLLN

>AHK57704.1 UDP-N-acetylenolpyruvoylglucosamine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIIDFKKYSSVRIGNEFEVLVLDQICDFDGFLIGGANNLLVSPKPKNIGILGDGFNFIQILDRNKDFIHL

RIGCKTKSSKMYRFAKENNLKGFEYLSKIPGTLGGLLKMNAGLKGECISQNLIKIATSQGEILRANINFD

YRFCPLNTHFFWAEFKLNFGFDTLKDEALKNARSNQPSGASFGSIFKNPKNDFAGRLIEAVGLKGFSKGD

AMLSDKHANFLINKKNASFEDAFFLIELARKKVFEEFGTNLENEVIII

>AHK57703.1 flagellar biosynthesis protein FliQ [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDESTLVALGVQTFKITLLLSLPMLLAGLIAGLVISIFQATTQINEMTLSFVPKIILVVVILIFLMPWMT

TTMIDFTENILNQIPTFIK

>AHK57702.1 succinyl-CoA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKITIAHSPDADDIFMYMAIKFGWIGNDFAYENTALDIQTLNEFALKNEFDATAISFGLYPLIASEYAL

LRTAVSFGEGYGPKLIKKKDTHLKRNFKVALSGANTTNALIFRMKYPEARIIYKNFLDIENAVLSGEVDA

GVLIHESILNFDQSLYVEAELWDIWLEFAKENLPLPLGGMALRRSLPLSDAIKIERDLTNAVKIADANRK

ILAPMLMERKLIRVDEEKLDTYLNLYANKNSISMNQTQLLAVDTLFKLGYDYKFYDKIIHVNDFLIPSEY

EEARNS

>AHK57701.1 recombinase RecA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDDNKRKSLDAALKSLDKTFGKGTILRLGDKEVEQIDSIGTGSVGLDLALGIGGVPKGRIIEIYGPESSG

KTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDLI

VVDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTT

GGNALKFYASVRLDVRKVATLKQNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVK

LDIVDKSGAWFSYKDKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMISGSEDDEGEE

>AHK57700.1 enolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLVIEDVRAYEVLDSRGNPTVKAEVTLSDGSVGAAIVPSGASTGSKEALELRDNDERFGGKGVLKAVANV

NETIADEILGLDAFNQTQLDDTLRELDGTNNYSNLGANATLGVSMATARAAAAALGMPLYRYLGGANASI

LPVPMCNIINGGAHANNNVDFQEFMIMPFGFTSFKEALRSVCEIYAILKKELANSGHSTALGDEGGFAPN

LANNTEPIDLLMTCIKKAGYENRVKIALDVASTEFFKDGKYHMEGKAFSSEALIERYVELCAKYPICSIE

DGLAENDFEGWIKLTEKLGNKIQLVGDDLFVTNEDILREGIIKKMANAVLIKPNQIGTITQTMRTVRLAQ

RNNYKCVMSHRSGESEDAFIADFAVALNTGQIKTGALARGERTAKYNRLLEIEFESDEYLGEKL

>AHK57699.1 hypothetical protein N918\_08335 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIFWAFLVVIGAIYFGNMFFGQYSLDTLLSLENTKEELNKKIILLKEQNAKAQKDYFELKGLYPNEN

>AHK57698.1 hypothetical protein N918\_08330 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTRILAIFFIFTSLLYADENPFKTDQNITLVAPPEFQKEEVKFNSSARILKSITFNYINLDGSEDKIDL

DVNKSIDWHDTYTISRFKSPDPSKVLDVSVTIPEKNSSKQESNSTANVEIPLQVAKIYDFISYAVYKNKI

KLNTSDEMITDFSVGNPSKIVIDFRSKMISPTKNIRLSNSIFKRIDFGSHKGYYRLVIYLDGTYNYNIQK

DATGYMINLL

>AHK57697.1 DNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRFVFLICCACLVFANEILLLSKFDKQDFNSKDFNAYLMSEKLDGVRGIWDGKYLKTRQNYKIKTPDFFT

KNFPPFAIDGELWIARNKFDEISALIRSGDSNLTLWKEVTYNIFDVPNACEEFQISTCTLKNRLAVLEEY

LQKYPSAYIKIISQIPVENQNNLNQFYESIIKNQGEGIVIRKNLSPYEKGRSKNATKLKPYDDAECELVG

FRKGKGKFENQVGALLCKMPNGQIIKIGSGLKDEDRKNPPKIGSIVTYKFNGLTKNSLPRFPVFLRIRDE

NP

>AHK57696.1 hypothetical protein N918\_08290 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKTILTILFLLTLTQAKEIQIYESPTCGCCDLWADYMKAKGYEVSVHKTNDFLKIKEKMGIKDEYQSCH

TGVIEGYAIEGHVPESAIAWLLENKPKDVIGISAPGMPQGSPGMEQGYSEKYPVILMKKDGSYELYGYFI

GDKKL

>AHK57695.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGIFRIQAYFFALIIALFFVACDSGENFKALNSDKTYNFAYNGFEKSLKLNDKAQNFALVFFTKDCGVCK

EQIPILQNLAKNYDFNIFVVLGDANDANDAKAWADEKGLSNLAMFYEKRAAKYLSSAIGEIYGVPVLSFF

KEGKMDEKFIGLTPYSILEKEIKKVKS

>AHK57694.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKSLLILSILFLLNACSFENSKDTGKVGEKSAEISAKDTLGKAVKLADDNTSLKVLVFFQNGCPSCLKE

LPSLDEFIQNHPNKISVYAINSIDNANVVKVLAEQFDFKNVKVLKDDLKITNDRYAVFATPTTIIIKDGM

IKDRILGEKPWEFFESKLISLL

>AHK57693.1 GTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKELIKINNLNKEFGKVKALNNINLSVYEGEWLAIMGPSGSGKSTLLNILSLMDTPSSGEYILDNENLE

QMDEEQKITLRREKIGLVFQQFHLIPYLNALENVMLSQYYHSSVDEEDAKMVLEKVGLSHRLTHLPSQLS

GGEQQRVCIARALINNPELLLADEPTGNLDEANEQIVLQTLQKLKNEGKTIVLITHNPDLAKFADRTLIL

QHGVLK

>AHK57692.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVDKFFLNELFKSISFSYQRLFIIVLSVFIGALTCSAFLNIYFDIDIKLSKELKAYGANVMISPKQDENF

ISNTEYEKIKENLKARALTPFLYDFLNLGSTSGVVLGTDFRALKITKPFLEVKEGSFSLNDFDENSAFLG

VNLAKQLGLKAGNELQIYNPNNGKSIKLTIKGILSSNDEFDSIVLAPLSVVQNLSDRAGINYANAVVYGN

FDEVKAKTQAISNEFIDAKPISSVSLSEGLVLGKIKALMFLIILVVLIIVTTSVNTTLSSIIFSRKKEIA

LRLALGAKKSEIFKLFASECFIVSFFASLIGAFCGIFLANVFGYLIFNSSIDFRFIAVFIALIISLIFAF

LAAFFPIKRALKINVCENLKGE

>AHK57691.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLAKMIFNSIFKNKIQKFLAFLTCFLATLLLSTMLNITLSIGDEVTKQLKSYGSNILVLPKGSSLSIEIG

NELYEPLKNKNYLEEKNLYMIKDIYWRNNITALAPFLEGKITIENSQQKALIYGAYFQKAIKIKDDDDFI

TGIKSLYPYLAVQGEWAKDDSNEIMLGEDFAKNNKLKLGDTIKFIGENNQSKEAKIVGILLHANPKMSNK

IIAPLNLAQDLLNKQGLYSSTEVRAFTIPESALSEKVRRMGEEKLDQLEYDKWYCSAYVGSIASQISDGL

PGADAKALNAISDAQSLVVKKIQSLMGITCIICLIVASIAISSLMSSEIHRRKKEIGLLKVLGANTFQIY

LIFASENLIVALFAALLGFIFGTALSQIISLSIFGYFIDIAFVALPLSFIFAGLIALLGCLLPIKNITQL

SAAGVLYGR

>AHK57690.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSIYFVHFLISVLPLSILMAFITPNKKYIFKSFFVVFLGFLFGYFAFFIAAQFLKTENLIFNFDFVFIGL

LLVSFIFYFWKKIEILNFILLGILSFCTALHYYFLSQDFPIFTSSLIDSEGISSLGFIALALLVCILIFF

FLKWQKNFNQKTSFMLFLLLILIESDKALANILLTLMRNSIIETHAFLVSFVGKSNYFGVFGIYVYLIFI

TFLAFLSLKIRKKNISKKQILDINYRKNEAKTSLINRYFSSVFISCVVSFCIVLYFFMVSSKPLTIDEPK

EILPDKNGKFIFDIALLRDNKLHRFAYISAEGKVIRFFLINKREDKDSPVAVFDACMICGDMGYIKKDGQ

LICISCNVRIFLPSVGKSGGCNPIPLKYEYDGNKITIDVKDVIAGSNYFSQIKEIEVQDPVSKTKVINTQ

APFSYSYKGVTYYFSNQNNYEEFKKDPTKYVEENEAQFLIQRRNDVG

>AHK57689.1 iron transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKKVLSVVAAAAVISTNLFAGEVPIGDPKELNGMEIAAVYLQPIEMEPRGIDLAASLADIHLEADIHAL

KNNPNGFPEGFWMPYLTIAYELKNTDTGAIKRGTLMPMVADDGPHYGANIAMEKDKKGGFGVGNYELTFY

ISNPEKQGFGRHVDEETGVGKWFEPFKVDYKFKYTGTPK

>AHK57688.1 iron permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIFKIIFLIISIFLSSSAFARVDDYINEANLIKDMLKQSIETYKKGDNLGAKKLSEDAYFQHFENMEGS

IGRNIGRKAITMERKFVNLRRMYKDEAPLTQINALIDSLYYDLDEVAPILQNGYRLKAEASDINYDKAKA

EKSSLEANAKREADAEALIAQMMGVDKKDLAQSSLTTQAPIPINNDTSKLTDDNASTDLQAAAAMDVRLQ

FILDNISTKFSQAANAFKEKNYQTSKDFLNDALFSDYRNTKVEILVNKFTKAGNDQKIQQAIRTLIRQIN

DAKIDEKGLRDGLDNIEEQIFDVFLQIPNSELSSLQISGFNDETKGKDYAKVSNDIKLALDEILKNYDGF

SASIVDDLQGIYLDIFEASGMENKIGAVDSGLKLKIESLFSKSVALIKASTDKKELEATFNDLEQLIASS

VDKIQDSTPYSLFIWALGIILREGLEALIIVVAIVSYLVQSGNKNRLNIAYSALFTGVILSFVTAFGVSW

LFKENAGQSRELIEGITMLIAVLLLFYVGFWLLSNAQNKKWTSFIKQGAIDAISNNSAKTLWITVFLAVY

REGAETVLFYQALLFDAKTSTDFGAVFGGLGLGILILIVLYFLLKAGAIRIPVKQFFYITSYIIFYMVFV

FTGKGIAELIEGKVIIPSLIPMNFEPILWLGIYPYYETLIPQFIVLIMLIIGILITKQISKKGVKS

>AHK57687.1 hypothetical protein N918\_08240 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVSDVSMGNVNLMTAVNTSVLKKSMDTNEALMNELIEGMEGVSQASAPQASSSSGLDIYA

>AHK57686.1 hypothetical protein N918\_08225 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRHIFFIITIIFFISGCSFYQNLNYRPSYNTNKEARLKVIANEWKKTPYVLGGTSKKGADCSGFTQSALA

QLNIRIPRTTKTQLGSGRKVSKSKLQTGDLVFFKTGRGPNGMHVGIYMSKGKFIHLSTKDGVKEVELNSS

YWKARYIGARRY

>AHK57685.1 glutamate racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDTIIKFCLEALDFFEQFQIDMLIIAC

NTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIATKATIKSEEYQKRLLSQGYTNINAL

ATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLLGRSLSKYFGDKTKLIHSGDAIVEF

LKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>AHK57684.1 methionine aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIELKKPDEIEKLRIANQIVAKTLNFLENEIKIGMSLKQIDKMAEDYILSLGAKPSFKGLYGFPGAICTS

LNQVCIHGIPDDKIIKEGDILGLDVGSLIDGYYGDAARTIAIGEVSPADKALISCAKDALYHAIDIIRDG

MRFKELSAALGEFIHVRGFVPLRGYCGHGIGRKPHGEPEILNYLEKGASAKSGPKIKNGMVFCIEPMICQ

KDGTPKHYNGKWDAGSIDGLNAAHYEHCVAVINGRAEILSMI

>AHK57683.1 hypothetical protein N918\_08210 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKSDLDIFKKHLGEIQGVNEFKANQICSQINDANDFIGALQVLDMSLKKIEKSILERIDENSDDMQKRTL

DATASQLIQNCSFMGTALFGNIFNVYVGKKLFEFEIANPLLILQTSNYEGVLAYIQDKRDEIKIILSELS

TAITMGETMDNAGIYNSTMDFKNLFK

>AHK57682.1 hypothetical protein N918\_08205 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKQLFCILTFIFMLCGCSLRHETINKNENIILKDEGIDSNIFFKKTGKILKIRNANAPLYLNSRAIVYI

DNGFSNKYAHYFWGDLPSNLYSFLILSKFEQSNIFTTLLSSTSSLSADYSLESRINSFEQILNNNENYAQ

ISISVNFINLENNQIIAHKIFNTKEKIEKKDIRSTYNAFQKALNKIGNEIVFWVNSNLS

>AHK57681.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENRANYFFVGLFVFGVFFASLGFILWLGGYSKEESFKYYEIHTQESVAGLGIKAPVRLLGVEVGSVEEI

SIYNQDELGVNIRIKVKNNTPIKEDTFATLQLQGITGLKFIQLQGGSKNSKDLVSMQGKLPVIPFKESFL

ATIDRQSEHIFSLVKTADDKSKELLSEKNLKNLEILLQNLAELSANLNANSKNLSLNLSNASLKIGKMAD

NISLSAQNFNSSLKNIKESTMILKNFIKKADEKLNTYDDIKASLMQNLELFKRVLIESNILIENLQNSPA

DLIFKETKPKLGPGEK

>AHK57680.1 phosphate ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVIKAQNIITKFGEKIVHDGVSFEIKKNEIFGILGGSGSGKSVLLKQMLMLEHFDDGEYEILGYKLKNIN

EEDALALRKKWGVVFQFAALFSFFNVYENIAIPLKEYTHLDENSIQELVLMKLKMVGLNESVLKQFPSEL

SGGMQKRVAIARALALDSKLLFLDEPTSGLDPHSSREFDDLVLELKKSFDLNIILVTHDKESMKNLLDRF

IILENKKVGFCGTYEELRLQNERLFKRFME

>AHK57679.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNTNFKFQNNTLFIFGIWDKTSIYKLKIKDFLALIQSKEVIFDFKDLKAIDTAGVRFFLALENDLKNKNI

KITKEGLNSRFQTLFELCEKNYQRLGKTKKSHQNFSEYFIDLGKLSLELLKILRKFINFTGAFFTSLFLC

LKNPKNFRFIAFLYHIENSAFKALPIVILTALLVGVVLAYQAAYQLAQFGANIFIVDLMGISATRELAPL

IAAIVIAGRSASSYTAQIGVMKITDEIAAMNTMGFRSFEFIVIPRVMALVVAMPLIVAISDAISIIGGMM

VAKLNLDISFAEFLRRFREAVDIKHIFIGLAKAPIFGFLIGLIACFRGFEVKNTTQSIGIYTTKSVVNAI

FWVIAFDALFSVILTSTGI

>AHK57678.1 transketolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNIQILQEQANTLRFLSADMVQKANSGHPGAPLGLADILSVLSYHLKHNPKNPTWLNRDRLVFSGGHASA

LLYSFLHLSGYDLSLEDLKNFRQLHSKTPGHPEISTLGVEIATGPLGQGVANAVGFAMAAKKAQNLLGSD

LIDHKIYCLCGDGDLQEGISYEACSLAGLHKLDNFILIYDSNNISIEGDVGLAFNENVKMRFEAQGFEVL

SINGHDYEEINKALEQAKKSTKPCLIIAKTTIAKGAGELEGSHKSHGAPLGEEVIKKAKEQAGFDPNISF

HIPQASKIRFESAVELGDLEEAKWKDKLEKSAKKELLERLLNPDFNKIAYPDFKGKDLATRDSNGEILNV

LAKNLEGFLGGSADLGPSNKTELHSMGDFVEGKNIHFGIREHAMAAINNAFARYGIFLPFSATFFIFSEY

LKPAARIAALMKIKHFFIFTHDSIGVGEDGPTHQPIEQLSTFRAMPNFLTFRPADGVENVKAWQIALNAD

IPSAFVLSRQKLKALNEPVFGDVKNGAYLLKESKEAKFTLLASGSEVWLCLESANELEKQGFACNVVSMP

CFELFEKQDKAYQERLLKGEVIGVEAAHSNELYKFCHKVYGIESFGESGKDKDVFERFGFSVSKLVNFIL

SK

>AHK57677.1 geranyltranstransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLKELFIHHLEKNLPKVESFHPFFNEALALMLKAGGKHFRAQLLLSVVQSNKPELLNQALDVALALEFI

HTYSLIHDDLPAMDNADFRRGIPTLHKSYDETTAILVGDALNTEAFLVLSHAHLKDEIKIKLIKTLAFNA

GLNGMVIGQAIDCFFEDKRLSLNELEFLHTHKTARLIAAALKMGCEICELNNEESNQIYKLGLKLGLIFQ

INDDIIDVTTSQEQSGKPTNNDIHKNSFVNLLGLEQAIKTKENLLSECEQDLEKLNEKLAQMIQNLIIQY

L

>AHK57676.1 peptide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILIICMLFTLSFGIERPKFEDFLAGYERNKASMLNYEGMPAFALSENLLAVLKQPNAKLNKYVKYDP

FLNLYLVRTDFSLIPTPMGDEEKLTRNDWVGIWDPNKPYIGHIKYLAQNIDEKDQLDFNSKIGLLGTPCC

EMMGIALNNSSFIGNRYLKHFMKYNDVYWGDIGVDFVVRENKIYVNNVRKNPQFLINDQVISVDGLPAND

LRKLNEKILFADRGSTLYFQVLRDNMDLNISTEVFAKDLSKFNLPDSKPKPKITNFTSNLGLTVNASLVV

TKIDPKSKVSNAGFMVGDKILRVNNIILNNFKELQNILSAGNDFSILIERKSTKLPLSNFNNELGGNANS

GGDGKFQFFIRLTK

>AHK57675.1 hypothetical protein N918\_08170 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFENMDFSKMGELLNQVQEKAKNIELELANREFSAKSGAGLVKVSANGKGEIIDVSIDDSLLEDKESLQI

LLISAINDVLAMVAQNRSSMANDVLGGFGGMKL

>AHK57674.1 UDP-N-acetylmuramoylalanyl-D-glutamate--2,6-diaminopimelate ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLKLENSFITDNTLECEKECFFLQTTQNAKFHAQALEKGAKIIDVNECKKLLKIDEKIQIIGITGTNGK

TTTAAAIYSILLDLGYKCGLCGTRGAFINDEQIDEKSLTTSPILKTLEYLQIATQKKCDFFIMEVSSHAL

VQNRIEGLNFAAKIFTNITQDHLDFHGTFENYKEAKELFFTDESLKFINKDALAIKFNVRNAFTYGIENP

ALYQIKAYSLEEGISTIVTNKNQTFHIDSPLLGLFNLYNLLVASACVNELVKPDLKDLEKAISGFGGVCG

RVEQVAKGVIVDFAHTPDGIEKVLDTLKNKKLIVVFGAGGDRDKTKRPLMGKIVEHFAKIAIITSDNPRS

EEPKTIMEEILSGFTKKEKVLMIEDRKEAIKKALELKENDDLVVILGKGDETTQEIKGIKYPFSDKVVVN

EILKNQG

>AHK57673.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNYKKLGIEHFYKKDFKTAKMYFSMAYEKRKNKRLLNFICLCDLALKSPKEASLLFDFYIEHYKISSID

KDLEEILSTIEFKKQENKQENEFEDGHALNYQDFLKSEEELGFQKSFENIINSTKLVIDNRDDFLDFLEK

LLDNGYKDMTLNYIENVMPHFWANDRFIKLQEKLMGFKSEIKT

>AHK57672.1 nitrogen-fixing protein NifU [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMPFSDEELINPVKASLEKSLPMLERDGGGLEFLGIKNGIVYVHLIGACKGCASSGTTLKYGLERQLKID

IHPEITIINLNGGADEFAKL

>AHK57671.1 DNA primase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MITKESIENLSQRLNIVDIIENYIEVKKQGSSFVCICPFHADKNPSMHINPIKGFYHCFACKAGGDAFKF

VMDYEKLSFADAVEKVASLSNFTLSYTKEKQENKKELKSILPSLNAYFKDNLKHHKEVLTYLYQRALNDK

DIAKFELGFAGASEDSIRLLQNQKIPLEDAMSVGALKKDENNEFYASFIWRITFPIYDHKDLLVGFGGRT

LNPNVPAKYVNSPQNILFDKSRIFYAFNIAKENIAKKKEIIVCEGYMDAIAFHKAGFNNAVAVLGTALTE

HHLPLIRRYDAKVILCFDNDEAGLKAATRSAFLLSTNKIDGKVAILQGGKDPAELVAKNESTKLHNILDE

GIELGEFYIRRLISTHSIISALDKQKALETIQKFTFNLEPLVANSYTSLVSNLLKVDEKFIVLSQNSKKT

IQTPLISQNKYNFPKEKIHIAELELIAFLKQHPDICNDFKQISDSVCFKHKILLDKILEKKGYEDSDIRE

FESKNIRKNLNYSEFLLGICKVNLAFLNNVKIKNSTLALKKQLFTLIDKNLNLLIKNLNTAELNNFLKEY

LSFLKYEKNEEILQQSFRNLNGIFGNKNFTAYDLGFSIQNNDEPF

>AHK57670.1 hypothetical protein N918\_08145 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDFFFVEYRDPLVGLIILTILVFVVAVANYIWKIFANKDEEQKLEKFIKKFEMDNAHKELLRNSSLSFGN

LSFLAEIFTKSGEFEKATQIYLIALEKCKDKQEREFIFLSLAKVYFKAGFLERAKEVLLQALKLRPRNIQ

ALKLLKIVYLKLRSYKENLELLECLFELNEDVQKERDFIKALELCTFNITDEEKKKKLLEFKIEDNPMLG

RLVFEKYHMFLGQNFFDICDLLYRENEAFNLENQDFLEFFYALGKISKHDDTHQFVFKNSNFKMLKILKD

NSFNAGLEFSYRCSECKNVMPLFFYHCPVCYEFNTCKIIYEVKNNETH

>AHK57669.1 ribonuclease H [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKHIEIYTDGSCLNNPGFGGWAYILRYKEYQKEGFGAEANTTNNRMELMAIIESLKALKEPCEISLFTDS

NLMVQSINEWLEGWIKKDFKGKKNIDLWKEYIKVAKSHKIKAFWVKAHNGHLENERCDTLAREAALKIAR

ENDEKH

>AHK57668.1 ribonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAVLDLVVGEYLFHKFAKDAEGDLSKL

RAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALEAIIGAIHLEAGFEFAKTIALRLIE

KNFPQIDAKILIKDYKTKLQEITQGKIGQTPQYETVRAFGPDHLKQFEIALMLDGKELARAIAGSKKEAQ

QMAAKIALEKLGAL

>AHK57667.1 chorismate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNTFGTRLKFTSFGESHGVAVGCIIDGMPAGVKFDEEFLQNELDKRKGGSKFATPRKESDKAQVLSGVFE

GYTTGHPIAIVVFNENAHSKDYDNLKDLFRPAHADFTYFYKYGIRDHRGGGRSSARESVARVAGGAVAAM

LLREFDICVQSGVFGVGTFVSNLKEEEFDFEFAKKSEIFCLDPKLESDFKNEILNARNSKDSVGAAVFTK

VSGMLIGLGEVLYDKLDSKLAHALMGINAVKAVEIGEGINASKMRGSCNNDALKDGKFLSNHSGGILGGI

SNGENLILKTYFKPTPSIFAKQESIDKFGNNLKFELKGRHDPCVGVRGSVVASAMVRLVLADCLLLNASA

NLNNLKNAYGLK

>AHK57666.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKALALFSGGLDSMLAMKLITAQGIEVKALNINIGFGSTSDKSEIMKKRAAMVGADFEMIDVRNSYLQEV

LFNPQYGYGKHFNPCIDCHAFMFKTALAMLKEENASFIITGEVLGQRPMSQRSDAMAKVKKLALDEEDLI

LRPMCAKNLPLTKPEREGWVDREKLEGIIGRSRKRQLELAAKFGLEDFESPGGGCLLTLDSFAKKIRDFI

EFDKDMQVNDAQLLKYGRHLRLPNGAKMIIGRNELENTLLKGLKTPKYEAIEIGDLIGAYSLVDEKISEK

DLELALKIALTYTKHEVGKSYELKFKNQAYTSIAFENKADINQFFIS

>AHK57665.1 hypothetical protein N918\_08120 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKIILVLSILSSFAFANSCANYEQELKKCNSLKNSHERKMCRLGLFAKCKKG

>AHK57664.1 hypothetical protein N918\_08115 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIDTSASLTHSLTNNVDKKELSVLKKEDQDKIPVQDLSSLNSDGVKVVFENKQGELIALNLSDENYSSL

QKNFGSYMNYVARNDGSIRLNGEVNQFVSNWFESVKDNFGSLNSNLNNKQQSVKLNFNTSTLQQSMQNLG

FKTSDEKISDDANIEEKLNFFIDKDVNKDGKVDDSDVKEPSMREILSDIKEASGGGANAMKTIDPQKINK

KDDKENNIKEKEDEDLLQKAQEKGLSALSADEQAKLEASNPEEFEKLKQKSLQELSQNLSKDFQNKIENQ

EAQIVDKRV

>AHK57663.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKLPKNEGLNIVPFIDIMLVLLAIVLSISTFIAHGKIQISLPSSENATNISNNEKKLLITIDEKNTFYL

NDKLADLNEVQNAIFSLDKKTIVELKSDKNAKFESFVKIIDFLKAKEHENFQILTEKNK

>AHK57662.1 biopolymer transporter ExbB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEFLKDYIDLIIFLILGIMAFIAFWCVVERMLFFRKINFKNYENQEQFDDAISENLTTIYIIYSNAPYIG

LLGTVIGIMVTFYEMGLAGNIDVKSIVVGLSLALKATALGLLVAIPALMAYNALLRKVSLLSNAYKANKN

A

>AHK57661.1 hypothetical protein N918\_08095 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTIDLNHNFTSFVLLDEVDFNFSELKSILEDKFNIKIADENFTKEGVIFSYENMLVTLNLINNPIPNHEV

EYYANFNFMWKDALEQTKKHKAHLLIAVLSQDQSKLEQAKMFTKIAALCLDNKHALGFYTGAVVLEPSFY

IENAKMLDDNRLPVYNWIYVSVYPSENGVNAYTYGLRNFDKLELEVCDLNIEEKELFFCIYDIVLHILTY

DINLKDKDILKFEDGKEIKFIKSQGISVENESLKIIF

>AHK57660.1 hypothetical protein N918\_08090 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKAKLTLLALLGTTVLLAKDMVVPASELPNNAKEFISKNFKTAQIGLVKKDIDSYDVILNDGTEIDFMIN

GEWKEVDGKYKALPHTILPNVMKKVSATQPNAQILEVDKEINGYKFKFNNNMEVYTDMQGNILGQKLD

>AHK57659.1 serine/threonine transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>AHK57658.1 serine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSNLSIFKIGVGPSSSHTLGPMLAGNLFCKKVAKKLDEIDRVEVTLYGSLSLTGKGHLSDKAVIWGLNGL

EAKNLSAAIQDEVNKNAIENAQIDFCGEKKLSFNYEKDLIFSKDFLPLHENGMKIKAYDCKGGLVDEETY

YSVGGGFVLTAAELEKKGKNSNQNKKKKLDIELNNAKEALELCDKRDWDLAELSYRYELQFHTKEEICAY

CLEIWEVMQEVYYNGTHPNEDYLPGKLHLKRRAKGLKERVAMTADPMGIIDFISLYAIAIAEENASGAKV

VTAPTNGACAVIPAVMLYLKNHTIGFSDEKVIEFLLTAMLIGSFYKKNASISGAEAGCQAEIGSASSMAA

AAMATVLGANAFKACNAAEMAMEHHLGLTCDPVAGLVQIPCIERNAFGAIKAISAARMAMTRKSTPMVSL

DEVIETMYETGKDMNYKYKETSLGGLATNLKTVC

>AHK57657.1 riboflavin deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEFYMNLALNEAWKYQFLTYPNPAVGCVILDKNEKILAIKAHEKAGLAHAELNAIAHAFKSLRPEISLP

KEANALHEFICKNHQGVFKDSIAFVTLEPCSHQGKTPPCAKLFSELGFKKIFISVKDENKIASGGAEFLK

KQGIEVEFDILKEEGKKLLKPFLKWQKGQFKLFKLALSMNGSPFGKIVSNELSRTYAHEIRAVIDLLVVG

GETIRKDCPILDARLCKAKAPNLCILSRQNIDNFDKNIPLFKVPNRQIYTQIPSEAKFLMYEGGENFLKI

FKDEIDMFLIFQSSSLNDEKNVTIPLNFKPLYRNFLGSDTYGIYEL

>AHK57656.1 hypothetical protein N918\_08045 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLAFFKGLGVGFLCLLLFVAGVVFNVEFLGKKDSNHDLYFSRNIEVSNTLKPDILYANINFWANENLSSK

ITLDNSEKAEITNTFNQILERSKKENFCSGGSFSLEPNFSYKDGIQTPKGQRFDANLECEFKENQLADFN

KLLNDINSIIAKNNFISVSTPAIQTKFSKDTLNNNKENLYKELLKTSYEYEKTYSLDLNKTCVLKNLQVN

ANTNIAPRMLNAKSDNIELSSPIISKKEQILNAKALFICK

>AHK57655.1 adenine glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKKELEKLQENLLLWYEKNGRKTLPWRNLQSQNCDESLKHIDRAYGVYISEIMLQQTQVKSVLERFYFP

FLQKFPTLESLANANEDELLKAWQGLGYYTRARNLKKAALECVDKFGAKLPKDVEDLKKLSGIGAYTAGA

IACFGYDQKVSFVDGNIRRVLSRLFALENPSMKELEKRAKELLNLNHAFDHNQALLDIGALVCVGKNAKC

RICPLYDFCQGKFHTELYPRAKKILYESLNLNLFLFEFNKKFAIQKSQDKLYKGMYNFPFFKEGEYKLSK

DMGFVGEFKHSYTKYKLNIKVYHQILNNENKNYEFKTLKELESTALSALSLKALKLIKL

>AHK57654.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFKKIYIELSDICGLKCDFCPSQKGIRGVMSEEKFQNLAYEISNKAELFTFHLLGDPLLLPNLENYLKI

AKDEAMKLEITTSGFYLNSKNQALLLGYENIHQINISLMSFLSQSKISLEQYFKPILELCKKHLEQKSLS

FINLRLWNLDANFKAPKSNLKIYEFLAKEFEAKIDANLSKNRLQRHILLHQNKLFKWPNLKDEPLYKKGK

CHALKEQIGILSDGSLVPCCLDTKADINLGNVFENNFDKLFRSPRIKMMKKAFEEDKRIEKLCQTCEFFK

ARLGD

>AHK57653.1 hemin transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILIIMSLFLIALNAKERLVVLDPASIETLFMLKAEDQIVGIATLQHSNIYPKDQTSKLTSVGTFSNP

SLEKIVALKPSLVILSSYSLNLEEGLKNFGIKSINLKAERLEDITKNITTLGQITKKEKEAELLKQEFNQ

KFKKLSDKPLNKSAIYLYSSNPLMAFNDNSLIADILRLIGIKNLSPQSQISRPVISAEYILKQNPDILIL

GINAKNNLLDTNALLKNTKAVKTGSIYFNKDTPILLRLSPKIIDRIQEFKTKLENNNF

>AHK57652.1 heme ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKIHNLSFAYHQKDLLKNIHLELKNQAFIGILGPNGSGKSTLLKLILKNLSPNKGVISLFNTNIKDFSL

KEFAKICGFVPQKSELNTPLKVIDVLLMSKYPNLKHAFSSYSKEDILEIKEFAKDLRLENFLERSILSLS

GGEFQRMLLARALLKKPKILFLDEPTSALDLNYAIELLNLCEKLVKEKNIAVVAILHDLNLASIFCDKIL

FLKEGEIKYFGTSKELFTQEILKEIYDLNCEIIYKNSKPYILALKEKK

>AHK57651.1 iron ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNLNTHSKILVIIGLLVAYIIASFTALCLGDENLNPKELFSYIFSQDEILRQIIIDGRLPRIIMAILIG

MLLASSGAITQNVFSNPIADPYIIGIASAATFGAVLAYLLKLNDYYYGILGFVCSAFFALGVFKISSKAS

IATLLIIGIAASSFLGAFTSFFTYLIGEDSFKIVAWLMGNIGNASWFRVGILILPLIFCLFYFYAHKNEL

NILLSGDDEARNLGVNAQKLKINLLIVSSLAVSFAVAFSGLIGFVGLIIPHTIRLLLKNYNNALVIPLCT

AFGGLFLLICDTLARTLLAPVQIPIGILTAFFGAPIFLYLALSARRFL

>AHK57650.1 ligand-gated channel [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHPNKKAFKLSLFALLLITNLNAQESNKAINLQKVVVSTTGFEQDADSNLRNVISIEGKDLQNKGYVSLE

QALERISSISFVNFGLGRNIDMRGQGNKSNIAVKVMIDGHAINVLDNSHGVTPLDSINLDNVERIEIIPG

GGSVLYGSGTRGGVINIITKKQKSDAFAINLKSSAYDHGGLGGNLGINGAKQINENLAFSFDIQSFNLDG

YQEGYNEKGYFINTKTYIDINDNSDLTLGYNYFKSKNTSSGYLTKAQAQSDPTQKGKSDNITQINRPEIS

LDYHYYFDDIWEFNLEAFWQNQKINYLKDVSTMSYMNMSLPVYQNGSGFEDTLTGISLKNKLNYANNSYF

IFGYEFANHDAKRKSLVYYSVPSVINYHRMTTLIDMTKQSHSIFALDSHNFNEFFTLSGGARYEFSSYNT

DRSYRNEMSMNGRPPSPTIIDSTTLFDTNKNANNFAFEITPNFKYSDTGKLYIKYERGFVSPSPAQFVNK

DKNSQKYYSANLNPEIFDTFELGIDDFWWDFYGFNLTLFYTLSKDEISYLGNPHSTSGSWWKYYNIDQTR

RLGVELSLSQNFLDDDLIFRESLTYLDAKISKGVNDGMRIPYVSKIKATAGLEYAWNKNFSNFIDLTYFS

RAKDGGTIDENTGKMSKNSWIRDYFLTDIGMKYNYKKLQILAGIRNLFDKRYYTYQDSINDQYLVGNGRN

YYVEFKYAF

>AHK57649.1 hypothetical protein N918\_08005 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFESIISHMNDHHKSNLVDLCKKFGGIEQVQDVFLKSVDFNGLDLVYNDKENLRVEFPKKADENTIKDA

IISLCMSAKSEQNFSGVEKELNEFMLSFNSVALATLNANGEVVCSYAPFVSTQWGNYIYISEVSEHFNNI

KVNPNNIEIMFLEDESKAVSVILRKRLRYRVNASFLERGERFDQIYDEFEKQTGGEGGIKTIRKMLDFHL

VKLEFKKGRFVKGFGQAYDIENGNVAHVGASGNPHKFLHKH

>AHK57648.1 peptide chain release factor 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLASKLDPFFKRFEELNSLLSSSDILNDISKMTTLSKEQKNLEPIVLKAKEYLKTLDNIEENKALLNDPE

LGELAKEELKTLEELKPKLEEEIKILLLPKDPNDERNIFLEIRAGTGGDEASLFVGDLVKAYARYAENRG

YKLEIVSSSEGSVGGFKEIIMLVKGTGAYSRLKYEGGTHRVQRVPQTESQGRVHTSAITVAVMPEVDDIE

IEINPNDLKVDVMRSSGHGGQSVNTTDSAVRITHIPTGIVVVNQDGKSQHKNKESAMKVLKARLYEMQES

ERLAKESEARKSQVGSGDRSERIRTYNFPQNRISDHRINLTLYRLDAIMQDGLFDEIIEPLITHHQAQAL

QEQNL

>AHK57647.1 30S ribosomal protein S20 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MANHKSAEKRARQTIKKTERNRFYRTRLKNITKAVREAAANGNKNAANEALKVANKSIHAMVSRGFIKKQ

TASRRVSRLALLVNKIA

>AHK57646.1 phosphatidylglycerophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKLFLTFFYSGSVKKASGTFGTIAALIPAFFILKYLGINTLFLLSILIFVASIRVIDDYEKKTGIHDDK

HIVIDEVAGVFLACAIAASVENSIVNFILAFVLFRLFDITKPSIIGKIDKKVKGGLGVMLDDMLAGLFAG

LLSAVIYGFLLKFNLVFWDINLKDLF

>AHK57645.1 sulfate adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKSARKNKNIIIDQNEFGILSLIKEGLLGTCTHLMNEKEVNEIIKSGKFKGESFPYPLSFAPKNAEEALN

DIKSGDRIDLMLDEKVVGHIDFKSQFKNNKNFSDIFSPNTCSLEDMGTTCISGKIEIYNSQIEKIKENFQ

QIKNNLNAQKITAIVSSFDPLHRAHERMFRWTIDKADLVVIFLVESFDVNGFEFELKEAYLKKFIQNYLP

PDRIFIFPLKNINIFHAHLNPGLESIIAKSLGCTKLVVGQNHTGLGMFYDDNQPKTILDDFSKDYGIEVI

VLPEFVFCDQCRMIVSTRSCPHGCHHHLHYNSQSLKDLLRAGIIPPAIFIRKEVSSVILTSLFPNRLKNM

QKIYNELFPTDGILEYKNDEEFYQKLLEIHQMSYMV

>AHK57644.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVLIIENEIYLAQSISIKLSDAGYSCEIINSFDEYNGEKYYDIILLSTNTNNFLKAVGQFKHSIIILLI

SYISTDTVSNPLKLGASDYIQKPFMIEELIRKIKHYQDFRKLSILNKAYQSYIKSRLETIKIPEYNYKKL

KLPLILKSNKQSSADAFVFNYANECDITLSFIDLTSTNSVEKVMKLPTENNLLFLSNFQALKAAEKEKLL

DFIQNKNVILHTNSNTDDLKINCINLNDNEKNINSNEILTIDEYVKYVIINYQNIFPDTDLSKKLGISRK

SLWEKRKKYEISKKK

>AHK57643.1 2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSEMSLIMLAAGNSTRFNTKVKKQFLRLGNDPLWLYATKNLSSFYPFKKIVVTSSNITYMKKFTKNYEFI

EGGDTRAESLKKALELIDSEFVMVSDVARVLVSKNLFDRLIENLDKADCITPALKVADTTLFDNEALQRE

KIKLIQTPQISKTKLLKKALDQNLEFTDDSTAIAAMGGKIWFVEGEENARKLTFKEDLKKLDLPTPSFEI

FTGNGFDVHEFGENRPLLLAGVQIHPTMGLKAHSDGDVLAHSLTDAILGAAGLGDIGELYPDTDMKFKNA

NSMELLKQAYDKVREIGFELINIDICVMAQSPKLKDFKQAMQSNIAHTLDLDEFRINVKATTTEKLGFIG

RKEGMAVLSSVNLKYFDWTRL

>AHK57642.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEQILEKLKTVKYPGFEKDIVSFNFVKDIKIQDDGVFIDIEIVSANPEVANEIRKNTIEALSSLALKNI

ELNIITPKIPEEKSNSRSGKNIAPQVKNFIMVSSGKGGVGKSTTTVNLAISMAKMGKRVGILDADIYGPN

IPRMLGETKTQPEVVGQRLKPILTHGVYMMSMGVLIEEGQGLMWRGAMIMKAIEQLLADVIWPELDVLFL

DMPPGTGDAQITSAQSIPIAAGVCVSTPQTVSLDDSKRALDMFNKLHIPIAGVIENMSGFLCPDNGKEYD

IFGKGTAEDMAKAYKSEVLAQIPIEMIVREGGDEGKPVSFYHPESVSSKRYLMAAEKIWSFIEKINNEGG

ADNSAIQPVMNGKSACSH

>AHK57641.1 2,3,4,5-tetrahydropyridine-2,6-carboxylate N-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINTKEDFLLLIKQIEQKSGYKKPKAFGIARLDRGQLNKNKILQASFALINYEQNFGSAAIMLEAFMQRG

VEIDFNASEFVQTLKLEDIDFALSCFKPFLEEDGHQNIDLLKIIKDKFKDDEFSFVCLFEDKEPLSVESI

YLKLYLLSTKKVPLRSINLNGAFGLLSNVAWSDDKPIELEYLRANEMRLKMSNQYPKIDFVDKFPRFLAH

IIPEDNTRILESSKVRMGASLAAGTTIMPGASYVNFNAGTTGACMVEGRISSSAIVGEGSDVGGGASILG

VLSGTSGNAISVGKACLLGANSVTGIPLGDNCIVDAGIAVLEGTKFLLKDAEELAKLNPYFNFDKEIYKG

LELKGLNGLHFRQDSISGAMIVALNKKAVKLNEALH

>AHK57640.1 phosphoribosyl-AMP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNFKELNEKIAWQKVDNLLPVIIQDAKTCEVLMLGFMNNEALEKSLESGKVVFFSRTKQRLWMKGEESG

NFLNIIDLSLDCDNDTLLILANPVGPTCHTGDISCFEKISKNADFVFLARLEKLINARKNADENTSYTAK

LFKSGTKRIAQKVGEEGVETALAATVKDKEELICEAADLMYHLSVLLADANLSFSDVISKLKERHKA

>AHK57639.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLTKRIIACLDVKDGRVVKGTQFKNHKDMGDIIELARYYSQNGIDELVFYDIAASARKERISREWVSEVA

KNINISFCVAGGIKSEEDAAELLANGADKISINSPALNDPSLITRLAKSFGVQCVVVGIDSFKDENGNLK

VFQYTGDEKTSKHSGKSTLEWVKKVQDLGAGEIVLNMMNQDGVKNGYDLEQLEAVYKICKVPLIASGGAG

KMEHFLEAFKLGIDGALAASVFHQKLIDIKELKIYLKNQGLSIRI

>AHK57638.1 HrgA protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSSKLSYKELTLEILKQSDRPLSVNEIWQKALEQGLDKKLSSIGQTPIATLGARIYVDIKELQHNSLFIK

ASQKPTTFWLKERENELLKLDNKNEITNEKQEKNKFHERDLHPLLVKFLYENLDFNLNCKTIYHEQSKKG

KGGEDKWNYPDIVGVYFPYDDYEKETITLLENIKQNSYKLFSFELKIALNFSNLKECYFQAVSNSSWANE

GYLVVLQEIDSEVLSELRRLNQSFGIGVIKLEKDISNSQILISAKEKELDIQTLNMLINKNPNFKEFIDD

INKQIKVGKEAKIQANFDEIKSDEEMEKYLKEKCILEK

>AHK57637.1 1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)methylideneamino] imidazole-4-carboxamide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTQIIPALDLIDGEVVRLVKGDYEQKKVYKYNPLKKFKEYEKAGAKELHLVDLTGAKDPSKRQFALIEKL

AKEVSVNLQVGGGIRSKEEVKALLDCGVKRVVIGSMAIKDATLCLEILKEFGSEAIVLALDTILKEDYVV

AVNAWQEASDKKLMEVLDFYSNKGLKHILCTDISKDGTMQGVNVRLYKLIHEIFPNICIQASGGVASLKD

LENLKGICSGVIVGKALLDGVFSVEEGIRCLAN

>AHK57636.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIIIIDTACANLASLKFCLDRLGFNATISRDLKELESADKLFLPGVGTAKEAMKNLEQFNLIDFIQNTK

KPLLGICLGMQILGNFSEELNQETLKLIDFTTQKFKAKEGFTFPHMGWNEVYSSHALFKGLEGAYFYFVH

SYCVGLGKYTIADCEYSQKFSASVMKDNFYGVQFHPERSSEAGEILISNFIKDIG

>AHK57635.1 imidazoleglycerol-phosphate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSQKILFIDRDGTLIEEPKSDFQIDTLEKLRFEKDAIPTLLKLKKFGFKFVMVSNQDGLGTPSFPKENFE

IAHEKMLDILKSCGIEFQDIFICPHFENENCACRKPKTAMLEEYIKHELYDKEQSFVIGDRESDMILASN

LGVRGLKYGELSWKEIENEILSSFRSASYQRTTKETDIKVKVCLNGGKVSIKTGIDFFDHMLEQIAVHGG

IGLEISCKGDLEIDEHHSVEDVALALGACIKKALGDKIGIARYGFALPMDECLASCAMDFCNRPHLVYKA

KFKKSHLGALSTEMIEHFFYSLSYAMGVSLHLKVKGKNDHHKAEGLFKAFAKALKMAVKIESENLASSKG

VI

>AHK57634.1 bifunctional histidinal dehydrogenase/ histidinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQILVYDNLDEKQKEEALKRPAISAKDEISKIVSSIIKEVQEKGDKALIEQALKFDKAEISKIKITQEEI

TQASNRLDKDLQEAILVAYENIKKFHEAQIPHEIALETTKGVKCEVLTRPIEKVGLYIPGGLAPLFSTVL

MLAIPAKIAGCEKIVLASPAKINDAVLFCAKLCGVDEIYQMGGAGAIAALTYGTQSVLKVDKIFGPGNAF

VTEAKRQVSSDINGAAIDMQAGPSEVLVIADDLANEKFVASDLLSQAEHGADSQVILVCLSQDFAKKASD

EVQSQLELLPRKELASKSIANSRIIIAKDLNQALEISNLYAPEHLIIQTQNPRELLKGVKHAGSVFLGAY

SPESMGDYASGTNHVLPTYGLTKTHSSLGLADFSKRMTVQELSKEGFLALGKSVEILAQNEHLDAHKNAV

TFRLESLK

>AHK57633.1 ATP phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQENTRLRIAIQKSGRLSKESIELLSECGVKMHIHEQSLIAFSTNLPIDILRVRDDDIPGLIFDGVVDLG

IIGENVLEENELERQSLGENPSYKLLKKLDFGYCRLSLALPQENKFQNLKDFEGLRIATSYPQLLKRFMK

ENGINYKNCTLTGSVEVAPRANLADAICDLVSSGATLQANNLKEVKVIYESRACLIQKENALSKEKQALV

DKIMLRVAGVMQARESKYIMLHAPKEKLDKIQALLPGVERPTILPLAHDEKNVALHMVSKENLFWETMEA

LKEEGASSILVLPIEKMLK

>AHK57632.1 50S ribosomal protein L17 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRHKHGYRKLGRTSSHRAALLKNLTIALVNSGKIETTLPKAKELRGYVERLITRARLGDFNAHRAVFASL

QDKNATNKLVTEIAPKFKDRNGGYTRIIKTRIRRGDAAEMAFIEFVA

>AHK57631.1 DNA-directed RNA polymerase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRNITTSAYTPTEFTIENISDTVAKISAWPFEIGYGITLAHPLRRLLYTSTIGYAPTAIHIDGVAHEFDS

MRGMLEDVALFIINLKKLRFKIKGDSNKEIVEFSFKGSKEIYGKDLNNDQVEVVNKDAYLATINEDAELK

FTLIVEKGIGYVPSEEIKELINDPKFIALDAFFTPVREATYDIEKVLFEDNPDYEKVVLTVTTDGQITPN

EAFQNALEAMYKQLSVFDKITNVRSVIKNQATSNELENTKLLQNITDLNLSARSYNCLEKAGVVYIGELA

LMSVSELAGLKNLGKKSLDEIKNIMESIGFPVGTSKLSDNKEILKNKIAELKAQNEG

>AHK57630.1 30S ribosomal protein S4 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MARYRGPVEKLERRFGVSLALKGERRLAGKSALDKRPYAPGQHGARKGKISEYGLQLREKQKAKFMYGVS

EKQFRRLFAEAARREGNTGVLLIQLLEQRLDNIVYRMGFATTRRFARQLVTHGHVLVNGKRVDIPSFRVE

AGAKIEIIEKSKNNPQITRAIELTAQTGIVAWVDVEKDKRFGIFTRKPEREEVVIPVEERFIVELYSK

>AHK57629.1 30S ribosomal protein S11 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKRKIVKKKVVKKNIAKGIVYISATFNNTMVTVTDEMGNAIAWSSAGGLGFKGSKKSTPYAAQQAVEDA

LNKAKEHGIKEVGIKVQGPGSGRETAVKSVGAMEGIKVTFLKDITPLAHNGCRPPKRRRV

>AHK57628.1 30S ribosomal protein S13 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MARIAGVDLPKKKRIEYGLTYIYGIGLFTSRKILDKVGISYDKRVHELSEDEAAAIRKEIQENYMVEGDL

RKQVAMDIKALMDLGSFRGLRHRKGLPVRGQKTKTNARTRKGKRKTVGAKS

>AHK57627.1 50S ribosomal protein L36 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVRPSVKKMCDKCKVVRRKGVVRIICENPKHKQRQG

>AHK57626.1 translation initiation factor IF-1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKDDVIEIDGTVLEALPNANFKVELDNKHVILCHIAGKMRMHYIRIMPGDKVKVELTPYSLDKGRITFR

YK

>AHK57625.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRKSKFGTKEIKILGLSSLGGTLEFYDFIIFVFFAEYIANVFFPKDMSEFWALLNTYGAFAAGYLARPLG

GIVMAHFGDKFGRKNMFMLSILLMVLPTFVLAFIPGYETLGFLAPVLLILIRIFQGIAIGGELPGAWVFV

REYCQEKQKAFFLSCLNSAMALGILLGSIVFLIINAFFSIEEIAAYAWRIAFFVGGIFGIISIYLRRFLQ

ETPVFKQMKKESSLSSFPLKDLFKEKDIVKNLFSSMMMTWVLTGCVIVLVLLMPKFMPSILNLSGVEGSY

LQILGILGIALGGAFMGYLVDKFGLFKICIFFSLTFVFFSFLYFYALYELKNLVLVCILYSIICFLGGIN

VFAPILMSEVFRAKIRFSGISFSYNISYAISGGITPQLVFWLNTLASKNENPFLYGMSIYMIFLALLAIC

AVFIVKDKIKF

>AHK57624.1 multidrug ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPFIMELLKQNKLKLISFLLFSFITSAVGVLTLVFINDYLLKNAQNIPIFYFIVLLLIFFISSTIVELGL

SIFGQNFIFKMQRRVVKQILDTPLLRVAKVGKARILASLGSDVRNISFGLLRLPDFLQSSILILCTSVYL

CYLSPQIFALCVVWIMVIFITNNFLMMKVYQYFRKARENDDALQNNYQNILDGHKELLINRDRAKLYYED

EFENNARLKKKNSTLGNLFNNLSNNWTNVTLLALVGVEFYLALKFEWASVADATTIALSILFLRTPLVSM

IGSFPTLLLAKIALDKIAKLELDDYIEGFKKTHYISEWKKISFRNTQFAYEENFHLNPVNIELKKGELVF

LIGKNGSGKSTFCMLLTGLFKPSKGGIYVDDTLIDDKNLDEYRSLISAVFSDFHLFTKTLNKENFASEEK

IAFWLEFLELKNKTSVKDNELTLTKLSTGQKKRLAMLIALLEERDILVLDEWAADQDPVFRRFFYKKLLP

LLKEQGKTIFAITHDDAYFDSADRIFLAQNGEISELKGENIKELAKNLVEKFD

>AHK57623.1 globin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKEQIQIIKDCVPILQKNGEDLTNEFYKIMFNDYPEVKPMFNMEKQISGEQPKALAMAILMAAKNIENL

ENMRSFVDKVAITHVNLGVKEEHYPIVGACLLKAIKNLLNPDEATLKAWEVAYGKIAKFYIDIEKKLYDK

>AHK57622.1 peptide ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLRWFVLLFLLFLNLEAKIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKS

WDISKDGLVYDIFLRDDVLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLF

KPYPAFLDALSIGMLPKHLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLI

IKHIFDPSIASAELKNGKIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALN

YAVDKESIVKNLLHDYAFVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEF

EIWAMSNDPLRVSLAGILQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQD

SALNDEGWNFGHYHDKKVDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGI

KTRTLGHHGVGFTWNVYEWSK

>AHK57621.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKRLVFSIFIAFFSTFLCFVLLHFSKGSIAYANGVNSQSKEFVQRIEQNLGLDKPLLEQYKIWLFKALK

GDLGVSFLSGESVLKLIKERIFNTFILGFSALMLLFLLSVFLALLGYYYKESFIDKIITFLAFNFFALPP

FVLALLFVLIFGIFWKILPVMGSSDIGFEDDFLNRLEHLILPVLVLVLSHLALFLRIARNFINESFSQIF

IQNLYARALREKDIYFLVLKYSLSPIVAYFGGSALSFMMGTYVVESVFAYKGLGSLLFKSIIFKDYPIVL

ALIFFSVLLAAFFTFLSDIVARILNPRLRRLDFV

>AHK57620.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFKFLIILAPLIFLFLCALFAPFLALFDILSTHLENLHQAPNFTYILGTDFLGRDLFSRLLFALRNSLII

GVGGSLLSIIFALCYLFLARCFFYVFCMRILEFFLALPAFLLMMFFQSMITSDVFLMIFLIALIHWCFIA

RIIESELKRLENLDFYKANIVLGRTKFRAFFKDLIPALKTLIFTLFIFNIVHAIATEATLSFFGLGLGFE

IPTLGTLLSESSKAVFIGAWWMILFPLLSLLLLFLPLLWLGNFLQKIWGIRS

>AHK57619.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVRNLNISSKNNLLLKDINLDIKTGKTLMILGQSGVGKSLLGKALVRLLDSNFTISFDELSFHNSCIFN

FNKEELRNFRSKVALVLQDAELSLYPYLDIGNLCHLVLKTHTKLKQKERKDYAFSYFQKLGFENLDRLWH

SYANELSLGMARRVSLALALLNQPQILICDEITASLDKENASKIISILKELKNTTALVCITHDLNLVNSL

ADEILMLEKNSSNLYSLNEFLRYYNA

>AHK57618.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKVCNLSKFYELKKHWYLKKERHIIFDNVNFSLNENDNLIILGKSGAGKSTLARILCFLEDPSEGEVWY

ENLNLHKLDKNKQRLLRKQIQYCFQDQKMALNPYKKIKNLIQDGLENFNLQKNDDLILEFFDFFSLKKQI

LEQKSYELSGGEATRVGLIRALVLNPKLLILDEITSAFDIKTSKEILTFLYDYQQKNNISYIFITHQSDL

FYKFNHKKLKL

>AHK57617.1 NADH dehydrogenase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSHIDASHPYFGIFLMLVLASVIFFGLVFLASKIGNNFAAKNRKKLGLGIYECGPIPVKQANKINSQFFI

IALIFILLDIEVVFLFPWALIFKDLGWFGFLEVFVFIVLLGVGFLYAYKKGAFAWQSIK

>AHK57616.1 NADH dehydrogenase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAEHQVNYASGLPVVLTSVDKLVQWGRSNSLWALSYGLACCAIEMMAAGGSRYDFDRFGTIFRASPRHSE

VMIIAGTLCKKHAEFTRRLYDQMPDPKWVISMGSCANTGGMFNTYSTVQGVDRIIPVDIYVPGCAPRPES

FQFALMILQKKIRKEKASRKIAPKRLI

>AHK57615.1 NADH dehydrogenase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRKYSDKKNAQTQNYYKDRFYHAPHTVKSDVNESVFKEDFEVLKTQVEILNSFVELDFWVIEIKKEDNVK

TLQMLKTLGYLSFTEASAIDFIADKNGFEVFYQLLNLEKKLRVRIKTFVGVKERLQSVAHVFKGANWSER

EIYDMFGIFIINHPNLKRILMPDDWFGHPLLKTYPLKGDEFARWYEIDKIFGKEYREVVGEEQRDSGFAD

DKDTLNFARLYHEVPKGGQKKEISFKQEYQEDEGVAFVKKVKRDEAKILEKRR

>AHK57614.1 NADH dehydrogenase subunit D [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQIPSKLKPYYENIAFEQEDSKMIINLGPQHPSAHGNLRLILELDGEQVVKARPCIGYMHRGMEKMAENM

IYQEFIPTTDRMDYIAASANNYAYCAAVEKLCGLEIPRRAAVIRMILLELNRITSHLLWLATHALDIGAM

SVFLYCFREREYVLDLIEKYCGARLTHSSMRIGGVMLDLPENYLEEMLAFCDKFPNDLKDYEDLLDDNRI

WRLRTENVGVVTKEQALNWGCTGVMLRGSGIKYDIRKEEPYLLYNEVEFGVPYATQGDSYARYKVYMQEF

RESLKILRQCAMLYKDTSPEILATHPEYVSASKEQILTQNYSLMQHFVLITQGLKPPKGEVYVPTESPKG

ELGFFIHSDGTGRPYRLKARTPSYWHCAFFEEMLVGTYLADVVAIMGNVNIVLGEIDR

>AHK57613.1 NADH-ubiquinone oxidoreductase chain E [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRRVDLRKSKELFEDLAQIIKEAKQGEVLVVLFEIGDFSPVEKSFSFVKEQGCELLNSLKFNQVDWTIVI

KKERV

>AHK57612.1 NADH dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIYDNALCFLDMPSLKNKNLCEKIGVNSINISCLEDKNLKAKFYKCEIASLSFVLALLCKLSDEGQFCDL

DEGYLSAESCFGEEEAGEVLAFLKEVKYLIIDKNIHSYKDSENIKYFLNFLSVKYGLKILDSDEEECDFK

KAKLNTLKELDNYDGLVLFRANLQDKNLHCSKQFLQIAKCKDQSEVEILAKDFSFKTKLCLDENLQGTIA

FLNYENNGFDFTPIRIKEAK

>AHK57611.1 NADH dehydrogenase subunit G [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTVKINGIDCAFEEGEYILNIARRNDIFIPAICYLSGCSPTLACRMCMVEADGKKVYSCNTKAKEGMVVE

SDLQNLWDERNEIMQAYCINHPLECGVCDKSGECELQNFTHKSRVNVQKHWIKDTHKPHKHWGMINYDPA

LCIVCERCITVCKDKIGESALKTVPRGGDSVDNSFKESMGKDAYAIWTKFQKSLIGPANGDTLDCSFCGE

CTSVCPTGALIGSKFQYTSNIWELKRIPASNPHSSDCELMYYDIKQSGISNQKEKIYRVSNDFAFASLNK

AARFAFDTQNEADKDEKAFKELVELFEKNEIKNIKFNSFITNEEALILQNLKKKFNLSLINEEALKFKEF

LQEFIANSGEFYSANTQDITKSDFLVVAGMLLRYDAPTLSYKINNALVMNKGSGLYFHPMEDMGIAKYSK

NFIPHIHKNGDEEQILYFLLQKFSQDEGIKTHLAEFFVSENKEIEESINEEVVEQVIEKDEEGNEIQKEV

KKVVPKKVKKIIEVQRSVFAKNLGIDEDKLEDLLLKKANFTLVAGSDFYFHKNAKKLAKLLALIQNTTPF

KVFLNPTHTNTLGVAMICDLDNNTQEGKTLGYNEKGDFSFSYEEHANLASASLNQQEGTFLNYDKRVVPT

NAALEFKGYFLNDLANALGFDEEYTINYTKRLPINKGFSPIDFDHLDNFYTNAGDCKRGYELNLECFKQV

AKKEFISPNFENLSLKEDEILLYSANPSYQFGRFSNRASAINEVIFLGVSENLAKEKNLKDKDLVKLKIK

DKELSLSVRVDKDIKNGAFLPYFDEKLDTLSFFDERFVVANLEKLGANHE

>AHK57610.1 NADH:ubiquinone oxidoreductase subunit H [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSDFAFFALETLIKCIIIIAIFASLAGLATYAERKVLAYFQRRIGPDMVGPFGLIQLVADMIKLFTKEDI

IPSNSQKFIFAIAPLISAICAFVSLAAIPMLPEFTLFGRVIQPIVADINVALLFVIGTSGLCFYAVFLGG

LASNNKWSILGAARGLVSIISYESVGALALIAIIMLVGSFSLVDINNYQSDGFFSWLIFKQPLAFVLFII

ALFIETNRTPLCLTENDAEIVAGYGTEYSGLRWGMFFIGEYTSMIAGAILVTLLFLGGFNSFWIIPGWIM

MIVKSSFIFFWYFWARAAFPQLRPDQVMKMCYLILIPLAVLNLLITALTVLL

>AHK57609.1 NADH dehydrogenase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNYYLVDEKRKTPVSTWEKISQALRRSVKLELFVGLFVMMRELLKRNNSATIKYPFEKVKLDNRYRAVH

RLMRFIESENERCIGCGLCEKICISNCIRMETSLDENGRKKVENYSINLGRCIYCGFCAEVCPELAIVHG

TEYENAAEQRSYFGYKQDFLTPIDKLKNQVEFEGAGSLRKDANLWVKKTPNYYDVMIERALENQNTQEQG

ENK

>AHK57608.1 NADH:ubiquinone oxidoreductase subunit J [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIENLAFVFFSVVVLGFFGIAVLSKNMLYSLSALAGGMVFLSGFYFLLDAEFLGVIQIIVYSGAVLGLYS

FAMMFFDASKEFKEQLKAKKSFFTLVVLSTILLLAMLIGFKYQNISTDLPLNDPALFDFNKQLALAIFSK

YLLAFEFIAILLLIALVCAIVLTHKELTKEKQ

>AHK57607.1 NADH-quinone oxidoreductase subunit K [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIEKYFFVAILMFVIGLVGILKRQNLIMLFISSEILLNSANLALVAASKMHNDLNGQVFALFIMGVAACE

VAVGVALCVLWYRRKGTLELKSLKEVEA

>AHK57606.1 NADH:ubiquinone oxidoreductase subunit L [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNLALISLFSPFVAFLFASCFALSEKKQFVGIICSLLVALSAFCSLYLLFCNEAFNVSLFEWFAGVNFG

FDIDAISLTMMSVVGIVATCVHFYSIFYMAHDEGFNKFFAYLGLFVFSMLFLVMSDNFLGLFVGWEGVGL

CSWLLIGFWYKNDTYSFAANEAFIMNRIADLGMLLGIFWLYLQAGTLKYDEVFSMAQSLDHNALILIATC

LFIGAMGKSAQFPFHTWLADAMAGPTPVSALIHAATMVTAGVYLVIRASTLYDLVPEVSYIIALLGAFVA

IFAASMALVVRDLKRIIAYSTLSQLGYMFVAAGLGAYGIALFHLATHAFFKSLLFLGAGNVMHAMNDKLD

IKKMGGLFKPLKITAILMCIGSLALAGIYPFAGFFSKDLILGYSFISFHHGIFLVLLIAAFLTAFYSFRL

LMLVFFTPARHDEHPHEASKIALLAMSPLMVLAIIAGFFEHSFFEYLSTKLVFIDAQNQIVMICASVAAI

LGAILAIFAYKNSWFKESIEENKIHKLLSNDYFIPQFYHQFIVSKYESLCAILKHCDLYIFDRIVEKIAL

YSQNISQKMIMPNSLNLMLRFLVAAFVILLILVWMV

>AHK57605.1 NADH-quinone oxidoreductase subunit M [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNYLIFFPLISAFVVLLLNRGGVKVFSVVVSFMILALNLDIFADFLQGVSFDYNLSFKILKFFSFHVGV

DSIALVLILLSSLMIFLSFLFLKLEQKALISCIFFLEFAIMGLFSAKDGLLFYVFWEFSLLPLLYIMGVY

GKDFRAGVKFFIYAFAGSILMLVALIYQAYLNYQLLNIFTFDLEIWKNNASAVNFTEQLLLFGAFFIAFA

IKAPLFPLHTWAPKVYANSPILVSVMLVVFKMAPFGFLLFCLPLFPDASVYFMPLIVALCIVSIVYNALI

AYRAENIKELIAYSSISHLGVMILGIFSLNALGISGAVFYMFAHGIVTGALFLMVELLYQRYHTYDISFY

HSLAKKAPLFSIFFMLILLASVSLPLTVSFVGEFLILLGIAKINLFYALLAGLVIILGAIYMFAVFRKIF

FMQKQSFIEGFSLLFREIVALVCIVVMIFGLGLMPNILLKPIQKDVDNLIKTMNIRAVEQNTLDFLSKIG

EANVK

>AHK57604.1 NADH-quinone oxidoreductase subunit N [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNNFLNLELLNISLSYPFLFLITTAIVLLLCSGFWKFHRSFYIGISSLSLIVSAFLILNNANAQGLEAK

AFLATLNNDIVSFYASLVILCFSFLYLLMQKEENQGEFYALFLFMIASLLLMVSSSNLVLIFIGLESSSL

ALYTLIAMRGSDNAISSAIKYFSVAAVGAGFFVMAVAFIYLKTGTLDLSANLALKNEFQKDPMLLGAGVM

IFVLCAIKLSLAPFHFWLKDVYYAAHTNLVAFISVVPKVAMLVVVIRLFDFLNNTGFEYIIIVLAIFSML

IGAFAALSQNNIKKMFAYSSVVHSSLVLVACIPLLKEQNFDGILLAIFGYWTLFAFANYAVFMILSNYEN

NSYESLNGLLVKKPLIAFCLSISVLSLAGIPPFGVFWGKFMILNTAILNGYWYLALFVALSSVIMLYAYL

KILIHALFMKNDRVHNIKFSFIQNFILAFCVCVSTFVILLML

>AHK57603.1 paralysed flagellum protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRILFLILLSFLNAFAFELVLNTGRENNQAFAVLHASNDLEFTCQKFITEAKVHFECDIVGMVDNKLKDQ

SFSAFDLKFIQEAQKIKMIILPKIQARMFDTSQNIYIDKELSSSSSHKSKAFTFIFTPELAPIKDYDGLD

FNINFPHESLPYVGALDLNSDPVVIPQSADINTYLRIKKEYDKANYNQVVIDAQNAINRYRGSIFTSEFI

LYKLRAQNKLYTQDPSMRDQQILEKMIDDAKNWTRTFTSDKNFSEVLHIMLRTYIALAQRADVEYTMSIL

DNEQPNNYFTQLSKLDYADYIYNLNEKEKAVNIYENTYFNTKNLDLAARAAMSLAKNLLSNEQVNKAIEY

INTILKANPEYFGKDIPRSLELAKLFNQKGQFDISASIYEDAFAKMSKLDPSYEETLKDLALVLSHANRS

SDAKKYLDLYMDDYLDGKYLDEIKKASDEVFFALGDNNASFLHQRYTDLMKQYANKDENIANKALDEDVA

LYYKEGNFSAILAYKDLIESKKIPNATQFLEKAAINDLKNAIKADNCINAANIFMRFSAYDIGQKIENKK

QMLACLIRTSNVEQALDYIDKNYNEDSIFYGLQKASILFDNKQYPQVIKISKDIANSRILKSDDENFKAY

YLQFLSLLRLNDYNQAIKILQILESFPMNFSMVEAYDALLSYANDHNMQTTILTYAPKAIDYQNFKGINL

FSPNLEFIYLDALTKINKNEESLAVLTDLLKLKLSDEDRARALYIQALTYERMQNIQAEKESLKQCLEIK

SASNWQNLCKSKNQILNQ

>AHK57602.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNSIKIKLSLIANLIAIFALIVLGIVSFYFTKTSLYESTLKNQTDLLKVTQSTVEDFRSTNQSFTRALEK

DIANLPYQSLITEENIINNVGPILKYYRHSINALNVYLGLNNGKVLLSQKSNDAKMPELRDDLDIKTKDW

YQEALKTNDIFVTPAYLDTVLKQYVITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTPGNTFLFDQKNK

IFAATNKELLNPSIDHSPVLNAYKLNGDNNFFSYKLNNEERLGACTKVFAYTACITESADIINKPIYKAA

FIQAIVVIIVVVFSVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFGQISNAINE

NILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARVGSDMNAIH

KIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLTTSSNSQAQ

SLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAGEHGRGFAV

VADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNVEIANESAI

ISSTVSDIANNILEDVKKKRF

>AHK57601.1 NADP-dependent alcohol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQYKILENNRIASKGYAMLSKDAKFTPFEFSRHAIGDNDILIKILYAGICHSDIHTARSEWGEATYPCVP

GHEIAGEVIAVGKNVSKFKVGDYAGVGCMVNSCGECDACKRSQEQFCENGKTIFTYNSCDVFHGNENTYG

GYSNNIVVSEKFAVCVPKDAPMEKVAPLLCAGITTYSPLKFSNIKEGSSVAVAGFGGLGMMAVKYAVKMG

AKVSVFARNENKKADALAMGVSSFYTSCDKNAVKERFDLIISTIPTPYNPAIYLDLLKFGGEMAIVGLPP

HEVAPSISVITFVHKAGKKVYGSLIGGIAETQEMLDFSLKHGIYPETELITPQEIDKAYENLTSGKAKFR

YVIDMTKE

>AHK57600.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKENSPCNFEECGFNYTLALINGKYKMSILYCLFRYEIVRYNELKRFLSSISFKTLTNTLRELENDGLI

IRKEYAQIPPKVEYSLSKRGQSLIPILQAMSKWGKKDKKGKKCLN

>AHK57599.1 NADPH quinone reductase MdaB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNILLLNGAKEFGNSKGQLNLTLHNHALEILKTLGYEVDQTHIDQGYDPKEEIQKFIKADAVIYQMPAW

WMGEPWIVKKYIDEVFGLGAGVLFKNDGRTHENPSKNYGKGGLDHGKKYMFSLTWNAPLEAFNDKNEFFE

GKGVDMVYWHLHKAHEFIGMKALPTFMCNDVVKNPQVEKYLNEYELHLKKIF

>AHK57598.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTRTKYLYILLVIAMFLWGSSWPTSKILANYTDTSIITFWRFFFVVLGSFFVLNFLKIPLKIEKTALKWV

LIAGVLNGLYAFVFFIAIKHGLAGKGGVLVTTMIPIFSYLIFMIAIFFQKNKKSTHKITKSEILGLFLGL

LSGFCLLNLGSLEDLFGKFNILFLTCSFIWALMAVFNHKAKGAHPLAINFYINLISILMFSWILFDVKSY

EIFHFEFKFWISMFVVAFLSTIIGTSIYYYGIHILGSVKANSFVLITPASALICSYFILDEVPNALTLLG

CALAIGAIYFINIYGKKA

>AHK57597.1 allophanate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSIKIIEASINSSLQDFGRKKFAKFGIARSGAMDEDALRMANILLGNKQDEAGIELCLKGGKYEFLDENY

FVLSGAEFEAKLDNQKIKTCKVYQANKGDILELDLAKIGFRGYLCVAGGFEVKSFLNSKSSDAKMGAGVF

EGRALQKDDILNTHNTFIPFNLEARECENPLFKSPKEPIIRVILGTNEDAFTQKGIETFLNTTYKVGLKS

DRMAIYAESSESIEHKNSADIISDPAVFGSIQVPKSGIPIILMAGRQSTGGYTKIATVIENDLSLLAQAK

LGSSFKFQSISMQEALELYKQREMKFKAMDQKINLDFENLI

>AHK57596.1 allophanate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFSVHFSGSKALLLRFEQEISPQINAYVLSTEQRIQKALKEGEIYGIDELVSAYASLLIYFNPCVLSLNS

LLDFLEKIKKDIKLAEQNSSLCIEVPLCYDEEFGLDLEFVCKHNQISKEELISLHTKPYYLVFMLGFMAG

FPYLGGLDERLFTPRLSSPRAKIEAGSVGIADKQTGVYPISSPGGWQIIARTPLEFFDKEDEKNPTLLKA

GMFLKFKAISKDEFFDIQEQVAKKVYQKEIYEYKNH

>AHK57595.1 LamB/YcsF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFKVDLNSDLGESFGAYKMGMDEEILKFVSSVNVACGFHAGDPCVMDETLNLAKQNGVCIGAHPSYPDLL

GFGRRNMQISFEEAKNYALYQLGALFGFAKAKGMKIQHFKAHGALYNMAAIDENLALALCEAVASFDENI

IFLGLSNSAMNEAAKKKGLRYANEVFADRAYNDDGTLVSRKLEGALIHDENLAIKRVIKMIKESKVTSIN

GKEIDLKADSICVHGDNAKALEFVKKIKENLKKEQIQICALENFI

>AHK57594.1 tungsten ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIISLALALALSASAAELKMATTTSTDNTGLLDALKPLYEKESGNTLKWVAVGTGAALKMGEDCNADV

LFVHSPKAEKEFMKKGFGVDRTPVMYNDFIIIADKSLASKFKGKNLKESLELIKNEKLTFISRGDKSGTD

NKEKSLWKNLGGVPEKQSWYQQSGQGMLASIKIAEEKKGVILTDRGTYIKYEANEKGKPNLVIVNEGDDS

LKNFYSVIATNPKHCKNVNYTEASKFIKWVTSDKTLNFIADFKLLNKPLFVIDAKTRKD

>AHK57593.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDYIFDGFKQALFLLFNADESVISAIKTTLLSSSISIVLALLIGFPLGFILGFFEFKLKRFIKLIVDTSL

SFPTVAVGLILYALISSRGPLGEFGLLFTIKALILGQFILALPIVIALFSNLIENMNKKHFLLIKSFHLS

PLKLVLTMIYELRFALISVVALAYGRIVAEVGVAMIVGGNIKYDTRTITTAISLETNKGEFASGIALALV

LILIAFCLNFITHKLKRT

>AHK57592.1 metal ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIEISNLFFNYQNKEVLKIKNLKLDTSKISILMGANGSGKSTFLRILKFLEGDFSKNISYFGNFKPNNKQ

KREIYLLFPEPILLNRSVRANFLFTLKTYGIKEDIEERIKESLMFLNLDESLLSKHPNELSSGQSQKIAF

AIALSVRAKYYLLDEPSAFLDKNTTLLFKKTILKMHENFNTGFLIASHDKHFLDSLAQKKLYLHSGEILE

FENTNVFELENQGVKFCNFIDFSNCKKYKDFKKPPSKIAIDPYKISFFNSKNIPKNNYDFILEKCYIIAL

RSRKSDVFIRVSCMDKILEFALEKQEFLRFDLKLYEELSLYFYEDAICFLN

>AHK57591.1 acetyl-CoA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNQNNQELFKPSKEFSRNARIKNLCEYYDLCDEAKEDFEGFWKRQAFEKIEWFSPFSRVLNEDKAPFYK

WFEGGTLNVSYQCLDRHMKTRRNKAALIFEGEMGDYEVYTYRRLLHETCKAANLLKKFGVKKGDRVVIYM

PMIPETAIVMLACARIGAIHSVVFGGFSPEALRDRIIDAGAKLVVTADGAFRRGKPYMLKPAVDKALSEG

CESVEKVLIVIRNNEPIEYIKGRDYVYNELVKNESYKCEPEIMDSEDLLFLLYTSGSTGKPKGVMHASAG

YILWAQMTMEWVFDIKDYDNYWCSADVGWITGHTYVVYGPLACGATTIMHEGTPTYPNSGRWWRMIEEYQ

ISKFYTSPTAIRMLHADAPNEPRKYDLSTLEVLGTVGEPINPSAWKWFYDEIGGTKSPIVDTWWQTETGG

HMITPLPGATPLKPGCATLPLPGIFAEVIDEEGNKKDEGEDGLLCITKPWPSMIRGIWGNDERYIESYFS

QAKKDGKAVYFSGDGAFYDKNGYITITGRTDDVVNVAGHRIGTAEIESAIAKHPSVAESAVVSILDTIKG

ESLFAFVVLSPASSCDLGGAIETLKELNDILRVEIGPIAKIEKILYTPGLPKTRSGKIMRRILRTIARGE

EIKQDISTLEDSKVVETIVKLAKAEFE

>AHK57590.1 UTP--glucose-1-phosphate uridylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLQTCIFPAAGYGTRFLPATKTLPKEMLPILTKPLIHYGVDEALEAGMENMGFVTGRGKRALEDYFDISY

ELEHQISGTKKEYLLDEIRSLINRCTFTFTRQNQMKGLGDAVLKGRPLVGDEAFGVILADDLCVNEEGLN

VMAQMVKIYEKYRCTIIAVMEVPKEQVSNYGVISGNFVEENLIMVNSMIEKPSPDEAPSNLAIIGRYILT

PDIFGILENTKAGKNGEIQLTDALLTQATNGMVLAYKFQGKRFDCGSVEGFVEATNYFYEKSKC

>AHK57589.1 glucose-6-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNNTLFFKQSEIHTISSYANRINDEVKSGDIGYYHLIDTSLNLIDESLQFIQDKEYVKNIVLVGMGGSS

CGVKALRDMLFNEKSNQRELFILDNTSSHSFNKTLEKIKLEESLFLIISKTGSTIEVVSLFKLLIEHFKL

DMQELKKYFVFITDKDSKLHQEGENLGIKCFFIPANVGGRFSILSAVGIVPLCFCGYNAKALLEGAKACF

EDFFTHKKDEILQKAYHYCTHKNANINVLFSYSDAFKGFNEWYIQLIAESLGKKQGYKRIGLTPIALIGA

RDQHSFLQLIMDGPKNKTVTFLKIKDAQKAPIIPDIHFKFLDSLSNKVNLHELLNAQCDATMHALIAENL

SVDVIELEKLDAWHAGYLMYYYELFTSTCGVMLGINTYDQPGVEVGKLILKNILNS

>AHK57588.1 DNA polymerase sliding clamp subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSVTKQLLQMQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEMAELFDSCAERVLQLGEKAITCQK

VLMENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLWMIG

ATLQGACKM

>AHK57587.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVLNFFYENHPKFEVSYERKNQISKPNIIIKGPRFCGKKTLIFNFLSQFKASEILFLDLYDTRFEKQSL

ERLADFLNENLQIKILCLYNLDFIPNLEKINIPIILSTNIKDLNVNGFEELELDYFDFEEFISVSKKNLP

INNLVGLFLQSGRSKFGEKNILLRQSFTLLELEILKYLALNLGQQISISKIFIELKKRLKTSKDSVYQAI

KKLENTYVIYTLKHDEKKLQKIYFKDFGLRNNLCISKDFSHLFENLVLSELFKFKEEFFYNKYFNFYSQI

SKIAYISSPTLDIDLIKLRAKKILPKALELGIFHVIFITLSSEDNFFEQGVKFEVISFDKFSLGF

>AHK57586.1 mannosyl-glycoprotein endo-beta-N-acetylglucosamidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKPIIIFFSLFLIPLFADDLKSGFGEEYYKLDIDQKRQIFFIKMNEMFDQSFKKIEQERAFIEAFFKDAY

KTGFRTSNQINLEKLITIKNKYRIENLYDFAEYKKRIQKIPKSMGIAQALVESATGTSRFAREANNLFGE

WTWGEKGLIPDLRHPDKKHKIKIFDSLQDSVDSYVLNLNRHFAYEKFRDARAKFESEGKEITGLEAIKTL

DSYSERKGYYINLITKIIKRYNLEKYDTNSNNT

>AHK57585.1 diaminopimelate epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFYKYCASGNDFVITNADRKEDRSALAKELCNRYEGIGADGFIVILPHEKYDFEWEFYNNDGSRAAMCG

NGSRAAAHFAHHINKINPNMSFLTGAGIIKAKVNQDKVEVSLGKIKSVQNTFEELGKTWQLCNTGVPHLV

HFCQNLDEFDTMLCQKMRQKYNANVNFVKILDENHLKVRTYERGVEDETLACGTGMGACFYLAFLNKKVQ

NKVKITPKSGEEVGFAYKNEELFFEGKVKYCFEANYNFF

>AHK57584.1 dephospho-CoA kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKIDRKI

LGEIVFNNKEAKKILENFTHPKIRAKILEQMQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPKELS

LKRIMQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNM

>AHK57583.1 phosphoribosylaminoimidazole synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKISYEDAGVSIDNGNTFVEAIKPLVKETFNDNVVGGIGSFAGAFRMPSGFKKPVILGATDGVGTKLRLA

IDAKKYDTIGQDLVAMCVNDLICNFATPLFFLDYYATAKLEVEVAKAVVSGIAKGCKMANCALIGGETAE

MPGMYAKDDFDLAGFAVGMAEEDEIDRSKFVKNGDILLALSSSGLHSNGYSLARKVLFESLKLKFDDKIE

GKNLIDILLEPTRIYVRDFLTLKPYISALAHITGGGLVENLPRVLPRGMGATIRKHHLKTPEIFYTIGQA

VEESEMYRSFNMGVGLVMVVDPSNVSKILENSDAFIIGEICINEGIVLE

>AHK57582.1 CRISPR-associated protein Cas1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSYDEAFKTLLISSNAKLNLELNHLVIKQDENIAKLFLKDINIIVLESLQISISSALFNAFAKYKIILLT

CDETHSINGVFTPFLGHFQSAKIAKEQMNVSAQKKAILWQKIIKNKILNQAFILKKHNKIEQSNELINLA

KKVSLNDSKNIEAVAAALYFKTLFGTSFSRDELCFENSALNYGYAIIRACIIRAVCISGLLPWLGIKHDN

IYNSFALCDDLIEVFRASVDDCVLKLKGESEFLSKDDKRALIGNLQSKINFDGQNYPLNRAINHYVANFK

NALLYEDELKIVKFDD

>AHK57581.1 CRISPR-associated protein Cas2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIEDKFMRVLLMFDVPTKSKKEQKLASKFRNNLIKLGYFMLQFSVYMRICKGLSSAKSSIENVKKILPPY

GNVRALIITEKQFDKMELLLGGIVFNEKVNNETNLTLFDIDSHGEFKYKNSNNEEIQINKKQEKYHQQNL

FEF

>AHK57580.1 molybdenum cofactor biosynthesis protein MoaA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLMSYEESLKILHSHIKTYEKIEKIALTECLGRILAQDIKAPKNQPEFPTSAMDGYAIKFEDQDKPLKIL

GLTPAGTMPQFSVQNGTCVKTFTGSLMSEGSDTLVPVENIRIENNTLFIEKKVPQAFAVRAVGENYKKDE

ILLKKGTRLNYSEIALLAELGFFHISVFIKPIVGVLSSGSEIKDLGEALENPAQIRSSNHIAIANLAKNL

NCDTRVFPLLKDDEKATFSTLESALQSCDILVTTGGVSMGDFDFLKKAIKEYEIIIDKADIKPGRHIKIA

KANEKFIIALPGFPYSAMVMFNLYTREILNSWLLQPKDYICKAFLQGSYKKKTPYLEFVACNIEFKNGRI

LANLEGKKEGSSAIINNLNNKAALMVVPKECEMLENESLVDIIFMP

>AHK57579.1 molybdenum cofactor biosynthesis protein MoaE [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKHFTLYQGSLDIPKIYSQWYEFSKDKNCGALLTFCGIVREEGGIEALSFDIYESLLKKWFDEWQKRVDF

DGISLLFAHSIGDVAIHESSYFAGILSKQRKLGLKLLNEFVEDFKASAPIWKYDVINKERIYAKERSTKL

CGAGLLKG

>AHK57578.1 molybdenum cofactor biosynthesis protein MoaD [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVKVEFLGPINKENLELEVKNLKELKEILQKDESLKEWLELCAVSLNDEIIFNENTKLKDGDKIALLPPV

CGG

>AHK57577.1 bilirubin oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNRRNFLKFNALTLASMGVAYANPMHDMHSMHKNHSINHDLDTSFINFAPKNLKLLDPKQFPQGEILKAL

PLLKNESKEKNIFRATLEIKENHIELIKGKKTLFYTYNGLVPAPKIEVFEGDKLEILVKNKLKEATTIHW

HGVPVPPDQDGSPHDPILAGEERIYRFEIPQDSAGTYWYHPHPHYTASKQVFMGLAGAFVIKAKKDALSH

LKEKDLMISDLRLDENAQIPNNNLNDWLNGREGEFVLINGQFKPKIKLATNERIRIYNATAARYLNLRIQ

GAKFILVGTDGGLIEKAIYKEELFLSPASRVEVLIDAPKDGNFKLESAYYDRDKMMVKEESNTLFLANIN

LKKEKLELPKNLKIFKPLEEPKEFKEIIMSEDHMQMHGMMGKSENELKIALASMFLINGKSYDLKRIDLS

SKLGVVEDWIVINKSHMDHPFHIHGTQFELISSKLNGKVQKAEFRAFRDTINVRPNEELRLKMKQDFKGL

RMYHCHILEHEDLGMMGNLEVKE

>AHK57576.1 carboxynorspermidine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFYEKIQTPAYILEEDKLRKNCELLASVGEKSGAKVLLALKGFAFSGAMKIVGEYLKGCTCSGLWEAKFA

KEYMDKEIHTYSPAFKEDEIGEIASLSHHIVFNSLAQFHKFQAKTQKNSLGLRCNVEFSLAPKELYNPCG

RYSRLGIRAKDFENVDLSTIEGLHFHALCEESAGALEAVLKVFEEKFGKWIGQMKWVNFGGGHHITKKGY

DVEKLIALCKNFSDKYGVQVYLEPGEAVGWQTGNLVASVVDIIENEKQIAILDTSSEAHMPDTIIMPYTS

EVLNARILATRENEKISDLKESEFSYLLTGNTCLAGDVMGEYAFDKKLKIGDKIVFLDQIHYTIVKNTTF

NGIRLPNLMLLNAKNELQMIREFSYKDYSLRN

>AHK57575.1 hypothetical protein N918\_07535 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGALMDLEKLRLARSLYYQCLGELFVFSFSEERLSKLQEYLKTMQECLFDENLKSNFDILLKHLDDENSI

QAFFKEYDLLFLSLKNSIPTTFSYIEEGFENSNPLLCVRQILVKSKIRRNEKFFKESEDSVGFCLLLMSE

FLRQNEDDLAKELFEKVINKSIDEFLGDVFMNKNANLYKEIASIASAFMEFERLCFEVEKPAKINSKKVQ

NDLSRSEFLRREANKQRRTREKSQGIS

>AHK57574.1 Tat pathway signal protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNRREFLKKSAFALGAAGVLGSTTLALAKDEERKDLVKGKSKKKEVLFQRSANWENYYIKAE

>AHK57573.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSSVGENIKLTRRSFLKMAALSSLATPLLARSETLREASADELKEAYEGSKKVKTVCTACSVGCGIIAEV

QNGVWVRQEIAQDHPVSSGGHCCKGSDMIDMVRSHVRLKYPMKKENGEWKRISYEQALSEIGEKLAAYRK

ENPESVMFLGSAKLNNEQAYYIRKFAAFFGTNNVDHQARI

>AHK57572.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTNHLGDIQRSKCIIIIGANPAVNHPVGFRHFLKAKEKGAKLIVVDPRFTKSAAKADIYARIRPGTDIAF

MYGMLKIIFDEGLEDTKYLDERVFGIDKIREEAAKWTVEEVENVTGISKELLVQITHEVAKNKPTTLIWA

MGLTQHTVGTSNTRLAPIVQMVLGNIGKFGGGVNILRGHDNVQGASDMACLSENLPGYYPLNEATWRYYA

KIWGVDYEWLLGNFVSKDWMHKTGLSLARWWAAALNGKDGNDAIDNAGTPLKALVVMGNGITSTAQQVKV

KEGLEALELLVLADPFVNEAGIIAERKDGIYLLPAATQFETSGSVTATNRSGQWRFKVVDPLYESMEDQE

ILFELAKKLGFYEDFTKTLRDEKGEIVWPENATREIAKAVRSIGLNGWSPERLKKHTLYWDKFDEVTLEG

KDEVAGEYYGLPWPCWSDKHPGSPVLYNTDIEVAKGGMGFRNNFGLEYEGESLLAKNAPLNSPIDTGYPQ

ITKDNIEKVLGITLSAQEKEKMGSTWSYDDSNIIATKCIEKGIVPYGNAKARAVVWTFKDKIPLHREPLH

SPRNDLVQKYPSFEDQKALYRVDTKFVSVQQAKDYSKEFPLNLVTARLVNLNGAGMENRASMYLTRLTPE

MFCEINPELAKEQDIKAGDMIWVHSPEGTKIHVRVKVNPGVAKDMIFLPFHFTGVMQGVDLTHNFPEGTK

PYASGESANTVTNYGYDIMCQIPETKGGLCRISKDGK

>AHK57571.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKVNFANLEKERLKFFCDNERCIDCNGCAVACDEAHELPIHIRRRRVITLNEGIQGKEVSTSISCMHCD

DAPCSIVCPVDCFYIRADGIVLHDKEICIGCGYCLYACPFGAPQFPKDSVFGNKGIMDKCTMCAGGPEAT

NSEKERELYGQNRIAEGKVPVCAAMCSTKALLVGESSKIEEIYHNRLMNRNYGIPNPSESLEWKIAYTGK

ERL

>AHK57570.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRKVFVTLLLSVVSLFAYGSERMGQDTQIWDFHRITNIPNYDTFGKLWTTLQGEYIATIALIAVIAVLSA

FALHYMVIGPKQFSHDGKKIYAFTLFERLFHFIAAISWVILVPTGFVMMFGEVFGGGVFVRVCKNLHAFA

TILFIISIIPMFLCWIKRMLPASYDIRWMMIVGGYLSKIKRPVPAGKFNFGQKSWYYIAVFGGFLMIITG

GFMYFLDFNSTAIQGLFGLTQIELLRISAIVHNFLGIVCAVFFGVHIYMAVFAIKGSIHSMISGYKEEEE

VYILHSYWYKELSNKKQIEPSFSYDPNVKI

>AHK57569.1 formate dehydrogenase accessory protein FdhD [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDPLFTTQILKYKGDESFTCNDTLVREIKLEIFINDEKVGALMATPVDEQALAIGYLMSENIIAKVSDIE

SIETKDDGMSVHIKAKIDKENLAKLNAEGVVISGCGRAHTANIDPEAIEASKISSDAKFSKDEILKQMST

FYTQCELYEKTGCVHTAKLFVDEKTFFIGEDIAQHNTIDKALGKACLAGVDLSQCFLMVSGRLSSEMVAK

AVMHKIPVLVSRTAPTCLGVMIARKFDLTLCGFARENKINIYSGEFRIHG

>AHK57568.1 regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDKNQEKEIISYMRELLNSNEKLDCGTAFKIAKKFNINIEKIGQLADENHMRIDNCELGQFGHLDFEKAK

IEVLKKIEPSLDEKRRIFCKDARDIAKEGCGLKSMRSALKTYKVDVKYCQLGCFKEKKGKQFIVRTKTWI

ENADGDLLFGRGKTELLELIGQTGSLLHASKLMGINYKKAWMHLQTLQKNSQEILVSTRQGRSKESGTKL

TPRAMELMENYSILQKDIEEYANKRFKELFLKGKK

>AHK57567.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFKSLNIGLKLIFSVAAVVVIGLVILISLITKQVSQNITKNTEDILASITKEYATQTQGIFGEMIALNKS

ISGTLTEMFRSTSKEDLDIDNITNIITNTFDNSAYSNFTYLYLIDPPEYFKEESKFFNTQSGKFVMLYAD

EEKDNKGGIKAIQASDEIANLQVVQDILKKAKYGENKVYIGRPIKMNLEGQDFDAVNVAIPIFDRKNQVV

GVIGMTLDFSDIATYLLDPKGQKYDGELRVLLNSDGFMAIHPNKNLVLKNLKDINPNKGAQETYKAISEG

KNGVFNYIASDGDDSYAAINSFKVQDSSWAVLVTAPKYSVFKPLKKLQLIILGASFIFIFVVLGVVYYCV

RKIVASRLPVILSSLESFFRFLNHEKIEPKAIEIRANDELGAMGRIINENIEKIQISLEQDQNAVDESVQ

TAREIEKGNLTARITKNPINPQLVELKDVLNRMLDVLQSKIGSNMNEINRVFDSYKALDFSTEVFNAKGE

VEITTNILGKEIKKMLLASSNFAKDLANQSEELKNSMQKLADGSNAQASSLEQSAAAVEEINSSMQNVSG

KTVEVASQADDIKNIVNVIKDIAEQTNLLALNAAIEAARAGEHGRGFAVVADEVRQLAERTGKSLSEIEA

NINILVQSVNEVAESVKEQTAGITQINDAIAQLETVTKENVEVANVTNNITNEVNQIAAAILEDVNKKRF

>AHK57566.1 regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIDCRNLSCPQPIVETKNALEKLQENEILEIVLNSIISKNNVVKFLNSLNLNPVVDENAQEFCIKVQKK

NFDSSEVNIHDYNVLFLKTDKVGEGELGQNLLVGFLSTLKNLDHAPSKILCVNESVLINVDENHKAHLAM

KELENLGIEIISCGACLEFFNKSKELKIGNIGNAYEILNELFGKAKIITL

>AHK57565.1 segregation protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKTPALLSDIGNNEDASVYQISPDLALVQTLDFITPIVDSAYHFGAIAAANALSDVFAMGAEVINALNI

VGFDTCNHDLNILKELLEGANDKVKECNALVVGGHTIESTELFFGLSVTGKVHPSKFIANNTSKIGDCII

LTKPLGTGILSTALKAQMLNQKHLDIMLKNMIELNYKASQIALKFHPSAMSDVTGFGLLGHLKEMLNKNI

SFEIFESELPFLDGVKEYFNMGLIPAGAYKNLEFIKELTPDLNEEKLLLCDPQTSGGLLISISEKDSLEC

LKKLEDENIQAKIIAKVVNKQENDIIIS

>AHK57564.1 1-pyrroline-5-carboxylate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIQKALALAEELQGQIEANISNSEKEFHAKMQKLLNNPKNKVMLIELLDRSFRCKDKNASFELIEYTLSK

YGIADFFSTFEKFLLFSFLNFGKFAPNLSVPFFVKHLREDTKAMVLDANPSVLEPHIKKRKEQDKITLNV

NLIGEEVLGEAESKYRMQKYEEALKSSYITYISIKITTIFSQINIIDFNYSKEEVVKRLDYLYALALEEE

KKQGVSKFINLDMEEFRDLELTVAAFMESVAKFDIKAGIVLQAYIPDSYKYLKKLFAFSKERVLKGMKSI

KIRFVKGANMESEETIASQRGWELPTFYKKIDTDSNYNKMLDFILEGDNYKYINIGIASHNIFEIAYAYT

RISEVGALDSFTFEMLEGMSLQCSYELSKMHDLILYTPVCDEAHFNNAIAYLVRRLDENTSEDNFMRYFF

NLKVGDKNWNIQKELFLKSLEGIKTLDNTTHRKQDRNKESNIISSYEGKKFSNESDTDFILAQNRVWAKE

IKTKYENLKDYDVYPVIGELDFKAENLNVLEVKDKIEDRVIGKAYLAGEKEIKQALEVAKNSKFTQKSHD

EIYQILAKSAKLMRERRGDLIGLAALEVGKTFLEIDPEVSEAIDFIEFYPHSLEELKKQNPKVTFTPKGI

GVTIAPWNFPIGISVGTIAAPLAAGNVVIYKPSSLSTLTGYMLCKCFWDSGIPKDALIFLPSKGSDISKY

LLIDEAIKFSILTGGEDTAYAMLKANPTLLLSAETGGKNATIVSKFADRDSAIKNIIHSAFSNSGQKCSA

TSLLVLEEEVYHDEEFKKTLVDAASSMAVGNPFEFKNKLGTLADKPSSKVQKALDELQPYEEWALKPKFL

EDNPYLMTPGIKYGTKKGDFTHMNELFVPILSVMKAKDLKEAIDIVNSTGYGLTAGFESLDEREWEYFHT

HIEAGNIYINKPTTGAIVLRQPFGGIKKSAIGLGRKVGIYNYITQFLEIKQEDFDDHLIEDKFSKKLAQI

DLKEAQDFINNLIKMSQSYAYHYKNEFSVSKDYVNIRGEDNLFSYTKIKNMVLRLCGNESLKDVLGVVLG

ANIANIDLSISYDEQDVSMIERIVQSIGAKVLFLKENKENFIKSIKEYERVRYLAKPDVNDEIYKEAAKL

AKIIIREKPLLNGRFELLNYFNEKALSISFHRYGNLGIRAIS

>AHK57563.1 sodium:proline symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEVVQINTPIAVMFVVYALLMLYIGFYFYKQNKNSEDYFLGGRTMGPVISALSAGASDMSGWLLMGLPGA

LYVSGFIDSYIAIGLTIGASLNWIFVAKRLRIYTSVIANSLTIPDYFETRFDDDKHILRIVCAVVILIFF

TFYVSSGLVSGAKLFESTFGIRYDYALTTGTIIIVAYTFLGGYKAVCWTDMIQGLLMMMALIIVPLVMLY

HLGGFGEAMNIVREIKPQALSMGEGVGIVSIISALAWGLGYFGQPHILVRFMSIRSTKDIPMATFIGIAW

MAVCLLSACMIGILGIAYVHKFELSLQDPEKIFIVMSQLLFNPWIAGILLSAILAAIMSTASSQLLVSSS

TIAEDFYKKIFREDAPSHIVLNLGKLGVLLVAVIAFLISTDKNSSVLSIVSYAWAGFGASFGSVMLFSLF

WSRMTRVGAILGMITGAATVVLWKNFANSGLYEIVPGFLVASVVIIIASLFTNVRSGTKAAYEKMLKEF

>AHK57562.1 hypothetical protein N918\_07465 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKITYSLNLQGEACPYPAIATLDVLPKLKSGEILEVLCDCPQSINSIPQDAKNRGFKVLEIDQSGPTLRF

LIQKP

>AHK57561.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNSFKQKYLINFWDNSRSMIALGILSAVYFGIFGGVWAVTGEMTRWGGEFLELLGMNLDGYSYYQKQNLN

GTPLTRTDGIMLIGMFIGCLVAALLANKVKFRLPASNIRIFQAIVGGILSGYGARLAFGCNLANFFTGLP

YFSLHTWLFTVFMVLGIYLGVKICNTSFFKPKAKLERVNKENLPLNKQSLRTKLYFNLGILLFIAFLVWV

FYLVFTNGNISTQNKQSLLALALIFGFVFGFVISRGQICFTSCFRDLFLFGRDNAIKGALIGMIIASLIA

FAFILQGHTSKLIELSPAVAVGAFLFGFGIVFAGGCECGWTYRAFEGQSHFIIVGIANIIGTMILALSYN

FLPKAFKEGIKINLLTEFGNLNGFFINLILFILMFVFVVFYKKHFFKNQLKG

>AHK57560.1 adenylosuccinate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKADIIVGIQWGDEGKGKVVDKLCENYDFVCRSAGGHNAGHTIWVNGVRYALHLMPSGVLHPRCINIIG

NGVVVSPEVLIAEMAQFENLKGRLYISDRAHLNLKHHSLIDIAKEKLKGKNAIGTTGKGIGPSYADKINR

TGHRVGELLEPQRLCEALIKDFEANKTFFEMLEIEIPSAEELLADLKRFNEILTPYITDTTRMLWKALDE

DKRVLLEGAQGSMLDIDHGTYPYVTSSSTISAGTLTGLGLNPKEAGNIIGIVKAYATRVGNGAFPTEDKG

EDGEKIAQIGKEIGVSTGRKRRCGWFDAVAVRYTARLNGLDALSLMKLDVLDGFEKIKICRAYEYKGMEI

DYIPSDLENVQPIYEEMDGWDKVFGIKDYDLLPENAKKYIARLEELAGVKVKYISTSPERDDTIIL

>AHK57559.1 hypothetical protein N918\_07445 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKSKYNSVVKVRKQQLDKAESNLNQAKQRQLEHEKAYELSRQECESLGVLPKSGSIAELRSNLSMAQVGR

EALARAKEKVELSKKEMNHYQFLYQKAHLDYEKMKVLEAEEIKQKQKELAKAEEKFLDEIAISRFFKGEK

DD

>AHK57558.1 hypothetical protein N918\_07440 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKKFILLVFISSVVFGAEQDCEQYFEARKAQIELQTREFDEARQSLEAYKASFEALQKERLENLEKKEA

EVNATLAKIEELKLENARLVEEQQKILNSINDKTQGRVKEIYSQMKDAAIADVLSQMDAEDASKIMLSLE

SRKISGVLSKMDPKKASELTLLLKNLDNNASN

>AHK57557.1 competence/damage-inducible domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRIKLPHIPYIANKMMLDIANSSFVEIKDQLEKLKVCIIEVLEKDILNERKLDERVKELLEQQEDEMELM

QVDRKNMFWLVKKKLAPEFNVILDSEDRHNHLAHQILEELVENDYINFIVSENRVKNLIFSSIESYLKIY

EKLEDEVYEKISNYKTKPIPGSEEYDLIFEKLYQEELRKKGMF

>AHK57556.1 carbamoyl phosphate synthase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKAYIYLENDIFLSAKAFGKSGTFFGELVFNTSLTGYQEIISDPSYAGQFIVFSMPEIGIVGTNENDNES

KEIFASGVLMRELSSSFSNFRAKESLQDYLEKHGKIGIYELDTRYLVKMIRNNGNLRAVISTEISNKEDL

KIALEKSAKIDEVNFVKEVSTKKNYSHKQGVWNASFQKFNDAKRSEKKVAVIDYGVKTNILNELVEVGFE

VEVYPYNVKADELITLYKKGEIQGVFLSNGPGEPRILKQEIAEIKKLAEAKIPMLGICLGHQLLSNAFGY

ETYKMKFGQHGANHPVINLDTKTVEITAQNHNYNVPEELAQVAHITHRNLFGDNVEGVRYKDYPIISVQH

HPESSSGPHESKYIFKEFMNLM

>AHK57555.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSIDFLAIISVAFLSSFGHCYSMCGGFNLLFINLNSKSNNLFLLTFIYNLFRIFAYIVLGIIFGTFGNIL

AINAKVQSLSFFILGIFMMILGFALIFRGNMLSFIENNVFFDSFVKKIIKKSKNFKGLKSAIFLGFSNGF

VPCGLVYFFIANAMSKQNIFEGILVMMIFGISTLPAMLFFSKISQFFSDFLKNLFNYLSYGVIVCYGINL

AYIGFKAFQ

>AHK57554.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKDFFKDQFFKALEKNTIFSRADVQGNLIFVSDKLCQISGYSKKELIGKKHSIFKHPDVEECYIEELLKK

LSYKKPYQVIFKNIDKLGKTFYLETLLIPILDKNNELIEIVAFSHDVSNSFKLNEELALNHAKLRELSIN

LENTVKNHQQEFIQLGKKFEKKMQIALEKNEKDIKIAYEEILKSSLEQMISDIAHQWRQPLNELGIAMFQ

MKQNLKDEKGFAEIYSQSKDMIKNMSETIDVFRTLFNKGVEQCVFIKETLNKALEIAFETIEKNHVNINI

VSKSDYEVLAYENGLIRVFLNLILNSIEAFKNKKRKIITINFSKFGKNYLKITIKDNAGGIDKENLDKIF

QPYFTTKHPSQGIGVGLYISRQIIESFQGKIKVKNGKDGACFEIFLKLKERVE

>AHK57553.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSQECKELIILVVEDEVKARESMINILSERFSKVIGAQNGDEGLKKFKKFKPDLVITDIAMPIMDGLDMA

REIKEISDDVPIVVLSAYSEKERLLRSIDIGIDKYLIKPVDIEELFKVLDYLIGEKIEANMLVKISEEYQ

FNKTKRTLIYSGGEIVLTKKELAFISLLLKQPGALVLHEDIKKNVWIGEHVSDTAVRTFIKRVRDKVGED

FIKNVPSLGYKININK

>AHK57552.1 cytochrome oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHPGNVLNYDYTVARYFMFATILFGIVGMAIGTLIAFQMAYPNLNYLAGEYATFSRLRPLHTSGVIFGFM

LSGIWATWYYIGQRVLKVSMAESRFLMAVGKLHFWLYMLTMVLAVISLFMGVTTSKEYAELEWPLDILVV

LVWVLWGVSIFGLIGIRREKTLYISLWYYIATFLGIAMLYLFNNMEVPTYFVTGMGKWWHSVSMYAGTND

ALVQWWYGHNAVAFVFTVGIIAQIYYFLPKESGQPIFSYKLSLFAFWGLMFVYLWAGGHHLIYSTVPDWM

QTMGSVFSVVLILPSWGSAINILLTMKGEWSQLRESPLIKFMILASTFYMFSTLEGPILSIKSVNALAHF

TDWIPGHVHDGTLGWVGFMTMAALYHMTPRVFKRELYSKSLMEAQFWIQTTGIVLYFASMWIAGITQGMM

WRATDEYGNLLYSFIDTVVAIVPYYWIRAIGGLLYLIGFFMFTYNIYKTIACGRVLDKEPKSASPMAA

>AHK57551.1 peptidase S13 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFSWLEKNPFFFAVAVFVVIAYAGIVEVLPNFAENARPIEGKKPYTVLQLAGRAVYIKDSCNACHSQLIR

PFKSETDRYGMYSVSGEFAYDRPFLWGSKRTGPDLARVGNYRTADWHENHMWDPTSVVPDSIMPSYKHMF

KNNADIETAYAEALTVKKVFNVPYDAENGTKLGSWEDAQAEVKAEAQAIVDQMKNQEVKDAFAKGEIKEI

VALIAYLNSLK

>AHK57550.1 cytochrome B561 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEHLSIVFDVIKNLITFDLATVQKHEWEIFQGYGFFALVMFLSIVLYAYWYHLYRTEKKGERNYENYANL

ALKDDIDDSVLESKRSA

>AHK57549.1 cytochrome CBB3 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQWLNLEDNVNLLSLIGAILIILITLVIVGRMFKQMKEKKGESELSEHSWDGIGEYKNAVPTGWAVVFFL

TIVWAIWYFLWGYPLNSFSSIGQYNEEVATHNTKFEEKFKNLSPEDKIAMGQNIFLVQCSACHGITGDGI

NGKAQNLNIWGSEEGIINVIKHGSKGMNFPGGEMLGAADLGVAEEDIPAIAAYVAKDLSAIKKTANENLV

AKGKEAYATCAACHGEDGKGQDGMFPDLTKYGSAAFVVDVLHSGKAGFIGTMPSFPTLNDIQKEAVGEYV

ISLSRGE

>AHK57548.1 hypothetical protein N918\_07390 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENNNRCVFSLSGVTGMLIATVLLLVILAVLTIWGLKAQQEVMQKPYSLKDVQSVKMFGSKEQDHRSIKE

AQ

>AHK57547.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILQDGFFLAIFFFVLLPSRVFALDAVLFNENILSQKVSNEINLIGKELYQKSNIFIGVMVGDKTEIE

TLLNKQKELPQSYILLLLSKNSHKVDIVGSKGALALIDKEAVLSPYPGTGSILPILATNKGDIYNAAILN

GYADIVDRVAKSLGLQLEHSIGNANRDTINILRILIYGFICFALLYYAQRRIKRKKNVRN

>AHK57546.1 hypothetical protein N918\_07375 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLETKKSFWPYGILLSLLAIIIACIVTIFIASHHPVYEDDFYFDSYQNVENNYNQIQKQQVNFDKFFKVN

FQNDKITFIGKRKIPSYEVDQNSYVANFKISALQNINSNDLKVQVLLTRPFTKNFDQKLEGQVKNGILSI

ALPKLDKGRWELKLKFYANQETVGFFSYELNAQ

>AHK57545.1 hypothetical protein N918\_07370 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLRIFSSSRQIREYYNQKKQQNALLDSAIHIGEFLDKVCLSNFHKASSYESLLLMQEACLKSKDLEKKL

GISVEFFAFLKNNEYLFSFFKELSLEKKSIEDLKNNDYYATYNEHLEILDEVYKNYLALLEKNSFYDDLS

LPKNYTLNKDFLDEYEAIVYDLQGFLSKFEENLLSEISQIKEVVLSFKTSKFNLEYLLKLDFLKIFDLKI

NTHYEINLSKQEILKEEIFKTKNSKMKLKSFELRALQCAFVMDEISHFVRKGLKPENIAVITPDESFCEF

LRLFDKDNMLNFASGISIKESLFYQKFQALYESASSASFVYKNQEDYFEDTQMIFDYHNTLLHSLKLDFI

EFKKYFDEKCDFEYFEKLLALFLENEKQELMYLIRKELYFIKDLLKNQSLTLKELIHLFFMQISQLSLSD

VGGGKVTVMGLLESRGLCFDGVILVDFNEEFIPKRSVNELFLNNEVRKKAGLISYDRRENLQRFYYESLM

KNALEVSICFVENEEKSKSRFLDELDFDFFYETHIHQKAYLNALKLDYEGIKPNLTPIKAPILKHNPFEF

PLSFSRFNLLENQKRTYYYRYILNLAEPRVLSEESKAKNQGNFIHKMLEIYYKNYANNDFDIKVFANLLD

KEYQKYNISELDLEVFKLKFMQFAKNEKEHFSKGFYVVHTELELNNILKLGTDSIKLKGTIDRIDSSKEG

NLIIDYKSGKVPSNSYQLAFYQALYDENASVGFYDLNSMQILHQKAKSLDELRERLKDLVLMSKEEIEFE

NEQDEYCPYKLIYKKELK

>AHK57544.1 recombinase RecB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSQFEPFLALEASAGSGKTFALSVRFVALILKGARINEILALTFTKKAANEMQKRIIETFLNLEKENKTS

ECNELCKLLGKDKEELISLRDAKKEEFLRTELKISTFDAFFGKILRVFALNLGLSSDFTMSEERLDVREI

FLKLLKKDELKDLAYYINLVDEKENFFNELEKFYENAYFQNRPKILNPTKAYINKAYSELRSYCLGLTHV

KNYKNLCDNFKSEVLDLSVFMQSSFMTKFESTKYLQDLESTNLHFSAKRMEFINALNTYAIELENYKIAN

LMNLLNHYSEAKNIFHKDKNTLNFQDVSKKVYELITSEFKDMIYFRLDGFISHLLIDEFQDTSVIQYQIL

RPLIAELVSGEGVKKNRTFFYVGDKKQSIYRFRKGKKELFDLLKQEFSQIKSDNLNTNYRSKELLVDFVN

ETFKEKIKDYKEQFALESKKGGFVRIVESKEQKVKNQAQEIKEKTLETLFEQINFLRSKNISYDDICILC

WKNSDADMVLDFLREQNIPAFTQSNVLLENKASVRLVLEYAKYCIFGDEFYLVFLKELLGFEPRKITLDF

SKNAMENVLFLIKELKLDLNDIALIQFIEYAKTKENFLKLLFEPCALKIVSEQNMGISIMSVHKSKGLEF

DHVILLDSLSKNNSNNEDIMLEYDINQGWQLHIKDKIRELTKEPIYTLFKENITRANYEDDINKLYVAFT

RAKESLIIIKRNEESVNGNYPSYFKGGFLNIHSQERGFLESKEQILSVKKESIQTLQKFEKITLQEIQSE

ERLDSKELYFGNAFHFFMQNLKLPKGENFQILTQRCKSKFRHFLDESDFEKLFKRIEILLKNIQFQNLIG

DGKLLKEQALSFNGEIKQLDLLALKDEEAFIIDYKTGLAMQDKHKEQVGTYKIAISEILQKDKVRAFIVY

CLENEIQILEI

>AHK57543.1 50S ribosomal protein L13 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKITKPNEVKREWIVLDAEGKRFGRLLTEVATILRGKNKPCFTPNVDCGDYVIIINASKAVFTGANKAE

DKLYHRHSGYFGSVKSEKFGDLLEKNPAKLYKLAVRGMLPKTNLGRAMLKKLKIYAGSEHPHTAQIAKEG

K

>AHK57542.1 30S ribosomal protein S9 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MATTYATGKRKTAIAKVWVKPGSGKISVNGVDLNTWLGGHEAIKLKVVQPLLVTKQETSMDIKATTLGGG

YSAQAEALRHGISRALAAMDADFRALLKPKGLLTRDSRTVERKKYGRRKARRSPQFSKR

>AHK57541.1 outer membrane fibronectin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIFLCLGLASVLFGADNNVKFEITPTLNYNYFEGNLDMDNRYAPGIRLGYHFDDFWLDQLEFGLEHYS

DVKYTNTNKTTDITRTYLSAIKGIDVGEKFYFYGLAGGGYEDFSNAAYDNKSGGFGHYGAGVKFRLSDSL

ALRLETRDQINFNHANHNWVSTLGISFGFGGKKEKAVEEVADTRATPQAKCPVEPREGALLDENGCEKTI

SLEGHFGFDKTTINPTFQEKIKEIAKVLDENERYDTILEGHTDNIGSRAYNQKLSERRAKSVANELEKYG

VEKSRIKTVGYGQDNPRSSNDTKEGRADNRRVDAKFILR

>AHK57540.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKTILFDLDGTLIDSTDAILNSFQGAFKALGLTSKNNEEIKNLIGYPLEQMFRMLYPDKVNLSKEFVLA

YREIYAQIYLEQTTLLPKAKEALELGSEIADLGIVTTKGGKFTPILLDYLGVKKFFKTLITLEDVTNPKP

SSEPIILALKGLNKTQENAYMIGDTILDIQAAISANITPLALTCGYGNENELKAHSMVFLNAYEAVNYIA

RLN

>AHK57539.1 Pyruvate-flavodoxin oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGKIMKTMDGNEAAAYAAYAFTEVAGIYPITPSSPMADYTDMWAAAGKKNLFGVPVKIVEMQSEAGAAGS

VHGSLQAGALTTTYTASQGLLLKIPNMYKIAGQLLPCVIHVAARSLAAQALSIFGDHQDIYAARQIGFAM

LCSHSVQETMDLAGVAHLAAIKGRVPFLHFFDGFRTSHEIQKVEVMDYAHFDRLLDREALLEFRNNALNP

ENPKTRGTAQNDDIYFQTREVSNRFYDALPDVVNEYMQEISKITGREYKPFTYYGHKEPECVIVAMGSVT

QALEEVVDYLNAKGEKVGILKVYLYRPFSLKYFFDVMPKSVKKIAVLDRTKEPGSLGEPLYLDVKSAFYG

RENAPVIVGGRYGLSSKDVDPAQMIAVFENLKLDNPKDGFTVGIIDDVTHTSLSTGEKISLGDESTIECL

FYGLGADGTVGANKNSIKIIGDKTDFYAQAYFAYDSKKSGGYTRSHLRFSKKPIRSTYLVSTPHFIACSV

AAYLEIYDVLAGIRKGGTFLLNSIWNAEETIRQLPDAVKKTLAEKEVNFYIINATKLARDIGLGNRTNTI

MQSAFFKLAKIIPYEDAQKYMKELAYKSYSKKGDAIVEMNYKAIDVGADGLVKVEVDPNWKNLELKEKEQ

TNAYKGTEFVEKIVKPMNAAKGDDLPVSAFLGYEDGSFEHGTTEYEKRGVGVMVPRWIEANCIQCNQCAS

VCPHAVIRPFLINDEEMANAPRGVKDHALEAKGTKGEKLSFKIQVSPLDCTGCELCVHECPTKEKSLVMV

PLQEEMDFGEQENADYLFKEITYKDDILNKETTKGAQFAQPLFEFHGACPGCGETPYITLITRLFGERMI

VANATGCSSIYGGSAPSTPYRKSVKNGHGPAWGNSLFEDNAEFGLGMKIATENTRHRIEHIMNESMQEVP

NALSALFKDWIANKDNGAMSVEIKDKMIPILEQNKNIKAVQDILELKQYLSKKSHWIFGGDGWAYDIGYG

GLDHVLASGENVNILVLDTEVYSNTGGQSSKSSRTGAVAQFAAAGKPIQKKDLGQIAMTYGYIFVAQVNS

TANYTHLIKAITAAEAYDGPSLVICYSPCIAHGIKGGLGYSGEQGELATKCGYWPLYTFDPRLEEQGKNP

LTLTGKEPDWDLYEQFLMNEVRYNSLKKANPEHAAELFERNKKDAQRRYRQLKRIAMADYSNEVES

>AHK57538.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MCFSTLFAQDNFEEYFKLIDKENRINFNTLQNPFVNPTFEKLRHIKITAIMLDKVKIYDRWYKKGDMIDD

AIIYEINTKEIKFQYDNLEIAIQINKNDKINININ

>AHK57537.1 type II protein secretion system D protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIRLILILINILFCHYLYALDCQKRLFDISINEKLSIQESLDELAKYCSFSIIVKDKIAKEKLETLQNSV

NIHQMSLDEIFNFFIKEHDLSYDFDGKILRISGINTKIFKISYITSIREGQSITKASVDAKPRQSEYSGS

FDDAEDNMIKSMEKFDFWQNIEKEIIVLLKNSHEDYEAKTPIINPNAGLIIVTGTNSQLKSVKNYLQKLE

NRLKKQVIIDVSILAVSLNESHSSGINWQNFNIGLNSQVNNENSFIQFQNGQGFVKNLGLRANLNFDSII

NFLSQNGKTSVLSNPKLMALNNQQAIISVGDTINYQVKESSKGTENGTTVSESYNNYSIFVGILLNILPE

ISDDGKIMLRINPSLSDFKYPEDNKRQKEPRTIAPDTIQKKLSSVVQVENNQTLILGGLISHDKSNEKNS

INFLSKIPILGSLFKGEVLNSKATEIVFIITPSIVDSVNAPSLKDLGFKHYE

>AHK57536.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKIIPFREEIFHQINQILESQKAFIFLWGKSGSGKSVLLQRLAKKYNVDFINENFKDQSFLKEKIEFLI

SQGQSLIILDEVGMYDYAMLESIRIYSDSISFVLSSHKKLNILKKEHFKSRLSACFKLKNISLLELDDYI

KLKFGMNFSNKCLKFLQKISQGNLRYIDKTLKSFYEINSFFDKNKSQEYILKLSALENGLLR

>AHK57535.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQERIKELELRYKYFLLKKYLKYLLLIILISVIAFCFFVLMQKYNKQKNIYLQAIEHKKHLEQKILQAQI

LQEKNKISREKLYKELEEVKAVQENTHISKIEIDSKILNISDLKKSFYQNPSYEKALNLAKKYFDIKAYQ

KTIFWALKANELDKQKQDSWLIFAQAKRALGEEKEAQSALDAYINYYGLMELDGK

>AHK57534.1 type II protein secretion system E protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MESRMDKIFQAYIDNEISLDEICTKFNITSWDFFNKLANFCNLHFVDLDEDNDFIYEGIPFSLLLKFKFL

LIKNNDGFMIIRSKPCSLELLEQVKTFMICEKIDTAIADELKIAKILNQIRIQEEIKRLSIKLRLEWQEN

HKRDDQSCISQIFDFLLHEILSFHASDIHIEARNNDALIRFRVDGILREFAIFEKDIYEALVFHVKFLAC

LNLAESRKTQDGSFELDFENERYDFRVSCLPLIYGESVVIRILKHDKEILDLYKLNLGNKNLEILKKILH

RPNGMILLTGPTGSGKSTTLYACLNELKSIEKKIISAEDPIEYKIPLVQQILLNSKVGVEFNSVLRAILR

QDPDIIMIGEIRDEESLDIALKASLTGHLLLSTLHTNDALSTIDRLLDMQAKSYLIASALSLVIAQRLVR

KLCPWCKQKSKKHYIEFEGEFFEPKGCERCHHSGFFGRELIAECLEINEDLACAIRENQDKTILMELAKK

YGFQTMFEQGLKKAKEGLTSIDELLRVVR

>AHK57533.1 general secretion pathway protein F [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFYEVEFLKNNQNYTKTIKAENLNTAQAKALSKNWKIIDIKEIQKSNFQRLKDENFILFFKELALLCEV

GLSVQEAIRELYFMHSCKIMKKILDNLILAQNLNQAFENANFGLNRAELALIKTAEKTGKISEVFSQISK

LREKSLESQKQLKKAFRYPTLVFLSIIGAFLFLMLFVVPNFKDLFENLGASLPFITHVMLEIYNFLDDYG

IFCIFLFVIFIVMLILAYKNFHSFAFSCDFLFLKVPLISRLIIYNQNYYFFMVFSLLLKNGISISKAFDL

AIIGLENKFLIFQYKKLFSFIDSGLELSQAFKKIDIFDSLVFSMLSVAMKSGRLEVLSEEIAKYYQQKSE

NLMDRFLIFLEPMMTLFVALLVLFLALGIFLPMWELSSGVNFN

>AHK57532.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGFEHLNTIYYFILFFVALFAGFIDSIVGGGGLITLPALIACGIPAHLSLATNKLQSVFGSFTATLTYFK

STTLPRLAWGVFFTALGAAIGSYSVLFVKDEQLKLIILIFLTLTFLYTALRPNLGKHESEPKIKNIKIFH

LICGLTLGFYDGFLGPGTGSFWIFACVMLLGFNMRKASINTKILNFTSNIIALAIFLWQYELLWAVGLLM

GVGQVLGAYLGSKLVLKTNGKFIKTLFLIVVGATIIKVAWDYFS

>AHK57531.1 hypothetical protein N918\_07300 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNFIHLKAKLDFLANQKNTNHSLFETPDPLQIAKIHNDEFIALICALFAYGNAKNIVNFLKKLDFSLLN

LQEKQIKKELKNLKYRFQNEKDIQEIFITLSRLKNEISLYELFYQAYQERENTTDAILAFMQKIKTLNSY

SSYGYDFFFGKIWQNTPTSPLKRYNMYLRWMVRKDELDLGLFTKIHTKDLLIPLDTHAHKISLTLGLLKR

KIYDYKSVLELTQNLKKLDANDPIKYDFALYRLGQSKEIDKFKE

>AHK57530.1 flagellar hook-associated protein FlgK [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGIFGTLYTGVTGLKASEVQIATTGNNISNANATFYTRQRVVQTTNGYITTGGVQVGTGTAVESIVRLHD

EYSYYKLKGASTQLEYTKYMASTLQEIAQRFPDLQNTGILQDLENYNKAWNDFASNPNENATKIALVKAS

QTLTESVNNTFATLDKIQKKVNDDIKNTVDEINRIGEEIATINKQIYGQEALPTEHANELRDRRDELELT

LSKLVSAVASKNEINQDNRLDTTITDPGHQYNLSIEGFSIVDGINFHPLKLDYDDKNKSYSIYYETPDEK

VRDLTAKISGGQLGAQLDLRGRNYSKSEGKYEDGIIQGYMDSLDTFAKTMINETNNLYASSAKSSVTSDY

LSGLKGDIPLVNYDRTIQPGSFDIVIYDDKGDKKLTKTITIDVNTTMNDIMRQINANTDDNDNKNSNDDV

DDHINASFSYDAKTGDGLFQINAKSGFKVAIEDKGTNFAGAFSIGGFFSGTDASDMKVKDSILNDPSTVR

ASSNGVDSGNDMANKIIQLQYKKVNFYNEDGTIDNLTMEEYYRKLTGKIASDGENNNVVNSSNETLYNSV

YSEYQSKSGVNTNEELAALIQYQSSYGAAAKIVSTVDQMLDTLLGLKS

>AHK57529.1 hypothetical protein N918\_07290 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKQRLDEVNAILAKLIALTEEDIENIKVAKHESVTPSVEEKNKLIAEFITAKKQLDVALVELNNSSTKG

LSELLDDEDKQKLDLLKKNLQNLHSKNKEYAKFVLIVKDFLDGLVNKMFDINDGTNNAYGDKKTNPESIF

KINV

>AHK57528.1 hypothetical protein N918\_07285 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINPIQQSYVANTALNTNRIDKETKTNDTQKTENDKASKIAEQIKNGTYKIDTKATAAAIADSLI

>AHK57527.1 hypothetical protein N918\_07280 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVDNFLNTYSMNSALLDRAAKARSLESSIKINDNDIVTKSKEDKALKEQTNAFEAFFLKQVLDVSLKSQ

NSLFGKDASDEIYSSMYNDTMSKALSGGMGFSKLLYDFLKERG

>AHK57526.1 flagellar P-ring protein FlgI [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRVLTIFLLFMTSIFAVQIKDVANTVGVRDNQLIGYGLVVGLNGSGDGTSSKFTLQSISNLLQGMNIKVD

PNDIKSKNTAAVMVTAKLPAFAKSGDKLDITVSSMGDAKSLQGGTLLLTALRGIDGEIYAIAQGSISTGG

LTPRPGGTGSHSTAATVMGGANVEREIPQNFSQNNDLTLSLKVADFKTANNIERVLNTVFGEEVAKAIDS

RTVKLKKPEDLSNVDFMARVLEQDIAYKPQSKVIIDERTGTVIAGVDVEVEPVLITHKDITIKIDPNNNT

VANQNEIDMKDGGFVDPSSNTLRINNAKSTVANIARMLNKLGATPNDIIAIMENLKRAGAINADLEII

>AHK57525.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMNDEFISVKDFFNHNEKRKKFLQKQEIKPPKEKTKKTKETKLYTNIESGKYKGKKLLLPSLTTTRSTKS

IVKSCVFNVIREDLRSKIFIEAFGGSALIAAEALSNYALKAYAIELDIKAYKIALENAKNIDPNLEVIHA

NTFEILPKLIENSKNEIILYLDPPFDIREGFSDIYEKIYHFLENLDLKTLNLIIFEYHSTIKTPEKIQNF

QKVKEKKFGSTSLSFYSS

>AHK57524.1 Ornithine carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKISLECKDLIIEKTLELFLKDHLVMKKNCDFIISDEKIHTAKPLFIISKNSPFLSIPFSKETLFESLNE

FDNALKAAALQLALEQKRLLEEKIDAIALEFKKDYENKIDLAIKDLKNKLVKALNDE

>AHK57523.1 hypothetical protein N918\_07260 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKLELRIFRFDKTKDYEAYYKPYIYDNYENFASFYDLLLQVQNDDIYFDFDKDEDTYIVVNKQIIPLFT

PLEKIAKEFDFNLCIEPLSTKRAIKDLIIDKNDFLDKYKYLEKFGDEEDKKLYAKYDYLYYATEILDYLP

EYMGDGVFYLASKMIEKYPEKKIEILKTLADKEKGIFYHLESKNEILETTIKNLQNEILNLGLFDKNILH

FDLPKTNAFDNEIKELKEIKHNFKDFNIAFYGFNACDTLKSKLKAKFISYENSIKNNGFSLLNLNPTLSY

KIAADIVLDAYDSGADFMVVKEEKDFYLFDTCAKKLMQTSKRDFEDFYILSRFEFLALIEGIQAPSLKNH

TLKVSLI

>AHK57522.1 thiamine monophosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKEDFIIKAFLNKKNGDDGAIIDDWCFSKDLFFENVHFKREWFSLEQIATKAMLVNISDAISMNAVPKY

ALLGLALPKNLSENEIKALQKGFLKTARKFNIKIIGGDTISNDKIDISLTIISKINDKAVFRKGLKKGHL

LAYTGKLGRSLKGLEILQNGGTLKPNHVFIKPKLRASFFYEIAPLISCAMDISDGLSKDLSRLLALNKCG

ISWFKKLDDYALYSGEEYEILFAFDEKERQNIEIIAKKHGVKLNIFGKAVKGKYEFRGREHHF

>AHK57521.1 tRNA pseudouridine synthase D [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLEEENTIFKPLYSLKHSPINAYFSKNSDDFVVRERPLYEFSGKGEHLILHINKKDLTTNEALKILSEA

SGVKIRDFGYAGLKDKQGSTFQYLSMPKKFESFLSNFSHPKLKILEIFTHENKLRIGHLKGNSFFIRLKK

VLPSDALKLEQALMNLDKQGFANYFGYQRFGKFGDNYKEGLEILRGKKMKNVKMKEFLISAFQSELFNRY

LSKRVELSHFANDFSEKELIQIYKISKEEAKELKKQEQFFKLLKGEVLGHYPFGKCFLCEDLSAELGRFK

ARDISAMGLLIGAKAYETGEGLALNLENEIFKDTLEFKAKMQGSRRFMWGYLEELKWRYDEEKAHFCIEF

FLQKGSYATVVLEEILHKNLFE

>AHK57520.1 peptide chain release factor 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDNYEFSELLKTLKNKVGNIASIIKPENIQTRLKEIEELENSPSFWSDVKQAGIIGKEKTKITNLLKNYE

NAFNALNDASELFDLANSENDTETLEALFNDAPKLEDTITSLEISMLLSGENDGKNAIVSIHPGAGGTES

NDWASILYRMYLRFCEREGFKVETLDFQEGEEAGLKDVSFLVKGENAYGYLKAENGIHRLVRTSPFDSAG

RRHTSFSSVMVSPELDDDIEIEIEEKDIRIDYYRASGAGGQHVNKTESAVRITHFPTGIVVQCQNDRSQH

KNKATAFKMLKSRLYELELMKQQDSANTGEKSEIGWGHQIRSYVLFPYQQVKDNRSGEAFSQVDNILDGD

IKKMIEGVLIALKAE

>AHK57519.1 ribosomal protein S12 methylthiotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKLYLMSLGCNKNLVDSEIMLGHLSAYELCDEPSKADVLIVNTCGFIDSAKKESINAILDLHEQRKKDS

LLVVTGCLMQRYREELMKELPEVDLFTGVGDYERIDEMILKKTNLFSNSTYLQSENSKRIITGSNSHAFI

KIAEGCNQKCSFCAIPSFKGKLKSREISSIIAELKDLVARGYKDFSFIAQDTSSYLFDKGEKDGLIRLID

EVEKIKGIRAARILYLYPTSASEALIKRIIASEIFINYFDMPLQHISDNMLKIMKRGANSTRLKEMLNLM

KSAPNSFLRTGFIVGHPGESEADFEELCEFVKDFGFDRISVFAYSKEEDTAAFDMEQVPFKVINKRLKII

EKIVDEVIEKSFEKEVGQKRLVVCTGKSSEGEFFIAAKDLRWDREIDGEILINESECGNLEMGQIYECEI

LQNLDKKLLAKALRKVDAN

>AHK57518.1 tRNA(Ile)-lysidine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQIKDEILSLLKRGKNLLAFSYGSDSSVLFYLLMQEKIDFDLVMINYKTRKNSDLEELKAKELALKFHKK

IFIKHAPKFQSNFEKKARDFRYDFFEKICLEQGYDHLILAHHLNDQFEWFLMQLSRGAGLAEILGMQECE

KRSNYTLLRPLLFISKDEISSFLKEKDIFYFHDESNENEKYFRNYIRKNFSNAFVSEFHQGLKRSFSYLD

EDRKKLYDFENIKEIQGLLICPKNESLIARAVKMKGLLLSTAQRKELLKGDCVLGGKIALAYKNEQAIVF

EYETCQKLPKNFKEECRIAKIPRLLRAYLYNHKIDISSLSF

>AHK57517.1 dUTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTNIEILENMLKLQQKLNDETNGLNWENGYTKEGKLISWRRCIYMECAELIDSFTWKHWKNISSLTNWEN

VRIEIVDIWHFILSLLLEEYRDKNNKDFKAIATEVNAVSVFQDFCKEEEYPNEGDIYGILNDIELIIHKC

SGFGFNLGELLSTYFTLAIKCGLNLEILYKTYIGKNVLNIFRQNNGYKDGSYKKTWNGKEDNEVLAQILE

QELDFDTIYKKLEECYKKA

>AHK57516.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQIDASKNQSFSMDYTTKSGKHLALSMYDNQSVSYANNEEGKTLNLKRQYGFSFTFEGSKLTQNDLDEIK

NAMKEVEPMIKDFLANSKVGELKPKEIIESAMQMANVLPTPNDENHQNAIMNNFTNKLSDLLKQNQTDDK

DINASMLEDSKKLLDEVLEQMKKQLEKQQEKAKENQDKTDDSLNLYA

>AHK57515.1 hypothetical protein N918\_07210 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDERILEFIKNEQLLSWAMIDEKGVYTASAFYAFDEKNLAFIIASHEDTKHIRLASENSSIALNIAKESK

IAFLKGVQAKAEFKMASKEQMKIYFSKFPFAKFDKSAKIYALELFWLKFTNNALGLSKKLEFYKK

>AHK57514.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNVIYALFFRELKTRFGKNRYLGYIWVVGEPMSIVLLVTIIGTIVREYHHQVMPEGISIFMFLISGIMP

FFMFRSIVTQLMNGTQANLALFAYKPVKPIHVFIARTLLEFCIYFVIFIIILFFAGWFFRLDVFPVHLLG

VLFCIFLLICSAFALGICFAIIWHFVEPLRTLLAYFSIVFYWTSGIIFPTWLTPRPLLDIFYYNPLLHIF

ELLRFNFFENYPLQDEYSYFYAIFWILLVLFIGLFIYYYNRQALTAVKKE

>AHK57513.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKLINLTKSYPLFSGGRHYVFKNFTFEFPENCSIGLMGYNGAGKSTLMRLLSGAELPDSGKIITNKKLS

WPLGLNGAFQGSLTARDNAKFVARVYGYKGKELQEKVKFVEDFAELGKFFDEPMKTYSSGMSARIAFGLS

MAFDFDYYLIDEAGAVGDPAFREKSVKLYRERLSKSKVIMVSHNVAEIKEWCDKIIYMKNGQITVYDDVD

EGIAVYQGKV

>AHK57512.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEENKTLLEKIKDLSIFDSFKIVWFIMIFVVIYYTLIAAPRYVSTMILDVRSTSGESAQTSGILSLLSST

STASEDLNYLKGYIESSDMLKILDEKIKLKNLYQEQHIDLPFKIWDSSSIESYLKYYQARVKVHTDETTK

LLKVEVEGFTPKSAHLIAQAIMQESEKFINEISHKAAREQMAFAENEVQKYKERYQKAQNDLIAFQNKYG

VFDPLKQAETKASLVAQIEANLAQKEAKLLTLQSYMNDAAPEVVALKAEIEAIKKQLLREKSKISANNSS

QKLNDLAAKFQDLTIEATFAQKAYEAALKAYESARIEALRKIKQLVIIQSPDIPESAKYPERIYDILTAF

IVLSLIFGIVKFIKMIIEEHKY

>AHK57511.1 sugar ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILILLFSCILCFGAVDVSQIISAEDQGSATTSIDQNLSSNYDIANKENNLTKIHQILVFGAHLFNGN

FKNYNQRVYNPDYKIAVGDQISLKIWGAVEFSQVLVVDSQGNIFIPKVGAVNLLGVKNSALVSVIKARVN

KIYKSNVFVYADMNAYQNVSVFVTGNVNAPGLYQGLSSDSVIQYLDKAGGINLEYGSFRDIQILRNNSVI

KNIDLYDFLLKGQMDLFPFRSGDVILVGNVQNYAFVNGDVQRPFRFELSNDIKTLADLARVSGAKPIVTN

AIVKSYGEDHKLDVSAYNKMQFSKVLLRTGDEVEFHPEYVSENITISVNGEHNGLKTLVVGKGTTLEDIS

KLIKANPQSNMQALQVFRKSVARTQKELINAQLKELETLALTSGSVTAQGAAIRAQQAKTILEFIQRAKQ

VEPKGQIVIDNPKSYNSVILEDGDTINVPSKNNLIIVQGEVSLPGAFVYDKGKDLRYYINLAGGYGERAD

TSKVLVIRSNGKAEKYHSGIDMKRGDSVLVLPKVDSENLQIFSMLTQILYQIAIATNVVLNL

>AHK57510.1 arabinose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNTLEIAKEVFEKEAQAILDLATNLDENFNQAVNLMLNTKGRCIVSGMGKSGHIGAKIAATLASTGTPSF

FIHPGEALHGDLGMLTSEDVLIAISNSGETEEILKIIPAIKKREIPLIVMCGKKNSTLVKQGDIFLNIAV

EKEACPLQLAPMSSTTATLVMGDALAAALMKVRNFKPDDFALFHPGGSLGRKLLTKVKDLMVSSNLPIVH

PDTEFNDLVDVMTSGKLGLCVVLENEKLVGIITDGDLRRALKASDKPRFDFKAKEIMSINPKVVDADAMA

SEAEGIMLKHKIKEIIVGKEEKVVGIIQLYAIGNV

>AHK57509.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENLNSYIKGHFADSILVKEQILKDENLITLIKNASLEVIKAYKNGNKTLLAGNGGSAADAQHIAGEFVS

RFYFDRPGIASIALTTDTSILTAIGNDYGYENLFARQVQAQGVKGDVFIGISTSGNSKNILKALEFCKQK

EIISIGLSGASGGAMNELCDYCIKVPSTCTPRIQEAHILIGHIICAIVEEELFGKGFSCKQ

>AHK57508.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKLVEQVWDYTKHAKFYSYRPNYAPKTIDMLISLVGKKDIKVADIGAGTGNLSIMLLERGCKVVSVEPN

DAMREIGIERTKDQKIDWVRATGLNSTLQNSEFDWVTFGSSFNVMDRNEALEEAHRLLKSEGYFSCMWNH

RDLNDPVQKIAEDTIVEFVPNYTRGTRREDQRPIIESRKDLFDNIVYIEEDFYFHQSIENYINAWKSVKN

PYWDLETDEGNELFNKISNKISQRLPKEFSIKYTTRCWSAKKI

>AHK57507.1 hypothetical protein N918\_07060 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAELKFKTKAQNLKNLQTKLKKAKVLPLVLTSLEELISNEDKVLQDIQTLKANRLIIRSSSLSEDSMKNS

NAGAFLSLANIKADSKDELLKALYEVANSMPSKSDEILVQPMLENITLCGVGFSVDKDNFSPYFCLQYDE

NGSNSSITDGSSKSAKTYYHYRNYLEFKDIRLQKIIELIKELEVLYDCHFLDVEFAFAIQDDKEELFCLQ

VRPLVMHEKNNLFHSLPKEALYRFYKRFESLKESRSRVLGDKAIFGVMPDWNPAEIIGLRPKRLAFSLYK

EIITDNIWAYQRDNYGYRDLRSHPLIHSFLGIPYVDVRLSFNSFIPKKLDENIAQKLVNFYLDKLNKNHE

LHDKIEFNIVYSCYDFNSSKKLEELLNHGFNENEIKRLEFSLLELTNKIINPRSGFYLKDIQKAYKLKER

YDGIINSNFSLIDKIYWLIEECKRYGTLPFAGVARAAFVAMQLLNSLVEIDFITKEEKDDFLNSLNTVSK

NLSKQTNHLNFHNKDQFLKDFGHLRAGTYNILSPRYDEDFELYFDADQKDSKVYLQDKAFVFSKEKTRAL

NALLKEHGLEINACEFFDFLKQAIEGRELVKFEFTRLLSKAIVYIEELGKYYDIEKEDLAHLDIKSILNL

YSSLYSINPKEQFIEEINRNKKEYELTQAIKLPSLLCNADEIFSFYNHSIIPNFITQKSITAFTAKENDK

DLEGKIVLIYAADPGYDYLFTKNIAGLITCYGGANSHMAIRASELGMPAVIGVGEENFEKYLKAKKINIE

CESEQIFCL

>AHK57506.1 glutamine amidotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFIGITQRLICNDSYHEKRECLALDWGKLFNKDLFKNFTPLPLSYEIDFSYYKHLIKAVILSGGNDLSFY

SPNVLSKKRDLYEKQVIEICLEEKIPLLGICRGAQMIAHYFNSHISPCENHIGKHEVFFSKEKFISNSFH

NFAIEKLGEDLVELCLAKDNTIEAFKHKYENIFGIMWHIERENGLNNIQILKEWFSLIKE

>AHK57505.1 sugar nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNAIILAAGFGSRLMPLTKDQPKCMVEYKNKKIIDYEIEALKSAGINEIAVVGGYLNDVLKNYLNKYDIE

HFFINSKYDKTNMVHTFFCAKDFMLKCIEEKQDLIISYADIVYFQDCVQKLINAKEELAIVVDKSWCKLW

SKRFANPLEDAETLKMTNGYIIELGKKANAYDEIEAQYIGLFKFSYQFLSEVIAFYEMLDRDILYDNKNF

ENMYMTSFLQALIEKYNNAKAVEIDGNWCEIDFMSDLEVQIEK

>AHK57504.1 adenylylsulfate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNNPYIIWLTGLAGSGKTTIGQALYEKLKLKYKNLIYLDGDELREILGHYAYDRQGRIDMALKRAKFAK

FLNDQGMMVIVTTISMFNEIYDYNRKQLKNYYEIYIECDMHELIQRDQKGLYTKALNKEIDNVVGVDIEF

DKPEADLVINNSCRNNLEEKVELIIKKLAL

>AHK57503.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKYYSISKKLIANVRNFYTISLYKKNLKIKKDDLFFGWGRKKSGLKAMNLAKKYKAKFILLEDGFIRSLN

LGVENSPSFSMVKDDIGIYYDATMPSKLENLLNTCEFKDEEIKQAKKAIELIKKYKISKYNNNLDIPDNY

FQKDEKRVLIITQTANDASLEFGLAKDFKTLDMIKDAIKENPKSTIYIKIHPDVLSGKKQSDLDLNSLPK

ECILITENFNPIALLEFFDKVYTKTSGMGFEALMQECECICYGMPFYAGWGLTKDKLECKRRMQKRSLEE

VFYAAYILYAEYFNPYLNQKSNIFDTIQTLAKYKDIEKVNSNKLFMLGFTLWKRHFIKPFFKAKDNEIIF

LNSLKSLARYKLKENDKFFIWGKRIDYNALKTTLIKKAQDENLLHFTPKISLVEDGFIRSISLGSDLTRP

FSLIVDDKGLYIDPNKASKLEELLQNEIFDENMLNRAKNIIKILLENRFSKYNGLKHEDLKINAKIGQKI

ILIPAQVEDDASMILGGFGLSTLDLLKEVRAKNQDAYIIFKPHPDVLSGNRVGLKDETLILEFCDEIVKD

CSIDSAIKIADEIHTITSTSGFDALLRAKKVFTYGMPFYAGWGLTKDKYRCERRIRKLSLEELVAGALII

YPRYINPKTKTLCEIEVCLDIMLNLQKAYFSKKYIKLAIDFKTFMLRKIRRFYEFLAKK

>AHK57502.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRFSTKIKKEFSGKNVLLLQGPVGNFFHHLAVKMRKNQTKVFKLNFNGGDFFFYPSGTRCKCDEKDLENF

YRDFFQNKKIDAILMYNDCRIIHAKAIKVAKELGIEIWIFEEGYLRPYCITLEKDGVNANSSLPRDKNFY

LSQNIFTKESIKEIPGGFKFMAFDAFLYWLFAFILAPFFNNKLHHRTLYPFEFLFWFRSLYRKYLYKITE

KKLNEKIYNLEKKYFLAILQVYSDTQIKYHYKKSIEHFIEETILSFANHARAKSYLVFKHHPMDRGYKNY

FKLINDLSRKYHVEGRVLYVHDTHLPVLLRKALGCITINSTVGLSAILEGCPTKVCGNAFYNFEGLSYPK

KLQFFWREAHAYKPNPVLVCNFKKYLLQTNQFNGNFYKNFFLDK

>AHK57501.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDREVFYIAGYDPKSYRFYYDLFKKNLKDYSHAFNIKADLSKIEKNEQFPFFQISCEGVQTKYHFLTWND

IVKKNWSENYKDALADCYSFFRIYTITGLFIKFGKESIYQLITGYYPFFYVLFSLLFSLVLAFGSFAFLQ

NYMHFSLAIIIGCFLGFLLNHFLFKLGKKLAVFWIARICAFCATWQDKKTGTMQERIKLFANTIVDKLKQ

NENKQDYELVLVAHSVGTIVCIEVLECILRQNLDLSLLHKLKILTLGECIPLVSYQKKADEFRKKLEFVS

RFDLKWYDYTSIIDGACFPQVDFFRTSGVNAKFTPPFLSAKFHTLYEKHEYKKIKRDKNKAHFLYLYSIS

VKGDYDFFSFIIMPKFLEEKVKI

>AHK57500.1 cytochrome P450 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSECPFFPKPYKNKASTLLTFLLKRRSWLDGLYERSYKMQTGYVKMPNFDLYVINDTKEVKRMMVDEVRE

FPKSAFLHELLSPLLGESIFTTNGEVWKKQRELLRPSFEMTRINKVFNLMSEAVADMMDRFSKYPNHAVI

EVDEAMTFITADVIFRTIMSSKLDEEKGKKILNAFVTFQEQSVHTAMRRMFRFPKWLSYVLGDCKRAKAG

DVIRQVLSDIIKPRYDMADNAEFEDILGSLLLVVDADTNKRFSFEEILDQVAMLFLAGHETTASSLTWTL

YLLSLYPKEQEKAYEEITQVLQGGVIEISHLRQFKYLTNIFKESLRLYPPVGFFAREAKKDTQVRDKLIK

KGSGVVIAPWLIHRHEEFWTNPHGFNPSRFEGEYKKDAYLPFGVGERICIGQGFAMQEAILILANILKTY

KLELEEGFVPDVVGRLTVRSANGMRIKFSKRKL

>AHK57499.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKRVRTKIRANFRRRVKRTLKGSLKEKLAGTILLCAIVPLAVLGYLFIVIIGIFFNTARARQGVRALDHF

VNASLFNGYAWESVSSHAWRERNRKKWARIVIKITDFFQKDHCKRANKREQPVVDFILSRNLDKQTIGK

>AHK57498.1 4'-phosphopantetheinyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRVGCDIIAISRIEKIHSRHGKNFLDKFLNPKEQILIKNPATLAGLWAAKEAASKALGVGICELCSFFDI

EISKDEKNAPKLKYSQKITKDFNITQTSLSISHDNGFAIAIVAVV

>AHK57497.1 flagellar basal body protein FliL [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDEELENEETKKKKGGSLVIIIVILLFVLLLSIMGVIAWLISSSSSDESEVKEAPKEEAKADKPKVSAPA

QRGSDFANIGPMYPLDPFTLNLLSDSGSRYVKCTIELEQNSELLKPELDKKVPVIRDIIIRTLTAKTFEE

VSTQKGKERLKDELVGKINEILTDGFIKNVYFTDFVVS

>AHK57496.1 phospho-sugar mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLDVIFREYDIRGLYDKELNEKSVKAIGFCLGQTMLNRGCKNVSVGYDARYSANELFNYLVSGLNKAGIK

IYDIGLVPTPLGYFSLYEGLKFDANVMITGSHNPKDYNGFKITINKESFFGVELKEFSKEVYKHLDDDIE

ENLEVEKYDILNLYVKFMCEQFSFLKDFNYKFGVDCTNGAAGVVIKPLIKALNLKAHVMFAEPDGQFPNH

APDPTEEENLSAIREFLNQNQDYSLAFAFDGDADRMVALSKTHVFCGDELCYLFAKDIPNPRILGEVKCS

KNLFDEVAKFGTIFMGKTGHSNIKKMMKEKDIDLAAEVSGHIFFKHRYFGYDDGIYAFLRALELVYKGFD

LESMIKALPKLYTTPEIKIPVNEEEKFKLVEEFQKEIEKGALKGVKSLCEIDGARIDFGDGWALLRASNT

SPYLITRFEATSLERAKELESMVFTLFNDIKARFKN

>AHK57495.1 hypothetical protein N918\_06995 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQERIDLIVKILDEKKAENIKTIDMSEQEYFVKYVIIAATLGERHALSLIDELKTRLKAKGEEFLNIDSS

EEWSVIDLGDILIHLLTPEHRGIYNIEELLENLKKGRV

>AHK57494.1 nicotinate-nucleotide adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIALFGGSFDPPHNGHNSVVLEALEKLDIDKLIIMPTYINPFKQSFSADEKQRFLWVKKLWGHLPKVEI

CDFEIRQKRPVPSIESVKYLYKLYNPSKFYLLIGADHLEKLHLWHDFEKLNSLVEFVIANRNDIGIPKNF

KDLKTNKKIASSFIRDTLNTNEVCEEIKDEVKKYYEKLQKN

>AHK57493.1 glyceraldehyde-3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAVKVAINGFGRIGRCVARIILERNDIELVAINDTTDIELTKYLFKYDTVHGEFKGSVDSEGDDLVVNGK

KIKVFKSRNVKDLDFAKHGAQIVLECTGAHLTMAKCQEFIDMGVQKVIMSAPAKDDTPTYVLGVNSELYK

GESIISNASCTTNCLGPVCRVLQDNFGIEKGLMTTIHAYTNGQSIIDAKAKDKRRSRAAAQNIIPTSTGA

AKAMKLVMPELNGKLHGQSMRVPVIDVSSVDLTAQLSRKVSKDEINEAFRKAAATNLKGILMVDDDERVS

SDFITCSYGAIVASDLTQVIADDFIKVIAWYDNEWGYSSRLVDMAVYIANKA

>AHK57492.1 phosphoglycerate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSDIISIKDIDLAKKKVFIRCDFNVPQDDFLNITDDRRIRSAIPTIRYCLDNGCSVILASHLGRPKEISS

KYSLEPVAKRLARLLDKEIVMAKDVIGEDAKTKAMNLKAGEILLLENLRFEKGETKNDENLAKELASMVQ

VYINDAFGVCHRAHSSVEAITKFFDEKHKGAGFLLQKEIDFASNLIKHPARPFVAVVGGSKVSGKLQALT

NLLPKVDKLIIGGGMAFTFLKALGYDIGNSLLEEELLEEANKILTKGKNLGVKIYLPVDVVAAPACSQDV

PMKFVPAQEIPNGWMGLDIGPASVRLFKEVISDAQTIWWNGPMGVFEIDKFSKGSIKMSHYISEGHATSV

VGGGDTADVVARAGDADEMTFISTGGGASLELIEGKELPGVKALRSKENE

>AHK57491.1 triosephosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIFAANLKCNHTRASFKIYAKILNKTMGVKCDDIIVFPPSIAFLENENNFIQGAQNFYPCVNGAFTGELG

KEHLDEFGIKCVLIGHSERRALGDEEFIKAKFDFAKEHGYKIVFCIGENLDTKNSGKTLEFLKKQLEIID

LNYEKLIIAYEPIYSIGTGVSAQSTDIAKVLEFLASLTKVPLLYGGSVNENNIKEILSVNHCGGVLIGSA

ALKVENFIKLIKG

>AHK57490.1 enoyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIMKGKKGLIVGVANNKSIAYGIAKACFDQGAELAFTFLNDALKKRVEPIAQEFNSNFVYELDVNNNEHL

DSIAEKIKKDLGEIDFVVHAVAFAPKEALENSFLETSKEAFDIAMQTSVYSLLSLTRAVLPILKDKGSIL

TLSYLGGVKYVPHYNVMGVAKAALESSVRYLARDLGVKGIRVNAISAGPIKTLAASGIGDFRMILKYNEI

NSPLKRNVSIEDVGNSAMYLLSDLANGVTGEIHYVDAGYNIMGMGDVEKNEEGQTVLCWDNQKG

>AHK57489.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKLSNEELKNILEDRIKKLENSTLKEDKVINEESVKILARHLSLGNEIPALAQRFFQIAPKTKLVWLHL

CECTGCSESLLRSELPSFDELIFDFFSLEYHETLMAANGTKAEELLEYVLEEDFILAVEGGVAAIDTFFL

TIGAQGESGYEILEKLAAKAKAIFAVGTCSSYGGIQAAYPNPSKTCGISEVLSQKVVNIPGCPPSDINII

ATLSFFALFGVLPELDEQNRPVWAYGKCLHDMCERKAKFESGIFAEHFDDEAAKNGACLFKIGCKGPYTY

NNCPKVKFNAKTSWPVAAGHGCIACSEKNFWDEFGNYEKPMANIFSYAKLCNEELKQEFFLEEQIKILEQ

IDFEFESNIKLILQNIAKNKLGALLVENYKKSFEKNYAFIEQNFDENPMPSKDFWKYLEISFILVKGAFL

KDKNDFLIVAKNYAFKHASPYDFKLNMNAEKPKLDVSKSFRMTLIYLCGGLDFEGVAYSILKAFEDNIAK

ISSLKAS

>AHK57488.1 hypothetical protein N918\_06955 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTLNELKDGQKAIIVNLNAHKELKNRLLSFGFIKNKNLKKIHSSLKNATIMVELDTSCVILRSDEAKTIE

VNLI

>AHK57487.1 endoribonuclease L-PSP [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSNYPKAIGPYSAYREVNGLLFISGQLPINPASGEIESSDIKEQTKQSLKNIGAILEENGISYDKVIKTT

CFLADINDFVAFNEIYAEFFKAPYPARSAFAVKDLPKKAKVEIEIIAQKG

>AHK57486.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDEGQKQQFIKLTYFLGEVLGEQYEIVFHVITEDGAYIAAIANSHISGRSLDSPLTAFASELMQNKKYLE

KDFLCDYKALVGKSKLIRGSTFFIKNHDKLVGILCINHDTSIMRDLICKMIDLEKIGDMGDILGNISFSQ

NDSSIETLSHSIEDILVQSVDSSYLNSDYQLSITQKEEIAEKLYEKGIFNIKGAVPIVAKFLKISEPSVY

RYLKKFKK

>AHK57485.1 ankyrin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTTLSLEEEKRFEELCKMAFNFARNNECENLKIMIEAGLNVNLKTHKGDSLLMLAAYNNSYESAKMLLEK

GAKVDEKNDRGQTPLAGVCFKGYLPMCELLVKYGANIDENNGLGMTPYTFAIMFGRKDVAEFLLKKSKNN

FLKKISLKILKFIKKF

>AHK57484.1 catalase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKLTNDFGNIIADNQNSLSAGAKGPLLMQDYLLLEKLAHQNRERIPERTVHAKGSGAYGEIKITADLSA

YTKAKIFQKGEVTPLFLRFSTVAGEAGAADAERDVRGFAIKFYTKEGNWDLVGNNTPTFFIRDAYKFPDF

IHTQKRDPRTHLRSNNAAWDFWSLCPESLHQVTILMSDRGIPASYRHMHGFGSHTYSFINDKNERFWVKF

HFKTQQGIKNLTNQEAAELIAKDRESHQRDLYNAIENKDFPKWKVQVQILAEKDIEKLGFNPFDLTKIWP

HSFVPLMDIGEMILNKNPQNYFNEVEQAAFSPSNIVPGIGFSPDKMLQARIFSYPDAQRYRIGTNYHLLP

VNRAKSEVNTYNVAGAMNFDSYKNDAAYYEPNSYDNSPKEDKSYLEPDLVLEGVAQRYAPLDNDFYTQPR

ALFNLMNDDQKTQLFHNIAASMEGVDEKIITRALKHFEKISPDYAKGIKKALEK

>AHK57483.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSVLVIGADEITPIRAVLHDLGAKKIEHWDARNENRVNRKPIPCDTECIVMLTSFLNHNTMKKIKNEAKK

RKIPLVCAKRSVSCVYCEYCKIFNLNKEFSCYKG

>AHK57482.1 hypothetical protein N918\_06910 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLFGFDDKQEFIPQIYRYLNNQELMLTFLTQYNASVDSALKIPLLYAKNTKSLKMIFGNFLHNIMHVSFG

KIQNINIKLNTYAFYFQKRKSLIFNTKISKNVDLLRLLRIYLYGICFDAQILFSSYVYDKVSFQNNGKNI

DQDGDLIIIDKKFAILPLCKEINTHNLEIENEIYELLNLIKENNFEKFYIVCPRNKNFTHFIEIKHFLCD

LNKTMLKLVPYKISNQIIRRK

>AHK57481.1 flavodoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSVAVIYGSAMGNTEGAANTIASKLGISDVFNISDIDAAKMNSYDKLICGTSTWGSGDLQDDWDGFDFSG

LSLGGKTVAVFGMGDSESYSDTFCGGMGKLAQNLKDAGANLVGEVSTDGYTFEASDAVVDGKFVGLALDN

DNQEDQTESRIDAWVEQIKPYFA

>AHK57480.1 hypothetical protein N918\_06900 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKFALILSFFIALFMSACTNATFTQSFIQTSNEGIFIRSQKQQSFKISFQNPSQLQTTLDRDLALKLKN

LGLKEVKENADYEILINLVDMKKHSYAQKITTSARFFYDFDPLESDGEWMVENYYTMQVNLQINSKNHNS

QKTSLLARTAYLGNKERCQLSLENKIINQIVSFFYF

>AHK57479.1 hypothetical protein N918\_06895 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKLSLILVCSASLFAASNSEISDFYSKSIKAQFPNATVSVSNRQKVGNTGFESVIVSVELNGQKQENIL

FTKDSLITPDLIDLKTGISYAQEYEMKKFQEARENFTKNAKAVAQKETMVIALGDKNKPAIYVFSDPECP

YCREHLAQIDDELKNYQVNYILTPVHGKSAFEKSALIYKEAKKAKNDKEKIAILNKYYDANIKNYPKVSD

AELKEVFSLYEKYRSLGLSATPTIIK

>AHK57478.1 translation elongation factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKSVIIGTAGHIDHGKTSLIKALNGFEGDSLKEEQERQITINLSFSNLKLKDKNISFIDVPGHKDLVKTM

VSGAFGFSVCLFVVDINEGLKEQSLEHLEILKILDIKNIILVLSKCDLCENIEQKSVEILEELKNLDYPI

LKVFHTSIKNNQGIEELKNYLYTIENKENDEELIFHYYIDRVFSLKGIGTVVTGSLNEGSITLNEKIICL

DTQKELIVKNIQNHDTNLEQIKACNRVALSLNCDYKELKKGYLLSKKGYFKAFKECDALVKAKNLQNSKM

IFCVGSRQIECKINILKKLENDEFFVHFSFDKNVFLSFDEAFILLQNNRVIGGGKVLNPLSEPLKKEQKN

KFLMFLKNKDFKAAFSFLKDAHKYGFGLLSSYQRFKLSHQKALKLAKELNQVFVDEKNLNVYHLQSLEEI

KNFIKFILEKNPYAMLSAHSLALRITWASENFCELGLKEMSNLLDFQNGIYFKKGIDFEKLQEKNNNQMY

EILKKQGIKPEAPYNLYDFLELDRKSGDNILKKLTQKGLVVRLSHNLFIEKQALEKLMQECLNLLKNQSL

DVQSMKEYFNLSRKYAIAYLEYLDKFPQVSKEAEKRFLTNI

>AHK57477.1 selenocysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKFRTFPQINTLIEDESLKSYPFYIKAFFCKKVVAKLKENFFQDEISKDKLLLEIKKEIKTFYRKDLQS

VINASGVVIHTNLGRSVIHEELYEACKDIICNYSNVEFDLENGKRGSRYALVLEKLKMLFECEDALVVNN

NAAAVFLVLNSLCYDKEVISSRGELVEIGGSFRVPEVIKAAGVKLCEVGTSNKTHLKDYEQAINENTALI

LKTHKSNFALMGFHSEVNIKDLHELAKEKELLSYYDLGSGWCENLNEKLIKNEPKIRKLVQECDILSFSG

DKLFGSVQAGIILGKKELIEKLKQNQLLRMLRVDKLTLSFLNESLKAYLQKDYEKIITLKLLNDDLSFIE

KKALRVQKELKFQTQLKKSKSLVGGGSMPDKSLDTYILTFQGDALKLQTRFRKENIIGRIENDEFVLDFR

TIRENELQKLILTINQMENL

>AHK57476.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQDFVYIKNDVLIPLPDAIEILDQANDKEALICNDKNQKAQIYAPEINFYLKNSQDEILEQSKNVLTLYE

ARASVYDLGLDLEQSKEVQNRLIVADGDAQTVEFLKEHEFKVIALSSAEILAVFGSVGELCAVVKNQGEE

VEIDFDFLLFKAEDLSVVRKDFTRQSGCYNLLNFENLEVLFEFLQSKSPKYHYKTYISYNASVCQYHERR

SEHCAKCAEICPTVAILKDDENKHLEFSQVDCLGCGGCISVCPSGSLDYAPMPRESFFTLCEFYKDKKIL

IIPKKMSLENLNLALPKDVLPFMIEGEKWLSSMHFLTLLQNSGANLVFYTDFVSRGSNEAIVLLNTFFER

KFQKKAIFVAKDEKELQNVLKEQEFIQDLKYDFHNNTLTTRENFAKRMQEMIKNEDFGSMESGEWLRYGK

VEINPNTCTLCLSCVGACNVGALIADKQENALKFNASLCTTCGYCELSCAEKDTLKLFRSGMEFRASYFE

YQTMAKDELFACIECGKEFATKKAVEKIANLMKPKFGNDENKIKTLYCCADCKAKVMIKAMIN

>AHK57475.1 major facilitator transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNNVLPLSFIVGTRFFGLFIVLPVLSLYALKLEGANEFLVGLLVGVYALTQMILQMPFGILSDKIGRKK

TMLIGLIIFIIGSLICSFAENIYTMLLGRMLQGAGAIGAVATAMISDFITEENRGKAMAVMGSFIGLSFA

ASMVISPLMSAKWGLSSLFDLSAALSLLCIILLYTVVPKENKITHENEKTPFFHLIKQKNLALMNLTNFM

QKMLMSIAFLSIPIILVKHLGFASDKLWIVYSASMVAGFIAMGFAGSLGEKKGLAKQILLLGIVFFILSY

LFFAFSNSIDFFIIAVVIFFIGFNLHEPIMQSCASKFCKVHEKGAALGLFNAFGYGGSFIGGIIGGIFLH

LDTLNLLAIILVILALIWLVALFFLKNPADFKNLYLPLETPLNFSTFGENLGVVDIYKNSKNLVVKFDSK

LTSKEELEGKL

>AHK57474.1 nucleoside-triphosphate diphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIILATSNKHKVLELKEILKDFEIYAFDEVLMPFEIEENGKTFKENALIKARAVFNALDEKQKKDFIAL

SDDSGICVDVLEGNPGIYSARFSGKGDDKSNRDKLVNEMIKKGFKQSKAYYVAAIAMVGLMGEFSTHGTM

HGKVIDTEKGENGFGYDSLFIPKGFDKTLAQLSVDEKNNISHRFKALELAKIILKILNKG

>AHK57473.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFAKLLKFFISRPKSTFFGTLFICLFLSFFAFKLSVDASAESLLLEDDADLKTFREISKHYKSDNFLLLA

FKPYDEKPFSNENLAKLKKLHEELEKAPLVERVFSIINAPLLQSSQNTDLKELLKNIPNIESQDINRTKA

QNEILNSPFYKNNIISKDGKVTGLIIYLKPDTVYNNLIEKRDLATDEKEKDQIRLAIKEHQDKQKVITKQ

SLDTIKSIVRNYEKNKDTLYLGGVSMIADDMIAYIKSDLVLYGVSLVFLLGLALYYFFRSWRFVFLPLFI

CFISLSAASGVFALLNFQITVISSNYVALVLIITLSVVVHLITHFIESTQNHPKAKVERIVLETLLAKAN

PSLYAIVTTMIGFFSLILSNIEPIIKLGIMMSIGIGLALIFSYLFLASILVLLKPKNYHKKEFKFNLLAF

CAKTALDPKKRRMIYEISVLAIILALIGISKLRVENSFVNYFKDGSEIKKGLLVIDKNLGGTLPLEVIIR

FPNNKNDQNASDTLDSFESEFENLATQETYWFDSKKTRIAKKVHEFLENKEFVGSVLSLNSLLTLGKNIN

DGKELDDFALAFLNENLPAKFKQDLLSPFVSIENNELRFSMRIVDSDPNLRRNEFLIDLKKQLNELVKND

GVEVQITGIMVLYNNMLQSLFSSQFDTLIFVILAIFILFIIVFRDLKFSVAAILVNVIPLSVVFALMGLL

GIPLDMMSITIAAIAIGIGVDDAIHYIYRFREEIKNKSLEEAIMISHLSIGSALYYTTISIVLGFSVMMS

SNFIPTIYFGILTVFVMILLLSGSLFLLPSFLITIYSKKTKFPNQHKEHILKQ

>AHK57472.1 toluene tolerance protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIFLILTLFFNAFALQLDEISSTMQKNIDASLKLLQDNKEDKKQAANGIFKLFDSIIDYKLMAKLSLS

KNYSKLTPKEQEKFTTAFETSLKKSFTDKLSLYKDQVLKVKNGELKNEKRYFLTTSMVVDGEEKNIIFKF

YNDNNNWLIYDVDVLGVSIVQTYRSQFGDILANQGFDALLQKLESIVIE

>AHK57471.1 hypothetical protein N918\_06850 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRIKFISFILIFFTIFAFAKEQNLDDFEQEYQNYQVNDPLSGYNKAMTSFNVALYDYGLRPVLKGYNAIT

PEFIRLGARNFFDNLLAPLRFVSNVLQFKFEEAGEEFKRFTANTIMGFGGLMDVASKMGLKKHPADLGTV

LAHWGVGSGFHIVLPILGPSNLRDTLTLPATWYASFTAYIDPTWASIAISAYGFGNELSFRLDEIDEIYH

NTPNLYPFLRDAYEQRRNELSK

>AHK57470.1 nicotinate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIFYSYEEFKEDVKILAKEIKEDFNPDALLAIARGGMSLGHSLAVALKTRQLFALNSIHYDNTKKLDTIE

IFNIPDLSKHKKILLIDDIVDSGESLAEIKKVLLEKFPHIELKITTIFYKKTALLEPDFKVKEATEWVDF

YWDINLD

>AHK57469.1 guanine permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSFFKLKENNTSFKTEVIAGLTTFLAMVYIIPVNSSIVGNTGMPIEALITATALITIVASAFNAFFANTP

VAMSVGMGLNAYFTFAVCLGQNIAWQSALGAVFISSIIFLILSFTHFRLWVIRNIPKDLRLAICAGIGCF

IAFLGLSQMGVIMHNKDTLVSIGNFKSPHVLFGIFTLALIIFFWAIKLRGAFILGVLASSIIAWIFHLDN

ASFPVQIFSWPNFSMENGLGAIFLQLDIKSALNITMIPIILTFFITQLFDSIGTITGVGERGKIFDDPKN

GEKKLSKTLMADATGSALGAMTGTSTVTAFVESTTGVESGGRTGLTALVVAICFAFTLFLLPLFKAIPAN

AIYPVLVMVGILMFMEVKNIDFKDSAIAVASFFTIIMMPFTYSITTGFAFGFLSYLLVRIFKREWDKINL

GIIVLSLLSLGNFLLMALQ

>AHK57468.1 hypothetical protein N918\_06835 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNLITKLENEERLNQEEANALWDLDLFTLGKYAHKKRTKLHGKKVYFNINRHINPTNICADTCKFCAFS

AHRKNPNPYLMTHEEIMKIVDETVKRETKEVHIVSAHNKDTTWQWYLEIFKMIKEKYPNLHVKAMTAAEI

DFLHRRFKMSYEEVIEKMLEYGVDSMPGGGAEIFDEEVRKKICHGKVSSENWLKIHKLWHEKSKQSNATM

LFGHIEERHHRIDHMLRLRDLQDQTGGFNAFIPLVWQRDKSFIQTDKIMDSEEILKTIAISRLVLDNIKN

IKAYWATMTLNLAMVAQEFGANDLDGTIEKESIQSAGGAKSAKGTSLKTFIDMIKTSNLIPVERDSLYNE

LKTY

>AHK57467.1 nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNKELEIFKKNLSSYTQSCRKFFLKQGAFSLYHSKNMDNFIKKAYDIVLKDYFDDFSPPSDNIPFCVLA

SKAYANNSLCFNESISLIFVYKDIKAFHLKPMIKAFIEILNDAHLQIDSVILEFNGLYNASNELKTSIIQ

TRFICGSRILFKGIKIKFESIIKENKNDFAKLLLENFKEFDIPFIKQEFNILKDFGGLNHLRSLESLLVL

FKTSPKNYALNFIDEKKLSELRLAGDFLLSLKSAMNLLSAKDEDEFLLINVHDLSELMYKKAKKHFGANE

LLVQKALQSMHTIGFYTHFLAKQIQDGLNHTLKQEYKFKTLVEVLEYLLKLEDKHVIFDLNLVFALGRLK

YGKKDIEKALILFEKIFYKRHSFCVLKLLLDSGILKDLCKPFWTVRFLSDEEGNYSFDEQVFLMLSEFEK

YEDELEILQKLKTDEKMILKLVILLSAIESENEISLAGIYRAYCSKFDLKNEILEWGLKIFKNNNALKDL

VEKEDIYNPIVVSSLVSKLENLENLELLYTLTWLKAKALNYNAFYFRVLDKLLENAKQGFEDENLLEESA

RRVKKELTLKRSKIFLEQDEILQDKIIHIKSNLFIIKNTFEDIVMISKLAKENDFKFWFSNETNLSLQIV

APLHFNIAIILSSLTNLNLIFMNFFELFDDKIYLRFEYDNIISDEQKLKLCELLNSNLSGFNLKKIKKPI

IKKDELKLDLNYSKMYAKLGLNTKDQQGLMAYLMNVFNELELVLCAAKIQTIRQRTRNIFIFQKNEKLEH

SEQKLVNLLISE

>AHK57466.1 glucosamine--fructose-6-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MCGIVGYIGNNEKKQIILNGLKELEYRGYDSAGMAVMQEGELSFFKAVGKLENLANKCTDFESQGYGFAI

GHTRWATHGKPTEINAHPHLGQYSCVIHNGIIENYKEIKDKLEKEGVSFLSQTDTEVIVQLFEFYARNLG

VFEAWQKTIKELRGAFATLLVTKKDPNHVYFAKNAAPLIIGKNANKEWYFSSGDAPLIGSCDEVMYLEDL

SLGYASKDELVVYENDILKSLCFSKLSGDKAYAKKDGFRFFMEKEIYEQSRVMSEVLMGRIQGDEVVFDE

LNNEDLSQVDEITLCACGTSYHAAMASAYLFERIAKVKAKVEIASEFRYREAIIKKDSLFIVISQSGETA

DTLEALKIAKEQGAKTFAICNVDNSNIVRLAHLSLLTRAGIEKGVASTKAFATQVLTLWMLAIFMAQKRN

LNVSAEIKALLHTPNCVSVKQALHEKIHRLSKRYLDGHGFFFIGRDVFYPLALEGALKLKELSYLHAEGY

PAGEMKHGPIALADSKLYTIALMPKHMLYEKTKSNVEELIARDSTVLSISPLEFDLSDDFIKTNEQDHYM

CEFFEMMVITQLLAMEISIRLGNDVDMPRNLAKSVTVE

>AHK57465.1 fumarate hydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEYRVEHDTMGEVKVPNDKYWGAQTERSFENFKIGCEKMPKVLIYAFANLKKSLALVNNKLGKLDDAKKN

AIVQACDEIIAGKFDDNFPLAIWQTGSGTQSNMNMNEVIANRATEIMGGDFRKEKLVHPNDHVNMSQSSN

DTFPTAMSIVAVEQVEKKLIPALDELIATFEKKVKEFDGIIKIGRTHLQDATPLTLAQEFSGYLSMLLHS

KEQIIASLPTLRELAIGGTAVGTGLNAHPELSQKVSEELTQLIGTKFISSPNKFHALTSHDAINFTHGAM

KGLAANLMKIANDIRWLASGPRCGLGELIIPENEPGSSIMPGKVNPTQCEAVTMVAVQVMGNDVAIGFAA

SQGNFELNVFKPVIIYNFLQSLDLLADSMHSFNIHCAVGIEPNRAKIDHNLHNSLMLVTALNPHIGYENA

AKVAKNAHKKGISLKESTMELGLVSEEDFNKFVDPTKMIGPKA

>AHK57464.1 hypothetical protein N918\_06810 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNGKFFLISFILVILFLLLYLFKGFLLVIIIASLMAVATSNINAKFLNLTKGHKFLASILTTTCMVLLF

FAPFVYAMIELAKALKNFDINLVTQTLDYVKNYQFTLPESFNFLEPKIKEFLASIDLNSISKQILSYASS

FTKSGAKFLIDMVLICVFYFFANLYGTELVIYLKSIIPIDKKELDDVLSEVGNVMAVVLYSMVIVAIFQG

ALFGLITIFYGYDGILMGVIFAVSSLIPAIGGALIYMPVSLYEFASNNLNSALVIFIYSVIVISFIADTL

IKPLIIKWINKKLVKTPTKINELLIFLAMIAGISTFGFWGIILGPAILTFFVSTLRMYVILKDKNLI

>AHK57463.1 Holliday junction DNA helicase RuvB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDRIVEIEKYSFDETYETSLRPSNFDGYIGQESIKKNLNVFIAAAKKRNECLDHILFSGPAGLGKTTLAN

IISYEMSANIKTTAAPMIEKSGDLAAILTNLSEGDILFIDEIHRLSPAIEEVLYPAMEDYRLDIIIGSGP

AAQTIKIDLPKFTLIGATTRAGMLSNPLRDRFGMQFRLEFYKDSELALILQKAALKLNKTCEEKAALEIA

KRSRSTPRIALRLLKRVRDFADVNDEEIITEKRANEALNSLGVNELGFDAMDLRYLELLTAAKQKPIGLA

SIAAALSEDENTIEDVIEPYLLANGYIERTAKGRIASAKSYSALKLNYEKTLFEE

>AHK57462.1 histidine phosphotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGILTKLELDYEIDDIEKFLQFFRTMCDRFEPLIIKLGSDSVRYKEAIKELETLAHNTAWAARRLNLEEV

TDFCVFCEEMMAQANRFNGPASDEFTDWMLLMSDQFEKYCRSYENDDSVLAVFNPLIVNVPNIISK

>AHK57461.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQTSPDMFINRELSWLRFNSRVLDQCSKNLPLLEKLKFIAIYCTNLDEFYMIRVAGLKQLFSAGVNASSS

DEMTPLQQLKAIRKYLHQEKELLERYFNEITSELEKENLFIKHYENLDENLKQKCDEYFFSNIFPVIVPI

AVDATHPFPHLNNLSFSLAVKICDKAHPELVKFGMIRIPRVLPRFYEVSANIYVPIESIVHQHAEEIFPG

YKLLASAAFRVTRNADMVIEEEEADDFMMILEQGLKLRRKGAFVRLQIQKDADEQIVEFLNTHMKIFHKD

VYEYSILLNLPSLWQIAGNKTFTHLLSPLYTPKTLPPFDENLSIFDAVEKEDILIIQPFESFDPVYKFIK

EASKDPEVISIRMTLYRVEKNSNIVQALIDAASDGKQVTVMVELKARFDEENNLHWAKALENAGAHVIYG

ITGFKVHAKVSQVIRKQGDKLKFYMHLSTGNYNASSAKIYTDVSYFTSKAEFARDTTSFFHILSGFSKNR

RLQTLSMSPNQIKEKVLEMIRIETSKKNEGVIVAKMNSLVDSDIIQALYEASMEGVQIDLIIRGICCLKP

DEEYSKNIRVRSIIGKYLEHARVFYFKHSEPNYFISSADWMPRNLERRLELMTPIYDERSKAKLAQFLRL

QLSDNVLAYELKNNGEYEKIPSSEKIIDSQQTLEEYVSKIYKTLKKDTDQSRATHLASKLFKEN

>AHK57460.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKTSNLFTIFLVLLFVFFAVGFYTFYNAKGTSYLSNASESCNNCHIMNEVYNEYMAGPHSQKVKGEPRA

TCVDCHLPHNFVAKWIAKAQSGLGHAYAFTFKLDELPTNLSATEKSRKMVQENCIRCHADFAQTAINATT

NPHADKSLNCASCHKDVGHKHGI

>AHK57459.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKNILRLGIVVLVLLIAGVLWLNNDINQKKEDEANKNAIAANADFSLLSDDDPNFEKWGKVFPEQLKMY

LTVEKEEPKATEFGGNLAYSKLIRFPQLTILWAGYPFSLDFNEERGHFWVQVDQMKTARNNKDFLNAHGL

AAFKGQPAACMNCHSGWTPWLIKNVAKGDFTAFNSTNYWTMIKNIPAVDGIVENSPEHAGPHGGKRMGVT

CADCHNPNDMSLRLTRPAAINALVSRGYEKDPVQGVKATREEMRTLVCSQCHVEYYFKPTGEKVKVMGET

IVDDSSKKWWNGTQKNYDEYEFWRDGNKVKEIETDGIVLTFPWSEWKKGQPFRIEMLDDYYDKVRGVFGA

DFTHKLTGAQIIKIQHPESELYSGGVHAANGVSCVDCHMPYVREGAKKVTQHNITSPLRDINSACKSCHK

QSEDYLKAQVLDIQNSVAHDQRTAEYAIVSLIMDTKKLRDELGNMEKFQSDGKADAKKISEELKEVLELH

RKAQMRADFVNAENSTGFHNPREASRMLLQAVDMARMGQTKLVEIAAANGIKDFKTSNLGFEDIQKFNPG

ELYYKVDVNNHKAGERYYADEKDVNGNPPKELLEHDKELAPYNYQVIDKK

>AHK57458.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINKNKLFRQVHIYLSLFFLPCALLFALTGIAYIFGINQDVGLKVEQYQLSKVIESGKEREALIEYLKTN

GLKVPSNTNIIKSKDKGITIGGTHYSANITQNSTNEYNITLKTRSLLGDMIMLHKDKGAWYFSVLSVGFG

ITLFMLYISGLMITLFANKKDRSKQFAVLGVGVVVTLLLAYLSL

>AHK57457.1 enterochelin ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKSLVFAFFAFFLSLILTACNSNSNENNASSTTKTNTATVKVLPISMSDEGDSFLVKDSLGENKIPKNP

SKVVILDLGILDTFDALKLNDKVVGVPAKNLPKYLQQFKNKPSVGGVQQVDFEAINALKPDLIIISGRQS

KFYDKLKEIAPTLFVGLDNANFLSSFENNVLSVAKLYGLEKEALEKISDIKNEIEKAKSIVDEDKKALII

LTNSNKISAFGPQSRFGIIHDVLGINAVDENIKVGTHGKSINSEFILEKNPDYIFVVDRNVILGNKERAQ

GILDNALVAKTKAAQNKKIIYLDPEYWYLASGNGLESLKTMILEIKNAVK

>AHK57456.1 iron ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKLKNITKFYDNKVIISDLSLDFHKGKITSIIGANGAGKSTLLALASRLIKPSSGEIYIDGMNLKNYKE

QILAQKISILKQQNNINLRLKVEELVAFGRFPHSQGRLNTNDKIKINEALEYMELSNLRNEFLDTLSGGQ

KQRAFIAMIIAQDTEFIMFDEPLNNLDMKHSVQIMQLMKNLVKDFNKSIAVVLHDINFASIYSDEIIALK

DGKLLKQGSKDEIINQENLKQIYDMDIPVSQINGKKICIYF

>AHK57455.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRKKMLILSFLTLNMIGIFIFVGLNGFDEYALKSRFLQIAAIIIVAICIAVSTVIFQTLCNNKILTPAII

GLDSLYMLLQSALIFSFGAANLSVYKNDINFLITLVCMVVFSLGLYKILFSSDRSIYLIMLLGLVFGTLF

STLSSFFEVLIDPDEFMVIQGRMFASFDNIAFDVLILAYIISFLSFIWIFRYMKFLDPLNLGKDLAINLG

INYQKISKQLMIIIAILTSISTALVGPITFLGLLVVNITYELFKTAKHSILLSACILISILALLGGVFFV

SRVFDYNATISVVINFLGGIYFIYLVLKGNKL

>AHK57454.1 phospholipase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRKIALFLSLCVFIWASDLQQALEYEKQGDYKKAMEIYKKLALKNSSVLISQEQNNSSQATQTQNSITIK

KEEKQDFSRLALANYLGENESFNPLGISSYKMNYFLPFAYSFNSLGVNNNKSEAKFQLSVKKRLFENLLG

LDEKYYIAYTQTSWWQIYEHSSPFRETNYQPEFFIDLPLYLKDYEFFNNLRVGILHESNGKGDENLQSRS

WNRIYVSTAILYNKFLFVPRLWYRIPENKKDDDNPAILHYMGNFDVNLAYLGDDYFINLMLRNNLKFHNN

KGAIQVDLGYDIFNNGIYWYLQYFNGYGESLIDYNKHLQRLSTGFLISY

>AHK57453.1 molybdopterin-guanine dinucleotide biosynthesis protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQLNELNCVILCGGKSSRMGQDKSKLILKNQNLTQFQVDKFSKIFKNVYVSAKEDKFENHFSLIKDSLEF

EVYSPMLALYSILSNFKNEFVFVLSVDSPKVGENELLKMLPFLEQNYKIIIAKTPLHKHPLCGFYHSSLA

QTCKNFLEKNEQKIGLLFSEIKTKFVEFEDEDAFLNLNFYEEYEKFKSKLK

>AHK57452.1 ferrous iron transporter A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKYTELLQLQTFFSRFKKIDFIKRINDNILELSFDRERFIFDLTRAMSAIYTAKFNAKNYNAPFDFMLKK

YFSNAFIKEVKVLEGNRILCFSVKANKAYKSYESKIYFEFTGKNTNVILTDEKDLIIEALRHIDKSYRVV

KPNVILESLKPYKMDENFEEIKDFADYFSRKFTSIYESKIKQIKNLKLAQVDKKIQNLQELFSSLDEENS

LLLKALEYRKRADVLFANLSVLKDYEREFKLDDFEGKELEFKLEFNPKQSANLYYKNAKKLEQKAKNLNI

QRQNLKEKLDFTLSLKELLLQAKSEIELEILLPKKNSKKNQDHKQEDLVANFYFNEFKICVGKNEKGNEF

LLKNAKKDDLWLHVRDIPSAHTLIVSNKQKISLDVIEFAARLCVSFSKLKKGSYWVDYTLKNFVKVQQKA

FVNYTNFKSINITKD

>AHK57451.1 coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPVSPLGNINYINQNMAYPATQASNELAKEGFAATLNMAEFNEKEKTLNKLEKVNETHEIKEEIKEKAEQ

EEKKKKHNQEAKTSDDEKNEEDESKDPNFKDAQSIHRLDISI

>AHK57450.1 phosphatidate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFNTTRIISALVMIGAIIIIALIDQFFINFIVFAVLLYLSFSEAKKLFALENISIIPLAIAFILGSLSHK

ALLFGILVLLLVVGYLVYKKASLKPALIYIYPSLPILALWQVYLDQGMFALFWLIIIVAACDSGAYFIGK

LMGKTPFSPTSPNKTLEGVIGGLICASVIGTILGVFVYSFWLSLLCSFFVAIFAVIGDLLESYFKREAGV

KDSGDLIPGHGGVLDRIDAVIIAAFVMVALL

>AHK57449.1 1-deoxy-D-xylulose 5-phosphate reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MILFGSTGSIGVNALKLAALKNIPISALACGDNIALLNEQIARFKPKFVSIKDSKNKHLVKHDRVFIGQE

GLEQILTECQDKLLLNAIVGFAGLKSTLKAKELGKNIALANKESLVVAGSFLKGAKFLPVDSEHAALKFL

LEGKKNIAKLYITASGGAFYRYKIKDLNQVSVKDALKHPNWNMGAKITIDSATMANKLFEIIEAYHLYDF

KEIDALIEPRSLVHAMCEFKNGASTAYFSKADMKLAISDAIFEKQDTPILEAVDFSKMPALKFHPISTKK

YPIFKLKNTFLKEPNLGVIINAANEVGVYNFLENKSGFLDIAKCIFKALDHFGVPKISSIEEVFEYDFKT

REYLRS

>AHK57448.1 protein kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>AHK57447.1 hypothetical protein N918\_06705 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKAFTILELVFVIVILGILAAIALPKMSSSKDEAEVSKSLNNLKTLINDISIYTLKNDHLSSIKTMSNV

SGVENVDLSNFNGIKEVNFRVGDDKECLKLVFINKADFILMGISSNEASKNAIINAANQSHEDLENIDFT

SSSSNKACVILSKNENFKNLASKTYLLIGGM

>AHK57446.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFKKEISFIKSLFNKENIALHEPCFIGNEKKYLLECIDSGFVSSVGEFVTRFEEALKEKTKARFVIATNT

GTAALHIALLANGIDENCEVITQSISFVATANAIAYTGAKPVFLDIDENTLSLSPKALEHFLENQTYQKD

NLSYNKTTHKLIKACVIMHTFGLSAHIKAIKELCEKYHILLIEDAAEALGSTYENKALGTFGKCGILSFN

GNKIITGGCGGAILSDDENLAKLARHLSTTAKIPHPYEYDHDRIAYNYRLCNINAAILFAGLENLELFLE

NKRELAKIYKDFFKNHDKCKFIDEKSNEKSNFWLNTLLFKNENLRNIFLEECLKNNIFVRPVWKSLPSLK

AFQNCQSNELMNTKKLEKRLINLPSSVRIANKKE

>AHK57445.1 N-acetylneuraminate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQIGNFNTDKKVFIIAELSANHAGSLEMALKSIKAAKKAGADAIKIQTYTPDSLTLNSDKEDFIIKGGLW

DKRKLYELYESAKTPYEWHSQIFETAQNEGILCFSSPFAKEDVEFLKRFDPIAYKIASFEANDENFVRLI

AKEKKPTIVSTGIATEEELFKICEIFKEEKNPDLVFLKCTSTYPTAIEDMNLKGIVSLKEKFNVEVGLSD

HSFGFLAPVMAVALGARVIEKHFMLDKSIESEDSKFSLDFDEFKAMVDAVRQAESALGDGKLDLDEKVLK

NRVFARSLYASKDIKKGEMFSEENVKSVRPSFGLHPKFYQELLGKKASKDIKFGDALKQGDFQ

>AHK57444.1 pseudaminic acid biosynthesis PseA protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFCKKCVMPDTKPDLHFDEEGVCDACRSQEAKNQNINWQEREKEFFELIKKYKKHPVYDCVIGVSGGKD

STFQVVKMLELGLNPLCVCFEPSVPTKIGRKNLDNLNHLGVDLIHIKRDPKVYQKLAREAFIRTGDNEWQ

NHLGIFTSVPRIAVNFGVPLIIWGESPQIEYGGPASSKNKNILGREWLEEFGGLLGNRASDMLGVNGITE

KDLFLYTYPSDEELQRVGVTGLFLGYYFKWDYKKILEISKKYGFLTLDHPVETTYENFENLDCYSNHVHD

YLKYCKYGFGRATDNACLDIRLGYISREEGVRLAQKYDGKPPKKAIKKYLEFSGFSEEEFQKIVDSFTNK

KIFKRDENGKFIRDYDGSLVRKDECVLK

>AHK57443.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MCFKMIALIDYKAGNLNSVAKAFEKIGAINFIAKNPKDLQKADKLLLPGVGSFKEAMKNLKELGFIEALK

EQVLVQKKPILGICLGMQLFLERGYEGGVCEGLGFIEGEVVKFEEDLNLKIPHMGWNELEILKQVPLYQG

IDNKSDFYFVHSFYVKCKDEFVSAKAQYGHKFVASLQKDHIFATQFHPEKSQNLGLKLLENFARL

>AHK57442.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKTRIIPCVLLKNSQLVKSIEFKDFRTIGHLTSTMRIYNARNVDELIILDIDASKSGEIDFESIEDLAK

ECFMPLTIGGGIKTLEDIQKILNLGADKISINSKALEDMDFISKAGNRFGSQCIVCSIDVKRKGDQFCVY

DRGNLLEKSPLELALEYEKKGAGELLLTSVDFEGKAKGYDLELLKIFQNKLKIPLIINGGLSKPSDGVEA

LNLGADALAGAYIFHFSKYTPKDVKEELARQGFAVRLL

>AHK57441.1 N-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKLKNFAELNSQEIKLIFKWRNHPDISQFMKTKHIDFEEHLRFIRNLHQDSNKKYFLVFQDEQIIGVID

FVNITTKSCEFGLYAIPDLKGVGQVLMNEIKKYAFEILKVDTLKAYVFKDNHKALKLYQQNHFTIYDEDK

DFYYVCLKQSHCKALPS

>AHK57440.1 nucleotidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVLFRSDSSSQIGFGHIKRDLVLAKQYSDVSFACLPLEGSLIDEIPYPVYELSSESIYELINLIKEEKF

ELLIIDHYGISVDDEKLIKLETGVKILSFDDEIKPHHCDILLNVNAYAKASDYEGLVPFKCEVRCGFSYA

LIREEFYQEAKENREKKYDFFICMGGTDIKNLSLQIASELPKTKIISIATSSSNPNLKKLQKFAKLHNNI

RLFIDHENIAKLMNESNKLIISASSLVNEALLLKANFKAICYVKNQESTATWLAKKGYEVEYKY

>AHK57439.1 CMP-N-acetylneuraminic acid synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNLCIIPARGGSKRIPRKNIIDFLGKPLISYSIENALNSGIFDEVVLSSDDEEIIEVALKYGAKAPFVR

DKNLSDDYASSTAVVQNAIEILQSQNQIYDHVCCLYATAPLLNKDILKQAYEKFIQNQSKFLFAATEFEY

PIQRAFYLNENNQVYMFDEKHYKSRSQDLTKAYHDAGAFYFGTSKAWLEEDFIFKPHSSVFVLPRNLVCD

IDTIQDLEFAKILYKVNHESAF

>AHK57438.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQEIKQFFINIERTDINESMENLVSEDFIDSIDIMALVAEIEKFYKKPLKAEFITPENFESFENIKKMLE

TAMKD

>AHK57437.1 amino acid adenylation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTTHIYDFLEKSLIKFSEKTAFVEPFVKERKEITYKDFDLFSKKLASEILKTLGNDNPTQAPVLIILPKG

IDCLISFFGVALSGNFYTLLDEKSPKERVEKVIEVLKPKLFITSKDLNFNLDLPTLYTQDFESFNIDESL

IKHAKEKHIDTNLLYVFFTSGSTGIPKGVSIAHKSVIDYTFWVCETFKFDENEILANQAPFYFDNSILDI

FSSVKSGATLHLLPNHLFAFPNKILECLEKEKVSTIFWVPSVLIYFANTEALNNFSLNALKKMLFCGEIM

PNKQLNIWRKHLPNALFANLYGPTEITDVCSFYIINRTFKDEELLPIGKACKNTELLVFDENMNFISPKQ

IGVKGELFVRGTSLSLGYYNDKEKTKQAFIQNPLHDNYLDLLYKTGDIVSYNEFGELLCYGRADNQIKYM

GHRIELGEIESVINSHVNIKNSACIFKEDIICFYESEEEINFKDFLKDKLPSYMIPKNFIKLDKFKLNQN

GKIDRKVLKELV

>AHK57436.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKTEFLEELKEAMHRDEDLNEDMLLDDIDEWDSLAFVSVMVLYKNLFTLKITAEDLKNCQKVSDLINLA

KLD

>AHK57435.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTRFDKAKISGICVSVPEHKICIDDELESVFSNDIKTLKRMKKVIGLNTRYICDENTCVSDLGKHAANT

LLQGLNIDKNSLDALIVVTQSPDFFMPSTACYLHQLLNLSSKTVAFDLGQACAGYLYGLFVAHSLIQSGL

GKILLICGDTLSKFIHPKNMNLAPIFGDGVSATLIEKTDFNEAFFELGSDGKYFDKLIIPKGAMRIPKAD

IFNDDSLMQTEEFRQLENLYMDGANIFNMALECEPKSFKEILEFSKVDEKDIAFHLFHQSNAYLVDCIKE

ELKLNDDKVPNFIMEKYANLSACSLPTLLCELDTPKEFKASLSAFGAGLSWGSAVLNFKDLYTKNILIYT

KEK

>AHK57434.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLFSPHLKRNELIKFAKELDFSKSQDLLINVHRNHAFEGVQSIIAPFLHFANLRAEFNFSSYDDSLSFD

NFKEASLELLWLDLTRYKNNVQNFIEERLLELRKISQNPILVLSLGEFKTDKKILNCEIFNIEKLIKEYF

DEEDILDLAKEELTGSKLNNKALIFLAQILGLSLIPALVKPALKALVLDLDNTLYQGILGEEGIDNLNLS

PLHKTLQEKIKTFKKQGFLLALASKNEEKDAKKLFEIRKDFILQWDDFDARMINWEPKGENILKIAKKFN

INTNAMLFIDDNIAELENTKITGVKTLLCDENILYKIKLFPNLLKLSNTKEDQIRAKDIAANALREELKS

LSDEEYFQNLEISLNFSKNDLQNIPRISELLGKTNQFIANYTRLNQEKVAQHMQKELIVSVSMSDKLSDS

GIIAIFVFSCKEGNLFIDDLCISCRALGRKLETRMFFKAFELALHFFDLKNNNARLYYQKGERNMPFLSF

LEQISKEFEKNSALIPFQNLNFKGLIIHEN

>AHK57433.1 SAM-dependent methlyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKENIEKLFQAIAQKNPIHSKYLKKIEFSQEDEEEFDKLISYYIQDGISIKEQCDCYLLILNDTLEETKF

FIENGAYRYSSFDEVKDKVYFNESYMKQYMIGLALSSFVWIAHIKVRKYFSQYLQNFTPKTTYFEIGPGH

GEYFARAVKSGKFSAFYGLDISPTSCELTQKMVKQQVGGLITKCDFLCQDFFTYDFDKKADLIVIGEVLE

HVEKPLEFLKRSKELLSDGGEIFATIPINAPAIDHIYLFSHPDEVKDLIEKSGLKFKAYECFMANDYSLE

KALKFKNAITMAVVLNA

>AHK57432.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKQFYEILENILETKVDENTNLSMENCKNWTSLAHIDIIMSLEEEFEIKFNKEDLSLLKSQSALLEKIQ

TLKAEK

>AHK57431.1 C4 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>AHK57430.1 N-acetyl glucosamine/N-acetyl galactosamine epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFNKKNILITGGTGSFGKTYTKVLLENYKPNKIIIYSRDELKQFEMASVFNAPCMRYFIGDVRDKERLSA

AMRDVDFVIHAAAMKHVPIAEYNPMECIKTNIHGAQNVIDACFENGVKKCIALSTDKACNPVNLYGATKL

ASDKLFVAANNIAGNKQTRFGVTRYGNVVGSRGSVVPFFKKLISEGAKELPITDTRMTRFWISLEDGVKF

VLSNFERMHGGEIFIPKIPSMKITDLAHALAPNLSHKIIGIRAGEKLHEIMISSDDSHLTYEFENYYAIS

PSIKFVDKDNDFSINALGEKGQKVKDGFSYSSDNNPLWASEKELLEIINHTEGF

>AHK57429.1 deoxycytidine triphosphate deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGLKADNWIRKMALEHKMIEPFCEANIGKGVVSYGLSSYGYDIRVGREFKIFTNVNSTVVDPKNFVEENV

VDFEGDVCIVPANSFALARTIEYFKMPDNVLAICLGKSTYARCGIIVNVTPFEPGFEGHITIEISNTTPL

PAKIYANEGIAQVLFLQGDEKCDTTYKDKKGKYQAQTGITLPRILK

>AHK57428.1 acetyl-CoA carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKEEIKELVNLFAEANISKIKIKEQDGFEIELERDMCCDVPAPVCPPVPAPQPINVSVVNEAQPSQSVK

SNKPSINSPMVGTFYQAPSPGAAPFVKVGSTVKKGDTIAIIEAMKIMNEIEAEFDCRIAEILVADGQPVE

FGMPLFAVEKL

>AHK57427.1 biotin carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEIKSILIANRGEIALRALRTIKEMGKKAICVYSEADKDALYLKYADASICIGKARSSESYLNIPAIIAA

AEIAEADAIFPGYGFLSENQNFVEICAKHNIKFIGPSVEAMNLMSDKSKAKQVMQRAGVPVIPGSDGALA

GAEAAKKLAKEIGYPVILKAAAGGGGRGMRVVENEKDLEKAYWSAESEAMTAFGDGTMYMEKYIQNPRHI

EVQVIGDSFGNVIHVGERDCSMQRRHQKLIEESPAILLDEKTRTRLHETAIKAAKAIGYEGAGTFEFLVD

KNLDFYFIEMNTRLQVEHCVSEMVSGIDIIEQMIKVAEGYALPSQESIKLNGHSIECRITAEDSKTFLPS

PGKITKYIPPAGRNVRMESHCYQDYSVPAYYDSMIGKLVVWAEDRNKAIAKMKVALDELLISGIKTTKDF

HLSMMENPDFINNNYDTNYLARH

>AHK57426.1 hypothetical protein N918\_06430 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILLSFAFFASLASANTINAIAVVVDKEPITTYDIDQTMKALKIDRNKALGVLINEKMEISQMKQLGI

VVNDLELDDAINKMLAQNKTTLNAFKANLKSKNQSYEQFRTNFKKDLEKRKLYEKIASMAKTDFSDDGAK

KFFEQNKDKFTFYTQINANIYLSNNPQTLENIKNTKKTILKPQNASLNTSNADPRLLGLLSQIPVGSFSP

VLNGKNGYELYEVKSKDGTQTPEYEQVKNEVLNAYVSEQRQNFIQDYFDKLRSKINIEYLR

>AHK57425.1 glutamyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHEKLTTRFAPSPTGYLHIGGLRTALYNYLYARKNGGNFLLRIEDTDLKRNSKEATKAIIEAFKWCGLEH

DGEVTYQSERFDLYKEYVKKLLDEGKAYYCYMSKEELEELRAKQEAAKERPRYDGRYREFTGTPPQGIEP

VVRIKAPQSGEIVFEDGVKGEVRFKAEDIMDDFIIARSDGTPTYNFTVVIDDALMGVSDVIRGDDHLSNT

PKQIVLYEALGFKIPKFFHVAMIHGEDGKKLSKRHGATDVMEYKEMGILPQALLNFLVRLGWSHGDDEVF

SLEDLKKLFDPYHINKSASCYNAKKLEWLNAHYIKTLPFEEINRQLKDLGFDLSVYEKAGFLLDLLRERA

KTLHDIINGAKSIVNAPQNYDENAVQKFVNKNNLELLQAFANTLKDQKTGKDFEDFTNDFLEKKEAKLKD

LAQPIRIALTGSAVSPSIFEVLEFLGVDECKKRIDNFLKVRGK

>AHK57424.1 malate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLKEEALKYHLGGKIDIVPSKPMATSYDLSLAYSPGVAEPCLEIAKDNELAYTYTNKANLVAIVSDGSA

VLGLGNIGAQASKPVMEGKACLFKKFANVNAYDIEINVHSIEEIVNFCKALAPTVGGINLEDIAAPKCFE

IEAALQDLGIPVMHDDQHGTAIISTAGLMNAMEISGKKFKDIKVVVSGAGAAGIASAKMYRNLGVENIIL

VDSKGVISKDRNDLTPQKLEFAVDSKEKTLKEVLKGADVFLGLSAPKILDDEMVLSMAKDPVIFALANPI

PEVMPEDVARLRKDAIVGTGRSDYPNQINNVLGFPFIFRGALDVRASKITENMKVAAAKALADLAKLPVS

DAVKKAYNLSTLEFGRDYVIPKPFDERVKAAVSTAVAAAAVKDGVAKVKNFDEKAYFESLK

>AHK57423.1 uracil phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNIHCINHPLIEHKLGILRAKETKPFQFRMLIDEISSFLLFEASKDFSLKEIEISTPIQKTTVKKLDEK

IMICPILRAALGMLESVFKMIPDASVGFLGFVRNEETLKADFYFQKLPKDAKKRTAIVIDPMFATGGTAI

DACNFLKSQGVKKIKFISILAAPQGLKKFSQMHDDVEVFVACIDEGLNEKGYIIPGLGDAGDRVFNTL

>AHK57422.1 hypothetical protein N918\_06410 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIFGKIDYINLLPLHIYLKKYPLPNGYKASMEYKKGVPSKLNKDLFYRRIDAAIISSIESARKKYKNLDL

GICANKRVLSVLVEKNTSNAKDPSSATSNALAKVLKQDGKVIIGDKALKLYLKDPSKYIDLCAKWHEKTG

LPFVFARFSCVQKKALYKQILKKFPKTKIKIPYYILQNYAKTRDLDIKDVRYYLDEVIYHKISTKEKTAL

KRFVKACKALNLA

>AHK57421.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNLNYGIIGLGKFGSVVADELIAGGHTVIVADKDEEALKSIQNPPSYAYILDSTNISALKEAGFHDVEV

VIVSIGENVEKSILTLMALKDIGVKNIIAKATSNIHGQILSKLGATKVIYPEKESAKRLVKEFLTKDADY

EVFDLSANTIRAIKINIDEKLAGNSLKHVAQNMKVISYKKLNSDWEILPDLETTTVYSGDVVILLGTVKE

LREFEH

>AHK57420.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKQFGLDRRTFKILLAGYIIIALFGALLLHSSWAHTTPIDFLDAFFTSTSAVSMTGLVVKNTAVDFTLAG

QIIILALVQIGGLGYMGIGLFVYILIRKKVGFSARNLLKESLFYPSMDGLFKFFKKVLLFIFTIELIGAI

LLTMRFALEMNFKKALWFGIFHSISAFNNSGFTIFEHGFIAYKHDIAINLIITSLIIIGGLGYFVLVELY

FFQRKKLQNLSLHTKMVVVASIFLIFSSTLIIFAFEYSNPQTIGHFSFFDKILSSYFIAINYRTAGFNTL

DMGHLHDASLFFGSLFMVIGGAPGGTAGGMKVTTVMVLLLYAYWSIRDGRVRIFGHEIPRETISKAFIIA

VGSAVYIVIAVILLSLLESKFDFIALLFETSSAFATVGISVGNGGTLSLCALFSDPSKVIIIIMMLSGRI

GVFAFLLSVFKQDKAIHLKFPEGKVNL

>AHK57419.1 rod shape-determining protein RodA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFRLDRRILTHFDYIQPILFLPIILISFFLIFEANPFLAEKQFVYACVGLFAFMVFFFFPIRKFIWIIPV

AYWINIFLLLSVDIFGVEKLGAKRWLEIPFTHFTIQPSEIFKPSFILMLAYLIYQNPPPKNGYKLKQFIK

LSFYIILPFLLIAKEPDLGSAMVLLLVGFGVLFIMGVHYKIWLSIVIAISVSSPIIYTHLLKPYQKQRIH

DFISEKPSYQVAQSMIAIGNGGLTGKSQDEATQTHFKFLPISTSDFIFAYMIERFGFIGGLTLIIFYILL

IFHLLSLNYKLKDDYFARVAINCVALFIFIYAAVNISMTIGFAPVVGIPLPFFSYGGSSFTIFMIFFGIL

QHLITFRYFWTDIKAK

>AHK57418.1 ferrous iron transporter A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKRFRLSFYLSFLTLLLSACSVSQMNSLASSKEPAVNESLPKVESLKSLSDMSNIAFEWEPLYNENIKGF

YLYRSSDENPDFKLVGTIKDKFQTHYVDTKLEPGTKYRYMMKSFNEQGQISEDGKVIEVSTAPRLEAVPF

VQAVTNLPNRIKLIWRPHPDFRVDSYIIERTKGDDKEFKKIAEVKNRLNAEYIDSDLKPNENSSYRIIAV

SFNGIKSGSSQVVSSTSKALPPQVEHLSASTDGSSKIILTWDAPTYEDFSYYKVYSTSSSFLPFSVLAKT

DKNSYEDIVEGAGKSKYYKVTMVDKDGLESPMPKDGVEGKTLGNPLAPSIILAQSTSEGINLEWSDNDTR

AVEYEVRRYGGEQNAVFKGIKEKRLKDVKALPGVEYSYEVIAIDSAGLRSEPSSKVKAAQ

>AHK57417.1 tRNA (guanine-N(7)-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPNFKSKKIKEINLPYSKDDVEFLWLAKNDNVSLIYTKVQEESFFLQIKKAQNGFVIKGDKHTKPSKIGY

LQKALKIFKEGFCEDIINEAFGLKNNALIEKTPFIVDNFDELLSRLQGKIYIEIGFGSGRHLLYQAKENP

NVLILGVEIYNPALTQVAKLAKAQNVNNILLIQSDARLLLSVLKSKSVEKIFLHFPVPWDKKPHRRVIGK

DFCKECARVLVQNGRFELRTDSFEYFNFTLEQFLTFPAPKFSLRKNENLEISSKYEDRWKKQEKNIYDLW

VWNFNQECKNYELNEFNLSSVEFSKEDLKKIEQNFKNITIKKDDFFLHFESIYKQDENLLLKVAFGAFNK

PEHCYLHLDKTIDFAFKEPFKIQENIKAINELKEILKVQFKI

>AHK57416.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPNLIQANKLTLGYDELVIKEASFAFKDDDFVFITGKSGSGKSTLLKSFYGDLEPISGKLEVCGSLMNKI

GNLELLKLRQRIGIIFQDYKLVQEYSVEKNVMLPLMIKGYSKKVCHDQATKLLKHVNLTFKADKLPNQLS

GGEQQRVAMARALAHNPKLLLCDEPTGNLDEYSSDIIWTLLKSARELLGTCVIVVTHRIPSNLRVDYRRF

NIENGKMNEIF

>AHK57415.1 cell division protein FtsX [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFFKTHLSLILPLLFMMFAFEFILITNATLKHYEELVNKDYNIIVVSKTELDQNVVKTKVPFFAGLESL

DPKDLIDRLKNDVSEKNLKVLKDSLPKFYTLKLNSLPDQNELNSIKNQLLNIVGVSKVETFSKTHDKIYS

LLILMKFVFWLFLFIIILLAFVLFLKQMRIWLYEHTDRIEIMCLFGAPFWFRSFMLYKVVVVDCFIAFVI

LLAFFTQIFDLSIIQESLKAVDIIFPPINFILHLTLIFLATLFICLLCVNTVMFKVKR

>AHK57414.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRKNILIFFCFFLFVDISLANAINEKTKSLEENKRIQEQLNKKLEDLASDILNGEKSLKDLSLQIESLNS

QTSKLEASAKAQNQELNTLTSQNEDLLKSKSNMEGKLISLMAKDFAYDLPIPQGYIESEESFMAFEILGS

LNKVLNEEIFKISKDYEGVSRLIDDKQAQIKKINESLKDYNAQLAKLQSLKQKQISEINKQKTDRAIYAK

KLDDLQAQQEELRKTLNQLKIINDKEDANSNKNDTKIVKNNQKIRQLGSSYQGSSVKRYTGKKTIAPLDS

FTVKQKFGNYVDPVYNLKIFNENVVLRSNKSDAVVKNVLDGKIVFAKDTSMLARVVIVEHDNGIHTIYAH

LDKIAPNIKVGKNIKKGAVVGRIKNDLTFEVTQKNFHINPLELISLN

>AHK57413.1 uridylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQERKRVLVKFSGEALAGENGFGIENSILKFIASEIKELIKNQIEVGIVIGGGNIIRGVSAAKGGLIKRT

SGDHMGMLATVINAIAIQEALESSGLEVRVQSAIQMEAFCETYIMRRAQRHLEKGRVVVFAAGTGNPYFT

TDTTAILRAVEIDADMVIKATKVNGVYDKDPKQFDDAVFLNTLSYDEAMQDNIKVMDDTAIALAKDNKLP

IVVCNMFEEGNLLKIIQGDTSLCSTVKNN

>AHK57412.1 DNA-directed RNA polymerase subunit omega [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDKRIEEVAAKALEKMGNDRYRLSLVVAKRAEQLANGATPLVDFDKNKNKLADIALYEIAENKITLEGLV

ETNR

>AHK57411.1 potassium-transporting ATPase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKPIDEELLLEQLIDNVKNCKDLEAAKALLFEICGHDAILEKAVDYCIFCHEGQFRKSGEPYAVHPILVA

TLVGFLSENKSNILAALLHDVIEDTNCTEEELREQFGSEVLKLVLGLTKIIEIREDNLISSKSKKSLTKS

ALTFRNMLLASIEDVGVLIVKLCDRLHNMLTLDILREDKQKRISEETLVVYAPIAHRLGISSIKNYLEDL

SFKYLMPDEYKLIDNYINSNNQEMQLGLNEFISKIELLFLSNGFRQGSFEIQKRIKHSYSIYLKMQRKGI

GIEEVLDLLGVRILVEKVSDCYLALGILHTHFNPLVSRFKDYIALPKQNGYQTIHTTLFDAKSIIEAQIR

TFDMHKIAEFGIAAHWKYKEDGSVVAPRLDWLTDISMQSINNLENAEDYNAIELYEYAKDSLYVEDVAVY

SPKGEIFTLPRGATVLDFAYEVHTKVGLHAKSAYVNRIKVPLLTELKNGDIVRVVTSNDKFYRCSWIDSV

KTGKAKASIREFCKQKIREINLASSINMLSFIFGVDKNRIETWIEKENLVRRIRQVATDSAYLKDIVNGL

KKYAKKSYWFDKYEIKEQKIGNFTLYCNHKIANVDFDFCCHPKRGDAVLAFVKGGNAIVHHKLCDRADKM

IDNNQDMVFIKWDSNIPKSYKLIFSLENKKGVLAEFLAFLAKMQINLLTINLSSDLNSAVDYFEITMEIP

DNINPDSVKDRLKSRCKILDFTSLNDAYKES

>AHK57410.1 tyrosyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDIKKILAEVKRGCAELIDEERIENLIKNYYEKGENFFIKAGFDPTAPDLHLGHSVVLTKMAFLQKHGAI

VQFLIGDFTGQIGDPSGKSATRKKLDKEQVLINAKTYKTQVFKVLDKEKTQIKFNSTWLNELGAAGIVEL

TSTFSVARMLERDDFTKRFKEQSPISICEFLYPLLQGYDSVALKSDIEMGGTDQKFNLLMGRQLQRVYNI

GKEQAVIMMPLLEGLDGVNKMSKSLNNYIGVTEKANDMYAKILSISDELMFRYYELLSQKSLEEIAQIKK

DIEQGNLHPKKAKENLALEITERFHSKEEANNAKSEFDRIHSQNALPSDMAEFEIQGKIWLAKALVECGL

ESSTSAARRSISANAVSVNSQKVSDEQMYLEQGEYILQIGKRKFAKLKVKE

>AHK57409.1 2-nitropropane dioxygenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLQPLQIGKHTIKYPIFQGGMGLGISWDRLASAVSLNGGLGIISSVGTGYYEERKYASKELNAKPYGSE

NFYSRKGLQALINNARKVCGDAPLGCNILCASNDYARIARDACEVGFNVIVSGAGLPTNLPEFTADFPDV

ALVPIISSAKALKIICKRWQSRYNRLPDAVVLEGPKSGGHQGFTYEQCLDPNYQLEKLIAPVVEEAKNWG

SFPVIAAGGIWDKKDIENAISLGASGVQMGTRFIGTFECDASEEFKSVLLASKEEDIELIKSPVGYPARG

VRTNLLNLVDKRMGPKINCISNCVAPCGRGKEATKVGYCIADRLFDAWSGKKETGLFFTGANGYRLDKLI

SVKELMEKLVNGE

>AHK57408.1 N-acetylmuramoyl-L-alanine amidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKIFVFLVFVFTTLFGVYENELANFDKNFIGSKSEVQVKFHHQLKSLYIQSVINEDEKTKIEILKRLII

SSNTLNLDDKSYANELKESGISETSINALRKAVIKDIKVQNISQDTEKSTFEPIKTVQKNEKKSSNEQIK

NTEKTNSKTSQAPKSSIVSKAKSDDKIYVLKSSKTNQGVEFELNADLDKDQLKSFALDEKGNYRFISDFD

GVLEGGKKEFKFDDYRLVISQFNPKTIRIVVYAKEKIPIDISFKEEKIIFSKETTSQKKTEQVSKISEKK

QDQKTEIKTKVLETKKQDKKTNNEKENQEPLYVLDVDKISNAVVLNLSDDLDEKEIAVFDTKDQKFRYVV

SFKGVLEGNRKSFTFGQNVITVTQYNPKTVRVVLSAPKEFKLLKELDNNNLTLGFYIQTTNQNANKKATQ

SSSKTLNTNYKSGKLVVIDAGHGGKDSGALSDKKGSLKEKDIVLSTALKLGNELKKRGYKVLYTRSSDKF

INLRDRTKYANDKRADLFISIHANAAPNATKAKSSEGVETFFLSPARSERSKKAAEKENQGDFEEINYFS

KQSILNFLNREKIVASNKLAIDVQKNILTQTRKKYKIVDGGVREAPFWVLVGAQMPAILIEIGYITHPNE

GKRIANKAFQDLLVKGIADGVESYFYNNR

>AHK57407.1 FAD-dependent cmnm(5)s(2)U34 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKAKLIFKDNTPFSLDFDDFYFNFKDGLNESKFVYTHSFEWKNQENFIIAESGFGIGLNFFLTLKRFLE

TTPSKRPKKLFYISVEAFYIEKEQLREIYQKLEFYEEFKELLEQFLKFYPKAKEGIYRFYFEDCFLDLVF

EDIAVLKELDFKADVWYLDGFSPNKNSQMFDENLIFEVARLSKKNTQICTFSSASFLQKNLKKYGFRVEK

TKGFRKREMIKAYLENELEFKDKEAYFSRTFSSLKNKKVAIIGAGISSAVLAYELSLRGFEIDIFEKHLE

LGKGASGNESGILSSLILKPKVNLGEFSELSFIEASRFYRQILDLEFKGVVEFAHNDLMQERFDTQRENV

LFKISKNQAFLEEGGVIFPKKLVKNLFEKSKACIYFNHEFQAYKFENGCFSLKFKNDVVKSDYAVLIYAM

GADAKDFVFYDEMKLSKVRGQVTHLKPFLDTPFPLSSKAYICPVKDDLQVIGASYDRLNASLESKEEDDK

QNIENIADFMDKNTKLEIIGSKVGFRSYSSDRFMIVGNAYDEAFYKEEYKALLWTKNKEQKPAKMSCNLY

FNFAHGSRGFSTSVLAARYLCALINNEPLCLEKKYIHAIHPARFLIRKLKKGL

>AHK57406.1 quinone-reactive Ni/Fe-hydrogenase small chain [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIDYHQIESRLSALEKLPSLKDNDSITKALEKSGFSRRDFMKWAGAMTAFLALPASFTPMVAKAAELADR

LPVVWLHMAECTGCSESLLRSDTPTIDSLIFDYISLEYHETVMAAAGWQAEENLESAIQKHKNKYILMVE

GGIPMGDTEHFLTIGAHGKTGYELSKMASENALAIFAIGTCSSFGGIQAARPNPSNAQPLSKVTSKTVIN

VPGCPPSEKNIVGNVLHYLLFGELPALDVYNRPKWAYGLRIHDLCERRGHFDAGEFVHAFGDEGAKQGFC

LYKVGCKGPYTFNNCSRERFNQHTSWPIQAGHGCIGCSEPNFWDTMGPFEEPMASRKFDTVFGLGADSVS

DKIGIGVLTLTGVAIAAHAVISSMQKDKE

>AHK57405.1 hydrogenase 2 large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSQKIIVDPITRIEGHLRVEVVVDDNNVVKEAYAGSTLWRGIETIVKGRDPRDAGFMTQRICGVCTFSHY

KAGIVAVENALGITPPLNALLTRTLMNAALFLHDHIVHFYQLHGLDWADVVSALSADVKKASDEAFKYTS

NPYATGADKLLEVQQRLKTFVDKGNLGPFANAYYGHPTYRLSPEQNLIVLSHYLECLRIQRIIAQCMAIF

GAKNPHPQSLTVGGVTCVMDLLDPARMGEYMVKFQEVQDFVNRAYYPDLVMAGKAYAHEASVLNDIGVNN

LYTFKEFQIGRDEWLFESGIIKNGDLSKVYEVEEDKITEEATHSWYADNEPLHPYDGKTNPNYTGLVDGE

SVDHHGNNVHSKVFDTKGKYSWIKAPRYEGNPMQVGPLANVVVNYAKGNQNVVPVVDEFLKETGLPLNAV

FSTLGRTAARCIEAKIVANNALKAFNNLVENLKVDQSTCAPYVIDNSKEYKGRYMGHVPRGTLSHWCRIK

NGVIENWQAVVPSTWNASPKDANGVGGSYEQCLIGLKIADVKQPLEIIRKIHSYDPCIACAVHVMDTKGN

NLSEYKVNVNL

>AHK57404.1 quinone-reactive Ni/Fe-hydrogenase B-type cytochrome subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNKEEKLQRKAEYEFSIGLRLTHWVRAIAIVILIGTGYYLSYVFQSPISNGEPVNFMQAKYRLVHQAVG

FVLIACIIFKVYLFFCDKVSAKERRSVWDIFNIKLWIEQVKFYIFLGKHPHLKGVYNPLQFVTYFFFYLV

ILGIILTGLILYTHTYHEGLGGLLYHILRPLEAAMGGLADVRTYHRILMWVIMIFVPVHIYMAIFNAVKG

KDGAMDAIISGYKFVKEEQH

>AHK57403.1 hydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFLVLGIGNIMFADEGLGVHLCKQLEKNYKFTHSEFTLDFVDGGTLALQLSYIIARYDRLIVLDCIEAQ

GASIGDVFFFPYDAMPNKISWSGSAHEIEMLQTLQYMELAGDLPKTHILACVPKRIEAMSFKLSDELIQG

AKIMEKTLLDFLSKEGFAYEKIADFSLQELADISYKNY

>AHK57402.1 recombinase RecR [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVKGLEKFNELVESFANLPTIGKKTAIRLAYHLCINNQIDGMKLAHNIENAIRFIKPCEQCGALSENELC

EICSDKERNKNILCIVESPKDILTLEESQSYNGLYFVLDELNEEKLEKLKQIILKLNISELIFALTHSIN

SDATIFFIEDKFKGLNLTFSKIAQGIPSGVNLENVDLISLNKAMNFRTKI

>AHK57401.1 sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKNYSIHTKLIILFVVTFFLVCVLFIVLLKIEGNTYNEEESLKQENLIKNLLISYENTSGVEIGAYLGN

SGFNAIQNPNLVKAIRNNGQSLFKAGGELCTLSSLKYHSNLYFDVQCKDFDGLYEENTSDRVYNLLLIGF

FSFSLLVVFMYFSVLKSLEPLKKLRRQVAEVANGEQPDFLDYQEDEVGKIAFEFQKAFKKNQELIQSRQL

FLRTIMHELKTPIGKGRIISEMIKEDRQKERLIAIFLRMDSLINEFAKIENLFSKNYNLHFKPSRFSTIL

EEAKEHLMIDDFNKVVKVDIRYDALINVDMEIFSVILKNLIDNALKYSNNGTCELFCCKECFTIKNPGKP

LAEPIEHYLEAFTREKHNQVKGMGLGLYIVSEVCKLHNFDLIYFYDDGKHCFKIFFGDKEK

>AHK57400.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINVLMIEDDPDFAQLLSEYLAQFNIKITNFENPKSALNVGIQGYDCLILDLTLPGIDGLEVCREIRQKS

NIPIIISSARGDLSDKVVGLQIGADDYLPKPYDPKEMYARIMSLIRRTKRVEHTNNENINSAFKIDERRH

EITYEDKVLTLTPAEFEILEYLIQQHGYSVSREQLVSRCKNLKDKDSKSLDVIIGRLRVKIGDSSKSPKH

IFSVRGIGYKLIG

>AHK57399.1 molecular chaperone DnaJ [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEISYYEILEITQNADKETIKKAYRKMALKYHPDRNQGDKEAEDKFKLVNEAYEVLSNDEKRAIYDRYGK

DALKGGGFGSSSSGFGGFEDLGDIFSSFFGEGFGSSRRRKSSNDEKIPSDFIVNLKLSFKEAVFGCKKNI

DFTYKCSCKTCNGTGAKDGKLQTCPKCQGRGQVGVSQGFITFAQTCPDCQGIGEKASEKCSDCKGLGYNE

SKDSVELNIPEGVDTGMKLRVNAKGNILKNGTRGDMYVKIIAAEDDTFIRDDDDIYIEFPVFFTQAILGE

SIKVPTIRGEATLNLPKGAKDGQRFVLEKEGVKDVHSSRMGNQIVQISIKFPTSLNDEQKELLEKLSESF

GIKDGMHQEQKGLFEKITNWFKS

>AHK57398.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLVKLSLVAALAAGAFSAANATPLEEAIKDVDVSGVLRYRYDTGNFDKNFVNNSNLNNSKQDHKYRAQV

NFSAAIADNFKAFVQFDYNAADGGYGANGIKNDQKGLFVRQLYLTYTNEDVATSVIAGKQQLNLIWTDNA

IDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGADLLGHSNISTTSNQAPFKVDSVGNLYGAAAVGSY

DLAGGQFNPQLWLAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKTHANGNLFALKGS

IEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNET

VRVGADFVYGGTKTEAANHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQA

LYKF

>AHK57397.1 phosphotyrosine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILFICLGNICRSPMAEFIMKDLVKKANLEKEFFINSAGTSGEHDGEGMHYGTKNKLAQLNIEHKNFT

SKKLTQKLCDESDFLITMDNSNFKNVLKNFTNTQNKVLKITDFSPSLNYDEVPDPWYSGNFDETYKILSL

ACKNLLVFLSK

>AHK57396.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENFNRTLLVCWFGVFTTSMGLSQIAPILPFYIKELGHVDTSEIAFYSGLAFGITPLFMAVFSPLWAFLG

AKYGYKNMLLRASFGMSVLTLWLSFAHSALEVVFVRGLTGIISGFTSAAVVFIAVIAPKEKVAYALGTLS

TASISGSLLGPLFGGFVAEFFSISAVFDVVAFLIACSFVTIYFFIHGRKIQKEAKKNTQKVKENKTLIIV

LFITTFVIQFGTFGVMPILSIYVEQIHQGGNLALWAGIVVAASGISNLFFAPKLGKIADKIGPSKIIFGA

LIFCGICFYLQAVASNVYTLIFVRLLIGVGLGGLLPCVNALLKKSVSAKNLSVIFGFNQTCQFLGNFCGA

FGGGLMASHFSVEFVFTFVCLIFIINAFIFLAFEKKYIFSNQGL

>AHK57395.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEMILFVLVMILLVLLFVVLFRQYKSPKIEEKSTQSFSDIMQLKSIGELSVFQVFSKEIVTKKDSAFNGI

WKNLLGWSLSERQIALIFEFEITFLYDLRDKNFDILPLGDDAYKIIMPECRYKHSIIDMKFYDEKNAKFL

PFLLPDSINSTGISFSESDKNKLIKEAKDEVKDLSLNLIQNLESKIHKSAKDTLEAIAKGFGAKRVEFEF

KDNTQKLDVS

>AHK57394.1 tautomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPFVNIRITKENGEPTTEQKQELIAGVTDLLAKVLNKNKSSTVVIIDEIDTDNYGLGGKSITQARKEKS

>AHK57393.1 DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSEFLTHPFEPFFDKDSKILILGSFPSIKSRQDGFYYQHPRNRFWPILETLFNAKLENITEQQAFLRKKH

IALWDVLQSCKIKNSDDKTISYAKANDLNLILSQTKIQAIFTTGQSAYRFFVKFHPRLEAIALPSTSPAN

LNFSFEQLLQNYEIIKKFTK

>AHK57392.1 polynucleotide phosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNILKNFTNLLSGKKGKIMQYSIEINKNTEIFDIDKVAKQAAGAVLMRQGKSVVLATVAREEKQVEEDF

LPLTVQYIEKAYAAGKIPGGYVKRETKPSDAETLTARIIDRSLRPLFPKGYAYPTQIVVMVLSADPKVDL

QVMSLNAASVALYLSDIPMKAPVCGVRIGKIDGNFILNPNNEELQNSTLDLYVAGVKDELLMIEMRALPD

QKENEIFIEAPYADVLTQTTSQNMNELSEDEILEALNLAQKAILNGSNAYEEAFSKHKKNSQIELKNEIE

HPEILAFIENNFQKQIKEAINQMAKSERASELNKIAKEILNLEITKDWSEESVLNTLAKVKRKLIREQIL

NEGKRADGRSLNEVRPISIETNILPNAHGSCLFTRGQTQALVVATLGGENDSQMIDLLTEKNPISERFMV

NYNFPGFSVGEASPIKAPGRRELGHGNLAKRALYPSVDENYPYVIRLVSEILESNGSSSMATVCGGSLAL

KAAGVPSLKLVAGVAMGLIFEDNKYAVLTDIMGLEDHDGDMDFKVAGSKDGVTALQMDIKLGGIDQEILK

QALYQAKEGRIHILNIMEEAAKEIIVNEEVLPKLELFSVDPSKIVDIIGQAGKTIKEIVEKFGVSIDLDR

EKGEVKIAGSQNEQIKAAKDYIINITSSQKGTKKGPKDKDISGFELGQEFQGIVKKIAPFGAFVELKNGV

DGLLHSSKIKHLNLSENQSLKVKISEIKNGKISVDLCE

>AHK57391.1 hypothetical protein N918\_06240 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MWRKFSLLLGTSIALNAAQVDIYALDAKKEGDILTANNDVIIFSDFYFITANKAIYNEKTGDVELFGDVN

ILRGQNERSHSDYAKINLNSNQADFSNFFFSNNNLEVWFQSKTSHLNDKVFESKVSAVSSCNVEDPDWEI

RFSKGWLNRETNFVHLYNARLYVKNTPVFYLPYFGFSADTHRQSGLLIPKIVLKSSEGLYYEQPIYIATQ

ENWDLELDPQIRTNRGFGLYSTLRFLDSPYSTGELNFGAFRENSSYFHDENLKNQTHYGIELKYSRDDLI

KSLLSDNFQEGLWIDATYLNDVDYLNLGSRDYRDLNSLVTSKINYFLADENNFYGAYARYYIDTSKLSNN

TTLQEYPSFQYHRFLNNLFDERLRYSFDASFHNFYRPAGSYANELNLDLPISYHNAFFGDFLHFTFTERF

YASFVNYSNDPERNHEHYFRNTHDFNLYTDLSKAYENFFHTLNLGVNYILPGAKSGKITQDYLEEYDKEN

EHTSLYTVQYFYNNEGQKKLKHRISLDYLNKQNEFYELENLLTYYFNENINLNSEVLYSYEQSRFTNVIS

QIEVNTNSKFNWMFSHAYQNDEYGKYSFIGTRANYIATPNYNLFGGIWFDTQRAHANMWELGYTYQRKCW

NYSLMYRERIDPQLTSGGITAKNQSGVYFIFNFYPLGGVKYDFSLAESENKI

>AHK57390.1 RDD family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKENLQDRLERENLKIASFGKRVLAFLIDDMVISLIVFIIFYDRLIQAKDLFETTQIVGNFYLGFILLHF

SYQAIFTYLYGASLGKILCKIIILDENLLDKPNLIQSCIRSAVRQVSAMAFMLGFAWALSNDLRKAWEDY

LARTIVVDVA

>AHK57389.1 phosphoribosylamine--glycine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIMILGSGAREYSIALALRRVDKNLEFYFAPGNGATESLGTNLNLKDPVVLATYAKEKGFDLCIVGSES

FLAEGVVDIFKQQGLAIFGPSKAAAMLETSKSFMKSFLKKYRIKTAKFLNTNDIEKAKNFIYSLTPPIVV

KADGLCAGKGVIIAKTHEEAIEETAKMLSGESFGDAGKLVVIEEFLDGYELSIFAVCDGNDFVLLPAAQD

HKKLLDNDQGPNTGGMGAYAPSSLANESLLRKVQKDIILPTLAGMKKEGAEFCGVLFIGAMIVGNKPYVL

EFNVRFGDPECEVLMPLIEDPLELILAATQRRLRHSKIKIKKEFAVGVVCASENYPYKSSPKSEITVNNI

PENSHISYAGVSLEDGKLMADGGRVLVCVGTGKSIEEAQKNAYKLCDNVNFKGKQYRKDIAHQVLK

>AHK57388.1 hypothetical protein N918\_06225 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHGKIAIYMDSTGRGTVTNSANTFFDFNRQIWNDKKSMPSVGMLVEFRTLSSEKKAEDGKLVQTSKTITG

IKPSKFQEFKEGDFITEHDFWKTDNDDELEDLQNSRRSAYITELYRTTDFDTIEKIPLSFTIPQAIQKYF

AHEILSVETLQANLQDEKEIPCILDYLILKRFLFKAYDTLIFMDNSIDQTQFSALKSIMMHLENSYKQMM

ADQKPNITKIFNETFLSLQCHYQALVATIDTRKNRLASLEAQMKTLQSEINLKSNATDADPEKLKARQER

LAKLQKEAEYYRTTLKRLDAIREDFYKKNYNIFENAFKLSREKLFKKIVTGLNLCATIMDVKIWHLSLKS

SGVKNSYFTMSNIENSFCSLSFAEHYLSRLNKSALNPFDQKLLVYIQKITKEQRKKFLVVTSDLDLLCKL

KIENFSQNPYYLVKYAPKKVNYQSLMRDNTFDIVYIDEKHVWENVADIILQGKHFDKSGKTKFKLI

>AHK57387.1 GMP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKADILVLDFGSQYTQLIARRLREQGVYAEILPFNVSLADIKAKEPKGIILSGGPASVYATDAYFCDKG

IFDLNLPVLGICYGMQLMAHHYKATVAPAGHKEYGKANIEIKKDNALFKNLPKKQTVWMSHSDKVENLPQ

GFEVLATSENSPFCVFGNEDKKFFALQFHPEVQHSEFGKNILKNFAKYACNCESIWNMGSFAKTQAEKIR

EEVGNDKVLCAVSGGVDSSVVAALLASAIKEQIIVVFVDNGLLRSGEKEQVEFMFKNTLGIDLISIDASE

IFLSRLVNVTDPEQKRKIIGNTFIEVFEEEAKKHKDVKYLAQGTLYTDIIESSVVGASKTIKSHHNVGGL

PEKMNLKLIEPLKEIFKDEVRALGLELGLSKEVVYRHPFPGPGLAIRIMGEVNRASLELLRKADVILLEE

LKSTGWYDKTWQAFCVLLNVKSVGVMGDNRTYDNAVCIRVVDASDGMTATFSHLPYEILENISRRIINEV

EGINRVVYDISSKPPATIEWE

>AHK57386.1 hypothetical protein N918\_06215 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGKRNNIKMTKNASAVINELMDKPHYKPLKTLFFCKDFLSSFPLAKQRLIAKIYVKNHILNIITLHPAAY

QELNHDDSKIYIKFLIKAYGQKYPLSGFVDIKDIKIFSQKYTYAANKNKNDEKLSKNSYLELSKGEFKNC

FKDKKLFKKFEDLRELIKKGSNLD

>AHK57385.1 excinuclease ABC subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKENLENELKTLPNSTGVYQYFNQEGKLLYVGKAKNLKNRVRSYFAFTPNLHANPRNSLRIQKMIEETV

HLEFIATNSEADALILENSFIKQLHPKYNILLRDDKTYPYIYVDFEEEFPRFEITRKLVKKSKIKYFGPF

FKGARELLDALYLYYPLKQKASCKSPCIFYQISRCLAPCDKLISREKYLEILDEAIHALLNPSVLLKNLE

KQMLVLAQNENYEEAAKVRDQIAMIKDLEVKVEIDIAKLEDFEVFALAFKNSVLSTLRFVVQNGKIISAN

SKITPIKNDIQWDQNEIYKQLILENFSMDIPLLANVIYVYEEFEDRVLLEEILSQRFDKKISIKIPKIGE

KRRICDLAFQNALLNIEKEQKNHDFTIQKELKSYFELENLPNDIEIFDNSHLQGVANVGAMVTYRINSWD

KSKYRKFHLKHKNDYDQMREVLTRRALDFDKIPPPDLWLIDGGKALLDLAKEIIVSSGVNVDILAISKEK

IDAKAHRAKGGAKDKIHSLKGEFSLSINDKKLQFLQKLRDEAHRFAISFHQNTKKKQDLKSSKLANLGLS

SGVMQKLLAYYGNFESIYKADFKDLTMLVGRKAAQKIKEN

>AHK57384.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MILAGIIFIFNLILAYLSIDISKLDSVTEQLKIGMFSSIFVLSLTLFIFAFRQNRNINKIYQKIFCMQND

FLNFQKKIDVDSALDLLKEKFETTSQNLTKISHEKDRYLHLLEENLYQLINISNAMRCLNEGYNKEINSL

ILNALNSQKDQIRLELNEALEHHKSIIGTSHGKVLQFEASVAIVNNDELENFLLANLLSYFGIESTCFKN

LSFDVNDFHLIFIKDKIFNKNVKKNYDFIVMGRHKNTHYEYFLTLPFEKKDLENILQNKLDKVCTLKFKT

PYQNNVLLFKQNDFDATLFFNIIEKQCDKNICINSFSQLKQELSKETYRLILLDYELIKFDLEQMRNLLS

AYKKQHPQSHIIFFSKEKVRDFDCVSEVLSDVSRNDLITLLRKYLPKA

>AHK57383.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKILFGPVSSRRFGRSLGIDLSPSKKQCNFDCVYCELDPKKAQEKQDEIISIDKIISEVKAMLEKNVEFD

FLTLTANGEPSLYPYLNELILSLRSIAKDKKLLILSNGTAVLDEDKFNALLKLDVVKFSLDSAVAKTFYR

IDRALKNIDLEKMIEKMADFRARFNGDLIMEILVVKDLNDNEEEFEALNQALKKIMPLRVDLSTIDRPPA

YAVKKVSEEKLLELSKLIDSTPVLLAKRHYEGEKLSFNEEELLKMLHLRSQSEIDIEVKFDEQSKTLLNQ

LIKEKKVKILDLAGVKFYKV

>AHK57382.1 uroporphyrinogen decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIFIDACFKKPTPYTPIWMMRQAGRYLPEYMEVRKQAGDFLSLCKDYKKASEVSLQPIDILDVDAAIIFS

DILVVPLEMGMNLRFEKGEGPVFGNPISTLEDLEKLDDQNAHKKLNYVYDALKLTREKLSQNKALIGFCG

SPWTIATYMIEGSGSKNYAKCKKMLYQNPELLHKILNKLTQVLKLYLEEQIKAGANAIQIFDSWASALEY

DKFFEFSFNYMLEISNFIKSKYPNIPVILFPKGISGYLDRIDGNFDVFGVDWSTPLDLARDKLSHKYTLQ

GNMEPCRLYDKNAIKEGVEKILKTMQNKAHIFNLGHGILPDIPVENAKYFIKLVQESSAK

>AHK57381.1 hypothetical protein N918\_06190 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVVDNTQKTSNAIFSTTTKVKEKNTSADEFQATLNEVKNKEEKEDKKTNSSKFTNEDIDLGAVREDFRSY

AWQKMREDQYKKNEETLLNKLFTTIDAGNATNNTKA

>AHK57380.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNYKKALFALALSAFCMGVTEFVMAGVLVDVEAYFSVDAKTAGYLTTLYAIGVVIGAPLITIPLSRFHR

HTQLLINLGIFALANFIIFFSQNFYLTAFARFIAGTQHGVFFVIATLAVSAITPDDKKSSALAIMVTGLT

VALVTGVPLGTFIGHYFGFKFIFLLIFIITSLAFFGVWHMMPKNLHPSPTNLKNLIPAFSHQNLLKTYTI

TICSCGAQFVLYTYLQKILVEISGFKVQDTAYILLLYGICAICGNLWGGKIVDKKGAIFSLRLILSIQVL

VFLSVFLTMHSKILIIFSVALIGFFAFSTIPALKMLSITKAKRHTYKVIDSTVSVNEAAFNVGIALASFL

GGIVLARLGIEFNALFSALFVSPALIFALLFAKDKLNYKKFQRKSFTKV

>AHK57379.1 hypothetical protein N918\_06180 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIILLLGLSLASLGALSFDELIYKDEVKPSFDCSKIKYDGKSDDELMICNKIGVRNEFDNKKLALVDN

IYSSLYQNISKKADKKMKKDFKAISKKMLKERKICIKNMQNTKAGENPLLSLLNASDCMQEAYIKVLLEL

MQRAKKDTKTKEVLEQIFKNKVDKYENLLTQSLNTNKDLQDFIDSLAKEDLIDSRAKFKL

>AHK57378.1 4-hydroxythreonine-4-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYEFNF

IKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKAWED

AGLKYKGHTDALRDFFKKNAIMMLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKKMGL

LGFNPHAGDYGVIGGEEEKIMEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPYPLV

ADTAFTKTGLKNCNRLVAMYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINTKSY

FEAAKFAINLHSKA

>AHK57377.1 pyridoxine 5'-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLLGVNIDHIAVLRQARMVNDPDLLEAAFIVARHGDQITLHVREDRRHAQDFDLENIIKFCKSPVNLECA

LNDEILNLALKLKPHRVTLVPEKREELTTEGGLCLNHAKLKQSIEKLQNANIEVSLFINPSLEDIEKSKI

LKAQFIELHTGHYANLHNALFSNISHTAFALKELDQDKKTLQAQFEKELQNLELCAKKGLELGLKVAAGH

GLNYKNVKPVVKIKEICELNIGQSIVARSVFTGLQNAILEMKELIKR

>AHK57376.1 exopolyphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLGIDLGSNTLRAVQMDEKLNKLKEYEFVIGAAKNLNQSGEISKEAIQRLKNTLSILAKEQDLSKARAVA

TAAFRKASNTNEIFAHLKKEFGIDFKLIDAKSEAKISVLGMQSGLRRLKIWGEFAYCDLGGASCELSFGK

SFKSFDFGIISFYEKNYHSYYKSCISYKKLIKKYPKFIINIKDKKLKIHFLIANPYLKHLAFRAFDEVAM

IKKELRSLGAKTVVLNSGVPTTLSALKQNISYEKYEATKVNGKKLCHKDFLNYAIKLFHMEEKKAIKEVG

TMRKNYLSAGCLLFYALFDKHKLLVIDEGLREGVCLASMKNIKF

>AHK57375.1 hypothetical protein N918\_06160 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFSDFFHAWLHESYYKNAVSIGKNGDFFTAVSVGNLFGTLLAKHFLNLIDEKILKPPLELVEIGANEGY

LSRDFLAALLELRPEIFSQISFFIIEPHEKLRTLQKKTLEGVEFTHKNSLKECHFKNAFFFCNELFDSFT

CELIDHDKMAFVENFKLIFKNMDENLITKCKALNLTKGELSLELENFFKDLNQTCERFIFAGFDYGTLNP

QSFSLRIYQKHEVFSPFEVSLKDFFGKSDLTYNVNFTHLQKLIKEYDFKPLAFKKQSLAFMDFGFEDLLE

YAKNKNIKTYESFLSQAKILFFNFDEKFHFFEFQKN

>AHK57374.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKALWILLSLTLWLFGAQNLELIKGQALFLELDKKDFLSLKNNDKNIPTFAHPKNQEKILAIFSLPYKNP

PQNTKLIAFYKDKKEEIFIKTLEGNYKSEKLQIENKKIFPPKTIQERITKELKEANAIYSSYTPKALFNG

AFNIPLNSFITSDFGKARTFNEKVASYHSGTDFRATTGTPIYAANSGVVKIAKDRYFAGNSVVIDHGFGI

YSQYYHLSKIDVKIGQKIKKGELIGLSGATGRVSGPHLHFGILAGGKQVDPLDFVSKFNAIFQ

>AHK57373.1 glycyl-tRNA synthetase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSELLIEIGTEELPAIPLLKELANIEKKWNNVLEEYRLVSDFKFYYTPRRLVFFHENFADKQEDSFAEFI

GAPKNVAYKDGVLTPAGQSFLQKARISENELSFKEIKGKEVLYHQKAIKGLQSQEILGEMVEKFLKSLSF

GKSMRWGANSFEFIRAIRSIACILNDELVNFQSYGVKSTKKTFIHRSVSYDLQDFNNAKEYFELLEKNYI

ILDPIKRKEKILEQFKLIESQKNIQIGEDEELLAEVVAITEYPNALLGSFEEEFLEIPSEVIITSMRENQ

RYFAVFNDKGLSNHFIVVSNAVCKDYSKIIHGNERVLRARLSDAMFFYQNDLQNGLKPEKLAKMTYLEGL

GTMQDKSLREIKIAEILCQMLHNDKIENISTALKYAKADLATQMVYEFTDLQGIMGSYYAQKMGLDYQIC

LAIKEQYLPNSEQAPLPSTEFSSIVALANKLDTLIGLFSIGKIPSGTKDPYALRRAANGIIKIALNLNKE

FDIQILLEKLSNHYKSFDMQILKDFIFERLYTFYTVNASFVKAVLSSQNTDLIHINQSVNALIKLSKKDN

FNENFATFKRLANIATKNPHKVDESLFVQEAESKLYKAFQEKTKANSLQEKLENLFALKPFIDEFFNQVM

INAEDEKLKNNRQALVYEIYAEFLKIADLKELSL

>AHK57372.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINVFFDMDGTLIDSANAISCAVNEIRQDLNLAPLSREIIMQTINTPNIDWAKELYNIENFHHSSFKEGY

EKYFVKHYEQSVVLFEGVKELLEFLKSKNCFLAIATNAPQSSLSNILKKHDIIPYFDKILGVSLGIEPKP

HPMMLELLKSEAPYKTSVFIGDSQKDKECAKNANLPYFHAKWYQKNLKENEFSNASELKGFLQKYL

>AHK57371.1 hypothetical protein N918\_06140 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKNEEKALRVKYLRNLEKFFNGAISALKKEDFDKTKFEERMLKNAKFFEKNPAVNLNSTYAKNLEFFVN

ACLDFSKEKSELLNLANALDKQKKQGEKKEKHKNYLKDYE

>AHK57370.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDNFLEIFLITVAIAIVLNVIFKKFEIPTIIGYIAAGEIISEIYHLSGKGEITHIAEFGIVFLMFTIGLE

FSFKHLMAMKQEVFLNGSLQMLTCGFVFMLLAIGILGLGDKSATIVGFALALSSTAVVLKILNDNGDINE

QYGRKALGILLFQDIAVIPLLLLVDIFSSNNQNIEKLLFTSLISALILITLLFFIGKYLVDRIFRLIIHT

SSQEIFISTVLFMVIGASFLANYFGFSYSLGAFIAGALIAETKYKHKIEADLIPFRDLLLGLFFITVGMQ

IQLDVVAQNWFLIIVLTLLVMALKFGIVFGFLFLYTKKRVALKTAFAIAQIGEFALAIFSLLQAKNMLDI

KTSQILIVVSILTMIITPFILNNIRKITNVVEDIALNTNAVQNIDSNIKLKNHLVVFGYGRLGQEVVQKI

KNTGVPYLVLESDLNLVELGVSRGENVVFANAAQEETLKIANIEECAVAIITVTNEAKLEILCQVLANYP

KPIDTIIHVNGTLKKMLFSSIDENIRIIRSEKVIARNLVQEALECRIHKNT

>AHK57369.1 MerR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEQHYDEPVYLISVVAKVLSIHPQTLRQYEREGLIEPSRTDGKIRLYSQRDIDRIKLILRLTRDMGINLA

GVDVILKLKNQLHEFENLIDELRLELSKQQDKEAASKAVVKHKNSFDLIFYEKK

>AHK57368.1 cobalamin ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNSLYETLGVSKNASADEIKKAYRRLARKYHPDINKEKGAEEKFKEINAAYEILSDEKKRAQYDQYGDSM

FGGQSFHDFSRNTGGVNLDDILKDLFGGGFGGRSRGGFNGFSSKGFSSGFGGFGGFEEEILDSNLELHIP

FEKAVKGGEHSFNFQGETIKFKIPHGIKEGEKLRIRSKGKQSRNGARGDLIIIVKIEESPIYTREDDDLY

QKVDISLKTALFGGKINIKTLKEGKEEAIINITPNSKNNQKIRLKGYGVQNRKSDIYGDMYLILNVVLPN

LDTLDEKFIELLKEKLP

>AHK57367.1 serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIFLSLSLASALFAASINFNESTATANRVNPAAGNAVLSYHDSIKDAKKSVVNISTSKTITRANRPSP

LDDFFNDPYFKQFFDFDFSQRKGKNDKEVVSSLGSGVIISKDGYIVTNNHVVDDADTITVNLPGSDIEYK

AKLIGKDPKTDLAVIKIEANNLSAITFTNSDDLMEGDVVFALGNPFGVGFSVTSGIISALNKDNIGLNQY

ENFIQTDASINPGNSGGALVDSRGYLVGINSAILSRGGGNNGIGFAIPSNMVKDIAKKLIEKGKIDRGFL

GVTILALQGDTKKAYKNQEGALITDVQKGSSADEAGLKRGDLVTKVNDKVIKSPIDLKNYIGTLEIGQKI

SLSYERDGENKQASFILKGEKENPKGVQSDLIDGLSLRNLDPRLKDRLQIPKDVNGVLVDSVKEKSKGKN

SGFQEGDIIIGVGQSEIKNLKDLEQALKQVNKKEFTKVWVYRNGFATLLVLK

>AHK57366.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTNILMIEDDLELAEITAEYLEKFDMKVDIAHEPYIGLSKLALKEYQLIILDLSLPGLDGLEVCEEIRKK

YDTPIIVSSARHDITDKVNALELGADDYLPKPYNPKELQARIKSHLRRISNTKSAIAKSVKDLVYDQYKH

IITMKGQELTLTNAEFDILSYLIKKEGGVVSREELVYNCSSISEDSSNKSIDVIISRIRQKMGDDPKTPK

YIHSIRGIGYKLTQ

>AHK57365.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKSSIFYTITFIFIFAGVSVILGFLWLIEYDQQNYTRELNTKYSLIANARLLNFAGVISEKEFEEQTKN

YNKMDEITEAKQIRKILFRGDVLARVEVNNGLIEIISYNRQVYLNIIYDGKVYLYKDQDYQTYRYFIIKA

IAVAVICILVLLYIYIFKKLKPLKRLKKQIDKFAQGKLGDIEDVSTGVDEISQVSEAFYQAIVQIRKLNQ

SRQFFLRNIMHELKTPITKGLLTLEMIEDNKYKERLNGVFTRLEILINEFAAIEQITSGAAFINRKKYNI

LDVLDEAKEIAMRDDSNIRIFMEESFFVNVDFKLFTTAIKNMIDNGIKHSEDGFVQIDIIDDYICFKNRG

PELNNTLEYYTQAFTQGSKQKSSFGLGLYIVNTILETHGMKLDYLYEDGVNLFYFRNLKSVIVKE

>AHK57364.1 CopG family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKRNVKTYSFRMPLELKERLDNLSKNLSKPKSTIVKEAIEAYLNEVEDFSFAVNALEELKDGDYQKASKK

IDKIVKNLKQTK

>AHK57363.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLPKWDNSYSVHNAKIDEQHKKLFKLAAKVEVVSDRSVSKNEVKELLAEFFNYMKDHFNDEEKYMQLIGY

PNLEEHRKIHKEIIQTMINLIKDIKSTNDLKEKLYIVAKKWLLEHILYEDMKVEKWRSSSLSTDDGGDVS

FEAAEDEDNEHPQFYLYTCNCPGKIHDVPYSIHQKIELQGRKFTCKTCKQAIKFYKKYS

>AHK57362.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAAKILLLEDDLSLSEIIEEFLNDEGYEVFLCDNAQEALDMAYERYFDLWILDVKVPLGDGFSLLKELRK

SGKQTPAIFMTSLNTTNDLKQGFDAGCDDYIKKPFELAELSIRVKALLKRAFSHKNEDFEDLGDGFRFEF

TTQILYHNNKALTLPSKEIKLLSLLLKNKNNFLSTERIFEELWDYDEEPSELSLRAYVKNLRKILGKEKI

INQRGRGYCYG

>AHK57361.1 sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKKVIRQILLIYLTTTGIFLTIFFALWYQKLYEELVVLKGATLRENHRNIVISILNSRFTPIDISAKNI

AQSTALKFAIFDAKKIVFSNIDFDLRKAKIELKGRGICDNKVFFLASMSADHYFLRHASNEEVNTNDGLQ

ILIQGEDVGKDLFWIRTKVFSFAIMAFCILGLISYILVKIALKPLEDKISTLNRFIKDSTHELNTPLSVI

LMSIEQLEHQNLGDNTKFTRIKLAAKSLSQVYSDLVFYNFPNTLETEKQKFDLRILLEERLEYFKVFFEQ

KKITLKLDLNQANIFAPKSQISKLIDNLISNAIKYNKKGGVISIILKANFLSIADTGCGISKSNLNHIFD

RYTRFNTDQGGFGIGLSLVKKVCDDNDIKIICESVENQGSVFKLNW

>AHK57360.1 molecular chaperone GroEL [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKEIIFSDEARNKLYEGVKKLNDAVKVTMGPRGRNVLIQKSFGAPSITKDGVSVAKEVELKDSLENMGA

SLVREVASKTADQAGDGTTTATVLAHAIFKEGLRNITAGANPIEVKRGMDKACEAIVAELKKLSREVKDK

KEIAQVATISANSDEKIGNLIADAMEKVGKDGVITVEEAKSINDELNVVEGMQFDRGYLSPYFITNAEKM

TVELSSPYILLFDKKITNLKDLLPVLEQIQKTGKPLLIIAEDIEGEALATLVVNKLRGVLNISAVKAPGF

GDRRKAMLEDIAILTGGEVISEELGRTLESATIQDLGQASSVIIDKDNTTIVNGAGEKANIDARVNQIKA

QIAETTSDYDREKLQERLAKLSGGVAVIKVGAATETEMKEKKDRVDDALSATKAAVEEGIVIGGGAALIK

AKAKIKLDLQGDEAIGAAIVERALRAPLRQIAENAGFDAGVVVNSVENAKDENTGFDAAKGEYVNMLESG

IIDPVKVERVALLNAVSVASMLLTTEATISEIKEDKPTMPDMSGMGGMGGMGGMM

>AHK57359.1 molecular chaperone GroES [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFQPLGKRVLVKRVEETKTTASGIIIPDNAKEKPLMGEVVAVSKEITDIANGDKIVFAKYGGTEIKLDN

NEYLVLNLDDILGILK

>AHK57358.1 hypothetical protein N918\_06070 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIFYGIVAFVVVLLIALYTILFTSFGNNIVANIAQKKIKENAGLDVNITRFNLRFSSLELQANIANMA

DCNLQGALSPFKLGFDLDYLISLNQNYAKNLGLNLNQNLSFGGKIQGKASDFTLDGKGYLLGSNVLLNAR

MYNYSPIALNLDAQNLKIEEILHLLSYPSYAKGFLNAQAKISAQNLKPDGNIIIKLDTSYINYEAIKKDF

SLDLPLNSNPKAEILANVKEDKIYAVSKIYNDYLNLQTQKTLYDMSKNILSTDFNLNIPSLAKLEKLTKT

RLNGSLGVIGETSVVNNALSSLNAQVIGLGGEVKASLKNNKIFADINEASLEKLLALAGYGALVSGNLNA

KLLNADLDFSNFDLEAKINNAKINTNELKKLAKIELPNTIFSFDAKANAKNSNIAYNALLASNLLNIKKL

QGTYNLKNSELNTDLNAFIDDLSQFSAIAGQKLQGKADLTAKAHIIGTQIQNLNANANLADGVIKADSNG

KKLDLNIDKLDLSKLFVIAGMPNYASGIVNAKVNLDNIDFSNLNGKANLEAKGILNAATLSKILNKNFPN

NTSYDLNTKINFKNNIAQFDSVLNSSLADLTKLQGSFDISKMLLNSDFNLKINDFSKLGFLLDRKLKGKA

EFNGKVGFDKNLNFVVNSPNLFEGKLQSTLKDNLLLADLNGVDLSSLAQGLDFMDVYQGKADVKANYNLL

SEEGEVNLDMKEGKLKPNLITNALKILTLKDITNDVYRTANAKALIKKENIKFDLNMQADRSYILVQSGA

LNSKSGALNLPFDIKFDRANFKGSITGTTENPKVNLNAGSVLNSIKNVVGGGMSDGAKSTGDKVDKAVNK

LLNKIF

>AHK57357.1 riboflavin synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFNGLIREIAKVQSYQNNTLSLKAKYCPNLGDSIAVNGACLSVTKLYEGGFEVELSRESRTHIVIENLKD

KVHIEPALRYGDRIDGHLMQGHIDFIGTLEKIQKDENGVDFYISLPKEAMKFMAEKGSIGVDGVSLTINE

ILKNGIRLTIIPITFKETLFKDYQVGRKINIESDLLARYIYAQLQGKNKGLSWEEVERISYLY

>AHK57356.1 laccase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGRSRKNFLSLLENDKVGIFCAFDKDYNVFRAKIHNENLFSHLGFKDIEKCVFMDQIHSHKVIIYDENLK

NLSCDGLISKEKNIALCVLSADCLPLILYHESGIIAALHSGRKGSFENILKECVDQITMQNSHLDKNKFH

LFILPGICAKNYEIDGEILEFAKKEFKEFVQDDKLDLKALVKFQAQNLGIENIKDCGICSFDDESFFSYR

RDKTTKRFVSVVYLKD

>AHK57355.1 hypothetical protein N918\_06055 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYERKDLRVLKIIQKAREFGDGDLLNEALVKQLIDADFCEINEKEKEELATLLHSLINAKDKALLSN

>AHK57354.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKLLLLFIFVVQSFAALSVEELTWDNGDTLLKFLQRNSIPMSLYYGLDREDQELASDIAYKIKYQVLKD

ENNNIEQVLIPISDDLQIHIYKDKDGQYTLAFTPVSYQKEDRILHLTIKSSAYQDVYEESGSSTLARAMV

RAFRGSINFRNIQKGDEVTLYYEQKRRMGKLWGDINIKMAMVEINKSAREVFSYNDIFYDRDGKELESFL

LTKPVNYTRISSPFTTARYHPILKRYRAHLGIDYAAPTGTPVKSAGKGVVTFIGTKGGYGNVIQIKHDSG

YMTLYAHLSRFAKIKNGQKVNQGQVIAYVGSTGMSTGPHLHFGVYLNNKAINPASVVKIAKSELSGKAKE

NFKHIIAGYEQVVKEALASNQPNPPKEEDFENYIEF

>AHK57353.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFKTIVCFLALNLSLFAVGFDLKPIKSELVKVDDIYGYIKDSDDIKLYSSGVVVQHFSNSQSIIARASVI

DKKNGLAKLEFSVFSALKQDALPLPNVLPKVGDEVVLNFLYDRGLVIAPDEQTYNELVREFPQIYFTHID

IFGAQLIRTATLSPKRSDFRQFCDDNAVGILVVALENHAEVVDCQDFNKLYEVPISKPTSVQVPFYSRIG

GYKSNFFDFNSQEIGNYYRYYDALINLPKVQ

>AHK57352.1 FAD-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKEFEQYFKRFLGEENAYFDEIHKRAYSYDATKKHYLPDGVLFPRNEEDIARILKFCNENNIIVIPRGS

GSGFTGGALAVNGGVVLAFEKHMNKILEIDLENLVAVVQPGVINIHLQKEVAKYGLFYPPDPASMEYSSL

GGNVSENAGGMRAAKYGITKDYVMALRAVLPSGEIIRAGKRTIKDVAGYNLAGILIASEGSLAVLSELTL

KLIPLPKFKKTAFAIFPSVKSAMNAVYKSLASGVSPVSMEFLDNLSIRAVESKFNKGLPIEAGAILIADV

DGNVKEAIDEDLRNLEHYFLEAGASEFKIAKDEQETADIWFARRNCSQSIAMYGTLKLNEDITVPRSKLP

TLLEGIDEISKKYGFKIPCFGHTGDGNVHTNVMVPDKNDKEQVKKGYEAVEEIFKLTVKLGGTLSGEHGI

GLSKAPFMNLAFSEAEMNLMRNIKKAFDPNNILNPFKMGL

>AHK57351.1 ribonuclease BN [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNFFTILLNLRDKEILNYAAALSFYTVLSLIPILFVCFSVFTQISSFKAYYEKAKQVIFAFLIPTQQDV

VATYIDTFLKNSVNLGIVGLIAMAFTSLAFFSGYDFVINRITKNEPKGLWQSISSYWTLLTLVPLGLGLS

FYISGFIQQTLDDYKIGFNFFEILPFVIIWGLFFISYSSSVHKGTLKSLALVSFGAGTIWYIGKNLFVYY

VVYNKTYASVYGSFSTILFFFIWIYISWIIYLFGLKLYYFLNHNHNEGNKIRKNTKKS

>AHK57350.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQDMIDTLIKYGYIVLFFYSLGGGMVGILAAGVLSSQGKMDLSFCIALAFIANTIGSTLLFILGKYYKKD

IMPYFKKHRRKIALAMIKTKQHGIILLVTQKFIYGLKTFIPIAAGMAKYNFIKFFIINTLASLAWAIVLG

FTAYTFGYVIEAIFDKLSLYPYAAPLFLLFLAGIIWLYLSKFSKK

>AHK57349.1 ribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIESLIALIAAIVGLGIGYLVAKKINDAKYEIFVEQAKAKAKAIEYEAELILKDAKNSILNAELEVKKKY

EEKTHKFQKDFNQKFDDLSKKEQKLQQEEEKLKEDKEYLCKSQKHIQNLQSDVDKLKNKYQEKLDDVLKI

LEHSTGLTQNEAKEIILKKVEENSREQIAHIVRKYEEEAKNEAKRKANFIIAQATSRFAGEFAAERLINV

INIKNDELKGRIIGKEGRNVKTLEMVLGVDIIIDDTPGAIIVSCFNLYRRAIATKVIELLVEDGRIQPAR

IEEIHEKVCKEFDSAILEEGETIVMDLGLNKIHPEIVKLIGKLKYRASYGQNALAHSLEVAHLAGIIAAE

CGGDENLARRAGILHDIGKALTHDFEGSHVDLGAELCKRYKEHPVVINAIYAHHGHEEATSIESAAVCAA

DTLSAARPGARREVLEAFLKRVSELEDIAKSKEGIKNAYAINAGREIRVIANAQLVNDDESVLLAKEIAA

EIQEKMQYPGEIKVNVIRELRAVEYAK

>AHK57348.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIKKILLLVAISCLFVACSNDKEKQQNDVNLSTEASINQSDDMNFKLNLIDGGSISVKKENAVLNFNDE

DKVTLFVFFTTWCTPCIAEIPHLNKLQEKYNNDFNIVGVLLEDKSNDEIQKFIEQHKISYKVANGENNYL

LAKALGGVNGIPTMFLYNKHSKLINQYLGLIPEEMLEIDIQKAIL

>AHK57347.1 cell division protein FtsY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFNFFKKGLAKTLENIVGVKGENKKITKDLLEEILLEADVSYEIVEEIIYYLPPQNEVKKEDLKRVMGSY

FLYEKKETNQEKPFVELILGVNGAGKTTSIAKLAYLYKNQNQKVILGACDTFRAGAIEQLKLWAQKVDVD

IVLTAQGHDPSAVTFDTISKAKAKDFDRVIIDTAGRLQNQKNLAHELEKIVRISNKALEGAPHRKILVLD

GTQGNAGILQAKAFNELVKLDGVIITKLDGTAKGGALFSIARELELPIFYVGVGEQMTDLQEFNASAYLD

TLLDPIFE

>AHK57346.1 DNA repair protein RadA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKNKALFECQACGNQQSKWLGKCPDCGAWDSFVELKAEQIKVLKELAQVSMKTSEAVCIEDVELEHFTR

YSTDDNELDLVLGGGLVEGSLVLIGGSPGVGKSTLLLKIASNLAKQGKKVLYVSGEESKAQIKLRADRLE

ANTPNLFLLTELCLENILEELHKKDYSILIVDSIQTLYSNKITSAAGSITQVREITFELMRVSKAYNIST

FIIGHITKEGAIAGPRVLEHMVDVVLYFEGDATKEIRLLRGFKNRFGGTNEVGIFEMTAKGLISAKDLAN

RFFTRGKAISGSALGVVMEGSRALVLEVQALVCESSYPKRSATGYEKNRLDMLLALLERKLEIPLGHYDV

FVNISGGVKVSETAADLAVVAAIISSFKNRPLSKDSIFIGELSLNGEIREVFSLDTRLKEAKMQKFKNAI

VPSKPLEDIGLKCFVAKELSQVLEWM

>AHK57345.1 F0F1 ATP synthase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKDLFLFSSLLDASHTFSYFFHIGLVALIAVIVAMMATRSMQLVPRGMQNLGEAFLEGVLSMGRDTMGSE

KGARKYLPLVATLGIIVFFSNIIGIIPGFHAPTASLNLTLSLAIIVFVYYHFEGIRAQGFVKYFAHFMGP

IKLLAPLMFPIEIVSHLSRVVSLSFRLFGNIKGDDLFLMVILALVPYIAPLPAYVLLTFMAFLQAFIFMI

LTYVYLAGATVVEEGH

>AHK57344.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIYILEFFKGASLALMLFGALFFFFKYNSFFYLCLGIIPGLLLSLIFVLLIENHKLKNENKLR

>AHK57343.1 5,10-methylenetetrahydrofolate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MCSFSFEVFPPRKDENIKNLHAILDDLGQLSPNFISVTFGAGGSINSQNTLEVASLIQEEYQIPSIVHLP

CIHSSKEKITQILQKCKEKNLNQILALRGDICENLKKSKDFSYASDLISFIKKQEYFEIYAACYPEKHNE

SKNFIEDIHHLKTKVNAGTDKLITQLFYDNEDFYTFKQNCALADIDIPIYAGIMPITNKRQVLKISQLCG

AKIPPKFVKILEKYENNTLALEDAGIAYACDQIVDLITSGVDGIHLYTMNKSKAAIKIYEAVKHLLKEEL

HA

>AHK57342.1 5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNSIISYPRIGANRELKFAIEKYFKNQSSKEELLKSAKDLRIRHWQEIQKAGIDFIPSNDFSLYDNVLD

AAVLFNIVHTKYKNLNLDALDEYFAQSRGYQGENGDVTALAMKKWFNTNYHYLVPECDNADIIALTGDKI

FKEYLEAKELGIESKPVLIGIFTLFKLIAFKDEKTQKLAKEKLLNAYIELFDKLNELKVTWLELDEPYLV

YDLSKEDIALFEEFYQELLNHKKDLKILLQSYFGDLRDIYPKLLESKFDALGLDFIEGKQSLALVQQYGF

AKDKILFGGLINGKNIYANDYAKSLKLIKELQKYTQNIILNTSCSLLHVPYSTEFESKLDSSYLKLFAFA

KEKLQELKDLKEILNSSEENPLFRANQELFKNIPERLDEKVKARLKALKKEDFTRTPSFKERALIQKEFL

KLPLLPTTTIGSFPQSADVRSNRLAFKQEKISAQNYTEFNQQKIKECIQIQEEIGLDVLVHGEFERNDMV

EYFGENLKGFLFTQNGWVQSYGTRCVKPPVIWGDVSRTKPITLAWSKFAQSLSQKIVKGMLTGPVTILNW

SFPREDISLKESTEQIALAIRDEVLDLENAGIKIIQIDEAALREKLPLRKSDWHSEYLDWAIPAFNLVHS

GVKAKTQIHTHMCYSEFSDILKEIDAMDADVISFEASRSNLSLLDTLKAIRFKTEVGPGVYDIHSPRVPS

VEELSLTIEKILNKLPKEQIWINPDCGLKTRAYEEVITSLKNLVTATQKIREQL

>AHK57341.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTLFTKAFCVATLFTGFAWANEELKVGSSITPHADILRFIKSALQKQGYDLKIYEFNDGVIPNVMVENGE

LDANYFQHEPYLKEFNQRQGTHLVKVASIHIEPMAVYSKKHKEFHPKEGQSISIPNNPTNESRALRIVVS

KGLIEVKDNELITPLDITKNPKKLKFVELKDAQLTRSLDDVDYSLINSNFAILAGLNPVKDGLYTESKYS

EYGNIIAVKEGNENLPKIKALVKALQSNEVKKFIEEKYQGALIPTF

>AHK57340.1 2-oxobutyrate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLPILDLQAYEKDKSTFLKNLREIASKIGFFYLINTSIDKNLNEKLFKLGKEFFNLSRSSKELISMVHS

PQFRGYTSEGFEYTAGSKDYREQLDIGTERDALNWNLNSPLWQRLEGPNLWPSEIPELKKTFLTWHKQTK

KACLKLLKAFAQALDLPNNAFDKLYGENSYEHCKIIHYPKSSKNITQGVGSHKDGGLITFVFQEKQSGFE

AFIDGKWLSIPPLENSVVVNIGEFLELATNGYLKATIHRVNLSPKERFSIAYFLGVQLDKDIPIFKLNPE

LAKESKGVDTDPKNPLLRNVASNYFKRMIRSHPDVASIYHSDLIEKFSFA

>AHK57339.1 S-ribosylhomocysteinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPLLDSFKVDHTKMPAPAVRLAKVMKTPKGDDISVFDLRFCIPNKDIMSEKGTHTLEHLFAGFMRDHLNS

NSVEIIDISPMGCRTGFYMSLIGTPDEKSIAKAWEAAMKDVLSVSDQSKIPELNIYQCGTCAMHSLDEAK

QIAQKVLNLGISIINNKELKLENA

>AHK57338.1 glutamyl-tRNA amidotransferase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFEVVIGLEVHAQLNTKTKIFCSCATSFGEAPNTNVCPTCLALPGALPVLNEEAVKKAIAFGKAVNATIN

KKSVFNRKNYFYPDLPKAYQISQFDIPIVEKGELFINVKGENKRIGITRAHLEEDAGKNIHESNFSKVDL

NRAGTPLLEIVSEPELRSSDEAVAYLKKLHSIIRFLDISDANMQEGSFRCDANVSIRPKGDTKLYTRVEI

KNLNSFRFIQKAIEYEVKRQSEAWEDGTYEQEVVQETRLFDTTNLVTRSMRGKEEAAEYRYFPDPDLLPV

LLKDEFLDIKIPELPDEKKVRFIDKLGIKESDAEVLISSLEMSRFFESLISQNLNPKLCVNWLNTELMGL

LKGELTIENSPVDAQKLGVLIKRIEDGTISAKAAKDVLAFVFENTSVEIDEAIEKLGLKQVSDDSAIEAV

IEQILNANADKVAEYKSGKDKLFGFFVGQTMKEGKGAFNPAKVNEILKTKLG

>AHK57337.1 glycerol-3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRIAVIGAGKWGSALHLALKENHNCFISSLHQRDLEDFVSIKEALECEYLVFALSSQGMRAWLKENFINK

GQKILIASKGIEDQSCQFLDEIFLDFVPKENFCVLSGPSFAAEVMQKLPTALMISGINQELCKKFASFFP

DFIKTYIDNDVRGAEICGAYKNVLAIASGISDGLKLGNNARAALISRGLIEMHRFGKFFGTKEETFLGLS

GAGDLFLTATSVLSRNYRVGLKLAQNQKLDSILAELNEVAEGVKTAYAIEKLAKMKGIYTPIVNEVVAIF

KGKSVQEATQNLLKQND

>AHK57336.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIIKNAKIYGDSLQDIEIKEGKITNIDSNLQGEEILDAKGMTLLPSFVDLCVSLKNDKFSLANLELLENE

CLKGGISSIVLRDCMDFDEESFALFLQNLAQRKMQIFSSVRVKDANGKLKNLATLLNKGACALELDSSLD

ANTLKVSSQYAFMKDSPIFVRCYDKDFDDNGVMNDCEMSFELGLIGMSKIAETSQIAKMKELAKFYKNKV

IFDLLSLKDSLVLLDEKDLKLVSIHHLIKDDSACEDFNTAAKLMPPLRSKEDVLALREVLKEGKISFLTS

LHSAKSISLKDLAFDEAAFGIHSVCEFISLCYTFLIKEGFLNWQELCRFTSKNPSEFLGLNSGVIEVGKE

ANLVLFDENEEIFAPKSSLYSEDKLFGKIKMHIIKGKNILEK

>AHK57335.1 phosphate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKDNLIAFVIFIISTIAFVIWGFGYISQHQLILFILASIFGIFMAFNIGGNDVANSFGTSVGAKTVTIK

QALIIAAVFELSGAIFAGAEVTKTIRSGIVIFPNSLDPMLFVIIMLAALLSSGVWIFIATKKGLPVSTTH

SIVGGIVGASIMMGLLKFDGIQTLSMVKWSEILRIAISWIASPLLGGIVAYIIYSYIDKKILKPSEKLND

DLKNIKKERKKFKEEYFLNLKTKSQEEQIKELSAIALDEEEQENNFYRNKMKEFKDQEKDIDIYSILKTH

MPIIACIAAAIISAMFLFKGLNNVSTLDILQNFWIIGIIGTISYVVTFAIVKIVKKTELNKTTDRIFSWF

QIFTASSFAFSHGANDIANAIGPFAAILDVLKNGTINATSPVPFAALAMFGVALVVGLWFLGKEVITTVG

SKLATIRPTTGFSAELGASIVILLATQFGIPVSSTHILIGAILGIGVYNKNANWIMMKPIGLAWIITLPA

AGIMAALVFLGFKLSLGI

>AHK57334.1 hypothetical protein N918\_05940 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRGIFYIIALFSLLNGDELTEALAKNNNQNSWEHFDYKNTKEAPKIQEENVDFKSTFDSLLSKTLENNNG

IDKTDGNLDFQNENAQVKNLSSLYEGENNSLLFQKELFVAQDNYNYSGGLINRYEKDDFLFGVNGFIDKQ

KEQKDTKSFGTEFGYSKFIKAYSNYYIPNEAEKKLQLGMSFVIPTYTAFAFDISKDNDKTNYQVSYSPYS

VFSLNLLRRDYSARETVDDTVVQVGFSFNFNESFLKQFRKKDNTLEEVNRYDFLQRTH

>AHK57333.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

METLSQTLAERKPPLYKRIIKSLGFWVIIGIITGIVLGYTDKELAIASKPGVDYFIGALKVLIGPIIFVT

LVLGIISLESLKKVGSIGAKAVIYFEVVSTLALAIGIFMANVMQPGHGMNLDPSQLDTKSVQKYISQTTE

VSASSEIMHILKDAMPTDIITPFTEGKTIQVLVIAIITALIISLMRIEDKQAIQRVFEVVQNFVFKILQI

IMYFSPIAAFSAMAVLIAQYGIGSLINLAYLLLVMLISCLVFIFGILGLICYFAKVNIFKFMRFISREVL

IVFATSSSESALAPLMRKLEKAGLSKATVGLVLPTGYSFNLDCTNIYLAMSLIFLAQAFNVNLSLAHEIS

ILIVLMIASKGAVGVTGSGFIVLGSTLAALGNMEISEANATLAQVLPVAAIGVLLGVDKFMSEMRAVGNL

CGNSVAALIVAIWDKQIDWEKFRYAMDNPEKFHNAGMN

>AHK57332.1 PAS sensor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEIVLSENALITSKTDLKGNIIYANNDFLKYAGYKVDELLYKSHNIVRHEDMPRTVFKCLWDYIQKGDE

IFAFVKNKAKDGNFYWVFANVSASFDTNGNIINYYSVRRAPNRKSLSIIEEVYKILLEKEQKSGINAGVS

ALMDIVSSYKMTYNELIFNLQENN

>AHK57331.1 PAS sensor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSREIFLQEDSLITSKTDLKGKIVYANDDFLKYAGYTMGEVLNKPHNIVRHEEMPKTVFKYLWDYMKEGK

EIFAYVKNKTKDNNYYWVFANVTPSIDVNNNIIGYYSVRRMPNKSAISTIESLYSDLLRAEQQQGLNKGV

EMLKNFCKDADKTYNELIFSLQEAK

>AHK57330.1 tRNA uridine 5-carboxymethylaminomethyl modification protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFDVIVIGGGHAGVEASAAAARMGKKTLLLTTLIEQIGAASCNPAIGGLAKGHLVKELDAMGGLMGEITD

EAGIQFRILNESKGVAVQGSRAQIDMDKYRIIARNKLLKLPNLEISQEQASVLIVENDEVKGVKTNLENI

YFAKKVILTTGTFLNGLIHVGENKLQAGRVGELASVNLGNYLQTLGLKMGRLKTGTCPRVDAKSIDFSVL

EIQDGDVNPKAFSFRSRNFNPTQLPCYIARTNTTTHEIIKNNFYRAPLFTGQIEGVGPRYCPSIEDKINR

FSDKESHHLFIEPQTIDATEYYINGFSTSLPYEVQTQMLRSVEGFENAKITRFGYAIEYDYIEPTELKHT

LELKKIKNLYCAGQINGTTGYEEAAAQGFMAGINASLSIDMKEPLILRRDEAYIGVLIDDLVVKGTKEPY

RMFTSRAEFRLLLREENAILRLGKYGYDLGLLSEQDFTYIQNIANNLQKGLEFLLSKEFTPNNQNNAFLE

SLGEDKISSIVNLQKIVARASFDIEKLKKLDPIFETMDHYSLREILNEAKYYHYISMQKAQVEKMKNLSE

LKIPENFDFKSVSGLSNEVVEKLNHHKPPTIFAASQISGITPAALDILQIYIKMQKKKA

>AHK57329.1 arsenic transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLAFFIFLSTLVLLFWRPWNLPIWVFSSLGAFFVFIFQLVDFKDACFVFSLVWDSSLTLVGLIILSFSLE

ALGFFDFIASKILYFSREKNQEKIYISTKKMMLFLLIFVFFLSAFFANDGAILIITPIIIALFSTLKDCK

NHAFILSSFLLSLSFLCDASSNALVISNLTNIITANYFKIEFLEFAKNMFLPNFFVLLSTIVTVFVLYVR

VLPKRLEFKLIKKEQISLKLFFLCIVFLFLFVISFFIGEIFDIKISFFALLWAGIFWLIVLKIQGKKSIK

ILFEAPYGVLLFSFGLYMVVFALHKIGVSEILVKSYAFLMQDKSGIFGVALISAFGSSVFNNLPMVLIGD

LALKEYFENFSFDSLMIYAHLLGVNIGPKLTPIGSLATLLWLGVLARKGINISFWQYCKFGFLITLPVLV

FSLFALIV

>AHK57328.1 ubiquinol cytochrome C oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MATSESRRSFMGFAFGSVAAVGGVFSLVAMKKTWDPLPSVKAAGFTTVDLSGMQDGELRTIEWRKKPIFI

LKKDASMPKDEKRDVVVDNAAYTVVIGLCTHLGCIPAYQPSEQLFKCACHGGEFDTSGKNVFGPPPKPLE

IPPFKIDGTKLVLGEEGPEYKKMIAEA

>AHK57327.1 ubiquinol cytochrome C oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAQIRKANGLVDWLDQRLAVHKLLDVLMVKYWIPKQINFLWAMGVILTTLFAVLFVTGLLLVMYYKPDTA

LAFDSVNKTIMQEVDYGWLWRHMHGVAASVVFLIIYIHMLTGIYYGSYKKGREMIWVSGMLLFVVFSAEA

FSGYMLPWGQMSYWAAQVITNLFGGIPFIGPELVIWIRGDYAVSDPTLTRFFMLHVCLLPIVIIAIIAFH

FYSLRIPHVNNEISEELDFDLEAEKYMAGDTKGSKVIPFWPGFLSKDFMYISFFMIFFFYLVCFKFEFAM

DPINFDPANALKTPAHIYPEWYFLWSYEVLRGFFFDIAGIKAFDIGLAAFGIAQVIFFLLPWLDRSDVVK

PAHERPLFFIWFWILLIDLIVLTVYGKLPPTGVNAWVGFYASIVFLLLLIVVLPVITIMERKGAKQ

>AHK57326.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MREIKIFLVVVVFTALVYWGVEPYAHSVMKPHVAPANFDFAVEDTTFAKGIVEAKELALKDAQASGDAKR

IESANKELEKAKEELSKVETLWVDVAKIDFAKGDAKKGKEFFENNCFACHGVKEDGIAANITDSSMGVIP

PDLSAAGAIFDEKFLAALIMHPALALKVDHKFGDAFIMTAYNKDTSGESEEATNANIANVIAYLKDVSVK

FEANEDATIKKDVEAKYAKMENSAQKAALMEKDIKFAKDKATFIEACGRCHDMKYDSFFTPSNQNDLKTY

LGSVPPDLSMMIRSRGEQYLHDFINNTQKLLPGTAMPRVGLTEAAQAKVVSYIDQVGDSKKEERKTTGIY

VMIFFVILSIFAIGWKRSVWSKLH

>AHK57325.1 SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLEKTLIKSILKKWDYGDFRVVFWDKEEFFIGNKPAKFSLIFKEKIPFLELFGDTSLVFARHYMQAKLDI

EGDYDEMAKVLYYFSNQQFFKTKKDVLSKITQKQESKNIKSHYDIGNDFYKLWLDDTMSYSCAYFKEPNN

TLYEAQINKIEHTLKKLDLKEGEKLLDIGCGWGWLSIMAAQKYGVKVVGITISEEQCKKAKERVKELGLE

DKIEIRLQNYQDLEFENYFDKVVSVGMFEHVGKENLGLYFMKVKQVLKPGGSMLLHSILAMFEGKTNAWI

DKYIFPGGYLPSLREVVSAMSEWDFHLLLAESLRMHYAKTLDLWDENFNKVLDKVREKYDEEFIRMWDLY

LRSCASAFRVGSVDLFQFLITKEINNNLSLTKDYIYK

>AHK57324.1 30S ribosomal protein S2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVSMRDLLECGVHFGHQTRRWNPKMKKFIFGERKGIYVIDLQKTLRYFRYTYNIVRDAAAEGKTILFVGT

KKQAGGAIKEYAEKCGMPYVNHRWLGGMMTNFGTIRQSIRKLEVIEKMEEDGSIKLLTKKEALMLTRKKE

KLLAYLGGIRYMKTQPDMIFVIDTVKEKIAVQEANRLRIPVVAPLDTNCDPDLVTYPIPGNDDAIRSVQL

FCQEMAEAINEGKALREQDGEALVNEEKEITDEEKKEVLDEAMSEEDFGEEQE

>AHK57323.1 elongation factor Ts [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTEITAAMVKELRESTGAGMMDCKNALSETNGDFDKAVQLLREKGLGKAAKKADRLAAEGLVSVKVSDDF

TSATVSEINSETDFVAKNDQFIALTKDTTAHIQSNSLQSVEELHSSTINGVKFEEYLKSQIATIGENLVV

RRFATLKAGANGVVNGYIHTNGRVGVVIAAACDSAEVASKSRDLLRQICMHIAAMRPSYLSYEDLDMTFV

ENEYKALVAELEKENEERRRLKDPNKPEHKIPQFASRKQLSDAILKEAEEKIKEELKAQGKPEKIWDNII

PGKMNSFIADNSQLDSKLTLMGQFYVMDDKKTVEQVIAEKEKEFGGKIKIVEFICFEVGEGLEKKTEDFA

AEVAAQL

>AHK57322.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MELLRAENLSHSFDYPLFEGLNLTLNTKDCIAIQGSSGCGKSTLLHILSSLLIPKKGEVFFKGSNLYQMD

ENERLKIRRYDFGIIFQTHYLFKGFSALENIELASVLSGQDLDEKILKRLGINTLLHQKIGKLSGGQQQR

VSIARVLCKKPKIIFADEATGNLDFDNAKNVIELLISYVKENDAALFFVTHDSKLASFCDKTYTINANGI

C

>AHK57321.1 guanylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQGFVLLISGPSGAGKSTLLKKLFDEFEDELYFSISSTTRKPREGEKNGIHYHFISHEEFQKGIDSDHFL

EWARVHENFYGTSLKHTQNALDNGKIVVFDIDVQGFKIARKKMADKIVSVFITTKNKDELKKRLIKRNTD

TIIQLEKRLQNASDEMKELSEYDYLIINDELKQSYEALRAILIAHKFRTKGQNLGQIQNIWNEGE

>AHK57320.1 preprotein translocase subunit TatA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGGWSSPSHWLIILLIVVLLFGAKKIPELAKGLGKGIKTFKDEMNNDDEVAKNTQKIEENKNTTNNTNAD

ASIDETKKA

>AHK57319.1 arginyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKSIIFNEIKKILECDFALENPKDKNLAHFATPLAFSLAKELKKSPMLIASDLASKFQNHDCFESVEAVN

GYLNFRISKTFLNELANQALTNPNDFTKGEKKQESFLLEYVSANPTGPLHIGHARGAVFGDTLTRLARHL

GYKFNTEYYVNDAGNQIYLLGLSILLSVKESILHENVEYPEQYYKGEYIVDLAKEAFEKFGKEFFSEENI

PSLADWAKDKMLVLIKQNLEQAKIKIDSYVSERSYYDALNATLESLKEHKGIYEQEGKIWLASSQKGDEK

DRVIIREDGRGTYLAADIVYHKDKMSRGYGKCINIWGADHHGYIPRMKAAMEFLGFDSNNLEIILAQMVS

LLKDGEPYKMSKRAGNFILMSDVVDEIGSDALRYIFLSKKCDTHLEFDISDLQKEDSSNPVYYINYAHAR

IHQVFAKAGKKIDDVMKADLQSLNQDGVNLLFEALNLKAVLNDAFEARALQKIPDYLKNLAANFHKFYNE

NKVVGSANENDLLKLFSLVALSIKTAFSLMGIEAKNKMEH

>AHK57318.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYIFIIVLSALLDIVANLLLKKSDGFKHKIWGLAAIVNAILAFFLLSFSLKYVPLSIAYSTWGAIGIIGT

CLGGWILYKEKLNKIGILGIIIVIIAVFLLNY

>AHK57317.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNIAKKELFVAWFFLIAAIVFEVLGTSFLKMENQILGYIFMALFIAFSYFFMGKAIKKIQVGIAYAVWEL

LGIILILLVSFIVFKESLTLTQILGIVLSIVGIIMINIGEVKE

>AHK57316.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGRAFEYRRASKEARWDKMSKLFPKLAKAIQVAAKEGGTDPDMNPKLRSAIATAKANNMPKDNIDAAIKR

ASGKDSADIKNIHYEGKAAHGALVIVECMSDNPTRTVANVKAIFSKNGGEVLQNGSLGFMFTRKAVFHLE

KFAGDLEELELDLIDAGLEELEQNEEELVISGDYTAFGELSSAIEAKGLVLKKAGLEYIPNNPVSFSEEQ

LSDIEKLLDKLEDDDDVQAVYTNID

>AHK57315.1 peptidylprolyl isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKTIDTSKVNEYKFALIETEKGTMKLKLFGDEAPQTVCNFATLANEGFYKDLNFHRVIPNFVIQGGCPH

GNGIGGPGYEIICECDDQEHKHERGTLSMAHAGRDTGGSQFFICHSPQAHLDGVHTVFGQIDPKDEESLE

VLDSIRQGDKILDIKICDKI

>AHK57314.1 hypothetical protein N918\_05825 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTRFSLILSACLLSSSLFAKNTDDEITKLQKQLAQIQAELAQIRKEREAQVKQNEAVKAELADLNDRAD

ETEFQAALSKVKFGLEFSTAVSNTNYKVSGQDYSANNKWMNELHLNMNADINDKTKFYGRLSMAKNWSQM

GWSGTPYDLDAGRNTRSSGPVLYVDRAYLDYYITPEWIATVGRQPGTDGPGSNLRNNALRQSTYPALAIN

ALGDAAVITYKPESLQDHKVAIRAAYGKTYQWDEESGKVRDWMSDQKDADANLYYAAVEGELPIEGMGDN

LIIFNVAHMTDFALPIPGSMLLGDDDEVVNLGNLTLANIHFENYKAFGTNFNWFASLGYSNGSNNEINPL

LSTALQSKGYGNGKFNEKDGYAVHVGGRYDFTKALKVGYEFFWGSRYWYTMSRPSINDPLNIRMTRGTAH

DFYVIYQLDRYQFLRLSYTNIQNIWGNRGLPFGGAKKDKARADNIMLMYNVKF

>AHK57313.1 hypothetical protein N918\_05820 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRKILFASLLPIIALADCASLMAKYEAPEPESKTMKQVERWINKKVSDPADAAVLKECMIARAADNPNQV

SVAGK

>AHK57312.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQEIISFIVETASAWGYLGIIILMTLESCFIPFPSEVVMIPAGYLAHKGELDITLCILSGTLGSVLGALI

NYYICFFWGKNFVLKWGKYFGINEAKFAKFEEFFNKHGEFSTFTCRLLPGIRQYISMPAGLVKMKLINFI

LFTALGSAIWVAILVFLGYYIGQNEELIKTYLTQILIIIIVFVILASLIYIKIKKPFKKA

>AHK57311.1 lactate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKIGIVGLGYVGAASAYSIVIQGICSELYLYDIKQDLALAHARDLEDMSAIHFSYTKIFHVPNLENLAS

CDIIILAFRKESLKELPSRLVELKNNILELKDIVLTLKNANFKGKYIVATNPNDTITYYTQVLSQLPKNH

VFGSGTNLDSSRLKKLLAKDLNINSKDIFACMIGEHGDSQFAALSNASVLGQNLLDFYKQKLGKDLDIQE

LEKAVISEGYFIYERKGRTEFGIGTSCANLAKAILEDRKSLYPVSVVFDDIAFSMPAIIGKDGIEKVFEL

KFNEKEKIKLENSKQQIKNAIQSVKDKI

>AHK57310.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKPDIQRLTNFLIIYTKTLLGAGTYTARVAKCVGRIAEVYGYEININFFFHHITLNVVDMDDNSIQRTY

VIPNHHAHVNFKLIFDLSALSWAIYDHKYDLEKAKVVFGQISQQKKHSYLLNLLFVSMANSAFCRLFGGD

FGAGNLVFFATFVGLLLRYILTKAKIDLRIQYILCSFISSWFVFFGLDMGYTNTSDVALGSSILYLIPGV

FFINSVIDILKDHILMGLSRIISVAILICCIALGIYMTLSISDFGILR

>AHK57309.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIEFILRDMFFAAVAGFGFAYACNPPLKTLILSALLAAIAHGLRFTLVEYFHFQTLAIATFVASFCIGCL

GIVLAKIIKTPAEIIAFPALIPMIPGIYAYKAILYLISFIRSDDLKAKSEFLVQFFDYFFTTVSVTLALA

IGVSVTLLIFFEQSFMMTRHAKKH

>AHK57308.1 hypothetical protein N918\_05795 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLCPVCNVDLVMSDRSGVEIDYCPKCRGVWLDRGELDKIIERSVPNTANFNQAPRQESRYNDSAYHQHND

YYKKKKKESWLGELFDF

>AHK57307.1 cation transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYKFLSHEPLANKSCHHNHEEHSHEHHHSHADARSVDKKILKISLLMTFSMMLVQFIYSILSNSLALLSD

TLHMFSDVFALALSFLAIIAVEKWQDHQKTFGYFRLEVLVAFINALTIILSALFIIYEAIEKFINPKEID

AKTMIIVAILGFLVNGINALMMFKGANLENVNMKSAFLHMMSDLLGSLAVIIGGIVVYFSDIVYIDTILA

IVLSILLLRWAIILLKQSANVLLESSPVDIEKVRQVLLLNPSVDEVVDLHITQITNKMLVASMHLKVRVC

NLKEFEKLSQDLSHKLLHEFEIGHITIQPIRSENEI

>AHK57306.1 heavy-metal-associated domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFKVKNVNCMNCVNLIKNSLEDEFGNIEVDLEQKILSLNLEENQVSNFTKEFQDLGFEIVERL

>AHK57305.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEELRIKIGKMTCVNCSNAIERACKKIDGVKDASVSYVNSSGVFLLEDQKKRKDIIAKIKNLGFEILEDE

QSLNAYKAKKHLELRKNLLLSIVLSVIIMYFEMFVKSSFSQNIQMALSFFGIFYCGRDFFSHAFLGFKSK

NLDMNTLVALGTLSAFVYSFLVYLQIFKEEDLYFSGAMMIISFVLLGKYLESKAKFKAQDYQRILENIDT

KKTKILLEDESIKEISSSFVKSGDVLLVKEGESIVADGVVLLGSAELDMSFLNGEFLPVLKKEGDEVQAG

AVVLNGALRIKANKKAMDSTLEQIKNLVFEAGSIKSPLANLADQISKYFVGGIIFFAFLVFVFWVLKADL

NTAFLHSCAVLLISCPCALGLATPIALVVASANAAKNFILIKNPAALEKLALVKYAFFDKTGTLTKENLS

IFKHNLSKDDFDKLCQIESLSSHPIAKALHKDHFFDLKGEGRVIVGSGIKYKEDNDNYLVGNAQFLHENE

IDTKESDIFFDTFKEYVRVYFAKNKKCLGGVLLSNALKDGAKELVLNLKKQNLKTFILSGDHVKNVEKIA

KELQIDEFHAQLKSEEKLQIIQKFKKTLFVGDGINDAAALSAASVSMSFSKANELAKKTGDFILIKDDLS

AIFKCFKLAKKTRGIIKLNLFWAFIYNVLCIPIAAGFIPFISLSPHIAALAMCFSSITVVLNSLRLKRI

>AHK57304.1 DNA polymerase III subunit gamma/tau [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLQALAIKYRPKTFDELIGQKTVSVSLKYALNHNRLAHAYLFSGLRGSGKTSSARIFSRALVCEQGPSDT

PCGTCKHCLAALEGKHIDIIEMDAASNRGLEDIQALIEQTKYTPSMARFKIFIIDEVHMLTPQAANALLK

TLEEPPSYVKFILATTDPLKLPATVLSRTQHFRFKQIPQSEILNHLKEILLKENVKFEEEALKFIARSGN

GSLRDTLTLLDQAIIFCQNEISISKITDMLGFLDPQKIKAFYQAILTKDKEKVFVYLEELQDYEASSVID

EMLFYLKESFFAKSTEFSTLIYERFFRILSKAKNMLCDDDGFTLCVMAFMMMEASHLKEIDAQIQEIKQE

NTTNIISRITPSPIIPHLEKKTEKNAYEILLDSIYDRDFDLAECFKQSTNFISFENNTLNINSNAQGQNR

DTLNKGFKLIQELFKAKFGENAKINVQKALTIDENKLQSLTQELPNNENKNIDIQSSINMLKEGAKKFDP

QEDLKEALKDCFGEPSIEN

>AHK57303.1 transcription termination factor Rho [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKEKKQHQRTHVPVEGYKIEELKLLDLENLVKIANECEIENPREFRRQELIFEILKAQTKKGGFILFTG

ILEISSEGYGFLRGMDSNLSDSVNDAYVSNSQIKKFALRVGDIVTGQVREPKDQEKYYALLKIEAINYLP

LQEAKERPLFDNLTPIFPTEKIKLEYDAMKLTGRVLDLFTPIGKGQRGLIVAPPRTGKTELMKELATAIA

KNHPEMHLIVLLVDERPEEVTDMQRCVKGEVFSSTFDLPAYNHVRVAELVIEKAKRMVETGKDVIILLDS

ITRLARAYNTATPSSGKVLSGGVDANALHKPKRFFGAARNIENGGSLTIVATALIDTGSRMDDVIFEEFK

GTGNSEIVLDRNIADRRIYPAINIIKSGTRKEELLQGVANLQKIWAIRSAISQMDDVEALKFLYSKMLKT

KDNVELLSIMNE

>AHK57302.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKCEHCKLDYKQAQMIEYKGKFFCCKGCESVWEILHESGLDEFYEKLGNQTLSPVNFQNEMKNYDEFITK

TKEGFSEIYLMIHGIECAACVWLNEKILTKQEGILELDINHLNHKARIVFDEQSISLVQILRLIESIGYK

ASAYDASKASKKADLLKREFYSKLVVAIACVMNIMWIAVAKYAGFFSGMDKDTKDILNFAEFILCSPVLF

YTGSHFYKSAFKTLKMHSLNMDVLVISGASLAYVYSLWAMFFRVGEVYFDSVAMIICFVFIGKYLEMFSK

KRALDTIDGLNDFLQNEVLVFNGKEFVSKEVQKVCLGDRILLKTGDKILIDGICKSGEMSVDTSSLNGEN

TPKLIQKEDEIFSACIVLDGSVEYEATKFYKDSKLSQIIQLLELASSKKAKLESLVNSLLAYFSRTVLLI

AFICFAFWFFYKEESFEISLVNAIAVLIIACPCALALATPVSNLVALGRALKKHILFKSSSVIEDLSKCD

CVVFDKTGILTKIELELKEVFLDKALDLNELYNFVKLSKHPISQNIVLYLKQKGAKDLNLDFKKHSSIQA

KGLSAELNEGLLLGGSSKFLQEKGIVAKEFDNTHFIFAKEGKILAFFEFDSVLREGAKELIAYLKKEKKE

LMILSGDHQKAVEKIAKKLEIQNYQASCLPEDKMKTIENLSKNYKVLFVGDGVNDALALKYASVSMTLRE

GSDLAIESSDVLLLKNDLLSLKKAIKLSKNTFKIIKQNLAFSLFYNACTIPLAFLGMINPLFAAISMSFS

SIIVVLNALRIKE

>AHK57301.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNSIIMMMIGVSILAFFIILATLLWGIKNKQFDDDYKFTTLNDDEDSLRDAIELERRKKEALDKKRLS

>AHK57300.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKLLVVSALACLGVSAFAADGATLFKKCAVCHGANADKVYLNKVPALKTLSSAERLQYMKEYSEGKRNA

YGQGAIMKLNLKGLTEEDFKAIEAHIETLK

>AHK57299.1 D,D-heptose 1,7-bisphosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFIFFLKKLYYNVFMKTKALFLDRDGVINIDKKYVYKIEDFEFCDGIFELCRYFLARNYLLFIATNQSGI

ARGYYKESDFFKLCDYMLKEFAKQDIKIDKIYHCPHLEGCECRKPKAGMLLKAKDEFDLDMKNSIFIGDN

LSDMQAGLNADIGTLILVNEEKKEGDFFRQFKNLKEILNFFKEKDI

>AHK57298.1 ADP-L-glycero-D-manno-heptose-6-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIAITGGAGFIGSQLALNLQEKHEILIIDKMRSSATFENGNLQSFGHFKNLLEFDGELFAGDINDEKVL

KKIEDFKPEIIFHQAAISDTTVFDQTKVLQTNLNTFKDFIELSIDLNAKLIYASSASVYGDAKSPQTVGK

DEEPKNPYAFSKLMMDKLAKKYYDKAHLVGLRYFNVYGKGEFYKNKTASMVLQFGHQILAGKNPRLFEGS

DQIYRDFTYIKDVISANLIALDSKCGVYNVGSGKARTFQDIVDILQKELKTDLPCEYIPNPYVKSYQFHT

EAKLDQTWNYQPKFSLEEGIKDYLGEIKRLFEKEVNA

>AHK57297.1 cytochrome C biogenesis protein CcdA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLEFLSQQKPKILIIGDFMVDNYTWCDCSRISPEAPVLIAKTLKEDKRLGGAANVYANLKSLGADVFALG

VVGDDESGKFLQENLKGEFLIQKGRKTPFKNRIMAHNQQVLRLDEEDISEILLENELIALFDEKIKDFKA

VVLSDYAKGVLTPKVCKAVIEKAKVLNIPVLVDPKGSDFNKYSGATLLTPNKKEALEALKFENLEGENLE

KGIKKLKEDFSLRYSIITLSEAGIALFDEGLKIAPAKALEVYDVTGAGDSVIAVLAFCLANEIEIFKACE

LANEAAAVVVSKIGSVSVSFDEIKSFKRVDFEKKIKSKEELLVLLKQNNKKIVFTNGCFDIVHFGHIKYL

DKAKRLGDVLIVGLNSDASVKRLKGESRPVNSEFQRACMLAAFYFVDFVVIFDEDTPLELISFLKPDILV

KGADYKDKLVVGADIVSRVELIDFEEGFSTSKIIEKIKDKK

>AHK57296.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINLVEKEWQEHQKIVQASEILKGQIAKVGELLCECLKKGGKILICGNGGSAADAQHFAAELSGRYKKER

KALAGIALTTDTSALSAIGNDYGFEFVFSRQVEALGNEKDVLIGISTSGKSPNVLEALKKAKELNMLCLG

LSGKGGGMMNKLCDHNLVVPSDDTARIQEMHILIIHTLCQIIDESF

>AHK57295.1 ADP-heptose--LPS heptosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIFIHLPTWLGDTVMASPALYTIKEHFKDAQFILYGSFVSTALFKEFPNSKIIIENKLSRYKQALSLRK

ELGKIDLSFAFRSAFSSKIILHILKTKQRYFFDKNKYKEEHQVLKYLYFIENSLSIKAHFKDLKLPFKLK

FQNPLILRNGKKILGLNPGASFGSAKRWDASYFAKVALNFSQSHDILIFGAGKAEQELCNEIYQILKEQN

IKVKNLCNKTTIKTLCQNIAFCDLFITNDSGPMHLSAVYKVKTVAIFGPTKFTQTSPWQNENAKLVHLDL

ACMPCMQKTCPLKHHKCMKDLKPEKVIEQAKNLLKNSHL

>AHK57294.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPQLSIIIPLFNSCNFISRALQSCINQTLKDIEILIIDDKSKDNSLNMVLEFAKKDPRIKIFQNEENLGT

FASRNLGVLHSSSDFIMFLDSDDFLTLDACKIALKEMKKGFDLLCFDAFVHRVKTKQFYRFKQDEFFNQK

EFLEFLSKQRHFCWSVWAKCFRKDIILKSFEKIKIDERLSYGEDVLFCYVYFMFCEKIAVFKTCIYHYEF

NPNGRYENKNKEILWQNYQDKKKSNELVKKLCLNFKNNDFHKKLFEVLEKEEFDLQRRVDEARN

>AHK57293.1 lauroyl acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNSDRIYLSLYYILKFFVTFMPECILHFLALIVARIAFYLNKKHRKIINTNLQICFPQYTQKERDKLSL

KIYENFAQFGIDCLQNQNTTKEKILNKVNFINENFLIDALALNRPIIFTTAHYGNWEILSLAYAAKYGAI

SIVGKKLKSEIMYEILSQSRTQFDIELIDKKGGIRQMLSALKKGRTLGILTDQDCVENESVRLKFFNKEV

NYQMGASLIAQRSNALIIPVYAYKEDGKFCIEFFKVKDSQNASLEELTLYQAQSCEEMIKKRPWEYFFFH

RRFASYNKEIYKDAK

>AHK57292.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIAIVRLSALGDIIQSAVVLQFIKNFKKDIEIHWFVDEKFEGILKNHPLINKLYALPLKDKKILKSLKI

LLKARKNNYNAVIDLQGLIKSAIVSRILSRNNFGFDKNSLKESFAHNFYNQKLELDYNENVFVRYLSLTS

FMLNTDFNVKNLAFKQDIFSVDENLKQLLNNKLKLDKNEKNILIHVGSSVENKIYPKTKLAILCKLLINE

FQQTKIWLAWGNVKEYEFAKEVLNLSGIDETHIELAPKFNLEELMAFTKMMNLIIGNDSGPTHLAFALNK

ASITIFGATPSYRNAFQTHINKIIDAGKKIQNAKHIDKSDFCITRIEEEDIFKLAKGLLNEK

>AHK57291.1 polysaccharide biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKNEGYICVFDCESVPDVELIRKTLGFEGSDLEVSLKALQWQKEQSGSEFLPLPYHKIISICAVLSDNF

GKFIKVNKIDGQNEKEMIENFFNFIENYEPKLVSFNGKNFDMPVLVLRALKYNLKAATYLDTQSDKWNNY

KTRFSELKHCDLLESLGSNGRGIKLDTLCSMVGLPGKYDVHGDEVMKLFYENKLEKIHEYCESDVLNTYM

LFLKYELIKANVDEEDYVGFLSYMRDFLCAKKSDRSYTEVFAKACESEISKVRS

>AHK57290.1 UDP-galactose-4-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKILISGGAGYIGSHTLRQFLKTDHEICVLDNLSKGSKIAIEDLQKTRAFKFFEQDLSDFQGVKALFERE

KFDAIVHFAASIEVFESMQNPLKYYMNNTVNTTNLIETCLQTGVNKFIFSSTAATYGEPQTPVVSETSPL

APINPYGRSKLMSEEVLRDASMANPEFKHCILRYFNVAGACMDYTLGQRYPKATLLIKVAAECAAGKRDK

LFIFGDDYDTKDGTCIRDFIHVDDISSAHLAALDYLKENESNVFNVGYGHGFSVKEVIEAMKKVSGVDFK

VELAPRRAGDPSVLISDASKIRNLTSWQPKYDDLELICKSAFDWEKQC

>AHK57289.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKISFIIATLNSGGAERALVTLANALCKEHEVSIIKFHAGESFYKLENEVKVTSLEQFRFDTLYHKIASR

FKKFFALRKALKESKSDVFISFLDTTNIACIAAKIGLKTPLIISEHSNEAYLKPKIWRFLRRVSYPFCDA

LSVLGSSDKVYYERFVKRVKLLLNPCHFSDEISFDSSFEKENLVLFIGRLDHNKNPVMFLKAIAHLDKNL

QENYKFVIAGDGQLRQELEYKVKSLGIKVDFLGRVENVKALYEKAKVLCLCSFVEGLPTVLIESLYFEVC

RISSSYYNGAKDLIKDNHDGLLVGCDDEIALAKKLELVLNDENFRKELVNNAKQRCKDFEISHIKEEWLK

LIAEVKNA

>AHK57288.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPKLSVIVPTFNRQVLLEKAIKSIQNQDFKDLEIIVSDDNSSDDTKSVVQNLQKDDDRIKYFLNQNYKQG

PNGNKNNGLDQASGEFVTFLDDDDELLSGALSTLMQKANEGYAHVFGNCLIEKEGNLSKEFSGKGLEKDS

EISKKDFLMAKFSGEFFSVFKKSLLENKRFNEEFYGNEATLWVNLYKEKSFYIHKAFRIYRIFRQDSVTL

GASKNAYRVYLGYLELAKILENELRMSKDKDYKKTCASYYKMAAYYAKLAKNYKALYKCLFKSLSIKINA

PALILLILSIIPNNMIEKLSKIRVALCKN

>AHK57287.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKLGIFIYSLGSGGAERVVATLLPILSLKFEVHLILMNDKISYEIPECQIHFLECSKPSENPILKFLKL

PFLALKYKKLCRNLGIDTEFVFLNRPNYIALMARMFGNKTRLVINECTTPSVMYMKNNFNSLVNKFLISL

LYPKADLILPNSKGNLEDLVQNFSISPKKCEILYNAIDLENIGQKALEDIALKDKFILSVGRLDKGKNHA

LLIRAYARLKTDLKLVILGEGVLKDELLALIKELNLEEKVLLLGFDNNPYKYMAKCEFFAFASVFEGFSN

VLIESLACSCAVVCTDHKSGARELFGDDEFGLLVEVDNENSMFQGLKTMLEDDKLRKAYKNKAKTRAKAF

DKVKIARDALKYLLG

>AHK57286.1 peptide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKKEYLKNPYLVLFAMIVLAYVFSVFCRFYWVWWASEFNEYFFNNQLMIISNDGYAFAEGARDMIAGFH

QPNDLSYYGSSLSTLTYWLYKITPFSFESIILYMSTFLSSLVVIPIILLANEYKRPLMGFVAALLASVAN

SYYNRTMSGYYDTDMLVIVLPMFILFFMVRMILKKDFFSLIALPLFIGIYLWWYPSSYTLNVALIGLFLI

YTLIFHRKEKIFYIAVILSSLTLSNIAWFYQSAIIVILFALFALEQKRLNFMIIGILGSATLIFLILSGG

VDPILYQLKFYIFRSDESANLTQGFMYFNVNQTIQEVENVDFSEFMRRISGSEIVFLFSLFGFVWLLRKH

KSMIMALPILVLGFLALKGGLRFTIYSVPVMALGFGFLLSEFKAILVKKYSQLTSNVCIVFATILTLAPV

FIHIYNYKAPTVFSQNEASLLNQLKNIANREDYVVTWWDYGYPVRYYSDVKTLVDGGKHLGKDNFFPSFS

LSKDEQAAANMARLSVEYTEKSFYAPQNDILKSDILQAMMKDYNQSNVDLFLASLSKPDFKIDTPKTRDI

YLYMPARMSLIFSTVASFSFINLDTGVLDKPFTFSTAYPLDVKNGEIYLSNGVVLSDDFRSFKIGDNVVS

VNSIVEINSIKQGEYKITPIDDKAQFYIFYLKDSAIPYAQFILMDKTMFNSAYVQMFFLGNYDKNLFDLV

INSRDAKVFKLKI

>AHK57285.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRIGFLSHAGASIYHFRMPIIKALKDRKDEVFVIVPQDEYTQKLRDLGLKVIVYEFSRASLNPFVVLKNF

FYLAKVLKNLNLDFIQSAAHKSNTFGILAAKWAKIPYRFALVEGLGSFYIDQGFKANLVRFVINSLYKLS

FKFAHQFIFVNESNAEFMRNLGLKENKICVIKSVGINLKKFFPIYVESEKKELFWKNLNIDKKPIVLMIA

RALWHKGVKEFYESATMLKDKANFVLVGGRDENPSCASLEFLNSGAVHYLGARSDIVELLQNCDIFVLPS

YKEGFPVSVLEAKACGKAIVVSDCEGCVEAISNAYDGLWAKTKNAKDLSEKISLLLEDEKLRLNLAKNAA

QDALQYDENIIAQRYLKLYDRVIKNV

>AHK57284.1 UDP-galactose phosphate transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYEKVFKRIFDFILALVLLVLFSPVILITALLLKITQGSVIFTQNRPGLDEKIFKIYKFKTMSDERDEKG

ELLSDELRLKAFGKIVRSLSLDELLQLFNVLKGDMSFVGPRPLLVEYLPLYNKEQKLRHKVRPGITGWAQ

VNGRNAISWQKKFELDVYYVKNISFLLDLKIMFLTALKVLKRSGVSKEGHVTTEKFNGKN

>AHK57283.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLQQRNLMARTEKIYIYGASGHGLVCEDVAKNMGYKECIFLDDFKGMKFESTLPKYDFFIAIGNNEIRKK

IYQKISENGFKIVNLIHKSALISPSAIVEENAGILIMPYVVINAKAKIEKGVILNTSSVIEHECVIGEFS

HVSVGAKCAGNVKIGKNCFLGINSCVLPNLSLADDSILGGGATLVKNQDEKGVFVGVPAKRM

>AHK57282.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>AHK57281.1 UDP-GlcNAc C4,6 dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIFYKSKRLAFFLTSDIVLILLSVYLAFSLRFSGDIPSIFYHGMMVSAIILLVLKLSFLFVFRIYKVAWR

FFSLNEARKIFIALLLAEFCFFLIFYFFSDFFNPFPRSAIVIDFVLSYMFIGTLRISKRMLVDFKPSRMK

EEETPCIVVGATSKALHLLKGAKEGSLGLFPVGVVDARKELIGTYCDKFIVEEKEKIKSYVEQGVKTAII

ALRLEQEELKKLFEELVAYGICDVKIFSFTRNEARDISIEDLLARKPKDLDDSAVAAFLKDKVVLVSGAG

GTIGSELCKQCIKFGAKHLIMVDHSEYNLYKINDDLNLYKEKITPILLSILDKQSLDEVLKTYKPELILH

AAAYKHVPLCEQNPHSAVINNILGTKILCDSAKENKVAKFVMISTDKAVRPTNIMGCTKRVCELYTLSMS

DENFEVACVRFGNVLGSSGSVIPKFKAQIANNEPLTLTHPDIVRYFMLVAEAVQLVLQAGAIAKGGELFV

LDMGKPVKIIDLAKKMLLLSNRNDLEIKITGLRKGEKLYEELLIDENDAKTQYESIFVAKNEKVDLDWLN

KEIENLQICEDISEALLKIVPEFKHNKEGV

>AHK57280.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYIKDIQRFEDNRYRARAYMSYILTRNLPNKLPDIHLETIKTALDKIAHEVVVFDALYILDISGMQIENA

ISLNKAHEIGQGEDRSTRSYFYRAVKLRRCVLSDPYPSVLNNELCVTASMPIYDDKNNLLFVVCIDIKLE

DILKIIQAGKFEFVFTQFSRLVYFCFALVLFVITCFLFQKGFFSLFDNQAIGIEHMFESTIAITLALAIF

DLAKTLIEQEVLGRTKKEEGGIQKTMVRFLGSIIIALAIEALMLVFKLAIGDLSQMIYAIYLIGGVSLLL

LGLSVYLFTVKYKNNNI

>AHK57279.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLLVVDDSSTMRRIIKNTLTRLGHDDVLEAEHGVEAWDLLTKNEDVKVLITDWNMPEMNGLELVKKVRA

EKKYEDMPIIMVTTEGGKAEVITALKAGVNNYIVKPFTPQVLKEKLEDVLGTGSGEGAAE

>AHK57278.1 ribosomal protein L11 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKKYYELFFIVEEQYKNLFLDFAFDLGIEAIEEKDNGVYIRSHESLEEFSWALEIFAQKLTTTFNLNHK

IISNLSLVEKENKDWIQEYKKGIKPILVDNVYIHTTWQEEKKNCINIKINPALAFGSGHHESTYSCVKFL

QKFSKSKLRALDLGCGSGILGIIMAKFGCNVEICDTDELAIDSSLENARLNGVDFHKAWCGSIDKANGLY

NLIVANIIADVILILEKDIKNHLEDNAILILSGILDKYSTRIKEKFQDLELIDEMQINEWCSFVYKNNKK

G

>AHK57277.1 cell division protein FtsH [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNNNTQNNKGNPQGNNFFNKNPIFIFAIFAIIMIIIFKGFFDGNGSFGGALNGNEVNKNVPYSELKKLIE

SGQINQVSIGQTTIKAISSSHNTVYTAKKVNDPELVSLLDSKNIAYGAYSETNWFTDILFSWVLPVFIFF

GIWMFLASRMQKNMGSSILGIGSSKKLVNSEKPKVKFSDVAGVEEAKEEVKEIVDFLKYPERYIKLGAKI

PKGLLLVGPPGTGKTLLAKAVAGEADVPFFSVSGSSFIEMFVGVGASRVRDLFENAKKEAPAIVFIDEID

AIGKSRAASGMMGGNDEREQTLNQLLAEMDGFGTESSPVIVLAATNRPEVLDAALLRPGRFDRQVLVDKP

DFKGRCDILKVHMKDVKISPKVKVEDIARLTAGLAGADLANIINEAALLAGRDSKKYVEQNDLVEAVERA

IAGLEKKSRRINEKEKKIVTYHECGHALIAETTKGAKRVSKVSVIPRGLAALGYTLNTPEENKFLMQKHE

LIAEVDVLLGGRAAEEVFIGEISTGASNDLERATDIIKAMISMYGMSEIAGLMVLEKQRNTFLSGGQTIK

DYSEKMAESLDDYVKKTLDERYKDVKDTLNTYKGAIETMVAALYEEETIEGNKVREIIKEFEDQNSLPTR

LQELEEVKTEVKVEE

>AHK57276.1 phosphatidylserine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKDFIAKDGYLSLIILSLVFIFMWIFYSFSILLLALIVICIFLFRTPKRELVCSDEKAIFAPIDGRVTKI

ENIHHKDLGECVEITIKNALYDAGNFNTPFAMSIIDIRLRHGLFLCSELKSAKMMNERAFILAKVKENKT

IALRIYAGSFDRKLKLDNISHDLKAGDRMGFLINGSISLLLPKDTRIHIGLNDEIKAGSLLGYFA

>AHK57275.1 CDP-diacylglycerol--serine O-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNNRPQLIYILPNLFTAASAFLGVISIIASIHGNYYTALIYIILSLICDGLDGRVARLTNSTSKFGVEFD

SLADLVAFGVAPAVLFYMAIGYDFGKLGSLITAFFVVFGAIRLARFNVTTGTYEPSVFIGLPIPTAAVVS

AIWTYAFISYDFLKPYGVVFLVLQAILGLLMVSNIRYPSFKKLDFNRSSVLKVLIILIIIFSFLYLYPLE

SLVILASLYVLYGIIRVLYTIIVSKFKTRNQE

>AHK57274.1 hypothetical protein N918\_05545 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKEFFQELQDILYEKNITIKFHSFQNFYEDFKSHKFIFNHEHQSIFKKNTSQQITLFHPTRIRRPKFLN

STHALAKIIHSVAHIEFNAINLALDASYRFKNLPLQFYYDWLEVADEEIKHFKLLNSALEELGYKYGDFP

VHDNLESALEATKDSLSFRMGIVHRGLEAKGLDANPFVVQKLQSSNHSIKNLLMEYLEIILNDEIKHVKK

GDTWWKFANQNKYNFIELCKTFKQFSLAGKKLNIQARIKAGFTQEECEVIEKFYS

>AHK57273.1 methionine sulfoxide reductase B [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKELNEEEKKVILNKGTEAPFSGKYNDFYEKGIYQCKQCGASLYKSEDKFKSGCGWPSFDDEIKGAIKRI

PDKDGIRTEIVCANCNGHLGHVFEGEGFSAKNVRHCVNSISLEFVKTKD

>AHK57272.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFSSMGSELYLMFFAAITLLAILNPFGNLTQFLAMSDGLPLMLRKKLFRTILYTAFTIVLVFLLSGPLFM

NYIFRVSLDDLRVSGGLVLIIMAIKNLLFSTKIATKDFSSYQDMDDKEILRQSLIPMAFPMLVGPGTLAS

VIVIAEDGGLDVALGGVMIAFIFMFILFHFAATIEKIVGKLILHVFSRIAQVFIVAMGFKMIIVGLKDIF

NL

>AHK57271.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFGAKKNNTKIIEQLEKKCNGLGDILRSIGNTMAVIEFTTDGVILEANQNFLTTMKYSLSEIKGKHHSMF

CLPEVVNSSAYSDFWKDLRDGKARSGLFRRIAKGGIDVYLEANYLPISDNNGYVYKIIKFANDITQRHYE

MLDLRNTIAAANRSMAIIEFKPDGTIITANENFLRAMDFNIDEIKGKHHSMFCDSNYRHSKDYVQFWEDL

REGKFQSGKYIRYGRNNKKVYLEASYNPVKNDDGKIYKVIKFATDISEQVKKDQEKLRLISELAEKNDNL

TQDGDRVIENTVSNVQNIADMMSQSSNLVSSLNQQSDEIKSIIQTISDIADQTNLLALNAAIEAARAGEH

GRGFAVVADEVRNLAERTGHSVNEITTTINSIRNVTSQVVESIKSGLEDVNQSVELAKEARECMEKIRES

SAEVAKAMS

>AHK57270.1 leucyl/phenylalanyl-tRNA--protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKSSNLYSKLLNAPKNAPVFLSQNLEADFIVKAYTFGLFPWTSKPVTWWCPDPRCILIPNQIHIQKNMKK

FINLYQIKLDYDFLKLITLCRDTRSQSWIDDEFITTYYKLFTQGYAHSLELYENNELIGGIYGLILGKVF

FGESMVSIKKNASKVAMIKLCDLLKPYDFIIDCQVYNQHLEFMGAHNISRKEFLNILKEKCNQESGFKNF

KDLIT

>AHK57269.1 ATP-dependent Clp protease ClpS [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPKTQTLEQTKLSEPKMYKVILLNDDVTTMDFVIEILMNIFHQNLEKASQTMLEIHHNGSGICGIYTQEI

ALSKQKKVMDAAKLANFPLQAKVEEE

>AHK57268.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKISALFLISLAFFLNACSKEEEIQNDFMFEEYHKGDKIVLNSVNGGSKTLIRTDKGFVVEGEEGKVLM

FDFFGTFCTPCKEEALDLSKLWKNNSSKFIIIGLTHFEDVSDETVKKFAGDYGAYYFLSNGSSNDRIIAQ

ILKDIDYQNMEQLPFKVVLKNGIYQKISDYWNNNTPTNFYLGKIPTELMQEDLNKIYKGK

>AHK57267.1 single-stranded DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIIARNKKALFDYSIIERFEAGIVLKGSEVVALRAGRANLKDSFVRIIKNEIFLLNSHISLLHTTHSFY

KHEERGARKLLMHRKQIDKLLGKVSIEGYTIVALDLYFNTKNKVKATLALAKGKNLHDKRETLKKKQADL

EARAAMKNYK

>AHK57266.1 4-diphosphocytidyl-2C-methyl-D-erythritol kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKAYAKANIFLKLTGFDSRKYHLLESRFILLKDVFDELELVDKESDSKKEFEIISNFKCENNIIQKAYLL

LSRRYNNELKELFSKKSLKLTKNIPVCAGLGGGSSDCASFLLLINETLNLKLNLQELINLSIQLGSDIAF

FLSGFHSANVSSCGEIIEEFEDDIPNLKWTFPQISCQTKAVYDEFDRGIFDFQKNNNQAQIYKKLSTKEL

LQNFKNKELNDLFTPCATLYPKMKSYLQEDFFLSGSGSSVFKVDR

>AHK57265.1 carbon storage regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLILSRKENESIIIGEGIEIKVVQTGKGYAKIGIEAPKSLMILRKELVQQVKDENLHSVVQNDIKLDDLS

KKLIK

>AHK57264.1 tRNA pseudouridine synthase B [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKIFAAFKPRGLSSNAFLSTLKKKYKNKKAGYSGTLDPFAKGVLIVAFGQYTKLFRFLKKTPKTYKATL

WLGVYSLSLDDQNIKEIKNIKEFDLPNLQQIIDQMQGIISYTPPQFSAKRINGTRAYELAKKGIEVNLKP

CQMEVFDCKILSYNHPFLNIEITVSEGAYIRSYCELFARKLGINATLSSLERIKEGKFVYNNEKSLNVLK

YINLKPNFIKDLNKLENGAKIFVEELEFHDKGDYYIETEKYFSIINIKENTVKYLLNKVEKC

>AHK57263.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLFEDLNDSQKQAVSHIDGAMLILAGAGSGKTKTITTRLAYLIGEVGIPSHNTLTLTFTNKAASVMRHR

ALNFLQGNHNPLLCTFHKFGLLFLKLHFERLERKNSFIVIDTDDTKKIIKDLIHDKNKDNVYDIIQYISY

CKNEGKRVSNVFEDLNLLKEHNFEKYQNEYKFANYYRAYEEYLLKQNFVDFDDLLLLSNLILENDINFAK

EQSLLYNYITVDEYQDTNTLQYKILKNLCCMHENITVVGDDDQSIYSWRGAKIENILNFQNDFKNVKLVK

LEQNYRSVGTILQAANNLISHNEQRLGKTLICTKDTGENIKILKNENEKDEGLYIAQEVKKLLNSGVEAK

EIAILFRVNALSRAIEEAFMKKQISYKLLSGMRFYERLEIKDLISYLRLILNPSDDLSFKRIINRPKRSI

GEKALKNLEEYAKKRQISLFDALCESDGGVGILTTKKAQNEANIFIQNIHTLKSYDNAKKVFDNIEELFK

IKDYFSEQDDGDERIRNLDEFYANLREKLKEDPEASLEDLLSEISLLSDQDNLDEECVCLMSIHASKGLE

FDYVFIIGFDEGFFPLNSEENLEEERRLAYVAITRAKKFLTISVANSRFYHGSRANINPSRFLEESKLIN

EKSKNQNIQKTSFCKGDLVKHKIFGIGRVVEANKSGKEEKLNINFGGIMRVIMASFVEKAV

>AHK57262.1 hypothetical protein N918\_05480 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLETILKNENFIHTMQKHCYEVISHLIEENIEFSIVANTNFIDFNPELPKELDIKQNPYALFALGGYTFE

SIQLNKDFIQFHAGFGNDDFDSFVKVDLGAITQIQVENSILFVNFSLYKREDSKNLQKSKNIFLNNPKNK

DIFKK

>AHK57261.1 oligoendopeptidase F [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLEWDLSALFHDKEALQNFTQDQIQQSLNFKKNYENKLYTLNANEFLQALKDYENLNQALGKIMTYAYLL

FAKNTQNGSFYAQYEEECKKIEENLLFFELEFCELAPEKSREFTTFCKDYDFYLSNLLQNKRYNLSKNEE

RIMLYLSNTGANAFSRLFDESMSALKIPFEGKKLSEEEILSKMYDENRKIRKKAAKKFSKVLQKNSRLLS

FIINMIKTERKNISLLRGYENAEISRHISNQISQKSVDSLIASAQKHFNLVSQFYKRKKQILGYDELKDY

DRYAPIGKEASFDFKTSKNIVLEAFQAFSPQFYDIAKNAFDQGWIDVYPQENKQGGAFSHSATSDAHPFV

LLNHTNKRRDLFTLAHELGHTIHQKLSYNVSYLNQNTPLTTAETASVFAEMLVFDFIKDKLKKEELLSLY

ANKIEDIFATFYRQINFTCFERRLHAQENELSTEEINKIWMEESQKMFQDSVKLTKNYASWWSYIPHFIH

SPFYCYAYAYAQLLVLALYGLYKSKKCENFKELYIKMLSLGGSVSPKELVGMFGFDIEDENFWEIGIKEI

QKLINEFMELQSC

>AHK57260.1 aspartate carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRHLITTKDFNKVEIMELFKEASDFLDEKPRTFLEGKSITTIFFENSTRTLSSFESAARRLGARVLRLDV

SRSSSSKGETLYDTAANLDAMSPNAIVVRHANSGVPLILAKHMHCPVVNGGDGKHAHPTQALLDLFTIYN

HFQGNVEGKKICIVGDIKNSRVAASNIELLSRFNLDITLVAPPHFMPNTHLKKHYKLDENIIANSDIIMS

LRTQTERHNKTVYASLKDYANDFCIQKSLVKDKKLILLHPGPVNRNIDISDEMMSNERTLVLKQVKNGVA

IRMAVLKKLILENEG

>AHK57259.1 serine/threonine transporter SstT [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFSKIIQSYAKGNLIVQICIGIALGILIGISSKEISEIANLLGILFTSALKAIAPMLVFILILTSICTKD

FSQSGAKIKNIIILYIVGTFFASACAVLANFFFPVKLVLDGVQTATNSSPTHMSDIFKDLLFKIVDNPIN

ALSSGNYLGILTWAIAGGIALKHCSNEAKQVFIDINEGVLKIVKFVVKLAPFGIFGLVANSVAQTGAQGL

LSYVKLLILLVATMLFVTFVINALIVFFYTRKNPFPLIFICLRHSAFFAFFTRSSAANIPVNMALCAKLG

IDKEFYGISIPLGATINMAGAAVTIAILSLTAANTVGIEISLLQAFLLSIIATFAACGASGVAGGSLLLI

PLACSLFNIDYDIAMKVVAIGFIIGVIQDSVETALNSSTDVLFTAICSKNELNYNIK

>AHK57258.1 S-adenosylmethionine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYLFTSEVVSAGHPDKCADIIADTIVDILLKNDKNSRVASEVFVAGNKVVIGGEVKSNHKLSKADYDNLV

KDVLKNIGYDGAGHFSKEQCLHPDEVDVMVFLNEQSPDINQGVDQEDGETGAGDQGIMFGFASCEAEEYM

PAAISYARMLCDRVYAYAKANPHELGVDIKTQVTIDYGTKANFENCKPQSIHTIVVSAPCVESMKIEDLR

SLVMKLILDSNLPKELFDPNKTRILINPTGKYVNHSSLHDSGLTGRKLIVDSFGGYSPIGGGAQSSKDYT

KVDRSGLYAGRWLAKNIVAAGLAKKCIVQLSYAIGVAKPTSVSVDCMGTNTSVNDDVLSDFVMQNFSLTP

NWIRDKFHLDKPSKETFLYADVAARGQVGQKDYPWEKLDALEQFKKLL

>AHK57257.1 apolipoprotein N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLKLNFLPYFSFIPKKLNTNSIIFKIIKVFFIAILLSNSIYLSFFENIFTQTISPFLAIWGLVLLLKSK

TSKQYFWIGFFVGILWFWWIGLSSIYFNLNYLVPIIPIIIGFIYGLLFRLCYLLKFDFLRLCGIFCISFI

HPLGFDWFNWGIFTVYGFFDPSYRGIICIFLIAYFIYEGYISRYYKIAIVLILFFSGFQYNEKQAQTLNL

NYKLINTNISQDQKFLQENLKSNSDILIQDILQAINEKKELVILPETAFAFDLKNTKYELMLKELSYKIT

IITGAFHVEKEHTYNSTYIFKKGNVYILNKHFLVPFGEEIPFFKDLTKKYFLKNIEEFSKGPIQSKYKLD

NQIITNAICYEATKEQNYQNSQIIIALSNNAWFNNSSEYKLQQLLMKFYASKYGVSVYHATNGKENIVIL

PKKLLSKDWKNLSKEIFNDKK

>AHK57256.1 preprotein translocase subunit YajC [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAENSILTSLLPLVVLFAIFYFLVIRPQQKQAKAHKQMLESLQKGDKIITNGGLICEVVKPEEDFIKVKL

NEDNVTAKISREFIAKKIDA

>AHK57255.1 preprotein translocase subunit SecD [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRNSKINYRLIIFIAVFIFGVAFSLPSFLQSERGAKINLGLDLQGGLYMLLGVDNEEAVKSKIKSIASSL

SYSFNKENILNDGLNTHDDILEFTLLDNADIAKVENLLKEIKGINIQSENMHYKISFTSKEVKNIENFAL

LQAVETIRNRLDQFGLAEPTVAKQGDDKILVELAGIKTKEDELRAKERITKAAHLQLMEVDDSKMGQAST

MSDAEAASYGLILVPDSRNPNLKYTLKSIPILDGSMLTDARVGLSDKSNYPVINFTLNAEGSKKFADYTG

ANVGKRLAIVLDNKVYSAPSINERIGGGSGQISGAFTQEEARDVAVALRSGALLAPVKLLEQRSIGPSLG

ADSIKMSMIALIGASVFIVVFMMMYYGVAGIFANIAMLVNVLVVVAVMAMFGATLTLPGMAGLVLTVGMA

VDANVIINERIRELLRDGVNIRVSIEQGYKNAMSAIIDSNITSLVTSVALYAYGTGAVKGFAVTLGIGIV

VSMITAILGTHGMFDYFMQRIEKNNNTRFWFGYRRR

>AHK57254.1 preprotein translocase subunit SecF [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQFFSEKKIYDFMRMRFAAISLSFILFFGSIYLLWDRGLQYGIDFSGGTLVQLKYENAAPITQIREILEN

QGTFQNLSVTEFGSNEEVTIRFLGSNDNVSNDIGEHISTLLKDTGKFEVRRADVVGPKVGDELRNKGLMA

IAVSLIAILIYIALRFEWRFALAAIISEIHDVVITLGAISLFKIDVNLDTLAAVLTVLGYSLNDTIIIFD

RIREGIKTSKKTELAPIINESVSATLSRTVLTSGLTLATVVILYFFGGEMIQGFSLALIVGIIAGTLSSI

FVASPTLLWFKFSVLEFRNKEIEKAKRKQDKERNRAMYEKGTV

>AHK57253.1 leucyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAYEASLIEKKWQKIWDENEYFEPKDDLNLPKKYILSMFPYPSGRIHMGHVRNYTIGDALARYYRKIGFN

VLHPIGFDSFGMPAENAAIKHKIHPKSWTYENIAYMKKELFSLGFSFSKKRMLATSDPLYTKFEQEFFIK

MFEKGLIYTKEANVNWCEQDQTVLANEQVEDGKCWRCGHEVVQKKMPGYYVKITAYAEELLKDLEELKDK

WPNQVLTMQENWIGKSEGLEFSLNLDEESKQKTKESSLEVFTTRADTIYGVSYIALAPEHKIVQNLLSQN

LLNQDVLNKIKVIQNQSPRERQSSEKEGYFLGIYAIHPLSGEKIPLWVANFVLADYGSGAVMAVPAHDER

DFEFATKYNLAIKQVIQTQENLPYMQKLGKLINSQEFDNLDCNEARLKIISQFEAKNIGKRVVNFKIRDW

GVSRQRYWGAPIPMIKCQSCGIVPQKLENLPITLPEDVQITGEGNPLDKHPTWKNCICPKCGKEAQKESD

TLDTFFESSWYFARFASDEKTWQEKALDEKSVKYWMSVDQYIGGIEHAILHLLYARFFQKALRDLGYLTQ

NEPFDRLLTQGMVLKDGAKMSKSKGNVVDPDEIIEKYGADTARLFILFAAPPAKELEWNDDAVEGAYRFI

CKLYDRAQNVKKGELVELKQENLNKEEKYARLKVYEALKKSFEVYHQSFAFNTLIAACMEALNALALCKN

EALEQEAFYIILNILEPIIPHVCFELSEELFKCKNFKKLELKEEVFVKDTLNLAVSINGKKRAEFEISSS

ASKEEILAFAKENTAKWLEGKSIVKEIYVEGKLVNLVIK

>AHK57252.1 hypothetical protein N918\_05430 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILIFCIGLFLGACGYIPTSKIANNIFDEKVYVNVELSQQDPKNSIYVADTLKEMVISKLGRKLALKH

EADDVINVKMNNLEFIPLAYDKNGYVISYKAKLNLDFNVVFKDGSSQAFSTSGSYNFEISPNSIISDSAR

YEAIRAASSEAFDEFISVIAIKGQKRDSKY

>AHK57251.1 hypothetical protein N918\_05425 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIPNTNEIAKQTLIALKERKLKPTPENYTEIFEELSLKYGITSSNKAKLDKYKTLLLPIYQQELNSKTIR

SLEELISFLISVLNRQSGKQFSEFFDFLYTISKTLQISKDKKIRDLAKVTSIRISKTMDSESIYLLTKKW

KELERNYDENDLEEQARKYGISKYDDYDSVIKKLLVKLEERSYEHFSELLCLGLNPSLVEDLKIQGFIQN

LTQKPFVIGEENFKNELMEFINHRIMVDNMYVQKNLNFFNDNLKKIYELLVLLNKSNEKNMDFINTLKPD

ENGEVKLSFEDLKLKFKQLGEKITSLNNQIEFTQSLEEREAWSVLKELDKMDENFNKYKVNYSLALFSIV

NYRFIMEKYGMGSLNEIFVRFKKILKDSCSEFDELWMIDEKSYLIVSPGKSKDEITQLVNTNLKTIENFR

FIYKQDIITPKIHVAYLDKQSKPSINILDELIKQIAAVNEQHNES

>AHK57250.1 folylpolyglutamate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVENFLAQKSINYDKIDRFLMFRMYEKYKKYFKNIPIIQLIGTNGKGSTGRYLTQLLENLNYKIGHYTS

PHIFSFNERFYLDGKIANDEELEQAHIRLEEIFKQDLQKLSYFEYATFLAMILFQKCDFIVLEAGVGGEY

DATSIFERRMSIFTRIGFDHIQILGNSLEDIARTKLKVMAPIALISDEQEQNVLNLAKKIAFLKKANLQV

SSLNPFLKEKFEIYCKKFVLPYFLKHNLKLALKACEILTSQEKTLEALKKLQELNLQGRCQEISPNFFVD

VGHNPMAAKAMLDKFQGEKINLIYNAYLDKDIFQILNTLKPIIDTIQIYKYKSAERKLADDEIYSIASKL

GMQCKEFVKLEENKKNLVFGSFMLVENFLKEWCGKK

>AHK57249.1 peptidase M24 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVKNKFTITITDINGSRHFYLNQIIKKIVFYIIAFIVLFLVFSGFYIKYLDSKLSDISEKREELLKKSKE

LELSNSQMQKSIEEKTQQYAAIEDKIASFEEALGLEAENNLTISARLDNLQLTNEQQLGILGQIPNGWPI

ENKGITGNFGWREHPLLKRREFHPGIDLRAEIGTPIYAPASGVVEFSGYSDNGYGYNVILLHNFGFKTVF

AHMMRKEVVKAGQFVNKGYSGNTGLSTGPHLHYEVRFINKTLEPLYFLNLQRKNMNDFFNQERRVPWQSL

IKAVSAQHPALAQKQQ

>AHK57248.1 transcription-repair coupling factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQASFYEYLQNPKICELFLCKDEKQADLLAQVSRFKGLKTFVLPDFRAQFGDDLRAFSKELFDLCKILNA

YHKEEEKKILISPLNTVLKKLPSKKHLQNYHIDKKQNFDLKCFEDEISRLGYEFVDIVQDKGEISIRADI

IDIFCINEENPIRILLFGEEIESIRYFDLQSQKSIPNELEHFEICPFLKYFDKENYEIFKDKLEDFQSDA

LIHDINSLGFWCIDDFFDYLELDFLACEKFDINEYEKDISFVNAKILPQAKKFKELQSSYNKDFFEFHKN

KKITLLAKNEALFKALELEDTQNIHFVKSDLRLNLISPEELIISLNQKEKQKTRKKASLIIDELKNGDYI

VHEDYGVGKFLGLEMIVISGAKKEFVAIEYQNSDKLLLPVENLYLIDKYLGVSGSIPSLDKLGKTSFIKL

KEKLKTKLLAIASEIVIMAAKRSLVQAKKITVDLNRQTDFIASAGFIYTSDQDKACHEILQDFQSGKVMD

RLLSGDVGFGKTEVAMNAIYPVVKSGFCAFLFAPTTLLSHQHYKTLKKRFDPFDIKVFKLDRFTSSAEKK

QVLQNLKENKACVVVGTHALLSVECENLALVIIDEEHKFGVKQKEKLKEITQNSHILSMSATPIPRSLNQ

ALSSIKSYSVLQTPPEDRMDVRTFVKENDDALLKEAIARELRRGGQIFYIHNHIASIEQCKKHLLELFST

LRILILHSKIDAKMQEEEMLKFENKEYDLLLSTSIVESGIDLPNANTIIVEKSDRFGMADLHQLRGRVGR

SDKQGYCYFLIEDKNAITKDALKRLVSLESNSFLGAGSILAYHDLEIRGGGNLLGVDQSGHIEQIGYSLY

LKMLEDELNALSKNEVDQKENKLDLKLNVNAFLNSELISEDRLRLELYRRLSKCEQVHEVYEIESEIEDR

FGKLDIYTKQFLSLITIKILALNKFKSISNYEQNIQFTALNDEKELIKAKSKDDDDILEAILTHLRKA

>AHK57247.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDWNKTYAAIYRARKDYLKPIFEIDPIALKDLVGMESQKKALYENTLNFIQDKGANHALLWGSKGTGKSS

LIKAIFNEFKEQGLRLVELNKEDLFALADIIDEIRLENFKFILFCDDFSFEKGDDSYKFLKPLLEGSIEK

APNNVIIYASSNRRHLLSESITDNLDTQITHTELHLSDAAEERLSLSDRFGLWLSFYQGNLEEYLKMIDF

YFKDYSCDKELLHAKAKEFATLRASRSGRTAKQFYLAFKENFK

>AHK57246.1 nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTGAQIFTKLLNLDLNYHDFDWLENQGLSEFELLISVVLTQNTNWKNVLKALENLKKENIASLEQINTLS

NLELATLIKPSGFYNTKAKRLKGLVESIINTYENLENFKTNVSRKWLLNIKGLGFESVDGILNYLCKREI

LVVDSYSLRLAFHLGYEFENYEELREFFQSGIESEQENLCKILGRKCELYELYQIFHALIVAFAKQSFKG

QKLSPKGEEWIKILKEDL

>AHK57245.1 phosphomethylpyrimidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKAKGSELIPVLTIAGSDCSGGAGIQADLKTFSAHNLFGMSVVLSVVAENTARVISVHDIPTQSVDEQML

AVFEDIVPKATKIGMIGSCELMSCVAKNLSEFKPQNIVIDPVMFAKNGYALMPQENCDFFKQTIVKFADI

LTPNIPEAEFLCGFKIANEEQMIKAAKHLCSLGAKAVLLKGGHSEINANDVFYDGKEIYILKGERIETKN

THGTGCTLSSAIASNLAKGKDLFHAVSEAKEYVRNAIYYSLNLGKGCGPTNHFFKFLDEK

>AHK57244.1 thiamine-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNKLDLSLYLVATKGSKSEECFLNTLENAIKGGVSIIQLREKELNAREFYKLGLKVQKLCKSYKIPFLI

NDRVDIALALDADGVHLGQEDLEAKLARKLLGDEKIIGLSLKKLEQLEFIQGVNYLGCGAIKATPTKESS

LLSLELLSQICDKSPIGVVAIGGIDKEALVELKGINLSGVAVVRAIMDAKDAFLAAKELKRKIYENLSLK

>AHK57243.1 uroporphyrinogen-III synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIYLLNETPFEGVENLILNEIVFYDFSVDLSLYDALICTSKNALKALQHAKITLNFKLNLYAVGQSTAQ

YAKNLGFKKIKIPSKAYGKDLFLEFKEELKMQKCLYLRAKNIVSTLNLDLKNVGVDLDEMIVYENVFKKG

DKKLIHPAIFIFTSPLSVENFLKFYSLKEEDKVVVIGQSTAKKLLNFKNLYICENQSLLNCVKLAKTLV

>AHK57242.1 hypothetical protein N918\_05375 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKAYVLIWTIFLILLISLWMSLTLNISSYTPKIIQDSYYYLQAQILSHNATQFSKYFLYQAKQENKECL

DNIYFNYTKALIKIKYFYPIAQCVNFKFSNFNPDANLSKDGVIIAHISIALNRDKNVNDEILLTKSIIIY

PKENFWNLKN

>AHK57241.1 hypothetical protein N918\_05370 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKAFTLFELIISLILFTFITSLLSKPLMDFYHLNFTALHTNNLITQAHLNLLKIEKLIQNCINITFSQN

TLKCLLKDELISLKDNKLYLINSALILENNHTLYSPHSDFKTQLQNRKDLYNDNEHISYAYKINKIEKIS

ILENGISANFTGSFIPLQAQLVIKLQNEELIYEIKPKFNEQLNQQGLISKNISSFNLQNNKLKICLKRQT

KHCLEKRILL

>AHK57240.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKAFILIESISAITIISLIFIGIFYYYIQLYKNYENLNIFERLYKLQEELYEKPIFKTIILQTSALKPI

VLQEQFVNDGIFQFQKLYFQDQNYSVYFKE

>AHK57239.1 pyrroline-5-carboxylate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLYILANGSMATALAYGLKDDYEICIVGRSIEKLQALAKEGFKTLLYKDFNIEGKDVILAFKPYALENIA

QMLKGQARILISVLANVDFEKLQTIKAQNYVRIIPNTAAKYKASTTPYILKNSHFENEILDILKTFGSAY

KLDNEIQMNAAMAISGCAPAFLALIAESIANAGVYEGLSKELSLNLTRSLFKSSNALLEHEHPAIIKENI

CSPGGVTIKGIKILEQKGIRGSFFEAINASSAK

>AHK57238.1 flagellar assembly protein FliW [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTLAVKCPILGFEETKNMEFSTIDEVFVRLKSLDGKDFSFVLINPYLIRPDYEFDIPTYYQELLSLTPES

NMKIFNIVAIAKSIEESTVNFLAPVVINLDNNTMVQVILDTVNYPDFFQADQIANYIKK

>AHK57237.1 hypothetical protein N918\_05350 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKGIFLLVFLSVFFSACSTKNDEGLYNLSASEWYKQIIKDLQDKDLEKADDHYNGMASEHVADPLLETT

LIILAQAHMDEEEYKLAEFYLDEYNKKFGNSRNADYIRYLKIKAKFDAFAVPNRNQALMLESQKEIDTFL

KDYPYTEYEPLVQTMLTKFNLAVFYLNSTIENLYQRIGHDESAQIYKQRLQESEFYQQSIIKPELPWYRS

IFERF

>AHK57236.1 Lon protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQIEEIQNYPANLPVLVEDELFLYPFMITPIFINDSSNMKALDLAIKNDSMLFVAPSKLENGRNFDEIYN

CGVIGTIMRKVPLPDGRVKILFQGYAKGKIIEQISNKPLEAKIELIKEDFLEGTKKEALLEVLKEKVKNL

ANISHYFSPDLLRTIEEGFDASRICDLILNTVRIKKQVAYEFFVLTDLEQKLVKLIDLIAQEIEANKIQK

EIKNKVHSRIDKVNKEYFLKEQLRQIQKELGSDTQKEDEVREYQKRLELKKKFMHEDAYKEIKKQIEKFE

RIHQDNSEASMIQTYIETALDIPFEKISKKKLDIKEVSKQLNHDHYALNKPKERIEEYFAVRELLEKRKI

AEKDGAKVILCLYGPPGVGKTSLANSVSKALKRELIRIALGGLEDVNELRGHRRTYIGAMPGRITQGLIE

AKQINPVIVLDEIDKLNRSFRGDPSAVLLEILDPEQNSKFRDYYLNFNIDLSKVIFIATANDISNIPAPL

RDRMEFIELSSYTPSEKFHIMKKYLIPDELKKHGLKSNELSIDDETIELIISDYTRESGVRNLRRKVAEL

CRKSAKKLLLENIKKVIINTKNLNEFLDKKVFEIEKNNGENQVGQVNGLAWTSVGGDVLKVEAVKIKGKG

ELTLTGSLGDVMKESARIAFSMIKVLIDEGKIKIPKKIIIDPKVNVYDSYNIHIHVPDGATPKDGPSAGI

TISTAIASIFSDKKVKADVAMTGEIDLKGKVLPIGGLKEKLIAAYKADIKTALIPRKNYERDLKDIPSEV

RDNMEIIAVDTFSDVLEYTLV

>AHK57235.1 30S ribosomal protein S18 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAEKRKYSRKYCKYTEAKVEFIDYKDTAMLKHALSERFKIMPRRLTGTSKKYQEMVEVAIKRARHVALIP

YIVDRKEVINNPFEGL

>AHK57234.1 single-stranded DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFNKVVLVGNLTRDIEMRYAQSGSAIGASAIAVTRRFTANGEKREETCFIDISFYGRTAEVANQYLTKGS

KVLIEGRLRFEQWSDQNGQNRSKHSIQVENMEMLGNSNAPQQGGNFGNNSFSNNNYSGNYENQSYDPYMS

ENQNFNKAKANPAPQRNQSPQHEEKLKEIDIDAYDSDDTNLPF

>AHK57233.1 30S ribosomal protein S6 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKHYEVLFILKPTLTEEEVNTKLEFVKEVLTKNSAEIETVVPMGTRKLAYKIKKYERGTYFVIYFKAPTN

LIAELERVLRITEEVIRFLIVKYENKKEIAAWEKLSHGIKQSKKEIKPLDAPEIQ

>AHK57232.1 hypothetical protein N918\_05325 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKKFSYPIPNFTDRRKSIIFWRYLRFQARKILYFPQVRLLEKTLNKEKNKHLKDFFSQRPYACYNATRR

FCDKSFKANERVKTLIYDVDKGLACFKFLPEEQIIFSFDEDFELFLGYNYNVCEEGFWAFSLKFKKYTIL

QCNFCFTLENNLLLSCIQGHKYKDFNILEINKILTKKCHGLRPVALLIECSKMLCEILKLQATLGVHEKN

QIRSQKGKEKGYFVDYQKIWLENGGELIKINKHKYYKLHHSQKNLEEIPSQKRSMYKKRFAMLEEIKTNL

DKTLSIQD

>AHK57231.1 zinc metalloprotease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRSLLLLIVILILGIKFYSIEFLATVLVISFLIFFHELGHFLAARSLGVKVEVFSIGFGKSLIEREFKGT

NYRLSTLPLGGYVKLKGQDDMRPGFENLDKDSYSILSPLKKIYILFAGPFFNLILAFFLYIIIGNLGLNK

LAPQIGNIAPNSAAQEIGLQKNDTILEINGIRIQTFDEISKHLSLDPLKILINREGKNLEFILTPKIGQG

YNDFGQIVEKPQLGVSPNGTSTLVKHQGLESFKYAAQESFQASTLIIKGIVKLISGEVEAKNLGGIITMT

EITSKAAQNSFTLLLFITALISINLGILNLLPIPMLDGGHILFNLYEMIFRRKVPQRTFEYLSYTGMAIL

LSLMLFATYNDISRIIGE

>AHK57230.1 CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLPNILAIFRMVLAPLLFFLLIHKFENIHQSWINYFAALTFSLAALSDFFDGYIARTWKQTTKLGGILD

PLADKMLVLAAFLGLLLTGKANEWVIYIILVREFFITGFRVVMISENLNVNASFAGKLKTAFQMTAIGFL

IMEWIGGEILLYIALILTLYSGFEYIYTYIKAQKKGEK

>AHK57229.1 nitroreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKELEIFSTRYSCRNFKNEKLKKEDLNSILEIARLSPSSLGLEPWKFIVVQDEKRKEELSKICNQQKHV

KDCAALIIIISRLDFLDYFEEKLRKRDMSETEMQKRLDTYMPFLKSLNQEQKISYAREQAHIALASILYS

ANALNIASCTIGGFDKEKLDSYLSLDIQKERSSLVVALGYCNDKKNPQKNRFSFDEVVKFI

>AHK57228.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEIKLKEDLEKIYPLIKQLRNNLSLKDFLDKIQLATQTQHYKLFAYENEGSYKAACGVMPFNVLYHNHC

LYICDFVVDEALRGKGIGQAFLKKIQIWAKDQGYEELELSSSFFRTQAHEFYIQKMGFEKSGFVFKKNIK

L

>AHK57227.1 competence damage-inducible protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKHLLYLIGDELTINEKFKNYIYRTYEEKFKEINEIRIQNKTDKDLPFLLENLLNQYDFITLFTSPLHYA

TVAKILATLNDDNLILKDDTLVPDKAEFSKNSFVCNFSNSKINVVKINPSEKLPDLLGHIKLNFAYFCIF

GMDDESAILLLQTLTKSYEISIKSTKFLDNLVLIKATCANFGKLDGFLNSVKNLFGQKVFLGKDPIHFIS

SKLLEKKLKISFAESCTGGLCASTLTKISGVSEIFEGSIVSYSNRIKHEWLGISESVLENNGEYSERCVY

FMLKGIFKTANPDFALAISGVVGEKDEGKIKSGTIYIGAMFRDGTFIQETLYLDGDREFMQEQAVLATFC

LLLKLKPEIFEI

>AHK57226.1 isoleucyl-tRNA synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDYKETLLLPSTTFAMRANLAELEPQRFKKWFEQNYAYEKMKENRKNAKKSFTLHDGPPYANGHIHIGHA

LNKILKETIIKTHYFKGESVRFTPGWDCHGLPIEQQVEVKLGEKKKSLSKKEIREFCRQHASEFVDIQRE

EFKDLGIIADWDKPYLTMKFEFEAAIYRTLCEIAKKGLLCERSKPVFWSWAAKSALAEAEVEYQDKEDYS

IFVAFDLDVKACEKLGVSKASAVIWTTTPWTLVANQAIALNPNENYVITKEGLIFASALLKSMVEKGLTS

GEIQKELNAKEFEKLEAINPLNGRKSVLIMGEHVLMDGGSGLVHTAPGHGEDDYYACLKYGIEVLMPVDD

SGCYDETLRAKGLLPSHLLEEFIGLHIFKANEKILELLGEKLLHSSKFIHSYPFCWRTHKPVIYRATKQW

FILMDEPKLQGKTLRECAKEQLLKTTFYPQSGVKRIGSMVENRPDWCISRQRDWGTPIAFFRDKNTKEVI

FDDELFDFVAAIFEKHGADAWWEFEIKDLIPTNSKYKAENLEKVYDILDVWFDSGSTFNAVLNSGLYDAG

EKRASMYLEGSDQHRGWFQSSLLVGTAINESAPYESILTHGFTTDEKGQKMSKSKGNVIASEYVAKTYGV

EILRLWILLSDYSSDLKISDNILKQVGEQYRKIRNTIRFLLANTNDLKDLEVKEFSFIDKWILSRATKVF

KASKEAFFAYEFAKGFSLLLNFLSADLSGIYLDISKDRLYCDSENAQRRKSAQVAMALMAKELLNLLAPN

LSYSVDEALEHANVLIKGDAKDVFDLSLTQDFDYDFGIDDTFLMSAREKFFEQIDILKKDKIIKSTLELN

LNISFNKFPNEELADWFMVSQISNENEEILAEFEVENEKFKITKASLCKCPRCWKLQSKNEETPCLRCEE

VLKGVQC

>AHK57225.1 aspartyl/glutamyl-tRNA amidotransferase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MITLKEALKYSKEELENLKKELNEKAKKEKKLGAYIEQFLDKDLSVSGEGVPVAIKDNISVKGWELTSAS

KILQGYIAPYDASAIVNLKANGFSPFGRCNMDEFAMGSSTASSCYGKTLNPLNFERVPGGSSGGSAAAVA

GGLALASLGSDTGGSVRQPAAFCGCVGFKPSYGRVSRYGLASYSSSLDQIGVLTQNVEDAAILYDAIAGY

DKMDSTSANIEFIKTVPNLNANKKLKIAVIENYVNDADSEVKNALLKTIDMLKANGHEIVYKNLLDSKFD

IAAYYIIATAEASANLSRYDGVRYGKRSENIQNLKEMYVNTRSEGFGEEVKRRILLGTFVLSSGYYDAYY

IKAQKARAFIKAKYEEILQDCDLIFMPVTPTTAFKFDTQKSPMQTYLEDVYTISVNLAGLGGISVPVAKD

KEGLNISAQLICKAYDEQTLLDGALSLEQMIKN

>AHK57224.1 inosine 5'-monophosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISAAMDTVTEHRAAIMMARLGGLGVIH

KNMDIASQVREVKRVKKSESGVIIDPIFVSPKASVAEALEIMAEYRISGVPVVDEDKKLIGILTNRDLRF

ESDFSNLVENVMTKMPLITAPKGCTLDDAEKIFSTNKVEKLPIVDEQGRLEGLITIKDLKKRKEYPDANK

DNFGRLRVGAAIGVGQMDRVDALVEAGVDVVVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAA

KALCEAGVDAVKVGIGPGSICTTRIVSGVGVPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVG

ASSVMIGSLLAGTDESPGELFTYQGRQYKSYRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYV

GSIRSVVHQLLGGLRSSMGYVGAKDIEDFQKRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>AHK57223.1 coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSFEENLKHANESLEKLNNQELALDESVKIYKEGLESIKKARLELEKAKLEVEQIDE

>AHK57222.1 carbon-nitrogen hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKIAALQFPTLALSESRLDYYLKASKDNGANLVVLGEYVINSFFTELLHMPKNMIKEQSEAKKESLIKL

AKKYELEIIAPYVSVEAKSYKKLCLKVTPNGVKSYEQQILMPYEHWNEEKFFSNKTPSELKIFTFNYEKL

KCALLFGFETHFDIFWQQIMAKKIDLVIVPSACTFESKQRWEELLKTRAFLNSTSILRVNRIGKTKDEWN

FYGDTLFINAFGEIESKLGSEEEMLIIEPKKSDEARKLWGFDKILKNF

>AHK57221.1 UDP-N-acetylmuramate--alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNIHFIGIGGIGISALARFLREKGFKISGSDLKESKITKELEKEGVKVSIPHHKDNILNKDLVIYSAAI

KEENPEFKYAKELGIKCLSRKEALPLILEDKRVFAVAGAHGKSTTSSILASLLDDASVIIGAILKEFGSN

MIYKESQNLVFEADESDSSFLNSNPYLAIVTNAEAEHLDHYGNEVSKLHHAYTQFLDVAKIRVINAEDEF

LKNYKNESIKLYPSKDIKNCTMCIENFKPFTSFELKDLGEFKVFGMGYHLALDASLAILAALNFLDIETI

RTRLKNYQGIKKRFDILHADENLVLIDDYGHHPTEIKATLSAAQEYVKLGGYKKITAIFEPHRYTRLATN

LKEFAKAFEGVDELVILPVYAAGEEPIELDLKAVFPKALFVEDIKREGKFLVASKGQVFEEGLIIGFGAG

DISNKLRQKNE

>AHK57220.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSRVFLYFLIILILALITFALREKLGKKTKPFFGILLVIFIVLAVFFEFENTQKSHLRTDIIVAFNQNKN

ILCKDINVSKAYFNYEFGTGSFISKDNNQSFNSLIIDIKDCRLNDE

>AHK57219.1 DNA strand exchange inhibitor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNDTKEELISKLDLNSYLEEFKALFARDKEIFLQGDSNLHFKRIHELCEVEFPTMPELSNLDKALVHLSK

QGILHLDEIFEFVKIFRYFEKLKKIKLGTNLGSWLQKIEFVSGALELCLNFDEKGELKESLDERLVNLNA

ALRLKNESIIAEFKKFCYTKALMPYLIDTQIHLINNLEALLVRGGFNHAIKAKIIGRSSGGGFYIVPLSV

ENLQNDIEKIKNQKEEIYYEYAKNFSAFLAKNLPFLKFINTAFDLFDHYSARVLLAKKRDFEFVLCDQST

DLVLKNFAHPALKNPKSVSLEFKKQVLIITGVNAGGKSMLLKSMLSAAFLAKHLLPMHIKASESKIGTFK

EFDAIIEDPQNVKNDISTFAGRMLHFSRLFSKKNLLLGIDEIELGTDFEEAACLYSVLISKLIANNLKII

ITTHHKRLAMLLAKNEQVELIAALYDEELSRPKYEFLKGTIGKSYAFETALRYQIPPNLVSEAKKLYGED

KENLEELVGKNINLELELKAKLENVEKKEQKVDEILLSLKEQKEKNEQEFRTSLRNLEFKFHKAIEEAKK

TIQLKDIKDKQRSLNKTNELKKEIILPSMEQNEELRVGDFVKYEKIKGKIISISKNDAMVESDGIKLRVP

LKLLKKSTPTPKISPKTSISVAKPTNLSVSLDLHGLRSDEAISRLDKFISDALLAGFDEVLVYHGIGTGK

LAFAVREFLKTHKSVKGFNDAPINQGGFGAKVVRL

>AHK57218.1 NAD-dependent deacetylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNIMILSGAGLSAPSGLKTFRDNDGLWEEYDVMEVCSATGFRKNPKKVLDFYDARRAQLQNVKPNHAHE

KIAQLKEKWGKNLFVITQNVDDLLERAGCKDVVHLHGFLPELRCLKCEGIFNIGYEKFTDKQCPKCKSKD

LRHNIVMFEEQAPAYATLYSLLHQTSLFISIGTSGAVLPVGQYASMCEKSILNIYEKDVNLERYFDKIYI

EDIISAIDKIALDIENFMKDGNV

>AHK57217.1 lysine transporter LysE [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFDSFLSGVFLGFGVSVPFGPVNILILTYALKAFKNSIAVGLGAFSMDMLYLFLLQFGLLNFLDNVIFMR

FLAIFGFCFLTYMAYLMLRKKKESLNLEHKEFKESLLKSYIKGAFLNGSNPFVIGFWLSAASVVLSSDHA

YLMTLGLVVAILFWVSALAFVVARYSHVFSAKVVFIINIISAIIIEYFALNLLYKTFLG

>AHK57216.1 succinyl-diaminopimelate desuccinylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNAKEFLIELLKFKSVTPNDDGALNFIAMELSDFEAFFIEKEGIKNLLLTKKFKDEGEHLAFGGHVDVVP

AGEGWSNNAFAPVEKEGFIYARGAQDMKSGVAAFVDAAKNADFKGARLSLILTSDEEGEAIYGTKAVLEW

MQERDMLPDYAVVAEPTCVKKIGDSIKIGRRGSINGKLLIRGKQGHVAYPEKCINPVHDFAPVLKLLAGF

DLDPGSAEFSPSKIVITDIRGGMGVCNVTPNDLKLMFNVRNSPDTSLEDVKSYVEKICHGLNYELELKQS

SEAFLTNIDNKIVQKMNESVQKITHEVPELNTKGGTSDARYFAKYGVKVVEFGVCNDRIHAIDERVSIEE

FEKLCLVFKDLIENF

>AHK57215.1 thiamine biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIINGQKLELKELKFMDFIKEKGFKIELIALELNGEIVPKSEFENLILKENDKAEIVSFVGGG

>AHK57214.1 thiamine biosynthesis protein ThiF [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMRVKFNGKELDTDFKTSLEFFENISKNENDVWIINGFATKENIALNENDELFCIEKNTLPPKDALDAMM

RARHTPKLHDKLKNGRVAVCGLGGLGSHIAINLARSGVGYLKLIDFDVIEPSNLNRQAYRVSDLGKFKTE

ALKEQISEINPYISVEICTLKIDEDNLESLFKDIDIVCEAFDSAIAKAMIAQNFHRFYKDGILICASGLA

GYGDSNSIQTRKIAKNFYVCGDLVNGAKLGNGLMAPRVNICAGHQSNLVLELLANKE

>AHK57213.1 thiazole synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQENLKNDKLKIGKYEFDSRFILGSGKYSLELIKSAIEEAKAQIITLALRRANTGEIANILDYIPKNITL

LPNTSGARNADEALRIARLSRELGCGELIKIEVISDSRYLLPDNYETIKACELLAKEGFTPLPYMHADLY

AARAMRDAGAAAIMPLAAPIGSNKGLCAKEFIQILLNEIDLPIIVDAGIGSPSQACEAMQMGVSAVMVNT

AIAEAKDIALMARAFSLAVNAGRVAFLAGVASVSEAKASSPLTGFLRD

>AHK57212.1 thiamine biosynthesis protein ThiH [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQDYMQHLPHMQEIKSEILNKVLTQVQSYDESQFSAKDVKNALNQTHLSIEHLKALLSSAAEDFIEELAF

KSAKVKQKYFGNSISLFTPLYLSNYCNSKCVYCGFQKGNKIARAKLNEAEIHEEMQAIAKSGLEEILMLT

GEGREFASVEYIANACKIAREYFKVVGVEIYPMNEDEYKILHEKGCDYVTVFQETYNPLKYSKIHLAGEK

RIFPYRFNAQERALKAGMRGVAFAALLGIDDFRKDALATALHAHFLQQAYSHAEISISVPRLRPIINNAK

IHPKDVSEKRLLQVLCAYRLFLPFAGITISSRERIGFRDEVIKLGATKMSAGVSVGIGEHKGEKKGDEQF

EISDDRSVDEILAMLKRSNLQAVMSDSIYVG

>AHK57211.1 thiamine-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MWDKKIIAISDRKCVEIDFLKQIEKLAKAKVDAIVLREKDLSEFEYYDLAKEVLSICAKQKVTCFLHFFD

RECLKLGHRYFHAPLSLLRKEPKLTKYFHILGTSVHSKEELLEAMSYKVNYAFVGHIFESSCKMGLEPKG

IDFLKSLLEFSQIPLYAIGGINAQNIENFKDINVVGVCMREILMKEKDLKKYLLECRQNLR

>AHK57210.1 AraC family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKILSLPEDLKQLKGVNYKKIKSCTFAKYTQTDTSHSTFVNVGSHLLTFVRKGYKILHTASKDYKINSY

ETLFLKAGSYTLSNVGLSKGVYEAYLFFFDNAFLIELIYKYKDFFKLDQKFQNYEIFWVKNDKILQGILE

SFSPHFEENTQILDPIVSLKFEEIFLHLLLNKNIYFISFLSGILKEFRLDLSQLFEYCGREFLSVNEMSN

FAKLDLATFSKEFKKCFGQSPKKWLDEKRLQKAKILLKFSKKNINEIANECAFSSVAWFIERFKEKYEQT

PKQYQKTKNLYFLSKN

>AHK57209.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKYVLSLALLGSLLGASELKYQEFDGFKSPESIFVDKNYVYVSNVGEKLEPLAKDNDGFISKLDKNGKV

LEYKFLTHLNAPKGMMEIGKTLYVVDIDVLRGFDLKTKKEIFNLPIKGAIFLNDIEKLDDNTLLVSDTGT

GLILKVDLKTKQYDELLKLDLAKFGGPNGLYLDRKKHKLFIAGYHPDGVSGGVVMAYDLNTKELSIIKNE

KESYDGIVPYKDGLLVSSWGNNLNGYIYNLDNVKSVKLELPLMKGPADIFIEGNILWIPKMVEGKIFKVE

LNK

>AHK57208.1 UDP-diphospho-muramoylpentapeptide beta-N- acetylglucosaminyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTIALTGGGTGGHLAIVRCLLESAIKKNIECVYIGSQNGQDKAWFENEVRFKEKFFLSSKGVVNQSKFDK

ISSLLHTLKLSKDCREIFKKYHIQAVFSVGGYSAAPASFAALFSHLPLFIHEQNSKSGSLNMLLKPFATK

FFSAFEKEISPYPVADKFFDNARIRKELKNIIFLGGSQGAQFINELALNLAPKLQEQNIKIIHQCGKNDF

EKCKKHYQSLNIQADIFDFSLNLEEKMKNADLAISRAGASTLFELCANTLPTIFIPYPYAAKNHQYFNAK

FLQDQALCQIFMQNSINLDEFFKSILKLNLENISTRLQNITQKNGADMLIQKALFDNLTFIR

>AHK57207.1 cell division protein FtsW [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVADKRLFYLSCILITIGIVFSYSLTAFTVLFLDYSEFHFFIRQLFFGISGILIMFFISRLDPDKALSKK

IILAILIVSFIFIIILPFLPSVLATASGGAKRWIRLGPLSISPVEFFKIGLIYFLAWSYTRRIDDSKKAI

RHEALILLPYCILASIVIGYIYITQNDLGQSVISFFLILALAFFAGASKRLFAFGTLIIMMIGIMVIFSN

QRRIQRIASWWGNIQDAFLPMLPDWLANALRVSSNSEPYQISHSLNAIAHGGMFGEGLGLGTFKLGFLSE

VHTDFVLSGITEEIGLLGLGVICYIYLWMILRIFRIAGRCEAKQDFIFCSGIALLLLFSFFMNAFGIISL

TPLKGVAVPLLSYGGSSMWAICIGIGYVLMISKKVKL

>AHK57206.1 acetyl-CoA carboxylase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNQIHKILIANRAEIAVRVIRACRDLHIKSVAVFTEPDRECLHVKIADEAYRIGTDAIRGYLDVARIVEI

AKACGADAIHPGYGFLSENYEFAKACEDAGIIFIGPKSEVIHKMGNKNIARKLMAKNGIPIVPGTEKLNS

YSMEEIKIFAEKIGYPVILKASGGGGGRGIRVVHKEQDLENAFESCKREALTYFNNDEVFMEKYVVNPRH

IEFQILGDNYGNIIHLCERDCSIQRRHQKVIEIAPCPGISDNLRKTMGVTAVAAAKAVGYTNAGTIEFLL

DDYNRFYFMEMNTRIQVEHPITEEITGIDLIVRQIRIAAGEILDLEQSDIKPRGFAIEARITAENVWKNF

IPSPGKIGEYYPALGPSVRVDSHIYKDYTVPPYYDSMLAKLIIKATSYDLAVNKLERALKEFVIDDIRTT

IPFLIAITKTREFRRGYLDTSFIETHMQELLEKTEDRHQENKEEVIAAIAATLKKIRESRE

>AHK57205.1 hypothetical protein N918\_05170 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDFLDSLKSIKKEMQANTNTSKLAKKSSKSGASVKNLEKLAKDIREKNQETNIDKEMQEIFLKQEKLQDE

FSEFIKNADIKKI

>AHK57204.1 arginyl-tRNA-protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLEIGFCTLEDQCPYLKDKRSRIEYKYIENCPKEINNELIKRGWRRFGRYFSRPICKDCDECLSLRILVN

EYNFSRSERRVVNKNINTKVILRTPNLSNEHLFLYDKYHRFMEEKKNWKRYDLSFKQYYNLYVDGFMNFG

YELAFYIEDKLVCVDLIDILEDGISSIYCFYDPDFSYFSLGKFSLLNEIQIAKKMNLDYIYLGYFVKKCQ

SLSYKADYTPNEILKGTKELFENEVLWEK

>AHK57203.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQIVQTLETINVNTDDISVFQYFKDLITKNFTKVIGRKNKIFSFFEENEIPQRRYFLKVLDQKYRKSTNE

GIENLQDAHFKTFRLIFEQNNMLKPMLFIKIDFVAGRILMKLSSNEKLFITYIRNYFQDHNIEYNEMTNI

LILEYKNENTLELFEAFADESEHLKYCVNFEVDREEYKKFRQNIHNKENMKWKFNALAKLFSNYFNTLEC

TPQNDLSEIRQKYLILVKLYHPDFHQGKSAIEKAYAREQFEKIQIAYDNLKALYKNNT

>AHK57202.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFKLAINRPITVLMFFLALMIFGLISAFSMSVNLFPNVSIPLIKITSKINGDLNFVESKVTKEIENALSE

IDGVKTITSAAYDNFSVSVVEFKLGKNLEVAANDVRDKIGTLSLPSKPEIEKISSDSGSAISLFLYSKDK

LQLMREINDKIKPFLQRVEGVGKIEAKGFLEPQIRIELKPNQLRKYNLNALDVANIIKSQNFKQALGELN

NNQDNYIIKGYFEATNLEELSNLRIKTGVFLSDIANISSLYEDEKQSALYEGKEGVLLELGKITNYNTLE

MIKNVKNALPILEKQIPKDISINMLYDKSLNIHKHLSQVIFDMVLGIFLTLVIVFLFLRNLSTTLIACIA

IPTSIISTFFIIDLLGYDLNRLTFIALTLSIGIFIDDAIVVIENIAKKLKTYPPLQAAFLGINEIGFSVL

SISIVLLCVFIPISYMNSISGLFFNALGISVASGIVISFLVSVFLIPSIGARFLNPKENKFYEKTEAFFE

KIEQKYENLLYKILQNKVKFILATLVFIGLSFALATRIGLDFLPMEDDSEIQVLLESKKDLSLEAMKEKS

LNLLEKIKNDSNVKYAFLLVGYDDAKDATKAKIYVKLKNLDERNLRQSAIVSLYRQKFQDESLKIKILEL

PKIEGAGIDDPVQFLILGDDLNTLKEAASQAKEILGTNARIVDISDNANATKDEVALHINKEKAKLLDVN

PQYIAGVLGYSFSQLSVGSMDRGNSKDDIILSFAPEFKKDIEALKRISIKNNQGINLELSSVVDFIYSKD

LKTINRYNKNRSVKITAGVNDLSLGAVQKLLLDNMDKILNNNPSLSYAFSGFINLLGETVQGFAMAVALA

FVLIYLVLAALYESFILPLIIMITMPLAFGGASIGLFITGHNFSLFVLIAIILLFGMVGKNAILLVDVAN

KKCHEGLDPDKALLIAGKSRLRAILMTTFAMIFAMLPLALSRGAGYEANSPMAIAIIFGLISSTLLTLLV

VPALFKFCFKLDSKLRKIYEREKLN

>AHK57201.1 hemolysin D [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILFLLLVFNCAFGEEIYASFNVEASKQSKLALESIGLVQKIPVEIGQKVSKGELLLALDQESEKIAL

QNAQNSYQLALVEYENTKSRMQKIKAVENVIDKQSYEDMKAKFDAANLNLNKAKINIAYYKNIMAKKELR

APYDAIIANKFIQVGEGVGGVAQPLIEIFSYPQSKLILSFDEKYKDKVRLGDDFFYKIDQNGTELKGKIN

LIYPSIEVKTRKIYAEVQTTNLTPGLFGEGRIITKD

>AHK57200.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFEKYLKSAIFLALYPLAMLASNLHEFIALSQNNESYLIKQMQSEQANLDKEQAFRNYLPSLSLNSAYVA

NNKDRFIIDPQESLFAKVSLNFLLFDGGAREANLRALESREKLSLLDKEQNKNYLALNAITLYFNTLSLE

KILLANQQKVSFLKSTFERLQKFYDAGLSPKDELESIKAKYHLSLLELSQNELKLANIQKEIKILSDTDF

KVQGNAFLENPQQEKSQNYEVMIAKEQINLAKESVNLAKAEYFPKFYIQDNFNFYKNNYNPKVPAPFANL

ADQFLEKYSQGNQFILGMEWKIFDFNARAKEVEKERLNVQIANANARFSERKNKEELNYLDKSLKVLQEQ

ILALNLSLNAANLAFESVDKKYQAGLVSYVEYLQALEVKFKAQSDLELAKNEFEITKANYYFNAGIDLNS

KVKE

>AHK57199.1 elongation factor 4 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSVKNIRNFSIIAHIDHGKSTLADRIISECGAISDRQMSSQVMDTMDIEKERGITIKAQSVRLNYKFNNE

NFVLNLIDTPGHVDFSYEVSRSLASCEGALLVVDASQGVEAQTIANVYIALENNLEIIPVINKIDLPNAD

VEKVKHEIEHIIGIDCKDAICVSAKTGVGIKELIETIITKIPAPKTDDEAPTKALIYDSWFDNYLGALAL

VRIYEGSIAKNDEVLVMSTDKKHIVQDLFYPHPLSPIKTQSLQSGEVGVVVLGLKTVGDVQVGDTITLVK

NKAKEAIGGFEKAKAFVFAGLYPIETDKFEDLRDALDKLKLNDSSITYEPETSLALGFGFRVGFLGLLHM

EVIKERLEREFNLDLIATAPTVTYEIYQTDGELIKIQNPSELPPVNKIDHIKEPYVKATIITPSEFLGNL

ITLLNRKRGVQVKMDYITPERVLLEYDVPLNEIVMDFYDKLKSLTKGYASFDYEPIEFRVGDLVKLDIKV

AGENVDALSIIVPNEKAQSKGRELVSAMKEIVPRQLFEVAIQASIGNKIIARETVKSMGKNVTAKCYGGD

ITRKRKLLEKQKEGKKRMKAIGKVNLPQEAFLSVLKID

>AHK57198.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFKKFLIFIVPILFLSACATKQDTFAQVNQISKNSQCSSCESPGGFEAKIKGLLYISDVGIQCCANKRTL

DTGIALKKVYLHRFYDLKEGQKVLNAKGKKLFVDVNFNAVFYTYLKQELEARGIVVLDNNDQNSPYVSKI

DLEFISYGATQDAIGLHSKLVGVLQVSDINKNKKFTIRTKQDVQGFDDLKETTFYTHLLIKQMANKAASL

ISEL

>AHK57197.1 phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRCINCGAFALLCFCELCELELSEFSLNVRKLDNNFKVYSFYKYHEIQHLLHSKHYFYGYFVYKMLAKLS

FAKFKDFFDPRMTINVIALDDKVEDMLYSHSAILARYLKTKFVKPVFNVLKAQNSVKYSGKSLEFRQKHK

RNYKLLKTIHEPVILVDDIVTTGSSLLEAKKVLEENKISVLFALVLADAKV

>AHK57196.1 DNA gyrase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENIFSKDSDIELVDIENSIKSSYLDYSMSVIIGRALPDARDGLKPVHRRILYAMQNDEAKSRTDFVKSA

RIVGAVIGRYHPHGDTAVYDALVRMAQDFSMRYPSITGQGNFGSIDGDSAAAMRYTEAKMSKLSHELLKD

IDKDTVDFVPNYDGSESEPDVLPSRVPNLLLNGSSGIAVGMATNIPPHSLNELIDGLLYLLDNKDASLEE

IMQFIKGPDFPTGGIIYGKKGIIEAYRTGRGRVKVRAKTHIEKKTNKDVIVIDELPYQTNKARLIEQIAE

LVKERQIEGISEVRDESNKEGIRVVIELKREAMSEIVLNNLFKSTTMESTFGVIMLAIHNKEPKIFSLLE

LLNLFLTHRKTVIIRRTIFELQKARARAHILEGLKIALDNIDEVIALIKNSSDNNTARDSLVAKFGLSEL

QANAILDMKLGRLTGLEREKIENELAELMKEIARLEEILKSETLLENLIRDELKEIRSKFDVPRITQIED

DYDDIDIEDLIPNENMVVTITHRGYIKRVPSKQYEKQKRGGKGKLAVTTYDDDFIESFFTANTHDTLMFV

TDRGQLYWLKVYKIPEGSRTAKGKAVVNLINLQAEEKIMAIIPTTDFDESKSLCFFTKNGIVKRTNLSEY

QNIRSVGVRAINLDENDELVTAIIVQRDEDEIFATGGEENLENQEIENLDDENLENEESVSTQGKMLFAV

TKKGMCIKFPLAKVREIGRVSRGVTAIKFKEKNDELVGAVVIENDEQEILSISAKGIGKRTNAGEYRLQS

RGGKGVICMKLTEKTKDLISVVIVDETMDLMALTSSGKMIRVDMQSIRKAGRNTSGVIVVNVENDEVVSI

AKCPKEENDEDELSDENFGLDLQ

>AHK57195.1 hypothetical protein N918\_05120 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIYFMLAIAGIFAGCVPSANSATKNSSANSTAPSQDVIVQKVDKDDVRDIIREEKMLAPDASETELSF

TAVGEGIAPMNTVSTAQALALAKRAAITDAYRQLASKLYGVKVNGKDTVKDAMLRSSTITAQVNGLIKNA

SIIDENFNQGLYRVNLELKIDADKWKELFAY

>AHK57194.1 hypothetical protein N918\_05115 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MERIVCLLIFLSFKLFAQDEFIFWAELSSKNFILFHQNQNLSLAMTQSENVEEQWVCEISYSDQDLKVLP

RTSLGLIDDNMPKTIKFNFLNSHKDELSDCFIGARISVKDIVNTDLLRAQSETYVKILPLRFTVEFGEQN

AIIYYLKKK

>AHK57193.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLVIVEDDINMRKSLEIALAEYEEFNIKSYKSATEALKKIDDNTDLIITDINMPGIDGIEFVKACENKY

DFIIMTGNATLSRAIEAVRLGVKDFLTKPFDVDTLVEAIKRAKIIREKTADKKSKKNEKKEENKDFFSTS

PNLEKTLNLSQKAAKTDASVMFFGESGVGKEVFSRYIHTHSKRSNKPFIAINMAAIPANLIESELFGFEK

GAFTDANATKIGLFEMANEGTLFLDEIGEMPYEIQAKLLRALQEKEITRLGSTKSIKIDVRIISATNANL

DEKIKNGEFRSDLYYRLNTVPINIPPLRERKEEILGIAQKVLEDTCKEYDFKEKQLSQEAKNALLEYDFP

GNIRELISVVQRACILSENDEISSEDLFLEARSIKKDVKNLEKELICEVLLSVDYDKDQASQILGMDIKI

LNEKIKKYQIKDK

>AHK57192.1 aspartate-semialdehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKKQKIAIVGATGAVGEELLNVLDELDFPVESILPLASAKSVGSEVEFKGKAYKVKELTENVFKENPID

IAFFSAGGSVSEKYAKFAVESGAVVIDNTSHFRMEKDVPLVVPECNPEDIKDWKKTGIIANPNCSTIQMV

QVLKPLNDAFNLKRVDVSTYQAASGAGKEGMQELVEAMQSFFAFKLDEFEPQTFPYTLALNLIPQIDVFM

DNDYTKEELKMVNETQKILHKNLEVSATCVRVPVLRSHSEAITMHFEKEIDVKKAKEILKKAPSVIVIDD

PKNKKYPMPLMTSDTNETYVGRIRADVYDKKILHLWCVADQIRVGAATNAVRIAQKWLELKNK

>AHK57191.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLEKIFESLLVRSRIVTILPVIFGLIGAFVLFFIASYDVLKVIFYTYNYFFDAGSNVDLHEDVVALIIGA

VDLYLMALVLFIFSFGVYELFISEIEEFKQTKQSKVLEVHSLDQLKDKLAKVIIMVLVVNFFQRVLQMKF

ATPVDMAFLAGSILALCVGLYFLHKGGH

>AHK57190.1 hypothetical protein N918\_05090 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIFLIGMILNHFVFAAPLDEVFKDIEVSGTVRYRYDIKKEKKYNKKTHRYQNKTQTEITIK

>AHK57189.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIARWLFISSIFVVALFGINLKSFFTYTFDANKQYDMEKAKALYFQNKCNTCHGDNAEKSVIGSRILKDM

SPEDIKGALIGYTLDSSSSTTASQMAFYARNLSHEDIDNIIAYIKGGNFALDLQVKDLLEEEPAQKTKHN

IFLK

>AHK57188.1 branched-chain amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDSTLFLQQLVNGLSLGSMYALIAVGYTMVYGVLRLINFAHGDIMMVGAYAALFCMTNLNVPFLGALSLA

MIFAACVGIATDRIAYKPLRQAPRISLLITAIGISFFLQNLFNMLFTSTPRTFTPPSYFEESVNFGGVIT

TYGSLMVPALTFVILIAVLWILYKSKYGIAIRALAFDIQTVNLMGIDANRIIAIVFALGSALAAVGGVFW

AANYYSVEPTMGTLIGLKAFAAAVLGGIGSVVGAVLGGLIIGFTEVVVVAFFPDLSGFKDAFAFIFLVFI

LLFRPTGILGINFEKSRF

>AHK57187.1 branched-chain amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMVRIKVSHLIFLIASIIFIFISPYIFGDYGLNIVNQIAIFIILAVSYNLINGVTGQFSLEPNGFVAIGA

YAAALVLLSADAKNDQFFLDGPSSFILAIHSNSFILALIVAGICSSLLALILAFAVFRVRGDYLAIVTLG

FGIIIKIAAINFPSITNGSRGLVDIPQFSTIYWTGGIAIVAVILILNIVYSKYGRAMKAIRDDEDAASAM

GINTFWIKTLAFSTSAFLEGVGGGLLACLLTTVSPTQFDFLLTFQLLIIIVLGGLGSTTGAIIGAILVIG

GSEWLRFLDELNIKIDSLNLDIQSTPGLRMVVFSIVLILVMLFARKGIMGYYELSDVIRGIKKRFKRSKK

>AHK57186.1 branched-chain amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MILELKQISKSFGSVKAINETSFKINEGEIFALIGPNGAGKTTLFNIITGNYKPSSGSVEFLGERIDHLK

PHKIVHLGIARTFQNIRLFSSMNVLENVLIGFNKQMKYNIFEAFLHLGRFGKIEQVFKEKAYAILEELGI

AEFAYEKATSLSYGQQRKVEIARAMATQPRLLLLDEPAAGMNSSESDELAGLIFKLRKDYKISVLLIEHD

MKFVNKLCDRVLVLDYGKTIFEGKLCDAVNHKEVIAAYLGDFDANS

>AHK57185.1 amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLIVKDLHVYYGLIEAVKGIDFKVETGHIVSLIGSNGAGKTSTLNALLNSVKRTGEVNFLGYDTKRHLTH

TLVQKGIALVPEGRRVFINLSVEENLKIGAFNNAENYEHLREQMYKLFPRLASKKHALAGTLSGGEAQML

AISRALMSEPKLLMLDEPSLGLAPKIVGEVFDIIVRLKEEGITILLVEQNAYSALKISDYAYVLENGRIV

MENEAKNLIGDDEIRKKYLGL

>AHK57184.1 cytochrome C biogenesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNIIKSIGDLRVSVVLFLLFALFCALATFIESAYGTPTAWAMVYDTFWFEYIQLLLGINLLCGMFRYKM

FGLKKLPLMIFHISFLFILVGSAMTRYAGFEGILPIREHTQNSLIESSKTSLRISAIKDGERYSAVNDRY

IGNLPFANSFKLKLNLGDDQAVLKYKDLILNAHYTYKENNNSDPLLVLMLSQKGSQGVDVKFEKGEVKNI

EGVNFAFMNDNVKAPFVKIDENLTLSSSENLHFLSMLDGQNLDLKIGEKANAKERRLYEINDISFVVKAA

SLHAQEALEGSNRPQDESFWLWFKSAWLEVGRTMLISTFGEPQNWKNSLLLHFKDFALSNENKNLELTGS

NALKLELSYKNESKEFYIFEYNKPIMIELADQKFFISWALSYEQLPFDIYLRDFVLDRYPGSMSPASYAS

EITVKNNNENFDYRIFMNNVLDYDGYRFYQSSYDQDEKGTVLSVNKDPGKIPTYIGYFLLCLGMFMNFLN

PHSRFRTLARLINKDTLKHTSVIIFILLLSFGSEKTFAQDLNSTLPVVNTNHAKALATLIVQKSADGRMV

PFDTLSREILEKIHQSDSYKGQNSNAVMLSMLVDVDKWQLEPFILMPQNQAVRDAIANILEIPSAKYIAY

KDFFDENNRYKLQKYVENANRKNPNARGVFDKEIIKLDERANVVNLVFSGELFKFIPVQNNPNNVWLAPF

SAVTTLKGDEGHIVLALIQNYFSAVENAFKDGNWIRADEGLKFIKEYQEKIGYKVMPSKTKVEMEIFSNK

AEIFVKLAPVYLIAGFLLLILVFSKMVVPNLKISFIFKVVYVLNVLAFVIHTVGLGLRAYLSGHAPWSNG

YESMVYIAWALSLSGIFFSRKSPIALSLTSILSGVVLMVAHLSEMNPQITNLVPVLNSYWLSIHVSVITA

SYGFLGLCALLGIFTLFLMCFLKKDGKYNLNILRNITEATRINEMAMIFGLCLLTVGNFLGAIWANESWG

RYWSWDSKETWALVSILVYAAILHLRMIPKYCNQFVFALWSMFAYWVIIMTYFGVNYFLTGLHSYAAGEA

AQIPNYVYWGFALMVVLAFFARRKRNFVGKL

>AHK57183.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVIFCAALALLLFLGVIAYLITSDGKKTIKKQKTSQKQHVAEKTKKFDTDLDKMIIAASDVKLTDIELKE

LAKLYVQTHKLGSKTSKELDEAAKKKLEFVSALAANINASAQTVSYLNKELKKIYGSYKKEIDAYEHMGL

AKRKIKEDK

>AHK57182.1 magnesium transporter CorA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLELHENLKKILQAKNLETFYSEIYGQKIFVYVGLNLETWLFNDEKIYKLQDGEFKLSSIEEFSNFIKSI

LEDFKVQNTHFQNLLEHKEGIILKGGFVKNFYKKSFVLRQKINKNLKQINLLSEAFNLLLSEQAQYKKHL

KILNLSISILSKNTKEHLARIDTLYTLTNAIKNEKMNKSIYLLSILSSIFLPLNLIVGFFGMNTNNLFFK

DSPYGTLYIFSLICCILIVGFIFYYSKKTKEFDLDEGKKAKKQTK

>AHK57181.1 queuine tRNA-ribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEFKLKHKDGMARVCEITTAHSTFLTPVFMPVGTVGAVKSLDANDMKNELDAKIILANTYHMYLRPTSKV

VKDFGGLHGFTKFDRSFLTDSGGFQAFSLSKNSKHFNEGIEFKSHIDGSRHLFTPKSVLDTQYDFNSDIM

MILDDLVALPATKERVKISVDRTILWAKEAITYHKNMQNKGIGIGQNIFGIIQGGTDYEERKRCALSLNE

MPFDGLAIGGLSVGEENALMYETVQNLNPYLDENRPRYLMGVGTPEDLVENVERGVDMFDCVMPTRNARN

GTFFTSFGKFNIKKAEFINDHEVIDSTCSCYTCRNFSRGYLNHLFKAKELTFFRLASLHNLHYYLELARK

MREAILNNSFTQFKRNFYHLRGK

>AHK57180.1 potassium transporter TrkA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNNILIIIDGILAKHFLERLCFEKGLGYFFTVVCQNSEKNNLNISSEYIDLHYFDPTSTARLENIMSKDF

KQAFIYMQDEFETKKSYEALRSLNPNLEIEIMDFWGLSVNDTHANLADARMTLSRRFMDFLPDIALTAQY

IGLGVGEIMEVKIPAGSIFAYRHISSIQQKRWRIVLIYRNSKIYFVKPSFVLEPNDSILIVGDPVVLQSI

FHNIRGKAGQFPMPFGSNVFALIDMKNMNQNMQERVLDTTLKLTQKSNAKRFFIHVINPKLGVMYEKLKK

LSEDKEGVFFDYFNTDFKQISMWLQNNDIGLVVTDIKNFEKEKQAFFDLKIPIMKVGEASFDELKEAIIL

SADESELENNANVITDLSKQLDFGVILYYYNPNSQNTTDMEEYFRSLSKLYDKNIQIINKNDENPLLNLQ

YREDLLQFVSFQKELLNRDFARNLSTNLNRHYYKMRQNYQLFIPVE

>AHK57179.1 3-dehydroquinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQVEVKLKENAYKVYIDELEELEFDSKVFILSNPKISGLHLKTLLSKIKAKEIFIATVKDGEEYKNLSTM

EEILNQMFNSKLDRKSVLISFGGGVISDMGGFAASIYQRGIDFINIPTTLLACVDAAVGGKTGVNNNFGK

NLIGTFYQPKAVYCESFFLKTLSSRELAAGMAEFIKMAAMFDYSILDFIEKIDEKSFLNATCENEIFTQI

IAKSIELKSRVVEQDEKESRLRMLLNYGHTFAHVIENFTDYKLYLHGEAVAIGMVMANQLALNLGLLDKM

QSQRIKDILLKFGLPISYKINNVDEFYEAFFMDKKSSNKKINFVLASPLGKGLIKGDISKEDIIATLREF

Q

>AHK57178.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIIILTFFVVFAFGDVNRTIINNINEKINTLNTVISASIWNIRYENFIKYQDINDELIILNLNLKKTS

DIHQQEELKRKIANLEEQLNLLKEYKDLNFAQSLSAPDNIETLSKLTNPLAIIGAFSHIKKLKGEKEEYI

FKFNDFKNLVDKIREKNSELKELVELKPSVENIEALKASDKKLEEFEQALNFASVSYSVYEKKIDEELSR

VSAEIKVQSLRAVNILVAIVIVIAIAFMLKFIAKKYIKDSERYYTATKIINFININIIFLILLFAYIENI

TYLVTILGFASAGLAIAMKDMFMSMLGWCVIIFGGSFRVGDRVKVFQNDTTYIGDIIDISFLRITLYEEL

TLETYNKNRRSGRIIFIPNNYVFTNLLANYTHHGMKTVLDGIDISVTFDSNLDKAQEIVENIVTRHAKGY

TELARKNIARLQHEYSIKNPKVEPRFFMFFEHWGMRISAWYMTNAYAALVLRSTISKEIIKEFNKHKDIK

IAYPSQNLYLGNLNQNHFEQHHENMYFHARNKD

>AHK57177.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEKVFFKTFGCRTNIYDTELLKSYVKDYEIINDENKAQIIVVNSCTVTNGADSGIKSYVNTMQKKGIKV

ILTGCGAVSKGKELLDKKQVFGVLGASNKDKINEFLGAKTSFYELGNLNFIDKDIVCEYENHTKAFVKIQ

EGCDFACSYCIIPSVRGKSRSVDEKALLKQVEILGANGYSEIVLTGTNIGSYGLKNGTTLGKLLQKMGQI

LGIKRIRLGSLEPAQLDESFLEILDEAWLERHLHIALQHTSEKMLRIMRRRSHTDNDLKLFNTIASKGYA

LGTDFIVAHPGESEELWQEALRNFKEFPLTHIHAFIFSPRNNTHSATMKDVINGTLAKERLNTLKSIVEK

NNYEFRKKNQVSLEVLVENQKDGFFEGYDQFFNKIKIKSDKDIAKEWIVISEYEVQEKSNFTNLKG

>AHK57176.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNKKIILASFMVLCMLLGILYFKNEPKYIDENLYQSLLSQNLIQKAVIDKDEIWLKAEGENYVIIKDGI

DIKTLLSKVPVEVKKDNTLWVFFVLLIFIIALFISLGYFARKKELAKYPISNKNQNHTQAQNSNINLESS

HIKPVISNITFNDVAGVDEVKMELSELVDFLQNPKKYKEFGVKMPKGVLMVGPPGVGKTLIAKAVAGEAG

VPFFYQSGSSFVEIYVGMGAKRVRELFSKAKMMAPSIVFIDEIDAVGKARGEMSNVERDSTLNQLLTQMD

GFEDNSGVIVIAATNKIELMDPALLRSGRFDRRIFLSLPDFKDRLKILEIYMKDKNNNINLNKIAKASVG

FSGAGLETLVNEAAINALRRNSALVEESDFYAVLNKVLLGKKKILSFNNEEKKIQATYQAAKALSAYYFD

IGFEKITLIEDRFKEYEHNIRSKSELINRIKVYLAGSRAMRLIYNESYTNSQDDFLKIKELLDYMLSFDM

LKESNLSEQKKEMDEFLNSMKDKILKLSELLLEKEKIEYDDVKDIMQV

>AHK57175.1 hypothetical protein N918\_05000 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIKFLNIITILSLSLNADIIISADNLPNVSKEFLQHNFKAPIGIVQKDKNSYEVYLSDGTELEFDIDGA

WKEIENKAFPFDLDFLPQNLANIIKNEFPNTKAREIERKINHYKIKLDNDIKILIDFNGTILYKEFDD

>AHK57174.1 phosphoglycerate mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIYIIRHAKASKSEDIDDFERKLTKSGKEDLKKLFKNLASHEIHPDLVLSSPAVRTAKTAKKIAKFYN

FDKNRICFDERLYLCNVENLLKILQDIDDEFNEVFLVGHNPSLMELGELLSSLCLASFPTSSILCLEFDI

KEFKNLKKHSGKLVFFEHVRKLKEEKDLGF

>AHK57173.1 RNA polymerase sigma factor RpoD [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNAKTQEAELEELFQENAKDYITYEKLVKYLTKQPSASTTKKVQALMKKHKVQLFSAAEIAQMKNIEDAK

RLQEEKQKLQDTSLENEFDLANENDLLEWSRSDSPVRMYLREMGQIALLNKDEEIEISKKIELGEDIIID

AFCSVPYLIDFILDYKEPLINRERRVKELFKSFDDEEKSDDKLDELDIDEDEENETELESDEENTKKNSK

KEDERTLKVIEKFKALEKAKKDWLKTSKDKESGDELLDKLSIAFKKNILKEKLMDLGPTSKLISEIVKSM

ETALKSDEEFDKELKRLEYRLPMFSDELKKRHADILKDITKLSKEEITERALETTMVSTYMEIKKLFQTK

EASEKSFDLEKSRLKEILEQIKRGKKISDEAKGRMAKSNLRLVVSIAKRYTNRGLPFLDLIQEGNIGLMK

AVDKFEYKRGYKFSTYATWWIRQAISRAIADQARTIRIPIHMIETINQINKIIREHLQKDGKEPDVSVIA

KEVGLSVDKVKQVIKITKEPISLEAPIGNEDDGKFGDFVEDRNSLSPMDHILKDDLKEQIDEVLDQLNDR

EKAVIRMRFGLMDDESDRTLEEIGKELNVTRERVRQIESSAIKKLKHPKVGRKLKNYIEGWK

>AHK57172.1 LysR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIKDIEIFLDLLNTQSPTHTANNFSITQPNVSIVIKNLENKFDGILFERLGKKLLPTPKALELGKNWLK

IIQAYYQSLEKLNDESMLLGEIKIASTQSISEHFLAPILFDFKAEFKNIEIRSQTQNSKECLNLLKNGNI

EFAIIEAELDPALVEYENLEINFWQDDELIVATSDKKLNEKEFYIDELLEQKWILREVGSGLRDKFLNEI

GASSKKLNIFLELDRMAAIKELVLQKKAISIFSKKSIEKELKNSTLYEIKLKNIDLKRKFYTLKRKNYNF

NRALEKFEKIFKS

>AHK57171.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTSFLAHSVAIVRSNFKGLLFTACIVIFAMYLSSVQSIKDTTHLAATAFAIIIGVLLSPWFFKYQHHFQ

AGVHFSAKKLLRLGIVLYGFNITLTELLSVGLKGFLLSAIVIFFVFIIALFVGTKIFKLDKETSMLVGAG

SAICGAAAVLALESSLKSDPFKGILAVGTVVIFGLVFMFLYPIAFSLNLFPFFDQNAMGVFMGATLHEVA

NVAGAAEMAKDMAGFEQGASNVAVIIKMMRVILLVPFLLIVTYFFAKNQHSSSGKTAKSITIPYFAFAFL

GMIVLNTYLASKESILGIATSDIISLGKTLCTLCIVFAMAALGLQIDFKKFLKSGSRVFGLAFVLGLVLI

FGGYFLTLAFKGILW

>AHK57170.1 hypothetical protein N918\_04970 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILVSVLSSCLLASALSAVSFKEDSLKISFEGYKTKDMIGTKGEFKNVEYKFSKNIKDLASYLKGAKA

TIKPSNAFMGEGNDIITNNITKVFFPALLGDTDIKVVFQDVIAGENKGVISAKITMDKKSTIVPLTYTIK

DNKFEAKGQLDLHTFKNGSKALKALSDVAAGHGGISWPLVDISFNADLAE

>AHK57169.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIFKDYDFLQNYDLKNFEEKVKIYKELLSKFNRIHNLTHLKNIDENIFDSIKILDFYDFSKAKNIADIGS

GAGFPVVFLAFLLQSNFHLFEPNPKKAAFLRTLKIECELPNLHIYKEKVQEYKNTFKADIITSRALMDVK

PLLEICKNLKDENTVFILWKGSEIYQELENIKDYEIFENNLRRYCILK

>AHK57168.1 GTP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEIKISEIANLPSKWGNFQMQSFKENDKEHLCIFKNTPKDTLNLRIHSECLTGDALGSLKCDCGEQLEFS

LKYIEKNGGMVIYLRQEGRGIGLFNKVNAYALQDKGFDTIKANHQLGFKADERTYEIVEFILKHYEISKV

NLLTNNPEKLDSIKEKIITRIPILIEPNRFNVEYLNIKQTQMGHLK

>AHK57167.1 delta-aminolevulinic acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFKRFRRLRLNENLRSMVRENSLSVNDLIYPLFVVNGTGIKKEISSMPDVFQMSLDEILKECQNVVNLGI

KAIILFGVLENEKKDSCGSDALDDEGLVARSIREIKKNFPDLFIISDLCFCEYTDHGHCGIIDPKIKSVD

NDATLEISAKQALVHARAGVDMIAPSGMMDGVITTLRKALDKEGFENLPIMAYSTKFASSYYGPFRDVAE

SAPSYGDRKSYQMDFANGKEALEESLEDEAQGADILMVKPALAYLDVVKEISLHSNLPLCIYNVSGEYAM

LKAAKNAGVIDYEKVLYETIIAFKRAGAKLIITYHAKELAKMLKGEK

>AHK57166.1 ornithine carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAMIFEKNSTRTRMAFELAITELGGKALFLSSN

DLQLSRGEPVKDTARVIGAMVDFVMMRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWNK

MQNGIAKVAFIGDSNNMCNSWLITAAILGFEISIAMPKNYKISPEIWEFAMKQALISGAKISLGYDKFEA

LKDKDVVITDTWVSMGEENEKERKIKEFEGFMIDEKAMSVANKDAILLHCLPAYRGYEVSEEIFEKHADV

IFEEARNRLYVVKALLCFLDNQRGRE

>AHK57165.1 hypothetical protein N918\_04945 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKELEKYSTCLKRIDEFSQNLGIKKKDRTIFKMKQSENENEKCLVLENGSFDSPEPWFVIDENDEIHTLL

SLQSLKNILESLKQSQKENFELRLEKAIYQQIPVDFNDVWTVAMDEIKQKAQNGTMEVSIDLEKLISKIK

QEHPNLFVDMQAMIERVNQNERL

>AHK57164.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRDYKAFVKYSKAGPRYTSYPTAVEFNANFKYEEYIEILKKQDRSLSLYFHLPFCRSACYFCGCNVIYTA

KEESKERYLTYIFKELDILSTILDTKREVVQMHFGGGTPTFFSAKQLQSLILKIRSVFGNFSKDAEISCE

IDPRFLNEEQAIVLTQNGFNRISFGVQDFDEKVQKEIHRIQSFELTQNALNLVRNKGIKSVNMDLIYGLP

YQNLQSFTQTLEKVMLLNPDRLAIFNYAHVPWLKKNMRKFDENTLPSPDVKLEILEFCEKFLSKNGYKMI

GMDHFAKENDELFKALENGTLHRNFQGYTTKGGADLVGVGLTSIGEGQRHYAQNFKDMSSYEAALDRGVL

PFERGVILSDDDELRKAVIMELMANFKLDIKSIEKEFSIDFKEYFKEDLKALEEYKDFVNFDENFIKVNE

TGVLLIRNIAMCFDAYMKNISEDKKVFSKTV

>AHK57163.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFSQISDACVKCGKCIPVCTIHEENRDEITSPRGFLDLLTAYKEGSLELDKEAKKVFESCFLCTNCVEV

CPSKLRVDNAIEEVRYDIAKKFGIAWYKKLIFFFLRRRKILDLVAKLGYVFQSCAFKIQNENENTGMKAR

FSMPFVKKGRLLTSFNKKSFLNSNPKFINNDGEKTIGFFVGCLANYFYIDTANAVLKITKELKINVDLMK

EQVCCGAPQFFTGDFKSVEVLAKKNIEYFEKKLEKLDAIIVPEATCSAMLKIDYEHFFIMQNDLDWAKRA

KCVSSKIYMASEYFYKFTSLEEILKTKNKFNYSITYHDPCHARKMQGVFKEPRELLKTNYHFVEMSNSNT

CCGFGGVSMQTDYYDRALSVGLKKAQMIDESKASVVSAECSACRMQISNALEQNSSKVVFASPLELIAKA

L

>AHK57162.1 hypothetical protein N918\_04930 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMKIVFKGKSSEYEIQRSCFCVDAFVIKDKIEERDGVDFITSNVDLLEFSDDSFTFEEIVKHFNICDTED

MIIVEDFDMKSNKDNQNQEDDIEHNILKSEKIIHENTKQTSMQFKNLKFFSRIFKNENFLSDFKESKQEV

VTIKKHEKLEIFKNLSQEDQEISFVKIEILNYDSNEDSLSFNLDIFPSGMSYKYGILKGSMHIILQGKTS

STMLFPFLKSMIYKNKSENSSEKIFTLMINQKKHYKLIANLS

>AHK57161.1 hypothetical protein N918\_04925 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEFLAFIFLIIIFLFVVFIIVTRYEKKIKLLNQNIQNMKEDIADLKETTQKNRSLIEKNRSNIENIIK

>AHK57160.1 peptidase M20 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLIPEILDLQGEFEKIRHQIHENPELGFDELCTAKLVAQKLKEFGYEVYEEIGKTGVVGVLKKGNSDKK

IGLRADMDALPLQECTNLPYKSKKENVMHACGHDGHTTSLLLAAKYLASQNFNGALNLYFQPAEEGLGGA

KAMIEDGLFEKFDSDYVFGWHNMPFGSDKKFYLKKGAMMASSDSYSIEVIGRGGHGSAPEKAKDPIYAAS

LLIVALQSIVSRNVDPQNSAVVSIGAFNAGHAFNIIPDIATIKMSVRALDNETRKLTEEKIYKICKGIAQ

ANDIEIKINKNVVAPVTMNNDEAVDFASEVAKELFGEKNCEFNHRPLMASEDFGFFCEMKKCAYAFLENE

NDIYLHNSSYVFNDKLLARAASYYAKLALKYLK

>AHK57159.1 hypothetical protein N918\_04900 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKILFSPSESKNENCVKNPINENSFIFKELFPYRMEALKHYEEFIKNASLQNLQELFGIKNENEIDKFKH

DLKQAPTQEAILLYTGVSYEYLNFKALDKKSQAYILENTLIFSNLFGIVRANDTLPFYKFKQGAKIGNFA

IEKFYKEHFSKALDEYLENEEILDLRAGFYDKFYTPKKKFYTYKFVKNGKVISHFAKAYRGILLSISAKN

QVKNNKELLANLPSNLKLKEIQIKGLKEEIVLEILD

>AHK57158.1 hypothetical protein N918\_04895 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKGIFLSIGIAVLFSACGNSIDEKTVKKYENQLNQTVKQEIASLSQDSGIKIEFSDFKCNADGDFIACL

SPNFKTLTKDNNDEYQELFQAKNIKIRSNEIYKGKANASISIKEYYNDLFKNQKSIQSNLVFEDFKLGEK

VVSDINASLFQQDPKISSFINKLSSDSYTLSFDNSINKQENNYLDNLDIKFYNAKLNFNTNLNINLKEDL

LNYLDSKGIKFNTQTLVMDKQAINELLNIANYEQASDFSNTIQKYIILNNFKIDSTLKTEGVFSSYIATA

KENLQTLKAQSQNEEQALIFDKALAILNNITQNDDYKLNLDLKFKNIPVSDYSTQGIDSIEKLSINNQDA

TEALKIILPFIMFSMLMGGASF

>AHK57157.1 glutamine ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILLSVLTAFVAVVLAACGGNSDSKTLNSLDKIKQNGVVRIGVFGDKPPFGYVDEKGNNQGYDIALAK

RIAKELFGDENKVQFVLVEAANRVEFLKSNKVDIILANFTQTPQRAEQVDFCSPYMKVALGVAVPKDSNI

TSVEDLKDKTLLLNKGTTADAYFTQNYPNIKTLKYDQNTETFAALMDKRGDALSHDNTLLFAWVKDHPDF

KMGIKELGNKDVIAPAVKKGDKELKEFIDNLIIKLGQEQFFHKAYDETLKAHFGDDVKADDVVIEGGKI

>AHK57156.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKKYKNIIYASLGGILEFYDFVLFAFFLDIFAKVFFPQNDAFWMQINAYIAFGAAYLARPFGSIVMAHF

ADRYGRKNIFYISMLLMVLPSFALAFLPSYESIGIFATLILFTIRILQGLAVGTEVSGAWIYVSEFVKGR

QIPLALGFISATLTIGLLLGNIATLGIRSYFTPEEVQSYAWRIPFIIGGFFGILALFLRNKLSETPEFIK

VQNEKKILSFPLFEALKTHKMSMLVCFLMTMVLTSGVATLMILPKYFESLLAMSKTSALWVQNFAILAVI

FGALFQGFLASKWGSYKICSIFSIAFIIFGMLFGFYDENFLFYFLLACFAQGIITFAPVFMTQIFKSELK

FSGLSFAYNISYAILGFLTPFIVNAFYKEYLGIYLAIVGSCSLLCVFLLKRVFARSKIKELSIVF

>AHK57155.1 aminoacyl-histidine dipeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNVIENFKQLCKIPHCSYETEQMKEFLSSYAKDKGFKVSVDKAGNIHAIKGKPKICLQSHYDMVCMGDA

PNLEVYEENGFLRAKNSSLGADNGIGIAIMMSAMAEFENLECLFTNDEEVGLMGVNLLEHTLESKMLLNL

DHESDDEIMIGCAGGVDIEASLSFNTLRKKGKIYELCAQNFKGGHSGINIIRNEKSSIKEMAKFIQENEG

EIISFEGGERINSIPKHAKALVHFKDEVKSNNWIKCEFKEENEFEICDQSKKLLSLINSFTHGVRAYDEN

LDIVQTSINLATLRMQDNQIKFALFARSNILDGLKQVEFETLEFFKAFDFKIRSFNFYPPWEGKPNALSD

MVFKALKKVSPNAKVSAIHAGLECGIIEKKQELLCASIGPNIHNPHSTDEHCEIASVEKISKVVFEVLKD

NA

>AHK57154.1 nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRINYKKIFNLRKLLSDPKKLFSVLIFTLVVVFIQNYIAQNSSFEGKVVRIIDGDTIEVNHENKLARIRF

FGIDAPELKQSFGKQSKEALSRILSGKQVEIIYKNKDTYGRIVAIVKLNDVDINRFLVSKGYAWADTYYS

NAYTKEQENAKKNHLGLWKESNPIEPYKWRKHNKF

>AHK57153.1 hypothetical protein N918\_04870 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKYTLMVLLVLGISGCFVNERGISNRFYDDCKEYYDGSGTYHKDCPKNWVDIKMTP

>AHK57152.1 Hot dog fold protein HP0420 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKKDNFEEYAQLEEYASAEDISRVRAELLTCPELNTSLAGTIIEIDKNYAKSILITTSEMVADDQGLIF

DAFIFAAANYVAQASINKEFSVIIGSKCFFYAPLKLGDVLELEAHALFDETSKKRDVKVVGHVKEVKMFE

GTIQVVSTDEHIFKLKRPPLNTVKPTENQEQGAKINNPEAVAAALMASVGGK

>AHK57151.1 tRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQENLLEKQFLNHPLYAKIQELKALNLACNFSLGDSVNLSTNSQAKDEILAIAKELKPWRKGPFKIDDLF

IDTEWQSFIKFNILKPFMNEISQKCVADIGCNNGYYMFKMLEFNPAKLIGFDPSIKYRLQFELINALAKT

PIKYELLGVEDLPSYSLKFDVIFCLGVIYHRSDPIKMLKDLKAGLNKNGVVFLDTMYIEDEREIALVPNK

TYSKIPNIYFVPSISALKNWCERAGFKEFEVLATKKTDENEQRKTEWIDSFSLENFLDPKDKNLTIEGYE

APKRVYIRIKI

>AHK57150.1 acyl-CoA thioester hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKMRVYYEDTDAGGVVYHSNYLKFCERARSEIFFNKKVDIFDASKGHFLLAKANCNFLKPAKLGDMIEIK

TKILEVKNASVEILQEIYKDEILLFKMELTLAFIKNEKPARMDMQLKKLFEELF

>AHK57149.1 hypothetical protein N918\_04810 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIFLIFFLSCFLLNAKEQKLVDVKPVENFYPKLSVQECNTNCLFDLLESRLYLSFLSEFADQNDQFLS

NVYAKLLNSITDFEKNVQKITSVKLAIIIPEKTIKSYSNTIINSSIAYLLRQRAEIKVKVFLTGTEDNDK

IRAALDAAQAQGYQYAIAGFTLKGANELKNYSGNMKIFIPTIHKNNIQISNQNIIFGSIDYDAQIATLLS

KSNANIAIFSDGSALSSNLNSRILAQNNNARIYTIEGEKLDFSRLLRSQGGVNNASIFFNTPLIKTALAS

SQLRIYNIHPYVLLSTQINYNPTFLSLTQQGDRENFIIANSINNHDDNLVYLNEIFNQSIDYNWIAYATS

IGVDYFYTEFLNKKSESLFDEKIKNSQVDYKVRLMQGKQASFEELK

>AHK57148.1 family 4 uracil-DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIRSLYYLKAMGFNFVDTHTNHFEQVQNFQELKQLVSSCTLCQFSKTRKFSLMEPKIKNAKLLILDVFGQ

KSENESGILLNSKKGEKLKHYIYQILGLCDEDFYFSYLFKCFCNGKFDDFSLQSCLPFFWNELKLIQPAF

LLCLGEYTFKSLGFKDYHILKGEVFAYKNFFIMPSYDLDFIEKNPSYEKNFIQDLKKIKGFL

>AHK57147.1 diadenosine tetraphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSEFKIIDLRQEDLDILQEMIIEFAKYEDMLDFLQCTKEKLEHSLLKNKFARAFLLKENEKTIGYMIYFY

TFSSFWGSGGIYLEDIYIREDFRKKGYGKAVFKFLGEICKKENLKRLDWVCLNDNILGINFYESLNAKHL

KQWRNYRLSGENLEKLCDL

>AHK57146.1 50S ribosomal protein L34 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKRTYQPHGTPRKRTHGFRVRMKTKNGRKVINARRAKGRKRLAV

>AHK57145.1 ribonuclease P [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNFDKFSTNEEFSSVYKVGKKWHCEGVIIFYLNSYEKKIAVVASKKVGKAVVRNRSKRILRALFAKFER

YLQDGKYIFVAKNEITELSFSRLEKNLKWGLKKLECFK

>AHK57144.1 membrane protein insertion efficiency factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGIEKTRMFQMICLKILRFYQKFLSPLKPAACRYYPSCSEYALWQFQKKNFFLAFFSTFFRILRCNPFFK

GGFDYPRVSKNFYPINLCFKPIFLAEKQLCFLYIPYKNKSFYLIKIIFKRTNQ

>AHK57143.1 insertase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNNSNNIFQQKRILLAVVISFLFFVIYDYFFIPKQPLKIEQNITQKNQQNTSINNTPNIQNATTNTPSAA

LVSQDSVISKVQSKHFEAQIDSFGRISAFYLKDRKYQNEKGEFINLVSKENSPYPLEMRFSDPSINSEAF

KIPYVANASNLFVDENGSQVLKLTQNLSGLKIEKDITFYPKGNYEIEVKLSKNANYFISPGYRPNIAVDS

YTVHGALVMDNKETIETYKDGDVEKDESANNVVMTSAFDRYYATFFYNFDKPLNVAISKDANQNPIVFAY

SDNEFKAGGYIGSKEHVILRSIDPRLEAVVEYGWFTFIAKPMFEFLNFLHQYIGNWGWAIVVMTLIVRII

LFPLTYKSMISMNKLKDLAPKMKDIRERYKGDPQKMNMHMMELYKKHGANPMSGCLPILLQIPIFFAIYR

VLLNAIELKAAPWAFWIHDLSVMDPYFILPILMGATMFLQQLITPMTIQDPMQAKIMKFLPVIFTFFFIT

FPAGLTLYWFVNNLCSLVQQWVINKIFAKEHHKKTSGA

>AHK57142.1 hypothetical protein N918\_04775 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIEAIDLQSALTEASRSLECSVMDLEYEIIQHPRKGFFGFGRKKAIIEAKAKKRILKKNPKKEFTSSKN

HKPETHEPKQENKIEIKNEKNKSQKEKYTVKSDEIFDSFHRESKGVRNTQDILDEIRIQLVKLLESSQFK

IELSELRMYDEDCVLIRLDGEDAALMIGKEAHRYKAISYLLHNWINLKYNLLVRLEIAQFLENQIQGMQL

YLQSVIEKIKIHGRGQTKPLDGVLIKIALEQLRAEFPDKYVGIKQNNDQRFVVINDFFKKDE

>AHK57141.1 tRNA modification GTPase TrmE [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSDTIAAIATAHGVGSISIVRLSGERALEFALKLSHKTKLTPRHATFTKLFNQNNEIIDEAIMIYFKAPY

SFTGEDIVEFQTHGGFSVSEVLLEELVSLGARLALAGEFSKRACLNGKMTPLKALNIQDLILSKSALAAK

IIARNMQGNLGELLEKIRTDLVKTLAFVETSIDYADDDLPSDLLEQISTMCEENSKILKEIYTLSQSKKG

LIEGFKIAIVGKPNVGKSSLLNALLSYERAIVSDIAGTTRDTIEENFKLGTHLLRIIDTAGIRESKDVIE

QIGVALSKKSLEDADIILAVFDASRVQDKEDEKIFDLLANTDKKIFWILNKSDLENVFKNTQNKNFIKLS

AQKDITLLKEELQNYLNSFDSEGIMVSSLDLINACKISSEAIFRAKGLLEESSLEFFAFELNLAINELAR

FTKDFQRDEILDEMFGNFCLGK

>AHK57140.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDKETIKAHKISDEEYAQILEILGREPNLLELGVISAMWSEHCSYKSSKKYLNGFPTKAPWVIQGPGENA

GVIDIGQGMAAVFKVESHNHPSFIEPFAGAATGVGGILRDVFTMGARVVAGLNSLKFGDIHDEKCGKHQK

YLVKGVVNGISHYGNCMGVPTIGGECAFDECFNGNILVNAFALGVCKSEDIFYAKAEGVGNPVIYVGSKT

GRDGLGGAVMASDSFNEESKSLRPTVQIGDPFSEKLLMEACLELFKTDYIVGIQDMGAAGLTSSSFEMAG

RSGSGMKLYLDKTPMRESGMTPYELMLSESQERMLICAKKGYEDKVIEIFKKWDLDAVVMGEVTNTGKME

LFWHDELVGLIPIEPLSEKAPILSRPTSEPKYLSEIKNYKFELKSSVQELFIQMLQNENINNKAFIYDQF

DSSVQTNTIKADGRLGASVIRIKENGASVAMAIECNSRLNYVNSKIGAALAVASAGRKVACTGAKPLAIS

DCLNYGNPQNPEVMWQFAQGCEGIKEACKELNTPVVSGNVSLYNETEGVSIYPSPTIVSVGVLEDANKTL

KASFEKENLSVYLLGESLGEFSGSMVMKIQDKKVSGSLKELDYKAELALWDLLYKANQNSLLECANSVGI

GGIAMTLAKMFAISSVGANLTSDFDDEKMIFDESASRAIIGLSKENEEAFLNLAKEFGVKAYKLGVSTSQ

KHFKLDSIELSKAELDKLYFESFKEQIQ

>AHK57139.1 molecular chaperone DnaJ [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTLVLIILVVLVFYWYYKTWGKQDFLNSATRGAKGFAKGFARGVMEERMDEFKRRMNYYVIALLAKIAKS

DGRVSENEAEMIKDLLDANAKDEKERAFLKASFNEHKENLSDAFYVAKDFLKEVPLPKNERFNVLRVLVF

MALIDADFNAKKREILEQIAKAFDIAKSELDAFIASLSNLKSTKKELSLDEAFAILELPNNADLNAVKKQ

YRNLAKKYHPDILNANNVSEEELKIGVEKFQKINEAYEKVKKHLER

>AHK57138.1 phosphoribosylaminoimidazolecarboxamide formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRALLSVSDKEGIVEFGKELENLGFEILSTGGTFKLLKENGIKVIEVSDFTKSPELFEGRVKTLHPKIHG

GILHKRSDENHIKQAKENEILGIDLVCVNLYPFKKTTIMSDDFDEIIENIDIGGPAMIRSAAKNYKDVMV

LCDPLDYEKVIETLKKGQNDENFRLNLMIKAYEHTANYDAYIANYMNERFNGGFGASKFIVGQKVFDTKY

GENPHQKGALYEFDAFFSANFKALKGEASFNNLTDINAALNLASSFDKAPAIAIVKHGNPCGFAIKENLV

QSYIHALKCDSVSAYGGVVAINGTLDEALANKINEIYVEVIIAANVDEKALAVFEGKKRIKIFTQESPFL

IRSFDKYDFKHIDGGFVYQNSDEVGEDELKNAKLMSQREASKEELKDLEIAMKIAAFTKSNNVVYVKNGA

MVAIGMGMTSRIDAAKAAIAKAKEMGLDLQGCVLASEAFFPFRDSIDEASKVGVKAIVEPGGSIRDDEVV

KAADEYGMALYFTGVRHFLH

>AHK57137.1 hypothetical protein N918\_04740 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKMLQIALAATFFAGCASTSLTSSTSKGNNELVQNQLFKIEKIIVNGKTFDPKNAEESPNISFENNKFY

GYSGCNRFFGSYQTKADTLQIEGDRVASTQMLCHPMDVMDFENSFLSNFKGTFKISNENGKLVLSNDEMK

IFFK

>AHK57136.1 agmatine deiminase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKSIPEWSEQEYLMLSLPHEKSDWNPYLEEILQSYKEFVKVVSEFQKVLLIAPKQSDFENFKDIKNVEF

FKCDTNDTWIRDFGAIDIVENGRLKALDFTFNAWGNKFQSELDNAVNSKLFKEKFKEELKKVDFILEGGS

IDFNGEGVMLTSSHCLLNENRNSHLNKTQIDTKLKEIFGLKQIIWLENGFIKGDDTDHHIDTLARFIDKN

TIAHCICEDEEDEHYLPLQKMKEELKKTGFDLLELPIPKPLYYEERRLGATYANFVFINNALIVPFYKDK

NDEIIAKRLSKALPNHKIIGVDARVFLRQNGSLHCSCQNRFKGLR

>AHK57135.1 cation transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSLQKKATLVASLCAIVLALVKFIVGLTSGSVAVLSSAIDSLMDFAISAFNFLALKKSSQKANENYNFGF

SKIEALMGLLEGVFIVGVGIFIFYESILKIYYKEEIKDLNSSIYVMIFALIMTFFLVLFLNYVAKKTKSL

IIESDALHYKTDCLTNACTLGALVLIYFTNLHIIDAIFGIVISLYTAFSAFKIIKKALAFLMDEALPKEQ

VDKICTLISNNPEIISYHELKTRKTPSCNYLSVHLVFCPIISLLNAHKISDEIEEGVRKMFENEKWDIQI

HLDPYDDAEQERQRQ

>AHK57134.1 apolipoprotein acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIALIQQKFHLNKEQTIKKTCEFIEEASKQGAELVCLGELHQSEYFCQSENVDFFDYANDYEKDVKFWA

NIARKNQIVLIASLFEKRSAGLYHNTAVVFEKDGSIAGKYRKMHIPDDPCFYEKFYFTPGDLGFEPINTS

LGKLGVLICWDQWYPEAARIMALKGAEILIYPTAIGWFDKDKDEEKQRQLNAWLGVQKGHAIANGLYVVA

INRVGFEKDVSGVEEGIRFWGNSFVFGPQGEELCLLDSQNECVKIIEIDKKRSENVRRWWPFLRDRRIEY

FTDLTKRFID

>AHK57133.1 hypothetical protein N918\_04720 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKSCLYFTFIVLFLTACSTKNLTSLHRENLEQKNENQHYVKLEYEQNVNILPQFAYDINFDAKRYKKYFF

NPWHDSFKNYKGQNIFWSFPLYLNSKNTYYFFNKQIIPLSWFKNAINNANIQEFGKLNQKALIIQNTIIK

NLPTQRAILKNPFFENEGIPFDYASDGILNTGAPVLISHFSKDKRYAFVLGEAGFGFVESKNLEFFSNDR

AKIYENLNFITPLKEKFAIYSEDGKFLFESRIGAIYPYYKEDKNYFYGKIGSKKYKISKKDVSKFPLQFN

DKNLKNQLSQVLNLPYGWGGYNFERDCSLLTRDIFSAFGLYLPRNSAAQKNSFNHFDISTLSNSQKKDFL

NRFGKAYLSLLYLPGHIMLYAGQITDNNIAIHNIWGLRKDATQRLLISSSVITSLEIGKNEILEDNLLLS

RLKEISFINLNEQEKEQIKSYLENIQNK

>AHK57132.1 helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFDKLEKILAYDNVFLSGGAGVGKSFLTNELIKSYRKQKKLAIALGSSALSAFNIGGVTLHSFFCLGYCD

DMMKLSVLDRNQKQKEKLTKLKELLKTIELIIIDEISMVSANVFEMIGFRLKNSQFNGKILVVGDFFQLP

PVIKEKKETLFNHSYYAFSSFFWQDLNFKNIKLSQPKRTQNMEFYNHLSLIRQGFLDEKILSFFESLRID

YKELENLEDDYTLLCGINKKVNNINQEKLSKLETPLVCFKAQVKKEDKRIKDEELDSWIRSLNILEELNI

KIGARIIFCVNNWDKNYYNGEQGIIEDILYEEEKIYISIIKNNGMKILLEPYTFFMEELEQSGKDFVVNI

LASVTQFPIKLAYAITIHKSQGMSIEKLVCDIDHIFENGQLYVALSRATNPNTLKIYSTKKINFGFYFAN

ILKIDSNVIEFYKKHNFLDLEIQEQII

>AHK57131.1 hypothetical protein N918\_04710 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIFLSVFLVLSLNAQNLEIDKIRTDLYSKSGANVLKKVEISLEFDGNNLKENENKLIDAVNTVISGFF

YEDIFTEIGKNNFKKTLEKFLDKKYKIKLDDIYIISLSGVEKFDLEEFKRFLESTEAKEKGMGSEVKKAL

ENLEVPKTQVPSVEKIPTPSVPNLEVKQVEQLFKDPDEENKNDNGEINIDNLNTPKMTPDIEEKIKRDLI

ANPPQIFKENNASKPYHLPQTGYDIKLDENSTQN

>AHK57130.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKTFLIFFIFIGQLFALDLNFNTFSSNFTQIVKSKNSTLSYSGHFILSKDQAYWSYDTPSKKEIYINKN

QVTIVEHDLEQVIFSHLDNIPNLNEIFKKASLIDKDKLVAKYDNINYTIKLNQEQIQSISYKDEFENDVI

INLNNQIKNPKINSDVFKAKIPQNYDIVR

>AHK57129.1 preprotein translocase subunit SecA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFLNALKAVFGTKNDREVKKYFKRVAQINALEGNYQNLSDDELKAEFAKFKEQILSGEKNENDVLNDVFA

IVRETGKRTLNMRHFDVQLIGGMVLHDGKIAEMKTGEGKTLVATLPVVLNAMSGKGVHVVTVNDYLAKRD

AEQMSAIYNFLGFSVGVVLSSQNSDIEHKQAYDCDITYGTNNEFGFDYLRDNMKFSKAEKVQREHNFVIV

DEVDSILIDEARTPLIISGPTNRTLDGYIKANEVAKQMQKGEAVLPPAKPEGDFVVDEKNRNILITEAGI

AKAEKLFGVENLYSLDNAILAHQLDQALKAHNLFEKDVHYVLRNNEVIIVDEFTGRLSEGRRFSEGLHQA

LEAKENVKIQEESQTLADITFQNYFRMYNKLAGMTGTAQTEATEFSQIYSLDVISIPTNIPIKRQDKDDL

IYKTQNEKFKAVIEEIKKANAKGQPVLVGTASIERSEVFHNMLVKEKIPHHVLNAKNHEQEALIIQDAGK

KGAVTIATNMAGRGVDIKIDDEIRALGGLYIIGTERHESRRIDNQLRGRAGRQGDPGISRFYLSLEDNLL

RIFGGDRIKSIMDRLGIEEGESIESRIVTRAVENAQKKVESLHFESRKHLLEYDDVANEQRKTIYRYRNE

LLDENYDIRAKISQNIAEYSANVMNDYMLDESGSNVNFENLKAKILYECSTQISEKDFENLSVIEMQDKL

SQILENSYNEKMLRLEIKELRNIERILYLQVLDNAWREHLYQMDILKTGIGLRGYNQKDPLVEYKKESYN

LFLELVNRIKFDSIKLLFSVQFNQEEAQNLENKANEENEKLLQSSVEMGASEDNLGEAEFKKVPRNAPCP

CGSGKKFKECHGKSGPKQGILA

>AHK57128.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKSVLKYLLFKYLRFDKEQPFINLSMLLAFLGVCVGLCVLLVAMAIMNGFDKEFEKRFFVMNYPITILP

KFYAPVNDEFIDELRKTFPNLLFSPYLSTQVVVKGDNRFEGGVLFGVNFNDEKKINEVVAKALKDENLSG

FDILVGSALTDEFGLHKNDKLSLIFSNLNPSGFSLVPQTKRFDVKARFTSGLAFYDKAYMYTDVDALKKV

LGIPKNPNYDGIHVYSDNAFKDVEKIKSYLKDDYAVVGWWEQNKNFFSALELEKRALFIVLMLIILVASL

NIVSSLLMIVMNRRSEIALLLALGASKNEVKKSFFALGMLIGGGGMIVGVVLAFFALWLLGNFDIVTLPV

DVYGTSKLPLDLSLMDFSLTIVGALIIIALSSFYPAKKATQINILDTLRNE

>AHK57127.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSLFTQKNKNFKPLKPLSKSKIITNLILLILFLILFCYCSFSISAYHFDFSAIATYKEKFLQGFLNTLII

SFFSLLLSIILGGVFCAFSLSSIVFLRFLSTFYIELVRGTPLLVQVLLIYYIIANNLGLDNRYVAGVIIL

SCFSAAYLAEIFRAGILSISISQLESARALGLKEMQVFAYVIFPQALKNILAPLSGQFANLIKDSSLLSV

IAVNELTQSAQEINSYTFATLEAYVILAITYLVLTLPISIFSRYLERKCQK

>AHK57126.1 hypothetical protein N918\_04650 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLIIGHKLLKNLDFSFIESVEEVKDNKVYCIVYDEKLISYLSQNDFEFAILVQNKDEIFLANALGAKFLL

CNDKKLAKFASKVAEFYVFDSRVLMIVDKLENFKKFYKLKIDGIILKDNIDNFPKN

>AHK57125.1 2-acyl-glycerophospho-ethanolamine acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKKSFLKIYGLIPFLLIAFINAFVDLGHKIIIQNTIYKAYEGSEQLFLNAIVNALILLPFILMLSPSGF

LADKYPKNIVMKISAIFNVILTLIICICYYSGAFWMAFIFTFIMGAQAAIYSPSKYGFIKELVGKDFLAM

GNGVINAVSIVAILAGMALFSLSFESLYSSMYNQTDEILKEVAPLGIVLILFSCIEVFFAWRLPKLKQTN

KDLVFNKKDYIRGKLLINNLKLVFKNKTIWLCIIGISFFWAISQLYLVSFPVFAKNELFIENTFYVQISL

AFSGIGVILGSLVAGKFSKNYIELGFIPLGALGMFLMAFLMPYFISLLSYSFLFFFFGFCGALFIIPLNT

LIQFHAKENELGQILAGNNFFQNIAMLGFLLLATLFVKFEINVIYLFYFIALVTFIGSFYILLKLPFSLV

RILLSIAFLQRYRLLVEGFENIPEKGGALLLGNHISFIDWAVVQMAIPRKIYFVMERSIYSKWYIKIFLD

KFGIIPVSSTGSKTSLELIAKHIKEGNLVCLFPEGTLSRHGQLNEFKAGFELACECLSEDDGKIIPFYIR

GLWGSAFSRSDEEFSARNRTLNKRKIAIAFGKAMPLHSKKDEVKAKVFELSFMAWKSQCEAMHTIARAWI

DTAKKNLNQIAIIDTLAGDISYRKMLTLSLFLNFFIKRKSKELNINLQRGSYAPKEEAIGILLPASFASS

LTNLSVLIAEKIAVNLNFTAGEKALKAAIKNAQISQIYTSKTFLEKLANKGINLNFDTNIHLIYFEDIVE

DFKMQKTKIFSMMLAVSIIPSFILKSIFTPSKNNLAIAAILFSSGSEGSPKGVMLNNRNILSNIAQISDV

LCTRNNDVILSSLPPFHAFGLTVTTFLPLLEGIKSITFSDPTDALGVAKAVAKNNVTIMCGTSTFLGIYA

RNKKLDALMFESLRIVVSGAEKLKNEVRTTFEMKFKKSIFEGYGATETTPVASVNLPNHFDVDYWLIHRA

NKEGSVGMPLPGTAVRIVDPNNYENLKTNEDGLILIGGHQVMVGYLNDKEKTDEVVKEIDGIRWYNTGDK

GHLDEDGFLYIVDRYSRFAKIGGEMISLGAIEEEIAKFIDTEVVKFCATSLEDEKKEEQIVLLIECNNEI

FEGVCEAIKNSNIPTLFKPRYYFQIEKIPLLGSGKVDLKKVKELAKNLAI

>AHK57124.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFVFIPLFTIFILLAGGYFAKRIGVLKQKQARTFLDFAIIFALPCLIFDKAYHLNFDFSLIIFIFIGLFS

CILAAFFAILIGKVFHFSKVTLVSMFLLSCFGNTIFVGMPIVAGIFNDPQFSAEVIFYDALATTLPISLF

GPFILSLGNGEKVSLLANVKKILSFPPFLALLFGFLCKLITLPEFIFSPIRLFGASATPVALFAIGLGLG

FMAIKTSYKPTIVVIFAKMILAPLFFVFCLKIFNLELKDSTIVAIIESAAPTMTLAGAMVMKAKLDSNLA

VSAVAFGVLFAFVSMPILIWTLL

>AHK57123.1 F0F1 ATP synthase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKVLFLLLACTAVAFAAETNAPVEQEAINVWIKAFSVLAAGLGLGVAALGGAIGMGNTAAATIAGTARN

PGLGPKLMTTMFIALAMIEAQVIYALVIALIALYANPFIVLQ

>AHK57122.1 biotin attachment protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKKFIDVMDTSFRDGFQSVYGARVLMDDFFPAVEAAKEAGITHFEFGGGARFQSLYFYLNEDAFTMMDR

FRAIVGKDANLQTLARGVNTVTLDTGSSELIDLHAKLFAKHGTTTIRNFDALNDINNLKFSGECIAKHGL

KHEIAITLMDLPPNCKGAHDVPFYEKILKEILAAEIPFHSICFKDASGTSNPNKIYETIKMARKILPQDM

HIRLHTHETAGVSIACYLAALEAGVDGIDLAAAPVSGGTSQPDILTMMHALKGKDYDLGGLEEEKILKYE

EVLKDCLKEYFLPPEATMVNPLIPFSPMPGGALTANTQMMRDNNILDKFPQVIHAMREVVEKGGFGTSVT

PVSQFYFQQAFNNVMFGSWKKIAEGYGKMVLGYFGKTPVAPDANIIELASKQLNLEPTTELAINIADKDE

SKSIAYTKTLLEKEGIETSEENIFVAAACKEKGIAFLKGEAKVNIRKLASMPKPMSADENKFTVAVNGNK

YHVEVSYGFDKDVNVKSVKKVEENKNIISSNSTSSVDAENEVLAGISGNVFKIYVNEGEEVKSGQAIMVL

EAMKMEIEVNAPKDGIILELCIKIGDTVNEGEVLAIYKN

>AHK57121.1 phosphoenolpyruvate carboxykinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKFDKLGLDNIKEIFHNLSYDELNAHEKANNEGLSTDNDTFCVDTGIFTGRSPKDKYFVKQDPSSKYIA

WGKVNQPITKELFDKLLTKAKQELSGKKIYVQDVFCGASLQSRKAVRFVTEIAWQAHFVKNMFIRPSQEE

LENFKADFIVYNACKCINEDYKQDGLNSEVFVIFNVEENIAVIGGTWYGGEMKKGIFSMMNYWLPLENKL

SMHCSANVGEKDDVALFFGLSGTGKTTLSTDPKRRLIGDDEHGWDDEGVFNFEGGCYAKTINLDPEHEPE

IYGAIKRNALLENVVLRADKSVDYADASKTENTRVSYPIEHIENHEPSLKAGHPKNIIFLSADAFGILPP

VSKLSKEQAMYYFLSGYTAKVAGTERGITEPQATFSACFGEPFMPLHPTVYARLLGEKIEKHEVNVYLVN

TGWSGGSYGVGKRMSIKATRACINAILDGSITKCEFENFEVFDLAIPKALEGVESVLLNPINTWLDKNAY

IATRDKLAHMFIQNFKRYEDVKEGIEFSKFGPKI

>AHK57120.1 argininosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNEMWSGRFSGASDELLKEFNASLNVDKTLFNEDIQGSIAHATMLESCGILKKEELDAIIKGLEQVRSE

IEQGKFIFDIKDEDIHMAVEKRLSEIIGSEIGGRLHTARSRNDQVATDFKLFVKKSHIELIKLLKELIQT

MLEHAKVHKKTIMPSFTHLQHAQPVSFSFYILAYAFMLMRDIKRLQNSLELADFSPLGSCACAGTSYAIN

RELSAKILGFKDIMPNAMDGVSDRDFALDLLYDIAVIFTHTSRLCEEMILFSSSEFSFITISDSFSTGSS

IMPQKKNPDVCELIRGKTGRVYGNLISLLTIMKALPLAYNKDMQEDKEGIFDSVKTAKDSLIILNAMLKE

IQINKENMLNACKKGHLLATDLADYLVREKNIPFRKAHFIVGNVVAQAEAQGIDISEIKDLSKIDPVFDE

KAMELLNFEFSLNSKQSEGSSSIASVEKQIQILEGFIQNL

>AHK57119.1 GTP-binding protein YchF [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSLSVGIVGLPNVGKSTTFNALTKAQNAQSANYPFCTIEPNKAMVEVPDLRLNELAKIVKPERIMHSLIE

FVDIAGLVKGASKGEGLGNKFLSNIRETEVILHIVRCFDEENITHVEGGVDPLRDVEIINTELILADIEQ

LSKKIEKLTKEAKANQKGAKESLELANSLLDHLNKGLAASSYPEKESEIYQALIKELRLLSAKEVIYGAN

VDENGISEDNDYVKALKEYAKKNDHEVIKLCAKIEEELVGLSDEESHEFLSSLGVNESGLDQIIRTAFAK

LGLISYFTAGVVEVRSWTIKKGWKAPKAASVIHNDFEKGFIKAEVISYEDYIQYKGENGAKEAGKLRLEG

KDYIVLDGDVMHFKFNV

>AHK57118.1 aminopeptidase A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFELNDKKLDAIKADFELVFIQDKNLKIFNKEKDFFKLNNYKGEGALLDLNNKKLYLELKSLAYEDIRL

SLCTAYKTLEKLNIKSVKLPSIIGDCVVRSFASLVEGVLFGAYKFDKYKSEKKTSTLEKFIISNEELNGK

KFNKDEAKIGLERGEILANATNFTKNIVNEIPEIYTPLKMAEDAQNLAKENKNIICKIYDEKFLAKEKMN

AFLAVNHASVHPPRLIHLSYKAKNAKKRVVFVGKGLTYDSGGLSLKPADFMLTMKADKSGAAAAMGIIKA

VAELALDLEVHCILGATENMIGGNAYKPDDVLISREGVSIEVRNTDAEGRLVLADCLSFAQDLKPDLLID

MATLTGACVVGLGEFTSAIMGNNEELQNDFYLSSKKSGEYTTILHFNPHLRELIKSNIADVSNTASSRYG

GAITAGLFLDKFIRKEYKDKWLHLDIAGPAYTEKSWGYSSFGAGGAGVRMCVNYLIQILRKAK

>AHK57117.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEEFLKNLLYQYKDLAYIIIFLWCILEGELALILAGIFAHQGHVNLGFVIFIAGLGGFVGDQIYFYIGRY

NKCYIQKKLKTQRRKFAVAHLLLQRFGWPIIFIQRYMYGFRTIIPMSIGITRYSAKKFAIINLFSAWVWA

SITILLAWYFGEQIWKMVTWAEEHWYYAAIIIIAFLSLLLFGFKQMEKAILKDKRKKS

>AHK57116.1 adenine phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKLTQEEQKYLLDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFI

FASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKVELHKDAFKNIQNARVLLVDDLIATGGTAIA

SYELIQKAGAKCVEACFLINLKDLNGANKLEKLTSVYSVLEI

>AHK57115.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFTNWLVLTILICATIYLIVMLFYYKTLLNKEKTSKDFIKNNLDDTEIVIRKLQIQLQRSLGNIDILTEE

LNKIKADLTSLRTRNSQYRLENDKLRQRIKELEAKIEALL

>AHK57114.1 ribose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLREKIYIASDHAGFELKEKICVFLKEKNIIFNDLGTNTCASCDYPDYAHLLAEKINKRSFGILICGSGI

GISIAANRHKNIRCALCHESLSAELARRHNDANVLALGGRLIGVELAIDIIEKFIQTPFEEGRHMQRIQK

IEVKI

>AHK57113.1 chemotaxis protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLILIGSSTGGPNQLKFLLKDIDVKNTCVVIAQHMSASFIPSFVGQFNKEAFSEVCLLNDKEILSNKIY

ICPKNTILSGNLNIVAAWQDVASSFKPSVDLLFHSAVSLAKTNKILAIILTGMGDDGAKGLFELYKTGVR

CLCENEADSVVYGMPKRAKDMNPHLKPMSLKEIKKEIVNFIDQD

>AHK57112.1 chemotaxis protein CheR [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKKITPSELELNEFIKIINEMSGIDLTDKKNILALKLNKFLEGTNTKNFSEFLGKLKSNRQLKQETLDF

VTIGETYFLRELAQLKEIIYYAKSLEKRVNILSAPCSSGEEVYSLALLAAQNFIKDMYILGVDINSSVIE

KAKLGKYQGRTLQRLSESEKRRFFLESEDKFYTINKNELCTCKFELCNVFEEKFSRLGKFDIIASRNMII

YFDHESKLKLMERFHRILNDKGRLYVGNADLIPETIYFKKIFSPRGVYYEKV

>AHK57111.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIELKNVNKYYGTHHVLKNINLSVKEGEKLVIIGPSGSGKSTTIRCMNGLEEVSSGEVVVNNLVLNHKNK

IEICRKYCAMVFQHFNLYPHMTVLQNLTLAPMKLQKKSKKEAEETAFKYLKVVGLLDKANVYPATLSGGQ

QQRVAIARSLCTKKPYILFDEPTSALDPETIQEVLDVMKEISHQSNTTMVVVTHEMGFAKEVADRIIFME

DGAIVEENIPSEFFSNPKTERARLFLGKILKN

>AHK57110.1 amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVFRKSLLKLAVFALGACVAFSNANAAEGKLESIKSKGQLIVGVKNDVPHYALLDQATGEIKGFEVDVAK

LLAKSILGDDKKIKLVAVNAKTRGPLLDNGSVDAVIATFTITPERKRIYNFSEPYYQDAIGLLVLKEKKY

KSLADMKGANIGVAQAATTKKAIGEAAKKIGIDVKFSEFPDYPSIKAALDAKRVDAFSVDKSILLGYVDD

KSEILPDSFEPQSYGIVTKKDDPAFAKYVDDFVKEHKNEIDALAKKWGL

>AHK57109.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNESVGFVEHLRQILTSWGLYDENSISPFAVWKFLDALDNKDAFINGFIYTLEVSILALLIATIFGTIGG

VMATSRFKIIRAYTRIYVELFQNVPLVIQIFFLFYALPVLGIRLDIFTIGVLGVGAYHGAYVSEVVRSGI

LAVPRGQFEASASQGFTYIQQMRYIIVPQTIRIILPPMTNQMVNLIKNTSVLLIVGGAELMHSADSYAAD

YGNYAPAYIFAAVLYFIICYPLAYFAKAYENKLKKAHLTR

>AHK57108.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENVFNAQNIEFLMQGLFLTLKIALATCIISIVFGTFLAITKNYGDRLSKFLAACYIDIFRNTPLLLWML

AACFVLPVFFGQFPQAFWGTIGFSLYTSSVMAEIIRGGLNSIPKGQFEAAYSQGFGKFFTLFYIILPQTF

RKIIPALLSQIVTTVKDTAYLAGLGIAELTYNSKTILAKLTSFEEILAMIGVVAGIYFIICFSLSMLVRY

YAKKTAYIS

>AHK57107.1 ribose-phosphate pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRGYKIFSGSANVEFARQVSKYLSLPLSDAGVKRFSDGEISVQIDESVRGKDVFIIQSTCAPTNDNLMEL

LILTDALRRSSANSITAIIPYFGYARQDRKANPRVPITAKLVANLIQAAGIDRVATIDLHAGQIQGFFDI

PVDNLYGSIVFNDYIKAKHFKNAIIGSPDIGGVARARSVAKHLGLDIVIVDKRREKANESEVMNIIGDVK

DKEVILVDDIIDTAGTIVKAAEALKEKGAKSVMACCTHAVLSGKAYERIASGVLDELVVTDTIPLKEQLP

NIKVLSVTPVFAEVIRRVYHNESVNSLFI

>AHK57106.1 carbon starvation protein CstA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTQLSTKILWLFVAALGAICFGYLALQNGESVSAIYLVVAAVCIYMIGYRFYGSFVAYKVLELDKNRATP

ALVENDGRDFVPTNKAVLFGHHFAAIAGAGPLVGPILAAQMGYLPSMLWILVGGVLAGAVHDFVVLFIST

RRKGRSLGEMIKDEMGKFTGGVAMVAIFGIMLIIIAILAMVVVKALAESPWGLFTIAMTIPIAIFMGIYM

RFIRPGRVGEASIIGFVLLILAIHYGSVIAADPYWAKIFTLEAPTLAIVMMAYGFIASVLPVWFLLAPRD

YLSTFLKIGVIVVMAVAIVLVAPDLQMPKANTQYFDGTGPVFAGGVFPFLFITIACGAISGFHALISSGT

TPKMLENETHTLAVGYGSMLAESAVAIMALICACILHPGLYFAINSSSALIGTDVVNVAQTISSWGFSIT

PEEITTLTTNIGEYTILSRTGGAPTFAIGVALILHELFGGVDLMAFWYHFAILFEALFILTAVDAGTRAC

RFMVQDILGNVYKPLGDIHNYPAGLLATALSVAGWGYFLYQGAIDPKGGIYTLWPLFGVSNQMLAGMALL

LATTILVKMGKARYTWVTLVPAVFVLVATLYGGIQKIMPYEEGNKIANAVSHVAAVSIQSQKIKDLEFKL

NNTKDEKEISTIRKEISIATQNKVGNLLNAILCVFFMIATLLVIISCIGICLGKIKIPLKETKYIKIDEF

QKI

>AHK57105.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRDMGEPKLKIVAMPSDTNPAGNIFGGWILSQIDLAGAIAARELSPERVVTISMDKVVFKEPVFIGDIIS

CYSKVVNVGNTSISVEVEVTAQRVDSQGCTSCINVTSALVTYVSVTRDGKKNPISEELKRIHGFLNA

>AHK57104.1 CiaB protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNNFKEIAKLVRKYKERNNALYEFLDKEDVGEYFRSLISLSELKQDKTTMLAILRRLIDLKEENLVQEWK

KNNFKEDKIIELKHKFYEEVRKFYEKEHQNLINEIKEKKLLNNFYQSLIQGVHNIGLIMNIFEISWTKEI

IEKNNKILSTQFPNLDDAMEFLRKNHLYQKTPEGEICERSYGVLVRIGNLWKFVPYARFFENEILKLEFA

FENMIDQLKIFASSEEEKAYIEYFEKLKLAFCEKDEDRVIKAWQEAEFAWMKVKSPLQVGHPLEYYEDNY

THAVALEWDIRIEDENDFDVLKFGNEIKESFEHVYKNIGLEDCELEKEVLSNIEKTQLYICTPMIFYGAE

LKGLFSAQVVPNDEFVSSKAGKKIFAFINFVYENAKTKPFMKISSEVFDKEFLDFGRNILFYQEKIWKRV

YEVSTIGHEFGHIFFIANDTEKTMNQSGFFKNIEEYKATTGGLINFFYHEQDDLIMPVFHELIKRAIGLI

SWQRVDEVRPYYTEGLIHLSLLFESEVLIFENNNLKINFDLGYYEKFKELTLKNYHELAKHYALRLDAKE

FLSRFCEIEDNIFLPIMPKCKEFVKFYYDLYEKIGNEIDNSGEFERYKKK

>AHK57103.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKADFISLVAQTAGLTKKDATTATDAVISTITDVLAKGDSISFIGFGTFSTQERAAREARVPSTGKTIK

VPATRVAKFKVGKNLKEAVAKASGKKKK

>AHK57102.1 cysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVHEKVSELIGNTPIIHLKKFGINVFAKCEFLNPSHSIKDRAAFEMIKDALDSKKINQDTTIVEATSGN

TGISLAMICADLGLKFIAVMPESMSLERRKMITLFGARLELTPANLGMKGAVDKANEILLNTPNSFMVSQ

FENISNKNAHRKNTALEILRDLDNELDIFVAGFGTGGTISGVGEILKEKLEKVHIVGVEPLNSPLLSKGE

AGSHKIQGIGANFIPAILNKEVIDEVITVSNEDAINTAKELAKSGLMVGISSGANVFAASMLAKKFPDKR

ILTMLNDTAERYLSTDLFA

>AHK57101.1 hypothetical protein N918\_04505 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKNIILFIVIVAIILGVIFFIKNHQNSYDFILKSDLKEETTLKDFKGDKLIIYFGYTYCPDVCPATLSL

VGKALKQINNPKAHLLFISLDPNRDNNLSNTNEWLRYFYPKADALIAKDEKTLQKITKQYNVQYQKIDLN

DSFMGYSIAHSNMLYLIDEKGHFYKEINDLNPQEILRELRIFLNSQ

>AHK57100.1 hypothetical protein N918\_04500 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRKIIFILAFAFVIAILYIIFDFYVIKDSQKITKTDFSTPLTCDLNVKDCTYSFNNKKVLISLNPKPLQS

LDVTNLKIVNLGNYNNLGIKIYGLNMYMGEIKPKIHRLNSTDYESKIVLAACVLDTMRFRVEFMDNNKPI

GFYFDFELKK

>AHK57099.1 hypothetical protein N918\_04490 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIRNFFIGMSFLGILFLAFYTLYDKKKESIFSLNTCQPLTCDLNLQDCVFSFNKKNIEVSAYPKPIKIFN

KTTIKIKNFPHYSNLKIKIYSLNSYIGDIIPKFNIVNGDILINFIGRSITDDSRFRVEFLNNNAPTGFFF

DFDVTMQKNFQTGNTH

>AHK57098.1 hypothetical protein N918\_04485 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKRLALLIALSSLMLHASDLVKIYLNQGLDAVGVAIEKELTQKDFWLSEIGDKNISLGYYDDNVAIVLT

NKTDKILRVYSYEDGKIRKDFEQKEIITGLMGDKKIEGDLKTPVGFYELGRKFNPGDPYYGPFAFATTYP

NLLDKVQGKTGGGIWIHGYPLDGSRLDEFKTRGCIALFNNNLEKFAKVVQDKKVFVMTEEKEKIRAKKDQ

IASLLADLFTWKLAWTNSDTNAYLSFYDEQEFKRFDKMKFEQFASMKKSIFSRKEDKKIKFSDINISPYP

NLENETMYRISFYEDYYTKNYRFRGDKILYVKIDSKGKMKILAEQ

>AHK57097.1 alanine racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSLIKIDQKAYEYNLRHIAKKIGSFQRLICVFKDNAYGHGAKLLAPLAKNLGVSFVAVKSEEEAREIEEF

FENILILSHRPHGNENSRFIYALNDISQVKNYKQDIKIHLKIDTGMHRNGICVENLEHAINLIQGSDLKL

TGMFTHFASADEMDGSFFVQKENFQKAKKIVKKYFSNLLFHSYNSAALFRGKIPEDEYCRVGLVQFGYGD

SNLKRVLSLYAHRLSQRILQKGQSIGYGGIFTAAKDMEVATYDLGYADGLFRYNGRGELVLGNGKAMLGK

MSMDSFSCENSGEEICVFKDADIWADFFHTINYEILVKLNPNIQRVLV

>AHK57096.1 RNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFNIVLVHPRIPQNTGSIGRMCFNAGFKLHIVKPIVFDISQKAVRRAGLDYWDKLEPIIWENLEEFLNEN

MIYKNRFFFATTKSQKAYFDAEFQKNDFLFFGSESYGLPMELMQLNWENAITIPMKSYGRSLNLATSVGI

ISYEALRQNFRNFAS

>AHK57095.1 amino acid carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLDIMLDFANKASDIIANKIVPNTDIIMVVLLIVCGLYYSFLTRFVQFRMLSSVFKILTEKNEGHAKEH

ISPFQALMISTASRVGIGNIAGISLALATGGAGALFWMWVMAFFGGASAFAESTLAQVYKSKDDTGGFKG

GPAYYIKKALGSHFFGAFFAFILIITYAYGFNGLQSQTMTSSFKVYYDMFNPNAAVDFASSSWPMIIGIV

LTIFGAWMFFSHHTKIGKISSLIVPFMALAYVLLAVIAVLMNFDKIPSVIHMILQSAFDFKAIFGGFAGS

ALVIGIKRGLFSNEAGMGSAPNAAAAALTSHPAKQGVIQAFSVLIDVVVCTSSGFLVLFSMAYLGLGENK

IDGGMPLVQEAMREYYGSFGIHFITIAIVLFAITSLIGNYYYAQANVKYLTNSKFVMNLFRITAVAMIFI

GSQMNLKLAWNLADLTMAFMATTNIISLLLLGGIVNKVLKDFNTQQKSGIDPKFNASKLGIKNAECWD

>AHK57094.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIEVKNLQKKYGELEVLKNINTTISKGDVIAIIGPSGGGKSTFLRCINRLELADSGEILINKQNILDKEI

DINKIRQKVSMVFQHFNLFANKNVMENLCLTPIKTGILSQEEAIKKAKLLLAKVGLADKENIMPHKLSGG

QKQRIAIARSLMMNPDVILFDEPTSALDPEMIGEVLSIMKDVAKEGLTMLVVTHEMGFARNVANRIFFMD

KGKIAVDASPKEVFENPSNERLREFLNKVLNH

>AHK57093.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNQKNIRIFVFFVIIILWGYFSFPIEILKIQDPSGVASYGYTENAKAYLKSYLITLLLTACAVIIGVIIG

FSLAILRFSKFKTLNFIIDEYIDIIRGTPVILQLMIFAFVIFTFIDNLYAAILALGLNSSAYIAEIVRSG

INSVDKGQMEAARAMGLDYKTSMKEIILPQATKNILPALANEFISLFKETSVVGFISVIDITMQSQSLQA

VLYNPKPIIFTGLVYYVSVKIFSYFAKKLELRMNKND

>AHK57092.1 4-methyl-5(B-hydroxyethyl)-thiazole monophosphate biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKKVLIPLAQGFEEAEFIGIADVLKRAKELNPDLEVVIASLNSELLVKGANSISIKADCSIEDVDIENL

DAIALAGGFEGMMNLKNSNVILNIIKQLHSKNKIVAAICASPIVLNEAGVLEGEFACYPSCEVGLNGNRV

NKAVVVNKNVITSAGPATAILFGLELAKKLCGDEIYQKLYEGMLLPLTK

>AHK57091.1 hypothetical protein N918\_04445 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQEKTIFELIVEGKLPCNKVLESDDFLAFHDIAPKAPIHILIIPKKYFKDFQEFDPELMAKMTSFIQELA

VLLGVDKSGYRLVTNCGKNSGQEVFHLHFHMLGGFELPKEKTKKENPQALF

>AHK57090.1 phenylalanyl-tRNA synthetase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNFIEQIQKCENLNDLEAIRISVLGKKGILTEGFTKLKELEDEAKKEFAAKLNAQKEIFNEAYLAKFKD

LENLALEERMKQDALNFNYFDESITTGALHPVMSTMDKIIEYFIALNFSIEKGPLIEDDFHNFEALNLPK

SHPARDMQDTFYFDDKRLLRTQTSPVQIRTMLAQKPPIRMIAPGAVFRRDFDITHTPMFHQVEGLVVEEG

QKVSFANLKSVLEDFLRYMFGDVKVRFRPSFFPFTEPSAEVDISCVFCKGKGCRVCKHTGWLEVLGCGIV

DPNVYNFVGYENVSGYAFGLGVERFAMLLHQIPDLRSLFEGDLRLLEQFR

>AHK57089.1 phenylalanyl-tRNA synthetase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIITKSWLNDWLELEEISSDKIAKTLNSIGIEVDRVGALKAPDKVVVGYVKEKIKHENSDKLSICQVDIG

SETLQIVCGAANVDAGQFVAVATKGAIMSNGMEIKEAKLRGVDSCGMLCSSLELGFEKINEGIMLLDESI

GKLELGRPLNTYEIFNDELIEVELTPNRGDCLSIYGIARDLAAALNLNLKEPKPFKESENVLGIGRILRL

AAEKELNGLYNYRAIGLKEEIQTNLLLSLRLAQIEGLGKNSIENLLNYATHSTGVLFNAYDLSSFSEKDE

EFTINLSKQVHGETKVSYKDKLLSFSGIFQNNESRCKDDSKIIIIEANYTDPLVIADAKIYHKDQDEKML

YRSFRGSEPKLNLGMDFLLGIFEQIPNLVIYSSSQQILTDKELPIIPISIEGISDIIGQNVDKDEVLKIL

KKLGFELILSGEGLINVKAPLHRPDIKNLSDICEEVVRIIGIDNIASKGLEFIEKNRLNSAYKNYIEFLN

LRKRAVASGYFESLHYVLDNGEELKRLGFDSVKLKLINPITAELNTLRTTLLNHLLNAASLNAKNSKKII

KLFELGAVFNVNNQELNRIAFIHSGLKEEAKISNKAKPESVQFYDFLLDIKNIIGDFKLKSSKYNILSPY

EQADIYLSDIKVGFIGRLHLKIENERDLPKTYICELDLDLIRQDFKIAKPYSKFPAITRDLSVLIPKGFE

YNQIKNCIEELNLEILENFRLVDIYSDENLKEFYSITISFSFRDINKTLEDNQVNECMDKILNTLKNLGL

DLR

>AHK57088.1 3-phosphoshikimate 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIYKLQTPVNAILENIAADKSISHRFAIFSLLTQEENKAQNYLLAQDTLNTLEIIKNLGAKIEQKDSCV

KIIPPKEILSPNCILDCGNSGTAMRLMIGFLAGISGFFVLSGDKYLNNRPMRRISKPLTQIGARIYGRNE

ANLAPLCIEGQKLKAFNFKSEISSAQVKTAMILSAFRADNVCTFSEISLSRNHSENMLKAMKAPIRVSND

GLSLEINPLKKPLKAQNIIIPNDPSSAFYFVLAAIILPKSQIILKNILLNPTRIEAYKILQKMGAKLEMT

ITQNDFETIGEIRVESSKLNGIEVKDNIAWLIDEAPALAIAFALAKGKSSLINAKELRVKESDRIAVMVE

NLKLCGVEARELDDGFEIEGGCELKSSKIKSYGDHRIAMSFAILGLLCGIEIDDSDCIKTSFPNFIEILS

NLGARIDY

>AHK57087.1 4-hydroxy-3-methylbut-2-enyl diphosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIIELAKNYGFCFGVKRAIKKAEQIKDAATIGPLIHNNEEISRLQKNFNVKTLENIQALSNEKKAIIRTH

GITKQDLEELRKKDIEIFDATCPFVTKPQQICEQMSKEGYEVVIFGDENHPEVKGVKSYVSTKAYVVLDK

KELQNIKLPNKIAVVSQTTKKPEHFMEIVNFLILKTKEVRVFNTICDATFKNQDAIKELSLKSDVMVVVG

GKNSANTKQLFLIAKTNCEDSYLIETEEELKKEWFLDKKHCGISAGASTPDWIIQKVIAKIENFRIN

>AHK57086.1 30S ribosomal protein S1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSEVNKKVQDGVDDYLEEEDFGQLLEAFDKSREEATTEGVIVEIKNDEVYVDIGKKSEGILALSEIQGDN

SKLLFNVGDSIKVAVMGSRGGRSLLSHKKALRKEKVIEFIKNYQENQDDIFTVKVVGKNKGGLIVVDEND

VEFFLPKSQYGFKETNNIIGKTFKVKIIKIDKDEQSIIVSRKKTLDDERRKRKELINNVAQQEDLIEGIV

KKITTYGMFVDVGGVDGLVHYSEISYKGPVNPGTLYKEGDKVPVKVIKYDKERKHLSLSIKAALPDPWSE

IKDTLDIGDTIKVIVSNIEPYGAFVDLGNDIEGFLHISEISWDKNIKNPKDYINKGQEIDVEVIEINPNE

RRLRVSLRNLLSRPFDEFMKSYKIADVVEGEITSVTSFGAFVKLGGIEGLLHNEDASWDRNDKCKDKFSQ

GDKIKVKIIKIDEENQKISLSTKELSSSPVQEYAKIHKVGDIVKGAIRDIKDFGVFVELSKNVDALIHKE

DISTSMLENLKIGDDIEAAIVFIDEKKNRIRLSVKNLVRIKEREVLNEINNDDKVTLGDIIKDQLA

>AHK57085.1 hypothetical protein N918\_04415 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKYITISILSILLLILLAVVFTLLWQFKANVNFIPQFAKDTNTQPSIQTQNQDLSWQEELAKWPTRDFT

PAAEKFTLYFDADTSELKEKNKYYQLIVGKYDIYSMFCLRQTLNSFNVKYFLLKSGHSPEIFLDTGNEKL

IDDIIKELKKYKINTEVKEIWL

>AHK57084.1 3-phosphoglycerate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKKIIVCDAILDKGVDILRKAEDIELIEAAKFPKDELMQMLSDIEVAITRSSTDVDVNFLNHAKKLKAL

VRAGVGVDNVDIPECSKRGVIVMNVPTANTIAAVELTMAHLLTSARSFVNAHNFLKIERKWEREKWYGIE

LMNKTLGVIGFGNIGSRVAIRAKAFGMKILAYDPYISASKITDLDMEQAKNLDEILEKSDFITIHTPKTK

ETNGMIGKQEIAKMKDGIRLINCARGGLYTEEALYEGLKSGKIAWLGIDVFDKEPATNHPLLDFENISVT

SHLGANTLESQDNIAREACEQALSAARGVAYPNALNLPIKTEDLPPFVAPYIELVSKMAFLAVQIDKNPI

KSIKLEAEGIIGEYANSMLTFAAVGALGGILGEKINYVNAEFVAKEKGVELSCETLPNSGYNNKLSVKII

TENSNISVSGTVFNENEQRIVGLNGFKTDFKPKGKMIIFKNKDIPGVIAKISSVLAAKNINIADFRLGRD

GFGYALAVVLIDEKVQKEVLDELKQLEACVFVQYVEI

>AHK57083.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKFKILIIEDDIDLNELLVLKLKSSGYEVISLADFFGVEDLLDNEQIDLLIVDRNLPSGDSLEKIQDLR

EQGYKEAVIFLTAKALHQDLLEGFESGCDDYVCKPFDFNELLLRIKAILKRHKKEEEKLSFGDFILDLVS

YEFFYKNQKLEISNLDYELLKCFFENPNTLLTRQFLSESVWKDDTTSDKTINIALTRLRNKFPKLKDHII

SVRGIGYKLC

>AHK57082.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKTKNIFIVFFVVLALIFGFIFYTFTNSYLNFLLIKQYEQKIKSLDDVLKFSLLEHLNDANIKDFAKDT

RADFIILNNDMKISSVKNPDFFSNLKEGEILNFNSKKILTKSFIYKGYKYIIIVYPRFLDLELFWTKMAI

GFGVCLLFVFILMLLLGRRIEKNFNKILDFLDSIGDHKVVILEKGIFKEFNLLNEKLLKTKDKILKNTQK

NKKQSDKITLKNTQLASVISAISHELKNPLSVIDLSLEMLKDEKLEDKKLKKELLEKISRQSVKLNALTH

KLNFVFNLNSEALQMQEFDLFSLCEKITKNPGFERVALQGKSTKVKADEFLIEQVIINLLSNALKYSQKK

VILTARDQKIIVQDFGKGIEEDKIKLITKKFYKIDVKSDNSFGLGLFLVKKILNIHKSYLEISSTLGYGS

SFSFKLSQG

>AHK57081.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MALIDLIEASKKFGDKIVLNEVNFSANEGEKIAIIGKNGEGKSTFLKTLLGALPLDSGRIIRQNGKSIAM

LSQTVDFNANLSVKEAIKQELVEIYNTLEEYEILHKKLEEDPSNKDYLQKIDTLMTLIDSKDAWSIESKI

IRVLKEFSLLEYENRIISTLSGGEIRRVGLCILLLKNPDILLLDEPTNHLDVYMTSFLEELLKNSKMCVI

FISHDRYFIDAIAHKCVEVEQGKLSIFKGGYANYLEKKTQILQSLAKSHETLLKQLKSEEEWLRRGVKAR

LKRNEGRKERIFKMREEAKKNPGAIKRLKLEISRAALNFNGEKTINRKKMLFELKNISKNINNKNLFKDF

STRILQGERIAIVGRNGCGKSTLLKILLGQIKQDSGEIKRGELKIGYFDQARSLVNSDKSLLEIFCPNGG

DRVEVRGKNMHVYGYLKNFLFPKEFLDKSVALLSGGEKNRVALALLFAKEYDVLILDEPTNDLDIATINI

LEEYLLSFEGAILLVSHDRYFVDKIATKLYAFEGNGYINILHTLYTEYLENEKEIEELDNFALELQTQEQ

NNNQKEKSSKKLSYKENEILKNHPEKIDFLEQKIAKLNQDLSDPNVYQEIGINKLYQELEVMQKELEILE

NEYFLVLEKSENL

>AHK57080.1 lagellar hook-associated protein FlgL [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRITNKLNFTNSVNNSMGGQSALYQISQQLASGLKIQNSYEDASTYIDNTRLEYEIKTLEQVKESTSRAQ

EMTQNSMKALQDMVKLLEDFKVKVTQAASDSNSQTSREAIAKELERIKESIVQLANTSVNGQYLFAGSQV

ANKPFDSNGNYYGDKNNINVVTGAGTESPYNIPGWDLFFKADGDYKKQISTNVSFTDNRWDLNKDPDKTK

YLTGDSKWQQLIGQSYVKDNSLDADKDFEYDDSKLDFPPTTLYVQGTRPDGTSFKSAVLVKPEDTLEDVM

ENIGALYGNTPNNKVVEVSMNDSGQIQITDLKQGNNKLDFHAVAFTPQADDKTELNNIIQAAQDEGITME

DVTNRVMTAALGNPNNGDITNLNNPVTIQINGQNFEIDLKQTDFIKSKMTDTDGNAANGADYDNVYFEKN

GNTVYGNVSQVIKGSNAYATDSTKLSEVMAGDSLNGTTLNLKVNSKGGNSYDVTINLQTSTVSYPDPNNP

GQTISFPIMHTNPATGNSGVVTGSNDITYGQINDIIGMFAADKIPTTTIQANNGQINNADYTQIQQLMKD

SQATVDVSMDYKGRISVTDKLSSGTNIEISLSDSQSGQFPAPPFTTTSTVQNGPNFSFSANNSLTIDEPN

VDIIKDLDSMIDAVLKGNMRADSESENPRNTGMQGALERLDHLADHVSKLNTTMGAYHNTIEGVNTRTSF

LSVNVQSIKSNVIDVDYGEAMMNLMQVQLAYQASLKASTTISQLSLLNYM

>AHK57079.1 cell division protein FtsK [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGEWVYKANLFLFGEFAYYYPFFLFILNYVYYKRNYKLANFTRRELFGIGFAFFSSLLLFAVFYPNSGYI

LELAYAIFSTILGHTGSGIFALLLLLFSLVLLFPKFAKEILKIELDFTYLLKVEQAFKSLLMRVFGGENE

KEDVGKSEPIVPKLNILQDSIYGNLQINKKGETNNLEQIIKDSNINASKNSITTAKENFEKLKNQILDET

IEIDKQSLKESRSFVHEHSQQVRNFAQKASKMSISLDEDFNFISEEEVDMIPERFLKPKKLEDIKQIDTN

KNLDEPSYKRKNIEIPVSNQEVKPKIFTKELELRENLIKKEKLEQEYKAYQNEILENKVKQEIKKLEEYD

AINSSDIIEGNKYSFNSPKTIKTETEESDKINENKNLDKADNIFEFAPIVEELNHPYIEPTPIKNINEIV

IEEKNTLDFIQNTETKIDNEKTNDQEIKLQKAVLAKEIAINQALLREIEQGEIEKPKDFTLPPLDFLANP

KEHKQEINESEIDKKIYNLLEKLRRFKIGGDVISTYVGPVVTTFEFRPSADVKVSRILNLQDDLTMALMA

KSIRIQAPIPGKDVVGIEVPNDEIQTIYLREILQSEVFKNAKSPLTIALGKDIVGNAFVTDLKKLPHLLI

AGTTGSGKSVGINSMLLSLLYRNSPKTLRLMMIDPKMLEFSIYNDIPHLLTPVITDPKKAVNALSNMVAE

MERRYRLMADAKTKNIENYNEKMKELGGEKLPFIVVIIDELADLMMTAGKDVEFYIGRLAQMARASGIHL

IVATQRPSVDVVTGLIKANLPSRISYKVGQKIDSKVILDAMGAESLLGRGDCLFTPPGTSSIVRLHAPFA

SEFEIEKIVDFLKDQQSVEYDESFLKDQQSVGVTTNESFDGEADELYEEAKRVILEDGKTSISYLQRRLK

IGYNRSANIIEQLTQNGILSEPDAKGQREIL

>AHK57078.1 30S ribosomal protein S15 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MALDSAKKAEIVAKFAKKPGDTGSTEVQVALLTARIAELTEHLKIYKKDFSSRLGLLKLVGQRKRLLSYL

KRKDYNSYSKLITELNLRDK

>AHK57077.1 Rrf2 family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLFTKASEYALLSLIYISQKETPQDVDSLALELDIPKSFLAKILQTLAKDGLLKSFKGAKGGFVLIKEPS

QYTIKEIVNSAEKKDISVFECSGGTCPNNKEENCTLMPMLVNLQNKVDEFLDSITLEDIMKNNGKK

>AHK57076.1 flagellar biosynthesis protein FlhA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKNKIVDLVFPFLGPLIAPVLKAKSLTIVGFLVCILAIIIVPLPSPILDFFLALSIALSVLIILISIYI

PKPTDLTTFPTLILIITLFRLSLNIATTRMILSEGQNGPEAVSEIIAAFGEFVVGGNMVIGVIVFCILVL

INFMVVTKGSTRVSEVQARFTLDAMPGKQMAIDADLNAGLIDEQTARARRQEVIAEANFYGAMDGSSKFI

KGDAVAGIIITIINIIGGFLIGSFQHDMALSDAASTYTILTIGDGLVSQIPGLITSTATAIIITRASKDE

ENFAEGTLTQLLSEYRTLLIVGFVLFIFALVPGLPTLSLGFMALVFLSLGYLTKQVKEGKIDITTVKKSK

PSAAAASQSGAGGTTAAPAKKSEEEILKEEEHKINDILKVEILELELGYGLIKLAENELTERIRSMRRSI

AESLGFLMPKIRIRDNLRLKPNEYSFKLKGVSIASAEIYPDKYLAMDSGFITEEIEGIATKEPAFNSDAL

WIDANLKDEATLNGYIVIDPASVISTHMSELIKAHASELLTRQEVQNLLDKVKNDYPIIVEGALGVAPVS

LIQKILKDLLKHHIPIKDMLTILESVSDIAEVSKSFDMIIEHVRASLARMITNMYLDDKGNLDIFILDSA

SSAVLMENVQFRDGSYHLPLSVAQTGTLVDTLRAEVAAVANGRIKPFILCVEPQLRKFIADICYNFSINI

VVLSFAEIAENTNFNTEGIIRIEL

>AHK57075.1 hypothetical protein N918\_04355 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIYHLSHTDLDGYACQFIVNFYFKSVKFYNSNYGKEINENFNSIIGDIEKDENFGKAIILITDLNLNLN

QCEEFEKICKEKNTKIFLLDHHQSGEECAQKYSWYLLDSKRCATKIVYDFFSKICTPVLELSKFVDVVNA

VDIWLSEDENFELGKVFLGLIANAKEINRVMFKESQIDYMFFLLDKAWKFIGKENANILLDNATHFIKKD

YFARKNDDTLSNLISYFVVEKLSELKENFSIEYEGHKGILTSNIGNTSVIGNDFLVKNPDYDFFIDVSSR

KTLSFRANGKIDVSLMAKNLVGGGGHKNASGGLFATFKDGANYNYIKAQIIDLIKSKELKKENNESKQ

>AHK57074.1 cell division protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNQNNNKTLKNELEDLQYELSIVLEAMLLYAGVKREKLENAIEAYIDNIDNVLENSNKEGVDEILEVVEF

LKNKYKDFFQ

>AHK57073.1 hypothetical protein N918\_04345 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKCILIFFSLYSLSFANIYEKLNDFAYEKKPNKDFKIQEVKLVQFSQENKDCLELLIEASQVRILNSYN

SCQKLSKDESFQKFLNEDFLKLYKNNGYLINENLQNLKNTMQDIMIYYKLRYSFSKDVKDMSKNKNLDIL

NIDEKDGGTLLYKINNQACVGIELTRHDSRMAMKIYGIENLDKECKLFIQSPSFKDLSYTKKDFKWYYLE

>AHK57072.1 hypothetical protein N918\_04340 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNLSIQEKKDLDNCVFQNLGRQDTFTLSVVFKNFYLKIKAFILNNTT

>AHK57071.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSCIKMKDKCRNFSLSKWQDTRKPWLILIIVTIGLTCIAHFLFQEYLFMKPCEQCVYIRFDMLVMAIGGM

IALINPANNIIKIFSYSLAFYGIWLGLEHCLTLNHIHEVVHSENPFAGVDGCREIPIYPFNLPLYKWASS

WFLPTGECGMDTPVVPENAYNHLNAFQKFFIGTPPDFENGLYSNGWYLIPSLKFMNMAICCLIAFLCCFV

VLFAMFIAYVLDKNKPNAKIFALVIVALVLVLKFIGESKNPNQNIASLNQVVLRYS

>AHK57070.1 integrase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKYPLDCEENFEKSFLFWLAKYVKFKLNSLSNKELKNPQALAEVNFALTKGVKNIDELDALAKKARNAGL

SGVNTYFNPLKKVFEYLNFYKLYSLKQIDEELIVEVLASITGALSDASKKNYRIAVINFFDFLDKQNEED

EKAHIFDINLKNWAGIAGSKGVKLPEFMSKEELKKFLDAIENADFKNNTIRNKLIIKIIIFTGIRVSEAI

NIKMGDISEENDLYIIRIRAKGNKYRVVMIKKELIYDLLKNVSINYISKDALLFVNKKGTPLTQSYVSRI

VEQLLFRAGIRKQKNGAHMLRHTFATLLYKKQKDLVLVQEALGHASLNTSRIYTHFDNDKLKLAAQVAKE

LSDS

>AHK57069.1 para-aminobenzoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTLENYAVFGKYFYHDLKHTLKAFNHKESKKCFKFIEKYKNDFYILMLTDYELYRYFQDKNFTSKKAYLS

VFAFKKRKKFQKEDIDEEKFIPEFINFLDQDNYKENFIKVKEAISKGRVYQINLTQNFKFHSKMDSFELF

KLLLSRQDTEFKAFIKDETREILSFSPELFFKTKKRKIFTKPMKGTIKRDKDPIKDEENKIFLQNDTKNL

SENVMICDLLRNDLSKIITKKSLKTKLFEIQSHPTLHQMTSRAQGKLKKNISLHQIFKALFPCGSITGAP

KLESIKFIEELEQRDRGIYCGTIGLIHKNKNKFSVAIRTLEKQDEIYTYSTGSGLVWDSKFKDEFEELKL

KSAILNPCDFHLFETMYFKNSQILFLKEHLLRLINSALKFNFNTHKLFKDFYNILNQKSSYKKYQNFTLF

KLDEKIFHKKHSLFYNFPLPFKNPHKEGILKLILYKDGRYEFQQSALKQNSNDILLLSDDKINSKSDNLY

HKSSLRTFYNQHSYKWQQNLCYDIAFFNEKDELCEGSRTNLILEKNSQFYTPQIQSGMLNGVYRNFLINL

GLIKEKALFKQDLFEAENIYCINSVRGLKKVKLQ

>AHK57068.1 para-aminobenzoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILFIDNYDSFSYTIIYYLKELSFECKVIKNDGFKKAKELEKFDFTHLIISPGPHSPKESKLSLKAIK

YFKKNKKILGICLGHQCIAEIFGGRVSKMQNPMHGKISKLYFKKDPIFKGIKKEIEICLYHSLHISSMPE

KCKILAHNSENIIMAIKHKKYPIYGLQFHPEAVLTQKGKKILKNFMKL

>AHK57067.1 UDP-N-acetylglucosamine 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTYLEIEGTNHLSGNVTISGAKNAALPLIVSSILAKNEVKINNVPNVADIKTLISLLENLGAKVNFQNNS

ALLNTNTLNQTIAKYDIVRKMRASILTLGPLLARFGHCEVSLPGGCAIGQRPIDLHLLALEKMGANIQIK

QGYVVASGNLKGNEILFDKITVTGSENIIMAAALAKGKTKLLNVAKEPEVVQLCEVLKDAGLEIKGIGTD

ELEIYGSDGELLEFKEFSVIPDRIEAGTYLCAGAITNSKITLDKVNATHLSAVLAKLHQMGFETLITEDS

ITLLPAKEIKPVEIMTSEYPGFPTDMQAQFMALALKANGTSIIDERLFENRFMHVSELLRMGADIKLNGH

IATIVGGKELNAADVMATDLRASSALILAALAAKGTSKVHRIYHLDRGYENLEEKFKDLGAKITRLEE

>AHK57066.1 molybdopterin biosynthesis protein MoeA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNIFETLKDLENQISCLDESELISLEKAKDRILAKDLYARKNLPSFDNAALDGYAFNYTDINEALEIKG

TIFAGDKNFYTVAKNECYKIMTGAKMPKNADTILMLEDECIEENKLIIKKVPKQYNAYRYKGEELKKGEI

LLQKGTKLNDKHIALLASQGLYKIEVIRKIRIGIFSSGNELKEPWQECDEESIYNANALPLLTMLQNASY

LGIIKDDFKSTKEALENTNFDLLITSGGASVGEADFMEKALDELGFTPLFKGLKARPARPTKLYRKGENF

VLILPGNPMAAYLSCFIFAKKIINLLSGNLDNPLTFYGKMGMDLKLKSGRNNLILGNLEKGIFTPFNENK

FGSGMILPLIKSEFLLISEENTGELKKGDEITLLKI

>AHK57065.1 signal peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEILKKLYKFSQSWTGTVVIVLLVIFFFIQAFVIPSGSMKNTLLVGDFLFVKKFSYGIPTPHIPWLEIPV

LPDFNKDGHLIKAQGPQRGDIVVFRNPRNEKEHFVKRCVGTGGDRIVYANKTLYVRMHEGDEFMKEHYPN

DLVTLGGQIYVKEPYKQKGIHYDPKKDIESDILRFLSIGDFAMSPAYIKELGNHIGFSGGNAYVFDVPEN

EYFMMGDNRDYSYDSRFWGSVPYRLIVGKPWFVYFSWDKDKNVRWERIGRFVDTLENDEQYIHDHDDEDK

LS

>AHK57064.1 bifunctional 5,10-methylene-tetrahydrofolate dehydrogenase/ 5,10-methylene-tetrahydrofolate cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTLLDGKALSAKIKEELKEKNQFLKSKGIESCLAVILVGDNPASQTYVKSKAKACEECGIKSLVYHLNEN

ITQNELLALINTLNHDDSVHGILVQLPLPDHICKDLILESIISSKDVDGFHPINVGYLNLGLESGFLPCT

PLGVMKLLKAYEIDLEGKDAVIIGASNIVGRPMATMLLNAGATVSVCHIKTKDLSLYTRQADLIIVAAGC

VNLLRSDMVKEGVIVVDVGINRLESGKIVGDVDFEEVSKKSSYITPVPGGVGPMTIAMLLENTVKSAKNR

LN

>AHK57063.1 hypothetical protein N918\_04235 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIVLMFFLFSISLFGADFITLKEYSKMLYENPRGISCKECHGADGSEQILGYYMKNGIKTAYKVPSIQN

LSFENFKNSLNQSKDAKSIMPNYSLTNDEIVTLYNYIKQFSKEEK

>AHK57062.1 glutamate-1-semialdehyde aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTNKKAFKETCKFIAGGVNSPVRAFANVQSEPKFISHGKGAYIFDIDGNSYIDYVQSWGPLLFGHCDKDI

QKACQKALHKGSSFGAPTLLETELAKLVLSDFPHLEKIRFVSSGTEATMSAIRLARGFTKKDKILKFEGC

YHGHSDSLLVSAGSGAATFNSPSSLGVLEDVAKHTLVAKYNDINSVKELFEKNKDIACVIIEPIAGNMGL

VPAKQDFLEELAKICKNNQTLLIFDEVMSGYRASYLGSYGINHIQADIITFGKVIGGGLPAAAFASRAEI

MDILSPLGGVYQAGTLSGNPLAMAAGIASLTKAKKKTKLYDKLGKLAKKLTQGMKKLADEKGLPLQACHV

GSMFGYFFTKDPVSNYQDALKSDLALFSKFHKNMLENGIYLAPSQFETGFICSKMDDKIIDTTLEAVRES

FKRI

>AHK57061.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSNILKEEKNHLENSNSKRQKIIRKTLEAADGLSLGISMVVAVFIGVGIGYLLKKFTPYPWLFWLGVFWG

ISAAILNVYKAYKVQVKSYEEFKERDELIKEKIQKEKNK

>AHK57060.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEHKKALFCIFAIIHLFFWIIFSSLNHFKLDTFLSYEIAFFSVLLIIFASYLNYKKVIIKKSKNYEKDFN

FISSLFIKKKQNLSKIIHFKVLKDDLKPNVKEKIHFFAMFFTLFKLMAYVILVAGFLFLHRQDKLDIFAY

ICGISSLLVCVFIFILYIKKYESKKNY

>AHK57059.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSPKKIIKSMTALFAGMAFLFAGNALIVSSIGVILKENGESSLAVGVVSSCFFVGALIGTISTHKIISRI

GHIRSFGLFGAIFGISAMLHTVSENLIFWAVLRFFIGICYYGLLMVIESWLNEKSKNAIRSRILGFYEIV

FYLAFGIGVLIIALNLSKHSVFILSATLILLSSLPLNLIKIKEPVLPASSPISIPKIFDIAPLAIVTSFI

AGMLINGFFSMASLFILLQGFDTKAVSYFIFCGVLGGFIAQTIIGTISDKLGRKFAIITCASIGFITMLI

FIFFKLHLYMQYFLGITLGIGIFCLYALALARANDVLVSKNKGVELGRGVLFCYSLGSLFGPLILGFLMQ

YFEIKGFIWFYIVSLAFLILFAINKPNILNKKFKKKPGNMVIFDD

>AHK57058.1 hypothetical protein N918\_04210 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINTQLASQIANTQKNDLKVDNSASKDKTNLKDNPKEALAQALKQNLGLSKDASSEEILAKFVQNETGTK

LKELVNKLLDQINAQKNPDSPVLKQGKNLNLAPNFANELKILSTELAKSDTFTQVLDRLNQILKPASEIK

NNNLAPLFKNSGVFLEAKLKDALNEELLPKSFHSLLSTIKGLSSEKLSVQIAQLANTNLSPKDTLKELKN

IINSSKNENKQILNQSSFKALLNLSSKLENFKNYISKNPSHAQEKITPIANKILKELNSIKNDFFKALNK

PENLMIKDPNILKQTATAFEKLENTLKNILGNQASKIQDKENILENLLSNKENMKEEKLNHNTKNQDEEK

HIKASKEDENLDSGIKTHEEDTQDTKNDIQNNETENKPDNDIKNSTPNQEKIKDEKQEKSKENIKENPKF

YETKTENKTSINTNTNTSNPNTNNTQNLNNTQNIQSNNNQTMQNIFKNQEFIKQNIVKNLAFNVENLDLE

QVQDLSKNLSNLSRRLNESLKELEPYTQNAKLNQAELKNLEHKLNLSIKDLAQIKPKTEQDIAESLHHDV

KSTLLQISNLAKNEGNEAVYNQANRLLAQIEINQLMSLANDSINTYLPFSWDDLNDSKIMFRRGKKDKFF

AQIKLEFAKLGDLEILISLNNEKYIDINIMAENIEFRKTIYENAHELKRNINKAGLLSANFFVGDIIRSK

FDTRNMKNLDLEMGMDKKV

>AHK57057.1 hypothetical protein N918\_04205 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKIKRSIKKAVALGYQKEKNSAPKVLASGKGESAAKIISLAKEHGVPIKEDEDLIEILSKLDLGDEIPP

NMYKAVAEVFAFIYQMANKTPKN

>AHK57056.1 phosphatidylserine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSFSKESSRLFGFVAGIKFPKMIQKVINENYVKYFNINMSEFKAPCEYESLNALFTRTLQIPRKFEEGFI

SPSDGKILECGSTFLANEEHFAFSIKGHAYSVEELLKDSFEKDELKNGLDYVNIYLSPKDYHRYHSPCDM

QILSATYTSGVLYSVNEKHLERISNLYVKNERVSLKCQNEKGIFWLVFVGAQNVGKMRFNFDASIQTNAK

ISHNFTRKYENLNFKKGEELGNFELGSTIVLISQKGLLTFNLKVGQGIKFGEKIAD

>AHK57055.1 metallophosphoesterase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIFLIFSFIVLLIFGLANVYIYKRLIKKITLFKYFYKIFSFIFIVLFLAQAVFLIFRRDEYLSDTWYEIL

AMFYAPTYCLFFMTLAWDFVKLILALMGKRDKTYNLILRLIFELSLIVLSVFLIYASINNALKTPEVKSV

DVEIPNLKKDLKIVMLTDIHLGKNLHENFLDKLITKVNLQSPDMVVIVGDLIDTNPKDLKNYISKLNDFN

STYGTFYALGNHEYYHGINEVLDLLRKHTNMKILVNQNLDLGFIDIAGLGDLAGLDRGLYAPDLARIKVD

LNTSKASILLTHQPKTALLYDLSDFDLVLSGHTHGGQIFPFMFLVKLQQGFVHGLYDLGEKTKLYVSSGA

GFWGPSLRVFAPSEIVILNLKGKK

>AHK57054.1 glutamyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYRFAPSPTGDMHIGNLRAAIFNYICARQKNMDFILRIEDTDKARNIAGKEEEIKEILNLFSISWQHYYI

QSENLKFHRQMALKLVSEKKAFACFCTEEELEAKKELAKKQGKAYRYDGTCEKLADIDVLECEKPFVIRL

KKPTHTMKFTDFIKGELSFEPENIDSFVIMRTDKTPTYNFACAVDDMLENVTCIIRGEDHVSNTPKQEHI

RASLGYNKAMTYAHLPIILNEEGVKMSKREAHSSVKWLLESGILPSAIANYLIMLGNKTPCEIFTLEEAI

KWFDISKVSKAPARFDLKKLLQINREHIKMIKDDELNKILDLNKDLAQLAKFYTQETSTIKELKEKMQAI

FNAKDFGEFETEYKILKELLKDIELFENYEDFKNELLNKSNLKGKKFFMPLRIILTGNIHGPELSDLYPY

IKNFIHELARI

>AHK57053.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVIDSFIISIFQVLQIVINIYTWIIIITALLSWVNPDPYNPIVQILYKLSYPAYALVRKIPTRIGNIDLA

PLIIVLALQFLGIFLGNILRSIL

>AHK57052.1 lytic transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKKILVFLFIFSSLNATQYSIEKLKKEENSLAKDYYIYRLLEKNKISKKDAQDLNSHIFRYIGKIKSEL

EKIIPLKPYINPKYAKCYTYTANTILDANLTCQSVRLNSLVFIASLNSKDRTTLAQTFKNQRPDLTNLLL

AFNTSDPMSYIVQKEDINGFFKLYNYSKKYDLDLNTGLVNKLPNHIGFKDFAQNIIIKKENPKFRYSMLE

INPENVSEDSAFYLGVNALTYDKTELAYDFFKKAAQSFKSQSNKDNAIFWMWLIKNNEEDLKTLSQSSSL

NIYSLYAKELTNTPFPKIESLNPSKKKNNFNMQDPFAWQKINKQIRDANASQLDVLAKEFDTQETLPIYA

YILERKNNFKKHYFIMPYYDNIKDYNKTRQALILAIARQESRFIPTAISVSYALGMMQFMPFLANHIGEK

ELKIPNFDQDFMFKPEIAYYFGNYHLNYLESRLKSPLFVAYAYNGGIGFTNRMLARNDMFKTGKFEPFLS

MELVPYQESRIYGKKVLANYIVYRHLLNDSIKISDIFENLIQNKANDLNKS

>AHK57051.1 molybdopterin-guanine dinucleotide biosynthesis protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKQLIIAFSGPSNSGKTTLITKIADNFLQQNLKVLIIKHDPADKAQFDFNGKDSFKFFQSGAEVMVLSPT

RTTFFSHENRDILKALKLSPDFDICLVEGLKTLDLPRISVFCKEIDESYFIFSNAIASYEKISHPYLTWL

DLNDIQAICQYILKNAKNLQGEL

>AHK57050.1 fructose-1 6-bisphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>AHK57049.1 hypothetical protein N918\_04160 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNEVRDEFEQDMDKKKEILLSCQNSKNLNSCYNCDEIFNCQTRKNYVDAVYNSMSKGKTEGGFDF

>AHK57048.1 methionyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRYITTPIYYVNDVPHLGHAYTTIIADTLARFYRLQGHETRFLTGTDEHGQKIEEAAKLRNSTPQEYADK

ISFEFKKLWDEFEITYDIYARTTDTRHIEFIKAMFLKMWQKGDIYKDEYEGHYCISCESFFTQSQLINDC

SCPDCGKQTRILKEESYFFKLSKYQDKILQWYEEKDPILPKNKKNELINFVQNGLKDLSITRTSFDWGIK

LPQEINDDKHIIYVWLDALFIYVSSLDFQNKGENAKFWPAHVHLVGKDILRFHAIYWPAFLMSVDLPLPK

FIGAHGWWTKEGEKMSKSKGNVVKPKEVVDAYGSEAFRYFLLREVPFGNDGDFSENMLINRINAELSNEF

GNLLNRIIGMSTKYSQGNISKEGVLKFYNAELNQAKEHLNLAVEFLENLQCNRYLEELFKALSVANLAIS

KYEPWSLIKENKHEQANALVALCANILAKTSLLLSPTLPKSSQKVALALNFEISSANYTKMILDNELLDF

KANPCEALFPKVEKALLKQEIKEEPKKEESPKIKIDDFAKIEIKVAKVLDCQNIEGSEKLLKFQLELDDK

EIRQVLSGIAKYYKASDLIGKQVCVISNLKKAKIFGHESDGMILSAKSGDKLVLIAPEQLVQNGSLVG

>AHK57047.1 hypothetical protein N918\_04150 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQISNLGELLNATLIHEGSVLSVEGFAINLNELKTGFAFFNNDKKEIAQAVKKGAYAIITENDITIEDKE

IFYFRVENLERALVRFLRFFCEDKECEFLLFKSYELSLCKAFYFNILKGNIFADFEKLIKAKKGEIFCYC

EENYLNKLCTYSHSLKDANFTLLSRSSFFFTTLICENLYFKNLNLPFFYANSFAKIISFLKEKSQKIIFD

FNKIDDFKIYFIDDKFEITPFGSSSQAFIVSNNQNTFEFWKEKFKNIKDFKIASKNSLFCDFSYNQLSDL

RKLKNFKYCLILENYDIFEQEFENKENQTPSLF

>AHK57046.1 methylated-DNA--protein-cysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFKVYYKMPLCYLSLHSDGKFLTRVDFCDNKRSEKNCSLLDLAKYELDLYFTHKLRKFSIPVLIQGTDFE

SKVYKALMEIPYGKIATYKDIAEKINHPKAFRAVGNANSKNQIPIFIPCHRVIASNGIGGYNGGLEIKRF

LLENEGVNLK

>AHK57045.1 bifunctional aconitate hydratase 2/2-methylisocitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSFMQEYNKLVEERAALGIPPLPLNANQTRELCKLLENENNEELANLLENRVNPGVDDAALVKCEFLDSI

LKGKISAPNIDKKRALRMLGTMLGGYNVKVLIDALKDENIAKDAAEVLKNIIFVHDNFHTIAELSKNNPH

AKEVLQSWANADWFNKKEKLPQVIKCIVFKVAGETNTDDLSPAGDAFTRSDIPLHANAMLKVRQTGSLEK

IKELKKSGREVVYVGDVVGTGSSRKSAINSIQWHLGKEIEGVPNKHSGGIIMGSTIAPIFFNTAQDSGAL

PIICDVTNLEMGDEFEIHPYEGKIIKNGSTIAEFTLSPNTLLDEVRAGGRIPLIIGRGLCTKAREFLGME

SENIFTKPEQPKSSSGGYTLAQKMLGRACGVEGVRPGMYIEPITLTVGSQDTTGPMTRDEIKELASLGFN

ADFVMQSFCHTAAYPKVSDSNLHKTLPNFMTSRGGVSLKPGDGVIHSWLNRFVLPDTVGTGGDSHTRFPI

GISFPAGSGLVAFAAVTGSMPLNVPESVLVRFSGELQAGVTLRDLVNAIPYYAIKQGQLTVEKKNKKNIF

AGKILEIEGLPNLKVEQAFELSDASAERSAAACSVDLSIESVSEYIKSNISLIEAMIEVGYENKATLARR

AEKMREWLKNPTLLRADKDAKYAYIIDINLNNIKEPILACPNDPDDVATLSEILADDKRPKNIDEVFVGS

CMTNIGHYRALGEILKDKGILKTRLWVVPPTKMDKAQLINEGYYSIFGAAGARIEVPGCSLCMGNQARVN

DGAVVFSTSTRNFDNRMGMGAKVYLGSAELAAVCAILGKIPSKEEYLQIVSEKLSNEHKANIYRYLNFNE

IENFKLEN

>AHK57044.1 ankyrin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRLKISNLKINSNLILNNKIKIFKGKILKLLFTSFCCFASLMASDAINCDNIKNNKTLLNESSNLDYLNI

ASSCKESLKNQDFTKKLYAISNEIRGSNSSCNGVAYLPKLQQFDFLLLKIAIDPIAYQKTLDTPENLEKK

YDILKSYFRYWAYQSIGNFRLYKAFWQEYNNAIEPLEKYFESNFNFDKGSNIYYTSNALNEFLNWAVGET

KIYKDISPLAKIMSNKNYSVSYIQDFIFSNNPSQDDLTIALQAALLNQREKEILELLIRFGARIDEGYES

AIFYALESYENTNFLIQNGANVNQANAFGKTPLFYAIEFNRLDIIKLLLDNGANVNQKYINNNEKLALSA

NIGSNTPYFITFCALEHTSKNVLMHAAAYGNVEILKLLISKGANFNAVDDLGFNALDFALSAGKKENADY

LKSLGLKANENLFYGGSLE

>AHK57043.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTAFITGASSGFGRACVEAFIQEGYKAIALARRKERLEELKNAYKDKIYTLCIDVRNQKEIFEAIENLP

KEFQEIDVLFNNAGLALGVDEFDKLNLEDINTMVDTNIKGFLYVAKAIIPILRKQKNAYIFNLGSVAGRN

PYFGGNVYCGTKAFVGQFSLALRNDLRGSNIKVTNIAPGLCKTEFSEVRFKGDIQKADAVYENTQFISAN

DIAKVVMSIINLPSHINVNEIELMPVTQTWNGFYIERDE

>AHK57042.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKFLVSLFLPLVAFANSSEAAANANLFGAFTLIPPLVAIALAFITKDVILSLFTGVLSGTFLLSLSTNI

FKAQHLTFVNYYNTTVESFSKIISYILGSTSDPVNAGIILQILCIGGLVALITKMGGAKAVALKFAKRAK

SAVSAQVNTWFLGLLIFFDDYANLLIVGPIMRPLADKFKISREKFAFIIDSTAAPVAGIAVISTWIGLEV

SLIKTAYEHIGISNISAFGIFVETIPYRFYNIFMLFFVVMTAIMGREFGSMYKAEVRARTTGQIAPLPKS

GTLDTTELEDQFLAPKEGIKIRAFDAIVPIFTLIILAILGFYFNGLSTLEGEELAKASTNPLSFETFRAA

FGNADSSVVLFQAALFAAIVAIFIGVRRKIFNLKEAVETWIYGWKTMIFTIVLLLFAWSLSSIVKDLGTS

LFITSLLADKLPEFILPATIFAFASAISFAIGTSYGTMGILMPLAVPLAHEIAKINGMDANAMHHYMVIN

ISCVLTGAIFGNHCSPISDNVILSSMSAKCDHMEHVRTQIPYALFICGISLIAGYIPVSLGLSVWFVLPL

NFILIALLLRLIGKKVP

>AHK57041.1 tRNA (uracil-5-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSLENFGNFLTLDEKHSFIKKYFKEFYTKDFKLFASKDKHYRTRAELSFYHENDTLFYAMFDPKSKKKYI

IEYLDFADEKICAFMPRLLEYLRQDNKLKEKLFGVEFLTTKQELSITLLYHKNIEDIKSNLENLSNILHI

NLIARSKGKKLIFKTENLRQTLNIQDRKIFYEFNNDCFIQPNTAINEKMITWVCEILNTQKRMDLLELYC

GYGNFTLALAPFFFKILATEISKSNINFALKNCELNNTTNIHFARLSSEELSLAIKKEREFFRLKDIRLD

DFNFSHVLVDPPRAGLDKSVIDLIKKYGNIIYISCNPMTLKENLKELSLTHRVEEFALFDQFVNTPHLEC

GVFLSKV

>AHK57040.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEEFYPYTLTIHLLCAILFIGYLFVDVFVLGVVKKKNPNFDKSLFSATGVKIMPFVVLLLFLSGGALAGF

HFKPLNLLFAVKIILAFGILSLVVFSLFCHFILKKKNPLGVFIHPFVFVLCIAIVILAKLMNYFFIPC

>AHK57039.1 CoA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNEKETISYIINTSKNIVIFALSPDKTKASYRVAEFLQRKNYKIFPIYPKEEFILNEKVYRNLDQIEEKI

DTLILFRKGEVALEILPKLVEKNIKNLWLQLDISNETAKEECKKLDINFIQNRCIMLEYPHFKTKEK

>AHK57038.1 threonine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLELNKIYKAKQQISGFVNKTPFIYSSFLSDICQSEIYLKNENLQITGAYKIRGAYNKIANLSTEQKQHG

VIAASAGNHAQGVAISAKKFSIKAVIVMPESTPLLKVSATKALGAEVILRGDNFDEAYAFATSYAKENNL

SFIHPFEDEFVMAGQGTLMLEMLDEISDLDMIIAPVGGGGLISGISSTAKQINPNIKIIGVGAKGAPAMY

ESFHAKKIKNAKSVRTIADGIAVRDANPINFNIILECVDDFIQVDDEEIANAVLFLLEKHKIIVEGAGAA

SVAALLHQKINTQNHKKIGVVLSGGNIDAQMLNIIIEKGLFKSYRKMQIYVTLVDKPGALLHLTDSLKIA

NANIVKIDYDRFSTKLDYGDAMISITLETKGKEHQEEIRKILTQKAFNFYESF

>AHK57037.1 tRNA pseudouridine synthase A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIKIIFSYDGSAFLGSATQPHKKGVQDALSGALSHLGIFSPLLMASRTDKGVHASYAVASVECGDYFTN

LEYLQKQLNKFSHPFIHIKKIEKVKDDFEVRFDVKSREYRYIFSHASYSPFMASYVHFYPKFDLGKANEL

LGFFVGKKDLKFFCKSGGDNKTTLREIFIARAYAYKDFSIFHFKANGFLRGQIRLSVASVLKVLEGKMSE

KELKEQIEAKKQYNHFLAPPNGLYLSRICY

>AHK57036.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLSLRYVLNQFLSTNLSIFFVLFAIVSMVFFIQLAKLTSSIEISFLDLLKLYGFMLPRILIFTLPISFF

ISLTLALFRLSKENESIVLFTLGFSPMILAKFFLKIASLISAFMLVVALVMIPIVFELQDNFVNYKSTQV

KFNYKTGEFGQKFLDWMIFIEKQDSDKYENIIMYRPKHKADDKEQLIIAKEAHVQRKDDSFAFSLNQGKM

YNFEQGQSIFSGEFDTLVVNTQFNTDNLQTKKFYEYWNDLNENLQRAREFVIYTTIALFPLASTLFALCF

GLVTYRYEKGYVYLGMFGVIAIYFGLLSSFSQPPILACLGIFSLSLFVSAYCFKKMILSRY

>AHK57035.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIFFIIILGACLGSFCTSLASRIIEKKLFFISRSFCFSCDTKLKYYEIIPIFSYIFLKAKCQTCKCHLSI

SLLINEILGAILLILVYSLSQNFYDFLFLSLFLFNLFLLSLIDIKLKAVPQILLWSAFLFAFFYAFRESE

ILHFLIFKEFSGGFLLNAFSFGGFVFLLKSLVFFLMNFQKKDEILENLGDADIIIMSCIGGILGFEYGFL

VLFIASILTLPFFIFFRIKAIKEQELAMIPFLNIAFVAVLFYKNLGLF

>AHK57034.1 UDP pyrophosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNELKHLAVVMDGNRRWARAKGFLAKLGYSQGVKTMQKLMEVCMEENISNLSLFAFSTENWKRPKDEIDF

IFELLDRCLDEALEKFEKNNVRLRAIGDLSRLEDKVREKITLVEEKTKHCDALCVNLAISYGARDEIIRA

AKRVIEKKLELNEENLTQNLDLPLDVDLMLRVGNAKRLSNFLLWQCSYAEIYFSETLFPSLTKREFKRII

KEFRNRERTFGK

>AHK57033.1 hypothetical protein N918\_04080 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSMINSTLPIQMKVLAKSGYGHYTLLLNHKKIQTKSMIELEIGAEYLAELYMQNGGVIQFKHLSKRPNFK

PFEEGLALIIAILEDKISYKKFIIQNLLDCKDIERYQILKEMLFASFENIYHIPFNFENKSCLFQMRKRA

KYLEIYLYFSVFGALKILIDSQGISVFTPFAKVQKFLNEHLDFNVSQENKIEPLFVFKRLFDFKG

>AHK57032.1 phosphopantothenate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTILLAISGSIAFYKSYELISLFKKEGFRVKVLLSNGLLKFASKMSFEALVDEVLCEENESWQNSNNHI

AFSKDVDLVLFTPASVNSINKLAFGIADNLFIQTLIAANKPLIIAPAANTNMFHHFSTQNSLKILKENKA

LIIEPICKVLACKDEGVGALAEVKDIFNITKRELLKEKFWCNKSVVITGGGTRERIDDVRCVSNFSSGKM

AKAIADAFYFLGARVKLLSSVEFDTPYELCKFESSKDLKELLDKNLSHDFLIMTAAVSDFIPQSVKGKIK

KNEHLQGLNLHLSLNEDLLKTCKFQGKKIGFKMEFDSQNALENAKKSLKDKQLDMVCLNIIDQKNYFGSD

QNELYFITLNNENKSTLQSKEKLAFELVKWCEKL

>AHK57031.1 N-acetylglucosamine-1-phosphate uridyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTSILILAAGLGTRIKSQKPKVLQELCQKSMILHILKKAFALSDDVSVVLSHQKERVEKEILEYFPKTQ

ILEQDLQNYPGTAGALSGFEPKNERVLILCGDMPLVEQTSLEALLGNNAKLNLAVFKARDPKSYGRVVIK

NDSVEKIVEFKDANTQEKEINTCNAGVYVIDSRLLKELLPLIDNNNAAKEYYLTDIVKLAKEKDVMIKAV

FVDEDEFMGINDKFELSIAENFMQKKIKKYWMQQGVIFHLPQSTFIGADVEFVGECEVYENVRIEGKSKI

INSIIKSSSVIENSIVENSDVGPLAHLRPNCELKNTHIGNFVECKNAKLNTVKAGHLSYLGDCEIDSGTN

IGCGTITCNYDGVKKHKTIIGKNVFVGSDTQFIAPVKIEDEVIIAAGSTVSINVEKGALFINRAGHKMIK

DYYYKKFQK

>AHK57030.1 flagellar biosynthesis protein FliP [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILLFLLLSMSLFAAEATIPTVNLSLSAPNTPNQLVTTLNIVIVLTILALAPSIVFVMTSFLRLIVVF

SFLRQAMGTQSMPPNTILVTLALILTFFIMEPVATKSYNEGIKPYLAEKIGYEEAFIKGAKPFKDFMLKN

TREKDLALFYRIRNLPNPKTIDDVPLTVLVPAFMISELKTAFEIGFLIYLPFLVIDMVVSSVLMAMGMMM

LPPTMISLPFKLLIFVLVDGWNLLVQRLVESFVT

>AHK57029.1 amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIILIFISFFALNLSAKDLVVGMELGYPPFEMSDKTGKASGISVDFLEAFAKKNGYKLVVKNIAWDGL

IPALKTAKIDLIMSSMTITDKRKKVVDFSIPYAKANLAILTPLNSDITNIKDLDKKGKVLALKRGSTGHL

YAVKNLKNATINLFDKENAAILEVIQGKADGFFYDQLTIYRTWQKHQDTTRAILAPFQENPEFWGIAVRK

GDEALKDKLDNFIDESRKNGFLDFLGNKYLKDIKEVFKQNNITFFL

>AHK57028.1 3-deoxy-manno-octulosonate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDAKMIIIPARLKSSRFHEKILCDIGGVPMFVATARRVSSVDEVCIALDDEKVLSIAKEYGLNAVLTSKD

HESGTDRINEACKKLALKDDEIIINVQADEPFIECENLLKFKEFASFCLDKKAFMASCYKKITQEEAMDP

NLVKVLCDKEGYALYFSRAKIPYERENYEESFKGHLGIYAYSVKALREFCSLSSSALERAEKLEQLRAIE

NGKKIKMLEISTTSMGIDTKEDYERALKIYLEK

>AHK57027.1 threonine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLVESRNVNNVSSFKEALINPNAPEGGLYSPLNLPIFEGEKYANLSYKDFALKLIESFGFGEEELFKKA

LKSYESFDDKNTPISLQKISEKTYINELWHGPTRAFKDMALQPFGVLLSEFSKDKNILIICATSGDTGPA

TLKSFENAKNVKVACMYPKGGTSGVQELQMRALDKDNLKVFAIDEDFDAAQRTLKELLFSKDFQNEIKAL

NYELCAANSVNFGRILFQIIYHYYASLKLFNEFLEEVQIIVPSGNFGNALGAFYAKKMGAKISKIKIASN

ANNILSEFFNQGVYDLREKSLKKTISPAMDILISSNIERLLFAKFKDKRTKELMNLLKNERYFKLEKEEL

QSLQEDFEADFCTDEECMQFIKQSKILIDPHTATCFKMLDPLKPSIITSTAEWTKFTPSMIKALYDRDSK

NEKEDLKFIAKEFNVQVKDEILALFDLKNSDEKVFEARNIKKEILDWMQK

>AHK57026.1 tetraacyldisaccharide 4'-kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNEEKNYELWLDNYFFKPNFWQKCLAFILLPLSVLYAFFAILNTFFRKKIVFKKPVISVGNLSFGGNGKT

PLCKAIAREFDGVFIVLRGYKRKSKGLFVVKNQNEILCTLTQSGDEAMEYAFEENIKGVIVSEDRVKGIE

KAFELGAKIVVLDDAFSKFHIKKFDILLESKIKPYFNFTLPSGAYRLPKFYEKRADFIALEGRDFVRYSF

VKENPKAVLVTAIAKPFRLYEHFIKARACYFFKDHYEFKKEELENLLKKHNCDTLMLTFKDFVKVKDFGF

KCQIIELNIELKDSLREKIKTYIKEFEQ

>AHK57025.1 NAD synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDWQKITEKMCDFIQEKVKNSQSQGVVLGLSGGIDSALVATLCKRALKENVFALLMPTQISNKANLEDAL

RLCADLNLEYKIIEIQSILDAFIKQSENTTLVSLGNFAARIRMSLLYDYSALKNSLVIGTSNKSELLLGY

GTIYGDLACAFNPIGSLYKSEIYALAKYLNLHENFIKKAPSADLWENQSDEADLGFSYTKIDEGLKALET

NDEKLLRTLDPSLIAMLKNRMQKNAFKGKMPEILEI

>AHK57024.1 beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQIIKQACGVYETNCYILFTPKGEFIIDPGTDALLFIKKHVKNPLAILNTHGHYDHIWDNAKVKKEYNIP

IYIHKNDAFMLHDDFNQGYDSSDADFLVDNEDILNICGVDFKFHFLPGHTPGCTMIEIVGKNIMFSGDFL

FYRSIGRWDFPYSDANLMKQSLEKVMTYKEDFKLLPGHGQETTLKEEQVHLPSWLRYF

>AHK57023.1 hypothetical protein N918\_04015 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MELDQILLYAFIFLNLFALFGLFLGNKKKNQFNDKKFYKICPCKKMAENGSLSTICIYSAVGGFFYSVLS

IGFVGFGNWTLNFIFLLALLSVFLGWKLKLD

>AHK57022.1 7-alpha-hydroxysteroid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNTEFQGKTLVISGGTRGIGKAIVYEFAKVGANIAFTYNSNAQIADEMVQDLEKNYKIKARAYEFNILEP

ETYKELFEKIDVDFDRVDYFISNAIISGRAVVGGYTKFMKLKPKGINNIFTATVNAFVVGAQEAAKRMEK

VGGGSIISISSTGNLVYIENYSGHGTAKAAVEAMARYAATELGEKNIRVNVVSGGPIETDALRAFTNYEE

VKQATINLSPLNRMGQPEDLAGACLFLCSSKASWVTGHTFIVDGGTTFK

>AHK57021.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAVETC

KGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLYNVP

GRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNGGKGVISVT

SNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFRLPLCSPSK

ENFAKIEEVMKKYKIKGF

>AHK57020.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIAYEKIQLKNKLEVYALPVNKNSDVISVDIFYKVGSRNEIMGKSGIAHMLEHLNFKSTKNLKAGEFDEI

VKGFGGVDNASTGFDYTHYYIKCAKKNLDKALELFAELMANLNLKDEEFQPERAVVLEERRWRTDNNPLG

YLYFRLFNHAFMYHPYHWTPIGFFKDIENWSIEDIKEFHSIYYQPKNAILLVSGDIESKEVFELSKKHFE

KIKNTKTIPKIHTKEPKQDGVKRIYLHKNSDTELLALAYKIPNFKHKDIPALNALSELLGSGKSSLMSEI

LIDKLNLINDYYAYVNDCIDENLFIFICNCNPNVNAEKVEKELLKIIDKLKMGKISQKDLQRVKNNVKSD

FIFSLNNASAVANIYGSYLARGDINPLLNYEKDIQNLELKDLISCAKKYFIQENSTTVILRKDSNG

>AHK57019.1 diguanylate cyclase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAYEMIKLLLFKLNPEHAHALVEYSLRALSASFPGALSFLAHKYIVDDESLRQNLLGLDFNNPVGLAGGF

DKNATMIRPLSALGFGFLEVGTFTPKPQEGNEKPRLFRLVKQESIQNAMGFNNEGAEKIALRLAKTYPFV

LPLGVNIGKNKITPNDKALEDYFTLFRDFKDLCDYFIVNISSPNTKNLRELQNDDFLNTLLEEAKKITSK

PILIKIAPDMKIDDALNLCENAIKKGADGFILANTSVDYSLLDNNRTFGGISGRLITEKSGIFFKEVTKI

LFGKTLLIASGGIDSADIAYERIKNGANLVQVYTALIFKGPSLVKNINQNLIELLRKDGFLHISEAVGVN

LK

>AHK57018.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHNEMNLKEVLIRFKPFYKRYWKQFAIAIFGMILASGGTAGSFYALEPILNYIFVEKNEALLYTVPFLLV

LMYFFKNLGTYLQSFYVSFIGTDMLRVLRARVLKNVLRLDMDFFKRYRSGELVSRCTNDINALQSIVSNI

IPDFFRELLTAIGLLAVVLYQSPTLAFFALVILPLAIFPLVWFAKKLKKYARNIQETNSDLLSYLGEIFS

NIELIKANDNEKKESDKFAKHNDTLCKLNLKSARIDALTSPLMDMMGSVGVAVVIIVGGREVINGSMSVG

SFISFVSALFAIYTPLKRLSSLYGKLQGAVAASERTFYLLDLEPQIKGGSKELKNIEKISFENVEFAYEN

PHKSVLKGVNFDFVKGQMLALVGTSGGGKSSIINLLMYFYEKQKGKILLNQEDISTFTIESLHAKIGLVT

QNIYLFNDSFAANIAYSEELEEEKVIQALKLANAYEFVKEMGGIWAEVKEHGKNLSGGQKQRIAIARALY

KNPDVLIFDEATSALDNESEKAIVKTIENLKQDRLILVVAHRLSTIENADKIVVLDKGKVLAIGKDEELL

QTCSLYQKFKSKEKTKPSFS

>AHK57017.1 cysteinyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRLLDSVTKEKIKLDKKDISIYLCGPTVYDDAHLGHARSSVCFDLLRRVLLAQGNRVKFARNYTDIDDKI

LKKMAQSGQTLEEITEFYIKSYEEDMRVLNVLDPDFKPRATHYITAMLDLIKKLAKDGFVYTLEDGIYFD

TSKDEKYLSLSNRNLEENISRLSNEVQKRNESDFVLWKFDENFYESEFGKGRPGWHTECVAMIDSIFENT

LDIHAGGIDLLFPHHENEAAQCRCGCKRKLANIWLHNGFVKIDGEKMSKSLNNSFFIKDALKEFMGEALR

FYLLSSHYRSHFNYSLSDLENAKKRLDKFYRLKKRLDLGEISDFDVLNDIGIKSEIAKQILEILNDDLNV

SKALALLDDFISSANLELDKESKNKILKQNIKEALSELAKIFGFGFMDATLYFQWGVSKEEREEIEKLIL

ERTEAKKNKDFNTADAIREQLNSKKITLLDTPNGTIWEKINA

>AHK57016.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MALDEKIIAYTENPARELLSVASRTNLSLNELDFSLLAFSTQYRFGDLEWEKISEKELTLFDKDEIFLKN

DLQIKQEYKIEIFHGINQSKASQAVKLVANKNLTKIVAQIDFTNLDFHEKLALELLQNIYKKMLKLKFLI

GIRIFDFKKKLMSFCNQYKNTPLNKTIQITVAQGIDPIESQDESLILTYKEKTKNYTIDEKRSGIIVVDE

NEVVLKHVKFKQGKEGKDLNLHTLKVLAANENKVKFSCSSAFKQVEQDGYTEYIALKKGYVVQDGEKFDI

ANELDFNGVDFKNIGIIRAGLDKNVKINIKFLSEVKDAVNSGVGIECEELNVVGSVGSNTQLNATKMKIE

GTTHSKAKIQAKQAYIKTHRGFAEAEILNIDLLEGGTIKAKEVRIKKSLGGNIQADKIYIENLESNNSCV

FFENTTIERINGDNNKFHAKIKTLDKNYDEEFAILGEQISKLNHKINKIRQYILSSKNGILSVEKKITEL

KNQGQNVPVQYEKALKDFSLQNLELNKLQNEEKELLERKKSLQLELINLQKMLFEATFINKSGKWTDMNE

IKFSLLEPKEDIFCSSFVNESAKFIGIKKVIQNNQESIEIHKKLDYEEKDIAWLSASKE

>AHK57015.1 Holliday junction DNA helicase RuvA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVVGIEGIITKKEPTFIIVKCASGLSYGIFISLFCSAKIQTQEKHEFFITQIIKEDSNKFYGFLDKDEQK

MFEMLLKVNGVGANTAMAVCSSLDVNSFYKALSLGDESVLKKVPGIGPKSAKRIIVELSDTKTKLENVSD

DKSEALAALLTLGFKQEKIISVLVSAQATGTSELIKEALKKLG

>AHK57014.1 D-alanine--D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFAILFGGNSYEHEISIVSAVVLKKVINQNLEFIFCDEERRFYHIPSEKMNSKTFSTKAYKKEKELFIK

QGGFFSKGFLKENKLECECVINLIHGRDGEDGKIAALFEFYSIKFIGPRLEASVLSFNKELTKLYAKSVG

VKTLDYTILRKNQNSKEKLSFPCIIKPARLGSSIGISIVKDEKDLEYAKDVGFEFDNDLVVEEFKNNIKE

YNLAGCMINDEFVFSIIEEPKKKEFLDFEQKYLSFSGHNELIEADLSEELKEKLKDSFKKIYNPLFKGAL

IRCDFFILDNEIYLNEINPNPGSLANYLFKDFNTTLNALADQISLEKMIKINYNFLHSINGQKGKL

>AHK57013.1 prevent-host-death protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLSFKQDEIYTATEVVRNFSPIMEKLKKSESGKIVILKNNKFEAVMLSMKEFERLQNAMQLLENIYKNQK

A

>AHK57012.1 2-hydroxy-6-oxohepta-2,4-dienoate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAQTQLSYKNKTYQISYEILGDLSLPQILILHGWGADKKLMKQSFCPFLKDFCQIYMDLAGFGNSSVEEI

LNTQDYANITELFLKQKKLNVCFFMGHSFGGKVSTLLAKEKDTLILLSSAGILAKKSLKVRFKIRIFKIL

KLFGLGKFYRYFASKDGANLSPIMYETFKKVVDEDFSEIFAKQKAKSLIFWGKSDEATPLYCGEKMHQFL

KNSTFYPLEGDHFFFLKHSAFIAQKIKEI

>AHK57011.1 UDP-N-acetylmuramoyl-tripeptide--D-alanyl-D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLINTLYFINSLFFNFCIAFYLMSALQWYSYKFKRVFFHYHKPLWHLYFLFIPYFLFLAFPLYSLVYFAL

IHTPILYFWNKGIDKKLVFTSKVKWFFVFVFVYNAIFTILALRFSFLFNLFSLPFALLSLKIYEFFTNLY

YKKQAKAKLRANENLKIILITASFGKTSIKNFLYELLKDDFKSYKTPRSVNTLLGIVADINANLSQDTQI

YIAEAGARLKGDIDEITHFLQPQISIVGEIGNAHLEYFKSVENIRSTKLEALNSERLEKAFLHSSTQKEE

DKLISLYDDKLSLIHSSLEGLEFKVDIENKSYDFKSQILGDFNAQNLCVCILCAHYLGIKLEKIQKQVLN

INSVEHRLQVLSREPKFIIDDGFNGNFKGMSTSYKLCKSYKGRKVLVSPGIVEVSEEENIKLAKIINECF

DLAIISAQINAEIFKKELKIKTIILKEKSQLVQTLAKETKHGDLILFSNDAPSFM

>AHK57010.1 signal transduction histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNESILKSLDSNEKETLQKGLESLIEQTYVIENEYKTLNENYNSLRAMVDEIIEVLPSALWILDKEKNII

LQNQEALKNPKLLSIISLDKIRDELEFEGRFYAVKIIAHNEKTIVSATDISDEKRNERLASMGSVAAHLA

HEIRNPIGSISLLASTLFARSELKNKHIVLEIQKAIARVERIVNSTLLFTKGVHINALNFNLLELKEECE

SAINSYNFTSQIDFEISFLDKQICADKALLGLVLQNLIYNAIDAIEESECEKPMIKILASYDNEKICIRV

YDNGCEIKDEKLVFEAFKTTKLKGNGLGLSLSKEIINAHKGELSFQSDPKNFYFTLPLV

>AHK57009.1 hypothetical protein N918\_03940 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHKNLSLSKLFDFYSVFEGFEKLNILNFEDDVFTNIERILLDDYLKIKSYFALDETSSYALTLLAKNNRK

RFSINRKIQHFKALSTLKYLLETGIIKLEYSKEAKKIKDKRQKIKKELRSYVVQDKIIFSNHFTRFFFYF

LKPNEKLILQNRYKEVLECIKEKFELYQSFCFEQLSRELLEKKFNINGVQSYWDKNLELDLYYQDENLCF

VGEVKFKNKKICKNILNLLKSKAKSLNLAPNYYIIISKNGFSKEIDKICEQNLLLLDLNDFKILLEE

>AHK57008.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQISDLKKELILKKGILHFDFTASALALKCVEKEILKILPTYANTHSDSSLNSFKTQQTYEQARKDIKKS

LSLDENFALIACGTGSSSAIKKFQELIGIYIPPLVKERYFTQIDKNTLPLVIVGPYEHHSNELSFREGLC

ECIRIPLDKNGEIDFDFLEKTLQKNKKRKIIASFSLASNVTGILSDYKRISEMVRKFKGIVAFDASSFIP

YKNISCQYYDALFISSHKLIGGIGGSGLLAIKKDLCGNKPSFAAGGTVGYVSRTSQCYLCNEEALEEGGT

PGILQLIRASLAFKIKDSIGVKNIEKKEEILKDYFFEKLKTIPNLILYAKNLKTRLPIFAFNIKGISPFD

IAYELSKKYHIETRAGCACAGPYGHDLLGLKDNQKLKTKPGWLRISLHYTHEKEDIDYFFNALNKTIVKL

SH

>AHK57007.1 formyltetrahydrofolate deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MISVLKICTKDQKGLIYRISDVIFKYHINIVKNDEFVGEGMFFFRALLEGEFDKEAFIGTLEAMLGQEAL

IELCEKRKKDIVVFATKESHCLGDLLIKHYSNELEANIKAVISNHNSLKDLVEKFEIPYHFISAENLDRK

EQENQILKCLEQYKFDYLVLAKYMRILSPDFVRHFEGKIINIHHSFLPAFIGANPYKQAFERGVKIIGAT

AHFVNNNLDEGPIITQAVSPVNHEFTWQDMQQAGRNIEKDVLSKALDLAFEDRIFIHNNKTIIF

>AHK57006.1 multifunctional Cca protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVGGSVRDLFLGLKICDYDIELYDIKPKDFEKIMQKLGAQGFGKSFFVYKFKNYDLALARTENKISYGHK

GFEVQICNDEKLGAKRRDFTINSMMINLFNDEFLDFYGGLKDLGVGFLRHIDKQSFQEDSLRVLRAVVFA

SRFNFKITSESLKLMQSMDITDLSKDRINAELCKFFKSPRLDVGYRYLQELGLEKQVFGFESVFKSSEFQ

NLLRQSREFVKSDALFLYLYLNFFNLEKDIFFKRTKLKKEYLKYANQAFYLDDISDFELAKIAFEMPLKE

WLGLWSKKRIEQAKRLGLYENKFESKILAKDFINAGFCGKILGLKLQEARENELKEYIKGLAK

>AHK57005.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLEDLAKKTISEVSSIMEEQRRQNEILKEQELNRKTEIKDELPPMEFVCEELDTPQDLEDKISMAKFEE

EQKIQNNIEISTQENKEFKKEEPFLQNEILNPSVMTEVQTLNEDIFLKHLRERILVLFEGLNSIKKDDLE

NRLNLTINFLEFLLANIEDKLKK

>AHK57004.1 hypothetical protein N918\_03915 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNTVTEASIYEAQGLKDEALEIYKNILKEDPNNQNAIDAVRRLSGFRSKHKDLNTQMLDFFINMKSDEE

INEFKRWLIKI

>AHK57003.1 hypothetical protein N918\_03910 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVFLIPLLIIIGVIFGIDYVYFKNQDLKVQVKKEQKELNSSLEKEKKEYIEKLFKTK

>AHK57002.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNNLSSVLILAKEEYINDLKKAISEIPFCSVELCENEKIIVVIESENLEDELNSYKMLEKLPNIISINMV

FSYQDLNDDIQKAINSGAIETIEKNENAENVRYYGSVFNQFS

>AHK57001.1 hypothetical protein N918\_03900 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKFLFILSLFCVLSYAYELKLNANITALKLDKQNLYIGTDKGEILQYNIKDKSLKELLSLPKIKNYYGD

DFAKIYNIDIFKHTLLILSEGDFGAKNLSFYKENLQIKKLEENSIIKAFFINENTYLLISIGSEIELIDK

SLKNIKKFNFSHSSLNDAVLNEDKSRLIAGFESGEVELFDLKNWKMLKNYDKMHKDNIYQVDFKNNVILS

CGTDRRIGVVKNEEQNFLQKDFLIYTCALSPSGEFAVYSDNEAGVSEVFSTSDFKPVKTFNNENLMSEFI

IFLNNKDFIVSGFGDSIMFRSIDE

>AHK57000.1 nitrate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKKLVLLGSAAVVFFAACAMNSGVSSEQIGLRKASLENENKVNLVEANFTTLQPGESTRFERSYENAPP

LIPHAIEDLLPITKDNNMCLSCHDKAIAADAGATPLPASHYYDFRHNKTTGDMISDSRFNCTQCHVPQSD

AKPLVGNSFKPEFKNEQLKSRSNLIDVINEGVK

>AHK56999.1 quinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKYLIARRIVQLGILALFSFKATDFILQGNLSSSRLFNTIPLSDPFAVLQIILASWSIDLMALIGALIIF

FIYGLLLGRVFCSWVCPVNLITDFAAFVRNKLTLNNKFLILPKNLRYFVLVLVLVLSFVFSLPVFESFSY

IGMIHRGIIFATSSWIFVAFILFCIDTFLSPRAICSHFCPLGAFYAFISRFALLKIKHDSDKCTKCYECI

RICPEKQVLWMVGKESTSVKSGECIRCARCIEVCNDDALNFNIFDLRNK

>AHK56998.1 quinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKGRREFFVSAFKAACLCTGGGFLANLALKADDNYALRPPGAENEARFLSKCIRCGLCVKACPYDTLKLA

SLLDSPKNGTPFFKAREIPCYLCKDIPCIRECPTDALDKKHLEQGIESLKMGIAIVDSASCVAHWGIQCD

ACYRACPLIDRALKLELKRNERTAKHAFLLPSVDHEVCVGCGLCELACITEKPAIRVLPREYVLGKAGSH

YVKGWDEKDEGRIKNADTSKHFNVKKATNYLNDGEL

>AHK56997.1 nitrate reductase catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNRRDFIKNTAIASAASVAGLSVPSSMLGAQEEDWKWDKAVCRFCGTGCGIMIARKDGKIVATKGDPAAP

VNRGLNCIKGYFNAKIMYGEDRLVMPLLRMNEKGEFDKKGKFQQVSWQRAFDEMEKQFKKAYNELGVTGI

GIFGSGQYTIQEGYAALKLAKAGFRTNNIDPNARHCMASAVVGFMQTFGVDEPSGCYDDIELTDTIITWG

ANMAEMHPILWSRVSDRKLSNLDKVKVVNLSTFSNRTSNIADIEIIFKPNTDLAIWNYIAREIVYNHPEA

MDMKFIKDHCVFATGYADIGYGMRNNPNHPKFKESEKDTVEKENVITLDDEEATSLSYLGVKAGDKFEMK

HQGVADKNWEISFDEFKKGLAPYTLEYTARVAKGDDNESLEDFKKKLQELANLYIEKNRKVVSFWTMGFN

QHTRGSWVNEQAYMVHFLLGKQAKPGSGAFSLTGQPSACGTAREVGTFSHRLPADMVVANPKHREISEKI

WKVPAKTINPKPGSPYLNIMRDLEDGKIKFAWVQVNNPWQNTANANHWIAAAREMDNFIVVSDCYPGISA

KVADLILPSAMIYEKWGAYGNAERRTQHWKQQVLPVGAAMSDTWQILEFAKRFKLKEVWKEQKVDNKLTL

PSVLEEAKAMGYSEDDTLFDVLFANKEAKSFNPNDAIAKGFDNTDVKGDERKIQGSDGKEFTGYGFFVQK

YLWEEYRKFGLGHGHDLADFDTYHKVRGLRWPVVNGKETQWRFNTKFDYYAKKAAPNSDFAFYGDFNKML

TNGDLIAPKDEKEHSIKNKAKIFFRPFMKAPERPSKEYPFWLATGRVLEHWHSGTMTMRVPELYRAVPEA

LCYMSEKDGEKLGLNQGDLVWVESRRGKVKARVDMRGRNKPPVGLVYVPWFDENVYINKVTLDATCPLSK

QTDFKKCAVKIYKA

>AHK56996.1 thiol peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSIVNFKGNPVKLKGNSVEVGADAPKVNLKAKDLSVIEIGAAGKTQIILSVPSLDTPVCATEAREFNKKV

ASYNGAEVIVVSMDLPFAMGRFCSTEGIENLSVASDFVAKEFGEKYGVLINEGALEGLLARAVFVIKEGK

VAYKELVNEITEMPDIAKLDAFFGGSSCCGGCGCH

>AHK56995.1 hypothetical protein N918\_03870 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILILSLAASFLNAEILVYGPGGPAPVLKELALKFEEKTKEKVIVTAGPTPAWVDKAKENADLIFSGN

TSMMDDFAKKIPSLSLENLSVLNVRPSGIIVRPNNPKNIKNFEDILKDGINVMVVDGAGQVGLYEDMALK

SAKRENLVKLRKNIKIYAKNSKAAVDEWNNNPNIDALIIWSHWAKALGDDKALFIKDKNAVIYRAAEIAP

TKKGLENKKALEFVDFIKSQEAQKVWKKYTWKEVK

>AHK56994.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPLSKLNNEQYLAATADFGHNLVIASAGTGKTSTIVARISYLLSKGVAPQKIMLLTFTNKASKEMIGRLG

KFFDKNITSKILAGTFHSTAYTLLRNADKNIALKQASELKTLLKSVYEKRTFRHLSDIKPYQSSYLYDLY

SLFQNKAHNQDFYTWFCQNYEDQSIYAEIYEDILKEYDNEKKRFNYVDFNDLLINLKDLLKEEKYEFDEI

LVDEYQDTNTLQSSLIEAFHSKSLFCVGDYDQSIYAFNGADINIIGGFKDRFKDAKIFSLNKNYRSSRSI

LALANKVILNNERLYPKELIVTRNDEFKAPSLLTFEELFDQYQNIAKMILTSGVSLEEIAVIFRNNSSAD

GVEVALREQGIASVRKGSGSFFESLEVKAFSSMLALVVNPKDIMAFIHLVQYTKGVGGVLAKEIFDALLK

LGHGNLIKGFLDPDKNVNLQNHQKRNYQLGLFADLEELASETRFKFESEFDAHPILRLSKINDLCARNLE

KIYLFLKKAMEIKHSLTLVNLICENSFYREICEELATKRATNKAGQVDLLRKSENLEKIETKFNVLKELT

KNYSDIYKYYNFLTLGASEMSSGKGVNLLSVHASKGLEFDLVFVIDLAQGRFPNQKLMGMGGSLEEERRL

FYVAVTRAKNILYLSYAKYDKNKKTSFAPSRFLIEAGLCKGELTID

>AHK56993.1 hypothetical protein N918\_03860 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLKIFSIIVGILIAVIVILGGTYYYLFEYSKPKNYTLNTNTYTEQKSYTNNYDNPYSPSIQTNNSSSNV

NTNNNTIQKQETNPLLDENQSLNNDTFNISISENNQSLNNDTNTSNNINTNENKQILDTDKEKLKQENKQ

AKIEALKKEISKQQKILERERAIKKELQSNKSNKNKYLNTAREYLSIGKNSRLEPELSTENMKVYILDGK

FLSQYRINLLKDMLSIIQDNAKDYYLSIFVKMLPKGEMKLTIYNKEIIFSDMKKAYKYISLDRLSPYLNN

PKELNEHVAREEILERLKLQIKKDGKGSDFSKHIKSLKTGLNTAQYFFPFCEIIEISSIK

>AHK56992.1 valyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYDKNLEKEYYQICEERGYFEIDGNKTIQEKDKNFCIMMPPPNVTGVLHIGHALTFTLQDIMTRYKRMDG

YKVLYQPGLDHAGIATQNVVEKQLLTQGIKKEELGREEFIEKVWEWKEQSGGKILDQMRTLGITPAWSRL

RFTMDEGLVNAVKKAFVELYDKRLIVRGNYMINWCTHDGALSDIEVEYKENKGKLYHIKYFLKDSDEFLV

VATTRPETFFGDTAVMVHPDDERYAKFVDKEVILPISKKAIKIIADKHVEKEFGTGVVKVTPAHDMNDYE

VGLRHNLDFISVFDEKGILNEHCLEFQGLERLEAREKIVAKLESLGFIEKIEEYNNQIGYCYRCNNIVEP

YISKQWFVKKEIAQESIEKVALGESKFYPNHWINSFNAWMKDLRDWCISRQLWWGHQIPVYYCECSHEWA

SQHTPKTCPKCQSQNFKQDEDVLDTWFSSGLWAMSTLGWGNENWGKDKIWSEKDLKDFYPNSLLITGFDI

LFFWVARMMFQSTNVLHQLPFKDIYLHALVKDEQGRKMSKSLGNVIDPNESIKEYSADILRFTLALLAIQ

GRDIKLSNDKLLQVRNFTNKIYNAKNYLLLNESKFEDLENITLHSELAKYIYAKFQTCVKDVRENLDNYR

FNDAANTLYKFFWDDFCDWGIELSKAEKSSVKELGSIFKEALKLLNPFMPFISEYLYHKLSDTELKTSPS

IMISKYPKFKEQDKNIEKIFSLLIESIVSIRRAKSLIDLGNSKIEKAYIKFNDKKIKDEIKAYMNFIIML

AKCEQIEFSEEKLPKAICDVSENLEIFITLENVDLSGILTRLENQKNKLEKESFKLNSMLSNEKFIANAP

KEVVEQNKEALENLKIQLEKISVELQNLRG

>AHK56991.1 methionine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKIKNLKKYYGKELVINDVSLEIKKGEIYAIVGHSGAGKSTLLRCINGLENYQEGSLKVFDQEIKDLSQ

KKSKELRMLRKDIGMIFQNFALMERKNVFENVAMPLRTHYTQCKFHAKLFNKEYMSEKEIAQKVNSLLEI

VGLDHKNKSYPRELSGGQKQRVAIARALALNPKILLSDEATSALDPNTTKNILELISKINAEFGITVVLV

THEMDVVKDIAQKALLLEHGQIIGSGAIDELFLRPNAKMKEFLGESDFLPEHGLNIKLYFPKEVAQNSVI

THMARTLNIDFNIVWGKIEKLNGKALGNLVININEKDKDKVLDYIEKSGVLWEVAS

>AHK56990.1 methionine ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNEENISIVSAFFSRISQFFNEFSWQDIKEVSLSSITSFNENYENILKPALNETIYMSLMAVLFGFLLAI

IPGILLAIWDKNGIKENKIAYSILDFITNILRAFPFLILIVVLLPLSKIIVGTSIGTNAAIVPLAIGIAP

YLAKMLESAFKEIDKGIIEAAKSYGASNIQIIFKVIFSEALPAIISGITLTLIFTIGFSALAGTVGGGGL

GDVAIRYGYERFNKEVMIQTVVILLILVQLVQILGNLFYTWAKNSKTTYIIATLLILLGVSIVININNDE

NFFWQVIVFILFLGSLLYKGFKK

>AHK56989.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIKSLFIASILTLSLNANALETITVAATPVPHAEILEQVKPDLEKQGYKLEIKEFTDYVLPNLAVDNGE

ADANFFQHTPYLEEFNKNKGTKLIKVAAIHIEPMAVYSKKYKSLDDIKEGVKIAIPNDPTNESRALDIIA

KKGLVKFKDKALKTPLDIIDNPKKIKFVELKPAQLPRALNDVDFAVINSNYALSANLNPAKDSVFIEDKE

SPYANILVVRVGHENDPKIKALIQALQSDKIKQFIIEKYNGSVLPAF

>AHK56988.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLFKIIILACILNLSSLFAQNITIGATPNPFGSLLELMKDDFKNKGYELKIVEFSDYILPNRALEEKEL

DANLYQHKPFLEEYNLKKGSNLIATTPVLIAPVGVYSKKIKNLENLKEGARVAIPNDATNESRALELLEK

AKLIELNKNTLKTPLDINKNPKKLKFIELKAAQLPRALDDVDIAIINSNFALGAGLNPSKDTIFREDKNS

PYVNYVVVRSEGKNSEKTKVIDEILRSDKFKAIINEHYKDILIPAF

>AHK56987.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNIKKIFLSVLFTISLSFGADKTIIIGATPTPYAEILNFSKPLFQEKGWKLIVKEFNDYNIPNIALNEKD

LDANLYQHKPFLDDFNTHKGTKLSSLGAIVLVPMAIYSNSIKDIKDIPNGAKIAIPNDATNESRALDLLA

KANLIEFKSQSTLKTPIDISKNPKKLKFIELKAAQLPRALNDTDLAIITTNYALGAGLNPLKDGIFMEDK

DSLYAIVLATRKGEETSQKSLVIKEILTSDKIKNFIIEKYKGSVIPTF

>AHK56986.1 flagellar basal body P-ring biosynthesis protein FlgA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIIFLTFFIVINYIQAASLEEIKTALAKEFRNNFPKIIISQIDLKITSLPKDFDQYEFLRIANGRFNQA

QGFLRAEFKTPQNIQKNVFFRYFIQANLEVLKSERAIKRGDKLGAFDYKSVLIDFDKVPLNALTLDDVDN

LVAKSNINKNAILRANMFKTTALIRRNDPIIGVLSEANVDVLIELVALQSANMGERIRAKNKEGKVMQGI

VVGKNRMIIQ

>AHK56985.1 3-octaprenyl-4-hydroxybenzoate carboxy-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVLLGISGSSSVNLGLKLLKNLENQCELYCILTQGAKLNFKTENQANLEEICQENFKYTHFLDDKNLSL

SVASGSFGIEKTIIAPCSISSLAKIHAGFADTLLMRAAAVALKERKKLILGVREMPFSTLNLEHMLKLSQ

MGVIIAPPIIASYSKANNLEQMENFIAGKWLDLLEIKHNLYEKWQNF

>AHK56984.1 phosphopantetheine adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTCLYPGTFDPITNGHLDVIKRALKIFDEVIVAIAKSEHKKPCYDLEKRKELALLATQNLKNVKIIAFDN

LLVDLAKELKVNTIIRGLRAVSDFEYELQIGYANHALWEDMETIYLMPSLKHAFISSSIVRSIVAHGGDV

SSLVPKEILPFLKDQSCM

>AHK56983.1 thymidylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYVVFEGIDCVGKSTQISLLKEIYKDAIFTLEPGGTELGKHLREILLNKTHPINKRAELLLFLADRAQHF

EEILKTNQNKLIISDRSFISGMAYAKDFENDLLFALNSFALENFFPQKIIFLKGDANLIQERLSQKELDS

IEKRGIEYFLSVQDKLEKVLHFLKEKISVEILTLDAKESKEKLHQQIKEFLQ

>AHK56982.1 histidyl-tRNA synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINALKGMKDLLDKDAYYYEKVIKICEEVAKNYGFTFINTPHLELCTLFKRSVGESSDIVGKEMYEFIDK

GENHVCMRPEGTAGVVRAYIEKKLDKNTSVKRWFYYGSMFRYERPQKGRLREFHQFGVESLGIPNVYEDA

SIILMLVEIFSRLGIDFKLQLNSLGCSQCLPKYRDRLVEFLDSKEGFCEDCLRRKNLNPIRVLDCKNEHC

QNLLENAPLLINNLCTSCQKDFETLQQILKDNGVKFELDSKLVRGLDYYSKTAFEFISDEIGAKAAIAGG

GRYDRLIEYLGGKSGYGIGFAMGIERIITILEQKEEKIQREGIYLCAMDEIYIQKLLHIATNLRKEYKVL

LSYEARKLAKHLENADKNNTEIFLCMGENEAQNESLFYKNLAKKEEKMIKISDLKKVL

>AHK56981.1 arginine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDYGIDIWGNENFIIKNGKVCINYEKKPAIIDIVKELRDDGYKGPLLLRFPHLIQKQIENIYGNFNKARK

EFGYKGGFNAVYPLKVNQYPGFVKNLVKLGKDYNYGLEAGSKAELLLAMAYNNEGAPITVNGFKDRELIN

IGFIAAEMGHNITLTIEGLNELEAIIDIAKERFKPKPNIGLRVRLHSAGVGIWAKSGGINSKFGLTSTEL

IEAVNLLKENKLLEQFTMIHFHLGSQITEIHPLKKALNEAGNIYTELRKMGAKNLKAINLGGGLAVEYSQ

FKNEKSRNYTLREYANDVVFILKNIAEQKKDLEPDIFIESGRFVAANHAVLIAPVLELFSQEYAENKLIL

KKQNPKLIDELYDLYKSIKPSNALEYLHDSIDHLESILTLFDLGYVDLQDRSNAEILTHLITKKAILLLG

DKQNPADLLAIQDEVQERYLVNFSLFQSMPDFWGLEQNFPIMPLDRLDEEPTRSASIWDITCDSDGEISY

SKDKPLFLHDVDVEKENYFLGFFLVGAYQEVLGMKHNLFTHPTEAIISINEKGYEVEGIIEAQSILDTLE

DLDYDIHAIMDILNERISNSKLVNDKQKKHILGELYLFLNDNGYLKSIGV

>AHK56980.1 serine acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFWGIIKEDFSQPKAQDPAFNSCIELFFNYPGVWAVVNYRFAHFFYIRNFKRIARMISGISQFLTGVDL

HPGAELGRRIFIDHANGVVIGQTAIIEDDVLIYQGVTLGGTSLEKGTKRHPTIKKGVIIGSGAKVLGNIT

IGENAKIGSNAVVVKDIGANLTAVGIPAYIIEERKNKNIRAIDANCDDKLEKLEKKILELENLILKQPES

QK

>AHK56979.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLTKRSQVLEESITLAITALANELKAKGEDIISFSAGEPDFDTPQTIKNAAISAIEKGCGKYTAVAGIPE

VLKAIQTKFKKDNNLDYETNEIITNVGAKHSLFECIECLVEKDDEVIIPSPYWVSYPEMVKFAGGKPVFI

EGLEENGFKITAEQLKKAITAKTKVLMLNSPSNPVGSIYSKEELTQIAKVLEGTQITVLSDEMYEKLRYD

GFDFVAFASVSKDALKRTVTINGLSKCGAMPGWRFGYMASKNKALISAVKRLQGQSTSNICSITQHAAIP

ALNGECDKDIEKMRQAFEKRRNLALDILKQIPNISVYKPEGAFYLFVNIQKIEKDSMKFCQKLLEQEKVA

VVPGVGFGMDGYFRLSYATSDELIKKGLERIANFIKNYK

>AHK56978.1 cupin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIIQWNGAEFSPKEVKINVLIDNEKGKEIQILLAKDSVMKEHKAPFAIHVQVLSGKIWFEVEKEKFELN

ALDMISLEANVAHSLGGLENSIIRLSLNKSDSVQRVNAVLKKP

>AHK56977.1 zn-dependent hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLSFKIFDISNTQRSKAKKVQGKKYEIFLNENEHSLITPKVSFKEILRYYYLYPKNAIPSFKLPFFKPD

LSGFSTPHITWLGHSSLFISFKEYKILIDPIFNTHASPISFINKAFKNAPVYNINDFNEIFAVIITHSHF

DHLDAKSVKALKDKAKFFITPLKVGNYLKSYGVSEKKIIELDWWSGIEFGDLKIMATPAQHSSSRGDGKN

KTLWASFVMEFLSVDKRVFFSADGGYFTHFKKIGEYFGSFDLACLESGQFNIAWPYSHSFPEQILKEAKD

LNAKAVMPIHWGRFLAGTHAWNEVVKFLYENLDLPLITPKMGEAYEVGAKFKQDFWWKEE

>AHK56976.1 molecular chaperone DnaK [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKVIGIDLGTTNSCVAVYERGESKVIPNKEGKNTTPSVVAFTDKGEVLVGDSAKRQAVTNPEKTIYSIK

RIMGLMINEDAAKEAKNRLPYHITERNGACAIEIAGKIYTPQEISAKVLMKLKEDAEAFLGESVTDAVIT

VPAYFNDAQRKATKEAGTIAGLNVLRIINEPTSAALAYGLDKKDSEKIVVYDLGGGTFDVTVLETGDNVV

EVLATGGNAFLGGDDFDNKLIDFLANEFKDETGIDLKNDVMALQRLKEAAENAKKELSSANETEINLPFI

TADASGPKHLVKKLTRAKFEGMIDSLVAETITKINEVVSDAGLKKDEIKEIVMVGGSTRVPLVQEEVKKA

FNKDLNKSVNPDEVVAIGAAIQGAVIKGDVKDVLLLDVTPLSLGIETLGGVMTKIIEKGTTIPTKKEQVF

STAEDNQSAVTINVLQGEREFSRDNKSLGNFNLEGIPPAPRGMPQIEVTFDIDANGILTVSAKDKATGKA

QEIKITGSSGLSEEEINNMVKDAELHKEEDKKRKEAVDARNAADSLAHQVEKSLSELGEKVAAADKENIQ

KALDDLRETLKNQNASKEEIESKMKALSEVSHKLAENMYKKDEPNTANDKKKKDDDVIDAEVE

>AHK56975.1 heat shock protein GrpE [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSEQKQEFENENAENSEHLQDENLQNIEDVEQNKLQKDYDELKDKYMRANAEFENIKKRMEKEKLSAMAY

ANESFAKDLLDVLDALEAAVNVECQDEISLKIKEGVQNTLDLFLKKLEKHGVALIKDEKEFDPNLHEAMF

HVDSENHQSGEVVQVLQKGYKIADRVIRPTKVSVAK

>AHK56974.1 HrcA family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKSRDKKDLILESIIQTYLLDNAPIGSNELNSNLCIPASTIRVYLKRLSDEGLITQLHISSGRIPTILTM

QNYWQNFWEKEQDKNIHIKNESFLKELSKEFEIYCLVYGGRSLVLKEVLDLNTKFIVLDFEDEELVLKYE

KEAWNFLQSLIGLDLSSIEKIALRVHFIDLVEKIASLRQNLICYRSNEERAYQIYQNDEFVKLLDCQIHR

HFKESLEFEPLFKEGFMGLKVDAQFLGEDVNIILAGSVYTDYKKILQYIKEAA

>AHK56973.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILSIALVALVGLFLGACSDSKNKESNASVELKVGTAPNYKPFNYKENSKLTGFDTDLVEEIAKKNGI

KIVWVETNFDGLIPALKAGKIDMIASAMSATDERRQSVDFTKPYYMSKNLYLKLKNNDSLQTKNDLEGKK

IGVQLGTLQENTAKAIKNAQVQSNKDLNIAVLALKNNKIDAIVADQDTAKGFLAENPELVSFYQETDGGE

GFSFAFDKNKQKNIIEIFNKGIDEAKTDGFYDTLIKKYELE

>AHK56972.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLVLFDLDDTLIQGDSAKLWLKFCVEKGFLPQEYLEKIVFYQKQYQEKKFDMDEFMTFFLQSVKGKNED

RISSLVDEFIKIYIKPYEKAKELIIKYQDQRCIIISATAEFLVRKIASFLGVRESIAIKCERVGDKFSGK

AYGIYSFKEGKVLRLKEYLGKDYEKWMKDSYFFSDSINDLPLLESVSKAFVCNGDEKILKIAKERKYEIL

TF

>AHK56971.1 spermidine/putrescine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAYLKIKNFKKAYGDKIIFEDINFSAKKGEFITLLGPSGCGKSTLLRCIAGLSQINGGKISLNDKDLTKL

SPQKRNIGMVFQNYALFPNLNVFENVAFGLKIKKMDKKDIEKRVKKMLKLVELEEYAKTYPHKLSGGQMQ

RVALARSLVIKPDLLLLDEPLSALDAKIRKYLRVQIKEIQKELELTTIFVTHDQEEALELSDTIILMNEG

KIIQNSNANNLYLLPESHFVASFIGNYNILSPKELDSLGLKHDFKKDIALRPETIEISNEGLEAKIKEKS

LLGNIIRYRVRVQEIEFKVDTLNFSTHSTYEAGDKIALKFNLSLAKELK

>AHK56970.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNENLSLKAKIYHYAVLFLVFLFLALPLMATFLYSISTSWGVSVLPDDLTLKWYQELFHDERFLLALWHS

LLVCVGSILLSVILVFPLVFVLNYYFLKLKAFVNILIIMPFAVPPIVSCVGLLQLYADNIGGTAWILIFT

YFTIALPFIYRALDNAISNVNLNELITSNAMLGGSLMGAIFKLILPNLRNGILVAVFLSFSFLIGEFLYA

NILVGSAYETLQVYLYNIKNQSGHYSSALVIVYFVLIFITTFIASLIKE

>AHK56969.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEKFLAFLSILPFFIVFTFFMIAPLIWIVFNAFYVEEDEIYSLANFIHIFESKFYLQSIINSLQISFIS

SIFGLLIGLLASYSLFVLAPSKICKFLFSLNTMISNFSGVPLAFAFIIVLGSNGVVNVFLKNLGIEPFVS

VYANFGVNIVYVYFQIPLAILLLLPAFKSLENSHLNACKMLGGGNFLYWLKIALPLLAPALFGVFVILFA

NAFGAYATIYALSSGNFNVAPVRIAALIAGDINLDPYMASALSIIITIIMLVVTFIANFLSKKYNFKVL

>AHK56968.1 hypothetical protein N918\_03630 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKAILVVLDGLNCKSASINMGYLNALCKENLGKFYSLECELPSMSRPLYECLLTGVKPVLSGIINNKLS

FSKQTSIFDLCKEQGLKAGGAAYHWVFELYNKKEFIPSLHRHIEDENLTLPYGHFYYEDDYLDSHLFADG

EHLRNKYNLDFTLIHSMNIDDAGHKFGSHSIEYANKTKKVDILISEYLPTWLEQGINVIITSDHGMTEGK

SHGGLSEDEILVPFFTFGSAFSYENAKIKQDEICGSICEILGLKHDKRYNDEILKAKK

>AHK56967.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKKFFLSLGLVALLFSNSQAIDENLIKAAQAEGRVNSLAMPDTWANWKDTWADLKNLYDIEHSDTDMSS

AQEIAKFKTEKKNASGDIGDVGASFGEIAVKQGVAQPFKTSYWDQIPTWAKDKDGNWLLAYTGTIAFIVN

KDVVKDIPKTWQDLLKGNYKITVGDVSVAAQAVSAVLAANYALGGDEKDLSPALAFFNTLAKQGRLVNND

VSIANLEKGEVEVGLVWDFNGLGYRDKVGKDRYEVLIPADGSVISGYTTIINKYAKHPNAAKLAREFILS

DKGQINLAKGYARPIRIDHITLPDDIKAKLLPSEQYKNARAIKDQKAWEKSAKELPQLWQEKVIVDMK

>AHK56966.1 magnesium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLYIYIKTQNALVQRINFNLDSQELPQNILWIDLLHPSAAEIAFISSEFNLEFPTKEEREEIELSAKYWE

DNATITINAHFLVRDLKSDEEDRNLIKLRTEIVTFATAKNILFTIRYNEFSTFEEIQARILASPKNFEDG

FDIIDKMFEVRVEKDADLLEWIDKEARRLRTSVLEKKDEYSYDEMLKDISSLQELNMRVRDSLFDKRRAM

TSLLKSDKIDKDIKQNLTIVLKDLNSLVEFSVSQLNILDNIQTILASQINIEQNKVIKIFTVATVAMMPP

TLIGTVYGMNFKFMPELELHYAYPIVLGVMVISIILPLVVFKKKGWL

>AHK56965.1 molybdopterin adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDTINIGILTLSDRASSGIYEDKATAEIERVLNSYIKNDIIYHKELIPDDYDLIIKKLLYLADEKKCDLI

VTSGGTGPALRDVTPEATEAVCDKMMPGFGELMRLESLKYVPTAILSRQSAGIRNKSFIINLPGNPKAIK

ECLEPVFPAIPYCIDLIEGAYIEANDEVIKVFRPKKKCQN

>AHK56964.1 molybdenum cofactor biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFFKKKISQKQKEKPKIPINDVILDDRLCKFKNKVQKISKDEASASLLARQLSRLIRANKF

>AHK56963.1 peptidase M48 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTLIAILCLYTALLSWISYAQIRFLEREKDKQAQILSEKDYQNAADIAIENEKFKLFSNFYNLIISIAWI

GFGFLYLKELLILNNTRFENTLFLLSFLIITSILNLPLSIYESFIKDKAHGFSNMTVKLFIKDTMKSLIL

TLIFGFLILYTLLFCYDFFGTFWWIAAFIFAFCIIVIINLIYPTLIAPIFNKMKKLDDENLLKKISSLMK

QCGFSANGVYVIDASKRDKRLNAYFGGLFKSKRVVLFDTLLKALNERELLAVLGHELGHFVHKDIIKALF

NGAITMFLLFFVFANLPEFVYLESHLEGVNGGVFALLFILANIFSFLISPMLNALSRKNEFAADQHGAKV

TSKEDMKNALIALARENKAFIKTSKIYTFFYLSHPSISDRIKALS

>AHK56962.1 N5-glutamine S-adenosyl-L-methionine-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTIKNALMEAKSSLKGYENEAVFILCEYLKKDKAWLFLNQDIKIDHEPYFELIKRFKSGEPFEYIFEKVD

FWGLEFKIKKGILIPRYDSEILLFQILNLCKKNTFNGILEIGFGSGILSIVLAKELGLKITACDINPKAL

ELALENAQLHKVDHLIDFKLCNFKQIKENYDFIFSNPPYIKNSYPIDIWVQKEPKEALFGGEKGYEILEE

IIHFSLDKKVKFLACEFGYDQKEILEKILYQNNFIVDFFKDEQGYNRAFIAKFTNMRYDKK

>AHK56961.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKAVNLFLLASIIGVELILGIVVAPTIFFPQNLIGEGVLSHFQSGLMMTQIFIKMGYLLIFVSVVNFLYE

IYSLIKDEMKFQIKFSKFMLSLLILILSLIFVFYFTNTIIELQNLGENATKTQEFISIHNASEVVIKIIL

IMQVFLYFLSFKIAKK

>AHK56960.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMISDATMMQQNYYLNNAQKASDKALENIAAVRAISGVDSANLAIADSLRSQSSTIDQGVANAYDAIGVL

QIADASLTNISQSADRLNELSVKMNNAALNDSQKGMLRTEATRIQESINDSFNNATYNGKNVFQTMNFVV

GSGTETTNLNPLATDGLSIDSQDSITNFMDQLGSLRSEIGSGINAITSNINASVQNSINSKAAENNLLNN

DMAKNVNDFNANYLKENAAAFVAAQSNMQLQSKIANLLQ

>AHK56959.1 YggS family pyridoxal phosphate enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTLEQILEKTKNVRLVAASKYVDASIIEKLFDQGIVEFGENQVQALAQKKENLDEKKLDIKWHFIGTLQS

NKINLLIKQKPILWHSCNGIKIAKAMDKRLDYKLNTLLEINSANENSKSGLDPNQAVEEYLQIQEECSNL

NLCGVMSIGSHSQDKENIIKSFETTFKIYEILQKHGAKICSMGMSNDFEIAIKCGSNLVRLGSILFKNLK

>AHK56958.1 DNA polymerase III subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSQFTHLHLHTEYSLLDGANKLKELALTLKEQGATSVAMTDHGNMFGAIDFYQTMKAQGLKPIIGIEAYL

HNHDELDDKSSRQRFHLCLYAKNEIGYQNLMYLSSQSYIKGLYYYPRINKKLLEDYSEGLICSSACLQGE

VNWHLNTYSERNVRFGAKGYEAAKEAALWYKKVFKDDFYFEIMRHGIGDQRMIDDDIIRLSKELNIKIIA

TNDTHYTFKERAAAHEVFMCIAMGKKLNDPDRMRHSVHEFYVKSPEQMSELFADIPEAIENTQEIAQKCN

LELNLGNPTPPNFKFTREYAKDHNIILPEETKEFSFDNDDMVFEELCKKGLEERLKFIDESKHEEYKQRL

EVEINIIKNMKFSGYMLIVHDFIKVAKDKGIPVGPGRGSAAGSLVSYCLRITDLDPIPYSLLFERFLNPE

RVSMPDIDVDFCQDRRAEVIDYVIDKYGADKVAQVITFGKLLAKGVIRDVARVCDMSIQDADELAKLVPE

ELKITLDAAYEKEPKIKEFIDRHPKGLEVWEYARALEGLNRNAGMHAAGVVISNESLWKKTPLFRQSKND

ERHLVTQYSKDHLEDVDLIKFDFLGLKTLTVINNAIKLIKKRYNKDIIWETIDVNDSKVYKTIQSGNTLG

IFQIESGGMQSLNARLKPERFEDIIAVLALYRPGPMESGMLDDFIDRKHGLKSIEYPFDSLEKVLEPTYG

VIVYQEQVMQIVQIIGGFSLGGADVVRRAMGKKDPEKMKKLKTDFADGAEKQGYDRAKAEDLWELIVKFA

GYGFNKSHSAAYALITFQTAYLKTYYPSEFMAALLTSEENNVDKIAVYIDEMKKMNIKLLPPSINKAIRE

FSALEQDGKDAIIYGLGAIKSVGIPAVENLLEARQDGEFKDINDFLGKIDPTKINRRTLESLIKAGAFDE

FGFTRKALFDNMENLSEASRKMAEVRKNAASSLFGEEELTSGVQVNFTPKNEEFEVMEKLGYEKEILGIY

VSGHPLDRFYEQINAIDYVKSLDFESLKNNGEILSIGKIEDFKSMMSKNNKRYGRIEILDYYSSFDATVF

ESNVEEIENIIKDENLKNNAYGFVLGFKAEGGEKPSFFLKAIKDLQSLEDGEIKAIKKFGAKKDFKNKEE

NHFTAEPKEFEKNIIELDLTRLNRELIYEIHEIARNAHNPNEKNNKKLVLKVISAGSCLLYHTDFIISDS

IVEEISNKYA

>AHK56957.1 ArsC family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLYGIKNCNSVKKAMDALTQKGIVFDFMDIKKINQDILYTWLKQKSFEELINTAGLTSKKLGLNKEKVK

NLNEKELEKIVLENPSCIKRPIIEYEQNIYIGKEYEKML

>AHK56956.1 phospho-2-dehydro-3-deoxyheptonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MWAKNSWKNYPIKQQPIYPDQEEMNRVLARLEKLPPLVFAGEVRNLQKSLARVCKKEAFLLQGGDCAESF

ENFGAVNIRDMFKILLQMAIVLTFAGGCPVIKIGRIAGQFAKPRSSDFEELDGISLPSYRGDIINGFEFS

EQARIPDPHRMLEAYYQSAITLNLLRGFAKGGLADLHEVHRWNLGFLKKSELHKQYTDISEKISQALAFM

EACGINTSNTPSLREVSVYTSHEALLLPYEEALTRVDSLSGEIYDCSAHMLWIGERTRALDEAHVHFLSG

VKNPLGVKIGPSASADDIIALANVLNPNNEEGRLNIIIRMGADKIINNLPKIFSKLKSEGLNLVYSIDPM

HGNTVKAGNFKTREFDKIMQEVRSFFEIAISEGVYPGGVHLEMTGKDVTECTGGASNVTAQSLEDRYETQ

CDPRLNADQALELAFLIADLVKKTRK

>AHK56955.1 hydroxyisourate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFSIKKTLLILASVPMFLSATEYQLSTHVLDITSGQPAPKVKVELYKLEANQQWKKVSEEFTEENGRIGD

LLPYEKAENRAFGIYKLKFFTKDYYTSHKINTFYPFVEVSFELSKDQKHYHVPITLSPFGYSTYRGS

>AHK56954.1 50S ribosomal protein L19 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNKYIEQFEAKQIEGKNVPDFRAGDTLKLAIRIKEGDKTRIQNFEGICIARRGNGVSETFIVRKIGANN

VGVERIFPIYSESLESITVLRRGRVRRARLFYLRDRRGKAARIKELKK

>AHK56953.1 tRNA (guanine-N1)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFSFVSLFPNLMEFYFQDSILARAKEKKLFKLNFYNPRDFSKNSYHKVDDYKIGGGAGLLMQAEPMYEV

LRSIQEKKENPYFIFLNPSGKTFNQKDAKRLSKKEHIVFVCGRYEGIDERVLEIFANEVFSIGDFILTGG

ELPALVMCDAILRNVNGVLGNMESLEEESFENNLLEAPAFSKPFIFEKKNKKFYTPSEFLKGNHARIASL

KTTLASCKTKFFRPDLFLEHERKK

>AHK56952.1 ribosome maturation protein RimM [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSEKDFVQVAKLGKTVGLKGYVKLHNLSDFSSQFKKDATFFIKNTKEMLKIKHYNANNSTVLFENYEDIE

KAKELTNLILFQSIEKSRQTCKLKKDEFFYFDILECEVFEEDKRLGKVVDILETGASYLFEIQSDEKWVE

KKYPKIFFIPYLDKFVKNIDIEKRQIFCTQDAFLILENS

>AHK56951.1 RNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVENFLREYAKLIADYPEQIDTQKIELSENFFEIVLFAHKVDTGKLIGKNGKMINAIKTVISAYKSKDAS

SYRVTVKALE

>AHK56950.1 30S ribosomal protein S16 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTVIRLTRMGRTKRPFYRIVVTDSRKRRDGGWIESIGYYNPMVEPEVIKVDAERLAYWKSVGAKLSDKVA

SITSK

>AHK56949.1 signal recognition particle [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFELVSESFKSAINKLRFVDDEKALKNALETLKKALLKADVHHKVTKELLTLIEEDAKQNGIGQKQFLNA

IKINLENILSVNGKNQGFVFASKPPTVVLMAGLQGGGKTTSTIKLANYLKLRNKKVLVAACDLQRLAAVE

QLRQLCEANEIELFFIENEKDPIRVAKEALKKAESSMVDVLLVDTAGRLAIDEALMDELRAVKDVLNPDE

IFYVADAMSGQDGVKTAASFNEVLGISGVILSKFDADTKGGVALGIAKQIGIPLRFIGVGEKVADLEVFI

PDRIVSRIMGEGDLATLAEKTAAIIDEKEAKKLNQKIKKGEFNFNDFLNQMESIKKLGSMKSLIGMIPGL

GGMANAVKDIDLDNSKEIIRIKAMISSMTPKERENPDLLNNARKRRIAEGAGLSQVEVNRFLKQFSNAAK

LAKRFSGKKGMESLTQMMSQARRQF

>AHK56948.1 ribosomal large subunit pseudouridine synthase C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQEKAYKLLALQEKISNREAKDLIDKGCVFSYGKKVVVARALMSDKARFNVIKAKNPQIIFEDDKIIAIN

KPYAYVSEDLEKKFNAKLLNRLDKETSGVILLCKDEDFRKLCIEEFKKHRVYKSYIAVLDGVLAEEVEVN

EPIFTIKVKGGALSKVSKDGLSALSIITPIMMQSKKTLAKIVIQTGRTHQIRVHAKFIKHGVVGDEKYAK

ISSDRMYLHSYEIKIFNYHFRANLDSGFAKFGFDIKNLDF

>AHK56947.1 3-deoxy-D-manno-octulosonic acid transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIFFYYFLTWTAFLFCAVFILLLSFLKSKYKISLKSRFFLYKNLHQEKADVHFHACSYGEVRSIKALVLK

FDSRITTITQTGFECAKEFCKKVNYLAFENFLPFWLKPCKVLVIFEAEYWLMLVFMARIYKAKIILLNAR

ISDKSYHSYQRFSFFYKKIFSYIDEVFAQSDLDKARLESLGAKNVKIFKNIKANLEIKNNKIYTKPKEKL

IIFASTHKDEEELLLDHFKLEENEKLIIAPRHPERFKEVENLLLNKGLEFEKFSSLKDENKKFSKKILLL

DALGELVNFYAISDVVVLGGSFIEGIGGHNPIEAAYFDNVLISGKFIHNQKVLFEEVENVYFCEKLKDLN

DKVHYLNLKAKISKKENLDLIIQTIQKGIDARKSL

>AHK56946.1 zinc ribbon domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKYLEQLVLLSKIDQEIDSYEPKIDSINKTLKDAELKIEKINADLEKIDEEIKDIENQKIQNNAHISEF

SAKIKDLSKKSGVVKTEKEANALKIEEDIAKEQLDAANDEIVRLDKILENKETYKKELEEEKIKQEQNIN

EIRVSIKSEMEVLEKDRMSVYDKKTKLVSEMNQKVLSFYEKIRKWAKNTAVVPVKKQACYGCFMKIYDKT

YLSVVKGEEIVTCPHCGRILYKEQEEQN

>AHK56945.1 hypothetical protein N918\_03510 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLSEIYNFLDQLSPFNIQESWDNSGILLGDRDSEISTVYLSLDIDENIIKEASENSLIITHHPLIFKGL

KDLYDKTYPRAFIKEMIYKNISLISMHTNYDLSHLNTYFTEEILGFKISFKDKFLIYVENSMSFEALCDW

VKKKLNLQILRVSDCGKKDIKRIAICTGSGGDLISKVDADCFLSGDFKYHQALEALSNQISLIDLGHFES

ERYFSQCLAKDLKNLPLQVIITVSKNPFQYF

>AHK56944.1 glycyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTFSQMILNLQNYWQEQGCAIMQPYDMPAGAGTFHPATFLRSLGKKPWAAAYVAPSRRPTDGRYGENPNR

LGAYYQFQVLIKPSPDNIQELYLKSLENLGFDLKSHDIRFVEDNWESPSLGAWGLGWEVWLDGMEVTQFT

YFQQVGGIAVDLVSAEITYGLERIAMYLQNVDNVYDIVWSEFNGEKIKYADVHKQSEYEFSKYNFEVSDV

KILNEQFENSYKECKNILEQGLALPAYDYCMLAAHTFNLLDARGAISVAQRQDYMLKIRELSKNCAEIYK

KNLNEAE

>AHK56943.1 hypothetical protein N918\_03500 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQTYLELEEFCKLVHLNEDVVKGMMANGALNFKEEEGKIYIEAHQGTFSVVPSSAKSQTAMVNSMTLAGE

SFVEKTIGTILNLHEKVLDAKDETLEALKNENKFLKDALYSMQELYDEDRKTIETLNNELKHAREEIEFL

KRKYKLMWSKTAEIFGAKTEPDLEMNKNLEKPIENMEQ

>AHK56942.1 N5-carboxyaminoimidazole ribonucleotide mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFVSILMGSKSDYETMKEAAKTLESFGVKYELIISSAHRSPKRTKEYIANAEEKGVKVFIAAAGMAAHL

AGAVAAYTTKPVLGVPMSGSNLASMDSLFSTVQMPSGIPVGTLAIGKAGAINAAYLAMQILAIYDVDLAQ

KLKEDRLEKEKKLVSDSKEVEVLL

>AHK56941.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIIPEIVAPAGNFTKLKIALAYGADAVYAGVNNFSLRSRTAREFNYESFEEAIKYTHERGKKIYVTLNGF

HLSSQIEGLKRHILKLREMKPDAFIVASVGAMRLVKELAPEISLHVSTQANILNYLDAQVYKDMGAKRVV

IARELGLKDAKALKENCDIELEAFVHGSMCFAYSGRCLISSVQSGRMSNRGSCANDCRFNYELYAKNPEN

GTLFRLEEDENGTHIFNSKDLNLCSYIEKIMQENCISAFKIEGRTKSEYYVALTTRTYKMAIQDALEGKF

ESSKYEKEIATLKNRGFTDGYLVSRPLEKTDTQNHNTSIEEGSHQVHAISEDGRFFKCKGKIVLNTPYEI

LTPLGDVIQTCDNELGKIYQKEGKYFIEFKKLIAKNNKEFSEIHSGNEHEIQLPNKISALSFLRKEI

>AHK56940.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTQEELDALMNGDVDLDSETEAEVKTEESNTEEDALMLEDVKIADYKPNPSVVWPPPPPNQEHKVVHQLD

DVTKDSELKATEMMDKLESINNFFADSESLLKEINKAIEKNIDIFSKLNEKFPNVESFSEALELNNQAKK

SSKEIVGNLQSGQDEVMMAMDAMQYQDIHRQKIERVINVMRALSRYMSSLFEGKIDDKKRVSSAVHIEGD

STADVVSNDDIEALIASLGQK

>AHK56939.1 glutamine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGKFVNNIDDFFKFCKQNEVLFVDFRFTDMIGTWHHITYNLHAINEETFQTGIPFDGSSIHGWQPIEKSD

MILKPDAQSAFLDPFTADPTIIVFCDVYDIYKGQMYEKCPRSIAKKAIEHLKNSGIADTAYFGPENEFFV

FDSVKIVDTTHCSKYEVDTEEGEWNDDREFTDSYNTGHRPRNKGGYFPVQPIDSLVDIRSEMVQTLEKVG

LKTFVHHHEVAQGQAEIGVNFGTLVEAADNVQIYKYVVKMVAHLNGKTATFMPKPLYGDNGNGMHVHMSL

WKNGVNLFYDKDGYSGLSQTAINYIGGILKNARSVAAFTNPSSNSYKRIVPGFEAPCILTYSCQNRSASC

RVPYGIGKNSARIEIRFPDSTANPYLAFVSLLMAGLDGIKNKTIPVGPMDENLFDLTLDEIREKGIEQLP

HTLRGSLEALIRHNSYLKPVMSDIFIDDYQHLKFETQVWPVEARPTAYEFKTCYSC

>AHK56938.1 flagellar basal body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMRSLHTAATGMVAQQTQIDVTSNNIANVNTAGFKKSRAEFADLMYQVMKYAGTSTSATTLSPSGIEVGV

GVRPTAVTKVFTEGNLKSTSTDGLDMAIAGNGFFQIQLPDGTIGYTRNGQFTKDNEGNIVNSDGYRLLPE

MTIPEGATAINVATDGTVSVMLPGEQQETQIGQVELVQFINPAGLHSMGDNLYLETGASGAPVAGIAGQD

GLGTIRHGFIELSNVQLVEEMTDLITGQRAYEAGSKAITTSDDMLGIVNQLKR

>AHK56937.1 flagellar basal body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNGYYQATGGMVTQFNKLDVITNNLANINTSGYKRDDVVIADFKRIFKETQDELPIENHTRDASRFVNT

TIDGIPQVSQEYTDFSLGSLKATNNPLDLAMTREDAFYLVQTKDGEVRLTKDGNFQLDDEGYLVNKQGYK

VLSSDYFNNPQNAGIRIPNGAVQISVDKNGSIEVDGAQNARLFVAQVDDIRALQKDGDNVYKIDDLTRIR

DLKNSNAIRQGFSQGSNVNPVTEMVGLIEANRMVEMYQKVMTAHMDDLNQEAINKLAAVK

>AHK56936.1 cell division protein FtsZ [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSEFLVEEMQHNKGAKIKVIGCGGGGGNMINHMVKMGLNDLDLIAANTDAQAISISLAKTKIQLGEKKTK

GLGAGMLPEVGAESARESFEEIKASLSQSDIVFIASGFGGGTGTGATPVIAQAAKEIGALTVSVVTMPFA

FEGKQRKKLAESGLLELKKESDSILVIQNEKLLSIIDKKAGIKDAFRLVDDILARAVKGMVSILLDNGDI

NVDFADVRTIMSHRGLALMGVGSASGENAIEEALSNAIESPLLDGMDIKGAKGVILHFKTSSNCSLFEIS

AAANSIQEIVDENAKIIFGSTTDDSMEDRVEVTIIATGFEDKDTVAKKSTEEAQASKKNPYLSLKKVSGG

YDEEIMAQIETPTFLRRQMD

>AHK56935.1 cell division protein FtsA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNILGIDLGSTQTCAIIAQKDEDGLKIIGFSKSKTNGVKKGAITNIELASKSIEEAVRSAEMMSGVHYDR

VVVSISGAYTKSVDSIGVVNIPNHEIGIKEIHRAVSTAKHTANLPSGYEIIHVLPYNFKVNDLEHVDDPL

GMSGNRLEVSTHIVISQESHIKNLKKAVELADLRVDNIVLSGYASAIACLDDSEKELGAVLIDMGGAICD

MVVHTGNSIRYNDCLQIGSINITQDLSMALHTPLKEAEKIKLNYAALSQQPNTLIQIPSMGDERKVNEVS

LDIISNVIYARAEETLMILAKILSDNRYANAIGGGVVLTGGMTKLAGIDELAPATFDNRSVRLATARKDL

ITGFSEIFNDPENTCAIGLCLYGAGYFTPYELDSNEKLRYKGEIENFNRQIKQDIVLQKDAESEIKSDFF

DENLQENDTIAIQEQLDFKEPKEKKPSVFSNIWHKIMNQF

>AHK56934.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLTWMQHHKKYLVVTIWVSTIAFVGAGFLGWGAYDFNLNRSSSVATVGNEKIGFSEFDTRYRQILSYYNQ

ISNGALTPENAEQLGIKNIALSSLVEDKLLLNFAKDLGIGVNENQILQKLANTREFQDPTGDFNKTIYYE

LLNANNLAPKDYETQLANEVITDKLNQIFNIPSKDEELKMLASSYFMQDALSIAKIDYDKKNIKINEEDL

KKLWNEHKEDYKTKKIYEISTYFLPVSNEKIDDKELEKFYNQDENKLKYKDFAGKVMDFQSAKNEVAKDY

ALMQLKNVANAKFLDLKNGKDNFQKDQNISESDVYYPIDLLNKAKNGDVLRPAPYNNGYIIVKLNKVDPI

RNKTFEEAREEVLPMYLSEQARKNLEEKAKNSLVNFKGDDIGFVSRDSSRESVKVSDKILNDSEFAYFLM

NVFNTDQNSSYVVINDNKAILYKINKQKLDMNSDKFEQYKTMLEQNLQNLKANELKQELVDELKKIYPIK

IYYKGN

>AHK56933.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEIPHIPVLLNEVQEIFKNLKTGYFLDCTLGFGGHSEALLKNHPDLKFIACDQDQQALKFSKKRLKDFRN

RITFMQSNFSEVLEKISHKEELRGILADIGVSSFQLDNNERGFSVNSDFLDMRMNQNSKISAYEIINTYT

KEQLTSIFKDYGELHDAHFIAEKICLERSKNLIKSAKELYQIIGKGKQNHRKISKATLAFQAIRIEVNQE

LKVLKDFLEHLENLKPKNCILAIISFHSLEDRIVKQFFKKWSKNCICNEKIMRCECGNNHSLGQIITKKA

ISASKEELLKNSRSSCAKMRAFYFNNLDNK

>AHK56932.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLEDDFIKERQNIRQKMLKFSRAINQGKPLDDDLRDEISSDDILRRRFKKKTPNKFLEELDEEYESKHTK

KSNIYLKEDLINVKLEEKQSLAKKIFSKMKERRKEENKKTKKNFLFSRKKANEIKNIQTKTQIQTKSNQA

TTQTKQEKKELTNSIEKIQKTETKIQKPLIIEKKLDVKNQPNIKKSLENLQKKITPQENKQELPKPSNQA

QEKQQNDEDAQKAKNILLEGFSNATKEDRNLNFNHLLFAALLVSFALFLFAPQIYIRNQIYYLSREIATL

RTEESVLNEENKDLKRRLENMRFQNQILDYLE

>AHK56931.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKFKEFSLRFLFKVSEQPVLIRDLLEANALFNDGMLVDPSKLNFNFKILNSYIYFGVFCAVILLPLLLI

THYFLTKLDFHISIVSAVMVTACVFIGYDIFKVYTRKIISKKIIQKAWALHFPYFAYEKYSTMAGEFYKE

ALKEEIPKANLEQYVLDKIIHSK

>AHK56930.1 acetate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKILVLNSGSSSIKFKFFDNKVVKASGLVEKIGEQNSKVVLKNTLNNESFERELTINNHEEGLSIVNELF

KESGILADLNALDGCGHRIVHGGRNLSEHCLVDDYVLKEIDRVSIFAPLHNPAHLAGIKTMIKAAPSVAN

AAIFDTAFHRTMPDFAYMYALPYDFYDKHNIRRYGFHGTSHAYVSSRAAKFLQKDQNELNVISAHLGNGA

SVCAIEKGKSVDTSMGFTPLEGLVMGTRCGDLDPAILPFISHLKGLTIEEIDTLMNKKSGVYGICGYNDF

RDIEREIEQGNDKARLALDMFCYRLVKYIGSYFAVLPKTDAIIFTGGIGENDSLVRQKVCERLAHLGIEL

DFELNKQRISGERMINHANSKVKVLVIPTDEELEIARITEELIGKN

>AHK56929.1 phosphate acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MANLYLMRSRSDELNTIISTNLLKNYSKIYKNIAIYCPVIYIHRVPVLQGWLEEFNINQTVKSAYGFTFR

EAMEEFSKDPHNFFNVILEEYEELKRKYDFVLVNSFCEFGILDGFDLSIKLAKNLNTPIAAIINDEDKLI

AQKYFDHALDGRNYVLINENFNFEEVQKLKEYDFITPHRFKYELIKQSIKNKKTVVLPESNDERILKAAE

ILLKSKVVDLILLGDEEKIKQDATRLSLDLSAMQIMNPLNSEYNQKFTSILYEARKSKGMSLEEAKMLVQ

DKTYFGTLLIHTGKADAMVSGASTTTAETIRPALQLIKTKEGISSVSGIFFMGLEDQVLAFADCAVNPSP

TAEQLATSAYVSAMTAKSFGLEPRIALLSYSSGDSGKGESVDLVKEALKIAKEKYPELNIDGPMQFDCAY

DPKTAAKKMPNSKIAGHANVYIFPDLNAANICYKAVQRTANALAIGPILQGLKKPVNDLSRGCLVDDIVD

TVILSAIQAQ

>AHK56928.1 flagellar L-ring protein FlgH [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKVLFYVLPFAFFGCSATVDPQISMKPPAYVEELAPKQSNNVESAPGSLFGKGDNPLFSDKKAMNVNDL

VTVVIQESTTQSTQANKATSRTNTSNLGGGALTGSSGVVANALNKVNAYSNIGFQTNSSNNYTGTGSQSR

NESFNTTISTRVIKILSNGNYFIEGSRELLINGEKQIIQLSGVIRPYDIGQDNTIDSKYIADAKILYKTE

GEVDRSTRKPWGSKVIEAIWPF

>AHK56927.1 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEYKRFKTRQIKVGNVLIGGDAPISVQSMLFTKTRDIEGSLEQINRLYFAGANIVRLACLDMADARALKE

IKAKSPLPLIVDIHFNHNLAVYCAEFIDGVRINPGNIGSKENIKEVVKACKERGIPIRIGVNHGSIEKQF

SDKFGYGVDAMLESAMYNIKLLEDLDFFDIKISMKTSDAQKTIEAYERLRPLCDYPFHLGVTEAGTKFHS

TVKSSIALGNLLLKGIGDTMRVSMTGELEEEIRVARAILQDSGVQKSGVNIISCPTCGRIQSDLLSAIKI

VEEKTKHIKEPLNISVMGCVVNALGEAKGADVAIAFGKNQGLVIRHGEVVAKLKESELVDRFLAEVEDEV

KSRVVKE

>AHK56926.1 primosome assembly protein PriA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQRSDIRYYELAICGLYLDNLTFHSFDEIKPLTQVLVDLKTKKNLKAIVLKECQKPDFKTVEIKEITEYF

LTPLQFELANFIVYYYASKLGFVLGFFETSPKYECHKMFFKDTPKLSNQQQNALSFLQKENNSLLFADTG

SGKTEIYISLIKECLEQGKQALLLMPEIALTPQMQKRLEVYFKDNFFLWHSKISKKKKQEYLERFCKGEV

LLVAGARSALFLPFRNLGLIVVDEEHDNSYKASNQPFINARDLALFLGQKNNIQVILGSATPSLTSFYKQ

KSFRLKGTFFESKKHFLYDENELGITPMLLSELEKSLKHQKQAIVFLPTRANFRQIICKDCGETIKCPFC

SIAMSMHKKKNILKCHYCNYTSLIEQNCPSCKGEMLEARKIGTAELLELLQNALPLAKIAKFDSDEITSV

KKLNTILKNFNENKIDILIGTSMLAKGHDYHSVDLSVILGLDEYLLRPSFRASEETLALAMQVAGRAGRK

GEARVLLQTKNRAFFERYIENYDAFLKDELENRKDLYPPFKRLLRVLIEDKDQKSAQKLCEKFASQFRNI

KQVELVGYGICGVEMLYGKYRFYLLLRSENHKALVAIENYILQFKNASADIDPIDFV

>AHK56925.1 hypothetical protein N918\_03400 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKAFTLLELVFVILILGILSSLSLSFINTTKDEVKILKLKMDYEMLSSALALMRSQMRLKNLNFPEILD

NAQNNQAKEKLFYCLNDCDYSLLDTPIYSDFKSWIKIGKNHYRFALNAKEMVEFIYDSKEGLLKCIGSSR

CKDLI

>AHK56924.1 hypothetical protein N918\_03395 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MADNLKQVIVNVNAKDFIVKCSEEFANFLEDDIALISGGTKKIELKRFVDAFVKKSYENYILERELKKLI

KAINEELPTK

>AHK56923.1 ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFDEKIINTMTDKVNELIEKYNEVCEANEALRNELVSVKAQNEAKSNQIMRLEEELKSRNIESEDIYKKI

EAVLGR

>AHK56922.1 excinuclease ABC subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLELTSEFKPSPDQQEAIKGIVKSIKKGNKYQTLLGVTGSGKTFTMANVIKELNIPTLIMSHNKSLCAQL

YSEFKGFFSKNHVEYFISYYDYYQPEAYIPRTDVFIEKDSSTNEDLERLRLSATASLLSYEDVVCIASVS

ANYGLGNPNEYIGMVLIFELGMQISQKELLKKLVDMGYKRNDNFFDRADFRVQGDIIDIYPAYYEDEVVR

LEFFGDELDAMYHYNVLENKKGKDLKRFILYPTSQFSVGETRLKQAIKDIKAELNERLAYFEHENKLVEY

QRLKQRVEFDLEMLTSTGMCKGVENYARHLTGLKEGDTPYTLFDYFAIKDRKFLVIVDESHVSLPQFRGM

FAGDRSRKQTLVDYGFRLPSALDNRPLMFDEFIHKNCQFLFVSATPAPLELELSKENIFHQIMRPTGLLD

PLIELKDSDNQVEILFDEAKKVIQRNERVLVTVLTKKLAEELTRYYLELGIKVKYMHSDIDAIERNEIIR

GLRSGAFDMLIGINLLREGLDLPEVSLIAIMDADKEGFLRSTTSLIQTMGRAARNVNGKVLLFCKKITKS

MQEAMDTTNERRKLQMAYNKKYNITPTSVKRHIEESLKNEEDLGEIYRKGKKLEKMPASERAKLVKELRK

QMLEAAKALEFEKAAAIRDEINKLRDL

>AHK56921.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDFLTSLSEAGQFAIQIIIVLICLFYGAKKGGIALGLLGGIGILMLVFAFHIKPGKPAIDVMLTILAVVV

ASATLQASGGLDVMLQIAERILRRNPKFLTILAPFVTCFLTILCGTGHVVYTIMPIIYDIAIKNGIRPER

PMVAASISSQMGIIASPVSVAVVSLTALLLNANHKLAGFDGYINLLQITIPSTLFGVLCIGIFSWFRGKD

LDKDEVFQEKLKDPEFKKYVYGDSKTLLGVKLPKSNWVAMWIFLGAIALVALLGVFDFLRPNWGQVVKNG

IPQVDALGNPKMDVLSMVSVIQMFMLLAGSLIIIFTKTDAKKIGSNEIFKSGMIALVAVFGISWMADTMF

AVHTPMMKAALGDIVKEHPWTYAVMLLLISKFVNSQAAAISAFVPLALGIGVEPGVIVAFAAACYGYYIL

PTYPSDLATIQFDRSGTTHIGKFVINHSFILPGLIGVITSCIAGYFIAMAAGYL

>AHK56920.1 RNA polymerase sigma54 factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKQKITQAPKTKISQTLRSWLPILQANIEDLKENLDKFAEDNPFLNVQDSIQTHDKGKNYFDSFYKHNV

NSAFVDSKGLAKKSVYELLNEQILPPLFPTSKSQELAKKIIECLNEEGYFEHDEEFLKEYSLEEIERVRA

RFKFLDPVGVGAKDYKEAFLFALENMELDEDIDEFCRMLIMDFENIQNYTKEPLYKEALAVLKRFSTPPF

LEYFEDSRIIVPDIFVYKENGEIKVKINDDYYPEISIQTDGLEHDFLSHYIKEAKNLVDALAMRKATLYK

IGLMIVEYQYDFFMGKEIKPMTFKDLALDLERNASTISRAVANKYLSCERGLIPLRDFFAFALDEEGETS

NVGVKEFVANLVKNEDRNKPLSDSKILELIKEEFKVDIGRRTITKYRKHLNIASSTDRKKLYELEG

>AHK56919.1 lipopolysaccharide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKESMKFMSKLEIVNLEKIIKKTKIIHGISLEVNSGEVVGLLGPNGAGKTTTFYMICGLISPSSGKVLL

DGLDVTKDPLNKRARSGIGYLPQESSIFKDLSVEDNLLLAAQIFYKDKKILHDKVEQMLELLSIEPIRLR

KGLSLSGGERRRCEIARSLMCEPKFLLLDEPFAGVDPIAVAEIQTLIKELKRLGIGVLITDHNVRETLAI

CDRAYVIRSGSLLASGNADEIATNKDVKKYYLGAEFKLLD

>AHK56918.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEFILAKNEIKTMLQIMPKEGVVLLQGDLASGKTSLVQAWVKFLGLDVRVDSPTFSTMQKYENHDICIY

HYDIYQEGLEGLLANGLFENFFEKGLHLVEWGGENLKKTLMKFGISTIQIKISIKDDKRKYEIYE

>AHK56917.1 argininosuccinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNEVKKVVLAYSGGLDTSIILKWLQDEYNCEVVTFTADIGQGEELEPARKKALSLGIKEENIFIKDLRD

EFVKDYVFPMFRANAIYEGEYLLGTSIARPLIAKTQAQIALQTGADAVSHGATGKGNDQVRFELGYLAFS

PDLKIIAPWREWDLNSREKLLAYAQKHGIDISKKKGKSPYSMDANLLHISYEGLVLEDPAHAPEEDMWRW

SKSPKDAPNESEIIELDFQKGDLVAINGEKLSPAGLLTKLNELGCKHGIGRLDIVENRYVGMKSRGCYET

PGGTILLKAHRALESITLDREAAHLKDELMPKYASLIYNGYWFSPERMMLQALIDESQIHANGRVKLELY

KGNVMVIGRESANDSLFNAAYCTFEEDEVYNQKDAAGFIKLNALRFIIAGKNGRKF

>AHK56916.1 50S ribosomal protein L9 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVLLIKDVKALGKAGEIKEVKDGYGQNFLIAKGFAKAATNEVLRKYESDKKKEAENLRFEIANLEKLKE

ELSKITLEISKPVGANGSLFGGVTKDEIAHALKEQSHIEIDKKSLECDTLKSLGIHEVSVKLGHAIHAKF

NINIKAE

>AHK56915.1 peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFHATTILAYKGKNKSVIGGDGQVSFGNTVLKGNAVKIRKLNNGKVLAGFAGSTADAFNLFDMFENLLQS

SKGDLLKAAIDFSKEWRKDKYLRKLEAMMLVLDRNHIFLLSGTGDVVEPEDGQIAAIGSGGNYALSAARA

LAKHTDLDEEELVKSSLQIAGEICIYTNTNIKTYVIEDEK

>AHK56914.1 ATP-dependent protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLTPKEIVKFLDDYVIGQKKAKKIIAIALRNRYRRMQLSPELQDDIVPKNILMIGSTGVGKTEIARRLA

KMMGFPFIKIEASKYTEVGFVGRDVESMVRDLANAALNLVKNEQREKNKDKIDEFIENKILEKLLPPLPK

GISDEKQEEYKNSLEKMRTKLRNGDLDESTIEIEISQNMFDTNPNLPPEMGAMQDIVKVIGVGSKKVKKE

MKIKDAKNALKNEAGEKILDQESIKSEALKRAENEGIIFIDEIDKIAVSSGNSNRQDPSKEGVQRDLLPI

VEGSNVQTKIGTLKTDHILFIAAGAFHLSKPSDLIPELQGRFPLRVELDSLDDKALYEILTRPKNSLLKQ

YSQLLKTENLELEFDDEAIKEIAKIASRANEEMQDIGARRLHTVIEKLLEDLSFEADEYAGKKFVVDKKM

VEEKLGDIIENKDLARYIL

>AHK56913.1 GTPase Era [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKSGFVSIIGRTNAGKSTLINSLLEEKIALVSHKQNATRRKIKAIVMHEKNQIIFIDTPGLHESGATLNQ

LLVQSAIKSMGDCDVILFVASVFDSTKDYENFLSLNPQVPHIITLNKVDLTDNATLLKKLSEYAKFSQHF

KAIIPYSSKKKSYKKGLLDEIVKYLDEHEYFYDPEFLSASSEKEIYRDFILESIYENLSDELPYSSEVLI

HRTKDTPNLLILEANIITDTNSHKGMLIGKEGATLKRIGKDARFKISKLAQKKVLLKLFVTVKKNWQKDE

EFLKKLLNDEN

>AHK56912.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKINSLNKINFIKSTDLLYAQRTGISKEDELFNNLTADFKLSKPFDYQIAFFKHNEIYHCFLAPVYKLKK

SRFCFPEPLIFQALFDERFIEESDYCVLNLYDQTLYLYFYQEGKFINLKKIENFNPGNMDLFFKQNRFTE

LLKHYESKLLLYQDLNTIKHYFSSQIKCLNLNDILDKNSLLKLSSYSIKNLDQNCNFIKHNKIKISISFK

IILIFIFSFSLSMMILLFKDFIEYKQNKEIQNKNFIIQEEISKLKQDKQKLLTNIQDLNFTLSNKISSTQ

QQFHILSTITKEINLDKNKAIILNQIISWLNSNDLKITNLEFEQTKIILSFIDENHFKRALENLNSAFKI

LDKNEETFNIILEVIHE

>AHK56911.1 hypothetical protein N918\_03285 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKIEVFLQNLNPREKFLFISFICLCALFLAFKIHDHFLEDIFQKTLVEHNYLALNEAKIENSHLKEIET

KLTKQIKIEEEKLKYYKEKLHLFSYDKDFFNKKINNLSKNLIINEIKFSQENKNFIHYNYVSLSLNGNFK

DLLNFIQNLENLPIALKIDKIKLYNTQGLKLKLDLMFKFVNL

>AHK56910.1 peptidase M24 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSIYKQRVLELRRLMKENNIDAYLILSADPHLSEYLPEYYKNRVFISGFKGSVGTVLITQEEGFLWVDGR

YWLQAQKELEGSGILLQKQDAKNTFTKWLEKNLSEDQILGIDFALLPLSLQKDLKINCKANLKHIDLISP

LWKDRPTLPQEKIYEHELEYCSYSRKEKLALVRQKMKNLNATSHLISSLDDIAWLTNLRGNDVNYNPVFL

SHLLILEDKALLFVDQKKVNSELEKKLNLDGFWLKNYDEIIMELEELANTNLLIEPSKMTALLINSLDKS

VKIIQEINPSTHLKAAKNTKEIAHIQDAMIEDGVALCKFFAWLEEAIKNKELISELDIDVKASEFRAQSK

YYISDSFATIAGFNENAAYPHYKATKESFAYLKKDGLLLIDSGGQYKNGTTDITRVVPIGKANAEQIHDY

TLVLKAHIAISSAIFPKDITMPLLDAITRAPLWKEQIDYIHGTGHGVGYFLNVHEGPQVLSYLSPVLEKT

KAKEGMLTSIEPGIYKVGKWGIRLENLVIHTKVENPKNKDFGEFLYFKPVTLCPFEISCIDTKMLDEKEK

EWLNNYHKEVFEKLSPKLGDYPKALVWLEKRTKAIF

>AHK56909.1 penicillin-binding protein 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRMRLVVGFILLFFIFLLSRVYYLSIKSNVYYEELAKQNAIKTEFLPPVRGQITDRNGTLLAINDLGFSI

SIKPYLSIKKSNKGILDKELSELTNLFPDLNASKLAEIYKRNDSYYNQDFIKVVDFIPYDEIISHYSELN

LNKTIKIDPVVKRKYPFGKLASHIIGYVGKANLQDVQENEIAKLSNYTGKSGIERYYNDILQGEKGTRVY

KVNALNQEVEQLSYTPAMSNDIELTIDIELQSYLTSLFEGNAGAAIIMNVNDGSILAAGSFPEYDLNPFV

TGISFKDWDELSNSLDHPFTNKLINGYYPPGSVVKMGVGLSFLNSKNISPSTHYVCNGSIELGGRFFRCW

NRSGHGPVDLKHAIKYSCDVYFYNGSLQVGIDQISETLSRIGFGVKTGVDLPSEFVGTLPSKEWKMQRYR

QSWFQGDTLNTAIGQGNFLATPMQIARYTAQIAKSGEVIPHFLKSIENNNTTIENQMDENKKEIFTLFEK

SQLPYIRDAMYAVANEQGGTSYRYLHNLDVKVAAKTGTAQVVGFSQTDKNRVDEKQFEYYTRSHAWLTSY

APYSKPKYVVTVLLEHGGRNITSGATVAKIYQKMIELGYFK

>AHK56908.1 GTP-binding protein YsxC [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIISAKFITSLVKFDENLSSNFSEVAFLGRSNVGKSSLINSLCKQKNLAKSSATPGKTQLINFFEVICRR

NEEKFNINFIDLPGFGYAKVSKNLKEIWNQNLDEFLKLRTSIKLFIHLIDSRHTHLEIDVNLNDYLKRFL

RPDQKILKVFTKCDKLNQSEKAKLKNEFKDSILVSNLNKFGLDSLEDIIINQTLGLDK

>AHK56907.1 organic solvent tolerance protein OstA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVARQIILLLVCVSVTWATQIEVKALNFYSDENKGESILSGNVEVIRGDDILNSEKLIIYTDKNRKPIRY

EAMQNARFKIVLKGKTYKGSGDKFIYNVIKDTYEINGHAYINELGSNQKLFGDKIIVDRKANIYRVESKD

QKPARFVFDLKDK

>AHK56906.1 hypothetical protein N918\_03230 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAIKIFGILIALFTITFTILSLQDPYSLNLQTNALNFKNIEAKNLKAYESNTSIIKAYYKANSWVRYADR

DEFNDFITLNLDFNLSANRLEFFNKDMSKVLFEGNVTYIGSNNVKIISQEVEYQPKDKILHTNTNFKALI

NGSIINGNTLNYDVKNKILNIQGVNAWLQDK

>AHK56905.1 3-deoxy-D-manno-octulosonate 8-phosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTELIFLDVDGCLTDGKIIYTSNGEFIKEFNVKDGAAIEAWLKLGKKIAIITGRNCPCVEKRAKDLKIKI

LYQGIKDKLACAKEILQKLNLDFSQCAAIGDYFNDKALLESVGLSFKPKDGHKDLNVDIVLSKKGGKAAV

AQMIEILVEKNHLEEEWNKLWL

>AHK56904.1 RlpA-like lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQIKTITLKLSAVSLGALFFSGCLGTSFFSSLDNAQVYYPSNDFKSSPSSSGTKGTMKPYTINGKTYYPT

VVAVGETADGIASWYGPGFHGKKTSNGETYNQNALTAAHKTLPMNTILKVTNLNNNRQVTVRVNDRGPFV

NNRIIDLSKGAASQIDMIASGTAPVRLEVIGFGSSNSGNNIVHSNVNYGNSGEIANNGQIYEGGNFMVQI

GAFKNPAGAQTIAARYKTYRTYSSTIRTSSVDGLNRVFLTGFRSEDEARDFAASGAFAGAFVVRE

>AHK56903.1 lytic transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILLCFLICFNFLFAQINTPEFYERQMNVLRNLDINPSFISDLIFVQTQQDIKSKHAQTLIDSMQNFS

KVTPMIRKILAQQEVPDEILYLAMVESGLKTHSVSNAKAVGVWQFMQPTARNLGLRIDAYVDERRDPVKS

TYAATNYLKELKEEFGKWYLALLAYNCGNGKLRQAIKQAGSDDLSVLLNPDKKYLSLETRNFIRKILTLA

FLANDRDFLLDKDASLMNYALSNEFAKVDVPSSASLKEIAKNLNMDLATFKKYNPQFKHNFTPPGKGYYM

YIPLNKVAFFDKNFKAEKLAKVDTTIPMTRTYTVKSGDSLYKIAKNYNISVDEIREFNKIAKNHLSINQK

LIIPIKENKNANKNNYTKVVSR

>AHK56902.1 TatD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFLNLDFQDGLRIVDTHCHLDSEAFKDDLDETLNRAFKNGIEKIIIPGADIKDLPYAATIAHKYKNIFFA

AGVHPYEIDNYDEKILRQYLCDEKCVAVGECGLDYFRFKSDLAEEIQKEKENQKKIFIAQLELAIEFKKP

VIIHSREANHDTYEILHGYSKDLVGGVLHCFNASEHLLTLFEEGFYFGIGGVLTFKNAKKLVEILPKIPK

DKLLLETDAPYLTPEPYRGKRNEPLLTQFVVNKMCEVLNLSRKELLEICFNNSEKLFFKGY

>AHK56901.1 diguanylate cyclase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKKILIIDDNKMLGKLLAKKIQMTLDYEVDIAFGFAEAKELMNNDYFLAFVDLCLPDAPNGEVVDYVIE

KKIPAIVLTASGDKATKEKFMDKDILDYIFKESETCIDEIISSIVKLNQYAKTKVIVAMSKLPERNEIKK

ILTQRQFNVLAAAHGEEAMSYLNDNNDVKLIIADVNMPVISGFELLTQVRERFSDDELGVILLGDHNDSF

EANSFKNGVNEYLFKPLSKESFNCRLDRCLSYMDDKKFLSTYNVLDPVSGVKNYNALIDGIDDYFNEIAT

KDEEFAFAFLDIDNLQMINDEYGREVGDEVIKICANEIVNETKGRDLVGRYSAEKICILLKNISQERAIK

IFSRIRVNIKKAGVLVNLDEVFFTASIGVVFGKSGDKIDSLADKASKILSQAKDNGKDRVEVCS

>AHK56900.1 DNA repair protein RecN [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINRIFMKENLGFKKAELEISKGLTVFTGLSGAGKSVLFKGILSAFSLSESEAKIVEIEVDDKLDLESFG

IESEEENVFKLLKEKNTKYFINNQSIAKKSLQNLSKTFIKYLSAKENNEFGNEKFLNLLDALEMQENTNF

VSFLEDFKKDFNAYSQISNELNAILEEEKKVEELKELARAQIEKISSINPKIGEYEELLILKKKLSKKDK

LEEAWSKAERIFELEKVVIEALNLSEVDASFFSECLNELRVICENQKMEDLDFDVEALLDRIENLSYLIK

RYESIENALEVLKQKKYELEHYENLSFEKKELEKKFQELKQKLEEKAQILTQTRKKNLKKLEKCLNNYLK

DLYMKDASLTLKENEKISILGKDEIMLDINLAHLKNLSSGELNRLRLAFIATECNILNAGKGILFLDEID

ANLSGKEAMSIAKVLEELSKFYQIFAISHLPQLSSKAHNHFLVEKNGEESKVKKLDQEERIKELARMVSG

ELVSDEAIEFAKTLFKN

>AHK56899.1 inorganic polyphosphate/ATP-NAD kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNKIDYKNIKKIGLVTRPNVSLDKEILKLQSILSIYKVELVLLKESSEILDLPKYGLDDLFKISDFVIS

LGGDGTLISLCRKACEYDKAVLGIHAGHLGFLTDFKVDEAENFFQAFFQGEFRIEKPYLLSIFLEDRQGK

ILEKLAFNDVVISKNNQASMAHIEVFRKEKKFNEYFGDGLIVATPAGSTAYNLSANGPIVYTLAQAFILT

PVCSHSLTQRPIVLPKGFEIEIMAKDCMLCIDGQENYKMNDFKSIKVGLSDKNVALIHPKNRDYFQILKE

KLHWGN

>AHK56898.1 aspartyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRSHYNTDLGISHVGQSVKLCGWVNSYRDHGGVIFIDLRDRSGIIQLVCDPNDSKEAHEIASNARNEFVL

ITEGTIRPRGEGLVNPKLKTGEIEVVVSKLTIENESAVPPFAIADESVNEELRLKYRFLDLRNPKLYENF

ALRSKACIAARNSLANMGFLEVETPILTKATPEGARDYLVPSRVHQGEFYALPQSPQLFKQLLMCSGFDR

YFQIAKCFRDEDLRADRQPEFTQIDVEMSFCEQKDVIKVAETFLKDIFKACGKEIQTPFRQMQYKDAMEN

YGSDKPDLRFDLKFIDVIDIFTKSNNEIFANIAKDTKKNRIKAIRVPKGDTIFSKRQMQRFEEFVRKFGA

QGLAFIQVKKDGLKGPLCKFFSEEDLNELSKRCELEVGDVVFFGAGAKKTVLDYMGRFRIFLANELKLID

PNALEFLWVVDFPMFEQNDDGSYSAMHHPFTMPKNIDETDLEEISSIAYDVVLNGVELGGGSIRIHKNDI

QQKVFKLLNIDEEQQKEKFGFLLDALSFGAPPHGGIAIGLDRLIMLVTGANSIREVIAFPKTQRAQCLMT

DAPSPASNEAMRELGIKLRENIK

>AHK56897.1 adenylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKELFLIIGAPGSGKTTDASLIAQADATNITHYSTGDLLRAEVASGSELGKTIDSFISKGNLVPLDVVIN

TIVYALKAAPTKTIIIDGYPRSVEQMMEFDKVLSEQNEICLKGVIEVRVSEEVAKERVLGRNRGADDNEE

VFYNRMKVYTEPLNEILDFYQKKKLHFIIDGERTIEPIVADMKELIKKIQSI

>AHK56896.1 inorganic pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLSKIKIGDIPNKINAVIEIPYGSNIKYEIDKDSGAIMVDRVMASAIFYPANYGFIANTLADDGDPVDI

LVLNEYPIQAGAVIPCRLIGVLIMEDESGMDEKLLAVPNSKIDARYDNIKTYTDLPQATLNKIKNFFETY

KILEPNKWVKVQDFKDEKAAIEILEKAIKNYK

>AHK56895.1 methionine sulfoxide reductase A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNIVLGGGCFWCVEAVFERLKGVINTEVGYSGGKPNPSYESVCNGDGNIEVVKINYDEKQISLLEILTL

FFKIHDPTSIDKQGGDIGIQYRSIIFYENEEDKILAQNFIEEQQKIFSKKIVTKISRLQTYYKAENYHQH

YFINNPDQGYCQAVIAPKLQKIQSD

>AHK56894.1 hypothetical protein N918\_03170 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLSRIEKLYTKDEMQNILSSFAQEKNVCVFANTLKTSIEELEKEFLKQNLKFKKINVYCYLFDAKDKAIL

SSMKAFNEAHFYIQNYSSYLCALNLEVKAGQSVLDMCAAPGGKSINLANFMQNTGYLACNEMSRDRFFIL

QKNLKNYGVNAKVFMKDGKNIGNLCPLKFDKILLDAPCSTFAKIGFDLEKSYKEIKNIAKTQKKLLHSAL

KALKIGGELVYSTCTFTKEENEEVIENALKSEFKLELLDIDLENVEAKAGQSEEFAEISKCRRILPSLDY

DGFFIAKLRKLC

>AHK56893.1 Holliday junction resolvase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRALALDVGLKRIGVALCIDKKIALPLDAVLRKNRNQAANEIKNLLKIHEISLLIVGIPKGGSSEEEMTR

RIKHFVSLLEFDKEICFVDESGTSKEALGYGVANTRKKDGKLDSLSAFIMIKDYFAL

>AHK56892.1 DNA processing protein DprA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MASEILPDEFLELFKDLKKPPKKLHYKGNLSLLKQDKIAIIGSRRMSVYTKNCVFSLASMLKNAHLCVVS

GGALGVDITASMAAMPNTIGIFANGLDQIYPRTNEKIIKQIYENALALSEYEDDYLPKNYDFLLRNRLVI

ALSKAVVVAQADIKSGSMQSAKLALELNKPLYVLPQRLGESTATNLLLKENKAKLICDFKEFVSEFASID

MNQDEFLEFCKKGVSVDEALKIYGQKVYEYELEGKISIEGLFIRVLA

>AHK56891.1 hypothetical protein N918\_03155 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKKKLVQIQRYLIIAILFLLCIALALGILVKYQNSQDVSSVKPDYFIDKQEDLISLNKDHYEIGIFQEN

EFDNNKSVSILEQKIQEIDDLNTSLNEQNLSSVEQNLSLEQNQSLEQNFILKDTNLTQDQNLTFNEDIHL

NKISKKPKLAIIIDDMANASQVRGLKALNLKLNPSFFPPDKNHSETPKLALKFDFYMVHLPLAAINYNKP

ELDTLNPNDSKERIFKKIKQIKKDFKDLRYINNHTGSLFTSNEEAMKKLYEALKNQNIFFVDSKTIGNSK

ANKIAKELSIPYIQRDVFLDNEDDVNYVKKQLENAVKLAQKKGFVIAIGHPRKNTFKALEQSKDLLKGVD

LVYLSEIYGK

>AHK56890.1 ketol-acid reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAITVYYDKDCDLNLIKSKKVAIIGFGSQGHAHAMNLRDNGVNVTIGLREGSVSAVKAKNAGFEVVSVSE

ASKIADVIMILAPDEIQADIFNVEIKPNLSEGKAIAFAHGFNIHYGQIVVPKGVDVIMIAPKAPGHTVRN

EFTLGGGTPCLIAIHQDESKNAKNLALSYASAIGGGRTGIIETTFKAETETDLFGEQAVLCGGLSALIQA

GFETLVEAGYEPEMAYFECLHEMKLIVDLIYQGGIADMRYSISNTAEYGDYITGPKIITEETKKAMKGVL

KDIQNGVFAKDFILERRAGFARMHAERKNMNDSLIEKTGRNLRAMMPWISAKKLVDKDKN

>AHK56889.1 ribonuclease R [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEFLNSLSYGISSHEVNNEFKQIFRELLTNHIIKEHKNKYYLNNGFAFGVLDISSKGTGFLQCFDESFK

KDLLIENKNLKGANYKDIVAVKLLPLKKKRPSAKVILVLKRANETSLMITKRYGEAVLGMNIKTGLSTAL

KASQKSLKALPLGTILKIENENNNIIEVLGHIDDESVDEKISLALFNKNNEFSDACIKEALANGDSVDAS

MYENRMDLRALPFCTIDPIHAKDFDDAIYFDTQKREIYVAIADVSEYVYAYSAIDKEARNRGFSIYFPHI

AIPMLPRPLSENICSLKPHLDRLAYCFKITLNHENKVIKEELFEGIINSKRRFNYDEVDEILIQKPDLKE

LSWLYELFEITKNLRKMRLKNAFEFRTEELRMNLDENLSLKSTVFEKDTPSHNLIEDCMLLANKAAAKLI

DIGVFRNHLSADVRKIDKLLNELRELGIDVNFKPNLPELIRDIQALADELNLRAEVDKLIIKAQKKAEYS

SVNAGHFGLGFDKYSHFTSPIRRYSDLILHRLLKAKQKNDEKLFNYLLLNIESTCENLSTLEREADKVAF

DFMDRKFARWAAKNIGKKFKALVVQNDGVCIAKLDDEIKGADIILYDTRVNLLENVEVQIMEADIVMAKI

YAKITQRLIKEENV

>AHK56888.1 DNA polymerase III subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYRKELQILLSKDSIPNFFFLYGADNFQSELYAEFIKEKYKPDETLKLFFEEYNFTRASDFLSAGSLFSE

KKLLEIKTSKKIPTKDLKVLVELCKNNTDNFFLLELYDESSKQSDIEKIFSPHFVRFFKANGAKEGVELL

SIKAKQLGVEITQNALFTLFTSFDENLYLAASELNKFSGLRVDEKTIEQYCYSLNTGSFESFFDKILKKQ

DFKSELEKILDNFNEIALINSLYNSFYRLFKIALYAKINGKIDFKELLGYTPPPQVGQNLSSQAFSLKIE

QYKEIFTLLLKSEYELKTNPKLVKKEFLISNLLKLARILKN

>AHK56887.1 hydrogenase nickel incorporation protein HypA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHELSIVESLIELCEENALNNKAYNVQEIYVKIGRLSGIEVDLFKRCFETFKENSNICKNAKLFIELAPL

EILCLKCDQTSILEENVFKCPKCQSIEYKIIQGEDLHLMRLVMK

>AHK56886.1 hydrogenase assembly protein HupF [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNISLAHGGGGEEMNELLTKLFKIFDNEILNANNDAAILGNLALSTDSFVLSPIFLDEEVNIGKLCVCG

SINDVLMVGAKPKYLSLGLILEEGFELEKLERILKSIKEECEKCGVMLVCGDTKVVPKGKADEIYINTTA

LGEIISKKESKNIKAGLSILLSGDIGRHGASVLIKRNELEADIKSDCKALNKEVLELLEKDIKVVAMRDA

TRGGLSAVLNEWAKQSGNDLLIFEEKIIVQDEVLGLCELFGYEAYELANEGTFILCVEKEDELKALEILK

KYNVNASIIGEVLEEKKARVILQNAYGAKRFLESPKGELLPRIC

>AHK56885.1 hydrogenase formation protein HypD [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFIDEFRDKESILALKKLIEQELKNPINIMEICGGHTHSIMKYALPSILPKEINFIHGPGCPVCVMPRV

RIDTAIKLASMKDTIFCTLGDLLRVPGSEISLLDLRAKGADVRALYSPLEVLEIAKQNLNKNIIFFAIGF

ETTTPMSALLLQKVIEEKINNVFFHINHITVPAPVEAIMNDENVKINAFLGPSHVSVITGYGIYEPLAAK

FKTPIAVSGFEPVDILESVLNIIKQSNEGTFKVYNQYKRAVSKEGNVKAQNLVKKYFRVCDFEFRGLGLI

KDGGLELKEEFSAYDASKKFDCTVQSKNESKACICGQILRGLAKPYDCKVFGKACTPRSPIGSCMVSGEG

ACAAYYKYSKVNA

>AHK56884.1 hydrogenase formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MCLSIPSEILEIDELNNALVQTLGVKRKVNLDLIDEPLKQGDYVLIHVGVAMEKIDKEAALESIKTYQEI

VEKMNSGEIKSDEGDLGLNEFHR

>AHK56883.1 hydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MCKDCGCSINSSHTHGHHHDHHHENPSLKEGKTIEVISKILSKNDEEAKHNRAHFNEANTLCINLMSSPG

SGKTTLLESTIKALKNELKIAVIEGDLETNNDALRVKNAGALAYQITTGQSCHLDAFMVHEALHHLAIDD

VDLLFIENVGNLVCPASYDLGEHLNVVLLSITEGSDKPQKYPVMFKKADIVLITKADLAHHFDFDIKEAT

RLIKELNPRADIITLDAKNGTNMELWYKVLKLKKELF

>AHK56882.1 3-hydroxydecanoyl-ACP:CoA transacylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MCHLGYKIKISGLVQGVGFRPLVYELALKSKLFGEVRNDGFGVEIILACTQKECENFIENLKNHLPPLAR

IDQLIITQISISNYENFSITPSLENTKSTPMLSDFAFCKECKKEFFDEKNPRFLYPFITCTHCGPRFSII

KSLPYDRAHTSMQELLMCEFCKSEYEDPKNRRFHAQPISCPKCKINVFLKNPKGEILAKDQEAFMQSAKF

LKEGKILAIKGIGGFHLMCDAFNEEALKTLRLRKNRPKKPFALMCKDLQSAKELAFIDEKEEALLGGVLA

PIVILKAKKAFSLIAPDVDKIGIMLAYTPLHLLLFEYFKGSLVATSANLSGESIIKDEFNLCKKLDKVFD

FYLDYDREIINASDDSIAQVVNGETMFLRTSRGLNPFYLERNFNKKGTFLALGAELKNEFVIFYENKLLI

SPYIGDLKSLDVHERFFKLLEFFKQNYDLKFDAILCDKHPHFSYAKEFEERIKISHHYAHFCAAYFEYEE

NFAKDEKALAFICDGTGYGEDGKIWGGEVFVGNLKEYERIAHFENFTLINSDIKNIQNLALSLIFHYDLE

DKAKDFLAKIPKIKLKNLKKIYSHSNLQTSSLGRIIDAFGSIVFNLEKSSYEAQVGLMCEAFYDKNLDFS

YKLFVEKGQVNFKNLILGALQDEKTKAITGMFNALANFIIDFSKDYDLKVLLSGGVFQNKTLLEILKAKN

FDFFIPLKYPCNDSSIALGQMVHFLNLEK

>AHK56881.1 hypothetical protein N918\_03105 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTLDFDFIYNADNDIFEYLLRFYAKNYNYILSKEENTYHFSIDADEENLKTFCDSLNFMSHSVFLKKFDV

KAGQGFNPCIPEDKEFSRFSYITHLNSNAYQEKKLLNKNEWGVFCECEFSSNLSEFEKINEENFNTFLNL

AFDLLSQEKKIYLKDKNGIYEFSLFKNEFIGDFLLPCDIKAINSVFVCSNENLKLLASLEKPLMKLRLNA

MFRKNHNLDFSDFKIRLARDLFCFALGLKLFENEYKFLSVKKIEEYQKDFYISALDEQVVVLEGFEFINA

KARELIFSKEDKNMARISYLVSRYKEKAFILELSKDYEDILLINKELNLLKLCLPKHSKELYEEIKKDEI

GARLLENFNKEFPLLDENFELQNNFYSLLGLLGRVLNLGRNLQESASELLKIADESKMPRGVKIDYRLKE

DKSFDYTRTLRSAMSFMLAGVDSANIAYGAVESLAYFLRDTYDELREKKQSDLALISGSLFEHKSLLKNT

LKHLKNCQLSDVPLRI

>AHK56880.1 hypothetical protein N918\_03100 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MARQSSSLKSFIYKDECYFYSKKCIKTLRLRLNEKGEFVLSIPYFCTFKSVYEFLDKSSSWMNEAKKRFE

KKVLKDDELIFLAKKYKIIFDENTKKTYFDKDKIICQNKAKLDLFLRQNAKKIFTFYLKKWSQKTGLFYT

HLSIKNMKTRWGSCNHNKAYVNLNLKLIQKSLRAIEYVILHEISHLKFPNHSKEFYTFIEHFMSDFRQRE

KEFLS

>AHK56879.1 multidrug transporter MatE [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKKQLSLTRLSFPIFWDLLSKYLTVIINTAMVSHYSNFLVGAMGAGNQILDLFITIFSFLSVGCSVLIA

QAIGAKDHVLARKVIHQSLFLNALLGFVCGVLILWHGEYLLYLLKIPQELLKDSEIYLHMLAICLFFDAI

GIVLAAIVRVYNMAYWVMFIGFLMDIVVICGNYYVLHYTKSELFGVGLSNIFARIVAIVALFAILFYKLK

IHLKIKEMIKLEKEVLKKVLNIGGFSAGENLLWIVQYTIAFAFVASLGEASLSVQTIYFQISMLIMLIGQ

AISIANEIIVGKLIGARYENIAYKHAWRALYFSVIASALVAFLNYLCQDFTMQILGLKEELKNLMIPLFA

LSIFLEISRTFNIVMVNSLRASGDAKFPFFSGLVFMMGVSLPVGYVLCFHFNLGILGVWIGFCADEFLRG

MVNSYRWKSKKWQGKALV

>AHK56878.1 phosphate ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIAKTTNLNLFYGKKQALFDINMQIEQNKITALIGASGCGKSTFLRCFNRMNDKIAKIDGLVEIKGKDVK

NQDVVALRKNVGMVFQQPNVFVKSIYENISYAPKLHGMIKNKDEEEALVVDCLQKVGLFEEVKDKLKQNA

LALSGGQQQRLCIARALAIKPKLLLLDEPTSALDPISSGVIEELLKELSHNLSMIMVTHNMQQGKRVADY

TAFFHLGELIEFGESKEFFENPKQEKTKAYLSGAFG

>AHK56877.1 phosphate ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKLFKKRQKASKSFKRLCKMGLYINLIFLCIFLGSVAYLGFPAFKQTYIFVEANRNSPAYDLLSRAEQR

KIRTGQITEKSWLLANSEVDQYMKQKYNRLSEKQRTLVDDLMQKGEIELKFNSNFFLNGDSKSPENSGIL

SSVVGTLLVMLVCMVVSVPIGVAAAIYLEEFAPQNILTHFIEVCINNLASIPSILFGLLGLGVFINLFGM

PRSSALVGGLTLAIMSLPIIIVSTKAALKSVDINMKNAAYALGMTKVQMVKGIMLPLAMPMILTGSILTL

AGAIGETAPLMIIGMIAFIPDVASSIFDSTSVLPAQIYSWSAMPERAFLERTAAGIIVLLGLLVVLNLSA

ILLRKYFQGKLK

>AHK56876.1 phosphate ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKEKIIKFALFLCAFVSVIVSFAIMLTILIEALKFFQKESVVTFLFSSQWAADAAFMNADGTSKQGVFG

ALSLFWGTFYISLIAMLTALPLGVMCAIYLGVFAGKKSKNYLKPILEIIAGIPTVVFGFFAAIVVAPFIV

WFFSLFGIQASFQSALGAGFIMGIMIVPIVASLSQDCIEAVSEKRINGAYALGMTKKEVVFAVILPEAIP

GIVAACLLGLSRALGETMIVVMAASLRPNLTLNFLEDMTTVTVKIVEALSGDQAFDSSLALSAFSLGLVL

FVITLIINMFSVYLINRFHKRKNL

>AHK56875.1 phosphate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILSLSVTSLALCGALNAVDLKIAGSSTVYPFTSFVAEEYASIKNTKTPIVESLGTGGGFKVFCEGTT

DISNASRPMKLSEFETCKKAGVTDIVGMMIGYDGIVLAQNKTNAPLNITKKELFLALAKEIPQNGKLIPN

PYTNWNQINKNLPNRKISVYGPPSSSGTRDTIEELVMSDVSKKIPEYKGEYKTIRQDGAYIPSGENDNLI

VSKLTIDKDAFGIFGYSFLVSNSDKINAANIDGVTPSEESIADEKYELARSLFIYINAKKNPKEAFDFAK

IYMSDDLAKSGGELEKIGLVPLSDDKLKASQKHVEDRKILNDELVKAGKVF

>AHK56874.1 ferritin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLSKEVVKLLNEQINKEMYAANLYLSMSSWCYENSLDGAGAFLFAHASEESDHAKKLITYLNETDSHVEL

QEVKQPEQNFKSLLDVFEKTYEHEQFITKSINTLVEHMLTHKDYSTFNFLQWYVSEQHEEEALFRGIVDK

IKLIGEHGNGLYLADQYIKNIALSRKK

>AHK56873.1 acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTYFSLEFSILMIAFFAIYWTFKNDYKIQNILILIFSYIIYILINPYFALVLFIYTFFIHYFALLIFVRR

KRYIFATCMAFIILNLCFFKYFPSIKGSVDEILNFFGLEFLNIDLVLPIGISFYTFTSITYLVEVYQKRR

LESFLNLATFLSFFPTLLSGPIMRSSFFFEQAYQKREFKHANLIIILLVFGIVKKVLIANYLGIYAKSIL

DFPQSYNFIQLLSAIYAYAIQIYCDFSGYVDLVCAFALMLGFTLPPNFNMPYLAKNLKDFWARWHISLST

FIRDYIYIPLGGNRKGIPRTVANILIAFILSGMWHGNTLAFIVWGLLHGIGIVFIHLLTLSKFSLQKIPA

LGRFLTFQFVCFTWIFFYYSKNLEDAIEYFKACYYNFFQIPSYNDIYMLVAFGVLFMIYPLFINFKEYCI

KILNLTPFLLKPFIIAFILLLVFAFMPDGIPDFIYSSF

>AHK56872.1 hypothetical protein N918\_03055 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSVVRFFFILIIVLGLVVVVMNQSISSYIEQKYHFAFYPHNDLLKEANGFKIKLEQIRAILSNEPLPQTN

EETTNQENKSIDENLSKIDKVLNTLENDENTSHKETNPTLIQDANISFIDNTKLELQNGDEFLFIGDSLM

QGVAIALNRDLRNLNLKVTDLSKQNTGLSYKSYFDWSKATNEAFIKNSNIKYLVVLLGANDPWDIKKGGN

YHRFGSLSWIDIYTSRVDEIIKIAKKHKAKVFWFEIPPVKKEDLNKKIQVLNKIYSDEILKNKEIFINTK

LFFSVNDEYSAYIKDENNRSIKVRTDDGVHFTPSGAREMSKLLLEHIKLKEENASK

>AHK56871.1 hypothetical protein N918\_03050 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLVNKFKVILLFFIIFTSSYAQNLNTNDTIDSILNQNKNHSALTSYVSKKDLKNLEKKLEKNQNIGIRIY

GDSHMAADFFPRVIRGYLIRSNSIGFAYPLQPKYQQNLNLVYSYKNFEILNSRNPANAGHNFPLGGIIAK

AKTKGAKINLDTTLDKKNFKIGFLFKAKQNTNAFSIKDAKNQSYELRTTQINKWSYKELELDLPLQISAL

QKDAELGGYFITNKDNNVFLDTIAINGAKSDLWLSWNQEVVKKELELLHNDLIILAYGSNDALFKGFEKQ

KFKNNLKKWISILKTYNKNAVIMLISPPTVVQKQGKNYKLAPDFFTIRKALYEVAKEEKTLIFDMHQFMQ

DSGGKNKWIEQKLSLNDVHLTIKGYELMAKKLLEDLKNIIDY

>AHK56870.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIILSIFLAFFLSACGVKLSLPKEVDLTQEQMKDLNLTYDWYRSYDNAKLNEFLNFVLLNNSDINIARK

TLLSALARADLIDYDLYPTLSGNLGFGADKDLNSGKQSKNFNNSLNLSYELDIYGKLRDSASASEFSAKA

SAYDLENLKISMINTALNDVFELAYFNDVDKLLRAYLSNLEQMKELYNYKYKLGKIEELDLLNIEQSLLR

AKQNLLSNDQNRNLLIKNLQDLLARQEGFAYIEYFKTLSLNDFKTLSPDFNIPLKALAYRADVRSKLNSL

KSAFKDYSSMQKSILPSISLGGALSGSDKKIDDSFKFEILSGNVKISLPFLDYGRVKQNIKISQFAYEQL

LISYEQVLQSAMNEFALNYKDYQSDTLLLQNLQNINIKQELITKAYYEKYILGKSELKDYLDANNTLNST

QQEFLRARFNLLKTINSYYQITALSFNNENLEFPKY

>AHK56869.1 macrolide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIFLKNICKNIGENAILKNVSLSIEKGEFVAIIGQSGSGKTSLLNIIGTLDTPSSGTYVFDEYEVTKLNN

DEKARLRREKIGFIFQRYNLLSLLSAKENVSLPAVYAGKNLQERSQNAKKLLNDLELAHKLDSKPNELSG

GQQQRVSIARALINGGELILADEPTGALDSKSGIMVLEILQKLNEQGHTIVLVTHDPKIAAQAKRVIEIK

DGEILSDTKKEKAQEKLILKTMPKEKKTLTLLKNQAFECFKIAYSSILAHKLRSILTMLGIIIGIASVVC

VVALGLGSQAKVLESIARLGTNTIEIRPGKGFGDLRSGKTRLNFSDLETLRSLEYLEAVDAHSNTSGVAT

YTNISLSARAEGVGVNNFAIEGLRIDAGRILNNDDVKNSTNVAVLDFNAKKNLFPDEKSENILGRVVLFN

SQPFKIIGVLQKDTDKPIEDNVVRFYIPYTTLMNKLTGDRNLREIIVKVKDDVSSTLAENAIIRILEIKR

GQKDFFTFNSDTFKQAITANKRTTTILTACVAVIALIVGGIGVMNIMLVSVSERTREIGIRMAIGARRED

IMMQFLIEAVMICTIGAILGVILSIFVIFAFNTLSTDFPMILNAYSVLLGLLSSMFIGVVFGFFPARNAA

NLNPISALSKE

>AHK56868.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKKIVLIILIAILGSVGAYFIFFNNDEKISYLTQKIQKKDISQTIEAVGKVYAKDQVDVGAQVSGQIIK

LYVDVGTHVKQGDLIAQIDKDKQQNDLDITKAQLESAKANLESKKVALEIANKQYQREQKLYAAKASSLE

NLETQKNNYYTLKANVAELNAQVVQLEITLKNAQKDLGYTTITAPMDGVVINVAVDEGQTVNANQNTPTI

VRIANLDEMEVRMEIAEADVSKIKVGTELDFSLLNDPQKTYHAKIASIDPADTEVSDSSTSSSSSSSSSS

SSSSSNAIYYYAKFYVANKDDFLRIGMSIQNEIVVASAKAVLAVPTYAIKSDPKGYYVEILENQKAVKKY

VKLGIKDSINTQILEGVNEDEELIVSSSADGLAPKMKLRF

>AHK56867.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKLVENLALKYYDKVVDLRHQIHMHPELEFEEENTAHLVCKILDEFGIKYQKNIAKTGILAIIEGKKKS

QKKPKCVLLRADMDALPVQEKTNLSYASKIDGKMHACGHDGHTAGLLGAALILNELKDEFCGTIKFMFQP

AEEGSGGAKPMIESGVLENPYVDAVFGCHLWGPLLENTAQIVSGEMMAGTDIFDLEFIGRGGHGAHPHTC

IDPIIMTTQFVNNIQSVISRRLAPYEAGVITVGQICAGTTYNVIPTNAYLKGTVRFLNDKTQDILKSSLE

EVAAATAKSNGGDYKLKYTKEFPPLINDEKAVLIARKAFAKVLGEENIIVSSKPDMGAEDFAFLTRERMG

AYVFVGISKDLNHPALHHSSTFCWDDENLKVLMQGDVMMALEFLNL

>AHK56866.1 thiol:disulfide interchange protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRIFGIILLSFCLCFASILSLNEAFNVKSNSYNNSISIDIELGKDIYLYSNKLKLYINEKDISSLINLPQ

SSTRGNENVYYQKLNLALPNLLLERFAKNTTNLIKLEFQGCSEQGLCYNPQTWYFDLISKKDAFEISKPY

KAQKTDKKTKIESEESSIANFLATDNFFWILLSFFGYGLLLSLTPCILPMIPILSSLIVAKSNAKFSKKY

SFFLSFIYVFFMSLAYAIAGVIASFLGASIQGILQKPIILILFALIFIAFAFAMFGAFRFELPLRFQTFI

HKKSEKGKGVVGIAIMGFLSALIVGPCVAAPLAGALIYIANTGNALLGGSALFIMSFGMGIPLLFIGLGL

GFIKPGFWMEKVKIFFGFVMLAMAIWILSRIIEENYILIAYGILGVFFSVFMGIFEKSFTIISKIKKSIL

ILILAYSLSIFLGGLFGAKNFLNPLNFNTISASKHALSYDYINNFEQLKQEIQTNTKPIMLDFTASWCEN

CKLLDELTFSDERIIQKMQNYKLIKVDVSENNNEQIKTMKEFNVFGPPVLIFFENGKEKLKITGFISADD

LLKKIEP

>AHK56865.1 sulfurase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIQSLQIGKIKNYKNFQSAFIKDTYLEETQIDFLGVLDDQIADKIHHGGYHKAIFTNSCQNYPIWERFL

NKKLNFGSMGENLSIDGLCEQNVCIGDIHQFSNAILQVSEPRKPCVKISKIHNNPNFTHEIFKTGLSGWY

YKVLQVGQIRKHENIKILEKNSTSLSVFELNQLFYSPHQILKQNPNLLDKLEKLNSLISQNWHETIHKRL

KNTYDISYMDSL

>AHK56864.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQRQTWSSTLTYILTVAGATIGFGATWRFPYLVGENGGGAYVLVFCIAMIIIGIPVILVENVIGRKAMTN

SVDAFKQKWQSIGYMGLLGSFGIMAYYMVLGGWVLVYIWELTLGNFSLANVVSKEFTHQFFNDKIAFNPL

GVGIFTTVFVIINYIILKRGIIDGIEKSVKFLMPLLFICLIIVVGRNLTLDGAMAGVKFYLEPDFSKILS

PKLLIDVLGQVFFALSLGFGVMITLSSHLNKNENMAKTAIYTGVLNTIIAVLAGFMIFPALFSAGLAPDS

GPSLVFETLPIAFSHIHFGTIVCILFFVLLLIAALTTSLPIYQVIISVLEEKFKYSKNLSINLTLGFIFI

LGNLPCILTYGPWRDIVIIKGKNIFDSFDFISGNILFVLTAFFCCIYVGWILGKQESLKELSNNNTLKSS

WFGIWFYYVKYIVPLIILIIFIYGILN

>AHK56863.1 1-aminocyclopropane-1-carboxylate deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFIKTISPIQKINFNGFEFYIKRDDLLGEINGNKARKLAFYIHQRYPKNQSFVSYGGSQSNALAALSIF

AKQRSYKLVFACEKISTFLKNNPCGNYALALENGVDFVENIHSLSLKQFALSLCKKDDVFIEQGIANLEA

QYGYMELAQEIQMQSQSLKLDFDIFLPSGTGTSAAFLAKYSKFKVFTCACVGDIKYLKKQILTLDPSYDF

SNLEFLTSDKKYHFAKPYKEFYELYMDLKLKCNIEFDLLYDILGLSIALKQEWKKPLLYIHQGGILGNST

MLERYKFKKSV

>AHK56862.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNESKEDSNFWIAYADLMAGLLFVFILLIGAIVVKYVLTQSDLKEIKDNLNKQEARLEESKEELRNKEA

IVFKLSSDLNNASSALNLANSQKAELEANITNYKQLSKDLNSTLDNKDKQILILLGQLEKKDEELKNLQE

DFQKAKEKVQNLGLIRENLSKELQSKLDNNITIDEKIGSISLPAEVLFDKDSYVLKNEAKASLRKILSEY

FDAILEDPKIFSNIENIIIEGHTDSDGSYIYNLDLSQKRAYEVMNFIYTFYKSDKLQKLLMASGRSFSDP

VFVNGVEDKDKSRRIEIKFSIKNDNALKDVEKFFEFH

>AHK56861.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDIKSDEISELVLPEGKDARGSLVYFKIIFIPAFLYILILLGYFNVIDFKVELHTVIMTGVIFFTALIFA

RHSAEYAYSIFEQQKDEFKQALKRHIMRHFLAIGKDTKSNANFDDFAYTYIKGARNENFASIGSAIFPMM

GILGTFISIAFSMPNFSSSDTAALEQEIADLLSGVGTAFYVSIYGIFLALWWMFFEKYGKSKIDRLLNRQ

KNATSGFFWTKEELDQRYLTESLQHFEKIGAIFKQVSNDDFFAELDHAIDRKFGIFQDMLNVEEKAIRLS

SEHIKQTMGELSKAQRDQRDLGKLYSEMLNGIGLLNQNLKEINTRMSEQYNRLLDISSDKIHHLDKTLSA

FDEKIERFGKNFELYEKAMLESQEKVFEGFKASLFEGMHKFKEVYEEEKSIDAKIKMMDELKKEMKALDE

ETSQMMSKLSGDENQNKENETKQIEDFSESKTEENQDEIQAEISKQESNDELKNEDKENK

>AHK56860.1 fructose-bisphosphate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGVLDIVKAGVISGDELNKIYDYAKAEGFAIPAVNVVGTDSINAVLEAAKKVNSPVIIQFSNGGAKFYAG

KNCPNGEVLGAISGAKHVHLLAKAYGVPVILHTDHAARKLLPWIDGLIEANAQYKKTHGQALFSSHMLDL

SEESLEENLSTCEVYLQKLDALGVALEIELGCTGGEEDGVDNTGIDNSKLYTQPEDVALAYERLGKISDK

FSIAASFGNVHGVYKPGNVSLQPEILKNSQKFVKDKFALNSDKPINFVFHGGSGSELKDIKNAVSYGVIK

MNIDTDTQWAFWDGVREYELKNRAYLQGQIGNPEGDDKPNKKYYDPRVWLRSGEESMIKRLEIAFEDLNC

INKN

>AHK56859.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKFSLVAATLIAGVVLNVNAATVATVNGKSISDTEVSEFFAPMLRGQDFKTLPDNQKKALIQQYIMQDL

ILQDAKKQNLEKDPLYTKELDRAKDAILVNVYQEKILNTIKIDAAKVKAFYDQNKDKYVKPARVQAKHIL

VATEKEAKDIINELKGLKGKELDAKFSELAKEKSIDPGSKNQGGELGWFDQSTMVKPFTDAAFALKNGTI

TTTPVKTNFGYHVILKENSQAKGQIKFDEVKQGIENGLKFEEFKKVINQKGQDLLNSAKVEYK

>AHK56858.1 endonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKRNLEIKELFLKHFDKPVTELKFSNLYELLVCVMLSAQCTDKRVNLITPDLFKAYPDIKSLANANLSSL

KTYIQTCSFFNNKAQNLIKMAKAVCENFDGEIPLDEQNLKSLAGVGQKTAHVVLIEWCGANFMAVDTHVF

RVSHRLGLSKAKTPEATEEDLTRTFKDNLNYLHQAMVLFGRYTCKAKKPLCKECFLNHLCKSKDKELK

>AHK56857.1 endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIFIFLLTISLNIFALEPYKPSADFSSYFNNINCSQILDKFFYLNCYDYKLKGTKAVAYKVEASNLKDR

QIKKRPRFEDDTNIPKKYRTTWSNYKNSGYTRGHTAPNASFSFSKAAQNSVFLMSNITPQNAQINNKIWN

EIEQRERNLALEFQSIEVLNLVLYDKEPQYIKNRIAIPSFYVKIIKTPKFKECYQAPNHEVNDENIKQYQ

INCDKF

>AHK56856.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEINALTITTLYIIGISAEGMTGALAAGRHKMDLFGVIFIALVTAIGGGSIRDVLLGHYPLTWVKHPEYI

ILICFCALVATKIPRVVTKLETLFLTLDAIGLVVFSILGAQIAIDQNHGFIIAVAAAVITGVFGGILRDI

LCMRIPLVFQKEIYAGIAIIAGAIYYSLIIWLELNALVCTLLTLFIGVFARLLAIKYQWSLPIFSYNEEK

>AHK56855.1 hypothetical protein N918\_02965 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRRLSILLAILIVINITACDSKTENYYKNLPSEAKEKAKECKESGTLSEDCINALKVGVKPTNEEGKYSP

NTPKKSDNQILEALKQNDLKKEKTTKDINQSSENNESIIIPPIAETPSEIYPSKTTENNQSSIFSDDVNM

TQEK

>AHK56854.1 hypothetical protein N918\_02960 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKITLFLSLIGIFFAACEQTKSVEYYQNHPEEAKKRSLECRHKAIISQDCVNAYKIGFPKDEWEDENISN

P

>AHK56853.1 tRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKDELFKQSPKKQFEFDKSVASVFDDMINRSVPFYRENLELCGNLLAKILPTNASVCDLGCSSANFLIFL

ANLRKDFKLFGVDNSASMLEVAKSKAKAYGLDISFFEANLCEFDFFTCDVFVANYTMQFIRPPKRQELLD

QIYKNLNSKGILIMSEKILYEDAFLSKNIIELYADYKEKQGYSKFEIAAKREALENVLIPYSQKENLNML

EKAGFKKIESIFKWANFETFIAFKD

>AHK56852.1 riboflavin kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNIFTTISKINITSLAIGCFDGMHLGHLKLVKCLDENGALLVINKFKGQFLCSNRQKEEISGKKVIEVD

FESIKSLDGRDFLSFLKKEFVNLKFIVVGYDFSFGKNRAYNAKDIESLSGIKTIIVDEFSIDGIGVHASL

IKDFLSKANLQKAKEFLGRDYSIKGKMIKGQGLGSKELFATINLDCEGYFLPQNGVYVTLLKSQRKTYKS

VSFLGVRSSDENFAIESHILEELGENFTQGEFFELEFISFLRENQKFQDLKKLKNQIAKDIEQARELLRK

NDER

>AHK56851.1 hemolysin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRFDFFVSKRLNISRNKALELIENEEILLNGKSFKASFDVKNFLENLKKTQDLNPEDILLANELKLDLLS

EIYVSRAALKLKKFLEENDIEIKHKNCLDIGSSTGGFVQILLENQALKITALDVGSNQLHPSLRVNEKII

LHENTDLRAFKSEEKFELVTCDVSFISLINLLYYIDNLALKEIILLFKPQFEVGKNIKRDKKGVLKDDKA

ILKARMDFEKACAKLGWLLKNTQKSSIKGKEGNVEYFYYYIKN

>AHK56850.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVLLMSLLKNSSYILTLLSLFGFLLTWQRSAFSLFFLISIFLTLFWEFFLFLKLRKNIIKEATLIKGSL

FYRVSMGDFYLYIFSFFLAIFGLVSLFLNFLNLEKIDFVFIFIILPLLMIFLKKELHLQFVDNAYNDFRI

VVIASFFTALFYAFYGLFFTYNELLNLELFSRKIIAYKSASFVYFDFLSEFLHFVSNLKFFIFSYFGYLG

FRALNFIFDFFNFFMFCSLLAFVFNFVLKIKIKIIVLFLCFIMVLGNYFLKEQRNNALKSEQEQILLWMN

NFNFLKDNNLSLIQKEKDLFEKDLKDLREIFKKNAFEIGIWWFSKEKEDLEKRINESLK

>AHK56849.1 NAD-dependent DNA ligase LigA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKEEYLEKVALANLWMRAYYEKDEPLASDEEYDALIRELRVFEEQNKDEISKDSPTQKIAPTIQSEFKK

IAHLKRMWSMEDVFDESELRAWAKRAKCEKNFFIEPKFDGASLNLLYENGKLVSGATRGDGEVGEDITLN

VFEIENIPKNIAYKERIEIRGEVVILKDDFEKINEKRALLNQSLFANPRNAASGSLRQLDTSITKERNLK

FYPWGVGENTLNFTKHSEVMQFIRELGFLKDDFVRLCANLDEVLKAYDELLALREKKPMMMDGMVVRVDD

LALCEELGYTVKFPKFMAAFKFPALEKTTRLIGVNLQVGRSGVITPVAVLEPVNLDGVVVKSATLHNFDE

IARLDVKINDFVSVIRSGDVIPKITKVFKERREGLEMEISRPKLCPTCQSELLDEGTLIKCQNIDCEDRL

VNSIIHFVSKKCLNIDGLGENIVELLYKHKKITTLESIFHLKFNDFEGLEGFKEKKINNLLNAIEQAREC

ELFRFITALGIEHIGEVAAKKLSLSFGKEWYKQSFEAYANLEGFGEQMALSLCEFTRVNRTRIDEFYKLL

NLKIEKLEIKSDGVIFGKTFVITGTLSRPRDEFKALIEKLGGKVSGSVSKKTDYVLFGEEAGSKLSKAKE

LEVKCIDESAFNELVKE

>AHK56848.1 dihydropteroate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFFKINPNTDFNLLCSFINPHKMGQKIMSEKTKIHFIFIKDISTPAANILKQDALRVGAELITHKEVIT

AKITHSNALLMASKEQIQKLVVKEKLQDFGLKNLALFLQKDFLKPKKAELMAVINVNEDSFNAKSRVSEE

DFEKRLNDFLALKPEYIDIGAVSSRPGSEYCGKEEEFKRLKKVLDLIYEKNYYEQAIFSLDSFDEYCLEY

ALNKGFKLINDITSLRNLNLAKLASKYGAKYCLMHMQNNPNNMQDNPFYEDLLDEMTLFFKEKLELLESF

GVKESILDVGIGFGKSAGHNMILIKHLEHFLQFNKPLLIGASRKSVINAYFQSEIKDRLAGTLYLHLKAF

ENGASIIRVHDLYEHKQLFALAQAMDNIGV

>AHK56847.1 DNA polymerase III subunit delta' [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFISKIIISEDFLGIKEEMINNFGIKKLRFFIPQNEFLLDDARAVEKESYIAETEEKIIVLMADSYRIEA

QNFLLKLLEEPPKNIKFLIVIPSKNLLLPTIKSRLICEKRKVEKEVKKLDLDLKRMDLRMLFDFLQKNEN

LDKNELMDQIALLAKECVKYKDFNAEELEFFYESYELAKLNSKSGVLLATLLLNYYTKK

>AHK56846.1 hypothetical protein N918\_02920 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSDFLSFTLENIRNGGAFMAWLESRRLEWAPLMAARLKYLLEGRTFVLMCDEQRSWYEEYFLKNINSKAT

RPMLPFVSLNSLCKKKVQSSEDIALLNDLLDISFPNGYVYFYIGSASDNKSLIAKSRDDSLLWLFDEQLQ

DSFYLNSKDKDLDIKLISLYQLFDVSLDAILFSKVQLG

>AHK56845.1 aspartate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLIVQKYGGTSVGTLERIEAVANRVIQSAQQGNQLVVVVSAMSGVTNTLIEQAEYFSKTPNGKDMDMLLS

SGERVTSALLSIALNEKGCPAISFSGRKAGIITDSVFTKARIHHIDTKAIKSELQNGKIVVIAGFQGVDE

EGNVTTLGRGGSDLSAVAVAGALNADLCEIYTDVDGVYTTDPRIEPKAKKLDKISYEEMLELASLGAKVL

QNRSVELAKKLNVNLVTRSSFNNNEGTMITKEDGMEQALVSGIALDKNQARVTLRNIEDKPGIAAEIFSV

LANENINVDMIIQNVGVDGATNLGFTVPQNELELAKNAMQKILSSKTTIESDSAVLKVSIVGVGMKSHSG

VASKAFKALADEGINIGMISTSEIKISMIVHEKYGELAVRALHECYGLDK

>AHK56844.1 preprotein translocase subunit TatB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSFGEIIVILVVAILVLGPDKLPEAIVQIAKILKAVKRNIDDAKSSIEKEIRINDLKEEAKKYKDEFSST

NENIRKKLSFEEFDDLKRDILDKTKVDLTFDSRDDKVKNNLSGQNLNTEEKPNLSKLETQDKNGKINV

>AHK56843.1 preprotein translocase subunit TatC [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFEELRPHLIELRKRLFISVACIVVMFIVCFALRSYILDILKAPLIAVLPEVAKHVNVIEVQEALFTAMK

VSFFAAFIFSLPVIFWQFWKFVAPGLYDNEKRLVVPFVSFASIMFAFGACFCYFVVVPLAFKFLINFGLN

EDFNPVITIGTYVDFFTKVVVAFGLAFEMPVIAFFFAKIGLIDDSFLKRHFRIAVLVIFVFSAFMTPPDV

LSQFLMAGPLCGLYGLSILIVQKVNPAPKDKESDE

>AHK56842.1 S-adenosylmethionine tRNA ribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKDLLLSSYDYTLANELIANYPTNPKEDARLLVFDRKNKEIFHTTFKNLQDFLPNCAIFFNDTKVIKAR

IYGNKASGGKIELFLHQPFLNSHNPLFLAQIKGRIKKDEILYFKEDLKVRVVELLNDGLRKVQFFQNDKT

LDTSNLYNLLDKIGHIPLPPYIKREDEKSDLKDYQSIFAKNLGAVAAPTASLHFSETMLENLRKKHEIYH

LTLHVGAGTFKSVECENIQEHKMHSEFFNIPQQACEIIDSKQAILGVGTTVTRTIEYYTRTKTKNGFCDL

FLHPQNPPIRQNHLLTNFHLPKSTLIMLVSAFIGREQCLKLYELAIKEKYRFYSYGDAMLIL

>AHK56841.1 UDP-3-O-(3-hydroxymyristoyl) glucosamine N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLSEIAEFLSLEYKGEDIEISALNSLLKANFTELTYCDGEKNTKDIPHTGAAAILVSKEYENLVPKDTK

ALITQSPHLSFAFLSKLFAKPLISTAKEKVQNIAKSARIMPNVYIGDNVNIGENVIIMAGAYIGDNVSIG

DESIIHPNVVIYNDTKIGKKCHLLANCVIGSDGFGYAHNKNGEHYKIYHNGNVVLEDFVEVGACTTIDRA

VFDSTIIKAGTKVDNLVQIGHNCNIGQNCIIVAQTGISGSSELGRNVIMGGQSATSGHLKIGDFSTIAAR

GGVSKNLEGGRVYGGFPIMLQKDWLKLQAKIAINFKEKSQD

>AHK56840.1 acetolactate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRRVLSVIVLNEHGVLSRIVGLFSGRGYNIDSLTVAPLENKEFSRINIVTSGNERTFEQIVKQLHKLIPT

YKVIESEEFIDKEMALVKIPLNENLGGLDAVLKAYNGTIANSNENFLFLMVADDANRIDNFLKTIKKYNP

SDIVRSGSVLMEIK

>AHK56839.1 acetolactate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKELSGSAMICEALKEENVKIVFGYPGGAALNIYDEIYNQKYFKHILVRHEQAALHAADAYARMSGEVGV

AIVTSGPGFTNTITGLATAYSDSIPLVLISGQVANSLIGTDAFQEIDAVGISRPCVKHNYLVTCIEEFPR

ILKEAFYIARSGRPGPVHIDVPKDVSATLGLWEYSKEISMKTYKPVYKGNSKQIKKFAELLKEAKRPLFY

LGGGCISSNASEQIRELIKFTKIPAVETLMALGTLRSDDVFNLKMAGMHGSYAANMALSECDLLVSVGAR

FDDRITGKTSEFAKHATIVHVDIDPSSISKIINAHYPIVGDIKEVLKELLEELKKENFNTTFKEWHETLK

RYNELYPLSYEDSNEILKPQWVIEECAKMAPDARIITDVGQHQMWVAQFYPFNYPRQLATSGGQGTMGYS

LPAALGAKLAVGEEVVINFVGDGSVLMNIQELMTAYEYGIKAINIILNNAFLGMVRQWQSMFYKEHFSQT

DLSTQPDFIKIAQGFGCEGYEISNKEEFIQAFSQALKSDKTSLLNVKIDRFEDVLPMVPAGGAIYNMILP

KAKDRQ

>AHK56838.1 aspartyl-tRNA amidotransferase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTLKEQILNDIKEAMKQKDDFKRDSLRTLNAAFKQIEVDERIELDNERIYKIIASEIKKRKDVIELYLKA

NREDLAQKEQNEISLFEIYLPKQLSDEELTLALKQLIEELGVSSLKEQGLVMKEAKIKLGASVDGKRLNL

ALKELLQ

>AHK56837.1 3,4-dihydroxy-2-butanone 4-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFVSVEQAIKDLQAGKMLVMVDAEDRENEGDLIFPAQFSTQEKVNFMIKEARGVVCVALDETLAKKFEL

PLMVPKNTSNHETAFTITVDAKDATTGVSAYERNMTIQIFADDNAKASDFVRPGHINPLIAKKGGVLERT

GHTEGTVDLCKLAGLKGACVICEIVKDNGDMARREDLEIFCQKHDLNMIAVSDLIEYRLKHESLIKLEEK

SQSVLAGFKAEKFIFSDHNQTQHIAFCFKDIKKCENVKFHISGSDFELLTSDKFSKLLEQIKFLSENGGV

IVFMQGEKSSTTQYKNYGIGAQILRYFGIEEIKLLSQSCDKDYIGLEGFGLNLKACNFN

>AHK56836.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEYDKLSIRLVQILSKFNNGESLSAQELAQEFNVDTRTIQRDLNERLTFMPIKKENGRYVLESFALGKL

SFKDIQNFATLSGIAELYPKLDQGFIVDLLSHRVNKVLMVKNEGFQKVDYELFKDLSVAILKHNVLNFFY

KEKERQIKPYKLVNYKGIWYLLGDENDKLKHFNLDKISKLRTKNENFIPNEKLEEQIQNDPNIWLGESKE

VILKLDKNAKEYFFRKEILSNYQIIDKDETSYTLSTQVSYEDEILHLVKQWIPYIKILAPIELKIRLEDI

LKSYLNNLSK

>AHK56835.1 hypothetical protein N918\_02810 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKQIAFGSIALTATGYGIKKLYEKLSKPERKFDTHAIVPSCKDVINTEEYKLKRELEIEQKKNQIQEFL

CECMECYSGFSKYFNSKEFLEFEQNFTSKNNHKTEFLLSSYKDQMIKVIDYAKKFKCLSAFLETQSEKND

LAVVKMISESMERKTQRFYLQTKFQTFPQYIFPSVWSSPMWDKQWE

>AHK56834.1 replicative DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQQEYYDLDLERAILSSCIMSEEAYASIAGDISPKDFSLKAHQDIFKAVIACSNNKEPISVSFLRKHKKI

DEQILAEILATPSMIDLPAYVNELHEKSVKRQLLSFAHLLPTRINEDRAVSEIADEIGKEIFSITNRVNS

RDIKDVDMVISELFEEFKKQKTLENKGIIGLDTGFEGLNKMTKGFKGGELIIIAARPGMGKTTLCLNFID

KVLRQKKGVALFSLEMPATQIMQRMLSSKTSIPLQKILTADLNDDEWERLGDACNDYSQKKLYIYDSGYA

TIADVRAILRRLKSQDESIGLCVIDYIGLMMSNSNFNDRHLQVSEISRGLKLLARELDMPIIALSQLNRG

LEQRANKRPLMSDLRESGAIEQDADAILFVYRDEVYREQEEKERENKAKAEGKAYQRLFIPNPMQENAEI

IVGKNRNGPVGTIEVVFLKEKSCFVDKPIGYETTEFTG

>AHK56833.1 hypothetical protein N918\_02800 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKYLFSCVLASILTQSATAVEFQEGFSGNLSIGVGARDIKSNISTLANSDYLSSHNADNSDSSFIPFIG

AELYYGNLIDNDRIFIKNYNGRDISGIALGYERAYLERFSTSFSVISSLREKAYANPYAIGNREETDVDR

YGFKISQLYESDFGKFTTSYLFSKNKYDKDTIAQSSLKREGYYHEIELNYNYSLLNLGLNYDYNDADGKA

QSYSRYGFSIGTNLAFANDYIFTPNLNLSKYEAVGTDPIFHKKQDGNIVKLNLKVVKNQFLGYNGLYGFA

NYGIEKRNSDIGFYDETYQIVLTGIGYKF

>AHK56832.1 pyridine nucleotide-disulfide oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIDLIVVGAGPTGIGCAVEAKLKNKEVLILEKSNNICQTLMQFYKDGKRVDKAYKGCEGTNHGHVPFE

DGTKESTIETFQNALKEHNIEVEFGSEVESVKNENGVFLVSTAKGVYECKNIIVAIGRMGKPNKPDYKLP

MTLTKIINFNANSVLGNEKILVVGGGNSAAEYAVDLANSNQVSLCYRKKEFTRLNDINLKDIHEAGNSGK

VELKLGIDINEVEDDNGKAKVNFTDGTSDIYDRIIYAIGGSTPLDFLQKCGINVDDKGVPLMDENKQSNV

KGIFVAGDIATKNGASIVTGLNDAVKILSVL

>AHK56831.1 gamma-glutamyl phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRNLLENIKKNSQKLLNLTPKDKEKIILKLAQILRENFKIILEANKKDMANFTKSGAMKDRLLLDEKRIL

ALCEGLEKIAYIEDPIGKISKGWKNYAGLSIQKMSIPLGLICVIYEARPSLSAEIAALMIKSSNACVFKG

GSEAKFTNEAIFTLVNKVLKEFDLQDCFAMFTQRDEILQILAFDDLIDVIIPRGSSNMIQEIANNTKIPL

IKQNKGLCHAFVDQSANLDMALKIILNAKCQRVSVCNALETLLIHEKIAKNFISLLIPEFEKFKVKIHAH

ENALAYFNNSNLKIFKANENTFDTEWLDFALSVKLVKDCDEAIEHINKHSSLHSETIISNDASNIAKFQR

LINSSCIYANASTRFSDGGEFGFGGEVGISTSKLHARGPMGIEDICTYKYIINGEGQIRE

>AHK56830.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKIEILKQHFKEIAKLNSSEQVWQMPFFAALGVGIVLGLSVFFGKLNYGLIAMIGALSFLYVPSTPLYH

RMAVVMCCSFGIVSSFFLGILTHFLPAIFAFIPIGIMAMGSSILIRYYNIGAPGYFFFVFSCVLGAYSPF

EAKDFIFLVGLVFLGAMVANLMALLYSIVVIYGFKNALPSEIPPREYIGFDAVFVDSLIMGSFVAFSIFI

GTFLELERSYWIAISCTAIMQGVTLNSIWIKQIQRIIGTALGVCFAWWLLSKQFHDIELILLMMSLFFIG

QFLVNRNYALAMIFFTPYATYLSEAANFMSENADKLILARLIDVVIGSILGLLGGFVIYKPYLRVHFERI

AKYIFRIKQKA

>AHK56829.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIDTHAHIFLKKLNTVANARYKPDYDASFKDYKANLDHYDFNKGVLVQPSFLGIDNEFLLQSIEKDENI

KAIVVVDENIKFDELKKLKERKACGVRLNLIGKELPNFKSMVWTQFFENLSKLKMQIEIQRDLDNNLVDI

VENLIPYGCNIVIDHLARANANLTNLEDLICLKNSRIFFKISGFYRAKIDYANNEQAVKFAKKIYEILKE

HFPLSNFVFGSDWPHTNFEANINFSSALVAFNEVVVSKKEQEQILGDNACALFGF

>AHK56828.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVFLIISSIIVAIILGYITRHNVGIFAMIFAYIIGAFFMDLAPKKIIAFWPISIFFVIFAVSLFYNFATV

NGTLEKLAGHLMYRFANHPYLLPFVIFVVSAIIAALGAGFYTVLAFMAPLTFLLCDKIGLSKIAGAMAIN

YGALGGANFITSQSGIIFRGLMENSGIEANEAFANSSIIFAFTIILPIVVLSFFVFNAFKNNIKISVISK

PDPFDYKQKTTLILMFMMIVVVLIFPVLNIIFPHNETISYFNKKIDIAMIAMIFVAIALFLKLADEKQVV

ALIPWGTLIMICGVGMLISIAVEAGAIKLFSDLVENEINVIFIPLIMCAIAAFMSLFSSTLGVVTPALFP

IVPSIAASSGLSEALLFSCIVVGAQASAISPFSSGGSLILGSCPDKYKEKLFKDLLIKAVPIGFIAAILA

TIIMSFIL

>AHK56827.1 hypothetical protein N918\_02765 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKFIKQFSFIALENIFRELPNKITHSFNDINDIKPPKLMYPIFYGSYDWHSSVHSHWLLVKILKDFSHF

APKDEIIKALDSQFSKEKAEGELKYLQNPAHKGFERPYGWGWFLKLTLEINLLAKENDKAEIWAKNLEGI

ADFFVKEFKEFLPKMDYPIRVGTHFNSSFALYFALEYARFKKDQELEYCIIQSAKKWFLNDKNMQALEPC

GDEFLSPVLMEAVLLSAVLHKNDFVKFFKAYLPNLEAKEPATLFTPVSVSDRSDGKIAHLDGLNLSRAWC

FKILSNFCDENLKILLRNNATEHFDKAIAHIEDDYLGSHWLGSFALLALDVDIL

>AHK56826.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MISLDLLYYIVGILFLVFGILSFSNQAKDIKSRISGGVFWISYSFTFLLAGVLPHFVMGCIVILLALIAG

FNLLKPAKIEVSKEEKEYEIKHANIYKNKLFIPALMVPLITLIGTFLFPYLSFFENKNATLMALIIGIII

SSVVACFMFKASPKRAVKDAAHTMDHISWAALLPQILATLGVVFVSTGMGDQVSKLLSSYISLDNAFIAV

AVYCIAMALFTIVMGNAFAAFPVITAAIALPILIIQMHANPAIIGAIGMLSGFCGTLMTPMAANFNIVPA

ALLNLDDKNGVIKAQFMSGLVLLVANIFLMYFLAFRF

>AHK56825.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEWLLLASIPLIVLGFALKINPFLVVTSVGIYAGLVSGFDFVKVVSDIGKSFVDNRYVAIIWLILPLLAV

LERKGLREQAKNLISKIKVASTGRILMCYFVFRQVTAALGLLSLGGHAQMIRPLIAPMAEAAAKLKFKNL

THKDSQKIKAFSAGTDNVAVFFGEDIFIAVHSILFIKAFYESNGIIVEPLHLSVWAIPTGILALIIHCSR

LYLFDKRLEKTYKGLSDDKS

>AHK56824.1 elongation factor P [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MASYSMGDLKKGLKIEIDGIPFKIVEYQHVKPGKGPAFVRIKIKSFIDGKVLEKTFHAGDKCEAPNLEDK

TMQYLYDDGENCQFMDTQTYEQVAISDDDVGEAKKWMLDGMMVDVLFHNGKAIGVEVPQVVELKIIETAP

NFKGDTQGSNKKPATLETGAVVQIPFHVLEGEVIRVDTVRGEYIERANK

>AHK56823.1 hypothetical protein N918\_02745 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKQWLSDFKLALIQEDVNKLENLLDELDMKAFIKNLAKESPSEDFLKENANDVFYQVQALLQEAVILIEQ

KKKTKAVEIQKFQKALTYFKS

>AHK56822.1 flagellar biosynthesis protein FliS [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNNLAYNAYSQNQVGIESPQKLIEMLYEGILRFCARAKVAIRNEDIEQRVYFVKRTTAIFIELINTLNY

EKGGEVAHYLSGLYTREIQLLSLANLENNEDRINEVINVTKGLLEAWREVHNNETVAQ

>AHK56821.1 flagellar cap protein FliD [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAFGSLSSLGFGSGVLTQDTIDKLKEAEQKARIDPYTKKIEENTTKQKDLTEIKTKLLSFQTAVSSLADA

TVFAKRKVVGSISDNPPASLTVNSGVALQSMNINVTQLAQKDVYQSKGLANDGGFVNAQLNGTADLTFFS

NGKEYTVTVDKNTTYRDLADKINEASGGEIVAKIVNTGEKGTPYRLTLTSKETGEDSAISFYAGKKDSNG

KYQKDINAEKIFDDLGWGLDVSASIDPDKDKKGYGIKDASLHIQTAQNAEFTLDGIKMFRSSNTVTDLGV

GMTLTLNKTGEINFDVQQDFEGVTKAMQDLVDAYNDLVTNLNAATDYNSETGTKGTLQGISEVNSIRSSI

LADLFDSQVVDGTTEDANGNKVNTKVMLSMQDFGLSLNDAGTLSFDSSKFEQKVKEDPDSTESFFSNITK

YEDINHTGEVIKTGSLSKYLNSNGGNTNGLEFKPGDFTIVFNNQTYDLSKNSDGTNFKLTGKTEEELLQN

LANHINSKGIEGLKVKVESYNQNNVTGFRLNFSGDGSSDFSIKGDANILKELGLSDVNITSKPIEGKGIF

SKLKATLQEMTGKDGSITKYDESLTNDIKSLNTSKDSTQAMIDTRYDTMANQWLQYESILNKLNQQLNTV

TNMINAANNSNN

>AHK56820.1 flagellar protein FlaG [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEISKANGQMDTALANISQRTSETQASLNIQTDRSQGQEGDDGQQRGVSEKLADITKKLNEQMDSLDTNV

RFGYSDKIGSMYISVTEKSTGREIRQIPSEEAMRLAEYFRDVIGMIFDKES

>AHK56819.1 3-octaprenyl-4-hydroxybenzoate carboxy-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEFIQILKENDLLRVIEEPVDVDLEIAHLAYIEAKKGEKGKALLFKNPIDKKLNKQYKFPVLMNTFCNK

KALNLAFGRDYKEVAEEISKLIKLHIPTSFKAKMDFFMNLLSFKNIPPKRLKKNKALYDYEILNSLEELP

ILKTWEDDAGKFITMGQVYTQNLDKTQNNLGMYRLQMSDKNELLIHWQIHKDGANFYHEYKNAGFKKMPV

SIAIGGDPLYIWCSQAPLPKGIFELLLYGFIKKTPAKITPCENGIFVPYDSDVVIEGYVDLEEFKIEGPF

GDHTGFYTPAELFPVMKVEKIYAKKDAIYQATVVGKPPLEDKIMGLGTERIFLPLLQTSVPDLIDYNMPE

NGVFHNLILAKIDAKYPAHAQQIMHAFWGVGQMSFVKHAIFVDKNAPSLKDYDALIPYMLDRFNTKKILI

SEGICDQLDHASPNSCFGGKAGLDACEEIQVEELEILEDEKLLELFKTKVELLNLKQFYKESKSPIVCIL

LDKKEKIEQSFDKLLEFKKYFRILVFLDAENKLENSYMLVWRVVNNIDAKRDIFIKEERLGVDASAKGEA

EGYLRAWPKQTDCTKSVIEDLILRNILENNPDLFNKFEIF

>AHK56818.1 porphobilinogen deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLIIATRKSQLALWQSEHVAQILKNTHQIEVLLEGFKTKGDVLLDSPLAKIGGKGLFTKELEESMLRKE

AHLAVHSLKDVPSFFPQGLVLAAVSKREQSNDAMLSQNYKDFLSLPKGAKIGTTSLRRKMQLLLLRPDLE

IISLRGNVNSRIEKLKNNDFDAIILAMAGIKRLNLDKQVNFVYEFSKDELIPAASQGALGIESINDEKIL

ELLKCLNDENALIETSIEREFIATLEGGCQVPIGINAELLGDEICVRAVLGLPDGSEILKDKRMIKKNDF

KGFGESLAKEFIAKGAKELLKKAESMI

>AHK56817.1 integral memnbrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNYKLSLSPLFVLEIIASVLFIVFFGFGNFLFFILLSMIFGAVLLGIFWKNMLEFQMGGLKDMLTQFSFV

IAGFLLIFPGIITSVFGIFVFFFGIALKLITKSKYQYTKQEYQNSNEEIIDVEIIEDRK

>AHK56816.1 prolyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMRFTKFYAPSLKEAPKDASLPSHIFLTRAGFVEQIGSGLYNFLPLGKRVLDKIKNIVKEEMDKAGAQEV

NLSFITPASLWQESGRYNVFGKELLRFKDRKENEFVLGPTHEEAMLSLVKNKITSYKQLPLHLYQIGLKF

RDEARPRFGLLRCREFLMKDGYSFHANEEDLGREFELMYKTYSQILQRMGLDFRAVEADSGAIGGSGSKE

FMVLAKNGEDDILICENCDYAANVEAAKRAKKTCQDERPEANYASKFHTPNIKTIDSLAQFFKINAFYTI

KAVVKKAIYENESKLVVFFIRGSDDLQEVKAQNTCSALELVDASEEELKKAGLVAGFIGFVGLKDIDFYI

DFELENEKQMIMGANEKDYHLIGIDVVNLNKDRFKDLIEVKEGDCCVKCGAKLKQSKGIEVGHIFKLGQK

YSKAMNANFLDENGKSQPFYMGCYGIGVSRLLAVAIEANHDEKGCIWNKTLAPFVLEIIVSNLKDEKALE

FANKLYRDLTNLGLEVLLDDRNERFGVKMNDFELMGFPYALVIGKGLENNEIELIQREGLVKELIKTDEL

MEILKKKVL

>AHK56815.1 glutamyl-tRNA reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYYCISFTHKNTDIALREKLSFSNEAKKGEFLKIISTHENIEECLVISTCNRVEIVAFVKMACAEFIVKS

LALLCDVDKDILLEKADIFEDSGAIHHLFSVASSLDSLVVGETQIAGQLKDAFAFAVKNNFCGVHLSRAV

HSAFKCAAKVRNETQISKNSISVASVAVAKAKELADLTQKKAVVIGAGEMGELAAKHLIAAGAKVIILNR

DLQKAKDLCERLGVLSEYDSLENLKKYLNQYEFFFSATNAPNAIITNSLIEELSYKRYFFDIAVPRDIDI

NENENISVFAVDDLEIVVQKNLALREQEARMAYGIIGRETSEFFRYLNDLALMPIIKAIRLQAKEYADKQ

LEIALKKGYLKKSDKEEARKLIHQVFKAFLHTPTVNLKHLQGKMQSDTVINAMRYVFDLQNNLEGLNQYK

CEFDMENNDEIY

>AHK56814.1 octaprenyl-diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKIDELIKQFLQELGYEPILNMLSNVKSGKKLRSKLLLAIADESEIAFKICAAIELIHLASLLHDDIID

ESELRRGARSVNAEFGTKNALMLGDILYSKAFYELSKMDARFASIISDAVVKLAIGELMDVDLGEKFNIN

KEAYLKMIYNKTAVLIEASARCGAILAGLYEKDFAEYGKNLGLAFQMIDDILDIKSDEKILGKPAMNDFK

EGKTTLPYIYLYENLQEQDRIYLQTLFKKDLNENEKEWLKTKFEEQKALEKAILEAKTYAKKARKAIEKY

DNNKLNDIIKAMIDREF

>AHK56813.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFKISPYLICIFFIFSNVLASEPTFDYTYKFILKKDERASVQIKEIGYEDKVQNFDFYWTLFDNTNIIVH

SKFRKYPRQFVMSLRRNLDWVTQTLIPDYTNPHIDRARLILEFSGYNKGLATFTVYIEDKESRLMVEFLD

PRKKALQNPPQNNQVVPMINFNEPQVKPLTSKENNNSN

>AHK56812.1 hypothetical protein N918\_02690 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDFFDEMFNKTPKEKFIEIIQNGNLGALEKVFEEFFADHIAMVELLEKQGLTEMDVKNFILENGDFIEER

QNDIYIELGAKILGHEG

>AHK56811.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKYQLRFGGEGGQGVITAGEILAEAAIKEGRQAFKASTYTSQVRGGPTKVDIIIDDKEILFPYAVEGEVD

FMLSTADKGYKGFRGGVKEGGIIVVEPNLVHPESEDYKKWQIFEIPIITIAKDEVGNVATQSVVALAIAA

YMSKCIDLDVLKETMLHMVPAKTRDANAKAFDLGVKYATQAKPHS

>AHK56810.1 2-oxoglutarate ferredoxin oxidoreductase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAFNYDEYLRVDKMPTQWCWGCGDGVVLKCIIRAIEKLGWNMDDVCLVSGIGCSGRMSSYVNCNTVHTTH

GRAIAYATGIKLANPSKHVIVVSGDGDTLAIGGNHTIHGCRRNIDLTHIVINNFIYGLTNSQTSPTTPKG

FYTVTAQFGNIDPNFDACELTKAAGASFVARGNVIEANKLENLIYKALAHKGYSFVDVFSNCHINLGRKN

KMGEAVAMLDWIKNRVVDKAKFESMDFEERKDKFPTGILHEDNSQPEYCHAYEEVRRAAKEKRMVDLGAL

K

>AHK56809.1 2-oxoglutarate ferredoxin oxidoreductase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MREVIATGNVLIAKAAIDCGCKFFGGYPITPSSEIAHELSHMLPANDGTFIQMEDEISGISVAIGAAMSG

VKSMTASSGPGISLKAEQIGLAFIAEIPLVIVNVMRGGPSTGLPTRVAQGDLFQAKAPTHGDFASIAIAP

ASLEEAYTETIRAFNLAEKYMTPVFLLMDETVGHMNGKAVLPDLKDIKVYNRKKFEGDKKDYKPYAAGEN

EPATLNPFFTGYRYHVTGLHHGDIGFPTEDGVIVKKNMERLIGKIKNNQEDICTYEEYMLDDAEFLIIAY

GSVSRSAKEAIQRLREQGIKVGLFRPITLYPVAEKKIAEVVSKFKKVMVSELNMGQYLEEIERVTSRRDF

ISLHRANGRPITPSEIIAKVKENI

>AHK56808.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSMTAPKDTPVWVDEHRCKACNICVSYCPAGVLAMRDDVHAVLGQMIEVVHPESCIGCTECEIHCPDFAI

MVAKRDEFKFAKLTAEAKDRAVAVKNNKYKKLA

>AHK56807.1 succinyl-CoA synthetase subsunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSILVNKNTKVIVQGFTGKEATFHAEQCMAYGTNIVGGITPHKGGQTHLGKPVFDTVADAVKATKADVSL

IFVPAFAVGDSVIEAADAGIKLAVVITEHTPVKDMMFAKQYANKKGMKIIGPNCPGIITSEECKLGIMPG

FIFKKGCVGLISKSGTLTYEAANQVVQGGYGISTAVGIGGDPIIGLAYKELLSEFQKDDETKAIVMIGEI

GGSLEVEAAKFIKENISKPVVAFIAGATAPKGKRMGHAGAIVGSADESAAAKKEALKSYGIHVVDSPALI

GEEIQKILG

>AHK56806.1 malate--CoA ligase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNIHEYQAKAIFVDNGIPTLKGKVAFSVDEAVANAKELGGSVWAVKAQIHAGGRGLGGGVKIAKNLDEVK

DYASKILGMNLVTHQTGPEGKLVQKLYIESGANIVKEYYLAILFNRMAEQITIIASSEGGMDIEKVAKES

PEKIAKVGIDPQIGFKMFHGLEVARVLGLDKDEGKKLISMIAKLYKLYMDKDMNMLEINPLIKTAEGDFY

ALDAKCSFDDSALYRHPEIAELRDTTEENPAEREAAEFGLSYVKLDGDVACMVNGAGLAMATMDIINYSG

AKPANFLDVGGGASPETVAKAFEIILRDKNVKVIFINIFGGIVRCDRIANGILEATKNVEVNIPIVVRLD

GTNAAEAKTILDNSNLKNIKAATNLKNGAELVKSLVG

>AHK56805.1 malate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKITVIGAGNVGSSVAYALILREIANEIVLVDINEDLLYAKELELTQSIAALNLNIDLLCTKDYTHTKNS

DIVLFSAGFARKDGQSREELLQLNTSIMLDCAKKIKDFTEDPLFIILTNPVDFLLNTLYESGIFSSKKII

AMAGVLDNARFKYELAKKLNVKMSRVDTRLIGFHNDDMVLVKSYASVKNKNISEFLNEEEFEDLENEVKT

GGAKVIKHLKTSAYLAPASACIRMLESIRSGEFLPMSVILHGEFGVQNKALGVMARLGLEGVIEIMKMDL

SLQEKDKLEKSLIKYQYKGE

>AHK56804.1 isocitrate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTKTNFKLTLAFFFICNILKNENKNKYFKGLKMQITYTLTDESPALATYSFLPIVKAFLSRAHIGVKTS

DISLSGRILATFSEYLKEEQRCEDALELLGELVKRSDANLIKTPNISASIPQLKAAIKELQDKGYMLPNY

PDEPKNDEELQIKTKYQKVLGSAVNPVLRQGNSDRRSTKAVKDYAKNNPYRVVEFNPNSKTRVSYMKEGD

FFSNEKAVLIDQDCVANIEFTSVDGKKEILKEGLKLEKNEILDATFMDVQKLQEFYAKEIKASKDDDVLF

SLHLKATMMKVSDPILFGYAVKVFFKELFIEFQDEFEKLGINPNNGLSELLSKIENSSKKDEILKKYSEI

LAKSADISMVNSDKGITNLHVPSDVIVDASMPAMLKNGARLWDKEGKEKDTNAVIPDQTYATIYEAVIED

LHKNGTLNPSKLGSVSNVGLMAKKAQEYGSHDKTFVAKEEGTFKIVSNGKVLLEHKVRKGDIYRANQAKF

DAVLNWIDLGIERSELSGAEAIFWLDSKRASNKIMITLVQNRLKEKGKNVAILTPKEACLRSLELIREGK

DVISITGNVLRDYLTDLFPILELGTSAKMLSVVPMLNGGAMFETGAGGSAPKQVEQLVEENHLRWDSLGE

FLALQASLEFYANKCGNHKAKVLAECLDEAIGEWLENNKAPSRKVKEDDNRTSHFYLAMYFANHLARQAS

DMELQSFFKDIALELSSNEEKIRAEFNDAQGVKVDLGGYYKFDDEKANKIMRPSATFNAILEKIGQR

>AHK56803.1 hypothetical protein N918\_02645 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKKILYIVVFFVVLILALFIVLKNGIVISSIQFDFLKLEQLYIKLDKKLIVRAKNITINETQNSEISSQ

THSSDNASTEILKITKNLKYLYTFVKEIDIQNLNIKDNHVRILFKDNEFFIDNDLLFLKLTLQRQNKELI

ADIKKLLLKDYDLSIDGNLSINTKSEFYYFQGRASGELLDFNASISYKDKNLAYKIEDLNIRNITEIFKR

VNKRIELPQSLNLWVAYRAKGEFYHLDYLQGFIDFTKDNYYLDNISASGYVNNVKVRLDDKMNAIEIPKL

DLNLNKQKLDFVFNKAFYNGADLSSSKVYLYDLFDEKKVGIYLRIKSDNLKFDEKLAKALEDYHFSLPFY

QKSGKIKSDLELKIDFHDKGEISYSGILALENASISLADFNITKAFVKLNQNDLNIENASVKNGFLEADF

NAKFDLQKQQGNFNTQISRLYFDNAELLDLKNQNVEVKLDYSQNVNISIPQWNLILNFKDGLEANLNNPK

ILFSFSPLLKKLGFINAKNVYYKTLNFEDFNASVNDAYFKNNLLINGQTPYENDSFDIVKNKGIMEIHTQ

SDTASAKISSDNKEIHLKNLSYIYRKHSNSSNSTFDIATNTQNISFGGANVALILADSNKTLAFDRVEAD

LKGNALDLKGSRGNAKFDLYYSSNDLNLNVSNIDDNYLNEFLQKQAVQDGVFNLSIKGSGLEYFDGQIDF

KNTYVKDLKGINQLISFIDTVPSLLMFKSPTFNQKGLSLHDGKIIFNRKKDLLSVSAINLNGDSVDIYGL

GSANLRLNTVDFSLELKTLKSASEAISKVPILNYVILGKNQEISTNLKIDGSIDDPKFHTEILTDTLKTP

FNLIKNIIQLPANLLN

>AHK56802.1 flagellar basal body rod protein FlgB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINPFKSKELVTGALAGRNLRNQLINANLANVDTPFYKARDIEFETALVNRANEIFKKNDNKELQLAVTE

EEHQKPWKFPDPSKSTIYLRDGHLARNDANTVDLDVETTEMSKNTVMITALDGVLRRQSNIFSSILDASS

KLS

>AHK56801.1 flagellar basal body rod protein FlgC [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAYLSDFDISGYGLSAQRFRMNVISSNIANANTTRTAEGGPYRRREVIFKATDFDKLLNEQINKDNNFLK

YENPLNDPSSPEEAKPAIQSVVVDKVVRDDKDFRMKYDPSHPDANAEGYVAYPNVNPVIEMADLIEATRA

YQANVSAFTSAKTISQSAIDLLRG

>AHK56800.1 flagellar hook-basal body protein FliE [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNNINDLRLNNNISNTNKSQNSTGIGDEFAKMLKNEINDLNKAQESGEAAMTDIATGQVKDLHQAAIAIT

KAESSMKFMLEVRNKAISAYKEITRTQI

>AHK56799.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQEYKKNRVSKVAFAYCMALLFMIIFISSTFFLTSKRHIPNTEKDQYALALRGSIITKDNFTITSSKQIY

RAEIDLRSINKDKFDLFLKLFQIYSGISNDQVADIKKRMQNQKKRSYNFVLLQNLDSKQASYLKDLAKKL

YIQGFFKAFTNNSGRVETRGLNIIEHEEDRIYMSKDSFTPIIGYTKMILDPESGILKNIGVKGLEKYYDA

CLSPVQNEKIQGLKDIGGNIILNLNSLQQKKINGCDLYLNLSLKLQKSIEKAIDQRNEDLKANEIIVGVM

ESKTGRILALASSRRYDPQNRGKDLSVLNASAIEYGYEAGSVIKPFIFTTALRLGKIKMDEVINTYGGSY

KLGRFTIKDDHKMDKMTMEEVIRYSSNIGMIQIAKRLNNIEIVSGLKIFKFGEKSGIDLPYEQKGEIPNP

KRLRDIEKSVLSYGYGLKTTFIQLLAAYNVFNNDGFYITPRLAEKFYQNGRFTNLDDDVKKEKILSSEAA

KTMQNVLINVIEKGTGKKAITQGIIAGGKTGTARIAERQGYTSNRYNASFFGFANDLNHAYTIGVLVRHP

TKPYSYYAAQSALPMFKDVVDILINEEFLTPIQDNNQTSTNN

>AHK56798.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLGIYLLIAALSFLALYFAVKKLTLNIDERTLLEPIKMDIYPKFCDLIDEKIREFKENIQNANLTLKNSN

QKDEFLEKLGDLSRELTFIQTMNLSNKNDSIWQNELFSFLKELENLLLEYLEKGEEEAENLREFLMDEFE

KLKG

>AHK56797.1 rhodanese [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIENISASLWTKQDLNAYQIFDVRTPLEWEEGILPNAQCVALYDNQGLLNAKFLDEFQSKRDESKKLAFI

CRSGHRSMVAAEFIAEKLGLESINLDGGMLALKGC

>AHK56796.1 heat shock protein Hsp90 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQFQTEVNQLLQLMIHSLYSNKEIFLRELISNASDALDKLNFLSVSDDKYKSLKFEPKIEIKIDKDKKTL

SISDNGIGMDKDDLINNLGTIAKSGTKSFLENLSGDAKKDSQLIGQFGVGFYSAFMVASKIEVLSKKALD

DKAYLWSSDANGYEIDDANKEEQGTSITLYLKDDEFANAYKIESIIEKYSNHIQFPIFMEKEEFTPAKEG

EEEGKTELKISQINKANALWRMQKSSLKAEDYERFYEQNFHDSNKPLLYLHTKSEGKLEYNSLFFIPQNA

PFDLFRVDYQSGLKLYVKRVFISDDDKELLPTYLRFVRGIIDVEDLPLNVSREILQENQILKGIKEASVK

KILGELEKLKNNDKEKYLSFFKTFGKVLKEGLYGFGGEKDSLLKLMLYKSTKGENLRSLEEYKNDLQGEQ

KEIFYIAGNNESLLRTSPLLEEYKQKNIEVLLMDDEIDSLVTPMLEFEGLKFVSINQVEDKNELSDEEKN

TFAPLVAKFKELLKDQVEDVRLTSRLKDSPSCIVYDKNKPDFAMQQLLKQMGQEQNFKPILEINPKHAIF

TGLKNNESFSADIATLVLNMAKLSEGMGVDNPAEFNASLTKIINKAFS

>AHK56795.1 chromosome condensation protein CrcB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNTLLVVGFGGFIGAILRMLSINLVNKFFPYSISFGTLFVNVLGSFIIGLLFSYAQNKGLSPLLKSFIS

TGFLGAFTTFSTFSYQNLLLLQSGNYLHFALNIILNVFLCLFAAWLGFLIFK

>AHK56794.1 1-acyl-sn-glycerol-3-phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIYKKIKALYFWIFFVLSVALVIFCFCFTKSQNTLWKIRKIWAKFQRYTISYKQEIIGTFNPQAQMILMN

HQSALDIIALEELYPKNLCWIAKKELGEIPIFKVAMKKPKLLCIDRKNPRDLVRVLKEAKERISEDRVLA

IFPEGTRSKNEKMLKFQSGAKILSEKLNLKVQPILIVDSAKILDTKSFSASSGVLKIICMDLVDTNDEKW

LENTRKKMQELLDQERAKLC

>AHK56793.1 hypothetical protein N918\_02575 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKILLTLIFSIVVLFGRGEISVFSGQDENMQKELQKLPQEEQKIYQNIPPSDENNDFESNVDDPFVAKGS

LVLTNDEYPSRVYVGEVFPITIYARTTENIKFDFNISVEKTNLSFLNPDAKWEFINNEYKTTLWFEAKNS

NASLSKISIKLLRNNEAFQEADINLNPIKFENTLFNKDFSHLVASSLEIKKVKASYFDDANIIMMIELNA

TNTNLKSFFIEGIQKQGIENLKGDFNASSAFYYAILPLSKTNFEFSYFNKDSKKLENINLKLKISDDEIS

TQSDLNPVNKDLNIYKQYALWFLAVLFGVLFVWRKNYIILALAVVCFALSFLVDTNTQNAIIKAGSRAKI

LPTEPSTYFYTANADEKVEVLGKRQNYIKVLFSDGKIGWVNKDDLQKN

>AHK56792.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVAIIRFPGTNCEFDTTYAFEKLGVKTQIVWHEEKEFDADLVVLPGGFSYGDYLRCAAIAKLAPAMQGV

FNHAKKGGYILGICNGFQILLESGLLKGAMKHNNNLSFISKNQSLRVVSNDNAFLKNFKKDEIINLPIAH

GEGNYYADETTLKELQDKDLIILKYEPNPNGSVFDIAGICDENKKIFGLMPHPERACEKVLGNDVGLKML

KGFLLENFINFNF

>AHK56791.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEVIVNISLKNGVLDPQGKAVEKALHSLNFNSVKEVKIAKQIKISLDEKDEKLAKEQVKKMCEELLVNSV

IEDYELIIEKE

>AHK56790.1 phosphoribosylaminoimidazole-succinocarboxamide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKKEMLYEGKGKKLFKTDDENLLISEFKDDLTAFNAEKRGNESGKGALNCKISTEIFHLLEKNGIKTHL

VEIISDTEQVVKKCKIVPIEVIVRNVATGSLTKRLGIKDGTVLPFALVEFCLKDDALGDPFINDEHCLIL

NLVQNEAQISEIKNMARKINSILTPFFDNKNLRLIDFKIELGLTKDNELVLADEISPDSCRFWDKFSNEK

LDKDRFRQDLGNVKMAYEEVLKRILN

>AHK56789.1 peptidase S41 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMELILKTKRFFAGLAGFATTFILCLFLTSHLQAKVDQKEEQVQKRLEALDKLTKTLAIVEQYYVDDQNI

SDLVDKSLSGLLSNLDAHSSFLNEKDFNDMKIQTNGEFGGLGITVGMKDGALTVVSPIEGTPADKAGIKS

GDIILKINDEATLGINLNDAVDKMRGKPKTQITLTIFRKGATKPFDVTLTREIIKIESVYAKMIENENIL

YLRVTNFDKNVVDVASKELKKYPNVKGVILDLRNNPGGLLNQAIGLVNLFVDKGVIVSQKGRIASENQEY

KADPKNKISNASLVVLVNGGSASASEIVSGALQDLKRGVIVGENTFGKGSVQQIIPINKTEALRLTIARY

YLPSGRTIQAVGVKPDIEVFPGKVNTQEDGFSIKESDLKQHLESELEKIDKNKKEDKQENKDNKNLISQK

QINDDAQLKSAIDTIKILNIKQGQ

>AHK56788.1 hypothetical protein N918\_02550 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MCQEKHTHTHSQKHLKAVCNRLSRTIGHLSAIKRMVENDKDCSEILIQLAAVKAEVNNTAKVVLKEHLAH

CMVHAVEENDIQSIEELNKAIDMFMK

>AHK56787.1 septum formation protein Maf [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLILASSSISRANLLKTAKIDFRQVSFDYDENLNKNISPFLYVQKIVLEKERQFLSTLGKDFQNQNLLFA

DSIVCIDEKILTKAKDKKEAYEMLALQNGKYASILSAFLLVKPEKRVFSLSKTTLYFKNFDENALRDYVE

NDLYKGKAGCIMCEGFHQNFITQQVGNLSTALGLDIQTLKAYL

>AHK56786.1 alanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDIRKAYLDFFASKGHEITPSSPLVPDDATLLFTNAGMVPFKSIFTGEIPRPNPPRKTSCQTCIRAGGKH

NDLDNVGYTARHHTFFEMLGNFSFGDYFKEQAIAYAWEFVTEVLKLPKDRLYVTVHENDDEAFNLWQKHI

QKERIYKFGDKDNFWQMGDTGPCGPCSEIFYDQGQEHFNSSEDYMGGDGDRFLEIWNLVFMQYERSADGV

LSPLPKPSIDTGMGLERVTAIKEGKFSNFDSSLFMPIINEISKLCNKTYVYESGASFRVIADHIRSSVFL

LAQGVSFDKEGRGYVLRRILRRALRHGYLLGFKQAFMYKLVDVVCDLMGGHYTYLNEKKDFIKEQIRLEE

ERFLSTIENGIEIFNEELKNTKEIFSGEVAFKLYDTYGFPLDLTADMLREKNLKVDEEKFELFMNEQKAR

AKASWKGSGDKTASGDFKNLLEKFGENHFVGYEKAECESKILALLDEDFKEVSTLKDAGWVMLENTPFYA

TSGGQSADSGFIAKREVLDTQKFFNLNLSFIKAGEELKVNDIVHARIDTEKREQIARHHSATHLLHHALR

EILGSHVSQAGSLVESNKLRFDFTHHKALNKEELESIEKRVNKMIINSSEAILENMPLEEAKKSGAIALF

NEKYQGNVRVLTLGESKELCGGTHVKNTAQIGSFYIVKESGVSAGVRRIEAVVSKAALEFVKNQLEELSK

VKDELKNNDILSGIKKLKNEILSLKNELKNSSKTELDSKNIQGVEICVKRIDNGDIKAMIDDFKNKFAKA

VILLIQVKDEKITLAAGVKDVPLKAGALVKEAAQILGGNGGGRDDFATAGGKDLSKINEALKQSLETIEK

AL

>AHK56785.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFINLQAQYLAYKDEINAEIESVLSSSSFIGGAKLNEFEQNLAHFLGVKHAIGCSSGTSALYLALRVLD

IGKDDEVIVPSFTFIATAEVVALVGAKPVFADINLSNYNLDFKAVQKAITSKTKAVIAVSMFGQMSDLRA

LEEILKDKNITLIEDGAQSFGASFKGEKSCSIAKISCTSFFPSKPLGAYGDGGAIFCHDDEIAKKIRILL

NHGQTQRYKHEFIGINGRLDTLQAAILNVKLKYLEKELDKRQKLAQIYNANLKNCQIPQINPNAFSAYAQ

YSVLVEDRASVLRKFEKANIPYAIHYPTPLHKQPCFSEFSNLELKNSEYASEHILSLPFSPFLSEEEQEQ

VICIFKD

>AHK56784.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIGIIGLGKMGQNHLNELSKNSHFKLNALFDLCKNPNLNIFDDIFYDDLDKFLNQNNDIIIIATPTNSH

LTIAKKVFKQCKCVLIEKPLALNLKEIDEISNLAKEYSIKVGVGFCERFNPAVLALKKELENEEIISINI

QRFSPYPQRISDVGILQDLAVHDLDLLCFLSKQEITKTNLLKKYTQDQTRESESIILCGLEKCIASIHQS

WNSTQKLRKIHLITKNHFYEANLNDFSLLKDGNFIELTQQSPLFSEHEALLKLIDNQPNHLASTSDAYKV

QEILERFA

>AHK56783.1 ferrochelatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLVLFLNMGGATNLQDCEVFLKNMFNDPYILGIKNRFLRKFVAWIITKARVKAMQENYKKMGGKSPLNE

LTQSLCDKLNLKQDEFKFDFVNLYVPPFATEILQKYTLNASDEIILFPLYPHHSCTTVTSSLEVLQNEIS

KQKIQAKVKTIDIFYKNELYNEMIVSHILAKKSKFDAKILIFSAHSLPQSIIDKGDLYEKHVNDHVEILK

EKLKDHFDEFILAYQSKLGPVKWLEPNTSDVLANLNDKALIYPISFCIDCSETIFELGMEYKHLSKYNYD

LISCPNDSDEFMEFILKYLSDLN

>AHK56782.1 tRNA 2-selenouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFWLLKMLSEVEFVEFQKENFSLLIDARSPREFLHSHLIGALNFYALNDEEYQEIGTIYKKNQALAKAMG

ASYICQNTTKHILEITQNFRIGEKVGIYCSRGGLRSKSIAVILSELGFRVVRLKGGFKAYRTFVTHYFEN

EINFDFFALCGNTGCGKTELLEQLPQAINLEKMANHLGSSFGDILGKQPTQKAFEAELFHNIQNLENFAF

IESESRKIGDIILPLKFYEKMQKAFKIYCFCSLENRVRRIQKIYQEKMTPLKFQQCVQKISPYISLNLRQ

DLLQSYERKEWQKLIVMLLEYYDKTYKKPDKIDLELNTDDILKAKEELLDHFKVQLLF

>AHK56781.1 HIT family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQYLYAPWRSEYFEKVKSICPFCDCANKIKSDEELGVIFRAKHCFGVMNRYPYSAGHFMVIPYIHEEHIE

NLSDEIWQEMSYFVRLGVKILKEQIHANGVNIGMNLSKDAGAGIAFHCHYHLVPRWSGDTNFITTIGETR

VCGTNIEQVYQKLVLAFKNAQ

>AHK56780.1 indole-3-glycerol-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MILDKIFEKTKEDLKERKLKLPYDMLGRSLASNPFFPKDVIKALKRVEKEVKIIAEVKKASPSKGVIRED

FDPLSIALNYEKNKAAAISVLTEPHFFKGSLEYLSLIRRYTQIPLLRKDFIFDEYQILEALVYGADFVLL

IAKMLSMKELKKLLEFARHLGLEALVEIHDKEDLSKAIFAGADIIGINHRNLEDFTMDMSLCEKLIPQIP

NSKIIIAESGLENKEFLEHLQNLGVDAFLIGEYFMREKDEGKALKALL

>AHK56779.1 hypothetical protein N918\_02485 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYRYLLFVLAAFFLAACGSSKINVVYPDYTKYKSNDFDLRVMKAYNYEYYKQYKEARDEFLSLYQDYNNT

NFLENAFLLTLANNLDKQAELDNLAKPYLNQNDNLKRLSALYALNSNDINNAQKLMKELLTKKDSDPRNL

ELYGDILVKKNDLKNATKYYRSAYNQVQNEEILFKLIGIYAILNDTLNIKNVLEFSRKTNGCTLKTCVLL

AKIYFDEKNIEALKSIYKELYQLTKNKSFVLALVELLNSQGKTEEALKISLQYDLDDDIKLALYQNLKRF

DDAKKMSLALYHKTKNKEYLLRAAVFEFEAANEAKKITPKVIDSVKEKFEQAIDKDSNALYLNYYGYLLI

DYDLDVKKGIELVKLALEKDPQNLYYLDSLAWGYYKLGDCKQAWEILKQTLDDKEFANSDESKAHIKAIK

ACIKP

>AHK56778.1 hypothetical protein N918\_02480 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIFDKNFSYAFDENACEKCGGKCCTGESGNIFASKEELEVLRKHLNLESKEFAEKYLRKVGFKMSFKEVE

CEDGFACIFFDTQKRNCSIYDFRPKQCRTFPFWEYFKTHQKELEKECIGICYLS

>AHK56777.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSDLITLAQLSQGYRYNSDSLILADFILKQGIKGAVFDVGAGCGIIGILLKKNIANLSLSLIDIQKENIE

LIEKNLKSNKIQGDIFHDDFNQFQIIKKFDFIVCNPPFYRQGAYKSEDQHKAISKFQEFLPLHSFLAKTN

SMLKPNGTLYFCYEALALDEICFILKDMKMKITKLCFVHTHQSKKARLVLIQVKKGSKSPCEILPPFFVY

ENEILSKQMQEIHLRFRLKSYDI

>AHK56776.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKIAFFITFVISFLAAQSPVNFKEDNNITKERNIFKEQLPKRIKIPTH

>AHK56775.1 elongation factor P [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSRSTPLKKVRNIGIAAHIDAGKTTTSERILFFTGMSHKIGEVHDGAATMDWMEQEKERGITITSAATTC

FWKDHQINLIDTPGHVDFTIEVERSMRVLDGAVAVFCSVGGVQPQSETVWRQANKYGVPRIVFVNKMDRI

GANFYNVEDQIRNRLKANPVPLQIPIGAEDNFKGVIDLVTMKALVWEDDTKPTDYVEKEIPAELKEKAEE

YRTKMIEAVSETSDELMEKYLGGEELSLEEIKTGIKAGCLSLSIVPMLCGTAFKNKGVQPLLDAVVAYLP

APDEVANIKGEYEDGTEVSVKSTDDGEFAGLAFKIMTDPFVGQLTFVRVYRGCLESGSYAYNSTKDKKER

IGRLLKMHSNKREEIKVLYAGEIGAVVGLKDTLTGDTLASEKDKVILERMDFPDPVISVAVEPKTKADQE

KMSIALNKLAQEDPSFRVSTDEESGQTIISGMGELHLEIIVDRMLREFKVEAEVGQPQVAYRETIRKTVE

QEYKYAKQSGGRGQYGHVFLRLEPLEPGSGYEFVNDIKGGVIPKEYIPAVDKGVQEALQNGVLAGYPVED

VKVTVYDGSYHEVDSSEMAFKLAASMGFKEGARKAGAVILEPMMKVEVETPEDYMGDVIGDLNKRRGQVN

SMDERGGNKIITAFCPLAEMFGYSTDLRSQTQGRATYSMEFDHYDEVPKNVADEIIKKRNG

>AHK56774.1 30S ribosomal protein S7 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRRRKAPVREVLPDPIYGNKVITKFINSLMYDGKKSTATTIMYGALEAIDKKGGEKKGIDIFNDAIENIK

PLLEVKSRRVGGATYQVPVEVRPARQQALAIRWIISFARKRSERTMIDKLAAELLDAANSKGASFKKKED

TYKMAEANKAFAHYRW

>AHK56773.1 30S ribosomal protein S12 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPTINQLVRKERKKVLEKSKSPALKNCPQRRGVCTRVYTTTPKKPNSALRKVAKVRLTSGFEVISYIGGE

GHNLQEHSIVLVRGGRVKDLPGVKYHIVRGALDTAGVAKRTVSRSKYGAKRPKAGAAK

>AHK56772.1 DNA-directed RNA polymerase subunit beta' [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKFKVIEIKEDARPRDFEAFQLRLASPEKIKSWSYGEVKKPETINYRTLKPERDGLFCAKIFGPIRDYE

CLCGKYKKMRFKGVKCEKCGVEVANSKVRRSRMGHIELVTPVAHIWYVNSLPSRIGTLLGVKMKDLERVL

YYEAYIVENPGDAFYDNESTKKVEYCDVLNEEQYQNLMQRYENSGFKARMGGEVVRDLLANLDLVALLNQ

LKEEMGATNSEAKKKTIIKRLKVVENFLNSNLNANTDSDEAVPNRPEWMMITNLPVLPPDLRPLVALDGG

KFAVSDVNDLYRRVINRNTRLKKLMELDAPEIIIRNEKRMLQEAVDALFDNGRRANAVKGANKRPLKSLS

EIIKGKQGRFRQNLLGKRVDFSGRSVIVVGPKLRMDQCGLPKKMALELFKPHLLAKLEEKGYATTVKQAK

KMIENKTNEVWECLEEVVKGHPVMLNRAPTLHKLSIQAFHPVLVEGKAIQLHPLVCAAFNADFDGDQMAV

HVPLSQEAIAECKVLMLSSMNILLPASGKSVTVPSQDMVLGIYYLSLEKAGAKGSHKICTGIDEVMMALE

SKCLDIHASIQTMVDGRKITTTAGRLIVKSILPDFVPENSWNKVLKKKDIAALVDYVYKQGGLEITASFL

DRLKNLGFEYATKAGISISIADIIVPNDKQKAIDEAKKQVREIQNSYNLGLITSGERYNKIIDIWKSTNN

VLSKEMMKLVEKDKEGFNSIYMMADSGARGSAAQISQLAAMRGLMTKPDGSIIETPIISNFREGLNVLEY

FISTHGARKGLADTALKTANAGYLTRKLIDVAQNVKITIEDCGTHEGVEINEITADSSIIETLEERILGR

VLAEDVIDPITNSVLFAEGTLMDEEKAKILGESGIKSVNIRTPITCKAKKGICAKCYGINLGEGKLVKPG

EAVGIISAQSIGEPGTQLTLRTFHSGGTASTDLQDRQVSAQKEGFIRFYNLKTYKNKEGKNIVANRRNAA

VLLVEPKIKTPFKGVINIENIHEDVIVSIKDKKQEVKYILRKYDLAKPNELAGVSGSIDGKLYLPYQSGM

QVEENESIVEVIKEGWNVPNRIPFASEILVEDGEPVVQNIKAGEKGTLKFYILKGDGLDRVKNVKKGDIV

KEKGFFVVIADENDREAKRHYIPRESKIEFNDSEKIDDANTIIASAPKKERKVIAEWDAYNNTIIAEIDG

VVSFEDIEAGYSADEQIDEATGKRSLVINEYLPSGVRPTLVIAGKGDKAVRYHLEPKTVIFVHDGDKIAQ

ADILAKTPKAAAKSKDITGGLPRVSELFEARKPKNAAVIAEIDGVVRFDKPLRSKERIIIQAEDGTSAEY

LIDKSKHIQVRDGEFIHAGEKLTDGVVSSHDVLKILGEKALHYYLISEIQQVYRGQGVVISDKHIEVIVS

QMLRQVKVVDSGHTKFIEGDLVSRRKFREENERIIRMGGEPAIAEPVLLGVTRAAIGSDSVISAASFQET

TKVLTEASIAGKFDYLEDLKENVILGRMIPVGTGLYGEQNLKLKEQE

>AHK56771.1 DNA-directed RNA polymerase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLDNKLGNRLRVDFSNISKQIEIPNLLQLQKKSFDYFLNLDNGESGIEKVFKSIFPIHDPQNRLSLEYVS

SEIGKPKYTIRECMERGLTYSVNLKMKIRLTLHEKDEKTGEKVGVKDIKEQEIYIREIPLMTDRVSFIIN

GVERVVVNQLHRSPGVIFKEEESSTVANKLVYTAQIIPDRGSWLYFEYDAKDVLYVRINKRRKVPVTMLF

RALGYKKQDIIKLFYPIQTIHVKKDKFLTEFNPNDFMDRIEYDIKDEKGKIVHQAGKRLTKKKAEQLIKD

GLKWIEYPVEILLNRYLANPIIDKESGEVLFDSLTLLDESKLAKIKEQKSFDIANDLANGVDAAIINSFA

QDGETLKLLKQSENIDDENDLAAIRIYKVMRPGEPVVKDAAKAFVNDLFFNPERYDLTKVGRMKMNHKLG

LEVPEYVTVLTNEDIIKTAKYLIKVKNGKGHIDDRDHLGNRRIRSIGELLANELHLGLAKMQKAIRDKFT

SLNADLDKVMPYDLINPKMITTTIIEFFTGGQLSQFMDQTNPLSEVTHKRRLSALGEGGLVKERAGFEVR

DVHATHYGRICPVETPEGQNIGLINTLSTYAKVNELGFVEAPYRKVVNGKVTNEVVYLTATQEEGLFIAP

ASTKVDAKGNIVEEFVEARQDGETILARREEVQLIDLCSGMVVGVAASLIPFLEHDDANRALMGSNMQRQ

AVPLLTASAPIVGTGMEQIIARDAWEAVKAKRGGVVEKVDNKSIFILGEDDKGPFIDHYTMEKNLRTNQN

TNYIQHPIVKKGDIVKAGQIIADGPSMDQGELAIGKNALIAFMPWNGYNYEDAIVVSERIIREDTFTSVH

IYEKEIEARELKDGIEEITKDIPNVKEEDVAHLDESGIAKIGTHIKPGMILVGKVSPKGEVKPTPEERLL

RAIFGEKAGHVVNKSLYATASLEGVVVDVKIFTKKGYEKDDRAIKSYDKEKMALEKEHHDRLLMMDREEM

LRVCALLSKASLNSDQKIGDKNYKKGQTADISELEKINRFTLTTLIKAYSKEIQKEYDDLKNHFQNEKKK

LKAEHDEKLEILEKDDILPSGVIKLVKVYIATKRKLKVGDKMAGRHGNKGIVSTIVPEVDMPYLPNGKSV

DIALNPLGVPSRMNIGQILESHLGLVGLRLGDQIQEIFDRKQKDFLKELRAKILEICSIPRLANEKEFIK

SLSDEELLNYARDWSKGVKFSTPVFEGVNIEEFSKLFKMAKIDMDGKTELYDGRTGEKIAERVHVGCMYM

LKLHHLVDEKVHARSTGPYSLVTQQPVGGKALFGGQRFGEMEVWALEAYGAAHTLREMLTIKSDDVEGRF

SAYKALTKGENVPATGIPETFFVLTNELKSLALDVEIFDKDEDNE

>AHK56770.1 50S ribosomal protein L7/L12 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAISKEDVLEYISNLSVLELSELVKEFEEKFGVSAAPVMVAGGAVAGGAVAAAEEKTEFDIVLTDGGAKK

IEVIKIVRALTGLGLKEAKDAVEQTPSTLKEGVAKAEAEEAKKQLEEAGAKVELK

>AHK56769.1 50S ribosomal protein L10 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTRSEKVEIIAKLEEGFKASEAIVVCNYRGLSTKKLEELRNNARENNVKVQIVKNTLANIALNNSGKTGL

VLKDTNIYLWGEDQLSVSKVAAKFEENNDKFEIKTAHIEGEVADVAKVKALAKMPSRNELLAMLLQVWNA

PITNFTIGLNALKNKKESE

>AHK56768.1 50S ribosomal protein L1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKIAKRLKELSQKIDSNKEYALSDAIDTIKTLKSAKFDETVEIALKLNVDPRHADQMVRGSVVLPAGTG

KKVRVAVIAKDAKADEAKNAGADIVGSDDLVEEIQKGNMNFDVLIATPNLMGLVGKVGRILGPKGLMPNP

KTGTVTMDVAQAVNNAKSGQVNFRVDKQGNIHAGLGKVSFSKEQLWDNVSTFVKAINKHKPAAAKGRYIK

NAALSLTMSPSVKLETQELLDMK

>AHK56767.1 50S ribosomal protein L11 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKKVVGEIKLQIAATKANPSPPVGPALGQQGVNIMEFCKAFNERTKDMAGFNIPVVITVYADKSFTFIT

KQPPATDLIKKAAGISKGTDNPLKNKVGKLTRAQVLEIVDKKIADLNTKDRDQAAKIIAGSARSMGVEIV

D

>AHK56766.1 transcription antitermination protein NusG [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSTHKWYAIQTYAGSEMAVKRAIENLVKDNGIEEQLKEIVVPTEDVIEFKNGKEKISERSLYSGYVFALL

DLNTELWHRIQSLPKVGRFIGESKKPTPLTEKDINLILEKVHNRAAPKPKISFEEGENVRITEGPFANFT

AIVEEYDMVRGLLKLNVSIFGRSTPVEILYSQVEKII

>AHK56765.1 preprotein translocase subunit SecE [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKLITYFKLSKAELRKVIFPLKEQVRNAYITVFVVVAVISLFLALVDWLMSSIVSAIV

>AHK56764.1 50S ribosomal protein L33 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRIKVGLKCEECGDINYSTYKNSKNTTEKLELKKYCPRLKKHTLHKEVKLKS

>AHK56763.1 elongation factor Tu [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKEKFSRNKPHVNIGTIGHVDHGKTTLTAAISAVLSRRGLAELKDYDNIDNAPEEKERGITIATSHIEY

ETDNRHYAHVDCPGHADYVKNMITGAAQMDGAILVVSAADGPMPQTREHILLSRQVGVPYIVVFMNKADM

VDDAELLELVEMEIRELLSSYDFPGDDTPIISGSALKALEEAKAGQDGEWSAKIMDLMAAVDSYIPTPTR

DTEKDFLMPIEDVFSISGRGTVVTGRIEKGVVKVGDTIEIVGIKDTQTTTVTGVEMFRKEMDQGEAGDNV

GVLLRGTKKEEVIRGMVLAKPKSITPHTDFEAEVYILNKDEGGRHTPFFNNYRPQFYVRTTDVTGSIKLA

DGVEMVMPGENVRITVSLIAPVALEEGTRFAIREGGKTVGSGVVSKIIK

>AHK56762.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSILKIENLQKYYGSHHALKDINLEVKAKEVVVILGPSGCGKSTLLRCINGLEEIASGNIYIDNEKIDKD

FKEWPRMRQKVGMVFQSYELFEHLSVEENILLGPMKVQKRKKDEVLKEAKIWLEKVGLLHKIHAYPRELS

GGQKQRIAIVRSLCMNPELMLFDEVTAALDPEIVREVLEVMLNLAKEGMTMLIVTHEMGFAKAVADKIIF

MDEGKIIEENDPKSFFKNPKSERAKKFLNLFDYHNIDKNNIGL

>AHK56761.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLELLNTDTLLRLWQGLFVTLEISFISIIITSIGGLFLGILMSFKNTYIYAFCRLGLEFVRVMPLLVWLF

VVYFGFPRWFGWDLSSVSAAIIVFSIWGCFEMMDLVRVSLQSIPKHQYESASSLGLNTVQSFAYVIIPQA

MRRLTPMSMNLLTRMIKSTTFAYLIGAVELVKVGQQIIEFHNRNDFAPFIIYGLIFFIFFILCYPITLYS

RKLEKKWS

>AHK56760.1 polar amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDFDFILAQAPAFLTAAWLTIKLSFFGIIFSLIIGLFCILMSYFKIKILENICKLYIEFSRNTPLLIQLF

FLYYALPKFNIHLEQIPPLDLICLSVEETLRPSFACAIVGLSFLGGSYMAESLRAGFEAIRKQQFEAGLS

LGFSKFGNLRYVILPQALAISMPSISANIIFLIKETSVVSIIALPDLVNLMKSLNSLTYKTDELLFLLFM

GYLCIILPLSFILLKFEKRLLHA

>AHK56759.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKDYLELLSSVGKLKKFQKNSILFYEGEEAKNFFILLKGKIRIYKSTASDKEITLHYFNPPNFIAEMPAF

KKLNYPANAVFEEDGEILEIDFINFQNLCSENKEFNFLLISSLFDKIKILEKKLSQNALDLRTRLLKYLL

ENEKNLDTISQKQIAIDLNVRAQSLSRVLKELKISELIDTKKGRIEILNKDMIMKELW

>AHK56758.1 ATP-dependent DNA helicase RecG [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIKESDFEFFKKLKIRSAIDLALLLPKKIENLNPSKNPKENEICTQKITIKSVSSRKNQLFGLGFCEEW

QENISFVFFHPRAWHFGICKVGKELIFNAKLSHFNHTWQFNNPKILTSFEGFSPKYQILGLKDTKIAAFI

HKYLNYENLKESGIEDKYIHFLLNLHAYDEKSFFMFENLQNFSKDLKYIEIYNFLKRLKAKKTHFKAHQI

NVFNIANWLKDLPFSLTKDQLNALKDIEKDLHSKEAKRRVIMGDVGCGKTLVLLGAALMVYPKQAILMAP

TSILAYQLYEEAKKFLPDFMNILFIKGGKKEKDLEQNIQKANLVIGTHALIHLESHNAVLVMIDEQHRFG

SAQREKIHSLNKQEFAPHFIQFSATPIPRTLSMIQSELLNFSFIKQMPFKKDITTYCIQNEGFSKLSEKI

KEEIAKNHQIIIIYPLLSASDKIPYLSLEQAKEYWQSHYEKVFVTHGKDKQKDEILERFRDEGNILLSTT

VVEVGISLPRLSMIVIVGAERLGLATLHQLRGRVGRVGLKSACYLYTKLKEIPSRLKEFASTLDGFKIAE

LDLKNRLSGDLLDGFMQHGNEFKFFDFSKDEEILEKVKKDLAKKLPN

>AHK56757.1 peptidase M16 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQYLESRGIKIPFIFEKNSDFPIVVLKLVFRNCARSYDEIAGLAKMFSRILNEGVDDKFFKDLEFRAINL

EASSGFESLEINLSCLKENFDFALKSLEKLLLKPRIEEKTLQKLKINALGELASKNSDFDYLAKNLLNAQ

IFKCKEFQSPNDGDEKSIETLSLKDLQNFYKNFIHLSDLVVILGGDLEEKQAKEDLLKLLSKLQIGKKNT

PKKYELGKNIKDEILVRPESEQAYIYFATPFFADFKDKDLYLAKIALFVLGQGGFGSRIMEEIRVKRGLA

YSAYAMLDMNMSFSRVFGYLQTKNESAKEAKKIVKELFEDFIKNGMTQNELDQAKNFLIGSTPLRYESLS

KRLSMSFNEFYQGLNLGYYKEELKLMEKVKLETINAYIKKHQELLNISFASIQNEN

>AHK56756.1 hypothetical protein N918\_02280 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKRLDKKEALDLLHHASLTELGEMAYKRKLELHPEKITTFVVDRNINYTNVCCIDCSFCAFYRHHKEDDA

YILSFEEIGKKIEELEAIGGTQILFQGGVHPKLKIEWYEELVSWIKEHYPNITVHGFSAVEIAYIAKASK

ISITEVLKRLQAKGLFSIPGAGAEVLSDRVRDIIAPNKCDTATWLEVHRQAHKIGMKSTATMMFGTVEND

EEIIDHFEHLRKLQDETGGFRAFILWSFQSDNTALIQKHPEIMKQSSNKYLRLLALVRLYLDNFKNLQSS

WVTQGSLIGQLALKFGANDLGSTMMEENVVSAAGASYRMNQDEMIRLIRSLGENPAKRNTAYEILERF

>AHK56755.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNYIELLKNNKNIRILASVQFIVYFGAWFSQTGVFTLLVELNAPTWATATSAMLAFLPGVLLAPINGVIV

EKNKPKKLLLSMISIELISIFCLIFVTSLSMLWLLFILIFIRLCVASIYFQAEMSLLAKILTPQELKLAN

EMHSVIWAISYTAGMASAGIFIYFLGVKTAFLFDCILILIGISFLVRLSIPDFHQKTQSRFFTMIKEGFF

YVLNNKIIFHLILLHAFIGLTAYETLVTLLAQHQYKEVLSAALVIGFLNAVRACSLAIGPMVLSKFINDK

NLFYMYLGQGLGIILWALTQFNFYISFLGLIGAGFFTSALWAYTYTMIQKNADKEYHGRVIAYTDMIYLS

FSAIISMLMGFLFEIGLSLELITGLLGMIFIFAAFYWKWFYKKYL

>AHK56754.1 transcription elongation factor NusA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKIADIIESIANEKNLNLENVREKVATALINTAKRIYGQEYEFFVDPKNLNLYQKITIVADNDERLQNK

SESFIALSKAKSEAPDVEIGDELTYECSLENLGRTAVNTLHKELEYHIQKLLEQTIFEKYKNKVGQMVFG

TVVRVDNEENTFIEIDELRAFLPRKNRIKGEKFKIGDVVKAVIRRVYTDKGIKIELSRTSPKFLECLLEA

EVPEIKDGYVNIIGCARIPGERAKIILQANGTNIDPVGATVGVKGVRINAVSKELHNENIDCIEFTNESE

ILISRALAPAIVNSVKIEDKKAIVSLNSEQKSKAIGKNGINIRLASMLSGYEIELNELSSSQLNNAISNE

EAMKNLQDLFKI

>AHK56753.1 hypothetical protein N918\_02265 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MELKLARTLINEKPKNISLEKIEEAIEKEGQKFFYFDKDNTHKQLIALVNHFEKKGVSIYHRTVKYGLDD

NDFMYEVHIL

>AHK56752.1 (dimethylallyl)adenosine tRNA methylthiotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSAKKLFIQTLGCAMNVRDSEHMIAELTQKENYALTEDIKEADLILINTCSVREKPVHKLFSEVGGFEKV

KKEGAKIGVCGCTASHLGNEIFKRAPYVDFVLGARNISKITQAIKTPKFMGVDIDYDESEFAFADFRNSI

YKSYINISIGCDKHCTYCIVPHTRGDEISIPFNIIYKEAQKAIEKGAKEIFLLGQNVNNYGKRFRNEHKK

MDFSDLLEELSTIEGLERIRFTSPHPLHMDDKFLEVFANNPKVCKSMHMPLQSGSSEILKAMKRGYTKEW

YLNRALKLRELCPNVSISTDIIVAFPGESEKDFEETVDVLEKVRFEQIFSFKYSKRPLTKAATMPNQIDE

EIASRRLSTLQNRHSEILDKIVKKQENKTFKVLFEELRAGNSIAGRTDNNFLVQVEGSEELLGQFKEVKI

TNAKRMVLYGEIV

>AHK56751.1 hypothetical protein N918\_02255 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGKSFKIHCLTYIIFILQWLIFLSCKKHYKGEKVDRKAGVILFWHGKLALMPFAFRHYRQKNKKAYVMIS

HHKDGEQIAKIIKLFGLDTVRGSTSRGASSALRAAFKVLEQNDDIVITPDGPRGPYHSISDGSIILAQKK

ELKIRILNYEANRFWKFKSWDKMILPKPFSKITYSLSEPLDILSLDKEKAKEFLMKQFDKISLADQFKE

>AHK56750.1 clan AA aspartic protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLFLLKKIFPQLFISIILEDKKNIVKASIYRGNKLISSNEKTFDKSENLLEYIKNLSKHFLFYHTALFLD

AKEQGLIPSTNIQDCEHFNIGKISLQHILLNNALVYTATEHVEYYSELFEEYRGLDFLYSPFALLYYNMQ

KEKQPDDQILLYGFKQGYLLAIIVAKGNTILYGDFKIFEQELGLELELPSEDNQEIENNNDDTEVTLDNF

NEALNNKFDLLDQENNLETLDNNDNFNLDELNQFSNDMELCRYIITSIEKFYNDDKYAGVFINGILLYSE

SDININAIDFLESETFLEIKTKQINTLDLMIELMRKEVK

>AHK56749.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTYSFIQPRKKPIFTLFDKIWLGLFGFSILFILLVYFTYTIKIALINSSIDDEKQQVIVLQNQTKQNEML

YEILFDQSQIAKNFNTQNQIVKESLRNLFDIIVKTDNITLESVEQDEYSLKLIGVTPTREMFTLLLETPL

KSIFDQSYTTYYRLDNGWYRFVSISKQIPGVADER

>AHK56748.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKDKSLEEIDLLKLIICALSFISVCTALILFLLLPTLKNYKQANLRENSQLAILKAAKSKFDFSEDKIST

LRSENNKSLEQFEQNFNIGNFNIFLQKYFQNVKIQETKPEKQEKYLKNRLAIKATMNNPRRLYDFIDALK

NYNNLIKLDYPLNLKAGEQGISIDLTLKVYSS

>AHK56747.1 phosphomethylpyrimidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTQMNYAKEGIFTKEMQIVAQKENLSKDFLLENIACGKIIIPANINHKSLDPNGIGFGLRTKVNVNLGV

SNDCVDYSEEMKKVELAHKFGIEAIMDLSNYGKTSRFRDELVNVSKAMIGTVPVYDAVGFLEKDLKQINA

KDFLDVVYHHAKSGVDFMTIHAGINSRAAHIFKQSKRLTNIVSRGGSVLYAWMMMKDAENPFFEYYDDLL

DICLKYDVTLSLGDALRPGSTHDASDGAQISELIELSLLTQRAWDVGIQVMIEGPGHMAINEIEANMQLE

KRLCKGAPFYVLGPLVTDIGAGYDHISGAIGGAVAAASGADMLCYVTPAEHLRLPNLEDVREGIVATKIA

AHAGDIAKLPKERARDDEMSKARQEIDWEKMFKLAIDGEKAKKMFNERRPDDLNSCSMCGKMCAMNTMNQ

ILKGEDVSLA

>AHK56746.1 DNA polymerase III subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSLQQIDQIISILNKQSKPYDWVMQEFAKVEELKNFDLDLETFELLGLGLTLNKDNIFTLKTRTTKIKDE

IFCIVDIESTGGVSKGEILEIGAVKIQNSKEIGRFQSFVKVKEIPKNITELTGITYEMVENASSLAKVLS

DFRLFLKDSIFVAHNVRFDYSFISKALNECGFGILLNRRICTIEFAQCCIESPKYKLEVLKEFLGVENMH

HRALDDALAAAEIFKYCLGKLPYHIKTTEELINFTKTARIKQK

>AHK56745.1 ribulose-phosphate 3-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYVAPSLLSANFLKLEEEVKAIEAAGADLLHIDVMDGHFVPNLTFGPCVIEKISTISKLPLDVHLMVKDV

SKFVDLFISLKPKFISFHMESEVHPIRLCEYIRSQGIHPAIVLNPHTPIDSIKHMLEFVDMVLLMSVNPG

FGGQKFLPLIHEKIKELRQMIDKKNAKVFIEVDGGVNGLNASDLEESGADILVAGSYIFSSNDYKTAISS

LKLEF

>AHK56744.1 50S ribosomal protein L28 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MARVCQITGKGPMVGNNVSHANNKTKRRFLPNLRTVRVTLEDGTTRKMRIAASTLRTLKKQNSK

>AHK56743.1 hypothetical protein N918\_02215 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLHEYRELMSELKGKDAHFDKLFDRHNELDDMIKDAEEGRTSLSSMEISTLKKEKLHVKDELSQYLANYK

K

>AHK56742.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFGSKINHSDLQKLEEENKNLTHKIEKFQSENLELKNKITSLEQAALESKLKTDLLNVLLTGVLKNITII

QGDMLENVNKAEVISSYSKTSLAEMDELNHIANSINASLGNITESANKTRDVAGTLHRSVDEITNVINLI

KDVSDQTNLLALNAAIEAARAGEHGRGFAVVADEVRKLAEKTQKATTEVEMNINLLKQNANEMYTQSEQV

EKISIDSNAHIMSFSEKFTHLVNEAHSTNSNAVGIASEAFVSLAKLDHIAFKLNGYKEIFSKSGKQLADH

TSCRLGKWLASTGKERFGQNKSFLKINEPHEKVHENMNNAITIANTEDISKDITQHSIINKCEVAENASL

DLFNVFKEMLDESDH

>AHK56741.1 NUDIX hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAFKNLKELSFEKSNYIKPKRFAYESNGRLCTWDFIESKDSVSVLLYHKELESFIFVRQFRIPLWYHQMH

DKDYVKDDDMGYTIELCSGLVDKKLSLEEIAKEECIEELGYAPKNLEKIGDFYTGFGSGVSKQSFYFVEV

DEKDKISSGGGVDDEEIEAVYVKVQDFEKKCKNMIRTPLLDFAYMWFLKEKWGKLKII

>AHK56740.1 acetyl-CoA carboxylase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MASYLDFEKNIQQIDEDIINAQIKGDTEAVSILKKNLEKEISKTYKNLSDFQRLQLARHPDRPYALDYIE

LILNDAHEIHGDRAFRDDPAIVCFMGYLGEKKIIVIGEQKGRGTKDKIARNFGMPHPEGYRKALRVAGLA

EKFQIPILFLIDTPGAYPGIGAEERGQSEAIARNLYELSDLKIPTIAIVIGEGGSGGALAIGVADKLAMM

KNSVFSVISPEGCAAILWNDPAKSEAATKAMKVTADDLKSQGLIDDVIDEPTNGAHRNKEAAAVAIADYV

KKSLNELENIDVRELSANRMQKILKLGAYQEA

>AHK56739.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKRVVVTGIGMINALGLDKESSFKAICNGESGVNKITLFDATDFPVQIAAEVKNFDPLEVVDGKEVKKID

RFIQLGIKAAREAMQDAGFSEELDKEEFGIVSASGIGGLPNIEKNSIICSERGPRKISPFFIPSALVNML

GGLISIEHGLKGPNISCVTACAAGTHAIGEAYKSIALGNAKKMLVIGAEAAICPVGIGGFASMKALSTRN

EDPQHASRPFDKERDGFVMGEGAGALVFEEYEEAKKRGATIYAELIGFGESADAHHITSPTLDGPLRAMK

KALNMAGNPKVDYINAHGTSTPVNDKNETAAIKELFGNNIPLISSTKGQTGHCLGAAGAIEAVVSVMVLR

DGVVPPTINQLVKDDECDLDYIPNISRKVDLKVVMSNSFGFGGTNGCVVFKKVD

>AHK56738.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MATFDDVKAVVVEQLSIDADAVKMESKIIEDLGADSLDVVELIMALEEKFEVEIPDSDAEKLIKIEDVVN

YIDNLKK

>AHK56737.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLFSNLIKENQKIWNAYLHHDFVKKLEDKSLKQENFLFYLKQDYIYLLNYAKCYARLALNSNTAKELRFA

MKFQNYIVEGEMELHRAILSLGINADELDIKDESLVNIAYSRYMLSVGENGDFLDMLVALSACAIGYAKI

GAEIINRLKNENLKDHPYKEWILTYGSENFQNEAKEFEDFVNSYTSSVGAQKFQKLSEIFHTVTRLEVAF

WEHSLRMELNL

>AHK56736.1 heterodisulfide reductase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKEYAFFPGCVLSQAAKESKISLEAIAPILGWKLNEIKGWSCCGASQAQCVDPIATLVANARNIALAEE

MKMPMLTTCSTCMLTLTKAKNTLDKGAKERINIFLAQGGMKYQGSTPITSLLWELYEDLDNLKSKVKKPL

SNLKVALFYGCHSLRPEDAFGKKESSTNPKSFESVVEVLGAKIVPFEKRLDCCGFHASYPAEKSVKKMSS

QIVNNASENQADCVVTPCPLCQMQLDIYQERFQDYTNSKARLPIIHLSQLVGLALGLSKEMVGLDYNIID

ASKIA

>AHK56735.1 (2Fe-2S)-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>AHK56734.1 succinate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGEFSRRDFIKTACISVGALAASSSGVYALDDSSKMDKDINLPSCDVLVIGSGGAGLCAAAAVRKENPKL

SVVVATKMMPSRNATCMAEGGINGVTDFSNGDSYKLHAYDTIKGGAYLVDQDAALKFCELAGKAIFNMDF

IGTLFSRNEQGGVAQRLMGGASKKRCNYSADKTGHILMHSCLDDAISSGVKFLMNHELLDIGVVDGKCEG

VVLRDIQSGGIYPVLCKALVIATGGYTRIFYNRTSTPFIATGDGVAAALRAGLGFEDPEMIQFHPTGVAN

GGTLITEAARGEGGYLLNNRGERFMKNYHEKMELAPRDVVARAIETEIREGRGYGEGLGAYVLCDVRHLG

KEKILKDLPKIRHTAMLFENIDLVDTPVPIRPTAHYSMGGIEVAKFEDMGTKIAGIYVGGEASCISIHGA

NRLGGNSLADAVVTGHLAGIGATNYAKDASFGKGAKTHELAQKWQVRFKEITNNGGNGQEMYELREELGS

QNWDNMGIFRTQEKLDLLAKKLEDIQARYEKIRIPNPNEVMNTAFTDYVELGNLILLSRCACLAARNRLE

SRGAHTREDYPKRDDKNFLKHSIVNLENDELKLSYKDVVVTEFSLDGRRVQ

>AHK56733.1 pyridoxamine 5'-phosphate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDLKEIAQFLDDNAPAFLATLGTCGNPRVRPIQSPLLVGDKIYFCTANTKGLFKHIKNYNDIEFCSCAKD

GTFLRLRANAVFEPNLEVKKMMFKKYPYLVNLYETPQNPKFEVFYLDHLSARMQFMNGEFKLFKA

>AHK56732.1 3-ketoacyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFSGKNVLITGASKGIGASIAKTLAGFGLKVWINYRSKPELADALKDEIIASGGVAAVIKFDASKEDEF

ENGVKTIVESDGELSYLVNNAGVTNDKLALRMKLEDFSGVVDTNLSSAFLGCREALKTMSKKRFGAVVNI

ASIVGEMGNAGQVNYSASKGGMIAMTKSFAKEGASRNLRFNCVTPGFIKSDMTEVLSNEIKQTYQDNIPL

KRFAEPEEVANCVAFLLSDYASYVTGDVLKINGGLYM

>AHK56731.1 phosphoglyceromutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKQKCVLIITDGIGYNKNSKFNAFEAAKKPSYEKLFKEVPNSLLKTSGLAVGLPEGQMGNSEVGHMCIGS

GRIIYQNLVRINKAIENKELEKNENLKKLLAKCKRVHIIGLYSDGGVHSMDTHFKAMLEICAKNGNEVFA

HAITDGRDVSPKSGLNFIKDLKEFCENLGVHFATLCGRFYAMDRDKRWDRVKEYYECLLGKAYKVPNLLE

YLQKSYDENVTDEFIKAAQNENYKGMREEDGIIFINFRNDRMKQLVEVLNSKDFKEFEREKIFENLLTMS

VYDDKFKLPVLFEKEKIENTLAQVISKAGLSQLHTAETEKYAHVTFFFNGGKEELLENETRVLIPSPKVK

TYDEKPQMSAFEVCDAVKKGIEKGEDFIVVNFANGDMVGHTGDFNATIKAVEAVDTCLGEILECAKKHDY

AFIITSDHGNCEAMQDEKGNLLTNHTTFDVFVFVQARGVSKIKDNMGLSNIAASVLKILDLEIPKEMNEA

LF

>AHK56730.1 phospho-N-acetylmuramoyl-pentapeptide-transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYYLSDLSHYAFFTYISVRAGFAFFIALCLSLFLMPKFITWAKAKNASQPIYEYAPETHKTKCHTPTMGG

LIFISSAVIASLFCIKFDNIFAISALLCLILFCLIGLIDDLGKVLKKDNHSGLSPRMKLLAQIIAGLICI

LPLYFSSELSTELFIPFYKHPLFDMEIFAIAFWILVLISSSNAVNLTDGLDGLATVPGIFSLSTLGIFLY

LSGNLNYSEYLLLPKIQGLGEVVIICAALIGALMGFLWYNCYPAQVFMGDSGSLALGGFIGFLAVISKNE

ILLLLIGFVFVLETVSVILQVGSFKIFNKRVFKMAPIHHHFEKVGWVENKIIVRFWMIALLSNLLALASI

KLR

>AHK56729.1 UDP-N-acetylmuramoyl-L-alanyl-D-glutamate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKISLFGYGKTTRAIAENLVDKFGPFDIYDDHFTETKKDTLGNLLLNPNDFDDNLSDIEIPSPGFPPKHK

LIQKAKNLQSEYDFFYDIMPKSVWISGTNGKTTTTQMATHLLSHIGAVMGGNVGTPLAELNPYAKLWILE

TSSFTLHYTHKAKPEIYALLPISPDHLSWHGSFDNYVQDKLSVLKRMNECDVVILPKIYANTPTKAHKIS

YEDEKDLAVKFGIDTEKISFKSPFLLDAIMALAIEKILLDTLSYKLLNSFVMEKNKLEELKDSQNRLWVN

DTKATNESAVMAALSRYKDKKIHLIIGGDDKGVDLSNLFDFMKGFDIELYAIGISTEKMLDYAKKANLKA

YKCEVLSKAVNEISNHLRVNEVALLSPACASLDQFNSYAERGKVFKECVNKI

>AHK56728.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKAFSLLEFVFIILILGIVFNLGSLYLKKDNLLEGAIQILNDIQYTQSLAMMQEGIRVDELTIAKREWF

KSKWQIYFIKSAATGYDQTYTIFLDKNGDGNANLGKTEINIDREIAVDVINHNKLMNSGQSGVISKDDEK

TTQRFNLTKRFGIEKVEFKGSCSGFTRLVFDEMGRVYSPLKNANYAYEKTLAKNNSDCIIRLLSKKHALC

IVIDTLSGYVYIPDFKTLKSQFVNIKNKNYECSKI

>AHK56727.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKIKNYKLIIILLSLDLLALLYGTSTLSISADEADIYFGEQGKSLIFSHSLLYYISHFGTFIFGQNDFG

LRLPFLFFHFLSCLLLYLLALKYTKTKIDAFFSLLLFVLLPGTVASALLVNAASLVIFLTLAILCAYEYE

KKWLFYILLIIVLFVDKSFNILFLTFFFFGIYKRNAILFTLSLVLFGASISFYGFDTGGRPRGYFLDTLG

IFAACFSPLVFVYFFYTIYRLTFQKYKNLLWFLMSVTFVFCLLLSLRQKLFLDDFLPFCVICTPLLIKTL

MQSYRVRLLVFRLRYKIFIECSIIFLIFCYFLIVANQLLYYFINNPNRHFANNYHFAKELALELKKQDVL

ELATAPSLQKRLRFYGIKNSNKFYLKALKQADKHDMDKKIVKVKLGKYEKVYQILNYD

>AHK56726.1 phosphoenolpyruvate carboxykinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQTIDQIFQTQIDIKKSTFLSFLCPFKDFKFLIETLKKEHPKAVHFVYAYRVLNDFNQIVEDKSDDGEPK

GTSGMPTLNVLRGYDLINAALITVRYFGGIKLGTGGLVRAYSDAANAVINNSSLLSFELKKNTTIAIDLK

NLNRFEHFLKTYSFNFTKDFKDCKAILHIKLNEKEEQEFEIFCKNFAPFEIEKL

>AHK56725.1 hypothetical protein N918\_02095 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQVNYRTISSYEYDAISGQYKQVDKQIEDYSSSGDSDFMDMLNKADEKSSGDALNSSSSFQSNAQNSNSN

LSNYAQMSNVYAYRFRQNEGELSMRAQSASVHNDLTQQGANEQSKNNTLLNDLLNAI

>AHK56724.1 hypothetical protein N918\_02090 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKFRIQYSAGFGHYTQNHKGFGPTIYIEEVVEFDNGKDYFDYIDFYKTYSKSDDTYFHISFLEDRPLSD

KEITIRNEYRKMRDENCKKAKEEFIANNELDVEHLPTHHD

>AHK56723.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVEVKNLTMRFANQLLFENVNLKLVRGQRYGLIGANGAGKSTFLKILSGEIESSSGEIVFDEGLKIAVLG

QDQFAFENYTIKDAVMCANKRLYEALKEKEKLYMSEEFTDEINERLGELEIITAEEDPNYDCETRCEKIL

SSLKIKDFDALMSTLQSADKFKVLLAQVLFLGADALFLDEPTNNLDLEAISWLENELLRHEGTLVVISHD

RHFLNKICTRILDVDFKQIRDFAGNYDDWYMASTLLAKQAELKRDKTLKEREELENFIRRFSANASKAKQ

ATSRAKALEKLELEEIKISSRRDPSIVFRTNREIGNEVLEIKGIGKAYDKQLFSNLELKIEKNDKIALIG

ANGVGKSTLAKIIAHAISPDSGSIHLGATIELGYFPQDTSNLICENLKLYEWLMSEKFKDLDEIRKCLGR

MLFSGSDQEKMAASLSGGEKHRLMLSRLMLERPNFLLLDEPDNHLDLESIIALGEALYNFKGVVLCISHD

RELVSAFANRIWHLENGKLTDFRGTYQEFLGENDG

>AHK56722.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEGASGGSIFVTILLFILYMLPAIIGLSRKHSNWLIISLLNLFFGWTIIVWLVCLIWSFTGSFKQTIIIK

EKNEK

>AHK56721.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTKKSKRDMAYELDIDVSTLYNWRKYKPNLYRIVMLGFKFDELLDNSKKTHEELLHIEQTIQDEIAKFK

>AHK56720.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFLLDFLISLSFIFEISALVLSFYFKNSKIFFLTLVLLGAKLPYFYTSFFQANLFVALFLPMIFTLFCVG

KHHVLILNKKNIASITTLIFIGILSIILPRNTTFNSAGLEFHFIALDFFKPVSELGFLFFLVGLILIFIK

TFKTKEYYLLIAFFTAYFQFLFQEGAGIRYFEFASLVFCFYLLNHAYRLAFFDTLTKLPNEKSLTRFTKG

KNNYIIALLHFNELKDTKESYTKLILKQIAKILKRFRAKIFIVENDFILIFNDKNQALNHLAFLESTLKN

TEFNLENENFKPDFKLIWQESEENLDKNLQSLRARLLD

>AHK56719.1 hypothetical protein N918\_02055 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKVLLSSLVAVSLLSTGLFAKEYTLDKAHTDVGFKIKHLQISNVKGNFKDYSAVIDFDPASAEFKKLDV

TIKIASVNTENQTRDNHLQQDDFFKAKKYPDMTFTMKKYEKIDNEKGKMTGTLTIAGVSKDIVLDAEIGG

VAKGKDGKEKIGFSLNGKIKRSDFKFATSTSTITLSDDINLNIEVEANEK

>AHK56718.1 histidine triad (HIT) protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIYENDLIYIEKEEAQVPWLKIFTKEIYKEFSDCPLELQKELFEKILFCEKAMIEFYKPEKINIASFANY

VPRVHFHVMARFKEDAFFPECMWGKQQRETIKLDLPKFEEFVKFLNSKIF

>AHK56717.1 hypothetical protein N918\_02045 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQISSSYNSYDYYSSKPSFDKTNQSDSTQKDEKNLSENKDDKEKNGEQTQMVNGVELSQKEVAQVRELQS

IDRNVKAHEAAHQAAGGGLAGAASFTYTRGPDNQMYATAGEVPISMQKGNTPEETIANARQIAAAAMAPA

DPSPQDYKVAANATKMEFEARAEAMKLKAEEAKEKEEENKEKDDKNSENSLEKTDKDSKNNDKNSNFDKD

FKNLVTRTYQQNSQNNDIKFSIAS

>AHK56716.1 GMC family oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAEVLKKVDVVTVGAGWTGGIVAAELTKAGLNVLSLERGHMQSTENFNYIHDEWRYGINYGLMQDCSKDT

VTFRHDPSGLALPYRKMGSFLLGNNVGGAGVHWNGWTFRFMPYDFEIQTLSKQRYGNKLGNDYTLQDWGV

TYKDMEPYYDRFEKTCGVSGEPNPLAEKMGAFRSSPYPQEPLENTKMLKRFESAAKSSNLHTYRLPASNS

KGGYTNPDGQDLAPCQYCAYCERFGCEYGAKASPLNTVIPKAMSTGKYTIRTYSNVTQILKKDGKVTGVK

FVDTRTMKEYIQPADIVVLTSYMFNNAKLLMVSNIGEQYDPKTGKGTLGRNYCYQMNMGTTAFFDEQFNT

FMGSGALGTTSDDFNGDNFDHSKEKFLHGAMIYSVQLGTRPIQSAPLPAGAPTWGAEFKKALNYNFTRAI

TVGGQGASLPHKNNYLSLDPTYKDAFGMPLLRLTYNFTDQDRALHKFITDKTAEVAKRMQGVKSIKKGAY

LKDYSVVPYQSTHNTGGTTMGADRETSVVNTYLQHWDADNLFVVGAGNFQHNSGYNPTDTVGALAYRCAE

GILKYHKSGKSLA

>AHK56715.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQDNIIDRRSFFKLGLLGGSVVAASTIGGGAVLKAAELTHSHQASQGKSNKIRGRMFFQTQTEFDTLSAA

CERIYPKDEQGEGAIGLGVPYFIDNQLASAYGYNDREYMQGPFMEGKAEQGYQTPMQRKDIFLEGVHALE

ENAQKRYKKSFSLLKGGDQDKILSDFEKGKIQTTGFKSSYFFTLLRDMTVAGVLADPIYGGNDNKNGWRM

MQYPGAQMSYVDKIASDEFFNIEPMGLADMES

>AHK56714.1 hypothetical protein N918\_02020 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRIFLTLFLFFNSLFALSELEEGLKLYEANKFDKAYEIFKSLCEKDISKACFSLAFMHESARGVSKDLNQ

AYKFYDKACKLGLANACSNMALLLQNQGYENEALLAFNKACTLGESLSCNNIALFYEKEKDGQMASSFYK

RSCDLKNARACYQLGSLYDKGELVKASVKSALAFYSKSCTLGFGEACYLLGRYNQLEKQDLTKAKRYFGM

ACDQKHQEACAAYKELNSKDIELY

>AHK56713.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQINLLNDFIKAYENTYSVSFDDSFKGRIQELCKELNEPFMHASYALENELKELVFSLDKNVNIAIIGQF

SSGKSSLLNLILGRDCLPTGVVPVTFKPTFLRYAKEYFLRVEFEDGSDIITNIEKLAFYTDQRNEVKQAK

SLHIFAPIPLLEKITLVDTPGLNANENDTLTTLDELKNIHGAIWLSLIDNAGKKSEEDAIKANLELLGEN

SICVLNQKDKLSAEELDNVLNYAKSVFLKYFNELIAISCKEAKDEQSYEKSNFQSLLDFLTQLDTTVLKE

KFVKRKILNLCEILEDENQLFVGIFDRLLNQFQSYEKHLLLAYENFLKEIEILNHQILEQLKSISERISS

EIFASVKEKDAYFYKESKGFLKKDLYTRYDYKAPYISSDDAFLAMFYNSDVMSKEFKKIKNELYKSFEEI

KMKLKDFINILEREILLFKAEFSNIQKDHIFQSDKNFSELRAFCNASDEYFLKDFKELLFKSILELDLFF

EKLNLKAFTNYENATKLSLAFFSRKINESRVLYELDSSEFVLFYPKKSEIYERVLNELNVYEFETLLINK

PILTKIAKNFLEQSQNLIQEKNKFLDLKKAELQKRRAQILNVRESIKED

>AHK56712.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKELFQKIWQNELQFLNFDAKFQDKSKLDTAECAIILSVNKDNYERYFLLKEFQELCKKIDLRVDIFSMQ

NAQICILNLFKSGFISKQDLLKALKILEKISKNTEIFDFILQEKVQSIDQKALFQNDFKELNTINLELQK

LSFDENLKSRLQKTLEKFQNLEFNIAITGVMNAGKSSLLNALLKEDFLGVSNIPETANLTVLSYGKSEEA

KIYFWDKKEWQNILESSHFNADLKEFIDKLDKSVNIEDFIKDKPLIQNIALCELKNFSSAKNKISALIKK

IEIKSHLEFLKNNISIVDTPGLDDVVVQREIVTNEYLRESDFLIHLMNASQSLTQKDADFLVHCLLNSRL

SKFLIVLTKADLLSKKDLEEVIVYTKESLKSRLVDLDENLVEKIDFLCVSAKMASDFYKGLASKESLQKS

GMQEFENYLFNELYAGEKSKIALRAYKKELHLELKNILSEYEMQNRLIKENKQGVSEENQKLLLELQKQN

TLLKEAQDEISNSIAKLKNIDSGIDNLVLLLAKKLKERLIDEFKYLKNNAQKLNLSRILNIVDITTKDGI

NDILREIKFENIKKIEELKTNLSLKYDFLKDDFDNGFEGFKDGISKNIDSIFQSEKFALLRLKIEKLSNL

KSDLYELETNLDTVIFDTFKEFKMSEILNSLNINGAFFEFLNDKLKHYEKNQKSKLESLEKVLQSLKNQD

ANILNSFEENLEKIEKLKQLEMGLLNAD

>AHK56711.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>AHK56710.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNIQYSDALVIGGGLAGLRAAIEVAKSGQSVTLLSICPVKRSHSAAVQGGMQASLANGAKGEGDNEDLHF

ADTVKGSDWGCDQEVARMFAQTAPKAVRELAAWGVPWTRVTKGPRTVVINAQKTVIEEKEEAHGLINARD

FGGTKKWRTCYIADATGHCMLYGVANEAIKHQVKIIDRMEAVRIIHDGKKCLGVIARDLTNGQLIAYIAR

GTMIATGGYGRIYKQTTNAVICEGTGAAIALETGLCRLSNMEAVQFHPTPIVPSGILLTEGCRGDGGILR

DVDGYRFMPDYEPEKKELASRDVVSRRMMEHIRKGKGVKSPYGDHLWLDISILGRAHVEKNLRDVQDICK

TFNGIDPADEGPKGWAPVLPMQHYSMGGIRTKPTGESQWLNGLFACGEAACWDMHGFNRLGGNSCAETVV

AGMIVGDYFADYCKNNGEVIDTNVVKDFLTKEYQYLKSLVDKEGKHNVFEIKNRMKEIMWDKVAIFRTGE

GLKEAVDELEKLYKDSQDVKVHCKELDCANPELEEAYRVPRMLKIALCVAYGALLRTESRGAHYREDYPK

RDDLNWMKRTNTFWVEGETLPRIEYEELDIMKMEIPPAFRGYGAKGNIIENPLSEKRQAEVDAIREKMEA

EGKGRYEIQNALMPYELQAKYKAPNQRIGVDYE

>AHK56709.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRELIEGYLGKSIEGKKSKMPAKLDFIQSASGLFLGLFMWVHMLFVSTILVSEDFFNSVVHFLELKFVYD

NPVMSYLTSFLAACVLVVFFVHALLAMRKFPINYRQYQILRTHSKKMNHSDTSLWWVQAFTGFIMFFLGS

AHLIFIVTNADKISGDMSGDRVVSHFMWLFYAVLLVCVELHGSIGLYRLCVKWGWFEGKNVKESRKKLKT

AKWIISIFFLVLGVLSLAAFIKIGYENYQNQTQTTAMIKNYNGANYEYTI

>AHK56708.1 prolipoprotein diacylglyceryl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEFWQHIYSNFNVIAFSIFGLKVHWYGIMYVIALLLALLLAKFFVRKFQLDINEKHLDSYFIWVEIGVIL

GARLGYILIYDANTMYYITHPWQIFNPYINGEFVGIRGMSYHGAIIGFLIATLLFCKKYKTNPWIFLDLV

ALSVPLAYVFGRIGNFLNQELFGRITNVPWGIYVDGVLRHPSQLYEAFLEGIVVFIIVYLARFKQSFQGE

LILVYAGAYSLARFICEFYREPDFGIGFVLWGMSMGQILSFIMFITALLVYICIKFKKVNI

>AHK56707.1 hypothetical protein N918\_01985 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKYILLASSMLILAACGGTSSNFVNVSMPNFKPQVPTKVEPIDSGVSIALVPINIEQNNNYSDYFENSV

LKIRIEKEIDLLKQNLEEQIKTIAQLKGYKIVTTNPDYTLKSSISIYTEEKNVQKTSNFMSGDYVKSNLG

INFKGKIDFIDAHNPQNSTNLSSSTKLDSLVALNYPIKNDDGVNMFKTTISTVPTQLNKGLEQPAFEIDK

SFLAFYKNTLNTLYNNLPKATDIGKTIPNTNSGFNSFDGDATFEESLPQTNSNQNNTIENAPTQNIPTNP

SSTNQNNQSKNQDGVEIFE

>AHK56706.1 shikimate 5-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFLAVIGDPISHSKSPRMHNNAIKALGLDSIYTRYHLRNANCLREDFFKLGLSGANITLPFKEKALDIA

DVKDDFARNIGSANTLCLKEDKIYAYNTDALGFLEAIKDFDNIKKALILGAGGTALALAYVLKQKGVEVY

IANRSKERFKDFLAYPTYLYKNLQDFDFDLVINSTSAGLKDENLPCDRELLDRILPKAKFAFEVIYGRET

PFYRLCKEYHLKIKDGLDMLLWQGVFAFELFFEIQDKREMIKNAMQQALILK

>AHK56705.1 ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MISPMDMSLIKIIGDHYYIRRDKIVNKITHRGRLFFDKFERVDAPLNLNVMREHAAKKIVVAHDLITKDN

KVENIVFDYNGFNAERFYHRAQLILREEGFINFTAYKTKTPGHLHLYIHKGHTALNEGYSLASKLSMMFA

SKMPVEWKVFPSMDVPREFNILILPYEVYQKERGSSWSKHM

>AHK56704.1 serine hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSLEMFDKEIFDLTNKELERQCEGLEMIASENFTLPEVMEVMGSILTNKYAEGYPGKRYYGGCEFVDEIE

TLAIERCKKLFNCKFANVQPNSGSQANQGVYAALINPGDKILGMDLSHGGHLTHGAKVSSSGKMYESCFY

GVELDGRIDYEKVREIAKKEKPKLIVCGASAYARVIDFAKFREIADEIGAYLFADIAHIAGLVVAGEHPS

PFPYAHVVSSTTHKTLRGPRGGIIMTNDEELAKKINSAIFPGIQGGPLMHVIAAKAVGFKFNLSDEWKVY

AKQVRTNAQVLANVLMDRKFKLVSDGTDNHLVLMSFLDREFSGKDADLALGNAGITANKNTVPGEIRSPF

ITSGLRLGTPALTARGFKEKEMEIVSNYIADILDDVNNEKLQENIKQELKKLASNFIIYERAMF

>AHK56703.1 lysyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFDNILEQQRIEKAKELKNLGINPYPHFLEKEMSLKTFKDKFSYILEQVEKRDESVNAVVAGRLKLLRIA

GKSIFANIEDEDTNLQIYFSKDSVGEELYTILKKNLEVGDIVLVKGFPFVTKTGEFSLHASEVKLATKAI

VPLPEKYHGLTDIEQRYRKRYVDMIMNVEVRKDFLVRSKVVSLIRHFFENKGFLEVETPMMHPIAGGANA

KPFVTFHNSLGVERFLRIAPELYLKRLIVGGFEAVFEINRCFRNEGMDLTHNPEFTTIEFYWAYHNYKDL

MDLTEELFALLLDKLNLGKTIEFDGKMINFSKPFERITYKDALCKYGGLDRDLIEDKEKILTKLKADGFE

ANEKLELGHLQAELFDNYVEEKLINPTFVIDFPISISPLSRRSDEDSQIAERFELFICGRELANGFNELN

DPLDQYERFLKQIEAKNAGDEEACEMDEDFVNALGYGMPPTAGQGIGIDRLVMLLTNKKSIRDVILFPAM

RPLKSELKEKE

>AHK56702.1 Fur family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLIENVEYDVLLERFKKILRQGGLKYTKQREVLLKTLYHSDTHYTPESLYMEIKQAEPDLNVGIATVYRT

LNLLEEAEMVTSISFGSAGKKYELANKPHHDHMICKNCGKIIEFENPIIERQQALIAKEHGFKLTGHLMQ

LYGVCGDCNNQKAKVKI

>AHK56701.1 colicin V synthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFYWFDAFILGFTLLLGLKGIINGLIKEIFGLLGIIGGVFIASKYATQAAEFIQSTFYKIENQSLAGFA

GFLAILIIFWIACLLAGNFLSKLIKLSGLGFLDRIGGFIFGGAKIFLIFAILVFCVARIDFLNDKLDNFA

KNSYTLNLLKETGSFIMNQPLTENSLDHASEKLQDIVSDLNNTQKGE

>AHK56700.1 glutamyl-tRNA amidotransferase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQIDEKLLSKLEKLSALQITKNRNETIAQLSEIVNFVEKLNELDLDSQEITVSTIKGGAPLRIDEIRNSN

VIDEVLDCAPKKQEHFFVVPKIIE

>AHK56699.1 hypothetical protein N918\_01940 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGLKDNLKAVKNELNTEEQFIENFIKGERFIRKYKFYISAVVIILVAWFAGNFIISKINDYKTKEANEIY

ANLIQDPSNKNLLEQLKNKNTNLYAIFLLKENINDFNNTTLQNELKQIYNNAQTNTLLKNIIALSLGDKS

IFLKNYDKLLEAYKLLEQNKIEEANVLLSQIKENSSLNQIAKNLKHYQGITQ

>AHK56698.1 hypothetical protein N918\_01935 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIFLTLFCLIFLCACGTKRQYFEPKQTDGDLSHNSNLKSKIVDWNLVSAKLSNNTTILKNNISIDKFK

LPKNYMLLAYQDGEYFTADNNGNLKIFDNSYNEIYNFQFDASVVGVASNGDDLALVLANNTIVLANRSLG

IKFSQTLTSAPAQDSRTANPIFLDNIIVYPTLDGKILILSRNNLQIIKDVVISAENFFNNVIHLSVIGDK

LIAATAKKIIVVSPARTLYLDADIKDVALSDDGIFILEKDGTIIKTDYNLRKIAEKKFEFAIFVKSNIYN

NYLYIFEKTGYLIKMNLNLDNAQVFKLSEAVDKISFMGNGKFYYGDKILDLL

>AHK56697.1 tram-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKILEQTIKALKLNLKPYDLSMLTRKKSYICAKDQNNILFMYTGKTKFLMKDALFLENLAQQININNKY

FFSMASLCSKAKNHLEMKGFNIYVAL

>AHK56696.1 pantothenate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLLCDIGNSNANFLDDNKYFTLNIDQFLEFKNEQKIFYINVNEHLKEHLKNQKNFINLEPYFLFDTIYQG

LGIDRIAACYTIEDGVVVDAGSAITIDIISNSIHLGGFILPGIANYKKIYSHISPRLKSEFNTQVSLDAF

PQKTMDALSYGVFKGIYLLIKDAAQNKKLYFTGGDGQFLANYFDHAIYDKLLIFRGMKKIIKENPNLLY

>AHK56695.1 malate:quinone oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSQQEFDVLVIGAGISGAALFYELARYTNIKNIALIEKYNTAATLNSKGTSNSQTIHCGDIETNYTLEKA

RKVKRTADMIVKYGLMQNAQNNFMFSHQKMALAVGDIECDYMKKRYEEFKELYPYIKFFDKAKIKQIEPK

VVLGEDCNQDRPENICAMGVESGEVFTTVDFGKMSINLIEQAQKQNKNTFVAFNQEIIHIEKKDDIFILK

TSNHQEYHAKSVVVNAGAHSLYLAHKMNLGMDKSCWPVAGSFYLTKQKLLNGKVYMVQNPKLPFAALHGD

PDLLADMNTRFGPTALVIPKLERYHGLKSVPEFFEALKLDKTVLKVTFNMFKDATIRNYIFYNYLFELPF

VDKSLFVKDAKKIVPSLKASDIYYAKGFGGVRPQVIDKTKGELMLGEASITETPGIIFNMTPSPGATSCL

GNAERDAKLVCNYLGMEFNEDKFSSELL

>AHK56694.1 pyruvate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKKTKIVATVGPASEKEEILRQMIINGVNVFRLNFSHGTHEYHKKNLDTIRRVAKELHTRIGILQDISG

PKIRTGELKEPFELKKGDRLDFYRETILGEKIAQNHYKISINQKSILDMLKIDEYIYLYDGSIRAKVVNI

DNQKIETIIENDGFLNSNKGINFPNTKINIDVITQKDKNDLLWGIKNEVDFLAISFVQNAHDIDEVREIL

AQNNAKISIFAKIEKFDAVENIDEIIKSSDGIMVARGDLGIEVPYYKVPNIQKEIIQKANNASKPVITAT

QMLFSLAKSKTATRAEISDVANAVLDGTDAVMLSEESAVGIDPANAVDIMCQTIIETEKRYPYNKFNDFN

DLDNTDKIMRSSAHLATDLNADAIFSLTSSGKSAIKIARYRPNIEIIAVGHSEKTLNSLSIVWGVNPAIL

VNKSNELTELLKDSVRSSVEKGFMDEDKCYLLTAGFPTGVEGTSNLIRILNKEQIAYYLQ

>AHK56693.1 hydrogenase-4 component G [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQVNTFSNIASMARTQVSNKKADDAKENTKDKNVQSANSSKDVDKNTLEKLNALGGKGITQIYLVQFQQQ

TMNAVIGSSNAQTGLDSLLNGANLDTAKSILTNIDFASLGYSSKNPLDMNTDELQQLVSEDGFFGVENTA

NRIADFVIKGGGDDVEKLKKGLEGMKKGFEQAEKMWGGELPQISQNTIDAALKKVSDRIDELGGKTLDLQ

A

>AHK56692.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAEQEDIILEKPEDGLNQPRLDESLEGFKGQEGQAPEDEEFASLPEELPQENSESGFKFTRESAPEDVST

FEEVESQEPTPWYKDRKFMSLVGLSLGIICILVFTLFYLTFSEGKIKPDIIASKPLEQPVIMPDESYKYN

DMQRIDGMIQKANALYLKGEVEQALKVYEQVAVYNESLSNYNLGVSQMNENKFQEAFESFKKAIANGENQ

SVAAINAAVCALKLNDKEKFRYYIDLAQVYLPKEGKSKLYDYYLSLINYYKGYYPEALQMLQRTDVEPYS

DVAKYLSAKIYAKMDFDSKAIQQLNSQGNFESSLSLGLLYARIGEYAKAKVALSTAMKIERDFNQSLAAL

TLVDIKTGNYQDMLARLQNSYDNDKDRYKILDTYKIQVRLNKDLFNIAVAQNSFSKDLLKKQKDQFDLLF

YFAPYQVFDSKQAALYIKKANVTDFVDDSTDAGIYLNISKALSSTNVKIANIINYALNQKLRLANQEFQK

LIKDYPEHSILHYNLALTYAQMQNYELAYKHFSSSYHLNPKNYLAGAFAMFCAKLIDIDTTKLYNEILDN

IAADSNFKANMQKSMLFLVNNNYISMLPYLDETKKDTPLSLIFEAIVAKNNNLNNQVDVKIAKLRSELPE

DILANILYFNSLNSNLNIKEYAQNAQIHFKNLKLDYRSVFGGPNIAREFYVNLMHIAGLLNLERQKFKEL

INVSGAKDEGILQTLAYLDIFAQQYEEAYALYNSLIDDYGAKDTKTLFLAAVAAVGANNPNSAIALLQLS

KLTDKNNKESKAALGMLYQEVKNYEAAISQYKTLPNNFKSEFFTFDINNN

>AHK56691.1 seryl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLDLKNLQNNFDEVAKKLKNKKVDENILKKLAELFASLKKEKIALEEFQAFQNKFSKELATAEDKESLKA

KLSENKSKINEQSAKVNALENELEEIAHAIPNIPDECVPVGEDENENVELKKVLNPPSFDFTPKEHFELG

ESLNWLDFMRGVKISQSRFCVLKNEGALLSRALVNYMIDFNRSRGFEFVNVPFLVNGATMFGTGQLPKFK

EDMYKVDDEDLYLISTSEIPVTNLYSGEILASETLPIKMTCYSACFRKEAGSAGRDTRGIIRQHQFEKVE

LVSITKPEQSDSVFNEMLECASDLLSSLGLAHRHLMLCTGDLGFSAAKTVDLEVWLPGQNKYREISSVSN

CRDFQARRAKIRYKNEQGKNELVHTLNGSSLAVGRTLVAIMENYQDKEGKIHIPDVLKKYF

>AHK56690.1 tryptophanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRVLTGLQPSGDLHIGNYFGAIKQMVDAQEKSQMFMFIANYHAMTSSQDGEKLKQNSLKAAAAFLSLGID

PQKSVFWLQSDVKEVMELYWILSQFTPMGLLERAHSYKDKVAKGLSASHGLFSYPVLMAADILLFDTRIV

PVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKMSKSYQNTIDIFSSEKTLKKQ

ISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEAREK

YNELLEKPSHLKEILDFGATKARKIAQEKMQKIYEKIGL

>AHK56689.1 shikimate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKAKNIVFIGFMGSGKSTLARALAKDLDLVFLDSDFLIEQKFNQKVSEIFEQKRENFFREQEQKMADFFS

SCEKACIATGGGFVNVSNLEKAGFCIYLKADFEYLKKRLDKDEISKRPLFYDEIKAKKLYNERLSKYEQK

ANFILNIENKNIDELLSEIKKVIK

>AHK56688.1 GTP-binding protein Der [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQSIILIGKPNVGKSSLFNRMARQRIAITSDISGTTRDTNKTQIHIHSKKAMLIDSGGLDESDELFKNVK

KNTLKVAKESDIILYLVDGKLAPDDEDRQFFYSLKKLGKPIALVINKVDNKKDEERAWEFANFGVKEIFN

LSVTHNVGLDELYEWLEKFLHEEFLIPDEEENLEDFLEYYEEGKEFQFKEVDQNHIRVGIVGRVNVGKSS

LLNALVKQERSVVSSIAGTTIDPVNESVVHKDKVIEFVDTAGIRKRGKIQGLERFALNRTEKILSHSQIA

LLVLDAHEGFNELDERIAGLVAKHYLGVIIVLNKWDKSEMDFDKTVKELRLDRFKFLAYAPVISVSALSG

KRVHVLLDKILQIFENFTQKIQTSKLNTLIENATRAHPLPHDYGKLVKIYYAVQYDLAPPKIALIMNRPK

ALHFSYKRYLQNQIRKEFNFEGVPLVIASRKKGSKENDES

>AHK56687.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKVIKHNLGIYFMILACLDFALMGACAKILSKEMSSIEIMFFRNIIGIFFIVYLLKRSKAHKEGGYFWL

LVFRGVVGTLSLYMFFYNVSNITLGGAFAFQKTAPIFITLIAFVVFKENIGIKGWIGILIAFGGVLLIAQ

PWVHNLNHSGFDLKNSVIGITSGFLAALALTSVRELRKSYTTEQIAFSFILLGTLMPLISMISAEFFEPQ

HLDSLHLDFILAPFVMPSLTAWLIIAIMGTLGTIYQIHVTKAYGIAKQAGVVAGVSYLDVVFSMIVGIIL

GDNLPSTMVFLGIIGIIFGGLILVKNKGKK

>AHK56686.1 2-dehydro-3-deoxyphosphooctonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKMILIAGPCVIESKDLIFKVAEQLKNFNENPNIEFYFKSSFDKANRTSINSFRGPGLEEGLKILQSVK

DEFGMKILTDIHESNQANPVSEVADVLQIPAFLCRQTDLLVAAAKTKAKINIKKGQFLNPSDIKYSVKKV

LQTRGIEDEGYEAAQRNGVFVAERGASFGYGNLVVDMRSLVIMREFAPVIFDATHSVQMPGAAGGSSGGK

SEFVEPLARAAAAVGIDGFFFETHINPCEALCDGPNMLNLTRLKNCVNTLLEIQNIIKENK

>AHK56685.1 6,7-dimethyl-8-ribityllumazine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNIIEGKLNLDSNTKIAIINARFNHIITDRLVEGAKDAFLRHGGKEENLSLILVPGAFELPYALKKAIES

KKFDAICCVGAVIRGSTPHFDYVSAETTKGIANVSLNHNIPVSFGVLTTDTIEQAIERAGSKAGNKGFEA

MTTVIEMLNLSKEL

>AHK56684.1 transcription antitermination protein NusB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MATRHQVRQSVISLLYAFELNSQNNVFVDEILDEKKIRNEQKNFTLNLYNGILDNLNNIDETLNSFLNDN

QITALGHVERAILRLGAYELLFTDTPSAIVINEAIELAKELANDNSPKFINGVLDALIKAKK

>AHK56683.1 orotidine 5'-phosphate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEELKKVDDFKIFLDLKFHDIPNTMAD

ACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSALTSFDEENFFSIYRQKIEEAVINFS

KISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQKRVANLAMARENLSDYIVVGRPIY

KNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEEWIKTRPDKEHALKEFYAKCGIKY

>AHK56682.1 sulfoxide reductase catalytic subunit YedY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLITPEKLYKQRRNFLKLGAGALISSSVLASKLSALNFTSDTNPNKLEISDEELATNYVNFYEFSTDKRK

AVSLAQNFNTQNWKIDISGEIEKPLTLSMEDILKFPLEERIYRFRCVETWSMVVPWVGFELRRLIEMAKP

TSEAKFVKFTTLLDKSQFPDQDALFPTIDYPYVEGLRMDEAMHPLTLLAVGMYKKALKPQNGAPIRLVVP

WKYGFKSIKSIVKIEFTKEQPKSTWESYAPSEYGFYANVNPNVSHPRWSQANERALGDFFTKPTLMFNGY

EKEVASLYKNMDLKVNF

>AHK56681.1 ferric reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQTKYFKFLAYFSFIISLIYGFYHIIKAFDFVKEAYIYTGIFALIFLNLSLLFSLLKFKKTKNYPKILGI

FAAFWAILHFLNYFIFDRNAQILRLFDDISHRLLEAIGFIAFLIIFLMLLSSFKIFKKLSKIRKLGYLCL

ILASYHYFLTPKIPMFWEWSALIIALFYFIVRYTKTLKS

>AHK56680.1 hypothetical protein N918\_01835 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFFLLVFCFVNLALAKVYKGELHFYHLQDKEIFAIVYDNAPMTPLFDRDKNQTSSSFLIVDDINGNLEI

PLVKINDFWQDERKKYKINSSKMLTYDNKNFQGENLGTTTLELVETQDGIRIKRSLDFIGFNDDFKEFHP

VHKGVFSFEQIRQKPIFLQDGKISFEEWYYFYEDGMSRAILELNNFVYDINAHAFVKLNDLYNTENQKFQ

NLLHEKLKNTCDECFEDLQNLQFNNNFLLNNGKLKICYLPFEGHFLDENICVEFNEDELKEFKK

>AHK56679.1 hypothetical protein N918\_01830 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKHCLALCFVFFLCACSVKNQNFSSQSLMVLIASPMIKINDTAFLKKENNALNLEVYKLGQAFFELKIKD

KICINAVCYDKQVFNQKFFKNVYYDDILSDILKANPLWQGKNLEKTDCGFEQNLKAKNYEIFYQVCDNKV

SFFDKISHTKIILTHIQN

>AHK56678.1 hypothetical protein N918\_01825 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MASEHSFDISAALDKQELKNAFEQAKKELDSRYDLKGIKCEIDLSEKESIFKLSSSSEGKLDVLKDIVIS

KLIKRGINPKAIKELSRESGAMFRLNLKANDAIDSENAKKINKVIKDSKLKVNSSIRGEEIRVAAKQIDD

LQAVMKLVKELDLELNISFKNLK

>AHK56677.1 2-hydroxyacid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIVCLDAATLGDYDLSVFEKFGSLQIYTTTNKEQTIERLKDANVAMTNKVVIDKDVIDACKNLKLILET

ATGVNNIDIEYAKEKGIIVKNAAGYSTMSVVQHTFAFMFAFLNQVLYYDKWSKEGKWCESPIFTDYSRIL

NTLSGKKHGIIGLGTIGKEVAKISKAFGAEIYYYSTSGANKNADFVHLELKDLLKTCDIISIHAPLNEKT

KNLLAFEELKLLKDNAILINVGRGGIVNENDLAKIIDEKNIRVGLDVLEIEPMMKNHPLLSIKNKENLII

TPHVAWASKEALNALMDIVYNNLKEWIENGK

>AHK56676.1 glutathionylspermidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQLLQVDKLQKDYLENIGFSWHTDEDGSDYISNKLVCVKESEANAYYEAVNELYDMFIAAAQEVINNDRF

DELGIPFNLIDAIKMSWENEVHWHLYGRFDLAGGLDGKPIKLIEFNADTPTALFESAILQWALLKQNGMD

ESAQFNSIYESLMDNFKRLITLDESVEGFEEHYQGWKILFSSVAGSKEEEITTKLLAHIANEAGFQTNFS

FVDEVEFSEEGIFKEGENYEYWFKLIPWEDIAIEEGELAMLLTQIMRNQRAIILNPAYTLLFQSKGILKI

LWELYPNHPLLLETKDTPLEGKNYVKKPVFGREGANISIIKDGKTLHENVGPYGNNKAIYQEYVEFNSCE

NEYYQAGVFFAYEGCGLGFRKGGLVLDNYSKFVGHIIKD

>AHK56675.1 hypothetical protein N918\_01810 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIKKIIQIGMIGGLAAVAGGALAGCGSNNDNADTLNQAANAQGAFVIIEETAPGQYKIKDQYPSDETR

VVLKDLNGTERILSKEEMDALIKEEAAKIDNGTSNLTKDNGQISSGGLSLGETLLASAAGAILGSWIGSK

LFNNQNFANQQRGAFSNQSAYQRSVNSFNKAGTTSSASSAKKSGFFGGGSKATSSSSSFGS

>AHK56674.1 30S ribosomal protein S21 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPGIKVHPNESFDEAYRKFKKQVDRNLVVTEVRARRFFEPMTEIRKKQKISARKKMLKRLYMLRRYESRL

>AHK56673.1 4Fe-4S ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQGHITNYTKKRYFVYLIASIIIFSLPFIRINENHFFLLSFDHSKLNLFFISFSTQEFYLMPFVLIFLFL

FIFFITTLGGRIWCAWSCPQTIFRVIYRDIIQTKFLKIRKNINNKQKEYERQYFKKFLGVIIFYFISLVA

VSNLLWYFIPPEDFFNYIQNPGEHLLLLGILFCASLLFTLDITYLQEKFCVYVCPYARIQSVMFDHDTMQ

VIYDEKRGGLIYDGHTKLHKKPPEGECIGCEACVSICPTHIDIRKGMQLECINCLECADACSKVQSKFNR

PSLINWTSAKAIETRSKVHYLRFRTIAYFIVLLIALLALIIMGSKKESMLLNINRSSELYNISNVKGELV

ISNAYTFLFQNTDSKPHEYYFTANLEGINDGIEIIRPNKPFKLKAGEQVKKIVVIRATKNLANNDKKDVI

FPLHIKAYAKDNEKISVFRKSIFVYPKSTLIKDKNELK

>AHK56672.1 TetR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNSNRTPSQKVLARQEKIKAVALELFLTKGYQETSLSDIIKLSGGSYSNIYDGFKSKEGLFFEILDDICK

KHFHLIYSKTQEIENGTLKEILTSFGLAFIEIFNQPEAVAFGKIIYSQVYDKDRHLANWIENNQQNFSYN

ILMGFFKQQNNSYMKKNAEKLAVLFCTMLKEPYHHLNVLINAPLKNKKEQKEHVEFVVNVFLNGINSSKA

>AHK56671.1 hemolysin D [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLFQKNTILALGVVLLLTACSKEEAPKIQMPPQPVTTMSAKSEDLPLSFTYPAKLVSDYDVIIKPQVSG

VIENKLFKAGDKVKKGQTLFIIEQDKFKASVDSAYGQALMAKATFENASKDFNRSKALFSKSAISQKEYD

SSLATFNNSKASLASARAQLANARIDLDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYAD

FFISDTDKLNLVRNTQNGKWDLDSIHANLNLNGETVQGKLYFIDSVIDANSGTVKAKAIFDNNNSTLLPG

AFATITSEGFIQKNGFKVPQIAVKQNQNDVYVLLVKNGKVEKSSVHISYQNNEYAIIDKGLQNGDKIILD

NFKKIQVGSEVKEIGAQ

>AHK56670.1 RND transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFSKFFIERPVFASVVAIIISLAGAIGLTNLPIEQYPSLTPPTVKVSATYTGADAQTIASTVASPIEDAI

NGADNMIYMDSTSSSSGTMSLTVYFDIGTDPDQATIDVNNRISAATAKMPDAVKKLGVTVRKTSSTTLAA

ISMYSSDGSMSAVDVYNYITLNVLDELKRVPGVGDANAIGNRNYSLRIWLKPDLLNKFGITATDVISAVN

DQNAQYATGKIGEEPVTQKSPYVYSITMQGRLQNPSEFENIILRTNNDGSFLRLKDVADVEIGSQQYSSQ

GRLNGNDAVPIMINLQSGANALHTAELVQAKMQELSKNFPKGLTYKIPYDTTKFVIESIKEVVKTFVEAL

ILVIIVMYMFLKNFRATLIPMIAVPVSLLGTFAGLYVLGFSINLLTLFALILAIGIVVDDAIIVVENIDR

ILHENEQISVKDAAIQAMQEVSSPVISIVLVLCAVFVPVSFISGFVGEIQRQFALTLAISVTISGFVALT

LTPSLCALFLRRNEGEPFKFVKKFNDFFDWSTSVFSAGVAYILKRTIRFVLIFCIMLGAIFYLYKAVPSS

LVPEEDQGLMIGIINLPSASALHRTISEVDHISQEVLKTNGVKDAMAMIGFDLFTSSLKENAAAMFIGLK

DWKDRNVSADEIAMELNKKFAFDRNASSIFIGLPPIPGLSITGGFEMYVQNKSGKSYDEIQKDVNKLVAV

ANQRKELSRVRTTLDTTFPQYKLIIDRDKLKHYNLNMQDVFNTMNATIGTYYVNDFSMLGKNFQVNIRAK

GDFRNTQDALKNIFVRSNDGKMIPLDSFLTLQRSSGPDDVKRFNLFPAAQVQGQPAPGYTSGQAIEAIAQ

VAKETLGDDYSIAWSGSAYQEVSSKGTASYAFALGMIFVFLILAAQYERWLIPLAVVTAVPFAVFGSFLL

VYLRGFSNDIYFQTGLLLLIGLSAKNAILIVEFAMEERFKKGKGVFEAAVAAAKLRFRPIIMTSLAFTFG

VLPMIFATGAGSASRHSLGTGLIGGMIAASTLAIFFVPLFFYLLENFNEWLDKKRGKVHE

>AHK56669.1 outer membrane channel protein CmeC [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNKIISISAIASFTLLISACSLSPNLNIPEANYSIDNKLGALSWEKENNSSITKNWWKDFDDENLNKVVD

LALKNNNDLKLAFIHMEQAAAQLGIDFSSLLPKFDGSASGSRAKTAINAPSNRTGEVSYGNDFKMGLNLS

YEIDLWGKYRDTYRASKSGFKASEYDYEAARLSVISNTVQTYFNLVNAYENENALKEAYKSAKEIYRIND

EKFQVGAVGEYELAQARANLESMALQYNEAKLNKENYLKALKILTSNDLNDILYKNQSYQVFNLKEFDIP

TGISSTILLQRPDIGSSLEKLTQQNYLVGVARTAFLPSLSLTGLLGFESGDLDTLVKGGSKTWNIGGNFT

LPIFHWGEIYQNVNLAKLNKDEAFVNYQNTLITAFGEIRYALVARKTIRLQYDNAQASEQSYKRIYEIAK

ERYDIGEMSLQDYLEARQNWLNAAVAFNNIKYSYANSIVDVIKAFGGGFEQSEDTSKNIKEESKNLDMSF

RE

>AHK56668.1 chain-length determining protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDKAKIVQNLNALFKQRAEFYSYFDENIAKINNTEVFDFKNAKNLNPEEVYKQFYHFDYAIRKLLPAIYK

AYEITDADLDKDF

>AHK56667.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLFQNLALKYSHTMMEKSLQKGFNVELLKQPEEKIPKQDKSYMLYAHVPFCHTFCPYCSFHKYYYDENL

AKVYFQNLREEIKIMKNKGFDFTSMYVGGGTTLIDEEELLKTLELCKKLFNIKEISCESDPNHIDPNKLS

MFKGIIDRLSCGIQSFDDETLKKVARYNKFGSSKELQEKISKALGILPIFSIDLIFNLPGQNEKQLLNDL

EIAKNLAPQQITTYPLMKSNLTKDNIAKSLGVSIKDNEFTYYQIIREFFKDYTQNNGWSFSLEKNKLNDE

YVSSHHEYLGVGSGAFSFLDGELLINAFNLNDYAKFIQEKQNANIAKACFDKKEIIKYVFLTGIFSGKIE

IDKFNKTLNCNLEKELFIELLGLKTSGAIIKDQNALIATEFGQYLFVVLMKDFYTGMDLVRAVFRDDKRL

KNKDYIDIMKENIDPLNSASMEFKAETN

>AHK56666.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTEWINDYYFWIKWVHYLAFVSWMAGLFYLPRLFVYHAEHKDNKGFVEVVKIQERKLYYYIQTPAMIVTL

ITGSLMLHAHKEVLMVGAGFMHVKLTCVTLLIIFHIHNYYCLKALANDTSTKSGKYFRIYNEFPTIMFII

IALMMVVRPF

>AHK56665.1 peptidase A8 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKTFKFIFYFWGAFVLVFALDQWVKSLTLAGFRWQSEYLDLTYALNTGVAFSMLSFLEHNLKYLHLALI

GVLFIYLFWQRTLLKTHSIAFGMMLGAGVSNLLDRFIHGGVVDMFFWHKWFNFAIFNVADVMINISVALI

LIQEIFKKRKKDDRMD

>AHK56664.1 phosphoglucosamine mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLFGTDGVRGKAGEFLDSFLAMRLAMAAGIYFKDKSITNNILVGKDTRRSGYMIENAIVSGLTSIGYNV

IQIGPMPTPAIAFLTEDMRCDAGIMISASHNPYYDNGIKFFDAHGNKLSEDIEKKIEEIYFDDKLIQASK

VDMEKIGQAKRIDDVIGRYIVSIKNSFPKDLTLKSLRVVLDVAHGAAYKVAPTVFKELGAEVIVMSDKPN

GLNINENCGALHPANLAAEVKRLRADVGFAFDGDADRLVVVDEKGEVANGDSLLGVLALYLKEQGKLQSS

VVATIMSNGALKEFLNKHGIELDTCNVGDKYVLEKLKANGGNFGGEQSGHIIFSDYAKTGDGLIAALQFS

ALMLSKKKSASSILGQVKPYPQLLTNLKIAEKKDLDKIKGLKELKKDLENKNINTLFRYSGTENLIRLLL

EARDIKLLEKEMKNVVEFFKKALNG

>AHK56663.1 cytochrome C biogenesis protein CcsA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVKSLLIASLVAFSSLNAASLIDEAKNSGLVALPKDQKGVDEILKQNGVKASEFTLEKAELGKKLYFEP

RLSKSGIISCNTCHNVGLGGTDGISTAIGHKWTANPHHLNSPTVYNAVLNNTQFWDGRAGTLADQAKGPI

QADPEMATPAKLAVEKISSLPEYVSEFKKIYGKSGVNFDNIADAIANFERTLITPSRFDKFLEGDEKALT

KEEQKGLKLFIDKGCVACHNGVNLGGNMQAFEVAGKYKFANLGDFKGDANGMVKTPTLRNVAETAPYFHN

GAIWNLKDAIKEMGSVQLGIKISDKEAKSIETFLKSLTGTKPAIVYPQLPISTEKTPKPEL

>AHK56662.1 glycerol-3-phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENLIIYAFIYLLGSIPFGLILAKFFAKTDIKKEGSKSIGATNVLRVVKEKNPKLAKKLAIATIILDFAK

AAIPLLTLKFLHYDQALLWSVAVLAILGHCFSIYLLFEGGKGIATGAGAMIVLLPLEVLTAFIVWVVIGK

IFKISSLASLAALLAFVVSSFIFNYDLEIHTHAPVFIIAFIIVYKHLPNIKRLIFKEECKVI

>AHK56661.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRILVIEDEISLNKTIIDNLNEFGYQTDSSENFKDGEYFIGIRHYDLVLANWTLPDGDGAELVNTIKHKS

PRTSVMIMSSKTDKETEIKALKAGADDFVKKPLDFDILLARIEARLRLGGTNVIKIEDLVIDPDEEKITY

KGQDIELKGKPFEVLTHLARHSDQIVSKEQLLDAIWEEPELVTPNVIEVAINQIRQKMDKPLNISTIETV

RRRGYRFCFPKKS

>AHK56660.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSLLITKDCVCCDACREECPDEAIYENSPIYVIDPDLCSECVNDFSEPACIVACPYECIIPDPDNVETIE

ELKLKHRDREF

>AHK56659.1 guanosine polyphosphate pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKKTAVVDLGSNSIRMVIFEKTSRYGFYTTCEYKRKVRLGENAYNNGKILQEEAMQRAEDALAFFKQCA

LKHKCKKIFIVGTSALRDAPNSKNFIKRIKDNLSLNIRCIDGKSESYLGGLAALNLLSPFKDGTTLDIGG

GSSELCLIKNNRIISCISLDIGTVRLKELFYDTGKMDSLEEFIKPILEQIPKEFCNQNLIAIGGSLRAIS

NSIMQKNSYPLKNLHDFRYMLDEEKGHILKIFNSNLDSLINFGIKKDRFDTIKEGIFIFLKIAEKIKAKQ

VITSGVGIREGVYLQDLLRPKITFPPNFNPSLKCLQDKFLQSKQKNKTPHFALQIFTTLKNLHKLNDNYK

HTLLNAAKLCHIGEYLNFYFANEHSAHFVLGGLNYGFSHKEKALIASIIKLNGKKVNPYNLEPYKQLLPN

IHTISWLNFILCLAKTLSANEDKIDFAFANNTLYIYQENKILNLPKDELKKIAKPATIALAINQKI

>AHK56658.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRLLVLFFLILPLYSVELISYNIYDRNDRVDLMLSFDNAYNGKISQKKEKNLTLLTFSDLTYSKDELKEL

NSQLVDKISISSKNNNTYIMLQNKQNINLELSSINDKFGVRIRAIEQGKANIESAPTTTANNSQELMPKP

KSTSLEGYDYTNYILVMLILVILLIVLWWFKKTMVYKNNNVSRDFTMIFQRFLDKNNQLVVFDHANKRYT

MIIGNSNVLLESIEIPEEQTIKHTEKTEKNFDSFFEENKKRIQNLIEQRQKGKKS

>AHK56657.1 flagellar motor switch protein FliN [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSDDIEFNIHHGLLQSYEDILDITVDFVSELGTTNMSVAELLKLEVGSVIDLEKPAGESVELYINKRIFG

KGEVMVYEKNLAIRINEILDSKTVLQYFKKEI

>AHK56656.1 hypothetical protein N918\_01705 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKILEYSITHFCEHILRLRIEAAQDISGELYGASIPIMGKSEGECNFYLFFPKEFLKKIAEILINDEKF

KEDDWCDLTKECANQIIGYAKNLLNDAKGDDEYKLGIPEYLGKVDFSEIVLDEALTYKFENCYFRIGYCK

>AHK56655.1 tryptophan synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVDFRKFYKENANVAYTVLGYPNLQTSEAFLQRLDQSPIDILELGVAYSDPIADGEIIADAAKIALDQGV

DIHSVFELLARIKTKKALVFMVYYNLIFSYGLEKFVKKAKSLGICALIVPELSFEESDDLIKECERYNIA

LITLVSVTTPKERVKKLVKHAKGFIYLLASIGITGTKSVEEAILQDKVKEIRSFTNLPIFVGFGIQNNQD

VKRMRKVADGVIVGTSIVKCFKQGNLDIIMKDIEEIFKK

>AHK56654.1 tryptophan synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKAYYGDFGGQFLPESAMFALNELEGAFLKFSKDKLFKKELNELLKTYVGRPTPLYFARNLSKKYQHEI

YLKREDLNHTGAHKINNAIAQALLAKKMGKKKIIAETGAGQHGLATATAAALLGLECEIYMGATDVQRQA

LNVYKMELLGAKIHAVQSGLKTLKEATTAAIQAWVGDIKNIFYVVGSAVGPYPYPKMVMHFQSIIGKECK

MQLQKLNKKVDYIIAAVGGGSNAAGIFYDFIKDENVKLIGIEAGGLGIDTPYHAATLNKGKTGIIHGMKT

KVLQDDLGNILPVHSVSAGLDYPGIGPLHAFLFESKRAQYHAISDEECMQALKLLCKEEGIIAAIESSHA

LAFLEKLCPTLKKKSVIVVNLSGRGDKDMQMIRDYKKGVIYG

>AHK56653.1 N-(5'-phosphoribosyl)anthranilate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKLKICGIKDEKNAKDLAFLNIDFFGLIFAKSPRRVSLEQARNLSAIFHEKDKKVVGVFVDENLEQILR

CIKEAKLDGIQIYRTITKEEFEILKVQNVFVWQVISVENSLDLKSEIFANLVLFDAKGILKGGNGISFDW

TLLGSYTKDFILAGGIGLDNVHKAVKTGAKILDLNSKLEDEKGLKDINKIKQILKELKK

>AHK56652.1 anthranilate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MILLIDNYDSFVFNVKSMLEQLSNDEILVRRNDAISLSEIKNLNPTHIILSPGPKHPSQSGICLEIFKAR

LNIPVLGICLGHQALALAFDSLVVKMQEPMHAKNSLIKQCRENELFSNLPSNFSVMRYHSLEVKQLSDEL

EILALDEKGVIMALGHKNLPYYGVQFHPESYFSEYGLQLFSNFLKQDIKKPQKQENPLSFYLQKMSENHF

LQSDDFEQICKIIMSKDYEILQVVALLILITEKSLNEKSLSAFVRQILRYSQTFSDESEMIDICGTGGDG

FKSINVSTTSAFILAALGVKVAKHGNRAISSSSGSTDVLEALNITTPNTLESVLKQLNNQGLSFLHAPFF

HPLVGELKEIRSRLGVRTVFNVLGPLLHPNLKLKYQLMGNYHAPVHRLLIEVLKNLGRKKALVVRGNDGM

DELSICDESKIYELCEGEILEYSICPEQFGFKRAFHSEIIGSSAYDNAKDLKDILSGRMQGAKFDLVVLN

AMFALYTANKASSPLVAKDMILEAIYSGKVIEYFKEYQAYAKA

>AHK56651.1 anthranilate synthase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFVKNVNFYYRQILEKFENSYFAEDLTKVIIGIDCDYLDANELSFSEFKAKYYEALSKNKICDFAGFFGV

FSANFVSLFEKIPLSSKKNYDFPLFLFANAKAYLIYEKNSKMFFKFGASKYFEYLKDDIEPMKKKQKNDF

EILNSLEDEKNDFLKMCEKAKEYLLSGDIFQVVLSKQLCIKHQVNAFDYYESLSALNPSAYMFYFPSKYG

VVLGSSPEFLLKIKKREIYLAPIAGTRNLENNCDLLALEKDLLSDEKELSEHKMLVDLARNDASKFGTQT

RVENLFSIIKNKFVMHIVSEVYANMKEDASIFDVIEAVFPAGTLSGAPKIRALEITSELEDCDRGIYGGA

VGFLNFNEDITLAILIRCAFFTQDKAYLASGAGIVLQSESQKEYAEICAKRKALLVAFENLKKENQ

>AHK56650.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEITDLPYLIIGIISGIASGLFGIGGGMIIVPSMFALGASAHHAIGISVLQMIFAAVFGSYINYKKKNLN

LKDGIMIGFGGLIGASFSGMLLKALSDVALTSVFLAVSCIFFIKYAFGIKENIVQNQRSVWVKNVILFIA

GAFTGIFAISLGIGGGLLIAPILAYFLGYDSKKVVSLSLFFVIFASVSGIISFSNSGVIDSEVIHKGILV

GIASMVGVFIGIKIIEKMHISAHRKILLCVYALSILGTTHSLLNKLNFINF

>AHK56649.1 UvrABC system subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNDTIKIIGARENNLKNIHLEIPKNKLIVFTGLSGSGKSTLAFGTLYAEGQRRYIESLSAYARQFLDKVG

KPDVDKIEGLTPAIAIDQKTTSKNPRSTVGTITEIYDYLRLLYARVGIQHCHRCGQKISSMSVSDIVSEI

LKFPKGAKIIIYSPLIREKKGTYADLLENLRNKGYVRAQIDGVLVRLDEEIELAKTKKHTIKLVIDRLEI

QEDLLSRLASDIEKGLQESFGEIEIEVLNHEEINLNKHYHFSEHSACFDCKISFVPLEPLSFSFNSPKGA

CEACDGLGIRYTLDMKKIIDENLSLENGAVKIMYGFNKSYYYKFLIAFCEQNEIPIKIPFMQLNEVQKRL

VLYGNAKTIEFLWKRNRLKRTFEGVVKMAYEMLKDEKDLAEYMSEKICKDCGGHRLKPESLAVKVAKKSL

GEILDMSIEDSTAFFADEKNFSYLSEQQKLISKPILKEINERLFFLYDVGLGYLSLGRDARTISGGEAQR

IRIASQIGSGLSGVMYVLDEPSIGLHERDTAKLIKTLRNLQQKGNTLIVVEHDKMTIEEADFIVDIGPKA

GKFGGEVVFSGTYKELLKSKSETALYMNGKKQISQLQNRTQKEWLELKNVNINNIQDLSVKFPLQNLVAI

TGVSGSGKSSLILQTLLPFAQEELNRAKKVKKLGGVQIEGLEKLDKVIYLDQSPIGRTPRSNPATYTGAM

DEIRNLFAATKEAKMRGYKAGRFSFNVKGGRCEKCSGDGEIKIEMHFLPDVMVVCDTCGGKRYNDATLEI

KYKGKNISEILNMSVLEASEFFTAVPKIKQKLDTLVKVGLDYLTLGQNATTLSGGEAQRIKLAKELSRSD

TGKTLYILDEPTTGLHFEDVNKLILVLQHLVDLKNSVFVIEHNLDVIKNADYIIDMGPEGGVKGGKVIST

GSVEKVAKEHKKTRSYTGYYLDLELKNTQKS

>AHK56648.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFDFLYNDISYLGLFMVCFLSSTLLPLASEAFVLGFIKLDFNPNLVLIVATLGNTLGSLSTYALAYFGKE

KILEKYFSKSLKKLENFNANFAKFGSIFAFFTFLPLVGDLFALGLGFAKYSFLKTIFFILLGKLSRYTFI

IFIANSF

>AHK56647.1 nucleoside hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRLILDTDIGNAIAGANTDDGLALALILSSKEIKLEMLSTVCGNVPSLVAYSVAKDLFQRLNLNIPVYLG

ANEALKEPSKAWRQRLDESVKNFKLEYLWENIKSPEILENINPDAIFKMGELVSKNPKEISICAIGPLTN

IAMTMKIFKDFDINLKELFIMGGSFDMPYYTKDTNFGFDPEAASIVLNSRAKITLIPYNATMQTLLTHED

LKELQGKNILCDFIVETLGVWIDYASKTRGTKGTWIHDALTIACALDSSIADFDECYADVICDSSLARGM

SWRCFREPKMSMGVDLSTKNCVKILKNVDNARLLKLIKERLLKGVCYENYESITT

>AHK56646.1 DNA polymerase I [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTLTIVDTFGFFFRLYYALKGFKNSQGQASGMISGFANFIYSLKNEYKSDYIVFALDSKGKTFRSEIDP

NYKQNRTPPPPELLEQIPICIKMIEKMGFISVSQEGYEADDIIASFVKTCENRDIFVRIITQDKDLYQLI

KDGKTSIYSPISKNDYDEAACLEKYGVKPNQIRDFLALCGDSSDNIPGVKGIGAKGAKTLLDEFGSIEGI

YENLTLVRNERSRNLLLEGKENAFLSKKLASLYDNLEVQNLIEKATYPDEEPLLKILEILEHYELNTLLK

KLRQNPDNKDKNLGFKATLVQDENKLFEILNTLDKESIIAFDTETTGLDTKEAKIVGFSFCMNENEAFYV

PLTHNYLGVGEQISLQSAKKAIEVIFNHFVIGHNLKYDFKIIQNNFDLNLPQKYADTMILAWLKNPSLRV

NMDDLALRLFNYETLHFESLVKKGENFASVELEKACKYAAEDAYITLRFYLYFLKNLETPLLELAKNCEF

DFIKIIMMMEENGIKLDTNALEILMKKFENEIKNLSEEIYTLCEDRFNLNSPKQMGDILFEKLKLPSGKK

GKTGYSTDEKVLNILLDKHPVIAKILDYRELAKLYSTYCEPLLKLALKDKNSRIYSSFLQTGTATGRLSS

KDPNLQNIPAHGQYAKDYKSCFVAKDGFSFISLDYSQIELRILAHFSEDEKLLNAFANDEDIHARTAIMI

FGESNYETRSVAKSINFGLIYGMGYKTLSQNLKIEANLAKSYIEKYFENFTSIKKYFEKVKNEAKQNGFI

VTLSGRKRYFDFENAKPMQIAMYERESINSILQGSAADVIKLAMLEINKELNEDKKLILQIHDELIFEVK

DDLCENFVKKTRDIMENIVKLKVKLKTSSSIAKNWGDLK

>AHK56645.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDLSTILGMVLAVTSISVGDILEGGNPLHVVHLSSFLIVMPTAAFCAMTSTHKKIVKAAYKELKVVFKGS

GVNLPERIAQLIEFAIIARRDGLLALESRTSEIENEFLKNAMMMLVDGKSFEEIHESMEIQTEQLEEHYK

ECAEYWIVFGETCPTMGLVGAVFGLILALKLLDNPQAMAAGISGAFTATVTGIFGAYALFAPWGKKLKAN

GMDLVKEQIVITEAIKGIAEGANPRDLEAKLFNFLSHDDPRISQFDKG

>AHK56644.1 flagellar motor protein MotB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKKHKCPECPAGEKWAVPYADFLSLLLALFIALWAISKTNPAKVEALKTEFVKIFDYTSTQTVKEESKT

QEKYKGAAKEESDELKSLKQMTMTQQETIKRLQAALDQSDNQVALNLPSKVEFERGSAQIVSADIQDYLK

RMAELTTYLPPQAKIEIRGYTDNSDSIIRSYELAYQRAENVLKYFIEGGANLKNISIKSYGLNNPINGNP

QTLENNRVEIYFKVDTADTSTQKSVLELINKIGTKAP

>AHK56643.1 flagellar biosynthesis protein FlhB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAGEDQEKTEEPTSKKIEDARKEGNVPKSQDAAAIVTLIIGVTITLFMMSFMGERIVNLYRYYQSFIGVE

FDLRIIQAIMIKSIFEVLIILAPIVLSIMIAGVLGNIMQFGFIFTTKPIMPNLGKINPLKGLKNLFSLKK

IVESIKIILKVGIVFTIAFIVLLKFMQELPRVELYTMVAQLTWLRDRAIVLAAIVIVAFLIIAVLDVFLV

RFQYFKGLRMSKQEIKDEYKQMEGDPQVKGRIRRLQMEAARRRMVQDVAGADVVITNPTHYAVAIRYDTG

KEQAPRVVAKGVDFLALRIKQVAYENNVVVYENPPLARELYKACDVNDLIPREMFKAVAEVLGFVYNTNN

KSRLAGQVKKGN

>AHK56642.1 peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIVTKKALDFTAPAVLGNNEIVQDFNLYKNIGPKGAVVFFYPKDFTFVCPSEIIAFDKRYQEFKNRGIEV

IGISGDNEFSHFAWKNTPVNQGGIGQVKFPLVADLTKQIARNFDVLYAEAVALRGSFLLDADGTVRHAVV

NDLPLGRNIDEMLRMVDTMLFTNEHGEVCPAGWNKGDEGMKANPKGVAEYLGKNEAKL

>AHK56641.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAVKITDICIACGSCIDECPVNAIVDDTNNPEGEDRYYVYANKCVECVGHNDQPACASACPTDGCIVWSA

VESGQPSRDNIGADMRSGDTPVFA

>AHK56640.1 nucleoside diphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMISGPV

VVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>AHK56639.1 hypothetical protein N918\_01610 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIPFSKINTKEYPFKLNLENIIFEGNLVKINPKLVKINAIMQGFIYRPCDSCGTELELEIKENLELFAS

DGIFKDEANELSNTIEFFDGHIDLIEVAISELEAYLSDYFYCINCNN

>AHK56638.1 50S ribosomal protein L32 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAVPKRRVSKTRAAKRRTHYKVSLPMPIKDKDGSYKMPHRANPTTKEY

>AHK56637.1 phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINIAIDAMGGDFGEKPIIEGVLKALETKPFNAILVGNSKILKPLIPKKLEQYIQYEEASEIFSMNGNAT

DALKNKETTIYKAINLLKEKKVDAVVSAGHSGASMSLATLKLGRLKGISRPAIATLMPNIVNKTLLLDVG

ANTDCKAENLFQFAIMGEVYAREIMQIQKPRLALLSNGEEECKGNELTKESHQLMKKIPNFIGNAEGRDI

FNGEIDVLVCDGFDGNVILKACEGVATAIFQLLKNEVKQSFISKIGALLMKPSFKKLKKHTDWQEYGGAP

LLGVNGCVIISHGKSDSRAIKNAIFQAINFSQSHINKFIENELGKYNA

>AHK56636.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKASLKSIASYIPEKILSNADLEKMVDTTDEWITRRTGIKERRIASENENTSDLGTKAALKAIERANLK

PEDIDAILVATLSPDYFTMPSTACKIASNLGLVNISAFDISAACSGFIYLLEQAKALVESGLKKNVLIIG

AEKTSSIMDYNDRSICILFGDGAGAGVVSLDNENHILDVHTASNGNYGDLLMTQRSQKSSLCQTLSMQMK

GNEVFKIAVNTLSNDVVEILAKNNILAQEIDLFIPHQANLRIIKAVQEKLNLSDEKCVITVQKYGNTSAA

SIPMAMNDAYEEGRLKKGNLILLDAFGGGFTWGSALLKFGGENF

>AHK56635.1 endoribonuclease L-PSP [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKRFDECDRMSQIIVFDKYFKTAGQVAFEPSGDIKKQTKEALAELDALFEKIGANKGDLIQIQIWLANM

QDFDAMNEIYDAWIKNYPKPVRACVGSALAEGYLVEIQAFGKLREN

>AHK56634.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRKINFSAGPSTLPLEILEQAQKELCDYQGRGYSIMEISHRTKVFEEVHFGAQEKAKKLYELNDDYEVLF

LQGGASLQFAMIPMNLALNGVCEYANTGVWTKKAIKEAQILGVNVKTVASSEESNFDHIPRVEFSDNADY

AYICSNNTIYGTQYQNYPKTKTPLIVDASSDFFSRKVDFSNIALFYGGVQKNAGISGLSCIFIRKDMLER

SKNKQIPSMLNYLTHAENQSLFNTPPTFAIYMFNLEMDWLLNQGGLDKVHEKNSQKATMLYECIDLSNGF

YKGHADKKDRSLMNVSFNIAKNKDLEPLFVKEAEEAGMIGLKGHRILGGIRASIYNALNLDQVKTLCEFM

KEFQGKYA

>AHK56633.1 exodeoxyribonuclease VII large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTPTELNLKAKALLETHFDDIVLSGEISKITLHGSGHWYFDLKDERSSIACAMFKGANLKVGFKPAVGDF

LELCGSVSLYPESGRYQFIATSMKKAGFGDLEAQFLALKERLQKEGLFDPRFKKSLPKFPKKVGIITSKT

SAALQDMLKLIHQKEYFLAKIYIFDALTQGNNAPFSLIQALKKADDMDLDVLIIARGGGSREDLFCFNDE

NLAREIFKAKTPIISAIGHEIDYVISDFVADFRAPTPSAAIDTLFYSKLDIEQSLDLMEEKLMQLWNYKI

QNYENLLLNLSKFFKFNSLPKIIDEKIKQSHNIEKQLNHLLANQMRYNELKLDKLQNAYLQHENFFNKSK

KFICIRKNGKIANLEDLKSDDIVILSSQTSQKEAKIL

>AHK56632.1 ubiquinone/menaquinone biosynthesis methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKQEKIIEMFNQIAPTYDKANRILSFGADVAWRKKACQRVMSLYLKKDLKIADIACGTGDMIEIWQESA

LKMEKNILNIKGIDPSSGMLNVAKEKFPNVEFIKAGAQNLPLESQSLDILSISYGIRNVVERQKALSEFA

RVLQKDGILVVLEFTKREKGGFIAACRDFYLKNILPSIGGIISKNKSAYEYLPNSIEGFLSKKEFILELK

NAGFEMLDYKSFSFGVSSMFIAKKL

>AHK56631.1 hypothetical protein N918\_01570 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVYEIQKNFLLSDCTLLENLKKDNIPFRNSKFETFYTQITSNHSVKFQSFCNEFYKITKFNNSILEQNQE

EKISKKKFEKARKKIIGKSIKKERFEFKFCSLKSYIDIYEEPKICILKIFFPTLDSSNEFKIPKDFKIQK

ELHHDLNSKHIVLYGFEYQNFDIEKYFKIIEKNQNFSLDFPNYINAYDGFRIFLFYLFKKLKFYWTLSLE

RKDKQSLCEFLFYSRSLYIVLSSMNTILDKNLSNILALKFKDITKKTQDILASENSNQDLLLFLSDEKIQ

DLFNDFDFFIKENSFYEGDCKDRFFKQLVALELRKKIILFRKNILKNFDLELFENSFFELAIFLEYFYHF

LEIKNLNKLYEKYSKDRDKNIFSKIINNKNKFCKLLKKSSKNLKIYKG

>AHK56630.1 peroxide stress regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MELLQMLKKHELKATPQRLCVLKILKRHEHPNIDELYIEIKKEYPSISLATVYKNLNTLQEQGLVVEINV

LNQKTCYDIYEEEHIHVVCTKCGGIEDLSFKDAKLYEYQEHLEKKIGNLVNHLSVCAYVDNCKKCH

>AHK56629.1 1-deoxy-D-xylulose-5-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKKFAHTQEELEKLSLKELENLAASMREKIIQVVSKNGGHLSSNLGAVELSIAMHLVFDAKKDPFIFDV

SHQSYTHKLLSGKEEIFDTLRQINGLSGYTKPSEGDYFVAGHSSTSISLAVGACKAIALKGEKRIPVALI

GDGALSAGMAYEALNELGDSKFPCVILLNDNEMSISKPIGAISKYLSQAMATQFYQSFKKRIAKMLDILP

DSATYMAKRFEESFKLITPGLLFEELGLEYIGPIDGHNLGEIISALKQAKAMQKPCVIHAQTIKGKGYAL

AEGKHAKWHGVGAFDIDSGESVKKSDTKKSATEIFSKNLLDLASKYENIVGVTAAMPSGTGLDKLIEKYP

NRFWDVAIAEQHAVTSMAAMAKEGFKPFIAIYSTFLQRAYDQVIHDCAIMNLNVVFAMDRAGIVGEDGET

HQGVFDLSFLAPLPNFTLLAPRDEQMMQNIMEYAYLHQGPIALRYPRGSFILDKEFNPCEIKLGKAQWLV

KNNSEIAFLGYGQGVAKAWQVLRALQEMNNNANLIDLIFAKPLDEELLCELAKKSKIWFIFSENVKIGGI

ESLINNFLQKYDLHVKVVSFEYEDKFIEHGKTSEVEKNLEKDVNSLLTKVLKFYH

>AHK56628.1 flagellar assembly protein FliH [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVNRSNVISGGASDQHVVEGYRFKVISEFDNHTGEKKHTQTPDEENTNISLNDEKPVEENQVIASTQAVM

ETQIPTFQPSFVEDLLKKTDEMSSNIIKLQMQIESQENEFNNRLNSELENAKEKFTKEGYEKAKEEFQKE

LSDFKDKYLKSIAKLDNACENLENFIEKNEKELADTAIDIAKEVILKELELNSSKIAYALAKDLIGELKG

ASAIELKVNAEDYEYLKEQFDQNAHIKISLDDAISKGSVVIISDAGNIESNLNSRLTKIKKMVNNE

>AHK56627.1 flagellar motor switch protein FliG [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKLSEEQKMVYDDLSMPEKVAIFLIQLGEDATTSVFSHMEIDVITEISRYIAMAKNVDRSVATAVLEEF

YTLLQSNQYIKSGGLEYAKEILFRTFGPEIANKILEKLTKSMENNQNFAYLAQIKPQQLADFITKEHPQT

IALILAHMDSIHAAETLEYFSDELRAEVVIRMANLGDISPSIIKRVSAVLESKLESLTSYKVEVGGPRAV

AEVLNRLGQKASKSTITYIEQSDERLAETIKELMFTFDDIQKLSTQAIREILKVADKRDLMIGLKGASEE

LKQKFLANMSTRASEAFLEEMGFLGAVRVKDVEDAQRKVVEVVQKLAEQGLVQTGDADEMIE

>AHK56626.1 flagellar M-ring protein FliF [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDFKNMLHQIGQLYQNLTRKQRIVIAASIIVVVGFLVFLALFRGSGSNANNGYAVLVENVSPSSSAAIVA

KLEQNNIPYKLESENKILVPQDQVYRQRMFIASEGLIKDSRVGFEAFDTQAFGATNEEQKVKYQRAIEGE

LARTIETLEPIRSAVVHIAFPKDSVFTERQIPPTASVVVNVREGLKLTRKQIDGIKNIVSAAVPKLTKEN

VKISDQSGVPLDEQEAYEDDLVRAQIKFKSDQEKALEDKIIENLAPFAGGMDKVKVSVNIDFDFSKQESQ

SEIYDPNPIVRSEQTLNEERTGRKDPEIQGVPGAVSNIGPVEGLDNKGQIDTYKKNQVTTNNELSKTITN

TKKQFATVLRTSAAVTIDGKYQDVVDENGDVKSEYVPLTKEELASVESIVKNTINFSATRGDSVVVQNLP

FHRESIRVESKVKTFYNRFVEPFIPPVKYFIAAILLFIFYKKVIAPFTQKMLEDVAAQEEMQQGPNAVLD

DAEDALEKFNAARKKVEEQLGFGDNFNEDSIQYEVLLEKLRGLVSDKGEEIAALLQNLIQNDSEFGEKDM

>AHK56625.1 histidinol-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFNEFLNNLSNYEPGKDIEVIAKEYGVKEVIKLASNENPFGTPPKAIECLRQNANKAHLYPDDSMIELK

STLAQKYKVQNENIIIGAGSDQVIEFAIHSKLNSKNAFLQAGVTFAMYEIYAKQCGAKCYKTQSITHNLD

EFKKLYETHKDEIKLIFLCLPNNPLGECLDASEATEFIKGVNEDCLVVIDAAYNEFASFKDSKKHLEPCE

LIKEFDNVLYLGTFSKLYGLGGLRIGYGIANANIISAFYKLRAPFNVSNLALKAAVAAMDDDEFTEKTLE

NNFSQMELYKEFAKKHNIKIIDSYTNFITYFFDEKNSTDLSEKLLKKGIIIRNLKSYGLNAIRITIGTSY

ENEKFFTEFDKILR

>AHK56624.1 chloride transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPNLEEFRNKIDAVDDKILDLLNERMTYVKSIGELKQSSGGSIYRPERERAIINRLKNANLGLLDQNAIE

AIYQEIFAVSRNLEMPQTIAYLGPEGTYTHQAARSRFGAMSRYIALANIEDVFKELSNKEAKYGVVPIEN

NTEGAVGITLDCLGKYNELKIFGEIYMDIHHSFVGINENLKEIKRIYSHPQGYNQCRKFLESHELSAIEF

VPSKSTANAAYLASQDKYAAAICSRIAAKLYNVPVLFDKIEDNAANKTRFLILSDIKNPKMPNCKTSILA

HTAHKPGGLSFLLEQFKKENINLTKLESRPVKSKEFLHSFYIDFEGHIDDENVKKALKDIQEIVWLGSYL

SGEKDEI

>AHK56623.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFFLDVQGTLISDHDKSLIHGAKELIDFLNAKNLPYLIITNNTKKLDFLEKLQQKGLVIKENAYIDPFSV

LKHLLRPCKVAAFGADEFVKSLENLGFELDFVNPSAVLVASYDDFKFKDFATMIELARREVRFIAMHETS

IYKKDGRPYPGVGSIMAMLKNAIDFEYEVVGKPSIAFYKEALNLIRRQNSKIDFEDIKIISDDFRGDLLK

AKELGMKTLLVLSGKISDTKGLDTDLLDGVYPSVFEFLKDLKCQI

>AHK56622.1 diaminopimelate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDYKQLKQEFNTPFYIYNFDFIKERFLNLKEAFKARKSQIFYAVKANSNLSLLQMLANLDSGFDCVSIGE

VKRALKAGAKAYKIIFSGVGKTKEELRQALEYDILYINLESEAEMMLLESVAKELNLKARISIRVNPNVD

AKTHPYISTGLNENKFGVEIDIARKMYLYAKNSSFLEPVGVHFHIGSQLLDISPIHEAAAIVAKLVRELK

ALQIDLKFFDIGGGLGVAYEKNECEPDLYDYAQGILAQLHGLDLTIGMEPGRYLVAKSGEFVCSVLYEKQ

NKTKRFVVVDGAMNDLIRPSLYEAYHEIILPYNQGEESLCDVVGGICESGDFFAKARSLPSTQSDDIMVI

KNTGAYGFSMSSNYNTRNKVCELALEEGQVRLIRQRENFEDQIALEEKFLKA

>AHK56621.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MWIFFRFISGIYLKNFFIIFFSLLGFYCGIDLLLNFKDLPKAANLDLLYVMFLSFSAVPYVLPISLIFAL

VVSLISMIRANEFVSLYALGLSRNYVILFPFLWALFFCCIYIGLNFTSFAYANDYKRNILKNGTIMNQSG

EVFLKFNNNFVYISKINNGQNSAQNIKIFNINDLNLSSFASAKNAHFEGESWILRDGNITLLPKNYELAN

DGLKIQDFSELKSLEGFKPKIIEGVASNSDYSISDALESFELFKAQNVNTDTLKINLYKFVFTPFFAPFL

MLIMYYFFPVIARFFNLAFVTFIAFVVTLMIWGVLFLLTRLSENSVIASEIGIVVPIIILGCLSAYMYYK

HR

>AHK56620.1 peptidyl-tRNA hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MILVVGLGNIGVEYENTRHNVGFMLIDLLLKESNFTNLTNSKFKGELFKIGSSLLLLKPSTYMNNSGLSV

KAVNDFYKCERMIVIHDDIDINLGALRFKKGGSSGGHNGLKSIDTLCGNDYERVRIGVGKGENVISHVLG

KFKSEEEITLSKVLEHAKKALLELIENDDLSAISSKYSLKA

>AHK56619.1 50S ribosomal protein L25 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLEGIVRESIGRKAAKALKRDGYLIANIYGKGLENINAAFKVNEFIKEVRKKTTLIFDVKVGSQTLSVVV

VDYQKDPVTAELKHVDLKVAQKGVISKYMVPVKITGTAIGLKNKGVLIQSKRRLKVKCAAENLPNFFELD

VSKLDVGDALLVRDIVVPAGVTMIDADRVAVVGVEKAR

>AHK56618.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNEKFNINIAWFLIILGGIIECFWVSGLKYSTEIWQYILTAIGVCISFTCFLKACERLEVSITYSVFVGI

GTIGVVLNEMFIFNEAVSIIKLVLIAILLLSIIALKWVSKEA

>AHK56617.1 quaternary ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEWFYLFLATACEIFGVVIMKELVSTKNKLYLLALIVCFGFSFTFLSLSMQNIAMSVAYAIWTGAGTAGG

VMIGVLFYKESKSFLKLFLIAVIITCTAGLKFLS

>AHK56616.1 ATP-dependent dethiobiotin synthetase BioD [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQIYVSGIHTDVGKTHFSAAFCANFNYDYFKLIQAGTPTDSEFIAKFSPKTKIFKEGIFLQTPASPHLGK

IKEKLDYKALDIILPKSKNLLIELAGGLFSPMDENYTMIDFVNIFKHPTILVAKYYLGSINHILLSIEAL

KQRNINLLALVMMGKKDILQDDFIKNYAKIPIINLDFFDENSILNKDFKEQMQEILQLKIP

>AHK56615.1 adenosylmethionine-8-amino-7-oxononanoate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNQILKNLDLKHIWHPCTQMKDHETLPLIPIKKAKGVWLYDFDDKAYMDCVSSWWVNLFGHCNEKIANA

IKKQVDELEHVILAGFTHEPIIKLSARLCEKVGRNFNKCFYADNGSSAIEVALKMSFHYHLNKGVKKSKF

LSLSNSYHGETLGALSVGDVALYKDTYKALLLECLSTPVPQGKDYTKELEILKDILEKNASEICAFILEP

LVQCAGNMHMYEARFIDEAIKLCHKFGVQVIFDEIAVGFGRTGTLFALHQCKQSPDFICLSKGITGGFMP

LSVVLTRDEIYNAFYDTYESQKAFLHSHSYTGNTLACAAANAVLDIFEDENILVKNQILSEFIKKEFSRL

EKFDFLGNFRTCGMISAFDILSTKYKRVGLFVFQKALEKGLLLRPLANTIYFMPPYIITKEQIVYVLESL

EQIFKEF

>AHK56614.1 8-amino-7-oxononanoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLEKILQDLEQNHNLRTLTPLKHENKFVYKQDHKLLNLVGNDYLYLASSKELKAEFLNTLKEQDLFFSS

SSSRSLSGNFEIYEKLESFLKTKFKDKEILHFNSGYHLNISCIAALSSVSKTLFLTDKFIHASMIDGLRL

GRADFFRFHHKDMNHLESLIQKHYENYENIIVLSEALFSMDGDFSDFKTLCELKRRYDKIKLYIDEAHSV

GCFDEEGLGLVKKLALENEVDFLVFTFGKALASMGACIICDEKYKKFFINKARAFIYSTALPPINVAWTQ

FIFKKMPYFKKEREKLELLSTFFKSKLQEKNHIVLGDAYIICLLLGENKKALEISQKLQKAGFFAPAIKE

PTVPKNTARIRFSLHAGLNTEELERIIELL

>AHK56613.1 hypothetical protein N918\_01480 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKYEFLCKNPDSKKLIVVFGGFASHSSHFSHLKSDKNVILFYDYENFDLNFDFKAFDELFLIAFSMGVCV

ANRLLKELNFKQKIAINGTNLGIDKSKGIHPAIFRKTLQNFKLENFKEALFKERKNLTKDFIFKDEKALK

IELEKLFDFALVKQEENLLWDKVYSSKKDEIFPPNALKNAFSKLIFLNEPHFAFFHFKTWDEL

>AHK56612.1 biotin biosynthesis protein BioC [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFLKAKDYEKHAKVQDFMGLKLCEILKNLRISHFEKVFEFGCGRGELSKKLQNFITFDEYLKNDILDFK

ENSSILIFDMNEIAKQDLSKEKFDLIVSNATLQWLDLKRIIPSLRDMLNQNGILLLSTFAEQNLKEIKQS

TGFGLNYFSLNELEQIFKVYFNEVKITQELIKLSFDNALDVFRHLKLSGVNSLGFYPLNKGFLKEFEEKF

QNKLTYHPVFILCKNDIK

>AHK56611.1 molybdate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKFVVFFGILLFVSCLNAQNLSIFVASSASKAMSEVKDEFLKTHPEDKIELVFGASGKYYELLKQGREF

DLFFSADTKYAKAIYDDKNALIKPKVYVLGVLALYSLDENLLQGGVENLKEKANKITHLSIANPKVAPYG

VAAKEVLENLGLNELLKDKIVLGENISVPVLHVDSKNSDIAIVAYSLVSSINHPKGKAVIIDAKYFSPLE

QSYVITKYAKDKKLAFEFNEFIGSSKAKEIFKKYGFSTP

>AHK56610.1 molybdenum-pterin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLIKGQICELLNQEDIVIVKILSKEVIFSVLMLELKSLENLKIGVSVELLFKEHELCFSASKTLLSVEN

SFLAKITKIKKGKLLYQVFFDFKGNELSSIITKEKALELEICENQEWLCFVKANDIVLRSHSA

>AHK56609.1 molybdenum ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLDPAFLQTLYLTFKLAFITTFILFFIGVFLAYLLSFVRFPFKTILQSFISLPLILPPSVLGFYLLVTFS

ANSFLGQVLKEYFNLSLVFSFEGLVFASLIFSLPFMVNPLQSAFSSINPNLLDASYSLGKSKIYTLFRVI

LPNSKAGIFSACAMSFAHTVGEFGVVMMIGGHKQGETLVASIAIYDELEILNYSLAHQYAFILFIFSFLV

LFSLYFINKKMSFQ

>AHK56608.1 GTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIRIDINHPMNTAKGRLDLNFKKDIESGKITALFGESGAGKTTLLKIIAGLIKPKLGRIEVDNELWFDSS

KNFSLALQKRKIGFVFQDYALFPNMNIKENIAYAASSKAKVSELLALMKLENLAKIYPKHLSGGQAQRVA

LARALAREPKILLLDEPLSALDFKMRANLQDELTKILEYFKISTLLVSHDLAEIYKLSHRILELKNGKII

KDFPKNEFFTHSNISAKLRLSATLLEIKKSDILVVLTLLLNQDIIKITLSEEEFLKAYQDVKIGDTLLLS

IKAFNPIIVGKLDK

>AHK56607.1 aspartate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNITLLKSKIHRASVTEARLDYIGSISIDEKLLQASGILEYEKVQVVNVNNGARFETYTIATQEEGVVCL

NGAAARLAEVGDKVIIMSYADFNEEEAKTFKPKVVFVDENNTATKITNYEKHGAIF

>AHK56606.1 MoeB/ThiF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNDRFTRIKWLVGEEKFQKISQTKVLVCGLGGVGGICVDALYRSGFKNLTLIDADKFEITNQNRQIHSEN

IGEEKAKVFERIYKVKGIVSKIDENFLKNFDLSEFDLIIDAIDDIPAKVALAHLIDFKKQIFISSTGGAR

KLDPTRIKTTSIFKTHGDALAKKFRYELRKSGFKGNFDVVFSDEEAHCKDLGSFMGVTASFGLALASLAL

RKVLAKKS

>AHK56605.1 stationary phase survival protein SurE [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEILITNDDGYESEGLKKLIKMLTKEFKAKITIVAPASEKSACSHSITLTKPLRFVKVGKRFYKLDDGT

PADCVYLALHALYKKRLPDLVISGINKGANVGEDITYSGTCAGAMEAVLQGIPAIALSQFYKKSEKELDY

KNALQITKKIIQNIFDKGFPLEKKEFLNINFPAKSKIKGIKICKAGKRVYNFEAHSNVNPRGVEYYWLAA

ANLDFEDEKNSDIALLKKGYATITPIMLDLTAYERMKKVKKWLKANDE

>AHK56604.1 ABC transporter ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIITLFGACALAFSMANADVNLYGPGGPHTALKDIANKYSEKTGVKVNVNFGPQATWFEKAKKDADIL

FGASDQSALAIASDFGKDFNVSKIKPLYFREAIILTQKGNPLKIKGLKDLANKKVRIVVPEGAGKSNTSG

TGVWEDMIGRTQDIKTIQNFRNNIVAFVPNSGSARKLFAQDQADAWITWIDWSKSNPDIGTAVAIEKDLV

VYRTFNVIAKEGASKETQDFIAYLSSKEAKEIFKKYGWRE

>AHK56603.1 transcription elongation factor GreA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKEPMSQFGYDKLAAELKDLKDNQRPAVVIEIDTARSHGDLKENAEYHAAREKQALIESRIAELSDLLA

RAQVIDPSSYEHDSVKFGSSVVIMDLDTEKESKYTLVGICEGNLDKGYISIASPIAKAMLGKKEGDDFKV

RLPKGESEFEILSINYEPLKF

>AHK56602.1 UDP-2,3-diacylglucosamine hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLIGEISATHEFAKPYIELLEELALKIEIIYLEGNHDFNLSCFFKRVKIFNLQEQPIKLNLHTSKGNNLV

LNSAFIKLAHGDIFLPPLLQFTLKTLRNHYLLVFLNFLNIITRNFISNKILQNQNKKNLFYQIKDFENLA

KKRYEKYENLGFWVCEGHYHQNHQINKENIKYLNLASFAYERSFFVVEYQQEIKFREQKLRGQNV

>AHK56601.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFDENIVKTGSNEMELVDFRIFKQGHDKVYEGIYGVNVSKVREIIKIPSLTELPGVPDYIEGIFDLRGVV

IPVVNLAKWMQITEPESTMLKPRVIITEFSNILIGFIVHEAKRIRRINWKDIEPATFSTGSGALDKGKIT

GVTRIENDEVLLILDLESVVEDLGIYAPKTDIDFGKIEKFTGTALILDDSMTARKRVKEMMQQMGFQVVE

AKDGVEGINKLEELSQIYGESLNDTLKIIVSDVEMPQMDGFHFAARIKEDPRFKDIPIVFNSSLSNEFMN

EKGVQEAGGEGYLVKFNASDFFNEIAKVIKKHQSQEQG

>AHK56600.1 chemotaxis protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEDMQEILEDFLVEAFELVEQIDHDLVELESNPEDLELLNRIFRVAHTVKGSSSFLNFDVLTKLTHHMED

VLNKARHGELKITPDIMDVVLESIDRMKTLLNSIRDNGNDTAIGMDIEPICARLTAISEGESPVVATDSN

EKSIPQAELEAPKQEIATPEPEVDVNQLSDSEVEAEIERLLKVRKAEDQARRAQKKQTTNAAPKPTNNTA

NKPTESGEKKVPASGSNASSMDQTIRVEVKRLDHLMNLIGELVLGKNRLLKIYDDVEERYEGEKFLEELN

QVVSQLSIITTDVQLAVMKTRMQPIAKVFNKFPRVVRDLSRELGKQIELEITGEETELDKSIVEEIGDPI

MHMIRNSCDHGVEDPATRAANGKPEKGIVQLKAYNEGNHIVVEITDDGKGLDPNGLKAKAIEKNLITERE

ADQMTDKEAFALIFKPGFSTAAKVTNVSGRGVGMDVVKTNIEKLNGVIEIDSELGKGSSFKLKIPLTLAI

IQSLLVGTQEEFYAIPLASVLETVRVPIDDIYTIEGKNVLRLRDEVLSLVRLSDVFGVKQVLESGDQTYV

VVIGVAESKLGIIVDTLVGQEEIVIKSMGDYLQNIQGIAGATIRGDGRVTLIIDVGAMMDMAKEIKVDIK

AQLESSAKKPKEQPSDYKVLIVDDSKMDRTLMQKALEPLGVSLIEATNGVEALNIIKSGEHDIDAMLIDI

EMPRMDGYTLAGEIRKYSKYRNLPLIAVTSRTSKTDRLRGVEVGMTEYITKPYSPEYLENVVRKNLKLG

>AHK56599.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSNEKLEQILQKQQTQMAGPDVDQREDDIIQLVGFVVGDEEYAIPILNIQEIIKPIEYTRVPSVPDYVLG

VFNMRGNVMPLIDLAQRFHLGSSKMTPQTRYIVLRGETNGTGVGGNAGFVIDRLTEAIKIHRNRIDPPPE

TLVKDKGMIYGIGKRDENILTILKVEALLKREF

>AHK56598.1 phosphoserine phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKLCVFDFDATLMDGETIDILATAHGKGNQTSEITRHAMTGELDFFESLQKRVSFLKGMSYKKVLELSS

TLPLMRGAHELIQYLKSKNIQIVIFSGGFHEGINPAMQKLGINLGFANYLHHKNDILTGLVGGEMMFSNS

KGLMLQRLKSFLNLKTDEVMCVGDGANDLAMFNESGLKIAFCAKEILRSQADICIDIKDLKEIIKVI

>AHK56597.1 transaldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNFSLWCDFIENSFLDNEFLNLLSHGINGATSNPAIFKNAILNSPIYKDKILKLKEKKTKDIYEELAIS

DIQKAADKLAPLFYQKNDGFISIEIDPRLHDNTTLSLGEAKRLYSAIGKENIMIKIPATKASYEVMYELM

KNGISVNATLIFSLEQSQKCFEALNAGLVEFRKNNIALKEQNTRTPQAVISIFVSRFDRLLNPKAKEQNR

IGILNANLAYNNIYSKNEPNIRALFASTGVKGDDLPKDYYIKELLFENSVNTAPLDAIEAFKGKMHFKKP

LMNFEIYTELNQIISQSEREKACNDLLSDGLEQFCIAFEDILKAL

>AHK56596.1 Sua5 YciO YrdC YwlC family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIYLAQTDTTVGFLSKNLEEINALKGRDKNQPCLITSAKFCELKSLARIPKSFKNLVRRSKKTTFIYPNN

QAIRIVKECKHANFLSKNGYFYSSSANKHGKEFDEEWARSVADIILDEKFFENIPSKILKLSKNKMIKIR

>AHK56595.1 carbamoyl phosphate synthase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPKRTDIKSILLIGSGPIVIGQACEFDYSGTQAAKTLKELGYRVVLINSNPATIMTDPEFADATYIEPIT

KESILSIIKKEKIDAILPTMGGQVALNVAMEVYESGLLGDVKFLGANPEAIKKGEDRQVFKECMKKIGMD

LPKSMYAYNYDEALKAVDEIDFPLMIRASYTLGGAGSGVVYNMDEFKELTNTALALSPIHEILIEESLLG

WKEYEMEVIRDRADNCIIVCSIENIDPMGVHTGDSITIAPALTLTDKEYQVMRNASFAILREIGVDTGGS

NVQFAINPKNGRMIVIEMNPRVSRSSALASKATGYPIAKVATLLAVGFSLDEIKNDITGTPASFEPVIDY

IVTKIPRFTFEKFPGANTTLGTAMKSVGEVMAIGRTFKESIQKALCSLERSLSGFDRVKFEDRNDLVFKI

RNANEKRLLYVAQAFREGFSVEELYELCKIDPWFLTQIKEIVDFEEQIDMDILNNKALLRKAKTMGFSDK

MIALLVNLKDNLELSQNDIYYVRMKQKIIAEFSEVDTCAGEFEALTPYLYSSINVSELTQSKNDAKDKKE

KKVMIIGGGPNRIGQGIEFDYACVHASFALKDMGIKTIMYNCNPETVSTDYDTSDILYFEPIDFEHLRAV

IEREKPDGVIVHFGGQTPLKFAKRLSAFGAKIIGTSARVIDMAEDRKKFAEFITKLGINQPKNSTATSVE

EAVLKASDIGYPVLVRPSYVLGGRAMRVVNDEAELRLYMQEAVDVSDKSPVLIDQFLDNATEIDVDAICD

GKDVYVAGIMEHIEEAGIHSGDSACSLPPCNIDEKMQEFIAQKTADIALNLGVVGLLNIQFALHNNELYM

IEVNPRASRTIPFVSKATGIPLAKVATRVMWQGNLKEALKFYDTFKVVNFDTKILRPKTPKYMSVKEAVF

PFAKLSGSDLELGPEMRSTGEVMGISKDFANSYAKSQIASFNHLPEQGVVFISLKDKDKKYTKKIAAEYV

KLGFKLMATGGTCKEILESGFECELVHKISEGRPNVEDKLKNGEIHLVINTSDSHSFKGDTKKIRENIIR

FKIPYFTNLRSALAGAKSIKAIQSKSCLDVKSLQEWLKS

>AHK56594.1 rod shape-determining protein MreC [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNKIFYVLVLAFLVFISFYYGGLIKQNVLRVNDFVIGNFYNIKDYLGEKISEHFNQANQIQQLKARNKE

LEDIAVKVTSFANQLNRILEDQNSTKYLPQVSLTRVISYVQLNDYKKLWLDWSKIPVGKNRGLIYQGYTA

GIAINKNGRAMALLQGDDQCVFSVYIGKSKAPGLIQGEDGRIVVKFIPKWAKINTGDEILTSGLDNIFFS

DIPVGIVNRVNDEDMYQSVEVKPYVKISIPAYLYVVDNL

>AHK56593.1 rod shape-determining protein Mbl [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MILDQLIGFFSSDMGIDLGTANTLVLVKDKGIVINEPSVVAVERERYGSKAKILAVGKEAKDMVGKTPGN

IEAIRPMKDGVIADFDMTEKMIRYFIEKTHRRKSFLRPRIIISVPYGLTQVERKAVRESALSAGAREVFL

IEEPMAAAIGASLPIQEPKGNLVVDIGGGTTEIGVISLGGLVISKSIRTAGDKLDMSIVNYVKEKYNLII

GERTGEEIKITIGSAIQLPKELSMVVKGRDQVSGLLSRIELTSEDVREAMREYLKEIADALKMVLEMMPP

DLASDIVENGVVLTGGGALIRGLDKYLSEIVRLPVYIADEPLLAVAKGTGKALEEISLLQQLTNEE

>AHK56592.1 ATP-dependent protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPRKCSFCNEVENPQRRILANENDDAFICEYCVEGAYSIIYGEEKEFKEPKQSHNTEFKDITPKELKAYL

DRYVIGQDRAKKVFSVGVYNHYKRLFKAELQDDDTELFKSNILLVGPTGSGKTLLAQTLAKFLDVPIAIC

DATSLTEAGYVGEDVENILTRLLQAADGDVQRAQKGIVFIDEIDKIARMSENRSITRDVSGEGVQQALLK

IIEGSLVNIPPRGGRKHPNQEFIQIDTSNILFVCGGAFDGLETILKRKLGDKVVGFFDDAKEENKALLEK

IEPDDLVHFGLIPELIGRLHVIASLNELNEEDMVRILTEPKNAIIKQYQKLFAIDGVNLKFEEDALRAIA

QLALERKTGARGLRSIIEEMMVDLMFELPEYKDYDIVITKEVVKDNAKALLIKRKIS

>AHK56591.1 UDP-N-acetylglucosamine acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIHPSAVIEEGAQLGDDVVIEAYAYVSKDAKIGNNVVIKQGARILSDTTIGDHSRVFSYAIVGDIPQD

ISYKEEQKSGVVIGKNATIREFATINSGTAKGDGFTRIGDNAFIMAYCHIAHDCLLGNNIILANNATLAG

HVELGDFTVVGGLTPIHQFVKVGEGCMIAGASALSQDIVPFCLAEGNRASIRSLNLVGIRRRFDKDEVDR

LSRAFKTLFRQGDLKENAKNLLENQESENVKKMCHFILETKRGIPVYRGKNNA

>AHK56590.1 3-hydroxyacyl-ACP dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIDVMQIQEILPHRYPFLLVDKITELKVKEVVLGYKNISISDHVFMGHFPGHPIYPGVLILEGMAQTGGV

LAFESMEDKVDPKSKVVYFTGIDGAKFRNPVRPGDRLDYEMSVVKNRGNMWIFKGQAFVDGNLVAEAELK

AMIVDK

>AHK56589.1 hypothetical protein N918\_01320 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLVHICCSVDSHYFIEELRKTYPDEKIIGYFYDPNIHPLSEYELRFLDVKRSCDKLGIKLYKGEYEYEKW

LNAVRGYEDEPEKGARCEICFDVRMGSSVKFAAKIGEKKLTTTLLTSPKKDLEQLKNALQKECEPYGVEF

LAPDFRKNGGTQRQFALAKKEMLYHQNYCGCIYGLKKQKQDKNFIDELMSSVNKQILPVSIEARIALYKK

VVLWEKKGIKFEILREKFLNYRLLSALIKLDKKPVKSHILFYSHFKNAYTRFSLDEENLKQNLKEGFYRS

TKDEIVLVEFWRFNAFFKNKWKNFEDFLKKPLSVQAEIKWRNKLFGTYNLSPIIILENILPSRYEVIAKS

EIYHDNQEVLVKI

>AHK56588.1 bacterioferritin comigratory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSLNIGDKAPQFELLNQDGVKIALKDFIGKKVILYFYPKDNTPGCTTEACDFSANYDKFGGKNAVIIGIS

PDSVASHEKFISKFDLKHILLSDSEKEVAKAYGALGLKKNYGKEYEGLIRSTFVIDETGKIAQIYSNVRV

KDHALKVLESL

>AHK56587.1 tautomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPLVNIKLAKPSLSKEQKAELIADITELLSTKYNKSKERVVVVLEDVENYDIGFGGESVEAIKAKASK

>AHK56586.1 branched-chain amino acid aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MISADKIWMDGKLVDFKDATLHFLTHSLHYGNAVFEGTRAYKTDKGLAIFRLEDHTKRLLESAKITLLNC

PFSQKELENAQIELLKANNFKSNVYIRPLIFLGDGVMGLYHIKAPVRVGIAAWEWGAYLGEEGLEKGIKV

KISSFARNSVKSCMGKAKASANYLNSQIAKFEAIEAGYEEALMLDEEGFIAEGTGECFFIVKDGVLITPP

NDFSLKSITQDTVLKIAHDLGITVLRQRISRDEVYTADEAFFTGTAAEITPINNIDARIIGNGLRGSVTK

KLQDAYFDVVYGRNEKYASMLTYI

>AHK56585.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPADLNDYFNKKNGNSNNNGNNNRQNFNFKAPEFNFKGFGKFSPFVYGVIIIILFLIVAKPFMVINSGEM

GIKSTTGKYDPNPLEPGLHFFLPFVQKITIIDTRVRQINYASIEGSNENLSSGSGVINKNSISVLDSRGL

PVSIDVTVQYRLNPLQVPQTIATWSLNWENKIIDPVVRDVVRSVVGKYTAEELPTNRNTIATQIEEGIRK

TIEAQPNEPVELRAVQLREIILPSKVKEQIERVQIAKQEAERTKYEVERANQEALKKAALAEGEANATII

SAKGKAMAVKIEADAQAYSNKEIANSLNTPLLNLKQIETQKEFNEALKVNQDAKIFLTPGGAVPNIWVDT

KDAKKQSAANMN

>AHK56584.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKLREIVLFYTTHLYLVDYMLILLVFFLFTCVLLLCVFLRHRPIAALFIIAFDIIICFLVYIYGYKLID

NEVRTRKIAITDQKMIQSSNDLIVDFNITNNSKNNFKECKITAKIFADKIPNDNIIEEYKKKFIPFRQKS

REIKDLKKNATQVQRIAFENFNYENNYTIRLVSECF

>AHK56583.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MHFTIFHIIAFIILLICFALICILIFLKVKQKEMALISYTIATIFTALLIYSIFLTINQFTTQADLSKLT

YTRDLRHESVIVSGKVQNLTKFEIKKCYLILSILNQQQVGGEIFNDKNIRNAKMQNTSVSYTIEIIDTLP

GNTYKEFRASVPFPPTFNNPEFYHTLKCI

>AHK56582.1 hypothetical protein N918\_01275 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQFTFEQIFIAMLLTLFAGFSTAIGSIIAFFSRKDDLRVLSLGLGFSAGVMIYISFMEILPTALKDFKNH

YDSHWAELLGLACFFGGILISLLIDKLIPEDVNPHEPKEDLSELKICPLPQKGQNPPKFHPGEKLHQINT

KALKRTGIFTALAIAIHNFPEGFATFISSLDNLTLGIAIAIAVAIHNIPEGLAVSLPIYHATGDKKKAFI

YSALSGFAEPLGAFVGALILLPFIGDLTLAISFAVIAGIMVFISLDELLPAAKTYDKAHDSLYGLIAGMA

IMALSLNLLGQ

>AHK56581.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQSINSGKSVGISAKLTLWVGILVVLILAITSAISYFDSRNNTYELLKDTQLKTMQDVDAFFKSYAMSKR

NGIQILANELTNRPDMSDEELINLIKVIKKVNDYDLVYVGFDNTGKNYQSDDQILDLSKGYDTKNRPWYK

AAKEAKKLIVTEPYKSAASGEVGLTYAAPFYDRNGNFRGVVGGDYDLANFSTNVLTVGKSDNTFTEVLDS

EGTILFNDEVAKILTKTELSINIANAIKANPALIDPRNQDTLFTAKDHQGVDYAIMCNSAFNPLFRICTI

TENKVYTEAVNSILMKQVIVGIIAIIIALILIRFLISRSLSPLAAIQTGLTSFFDFINYKTKNVSTIEVK

SNDEFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLD

VLQARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQT

AVQSLTTSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAI

EAARAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQ

TTKDNVEIANESAIISSTVSDIANNILEDVKKKRF

>AHK56580.1 SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLWDKKAKTYARYQNTLNTIQKQTFEYLQNLKISFQDKSIIDIGCGTGVWTLHLAKEAKEILALDSANA

MLEILQEDAKKLNLNNIKCKNLSFETWMQNNPNVKFDLAFLSMSPALQNEKDYTNFLNLAKIKIYLGWAD

YRKSDFLDPIFKYFNTEFKGFYKKDLENYLLEKNIFFHKIVFDETRKVQRTKEEAIENALWHLSMNKITA

SKETVSSFVENNITETIESKIKLLIINNL

>AHK56579.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLKNPLDMHLHLRDNQMLELIAPLSARDFCAAVIMPNLIPPLCNLEDLKAYKMRILKACKDENFTPLMT

LFFKNYDEKFLYSAKDEIFGIKLYPAGITTNSNGGVSSFDIEYLKPTLEAMSDLNIPLLVHGETNDFVMD

RESNFAKIYEKLAKHFPRLKIVMEHITTKTLCELLKDYENLYATITLHHLIITLDDVIGGKMNPHLFCKP

IAKRYEDKEALCELAFSGYEKVMFGSDSAPHPKDTKECCGCAAGVFSAPVILPVLAELFKQNSSEENLQK

FLSDNTCKIYDLKFKEDKILTLEEKEWQVPNVYEDKYNQVVPYMAGEILKFQLKH

>AHK56578.1 ArsR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFENLIREILGKKRFELLKFLCENADENGFIMIKISDLEEKLHQSKPTIIATFKFLEEKKLFKRLKNGF

YQLNIGDKNET

>AHK56577.1 DeoR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKPKYHFLNNARYALEGLFALFKNEMAFRIELCIIIPAIVFSFFLKISFLEHLLLISVLILILIVEALNS

AIEACVDLITNEWHEKAKIAKDCASAAVFFSVLLALFVWGFILYNIYL

>AHK56576.1 sulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLRLTWFQFTFFNSLMIVLLNFNLFYFVYEKNTQNWLITFVFIVAYFALVHVICSLLFIKFFTKFFSILF

IISSFLSVYFISFYGVLIDSDMMQNVVQTDIKEVKDLLNLKLILFVVLALLLVFYVVKVKIDYYGSFKSH

IKIKIINIISGLIVVCAVLIPLSKTFLPFFRNYNEIRMYNTPFYQIYAVYRYYVRFVKAKPEFKTIANDA

YRENNHTKKLLVLVVGETARAANYSLGGYTKNDTNFYTKKDNVVFFDNFSSCGTATAVSLPCMFSISKRE

NYSSSEFQENAMDVLYKTGVDAVWFDNNSGGCKGVCDRLAYKQKLSSDLDENLLAPFKEKLNHLSDQNII

VLHLQGSHGPTYYKRYPSEFKKFTPTCDTNELSKCDSEALINTYDNTLLYTDYLLSEIIKLLKEQKSYES

SLFYLSDHGESLGENGIYLHGMPYAIAPSYQTHIPAIFWSNDKNLMNLAKEYKGLKLSQDNLFSTLLGYF

DVKTSVYEPEYDLLNPKLKANP

>AHK56575.1 exodeoxyribonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLLSWNVNGLRAICDKNALDWIAQEQIDFIGFQEIKAHEDKFPKKIYEYPFKHMYFNSAKRAGYSGVMS

LCNFNSEVKKCEFFDDEEGRVLEHRFKNIALFNIYFPNGQKDEERLNFKMQFYADFLVYLDKLLKDGFEI

IICGDVNTAHKEIDLTHPKANANTSGFLPIERAWIDDLLKLGFIDTFREINGEIKEKYSWWSYRMKARER

NVGWRIDYFFISKGLKDKLKNAFIRDDIFGSDHAPVGIEIDI

>AHK56574.1 hypothetical protein N918\_01230 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNTLIIFENSLSNLGKDEASDLLEDLSFNLAYKQISHNPHETKKVLNSLLVEFLTILKKLDFFDDENVT

KVIKALVKASIVDAQNSLYEYISEAELLNKQIENQKNLIKNQISDNFFEFENILQECSFCDEFSGGLNDA

ILFDIEMLGILKETAESAFLTTLEKAEDIELTSSEIAKNLVYNAICEAHFEKERILKISSIILNTAFEIA

NESMAYAKDLCLGVIKGTRDGIVLAMEKFKASLTYANFEEDVSLKSKELIGIEDDFIALLKKEIQLQNDP

CKSIVENLLEHELDNLFAKFRRLAGESREQLILVLNDIKKNPKINDFNKLTQRKLNRFKQEIFELEKIAS

EKYKDLNSKKAKKLGVRLWEKAKKFVKK

>AHK56573.1 hypothetical protein N918\_01225 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVNLCDLKKEPQINYPTFWDYKVIFEVHVKASEIFEEILGQREYKFKHSNSSASGKYQSYLLNVYVDSKK

DRLDIFDKLKAKAKFVL

>AHK56572.1 molybdenum cofactor biosynthesis protein C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLSHLDEKNHPKMVDVSDKNITLRIATASGIIYMSQEAFDVIKNNTAKKGPVLQTAIVAAIMGVKKTSE

IIPMCHPLMLSKVETNIVEFVKECAFKLIVTVKCEGKTGVEMEALSGVSIGLLTIYDMIKAIDKSMRITD

IVLESKEGGKSGKFVRS

>AHK56571.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKTLNQKDIKVLGLSSLGGTLEFYDFIIFVFFANYISTNFFPKDLSSFWQMFNTYGIFAAGYLARPLGG

VILAHFGDKFGRKRMFMISILLMVIPTFTLAFIPNYESIGFLCIVLLVFIRICQGIAIGGELPGAWVFVY

EHAPQGQKRTYLGILTASVVGGILLGSLVFLIMNKIYTQEELHEWAWRIPFFLGGIFGIISAYLRKFLRE

TPVFEQMKKDKALEKFPLKEVFKKAKMGIVLSMMITWVLTGCIVVMILLMPSYMAKILQINTSIQTYLQI

GGILLICLGCIISGILADKIGVIKSCVFFSVFFGIASLLYFNTLYRQNADFNLVACLYLLVCFFSGVMNF

CPLIMSEVFDAKIKFSGLSFSYNIAYAIAGGLTPQLAFFLHSFALNNLSNFWRFSLGLYVFFLAIIALLC

AFIFSYLNNTQRTYSQ

>AHK56570.1 cysteine permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKSLILPPNEFLDHYILNAEFHRFAGISKNAYKFWKNAEIGRYQGTRIIFLHRNCILEKHQQALRQCSGL

NGFVLASAFCSFTGLAPSHLVEKNNSSIYKLLELKEICGIKFVNLKKFYDFLGLNYHQHIYIEKCHFFSP

APFEKRIKITESMCVGYY

>AHK56569.1 hypothetical protein N918\_01200 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIGDMNELLLKSVEVLPPLPDTVSKLRKYVSEANSNIETMKVAEIISSDPLMTAKLLQLANSPYYGFTRE

ITTINQVITLLGVGNIINIVMADSIRDNFKIDVSPYGLNTQNFLKTCNEEATFIANWLNDEDKKLSHLLV

PCAMLLRLGIVIFSNFLIQNHKDKDFLAFLNKNENLALAENEFLGVDHISFLGFLLHRWNFDDVLIESIC

FVRTPHAAREKVKKSAYALAITDHLFAPHDGSSPFNAKAAVALLKEAKTQGINFDLNNLLSKLPNKAKEN

LNKED

>AHK56568.1 50S ribosomal protein L20 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MARVKTGVVRRRRHKKVLKLARGFYSGRRKHFRKAKEQLERSLVYAYRDRRRKKRDFRRLWIVRINAACR

LNDLSYSRFINGLKKAGIELDRKILADLAMNDAAAFAKIAEAAKKAL

>AHK56567.1 50S ribosomal protein L35 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPKMKSVKSAVKRFKVGKNKIKRGSAFRSHILTKKPAKRMRGLRTAKYVHSTNVKAVEKMLGI

>AHK56566.1 hypothetical protein N918\_01175 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTINSANPYQNLTLSNPLQNSSALNLIKDSKALDQEGNENSLEQLSYIFNNTTYASEFGFRINEEGFFDK

DLNKIANIPESYDINIKSVRSIAKELAKQDENLNYNKIDLPYLLNSYHSSLKSINSEFLQDDNAYLSRDL

ISKLSSGFSTDNGEFLGQISRIYNNQEEIDLALSNITNLNTLMLDNKITNFHFDKAIENTSSNEILKPYL

TKNAEVSKSGLLMNFIYHDIKTQNEKEFNFFMKPATLELSSHQNLQKILKGETDIEDYIKKENEKKMSFD

LYLYINGVDKKTSTQDKLSVFFQQYINYQKDMDLREFANSSSIFQIYIDQNRNDFDALKKQYQNQSQDTQ

RLEEANQLRSSSIENFLDRRQKQANINKILNSYMSVMV

>AHK56565.1 bacteriohemerythrin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTYNEKIISMNNDLLDHQHKELFEISKKLSLMNQRHVGTKELKIVLRELLIMINRHFSDEEAFMREIEYP

YINHHTRIHRKIILEIEEIIISEAKFVNIMTEKLNLVVQDFIFKHTAKEDSKIVKYYEEKFKK

>AHK56564.1 cysteine desulfarase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVYLDNNATTMLDPNAYELMLPFLKDMYGNPNSLHQYGSATHPALREALDKLYAGLGANDLDDIVVTSC

ATESINWVLKGVYFDHILDKERNEVIISSVEHPAVTAAAYFLKSLGVKVIELPVNEEGVSTVEDLRKVIS

DKTALVSVMWANNETGMIFDIKAMAELAHEFGALFHTDATQAVGKIKVNLTQVGVDFASFSAHKFHGPKG

VGGLFIKKGLKLTPLLHGGEHMGGRRSGTLNVPYIVAMGEALRIANTMLDFEDSHIRRLRDKLEDQILAL

PDTTVVGKREHRVPNTILASIKGVEGEAMLWDLNKNGIAASTGSACASEALESNPIMEAIGAEHDLAHTA

LRLSLSRFNTEEEIDYAAKQIKNATQRLRAISCTYAYNPNNYK

>AHK56563.1 nitrogen-fixing protein NifU [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGKNSLIGGSIWDEYSQKVQDRMNNPQHMGEFSEEDAKARNAKLIVADFGAESCGDAVRLFWLVDEKTDK

IIDAKFKSFGCGTAIASSDTMVDLCIGKTVDEAVKITNLDVEFAMRDNPETPAVPPQKMHCSVMAYDVIK

QAAAHYKGISPEDFEDQIIVCECARVSLGTIKEVIKLNDLHSVEEITQYTKAGAFCKSCIKPGGHEKRDY

YLVDILAETRAEIDREKLKNTMKSDVAFDEMTVVGQLKAVESVLDAEIRPMLHNDGGDLEVIDIQKAEGA

AIDVYIRYLGACSGCSSGSGATLYAIETILQEELSPNIRVMPV

>AHK56562.1 mechanosensitive ion channel protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIIFSLCFFILHLGAQEFKFIDANISKEDEGIYALVEKYVDLNNQIKEFKKNNDENSSTFNGILSEFE

KDKKTILAKIPDMIVGQKINEEAVARFLKAKEKLLDVQKKNINKPYIYTDATLNLVYFNIVESFYSSLFE

VEKLFKNTASSEDLIATVDKAMENLQNSSNVNLDSFKSKITNPEELEKITLKERYISNAVDSYSEILKYL

RSNADLLESNYIFSLLELQVWIDRINEAIGVSFVNIGKIVISALVLVFFISLRRFFANIVYFFLVQLFYR

NKNDVDDIKVIFIENIKKPVGFLLIVYAISLCLTIATYPAPLSVNLSNFFHIVYAVLIAWLILRMLDGYG

VVLVSKLAQKSGKKEVVNLIIKILYFVIIIIALLYILAQLGFNISAIIASLGIGGLAVALAAKDIIANFF

ASILLLFDNSFNQGDWVEVSGIEGTVVETGLRKTTIRTFDNCLVFLPNSTIMGANIKNWSKRRMGRHVRM

YLGVGYDATPEKLEQCVKDLREFLHTSDLVAHDEDSALKYGDHTTKYRQNLVSINDLEGYKNACYVALSE

FADSSINIELYFYIKEIGGKDFREARQSLMLEFMRIIEKNGLTFAFPSRSIYIENLPPLDLQAKAIK

>AHK56561.1 carbonic anhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENLISGAIKFMQEDFKEHEELFESLKNKQNPHTLFIGCSDSRVIPNLITNTGPGELFVIRNIANIVPPY

RVGEDYLATTSAIEYALNSLHIKNIVVCGHSNCGGCNALYYSDEELNKIPNVKKWLTMLDPIKKDVMIFA

RDDLAMRSWLTEKLNLVNSLQNILTYPGVQEALDEGKIEVHAWYYIIETGEIYEYDFKAKIFTLIQDRKV

Q

>AHK56560.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSLYDRDYSRSKEFENTRSSELSIFIKQTYQLFAASLLAATVGAYVGIFALASFFIQSQVTFWILFAVEI

GLLFALQWKKREAPLNLVLLFGFTFCSGLTLTPLLISVLALPAGGIIIAQAFALTTVAFAGLSVFAMNTK

KDFTVMGKALFIVLIVIVAASLLNLFFQSSIVNLAISAVAAILFSFYILYDTQNIIRGNYETPIEGAVAL

YLDFVNLFVSLLNILRSFNSR

>AHK56559.1 preprotein translocase subunit SecG [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MITLLIILQFIIVVVICIAVLLQKSSSIGLGAYSGSNESLFGAKGPAGFLAKFTFVMGILLIANTIGLGY

LYNKASKDSLAEKIKVENNNTTIPSAPIVPTTPNTNSIAPSAPQLPSDVNSSK

>AHK56558.1 ribosome-recycling factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNEIFNKQKTQSEKSLEALKKDFTTLRTGKVNIHILDHITVDYYGTQTPLNQVATVLASDASTISITPW

EKPLLKTIESAIAAANIGVNPNNDGESVKLFFPPMTREQREENVKQAKAMGEKAKVSIRNIRKDANDAVK

KLEKDKAISEDEAKKAYDEVQKLTDTYTTKIDEGVKSKESELLKV

>AHK56557.1 orotate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLEQIYKDCGAYLEGHFLLSSGKHSQFYLQSAKVLEDPKLAAKLCDELAKIIASYKIEFDSICSPALGG

ILAGYELARACSKRFIFTERVNKEMTLRRGFEVKKGEKFIICEDIITTGGSALESAKIIESLGGIVVGFA

ALANRGFCAVENLKSPRKDNAKLPENLPLFTLGNFEFEIYDETNCPLCKKGNKAIKPGSRGN

>AHK56556.1 ribonucleotide-diphosphate reductase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQRKRIYNPSSNETLGDRKVFDGNPHGILNFTKAKYTWALKLWDLMEANTWFPKEVDTTKDALDYRCNLT

AGEKRMYDLVWSQLISMDSFQTNNLADNINPYITAPEINAVLARQAYEEANHSKSYAVMVEAICDNTDLI

YEMEKHDETLREKNDFISSIYEELAGDVDDNKLLLAMVANQILEGVYFYSGFTAIYALARAGKMLGSAQM

IRFIQRDEITHLLLFQNMINSVRKERPDLFHDENINKIYDMFKKAGDLEIKWGKYITQNQIMGFTDDIIE

EYIHYLVDQRLSAINLDKLYNAKHPIKWVDDFSKFNDQKSNFFESKVTNYSKGSISFDDF

>AHK56555.1 nicotinate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTSKTSLALLCDFYEFTMSQGYFKNNKKDQICYFDIFFRKIPDSGSFAIFAGLEDILDFVENLSFDAEDI

EFLRKQGIFDTEFLDFLANFKFKGEIYAMREGEVIFPNEPLLCIKATTIEAQLLETFLLLSLNHQSLIAT

KTNRIVRAAKDSKILEFGSRRAQGSEAALKGARAAFIGGCIGSACTLAGKIYNIPINGTMAHSWVQMFEN

ELEAFKAYVKIYPKNPVFLIDTYDCLNSGLKNAIKVFKEFGIQEGGVRIDSGNLLELSLKIRQELDQAGL

QKCKIIVSNALDEWSIKKLKEQNAPIDIFGVGERLITASSDPIFSCVYKLAALEDQGIKPKIKISENNEK

STLPHFKKLFRVYDKNTQKILFDELYVFDENPNQDENLERKELLELVYKEKRLLKKSSLNTIQDYTKEQI

SKLDESFLDLDRFVKFEVKLSPKLQNITEDLLKTRF

>AHK56554.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLIKFKNHSPKLGQNVFVAEGAKIIGEIEIGDESSIWFNCVLRADVNFIKIGKRTNIQDLSTVHVWHREF

DEKGKLKDAGFPTIIGDDVTIGHNCVIHACVIKNRVLIGMNAVIMDNALIEEDSIVGAGSVVTKGKKFPP

RSLILGNPAKFVRELNDEEVSFLKQSALNYVDFKNEFLKDLQ

>AHK56553.1 protein-L-isoaspartate O-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNAFEQKRCQNMAEEIAQKVFINEELFNAFCQIPREIFSPLKAHAYRLDALPLANSQWISSPLTVAKMTM

ALDFKNADSILEIGCGSGYQAAILSKVIRRVFTIERIENLAKKAAQTFRELELFNINVKFDDGQNGWKNY

APYDRILFSAYATQIPEILLDQLSDDGILVAPILHNGKQFITRLRKNGTNLQKEILEECLFVPIVDGKE

>AHK56552.1 acetylornithine aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDYKEQSHIIPTYKRFDIVLEKGQGVYLFDDKAKKYLDFSSGIGVCALGYNHAKFNAKIKAQVDKLLHTS

NLYYNENIAAAAKNLAKASALERVFFTNSGTESIEGAMKTARKYAFNKGVKGGQFIAFKHSFHGRTLGAL

SLTANEKYQKPFKPLISGVKFAKYNDISSVEKLVNEKTCAIILESVQGEGGINPANKDFYKALRKLCDEK

DILLIADEIQCGMGRSGKFFAYEHAQILPDIMTSAKALGCGLSVGAFVINQKVASNSLEAGDHGSTYGGN

PLVCAGVNAVFEIFKEEKILENVNKLTPYLEQSLDELINEFDFCKKRKGLGFMQGLSLDKSVKVAKVIQK

CQENALLLISCGENDLRFLPPLILQKEHIDEMSEKLRKALKSF

>AHK56551.1 acetylglutamate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKYLEKANVLIEALPYIRKFNSKIILIKYGGSAMENEELKHCVMQDIALLKLVGLKPIIVHGGGKDISA

MCEKLGVKSEFKNGLRVSDKATIEVASMVLNHINKNLVHSLQNLGVKAIGLCGKDGALLECVKKDENLAF

VGTIQKVNSKILEELLEKDFLPIIAPIGMDENFNTYNINADDAACAIAKALRAEKLAFLTDTAGLYEDFN

DKNSLISKISLEQAKILAPKIEGGMHVKLKSCIDACENGVKKVHILDGRVKHSLLLEFFTDEGIGTLVG

>AHK56550.1 N-acetyltransferase GCN5 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLIRAMQKSDYEAVYKLWCEIKGFGIRSIDDSKENIENFLDRNPNLSVVAVIDEEIVGSILCGHDGRTGG

FYHVCVHKDHRKKGIAHEMAKFCLEALKAQKINKIALIAFKNNDLGNEFWKHYGFTLREDANYYDLSLNE

YNQTSFNA

>AHK56549.1 N-acetyl-gamma-glutamyl-phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIKVGILGASGYAGNELVRILLNHPKVEISYLGSSSSVGQNYQDLYPNTPLNLCFENKNLDELELDLLF

LATPHKFSAKLLNENLLKKMKIIDLSADFRLKNPKDYELWYKFTHPNQELLQNAVYGLCELYKEEIKKAS

LVANPGCYTTCSILSLYPLFKEKIIDFSSVIIDAKSGVSGAGRSAKVENLFCEVNENIKAYNLALHRHTP

EIEEHLSYAAKEKITLQFTPHLVPMQRGILISAYANLKEDLQEQDIRDIYTKYYQNNKFIRLLPPQSLPQ

TRWVKSSNFADINFSVDQRTKRVIVLGAIDNLIKGAAGQAVQNMNLMFDFDEDEGLKFFANL

>AHK56548.1 DNA modification methylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKENPSFLKEQIITYLGNKRALLSFLNNGFKVAKKELGKDKFSFCDIFSGSGVVSRFAKAHSNYILANDL

EDYSKLINECYLANKDKDLLQNIKKYYKNLIQNLDFQKGFISELYAPKDDDDIKKNERVFYTFKNALYLD

TIRQKIENEIPKELRHFFIAPLIYEASVHSNTSGVFKGFYKGKDGIGKFGGEGQNALKRIKGEIELKMPI

FSNFSCEFEVMQKDANMLAKELDFFDVVYLDPPYNQHPYSSNYFMLNLIANYKKPEEISKISGIPKDWNR

STFNKSKFAQDALFELINDLKARVILLSYNCEGFVKKEIFLKRLSTLGKCRILEQKYNTFRASRNLKNRN

IHLHEQLYILVKN

>AHK56547.1 translation initiation factor IF-3 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKEKEVLLNEEIRADEIRCVGDDGKVYGIISSDEALEIANRLGLDLVMIAADAKPPVCKIMDYGKFRYQ

QEKKQKEAKKKQKVIDIKEIKLSVKIAQNDINYKVKHALEFLEQGKHVRFRVFLKGREMATPEAGVALLE

KIWTMIENEANRDKEPNFEGRYVNMLVTPKKA

>AHK56546.1 threonyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKEVIAYLDNETIIDSQSVKNTNLKEIYFDNSKESLEVIRHSCAHLMAQAIKSLYPEAKFFVGPVIEDG

FYYDFRVESKIGEEDLVKIEKKMKELAEAKIEISKYEITKSEALAKFQNDDLKQEVLLRIPDRAVSIYKQ

GEFEDLCRGPHVPNTKFLRFFKLTRVAGAYLGGDEKREMLTRIYGTAFADKESLKEYLTIIEEAKKRDHR

KLGTELKLFTFDDEIGGGLPIWLSNGARLRSKLEHMLYKIHRLRGYEPVRGPELLKADAWKISGHYANYK

ENMYFTQIDEQEYGIKPMNCVGHIKIYQSDVRSYRDLPLKFFEYGVVHRHEKSGVLHGLFRVREFTQDDA

HIFCMPSQIKEQVLEILAFVDNLMKLFDFSYEMEISTKPEKAIGDDEIWEIATKALKEALDEQGLKYGID

EGGGAFYGPKIDIKITDALKRKWQCGTIQVDFNLPSRFKLEYTDSDNEKKQPVMLHRAILGSFERFIGIL

TEHCAGEFPFFIAPTAVGIVPIGEAHIAYAKEIQKELLELNIDSEVYEKNESLSKKIRIAEKQKLPMILV

LGDDEVAKRSVALRDRRAKEQKNLSLDEFIKLVKEKMSEVHF

>AHK56545.1 UDP pyrophosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENLYALILGIIEGLTEFLPISSTGHMILGTTILGIDIDEFWKSFLIIIQLGSILAVIFVFWRKLFQGLD

IWLKLAVGFFPTGVIGLFVAKYLNALFNGWVVVGMLIFGGVVFILIELAHKNKQYRINSLEEISFKQAFC

IGIFQSLAMIPGTSRSGASIIGGLLLEFNRKVAAEFSFLLAIPTMIIATAYSIYKEPELLGNANSLIPLG

IGFITAFIVAVLVIKFFLKFISKFDFIPFGIYRIILGFVFFYLYYSGILNAGSEFKL

>AHK56544.1 peptide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYKKQNLPELTLRGLILGSILTIIFTASNVYLGLKVGLTFSSSIPAVVISMAVLSLFKTSNILENNMVQT

QASAAGTLSSVIFVIPGLFMCGYWSEFPLWQTFMICLCGGGLGVLFTIPLRRTMVVESKLAYPEGRAAAE

ILKVANKDQSSKKGKQGIKEIALGSFIAAIFSLLSNGFKLAASESNFAFIWNKMAFGFSMGYSLALLGAG

YLVGLAGAIALFVGMFLAWGIFTPYLSNFEFDSTKNAVDLASSVWSSKVRLIGTGAIAIAALWTLIELLK

PVIEGIKEIVKNVKITNQEKNERTNIDLSLKSIFILFVLMVVGLFITFYSFVEDANLSIYYQMLFSFVGT

LVSVLIGFFVAAACGYMAGLVGSSSSPISGIGLIGVIISSIVFLVLGVELFQDPMLSKFAVALAIFTTSV

ILATAAISNDNLQDLKTGHLVGATPWKQQVALLVGCVFGALAIVPVLNLLYQAYGFVGAMPREGMDASSA

LAAPQANLMSTIAQGIFHHNIEWGYMAFGVFVGILMIIIDKILKGTQKMSLPPLAVGIGIYLPPAVNIPL

VIGGILKYIVMQHLTKKYAKNSHKEEKLASCEQRGTLFASGLIVGESIFGVIIAGITVFSVSMGGSENPL

ALNLANFHDSELFALIFFVGVVLYFIKRIVKKDA

>AHK56543.1 hypothetical protein N918\_00995 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKSILFASALLASSMLFADSLKLEGTIAQIYDNNKTLLIDSIYGGQMAIKVLPNTEIEMDDCGIFGTDK

DGTFKDLQVGNFLESKISYGTPATPNTQAIPVARKIEIQCYKKAY

>AHK56542.1 hypothetical protein N918\_00990 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKWIFIVFCFILGFIIHIFYIGYTNELLFNKFIKNSNPDYTITDIYFKKGFLTSKGSFTLNHSHTQLST

KINLKFNNYFFLNKIIKGNFTNPFDFLDEVLKNNKLGTFTLKLHDNNSKIFLNIKDINLSNEGGDTIING

GYIEVLMNKNLEIKNMKIHFDMINFSQFYTKFVLQNLNYEQFFNNPVQFYELNLFSDSQQEINFDYLVLD

NNKINSFYSKNQVNFNEENSAVNLNIQGKSNEIDLKSLLGQNLNFDKTKFNITINKFFNSNFNISHFIQK

NLDLKIQNLILEKNKQNISLQGNLNINNSYQAKLQVISSDEPDEIFPWTKDYGGLNQYFLKENNNFFLNL

SYDSLANPQLKINGSEFSNMDLN

>AHK56541.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSLALTFRPENFDDILGQYELIEIFKKFTALQKLPHSIFFGTAGSGKTTFARVVAKEFGLDFYEFDGGNF

KLEELRKILDNYKNSLYKPLIFIDEIHRLSKTQQEMLLIPMENYRLILIGASTENPYFVLSSGIRSRSML

FEFKSLGAKELETLLLRVQEKMKFSIDKEAKDFLLKSADARAMLNLLEFVLVLDEKHISLENLKKLRNTI

NSEGVSSKDTHYILASAMIKSLRGSDVDAAIYYLARLIDAGESADFIARRLVIFSSEDVGNADPNALNLA

VSTLDAVKNIGYPEARIILAQCVVYLASTIKSNASYKAINEALNYVKNNEALEIPNYLNNNHQEKQNYLY

PHDFGGWVEQKYLGKNLKFYHSKGLGEEAKLLDNLYKLKNHKA

>AHK56540.1 dihydrodipicolinate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIKIGIYGAKGRMGKQIEECLKSETQARISILYDKGGNLGELFEKSDVIIDFSSPSGTHELLNYARTMPK

PLVIGTTGLDEKILHLMQSASEVMPIFYATNMSLGVAVLNYLASKASQMLRNFDIEILEMHHRHKKDAPS

GTAMTLAQSVAKARNLELEKVRVSGRDGIIGERSKDEIAVMSLRGGDIVGRHTVGFYEDGEFLELNHTAT

SRATFAKGAIKIAIWLSKQEAKMYSINDFLGI

>AHK56539.1 amidophosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MCAVVGVINSKNASTYAYYALFAMQHRGQEASGISVSNGKNIKTIKAKGEVSQIFNPDNLKTLEGEIAIG

HNRYSTAGNSSLNDAQPIAATSVLGDIALAHNGNLVNKEEVRSRLIQDGAIFQTNMDTENVVHLIARSKQ

ESLKDRFIESLKECIGAYCFVLASKDKLYVVRDPHGVRPLSLGRLKDGGYIVASETCAFDLIEAEFIRDV

KPGEMLIFTQGNDKFESIELFSQTPRICAFEYIYFARPDSIVEGKSVYEVRKKMGEALAKKFAYKADFVV

PVPDSGVSAAIGFAQYLQIPLEMAIVRNHYVGRTFIEPTQELRNLKVKLKLNPMRKVLEGKEIVVIDDSL

VRGTTSKKIISLLRAAGASKIHLAIACPEIKFPDTYGIDTPTFEELISANKNAEEVREYVEADTLSFLSI

EELTQSIGDERKYSLISFDGDYFIK

>AHK56538.1 ATP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLEKLRSKLGKENLSAIFGEITKISATSIEIRGLKTGVGDIVKLVSNENENLNTLAMVVEIKEQFSYLS

PFSFIEGFKIGDRAFISDAGMQIGVSDELLGRVVDPFMRPKDGKGAIEATKYMPIMRAPIDAMKRGLIEE

VFPVGVKTIDALLTCGVGQKLGIFAGSGVGKSTLMGMIVKNSKAPIKVVALIGERGREIPEFIQKNLGGK

LDDTVIIVATSDDSALMRKYGAFCAMSVAEYFKEQGKDVLFIMDSVTRFAMAQREIGLALGEPPTTKGYP

PSVLSLLPQLMERTGKEEGKGTITAFFTVLVDGDDMSDPIADQSRSILDGHIVLSRELTDFGIYPPINIQ

NSASRVMSDIISPEHKLWARKFKRLNSLLKENEVLLRIGAYQKGSDKELDEAISKKEFMQKFLGQNPEES

FEFNQTLELLSQIDTPNTPLPPTQNINVGSASATLPNPNLK

>AHK56537.1 GTP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKKFEDCVKTMLEIIGENPNREGLIKTPNRVFKAYEFLTSGYTQNVKEILNDALFESSNNEMVLVRDIE

FYSLCEHHLLPFFGRAHVAYIPNKKVVGLSKIPRLVEVFARRLQIQEQLTEQIAQALMENVDAKGVGVVI

EARHMCVEMRGVQKANSTTTTSALRGIFLKNEKTREEFFSLINSAKQVRF

>AHK56536.1 trigger factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEVKAKQLDSVNATASVKIPSGMIKSEVENLAKKASKSVKMDGFRPGKVPVSAVLKRYERELTQDAEQNL

FKSAVNSALQELKKENKELVGEPYFEKFDRKDGEIIAELILSFKPEIKLEGYEKLIPEYQTPKVSKKEID

EKKDELLKRFATPEAIKTKRALKEGDFAKFDFEGFVDDKAFEGGKAENYVLEIGSKQFIPGFEDGMVGMK

IGEEKDIKVTFPKEYGAAHLAGKDAVFKVKLHEIQELKIPELDDEMLKKLLPGEEKASVEVLDEKLKEQI

KNEKLFKLVNDELKGKFADALIEKYNFDLPKGIVEQETDMQMRAAFNTFSEKEIEELKASKEKYQEKRDS

FKEEAQKSVKLTFIIDELAKLRKIEVNDQELIQAIYFEAYRYGMNPKEHLENYKKQGALPAVKMALIEEK

LFNDIFIPKTEKSEKVSKKEKEDK

>AHK56535.1 ATP-dependent Clp protease proteolytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFIPYVIEKSSRGERSYDIYSRLLKDRIIMLSGEIHDELAASIVAQLLFLEAEDPTKDIYLYINSPGGVI

TSGFSIYDTMNYIKPDVCTICIGQAASMGAFLLSCGAEGKRFALPNSRIMIHQPLGGARGQATDIEIQAK

EILRLKTILNDILAKNTKQKVAKIAKDTERDFFMSAQEAKEYGLIDKVLEKSFK

>AHK56534.1 peptide deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVRKIITYPNPRLFLNSEIVNKFDTELHTLLDDMYETMIASNGVGLAAIQVDIPLRVLLVNIFDENDEQK

KEDLLEIINPEIIPLDEEMITCTEGCLSVPDFFEEVKRYNHILLKYQDRFGEFKELEAKGFLAVAIQHEN

DHLNGHLFIEKISFAKRQKFDKEFKKKKKNHKKEK

>AHK56533.1 Fis family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKLKCISFHEGLDIIEVESTFTRGLPNLSIVGLASTAIKESVERIKATLLSCDFAFPAKKITINLSPSG

IPKKGSHFDLAIALLILLQNEELDDFFVVGELGLDGSIKSTNELFSLLLFLSAKIKKAKIVVPKSIAQKA

SMIPNLEVYGLENLNEAIEFFKEKNYENFRFSHNHPLFANPLQIENEIFLQNMDFKLDFKDIKGQEKAKR

ACMIAALGMHNILFEGSPGSGKSMCAKRLVYIMPPQSLSEILMQNAYMSLDSKDCEFTKIRAFRHPHHTS

TRASIFGGGTKNARIGEVALANGGVLFFDEFPHFNKQIIESLREPLEDHKIHISRVNSKITYETKFSFIA

AQNPCPCGNLFSKNLSCVCSENEIKKYKNHISAPIMDRIDLYVAMDEISKDDKTSISSKEMSEKILQAFI

FSKKRGQKEFNGKLKDEDLSRFCVLEKDAKDTLDLAISRYNLSLRSLNKILKVSRSIADLEQSLNISKTH

ILEALSFRARN

>AHK56532.1 hypothetical protein N918\_00940 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENKSIAIFIDAENIPAKYAKSIFDIASDYGEVIIKRIYGDWTQKNIQGWREQIAEYSLIAMQQFNFAAN

KNSSDMYLITEIMSIFYEKNIDIFVIVSSDSDYTSLIQKLRENKKQVIGMGLEKSIKSYVNAFSEFFYLD

KDESKKEDILSKDYLRALINITEQLIDEKGRAEYAQIRTNMNRKYSDFHPQNYGFKNFRALIQKFLPKMK

KFEEEREKNIYFLVKKDYESYY

>AHK56531.1 kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKAIIDNIKILEQNAINKGLDELILMENAGLNLAKLIKKEAKKIRIQRKIRKVKILFLLGGGNNASDGLV

ALRNLKHAKAYKIGFKENTLFKKQEQILQNYAFKFCKKEPNFKKFHIIIDCILGTGSNRCLDEKTSLIIQ

KVNQSKALKIACDIPTNLGFYPCFKADITFCMGALKEILLEDFAKEFVGRIKIANLGIRSKKFYPNSQAF

LLEKKDLKTIDRKINANKGNFGHIYIVANASAGTLAGLGALNFGAGLVSLVAQKSFSPLLMLKEKIENNA

SAIALGMGLENLDFLKDEILQNTPLILDANCFLSEALLWYLNRKDVVITPHPKEFIKLYKMCFDENLDIE

TLQKNRFFYARKFSQNYDCVLVLKGANPIIVQKEKLFVVNLGNQALAKGGSGDVLSGMIAAHLGFGFSAL

EAAKNATLAHGLVAKKYKFNKNSFDALKLIKGLKCL

>AHK56530.1 phosphoribosylglycinamide formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLVKLAVLFSGNGSNLENILEKLHKKTIGENTYEIVLCLCNKKDAFGIQRAKKFGLNTVIIDHKAYNTRE

EFDTILVQKIKESGANLTVLAGFMRILSPVFTKNIKAINLHPSLLPLFKGAHAIKESYESDMKVAGVSVH

WVSEELDGGMIIAQKAFEKRNLSFEEFEEKIHSLEHEILPLSVIEIFS

>AHK56529.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFEWIFSIDAWITLATLSALEIVLGIDNIIFLAILVSKLPPEHRDKGRILGLAFAMITRILLLLSLFWVM

KLVTPLFSVLGNEISGRDLVLLLGGLFLIVKSIKEIKEQISHQEESQSHFKASNKLWIVVAEIAVIDIVF

SLDSVITAVGIAQDVTIMIIAVIIAVAVMLFASKPIADFVEKYPSIKILALAFLVLIGVVLVAESFDIHI

DKAYIYTAMAFALVVQILNILDQKKEKNG

>AHK56528.1 serine/threonine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRILLVLRGNYYAGQEEFIKNNKLQNYTLDLNALRLLSGSVKNIVSEYKILNVKNDEDLSKILLKLLEMR

MQKGEFSIINAYNETLKIYKDLAKQYRYKIYVIVFDSSLKQCQEKNLLEAKKNGYIIPYALLEKTQDLLK

KNPKKYPILDSRDWKKCLYQMPNLSKYKKIHHIGDLQGCYSVLKEYIKTIKEDEFYIFLGDYINRGIENG

KVIKFLLKICEKENVCLLEGNHERHLIKWANGELSNSKEFNENTLKDFRKEKLTPRDARKLYPHLKECLY

YKFQNKFIFCSHGGVNFIPSKPEKISFIPSHDFIYGVGGYEDSQKVANQFCNFTSDNLYQIFGHRNKEKL

PMKIAKRVFLCEGKIDDGGYLRVVTLDEKGFECIEIKNQIYKKK

>AHK56527.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFSSFFKSKKWALWAYLGLFLLLFFLYIQTSLNVAINSWYSDFYNVLQKPKIELLDSNSTQKIEENLENN

ATLIQEANQRAEQNFQKANFINKGALYYYQNLLEYFFNSRAMIEKPNYSASDFYALILVFLAIAIPYVLI

ATINIYFASVYAFKWREAMTFSYLKFWKNKDDNIEGSSQRIQEDTYNFSKIVESLGLSFIKALMTLVAFI

PILWSLSDVVSKALFANLSENSFFYFLKNIDGLLVYIALLISLGGLVVSWFVGIKLPGLEYNNQKAEAAF

RKELVYAEDNRKEYAKNETMIELFTGLKFNYKRLFLHYGYFNIWLILFEQMIVIVPFLIMAPGLFAGAIG

LGIVMQINNAFDQVRSSFSIFITNWTTITQLRSIYKRLKEFEKNISYKS

>AHK56526.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKKCFYFVFLLLNLNAEANATDTNLSFDSSKIETEAPKIELSLSSLYQNADEVVKGVIYILVLFSILAW

AVFISKLMQFYFMKKNLDLSIQKIKELKNLNELDQTKDFAGVLSLEIQDELEKSEYKNDHIKERIELRLQ

NTISKQITASKNGLSLLASIGASAPFIGLFGTVWGIMNAFIGIANLGNASLAVVAPGIAEALFATAFGLI

AAIPAVLFYNYLTRKNLKLMHHLDELANFVYILFHRSYFNDKN

>AHK56525.1 hypothetical protein N918\_00875 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSMKKIILFLLCVGFAFACSEHSHTDFKDLNKTEYNSQLKDKI

>AHK56524.1 iron deficiency-induced protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIFFMFLTAVSFLGASELNIYSARHYNADFEIIKKFEEKTGIKVNHTQAKASELIKRLSLEGSNSPAD

IFITADISNLTEAKNLGLLSPVSSKYLEEFIPAHLRDKDKEWFAITKRARIIAYNKNTNIDISKMKNYED

LAKAEFKGEIVMRSATAPYSKTLLASIIANDGNKEAKAWAKGVLENLATNPKGGDRDQARQVFAGEAKFA

VMNTYYIGLLKNSKNPKDVEVGNSLGIIFPNQDNRGTHINISGIAMTKSSKNQDAAKKFMEFMLSPEIQK

ILTDSNYEFPIRNDVELSQTVKDFGTFKEDQIPVSKIAENIKEAVKIYDEVGFR

>AHK56523.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYKTLKYYKLGAILLALFLALPIFGIFAELFYILFQNFNTSDLTQFSSIKENLSHFFDYLFLKFIKDTFI

ISMGVLCLSLILGVSSAYLIANYDFYFCKILEKLLILPLAIPAYILAFVYVGIMDFQGFFHENFGFRIDF

FNHYGVIFVLAISLYPYIYLFAKTAFKSEAKEAYEVAKIMKYSEFRIFTRVALLSARPAIFSGALLVLME

TLSDYGASAYLGVDTFSAGIFKLWYDLNDSYSSSVLSGILMLFVFLIMYVDYYYKNKHHYSFNQNLALFI

KKRKLNPIKQILSCIYCFMIAFVGFILPFIWLVYWGLKDHKLFESQFYIISFQTIILALITALITTFLAY

FLMFSSRIVKNHFFNLFILKISSLGYSIPAAALGISIIVLFVFLDKFFHMSLLGNSLLVLVFAYIIRFLA

SAIYSLEGGYNKIHLNIDEASLNLRTSYFILFFKIHTPLMKHFLFLAFIIVFIDTIKELPLSRILAPFGF

ETLSVKAFWFASDERIYDAALPSLFIVFLSLMVVVWMDKITRKDDVRN

>AHK56522.1 spermidine/putrescine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLEIKNLSKNFGKIQALENINLHVKEGEFLSILGGSGSGKSTLLRIIAKLEQASSYDLFSCKGEVALMFQ

NYALFPHLNVEKNILFALYDKKDKNQILNHLLKTFEIEDLRYKKIDEISGGQAQRVAFARAMARGCKLLL

LDEPFSNLDQNLKQDLRRELKKMIENQGITAIMVTHDIEDAYCMSDQIAFLEKGKILAHANPKELYFKPD

FKSAQILPDLNIIEEKLDLEDEFFAWIASKNYIFGYAELKIGNRFEAKILQKEFLGAFCRLKLLYKNIIF

FILVSSSYDLEEKISFDIINF

>AHK56521.1 saccharopine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNLLIIGAGGVSRVATVKCAMNSDTFSKITLASRTKSKCDEIAAFIKERLGVQIETAQIDADDSNAVVE

LIKKTEAQILLNVALPYQDLSLMDACIKAGIDYIDTANYEHPDLAKFEYKEQWARNDEFKQAGILGLLGS

GFDPGVTNVFCAYAQQNLFDEISYIDILDCNAGDHGYAFATNFNPEINLREVSAKGRYWENGKWIETQPM

EIKMEWDYPEVGVKDSYLLYHEELESLVKNIKGLKRIRFFMTFGQSYLTHMKCLENVGMLGIKPVIHQGK

EIIPIEFLKTLLPDPASLGPRTKGYTNIGCVIRGKKDGKDKQVYIYNVCNHEECYKETGAQAVSYTTGVP

AMIGTKLIAKGIWQGKGVFNMEEFDAKPFMEELNSQGLPWKIIEMTPSLGE

>AHK56520.1 superoxide dismutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFELRKLPYDTNAFGDFLSAETFSYHHGKHHNTYVTNLNNLIKDTEFAGKDLVSIIKTSNGGVFNNAAQV

YNHDFYFDCIKPSTGCGCGGSCQSIDANLQAALEKEFGSLENFKAEFIKGATGVFGSGWFWLVYNTKNQK

LEFVGTSNAATPITEDKVPLLVVDVWEHAYYVDHRNARPAYLEKFYAHINWEFVAKAYEWALKEGMGSVS

FYANELHPVK

>AHK56519.1 hypothetical protein N918\_00835 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKVVLISALLGAFAANVFAANTPSDVNQTHTKAKADKKHEAKTHKKTKEQTPAQ

>AHK56518.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDFYSLIFLSCALGMDAFAVSLCKGFSVKKLHLKHYLIVGIYFGGFQALMPTIGYFIGITFASFIASIDH

WIAFILLSLIGLKMIKESLENENCDSNANQFGFKTMLALAIATSIDALAVGVSFAFLNVNLLLAIFLIGI

ITFILCIIALKIGNKFGIYLKNKAELLGGLVLIILGVKILIEHLFFD

>AHK56517.1 tRNA delta(2)-isopentenylpyrophosphate transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFFEIALIGTTASGKTYIANTLAREFNAVVLSLDSLCVYKEINIASAKPSQDDLASIKYFGVNLLSVNEH

FNVELFIREYQKAKEFALARNLPLIIVGGTGFYLKTMIDGLSEKTLESKSSLNNDEIYALLLNIDPNYKI

EKNDTYRLKKWLGIYEQTREIPSEFLKRTQKTGVLKDIEIYELAWDKEILKKRIKTRTKEMLDNGLLDEA

KILFSKFDHKLKALNSIGLKECKEYLDGEISFKELENLITIHTTQLAKRQRTFNKKFQSKALEFDKALAT

LRMKFSIEK

>AHK56516.1 prenyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNTFWIKFKDILELVVFKHSIFALPFLFSSMIVASKLANDTAWFGFKALILGIICAVSARNFAMATNRLM

DEDIDKDNPRCANRPNVSGKIGRKSVWIFIIINALIFISCSYFINTLAFYLSFPVLLVLAIYSAFKRFSS

LAHLVLGFCLGLAPIAGSVIIMGEIHIYSVILCLGVTFWTAGFDLLYSLQDMEYDKKIGLHSIPAKFGSK

ATLFISSFCHILAVLFWLLFVWEVWGVALGKIALIGVIISGIILALEHKIVHKNFAHIDRAFFTLNGYLS

IIFFIFIWIDLLWN

>AHK56515.1 hypothetical protein N918\_00810 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MELALFKAGFEAHLECCEIENNRFLGEYLKLGAISQILKWKKLALRIDFDEGEKIIFDLLLSLKEDILRL

ENSLDKNKELIPLKQKGVIESLNFEYLNFLDTILEEDKEYYLRFDLNNQKIAIFIKAQSQTLAKIIKIKP

EDKMAFDAFVVEIQRNMIRNKKGQE

>AHK56514.1 hypothetical protein N918\_00805 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSDDVLYLVFIIVLLIAMLAYMNIKERENNAKIAKLQNVIEDITKELHYFRKELGVKDDSEEDEDYKTSL

LKEEIMIELDKQISSKITPVLRTLKTMEHIIEDFQNEQQNRLLNLEQKAQSMAKLTPNYDTEEQKIENLF

KEGKSIEQIAKDLRIGTGNVELVLKFKKLIK

>AHK56513.1 molybdenum cofactor biosynthesis protein MoeA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLIDQFGRKINYLRISVTQRCNFRCLYCMPKIPFDYQPKENLLSFEELFLFVKAAIDEGIEKIRITGGEP

LLRKDLSIFIKMISDYKSDIDLAITTNGFLLKDFAKDLKNAGLKRLNISLDTLDHKKAKTLAQKDVLDSV

LSGIDEALNLDLKVKLNTVALKNLNDDELISLLEFAKSKKAQIRFIEFMENTHAYGKLQGLKRDEIIQIL

SQKYQIQLIKKDEKAPVSIYKADDYEFGIIDPHSHEFCDSCNRIRLSAEGLLIPCLYFDEALSIKEAVRK

GDIKAAVEILQEVLRNKPEKNKWSVVDNETSSRAFYQTGG

>AHK56512.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQLVESFLSIQGEGKYNGKLAIFMRFAGCNFNCLGFNVKISKNDKTLIGCDTIRAVFTKDFKESYETLNA

NELLKRVIKLKKDFDPIVVITGGEPLIHYENPEFIEFIQMLLKNKFEIHFESNGSIEIDFDRYPFYKECI

FALSVKLQNSGIKKDKRLNFKALKAFKNYAKDSFYKFVLDANTLDNSFLEINEILKEAPNQIFCMPMGEN

EQNLKKNAQKIAEFCIKNGYNYSDRIHIRLWNDKEGV

>AHK56511.1 6-carboxy-5,6,7,8-tetrahydropterin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIIRKLFEFENAHIVRFCSSKRCKSSIHGHSYKVEVLLESKYLDNAGMVYDFGLLKTYIRQIIDSFDHAI

TLFKYDDAKYLEEMKKYSSRWICLPVNVSAENFCRVFFILIDALLKQTKMVNGEQGVTLQSIIVHETRTG

YAQGFREDAYSELMPKISLQDIEFSNGIKAEWNDIDFYNKLKNEEIFINPKEI

>AHK56510.1 cytochrome CBB3 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKAKILIALSFFLLVLSACSNDEKNISKTQNTDQEVVQIEQNDEKTELSDSNLPLPVDDEAQSSNDEHE

VNPSIINSLYKQKCATCHGEKGELKPKNSTAIKTLSNKIFIQKIKTIKDKNHSFLSDEQIQNLADFINKG

K

>AHK56509.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDQSYEFFLALHLYSLYASGFLMLFYLILTQGNFKTEFIFIRRIRLFLPIYYLFLALIIFTGCLLSAMKQ

FQMNVNIWVMIFSWILIFALAIFHFVCFKKARRFRKYATFRWISCLILPFEIFLLFLPFLIERYL

>AHK56508.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQFLYNKQAGEEFIQLQGENFNHLKVRRVKENSELNLRNLQDNFLYNYTITNLTRNSCTLKFLNKKSQNI

KQSELNLALAIIDIKILEKTLPFLNELGVKKLHLVFTNFSQRNFKIDLERFEKIIISSCEQCGRNTKMDL

IIHQSTQEFVQKFPNAIMVDFQGEQQSHFDEKELYFIGPEGGFNNDERLLFNRKISLKSSNILKSQTAII

AIASKILL

>AHK56507.1 50S ribosomal protein L31 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKEIHPEYVECKVSCACGNTFTTKSNKAELRVDICSNCHPFFTGSEKIVDAAGRVEKFKKKYAMQ

>AHK56506.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLYFIPTPIGNLSDISFRALELLKTCDLVFCEDTRVSKSLISLLNTKFHTDIHISKFIALHSHNEKEVLA

SIDLKIFEKNVAYLSDAGMPGISDPGKALVEFAQENNITYEILPGANAALVALVSSAFCQKEFIFIGFLA

NKGKERQKDIEKILNFPYPSIIYESPKRILSLVEQIMILDNQREIFLIKEISKKFEKKFKGNAKELSEIL

KKSNLNGEWVVVLQSKEQNFLQNTLCEKDIMDLELSLKAKAKLLSKINGKNAKEIYQKLLLSQD

>AHK56505.1 RNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIVYGKQIFFYILEYHKDCINELYLAKECDKITFSKIAKSGFKIKKLDFKTAQAYAKGGNHQGFLLDIKE

SSFANLNEIKKNDFIVMLYGISDVGNIGAITRTAYALGVGALIFIGEKLAMEGVIRTSSGAALDLPIVIS

NDALSVINELKQVGFYFYASDGSGKEIHSVKISNGKKVLVLGSEGFGLSSKIVKKCDECVGIAMKNNFDS

LNVSAAFAILCDRMLNA

>AHK56504.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLNWKKIQELNLKEVAAKTQIELDFLEALVEKNFAVLSRFNVKGFVKILSREYELDFSDFNEEYEAYLNE

NNPTPQTKSKMITPKLDAYSQKSFNTWPFLIVLIVLVIIGSGIYYFDTLKTFFKDEQNNTSATVIDIIGQ

AQENLKSLGGNNVVVIDNNKAQETNRTESVLPSQNISLQENDKNISIENNISENNTTLLDEEKNTQIQED

TNTPKTDSLKEAHFKTSTKIWIGLIDLKSLKKTSFVKEKDFNISLDKDQLILTGAAALTMFDQENKEQKF

PAGISKRFLIKDGKITSISAAEFVKLNKGKEW

>AHK56503.1 hypothetical protein N918\_00750 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVKKIIILTFWVNISFAISSLELAKNLVNNPSKNSQLELLFSNNSYIDNNGNCDIAKISQILKTNSLIAL

TLSNPQSLRLNFKAKADEVMFFKILSDVLTDAGYIYFIPTDLILREGNIDYTIQVESQYVLDPGTLYNLL

KENSVYINNIKRIGVYDYEYDLNFSNAVLKTNTNVNLNTPKSLEKPLKDYVLDLKNATNLIIDANDLDNW

FPKIFFLDKNLNLIKAVKSENKNNHFSELIPNGAIYAIVSDMYSLDNIRRGLKITLKK

>AHK56502.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFDEIRFNTIERLPNYVFAEVNAIKMAARRAGEDIIDFSMGNPNGKTPQHIIDKLCESANKDKTSGYSTS

MGIYKLRLAICNWYKRKYNVNLDPENEVVATMGSKEGFVNLARAIINPGDVAIVPTPAYPIHTQAFIIAG

GNVAKMPLAYNEKFELDENQFFENLHKTLNESIPCPKYVVVNFPHNPTTVTCEKSFYERLIATAKKERFY

IISDIAYADLTYDDYKTPSILEIEGAKDVAVETYTLSKSYNMAGWRVGFVVGNKRLVSALKKIKSWFDYG

MYTPIQVAATIALDGDQTCVDEIRATYDKRMHILLEAFENAGWKLQKPRASMFVWAKLPESKRHLKSLEF

SKQLLQRASVAVSPGVGFGEAGDEYVRIALIENENRIRQAARNIKKYLKE

>AHK56501.1 homoserine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVAILGYGTVGSAVVKFLLENDKLIRARCGQSITPVIALARSPKKNALIPITHSVAEILNADVDVFVEL

MGGVDEAFKIVSEILKKKKAVVTANKAMLAYHRYELENLAKNLAFGYEASVAGGIPIIKVLKEGLSANNI

LAIKGILNGTSNYILSSMSQKNMSFKQALQIAQNLGYAEADPTFDIEGQDAAHKLLVLSSIAYNLKAKPE

DILIEGISEIAPEDMYFANEFEFTIKLLGIAKVRENKVELRVHPTMIDKEKMLAKVDGVMNAISINGDLL

GESLYYGAGAGGEATASAVISDLMDIARDQVKAPMLGFVNTLEYKLLSKDEIYTKYYLRVKVEDKIGILS

KITQLMSENNISIDSFLQKPKKNDENYSTLFFTTHLTYEKSIQNLLEILRKQDFIKTKPFMMRIE

>AHK56500.1 hypothetical protein N918\_00735 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGVKAYLDGILGEDKACKFLKKQGFEILKRNFHSKFGEIDIIAKKDEILHFIEVKFTQNDYEVSERLDRK

KLEKILKTIEFYHLKNGISSDFQIDLICIKNDVIQFCENISF

>AHK56499.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGKYIELTSDNFAQAKEGVALVDFWAPWCGPCRMLAPVIDELSNDFDGKAKICKVNTDEQGDLAAEFGVR

SIPTLIFFKNGEVVDQLVGAQSKQAISDKLNSLL

>AHK56498.1 thioredoxin reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLDVAIIGGGPAGLSAGLYATRGGLKNVVMFEKGMPGGQITSSSEIENYPGVAQVMDGISFMAPWSEQCM

RFGLKHEMVGVEQILKNSDGSFTIKLEGGKTELAKAVIVCTGSAPKKAGFKGEDEFFGKGVSTCATCDGF

FYKNKEVAVLGGGDTALEEALYLANICSKIYLIHRRDEFRAAPSTVEKVKKNEKIELITSASVDEVYGDK

MGVAGVKVKLKDGSIRDLNVPGIFTFVGLNVRNEILKQDDSKFLCNMEEGGQVSVDLKMQTSVAGLFAAG

DLRKDAPKQVICAAGDGAVAALSAMAYIESLH

>AHK56497.1 transcriptional initiation protein Tat [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MERRLFLKGSALGSMVAFFASSNLSAAMLKDKDLLGFKAVSASTQDKVIVPQGYEAKVLISWGDPLFSKA

KPYDENKIIDMNAVKNAHLVFGDDNDGMSFFPLSKNRGILAVNNEYINPEIMFNHHGKNLSKEDILYEQA

SVGVSILEIEKKGDDWTVVLDSKYNRRIDANTKMQVSGAAKKEVLKNEKFVHGTFANCANGQTPWGTYIT

CEENFDDFFGSLDENLEFNDSLKRYGFNKTSLYGWEKFDERFDLAKNMDEANRFGWIVEINPFDAQSTPV

KRTSLGRFKHENAEIIVEKDGSVIVYMGDDEMNEFIYKFVSKHKYKKGADTSKILDEGILYVGQFNGNVG

DFKGQGKWIALEYGKNSLNEKNGFKSQAQVLINTRLAASIVGATPMDRCEWIASHKQSGSKEVFATLTNN

KNRQEPNAANPRTKNVYGQILKWMPKNSHKDDDFTWEIFALAGNPDNQQGLYKGSNNITSENKFNSPDGL

KFDRDGRLWIQTDGSYSNKDEYESMGNNCMLAANPKTGEIRRFLTGPIACELTGIAFSEDYTTMFVGIQH

PGEGLKGSTFPYGKTPRSSVMMIRKLDGGVIGS

>AHK56496.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIILFILSLGIFYTFTQAKNLEQEQNTSSNLVSVSIAPQAFFVKKIAANTLDVNVILPPNSNEHNFEF

KPSTMKKLEKSDIYFTIGLEFEKVFTDKFKQNFPKLQVINMQKNIALIQTHDTHEHSHEHEHHEHGHFDP

HTWLDPILVQTMALNIYDTLIQKYPQNENLYKENLDKFLAELDSLNLQIASKLEKLKNREFVVYHPSWTY

FAKRYNLTQIPVEILGKEPKSKDLQKLITLMKDKNLKVIFVQNGFPENAAKTLAKECDAKIYKIDHLSYD

WENELLKTADAFSHNL

>AHK56495.1 cation ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLFFEISNLNYAYDNEIILKNINLSYDNKDFLSIIGPNGAGKSTLVKLILGLLKSKNEIHFKALQRKEIG

YVPQHTLANPNFCPRVLEIVLMGLVSKKIFGFYGKKDKEKAMQALKSVGMEKFWNKTIDSLSGGQRQRVF

IARALASECKMLILDEPTASVDNKSAIQIFELLISLHQKGMGILLICHDINLVLAYSDKIAHLNKELFLH

TNTKEKEKSSFLKHLYENHSHFCDVEMSLNTCFCNEENCDSKKLCEQEFTRRNLKKTEFKKENFCLKFSK

ENNA

>AHK56494.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLEILNFTFFQNALLGAILVSIACGIIGTLVMINRLFSMAGGITHGAFGGIGIAFYFSLPILLSTGIFTL

FLAFLVAFLAKRYEHRSDSIIAVIWAFGMAVGIILIDLSPSYNTDLMAYLFGSILAVGTQDLWLMALVDS

VMVLLIFLFYRQFEALSFDVEFTKVRGINTSFFHYLLIALMAFCIVISIRLVGLILVMALLSIPSFIAEN

FTKRLGFIMILASFLSMIFCILGLILSYYLNLSSGACIIAIACFGFLVHLIGKFLKR

>AHK56493.1 ribosome maturation protein RimP [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNLEALCKEAGLSFYDDELVSENGRKIYRIYVQKEGGVNLDDCARLSEILSPIFDVESPVNGEYFLEVSS

PGLERKLSKIEHFAKSIGELVKITTNEKEKFEAKIIAVDDENITLENLENKEKTTINFNDIKKARTFVEW

>AHK56492.1 ribosome-binding factor A [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNPSEIKKLRTESILKELIPEALANLDDENLKNLCVVDVECKKGRYDAFVYLDKMFFNVHEQEKILSSLK

KASRALQNYCMSEQGWYRCPNFHFKFDDRLEYQNHMDALFEKIKKDKNES

>AHK56491.1 translation initiation factor IF-2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKIRIHEIAKELGYDSKEIIEKANELGLGIKTASNAVEPEIAAAIYEYIQTREIPEAFKKNIKTPTAKK

PKKENIKEQEKLNESEKKEPKKEEKLKQEVKKEELKIEKENAKEEEKQEIIDAHKPQSLASATLAKRRGL

VIVKKKKDEEEIQVKKEEVKNSNDISINNEERLSLKTMFSNADESLKKKKKEKKSFVASKKESTEKMNFL

DEHDFGDISLDDEDEVVLPDFSVKEQEKPQNINKKQPNFIRQAVGNSAGFGFEGGIQRRSRKKPSKKIEK

KEVEEVGSVAISKEIRVYEFADKIGKSTSEVISKLFMLGMMTTKNDFLDEDAIEILAAEFGIEINIINEA

DEFDYVKDYEEETDEKDLVTRAPVITIMGHVDHGKTSLLDYIRKSRVASGEAGGITQHVGAYMVEKNGRK

ITFIDTPGHEAFTAMRARGASITDIVIIVVAADDGVKPQTKEAINHAKAAGVPIIIAINKMDKEAANPDM

VKTQLAEMEIMPVEWGGSYEFVGVSAKTGMGIEDLLEIVLLQADILELKANPKSFAKASIIESSVQKGRG

AVATVIVQNGTLTVGSTVVAGEAYGKVRAMSDDQGKALKEIKPGECGVIVGLSEVADAGEILIAVKTDKE

AREYANKRHEYNRQKELSKSTKVSIDELGAKIKEGNLKALPVILKADVQGSLEALKASLEKLRNDEIKVN

IIHSGVGGITQSDIELASASENSIVLGFNIRPTGEVKERAKDKGVEIKTYNVIYNLLDDVKALLGGMMSP

IISEEQLGQAEIRQVINVPKIGQIAGCMVTEGVINRGAKIRLIRDGVVVYEGNVSSLKRFKDDAKEVAKG

YECGVGIEGCDDMRVGDYIESYKEVEEQASL

>AHK56490.1 hypothetical protein N918\_00670 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKHIPIRMCIVCKNRFEQNMLFRFKVVLGDIVPKAEHGRSGYLCQNCIEREDKVLQKAFSKICKNLNTK

ITQQGLKEIFLNGKD

>AHK56489.1 homoserine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKILVPATSANLGPGFDCLGLSLKLFNETQIQKSGVFSISIGGEGSDNIFLKKNNIFVNIFYEIYEKLSG

KKDNFRFIFQNNIPLSRGLGSSSAVIVGAIASAYYMSGFKVEKECILDEALIYENHPDNIAPATLGGFVC

SLVEKNKVYSIKKEIDKDLAAVVVIPNLAMSTEQSRQALAKNLSFNDAVFNLSHASFLTACFLEKKYEFL

KFASQDKLHEINRMKNLPELFEVQKFALENKALMSTLSGSGSSFFSLAFKDDALALAKKIQTKFKDFRVQ

YLEFDDNGFEIC

>AHK56488.1 glycoprotease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIGIYQDDKLIKTYKSEEKASEFLPKILDELLKEYDFTSLIYANGPGSYMGIKISYVSLSTLSIVKNIPL

FAVSAFELNGYKPISANKNFCFVYKEGEICLEQNIPAEFFLPKNLQELKLNNDNLPFYFLDAI

>AHK56487.1 UDP-3-O-(3-hydroxymyristoyl) glucosamine N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKQLTLAKTVKGVGIGLHKGEPIEITLEPLEANSGIVFFRSDLNASYKASPENVINTQMATVLGDDRGFI

STIEHLMSAINAYGIDNVRIVLNANEAPVMDGSSISFCMMLDEAGVKELDAPKKIMVIKKPIEVRDGNKF

VRLTPTKEPRINYTIKFDNAVIGEQSYNFEFSKKNYIENIARARTFGFLKDVQALRSMNLALGGSLENTI

VVDENRILNPEGLRFKDEFVRHKILDAIGDLTLLGYRVFGDYTSYAGSHHLNHLLTKEVLKDKDAYEIVS

LEKTTQKAYEKVFA

>AHK56486.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAKRKGKTYLSVLILVLIAILIFFISRLSIFEKNPPQILMPDVVYTDLKKPILVHIKDDESSIKNVQIIL

HKDDNTSAMVIADEKISNLKDITLQVALPKFGYKENVKSFVLEVIAKDSSFWNFFSGNEARKQIAVLVDN

TAPKINIISNSYQIEQGGAGAVVFKADDANLDKVYIETNKGKIFKATPYVKEGYYAALIAWDARDEEFRA

FVIATDKAGNISKERIRYYFVNRKYRVSNINLTDKFLDGKIENLANQYAPKDNNLNRYEKFKFVNETLRN

SNEKLIHEITSKVPEEKIDNFDLNLFLPLKNGMKVADFADHRYYSYNGQFVSDSYHMGLDLASVAQAPII

SNNAGKVVFAAENGIYGLNLIVYHGFGVYSLYGHCSSKNVDLDEMINKQSIIGKTGTSGLALGDHLHFGV

LVQGVETRPEQWQDKKWIENNIYNVLNDGKKIILGKN

>AHK56485.1 prephenate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIAIIGLGLMGGSLGLCLKENKLISCVYGMDLSKENEKDALQLGLIHELIEFKDLALCDMIFVATPVNA

IIEILQKLVDLPSNVTIIELGSTKRKIIESLPKNLIKQTLFAHPMTGTENSGPKAAFKELYKDAVCVLCD

SEIADDLHQKRAVEIFSHLGMKIVFMDSKAHDHHAAIISHLPHVISFSLANFVMKEEDKRNIVHLAGGSF

KGMSRIAKSSPQMWESIFLQNKDNLLSSIDFFQQELERCKQMIQLDKNDELREWMKQANTLREIL

>AHK56484.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKHLISICALVAMANAATIKDIKFIGLNHLSNTSAINIAGLKIGEEINPAKINTAILNLYKQNYFENIA

VENNNGILEIIVTEKPTIAKVTITGIASNDRKQVESILGIKRGTLLDEGNIKEAIERIKAYYEAKSYFDT

IVEYKKKTLENTDGLELEFIVNRGENIIIDNVHLSGAKKFSYSDIEPAVVNKEKEFMGWMWGRNDGKLKV

FELSNDSSRIADEYMKKGYLDVQVSSPYLKTYTDTYQANLTYFIKEGKPYKIKSISIENPLFDDKQNAQT

VKDLRSSAGKTINIEDIRKDVKTIETQSADLGYAFVEVYPDIQKNDQTQEATVVFKVIPHDKVYIRNVII

SGNSRTVDRVIRRELYITEGNLYNRTDLSESKNALKRTSYFDDVNIKEEKVDDTHIDLIVDVKEASTGAI

SGGIGYGSSDGILLNASLSDTNIFGSGIKSSVSVDKSDDTLSGRISLVNPRVLDSQYSLGGTLYSNDYEW

DNYSEKNYGFDITIGRQFARYYNVSLTYNLEQSDIYHLSPTLLRTGYELGKSIKSSITPAITFNDTDDYY

LPRSGIIASTSLEYAGLGGDQEFISSSSKFNFYQGLQDYIGYDLIYRYKASFYKVWDEGYLPINQRIYLG

GIRSIRGFESRTVSPKNQWGDEIGGTIAFANSVELSFPLIDRIKLRGSVFFDYGMIGRKNLDEIKRMSTG

IGIEWITPIGPLQLVFAKPLNDKKGDDTNSFEFNLGTRF

>AHK56483.1 inositol monophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKEFLDACLNANLQIRKYLNNIPQNDLKLCSKLGYDKNQGYELDLKCEQIFIKYLSCFGQIFSEESGLIG

KASPKQMILDPLDGSSNFVSKIPFYGTSIALMEKDQAKSAFVCNLVSQEIFAFNNKQAFKSNLSDPKYSP

LTPNLFSKIGIVEKISLYPELLDFLTKNQLKFRSLGATALSLAYASYFSFVLILGKTRIFDTAAALAIHQ

NLYIEKNENFLLLSQDKKIFDIILEFLKNN

>AHK56482.1 acetyl-CoA carboxylase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFADIFSKIRRQQPSVKEAPNHWVKCQSCHALMYYKEIESCFNVCPKCNYHMRISADERIKLLSDEGSF

IEYDANLEAIDPLKFVDSKSYKKRLSEGESKTGRKSSVISGECEINGLKTQLVVFDFSFMGGSLGSVEGE

KIVRAIQRAITSKTSLVIVSASGGARMQESTYSLMQMSKTSAALKLLSKEKLPYISILTDPTMGGVSASF

AWLGDLIIAEPEALVGFAGARVIKQTIGADLPEGFQKAEFLLEHGLIDAIVERGEQKQYLSDVLKFFSGK

>AHK56481.1 50S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQVNIFCIQKSDEFKTCSEKYSKLISKYATLKEINVFNKKIALAQNLNAIEAKKSYEEAFMPYKKGYCIA

LDEKGKDLTSIEFAKLIQDKNELSFFIGGAYGLREEFNQSLDFRLSLSKLTLAHQFVKTLLLEQIYRAFC

INNNHPYHK

>AHK56480.1 molecular chaperone DnaK [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKNEIQNFKNILEERKKAILENLQSNSNEIEALHNSVPSDSVDFSVIETGSQIDFAISTNLKEELIEIE

DSLDKIKNGTYGICESCDDEIDSQRLKVKPHARYCITCRQIAEQGKKHEN

>AHK56479.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIKLFLLASFIYIALIFAFAWHLELGSYTLNISTYTFELPIMIWLVIPLFIYMILAVLHIAFYGFLRYL

KFKHFFKDAAKFEAYTQDLLLEKDLKTTFQTKEFRSVAQLFKTIKTHEKIPHSNKINEILDLIDGLNKNE

FFNLSKFKLENNNVLYLQNEKNHLKNDANYAYNKLKNLNEIKDEFEEIAFNTLIEKASYEQIKNVKIPKK

PSEVLTLIKRFKEGNLELSVAEYEVLLSHNILSEKDYLNAAKLSTKLLNPDAILGIFNKIKNEKSEALRA

YLYLLAEFGLLDELREQIHNDDKKFNDFKAFLALREKNIKIDLNQLIQ

>AHK56478.1 tRNA-dihydrouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MIDFSKKPLFLAPMAGFSDLPFRNVVKKFGADITISEMISSNALVYESSKTLHMLERAELENPYIVQIAG

GDKEVLKKAVQMLNEMDFVDGIDFNCGCPVNKVVKQCAGSALLENLELFKNLVGVIKENNKKSLTSVKFR

LGFNEKYPEKMAKICESLGVDFISIHGRTRKQLYSGKADYGSIASAKASVKIPVIANGDINAQNAKEVYK

ITKCDGLMIGRASVGNPWIFYEIKSGKSVDEKLKKEIILTHFDEMIKHYKDQGVSIFRKHLHEYSKGHKD

ASTFRDTVNRIDNVEEMRKKIEEFFSLT

>AHK56477.1 heat-shock protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MILSDEKCDFLESIASFLSPKDVELVFVDSKEMQEINLEQRKQDKTTDVLSFPLENIDESLPLGSVVINV

DLAKEKAKELGHSYEEEISLLFIHAMLHLLGFDHENDNGEMREKEKELIEHFNLPKSLIVRTLED

>AHK56476.1 recombinase RecO [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQGFILHTQKVKDEDLIVYILSPKMLIKAYRFYGLRHSSILSGYKIDFALEENPSFLPRLKDVLHLGFLW

IMQRDKMLIWQEFIRLLYRHLKDVEELDSFYFDLLDECVKRFEKQNPKRVIVDAYLKILEFEGRLHKDFF

CFACDEKIQNSITLLRAFLPSHSQCALGFEFEEKKLKQFYSSKNCAIFDDEEIENLYHLIKEGL

>AHK56475.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKAFVLVDYQNDFIDGSLGFDKALKIKENILKALNQIDFNNTHLLLTYDTHDEHYLQSKEGLNLPVKHC

IKESLGWQMPKEFEPFLQKAHKIFYKNTFGSLELANFIQKSDYEELHFAGLVSHICVFCNIILAFGAKPN

ARIILHQNLSASFDENLEKSAFDILRAYGIEIV

>AHK56474.1 PP-loop family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINLSKKLIRQVAQANAKFGLIKDGDRVLLGLSGGKDSLALAHLLNRMQAHAPFKFELEAVTLSYGMGED

YSHLHAHCEEHGIKHSVLDSNIYEVSGDTIRENSSFCSYFSRMRRGALYTYALEKGFNKLAIAHHLDDAA

ESFFMNFIHNGALRTLAPIYQSKRGITVIRPLIFVRERQLRDNATQNELSVIGNEFCPGMKLSEKNVKFP

HAREEAKQLLANLEKDHPKLFTSLKTAFANLHTESFWLQKA

>AHK56473.1 S-adenosylhomocysteine nucleosidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIAILGAMSEEITPLLETLKDYTKIEHANNTYYFAKYKNHELVLAYSKIGKVNSTLSASVMIEKFGAQA

LLFTGVAGAFNPELEIGDLLYATKLAQYDLDITAFGHPLGFVPGNEIFIKTDEKLNNLALEVAKELNIKL

RAGIIATGDEFICDEAKKAKIREIFNADACEMEGASVALVCDALKVPCFILRAMSDKAGEKAEFDFDEFV

INSAKISANFVLKMCEKL

>AHK56472.1 malonyl CoA-ACP transacylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNAAFIFPGQGSQSLGMGKDFYENSIKAKELLQNASDFCKIDFKHLLFEENEKLNQSEFTQPAIVLNSLM

AYSVLLEKKPDLSSKFALGHSLGEFSALAVNGAFDFLEALSLVNKRGLFMQEDCAKVEAGMMVVLGLDDE

KVEELCQKAQKENKQIFAANYNCDGQIVVAGLKPDLASYESVFKEAGAKRAMLLNMSVASHCPLLENASA

KLCVELEKVLKPNFKAVISNANAKIYTSKEEALELLKAQLISPVLYKQSIKACENEVDYFIEFGASVLKG

LNKKITSKETYALTNMNDIDEFLKVV

>AHK56471.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAIEKNSVVSMFYELKDANTNEVLESNLYSQPISFILGKGQILESLEEEVMKLDCPSNADVVIKKEKGLG

EYDENAVQTLPKEQFAGIDLKVGMELFGEGENGETVRVTVKEIGENDVTIDYNHPYAGRDLLFSLNIVDA

RAASEDEILTGIIAGSHSCGCGSGHGHDHHHGHGHGGGGCCGGGGCGCH

>AHK56470.1 hypothetical protein N918\_00565 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIFTVALLGATLLYAESSAFGAGDITSNSSYGLTSNEKLFKEKLDNLNNENIQTNARINEINERIEGL

QSTLEGINSQYAKSNSRLSQVEENNQNIENNFTSEIQKLKAYVEESRKIQEANNKQVKKVLAELSSLVDA

INANYVSKNELNDANLSVKTITPSVVVSTTDSNSTIENNNTQNTQDDKAKQIDESWKKKKNNEILELAIK

DVDKNAFEDSKAKLNFLITKQYKPARANFWLGEIEYKQKNYNNAIVYYKKSSSLSTKGDYFPKLLYHTAI

SLDKTGDTKTANGFYKALKTNYPNSPEAKASPNRK

>AHK56469.1 peptidoglycan associated lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKILFTSIAALAVVISGCSTKSTSVSGDSSVDSNRGSGGSDGWDIDSKISQLNDTLNKVYFDFDKFNIR

PDMQNVVSTNANIFNTEVSGVSITVEGNCDEWGTDEYNQALGLKRAKAVKEALIAKGVNADRIAVKSYGE

TNPVCTEKTKACDAQNRRAEFKLSR

>AHK56468.1 translocation protein TolB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIVAIFLVFLGSLWAEDPVIDVVNSGVVLPKIIVKDNSNLSDENLKKSFYNIIVNDLKVSSNFEVVAN

ATETSNYIFEYTLNKNGNTLSLNVKIKAGGSDKSEQTYTLNGLEQYPFLAHKSVKASVNALGLAPVDWMD

HKILIARNSSSKKSQIIMADYTLTYQKVIVDGGLNLFPKWGNKEQTLFYYTAYDHDKPTLYRYDLNTNKA

SKILSSGGMVVASDVNVDGSKLLVTMAPKDQPDVYLYDLNTKNLTQLTNYSGIDVNGNFIGSDDSKVVFV

SDRLGYPNIFMQDLNSNSAEQVVFHGRNNSAVSTYKDFLVYSSREPNQAGVFNIYLMSINSDYIRQLTAN

GKNLFPRFSSDGGSIVFIKYLGAQSALGVIRVNANKTFYFPLRVGKIQSIDW

>AHK56467.1 energry transducer TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKNYGLSNLNSFLLALAIYISIVILVFFRLVSEVEPAIQYTDIKDSFVDIELAEPSKQVITQSNTPKEIQ

KPTEQIDIEKLFAQTTNKTVKTEDIDQKASNFNELFGNIKEIQEEKTTKIQSSAKSGISSAPKPQASELV

KQLNDSLLQEESSTQGESTKAQKIGIYDEFLGKVVRIITQRWTQYYPNSEKISVKVKIFIDENGKFGYTS

VEKSGNPLYDAKVAEFLESQKGKFITYPPQNKNISITMNLRDEVKVKND

>AHK56466.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MPFDDEKPELNITPLVDIMLVLLAILMVTAPSITYEEKINLPQGSQKNTSTPTVKSLIISINAKKEIFLN

QEKYDFISFADNLAQRKAQFNTEDPVFIRADKSLKYDDVISVLRSVKNLGFNKVALQTE

>AHK56465.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFEAIFHFFNSSSIITYIVLLWLSLYFILAFSILFARLTYLATWRNKEKESLETLLLGEKDLSRTDSIL

RKCNDTTSNHLEIYKNLASRRASAGLTWLSIIASTSPFIGLFGTVISILETFGGLGTQNSLSIIAPKISE

ALVATGCGILVAIPAYTFHLIIKRKAFELLSIIDSEIKVISSSK

>AHK56464.1 F0F1 ATP synthase subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNDLINFEIVTPLGVIYQGEVKSVTLPGSEGEFGVLKGHAALVSSLKSGVIDIEKADLNHELIAIDAGHA

KVDEDKICVLAKGAVWVCGSDESEIEKNLAQAKDLIKSMSSDNAALAATFSKLDNARMH

>AHK56463.1 F0F1 ATP synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQGFISQVLGPVVDVDFNDYLPQINEAIVVNFESEGKKHKLVLEVAAHLGDNRVRTIAMDMTDGLVRGLK

AEALGAPISVPVGEKVLGRIFNVTGDLIDEGEEISFDKKWAIHRDPPAFEDQSTKSEIFETGIKVVDLLA

PYAKGGKVGLFGGAGVGKTVIIMELIHNVAFKHSGYSVFAGVGERTREGNDLYNEMKESNVLDKVALCYG

QMNEPPGARNRIALTGLTMAEYFRDEMGLDVLMFIDNIFRFSQSGSEMSALLGRIPSAVGYQPTLASEMG

KFQERITSTKKGSITSVQAVYVPADDLTDPAPATVFAHLDATTVLNRAIAEKGIYPAVDPLDSTSRMLDP

NIIGEEHYKVARGVQSVLQKYKDLQDIIAILGMDELSEEDKLVVERARKIEKFLSQPFFVAEVFTGSPGK

YISLEDTIAGFKGILEGKYDHLPENAFYMVGNIDEAIAKADKLKG

>AHK56462.1 F0F1 ATP synthase subunit gamma [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSNLKEIKRKIKSVHNTQKTTNAMKLVSTAKLKKAEEAAKRSKIYAQKIDEILSEISFQINKIVHNEDDV

RLSLFHKKEQIKTVDLIFITADKGLCGGFNIKTLKTVSEMLKEYEAKNINIRLRAIGKTGIEYFNFQKIE

LLEKYFHLSSSPDYEKACEVIHAAVDDFLNGNTDEVILVHNGYKNMITQELKINHLIPVEPKSIEQTHNS

LLELEPEGTELLKDLMKTYFEYNMYYALIDSLAAEHSARMQAMDNATNNAKARVKQLNLAYNKARQESIT

TELIEIISGVESMK

>AHK56461.1 F0F1 ATP synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFKADEISSIIKERIENFDLNLEIEETGKIISVADGVAKVYGLKNIMAGEMVEFENGDKGMALNLEESS

VGIVILGKGEGLKEGASVKRLKKLLKVPVGEALIGRVVNALGEPIDAKGVINANEYRFVEEKAKGIMARK

SVHEPLHTGIKAIDALVPIGRGQRELIIGDRQTGKTTVAVDTIISQRGQGVICIYVAIGQKQSTVAQVVK

RLEEHGAMEYTIVVNAGASDPAALQYLAPYTGVTMGEFFRDNAKHALIVYDDLSKHAVAYREMSLILRRP

PGREAYPGDVFYLHSRLLERASKLNDELGAGSLTALPIIETQAGDVSAYIPTNVISITDGQIFLETDLFN

SGIRPAINVGLSVSRVGGAAQIKATKQVSGTLRLDLAQYRELQAFAQFASDLDEASRKQLERGQRMVELL

KQPPYSPLSVEKQVVLIFAGTKGFLDDIAVSRIKEFEDGIYPFIEAKHPDIFEQIRSKKALDSDLEEKLA

KAINEFKANHL

>AHK56460.1 F0F1 ATP synthase subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENIIARRYAKAIASRADINDFYQNLCILNSAFVLPKFKNIIESNEIKKERKMEFLDSFFDIKNSSFQNF

LRLLIENSRLECIPQIVKELERQKAFKENIFVGIVYSKEKLSQENLKDLEVKLNKKFDANIKLNNKISQD

DSVKIELEELGYELSFSMKALQNKLNEYILKII

>AHK56459.1 F0F1 ATP synthase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKLFFIIFLLPLYAFGASNGSGEYDIIPRTINFLIFVAILYYFVATPFKNFYKNRIVKISSKLDEIQKK

LLESKAKKLDTMKKLEEAKASAAAALITAKKEAEILVQNIKKETQDELDLLQKHFEEQKDYEFRKMEKEL

VSNTLNEIFSDPNMTLKQSEIIELMMKKVS

>AHK56458.1 F0F1 ATP synthase subunit B' [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFEDMHPSIMLATMAIFLAMIVILNSMLYKPLLKFMDERNDSIKNDENKVKENSQEVLGVNDELEAIHIN

TREEIQKIKQSAIAAAKEEAEQILRSKKEELERKMASFYADLAVQKKELQEHLNIHLSELKQALQNNIKK

I

>AHK56457.1 chromosome partitioning protein ParB [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGLNKDRGLSSLISDMDTVYSKELGFDKNQSTMIEIDQISPNPFQPRKNFDQEALDELANSIKEFGLIQP

IIVFKKNNKFILIAGERRLRAVKALGKKEILAFIADIDENKLRELALIENIQRENLNPIELANSYKDLMQ

VHKITQENLAELIHKSRTQITNTLRLLNLDIRTQELIASGKISQGHAKVLVGLDQKDEKMLVDSIIGQKL

NVRDTEKIVKKIKNNESLPNQEFEDEIKKLKQILNRFGFDCKNKNNDFVIHLENIDKIKKLIKMLEKL

>AHK56456.1 sporulation initiation inhibitor Soj [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSEIITIANQKGGVGKTTTAVNLAASLAVAEKKVLLIDVDPQANATTGLGFNRNNYEYNIYHVFIGRKKL

SDIILKTELPQLHLAPSNIGLVGIEQELAKGENNEKKMLLKNQIQEVIDEYDFIIIDSPPALGSITINAF

AASDSVIIPIQCEFYALEGVAMVLNTIKIIKKTINSKLRVRGFLPTMYSSQNNLSKDVVDDLKQNFKKQL

FTINGNEDDFIVIPRNVKLAESPSFGKPIILYDIKSPGSVAYQNLAYSILG

>AHK56455.1 biotin--protein ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEKGLKVKIVCVESIDSTHLFLCKQIRNGKIDENFAIYALEQINGVGSRENSWQSSKGNLHLSFCIKEED

LPKDLPLASVSIYFAYLLKEVLQEKGSKIWLKWPNDLYLDDKKAGGVISAKISNFIIGGMGLNLKFAPQN

TALCDIEISLKDLVSEFLQKVEKKILWKNIFSKYMLEFEKSRKFSVHHEGKVFSLENSFLYEDGSILLGD

KRVYSLR

>AHK56454.1 methionyl-tRNA formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIIFMGTPSYATCILKALVENENFKLVALFTQPDKAVGRKQILTPSDTKAFLSQNYPSIPIFTPSSLK

DKNIIREIKDLNPDFIVVAAYGKILPKAILDLAPCVNLHASLLPKYRGASPIQSAILNKDEKSGVCTMLM

EEGLDTGAILESLECDIKDKNSSEVFELLANLAAKIILSTLLNFDKITPKKQEESLATLCRKIKKEDGLI

NLQNARELYQKYLAFTPWPGVFLENGLKFLELELVDELKQNAKMGEILELEKESFLLACKQGVLRIKKLQ

ESGKKALDGRTYLNGKRLKSEDSLC

>AHK56453.1 gamma-glutamyl kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKRIVVKVGSHVISEENTLSFERLKNLVAFLAKLMEKYEVILVTSAAISAGHTKLDIDRKNLINKQVLAA

IGQPFLISVYNELLAKFNKLGGQILLTGKDFDSRKATKHAKNAIDMMINLGILPIINENDATAIEEIVFG

DNDSLSAYATHFFDADLLVILSDIDGFYDKNPSEFSDAKRLEKITHIKEEWLQATIKTGSEHGTGGIVTK

LKAAKFLLEHNKKMFLASGFDLSVAKTFLLEDKQIGGTLFE

>AHK56452.1 GTPase CgtA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFIDSVKITLASGDGGKGAVSFRREKHVPLGGPDGGDGGNGGDIIFVCDNNTHTLVNFKGKRELRAQNGA

GGMGRNKNGKKGENLELIVPEGTQVIDAQTNEILLDLTKEGQRELFLKGGKGGLGNTHFKHATNQRPDYA

QPGIKGESRLVRLELKLIADVGLVGFPNVGKSTLISVVSNAKPEIANYEFTTLTPKLGLVDVNEYNSFVM

ADIPGIIEGASGGKGLGLAFLKHIERTSFLLFVLDPMRQMPLKEQFIVLRKELEKFSNELFGRKFGIMIS

KSDSVRLGEEFAEQIALNINELDNYLKEINNPQSFLIKVSSLEKTGLKELKFMLLEEIKTLRNNKKNLTI

>AHK56451.1 50S ribosomal protein L27 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAHKKGQGSTQNNRDSIGRRLGVKKFGGEFVRAGNIIIRQRGTATHAGNNVGMGKDHTIFALIDGFVKFE

RKDKDRKKVSVYPA

>AHK56450.1 50S ribosomal protein L21 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYAIIKHSGKQYKVSVGDELKLDHFEAESKASIEVSEVLAINDKELKVGAPFVAGAKVVLEVINHGKDKK

VVIYKKRRRKDSKLKRGFRRQFTRVVVKDIKA

>AHK56449.1 hypothetical protein N918\_00460 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIIKILFLGLFLSLSLNAKVITTTSTKSSTGEGTGLTREDAINNAIIEAIGKMSGVSINSLKKSNTSVS

TDNSGSNIQDNYSEQISKATKGRADTYEINSVEQDANGKYTANVTIFKTTTTKKYQAPGLSADNRRSITV

FDSTPDAAKRGIGSALQQKIISDLLQSRKFNVLDRDSSGYYEMEKALIKSGDAASDEVYKLKNMLATDYI

LLFSISGLEGKQKTSNLTGKSKTEIEVIVDYRVLLFATRQIKFSNTLSMKVNLKDNSLSANETALKQIAN

RIAGDILNAIYPLKVASVENNEVIFSQSLNQGDVYECFALGKVIKDTYTKENTGRVESKTGSIEITRTSP

KFSYAKITEGSVKVGDICRPLSNTGSGNGYTIGRDANYQTQEGGGVNLGF

>AHK56448.1 hypothetical protein N918\_00450 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKTKILGTALIGALLFSGCAQTAYTDGKASQVKKGDALTLGLDRQDFESAAETMINSMLSDPAFANIKP

GTRKVIAIGRVVNDTPQRIDTEKLTAKITSALRKSGKFVLTSAVAAGGALDSMSEDVRELRDNDEFNQKT

IAKKGTLVSPDFSLAGKIRQDNVKLSNGKTQVEYFFLLRLTDLTSGLVYWEDEQTIDKTGSSKSVTW

>AHK56447.1 hypothetical protein N918\_00445 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKNILFILMFLLSACAPSYQINSNQNTVILGSNLPKSLVKQFQKRINSNGYLEFEVILRSTFAKDVIYK

VDWLDKDGFVLRDVLNEDYQALRIPAGQEVILRKLASDTRANDFRLEIKAKN

>AHK56446.1 hypothetical protein N918\_00440 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIKVGLIFSGIACLFLTACVNQVKQNTTFENTLTQKYCGDDFFNQNLEKIKKNDDVIYTGLNAGLIARN

CGDFNKSNVFFDAVEESYKYDVDLENVSPKAAKFIGTTLLNDNIVDYDGSLYERIMVNIYKALNYMEEDD

YENARVEFNRVLMRQDKAKEYFAKEIEKNRADLDKAKEDKNYDKNMNENSKVIEAQYDNLFKEFDTTKNF

INPYATYLASIFFFMDKDYRKAADLFREVAIIYPKNKTIKKEAKIFKEYATKIKVKKAKKYVFVVYENGF

GVVKDEFALTLPFIVDKKIISTNIALQTLKKREASFANLNINGQNTNDFVDLDNIVATEFKINMPAMIAK

ALAQTIIKTTLNVAVANNDSTGGWLSLATAVATAATNKADVRSWRGLPKSIAIATIENDGNLEIKDPQGN

ILFQKSLDKNKNALVIVRSFAPYLPASVAIMEK

>AHK56445.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDIMIILQVIVLLGAIFIGIRLGGIAIGYAGGLGVVILGLVLGMKPGNIPWDVILIIAAAIAAISAMQQA

GGLDYMVRVTEKILRSSPKFINYLAPACGWLLTILAGTGNAVFSLMPVVVDVAKSQNIKPSVPLSLMVVS

SQIGITASPVSAAVVYMSGVLEPLGWNYPTLIGIWISTTFVACMLAAFIVSLITPMDLSKDSVYQERLKA

GLVKDAGAVLHGEDKPGAKLSVVIFLITVLAVVLYATAISSNIKWIDPVVVSRDAAIMSFLLTAATLITW

LCKVEPGKILDTSVFKSGMTACVCVFGVAWLGNTFVAGHEASIKEVAGDWVKQTPAMLAVAFFFASMLLY

SQAATAKAIVPVIITALGISAANPHDSYMLVACFAAVSALFVLPTYPTLLGAVQMDDTGTTRIGKFIFNH

SFFIPGVLAIAIAVALGFVLAPMLI

>AHK56444.1 aspartate ammonia-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGTRKEHDFIGELEISDEVYYGVQTFRAVENFDISHDRLKDFPRFVRALARVKKAAAMANHELGLLDKNI

QDAIIKACDKILEGGYYDQFVVDMIQGGAGTSTNMNANEVIANIGLELMGHKKGEYQYLHPNDHVNLSQS

TNDAYPTALHLALHDYLSDLAKAMEHLKKAYERKAEEFKDVLKMGRTQLQDAVPMTLGREFKTFAVMIGE

DIQRVLEARKLILEINLGGTAIGTGINSHPDYPKVVERKIREVTGFEYTVAEDLIEATQDTGAYVQISGV

LKRVATKLSKVCNDLRLLSSGPKCGLNEINLPKMQPGSSIMPGKVNPVIPEVVNQVCYFVIGADVTVTFA

CEGGQLQLNVFEPVVAYSLFNSVVMLEKAMYTLADKCIDGITANEKICSDFVYNSVGIVTALNPYIGYEN

SASIAKEAMNTGKRVADIALERGLLSKEQIDEILTPSNMLNPHMEAKK

>AHK56443.1 uracil-DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEEITINIDKIKINDDWKEFLRDEFQKKYFLEIKKQYLNAINQNIIIYPPANLIFNAFNLCPLKEIKIII

LGQDPYHQPNQAMGLSFSVPKNVKIPPSLNNIFKELQNDLNITPAKSGDLSSWAKQGVLLLNSILSVEAN

KAASHSSWGWQEFSDAIIHKLSNEKSGLVFMLWGNYAKNKEILIDNTKHLILKAAHPSPLARTGFLGCKH

FSKANEFLKKVGKIPIDWKIV

>AHK56442.1 aspartate racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTIGIIGGMSFESTITYYKTINQAINDKLKSLNSAKILLYSVNFEEIENLQSQDKWQEAAQILTQCAKK

LELAGANFIIIATNTMHKVFDEIQQNINIPILHIAKSSAKALKQENIQKIGLLGTKYTMTQDFYKKMLIE

ENISVITPSDEDIKIVNDIIFNELCKGEIKQDSKEKYLNIIKKLQEKGAKGVLLACTEIGLLISKNDTNI

KIFDTSLIHALDAANEALKDL

>AHK56441.1 cytochrome C oxidase assembly protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFFGLELEGLQIYWWLILSLLGGLLVFMFFVQGGQTLIDELSKDELEKTMLVNSLGRKWELGFTTLVLFG

GAAFAAFPLFYSTSFGGAYWAWLCILFCFILQAVAYEYRKKENNVYGSKTYEIFLKINGYLGVFLIGVAV

SSFFSGSEFILNEHNFVSWQNPLHGLELLLNPFNYLLGLALVFLARLLGAAYFMNNINDENIKIRAMKKL

MINSILFLPFFLGFLAWIFLKDGFSVDTNGVVSMSANLYLYNFLNQMIFAVLLVIGVILVLLGMVQGTKG

CSKAIFTLGLGTVLTVFALLSSIGLGQSAFYPSLSDLQSSLTLKNASSSYYTLSVMAYVSLLVPFVLAYI

IYVWNAMDKVKITREEIANDDHAY

>AHK56440.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNELSSVDWSRAQFALTALYHFLFVPLTLGLSFMIAIMETIYVKTKNERWKKITKFWLSLFAINFAIGVA

TGIIMEFEFGTNWANYSWFVGDIFGAPLAVEGIMAFFLEATFFAVMFFGWDKVSKGFHLLSTWCVAIGSN

LSAFWILVANGWMQYPVGMSFNPDTARNEMQSFFEVALSPVAISKFLHTIGSGYVISALFVMGISAWFML

KGRHIIEAKKSLVVGASFGLVCSIFLFFSGDESAYRVTQTQPMKLAAMEGVYQGEHRAGLVPFGILNPKK

TIDNNESVFLFDITIPYALSILGNRDPNSFVPGIEDLIYGNESKGIEPMQNRIDRGKIAIQTLKDYKLAK

ENNDTIAMANHKSILETHFKDFGYGYLEKPSDTIPPVALTFYSFHIMVALGSFFFLLFIVTLYLTMANDI

EKFRKVLWVCLLSIPLGYIAAEAGWIVAEVGRQPWAIQDLLPVHIAATQLGKVNVQISFWIFAVLFTALL

IAEVKIMLTQIKKGFDAHAGHTPLMGKGEK

>AHK56439.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MYLKHLYFSISQIFNFYKEGFKNLTLGKTLWKIIFIKLFVMFVILKLFVFDVNFNSIFKSDKEKSTFVLK

NLTLEGK

>AHK56438.1 cytochrome C oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKIIVFILCCFMTFFLYACSSKFENVNPLGRSFGEFEDTDPLKLGLEPTFPTNQEIPSLISGADLVPIT

PITPPLTRTSNSANNNAANGINPRFKDEAFNDVLIFENRPAVSDFLTILGPSGAALTVWALAQGNWIWGY

TLIDSKGFGDARVWQLLLYPNDFAMIKNAKTNTCLNAYGNGIVHYPCDASNHAQMWKLIPMSNTAVQIKN

LGNGKCIQAPITNLYGDFHKVFKIFTVECAKKDNFDQQWFLTTPPFTAKPLYRQGEVR

>AHK56437.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIICLFLSFNLAFANLENFNVGTWNLQGSSAATESKWSVSVRQLVSGANPLDILMIQEAGTLPRTATP

TGRHVQQGGTPIDEYEWNLGTLSRPDRVFIYYSRVDVGANRVNLAIVSRMQAEEVIVLPPPTTVSRPIIG

IRNGNDAFFNIHALANGGTDVGAIITAVDAHFANMPQVNWMIAGDFNRDPSTITSTVDRELANRIRVVFP

TSATQASGGTLDYAITGNSNRQQTYTPPLLAAILMLASLRSHIVSDHFPVNFRKF

>AHK56436.1 cytochrome C oxidase subunit IV [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIITLFFMFITLAFATPTGDLKDFTEMVSIRSLETGIFLSAFRDTSKDPIDQNWNIKEIVLSDELKQK

DKLADELPFGYVQFTNPKESDLCLAILEDGTFGAKSCQDDLKDGKLETVFSIMPTTTSAVQIRSLVLESD

ECIVTFFNPNIPIQKRFGIAPCTLDPIFFAEVNELMIITPPLTAATPLE

>AHK56435.1 lactate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEQILTWQQIYDPFSNIWLSALVAFLPILCFLVCLVVLKLKGYQAGFLTVILATLVALFAYKMPWNLVGA

SFIQGFTNGMWPIAWIIIAAIFLYKLSIKSGSFEIIKKSVMSITPDHRIQVILIGFCFGSFLEGAIGFGG

PVAITAALLVGLGLRPLQAAGLCLIANTAPVAFGAVGIPIIAMANLVGIEQHSVSAMVGRMLVPLSLTIP

FFIVFLMDGFKGIKETFPAILVAALSFTTTQFLSSNHLGAELPDIISAVVSLAVTTVFLKFWKPKNIFRF

DNESNFTQDNTLSFNQILKAWSPFILLIVCIIIWTQPWFKALFDKDGILSYTSITLQFSNITTGILSPSI

TGIGEAKPLSLALGVDLINGKTVAQAGTAILLAAFLTIAILKIKAEDAAECFWVTLKEMAIPCITIGLVV

AFAFISKNSGMSTTLGLAFAHTGDAFSFFSPIIGWIGVFLTGSDTSANLLFGTLQQVSAQKLGISEALFL

AANSVGGVVGKMISPQSIAIACAAVGLVGKESDLFKFTLKYSVAFIILIGIWTCIIAFFLQGIIPEVIVK

>AHK56434.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMKKVYFYATCLGSTAMQQSVLNAIKLLRREGIEVIFKKNQTCCAQPSFNSGYFDESREIALYNVDLFDK

DYPIVVPSGSCAGMMSHDYKELFKNRPEFSKIKTFSSRVIELSQYLDEVLKVDYEDKGVPIKVTWHSNCH

ALRVQKSIQASKNLIKKLKNVELVELQYEEECCGFGGTFSVKEPEISNAMVRSKIKDIQNSGAKYLISGD

GGCLLNIDGTMKRMGLDIKGIHLYDFLLKRLEGGRL

>AHK56433.1 iron-sulfur protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSQKIPHEQIVQIKLNDKQMQENLMTAMHTLQKNRLNVIDARFKDWQGLRAKAKQAKNNALMSLEERLLE

FEKNATKNGIKVHWASSDEDACEIVYEIMKEKNITKLLKGKSMASEEIGLNHYLEKKGLKAIETDLGELI

LQLNEEPPLHIVVPAIHRNRHEIGEIFKEKLGANLENDEPESLNAVAREHLRKDFEGLKLGLSGVNFAMS

REGAFWLIENEGNGRMCTTAPDIHIALCGIEKIMESFEDAATMVSLLTPSATGQFIPTYNNIITGPRKNG

DLDGPKEVHVILFDHNRSKMLAHEDYYEALRCIRCGACMNFCPVYDQIGGHAYQTTYPGPIGEVISPNIF

GIDHTGDILNFCSLCGRCSEVCPVQIPLADLIRKLRCDKIGQGKNPPLGANNVHHNALEAFAFKQFKNIA

TNGDKWRFSLSKAHYFNWTVQNFASILPVIKKWYAFKELPQIKMDLYKEVQKLEGVSYE

>AHK56432.1 hypothetical protein N918\_00365 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKIDEISSKSKANILEHLKKAYKETTFTRIESIDPVEHIQTTQDMLTEMKQKMSDNKYIVENATKDTLE

EKINEIVAKYSFKSMIYGADLNLNLEQIKAEKKICFDKEIENLRSEVFHSDFSIIHARAGVSSHGVALIP

SSKTQPRMLSLAPKLCIVLLKKENVVKSLSEALNLVKKENEILPTNILFIAGPSRTADIELITVFGVHGP

QIAHIIIY

>AHK56431.1 hypothetical protein N918\_00355 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKNIVFFEVKGGSDKGEDGYRKDTMPMVNALKAKGWNAEVIFFEVGKKDEIYKYVKENFDGYVSRINPG

NLKEENEYFDMLRKLCADKLVGMPHPDAMIGYGAKDALTKLADTDLVPSDTYAYYDIKTFKENFPKSLAK

GERVLKQNRGSTGEGIWRVSVEGNVSGDSLPLNTKIKCTEAKDNHVEHRELGEFMDFCEQYIIGDNGMLV

DMTFLPRIKEGEIRLLMLYNTPVNVVHKKPAEDADAFSATLFSGAKYRYDKPEDWKTLVDMFLGELPKVR

EKLGNYDLPLIWTADFILDTDEKGNDKYVLGEINCSCVGFTSHLELADEVASNIINIVSKTKA

>AHK56430.1 endopeptidase IV [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQILKSFFKALGCGIKFINTYFKTFVLLLIVIWILIPSANSSSNLANLERIDLKGEIFDSSAVLEKIINA

KNDSNIKGVLFVIDSPGGAFAPSMELALAIKDLKIKKPVLVYASGTMASGSYLAGVGANKILANPASFIG

SIGVIMQGADLSGLANKLGIKEQTIQAGEFKSAGTFARAWNENERNFLQGLIDQSYDLFTGFVAKERALD

LNKKDQWANARVFLAAKAKELGLIDELSNYENAKKELEKLANVSNPVWKEEDKIDKFLNRLEGQTSSLIS

KSLIEIAYKTNSSFINAR

>AHK56429.1 chlorohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MFIVAARYLFLCDEDFTILENQAFVFEDKILELGELDNLKKKYPKAKIIKTPKNSVILPAFINPHTHLEF

SANSTTLHFGEFLIWLKSVINSRSILNAQAKEELILQSIKKMQKSGIGTIGEISSFGSDLDPCLKASHKG

MRIVFFNEILGTNENQVEDKKQEFLKRFENSLKFKNDFFIPAISIHSPYSTHPSLAHFALDLAKKQNLLA

STHFLESKAENIWLRESKGGFKKWLENFTLHPKPLYTPKDFVKLFKGVRTLFTHCVYLKEYEWLDKNLHS

ITHCAFSNRLLSQKSLDLKTALKSGLNIHLGTDGLSSNISLSLLDEMRANLLIHKNFDLLELASKLLQMV

TLYPARALNLNLGELKKGKIADFNVFELGECDKKQAPLQFILNAKEVDKLFIKGKECKF

>AHK56428.1 3-dehydroquinate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIMIIQGPNVNMLGVREVGIYGAMKMEEIHEQMKLAASQNNVELDFFQSNFEGEIVDKIQECLGTVDGI

IINAAGYTHTSVAIRDAIAAVALPTIEVHISNVYRREEFRQKSLIAPVCSGTIVGFGPFGYHLALMGIIQ

ICEQIKNLRAMQQAQQTNK

>AHK56427.1 flagellar biosynthesis regulator FlhF [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGQLIHTFTVEDTEQIIPKVKEDYGDKALIITNKQIRPKTLNRSALYEVMVAIEESDYEEHLKKQGKSLP

AKKSSPKPSSTSLAEEKIRSQIPQEDEDVVLDFSNTRLNTNLNTVKNNDLAKKTYQDFPQNKINPHQNKT

LGFDDFKEKLSEVSNEISKVTNTPLENYTPNPNYNKKIENFEKQFEKQINKLNDKIDLLADMMWDDKAEA

RKNLMIPPEFASIYKQAKESGMLENHLEAIMKATIENMPAAMKTNKDAVQRYFHSLLRNILPCRVESDIK

KQKIMMLVGPTGVGKTTTLAKLAFRYAYGDKRYKTGIITLDTYRIGAVEQLFQYAKMMKLPIIDSIEPKD

LDEAIKSLNNCEVILVDTIGNSQYDQSKLAKTKEFLMHSNAEIDVNLVVSANTKHEDLMEIYKNFSFLNI

DTLIITKFDETKVFGNIFSLVYETNIPLSFFSIGQEVPDDLEVANSDFLVHCILEGFNKGKNNE

>AHK56426.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNNQANKLRNLMSQNGTKKSQNTHFIAITSGKGGVGKSTISANLANVLANNGYKVGLFDADIGLANLDVI

LNVRIQKNLLHVLRGECSLEDILIEVKPNLWLIPGESGDEILKYNDKNIYERFLNQASILDELDFLIIDT

GAGIGGNILNFLEMADEVIVVTVPDPAAITDAYATIKTTSKTKENLLMLFNVVKNENEALKVFENIKKVA

DANIKNPLNLEFLGHLSASKDVSGSIKKRTLFSDENTASSDEIKALASKLLYRLERKVLDNVSNRSFSSF

FRKIIERF

>AHK56425.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRPENYVAFFTVCGFFIGLAFSIISIDEAFDILIFTCFITFMFYVFVHIAIMNFIDVKKISGRIFNKHDY

EKTSNNIINDLVIREKKMDIILEKLNEEREELKKNEFKERRRNAKRAA

>AHK56424.1 RNA polymerase sigma 70 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MLKEPPKAYAQMLKKEQDELVLSYMPALRAMAFRLKERLPSSIDVNDLISIGVEEMIKLSRRYDKEQNDN

FWGFARKRVNGSMLDYLRSLDVMSRNNRKIIKDIDAIMDEYFLEHECEPDDEYLAKKLDLDVEKIKEVRT

AHAISYTLPIDEQIELYNEDNTLEKIEKEELLEKIHEVLDDLKERDQLIIQLYYYEELSLKEISEILQIS

ESRISQIHKKLLKKLRERLV

>AHK56423.1 flagellar motor switch protein FliM [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAEILSQEEIDALLEVVDDNTDTPIASNSKDEKDERNIVVYDFKRPNRVSKEQLRTIKGIHDKLARNLAS

QISSMMRSIVETKLHSVDQMTYGEFLMSLPSPTSFNVFSIKPLDGNCVLEINPSIAFPMIDRLLGGQGDS

YEASRELTDIELNLLDSILRIIMQRLKESWATVTEIYPSIEAKESSPNVVQIVSQNEIVIMVVMEIIIGN

SSGMVNICYPVVHLESILSRLANRDIMMGETSAKKSRNKELKTLIGRAEVVYEAILGKTLINVHEFLELK

QGDILRLDREADDKAIVSIDKKDVFLAQIGLHRFRKSIKILELIRTDKDEIKEILEKYEEERKAKASVYD

EPEEEDEEI

>AHK56422.1 flagellar motor switch protein FliY [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINDFLKMFTNECISTIEGLTGKSAEFSEYKEFDVNTSDTLKAPLVYAIFNIANGGKIGILAGAILMSAI

GEWMMGEEEITKNDKLGPDEMDAAKEAIQNIISAFSTTLGAQKDIPKMDFSIESCEFVPESVDFKDFKKL

FLYDVKIGDLEEQVSLAMDQTLHNILSGKPAETGNTSTDSNHNTEEKAIMLSEELKNINLIMDVRLPVRV

RIGNKKMLLKDVLTMDIGSVVELNQLANDPLEILIGDKRIAYGEVVIVDGNFGVQITEIGSKKERLEQLR

>AHK56421.1 lysine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNEKISQDLEKFANIPNLKNAVTFFGSARLKEDNFYYQQAKILAQKCVQNGFCVISGGGGGIMRAANEGA

FSQNNNTNSMSSVGFNIFLPHEQKLNDFVEYNITFESLAIRKMALIEKSLAFVIFPGGFGTLDELCEILT

LKQLEFKKDVPIILFGSEFWRGFDEFVRNSLLKLEVISKGDELKYKITDDLDFIINTLKEI

>AHK56420.1 thiouridylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKILVAMSGGVDSTVTAYKLKNLGHEVIGCYMKLHGKPNYHEENIKKVEKVANFLQIPYHILDLQEDFKN

KVYMPFVDTYKEGKTPNPCALCNRFIKLGKLLEFAKSLGCEKLATGHYARLENNLIKTAVDESKDQSYFL

ASADKEALKYLIFPLGEMKKEDVKKFASTIEVLKSFATQKESSEICFVEDTYVQVLDQFMDTKIPGEVLD

SSGKVVGKHEGYMHYTIGKRRGFEVRGAHEPHFVLKINPKQNQIIVGTKEELKISEFNLKNINLFIDAKE

LDCEVKIRYRSKSTPCKVEIYEDKSAKIILKDPVYGLASGQMAVFYDHDKVIASGFIE

>AHK56419.1 hypothetical protein N918\_00240 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNFQVKTLETFNPFESLNHEQANTEQILDFRVIDFKLLCSSVKPAKTKTYERKDFDLFYADDFFVKNYNT

IVQKFLIEIYPKTQSFPFTVKLRSNSNLTHLKASINLTENFKYYPNLKFDILQNIYKIMIKQKFLILRLD

KNLFDKIDDFILSIQKSPSIKEIELEIAKGVDKIEHKSDEIIYHRDVNEECFDENINYDEGNYCKPIEKN

ELLFEYIYRILGKEGRNLRGEILHLNPIAFLDNPFIIKDESIYTEELEDRIKYFSANYGFLNKDHTGYCI

ANNLKLSQIGLKTTGSIKTNTDENINLEITNFDISDDAIKSGIVNVQASNIKVNGNVGATKLYGKNISIK

GLTHAKSEIFAQDIFITTHKGTLQADTVYIKNLENGTIIAKNVFVENCMGGKIEAENIYICNLLTDNTLY

PRKNLIITNNIKFKNNIVVSPLVSIENNSDTECENLKNLSLKIKSKLDDTISKMQNYYDYLIKNQIKIIK

LQKTKNPSAIEMKFSNLYHDIIKKYNHLSISYKKLVKLKYQIDAKLNFLNEMVYNVKIYIKAENIGEDNF

LKFYPNTNTNLELKHHINLKDYEKVLYLEKGQQVSYIKSSHNYSESDIEEIKIIFKKLEKDNS

>AHK56418.1 flagellar hook protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MMNSFYNGISGVKSNSFGIDITANNIANVNTTGFKYSDAQFKDIFYTTITTQSTNPAQGGYGSGAASSQV

VFEQGSPVASDGEFDVALQGKGFFGVLGADGNAYYTRNGSFRRDANGYLVDSYGNFVLGTMNPAFTGINY

SDRVAGLMGDYLNTGTPVNNGFTVNSNNSFSIGTTASQGAIKVPVNMYLPPQVTQNVKWSGSLNTNTTTE

VVKVDLDPSKFNITKTEDGKYVVSGSVSKEDVFSAKAGDRIILNFTDDNGVKTSFEATLDENLNFKSNEL

DLKGLDENSIKLDTAQISTEQQKANKDILESPIYNADGSKSTLRVTLERVLPQEGDNIQYKAIAQIYDSN

GNAVGNPTEGNMVFDKNGALLQNNITSIANPNGGTINIDLGSPYDANKPGSGYSGIYIKQGVEKNVVTQQ

DGVAEGFFEQYNISDDGSIVAQFSNGKNAIVGKLALYNFINEQGLVAMGDNIFAATANSGDASFIMKDGQ

VVNTAKFKGGFLEQSNVDLSAELSNLIVTQKAFDASSKSITTSDQMIQKAINMKR

>AHK56417.1 flagellar basal body rod modification protein FlgD [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MISSSDWNLNTTATTSGTTSSGSTSGTTRTDSSSSSGIVSNPNATLDKDAFLKLLLIELQHQDPTDPMDS

DKMLTQTSQLSALEMQQNTNTTMQKMVETMQKLSDSFSTSMSTSALGAIGKMATVSDNKIKLTGADELIA

LKMYLPEDSDENGVTLEIYDSNNKLVFSEKSDAKSISQGLFTMEWPGRNNDGVYAGDGEYTVKMVYNNKN

GEKITANYGTYPIEGVVFKDGVAYAKMAGQEVPFDAIQEITDYKLGSSSSTGGSGSSGDSSGGSSDGDSS

GSGSTEDGDKEEKA

>AHK56416.1 flagellar hook-length control protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSNLAPQNDVLNLTPSKTSTTSSSFSKTSKNKEHESSDSKNSTQDDTESFLNSLLNSINETNEFLPDHMK

ISQKEVVNEAMSRLQKGAFDESDKISIFESASFMQILSLLDKLKTDTADVKLANLSTQLSSLIKTEANFN

ALKGASNLSELLDIAKDLGLNVKNIKVDRLLDLKATFPNLDKADFFKGAVDNVFKEIINNKISNVSKNLN

HNLENTTHTTSTHSMQKTNSKDSGSLLSQTLKNLDSILSSKESKHEKNDKVKSKIEEDTTDAKNTLKNIK

NDEFAKNLTEELNIKDKKNQDNLNKESKDLNKDFNKELNKNQEKNNLNQENIQDQNKNLKNNDQNLNLDK

NLNKEIVKDTQKLVSNLTQKDFNLNKEPKNNNKENKDIKQNFFDQKLNFENLNKTQVVQNKENNANFNNN

NTNNKETFTQEQTKTHSENVDKNSLDELNSLVKDLNKVTQNNARNITPKETLQYFSQDLKEAVDQYKAPI

TKLSITLNPNNLGEVEVTLIQRGNNLHINFNSNANAMNLFIQNQAEFKNSLVNMGFTGLEMNFSDQGKRE

QNQNQGKNRSGYGFKDALDGKNESEKVNLELVLAKYF

>AHK56415.1 hypothetical protein N918\_00220 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKPLNEEIFVEFKSDLAERKNEVLLQVLELLETFRSDENEKMARISSELTEILENEENLEKILNAKNLE

ELLNILTALNEDKMIKVYEDSYLKEKFPNVMVDKFLK

>AHK56414.1 GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MENIRNIAVIAHVDHGKTTMVDELLKQSGTFSEREQISERVMDSNDIEKERGITILSKNTAINYKGTKIN

IIDTPGHADFGGEVERVLKMIDGVLLLVDAQEGVMPQTKFVVKKALSLGLKPIVVINKIDKPAADPERVI

NEIFDLFVALDANDEQLDFAIVYAAAKNGYAKLDLNDESDNMEPLFKTILERVPAPSGSDENPLQLQVFT

LGYDNFVGKIGIARIFNGVVKKNQSVMLAKADGTKVNGRISKLIGFMGLEKMDIEEAGSGDIVAIAGFEA

LDVGDSVVDPNNPMPLDPLHIEEPTLSIVFSVNDGPLAGTEGKHVTSNKIAERLEAEMKTNIAMKYESTG

EGKFKVSGRGELQITILAENMRREGFEFCMGRPEVIVKVEDGVKTEPFEHLVIDVPEEFSGAVIEKLGKR

KAEMKTMAPTGDGQTRLEFEIPARGLIGFRSQFLTDTKGEGVMNHSFLEFRPFSGAVEKRNNGALISMEN

GVALGYSLFNLQERGVLFIEPQTKVYTGMIIGEHSRPNDLDVNPIKGKNLTNVRASGSDDAIKLVPPRKL

SLERALEWIEEDELVEVTPVNVRVRKRYLDPTQRKRMEKAKS

>AHK56413.1 poly(A) polymerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDLKSLENNRLYILKRLGILKFLSIIEALLVGFLAFVFIRDALIAVILAVFVGVFFFRFTAKKLKLAQKE

LQINALNLFLRRFGAKFKKQSLSQKDFLKLGLTKDLKEFKSQNCFEFKDFKIYDIQFLDENKRFFCGILL

EISKANKNPSFENEEQIYIKLTDKNFTLNHIFSKENHYLITTLSNPFFIDIKKDLESNFKDLEENLNSIK

NKLFK

>AHK56412.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKHILLLGLCLSLSLSAKSVSDYKVGEELSDKEGVEYFKELSKRPVQEWPNKNLSINDVPKGKQGDLIR

YGIELLSKTESTLGPYSKLKKTSNEVNCISCHMDNDGNGLPGTKKYVIPFLNILNNYPRLDIETMKIISV

EDRIRGMGGTDSHRFPNDSKEMKAILAYFKWLKEAYGIKDGVKLEGDFFAKMNFPNRPADPVRGKKLFEE

NCVACHGERGLGVKNDNYEQGSGHLYPSLLIYPDGGHMAMIPFLARFLKSAMPFGASADNPILSDEDALD

IAAYVNTGFVRMPITTTENRAGLDTAYSKSPSLKPEYFASPQQNLDPKEYIKVKYGPWKNPNHFPGE

>AHK56411.1 hypothetical protein N918\_00200 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQNLNQNEQIKCPSCGSFIDISTALYAQILDKAKQEMLKQKKEFDDEVNAKRAEYTKALNDLKTQKIEQE

KLINEQVSQKLLLEKQKFEQELLIQKQNFQKEFSEKFNKEHENEMKIMQEELEKKSKELSEFLSIKAENE

RLKREQKENEERLKFQAKEEAFKEFKEQESKNLEFEREKMRLEFQKSTQEQDLKYKELETNFKSVAQKLE

DAQRRIEQGSQQLQGEAAELLIEEYIQSEYLSDEVKEVPKGVNGADCLHIVKDNFGNICGSILYESKRTK

EFNKEWLDKLKLDSIAAKSDIAVLITKTMPKDKEKTHFKEGILICTFNEFKGVLAVLRESIINAYKLKNA

LQNKDEKNHILYEYLNSKEFNTQITFILKTYQNMKEELEVEKRALQNIWKKRERAIENLSFNSTAIVSSL

NAIFSDLQGGNLIGEEGIKSLENLAKDED

>AHK56410.1 multidrug DMT transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQKHTKIHGFAKFKLIVILALMSSIAPLSTDMYLPALSHVEQSFQTNSFLTQLSIASFFIAFALGQLIYG

PLSDIFGRKIPALVGIFFFIVSSLFCVIIDDIYAFIALRFFEALGGCAGVVIARAIVNDLFEIKEAAGIF

ALMMVFSSLAPMLSPTFGGILLEYFSWHSIFATLFALGILLFLMILFGLKESAPHLKNKKFSHHEAMKSY

KFVLSDKRFLVYILCASFALAAMFAYITGSSFVFTQFFSLSEQKFALLFGANALGFVICANINARLVLKY

ESEKILAKALMIMFISTVILLVNAFFHPNFLLFELSIFTSIAMLGFIAPNTTTLAMARFKEHSGTASAVL

GTVQFGFAGLISFVVGAINANTPIILAFVMCACVLVANMIYFLIKIKEKK

>AHK56409.1 hypothetical protein N918\_00190 [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTNNIFMALAIVLASLILAFGFNKALSDFKTLERSVSVKGLSQKEVEADTLILPIKFTRSNNNLTNLYE

ELEQDKENIIKFLEKQGIKEDEISYNSPNIIDRLSDPYSNDTQAAYRYIGTANLLIYTQNVKLGKSILEN

ISSLAKFGIVTKIDDYDIEYLYTKLNDIKPQMIEEATLNARNAAIKFAQDSNSHLGKIKKASQGQFSISN

RDKNTPYIKTIRVVSTIEYYLKD

>AHK56408.1 L-asparaginase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNMCDEI

WLRLAKKIAKLFAEGIDGVVITHGTDTMEETAYFLNLTIKSDKPVVLVGAMRPSTAISADGPKNLYNAVA

LVVNKEAKNKGVMVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNAPFD

VSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVSSRV

VAGCVAVSDSDEKLGFISAEDLNPQKARVLLMLALTKTSDPKKIQEYFLKY

>AHK56407.1 recombination protein RecJ [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKIINKNEIKKILASRFEKDLHTKLCDLPLPCCLKDAYKAANRIKEAVEKNEKVAIVGDYDVDGIISCVI

MAEFFDDIGFDYIIRIPNRFKDGYGLNAEIINELDVNLIITVDNGIAALEAAKLCKEKNIDLIITDHHMP

QDILPDAFAIINPKQKDCDFPEIEICGAQVAWYLIAALKEVCKLKYDMCKFLELLAIAIVADMMELRDLN

RALVRRGIDHINKSKRAAFRAIKHYYQKDKFALDNIGFLIAPLINSAGRMDDASISYEFLHTKDFNKALE

YLEQIVSFNESRKDEEKQLFEDSLNQIDENDSCIVVSGLNWHEGVLGIVASRLAKHFNKPAFVFSQNEEH

LKGSARSVGKIDILALISKTNSILSNYGGHKGAAGISLNSENFEQFKNKIKKECSQISESEFLDTDEILG

ILEPSEIDFEMLEILESFEPFGHKNPRPFFVLENLCVKNKKLLGKDEKHLKLVLTKENKTIEALFFNFDK

EPELNQNISLLGSISKNEFRGMVTPQFVVKEIL

>AHK56406.1 CTP synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKQTKYIFVTGGVLSSLGKGIAAASIATLLKNSGLKVSILKADPYINVDPGTMSPFEHGEVFVTDDGAET

DLDLGHYERFLDESLSQDNNFTTGRVYQSVIEKERRGEYLGKTIQVIPHIVGEIKDRIKKAGEGKDILIV

EIGGTVGDIEGLPFLEAIRALRLEVGKNNAMNIHLTLVPFIKAAGELKTKPTQHSVGELRRIGISPDMII

CRSEKALDRDLKDKIAISCGVEKNCVIESVDAASIYQIPLNFLKQDILSPIAEILDLKNLKPNMENWDSL

VKRVIAPSNEVKIAFVGKYVDLKESYKSLTEAIIHAGAALDTKVELKWVDSEKLENMESSEVFKDVSGIL

VAGGFGYRGVEGKIKAIQYARENKIPFLGICLGMQLALVEFARNVLKLKDVNSSEFNEKCQNPVVYLIDE

FMDTNGEKQIRTAKTPLGGTMRLGAYKCDIKEKSLLAKVYNEVKSVKERHRHRYEANPKYRADFEKYGLI

VSGESKGLIEAVELNCHPFFLAVQFHPEFTSRLEHVNPVICSFIKAAINYEDN

>AHK56405.1 FAD-dependent thymidylate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQITLLFHTPLSVCSHATRTCWQSFEKGDCGGEKDKELIDRVGNKFKHASTLEHLNYTFYIQGISRACLQ

EVARHRHTSPSVKSTRYTLKELRNEAEFKIGDFENASRYLVLCGNEEVDNASIKALENLRTILQKSISLD

IAKYCLPESYKTELTLTINARSLQNFISLRSSKSALWEIRNLANALFEALPQEHKFIFEHCLHKDIE

>AHK56404.1 sodium:dicarboxylate symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDKQFFQDFLMLSQAHTIATLAILCVVFYALKKMRDIKINFSLRMLFALLMGLGFGFALQYLANFPDAEE

ASNILWYSETKHWFAFVSSVFVAFIKMLVVPLVSICIIKVIIEIDKNIKISSLLGISLFWILFSTAIAAT

LGIFLGYSFDLGSNFAIYEGDKQIREIQTFSNIILGLIPSNIITAINKENIIAIVIFSFFIGISAKKISK

KEEYEQAFKSFHNFILTFYNIMMNMTATVIRFMPYAVVCMMANVLLSNGFEAIKTAGLFIMLIYIAMFIM

FGVHFLLLASQGLNPIKYAKKAFPVWLFAFSSRSSLGTLPMTTSTLQNKFGVNSAIANFVASIGTTTGLN

GCAGYFPALAAVFVAFATHTHIDFTFALMIVLVAVIGSLGIAGVPGSATMAASIMLAGIGFGNNFVMLSL

ILAIDPIIDMARTASNVSGAMTSALCTAKNLKALDKEIYNS

>AHK56403.1 ribonucleotide-diphosphate reductase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKVIKRNGRTEELDVSKIKKCTSDAVKDLEGVNLSELELDAKIQFRDGISTEEIQKTLIKTAVDKIDIDC

PNWTFVAARLFLFDLYKKVNGMNRYNHLREYFQKGEKEGRILLGLKEKYDLDDLNAYIKPERDMQFTYLG

IKTLYDRYLIKDSKGMPIELPQQMFMAIAMFLAQNEFNPQEWAKKFYDLISKFELMLATPTLSNARTTRH

QLSSCYIGSTPDNIEGIFDSYQEMALLSKFGGGIGWDWSKVRAMGGSIDGHKNAAGGIIPFLKITNDIAV

AVDQLGTRKGAIAVYIEPWHMDISDFIDLRKNSGEERRRAHELFPALWINDLFMKRVRANDKWTLFDPAD

TADLCDLYGEAFEKRYEEYEKDESITKEIVEAKELWKKILLNYFETGLPFLCFKDSANRANPNAHVGIIR

SSNLCTEIFQNTEPNYYQIKVVFENGDELHFDEEQKVVIDGGYEKPAKKISTLDSIEGNKVYIVEKYKND

GKTAVCNLASINLSKVYTKEDIERVVPTAIRMLDNVIDLNFYPHRKVKDTNLKSRAIGLGVMGEAQMLAE

AKIHWGSDEHLNKIDEIMEQISFEAINASSNLALEKGSYEDFEGSNWSKGIFPIDVASPKAKALTLREGL

FDQSECDWVKLREKVKKDGMRNGYLMAIAPTSSISILVGTTQTIEPVYKRKWFEQNLSGMIPVVVPNLSL

DTWQYYTPAYELDQKILVKAAAVRGKWIDQGQSLNIFLSLDKASGGYLNEIYQLAWELGVKSTYYLRSES

PDSEKVNVADRSIECEGCQ

>AHK56402.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MVERYSREIMAKKWDMQAKYDAWLKVELAAVKAWNKLGLIDDTDCEKILKNAKFDIARIDEIEKTTKHDV

IAFLTSVSESLGEESRFVHYAMTSSDCIDTAVALQIKESLELILEDVSLLLEAIKKRALEHKNTLMVGRS

HGIHGEPITFGLVLAIWYDEISHAKELLEHAKEVISYGKISGAMGNFAHAPLEFEEEVCKNLGLKAAPVS

NQVIQRDRYAQVISAIAILASSCEQIAVAIRHFQRTEVYEAEEYFSVGQKGSSAMPHKRNPVLSENITGL

CRVLRSFVTPALENVALWHERDISHSSVERFILPDAFITADFMLMRLTNLIDKLLVYPENMMKNLNLTGG

LVFSGRVLLELPFKGISREEAYKIVQRNAMKVWADLQNGKAAINEKNESLFLLALLSDEDLRKSLSEEDV

RKCFDYNYYTKNVDAIFKRTFK

>AHK56401.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MAYIKIKLSNNGKKAFQVLMENLKISINEAQKLIDKKRLFCDGILVEEKNKILNGLVELIVYENNPKGVE

IVFENEDFAILEKESGILSHPNGRHCKYSLSDEIWHLWGKEACVAHRLDKETSGLILIAKNKKAQIDLKS

LFEKKLVQKEYLALAHGKIEENFIVDKAINLTKNYDDVKTRMQICKEGKQAITEFEILEYFPKINATLLL

CKPLTGRQHQIRVHLHYKNHTILGDPLYGLSKQQIESILDEKLNPKERLKLTGALRLCLHSYRLKFQYKN

QNFDINSKINIKEIFNNSIK

>AHK56400.1 fumarylacetoacetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKFVNFIQGQKPNLGVLNSSGKIVSFDDLGIETNDMNEFIIHFDKFKHKLTDLDSKIAYEIPQENYLAPI

IEPRQDIICLGINFLDHAKESAKFKGEKFEEREYPVYFGKRCNQATAPFGDIPLHADVTSQLDYECELAF

ILSKDAYKIKAKDAKDYIFGYTIINEISARELQKRHKQFYRAKSLEGSTIMGPYITSVDEISYPPKLQLQ

SYVNDELRQNSNTQLFIFDIAYVLEELSAGMLLKAGSIISMGTPSGVGMGLNPPTFLKSGDKVRCVIENL

GELCNKIKNINY

>AHK56399.1 cytochrome C biogenesis protein CcsA [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIIMILCLSYANIVFAVDMITPIPNSISYDKEKAKLGKSLYMDKSLSKDGKVSCNTCHRLDQHGVDGL

EFSIGVDNQLDKPFNTPTTFNSVFNFVQFWNGRAKDLAEQATVPFFNPKEMGLSPELLLQKVNSNENYVK

TFKKLYGEVTVENIALAVAEFEKTLITPNSPFDRYLSGDQNAISTQAKKGYEDFKANGCISCHQGQNIGG

NMFQKIGIFEEYPNQEDLGRYEITKREADKMVFKVPSLRNIAKTAPYFHDGSIPTLDACVQFMAYYQLGK

FLDQETVDNIVAFLESLTGEYHDK

>AHK56398.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTNKKSSFLIKFIILSTLVLAFILVLLGIIFNNYSSSKDNKELINIVQQLEISDEKINSVFQNSFNFINY

DPSVQAIKKMQENFTKLKTFGIDINKAEEIFNAKLIQLNYFKSANSIAVNSKLYLFELAKNYFEELEQNH

ETNKNNYKTMSSMLSVLSTENILQKTTLNQLNNLMKEIKNDTKSENLQLFLKHYNMIVKQISIMQDNSSI

YENNSLMKELKQLNTFTQNTIEQSNLFKFYIALAVFGITLVLFVFFILLTLKKVIMPIHTLEKLSANLAS

KEANLHSRLNIDPKSELGQSAQYINSFISTVQNSIIEAIENAKSSHQNSQKLKNNSMMLENSSNSQHEQI

QGVKEITHVLDDHINLAGNLAQESIENMQDMHILMDKVELTLSELVNLINENNEKEQNIVANMDNLTQSA

DNIIEITNSIKDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVGQLADKTSKSLLNINATVNTIVQQI

NDNKALMDLIHDSMKETSSKTNDLQQELVNSMHKLESSIESTQTMKDKSMEVKDKMLILGTNIDKVNELA

NSVKDLSCEINNISQNVLNGASKLSEKLSSFQ

>AHK56397.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MEFLELLLVLIALILIIKKPEKENLAFGLVMVAWLLMVFFYVGHKTGALLTIMNL

>AHK56396.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNEINKTKNFYTLMCLAGFLIILLPVGIANLIFGYMLGDSPCTLCWGQREAMIFIGVMALFIVRYGMKGK

YLAALLIMTAVGLYQSFAHYGNHAHRDLDQGFGLAVFGIHTYFWAEVVFWAVVLLLGVIFAFAPKFNAFE

AELNGEKFRKYTKFSFAAVLISAIIVASNVFQAFVSTGIPPYVGQGDPVRFSLNPKYIIWSKEGWNGLWQ

NISFLGKRDVKAPDYAFAPASEKLGIKFDNDINNAPFAKINDELKITNEQTINFDKAINTLDYINNEFVA

SSKWDVAFLDNNFSVKEGFELDPYFSASIDPIIGIIPYMNDKFILMGSNKSFLRFAKNPNASEEDIAKQY

ADFVKGNDKFKGQGESLGRGRLDTVRAKFNHVASMTTDGNYLYLATVPNNKDAKTFVISKVSLKDRVLSG

EFTPKANLKEGKTLGDLYVTSMTFKDGEIYALSKNHNVIAVIDPVKEEVVKTIAFPSSITNARSIFFKDG

KINILSYQDGANKLYTLN

>AHK56395.1 7-cyano-7-deazaguanine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MSKKALCIISGGMDSTLCAYLAKKEGYEIIALHFDYEQRTQEKEKECFKQICKALKVEKSYILDVSFIKD

IGGNALTDKSIDIPKNELCTSDTPPITYVPFRNGIFLSIAGSLAEKENCESIFIGVVEEDGSGYPDCTDE

FIQKAQEFINEGTSKNFKVCIKTPLVRLNKAKIVELALKENVPLELTWSCYESEDEACGECDSCLLRLRG

FEKAGFKDKIKYKS

>AHK56394.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MINIKLIEHIFKAASISRWNDYPRMANLVELDKQAHKFIIAYFIAKMEKDVDMRVIIEGGIFEFLSRVVV

TDIRPDVYHEIVRQKKAEVNAWVLSKIEPMIEDIEDGEFLKRFEAYLNGNAYAKERLILKAASYFATRWE

FNIVYQTSAFLNDIDEIKNKVEEELEDYYELIGARKIALNQKIAKIIDLSGRLRFQKRWAQTPRIPETAV

LGHMLVVAILGYFYSLKIKACDKRLENNFYCALFHDLPESLTRDIISPVKYGIDGLHDIINDYEMKLINE

RILPFVPEGLRAEFSYILGIREGRNGESNFVKNEFENRTYKNAKIELCSGSLSSFNENEFGAIDGKALKY

CDKIAAYIEAGLSISYGVKSKELESGFLGMHEFFKENPTIDGVNFFEICESLREYFKI

>AHK56393.1 dihydroxy-acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRSDAIKKGHLRAPNRSLLRACGLKDEDFDKPFIGVANSYIDIIPGHYFLNDYAKIIKDEIRKNGCVPFE

FNTIGVDDGIAMGHEGMLYSLPSRELIANSIETVMNAHQLDALICIPNCDKITPGMLMGALRVNVPTIFV

SGGPMASGVTKKGEKISLSSVFEAVGAYESKKISEEEFKDIECSACPSGGSCSGMFTANSMNTLCEAMGI

ALEGNGTILALSKEREELLRKAARRICEIALDERFKIRNIITQKAVRNAMVVDMAMGGSSNTVLHMLAIS

REAGVALDIKDLNFISSKVAHIAKIAPSLNSVYMDDIHKAGGVSAVMAEISSRQGHILELDALTITGESL

KERLKNAKIKDENIIRKVDNAYSKVGGLAILFGNLAKQGCVIKTAGIIGERKFKGKAVCFNSQDEAIKGI

IKGKVQKGNVCVIRYEGPKGGPGMQEMLSPTSLLMGMGLGADVALITDGRFSGATRGLSVGHISPEAAEG

GLIGLLKDGDEIEIDVDAYTIHANVSEEEIAKRKKEFALPQKEVSSRWLRMYQKLVSNASKGAVLDME

>AHK56392.1 non-heme iron protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MRQYETYKCQKCGNEVEVQNVGGGKLSCCGEEMKCITTDLTAVNLMKAFAGESMARNKYDLFADVAEEEG

WHAVARHFREAAENEKWHARAEFKAYHEIVDGKPLEVTTKNLVTAAEGENYEHTTMYPNFAKIAEDEGKK

AIARLFTAIGKVEIEHEREYLALKKMLEEEEFFNSEVEELWVCEVCGHIHRGKKAPAACPLCKAPKEYFK

REFLG

>AHK56391.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKLLFLFFALTAFLFGAVNINTATLKELKSLNGIGEAKAKAILEYRKEANFTSIDDLKKVKGIGDKLFE

KIKNDITIE

>AHK56390.1 ribonuclease HII [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKTLFDTKELLNEFDINLIGIDEAGRGALAGPMMMAACKLNKQLDGLCDSKKLSEKKREELYEIIIKNSN

YLILAFSSEQIDALGLSTCLKKGLKLIKKHFKTENNFLYDGNTNLGINGIKTQIKADTSILQVSAASILA

KVSKDRVMNFLAKDFPCYEFEKNKAYGTKAHKEFIAKFGICKLHRKSFKLL

>AHK56389.1 glutamate synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MGNARGFLDFKRMDFKKIAPKERILNYKEFTIPLDKKEQEVQGGRCMDCGVAFCHTGVMSEGKDVGCPLN

NLIPEWNDLVYRSLWKEAYERLDLTNPFPEFTGRVCPAPCEDSCVCAINGVSVSIKNNELSIIENAFKEN

LVRVNKPKQYNGKKIAVIGSGPAGLACANTLNSLGYKVSVFERSDKIGGLLMYGIPDMKLDKSIVQRRVD

LLKKSGIEFKVNENIDSKDKVSKLLKEFDALVLCTGASKPIDLDIEGRKLKGVEFALDFLTQNTKTLLKT

GKGADMAKGKNVLVIGSGDTSVDCIAVATRQGAKSIVRFERSPKRPLQRSQNNPWPLKADIFTTDYGLEE

AIAVYGKDPREYQKMTKKFLGKTHVEGVEANDLKREFKEGKAINVEISNSKKTYKADLVLLAMGFSGCEE

AISKNFGVKLDEKNNISTENFQTTHKKIFACGDARKGQSLVVWAIKDGIECALSLHQNLAK

>AHK56388.1 glutamate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MDLENILENNQSIGLYHPKNEHDACGIAAVANIRGIASYKVICDALEILMNLEHRGGTGAEENSGDGAGI

LIQIPHDFFKTQELGFELPKKGDYAVAQMFLSPNTDAKEEAKEIFLQGLKDKKLEFLGFREVPFNPSDIG

ASALKAMPYFLQAFVKKPSKISAGLEFERVLYSTRRLIEKRAINVPKFYFSSFSSRTIVYKGMLLSTQLS

DFYLDFKDVNMKSAIALVHSRFSTNTFPSWERAHPNRYMVHNGEINTIRGNVDSIRAREGLMQSEYFENL

DEIFPIIAKLSSDSAMFDNTLEFLALNGRTLEEAFMMMVPEPWHKNENMESKKRAFYEYHSLLMEPWDGP

AAIVFTDGVIMGASLDRNGFRPSRYYLTKDDMLILSSETGALKLDEKNIKAKKRLEPGKLLLVDTARGRV

IADNEIKEHYANAKPYKKWLKNLVELEKQKSGVYKHQFLKEDEVLKLQKAFGWSYDELKMSVAAMAQNGK

EAIAAMGVDTPLAILSKTYQPLYNYFKQLFAQVTNPPLDAIREEIVTSTRIYLGSEGNLLKPDENNAKRV

KIALPVISNEELFEVKALNKFQVKEFSILYDYSKKTLEKALDELCVKIEDEVKKGVSIIILSDKGVDEKN

AYIPALLAVSGVHNHLVRKNLRTHTSLIIESGEPREIHHFACLLGYGATVINPYLVYESIQKLIANKDLN

LSYEKAVENFIKASSSGIVKIASKMGVSTLQSYNGSALFECLGLSSKVIDKYFTSTTSRIEGMDLEDFEK

ELIALHKHAFNDTHKALDSKGIHGFRSAKEEHLIDPLVIFNLQQACRNKDYKSFKKYSALVDEKQVNLRS

LMEFDFSEAISIDKVESVESIVKRFRTGAMSYGSISKEAHECLAQAMNKIGAKSNSGEGGEDEERYEIKE

GVDKNSAIKQVASGRFGVDLNYLSHAKEIQIKVAQGAKPGEGGQLMGFKVYPWIAKARHSTAGVTLISPP

PHHDIYSIEDLAQLIYDLKHANKDAKISVKLVSENGIGTVAAGVAKAGANLILVSGYDGGTGASPRTSIP

HAGIPWELGLAETHQTLILNKLRDRVRLETDGKLMNGRDLAIAALLGAEEFGFATAPLIVLGCTMMRVCH

LNTCPFGIATQDTELRDRFKGKVDDVINFMYFIAEELREYMARLGFERLDDMIGRVDKLRQKSVQGKAGK

LNLDKILKSLPTYNRTAVHFKDYKDNKLEKTIDYRILLPLCKNAVEKKEPIKLSLEVGNQSRTFATMLSS

EILKTYGKDALDEDSIHIKAIGNAGNSFGAFLLKGIKLEIIGDSNDYLGKGLSGGKIIAKISNEATFSPE

ENIIAGNACLYGATKGEVYLDGIAGERFCVRNSGALAVVLGTGVHGCEYMTGGQVVVLGDVGANFAAGMS

GGVVYIFGRHNEAHVNTELVDIKDLNAKDEKELKAVIEKHITYTDSKKAKDILEKFDKKDFFKVMPRDYE

KMLKMLDLCKNEKDPNLAAFLKITQK

>AHK56387.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MTLLTNPIIISVVLMTLLCLFRFNVLLSLLISALVAGVFSHLELVDTMNILISGMKENLKTALSYILLGA

IAAAISKTNLTAYLIKIVSHFISHKKYLLLLSIALISCFSQNLIPIHVAFIPLLIPPLLSLFNKLKIDRR

AVACALTFGLTTPYMVLPVGFGLTFQDLLKDNLNANNVSASLNDVTNTMYFAAICMIAGLFLALFVFYRK

PREYQEVEIAKVDLENLEMTRKEWGVLAGLVLTLILQILTMNLPLSGLLGFVLMVILGGVEFSKVNEVFD

DGLKMMGFIAFVILVAAGYGEVLKESGSVVDLVNSVVPWMEQSKFLAVFFMLLIGLIITMGIGTSFGTIP

IIATLFCPICLELGFSTALIIFILGVAGALGDAGSPASETTMGTTVGLNADKQHDHIKDTCIPTFIFYNG

PLLILGSIIAMFL

>AHK56386.1 molybdopterin containing oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKQNDQKENRRDFLKNIGLGLFGISVLSNFSFENFLGSKALAKELPDFKIEGKKDLIYHGEKPLTAETEI

YALDSDFTKPENFFVRNNGLPPSLETIKERLHKGWTLEIDGESIINKKSYTIEDLKKKFKTYTYALTVEC

GGNGRSEVIPSTKGTQWGYGAVACGRWTGVRLKDILKDCGIKNDAVYIGYYGIDTKLNGEETSPISRGVP

ISKALQDETLIAWAYEGKDIPLVNGYPLRLVCGGYPASTSGKWLYKISVRNKIHDGEKMEGSYKVPVNPV

KPGDFNYKGEMKIIESMPIRSVITNIKNGSEIKANKKFEVRGKAWAGELEVSEVYVSNDYGVTWTKAKVE

KPLNRLAWQKWSAQISIPTKGYYEIWARAIDSQGNSQPMVLAQWNPGGYINNACHRVNVYGV

>AHK56385.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKKIILILALFLSASWAQNLEINPDTGLIIDPDSPLVEANCLACHGSNLITNMHASRKAWLAAIRWMQDS

EGLWEIEPEDEEKILNYLEKYYGEKYDTRRRIPLAILLQNKTH

>AHK56384.1 DNA gyrase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MQENYGASNIKVLKGLEAVRKRPGMYIGDTNIGGLHHMIYEVVDNSIDEAMAGHCDTIDVEITTEGSCIV

SDNGRGIPVDMHPTENMPTLTVVLTVLHAGGKFDKDTYKVSGGLHGVGVSVVNALSKKLVATVERNGEIY

RQEFSEGKVISEFGVIGKSKKTGTTIEFWPDDQIFEVTEFDYEILAKRFRELAYLNPKITINFKDNRVGK

HESFHFEGGISQFVTDLNKKEALTKAIFFSVDEEDVNVEVALLYNDTYSENLLSFVNNIKTPDGGTHEAG

FRMGLTRVISNYIEANASAREKDNKITGDDVREGLIAIVSVKVPEPQFEGQTKGKLGSTYVRPIVSKASF

EYLTKYFEENPIEAKAIMNKALMAARGREAAKKARELTRKKESLSVGTLPGKLADCQSKDPSESEIYLVE

GDSAGGSAKQGRERSFQAILPLRGKILNVEKARLDKILKSEQIQNMITAFGCGIGEDFDLSKLRYHKIII

MTDADVDGSHIQTLLLTFFFRFMNELVANGHIYLAQPPLYLYKKAKKQIYLKDEKALSEYLIETGIEGLN

YEGIGMNDLKDYLKIVAAYRAILKDLEKRFNVISVIRYMIENSNLVKGNNEELFSVIKQFLETQGHNILN

HYINENEIRAFVQTQNGLEELVINEELFTHPLYEEASYIFDKIKDRSLEFDKDILEVLEDVETNAKKGAT

IQRYKGLGEMNPEQLWETTMDPSVRRLLKITIEDAQSANDTFNLFMGDEVEPRRDYIQAHAKDVKHLDV

>AHK56383.1 DNA polymerase III subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MKLSINKNTLESAVILCNAYVEKKDSSTITSHLFFHADEDKLLIKASDYEIGINYKIKKIRVESSGFATA

NAKSIADVIKSLNNEEVVLETIDNFLFVRQKSTKYKLPMFNHEDFPNFPNTEGKNQFDIDSSDLSRSLKK

ILPSIDTNNPKYSLNGAFLDIKTDKINFVGTDTKRLAIYTLEKANNQEFSFSIPKKAIMEMQKLFYEKIE

IFYDQNMLIAKNENFEFFTKLINDKFPDYEKVIPKTFKQELSFSTEDFIDSLKKISVVTEKMRLHFNKDK

IIFEGISLDNMEAKTELEIQTGVSEEFNLTIKIKHLLDFLTSIEEEKFTLSVNEPNSAFIVKSQGLSMII

MPMIL

>AHK56382.1 chromosomal replication initiation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mfK12E5]

MNPSQILENLKKELSENEYENYLSNLKFNEKQSKADLLVFNAPNELMAKFIQTKYGKKIAHFYEVQSGNK

AIINIQAQSAKQSNKSTKIDIAHIKAQSTILNPSFTFESFVVGDSNKYAYGACKAIAHKDKLGKLYNPIF

VYGPTGLGKTHLLQAVGNASLEMGKKVIYATSENFINDFTSNLKNGSLDKFHEKYRNCDVLLIDDVQFLG

KTDKIQEEFFFIFNEIKNNDGQIIMTSDNPPNMLKGITERLKSRFAHGIIADITPPQLDTKIAIIRKKCE

FNDINLSNDIINYIATSLGDNIREIEGIIISLNAYATILGQEITLELAKSVMKDHIKEKKENITIDDILS

LVCKEFNIKPSDVKSNKKTQNIVTARRIVIYLARALTALTMPQLANYFEMKDHTAISHNVKKITEMIEND

ASLKAKIEELKNKILVKSQS

>AHK56381.1 O-acetylhomoserine aminocarboxypropyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLAN

VEGGAFGIPVASGMAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEKV

IDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSKYVSGQ

GTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAWL

LLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDYE

HARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQA

IES

>AHK56380.1 homoserine O-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPLIIPENIPAYELLKEHAFIMGLRRAKHQDIRPQEILIVNLMPKKIETENQILSLLANSPLQVNITLLA

TTSYVGKNTPFTHLEKFYKGLEEVKKHKFDGAIVTGAPVEQMDFEKVAYWEELLEIFDFLKQNVTSSMYI

CWGAMAALKYFYGVDKISLDKKIFGVYKHDKVSPDLLLTNLDEKVLMPHSRHSSMDEEQILALQKQGKLK

ILLRNKKIGSALLRDEKNIFILGHLEYFKETLHQEYVRDNFIQKAKNYYDKKGNIKYNWRSNANTIFANW

LNYDVYQSTPFVL

>AHK56379.1 hypothetical protein N917\_08630 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKSIAIIGGSIAGLSAALFFASAKNEELDFDITVFDEGKADLKAAAIYNVPFFPKGAKADEIYTHIKAQ

IASMLEVKYIDSKVVSISGEKGDFTVNDEQGLGIKADYIIVATGANKSDIKELEDFVIPHELMPKPNKFC

FKHHGRQIIKEGIYAAGLASGVTTMVACAMGSANEAACAILSDIKGAVSVYHDTPTTRV

>AHK56378.1 hypothetical protein N917\_08620 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVKFIPVILACSAILASANTISNVSAQTSAVAPAPATSYPVYPQYAVPPQDHFNGLPKILPVKFKISIQ

VLLS

>AHK56377.1 hypothetical protein N917\_08615 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDWEAYGYEIKLNNYMELYFDRNGNFLGQEFDN

>AHK56376.1 hypothetical protein N917\_08600 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKQIFEISNSVQQKSKDNTFNLLLQLSL

>AHK56375.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNTIIQKAVNKDLNSILEITKDALNAMKTMNFHQWDENYPNEIVFQEDIQAQELYVFKENDEILGFICI

NEKFKPEFYKQVIFNKNYDDKAFYLHRLAVKQNAKGKGVAQKLLNFCENFALENHKASLRADTHSKNFPM

NSLFKKLDFNFCGNFDIPNYQDPFLAYEKILNQKAF

>AHK56374.1 hypothetical protein N917\_08550 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLDIFEIIFITTVVIIGFGGIVFVVTKEKK

>AHK56373.1 50S ribosomal protein L29 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKYTEIKDKTAAELATMLKEKKVLLFTLKQKLKTMQLTNPKEISQVKKDIARINTAINALR

>AHK56372.1 hypothetical protein N917\_08380 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFDKIHYYYFNANYEKCLNLSEQFLKESPKFALEFATLSSYKLSLFQKALYYAQELFSLNPTSFNGLMLA

KSYIENLRLDEALNLLQTLLTRKDDLEDELKLELAFIYKLSNKLEESEQIFKELLSKDMYNLNLWKNYAE

IYFKHDFTKALNAHEHLCHFMQDLIDKLQKGIIAEQTNLNLVKLEDRLHSKTKENLTISKIEDFLTHQIL

PQKAYLLFKLFRISDSLELFQSLQEANQHHAQFWQNYAKVLEFNSNYQEAYHAYKKCLSLDSHATYQFDL

AYLLMRMGVDDNFEEGKKYYESRLFYAHNETFSTYHYNESLKAFNKFGVDAFKNKEVLVFCEQGFGDTIM

YARCLEKLCKIASKVLFAPQSAMYEMFKNQIKFLNQNDDIFKNVKVLKNLPTNFDYAIPICSLPFFIDIK

LDEILRLKTPILPQKKPHNQRKKLGIFYATPNAENSDLLRNVKFEFLFDVLKDLDYEIISFQMQLKEELP

KVIEDRSKLIKNWNDTLNYLYDIDCMLSIDSAIAHLSLAMDIPTIVLLHPRFDWRWGKFENPKSYFWPKA

KCFIIKEQEETKRNLQKLIKDILN

>AHK56371.1 hypothetical protein N917\_08375 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGVAINTKIDTFTNNGFINSPGSGQWNNGIWISSNATIEKLVNNGTIKGGHSAIMVTSQHIKTVENTGII

HAEGEWGSSILLEYGGFIEHIINTGTISNNNVGIGSAYGVFGTLTIKDGGMVYGKYSAIGVGRSQTLGDL

YIDGRSNNGTVSGIYSEEHGILLENNSRTQKIELKNGGIIKGNIDGIRLINSASLSGEMILSGEGSRVEG

GRGVGILNRSGKIEGSIKVEDGATVTATSNRAIANSGSGSITGGITVSGKNTKLEGNIINTGNASIGSDI

KIEGGAKVEGGLVNQGNGSISGSVQVSGGSSIDSITNEGNGAISGSITVYKDSKLDSITNTSTSSTGISG

SITNNSDNKLEISNSGNIGGKIESTGSADMVISNSNGGTISGGISSSGSGSTSISNSQGSTINNGITVSG

SAQVEISNQGSVGKDENGNTVTNNGSGSVGIKDWLVSTDKNTGKLNTVVIGGSRAFNVKVENITVDQSNV

DLEELNDINNIISGVNQNNIGNIGTNGSGEISLSFDPITGKLTTDFNLNASISGATFRSLISTTSRRSTF

IDNVMGNSMQSFALASSSKSQSIAMSEKGNLYADASDYIKSDLNNGSYGSNKEHSLFILPYTSSQNVELS

LNEESKGHTKGTIIGYSTLKDSGIYGVYAGYEDTKMGSTYFDINNRTYYAGLKYFNTLFTTEKGQEVYIK

AQGKAALIKNDLTEKIGNNEAKAEPNSYAYGVNTALGMNFISNKDIFSPEIGLAYEGGYTEAFSMKDTIG

QATVKGGERTYANYLNLFSTKTSLTWFRDWLPNLKTSVELGAKFNINPKVEAEARFGNIKVSDEFDLPRV

QKFVSTSFIVPVNEAFYFSLNYNGMFDKDGNTHTGFAQFNYLW

>AHK56370.1 autotransporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNITLTKIPIGEGKEPCLNSKKIVLSLATISFLASCANAKLNSEIKTYDEVNKNVKTRSASVYSPQAKI

NTTINSLHNQQVTITGNGTSNSLTIGSSGTLGSIGNTGKIIYAHANGSNTLTLANLTNNRTINGKIGIEN

NGNFTGTIAVNTFENTGQINGQIYMGIWGNNSGTLNIDKFDNSGTIIDNNKGVFLKERIPTYKPLITVVL

LVQIRV

>AHK56369.1 hypothetical protein N917\_08300 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKLGLVLAVLVALNVSAFADLIVINKKDLVPVSASEMQNKYFQESIKSTLTEPLFKKATFYEADIVAKV

DPRTYNSTQAIIQKEYSDKSNYVYYKQVLILTSDGKRARLSTLSCEIASFDKKGYLCGGTADHNYSIK

>AHK56368.1 hypothetical protein N917\_08250 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLLNTPCRGIIDTNFESKRISITSTLKFQEKKKK

>AHK56367.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKKMVLSETFPGILLIFFTFLALLCKNSSLSVIYTDFFHANFTVGFDHFQISKSLDLWINDGLIAIFFL

CIGLELKYEILRGQLKNIRAVSLPIFGALGGMITPALIFIAINYSHDFAMKGWAIPTATDIAFAVGILML

LGNKIPTSLKLFLLSLAIFDDLGAIVIIALFYTDQLSALAIIICLFCIFALLLLNYYHITHLSLYVLVGV

VLWIAMLKSGVHATLAGVIISLFIPLDTKNKKPYLHEVLKDLNPWVVYFILPLFAFANAGIDIRDMHLGS

VFSPVSLGIILGLFLGKQLGVFTFCFIAIKLKLAKLPENIKYGKFYGICILTGIGFTMSLFIDGLAYKNS

DIFEYADKLAILVASFLSAIVGFIYLKIVK

>AHK56366.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNNIVHKLKTLVLNEAFGGVLLIVCTLLALLVQNGSFSEHYREFLNLKVGFSVGEFELNKPFLLWINDGL

ISIFFFAIGLELKKEFLHGDFKNPKNIVLPFMAALGGILIPAMLFALVNIGDAYTLKGWAIPTATDTAFA

LAILMMCGKHIPSSLKIFLLSLAIFDDVGAILIIAIFYTTKLSIAAFVIAGLAILVMLILNLLGITRKSF

YFICSVILWISVLKSGVHATLAGIVTAFFIPMQTKNGEAFLEEIYESLKFWIAFIILPLFAFANAGVNLS

NIDIGAIFSGVSIGIFLGLFVGKQVGVFLFSYLAIRFKFAALPQGSNLKQLYGVCILTGIGFTMSLFIDG

LAYEVSDIFNYADNLAILIASFCSGIWGFIYLKFFTTRS

>AHK56365.1 cell envelope biogenesis protein TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTLFLNHKYQASYITFIVFIPLLFVIFHSNDFFKMEIKNEDSFSLAIKQFTQTNPTNETKPTESIIEPI

KPKPQPKVIKKTPEKMQKKIKKTPPHPIPNKTPIAPTQEVKTFAKTTDTNVKPKITQLTQGKDNHPVLKE

IQKAIQQAQFYPRQAKKMRMQGTVKVEFLWKENKTLADLKIIEISGYDLLDKSALESIRKASLNFPHYNG

DLRITLPIIYDFKTLRG

>AHK56364.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFSGFFYARNDLRLFKIEKKNELKSFFYKDYTLSSYKDDLNLNNEIFFYQSLKEGLFKENDEILVSNLG

KKIILFRNFTQNCDNFNETKLKQILLLFFLLLASVFFASLAMINEFGAIDLLFLTICLLLLVMGVINLGL

LFKQIRILKSFSKEEMKEFLSQRMKKYTKV

>AHK56363.1 alpha-ketoglutarate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQELTRTKKIRSIIAASSGNLVEWFDFYIYAFTATYFAHTFSTSDNPVIQQINAFGVFAAGFFMRPIGSW

LFGSLADKVGRKKSMVISVVLMALGSFMIAALPSKDTVGDLAIILLLIARLIQGLSVGGEYGIAATYLSE

LATEGKRGFYSSFQYVTLIGGQLLAVASISIMFLFFSIDDMKDYAWRILFVIGGILALGSLFVRKMMNES

ATKLHQHEDRGTLKALCKSWKPFLMVLGVTSGGSLAFYTITTYTKTFMENTGMDKMLVNNLFLGALFILM

IIQPLFGYIGDKIGHKRSLIVFCILALVGIYPIFSLIANNAQNNPSLTFMLVVLLFVILSFYTSVAGIFK

AKLFPEHVRALGTGLGYAISNAVFGGSAPWVALQFKNAGIENGFFIYIAIFTIIMLIATLCLPKKSELN

>AHK56362.1 metallo-beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFNFITTLLKTNLYFLEEKTTSKNSNQTHIISLKQSDDEFLNLLFSFLVPQSDEDKNFIEKTRTKIKRNE

HNIVLIKNPNFNALIDTGFLDTIDTLKEKLHIHKTDFKDITHIILTHAHPDHIGALMSEENLFPKAQILI

DKKKYDFWIKSDRQEIKNTLLKLKNIEFIDHSKDLIFQNSGIKAIPAYGHTPGQNAIIIDDKIVFWGDLL

HLYDIQIPKPKIAIKFDIDQNEAIQTREKLLKEFKERKLKVIGTHVPFIKPKFLD

>AHK56361.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MANFKAFYKEAKYIFKDRIFNDYARCYAYGIDASCYFYIPKIVIIAKNEDEIKQIIQLANTYKTPITFRA

AGTSLSGQSSCDGVLVVIKFAFKKIKINKDANEITLGCGVVGIHANESLAFLKKKIGPDPATINSALIGG

IINNNSSGMCCGTKDNSYKTLRSIRVILANGSMLDTSDALSVARFKDENKKLINELREIKEEINANKELK

DLIIKKFKIKNTTGYSLNAFVDYDDEIDILAHLLIGSEGTLGFVSEVKLAVLDDLEFKACALLFFDNINN

AANTIKEFAKVDFVSSAEIMDYASLKAASTYDELRDILADIKEGNTCVLIQSEHSNELKLDENINKIKEI

SKLAYKSYFSKNKAEYDLWWKIRKALLPIAASLRKAGSTVITEDVCFNIEDLADGIKSIQELFYKYGFGD

NGIIFGHALAGNIHFIITPDLNNKLEFDNFSNLVKEMSNIVASYGGSIKAEHGTGRMVAPFVEVEWGKQA

YLINKKIKSIFDKDSLFNPDVIISDDKDIYKKNIKQVSWIDEKLNTCMECGFCERFCPSNEYTITPRQRI

AILREIKRLESLNDDESKAKLKDIKKYYNHLVDSSCAACGVCSFSCPLGINFADFSLKYRKNNIGFISKI

LGNLAYKNHEKTLKIAKFSLSIANKFDNLSLDNKLEKASNFLSIIPRTRAYLPKVNDYELKSHKRVCNVV

YFTSCLNKSFKPNEKMHDKRSLQEVFESLCKKANIGIIYAPNDLCCGKAYENFQDIQDKNIQKINDFLSN

IDSPIVLDHSACSAKLISDHSKYEIYDLSEYLLKFIAPKLRIDKINENVGLYIMCAARKLGLNENIIKLT

KLCTNGKVLIDNDTYCCGFAGYKGFFKPQLNISATKGFKKFYAKTNIKRGFSTSSTCEIGLSDATGISWQ

HIAYLLDECSEAI

>AHK56360.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAYTIKKVEKETKISAHTLRFWAKKGLFPFVQKDENSVKYFSKSDIEWVKWIEWLRISGMPIEQVKHYIK

LCSLGIKTAKERQEMLKQTKKKLQNQIKTLKESEKVLSKKIKIYEEMLANEVDGFNPESKDYQPCDKLHK

FKG

>AHK56359.1 permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIYVVFLIFLIFIISFVFSKFKEDSFLKHIPKNTKSSIFTQSAHNPSNFIFKQKSCCANTQDKSKNITIN

YKELFKESLKNYKKLLPYIVVAVFIGAFIHGFIPQEILQKYLNGNEILSIALAAFLGIFLYLRVETIIPI

GLALLQMGISQGVIMSFLIAGAGCSLPELVLLKQMFKMKFLFLFVMIILGVAISFGIFINLI

>AHK56358.1 hypothetical protein N917\_07750 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLSFTFASKKALKSGMVEQEQNGVKAPKNIALK

>AHK56357.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQSFLNTFKEFLYLFTELSVLFIAISFLVSIINQKYEGIFKNNLLVTKFQVILKLYF

>AHK56356.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKYHSLCPIETTLNLIGNKWKILIIRDLLQGTKRFGELRKSISFTKNQNISQNVLTQNLRELEEAKLIK

RKVYAEVPPKVEYSLTSLGNSLESILKSLENWGNSYKNIV

>AHK56355.1 dihydrodipicolinate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIAILCASGKVGKEISKEALKRNLEPVCFVRNSSKMNEFLPQAKIVQRDLFELDSKDLIDFDIIIDAFG

EWENLSLHKKHIECLSVILQGSKAKLFVVGGAGSLYMDENHTTRLMDMPDFPKEYLDIAKASAEVLEFLR

NEKGFKWVYVSPSAIFSPDLPKSNHYKIIGEKFEVNANNESKISYSDYASAMIDIVLNSCYENTRIGVIS

L

>AHK56354.1 type I restriction endonuclease subunit M [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKKKEIKLEDALWKSADKLRKNIDAAEYKHIVLGLIFLRYISDSFMQKYEELLKEQDDGADPEDADEYL

ADNIFFVPEKSRYNYIRDNAKNPKIGKMLDEAMDEIEKHNDTLKGVLPKVYAKDNLDSKCLGELIDLIGN

IAFDTGKSTDVLGHVFEYFLGEFALAEGKQGGQFYTPKCVVELLVTMLEPYKGRVFDPCCGSGGMFVQSE

EFVKSHQGRLDDISIYGQESNQTTYKLAKMNLAIRKIESSQVIWNNEGSFLNDAHKDLKADFIIANPPFN

DSDWSGELLENDGRWKYGVPPASNANYAWIQHFLYHLSPNGGVAGFVLAKGALTSNTTNEAAIRKALIED

DLIDCIVNLPAKLFLNTGIPASLWFIRRQKLPKTVKKTLFIDARDLGTRINRRNKTLNKDDINQIANIYK

AWKNGTDYEDIKGFCKSVSIDEIRELSYVLTPGRYVGLADSDDEFDFDTRFNELLAKLKSQIKTEQELSE

IILKNLEKIK

>AHK56353.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDFKFVLRLLEANQFENEVVEYKKNNKDFIVLGKNISALSNTAALLGIDKAYIIFGIEDGTLNIVGTNFK

PKQEKKGNEELESWLHKVLKPNIEFKIHEITEKEIRLVVFEIEATKISPIKFEEKAYIRIGSNRKELDKY

PEKEKKLWQVLSGFSFENEIAKSNLNIQDIYDLLDYSKCFDMLDISYDNYSSDEYIIEKLIEHGLVKNLN

DSFAITNLGAILFAKDLTKFKGLNRKRIRFIRYQGKNKIHTLEELEGRKGYAIGFQGLISYIMQYVPKNE

VIENAIRKDTTLYPEIAIRELVANAIIHQDFTINGRNPMIEMYSDRIEITNNGKSLIDIKRLIDMPSKSR

NDKLANLMRIMGICEERGSGVDKVIDSVEAYQLPAPDFINNEDYFQAILFSHMPLEDMTKQDRIRATYQH

CCLKWASREAMTNASLRARFKIGDKQHSKASKIISDTLEAGLIKQQDPENKSTKHVKYVPFFV

>AHK56352.1 type I restriction endonuclease subunit S [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNNWKKCKLGDIAEITMGQSPKSEFYNFDNIGMPFLQGNRTFGRKYPYFDTYCTEYKKIAKKGEILFSVR

APVGDINFANNDICIGRGLCSMNAKNGENEFLYYLLHNLRSVIINNESGSVFGSVNKNDLQTIEILLPLL

EEQRQIATILSSIDDKIELLHEQNKTLEELAQTLFLNWFKDREFNSTISDFISMQNGFAFKSKDFIDYGN

NGVIKIKNISNGIVDIVNTDKISQNTINEVNNKFNINSGDILFAMTGAEIGKMGIVPSTNKKLWLNQRVG

MVKERFLGARFLAYIHLTSEFGYDYVINSATGSAQENISATDIENCPFVKLTSEEIVSYSKQLNDFFEKI

IFNLGEIQTLENMRDILIPKLLNGEIKITN

>AHK56351.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKYKFVKFQVKNFRSLLDITLNIDNNNINTICGENNIGKTNFLRALNLFFNHNNGVEYNQNEDRPYHIQ

KGSTGGRKTELIGYFTKNNVTHILKVEFHKDKIVYILNGKMVEWKVARDIVESFKLLFIEASNVNMPSVI

SAILENDALLALDNKRKKQSEPLRTLKLFIEQSKKAIEDIEKDINIYLKQMLDFDNTLKDKEIKIRFAEF

EKLRDVVKTMTSVTLDDGNDHLMDHKGSGAQRIVLLSLMQYITDKITTDIIWAIDEPEAFLQPKLQKKIM

EIFKNIVREKKQPIIMTTHSQYFVDFNNLVNTHLFKLTKEEKIYARKKGRVFQEINTKPIYIGTAFEKLS

VIKKHLGIETNDNWDIMPYNILVEGEEDKKYLQMLIEILNLSMPNIIHSGGATKIAGFLEYFNNQCSYTS

FKPYFICIFDNDEEGRKQYNKISKDNLYPNIKLDAKKLKRYGESIQENNRDIWEIEDFMPIKIIVDAVNI

ILKYKQYNTITNSQISDRKKLAFKNMSILDYLEKCIADRNEEKERFILNTESRKKEICQNAFRAREKYTK

NDLEDYHVDFMNELIDSFNKVDLIKKDN

>AHK56350.1 restriction endonuclease subunit R [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKAKTSEFDLEQFVISSLLEHGWCYEKPVRATDEVLLETSLVNALCRLNPQLDLSKANEIYKELKSKNH

LSLLDSNENFHYKLVNGVNINTTKDGESRADIINLIDFNNASNNEFIATNQLSITEAKENKIPDVVLYIN

GIPLVLMELKSPSDENATINSAYNQINTYKQTIPSIFTYNAFCVISDGYFARAGSISADFSRFMAWKSSD

GINYAPNKSLEIKTLIDGMLNPKTLLDIICNFIVFEKEQIRDLNGILSIKTTKKIACYHQYYAVNKAISR

TITASSKDGDKKGGVVWHTQGSGKSLSMVFYSAKAIKALNNPTILLITDRNDLDDQLFGTFASCANLLRQ

EPKQANDKEHLKELLRVASGGVVFTTIQKFSPENDNVFECLSLRDNIIVIADEAHRTQYGFDAKVVEEKS

KSGDVLGQKIVYGFAKYLRDALPNATYIGFTGTPIESHDINTPAVFGNYIDIYDISRAVEDGATVSIYYE

SRLAKIELSEEGKRLVNELDEKLENQDSQKAKATKLEALVGSTSRLKQIAKDIVKHFETRSSKLGGKGMI

VSISRSVAIKLYDEIIKIRPSWHSDELSSGAIKVVMTSSSSDGVEFSKHHTSKIQKQFLANRMRNIDDEL

KLVIVVDMWLTGFDVPSLHTLYIDKPMKGHNLMQAIARVNRVYKDKPSGLVVDYLGIASDLKKALSFYSE

SGGKGDIITTQEDAVKVMIEKLEIVEQMLPNDYEKYFELDTGAKLEYILDVEEHILSNEDGKNRFIKEFA

ALDKAYTIAMPHEKALSIKNKIAFMYAIKARFLKFAKENENENLLNQALIKQVVDKAIVSSKVVDIFDAS

GIKKPDISILSDEFLLEVKNMKRKNLAFEMLKKILNDEIKAREKLSLTKAKKLAQMLSDAIKKYNNKLIS

SSEALDELINMSKSIVSMEDEAKKLGLKDYEYAFYSALACNDEYEKILGNEKLLALVSEILQIIKNNVSI

DWMIKENVRARLRVAVKRVLNKYGYPPDMQQLAIDGVLAQAEILAKELANE

>AHK56349.1 biotin transporter BioY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLELIGELSLQNYMGEWLEIARKPAFFQKSCLNSKAKYELKYKNGIPYVEIENFCSKKNEISSIKGKAKI

VSNRQLAVRFNIFMNLFNKVNYEIIFVDSEYKVAIVGSPDKKYLWILARNIIDEKNIKELLNIAKQRGFD

ISDVVFDKY

>AHK56348.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMKLKFRKSLILNALLFYILFPWLPVVFLFIAYFFTIKLDVVTANFVSISLVFLVEFARHRNARKLGEDM

MVILKAMAEIFISVVSIIIAAGVFAEGIKALGGVNILANAVSNLGTGNFAWFGILLSIAILSFLVYFATV

IMGSGIAAFNTFGKLALDIATKLGVAPITLVLPIEIASCLGRAASPIAGGIIALAGFAKVAPMDIIKRTT

PLLLIAMLVNVLVAFYLAQTNPLPKEQNTTKIELKIQK

>AHK56347.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MALKIVISSYAGLLLLACIYPVLISLKIRPITAVCVLSLIALDYGPKDGNSINMADMVGQSDNVVGLSLN

YQIYSVITYVVVNCHLDSFLFYLD

>AHK56346.1 hypothetical protein N917\_07590 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSVAGFTAYMKHINASAKLAFLANKPSGKIKK

>AHK56345.1 hypothetical protein N917\_07585 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPIFMICSTLLAVIVVAYYILKYNLIFVFFFQILSCLFLLFTSQEHLYQKPQAESIQAF

>AHK56344.1 CRISPR-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MARILAFDIGISSIGWAFSENDELKDCGVRIFTKVENPKTGESLALPRRLARSARKRLARRKARLNHLKH

LIANEFKLNYEDYQSFDESLAKAYKGSLISPYELRFRALNELLSKQDFARVILHIAKRRGYDDIKNSDDK

EKGAILKAIKQNEEKLANYQSVGEYLYKEYFQKFKENSKEFTNVRNKKESYERCIAQSFLKDELKLIFKK

QREFGFSFSKKFEEEVLSVAFYKRALKDFSHLVGNCSFFTDEKRAPKNSPLAFMFVALTRIINLLNNLKN

TEGILYTKDDLNALLNEVLKNGTLTYKQTKKLLGLSDDYEFKGEKGTYFIEFKKYKEFIKALGEHNLSQD

DLNEIAKDITLIKDEIKLKKALAKYDLNQNQIDSLSKLEFKDHLNISFKALKLVTPLMLEGKKYDEACNE

LNLKVAINEDKKDFLPAFNETYYKDEVTNPVVLRAIKEYRKVLNALLKKYGKVHKINIELAREVGKNHSQ

RAKIEKEQNENYKAKKDAELECEKLGLKINSKNILKLRLFKEQKEFCAYSGEKIKISDLQDEKMLEIDHI

YPYSRSFDDSYMNKVLVFTKQNQEKLNQTPFEAFGNDSAKWQKIEVLAKNLPTKKQKRILDKNYKDKEQK

NFKDRNLNDTRYIARLVLNYTKDYLDFLPLSDDENTKLNDTQKGSKVHVEAKSGMLTSALRHTWGFSAKD

RNNHLHHAIDAVIIAYANNSIVKAFSDFKKEQESNSAELYAKKISELDYKNKRKFFEPFSGFRQKVLDKI

DEIFVSKPERKKPSGALHEETFRKEEEFYQSYGGKEGVLKALELGKIRKVNGKIVKNGDMFRVDIFKHKK

TNKFYAVPIYTMDFALKVLPNKAVARSKKGEIKDWILMDENYEFCFSLYKDSLILIQTKDMQEPEFVYYN

AFTSSTVSLIVSKHDNKFETLSKNQKILFKNANEKEVIAKSIGIQNLKVFEKYIVSALGEVTKAEFRQRE

DFKK

>AHK56343.1 hypothetical protein N917\_07490 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFKIVLRPPGLNFAAQPAALTKCVKF

>AHK56342.1 hypothetical protein N917\_07390 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKALEYLIVIGLVAAAAITAWSVLTVNHLHIG

>AHK56341.1 hypothetical protein N917\_07250 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILTSALALGAMTLIVDCGDGDLVELKNNGNDQAMFDLGNQEIMKKYPNYKLYDYTSVRTISDINNPE

GKIKEMKRDLEIDKTPYSNYVFLLNPNDKKTIKL

>AHK56340.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDILKLAIKDFLSLKFLKFALIPLIFSLILMLFLGVLGFSALLDYFNSLFSVGEDSFWAWFYALHFVQIL

ITIISFLFSGFIVVFASVFLALFITSFLTPFIAKEINQKYYHYDNTNEVSTLKTIFEIFKIFIKFIGILL

LCTLALFLPFINIFVYYLAFYYLFHKLLMIDVTSTILDKESFKNFHSDFSPLEFKFSTLCFYLLSSVPLL

GLFLQVFFVIFLTHLSYQRILKLKAKA

>AHK56339.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPLLSVIIPFGLSKERPYIEERVLQKAKFFQSDENIEFIFVEGYSSKDHELKNFIQANHHIYLKDMDQKA

FSQGRCRNLGASYAHSNVLLFLDVDCYISLDNFEKILKLIQIKNISQNINALIVLPVVYLNKEANEKLKQ

YDDKFWDILIQEDLFTAKNTWVKFFAPSSTSSIVINKHQFLRLGGNDENFIGHGYEDFDLFARILKACVS

FEKMPTNLSYDARNWNFFNFKGFRSWFSLLGYEACFYGIYIYHFYHIEPNQNAYMQNKDKNHQLFYKHLK

NIKKHDLKPLQVFKAKGEKVLMLFKDQNYDFKDISVYVGEIIYKNISDFFIAKELKYELLLDFLQQEKIT

KIFLDASIKLQFNGIDYCDIFYFQKGILPHSWFFAKKLDLGYKQDLNLSEQKLYQVKEYFLTLKEDEKKV

ILDFLSQNNDDKYDLYKMLYYLINELYSFEHDGIFYQIIIDKEKMLIAQKHDKSFYPLRSFVYKPYLHEL

KSIRPFSFLMKILGLEYLGAMISHTKFYRLARKLFFNPKGFFEDFNYKIMKGKI

>AHK56338.1 UDP-glucose 6-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIVIVGIGYVGLANAILFSKNNENEVVLLDIDENKIQSINNHKSPIKDKLIEKFFVQNISKLHATSNIK

EAYFNADFAVIATPTDYDEQLNFFDTRSIENVLKDIKNINSKINVIIKSTVPIGYTKTIKQKFNMSNIVF

SPEFLREGSALYDSLYPSRIIIGDKSVLGKTIGDLFLKNIEKKNVDIFYMDSDEAESVKLFSNTYLAMRV

GFFNEVDSYARKHNLNSADIIKGISADDRIGKYYNNPSFGYGGYCLPKDTKQLLANFYNIPNSLIKAIVE

TNEIRKKFITQLILEKKPNILGIYRLIMKQNSDNFRNSVIIDIIKYLQEYNSNIELIIYEPLVKEKKFLN

IKVENDFNVFGAKVDLIIANRFDDKLKEIKDKVFSADVFYTDI

>AHK56337.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTVGVVIPIYNVEKYLRECLDSVVNQTYKNLQVVLVNDGSTDENSLNIAKEYTLKDERFILFDKENGGQ

STARNVGIEFFSKEYDFKNITQELKENSLVEFKLDNEDNPYNIYKIYKSSNFFKNKDELLNFKAPDIDYI

IFLDSDDYWELNCIEECVPKMDGVEVVWFDSCSIFEEGFKKQWSSLLKLYDLHEGVIKSKVWLEYSINKK

IYNFYFTWSGMIDFIYLKNIKLKFIDYIIHQDHHFGMLLFAKCKYIYIFPSSMHTYRIRSNSTINLSDSE

LQIHIPRYMQSIYDSFNINIKEAKEYYSSMSMFYVLKNCFNDKILMENRYNAYLLEKAFFKFICERCLRI

FLLKRDPCCIKIQIKKILKQYKNYRYVHLTNFYGAFIYFKIFKINIIKKYIRYLFFR

>AHK56336.1 UDP-galactopuranose mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYDYLIVGSGLFGSIFAYEATEKGYTCLVVEQREHIGGNCYTENIKNINVHKYGAHIFRTSDQNIWDYMN

QFCEFNHFINSPIAIYKDEIYNLPFNMNTFSKLWGIKTPNEARKIIEMQKQIIQHPPKNLEEQAISLVGT

DVYEKLIKGYTEKQWGRSCKDLPASIIRRLPVRYIYDNNYFNDPYQGIPKGGYTAIFDKMLKKSKVILNT

DFLKYKDKFKNKAKKIVFTGCIDAYYDYRYGALEYRSLKFEHKILNLDNFQGVAVVNYTDKEIPYTRIIE

HKHFEFGNTDTTVISEEYPLEWIKGIEPYYPINDEKNQALYEKYKQLAKHESNVYFGGRLGEYRYYDMQD

VVRSALLFCKNELKNKQG

>AHK56335.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISDK

KSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYILESNKGKYSKITPIDF

LYNQIISFKTHPNIFNFQSINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINEAFY

MLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLDFLK

RFSQDFRKILKDKELDENLFGDGDMKIIYSIVENPENYYFLYMGYCNDMFGKLYFGASERIKWQLSYRIG

KLLIDLKNPVQILKFPFKLFLEIKQFKFEQKIYKTTIKFYPNLQLPPLEEYSDYEQALKTKKHLSYILGK

SFINNPILFIFKIKKIYKQYKKDISSSKKNIKELSDYDFLLNRHKQIFDYTPDFKCPVTFNEKLIYRILY

DRSCIYSFLADKIKMRFYVASALSDNHEYSWDKIDILNEKSILFNNIDDLQDKIFETNKCKYLPKIYGIY

KNIYDINFNELPNSFVLKTNHDCGGYVIVENKQEFLRDTVVFSNAMKKLKKHLEWNYYSVFREWHYKDIE

PRVFAEELLLGENKKPADTYKFHIFDKENLSNNFIQVTTDRFDNYQRAMFDLSWNLAPFNFMYDNKNVTM

IPKKPNLLDSMINISLILAKPFDYVRVDLYQFDKKIYIGELTFTHGAAGEKVIPKEWDKKLGDLWRLKRL

DNASK

>AHK56334.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQANKNIQKLTPYLSIPHKIWNSSQSNILKLDWNEATIPPSPYVIESIKKFLVNGNLNWYPNTKNLYLLD

KIAEYTKQINSSFVELFEGSDSAHECIIDVFLDKCDKIGIVSPTYDNFRSRANGVGIETISFTLDDNFNL

DFDSLEYFIHEKRIKLLYLCNPNNPTGKSYNIQKIKSLIINNPNVMFIIDEAYYEFTSQSVCDLVEQCNN

LIITRTFSKAFALASFRIGYIISHPENIESINKLRNPKSVPMLSQIAANAALEDLQYMRDYVDEVSCARM

EFVKFLNTLTTGGGGIFNDSVANFVLIQNENISLFVGFLEKEGIFIRNYSHLISKNCRISIGTRNQMSYV

AEKIQEFAKKQGGFHLV

>AHK56333.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFDAIIVRIIFTFVFFKDLMLIKLNDYEKNITQKIKDLKNASGSHSPSIFTMAEQIPELNIKIDSCFLSN

PYATALFLRYLKEELIDGQKLRSVLEFYPSQNSIIAKTVADFIGIDPKNVFIGNGAIEIIQAVMHNFVGK

KIIVNIPTFSSYYEFAKSETNVVYYQLSKEDNYNLNIEHYLNFVKNENPDSVVLINPNNPDGGYINYEKL

RYILSELKYVKNIIIDESFIHFAYENKDYNGINIEYLFKEFHNTIIIKSMSKDFGVAGIRIGYAIMSEDK

IRGLLKNGYLWNSSGLSEYFLRLYVRKNFFDEYDKVRREYIQETQTFFRKLSGIKQFKVYPSMANFALVE

LLDGSSSTDFVAKMLIKYGIYMRTCNDKIGLEGEFIRIASRTLEENDMVLKSICDVFKE

>AHK56332.1 phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKEILALFDFCETLTNFQTLDRYLPLAGSKNINYTQSKNLARRERFQRENLPYPRYEWLIDLDVDLAEE

IAQEFVYTDVMANLNQNVMDRLFWHQDEGHTIVIVSGGLTIYIKEFARIYNIENIVAVDLEIYKNKLTGN

IDGIHTMQERKLYKLAQKFNLKQFDLKNSYAYSDCVSDIPLLSLVGNPNVIECGKDLQWARILGFNILLK

Y

>AHK56331.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISDK

KSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYIFAYGKTEYVNVLRNSC

EDIYNYKVNWNKDIRIFLGSDGINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINE

AFYMLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLD

FLKRFSQDFRKILKDKELDENLFGNINMQRINKIIENPVIYYYFSRGARARLQNQLVYRLGKVVVEAKSF

NKIIKLPFLMLKICLEHNFEHKVYRSIVQFRPDLKLLPLECYLDYHEALVIKEHLSYKFGKLILLSFKGW

YKGKIFILPFMLKKRYKEYKNKMI

>AHK56330.1 UDP pyrophosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQRFKKWFLSIIKNFKQHEKIKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNT

KIDLNNTKIDLNNTKIELSQLKKEHYKVLDFHLRKITPQAFLEIVEIHLAESCNLNCFGCNHFSQIAEKE

FPDIEIFKKDMQRLSEISKGIVGTFRLMGGEPLLNPNCIQFFDITRYFFPKSAIWLVTNGILLDKQNEDF

WNSCQRNKMQIRPTKYPIKINWDLIKDKCDQYDIPLIFFNNGELEKTSWKFSLDPSGNCDNYHSFTNCSM

ANHCVQFKDGKLFTCTFPAHVQHFNKKYGNHFEVCEFDFIDIYKAKDYQEILFFLSKPIPFCRYCKVSQW

AEIGKWRSSNKTKHEYLI

>AHK56329.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKKILLITPELEYTGALNSFKRICEVLLNNKYAVDIWTYNEGPYISEFDKLGVYVEVISEDDIDSKWVH

ERISKYSLVIANTIVVYKCVELIQNLTPVVWYIREAENLPDFFWKPERKLALEKAKKLYVVSEYAKDFII

HNYNKNVEVLHNYVDDVFYEKHDDFLKQIKSDKLKFLALGTIEKRKGYDVLLQAFIDLPVDIRDQCELHF

AGRFWEGAKDFFPKILSLAKKFPNIFYHGELRDRKKIHSLIFQCNVMVVPSRDESCSLVALEGAMMSKPL

ILTENIGAKYILDENSGWLVKTGSVDSLKNAFIQAYKNKNKLDAMGANSRNNYLQTSTYEIYEKNILKMV

RDEICKNQYLYRINQENYVLFSFDIFDTLISRNIAKPSAVFLIMKQKMRNMDFPLNLVKNFDRIRVEVEQ

YYYRNVCKNKYEDTNFDEIYNLLQQNFSLSFQQKEELMKLEINTEKETLYPIKKNIELVEELIKNEKRVV

LISDMYFSSSIIRTFLNKFSPIFNNIPIYMSSEFRLKKNSGNLFKAILNLEKVDPKKWIHCGDNWVGDYL

KPSNLEISTNFYINQLLPYEEFALNRNSLDMDLQKIIGISKKIRLENTLTNLQEIGVSFGAPMLLPYVQW

ILNIALKNSIRCLYFIARDGYVLQKMTDMLIQAKKINIKTKYLYGSRESWREPFRNKDKLKIQLIDEYLD

QEIDKQEIFAFVECCGTGETLDYIVKRIESNQQFKNMFFGSLYLYRSKLNKTKTQSLFMLPLNENYTYGI

ELFVRSLQGQVLGYDKKDGRVIPVFDFLEGEALQKFRYDEYIDGVMLFMEYIVKTDNYEKIFDNMNVTIL

YLNYLSNNYIDKKFIEIMGNVPFILNGVKDRVGIFAPRLNNKITLDQKNSFFNWSVLRSCKDIRVKYNMD

NDCYFGLIGAVDIIKSHLSYKLGKVILLNIKNPLKWIKLIVLIPILIFSHHEQKKIYLTEKKINIDLSFY

KDYNEAIMVRNFFSYQLGELILKTSRKWNVLAIVILPYKIAQLYRKKFKKG

>AHK56328.1 capsule biosynthesis protein CapA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDNSKPLIIAGRDDGFGERMRALLNALYISKKFGFKFGFVWRDINNIQNLLDGKVLIPWANLPTREYLFD

QDFIKSYYRQDIEFAYETPVLWSLYRQSIKNILKKPYEKEWGWYSTQGDLSEYFTDVDEGEYRTELVSCW

KQIDFSSHVKKIFEKAHSKFLDIGKFVAIHIRTGEVIHDEFYRNILYHCRYKIFPYPFALEIALKEIKKG

HRVIFFGDDLNLIQNLKEYCSFNKQAQENIFSIDDIIAFEQLDNGYDRLLFELVLMSKSEYIFGSGTTGF

SRCASWIENKIFINIFDHLSLIEQYEIILKYIDIENIDDLYRSCNYFFLFLLSEQLNLNFDIKLRYLSKS

LRYDSGSLNSEVFYINLLLQNEKFKEADDRLEQVICKNKKKFFDLLLGYGQNPTFPYDIYMNYYFKDFDQ

YSNIFYVACRIFSEFNIPESRVNTYYPNFHPIIFDQFKMFIFKDLPKSDQEIGAVKKIRNHLAYKLGVAA

IKNSKSLWGYIRMPYVLSYIRDMHKESQNKMDKKSISLEYYSDYESALKEKEGFVYKLGQIIIKAHKNWH

KGGYIMLWFEVKKLKKEFKKGK

>AHK56327.1 dTDP-4-dehydrorhamnose 3,5-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAIEFDIQESKILKGVYIITPNKFRDLRGEIWTAFTDEYLSKLVPDGIKFKHDKFINSHFNVLRGIHGDV

KTYKLVTCVYGEVHQVVVDCRKDSPTYLKWEKFIISYKNQQLILLPPNMGNSHYVSSKEAVYYYKLAYEG

EYMDAPDQFTYAWNDERIGIDWPTNTPILSDRDILATKNKG

>AHK56326.1 hypothetical protein N917\_07120 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKLLKELNNNIKLSNQLSYQILMSNIISNLDIDKKDKEILLLLLQARDRNYIRINNNEQCYQNIINYLN

LIRPLELPLCDLLRIGGNGDGGYVMYNGGGDMSDINAKALSLGVSDSSPWDLEMAQRGFKVIEYDASIEK

CPYDHENIVFHKKFIGNVNNENTITLVQALKDNNLDENKPNILQCDIENCEWDMLENIDISILNKYFSQV

IFEFHGCNPEEQDGVEKRISLLKKLNEYFVPMHTHFHNHGKIFYSQGLFFSTTLEVSYLRKNLINLDIMK

YRDVAGGFKNLDFPWISNPEIPIRFRGY

>AHK56325.1 GDP-4-keto-6-deoxy-D-mannose-3, 5-epimerase-4-reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQTNSKIYIAGHKGTAGTALVENLQKRGFNNLVLKTRQELDLVNQQAVAKFFKEEKPEYVFLTAVLPCGA

ANVAQRADFIYENLMIQNNVIHNSFLNNVKKLVFFGSGYMYPENAKNPLKEEYLFQGDLEYGAYSFGAAK

IAGAIMCESYNIQYGTNFITLVLNNLYGTKANFDFGKSRVLPALLRKFHLAKLLSEGNITQILQDLKMNN

FEEAKEYLHNFGISKKSVEIWGTGKVRREFIHSDDLADVAIYTMQNIDFKDLIKDRKSKNTHINIGTGID

YSIKEVALMVKNIVGFSGELVFNTSRPDSTMDRLMDCSKIHSLGWKHKIELKDGIKMMYEWYKTQN

>AHK56324.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKKVLITGGAGYIGSVLTPILLEKGYEVCVIDNLMFDQISLLSCFHNKNFTFINGDAMDENLIRQEVAK

ADIIIPLAALVGAPLCKRNPKLAKMINYEAVKMISDFASPSQIFIYPNTNSGYGIGEKDAMCTEESPLRP

ISEYGIDKVHAEQYLLDKGNCVTFRLATVFGISPRMRLDLLVNDFTYRAYRDKFIVLFEEHFRRNYIHVR

DVVKGFIHGIENYDKMKGQAYNMGLSSANLTKRQLAETIKKYIPDFYIHSANIGEDPDKRDYLVSNTKLE

ATGWKPDNTLEDGIKELLRAFKMMKVNRFANFN

>AHK56323.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKEQLEVLKEALNGLIYQIDNHQQARKPIADVERIISELQVLNHWNKQENVYNALHLIQGAIADPQGLG

RLNLLLDNARIPKQYYDIFYKMLYVDKYGGGDGYRPVCIDCGGHAGLITDIILHCGGQSYIFEPNIYLNY

FLRKKYENNINVKLFQKAVSDRNYETDFIMFGNRILSQGNRIVESVQDSQTEKTYKVQVIDLCEFIENEI

LTQHKRIYFLKLDIEGMEFEIMKKIIEKKIYKKIDYIACETHEYMFDDSEKKIGELKQLINKCNIQNILL

DWI

>AHK56322.1 dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTIRTQTPLRLGLAGGGTDINLYCDKYTGYVLNATISLYIHCTLIKREDGKIIFDSPDTNSYCEYESKE

FLGNDGKLDIFKSIYNRIVKDFTKKPLSFSLHTYSDVPSGSGLGGSSTLVVGVIKAFAEWLNLPLGEYEI

AKLAYEIEREDLGIVGGAQDQYAATFGGFNFMEFYNNKRVIVNPLRIKNWIASELEARTVLYFTNITREA

KDIEEHKKGKLGDEKSLEAMHAIKQDAIKMKEALFRADFGTLAQILGKSWRSKKIISEIVSNDELERIYK

LAIDNGAYSGKTSGAGAGGFMFFFVDPTKKYNLIKALRKEQGYVQDFSFTKEGVKSWRI

>AHK56321.1 D-glycero-D-manno-heptose 1-phosphate guanosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQAIILCGGLGTRLKSIIKDIPKPMAPINDKPFLEFIFEYLKKQGIKEVILAVSYKYEVIKEYFKDEFLG

IKIKYSIEKEPLGTGGAIKETLKFVKNEAYVLNGDTFFDIDLSKLKLNESKICLALKQMNDFDRYGTVNV

DEQDLVISFEEKVFKKQGLINGGIYLLTKDIFNDFALQEKFSFEEFLQENYKKLKARACIFDDYFIDIGV

PEDYYHFLINN

>AHK56320.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFVGFFLHTSGEKAMERFLKEVGVVLIGAFGYEDGKRY

ISIFNFLISEACACNDLKFAIGILDVNCQKYDKFCFLLQNKPVLILLRDPIDSLKSFINVRHQKNGFNEI

LKIDINNTDFDKINDRIVYVHESNGCFNPDTNQKFPSLESIKALSDTNHWMLMYNIRRNKTIEFFRFNKI

IYIDMMDIVGDKTLFTLEKLSKILNFSSPDKNNKIFYQQLYSPLTVLLPCIIKVNNKVKIFVSNRFSVKN

IQIMENCIDITDKFKEIFHENLIIFCSKDHFDSLINNQTLYNVVLEYINKFLISLKKRINVEKNKEVKVD

DVLDYFKKNISVAKSYKDILDEELVYIKQHRPDIVASWKYYQEFERMCKELDENNQNPSLSFSNQ

>AHK56319.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFMWFFSHGAGAFTLGQFFYHLFKINILDYFCGGDGDI

RYYKFYNKLLELKDKRNIITINDIDPSWYGNQHKRDKLFSSFQKITPILFQIRDPIELIKHAYGRKWGNN

LAKTKEFDLSYQFNDIITEVEVYNYNLPNTLEGQRPQSFLWKSLIECFDKFNDCFYLDISKIRGEETIHT

LNYLSNKFNLKQIKINDKEFVTKSYFKGNLYFLLPLTLYLNKEDLNTNIPNKKINKNNSLIININFFQND

NNLFNLYSELSILDMDSSVGFYIDKQDYNKLKNDSIFYKQVIDYLRNFAYELKNRIQIEEDLMLKVEDVL

RHLYNNKNARVSAKNILDEELVYIKQHRPDIVASWKYYQEFEKMCKELDGDI

>AHK56318.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKQGDFTKVAKHYHNRPAYSPFLLEKLVACINDKNKNLKDLNIVEVGAGTGKLTKMLGEMFGCQISAVEP

NDNMREEGQKFTQNLSNISWHKGSGEETCMSNNQADWVIMASSFHWTDPKKSLPEFNRILTGGGYFTAIW

NPRHIVEGSVFDEIEKEIKHIVPDLARVSSGTQNVKKWEEILVSTGDFIDCFFMECDYKEFWDKERYLGA

WHSVNDIQAQAGEKRWKEILEMIEAKISHMQSIEIPYKIRAWTARKA

>AHK56317.1 iron transporter FeoB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIKIALVGQPNVGKSLLINALCKANMKVGNFSGVTIEKASAKTFYKNYEFEVIDLPGTYSLDGYSEEE

KITRHFLNQNDYDVIVNVLDATNLERNLILSAELLSLNKKMLLALNMCDEAKKEGIELDTSILSQEFQSQ

VVEISAKTKENLELLLQKIIILFESKFIPRSQFYTPLCEKSPEKEDLLYFINELSKKIITHKKEERNLTK

KIDALLIHKFFGLPIFLFLMWLLFQLTFSLGQIPMDYIESGFNTLGEFVKNNISNTFIASALADGIIAGV

GAVILFLPNIMILFLGIALLETTGYMSRVAFLLDGILHKFGLHGKSFIPLITGFGCSVPAFMATRTLKNK

RDRLLTLFVINFMSCGARLPVYVLFIGAFFPSEKAGNYLFGIYILGAILGLCAAKFLRMTAFRGLDEPFV

MEMPKYRMPNWHLVWFMVYNKAKMYLKKAGTFILLASLLIWFASNFPKSEENLNDFNAQERAIEQSYLGQ

FGKGIEPIFQPLELDWKLSVSLISGLAAKEVMISTMGVLYSLGKDVDETNNDLKGIIAKNIPIPSAVAFI

LFVMIYNPCFAATIVFSKESGKLKYTLFLFLFTCTSAYIVAFIGLHIAKILLN

>AHK56316.1 2-methylcitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQVSIKPYPSCHFAHGLIDCAIALKNDGLKADEIKSIRCFVDEVPISFICDPLEAKYTPNSAYEAKFSMP

FLMALGFFDGKITLESYENLKREEVLEFAKKISYKKRKSQGFPKYFPGHLEASLQDGRIIQKDVFINKGN

FDNPLSFEELKAKFLANAQIYLDNTKANKILDQIINLENLNHFSF

>AHK56315.1 2-methylcitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFYSEILADFIFNLQYENIPNTVVQRAKELMLDSLGTAIAASKEECVLNAFKAFENLSTEKNTPVWVHDK

KLDPIYAAMLNGIASHALDFDDTHTEAILHASAILTPLCLSYGFHVSKDAKKIIKAFIIGWEIAARVGIA

SKGTFHKRGFHTTAIAGIFGSVSASAILLDLNKEQIINALGLAGSFASGINEFLSNGSNSKVLHIANAIK

NGILIANFAKNNMSEPLSIFKGRDNIFKCFGIEQECDKTELDKGLGEI

>AHK56314.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTGISVFDHRLLADSWSTQEMRAIFCEQNRIQKWLDVEAALAKAQAKLKIIPKKAADEIAKKAHYKFMDM

DFIFAEFKKTKHPLVPTVRGLEKACDNNLGEYVHFRVTTQDIIDTGLVLQFKEAMTLVKSELKAIAKALA

KLAKTHKNTAMMGRTLALQALPITFGHKVAIWLSELDRHFERILELEKRLYVGSIVGAVGTKASLSDECN

EVEKLTLENLGLEVPNISWQSTRDRFIELGFVLGNINATFNKIAHQLLILSHNEIDEVAEPFGKGQVGSS

TMPHKRNPAVSENAVTVSNAFKANLAILSDIERHEHERDGQVWKMEWKLLPEMFLMLSVVLANMKFALSD

LEVKKDKMLKNLDTLKGFVLAERVMFALSDHYGKQHAHEIVYENAMLGIEQQKTFKEVLLADTRVSQVLK

EKDIDALLDATSYVGYAPKLVDEFLAKIKNSAILK

>AHK56313.1 hypothetical protein N917\_06880 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILFLFCSFFLAFAKPSLEIPKLSKQAKQNFILENVKFNYNGTIYKIFIAKNKNENSNYKYKIIYLLD

GNAFFPLFLNLFNTPVKENLLIIGIGYDNNLAFDTQKRTKDYTPTTNLNKQGGGSKEFRNFLITQLIPYI

NKMYPIDFSHQILFGHSFGGLFAIDTLLYDSKIFSHYFIISPSLWWDNSEFLPNIIKLQTCPKIYIGLGS

LETNSSIIKGVAKLNAQKLSEKISKETNCKTHFKLFKNETHGSVISKAMLWMKKLLDLN

>AHK56312.1 peptidase S8 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKFFCLTLVCKLFALSEFELHHIDKVHKLGYSGDTIIIGVADDAFNQDHISLKDKILKSTYPTDTAGKQ

LIPDLKKSTHGSHVAGIAVGAKIGDSKPYGVAYGAKFYGAGVFPNGSYTQIPDIYNFFKDVSIINNSWGI

NFYPYFNLKASNSGLVDCTQTNQGTSYNICNTPLEYVMKADKVANDMMRLSKDKGVLNVFAAGNEGILSP

ALHAILPSYDESLRAWLAVGALDANEITLESDGTLIIKSQGLADFSNGFKGATNFSLVAAGVNINNVDSS

TNDKFTKKSGTSMAAPMVSGTAALVKQNFPFLDGKQIADILLSTANKNYKAPKFTVKQVTDGTNQPKFLI

VYISQDPPGIEDEIKRDLKQLYNGIQVQVNGQWIDYSDYIWDNRDSAQSQKLNTSTISSINGVVRVEKEE

LFGQGILDAQKALKGLSILDANRLSDQDVLKYEQEPNTAYYTINTAGYDAEFSNDISQRKWDESTHLSSA

INKPTHLANLNIGLSKEGEGILIISGQNTYEGATLIKQGELKLKGKVKNNAYVEQKAILSGNGIVGQNLN

NKGIVRPGNEDLNDLTVQGTYTQEGVDSKLQLDFGNYKNSKLIAKTYDIKSGNLEYIPLPKYYILNKPVK

INLGDLEKSLSSFNHVLIQNTYALNFDFVLSDDLVSINKTLIKPNLKPNAYEIPNTSLGNALRQLRSRAD

LSQTYQEFFASLDNGIDVKTKLNRIEGSGYLSTFSNHNQSNLMQNNMLFTLHPLNINNFAQNNNILLAST

YLPRIFSNEEYFWHLTPSYKYYKDKDFSGQKTGANISLGENFSSGFLAYALSLSSAKFNFNNGSDLKSYN

MDLLLNYNHDLDFIKILSGLGIGVGFNTLNRFVVEQPIEGKYKTLQTSAQLGVTKDIILGQDFIFNPLMY

FTHSFFYQEDFKENKSPFAKNYESLKHHSINANLGFNLAKNIEQDDYQASFSTFVIFEKRIYGRTLENKA

SFVDFPIAFIQKYKLKDNILSQGFNSEFLYKNNVFWQFMLMNRFSHNAYELHLMSSVGKRF

>AHK56311.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFFKHILSLKVLIALLLFFGMISLFIGVISINVKDILNLNSTQLEIITLTRIPRLIAILLTGMSLSICGL

IMQQLTQNKFVSPTTAGTMDCAKFGILISLIFFTGASFFTQAIIASIFALLGSFIFIQILRKIKLKDVIF

VPLIGLMFGGIISAITTFFAYALNYIQNIQGWLQGSMANVMQGNYELLYISLPLFILAYFLAHKITIVGM

GEDIALNLGISYNGILFLGLMIVSIITSLVIVSVGIIPFLGLIIPNLVALYLGDNLRKNLIYIALCGALF

LLVCDIISRLVIFPFEMPLSITTGVLGSLIFIFLLLKRKVYA

>AHK56310.1 hypothetical protein N917\_06720 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQTQYSLDMAGKIYRAEFYELRGANLQQLLEANINSKLIKNAKNLDLNTLKMARSKDKFLGSILVEFE

>AHK56309.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIVSKAYEIDSCDDVELGIKRESKLEFKLWYDDEKTPEALVFVVQGMGDDISSIQYVGDYMVRQFNTAVV

GVNYHCIGNRPQTGSSFFMDDIDKLILKASCEAADIKLPYDVDKIQDYKAMSEIFHFVNNQIVEGKQKGN

FTPNYFLNLHVSLQPTKNEYQNFGIMQAQDLLNVALYLKKHAPFDTMGGGIPIIMIGGSHGGYLAHLAAK

IAPWLVDGVLDNSAYAKFLWRVVGFGKEIDFMQYSEFATFDFFHHIKTHCSTKTFWTSNSSSPRFFSPAR

RKIRNLLEEDHLLKQSKCLKTCFISYHSLYDEYVSLKEKTMFYEELEKLGFDVTLHSITKESQVDGKFIK

NLNHGMGIPVKLLIKKELPLMLEKIKQNSKKDYKEKCISYPCEDLLYQFSEKDDKMSLKIDKI

>AHK56308.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTILEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELCSGKIYLVDIEEERVDIQL

LILFDMKDMFEYLSLYEMFVNNVYYKKFYEDVWHKADELCEKNIKVVIRNLNSSLCIGFECYSHLLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENKTSLNMLSCATHPSLVHFLDNKSVVLRDDPLYQRFNLNDFGYIDTGTHVSHFSYT

LALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRIKLE

YLFACNEQKAKFYNATEGGARINFTEELSFKECCEKLLTKEKPQFELPKSLTKNRSDKLLVKFKEKIQKD

QDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDGILKAVMYERGLKIS

LVYKENIIDNASFISAYIKAYHEWLLYFMEKLEQRINIIIDSFKELP

>AHK56307.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLLEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELKVYKVVLFDCVAKDLEIQI

AMIFDQQSILEYLSLYEMFISSHYYLKYYETSILSLNELCIKSASVAIRNADITCFLPLLTHGQFLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENLKQSIIALECATHPNIVRSLNAENCMIVLRNKALYQRFNLNDFGYIDTGTHVSHF

SYTLALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRI

KLEYLFACNEQKAKFYNATEGGARINFTEELSFKECCEKFLTKEKPQFELPKSLTKNRSDKLLVKFKEKI

QKDQDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDETLRGAFAYRGK

MIADVLKLHIQDKTHFITAYIKAYHEWLLYFIEKLEQKYKSLSKV

>AHK56306.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGFRINTNVAALNAKANADLNSKSLDASLSRLSSGLRINSAADDASGMAIADSLRSQANTLGQAISNGND

ALGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTVKATIGATQSSKIGLTRFETGGRISTSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALADEINKNADKTGVRATFTVETRGIAAVRAGATSDTFAINGVKIGKVDYKDGDANGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGQIDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TAITNLDQIRADIGSVQNQVTSTINNITVTQVNVKAAESQIRDVDFAAESANYSKANILAQSGSYAMAQA

NSVQQNVLRLLQ

>AHK56305.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGFRINTNIGALNAHANSVVNARELDKSLSRLSSGLRINSAADDASGMAIADSLRSQAATLGQAINNGND

AIGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTIKATIGATQSSKIGLTRFETGGRISSSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALAEEINKSADKTGVRATFTVETRGIAAVRAGTTSDTFAINGVTIGQVAYEDGDGNGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGRFDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TATTNLDQIRADIGSVQNQLQVTINNITVTQVNVKAAESTIRDVDFAAESANFSKYNILAQSGSYAMSQA

NAVQQNVLKLLQ

>AHK56304.1 PseE protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MREENNFNKNLKALSGFEYNNLRKKLEDLKELREFTFTQGKDNLDINIIKKRNLKKMYQDPIKELEKNLE

YFKDFTRYPVLFFYGFGNGILYKILLQNQALKRIIIFEKELELIFLALNFIDFSKDLSLGRLIILHHDDI

NLPKMDKVFRLIGDLFYRSYNLHIANDFYEHYKEDILKLNKLNMQIIKNHNLMHGNDPKDALQGIEQFVY

NLPSMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGIKPDYV

CMLERDEIVAECFNNDFKDFDKDIIFLVASLVHKKTISYLKKNKRKYILIIKGQPFARCLGLDDYGYINA

GMSVSHMAYELAENLGHNNIILIGQDLAYAKDGQTHSQGFIHANLHNGDYERDLDRFSTTAYGGNGKVQS

SEIWTLFRQIFENFIAFSKSKTYNCTEGGARIESAIEKPFKELCEDLLKNKKDKKFKKLQVLNTKEQVKL

GLKIYQKIKKNMNLSLNFKKECKKVQKQIHNLTHGKNKLSLEQINQNIDKIKEKLSNKKYLFLQEILGPT

LHHEQSILTPLYLKDIKDESDKQNKLFAWVYAHEALIENIIELLEVQDKRLKIAILPLLDFLEKKKAL

>AHK56303.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGGGYNENLLYQDPIKELQTMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWV

IFHILDFSNELQNARLMVLENDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAE

NFKNIILRNGNDPKDALQGIEQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYA

SKATIFCADSSYPILAKHGIKPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNL

VITQKVLAFPYYINLKDFSYAAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYE

SQMYEHILTEAYGGNGKVETHSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACEN

LLDKDLNKPFEKLEPLSLNKQNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLA

IRKIDEFKNKLENIKQMQDLYEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGH

IKAQENALIKNILPLEEKLKERKLDKWMERVRR

>AHK56302.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGL

>AHK56301.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MREELFLKNTQALFEVDEFLACTLRSLKYLTFALIQDENGINFKKDDIFLYENPNKELLENLTLFKTEYN

KYPVLFFYGFGNGMFYKTLCKNKQHKHIIIFEDNLEILTLAFHLFDFSEELKKEQLILFYTPNINTAQLT

TLFTYEIIQKSVKIFNLFIHNDFYQQFYSTQIQNINTQLIEMIRFIVLNKGNDPHDSLVGIKHTLDNLPK

MLNHGIFQEFLKERRAKVENAIIVSTGPSLIKQLPLLKKYANKATIFCADSSYPILAKHGIKPDYVCMLE

RDDIVSKCFDNDFGDFNKGILFILASVVHKEVLDFLEKDQRAYMLVHRPLNFAASLKLDEYGYLGVGHSV

SNMIYELAGALRFENIIFIGQDLAYGEDGSSHPKEHIHGSQGEEIRGEKYTLAYGGKGKVRTQLTWNLFR

QAFEKDIFWAKEKLNITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFDFPKFLDKKLAKEKLEKT

KKYLQKSILESKEFIKKTQTQLQKLRYTLEKNDKNFQTLEKIKNDLLNLFKEFKKLKLFNELCQAIYFHN

ECEILKFEVLNTNKQKENLIDFLKIQHNWFIQGLGYLDTQNKTIEKSLENWNFDDIIKK

>AHK56300.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMTFTPTQKELFNKNIEALSNLFLKESLKEIKSSKFELILGKDNLDINLKDTSDNTFLYENVIDELNSML

NTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQSARLMILQTS

SLDIELFSNFCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLVQDFKDSILSHGNDPLDALQGIEQ

FVYNLPQMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHNIKP

DYVLSLERIPLTSEFFNNDFGEFDKDILFVLKSYVHPHTTKYLQKNNRNFMLVSTYASFINYLKLDDFGY

FNMGFSVANMNFLLAIHLKHKNIVLIGQDLAYAKDGLSHTKDYSNLDKHEGHFQRDKNKYTTQAYGDNGK

VESSFVWTLFRHNFEQDVANAKKNYYITTYNCTEGGARIEGTIEKPFLWACENLLHKDLNKPFEKLEPLS

LNKQNEFLLKAYYKVYQSIKHCRDFSNKFIKSYDKIKNSFMSLQNSQENETLIKEIIKDIDKIKTQIDEL

YNTQKDLMQILGPLLTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNIL

PLEEKLKERKLDKWMERVRR

>AHK56299.1 flagellin modification protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLENKIIFVAGACGRIGKALCEKILLSKGIPILADINKECLNKLQENLETNFKTKLLSLELDITKQESLQ

TALQKSQERYGKIDAFVNSSYPFGKDWGKTPYYELKYEQICESLNLHLAGFMLAAQEFVKFFKQQGYGNI

INLSSIMGVYAPKFENYEGTSMQSSLEYSVIKAGINHMSSWLAKELFNQNIRVNTLASGGILDNQNELFL

KAYRKCCASKGMLDADDICGTLVFLLSDESKFITGQTLVVDDGWGL

>AHK56298.1 Post-translational flagellin modification protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAEILCTICARGGSKGVKNKNIRKINKLEMIAYSIIQAQNSKLFKHIVISTDSDEIASVAQKYGAEVFFK

REAHLANDRTAKLPVMRDALLRSEEHFKTCFETLIDLDASAPLRSSLDIKKAYESFVENDNSNLITAVPA

RRNPYFNLVEIQNNKVVKSKEGNFTTRQSAPKCYDMNASIYIFKRDYLLENDSVFGKNTGLFVMDESTAF

DIDSELDFKIVEFLISLKNLSPKDF

>AHK56297.1 flagellin modification protein PtmF [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVLIIGFGSIGKKHFLALKNLNHEVSLLSLSAKKEEFKNTPIYRSLKECDLNEFDLFIIANITTEHFNT

LKTLDELVKDKTILVEKPLFEKSQNFTSSKNHIYVAYLQRFNPVIVALKRLLKGEKIYFASLVCNSYLPH

WRALDYRQNYSAKKELGGGVLLDLSHEIDLAFFLFKDLELIYSQNAKISELDITSDDFAFLALKNSQEAK

IHIELDYFAKFNKREIIIHTLEKSFKADLINNKIEIYHKNQSQKILNFENDTIKTLQNLHHAVFEKDKEL

CDLKQALKVLELCDEVRKKNG

>AHK56296.1 alcohol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDINKLKLTPDSSIKEALKIVGQERVRLGIIVDKKDKFLGVISDSNIRKALISGKTLKDSIKDIYTKNPI

TIKENTSKEQLLKISAKTDIYDFPVLDEKGQILSIKSISSLLKANPNSIIIMAGGLGSRLKELTKDTPKP

MLKVGKKPILESIIQRLKNQNFENFIFCVNYKKQIIEDYFQKGQKFGVKISYIKERKKLGTAGALSLIKQ

EFKESFIVMNADILTELDFNALLKAHKKSKALMSVCVREFEQQIPYGVITQKQGFIENIEEKPTQKFLVS

AGIYVLENEILNLIAKNEYLDMPELIKLVLQKGKVNTYIINDYWIDIGRPDEFLKANEDFK

>AHK56295.1 UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKRKICIVSATRAEWYLLRNLCHEIQNDKDLSLQIIATGAHLSPEFGLTYKEIEKEFKITKKIPILLAN

DDKISLCKSMSLAFSAFSDAFEDLKPDMVVILGDRYEMLSVASVCLLMHIPLVHLCGGELTLGAIDDSIR

HSISKMSHLHFVSHEIYKKRLLQLGEEEKRVFNIGSLASTIIKNMNFLNKKDLEKALEMKLDKELYLITY

HPLTLNVKNTQKEIKTLLKKLDTLKNASLIFTKANADENGLLINEILQNYCQKNSHKAKLFDNLGSQKYL

SLMKIAKAMIGNSSSGISESPFFKTPCINIGDRQKGRLRTQNIIDSEINDLDQAFEKLESKEFKQNLKNF

KNPYDNGKNPNKIIKTCLKNVNLDTILHKNFIDL

>AHK56294.1 hypothetical protein N917\_06630 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKTLIIAEAGVNHNGDLNLAKKLIEIAADSGADFVKFQSFKAKNCISTKAKKAPYQLKTTANDESQLQM

VQKLELDLKAHKELILHAKKCNIAFLSTPFDLESVDLLNELGLKIFKIPSGEITNLPYLKKIAKLNKKII

LSTGMANLGEIEEALNVLCKNGAKRQNITLLHCTTEYPAPFNEVNLKAMQSLKDAFKLDVGYSDHTRGIH

ISLAAVALGACVIEKHFTLDKNMSGPDHKASLEPQELKMLCTQIRQIQKAMGDGIKKASKSEQKNINIVR

KSLVAKKDIKKGEIFSEGNLTTKRPANGISAMRYEEFLGKIATKNYKEDELIRE

>AHK56293.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDIIFANQSLYYIPLKELKQNILEFYELLNTGGILFATMMSKKNYYFSHSQKEEKNGLSKVEINGRLNET

SFIHFIDKAEDLENLFQPFETLFLGDYDPINFYNFEGSAHHYIYIGIKK

>AHK56292.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNSLEAYTMKYNENGYGLLFPDGHVVRFYERILKYKLNKINGNLLDFGCGNGVHSAYFQSKGFKTFGID

IVPSLKEIWEQNISGGGVL

>AHK56291.1 N-acetyl sugar amidotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIYCDHCVMPNTRPGINFTKDKEGKNICSACINHKNKENIDYKARFKELEVLCDKYRRMNGKFEYDCAIA

VSGGKDSHFQVHIMKEKLGMNPILFSVEDNFTMTEAGKKNLKNLSETFGCHIISLKPDIKTQKKVMLKTF

EKYGKPTWFIDRLIYSYPFAMALKFNTPLLVYGENVSYEYGGSDTEETPSAKEIFLNGVASDLNINEFID

DEIKEENLQLFFNPNKDKLDKLNPIYLSYFVKWNSYSNYIFAKSRGFTDLEGEWDRTMCAENFDQVDSIG

YILHAWMKYPKFGHACASDYAARFVRYGLLSRKEAIELVQKRDHKLDNKCVEDFCNFIGISKTTFWKIVE

KHYNMDLFYKNDFGEFKLKNKLQ

>AHK56290.1 hypothetical protein N917\_06610 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDDLNCDFIHFFNTIYIKLIELCGSNLERFTPLKDLKKLGFHIICSKGNRGALANLLLFNEISSFFKIIE

KYDYNFKECQTVYDLLYEKRNLLNIIDTIGIELCNKICKNLKEDDENFYHPKIFKKAL

>AHK56289.1 3-hydroxyacyl-CoA dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEINIIDFGLMGKQISALFYLLGYEIGVYNKSKLNIYEFEKQIKLLQRKIDFSNFNAGKINIYQHIEDL

KNSLTIESLNEDLNLKKEIMQILRDNNIVFSRVWMI

>AHK56288.1 NAD-dependent dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRNILVTGADGFIGSHLCESLVKKGFKVRALSQYNSFNFWGHLEKSPFLKDMEVISGDLRDSFFCEKITK

NIDAIFHLGALIAIPYSYTAPQSYVDTNVNGTLNMLEAAKKNEISHFIHTSTSEVYGTAFYVPIDEKHPL

QPQSPYSASKIAADMMALSYYNSFNLNVNIARPFNTYGPRQSARAIIPTIITQILSGAKEIKLGDLSPKR

DLNFVLDTCEGFISLLNLKHFGEVYNIGSGVEYSMQEVLDLIQKILDSKVKIIQDEQRLRPKNSEVFRLC

CDANKLKKATNWQSKISLEEGLRQSIEYFKENLENYKSELYNV

>AHK56287.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQNARLMVLE

NDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAENFKNIILRNGNDPKDALQGI

EQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGI

KPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNLVITQKVLAFPYYINLKDFSY

AAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYESQMYEHILTEAYGGNGKVET

HSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFEKLEPLSLNK

QNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLAIRKIDEFKNKLENIKQMQDL

YEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNILPLEEKLK

ERKLDKWMERVRR

>AHK56286.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGVIMKIYFIKIP

LKSCKLC

>AHK56285.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLINQTFEIDSCDDVELGIKRTSKLEYRISYDDEKDIKAIVFIVGGFGANANISFLDFDREYIAKNFDVV

VVHVFYHCFCARQSIDQKYNPKLIPNQDDLERVNGILKNINLGHLSVNKDNFEQIIPLIEQKVNKMKQAG

LVDESQKIELSCDFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGVCLPFLACILGREMNQGEFYFEGSGYRLYCFVYKYWNRNMNSSYYFGDENYLIRAVLN

SNHLQIQSNLNKNTIFVSYHSIQDMGAPVQNKIELYKCYQELGYDATLHLIKDENDIDGRFVKSLEHGLR

MTDRALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFVFKDLEDKFELEMIN

>AHK56284.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTAYLHIGTTNTGNQEKQGFLMQNEEKLLQKAYIYPKSLRVANRHWALVDMVLELVQKEDILKKESVLSH

ITNERLLRAIENFKSESALHKDKKFIFSAEGIVWDFSTKKHVEILEKIMRELGFTQIYIIVYFRDTLGYL

NSHCSQDHKNNMGYYSADFAPQDHPRKYIFDYEWICKTHAEVFGEENLIVRLLREDYVGGTLLKDFVYHL

GLEWDESFVLKQTKNESFNLLGMELMSRLNQKDLKQDNLNSLLFMARRKFEGSKEKRLKFAVQKDIAKAY

VDYFASSLEWVKNKYFPHKNSLFTPVNWEEYEQNYTLTHMLSKDWDDVADFIAQIIVSKNEIISSLKEQL

ELARKD

>AHK56283.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLINQSFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSTLADFTKDDLKLIEKVLRKYNIPCDQLANNTVVSHCEYLSEIMTELKMLN

RLPYDFEERLSATFIPSRGEYQNFGIMAAIDHINALKDLVKRFPKLADLPKIYGGGSYGGYLALLIAKIA

PWYVDGVIDNSGSAVPPLNYIIGRELEFKSKDTNGDMYMQGDHFFVSCFLKTHWTRKENSPYFFNNENYF

IRTLLNKDHLILQSQKNKNIIYVSYHSKEDPLTPANFKELTMQILKILGYDVSLNLIDENKIDGKFIKNL

DHGCGIPDKALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFTFKDVENQLKLIIN

>AHK56282.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLINQTFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSAYKYFQEEDIENIKNLLNQFHFSYGEINNDNALFLANSLVKHVENLKMQN

KLDHNFKLNFTSTFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGVLWRIPIFTHSKDS

SLVCGWCD

>AHK56281.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDGVIDNSGSALPPLNYILGREMEHSYGDYYEDFPHNRIIFFLKTHWTRKENSPYFFNNENYFIRTLLNK

DHLILQSQKNKNIIYVSYHSDKDPLTPANFKQQTMQILKILGYDVSLNLIDENKIDGKFIKNLDHGCGIP

DKALFRKELPLMLEKLQKRKSFMQENSISYPCGNKVFIFKDVGDKFELVIKD

>AHK56280.1 hypothetical protein N917\_06490 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNTTLNLPLHHIGVACKNLEKERECFFKLGFYKESEFIDEKQGVRGEFIIPCNEAFPQYRFELLQNLND

KGPLDSYLKNNTKMYHLAYESKNIAQDLILLEQQGGICIVPIMQASYFAKLCFIMMPNRLLIELVELK

>AHK56279.1 hypothetical protein N917\_06475 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKYLLEFENKKYSTYDFIETFYKLGLQKGDTLCVHTELFNFGFPLLSRNEFLQTILDCFFEVIGKEGTLI

MPTFTYSFCKNEVYDKINSKTKMGALNEYFRKQTGVKRTNDPIFSFAIKGAKEELFLKDTTSCFGENCVY

EVLTKENGKYMTFGGQGHTLTHYAEEQFNVFYRYHKIFSGILIDENNISYNKTISYYVRKLDISSEPNLI

NIINIVNNTKNFKKNNFAGDHINIYNAKEYIEILWKKLDINQTILIENYDTIY

>AHK56278.1 hypothetical protein N917\_06470 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKGAKADIFLKENSSCFGKDSVYEILTREGGKFMLLGLNYGHALTHYAEERNTSFCRYFKEFKGFVIDEL

GQKREKRINYYVRDLEKAYVCSLDKINEIVRQTRYYKSIKFAGDFLESYDAKEYVKAIGNALKQDKFAIY

EKLLL

>AHK56277.1 aminoglycoside N3-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKYFLEHNGKKYSDKDLIDAFYQLGIKRGDILCVHTELMKFGKALLTKNDFLKTLLECFFKVLGKEGTLL

MPTFTYSFCKNEVYDKVHSKGKVGVLNEFFRTSGGGRLGELATLFFPLL

>AHK56276.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQTFLVDENSRLDVFLAKKLNQSRNQVALLIEKDCVQVNDKIQDKNSFKLKNGDIISIASLKLCNEIKPQ

FEVDFDIDVLYEDEDLLVLNKPSNLVVHGASSVKNATLVDWLIEKKYTLSNLGGEIRAGLVHRLDKDTSG

AILIAKNNFTHQKLSEQLADKSMGRIYLALIDLPLKEDKIIVEKFLMRSPSNAIKKIAIDKENKFSKNAK

SAFINVVKTENLTLMAAKLFTGRTHQIRAHLASLNRYILGDSLYGYKGKYDCRIMLHAYFLYFIHPKTKE

QIFVKAPLMEDFKNIMFEQINLGENDEKISLEFLLEFFNSFA

>AHK56275.1 competence protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSLWNSFSYSFKEFHYLFFSVVVIFIFNILLEYNNFLNFKNQKHYLIDNALLTHQYIKYNKKNKKYWVLK

LQTENFTFYTTSFKDLNLSKNQFLSLRIITHNINFKDYLSKSFYAPSYDFEKLKEKEYNPIISYFLNQHT

NEKIKEFYGALFFALPISLELRNDVNYYGIAHLIAISGYHIGLLFSLIFFILAPIYSFFQKRYFPYRNLR

LDLSILIFALLLAYACLIGFVPSFVRSLIMAFWVFYLLCKNIKIINFVTLFCSILLCISLYPRLLFSIGF

LFSILGVFYIFLYMHHFANKFNNLINIILLNIWTFFAMVLPVLYFFPLISYQQILGIILSGIFVIFYPLV

LFLHLINYGDLLNFILDEFFKFKIYGTNIHIPFWIFISYLIASLISVRFKYLAFLCIFANFIPFIMIVI

>AHK56274.1 5-formyltetrahydrofolate cyclo-ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKTDFRALQKIRLFKHSKLNFKQDYKIFKECLKIIKLFKAKNILIFIPLHYEPNLIKFRHILNKNYKLF

VPFMQDKSLKIVKLRLPFIKKRFGVLEPIDSFFKAKIDLAIVPVIGVDKNLKRIGHGQGFYDRFFENLNY

KPHIIFIQSIDALSQNNLTQKHDISGKLYINPYKKYYKKERKNDRITYRTYSRYSRTRYRIFSCKKNQ

>AHK56273.1 biotin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVKNGLLLTIFLSVIGVLGVIFIHIFVGAIIFVLIAVLMIYLLRQHKDEQIMIDKLLVLCRELKEGNFDN

RIIYVKTKSKKLAEIADNLNNTIDGLEAYLTEINTSISCSQKGEFYRKALPEGLKGIFAHNIEFINKALA

NIEVTARSTFKNALSRTLMDLSLGNQNKDMSQISSSLNQDISMMKNVYDTVDAISHTATENGSEADSLQS

AMGSLMDVVNSSKETVQTFVANSQNITSVVEVIRDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVRK

LAERTQRSTSEISIAIQTMQQDFVNIQSGSEQVFNIVSESEERINKFSQAFKRLEENSSALGVNFGSFAK

RLILSVVKIDHILYKSNIYLNLNGAQNFNLESVDPISNLCQDERAQGVINELSSETELNLAKEFIKDNAK

KAIEESSQDYIDQKAYDAIVNDIKSLEQRSAEILAKLKI

>AHK56272.1 flagellar biosynthesis protein FliR [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEFVNYLGDKNVVTFMLLLARMGGLIVFFPFFSHNSIPMVIKSTIVLFLTMYLYPLARLESLHLDSFFVL

QLISEVIFGMIAGLMLQIIFAIIMMAGEQIAFTMGFTMASILDPSSGTSMPITSQILNLLALMFFLAFDG

HHLMLLFLSHSLGYISLGGFYPHENLMHYLNMGMFNIFIIGFTMSFPILGISLLADVIFGLLMKTMPQFN

LLVIGYPIKIALGFVVLIAILLVMMQYFKNLILELFTHMQTLFFF

>AHK56271.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKILLLNENPVVSRLVSLSAKKMSYDFEELNAYSENLGNYDVIVVDSDTPAPLKILKEKCDRLIFLAPRN

QNVEDIDAQILQKPFLPTDFLNLLNNKDANKHTSIDLPMLSNDENPYADISLDLDNLNLDDLPDENSLDI

NSEGMEDLSFDDDAQDDNANKTLETQNLEHETIKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEP

SLDELDDKNDEDLEIKEDDKNEEIEKQELLDDSKTNTLEMQEELSESQDDNSNKTLETQNLEHDNLEQET

IKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEPSLDELDDKNDEDLEDNKELQANISDFDDLPEV

EEQEKEMDFDDLPEDAEFLGQAKYNEESEENLEEFAPVVEEDIQDEIDDFASNLSTQDQIKEELAQLDEL

DYGIDSDNSSKVLEDFKDEPILDDKELGTNEEEVVVPNLNISDFDTLKESDIQEALGEEILEKNEEPIVS

DVTKDDNSEEIVNELSQSIAGAITSSIKDDTLKAALKGMNMNININISFKED

>AHK56270.1 hypothetical protein N917\_05780 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQQKCFCISKMIRFSKIIILLTVVSLAGIVVFGNVTDYNSNFQFVSHVMSMDTKPDLFR

>AHK56269.1 hypothetical protein N917\_05775 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAITSPVIYHIGYIAIILFETFIALTALKKVLMICLKLEI

>AHK56268.1 hypothetical protein N917\_05770 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFKARNLDAQSFHNAKIFWDYFFNLCILWFFAFQVVVAEWFGMWMSKVWKGLPDTIRLVTYMFLALIFIS

LKNDD

>AHK56267.1 hypothetical protein N917\_05710 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKQEISSFWYTPRGYKGIGLMELLSIKSFIDNGYKFILYTYNLDDKIFKKLDELFDDFELKDANEIVSFK

NYFRDDRGSGVAAFSDYFRYNLLYLKKKGGGYG

>AHK56266.1 hypothetical protein N917\_05705 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MICLNYIDLNEEYIFTQEVDEDNKKSRITTSFLKFSRYSDFGKNLIQEAEKIINKRKKISWGVIGPWFLA

DHVKKCGLENFVWDYKRTCQIPWCNVKIFLDNTSIDISQPFLHLFSEMWRLNNMEKNTFHQMGVYGQLLK

KHEIEKLYNQINTCLKTSMLDNIASFLTKFFIKKL

>AHK56265.1 bifunctional beta-1,4-N-acetylgalactosaminyltransferase/CMP-Neu5Ac synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTLFYKIIAFLRLLKIDKKLKFDNEYFLNLNKKIYDEKHKGFFDFDPNSKDTKSPLNPWAFIRVKNEATT

LRVSLESMLPAIQRGVIGYNDCTDGSEEIILEFCKQYPSFIPVKYPHEVQIENPQSEENKLHSYYNYVAS

FIPQDEWLIKIDVDHYYDAKKLYKSFYMASKNTAVRFPRINFLILDKIVIQNIGECGFIDGGDQLLIQKC

NSVFIERMVSKQSQWIDPEKTVKELYSEQQIIPKHIKILQAELLQWHFPALKYHRNDYQKHLDALTLEDF

KKIHYRHRKIKKINYTMLDEKVIREILDKFKLSGKKMTLAIIPARAGSKGIKNKNLALLHDRPLLYYTIN

AAKNSKYVDKIVLSSDGDDILEYGQTQGVDVLKRPKELALDDTTSDKVVLHTLSFYKDYENIVLLQPTSP

LRTNVHIDEAFLKFKNENSNALISVVECDNKILKAFIDDNGNLKGICDNKYPFMPRQKLPKTYMSNGAIY

IVKSNLFLNNPTFLQEKTSCYIMDEKASLDIDTTEDLKRVNNISFL

>AHK56264.1 UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIVFVSGTRADFSKIKSLMMKVENSNEFELFIFVTGMHMSKKFGSTYMEIEKCGFKNIYKYINHDKYY

QMDKALSSTIDGFSKFIHEIEPDLIVVHGDRVEPLAAAIVGSLNNILVAHIEGGELSGTIDESLRHAISK

LAHIHLVNDEIAKKRLIQMGEDEKSIFIIGSPDLELLNNTISLDEAKKYYDIKFKNYAIAIFHPITTEIN

SLYKQSEEFVNALIKSEKNYIVIYPNNDLGFELILQNYERLKNNERFKIFPSLRFEYFISLLKNANFIIG

NSSCIIKEALYLNINGILVGSRQDGRTDINKTIRVNAEEKDILEAILNTSKCTNITNKRLEILNSSEQFY

RLLKNNILFTINKQKIFMDKK

>AHK56263.1 polyhydroxyalkanoate synthesis repressor PhaR [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQIKIDKLTISQKNPLIIPEIGINHNGSLEIAKLMVDAAKRAGAKIIKHQTHIVEDEMSQEAKNVIPGNA

NISIYEIMEQCALNYKDELALKEYVEKQGLVYLSTPFSRAAANRLEDMGVSAYKIGSGECNNYPLIKHIA

QFKKPMIISTGMNSIESIKPTVKILRDYEIPFVLLHTTNLYPTPSHLVRLQAMLELYKEFNCLYGLSDHT

TNNLACIGAIALGASVLERHFTDTMDRKGPDIVCSMDESTLKDLINQTQEMVLLRGDNNKNPLKEEQVTI

DFAFASVVSIKDIKKGEILSMDNIWVKRPSKGGISAKDFEAILGKRAKKDIKNNIQLTWDDFE

>AHK56262.1 alpha-2,3 sialyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSMNINALVCGNGPSLKNIDYKRLPKQFDVFRCNQFYFEDRYFVGKDVKYVFFNPFVFFEQYYTSKKLIQ

NEEYNIENIVCSTINLEYIDGFQFVDNFELYFSDAFLGHEIIKKLKDFFAYIKYNEIYNRQRITSGVYMC

ATAVALGYKSIYISGIDFYQDTNNLYAFDNNKKNLLNKCTGFKNQKFKFINHSMACDLQALDYLMKRYDV

NIYSLNSDEYFKLAPDIGSDFVLSKKPKKYINDILIPDKYAQERYYGKKSRLKENLHYKLIKDLIRLPSD

IKHYLKEKYANKNR

>AHK56261.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYKLKNKTQTIKENSLIEFNIEGNNPYEIYTVYKSYKAFNNEQDLTNFTYPIIDYII

FLDSDDYWELNCIEECVPRMDGVDVVWFDSIEYHDIEKSYFKHHSRLKDINIKKECRINPIEWLKLLRQN

KIKDFAFAWSGIIDFDYIKDKKMKFKDAIFAEDHLFGILLFSQAKNIYVYPKVFYYYRIRANSLTNQDKK

ITKDNILPYFKDIFIAFEENATLAKEYFKYVSWVETSLELVRFVENYHDKKISSLLKDTILYFYIKNAFK

IKKFDKDPLCIKEKLQLLKPYKISKIRYKVMKFLISLRN

>AHK56260.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQIQQNNSLIYNTLTKKLSSFIPIKSTRRKLRNHIQYKLEHPKVTNYLSNNYINPFLEGKIPHFDFEKKH

YFKNDKIIWQFWYQGKNQASPMIQQCFNSVQSQMKDDYTIIILDKDNIKDYLDFPPFVIEKLENNFFGEK

TITFFSDLLRVCLLATYGGIWCDASIFLSSKIPSELCDKDFFTFERSKIKPSKEKLKKFIKSGYFSYGYF

NWNDDFKVKMLSSFMIAKTNNTFIQTLKDILMNYWKNEQSSENHYYFILHIIFELLKEHGFVNDIYKNMS

DIECHLLQFSAKEKFNSTLWEEIQKQSFLHKLTHFKSIKKDSMIDKIILQS

>AHK56259.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYETQYIEKENELNVFKIIGDNPQNIYKIYKYKNALASDKLEISKIDYIIFLDSDNY

WELNCIEECVVRMQNVDVLWFDHACIYDDGIEDKGQKTRMNVFNFTQECTITPRDYAKQAIKVGSRDISF

SWGGMIDFSFLKQLKLKFINKIINEDIHFGMVLFASADSIYILPKRLYLCRLRANSISNHDKKVTKANVS

EYFKDLYEFFGENAKEAKNYLKAASRMITALELIEFFKDQKNENSQAIKEAFLPFYVKKALMIKKFKKDP

LNLKEKLPIIKPFIQTKIPYDLWKIWQKIKGILDKINFAK

>AHK56258.1 glycosyl transferase family 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLKQISAIIIVKNAKQTLLECLNSLKDFDEIILLNNESSDNTLNIANEFKKDFANLHIYHSAFIGFGAL

KNLALSYAKNDWILSIDADEVLENECIKELKNLELQEDNIIALSRKNLYKGEWIKACGWWPDYVWRIFNK

NFTRFNDNLVHESLVLPSNAKKIYLKNGLRHYAFRDISHLIDKMQYYSSLWAKQNIHKKSGVLKANLRAF

WTFFRNYFLKNGFLYGYKGFIISVCNALGTFFKYMKLYELQKQKPKTCALIITTYNQKERLKLVLDSVKN

LAFLPNEVLIADDGSKEDTARLIEEYQKDFPCPLKHIWQEDEGFRAAKSRNNAIKASKSEYIILIDGDMI

LEKDFVKNHLEFAKRKVILQGSRVILNKNESEEILKNNNYSLAFNKKGFKNQRSIFLAKCVYKFSKLTKK

FFKKSQLVKGSKTCNMSFYKSDFEAIEGFNEKFIGWGREDSEFVARFLFNDGVFKRLKFNALAYHIYHEE

NSKNMLEINHQIYLETIKNEKTTWR

>AHK56257.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>AHK56256.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHFNNNLVVHYIVNPSPLGWIVINLLTICLICYIFPLKNSLKHKKLFSLKANVNSKNSRIIKYTGIAAFL

GGLIGIWYNFEGFYQLLFFFELENENLKTLWSLQVSVSSVITGMLLLLIYVINLAMVCENGIYIVSKFNL

FYMYFIKREDLEIVKIEKMKFLNQVEVCFVIKTKNKILLKCFESIYKKEDLEKLKNWYENKL

>AHK56255.1 ATP-dependent Clp protease ClpA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKYQENLQKYLDNAKNLSLINHHEFVTCEHVLFALLKLSTDFKDIFEEFSDGDLELLETELKNYISQNNQ

VIKQEIEPTISVVLDEILLSSKNKNNEIKIIDFLEKLIQDSRSYSSYLLKKHNINLNKIQELQNHENIQN

LNNHTSDLTLLAQNGKIDPLIGRKFELERMMQILSRRKKNNPILVGEAGVGKTAIVEGLALAIAEKKVPK

NLQNAKIFSLDMASILAGTKYRGDFEKRIKEILSELEKIPNAILFIDEIHTIVGAGSTGESHTDFSNLLK

PALSNGTLKCIGATTFMEYKNTFDKNKPLSRRFAKINVDEPSQEESLQILKGLKNKYEEFHHIKLNDEIL

QYAVIWGKKFFNDKFLPDSAIDLIDELGASFALNPRAKKNANLKDLENVLAKMTHHHKMFEFDQNKALMN

LKTNLKAKIFGQDEVIDSLVSSLKQSFAGFKNSNTPRGVFLFTGSSGVGKTELCKALAEFLGLNLERFDM

SEYAEKHAISKLIGSPAGYIGFEEGGLLSNAIRKNPFSLVLFDEIEKAHPDLSNTFLQIFDNAELTDNSG

LKVDFKNTIIIMTSNLGLKESNELGFLSKNEEKSNRAIKDFFAPEFINRIDKILHFNDLNDAILVKIIEK

ELDEISKNLNNIKLSVDDKAKIYLAKKAYNKEFGVRLLKRIISEEIGEKISDEILFGKLKKGGIAKIKLG

KNEKLEFIF

>AHK56254.1 hypothetical protein N917\_05415 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAIFNKGGISPTSSSSSETTVISSGARIEGKFYFASMLHVDGELSGIIHSESIVVIGKNGNLKGELQADK

IVVNGCFEGQLEANSLEILAGGVVNGDISTQKISIENGGRFNGTSKIKEDTIKLIENNNEE

>AHK56253.1 hypothetical protein N917\_05295 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLENPIPNSIIITTIAVVLAFSALAVFLIKKTKENK

>AHK56252.1 sulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRKILLQIFIFSVLFIATFAINRILMQNSFIPTGLISDKNEIFLMYLLGVFHDIRFLSAAFLPFLLCGFL

SLIFSNIKINNKLVIYSKNFYFIFSSVYIIVLSCLCIGFSYVKYYYYEIYKTKFDIFMFTLKDDNTKTIL

SIIYHDYPILKILALMLIFGVFVFFLNLKILNLKLKPVNLRLFPLIALNLILIIVYVIALRGPFKHVAIN

VQNYSFSEYSVVNDTMLNPIMAFSWALKQYKEEAALKVITPLKAQELKEKLFDYLHQSPINLKAEKNHPS

VFVNLMESFGLNLADFTNTEHNFLGSLDKHFKQDFLFKRFLSSSNGTIPSFANLFFVSPFSNISTSKFQK

TYLDLTPIAVYKKAGYKVIFVSAGNGSWQNIKNYLSILGVDEIIDENILMKEYNGAKDSENGYGIADEFL

YKKVYDLLQKNPHKTLIIALTISNHPPYKIPQNDLPKLQNIPQTLLNMLPYEKDKQDNIIKAYTYANNEF

GKFLDKVKQSPFKNSVIIAATGDHRVREMSMDLNSQKAFAYSVPFYLYIPKDLQDNIYYDKDRVGSHKDI

FPTLYALSLNNVKYLSVGGRNMLARPSDEKLEFGINDAVWIDKKGIYSGGKGYYFESNDTLKDMNKAFNL

DGYTKDFDKFYRELNLYQLAERLGISK

>AHK56251.1 restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MITKDNLKQVLENLGFKNKNENYVKTINNYTLLIDYKNQSINYPKEIKIHDKTTSNFSHPENFVVFECVH

RLLEKGYKAEYLELEPKWNLGRDKKGGKADILVKDNENNPYLIIECKTTDSKNSEFIKEWNRMQEDGGQL

FSYFQQEKGVKYLCLYTSDFSDKLEYKNYIIQAYDNEEYLKEKELQNSYKKSNNNIELFKTWKESYELQY

FKQGIFEENVNAYKILEITPTFDNLKELKEEGKYHEFAKILRKHNISGKENAFDKLVNIFLCKIYDETFN

KNNLKFGYFGVMADTYANMQDRLMWLYKEAMKEFLGEKITFVSNEDIEKDFKQLKIKTLKEVMQNYIKEL

KFYSNNDFAFLEVHNKELFLKNALVLKEIVELFANYKLTQNSTNQFLGNLFELFLQKGMKQDEGQFFTPI

QICEFIMYSLPLQEMLSKSSKALRVIDYACGAGHFLNTYANELKRYLTEDELKEHYKNIYGIEKEYRLSK

VSKVSSAMYGQNEINILYADALASFELANTNNLEGEKAKPQIESNSFDLLIANPPYSVKGFLETLSDKSK

NTYKLFNDDINIETNNSIECFFCERANQILNDNAKAAIILPSSILNKDSIYKNTREILFQNFDFIAIVEL

GNQTFGATGTNTIILFLRKKETFKQENHLISQDYSLIKERIEAENLKDNENFYQNYLSAYCDFRKFDKEL

YSNFLNGNLDSKLAELEAFKDYRNAFRQTSDYKKLKESKIYKESKDKQDLEDKAFLAYTQAIEKDKLLYF

CLSLNQEVLIIKSPSDIKEQKKFLGYEWSNRKGDEGLKELHEPYLSPLFERGNPQNETKLNTLICKAFLK

TLSDIPKDLQGYASKARLIDMMDFEKVEFNKAISLNVKSRDELNPFKNSKYELVRLGEVCDLNKIRNQAS

ATEIEKMNLNSGNVKLLPSSKNYEWWTDEKTAGQFINEGEVITLGVARYANIKKHKGKFVSANNHILSVK

DKSKIIFDFLYILLEICGQKLYKQGQQYPQFDTNIFYSFKIPLPPLEIQKQIVAECEKIEEQHNTLSLSI

KEYQKLIKAMLQKSGIIEDNQEYELNSILENLQKLESKLDFNLLLSLIEEQISHSEVLVEETQSKERKQD

FNAFKNFSKTIQELLQTLSTPPKDGWKRISLKNEQYMELNPSKKEISKLDENMLVSFIEMASVSDKGYIQ

SKIDRSLNEVRKGYTYFIENDILIAKITPCMENGKCAIAKNLTNNIGFGSTEFHIFRAKTGLDSSFLFYN

LNQQNIREKAALAMTGASGHKRVPISFYENLTIPLPPLEIQEKIVQNIELVEQQIDLLNLKLEFLEKEKE

KILQKYLFS

>AHK56250.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MASFKKIFWINVTIVIIVAFNLRAPITAVGPIIDIIKDKYYLNSTVAGILTSLPLIAFGSISFIVGYFSP

IRAIVFGIFLIFLGEIIRSYFGVYGLFLGMLAMGCGIAIANVLLPSFIKEKFPKKMASIMGIYSLVLSIS

SIMGIALAIPLLSVFDLAGAMFFWAIFSFVALVVYYPQAKNGRFFRIKKKTHKKINLFTNLTTWKITLFM

GFQSFLAYSLFFWYVQIVVEKGFDKEFSTSMVLFAQLVAAPVSLFGPLLLGKLRQNLHTFYIAGLCSMYV

IAFGMLFIFDSKISIIISAFIMGFPWGGVFGIALLFIAQKSSNAQIAARLSALAQGFGYLIAAQGQWIIG

FLHDKFENFSFAILMLVFVGILVNIFGYLSYKSQIIK

>AHK56249.1 branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKLTLTLSVLTMVNCLYAKDINIGVVLPLTGTVAAYGQDVFNGIELANKLQPKLSNGDVIKLITIDTKG

DKLETSNGVNRLIATDKVLGIIGEATTPNTIQAISIAEEKKIPLIAPVASGDKLLDKKKYASRVCFKDSF

QGDKFATYVSKDLGLKNAVIIIDQSNVYSLGLARAFENSFKNNGGKIIKKLVINSGDKDFRAVVSQLKSL

NPDFVYMPIYHPEAALIARQARQIGFDKLLVAGDGVNNQTFIDLGGSAVNGVIFTDSFDYNSPSTQLGKD

FVAAYEKVKGTKELPAFSAMGADAYFVMLNAMNACVDNLSSECINSKIHQTKDFQAVGGVISIDESGNAI

RSVVIKEIQNQKQNYKTIINP

>AHK56248.1 branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKSLILASILSLSLSAAEVKIGVVLPLSGATAAYGQSALEGIKLANSMQSALSNGDKVSLAIIDTKGDK

LESSSGANRLVSQDKVIGLIGEMVTANTLQVMRVAEDNKIPLIAPAATGDRLLDKKIYSSRVCFMDSFQG

SSLAKYVFSKLNYKSAVIVVDQSTDYSLGLAKAFEKQYKSNGGQILRILRVNSGDKDFRAIVAQVKSLNP

EFIFLPLYYSEASLFARQSKLAGLNIPMGSADGVADQTFISLAGDASEGYIFTDSFDANNPTTKLSKEFI

SVYEKAKGTKEVPNFSAMGADAYFVMLNAMNACVENLTSKCVNEKIHQTKNYQGVSGVISIDQTGNATRS

VVVKEIKNQKQNYKDIINP

>AHK56247.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLTIFLIFLNILCYFLISYDYYNILGLNILFFNGAYWQLLSSMFLHGNLTHLILNMIVLFQFGRMLETYL

GALCFIFIYFIGGLLCSLLSVFYVYFDFKYFGENINVIGASGAICVLMGFYAVIDKNSTKGLIVAILLMS

FVPLLMGVNVAWYGHIFGFMCGYILAKIKEVK

>AHK56246.1 hypothetical protein N917\_04925 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKIPYFSFLKLDFEIYHLNTSKNFYGFFILYFSFFIFKLIYKFSKSNKKIYKKIIKLKKIIKDNKYLIF

LCYILINI

>AHK56245.1 hypothetical protein N917\_04920 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKSLLFHFRRIGVEFIIFSVYAVFSISWAATGSLMPLISNDLALNTQQATLITSMIVVAKIFGASFTAF

LVYKFGLKKGYFLGCILMSSGIFLSFVDSYSGILIIRFLTGLGSACALVCLVPIAQQWFEKKALHFVISF

NITSNLVGITLGLVLAESISNYFGNWRDSLSFYAWINLILLILWLFVGKDENKKEEKKNNAKDLIYALKS

RVTWGMIIFYIGPILFLNSLFTFLPTFYAQYAGFSKELADFAKKEIPALANFAIIFGPYLGLFFKRKNIS

FKIMLLSGGACIFICGFCMLFLQNLVLIQIFAVLSGIFYSM

>AHK56244.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSAFWSITFVILSFNLWVVSWSVDKTHSFTLGFVYIFALIFISAILAQFVLPRREKFIQGEK

>AHK56243.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLEQSPYKEDANSKNYNNTLKVKDGVIIIDHSNTSDDNNSKTINTKKNTQKNQPNLSNDNTLKTKTPNSN

TPSLKNTSKEESIHKVSFSFHITNKNINFKDLGLDEQVLQEALNDYKKESISVQDLQDIANIISYYVQVS

GYPAATAYIPQQELKDQIQINITLGVLGKYVVQNNSSVRDYAIESKLPNHKGEIITTKLVEDAVYKVNEM

YGIQTLASLKAGDNPGETDVVIETTPSDSFVSVLFYGDNYGIKESGRYRDGASMSFNNIAHQGDSLNAYL

QRSDEAQTNYSISYTTFLGNLKITPSYSKRNYALGGAYKNANFIGTSENLGIDLKYPLWITTYNSFYLTS

SYYHKKLSNSRLNIMTIDKSSDTISFSIEGVYNGISNDSFSYSANVSYGNVKDGGTTILGMSSKTDGDGF

GKFAKLNVNLNNAYFFNDTFTHLFSLNYQQVVNGATLDSSETISLGDPYGVRAYNNGDGEGDNAVVASFG

LRMATPLKDFYITPFYNIGYSWYENDSKLYRASETNYMDAYGLQLLYNKTGNFYVKLDLARALKKYKLDD

DYSSKAYVSFGKYF

>AHK56242.1 hypothetical protein N917\_04855 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKMIKIQKVKSLLDLVKKLKNKQSLKIKNQTNTKENLNKTHYLTI

>AHK56241.1 hypothetical protein N917\_04850 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLQLFIQTTDEDPNINEDDKQASIDEASTQESGNVV

>AHK56240.1 hypothetical protein N917\_04845 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKGQENAQKTYDTAVNAYNEAVKACNTALSGITGNNGDKVIAGLKQAIDKVSSDLQQATIALQIATAST

NSSLENSNKTLASASINGTSHLTVNENIVQTISQYPL

>AHK56239.1 hemagglutinin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSIRSNKGLTGPGGDPTDTIGYKETSDLIAKDNISNEVLNSIFNDLKFNSSVDISDLSKFYKDGKILTAD

ELTSINQSMDFITALYGQTQDSNNATFANALKEVLGNSYGDLGKANQVIIKTKEILSQNS

>AHK56238.1 hypothetical protein N917\_04835 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEFTKDGKLSAFKGNPKTISPVIKSNAGNVINLETITVGERVAMAGNQVSNMKYGGTDYGKFIFTNKKE

QSNTVYLNVYSNDTFVIRGPASNTIKKKTL

>AHK56237.1 hemeagglutination domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKLNKLSLSLVVGSLLFTQSYALPSGGKFTHGTSGSISVSGGFNIASNETVNFGQGKTNQNYLNIVYGS

KSSHYRWNTQ

>AHK56236.1 hypothetical protein N917\_04825 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MREDEVLSFKARHGVNTAGHSIKTVRVLPFLITAKTDHADASYNKLILEQGELSSVFYLKPKDTHIKNPS

NSKSNQRMNFLMSSTFTHYGNASYNQTILQKDAHISMGVENTYDLALNGAPYLIGAIATYGDSTNNSLNI

EAGSSVEFFTSLPKKDKNGNNTFDERITHLVGGLAYQGNVKNNKIFIKDANMIIHGPSKAYASLAAAHIS

AGYIDSGTDKNFQASKNLLDIDGFNLDMYMNHDKQPLAYNSVLFADFWGGKTEQGQALDNTINLKDIKNL

KKDKNNENIFAQALFNFYAGASNNGEANYNTLNIELKHPLEIANNFLGYNQHSFYGGFATKGANHNTINI

KNDLTTTDLSQSYKDALNIVAARTLEGSADYNKVYINNSMSTLPVYIYTAKKNILNNQDFYPSSANNNEV

VIKDFASFRNLTVLTEAKEASYNTINYNNVQSITDVSNIDKGSKIIIRALDKANHNTIDIKNYSSNAADN

AYLIMAYNEAAYNKIIINDTLFGVASDKREGILSIIAGLSNNAHDNTLIINNLNLDEYKNNNSIFIAPSA

ITGLSEAKSYNNTLYIGGNLNIFKNTFIDILAGALVHYEDNYSASNAAAPSDISLSKNNRLILNTKVEAR

IINNFEHYYLIVSNKINTTPLLKSYDAPINISS

>AHK56235.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFKTIGFKVSAAIFVVLLISFIVMQVILNLDFKNTANKMSRANLDTVSTSVFQTMRMAMNLGDPEKIKEA

IEDAKSIEGISDIKIYPSKDTIDLFEMKAPQISNDKRIIEQFSNPKIQALEENVNLRLIRPLIADESCVA

CHANANVGSVIGVMDISHSLEGVQKDISKTSQSYIVIFTIALIFTLCVVLLMLKVVVGKPVLELLNHAKE

LAQGSGNLKARISVKGQDEIALACGYIN

>AHK56234.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSNKANSANEKSFLLLEQMLKSLFNVANKVSTVSQNENELAKKVENMVNQAGNIQKATQMMDEIADKTNL

LSLNAGIEAARAGAFGRGFSVIAEDVRQLAQNSEEFLGNVAQITKELLQSINEVSAELKKNAQSVQALND

DTALLVDDANEVKLCNEDARALVTQCTEKIKISQENIQNLLSRMQENVEVSEKNEEISKILLQVADELKI

VCHNLESELNQFQI

>AHK56233.1 hypothetical protein N917\_04630 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSSKFSKIGFILAVAGSAVGLGNAWKFPTLVGQSGGSAFILLYIILTLGVGFVIFLAELSIGKISEKDPV

NAYEKLAPSNKKAWSYVGFTMVGAILIVSFYTLVIGWIVKYVFLSITGNLPMDLEVSKAQFGFFISEDFL

SQFICFTLVFLCVFYIVSKGVKNGIEKLNVWMMPSLFILLILMLVYAISKDGFIMAVKFLFVPDFSKINT

SNVLEALGLAFFSLSLGVGTIITYSASLPDKTNFITSTLNIIFINLLVGLLMGLVVFTFIFEFGYNPNQQ

GPGLVFISLATLFEKIGVIGCIFGAAFFISLIFAGITSAVSMIEPFTFYLINTFGMSRKKALILIGIVVY

ILGMLCILSSLKSTQFGFFGMSFFDLLDSVSSKVIMPLGGILAAIFVGFVMKKEALKILFKPYMRGIFFE

LWYVFLRFISPLAVVIVMIAAFLK

>AHK56232.1 sodium:alanine symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRTYFSKIGFVLTVAGGAVGLGNAWKFPTLSAENGGFVFVLLYLFFTLTIGFSIFLAEVAMGRLSKSDLA

NAYSNLAIKYGNRWRYGGVFMLGGIFVLSFYLVIMGWVLKYTVVSLYYLPKTLDEAASNFQNLITTNLTS

SVFFFTLSFFLTLLIVSKGLIKGIEKLNVVIMPSLFLMLVFMLFYCMGFKQGFANAFSYLFYPDFLHFKF

SSIAEALGLAFFTLCLGIGCIVTYSSALDKKTNFIKSSVYIVLINLLISFIMGLIVFTFIFEFGADPHTQ

GVGIVFISLMSLFNQLGALGYIFAFCFFLALFFAGITSAVSMIEPLTFYMINNYQISRVKALFLIGLFVF

VFGICCILSLNLNFFSMFSFFGKDFFTLLDKLTSNFLLPLGAIVCSIFVGFFMNKKQIYKIFSKFISRKI

FLIWLFFIRFISPIAIILVMCYQIFV

>AHK56231.1 hypothetical protein N917\_04535 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFKKFKYYYEKAERFFHPLVGLSSYDKYLEHMKQKHPGKIPKTRGEFFKECLDKKYNSGGLNKC

>AHK56230.1 hypothetical protein N917\_04460 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEILDFILIVIFVFLMIVLVIGFNHQMMQKNKEREERFKKYKKGEQNE

>AHK56229.1 hypothetical protein N917\_04340 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKFSIVLTLLLCGSCALALDPNLEKTKSATGIDLPTAKWNLPKELNEDGTIDETKMPKNSEYSKMVILG

NKILNETSKYVGPQAKDPKKKICGK

>AHK56228.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNQSGFVGIWARFPQYNARGDKVITLADRINGCFERSTNGKRMPSDTPEMKAMLTYMQWLSQGVPVGAK

IEGQGLKKIDFILKAADPKKGKAIYMDKCAVCHQENGLGLKNEDSTGAYYLYPPLWGDDSYNTGAGMYRL

SKLLLILKKICLKVRLT

>AHK56227.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPQGAPDLSLEDAYDVAAYMNSQARPIKANRNKDFPDRKIKPLDMDVGPYDDSFSTTQHRYGPYTNMIKK

>AHK56226.1 protein-disulfide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRNFFCKFVLALVFYSSFALANNSFITLNPSLPSSENSVIEAFSYKCIHCYNHHKFGTLEKLREAFPNLH

FKLYPVSLMNGEFSKEMNELFTFAQYKDEQNGKDASYSDSLSHKLADVYFVSYFLNKQRNFSNLDEFYDI

GLKAMNVNKNEVLNFLNTPKAKEILSEFQRANDIAKTYGTPAFVVNGKYQINPSAINSMQDLEDLVKKLS

NMK

>AHK56225.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAFNLSKGVSLGEPKPKIDEFNWGAKEPSVQIQFSGSGTDYQAMPFSVDQAFNPKK

>AHK56224.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MCDTIIEVDENGNVVDDWRLYKILDPYRSTIIKTLDQSAVCLNIDASKVGKTLSDEELAKMDESDKFGDI

AGIGRNWAHIKGGIKNFKNIYCNL

>AHK56223.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNWGNIYNRGIMISFRQNKDGALTWGFGQRYVKYDVWEEKFSIANYLLSI

>AHK56222.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVEFLFLDFILLIVKVSYTKTANGKSQKVIDEIYKITTPWASIEPSGRH

>AHK56221.1 arylsulfate sulfotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRLSKTLCMAILAGSTLLAPNALMAMGGPSRVKIDWQIQGQMGMIKMNPYGLSPLTAIIMNNGYVLSDIK

KSNGQTIS

>AHK56220.1 thiol:disulfide interchange protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFPVKLARSIVVCAFLAGISASALSEGKEYVILKNPIANADNYSVGLKAMNVSKADFENFLKTPEAAEL

LKSYEIANPISQNYGTPAFVVNGKYQIVPSAINSPEALIEITKELSKQK

>AHK56219.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGVFLVLLGGIFWAISGVLAEYLFKNNYSVDWVCFYRLLSTGLILIFLSFKAQKILVFTNLKESLSICMF

GFFGLLLTQFGYFKAIYYTDAGTATMIQYCAPLIIMLYLCFKNKKFPKLIEIFALILIIFALFLLATKGD

IEAVVLNYWGIFWAVIGAFGVAFYSLSAREVILKYGLFWIMGWASLFASFVFLLILQFDKGLIHYAFNLK

AFFSMGGIVFIGTIGAFCLYLKGVEYIGALRASMIASIEPVAAALMSFLFLKTRYSLLDIFAFVLIILSV

ILNAKKTKVS

>AHK56218.1 hypothetical protein N917\_04265 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQINNSLNSLSQYVKVNSNEENQNSKNQEQNALAQDPAVEVNISKEAKEKSNTSNQNNSQAPAQALNAQN

NTQQDSSSNSEDKLTELTQKLAEIQAKIVELTAKMSKANEDQIKSIESQIATLNAQASTIQAQIQELQSQ

QA

>AHK56217.1 hypothetical protein N917\_04180 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIYSVILGAFLLGACSLKDQAIVDTNLKSQTLMFTQKYKITQDKINAIITMSYLNPILDKTSKDDVLAL

SFTPNTLKIQNLEVFINNKKANIEKLDDEYLKYIIQNNYTDYFKASLPSVKEETRLVAKICLDHLPCFEL

NFQKYPKSLYYRSEDVDTQYN

>AHK56216.1 hypothetical protein N917\_04065 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLEFIFTLILDFTFYSIKTLEKVFLGRTALVILFVVFIALFCVKGLFLYILLALELFLLLYLFLGILFLR

FYKS

>AHK56215.1 hypothetical protein N917\_04060 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKVAFFLLFLFLSCTVLNAAREYCKYAYQEDRAIPLILNYGIRLGVVGAGVANAPAPGGSTYNSKIDMM

AARCH

>AHK56214.1 flagellar basal-body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MITQTMQSKESKESKENSKISFANAFLKQNASKLNEIQNANSQTLARSEALNSTNTTNTSNNTNFSISSK

TSSPNYDISSEFKNSIYTLKYKQVDISNTSTNTAYGYSVDKDGYMGSDFNKAAGLPEDFKIHKSTLDEIK

KAAENDPVVSSTKEYLGVSSYYSNIDIANTIKQYYNLFSNALGQSFSNDKTSFSEADINSMPSGYGVSGT

QWMDFNEPSNRMNITGLKDFSNSLISNVYKTPEQAKEADEI

>AHK56213.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKSLVFKNFIINALGILFSRILGLARDVLIALFLGAGLYSDIFFVALKMPAFFRRIFAEGAFGQSFLPNF

VKAKKKGAFCVSVMMQFSLIVFLFCLLVSFFSSFFTKLFAFGFNADTIALAAPLVAINFWYLFFIFLVTF

LGAILNYRQKFFITSFSAALFNLSIVIAAFFVDKNAPQNTLYYFSYATVLSGVAQLILHLLVLKNNPVIR

AMTLSIKFKKTKAKLQGFYGNFFHGVLGSSATQFSSLLDTTIASFLMSGSISYLYYANRVFQLPLALFAI

ALTQVSFPKILKHLKSDQENLALKFMQRALALLSILLIASSIVGSVFALEISKLLFERGNFTHEDSVITA

YVLIAYLIGLLPFGLQKLFSLWLYAKFKQKTAAWIAVKSLIISALCSMAFIFLIKDESLKVIAVALSSSI

SAFYLLGANIKEFGFKKFFALISIKICLLVIVALIVFTILLILIKPYILSFFIGIFTSFKGVF

>AHK56212.1 ferric enterobactin uptake receptor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKICLSVCAIGLLSSNAISQNVELDSSIVSASGFTQDIKEAPATINVITKKELQSKPYRDVAEAIADIP

GVDLYASKGKTGSYNITMRGITGYTLVLIDGRRQGIGGEVGPNGFNEISNSFLPPISSIERIEVIKGPMS

TLYGSEALGGVVNIITKKVSDKWETSVSLDALLNENKDWGNTYGTSIYSSGPLMNDKLGLTLRFREFYRQ

QSNVEFTNGSGQRVQGDQAQSPTKANNFNIGTRISYLANDYNTFIFDIDFSRNHYDNKQGQLGTITSPGR

TPGSLTGGYADIMEVDKFVTYLSHEGVYENFSITSGLQYNRVSNDGREVVGQSTQPFLGENRDIVAEDII

LDTKSVIPLGQSHILSVGGEYRLEKMQDKIASPTNFDQYLLAIFAEDEYSIKDDLRLTFGARYNHHEIFG

NNVSPRAYVVYNPTNELTLKGGVSTGFRTPYANRLINGTYSYSGQGRFPTYGNPDLKEETSLNYEIAAIY

NNDLFYVSATGFLTNFKDKISSQSYNNSEPIPGIGTCDADRCSRAINHGKVEYKGVELGAGISPLDNLNV

NFAYTYLDTEVKEAQDRSVIGKPEQDSLKHNIMLKTEYSFYNKITPWIKGEWQIDRYMGDTNINREYYKD

IFLASMGVRYDINKQWSINAAIYNLFDKSFTNGWESYASGSGSTWVNTYNRIEEGRRMYISINGNF

>AHK56211.1 cell envelope protein TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTFISNHKNQSSFITLFVFTPLFFVFLYSKDFLHIQPNETIKENKFNMAIKHFVQNSSDMKPTQPTQTI

QEPSNVQPKEPVQEIKKIKPRKEKPIAKPKKIIPPANAKAISQPKKDTNMQQQTPQASSYQSVSLTSNSE

LLKEIKSAIDEALIYPRQARKMRMSGEVLVEFTWTKEKKLENLKILKPSKYDFLNKSALETIRIASKKFP

QYEKTFHIKIPLVYKLS

>AHK56210.1 transposase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLAVEDLQIKNMCKRAKLKNIKAKSGLNKSILNISFYQFSQYLEYKAKHNGKFFIKVNPQYTSKTCSVCG

NIKKNLMFKDRVYLCEKCGNTLHRDINAANNILKRGLKSFGLGISLEDYKLKAFRIS

>AHK56209.1 transposase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNTFFKMRYHRDLPNTYKFNQITIIKNHNKYYLAFSIIYDESNVSLMSSKDFDIKKAVDIDLNINEITLS

SGELIATNSKLLSRAEY

>AHK56208.1 hypothetical protein N917\_03745 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLETLKKYAENQGIEDNYPKKIYNQKEKKP

>AHK56207.1 hypothetical protein N917\_03740 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGVVYDEINIAVNTCKGLVLSKKRLLALNLSFFIQ

>AHK56206.1 hypothetical protein N917\_03710 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGIRFQTPLEGLYSTPFYDIGYSWYENKEYQSENHYLMDAMGI

>AHK56205.1 hypothetical protein N917\_03705 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNVGVNFSYPVFLYTEYSLYLVSGFTHKKIKDYYLDGLVSNEKARNSVNLGIERTYRGLENNVLSYTLNF

IYGNVENDGDFSGFNGVNLGNFGKMNLNLSNKYQF

>AHK56204.1 hypothetical protein N917\_03700 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKNLKGKVITTKNVENEIYKINEIYGIQTNANLQSGDGCGESDVIIEVNKGEIV

>AHK56203.1 hypothetical protein N917\_03695 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRKILVVLVLLQVFSHAEELNNNKIRELIESSPEANEPQNKNLKNTLKNQKSPVNFKEQNTTNITNSQTD

QNEAKVFVREYVLHIDNKDLTFKKLRISEK

>AHK56202.1 hypothetical protein N917\_03690 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEIGEADARSSGLRCIVSDNFKTMNICVNAK

>AHK56201.1 hypothetical protein N917\_03685 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQYNNEVTGKKDFDSAVRKKFNDIKYLDNNSYAFADSFTKATDAVKLSKDDFDPKLLQRILDDLMNGKYT

YDFDTKTWTYTDSKGVVGKDEASEITQSLNFLNAFKDTGVEQEFLKLWQGSQEQNYKNYTNLYEKWTQKK

TAMDKIKTGEGYFASFKEELQKYQEALAQLDKENKNYEKIKESGLVSDETLRAIYEKLLEQKEALEKQFA

DLSGNEGFRYKLENEILNSQGFSIEGKDVDGKVYTGNFNFKGKLASLPEKPNISIYEPDKQGGEDPDKPS

VLPPEIPEKVVEAPIKIQTEVDAKKRRR

>AHK56200.1 hypothetical protein N917\_03680 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSAGNYKTQAGKVIGDPGISVNNNFSNIYVYHNLENGYIDEGQNFLSLCNIIMK

>AHK56199.1 hypothetical protein N917\_03675 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGGIGRQIDGGNFNNVVVNDIEKLITSGNDSKTGGFTGKVGNLKINNAYLFYKMEQF

>AHK56198.1 hypothetical protein N917\_03670 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTVNDLVINTAVNTKVGGIIGWGNGSGGNNTINFTNVAINNISIVAKKVLMWVA

>AHK56197.1 hemagglutinin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKMSKHIVLSFAVSSLLFSQAYALLSGGKFTHGTSGTIHTSGNTVTITGKGQNHVIQWGGGFNIGQNES

VNFNGKNQNYLNIAYQKDASKIDGALNRGNNNIFLVNPMGVLIGKTGTITAGKFVASTTALSDDNVKTFL

EKGASFSPAFDVSKQGNIINLGKINADNIVLIGNKVEINKGKITLDVLKLEGNKVYVDAGVVKDTKNIVA

KAEQEAIIQQSITSFEEDGALLGNSSSKFSFDDSSKVKNWTKYGSIADATEWNKFADFWNVNKEKFRTAF

DHFRLIDDIDFSGVKTYIVGDNTSNAFAKSFDGSGYALKNVNINSSNQYVGIFGVVQNSYIRNFNIQGLK

IASTGYDA

>AHK56196.1 hypothetical protein N917\_03660 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGVENIYTLPLNGVPYISGSVAFDGEAKDNKLILESNTKIDLHNSQYFSDEEGKDIYDERITRLMGAFGI

NSNLQNNKVLIDSANIVLHGPDGEYTARSTFEILGALADVNNLKKYNVSKNSVIIKNLNLDLMVNSQNKI

TFYDAVLFGEIYGGRTLQGNAEKNSIEVYHFNSLDHLNKNIKTHASLNLYGGYSNDGEANGNKIVFRLKK

PLKISDNFYGKNYYNLYGCFATEGANFNVFDIQNDLTYEKVPQNYSDKFTVYAARTLSGKANNNTLSIKD

SVISLPLYAFITSETTLDGIDYIADESNNNEVNFENIKSSKNLSLMINAKNVSNNKINYNLIQSLTEASS

LGKGSKIILKATQNANNNLIKLKDCSSAAVESSCIIKADKESAFNKIINNNTAFSTASDKRQGYVGLIAG

VSANSHDNIMELVNLNIDEYKNQDAIFLAPSGTSDISNFKSYNNTLYLGGELNFFKDVNIDLLSGSVFHE

VNKKGKIITQILPHQEDFSKNNRLIIDTQDVKSEVVNNFENFTFILPNKIKNPILTIEKLINLPANGSME

ILTKNKPTKGKYILIQSDVGIYDGDNGLLNQQELENLLEKMKNNKNKFNYNKIEKLAKSTLKNVNFSFEV

SDDAKIIYINIL

>AHK56195.1 glycerophosphoryl diester phosphodiesterase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKVILTSAMLCSVLFGVQEYEANLAGHIIIDSKSTVKPPKDAPDFFKTYGKFANIAREEKIGTFKSKGN

RETDFYLPFKNQPIQGHSGIKYIPKKDVFWVISDNGLGKKYNSYDAMLYAHEFKFDFKNSKYELLKTVFF

KDSDKKYPYPITTETTKERYLSGVDFDTESIQVINDEFYIGDEFGPYLLHFDKNGNLKEVFDVYVEGKKL

ISPDNPSLKFSDKPDGENEKFNIKRSKGFEAMASSKDGSKLYLLLEGSIYNNNAYENEKGKEYLRIIEFN

VKNKKFTGKTYKYFLEDKSHSIGDFNMIDDKYGIIIERDQKEGTKDKACKEGEDTKHCFNNVAQFKRIYK

VKLDDKTHEAQKISYIDLLNIKDRNKISKKPLVNDKFVFPFETIEGVDIVDDSHIVVENDNNFPYSSSRE

PNKTDDNEFILLEVKDFLKSK

>AHK56194.1 restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNYYQELKKYLNNNLFTSYSLEIDFPKIYNFNANQKAFRDILTKITKIYDKNKFIKQNEHQFEDEFISKV

LEILGWCFVRQDEKIIQGKLEKPDFLLFSNDKLKSKYENLDKETKKSSNDFTIILESKAYNIEIDNKKVK

DNPHFQILRYLGNLKKNYGFLTNGRFWRFYDNSILNSNKVFYEINLEKIIEDQNIEAFAYFYSVFSAFNF

TEKEDHLEITLQNNKLSKIKIEDDLKSIIYGTNGNESLFEFIGSRIYNKTKADLKLIYENSLYFIFRLLF

IAYFEDKFEIILEKHKYFKSKISLRTLLENLQEDESSSGGFGELENIFNIYNKGKGNFDMPVFNGGLFDE

SKTALLSTPKIFNDKDLKFILNQLLNFKDKNLSFKRDYKTLSVEHLGTIYEGLLSYFFEIANEDIYYVSY

KEKSKEIECYFDNYDFKILEKSKKVEKYTFYKKGQIYLKNTSNSRKASASFYTPQSIANFLIQSALKDKL

NNENILKFKILDNACGSGHFLVGVLNAITHIVLSDFDHFTNLKELYEEEKENILNHIKDFVQDYEVDESD

ILKRLLLKRIIYGVDLNPFSIELTKLSLWIDSFIFTTPLSFIEHHIKCGNALINSNLSDFKDLIKQNSSN

LFTNSITQEFEILQEVFEKLDNLKDTNEEQIKQSKQIYQNEITPKLNKLNLYLNYINTLHFVNKEELQIL

KALSQDDIQNLSQNEQAKAIISKYQKEFNFFNYELEFPEIVENQVFKGFDIIIGNPPWDKTKFSDSDFFP

QYKSDYRSLIASKKKEIQDNLLAKDYIKQNYEKQKAYINDLSEYYKKAYPLNKGSGDGNLFRLFVEKNLS

LLKQDGNLAYVLPSALMFEDGSLILRKEILENKTLEYFYSFENNKAIFIDVHRSYKFALMLIKNTQANHT

HKIKMMFYKTDINSLKNKDEILTLNLKDIKKLSPTHLALMELKDKQALEILRKSYNAFQNLSFDYIDFRR

ELDMTNDKDLFIEEFREGLLPLYEGKMIHQFDANFSQATYFLEKAKFDERLKSKELYRAKKATGKELNPK

LIKYDREFFRLGYRKIASDTNERTLIASLLPKNCGGADSTYSNIPKQYVLKDDVICMDIVPYERILFVLA

LFNSLVVDFIIRNMVQINVSKSYLERIPLPQPSDEEIQNNEIYKTLAKNALLLQLYNDQNRHFDELKQEF

NIKNEEIPKTKKAYDILRAKNDLLVKELYGLSDDEFSYMISTFKVLNEKQSEYITLLKTI

>AHK56193.1 invasion protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNLLFYIKNNLTPTLAQILLQALKNSNNEKFFTFVLENIETICTWLNSNKFRDRYLSTKHPYPPLINPN

FIEIDSSRHCAELAWDLNLPLPKHYKFIYISPHGVGAAAFLRYLNQCCDVTCFASWVLPPDSKERYCINY

MCLNDNTIAQYAINISEINLPYFDKYLSLLDFNSKIICGVRDPIGLLKHSWGRDWSKVLRNYPPEFNLTY

DWRYYINYLTHQNHKIKIDINELQQGVFIISYLLKYFNKDNVYYLDMEEIRQSKAFDTMNLLAINFNFTP

PHKDKLDLFKIKEFRGYIRYLFPITLYANSKDINNTFYLNTPKNNKNFNIDRTSSIPIILDRKHINHEKI

DVIQEIIKNDLCNDMGVYIDKNDFKQLEQNNLLFSTIKHYLYDFLYQIKITIDETESKMMKEKDVIDYFI

KNKSLIYTFLIYLKMN

>AHK56192.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQRQSPEQILKKLEVKAKEEEKNKLVKLKIFLGYAAGSGKTYAMLSEARTLRDNGVDVVLGYIEPHDRPE

TMALAQGFESIANLEIPYKNIVLKEFDLDATLKRKPALVLVDELAHTNAKGLRNEKRFQDIEELLKAGID

VYTTLNIQHLESLNDLVANISKIEVKERIPDRIFDEADQVELVDIEPNKLLKRMQDGKIYKEKQAKLALE

NFFRQERLIALREIALRRLASRVNLRASEQRLINDDLAYHTGEHILVCINASNAKVIRAAARLALAFHAK

LSALYIKNPNIKEAKALEENIELAKSFDAKIISVYDDIARQIAEYSSLSNVSKIVLGKNKDKKSLKKRFL

KLSLKKHPILIYILSMKIKFLLLKYEVKKSFDFLGFLKITGVLLLATFIAFVFHKFNTQPSNIVMIFILA

VFASSFISDNKIFAFYSSLVSVLIYNFFFLEPIFSLKVHDSGNIITFTTMFIVGFLTAVFTRRLKLQSKE

LTKRAYRTAILLENSENLARVKSKQELWEQLGNQALKLLNLPIIIYPINKNNILSKPLLFFNDDKQMLKN

CFSADEIAIAQWVATNKERAGVCTNTLPNANAMYLPIEDGKKLKGL

>AHK56191.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MICLETLLSFFVVMLILCTLVYPFALNTVAKFIFPYQSSGSLVDKEGRPTLDVSKAVGSKLLGQDFNKPY

FLHSRTSVSNYNTSDTNESSVSSGGFNYAMSNPALKERVQKYLQKFLDENPQITKEQIPLDFRIRS

>AHK56190.1 potassium transporter KtrB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVKNPVMFMVEVGSILTLILSIFPTLFNGNSDERIYNILITFILFIILFFANFAESIAEGRGKAQAATLR

QSKKDSKARHIKSDGSEEMLNSSELKIGDIVLVKAGELIPNDGEIIEGTASVDESAITGESAPVMREAGG

DFSSVTGGTTVLTDFLKIKILVGAGESFLDKMINLVEGAARQKTPNEIALNTLLIVLSLSFLMVVVSLYP

FMQFLGVSLPISWLVALLVCLIPTTIGGLLSAIGIAGMDRVTRFNVIALSGKAVESCGDVDTMILDKTGT

ITFGNRLANEFYEVQGISKEEMIKACVLSSLKDETPEGKSIVALAQKMGYELEGNDIKEFIEFSAQNRMS

GVDLQDNTKIRKGAFDAIRAYISEMNGKIPSDLETKVMEISNLGGTPLVVCKNEKILGVIYLKDTVKPGL

KERFDELRKMGIKTLMCTGDNPLTAATITKEAGLDGFIAECKPEDKIKAIKKEQAQGKIVAMTGDGTNDA

PVLTQADVGIAMNSGTQAAKEAANMIDLDSNPTKILEVVEIGKGLLITRGSLTTFSMTNDIAKYFAILPA

MFSVVLPQMQILNIMHLATPKSAILSALIFNAIIIPLLIPIAMRGVKFKPMKSEHLLLRNLSIYGLGGMI

APFIGIKIIDIPTAWILRILGV

>AHK56189.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLTLENKFQSIATGPVAALESIKHLGTNGGGFFGTNSSMPFENPTLLTNFLQILSMMLIPSACVVAFGLM

VYHRKEIQGFALMGKEEGGGVIFGAMGIIFIISLLLIYFSEKMSNPNLDSLGLNANLGNLEGKEIRFGTD

GSSLFSAVTTAFTTGSVNNMHDSLNPLSISATLLNMMLNVAFGGEGVGLMNMIIYVLLTVFICALMIGRT

PEFLGKKIESAQMKLIALVILIHPLLILVLSALAVVFAKDSISNPSFHGLAQILYEFSSSAANNGSGLEG

LKDDNLFWNLSTAFAMFCGRYLVLIAQLAIAGSLLAKNTQENTANSLKTDNLTFMFVLVCIIYIFAALTF

FQCLLYQALQNIYLYGIKESQCLKNKINSLQKKF

>AHK56188.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLNTVISFITNTNLQHYSGENALSLLSQNTGILLAMFVSSASGYSACMAFCRALCSMQMGNFMKILRVL

LRV

>AHK56187.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLEILITLIIAFILALIFGNYLYKIASCKKTIFDFIFNPIDNLIYKICAIDRKNMTWQKYSLHLIAFNAL

VAIFSFVIFYLQDKLF

>AHK56186.1 hypothetical protein N917\_03350 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRKGYPMDIIFALLLLLAFGSLCFFICFCEIQTKDTRMIFLLVLSLILALYLFYALLYPEKF

>AHK56185.1 hypothetical protein N917\_03325 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFQKLIFFAKIAFMRVDKFLNVVNITKRRAISEDMCKSGVVGINGVIVKASKEVKVDDIITLHFTEYTQK

YKVLALPSTKSIPKNAQNEYVVKL

>AHK56184.1 hypothetical protein N917\_03320 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEQNLLTPLLYFFKKIASKNFSLMKFGYNFIIFKSILTKDIL

>AHK56183.1 hypothetical protein N917\_03280 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKQEIQKLDTNFLGHRKPLFSLSMVELWERFAFMVFLQELVFSSTLPGGWITDNYSGQKRLYF

>AHK56182.1 hypothetical protein N917\_03275 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFFLGLTFIVIGTGFFKTNASVTVGILYKQNDTRCDTGYTIFYIGINIGAFIAPLICGFVQAKWNYHLGF

G

>AHK56181.1 di-/tripeptide transporter domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLISLLILYFKAALELEEFHKNCTLKQNWEQPFKKVKNLTLILSISLLSIIGFFLMFINLVNINPI

>AHK56180.1 amino acid transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVIYFIYLFVFKALNKREKQQLIILIVLFFAATFFGVLLNKNPTAYNLFAQDFTNRNIFDWKIPTNWFQS

FNPIFIIILAPIASYIWIFLEKKIYIFLPLENLL

>AHK56179.1 di-/tripeptide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDIFREKNIYFSSIGKFTLGILFAGIGFMMMTFASQNLINNNGLPISMAWIIISIFFLTLGELCVSPIGL

SIMTKVAPDLIKNQVMGLWFVASALGNALAGFIGGKASEENIAYLPNLFYQCMWILLGAVIILLILKKPI

NKILKINIKEKI

>AHK56178.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRRNLSAYKAKFNGAYVFLGFFFLIYQILGSTFVYTPLLYGIFFCYMFCLLEERERTFSKLDFRWYFSLF

FLFFTDITYNFFIFSSWLAFFIFYYLCADWIKTNLKIGKFIPVVFVLCAYGIILFLDMILSYIGDEKIKI

LGWAYIVSVFIECCLAYVFFKGKI

>AHK56177.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIINQIYSIDSCDDVELNIKRGSKLEFRLTYDDSKEIEAIVCIIPGGAEDMNSYIYIDDYLTRNYKVAVI

NINYHCIGNRPHLGSSFYLDDIDKFILDTSLKAINLKCINVYGINSYENLNNAFIRIDQEIQKLKLNQQL

HQNYKLKTHVSFLPFKNEYQNFGIMQAMDILNAIFYIKENSPFKLMRGGGIRTILFGNSYGGYLANLCAK

IAPWSIDFILDNSSFVNLFGNIFRLIGFGKEIDFTRYHGTYDDTLFKNIFLYLSDKTYWNNNKFSKNYFS

NARKIIREPLNKEHLIIQSLYPNPKYILYHSIFDERSPFKNKENFVHILKELNFKVEFFAISQVDNKFIK

NLNHGMGLSTKLFFKKHLLQILKEPLQDKICKKEVSYKCDELVYTFKEENHQIILNITN

>AHK56176.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQENNSPKAQAVVKKNEIYVSVKRKKSTIEYEKDLKNLQIELLKFQNHVKAKGLKVLILIEGRDAAGKGG

AIKRLIEHLNPRGCRVVALEKPSDVEKTQWYFQRYIAHLPSAGEIVIFDRSWYNRAGVEPVMGFCTPQQH

KDFLREVPLFENMISNSDIIFFKFYFSVSKDEQKKRFEKRRSDPLKQYKLSPVDQKSQELWDKYTLAKYS

MLLASNTPTCPWTIISSDDKKKARLNLLRFILSKVEYPNKKTGDFSKIDAKLVRSGEEEIRKMEANLEKL

DSKKADEKIKDLD

>AHK56175.1 RNA pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENEKNYRPNVAAIVLSSSYPFECKIFIARRSDMDNIWQFPQGGIDKGESVKNALFRELKEEIGTDEVEI

IAEYPEWLSYDFPSKIVKKMYPYDGQIQKYFLVRLKHGATININTKHPEFDDYQFVSVKQIFEMINHFKK

NIYVRVIKYFEEKGYI

>AHK56174.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNHLLILYNPYYQEDVIKQHLSILQEKSQVAFGKIKSKLNDQEKQNSLEEIYQSTNEENFLQLFLSDYAN

LFVAKVVKISKNVDESLIPSYYKEKNLEVEDFFIISDLRELVREDFSRLRDKFLANFITPNDHTYAIYGN

HYTYPLPVRLKEECSYFLGDEKHYLSVYKSKEYLAMQENFIRFVFGKRIFYLLHSDSISNIIHAELELLQ

SENDLLNDFTSIIVKYSKTLEYEIYAFAKKVLLKACMKDPSLYDLAYNVQGKSFILKDFFTQKPNLGSIK

FLLRHENIQCHLGKSLTQFINYPFSKSLTIIQEIRNEAVHAKAPSLNEVKKLRNEILGIEGVSLLKRILT

HKEIS

>AHK56173.1 hypothetical protein N917\_02840 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENKFKINYDQTTTNGRNGTNGKVDNLSMKNHHLKSIGHSPDIFGLFVSIVNQFTNTSTFVSNGKIITID

TNTFELQGGNFIAKIFCGFFNWFGHLASDWCGSSGGKERGAGIPMPFYNLFLLCDFGNFGQHRQTLAQIA

TQVFEQGYDLRHGVTMSIPVMINKMLIRFMYIIKAKFYHKKEWKECIPKDNIPELNKMLLIGSGTFLLID

TGGAWIKSKNPITNPVVFLSEINLINVIRFSTLILKEIYILYNNGKIDNKKLEKYLDDTCKILLIEAHNK

SKPFKEILK

>AHK56172.1 hypothetical protein N917\_02835 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MITYSNLSDVKKRIEDEFTHRNAECDKYDYLIAITCGAIAGIMDIFLVGNPKDSYLGKKVDKTVEKMTQK

FAQLCGWDKQKALDKNKDLTKSV

>AHK56171.1 hypothetical protein N917\_02830 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDKIQENTKIEKAILAEKQQIFLIQNKLSEIEKNIKE

>AHK56170.1 hypothetical protein N917\_02825 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENICQFIIENIDKNSLNTKKIKLVFNMQEQEITTISKIFKVSSEHIIAFYDTSTSFNYFSKTTGICFTG

KEVIFKRKEDEVLMKINYEDFKEANKSLPEKTTTLQDIKFPISFHNLGTSYLSFDDFKKKNYIEENDELI

INFLHILTSKNNIESFKNESMFPQALEKTNESIKENYIKVIIKIILDQYGFLDEKRSIKIFALMNKINVA

SETRYKIQDFLHNKHSSFEDLLNIIKQESRFMQFKYILISLIKDLIDIDFEDNKIYNFLYENKDIFKIKD

LKEIYWVKEIIKKEYQIILDDNKEIQQIFNFISETATKNNISLNGLHLSGMTIGMSVSIMELLGFGELIK

LPLIDSSKKYHNKNKQQLRLFIIQEILKENQKTITQIIDIINNLIEQCNTNTQNLQELIKLLKLASKNNE

TFKEREKLLYCPETLSLITINNHLKEDDIQFIEQYYTYNQNTHKYERNDNLSSSDLEKLSNFFKLKNL

>AHK56169.1 hypothetical protein N917\_02820 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGLQSLIKIGGFKSYQIAVIVANQVMKVLLGRGLSLAANATLTRALSLFSGPVGWTIMTTWTALDLASPA

YRVTIPAVLQIIILRLKHNTKN

>AHK56168.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGIILGILSLIAGFVAIVLMCGLYFIAFMVFVGIAILIFLSMQPYPYNIIFCAIYLITILALVLWRKT

>AHK56167.1 multidrug transporter MatE [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSSIFSTLSPFRLFVKYAVPNVISMAFISFYYIVDGIFVGKYLGSDALAALALIIPFIMMSFALADMIAI

GSAVQISMHLGLGKKNLARKIFSSSMLIIFIISCFIGILEYFLGPVLIDCLNVSDEIKTMTKECMFVFAL

FAPFTMLSFALDNYLRICGKTAYSMVMNVIIALSNIVLDYIFIVELGWGLFSAALATCLGLVLGGIFGIF

PFLFQNLELKISSLYMNLKIFKNILYNGSSEFFGNISGSLYSIFANFVLLKISDTQAVAAFSIVLYIDSF

IIMLIIAIGDAMQPALSYNYAKKDFSRIKAIIKVVFFAGGFLSLFSIVLILIFGENLITLFTKENNQEFK

TFAYTALMLFAFNYFFAWFNVLSGSFLTAFNKASFSLVLSLAQNLFIPLFFLLFLSCFMGLNGVWLSPFF

AEFCVLILAWIFLKRIFKDLSL

>AHK56166.1 aminodeoxychorismate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTIPFLSTINKANISTTKNTTIYKIFFFIRNFFLIFILGIFYYLTQPLKSNSVVFIPQGSISQIITYLKQ

NKYQMSNIDKYILFFLGHPQSGWINIGTKDLNRAEFLHKLTIAKAALQTITLIPGETSVIFLEQAAKQLG

LDKDILLKEFQAQAPYDEGVFLPETYKIPKGITENLLIQMLLNHAEISNKKTSEKIFGDYNPKKWHQYII

IASVIQKEAANDNEMPIVASVIYNRLKKGMKLQMDGTLNYGIYSHVKVTPQRIRQDNSSYNTYKFTGLPK

EAVCNVSLAAIRAAIFPLKTDYLYFVRDKNTGVHIFSTNIDDHNKAINLQKGK

>AHK56165.1 Na/Pi-cotransporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MISLVKFSDTAIEALRKESEHLYNNTYAVVAHAIGFSRKDIQSDKSFKEILENKKWFSKNVDLDYLYQTR

IKVLFEAIIDFSTKAQVYINDETKNHKIFTFKMAAKNLAETTKNLKIIQANIKKYSSSSNEFLALEYNKI

RSNLGELLRSIEELRVVEDREKLYLIIKNLQKGKEILKEIDTLTLSNVEHLISVRKITTAEGISILNDTT

FAAKIAEELIGAVEVIFSKDISN

>AHK56164.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLTGVIQSSTVIMAIIVAALLAQQISLENSLAATLGTSVGGVVTAVLASLSTNIEGKKLAFANCIFNFGI

AFLIVLIFPYFIHFLIFYPLR

>AHK56163.1 sodium:phosphate symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTNLGIGFKVFSGDLLEKILVKSTDTKIKSILFGTLSTLIMQFSILVSIVTISFLSAGLISLGAGIGIIF

GVNLGNTASSWLIVGLTNIKILMLAIPLLIIGVLFFFQKDSILKGLGNIFIGIGFFFLGVDYIKSGFENF

KHIIDLSRFDFAGFKGVFVF

>AHK56162.1 molecular chaperone ClpB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MANIQDFLTDNMLSNLESAASLAIHSKNNEVVPLHLLWALSVDSTSILNQILNKLNISKEALELEIKSRI

SKLATSSNVNRENIRFSNELINSLENAKGLMSANGDSYLSVDTWLISESQKSPIKEILAQFLDLREFQKE

LESLRAGRKMDSKTSDETLDSLNKFGIDLTLKASEGKLDPVIGREEEIERLMQILIRKTKNNPILLGEPG

VGKTAIVEALAQRIIKKDVPKSLQNKKVIALDMSALIAGAKYRGEFEDRLKAVVNEVIKSENIILFIDEI

HTIVGAGASEGSMDAANILKPALARGELHTIGATTLKEYRKYFEKDAALQRRFQPVNVGEPSVNEALAML

RGIKEKLEIHHNVTINDSALVAAAKLSKRYIADRFLPDKAIDLIDEAAAELKMQIESEPSSLRKVRKDIE

TLEVENEALKMENDEKNQKRLDEIAKELANLKEKQNALNSQFENEKSVFDGISAKKKEIDLLKNEASLAK

ARGEFQKAAELEYGKIPSLEKEVEILEDKWKKMSENGVLLKNQVDEDLVAGILSKWTGISVQKMLTSEKQ

KFLEVEKHLKESVIGQDKALSALARAIKRNKAGLNADNKPIGSFLFLGPTGVGKTQSAKALAKFLFDDEK

AMIRFDMSEFMEKHSVSRLLGAPPGYIGHEEGGELTEAVRRKPYSVLLFDEVEKAHKDVFNVLLGILDDG

RATDSKGVTVDFKNTIIILTSNIASNAIMNLSGKEQEDAVKNELKNFFKPEFLNRLDDIITFNPLGKDEA

YEIVKLLFKDLQMSLENKGIKASLSENAALLIAKDGFDPDFGARPLRRAIYDLIEDKLSDMILADELHEN

DSIIIDAKDDEIIIKKA

>AHK56161.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKILKYIFSFFTLLFITGFIYVAYLFTSADTEGYTFKEYKPPLTTQIYDRNGKLVANIFEQHRFYAPYEE

LPPRLIEALVAIEDTSFFEHNGVNIDAIFRAAVKIIKSGGKTMEGASTLTQQFIKNTELTPERTIARKIR

EALLAYKMETILTKEQILERYLNFIFFGHGYYGVKTAALGYFHKNLNELSLKEIAMLVGMPKAPSSYDPT

KHLDLSISRANNVISRMYNLGWISKADYDTAIKEIPQVYDDTLTQNAAPYVVDEVIKQLSPNIKDLKTGG

YKIILNIDLDVQNMAQNALKFGYDEIVKRDKDANLSTLNGAMVVVNHQSGDVLALVGGVDYEKSNYNRAT

QSMRQPGSSFKPFVYQVAINLGYSPMSEIADISRIFEGGAGNNEDWKPKNEGGKFLGLITLKEALTRSRN

LATINLALDMGLDVLYSKLMEFGFKDIPPNLSIVLGSFGISPLEYSKFYTMFGNYGTIKDPQIIRQVQDK

TGKTIMEFNSNERKVSDEAQSFLVLDMMRNVVEKGTGRNARVKDIEIAGKTGTTNKSVDAWFCGLTPEIE

AIIWYGNDNNKPMRYTEGGARTAAPVFREFLTQYIEKFPDTTRKFSIPNGVYRGNYKGESAYYTTKSPLP

KANMKFNESEIIF

>AHK56160.1 ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHGIGGVCEGIATGLFASVKANPNVITKNALGGGIFYQWKFRAFKRANSYYYDLYDFFSSHKLYYFLRSF

LVLQT

>AHK56159.1 ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNCFIAFGVITLQWVVLGFSFSFGKDEGLGLVGNFENFLLEGISGYNASGVSNILFMIFQMMFALIASAI

ITGSLVGRIKLGVLVIFLLFWSTLVYDVLAHMIWSSEGFLLKRGSLDFAGGGVVYISSGVAGLVGALIVG

ARKSDDEDKNAHSISYAFLGVILLFIGWLGFNAGSAGEMNDIAINAFIVSIISAACGFLSWVVLEGSSIK

TDYFRWA

>AHK56158.1 aldehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQEQGKTRVLASIEINFTADYMDYTAEWARRYEGEIIQSDRANEHIYLYKSAIGVIGGILPWNFPFFLIA

RKMAPALLTGNTIVIKPSSETPNNAFEFAKLVSQSSLPKGVFNLVAGKGSVVGYELSSNENIGMVSLTGS

VEAGTRVMEAAAKNIIKVSLELGGKAPAIVCKDADIDLAVEAIKASRICNNGQVCNCAERAYVHTSVYDE

FVDKFVKAMSKVSVGNTLKGDFDMGPLVNQAGVDNALAMLQRATAKGAIVECGGKITDTSGYYFPASVLT

NVKHEDEIMQKEIFAPILPIAKFDTLDEVIDMANDCEYGLTSSIYTQNLDIAMRASREIKFGETYINREN

FEAMQGFHAGFRKSGIGGADGKHGLEEYLATHVVYLQYNTNKQ

>AHK56157.1 aldehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTTYLNYIDGKFIPHNGEFIEVLNPATKEVISRVASASLEDTKRAIEAAKKAQKVWEAKPAIERANHLKE

IAS

>AHK56156.1 hypothetical protein N917\_02435 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQRYGQIIKIKKEKIEEYKELHTKPYEGVCEMIKECNIQNYSIYLFGEYLFAYFEYIGADFEADMAKMAR

DESTQKWWKVTDPCQISLGYAGQKWLNMEEVFHLD

>AHK56155.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKIFDAHLHLWDLEKIPISWIKDDEKLEQNYDFFRMKQEYKEFEFIGAMYVEVNSDDLEKEALFALEQK

KLHNLLFCLADFKHKEELSSFREVMHTSKKGAKRLFEADFEEKIEILKTFNIPFEACIKNEELGFLEKFL

SKNPNLKVVLNHLGSPKINRLNEYKKDLSFLKKFQNLYIKLSIPDGFSQETPKEFIFELFAFLKENFSEN

KFIFGSNYPVAKITPAKWAKLIIESKIFDDLDKIFYKNALLIYKGG

>AHK56154.1 major facilitator transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTDSKNIKIAIVLVTSLFFLWGVSYGLIDVMNKNFQNHLHISQHESGFLQFAYFGAYFIIALPAGYIANR

FSYKMGIIFGLALYAIGALLIIPATNLASFHLFLFAFFILACGIGSLETSANPYMTKLGDEKNASFRINA

AQSFNGLGQFVGPIIGGALFLSITKQEEGASKEQIQAALVANMGNVQLVYIGIAVIVILILIAFVANKLP

EGSAVSDDYKQKDDSKPIYVFKHRHFNLGLLAQFLYIANQVAAGAFFINYVVEHNEGLKDAQGAYYFSIA

LVAFMLGRIVSTPLMKIIKGEKILGFYSLINVLICFSLYFASGFFSIVLLIALFFFMSISFPTIFAVATK

NLPLNQVKLGGSLLVMSIVGGAIMPIIIGFINDHYGTGAGYLAMAPLFLYVAWYGFIGSKVRKNAKDF

>AHK56153.1 short-chain dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDLKIKNKVCIITGGAKGIGYGIAKLWASEGGIPVIFSRSMPKEHDKELKKLSSEYEFYEIDLKNYEQIE

KLVKKVAIKHGGIYALVNNAGTNDNLHIENTSTQDLIKSYENNLFHYYTMTKECLPYIKKEQGSILNIVS

KTGITGQGRTSAYASAKAAQMGFTREWACAFAKDNVRVNAIAPAEVMTPLYEKWLQNFPNPKEQYEKIAK

AIPLGHRFTTIEEIANTAVFTLSPLASHTTGQILMPDGGYVHLDRALNWDEN

>AHK56152.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKHANSIKLELVCKKISWRILPLIVLMFCLSMLDRTNISFVKSHIEIDAGIGEAAYALGAGIFFIGYAIF

EVPSNLFLHKLGAKIWLSRIMITWGLVTMAMIFIQGEISFYVLRFLLGLTEAGFSPGIILYLSYFFPAIY

RSKAYGIYQMGVPIAFVFGSLISGFILDYTPNIYFKNWQWMFLIEGGITVLVGIFCLFYLDSHPKDAKWL

DIKEKDILLKHIEISNTKAKDYSIKDIFKSILVWKFVFVYFCIQLSVYGVLFYLPSKIAQILQINVGFEV

GLLNAIPWIFVFIALPIFTSLADKKHSWNLHAILFLLLASLSMIASTFVTNLAAFLFFISLAAIGFIVIQ

PIFWNLPTQVLKGKGAAAAIALIGSLGNLGGFVAPTLKTYIENHFGVEFGLIVLALIAIL

>AHK56151.1 altronate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIMGYRREDGKFGLRNKVIIIPSVHCANKVCENIARKCNGAVYINHQHGCSQLEFDALQTRDVLIGHG

SNANVFGVLIIGLGCEVIQAKAVAEKIKEAMPYKKVEYLVIQECGGSKNTIENGIKIVNEMLESAAKLQK

SEGDFSDLILGTECGGSDSYSGLSANPTLGSLSDFVIDEGGAVILAETTELIGCEAILAKRAKNDEIAKK

VYDKILAYENLVKSFHADIRGANPSPGNMAGGLSTIEEKSLGCVYKAGTRTLMDVIDYAKPVVSKGLTFM

NTPGNDIEQLSAMVAGGANICVFTTGRGTPTGSAIVPTIKMSSNTFCYENMNDAIDINAGSIIDGVKTKE

EVRDELIELIVRISDGELVKAELNEQNDFSAWRLATTC

>AHK56150.1 altronate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKGYIIVNEKDNVATALRDFKKGEKVANIELLNDIASGHKFALKDIKKDEIIIKYAEAIASASCDISTGE

WVHIHNTAGIRGRGDKE

>AHK56149.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGILKGTLPALLTPYKDDGSINEKEFIRYCEFGISKGLNGLFCNGSAGDSQALSVEEQVKLMKLTKKATK

NNIPIITGITSTIYENTFILAQKAYELGLDALLLAMPYYYKLSEDALFEYVKYLASEVKLPLYVYNIPLF

APALSLKFIEKVSKLDNVVGIKDSSGDALLLNHILDVVPSNFDVFVGREEFYVGALLAGVKGSMTSIGGV

FPELMSEIYKSINEKNIGRALLIQKSLLKAIRFGMSIAFPMGFALLLKARGFEFVNASIHPLSPATKEEL

NTRFDEAKELIKTIEKETGIKL

>AHK56148.1 ArsR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHQPTLRVLNILELLAKEKLTLSAIAKKLNIPAGTLWPILQTLQEKKYIKCDLKNKSYYLDFKIIELGCN

IKNENNIFEIIKKHMKNIRNLTNQTCQMGILKDGNVLYLEKIDANNTVQLKSFIGTSYPAYATSLGKALL

SNKNKKELEKLYPKNFDKITENTLNNINELYQQIKQIKKEKIAIEIGEMNPQIECMAIGIEHKNKIIAAI

SISYLIYCSNKAFREKNKKILLEEKNKIEKVLKIYFNDLDTLY

>AHK56147.1 group III hemoglobin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFETINQESIAKLMEIFYEKVRKDKDLGPIFNNAIGTSDEEWKEHKAKIGNFWAGMLLGEGDYNGQPLK

KHLDLPPFPQEFFEIWLKLFEESLNIVYNEEMKNVILQRAQMIASHFQNMLYKYGGH

>AHK56146.1 3-ketoacyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRLYFSLFAFFIRNLLRLQFLKLNLLRIDNEI

>AHK56145.1 hypothetical protein N917\_02080 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFKKVILFFLMGFALLQANSLDKCDNTAVVSNLKEKIPSEIFKNLYELSGLKAQGIDYEDYAKGLKEIAK

HDGMVNYTDMIEVNSISNFDLNFDSCMATINAALKGEQRKGLWSVVYKVSNINQVKITDITYINGDFQ

>AHK56144.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKFLSICSLIAMLLSGCGSDFPGQPSDVARVQQNKYPNGNLKKEIPYNKDSRIHGLKRAFYDNGQLRAE

ENYKNGKKDGISREYSRNGQLLEEVHFKDNRGYGDFASYYENGNMRAKGKLLGYNEDGMPEFEGNYKEYY

ENGTLMCDYNFDNKGKFDGVQKRYDENGALEDEENYKNGLKNGVFREYKKGEIVREEEYKNGILVAKPKN

>AHK56143.1 hypothetical protein N917\_02040 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNILHANSSHRFHKCMPKEVHQIYDTLKLMEQQEGTKKSRSQKRRAK

>AHK56142.1 hypothetical protein N917\_02035 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MITLSSFNRYFGNNPLQTLTKIRDESIENAKI

>AHK56141.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENQKNEFDDIILEKSNKSEKVKKILLRVIALVILFLAIMIVMKLINGSGDENTQNQSVLPSEPIATQDN

NNDTSFESMPITDNTSAEDQFEALRKQFQDEQNTTQNTTTSSSNNNDTTNFAMPDQEVPAEPTATTSANT

TPQASTPKQEVTQTAKSKEEAKKQTAVKKEKESAKQTPKKEQNANDLFKNVDAKPVHPSGLASGIYVQIF

SVSNLDQKSKELASVKQKGYDYKLYKTTVGSKEITKVLIGPFEKADIAAELAKIRKDIAKDAFSFTLK

>AHK56140.1 hypothetical protein N917\_01855 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNYQQLECDYFNLYNQFLSVDFQISLFEKDHKGLIKDFIFFYYQILKQKDLSYLLEVRNKISLKVYNYMQ

EHSTSPKDLSLICLRENKHIEFFQIFYKALAYFVAFRKKLDGEQKIKNLISNINDCFGYHFLNSDFNNLQ

NFQKSDLFTLPEKHLKYFHFAMIHLCFMVLNPLNFKDSNRHLDKAINYLVDGTFEIYELIFKEYFLLFSK

DKELKDELRKLKKLEFKILMQETSKIKLLNHYKEFCEEIFYNIELEKITQN

>AHK56139.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKLKNFLILKNIEDTQIYKELKCAKNEALILRELCRNYVVSISSINAFTLLSTIFGNDKYLYLDALEDL

KKLIERGFVNQNSSFFKSLENNKTQTLTLALLQSELSLSEYFLEFLEAKPRLNFEKQEAYADYLEYLKDE

FARIQLYERLSFIQKSAYNSEIKNQIKLYERHIKERLKKSKFYNVLADIFKEYNLEHKEQIIFLALLKEE

YALSNESSISREMNSLLSLISENDLERHKNKKLLQENAPLLNLIECDEYLNAFGDISKSFFIIDEILQRI

INFEPKQSKKIKIESVLKDQDIFELIEPSTDINDIIMPENTKELLENILKQQDKKVLERLHSWGIKSNKN

IEAKIIFYGPAGTGKTMSALAMAKSMKKSVLSFDCSKILSKWVGESEQNVRKIFDTYKNIVQTCKQSPIL

LLNEADQFLSTRVDGSSGSDKMHNQMQNIFLEQIERFSGVIIATTNFLESLDSAFSRRFDYKIEFKKPDF

KDRLKIWEKFLPKKALFEKDFDINILSNYELSGAQILMVVKNTALKVAVSKDGVFKIQDFIESIQKELNS

SFDKSKIVGF

>AHK56138.1 hypothetical protein N917\_01750 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQTFLAKFKDNYNKAKIKKFKQALKLELVWNLIVQV

>AHK56137.1 hypothetical protein N917\_01675 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFQNIIKYKDFIIFILNLKQNLYLLIKINLDFKNFHKSLNF

>AHK56136.1 hypothetical protein N917\_01650 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTNQQIDGIADKNFNTPEGRKVFKKAVFSCWLGTAMEYADFALYGLAAATIFSEVFFPEQTPVIALLLSF

VTYGIGFIARPIGALFFGHLGDKHGRKNVMMATIALMGISTTLIGFIPSYAVIGVWAPICLVALRFMQGF

GAGAELSGGTVMLAEYAPSKRRGLVSSVIALGSNSGTLLASFVWLLMVQMDEASFKEWGWRVPFMGSILI

ALFAVYIRFHVKETPVFEKQKNEMMKLRLNNEKHMKKDERSFWQRSRAFWTMVGLRIGENGPSYLAQGFI

VGYVTKILLLDKSVATTAVMIASLVGFLVIPLAGYLSDKFGRCITYRMFCLLLMIYAFPAFMLLDSKNEI

IVILTIIVGMSLASLGIFGVQAAWGVELFGVKNRYTKMAFAKELGSILSGGTAPMVASALLAYYGSWWPI

ATYFVLTAGIGFVTTFFAPETRGRDLNKIEDAI

>AHK56135.1 beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKITLFLLFLNLVFGQDKILNNWFKEYNTSGTFVFYDGKTWASNDFSRAMETFSPASTFKIFNALIALD

SGVIKTKKEIFYHYRGEKVFLSSWAQDMNLSSAIKYSNVLAFKEVARRIGIKTMQEYLNKLHYGNAKISK

IDTFWLDNSLKISAKEQAILLFRLSQNSLPFSQEAMNSVKEMIYLKNMENLELFGKTGFNDEQKIAWIVG

FVYLKDENKYKAFALNLDIDKFEDLYKREKILEKYLDELVKKVKNDG

>AHK56134.1 3-methyl-2-oxobutanoate hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRKSMISFLEKKAKNEKITMVSAYDYHSARILDNSDIDIILVGDSLAMTVLGMQDTLSVTMDEMLIFTKA

VSRGAKKSFVLADMPFMSYQSSDRDAILNASRFIKESHANGVKVEGGIEIASKIKLISQSGIPVVAHLGL

TPQAVNMLGGYRVQGKDLQSAQKIIDDAKAVQDAGACMLVLECVPVKLAQKISSILEIPTIGIGSGKYCD

GQVLVYHDLLGLNKDFKAKFVKHFDKIDPQVGVEKYRDEVKSGIFPSQEHSFDYLDDELLDKLY

>AHK56133.1 pantoate--beta-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQVITSVKEAKQIVKDWKSHQLSIGYVPTMGFLHDGHLSLVKHAKTQDKVIVSIFVNPMQFGPNEDFSSY

PRDLERDIKMCQDNGVDMVFIPDATQMYLKNFSTYVDMNTITDKLCGAKRPGHFRGVCTVLTKFFNILNP

DIVYMGQKDAQQCVVVRHMVDDLNFDLKIQICPIIREEDGLAKSSRNVYLSKEERKASLAISQSIFLAEK

LVREGEKNTSKIIQAMKDILEKEKLIKIDYIELVDFNTMENIENITDNVLGAVAAFVGKTRLIDNFLVQG

LK

>AHK56132.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLRKADIKDLNACLSLFEQSVKTLCAKDYTKDQICAWIKIDRQQWEEKFKYDEIFVYEKRGKIASFISVK

QEQKLLDLLFTHPDFVRQGLAQNLLDFILKTYLHNEIYTFASLSAKDFFLKNGFELIRENKVIKEGQNLK

KILMKKDVIYKN

>AHK56131.1 glycerol-3-phosphate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRTWSLSGVFIGYMGYYLVRNNITLSTPFIQNQLNLSKSDIGTITGSMLIAYGISKGAMSVISDKADPKK

SWL

>AHK56130.1 hypothetical protein N917\_01410 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MALGLILCALVNVLLGFSNSFYAYVGFVIALGVFQGMGVGPSFITLANWYPKKERGIYTAVWNISHNIGG

GIVAPIVSLSGFALAALLGVSMANFNETYWHMNHFYTPAACAVIISLYALYAVKGNPKNEGLVDITEINE

MRGIKTEEIKAIETPNLSSFEIFYHYVLKNKNAWYVAWMDTFVYMVRFGLISWLPIYLLETKGFNKEQIG

IAFWLFEWAAIPSTLLAGYISDKIFKGYRMPPAIGAMVIIFFMIIGYFTSNNLYMVIFFAAMAGCLVYIP

QFLASMQTMEVVPAFAVGSCVGLHGFMSYVVGASLGTKA

>AHK56129.1 hypothetical protein N917\_01405 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLINSYNVTKILLKSNFCLVFLQAKVKIVIDASF

>AHK56128.1 ipid-A-disaccharide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTFLVCALEPSANLHLKEVLKAYKKDFGEFELHGIYDESLCKEFDLNSKPLYSSHEFSAMGFIEVLPLI

FKAKKAIKELANLSFTQKINGILCIDSPAFNIPFAKALKKAGSKIPRIYYILPQVWAWKKGRIPIIESHF

DILASILPFDNQFFNKSTYIGHPLLDEIKEFKNQEDINHTFSKKDDEKTIAFLPGSRRSEIRRLMPIFKE

LSQKFKGKKILCVPSFNLEKLEVYGDISEFKIESNTPKVLKKADFAFICSGTATLEAALVGTPFVLAYKA

KAIDIFIAKLFVKLKHIGLANIFCDFAGKEALNPEFLQDKVNVLNLYEAYNKYDYKAFFAKVDFLKEYLQ

FGSAKNLAKILNEI

>AHK56127.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIFISFVVLATCLWAKNTAYTDEVVSLYLNKDDTKVIGRLLPTNPFEVLKSENNRVLLKIDGYVNPKA

PSVIYFNDSQRIIVAAFSKNTKLNFSQRITGKNGKWDKVSLEIWADKKEFVKDNKEMLNRAKELFVNNCG

ICHAIHKEKEFTANAWPAIFRSMADRTGIDKKDRWLVIEYLQKNAKDFKTK

>AHK56126.1 trimethylamine N-oxide reductase I catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLDRRKFLKIGASLSALPLIPSLSAGKTVEASKVSLGLVKNGEVITAAHWGILKLTIKDGKIVKSEPWEK

VTKMDNPLQHYTADMVYKSRVKYPYVRKSYLENPDNPKPELRGKDEFVRVSYDEAIKLIAKELKKTRDSK

GASAIFGGSYGWKSSGNMQNSRILLHRFLNVTGGFVGATGDYSTGASQVIMPYVVGSIEVYEQQTSWENI

LSDSKYVVIWGADPLSTLRIAWTSNEQRGLAYFEKLKDSKIKVICIDPVKTTTAKFLNAKWIAPRPNTDV

ALMMGMASHLIAKKKVNYEFLDTYTTGFDKFKDYLEGKEDGVKKDTKWASKICGIDEKTIKNLAETFYDN

STMIMSGWGMQRAHHGEQPHWMLVTLCAMLGQIGTKGGGFGLSYHYSNGGVPTCKGGVIGGMTAGSLGIW

KNGKFKGLSKAEASSEGAEWLQNAASYSFPVARIADALLHPGKTIDHNGAKITYPDIDFIYWVGGNPLVH

HQNTNTNVKAWRKPRTVVVNEIYWTPTAKMADIVMPVTSSYERDDITMTGDYSNMHIAPMKQAVEPVGES

KDDYVIFSDICKIYGKDVFNAYTENGKKAKDFIKEYYNSALKQTQSFGEAFATPMPSFEEFWAKNEPITF

EPTAESLEWTRFSEFIEDPILNALGTDSGLIEIYSETIKNYNYDDCKAHPTWFEPIEWLGNASKEAPFHL

LTNHPRDRLHSQLCHTSLRDTYAIKDREPILINSKDAKKLGIKNGDVVRVFNKRGEVLAGAVVSDEIMQG

VVRLCEGAWYDPNENGLCKCGNANVLTMDIPTSKLANGNISHTGLVNIEKFKGELPKLTAFSAPKGAN

>AHK56125.1 hypothetical protein N917\_01260 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVKNLIIKFGRLILDAIAVISFVVALLYSLFMMFSIGFLAGLLSLIVSFIALFLSFFCNLSCYRYQRCSC

K

>AHK56124.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAYEDEEDLNYDDYENEDEEYPQNHHKNYNYDDDDYEYDDDNNDDDFYEMD

>AHK56123.1 chemotaxis sensory transducer [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MILFSEDMIENLCTNKIKLFSDIKDYTERKKLIEKEVLFINIPFEAHCINTLYYLIYDGLSQSESSLLEL

LYKHNPYPCALVGGGSSGNMDFSGAFIFYNGEILKNQALSIHVQFKPKYRFNLMKSQNFNPQSNITFTIL

DVSLYDKTVRELINKKPFRLKLYVIILTALLKNLKIKCKNILLL

>AHK56122.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQEYTFALKIGEDYLISPMEINPNKTLFSYCDIESAQELSLLKKTNFIEAIKKDYEKFSLNKPKPLGAIF

NDCILRRLHNKEHLNQIHFNDFPIVGFSSFGEIYGVGIAKSLVAIFFYEVENFNDFKPRYLKTFIQKYSD

FKYYYLNIRAQKLEMTNEINKIILNQLKQNTSEIDKNTSIFKEIFEELENIRRSLTTISESFTNFTNYLE

YNLYQSEEKMNLEKEVQSSLKNIDQLNSILDLISGIAEQTILLSLNAGIEAARAGKLGRGFAVVADEVRK

LSENTQMGLGEMEGAIKLVIQTIQSIAKSSNSSTQEMNFIRDKTNEFSKIISNLINSGKEISDKLEQRSN

VSEDFEKNVNQLKCYEDVLAKLNQY

>AHK56121.1 serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFINLGNDYKLNDKTRFNFEFEKTFFGDLNVDWSANANLRYSF

>AHK56120.1 hypothetical protein N917\_01075 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYADPIKAGDQILEDQASQRRYEGKKIKECL

>AHK56119.1 pathogenicity protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHKRMGELRNNPYESGVWLRTFGWGTSDEYNSGKYFEIQSGHDKLNEYSNFELYSGVRFL

>AHK56118.1 hypothetical protein N917\_01065 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSNLQVEKSAIYRKVDAKKLSANNTIFKINADFENSKSDYINSKESTQGVNNTLVLIFLNNPSKKRV

>AHK56117.1 boa domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSANTDKALIFDGNIYNKEGVFRTENAKLNFQGHARIHAYVSKEQAKKLQEHGLSALTKPVSFTQEDWED

RVFVLKELNLEKKRVLFRA

>AHK56116.1 hypothetical protein N917\_01055 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKPKKMIFFNKMGEGELVVKSQSVDTGLRMGEDQGKS

>AHK56115.1 hypothetical protein N917\_01050 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYFSQNGSINLNSDVDLGASVLNLIKIQIGK

>AHK56114.1 hypothetical protein N917\_01045 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKDGKKIENVSLISKTNVGYVSYKNSFDDKIIVIRELKKCKIARICIFLKMEV

>AHK56113.1 hypothetical protein N917\_01040 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKFKSQFDLLEICLYYWQNQDILENNFGSIAEAKR

>AHK56112.1 citrate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEIFLALLGFFSLGLIVWLLLKDYTTPALAFISVSISVACILLILERLGFGVGVALGVKGGVFDIKTLVV

FIKDGVKSVTDTAALFVFSILFFSVLNASGFFTKILNAFLSKMKANVYQVCILTVFIAAAVHLDGSGAST

FLIVIPALLPIYERLGIRKTSMLLIITSAMGVMNVIPWGGPTLRAATNIGMDANLLWHHIIPIQIVGLVL

SLLLAIWIAKIEIKRGAGAGNLSGINLNIEKSEHHNEKWFWLNLLVAIGVIGLLISGIIPSYICFMIGLA

IILPLNYPNLKTAKKVLDRASAGAMLMYITLIGAGILIGVFDKSGIMEKMGVLILNFVPDYLGAYIPLMV

GILAVPMAIIFCTDSYFYGVMPIVLSVTKAFGAEPLTIAIIMVIARNCATFISPVVPATLLGCGLAEVNI

KDHIKRSFFYIWGISIICLIFAEVAGII

>AHK56111.1 hypothetical protein N917\_01005 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAYGSSNPEDLAKNFTKDLYSGDTKSVMSYIDLSEAKSDEEKTFVSDKITQVVAENAAKAKRMGGVKDIQ

IEEKTINKDSAKIRVLVLFNNDNNQSSNVFLAKKDRKWLVLLK

>AHK56110.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFFLLKKIENGLFYLNKILYFFLILFLLIGILGFFINSNPSNQIIKKPYLPFLEIGDLVFRAGIGSESFL

IENLSQSPYSHIAMVVKTSPTILIHATTDDDKNAKNQVILSSMDDFLKLSHKIAIKRLKFDEKTKQKIVA

KDLEHLGRKFIISTDKDAFYCTTFLEQSINSITPFHLQYTLIKAPFNEGLYLFPQTFFENNQSVLIYESQ

NF

>AHK56109.1 PhnA domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKDANGIELNAGDSVSIIKDLKVKGASTTLKRGTTIKNIKLTSKEGEIEARVDKFGVIVLKTEFLKKI

>AHK56108.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDPSQVLDLNQTSTASFDAGYSILMVVVALALVFLNGFFVLSEFSIVKVRRSKLEEMVKEKKAGAKKALE

VTSRLDTYLSACQLGITLSSLALGWIGEPAIAKMLEIPLINLGFSTVIIHTMAFIIAFSIITLLHVVLGE

LVPKSIAIAVADKAVLFIARPLHWFWMLFLPCIKIFDFLAAISLKLFGIKPAKESELTHSEEEIKIIASE

SQKGGVLDEFETEIIRNAVDFSDTVAKEIMTPRKDMICLNKQKSYEENMQIICEHKHTRFPYIDGSKDTI

LGMIHIRDIIQNELNHKSQNLDTFVKPLILVPENISISKVLVMMNKERSHTALVVDEYGGTAGILTMEDI

MEEIIGEIKSEHEEDSYKKLAENIYEFQGRCDIETVEEMLVINYDEDLEQVTIGGYVFNLLGRLPMVGDR

IEDELCYYEVKKMDGNSIERVKVVKKTNKDEE

>AHK56107.1 biopolymer transporter TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKSSVIFGFVLSLILHTLVLMFFLFSFYTQEKSSGVDFKQGAEFTSIMMVSEFPIGELKEVSIDQKKSNS

QDKNKKQDERISFNSQDKNAVLKVQKKIEKQDENQAQKEIANASENSKFKNESLSAPLQSNKDKTQTIVS

GNAKEQVKSYQALLMAHLTKFKKYPQEAIMQKQEGVVRIRVSIDESGNVLSKELKKSCPYAALNDEALSL

FKRASPLPKPPKEMLKNGDKISFVMPIDYNIKDYLGKK

>AHK56106.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKTEMAHKEEELSEINITPFIDIMLVLLIVFMAVTPLITSSIKIELPKSSQQAEDKLKNPIILYLNTDN

TLAINDDKLSLENLSSALDIKTKGNKEEIIYFHIDKSVKYEDIMQVMQKLKENGYGKIALSSKKMD

>AHK56105.1 TonB-denpendent receptor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKLSLFCAVGLCFASFAFSEELEFDSLEISGSKIKNDEKPFVTPGATSTREGIGSDTQSIDSIVRSIPG

TYTNTDQAQGTVQVNIRGMSGFGRVNTMIDGVTQTFYGSASDDPARFHSQTGTSAFGAVIDTNFLIGVDV

TRGTFEGVGGANALMGSANFKTIGINDIVHDGNIFGFLGRFSYGSNGIGPSYMSAVAGKTELENNGYVGA

LFGYSAKRITQNYTVGGGGKIGSSMVDTDGDGIADTNIAPFDPDFLTQKPNSQLFKLEYVPNSFTNTIFS

YRRYQNELAGRKIHNDNYQLDFWHNPNEWLNVNTLIAYNQGIQTYGSKSTFAANDAIANTKAKNTATTFD

ISDTLEGEWHRFNLNIRFGANILLNDYKNTLNTSIQGVNSIPFQPRGKQNLFTYYLDNSLNYGIFTLDTN

VNLLDWNIKGHRPACDEVNFMCFPKAATDIDKNGLRLNASVMLSAAIHELITPFVSFARTNRAPNVQEMF

FSNNEGNGINSFLKPEQANTWQIGFNSFKHGLLKDDDRFGFKAVYYHTKIKDYIYNEQFYLEDPSKDPPS

SQFYMHLNSADDTIFKGVELELSYDLGFAYAKAMYSRQDTSSTISQTSGPLLGSFSASKIMELPKDYANV

ELGFRLNDKISFGGIAKYTGKAKRVNPNTDDWNKDPNNPYYPKPTTQDLPKIPIIVDLYWNIEWFKNLTM

RAEVQNLFDKNYMDALNAYNSLDNQLQYNGAGDPIYLFSNSARGRTFIVSFEYKY

>AHK56104.1 iron transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFYTILSILFISFMLSACAVLQKSSPLQENKDFYILDTHTQKKISFEDMILELLKADVILLGEKHDEVK

HKISQVMIFNALEGNLSSQNINFDVALEMLASTEQNHLDKAFKNKKTIKANELTNALNWDKVWKWKDYEQ

FVNVVFYSKSKILGANLSRSEITSIYNGAQPLKGYVSTTNEVKKQLFDIISLSHKLNPEENKELLDKLVE

IQQFKDRRMADVLVHHVNKVLLLAGSYHTSKKIGIPLHIQDFKSSKKIVVVNLSYGEIDLKDSDYVLIYK

GEE

>AHK56103.1 hypothetical protein N917\_00850 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDFIFANQSLYYLTKQAFKEAVQEFYELCNEGAIIFATMMSDKGYSMYERGELMDNSLREVKGCPSGRLS

GSSYIRFTKDIEELKEDFKPFKPLFWGDYELINLYNFEGSVEHFIYIGQK

>AHK56102.1 hypothetical protein N917\_00845 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDNSLSAYTQKYDKEGYGLQYPDGHVIRFYERILKYKLSKTSGKLLDFGCGNGVHSKYFKNITGGGYRAL

WH

>AHK56101.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKSVKLKVSLIANLIAVVCLIILGVVTFIFVKQAIFHEVVNAEINYVKTAKNSIESFKARNSLALESLAK

SILKHPIEQLDSQDALMHYVGKDLKNFRDAGRFLAVYIAQPNGELVVSDPDSDAKNLDFGTYGKADNYDA

RTREYYIEAVKTNKLYITPSYIDVTTNLPCFTYSIPLYKDGKFIGVLAVDILAADLQAEFENLPGRTFVF

DEENKVFVSTDKALLQKGYDISAIANLAKTKEDLEPFEYTRPKDGNERFAVCTKVSGIYTACVGEPIEQI

EAPVYKIAFIQTAIVIFTSIISVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFG

QISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARV

GSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLT

TSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAG

EHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNV

EIANESAIISSTVSDIANNILEDVKKKRF

>AHK56100.1 mcrBC 5-methylcytosine restriction system component [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNSIFSIIEHQAFSKEDLKEIFKEKAEGFYKELEDFAKNNENLLGFKNKNSLKAKNYVGIIQTKSGVLEI

LPKCTNLDSYKKEDSSSNHDKEKLRRCYELDNISKNNDFYEKDFKFNPKNLLINMLKTLKNSPFKKSQIS

SLQSSKIPLFEVFITMFLDEFDSVYKKGLMRSYLSCEENRAFLKGKLLFNEHIKQNLIHKERFFTSNDEF

VLDIAPNRLIKSTLNFLKSKTSLNKFRLIKAMQMLDEVEFSKNYEKDFSYKISRHFDYYENLLLWCKIFL

KNESFMPYHGKNEAFALLFPMEKIFEDYVAYMLKKVNSTQDIKVQNNGKYLISKNDENCFMLKPDLYIKN

KMILDTKWKIPNDSEDEKKQGIAQSDLYQMFAYACKFKIYDIKLVYPLCEKTQDLQRKIAEKFFVFKASE

HLYFKEQGQKDIKVQVFFAPLPF

>AHK56099.1 endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MWNLDEKKLQEMLDGFLNFQEVWTLEKVKNMTLEEYTNIKKDNPNRDDFTFWIESKLDNLGSIWGGSAFK

FGIYRRNDESQKESSSGRLYSQNYAWIAKYGNNENEAFNNIKEKIIQIIQASQDNNLKTIEKIDFGDAIK

WKIAFHYQDVKNIKIVNIFSKNVLDLISLNEFKEKLKIYQIHKKLLENKNLSLVKMIENIAIPLWNKYGM

DSQNYIDKMKNLFSEYLNKKKLDKNTINKYIQVIENISKEFLKENLYSCDLFSFDQNINKLNKNEEFKLK

NSNGHNMYSSALNYYRAFLIDYYEQDIFITERVQSEESNMKIIPLNQILYGPPGTGKTYHTIDKALEILG

ENLESRDEKKAKFDEYVRKGQIVFTTFHQSYGYEEFVEGIKPIIDNDENSQEVKYDVKDGIFKELCDKSL

KNYILSMQNENEIDLDKLIFEFANYINQDFLNKGNEFPLENKVSIKKILLNFKDEYRSFSLGGSIKSPQS

LTIDIIKRDYLNFKNKKILSFKDIKPKYDSQSDYHGNAIYYFMFYNKLKEFENIQNEKFKIKKEILKSYI

IIIDEINRGNVSKIFGELITLIEPSKRIGEKEELKVTLPYSGEKFGVPKNVYIIGTMNTADRSITSLDTA

LRRRFEFVEMMPDVSKLSMDCEGINLQELLKAINTRIEYLLDREKTIGHAFFVSVENLEDLKKVFQNKII

PLLQEYFYNDYALINAVLNDNDMIFEDKKDDKYLQKIKNLDSVNSERSIYNIASFDDKIWDKIEIYQAIY

NDEIANKLKNENE

>AHK56098.1 hypothetical protein N917\_00605 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIVFPLSSFNRYFGNNPLQTLTKIRDESIENGNPELTKKQREELGNDLIDLYKISKKFSDKIELVEGSIE

DKLRNNELPESEVKNLFQWMDENAKHPRWMHIDGVSYDEAYVKIFHTSKSIDEFKEKYLELQKKYFVDFN

NIDSSQKKLQETSEEDKKAFKPIQVESKSETYKDDNKMNELLRKLLETKFGTSDELEILFGMNFSNDNAG

EFNKILSQNTSAKIIDIKA

>AHK56097.1 hypothetical protein N917\_00455 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILFIGSLVMASLLYAQGSQPVEITQQDINTQNEMSDASTKDITPKSIEDFFEEFADNFGIEYGITKD

GKTFYTGKSTVAVNDTDPQFAQALQNAYQKAMLNLQSEFIRDAFGRIATSKIQNYEADNSTNAKEFDELP

KGDKVDQILNKLTQLAGAQLDKALKDLGIDTNSLSEDRKKTLLKQEFLNKTMTNAIGSMSGLVPVQTIVT

QRRGEYDVGVVAVISNKTRQLAKDMALARQSAIKGKGKAISEYLPKDTKGFLNEYGIRLVYDENGAPIIL

SYGNWGYVADPSNAKKTNILEDRAKETALTMADAAIIEFINTNLSLKDERTTGDTYEEIIKQSINVNDSS

TQEQTQNITNIIDKVNSKIKASASGKIRGIRTLKKWSYTSENGIEHVGAVRFYSYENLANTNEALNSKSN

ATKNEAKKSSSIQRSSNVVNSMDDF

>AHK56096.1 hypothetical protein N917\_00415 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLHALFLLAWPLVIYLSYKFIMLNINQLEKDSKL

>AHK56095.1 2-amino-4-hydroxy-6-hydroxymethyldihydropteridine pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKIQGVKHFEKSRFFPFFSQNIRSFKYLALIGLGSNIEPEKKRFDMLFRVMMDDKRFKILSTSPMLINE

AFGFKEQKDFTNAVMLIQTNLHARALLKVLLYYEVKFKRKRTFKNAPRTLDLDLLYFSQKVKRDKWCEVP

HKGAKERVSVILPLGMI

>AHK56094.1 hypothetical protein N917\_00300 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKILKILLFLPILALSTKAEWVVKSYQEIKNERVIRQTYEQSCGASSLATLLNILDDQKKFDELELLKI

MSGQELYTDMVSFADLNDAVKKLGFQSNSYQINRENLDKLVNIPMLVKIEDDPRFPHFVIIINHKGNYLQ

VLDPSHGEYISSKSQFFSIWDRYNKGGYALIVAPKKELKPFKLNTPKSLHFDFSPFSLF

>AHK56093.1 hypothetical protein N917\_00295 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIFLTFMVLVNCVFASDELNIDSLFKKQIGLRSITSFSLLSTGNANSYSLYPNITIGGDPTIWNDTKQ

VFLTQTFIYTLTPKFDILISGGGSYARQEYTNFFTNAYSHKDRIGFDNLWLGFIYTGDSIADLIPQITFQ

TAVVQREKAINQTKNFYLKSQSLQASLRGYSDPVVYSIYTGFGYNQSRKFKTLKIEYGNSIYVGGDLSII

LSPKITLDLGAEQRFQMKQKINGYQNSEVRSIPTLSLGSTYSINSDTAVSVNASFGGSSASPDSIFGISL

WKKF

>AHK56092.1 hypothetical protein N917\_00290 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEVKGGYITYLKRLSDNEVIAFAKPDWNLELTLFQDSNGDQYYWNREGLVRFGGMCGIETTNCLVNSKH

SYINQKRLWETMSIVGDDPYRNFLGYTVKRNIGISNLGKRFVYFSYGVAVINEQSGSWYRVKSSPVFE

>AHK56091.1 hypothetical protein N917\_00285 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINSLNSNLNYDYNTSNFKQDKNIDFKINKHGVAVITGEGALPYRGKKFEYNPKIFGLDESISKKDMQEF

NNFMKSNALKDPNKIEKSPLKDFNPAYTKWDPTTEKMMLGFFVSYSKMFHLGYDIIKKADEFYKEFDALI

SKDLSLNEFKTKYIDFKQRYDEFVKEYEMAMGDKMLLSSDDEIITQQSEKPFKAIQGESKNKETYKDDST

RNELVKKLLEGKFSTSKELELLFGMKFSDDDAGEFNKILSLNSTPKSIDIKA

>AHK56090.1 2-oxoglutarate translocator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFFIVQLALGAPPLFYAFIMIASGNVMMALTHYAIGTAPVIFGTGCVTLKKWWSTGFVISIVDIVVMIAV

GLFWWKILGFY

>AHK56089.1 2-oxoglutarate translocator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MALLGLSLVLISGVLTFGEVLAEKAAWNTLVWFSALVMMATLLGKLGVTQFLAEA

>AHK56088.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFLPGIAVMLLMPLMLYFLSPLEIKSTPNASTFAKDKLKELVKMKNSEKIILSVFVSLLLLWAGALGLFF

WNFS

>AHK56087.1 anion transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MISIIVARGVIKTGLGEHLAYHFISILGKKT

>AHK56086.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVKWSRDFSIKNMQLDKQHELIFEITNLANDLALNIQDNNTQHKNDLKQILVKLFQYIKIHFKDEEKFM

ESIDFPLIEEHKKSHQILVEKTKELLEHSNDIVKMSQELSILTKDWILDHFANEDLWIANFTKKTLHLQE

IHYTLEQYIKLKSIKQDLRAEKTYDYICNCSLRIHAVPQTIHQELVSKENTLKCEKCGQILVHLDYFDLN

QNFEKFNAIFEDALQNHHFTTQENDMRGGG

>AHK56085.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEELTKEQRQIIEEEIKKEIKKANTFLKPELINKIIQDIIGDIKGKINNKFKCPKNLEEILSSIPQKVYV

SLGKEEIKQILKLDFCCFVDNVFYIDSAPKIEPYEHNQNKTAIEEQRIIQCSYDDLLYLFKTYPLIFNHC

IFDYKIDKKTPIEQIKKLSFLNCNFKKEVYLNFQECLDSFQMDNCVFEDRVTIKGKFNDNVYFNNSIFKN

YADFHECEFEKTANFYGVRFNKTPNFSQAIFRGNLNAVNANLNFTFDDLQERIKQEYEDFNKNIENKKSL

DKFANDFRDSFRTFKNALIKDNNLLDASNFHKYELYCKEIELKQNWDKRGENVKNTTDLEKNVSRIRDFM

DFLLLGFYRKLCDHHTDFLKVFNNLILLIALYALFVFGFTWLHDDKLEDTRAILTLFGFFDKFRLYFDII

STIFVVFGCGFFVCKLDSYEKKNNVSKKQNINFIYIIGDFLNLIKSLLFASFIPCVFYVLFSLFGFFLNL

GKDFGYSLLINTLFVSLYICLVYTKSLFFGRYVVLIFSYIVFIIMLIKQPNVIHPLIGKIANESDKFFNY

PSLIVLNILYTILLALVLFSLQKTARKNSIVPS

>AHK56084.1 type II restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHFTLLNEKDFFNPYYRKKQIMQNEFDIFSKALMQYLERLESSQSENEDYLVANALSPFLTMLNFKTHIK

TKQKGKSEIDLSISKDEFSKDLEVLIEAKKPNSKEFITHTKVNSKALHETILYYFRNREYSFSLKFIIIT

DFYKFYIFKISEFEELFYKNPSFKKLFEEFCNPNSLFKGNTEEFYKEVAKLIENSKENLKGFLIDLTFLK

DKQKSNFKNLASIYKTFHRDFLLSEFNPNDANSLNNAFYKELLYILGLYESKQNSKLIIAKSEESKEEQG

TFYTAINSKLKEENFETILKLLILWLNRILFLKLIESNLVRFNDDKNLKFLNFKKIPDFDKLSELFFEVL

AKEKSTRKKSEFTYLPYLNSSLFEKQSIENTLEISSLSNDLKLFYYKNTVLKDDKCKAKKGQVGLLEYLF

EFLDSFDFGSDDEQSEILSQKELISSSVLGNVFEKLNGYKEGSFYTPSFITSYMCKESITKVVLDKFNAQ

FDLDAKDISELRKSLRKEDKKAQKELLNSIKICDPAVGSGHFLVSALNVMLSIYDELNLFDEEFYLEVQN

DEILITGRKGEFIEYKRPSTPKDKTHLIQQELFHTKKDIIENNLFGVDINPNSCEITKLRLWIELLKHSF

YQSFDDGNYHDLKTLPNIDINIKCGNSLVSYFETGKSLNHYPNIKERMGKYKRIVKDYKEGFYTDKSHIN

QEIKNLKISFKNFCFADKFKKEMKSFNDKCEKYSKKYGNFLAVDDENLKFFVSANLTLFDFDEKEAIKEF

ANLKKEYDNIFNLESNHPFEWRFEFPEILDDDGNFKGFDLIIGNPPYIRQEELKELKPHLAKNYKVYKGT

SDIYTYFYELGFNVLKDRGGVLSYITSNKYTRAGYGEALREFLLKNVKFLEYTDLNGIKVFDSATVDTSI

LCFEKSKSKDNKFKYLALSNEILKTCAYDIGLYKDFAEFSQNSLSKESFTFSDENTSALKAKIERIGTPL

KEWYGLNINYGIKTGLNEAFIITTEKRNEILANCKDEAEKERTAKLIRKMLRGRDIKRYSYEWAGLWVIG

TFPSLKIDIEQYPALKQYLSQFLPHIEQSGEKGCRKKTSNKWFETQDNIAYYEEFEKEKIVWAEMTKEAC

FVYDNSNFFTNQTCYFFTHCDYKYLLAILNSRLIVYYMQYISSHLGQGAFRWIRQYIEKLPIPKINSKNE

KLADELINLVDEILKAKEQDKNANTQELENKINSLVYKLYNLTEEEIKIIEGK

>AHK56083.1 hypothetical protein N917\_00175 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKFIERLLEEDIKFEKDVNNGLSDINIFDALNIETKENYHSKFIAYLIDINKDHYQKNFAKVFLEKLGK

SLVNTKFENLNIEDIKSVETEACIKDNRRIDILITLSDKRYIIIENKIYAKDQKNQLKDYINFVRKNIKN

IKDCYKNILTIYLHQDECASPSDYSLGNFTIKTNLIKDKNENNVSYYLKMDYMWIKEWIDECIKIYEEKS

TKDQKFILDIQNIIFTLNQYKSILQWYIADEYTQRDDVLEFIFQDIIKMQNLKNAMILYRYNKNKSELKN

LNEEKYKKAKDIIQHKWSNICEYIIEEFFDSFEHKEIKIGDITFIGNKIEENRVNHGVFIFYPVDYKNES

IYPCIYIYFKKKYYDIIGLTFEISNDDEEDIENEKYKECLKLFKDVKEENVRKYQNHYYCDKLINNEKLE

GEYAFIYWLIENQNSKKDFIQILNDFFIKKPIQEAYKGINDILNS

>AHK56082.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKYFQKRYTLAFFIGILAGIFGAIVKWGWEVPFPPRNPNVFWPADALERVTPPKIFLEQLGLPTDWTYM

FSGMQMPLSIFIVHVGFSIIFGVAYCMIAEKWHRITMWQGAVFGFFVYLFAHVIIMPLIAEVPPLSEIPF

DEHLSEIFGHIVWLWGMEIVRRDIRNRITKEIEE

>AHK56081.1 hypothetical protein N917\_00040 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAGFQSPITINEAMQRIKNNEYLLPAFQREYVWEPWQIEELFDSLIRGYPISSMLFWKVKDESKTAWKFY

RFLEYYRESYHTHNDYFNTSNHKDFYAILDGQQRLTSLYFALFGNYDIHRSYNKWENNDRYFKICHFYFN

LTQSKKPENENIEYEFLWLDKLETKEQNIYIDKYQQKWFKCQYLYQYDSGRVRKIAKEFNLNENEEDRLD

LLHQKIFDKNLINFYLEEEQDPDKAVNIFIRINSNGEPLDYSDILFSIAIANWNKIDARTEINNLVDKIN

ENFDISKDLILKGFLYLFHNNIKFQINSFDKNFIESIEAKWEGIKNAFIETFRLLRSFGFEAKTLSSNNA

ILPILYFIYHKNLTNNIVDSVKCNENRAIIKKWLLRAIILKPFGGSSDTVLSNMRKAFIKDFKQNSGFFD

REIELFPLEEIEKEAKYIQTIDEEYLENNVIECRKNSPEAFAVLSLLYPNLDYKNNNFHKDHLHPESAYK

EYEKLYKATDNCISFNIYDSLPNLQMLDANENESKNNKPLKQWVNEKCNGNRKEFLGKHLIPDVDLSLEN

FNNFIEERKKIIIDKLKSILNKE

>AHK56080.1 Holliday junction resolvase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYKFYLKFYKKRLKSAFVFYFSKGMNLKILGIDPGSRNCGYAIIEADKGKNILIEAGLIKIKPSTLQYQI

TELCEGLDLIFKNHSFDEVAIEDIFFAYNPKTVLKLAQFRGALSLKILQIHGDFAEYTPLQVKKAVTGKA

KATKEQVAFMVKRLLGLSKDIKPLDITDAIAVALTHAANLRVRV

>AHK56079.1 flagellar hook protein FlgE [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMRSLWSGVSGLQAHQVAMDVEGNNISNVNTTGFKYSRADFGTMFSQTVKIATAPTDGRGGSNPLQIGLG

VSVSSTTRIHSQGSVQTTDKNTDVAINGDGFFMVSDDGGLTNYLTRSGDFKLDAYGNFVNNAGFVVQGWN

INWDDQTIDSSRTPQNIFIDPGMHIPAAKSTEVAIKANLNSGLNIGTSSRNLYALDSVHGWNTKTQRAED

ENDTGTTQFYTTSKNSVEVTEKGVDAGSLFNAKGQGLNLRDGQGIWVSYADATYSTNKVGVNAFDPNLQQ

NQTAAFWGTANQKVNLDITLNGVRIQNADIQSIDDAIAYINTFTAPTDTRDGTGVKAVKNKDGSGIDFVN

DNADGTTDNMKNINLVVANTNTAGELWNAVWNNNNQTFTFNNNGNGQAGTPTINKNGSSLWTATNITFTP

QPPQAATNVQLTGGLNAQIITAHKYIYSSNPVDIGPMYNPDGGPAFQPGANATTRPTEPGSAAYWDAVNG

GLLNTNVRTFRTTEDLRELLQRDARYGVDYDGSGTFAAADINQNIKVVVTADGHFAISNANEQSTVPPNA

INGVGNATTTDPKNMSFNITAYSNKQGTVSTNDAFTAIFKAFDGPLVIGNQIKESEQLKLSAFSAGLEIY

DSLGSKHTLEVQFVKQSTTQDGGNEWQMIIRVPEPAEINTTGEGPNNIIVGTARFNNDGSLASYTPRTIN

FSPNNGAAPNQQIKLSFGTSGSNDGLVSSNSASTLTGQATDGYTSGNLKPDAIRVDDKGNILGEFTNGKT

FAVAKIAMASVANNSGLEEIGGNLFKVTANSGNIVVGEAGTGGRGEMKTSALEMSNVDLSRSLTELIIIQ

RGYQANSKTISTSDQMLQTLIQLKQ

>AHK56078.1 7-cyano-7-deazaguanine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRYGEKEIKEFDVENMEIWPNDAKNDYIIKITLPEFMCCCPRSGYPDFATIYLEYMPDKFVVELKAIKLY

INTFMYRNVSHEASINEIYNTLKDKLKPKWIKVVGDFNPRGNVHTVIECRSDMVVPK

>AHK56077.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKKFLSIIAGIALFSSSAFAEEKSGFFIGADAAYVQTKVQGNLKHNQTGAVFNGDLSSSIPILGLKAGY

RFNDLHRLYLAYNYSDEFSDIIRTPKLKIESDFSTHKFLMGYDFTPKIFERVRAVAGGYLGYAKTNLDLK

TSLLSLSQKFDGFVYGVKIGAIFELGASNEIEAGFKVEKIEYNTRDFYQKAIGSNLYDPRQTNYGLYLGY

TYKF

>AHK56076.1 hypothetical protein N917\_08605 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKELLEIKKEMEPVIHEANVKLNVLAREVIVRKKEYEIYGPMVDRVYLDNAIYVKVMSSGRDVKTDNVT

IKNGFYMVFVAPEKESTKDIKNKLKVAYEGLDNKFIATLIRSCQRFKEIINKTQATLAKASKMNVVVKTN

LGEASAALKFNITIEYTKENQKLTRENSKSAGSFRDTKTYINLVVEKNTDSQICEKLLDDVEKYFIGGG

>AHK56075.1 2-isopropylmalate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKDNKIIIFDTTLRDGEQALGSSLGINQKLQIALALENLGVDVIEAGFPVSSQGDFKAVQKIASKVKNST

ICALSRALDKDIDMAYEALKVAKHFRIHTFIATSTLHMQDKLKKDFDEILSMAKRAIIRARSYTDDVEFS

CEDAGRTPIDNLCFMVENAIKAGAKTINIPDTVGYTLPSEFANIIKILFNKVPNIDKAIISVHCHNDLGM

ATGNSLSAILQGARQIECTINGLGERAGNCALEEVVMAIKTRKDYLKGFYTDIKCENIFKTSKLVSAITN

ESIPSHKAIVGSNAFSHSSGIHQDGVLKNRQTYEIISPSAIGIHENRMLMTARSGRAMIKTCLENLGYDE

NTYNLDDVYERFLRLADKKGQVYDYDLEALMFLSYESEEENEFVLEKLSVISGNIPTACVCMRIKEELKT

EACTGNGPVEAVFNCIARITNLKPALKAYSINAKSSGVDAQGQVDVDLEFKGRKFHGKGLSTDVIEASAQ

AFVSAYNAIYRSLKVEERKMA

>AHK56074.1 3-isopropylmalate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTYKVAVLAGDGIGPLVMKEALKILTFIAQKYNFSFEFNEAKIGGASIDAYGVALSDETLKLCEQSDAI

LFGSVGGPKWDNLPIDQRPERASLLPLRKHFNLFANLRPCKIYESLTHASPLKNEIIQKGVDILCVRELT

GGIYFGKQDLGKESAYDTEIYTKKEIERIARIAFESARIRKKKVHLIDKANVLASSILWREVVANVAKDY

QDINLEYMYVDNAAMQIVKNPSIFDVMLCSNLFGDILSDELAAINGSLGLLSSASLNDKGFGLYEPAGGS

APDIAHLNIANPIAQILSAALMLKYSFKEEQAAQDIENAISLALAQGKMTKDLNAKSYLNTDEMGDCILE

ILKENDNG

>AHK56073.1 3-isopropylmalate dehydratase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKTLYEKVFDAHVVYEGKNELPILYIDRHLIHEVTSPQAFSGLKMAKRRMARADLTLATIDHDVSTKSM

DLNACSDMAKEQITTLMQNTKEFGVRLLGLGDKNQGIVHIVGPELGFTLPGVTLVCGDSHTATHGAFGAL

AFGIGTSEVEHVMATQTLKQAKLKTMKIECKGQFQKGVYTKDLILYLIAQYGTAKGTGYAIEFCGELIRN

LSMEARMTLCNMAIEFGAKVGMIAPDEITFEYIKGKEFAPKGEEFQKYCEYWKSLRSDEGAKYDASITLD

VSKIKPQISYGTNPSQVIGIDEKIPKISDFKNQSEQKSLLDALYYVNLEQDQVIEGVKIDIVFIGSCTNG

RLEDLKIAADILKGRKIHKNVKALIVPGSMQVRKEAENLGLDKIFIEAGCEWRYAGCSMCLGMNDDKANS

GQRVASTSNRNFVGRQGKGSITHLMSPASAAACAIEGVICDNRKYLGV

>AHK56072.1 isopropylmalate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKFIIHKGIACPLEYANIDTDQIIPKQFLLAVSKQGFGKHLFHDLRYLDDKESVLNMDFNLNKKEYQNS

SILVSFENFGSGSSREHAPWALVDYGIRAIIAPSFADIFKNNALGNGLLTIELAKDEVLEIVDELKKSQD

KNIEISLLEKRVFFKDKIFSFDLDDFHRICLLEGLDNIALTLKHEAQIKAYEKNSKSFLV

>AHK56071.1 50S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKELVNILDFLPEELGEKIKPMFRVKQIYQWIYQKYANNFSDMSSLPKDLRLELARNFHFSPVKCVKNEQ

SKDGSIKYLFELIDGLRVESVLLPMKEEKIDAEGKRISHARYTICVSSQVGCKSGCSFCLTAKGGLKRNL

SAGEIVGQILWIKKQNNIPYERRVNIVYMGMGEPLDNLKNVSKAVKILAQNEGLAISPRRQTISTSGLAK

QIKELGQMNLGVLLAISLHAVNDELRTELMPINKAYNIAAIMDAVREFPIDQRKRVMFEYLLIDGINDKL

EHAKELVKLLNGIKAKVNLILFNPHEGSLYKRPSLENAIKFQDLLSNKGVTCTIRESKGLDISAACGQLK

ERAKEQ

>AHK56070.1 purine nucleoside phosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIICAGGNENFSFAKAIGIGLVESAFHLSQLCFKEKPSKLIFIGTCGLYDKGEILEIYRSSHAFNVEFSK

ISHAFYTPAKYEICLEKENVSRETIKINSSNYICQNSKAAKEFSKLGFFAENMEAFSVLSVAKNLNIDAE

CILCATNFCNENAHEDFIKNHQKAKENLEEYLKKYHYI

>AHK56069.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVKAKKQYGQNFLIDKSVLAKIIQAIPKEMNNIIEIGPGLGDLTQELLKISQVKAYEIDNDLIPILKKKF

QKELECGKFNLIHQDASEAFNPSLDEKPYFLVANLPYYVASHIILKALEDKNCLGLIVMAQREMAEKFCA

KEGNSEFSSLGVLSAMICERKILFDVDPQCFNPPPKVMSAVMSLIKTKDFDELCEIENFKNFLKDCFKAP

RKQLLGNLKTYKAKVLEVLSTLGLKENIRPHEICVDLYLKIYDKLKDEYGRKQRDK

>AHK56068.1 ribonuclease J [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDENKEINKNEQNPNSNSKNNKRYKYKNRRKKLADSLQNENDTPKIDQNSNKENSENSENKTEKKKKKNR

NLPSKLTGNEDWQIALAECIEANRISHENRLHPLKYNNSSEHKIRITPLGGLGEIGGNISVFETNKDAII

VDIGMSFPDGTMHGVDIIIPDFDYVRKIKDKIRGIVITHAHEDHIGAVPYFFKEFQFPIYATPLALGMIS

NKFEEHGLKAERKWFRPVEKRRVYEIGEFDIEWIHITHSIIDASALAIKTKAGTIIHTGDFKIDQTPIDG

YPTDLGRLAHYGEEGVLCLLSDSTNSYKEGYTKSESSVGPTFDQIFARTKGRVIMSTFSSNIHRVYQAIT

YGLKYGRKVCVIGRSMERNLYTTMELGYIKLDRKIFIDADEVSKYKDNEVLIVTTGSQGETMSALYRMAT

DEHKFIKIKPTDQVIISAKAIPGNEASVSAVLDYLLKAGAKVAYQEFSEIHVSGHASIEEQKLMLTLTKP

KFFLPVHGEYNHITKHKETAMKCGIPERNIYLMSDGDQVELCQKYVKRIKTVKTGKVFVDNQINKQIADD

VVIDRQKLADSGIVVIIAQIDKATKTLINKPRVFSYGLVADKHDHAFSKDMAEVLGQFFINVKDEVLNDP

RFLENQIRQVLRKHIFRKIKKYPTIVPTIFVM

>AHK56067.1 ribosomal large subunit pseudouridine synthase B [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRINKFISHNTRYSRREADELIKQGLVKINNKIALLSDEVKFDDKVFVKGKRVQKRTQFSVIIYHKQKGE

IVSKKDDRGRKTIYDTLPRQFSTWLSVGRLDYASEGLLLLTDSPVIADALMHSDLEREYYLKVKGTVSKQ

VIEAMQNGLEIKNEKKGAHAKTKITSMSFAPFIDFEIFGSSGGYTKLRVVINEGKNRELRRFFGHFDLEV

MDLKRVAFGALDLGMLKAGKHRYLENGEYEKLRDFLKFNEIRY

>AHK56066.1 30S ribosomal protein S10 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MERIRLKLKAYDHRVLDRTVAAIVEAVKRTGADIRGPIPMPTKIKRYTVLKSPHINKDSREQFEIRIHAR

MLDIVAATPDTVDSLTKLDLAPEVSVEVRAMGK

>AHK56065.1 50S ribosomal protein L3 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEYIVEKIGMSRTITNPSIAVTLLRVVNAKVCEVEGGKALVAYPKGKASNKCVAGQQKKYNLSAEYNRFA

TLEVANTEAGDLDETPLNEAKILKVSFNTKGRGYSGVMKRHNFAGGPASHGSRFHRRHGSIGNREWPGRV

QPGMKMAGHYGNTKVTIKNEVVSYDAENKILVVKGAVPGYNGAMGKIRIAK

>AHK56064.1 50S ribosomal protein L4 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKVVVLNDKLEKAGELDLPSKYAEVNPHNLYLYVKSYLASLRANTAHTKGRSDVSGGGKKPWRQKGRGG

ARAGSTRTNVWVGGAVAFGPTNERNYFQKVNKKQKRLALERALADKAAKGVLFTADSLAIESGKTKDANA

VIKKLGVKDALIVKDLLDEKTLLAYRNLANCYVVDVTEVNAYLVSVFNAVIMEKSVLESITKEG

>AHK56063.1 50S ribosomal protein L23 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MADITDIKTILYTEKSLNLQEQGVVVIQTSPKMTKTGLKAVLKEYFGVTPKSINSLRMDGKIKRFRGRLG

QRNNYKKFYVKLPEGVSLENTEA

>AHK56062.1 50S ribosomal protein L2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAIKTYKPYTPSRRYITGLSSEDITAKPSVRSLLVKLPAHAGRNSYGRITSRHKEAGAKKLYRIIDFKRR

KFGIEGKVEAIEYDPYRNCRIALIAYKDGEKRYILQPRGLSVGDIVAAAESGLDIKPGNAMKLKNIPVGT

IVHNVELKPGKGGQMIRSAGAYAQLMGKEEKYVILRLASGEMRQVLAECMASIGEVGNEEWANVTIGKAG

RNRHRGIRPQTRGSAMNPVDHPHGGGEGKKNSGRHPVTPWGKPTKGAKTRRKKASDKLIISRRKGK

>AHK56061.1 30S ribosomal protein S19 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MARSLKKGPFVDDHVMKKVIAAKKANDNKPIKTWSRRSTITPDMIGLTFNVHNGKSFIPVYITENHIGYK

LGEFAPTRTFKGHKGSVQKKIGK

>AHK56060.1 50S ribosomal protein L22 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKALIKFIRLSPTKARLIAREVQGMNAELAMASLKFMPNKGAKYIANAISSAVANGGFEANEVIVKSCR

VDAAAVLKRFRPRARGSASRIRKPTSHILVEVAKAEVKSEEKKTVAKKTTTTKAPAKKTTSTKKATVKKE

S

>AHK56059.1 30S ribosomal protein S3 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGQKVNPIGLRLGINRNWESRWFPTKANLVENIGEDYKIRAFLKRKLYYAGISQILVERTAKKLRVTVVA

ARPGIIIGKKGSDVDNLRKELQDLIGKDVNINIKEERKAGASAQLAAESVATQLEKRIAFRRAMKKVIQG

AQKAGAKGIKVSVSGRLGGAEMARTEWYLEGRVPLHTLRAKIDYGFAEARTTYGNIGVKVWIFKGEVLHK

GMQPEKTEESAPAKKPRRTRRGK

>AHK56058.1 50S ribosomal protein L16 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLMPKRTKYRKMMKGRNRGYANRGTEFTFGEFALKATEAGRINSRQIEAARIALTRFVKRQGKTWIRVFP

DKPLTKKPLETRMGKGKGAVEEWVMNIKPGRIIYEMAGVSEEMAREALTLAMHKLPFKTKFVTRESQNEI

Y

>AHK56057.1 30S ribosomal protein S17 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAFKREIQGVVVKIAGEKTASVLVERKVVHPRYRKIVKRFKKYLIHDERNEVKVGDTVVAVECRPLSKRK

SFRLKSVLATGVE

>AHK56056.1 50S ribosomal protein L14 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIQSFTRLAVADNSGAKELMCIKVLGGSKRRYATVGDVIVASVKKALPNGKVKKGQVVKAVIVRTKKEIH

RDNGSLIRFDENAAVILDNKREPIGTRIFGPVGREVRYGGFMKIVSLAPEVL

>AHK56055.1 50S ribosomal protein L24 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAVKLKIKKGDSVKVITGDDKGKTGKVLAVYPKTLKVVVEGCKIAKKAIKPSEKNPNGGFINKEMPMDIS

NVAKVQE

>AHK56054.1 50S ribosomal protein L5 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMRLKEKYNQSIKPALVKEFDIKNPMLIPVIEKVVISVGAGELAKDQKVLQNVADTISLIAGQKAVITKA

KKSVAGFKVREGFPVGVMVTLRKENMYAFLDKLISIALPRVKDFRGLSRDGFDGRGNYNFGLDEQLMFPE

VEYDKILRTHGMNISIVTTAQNDKQAQKLLELIGVPFTKGK

>AHK56053.1 30S ribosomal protein S14 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKKSMIAKAARKPKFKVRAYTRCQICGRPHSVYRDFGICRVCLRKMGNEGLIPGLKKASW

>AHK56052.1 30S ribosomal protein S8 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINDIISDSLTRIRNAGMRKLETTKLLHSKVVEALVGIFQAKGYIESFNVIEEDKKKFINVVLKYDEKGK

SVINELKRISKPGRRVYKGKDEIKRFKNGYGTIVVSTSHGVLANDEAYKAGVGGEILCTIW

>AHK56051.1 50S ribosomal protein L6 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSRIGKQPIAIPAGVEVKLEGNLLKFKKGNLAKELDTKANVNVEIKDNNILFSPKGEDRQSRAYWGTYRA

LAYNIVVGLTQGFSKTLEINGVGYKAALKGKVLELSLGFSHPINYDIPEGIEIVVDKNTIAVKGSDKQVV

GQVAAQIREFRPPEPYKGKGVKYSDERIIRKAGKTSKK

>AHK56050.1 50S ribosomal protein L18 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRANVLKRKLTLRIKRKKRIRAKISGCENFPRISVFKSNRTLYIQAIDDVKAVTLAAVDGRKLGVKANKE

GAKKIAAEFAKTLKVKKIEQAVFDRNGYVYHGVIAALAESLRENGIRL

>AHK56049.1 30S ribosomal protein S5 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKYNREEFEEVIVDIGRVTKVVKGGRRFRFTALVIVGNRKGLVGVGYGKAKEVPDAIRKAVDDAFKNIV

EVKTKGSTIAHDVEVKYNASRILLKPASEGTGVIAGGSTRPIVELAGIKDILTKSLGSNNSANVVRATIK

ALTMLKG

>AHK56048.1 50S ribosomal protein L15 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLTKAAGSTHKTKRIGRGQGSGMGKTATKGGKGQTARKGYNEKRGFEGGQQPLQRRLPKVGFTSKIQKP

YVINVEKITAVKELSEITFESIKSVHKISKSVNKIKLIGASAKDLVSKIKDENISVTGSK

>AHK56047.1 preprotein translocase subunit SecY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNRALTNKILITLAFLFAYRVLAYVPVPGVNADVIAEFFNNNQNNALGLFNVFSGGAAERFSIISLGIMP

YITASIIMELLAATFPNIGKMKKERDSMQKYMQIIRYATIVITLVQSIGVAIGLQSLHGRGGAGAIMVED

LNMFIALCAISMLAGTMLLMWLGEQITQRGIGNGISLIIFAGIVSGIPRAISGTVGQINSGEMNFLTAFA

IFALILITIGVIIYIELGERRIPISYSRKVVMQNQNKRIMNYIPIKLNLSGVIPPIFASAILMFPTTILQ

TSTNPYLQAINDFLNPNGYLFHVLTFLFVIFFAYFYASIVFNAKDIAENLKKQGGFIPGIRPGEGTSSYL

NEVASRLTLSGSIYLGLVATLPWVLVKFMGVPFHFGGTSVLIVVQVALDTMRKIEAQIYMSKYQTLSAVG

L

>AHK56046.1 multidrug DMT transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNDKTYKFHPNDTKMDKKIIQITEKSGFKAAVFSMAAMTMLGSVVISSALPAINRHFEELLTQSGATLAS

SFTLAHLDILVRLVLTIPAIFVVILSPFAGILMDKFGKLKFILPAMVVWTLSGISGFFLNDIYAILTSRA

IFGMATAFIMTGASALLGDYYSRGGFNRRENALSLQGFFCAVGGAVFISIAGFVSSYSWRYPFLVYGLGI

LITLMAIIYLFEPRKFKFYNHTKIETKTNYWQFFPIYFIGFFIMVVYYISPTQLPYYIEEHLGLDPKYIG

ISMSVSALCYGFFSLSYRYIIKFLSIKTIYVLTLFIVSCSFLLLFLVDSFFTVLIALALLGMGGGIMLVN

NTAYLFSICPENARSRAYGILASCIFLGQFLSPIISQPIVRQMGLVDAFLIWSIVIFIVCIVFLFLKQKP

RIN

>AHK56045.1 DNA topoisomerase I [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKNLIIVESPAKAKTIGNFLGKDYEVIASKGHIRDLPKSSFGIKIEDDEFIPEYRITSDHSALVKELKS

KAKDAKEVYLATDEDREGEAIAYHIAKAIGKDENTLPRIVFHEITKSAIENALKNPRKLNMHSVNAQQTR

RLLDRIVGYKLSPLLGQKIQRGLSAGRVQSAALKIIVDREKEIRAFVPLEYFSIDMIFQKDLDAELVEFD

KAKIEKLTITNKDRAKLILEACKNEVYSISDIESKERKIAPPPPFMTSTLQQSASNRLGFNPKKTMMIAQ

KLYEGVNTHEGVMGVITYMRTDSLNLAKEAVENARKFIQANFGKDYLPSKANVYTTKTKGAQEAHEAIRP

TNLSFTPEIAAKFLDKDELKLYTLIYNRFLACQMSPAISQTQNVFVKNDRVVFKISGRKILFDGYYKVYG

DMDKDKILPNFKIGQNLKVQNLEMNSHFTEPPSRYSEAGLVKKLESLGIGRPSTYAPTISILTSRDYVTI

DKKQLIPSDVAFNVTEVLEKNFSDIVDSKFTSNLENTLDEIAEDKADWQETLKEFYYPFMRKIEEGKTKI

ASQKTVTKLGESCPDCGGELAIRKGRFGEFVACLNFPKCKYSRNLKSESKNESENTAAKAKANGTGITCP

SCQKGEIVERFSKRGKFYGCSAYPKCNFISKYKPSEEKCEECGETLVIKELKKGTFLECLKCKIKKEMKD

>AHK56044.1 biotin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQIMLCAISNIASGNCSEDCKYCTQSAHVKTDIQKYRRKELSQIVLEAKMAKKNEALGFCLVTAGLGLDD

EKLEYVCEAAKAVQKEVPNLLLIACNGMASVEQLKELKKAGIFSYNHNLESSKEFFPQICTTHTWESRFQ

TNLNAKEAGLMLCCGGIYGMGESEEDRLSFRKSLQELQPFSTPINFFIANENLKLQVPRLSADEALKIVR

DTKEALPQSVVMVAGGREVVLRERQYEIFQAGAGAIVIGDYLTTKGEEPSQDIIKLKEMGFTFASECH

>AHK56043.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHQSVIDTQALIDLKILIVIALCLLFSPHIAKILRLPLSATEIILGAIIAHFGFIGKSENFALLANVGFY

YLMFIAGMEVNLRAFFNMDKEIAKKSFFYIFLLYALSSFIVWIFGLSLVFVIIIPVMSVGLLSLLFKDFG

KECYWLNIAMIVATLAEVISIVLLTIAGAFLREGTGIIDVAQSILYLNIFLGLCLLGFKMLGVLFWWYPQ

LKVVLMPWEDKNEKDIRFCMAIFILIIVAMVITKLEIVLGSFIAGSFIATFFDHKKDLEHKLSTFGHGFL

IPIFFIHIGSTFDLKMILDYKIVLQAFLLMFVMVGLRILCASVFLKRIGFKNMILFGLSHSMPLTLLIAT

ATLGYSGKVIDEKLYSALILTALFEAIIVMSMIKFLSNSKK

>AHK56042.1 type II citrate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSNSVTITDNRNGKSYEFPIYDGTTGPSVVDMSSFYKQTGMFSYDEGLTSTATCKSKITYIDGENGILMH

RGYPIEWLAENKLYLDVVHLLLYKELPDATRLEAFRYEMKKRSFIHEGMHRLFDSFPDNAHPMAVLQGAV

SSLSAFYPDHLNMNVKEEYMEMAARIVAKIPTIVATAYRYKHGFPMAYPNLDRGFTENFLYMLRTYPYDH

VELKPIEVKALDTVFMLHADHEQNASTSTVRAVGSTHAHPYACIAAGIGALWGHAHGGANEGVIRMLEQI

GSVDRVDEFIKRAKDKNDPFRLMGFGHRVYKNFDPRAKVLKKLRDQLIDELGIDTNLIKVATRIEEIALS

DDYFVQRGLYPNVDFHSGLILKALGIPNEMFATLFVIGRTPGWIAQWIEQKEQESLKIVRPRQLYLGETS

KI

>AHK56041.1 CysQ protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNLDKFLEIAINASNQASKAILEERKNFKTWEKEDKSPLTSADLASNKILNDILGSTDIKILSEEKLLS

KEECEELKTFWLIDPLDGTSGFLKGSDEFCVMISLVHDNRPVLSLIQNPSKGDIFYAHAKTKVYKNDKPL

QIDQQEYEKNKYKALLSVNHLSKEDEDFAKEHQLEAINIGSGLKFCAILEARAGVYKRFEKLNIWDIVAG

DFLINQNGGFMGDFSKKYILYNPLSYKSNPFICVSSRNFLQDFL

>AHK56040.1 hypothetical protein N917\_08385 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRYCFILFLSLVLSSNLLANNFSQKKVIKIEKSADSFEVIDLNQNVANPNLNQQKALFDSSTLIEKKSQI

TKDKDIDFAIVLTSRKNFGYFLDGFRVSDKEFSTLFAKNLIQSLKLNWVNSAANGIYQSPKTLSYFSPKD

AKLINVSPFLTQEKDKAKMYAKFTDYVVVVNLQDFYVNITNYFITTSKEGVANVNFKIISTSNGKILVAK

NAELNLTLKDQDAKQNYQDIINQMPKMLADVIKNQIFHLKLLN

>AHK56039.1 UDP-N-acetylenolpyruvoylglucosamine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIIDFKKYSSVRIGNEFEVLVLDQICDFDGFLIGGANNLLVSPKPKNIGILGDGFNFIQILDRNKDFIHL

RIGCKTKSSKMYRFAKENNLKGFEYLSKIPGTLGGLLKMNAGLKGECISQNLIKIATSQGEILRANINFD

YRFCPLNTHFFWAEFKLNFGFDTLKDEALKNARSNQPSGASFGSIFKNPKNDFAGRLIEAVGLKGFSKGD

AMLSDKHANFLINKKNASFEDAFFLIELARKKVFEEFGTNLENEVIII

>AHK56038.1 flagellar biosynthesis protein FliQ [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDESTLVALGVQTFKITLLLSLPMLLAGLIAGLVISIFQATTQINEMTLSFVPKIILVVVILIFLMPWMT

TTMIDFTENILNQIPTFIK

>AHK56037.1 succinyl-CoA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKITIAHSPDADDIFMYMAIKFGWIGNDFAYENTALDIQTLNEFALKNEFDATAISFGLYPLIASEYAL

LRTAVSFGEGYGPKLIKKKDTHLKRNFKVALSGANTTNALIFRMKYPEARIIYKNFLDIENAVLSGEVDA

GVLIHESILNFDQSLYVEAELWDIWLEFAKENLPLPLGGMALRRSLPLSDAIKIERDLTNAVKIADANRK

ILAPMLMERKLIRVDEEKLDTYLNLYANKNSISMNQTQLLAVDTLFKLGYDYKFYDKIIHVNDFLIPSEY

EEARNS

>AHK56036.1 recombinase RecA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDDNKRKSLDAALKSLDKTFGKGTILRLGDKEVEQIDSIGTGSVGLDLALGIGGVPKGRIIEIYGPESSG

KTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDLI

VVDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTT

GGNALKFYASVRLDVRKVATLKQNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVK

LDIVDKSGAWFSYKDKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMISGSEDDEGEE

>AHK56035.1 enolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLVIEDVRAYEVLDSRGNPTVKAEVTLSDGSVGAAIVPSGASTGSKEALELRDNDERFGGKGVLKAVANV

NETIADEILGLDAFNQTQLDDTLRELDGTNNYSNLGANATLGVSMATARAAAAALGMPLYRYLGGANASI

LPVPMCNIINGGAHANNNVDFQEFMIMPFGFTSFKEALRSVCEIYAILKKELANSGHSTALGDEGGFAPN

LANNTEPIDLLMTCIKKAGYENRVKIALDVASTEFFKDGKYHMEGKAFSSEALIERYVELCAKYPICSIE

DGLAENDFEGWIKLTEKLGNKIQLVGDDLFVTNEDILREGIIKKMANAVLIKPNQIGTITQTMRTVRLAQ

RNNYKCVMSHRSGESEDAFIADFAVALNTGQIKTGALARGERTAKYNRLLEIEFESDEYLGEKL

>AHK56034.1 hypothetical protein N917\_08340 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIFWAFLVVIGAIYFGNMFFGQYSLDTLLSLENTKEELNKKIILLKEQNAKAQKDYFELKGLYPNEN

>AHK56033.1 hypothetical protein N917\_08335 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTRILAIFFIFTSLLYADENPFKTDQNITLVAPPEFQKEEVKFNSSARILKSITFNYINLDGSEDKIDL

DVNKSIDWHDTYTISRFKSPDPSKVLDVSVTIPEKNSSKQESNSTANVEIPLQVAKIYDFISYAVYKNKI

KLNTSDEMITDFSVGNPSKIVIDFRSKMISPTKNIRLSNSIFKRIDFGSHKGYYRLVIYLDGTYNYNIQK

DATGYMINLL

>AHK56032.1 DNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRFVFLICCACLVFANEILLLSKFDKQDFNSKDFNAYLMSEKLDGVRGIWDGKYLKTRQNYKIKTPDFFT

KNFPPFAIDGELWIARNKFDEISALIRSGDSNLTLWKEVTYNIFDVPNACEEFQISTCTLKNRLAVLEEY

LQKYPSAYIKIISQIPVENQNNLNQFYESIIKNQGEGIVIRKNLSPYEKGRSKNATKLKPYDDAECELVG

FRKGKGKFENQVGALLCKMPNGQIIKIGSGLKDEDRKNPPKIGSIVTYKFNGLTKNSLPRFPVFLRIRDE

NP

>AHK56031.1 hypothetical protein N917\_08295 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKTILTILFLLTLTQAKEIQIYESPTCGCCDLWADYMKAKGYEVSVHKTNDFLKIKEKMGIKDEYQSCH

TGVIEGYAIEGHVPESAIAWLLENKPKDVIGISAPGMPQGSPGMEQGYSEKYPVILMKKDGSYELYGYFI

GDKKL

>AHK56030.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGIFRIQAYFFALIIALFFVACDSGENFKALNSDKTYNFAYNGFEKSLKLNDKAQNFALVFFTKDCGVCK

EQIPILQNLAKNYDFNIFVVLGDANDANDAKAWADEKGLSNLAMFYEKRAAKYLSSAIGEIYGVPVLSFF

KEGKMDEKFIGLTPYSILEKEIKKVKS

>AHK56029.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKSLLILSILFLLNACSFENSKDTGKVGEKSAEISAKDTLGKAVKLADDNTSLKVLVFFQNGCPSCLKE

LPSLDEFIQNHPNKISVYAINSIDNANVVKVLAEQFDFKNVKVLKDDLKITNDRYAVFATPTTIIIKDGM

IKDRILGEKPWEFFESKLISLL

>AHK56028.1 GTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKELIKINNLNKEFGKVKALNNINLSVYEGEWLAIMGPSGSGKSTLLNILSLMDTPSSGEYILDNENLE

QMDEEQKITLRREKIGLVFQQFHLIPYLNALENVMLSQYYHSSVDEEDAKMVLEKVGLSHRLTHLPSQLS

GGEQQRVCIARALINNPELLLADEPTGNLDEANEQIVLQTLQKLKNEGKTIVLITHNPDLAKFADRTLIL

QHGVLK

>AHK56027.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVDKFFLNELFKSISFSYQRLFIIVLSVFIGALTCSAFLNIYFDIDIKLSKELKAYGANVMISPKQDENF

ISNTEYEKIKENLKARALTPFLYDFLNLGSTSGVVLGTDFRALKITKPFLEVKEGSFSLNDFDENSAFLG

VNLAKQLGLKAGNELQIYNPNNGKSIKLTIKGILSSNDEFDSIVLAPLSVVQNLSDRAGINYANAVVYGN

FDEVKAKTQAISNEFIDAKPISSVSLSEGLVLGKIKALMFLIILVVLIIVTTSVNTTLSSIIFSRKKEIA

LRLALGAKKSEIFKLFASECFIVSFFASLIGAFCGIFLANVFGYLIFNSSIDFRFIAVFIALIISLIFAF

LAAFFPIKRALKINVCENLKGE

>AHK56026.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLAKMIFNSIFKNKIQKFLAFLTCFLATLLLSTMLNITLSIGDEVTKQLKSYGSNILVLPKGSSLSIEIG

NELYEPLKNKNYLEEKNLYMIKDIYWRNNITALAPFLEGKITIENSQQKALIYGAYFQKAIKIKDDDDFI

TGIKSLYPYLAVQGEWAKDDSNEIMLGEDFAKNNKLKLGDTIKFIGENNQSKEAKIVGILLHANPKMSNK

IIAPLNLAQDLLNKQGLYSSTEVRAFTIPESALSEKVRRMGEEKLDQLEYDKWYCSAYVGSIASQISDGL

PGADAKALNAISDAQSLVVKKIQSLMGITCIICLIVASIAISSLMSSEIHRRKKEIGLLKVLGANTFQIY

LIFASENLIVALFAALLGFIFGTALSQIISLSIFGYFIDIAFVALPLSFIFAGLIALLGCLLPIKNITQL

SAAGVLYGR

>AHK56025.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSIYFVHFLISVLPLSILMAFITPNKKYIFKSFFVVFLGFLFGYFAFFIAAQFLKTENLIFNFDFVFIGL

LLVSFIFYFWKKIEILNFILLGILSFCTALHYYFLSQDFPIFTSSLIDSEGISSLGFIALALLVCILIFF

FLKWQKNFNQKTSFMLFLLLILIESDKALANILLTLMRNSIIETHAFLVSFVGKSNYFGVFGIYVYLIFI

TFLAFLSLKIRKKNISKKQILDINYRKNEAKTSLINRYFSSVFISCVVSFCIVLYFFMVSSKPLTIDEPK

EILPDKNGKFIFDIALLRDNKLHRFAYISAEGKVIRFFLINKREDKDSPVAVFDACMICGDMGYIKKDGQ

LICISCNVRIFLPSVGKSGGCNPIPLKYEYDGNKITIDVKDVIAGSNYFSQIKEIEVQDPVSKTKVINTQ

APFSYSYKGVTYYFSNQNNYEEFKKDPTKYVEENEAQFLIQRRNDVG

>AHK56024.1 iron transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKKVLSVVAAAAVISTNLFAGEVPIGDPKELNGMEIAAVYLQPIEMEPRGIDLAASLADIHLEADIHAL

KNNPNGFPEGFWMPYLTIAYELKNTDTGAIKRGTLMPMVADDGPHYGANIAMEKDKKGGFGVGNYELTFY

ISNPEKQGFGRHVDEETGVGKWFEPFKVDYKFKYTGTPK

>AHK56023.1 iron permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIFKIIFLIISIFLSSSAFARVDDYINEANLIKDMLKQSIETYKKGDNLGAKKLSEDAYFQHFENMEGS

IGRNIGRKAITMERKFVNLRRMYKDEAPLTQINALIDSLYYDLDEVAPILQNGYRLKAEASDINYDKAKA

EKSSLEANAKREADAEALIAQMMGVDKKDLAQSSLTTQAPIPINNDTSKLTDDNASTDLQAAAAMDVRLQ

FILDNISTKFSQAANAFKEKNYQTSKDFLNDALFSDYRNTKVEILVNKFTKAGNDQKIQQAIRTLIRQIN

DAKIDEKGLRDGLDNIEEQIFDVFLQIPNSELSSLQISGFNDETKGKDYAKVSNDIKLALDEILKNYDGF

SASIVDDLQGIYLDIFEASGMENKIGAVDSGLKLKIESLFSKSVALIKASTDKKELEATFNDLEQLIASS

VDKIQDSTPYSLFIWALGIILREGLEALIIVVAIVSYLVQSGNKNRLNIAYSALFTGVILSFVTAFGVSW

LFKENAGQSRELIEGITMLIAVLLLFYVGFWLLSNAQNKKWTSFIKQGAIDAISNNSAKTLWITVFLAVY

REGAETVLFYQALLFDAKTSTDFGAVFGGLGLGILILIVLYFLLKAGAIRIPVKQFFYITSYIIFYMVFV

FTGKGIAELIEGKVIIPSLIPMNFEPILWLGIYPYYETLIPQFIVLIMLIIGILITKQISKKGVKS

>AHK56022.1 hypothetical protein N917\_08245 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVSDVSMGNVNLMTAVNTSVLKKSMDTNEALMNELIEGMEGVSQASAPQASSSSGLDIYA

>AHK56021.1 hypothetical protein N917\_08230 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRHIFFIITIIFFISGCSFYQNLNYRPSYNTNKEARLKVIANEWKKTPYVLGGTSKKGADCSGFTQSALA

QLNIRIPRTTKTQLGSGRKVSKSKLQTGDLVFFKTGRGPNGMHVGIYMSKGKFIHLSTKDGVKEVELNSS

YWKARYIGARRY

>AHK56020.1 glutamate racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDTIIKFCLEALDFFEQFQIDMLIIAC

NTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIATKATIKSEEYQKRLLSQGYTNINAL

ATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLLGRSLSKYFGDKTKLIHSGDAIVEF

LKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>AHK56019.1 methionine aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIELKKPDEIEKLRIANQIVAKTLNFLENEIKIGMSLKQIDKMAEDYILSLGAKPSFKGLYGFPGAICTS

LNQVCIHGIPDDKIIKEGDILGLDVGSLIDGYYGDAARTIAIGEVSPADKALISCAKDALYHAIDIIRDG

MRFKELSAALGEFIHVRGFVPLRGYCGHGIGRKPHGEPEILNYLEKGASAKSGPKIKNGMVFCIEPMICQ

KDGTPKHYNGKWDAGSIDGLNAAHYEHCVAVINGRAEILSMI

>AHK56018.1 hypothetical protein N917\_08215 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKSDLDIFKKHLGEIQGVNEFKANQICSQINDANDFIGALQVLDMSLKKIEKSILERIDENSDDMQKRTL

DATASQLIQNCSFMGTALFGNIFNVYVGKKLFEFEIANPLLILQTSNYEGVLAYIQDKRDEIKIILSELS

TAITMGETMDNAGIYNSTMDFKNLFK

>AHK56017.1 hypothetical protein N917\_08210 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKQLFCILTFIFMLCGCSLRHETINKNENIILKDEGIDSNIFFKKTGKILKIRNANAPLYLNSRAIVYI

DNGFSNKYAHYFWGDLPSNLYSFLILSKFEQSNIFTTLLSSTSSLSADYSLESRINSFEQILNNNENYAQ

ISISVNFINLENNQIIAHKIFNTKEKIEKKDIRSTYNAFQKALNKIGNEIVFWVNSNLS

>AHK56016.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENRANYFFVGLFVFGVFFASLGFILWLGGYSKEESFKYYEIHTQESVAGLGIKAPVRLLGVEVGSVEEI

SIYNQDELGVNIRIKVKNNTPIKEDTFATLQLQGITGLKFIQLQGGSKNSKDLVSMQGKLPVIPFKESFL

ATIDRQSEHIFSLVKTADDKSKELLSEKNLKNLEILLQNLAELSANLNANSKNLSLNLSNASLKIGKMAD

NISLSAQNFNSSLKNIKESTMILKNFIKKADEKLNTYDDIKASLMQNLELFKRVLIESNILIENLQNSPA

DLIFKETKPKLGPGEK

>AHK56015.1 phosphate ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVIKAQNIITKFGEKIVHDGVSFEIKKNEIFGILGGSGSGKSVLLKQMLMLEHFDDGEYEILGYKLKNIN

EEDALALRKKWGVVFQFAALFSFFNVYENIAIPLKEYTHLDENSIQELVLMKLKMVGLNESVLKQFPSEL

SGGMQKRVAIARALALDSKLLFLDEPTSGLDPHSSREFDDLVLELKKSFDLNIILVTHDKESMKNLLDRF

IILENKKVGFCGTYEELRLQNERLFKRFME

>AHK56014.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNTNFKFQNNTLFIFGIWDKTSIYKLKIKDFLALIQSKEVIFDFKDLKAIDTAGVRFFLALENDLKNKNI

KITKEGLNSRFQTLFELCEKNYQRLGKTKKSHQNFSEYFIDLGKLSLELLKILRKFINFTGAFFTSLFLC

LKNPKNFRFIAFLYHIENSAFKALPIVILTALLVGVVLAYQAAYQLAQFGANIFIVDLMGISATRELAPL

IAAIVIAGRSASSYTAQIGVMKITDEIAAMNTMGFRSFEFIVIPRVMALVVAMPLIVAISDAISIIGGMM

VAKLNLDISFAEFLRRFREAVDIKHIFIGLAKAPIFGFLIGLIACFRGFEVKNTTQSIGIYTTKSVVNAI

FWVIAFDALFSVILTSTGI

>AHK56013.1 transketolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNIQILQEQANTLRFLSADMVQKANSGHPGAPLGLADILSVLSYHLKHNPKNPTWLNRDRLVFSGGHASA

LLYSFLHLSGYDLSLEDLKNFRQLHSKTPGHPEISTLGVEIATGPLGQGVANAVGFAMAAKKAQNLLGSD

LIDHKIYCLCGDGDLQEGISYEACSLAGLHKLDNFILIYDSNNISIEGDVGLAFNENVKMRFEAQGFEVL

SINGHDYEEINKALEQAKKSTKPCLIIAKTTIAKGAGELEGSHKSHGAPLGEEVIKKAKEQAGFDPNISF

HIPQASKIRFESAVELGDLEEAKWKDKLEKSAKKELLERLLNPDFNKIAYPDFKGKDLATRDSNGEILNV

LAKNLEGFLGGSADLGPSNKTELHSMGDFVEGKNIHFGIREHAMAAINNAFARYGIFLPFSATFFIFSEY

LKPAARIAALMKIKHFFIFTHDSIGVGEDGPTHQPIEQLSTFRAMPNFLTFRPADGVENVKAWQIALNAD

IPSAFVLSRQKLKALNEPVFGDVKNGAYLLKESKEAKFTLLASGSEVWLCLESANELEKQGFACNVVSMP

CFELFEKQDKAYQERLLKGEVIGVEAAHSNELYKFCHKVYGIESFGESGKDKDVFERFGFSVSKLVNFIL

SK

>AHK56012.1 geranyltranstransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLKELFIHHLEKNLPKVESFHPFFNEALALMLKAGGKHFRAQLLLSVVQSNKPELLNQALDVALALEFI

HTYSLIHDDLPAMDNADFRRGIPTLHKSYDETTAILVGDALNTEAFLVLSHAHLKDEIKIKLIKTLAFNA

GLNGMVIGQAIDCFFEDKRLSLNELEFLHTHKTARLIAAALKMGCEICELNNEESNQIYKLGLKLGLIFQ

INDDIIDVTTSQEQSGKPTNNDIHKNSFVNLLGLEQAIKTKENLLSECEQDLEKLNEKLAQMIQNLIIQY

L

>AHK56011.1 peptide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILIICMLFTLSFGIERPKFEDFLAGYERNKASMLNYEGMPAFALSENLLAVLKQPNAKLNKYVKYDP

FLNLYLVRTDFSLIPTPMGDEEKLTRNDWVGIWDPNKPYIGHIKYLAQNIDEKDQLDFNSKIGLLGTPCC

EMMGIALNNSSFIGNRYLKHFMKYNDVYWGDIGVDFVVRENKIYVNNVRKNPQFLINDQVISVDGLPAND

LRKLNEKILFADRGSTLYFQVLRDNMDLNISTEVFAKDLSKFNLPDSKPKPKITNFTSNLGLTVNASLVV

TKIDPKSKVSNAGFMVGDKILRVNNIILNNFKELQNILSAGNDFSILIERKSTKLPLSNFNNELGGNANS

GGDGKFQFFIRLTK

>AHK56010.1 hypothetical protein N917\_08175 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFENMDFSKMGELLNQVQEKAKNIELELANREFSAKSGAGLVKVSANGKGEIIDVSIDDSLLEDKESLQI

LLISAINDVLAMVAQNRSSMANDVLGGFGGMKL

>AHK56009.1 UDP-N-acetylmuramoylalanyl-D-glutamate--2,6-diaminopimelate ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLKLENSFITDNTLECEKECFFLQTTQNAKFHAQALEKGAKIIDVNECKKLLKIDEKIQIIGITGTNGK

TTTAAAIYSILLDLGYKCGLCGTRGAFINDEQIDEKSLTTSPILKTLEYLQIATQKKCDFFIMEVSSHAL

VQNRIEGLNFAAKIFTNITQDHLDFHGTFENYKEAKELFFTDESLKFINKDALAIKFNVRNAFTYGIENP

ALYQIKAYSLEEGISTIVTNKNQTFHIDSPLLGLFNLYNLLVASACVNELVKPDLKDLEKAISGFGGVCG

RVEQVAKGVIVDFAHTPDGIEKVLDTLKNKKLIVVFGAGGDRDKTKRPLMGKIVEHFAKIAIITSDNPRS

EEPKTIMEEILSGFTKKEKVLMIEDRKEAIKKALELKENDDLVVILGKGDETTQEIKGIKYPFSDKVVVN

EILKNQG

>AHK56008.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNYKKLGIEHFYKKDFKTAKMYFSMAYEKRKNKRLLNFICLCDLALKSPKEASLLFDFYIEHYKISSID

KDLEEILSTIEFKKQENKQENEFEDGHALNYQDFLKSEEELGFQKSFENIINSTKLVIDNRDDFLDFLEK

LLDNGYKDMTLNYIENVMPHFWANDRFIKLQEKLMGFKSEIKT

>AHK56007.1 nitrogen-fixing protein NifU [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMPFSDEELINPVKASLEKSLPMLERDGGGLEFLGIKNGIVYVHLIGACKGCASSGTTLKYGLERQLKID

IHPEITIINLNGGADEFAKL

>AHK56006.1 DNA primase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MITKESIENLSQRLNIVDIIENYIEVKKQGSSFVCICPFHADKNPSMHINPIKGFYHCFACKAGGDAFKF

VMDYEKLSFADAVEKVASLSNFTLSYTKEKQENKKELKSILPSLNAYFKDNLKHHKEVLTYLYQRALNDK

DIAKFELGFAGASEDSIRLLQNQKIPLEDAMSVGALKKDENNEFYASFIWRITFPIYDHKDLLVGFGGRT

LNPNVPAKYVNSPQNILFDKSRIFYAFNIAKENIAKKKEIIVCEGYMDAIAFHKAGFNNAVAVLGTALTE

HHLPLIRRYDAKVILCFDNDEAGLKAATRSAFLLSTNKIDGKVAILQGGKDPAELVAKNESTKLHNILDE

GIELGEFYIRRLISTHSIISALDKQKALETIQKFTFNLEPLVANSYTSLVSNLLKVDEKFIVLSQNSKKT

IQTPLISQNKYNFPKEKIHIAELELIAFLKQHPDICNDFKQISDSVCFKHKILLDKILEKKGYEDSDIRE

FESKNIRKNLNYSEFLLGICKVNLAFLNNVKIKNSTLALKKQLFTLIDKNLNLLIKNLNTAELNNFLKEY

LSFLKYEKNEEILQQSFRNLNGIFGNKNFTAYDLGFSIQNNDEPF

>AHK56005.1 hypothetical protein N917\_08150 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDFFFVEYRDPLVGLIILTILVFVVAVANYIWKIFANKDEEQKLEKFIKKFEMDNAHKELLRNSSLSFGN

LSFLAEIFTKSGEFEKATQIYLIALEKCKDKQEREFIFLSLAKVYFKAGFLERAKEVLLQALKLRPRNIQ

ALKLLKIVYLKLRSYKENLELLECLFELNEDVQKERDFIKALELCTFNITDEEKKKKLLEFKIEDNPMLG

RLVFEKYHMFLGQNFFDICDLLYRENEAFNLENQDFLEFFYALGKISKHDDTHQFVFKNSNFKMLKILKD

NSFNAGLEFSYRCSECKNVMPLFFYHCPVCYEFNTCKIIYEVKNNETH

>AHK56004.1 ribonuclease H [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKHIEIYTDGSCLNNPGFGGWAYILRYKEYQKEGFGAEANTTNNRMELMAIIESLKALKEPCEISLFTDS

NLMVQSINEWLEGWIKKDFKGKKNIDLWKEYIKVAKSHKIKAFWVKAHNGHLENERCDTLAREAALKIAR

ENDEKH

>AHK56003.1 ribonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAVLDLVVGEYLFHKFAKDAEGDLSKL

RAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALEAIIGAIHLEAGFEFAKTIALRLIE

KNFPQIDAKILIKDYKTKLQEITQGKIGQTPQYETVRAFGPDHLKQFEIALMLDGKELARAIAGSKKEAQ

QMAAKIALEKLGAL

>AHK56002.1 chorismate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNTFGTRLKFTSFGESHGVAVGCIIDGMPAGVKFDEEFLQNELDKRKGGSKFATPRKESDKAQVLSGVFE

GYTTGHPIAIVVFNENAHSKDYDNLKDLFRPAHADFTYFYKYGIRDHRGGGRSSARESVARVAGGAVAAM

LLREFDICVQSGVFGVGTFVSNLKEEEFDFEFAKKSEIFCLDPKLESDFKNEILNARNSKDSVGAAVFTK

VSGMLIGLGEVLYDKLDSKLAHALMGINAVKAVEIGEGINASKMRGSCNNDALKDGKFLSNHSGGILGGI

SNGENLILKTYFKPTPSIFAKQESIDKFGNNLKFELKGRHDPCVGVRGSVVASAMVRLVLADCLLLNASA

NLNNLKNAYGLK

>AHK56001.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKALALFSGGLDSMLAMKLITAQGIEVKALNINIGFGSTSDKSEIMKKRAAMVGADFEMIDVRNSYLQEV

LFNPQYGYGKHFNPCIDCHAFMFKTALAMLKEENASFIITGEVLGQRPMSQRSDAMAKVKKLALDEEDLI

LRPMCAKNLPLTKPEREGWVDREKLEGIIGRSRKRQLELAAKFGLEDFESPGGGCLLTLDSFAKKIRDFI

EFDKDMQVNDAQLLKYGRHLRLPNGAKMIIGRNELENTLLKGLKTPKYEAIEIGDLIGAYSLVDEKISEK

DLELALKIALTYTKHEVGKSYELKFKNQAYTSIAFENKADINQFFIS

>AHK56000.1 hypothetical protein N917\_08125 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKIILVLSILSSFAFANSCANYEQELKKCNSLKNSHERKMCRLGLFAKCKKG

>AHK55999.1 hypothetical protein N917\_08120 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIDTSASLTHSLTNNVDKKELSVLKKEDQDKIPVQDLSSLNSDGVKVVFENKQGELIALNLSDENYSSL

QKNFGSYMNYVARNDGSIRLNGEVNQFVSNWFESVKDNFGSLNSNLNNKQQSVKLNFNTSTLQQSMQNLG

FKTSDEKISDDANIEEKLNFFIDKDVNKDGKVDDSDVKEPSMREILSDIKEASGGGANAMKTIDPQKINK

KDDKENNIKEKEDEDLLQKAQEKGLSALSADEQAKLEASNPEEFEKLKQKSLQELSQNLSKDFQNKIENQ

EAQIVDKRV

>AHK55998.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKLPKNEGLNIVPFIDIMLVLLAIVLSISTFIAHGKIQISLPSSENATNISNNEKKLLITIDEKNTFYL

NDKLADLNEVQNAIFSLDKKTIVELKSDKNAKFESFVKIIDFLKAKEHENFQILTEKNK

>AHK55997.1 biopolymer transporter ExbB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEFLKDYIDLIIFLILGIMAFIAFWCVVERMLFFRKINFKNYENQEQFDDAISENLTTIYIIYSNAPYIG

LLGTVIGIMVTFYEMGLAGNIDVKSIVVGLSLALKATALGLLVAIPALMAYNALLRKVSLLSNAYKANKN

A

>AHK55996.1 hypothetical protein N917\_08100 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTIDLNHNFTSFVLLDEVDFNFSELKSILEDKFNIKIADENFTKEGVIFSYENMLVTLNLINNPIPNHEV

EYYANFNFMWKDALEQTKKHKAHLLIAVLSQDQSKLEQAKMFTKIAALCLDNKHALGFYTGAVVLEPSFY

IENAKMLDDNRLPVYNWIYVSVYPSENGVNAYTYGLRNFDKLELEVCDLNIEEKELFFCIYDIVLHILTY

DINLKDKDILKFEDGKEIKFIKSQGISVENESLKIIF

>AHK55995.1 hypothetical protein N917\_08095 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKAKLTLLALLGTTVLLAKDMVVPASELPNNAKEFISKNFKTAQIGLVKKDIDSYDVILNDGTEIDFMIN

GEWKEVDGKYKALPHTILPNVMKKVSATQPNAQILEVDKEINGYKFKFNNNMEVYTDMQGNILGQKLD

>AHK55994.1 serine/threonine transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>AHK55993.1 serine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSNLSIFKIGVGPSSSHTLGPMLAGNLFCKKVAKKLDEIDRVEVTLYGSLSLTGKGHLSDKAVIWGLNGL

EAKNLSAAIQDEVNKNAIENAQIDFCGEKKLSFNYEKDLIFSKDFLPLHENGMKIKAYDCKGGLVDEETY

YSVGGGFVLTAAELEKKGKNSNQNKKKKLDIELNNAKEALELCDKRDWDLAELSYRYELQFHTKEEICAY

CLEIWEVMQEVYYNGTHPNEDYLPGKLHLKRRAKGLKERVAMTADPMGIIDFISLYAIAIAEENASGAKV

VTAPTNGACAVIPAVMLYLKNHTIGFSDEKVIEFLLTAMLIGSFYKKNASISGAEAGCQAEIGSASSMAA

AAMATVLGANAFKACNAAEMAMEHHLGLTCDPVAGLVQIPCIERNAFGAIKAISAARMAMTRKSTPMVSL

DEVIETMYETGKDMNYKYKETSLGGLATNLKTVC

>AHK55992.1 riboflavin deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEFYMNLALNEAWKYQFLTYPNPAVGCVILDKNEKILAIKAHEKAGLAHAELNAIAHAFKSLRPEISLP

KEANALHEFICKNHQGVFKDSIAFVTLEPCSHQGKTPPCAKLFSELGFKKIFISVKDENKIASGGAEFLK

KQGIEVEFDILKEEGKKLLKPFLKWQKGQFKLFKLALSMNGSPFGKIVSNELSRTYAHEIRAVIDLLVVG

GETIRKDCPILDARLCKAKAPNLCILSRQNIDNFDKNIPLFKVPNRQIYTQIPSEAKFLMYEGGENFLKI

FKDEIDMFLIFQSSSLNDEKNVTIPLNFKPLYRNFLGSDTYGIYEL

>AHK55991.1 hypothetical protein N917\_08050 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLAFFKGLGVGFLCLLLFVAGVVFNVEFLGKKDSNHDLYFSRNIEVSNTLKPDILYANINFWANENLSSK

ITLDNSEKAEITNTFNQILERSKKENFCSGGSFSLEPNFSYKDGIQTPKGQRFDANLECEFKENQLADFN

KLLNDINSIIAKNNFISVSTPAIQTKFSKDTLNNNKENLYKELLKTSYEYEKTYSLDLNKTCVLKNLQVN

ANTNIAPRMLNAKSDNIELSSPIISKKEQILNAKALFICK

>AHK55990.1 adenine glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKKELEKLQENLLLWYEKNGRKTLPWRNLQSQNCDESLKHIDRAYGVYISEIMLQQTQVKSVLERFYFP

FLQKFPTLESLANANEDELLKAWQGLGYYTRARNLKKAALECVDKFGAKLPKDVEDLKKLSGIGAYTAGA

IACFGYDQKVSFVDGNIRRVLSRLFALENPSMKELEKRAKELLNLNHAFDHNQALLDIGALVCVGKNAKC

RICPLYDFCQGKFHTELYPRAKKILYESLNLNLFLFEFNKKFAIQKSQDKLYKGMYNFPFFKEGEYKLSK

DMGFVGEFKHSYTKYKLNIKVYHQILNNENKNYEFKTLKELESTALSALSLKALKLIKL

>AHK55989.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFKKIYIELSDICGLKCDFCPSQKGIRGVMSEEKFQNLAYEISNKAELFTFHLLGDPLLLPNLENYLKI

AKDEAMKLEITTSGFYLNSKNQALLLGYENIHQINISLMSFLSQSKISLEQYFKPILELCKKHLEQKSLS

FINLRLWNLDANFKAPKSNLKIYEFLAKEFEAKIDANLSKNRLQRHILLHQNKLFKWPNLKDEPLYKKGK

CHALKEQIGILSDGSLVPCCLDTKADINLGNVFENNFDKLFRSPRIKMMKKAFEEDKRIEKLCQTCEFFK

ARLGD

>AHK55988.1 hemin transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILIIMSLFLIALNAKERLVVLDPASIETLFMLKAEDQIVGIATLQHSNIYPKDQTSKLTSVGTFSNP

SLEKIVALKPSLVILSSYSLNLEEGLKNFGIKSINLKAERLEDITKNITTLGQITKKEKEAELLKQEFNQ

KFKKLSDKPLNKSAIYLYSSNPLMAFNDNSLIADILRLIGIKNLSPQSQISRPVISAEYILKQNPDILIL

GINAKNNLLDTNALLKNTKAVKTGSIYFNKDTPILLRLSPKIIDRIQEFKTKLENNNF

>AHK55987.1 heme ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKIHNLSFAYHQKDLLKNIHLELKNQAFIGILGPNGSGKSTLLKLILKNLSPNKGVISLFNTNIKDFSL

KEFAKICGFVPQKSELNTPLKVIDVLLMSKYPNLKHAFSSYSKEDILEIKEFAKDLRLENFLERSILSLS

GGEFQRMLLARALLKKPKILFLDEPTSALDLNYAIELLNLCEKLVKEKNIAVVAILHDLNLASIFCDKIL

FLKEGEIKYFGTSKELFTQEILKEIYDLNCEIIYKNSKPYILALKEKK

>AHK55986.1 iron ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNLNTHSKILVIIGLLVAYIIASFTALCLGDENLNPKELFSYIFSQDEILRQIIIDGRLPRIIMAILIG

MLLASSGAITQNVFSNPIADPYIIGIASAATFGAVLAYLLKLNDYYYGILGFVCSAFFALGVFKISSKAS

IATLLIIGIAASSFLGAFTSFFTYLIGEDSFKIVAWLMGNIGNASWFRVGILILPLIFCLFYFYAHKNEL

NILLSGDDEARNLGVNAQKLKINLLIVSSLAVSFAVAFSGLIGFVGLIIPHTIRLLLKNYNNALVIPLCT

AFGGLFLLICDTLARTLLAPVQIPIGILTAFFGAPIFLYLALSARRFL

>AHK55985.1 ligand-gated channel [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHPNKKAFKLSLFALLLITNLNAQESNKAINLQKVVVSTTGFEQDADSNLRNVISIEGKDLQNKGYVSLE

QALERISSISFVNFGLGRNIDMRGQGNKSNIAVKVMIDGHAINVLDNSHGVTPLDSINLDNVERIEIIPG

GGSVLYGSGTRGGVINIITKKQKSDAFAINLKSSAYDHGGLGGNLGINGAKQINENLAFSFDIQSFNLDG

YQEGYNEKGYFINTKTYIDINDNSDLTLGYNYFKSKNTSSGYLTKAQAQSDPTQKGKSDNITQINRPEIS

LDYHYYFDDIWEFNLEAFWQNQKINYLKDVSTMSYMNMSLPVYQNGSGFEDTLTGISLKNKLNYANNSYF

IFGYEFANHDAKRKSLVYYSVPSVINYHRMTTLIDMTKQSHSIFALDSHNFNEFFTLSGGARYEFSSYNT

DRSYRNEMSMNGRPPSPTIIDSTTLFDTNKNANNFAFEITPNFKYSDTGKLYIKYERGFVSPSPAQFVNK

DKNSQKYYSANLNPEIFDTFELGIDDFWWDFYGFNLTLFYTLSKDEISYLGNPHSTSGSWWKYYNIDQTR

RLGVELSLSQNFLDDDLIFRESLTYLDAKISKGVNDGMRIPYVSKIKATAGLEYAWNKNFSNFIDLTYFS

RAKDGGTIDENTGKMSKNSWIRDYFLTDIGMKYNYKKLQILAGIRNLFDKRYYTYQDSINDQYLVGNGRN

YYVEFKYAF

>AHK55984.1 hypothetical protein N917\_08010 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFESIISHMNDHHKSNLVDLCKKFGGIEQVQDVFLKSVDFNGLDLVYNDKENLRVEFPKKADENTIKDA

IISLCMSAKSEQNFSGVEKELNEFMLSFNSVALATLNANGEVVCSYAPFVSTQWGNYIYISEVSEHFNNI

KVNPNNIEIMFLEDESKAVSVILRKRLRYRVNASFLERGERFDQIYDEFEKQTGGEGGIKTIRKMLDFHL

VKLEFKKGRFVKGFGQAYDIENGNVAHVGASGNPHKFLHKH

>AHK55983.1 peptide chain release factor 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLASKLDPFFKRFEELNSLLSSSDILNDISKMTTLSKEQKNLEPIVLKAKEYLKTLDNIEENKALLNDPE

LGELAKEELKTLEELKPKLEEEIKILLLPKDPNDERNIFLEIRAGTGGDEASLFVGDLVKAYARYAENRG

YKLEIVSSSEGSVGGFKEIIMLVKGTGAYSRLKYEGGTHRVQRVPQTESQGRVHTSAITVAVMPEVDDIE

IEINPNDLKVDVMRSSGHGGQSVNTTDSAVRITHIPTGIVVVNQDGKSQHKNKESAMKVLKARLYEMQES

ERLAKESEARKSQVGSGDRSERIRTYNFPQNRISDHRINLTLYRLDAIMQDGLFDEIIEPLITHHQAQAL

QEQNL

>AHK55982.1 30S ribosomal protein S20 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MANHKSAEKRARQTIKKTERNRFYRTRLKNITKAVREAAANGNKNAANEALKVANKSIHAMVSRGFIKKQ

TASRRVSRLALLVNKIA

>AHK55981.1 phosphatidylglycerophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKLFLTFFYSGSVKKASGTFGTIAALIPAFFILKYLGINTLFLLSILIFVASIRVIDDYEKKTGIHDDK

HIVIDEVAGVFLACAIAASVENSIVNFILAFVLFRLFDITKPSIIGKIDKKVKGGLGVMLDDMLAGLFAG

LLSAVIYGFLLKFNLVFWDINLKDLF

>AHK55980.1 sulfate adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKSARKNKNIIIDQNEFGILSLIKEGLLGTCTHLMNEKEVNEIIKSGKFKGESFPYPLSFAPKNAEEALN

DIKSGDRIDLMLDEKVVGHIDFKSQFKNNKNFSDIFSPNTCSLEDMGTTCISGKIEIYNSQIEKIKENFQ

QIKNNLNAQKITAIVSSFDPLHRAHERMFRWTIDKADLVVIFLVESFDVNGFEFELKEAYLKKFIQNYLP

PDRIFIFPLKNINIFHAHLNPGLESIIAKSLGCTKLVVGQNHTGLGMFYDDNQPKTILDDFSKDYGIEVI

VLPEFVFCDQCRMIVSTRSCPHGCHHHLHYNSQSLKDLLRAGIIPPAIFIRKEVSSVILTSLFPNRLKNM

QKIYNELFPTDGILEYKNDEEFYQKLLEIHQMSYMV

>AHK55979.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVLIIENEIYLAQSISIKLSDAGYSCEIINSFDEYNGEKYYDIILLSTNTNNFLKAVGQFKHSIIILLI

SYISTDTVSNPLKLGASDYIQKPFMIEELIRKIKHYQDFRKLSILNKAYQSYIKSRLETIKIPEYNYKKL

KLPLILKSNKQSSADAFVFNYANECDITLSFIDLTSTNSVEKVMKLPTENNLLFLSNFQALKAAEKEKLL

DFIQNKNVILHTNSNTDDLKINCINLNDNEKNINSNEILTIDEYVKYVIINYQNIFPDTDLSKKLGISRK

SLWEKRKKYEISKKK

>AHK55978.1 2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSEMSLIMLAAGNSTRFNTKVKKQFLRLGNDPLWLYATKNLSSFYPFKKIVVTSSNITYMKKFTKNYEFI

EGGDTRAESLKKALELIDSEFVMVSDVARVLVSKNLFDRLIENLDKADCITPALKVADTTLFDNEALQRE

KIKLIQTPQISKTKLLKKALDQNLEFTDDSTAIAAMGGKIWFVEGEENARKLTFKEDLKKLDLPTPSFEI

FTGNGFDVHEFGENRPLLLAGVQIHPTMGLKAHSDGDVLAHSLTDAILGAAGLGDIGELYPDTDMKFKNA

NSMELLKQAYDKVREIGFELINIDICVMAQSPKLKDFKQAMQSNIAHTLDLDEFRINVKATTTEKLGFIG

RKEGMAVLSSVNLKYFDWTRL

>AHK55977.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEQILEKLKTVKYPGFEKDIVSFNFVKDIKIQDDGVFIDIEIVSANPEVANEIRKNTIEALSSLALKNI

ELNIITPKIPEEKSNSRSGKNIAPQVKNFIMVSSGKGGVGKSTTTVNLAISMAKMGKRVGILDADIYGPN

IPRMLGETKTQPEVVGQRLKPILTHGVYMMSMGVLIEEGQGLMWRGAMIMKAIEQLLADVIWPELDVLFL

DMPPGTGDAQITSAQSIPIAAGVCVSTPQTVSLDDSKRALDMFNKLHIPIAGVIENMSGFLCPDNGKEYD

IFGKGTAEDMAKAYKSEVLAQIPIEMIVREGGDEGKPVSFYHPESVSSKRYLMAAEKIWSFIEKINNEGG

ADNSAIQPVMNGKSACSH

>AHK55976.1 2,3,4,5-tetrahydropyridine-2,6-carboxylate N-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINTKEDFLLLIKQIEQKSGYKKPKAFGIARLDRGQLNKNKILQASFALINYEQNFGSAAIMLEAFMQRG

VEIDFNASEFVQTLKLEDIDFALSCFKPFLEEDGHQNIDLLKIIKDKFKDDEFSFVCLFEDKEPLSVESI

YLKLYLLSTKKVPLRSINLNGAFGLLSNVAWSDDKPIELEYLRANEMRLKMSNQYPKIDFVDKFPRFLAH

IIPEDNTRILESSKVRMGASLAAGTTIMPGASYVNFNAGTTGACMVEGRISSSAIVGEGSDVGGGASILG

VLSGTSGNAISVGKACLLGANSVTGIPLGDNCIVDAGIAVLEGTKFLLKDAEELAKLNPYFNFDKEIYKG

LELKGLNGLHFRQDSISGAMIVALNKKAVKLNEALH

>AHK55975.1 phosphoribosyl-AMP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNFKELNEKIAWQKVDNLLPVIIQDAKTCEVLMLGFMNNEALEKSLESGKVVFFSRTKQRLWMKGEESG

NFLNIIDLSLDCDNDTLLILANPVGPTCHTGDISCFEKISKNADFVFLARLEKLINARKNADENTSYTAK

LFKSGTKRIAQKVGEEGVETALAATVKDKEELICEAADLMYHLSVLLADANLSFSDVISKLKERHKA

>AHK55974.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLTKRIIACLDVKDGRVVKGTQFKNHKDMGDIIELARYYSQNGIDELVFYDIAASARKERISREWVSEVA

KNINISFCVAGGIKSEEDAAELLANGADKISINSPALNDPSLITRLAKSFGVQCVVVGIDSFKDENGNLK

VFQYTGDEKTSKHSGKSTLEWVKKVQDLGAGEIVLNMMNQDGVKNGYDLEQLEAVYKICKVPLIASGGAG

KMEHFLEAFKLGIDGALAASVFHQKLIDIKELKIYLKNQGLSIRI

>AHK55973.1 HrgA protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSSKLSYKELTLEILKQSDRPLSVNEIWQKALEQGLDKKLSSIGQTPIATLGARIYVDIKELQHNSLFIK

ASQKPTTFWLKERENELLKLDNKNEITNEKQEKNKFHERDLHPLLVKFLYENLDFNLNCKTIYHEQSKKG

KGGEDKWNYPDIVGVYFPYDDYEKETITLLENIKQNSYKLFSFELKIALNFSNLKECYFQAVSNSSWANE

GYLVVLQEIDSEVLSELRRLNQSFGIGVIKLEKDISNSQILISAKEKELDIQTLNMLINKNPNFKEFIDD

INKQIKVGKEAKIQANFDEIKSDEEMEKYLKEKCILEK

>AHK55972.1 1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)methylideneamino] imidazole-4-carboxamide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTQIIPALDLIDGEVVRLVKGDYEQKKVYKYNPLKKFKEYEKAGAKELHLVDLTGAKDPSKRQFALIEKL

AKEVSVNLQVGGGIRSKEEVKALLDCGVKRVVIGSMAIKDATLCLEILKEFGSEAIVLALDTILKEDYVV

AVNAWQEASDKKLMEVLDFYSNKGLKHILCTDISKDGTMQGVNVRLYKLIHEIFPNICIQASGGVASLKD

LENLKGICSGVIVGKALLDGVFSVEEGIRCLAN

>AHK55971.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIIIIDTACANLASLKFCLDRLGFNATISRDLKELESADKLFLPGVGTAKEAMKNLEQFNLIDFIQNTK

KPLLGICLGMQILGNFSEELNQETLKLIDFTTQKFKAKEGFTFPHMGWNEVYSSHALFKGLEGAYFYFVH

SYCVGLGKYTIADCEYSQKFSASVMKDNFYGVQFHPERSSEAGEILISNFIKDIG

>AHK55970.1 imidazoleglycerol-phosphate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSQKILFIDRDGTLIEEPKSDFQIDTLEKLRFEKDAIPTLLKLKKFGFKFVMVSNQDGLGTPSFPKENFE

IAHEKMLDILKSCGIEFQDIFICPHFENENCACRKPKTAMLEEYIKHELYDKEQSFVIGDRESDMILASN

LGVRGLKYGELSWKEIENEILSSFRSASYQRTTKETDIKVKVCLNGGKVSIKTGIDFFDHMLEQIAVHGG

IGLEISCKGDLEIDEHHSVEDVALALGACIKKALGDKIGIARYGFALPMDECLASCAMDFCNRPHLVYKA

KFKKSHLGALSTEMIEHFFYSLSYAMGVSLHLKVKGKNDHHKAEGLFKAFAKALKMAVKIESENLASSKG

VI

>AHK55969.1 bifunctional histidinal dehydrogenase/ histidinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQILVYDNLDEKQKEEALKRPAISAKDEISKIVSSIIKEVQEKGDKALIEQALKFDKAEISKIKITQEEI

TQASNRLDKDLQEAILVAYENIKKFHEAQIPHEIALETTKGVKCEVLTRPIEKVGLYIPGGLAPLFSTVL

MLAIPAKIAGCEKIVLASPAKINDAVLFCAKLCGVDEIYQMGGAGAIAALTYGTQSVLKVDKIFGPGNAF

VTEAKRQVSSDINGAAIDMQAGPSEVLVIADDLANEKFVASDLLSQAEHGADSQVILVCLSQDFAKKASD

EVQSQLELLPRKELASKSIANSRIIIAKDLNQALEISNLYAPEHLIIQTQNPRELLKGVKHAGSVFLGAY

SPESMGDYASGTNHVLPTYGLTKTHSSLGLADFSKRMTVQELSKEGFLALGKSVEILAQNEHLDAHKNAV

TFRLESLK

>AHK55968.1 ATP phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQENTRLRIAIQKSGRLSKESIELLSECGVKMHIHEQSLIAFSTNLPIDILRVRDDDIPGLIFDGVVDLG

IIGENVLEENELERQSLGENPSYKLLKKLDFGYCRLSLALPQENKFQNLKDFEGLRIATSYPQLLKRFMK

ENGINYKNCTLTGSVEVAPRANLADAICDLVSSGATLQANNLKEVKVIYESRACLIQKENALSKEKQALV

DKIMLRVAGVMQARESKYIMLHAPKEKLDKIQALLPGVERPTILPLAHDEKNVALHMVSKENLFWETMEA

LKEEGASSILVLPIEKMLK

>AHK55967.1 50S ribosomal protein L17 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRHKHGYRKLGRTSSHRAALLKNLTIALVNSGKIETTLPKAKELRGYVERLITRARLGDFNAHRAVFASL

QDKNATNKLVTEIAPKFKDRNGGYTRIIKTRIRRGDAAEMAFIEFVA

>AHK55966.1 DNA-directed RNA polymerase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRNITTSAYTPTEFTIENISDTVAKISAWPFEIGYGITLAHPLRRLLYTSTIGYAPTAIHIDGVAHEFDS

MRGMLEDVALFIINLKKLRFKIKGDSNKEIVEFSFKGSKEIYGKDLNNDQVEVVNKDAYLATINEDAELK

FTLIVEKGIGYVPSEEIKELINDPKFIALDAFFTPVREATYDIEKVLFEDNPDYEKVVLTVTTDGQITPN

EAFQNALEAMYKQLSVFDKITNVRSVIKNQATSNELENTKLLQNITDLNLSARSYNCLEKAGVVYIGELA

LMSVSELAGLKNLGKKSLDEIKNIMESIGFPVGTSKLSDNKEILKNKIAELKAQNEG

>AHK55965.1 30S ribosomal protein S4 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MARYRGPVEKLERRFGVSLALKGERRLAGKSALDKRPYAPGQHGARKGKISEYGLQLREKQKAKFMYGVS

EKQFRRLFAEAARREGNTGVLLIQLLEQRLDNIVYRMGFATTRRFARQLVTHGHVLVNGKRVDIPSFRVE

AGAKIEIIEKSKNNPQITRAIELTAQTGIVAWVDVEKDKRFGIFTRKPEREEVVIPVEERFIVELYSK

>AHK55964.1 30S ribosomal protein S11 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKRKIVKKKVVKKNIAKGIVYISATFNNTMVTVTDEMGNAIAWSSAGGLGFKGSKKSTPYAAQQAVEDA

LNKAKEHGIKEVGIKVQGPGSGRETAVKSVGAMEGIKVTFLKDITPLAHNGCRPPKRRRV

>AHK55963.1 30S ribosomal protein S13 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MARIAGVDLPKKKRIEYGLTYIYGIGLFTSRKILDKVGISYDKRVHELSEDEAAAIRKEIQENYMVEGDL

RKQVAMDIKALMDLGSFRGLRHRKGLPVRGQKTKTNARTRKGKRKTVGAKS

>AHK55962.1 50S ribosomal protein L36 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVRPSVKKMCDKCKVVRRKGVVRIICENPKHKQRQG

>AHK55961.1 translation initiation factor IF-1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKDDVIEIDGTVLEALPNANFKVELDNKHVILCHIAGKMRMHYIRIMPGDKVKVELTPYSLDKGRITFR

YK

>AHK55960.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRKSKFGTKEIKILGLSSLGGTLEFYDFIIFVFFAEYIANVFFPKDMSEFWALLNTYGAFAAGYLARPLG

GIVMAHFGDKFGRKNMFMLSILLMVLPTFVLAFIPGYETLGFLAPVLLILIRIFQGIAIGGELPGAWVFV

REYCQEKQKAFFLSCLNSAMALGILLGSIVFLIINAFFSIEEIAAYAWRIAFFVGGIFGIISIYLRRFLQ

ETPVFKQMKKESSLSSFPLKDLFKEKDIVKNLFSSMMMTWVLTGCVIVLVLLMPKFMPSILNLSGVEGSY

LQILGILGIALGGAFMGYLVDKFGLFKICIFFSLTFVFFSFLYFYALYELKNLVLVCILYSIICFLGGIN

VFAPILMSEVFRAKIRFSGISFSYNISYAISGGITPQLVFWLNTLASKNENPFLYGMSIYMIFLALLAIC

AVFIVKDKIKF

>AHK55959.1 multidrug ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPFIMELLKQNKLKLISFLLFSFITSAVGVLTLVFINDYLLKNAQNIPIFYFIVLLLIFFISSTIVELGL

SIFGQNFIFKMQRRVVKQILDTPLLRVAKVGKARILASLGSDVRNISFGLLRLPDFLQSSILILCTSVYL

CYLSPQIFALCVVWIMVIFITNNFLMMKVYQYFRKARENDDALQNNYQNILDGHKELLINRDRAKLYYED

EFENNARLKKKNSTLGNLFNNLSNNWTNVTLLALVGVEFYLALKFEWASVADATTIALSILFLRTPLVSM

IGSFPTLLLAKIALDKIAKLELDDYIEGFKKTHYISEWKKISFRNTQFAYEENFHLNPVNIELKKGELVF

LIGKNGSGKSTFCMLLTGLFKPSKGGIYVDDTLIDDKNLDEYRSLISAVFSDFHLFTKTLNKENFASEEK

IAFWLEFLELKNKTSVKDNELTLTKLSTGQKKRLAMLIALLEERDILVLDEWAADQDPVFRRFFYKKLLP

LLKEQGKTIFAITHDDAYFDSADRIFLAQNGEISELKGENIKELAKNLVEKFD

>AHK55958.1 globin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKEQIQIIKDCVPILQKNGEDLTNEFYKIMFNDYPEVKPMFNMEKQISGEQPKALAMAILMAAKNIENL

ENMRSFVDKVAITHVNLGVKEEHYPIVGACLLKAIKNLLNPDEATLKAWEVAYGKIAKFYIDIEKKLYDK

>AHK55957.1 peptide ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLRWFVLLFLLFLNLEAKIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKS

WDISKDGLVYDIFLRDDVLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLF

KPYPAFLDALSIGMLPKHLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLI

IKHIFDPSIASAELKNGKIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALN

YAVDKESIVKNLLHDYAFVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEF

EIWAMSNDPLRVSLAGILQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQD

SALNDEGWNFGHYHDKKVDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGI

KTRTLGHHGVGFTWNVYEWSK

>AHK55956.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKRLVFSIFIAFFSTFLCFVLLHFSKGSIAYANGVNSQSKEFVQRIEQNLGLDKPLLEQYKIWLFKALK

GDLGVSFLSGESVLKLIKERIFNTFILGFSALMLLFLLSVFLALLGYYYKESFIDKIITFLAFNFFALPP

FVLALLFVLIFGIFWKILPVMGSSDIGFEDDFLNRLEHLILPVLVLVLSHLALFLRIARNFINESFSQIF

IQNLYARALREKDIYFLVLKYSLSPIVAYFGGSALSFMMGTYVVESVFAYKGLGSLLFKSIIFKDYPIVL

ALIFFSVLLAAFFTFLSDIVARILNPRLRRLDFV

>AHK55955.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFKFLIILAPLIFLFLCALFAPFLALFDILSTHLENLHQAPNFTYILGTDFLGRDLFSRLLFALRNSLII

GVGGSLLSIIFALCYLFLARCFFYVFCMRILEFFLALPAFLLMMFFQSMITSDVFLMIFLIALIHWCFIA

RIIESELKRLENLDFYKANIVLGRTKFRAFFKDLIPALKTLIFTLFIFNIVHAIATEATLSFFGLGLGFE

IPTLGTLLSESSKAVFIGAWWMILFPLLSLLLLFLPLLWLGNFLQKIWGIRS

>AHK55954.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVRNLNISSKNNLLLKDINLDIKTGKTLMILGQSGVGKSLLGKALVRLLDSNFTISFDELSFHNSCIFN

FNKEELRNFRSKVALVLQDAELSLYPYLDIGNLCHLVLKTHTKLKQKERKDYAFSYFQKLGFENLDRLWH

SYANELSLGMARRVSLALALLNQPQILICDEITASLDKENASKIISILKELKNTTALVCITHDLNLVNSL

ADEILMLEKNSSNLYSLNEFLRYYNA

>AHK55953.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKVCNLSKFYELKKHWYLKKERHIIFDNVNFSLNENDNLIILGKSGAGKSTLARILCFLEDPSEGEVWY

ENLNLHKLDKNKQRLLRKQIQYCFQDQKMALNPYKKIKNLIQDGLENFNLQKNDDLILEFFDFFSLKKQI

LEQKSYELSGGEATRVGLIRALVLNPKLLILDEITSAFDIKTSKEILTFLYDYQQKNNISYIFITHQSDL

FYKFNHKKLKL

>AHK55952.1 NADH dehydrogenase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSHIDASHPYFGIFLMLVLASVIFFGLVFLASKIGNNFAAKNRKKLGLGIYECGPIPVKQANKINSQFFI

IALIFILLDIEVVFLFPWALIFKDLGWFGFLEVFVFIVLLGVGFLYAYKKGAFAWQSIK

>AHK55951.1 NADH dehydrogenase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAEHQVNYASGLPVVLTSVDKLVQWGRSNSLWALSYGLACCAIEMMAAGGSRYDFDRFGTIFRASPRHSE

VMIIAGTLCKKHAEFTRRLYDQMPDPKWVISMGSCANTGGMFNTYSTVQGVDRIIPVDIYVPGCAPRPES

FQFALMILQKKIRKEKASRKIAPKRLI

>AHK55950.1 NADH dehydrogenase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRKYSDKKNAQTQNYYKDRFYHAPHTVKSDVNESVFKEDFEVLKTQVEILNSFVELDFWVIEIKKEDNVK

TLQMLKTLGYLSFTEASAIDFIADKNGFEVFYQLLNLEKKLRVRIKTFVGVKERLQSVAHVFKGANWSER

EIYDMFGIFIINHPNLKRILMPDDWFGHPLLKTYPLKGDEFARWYEIDKIFGKEYREVVGEEQRDSGFAD

DKDTLNFARLYHEVPKGGQKKEISFKQEYQEDEGVAFVKKVKRDEAKILEKRR

>AHK55949.1 NADH dehydrogenase subunit D [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQIPSKLKPYYENIAFEQEDSKMIINLGPQHPSAHGNLRLILELDGEQVVKARPCIGYMHRGMEKMAENM

IYQEFIPTTDRMDYIAASANNYAYCAAVEKLCGLEIPRRAAVIRMILLELNRITSHLLWLATHALDIGAM

SVFLYCFREREYVLDLIEKYCGARLTHSSMRIGGVMLDLPENYLEEMLAFCDKFPNDLKDYEDLLDDNRI

WRLRTENVGVVTKEQALNWGCTGVMLRGSGIKYDIRKEEPYLLYNEVEFGVPYATQGDSYARYKVYMQEF

RESLKILRQCAMLYKDTSPEILATHPEYVSASKEQILTQNYSLMQHFVLITQGLKPPKGEVYVPTESPKG

ELGFFIHSDGTGRPYRLKARTPSYWHCAFFEEMLVGTYLADVVAIMGNVNIVLGEIDR

>AHK55948.1 NADH-ubiquinone oxidoreductase chain E [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRRVDLRKSKELFEDLAQIIKEAKQGEVLVVLFEIGDFSPVEKSFSFVKEQGCELLNSLKFNQVDWTIVI

KKERV

>AHK55947.1 NADH dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIYDNALCFLDMPSLKNKNLCEKIGVNSINISCLEDKNLKAKFYKCEIASLSFVLALLCKLSDEGQFCDL

DEGYLSAESCFGEEEAGEVLAFLKEVKYLIIDKNIHSYKDSENIKYFLNFLSVKYGLKILDSDEEECDFK

KAKLNTLKELDNYDGLVLFRANLQDKNLHCSKQFLQIAKCKDQSEVEILAKDFSFKTKLCLDENLQGTIA

FLNYENNGFDFTPIRIKEAK

>AHK55946.1 NADH dehydrogenase subunit G [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTVKINGIDCAFEEGEYILNIARRNDIFIPAICYLSGCSPTLACRMCMVEADGKKVYSCNTKAKEGMVVE

SDLQNLWDERNEIMQAYCINHPLECGVCDKSGECELQNFTHKSRVNVQKHWIKDTHKPHKHWGMINYDPA

LCIVCERCITVCKDKIGESALKTVPRGGDSVDNSFKESMGKDAYAIWTKFQKSLIGPANGDTLDCSFCGE

CTSVCPTGALIGSKFQYTSNIWELKRIPASNPHSSDCELMYYDIKQSGISNQKEKIYRVSNDFAFASLNK

AARFAFDTQNEADKDEKAFKELVELFEKNEIKNIKFNSFITNEEALILQNLKKKFNLSLINEEALKFKEF

LQEFIANSGEFYSANTQDITKSDFLVVAGMLLRYDAPTLSYKINNALVMNKGSGLYFHPMEDMGIAKYSK

NFIPHIHKNGDEEQILYFLLQKFSQDEGIKTHLAEFFVSENKEIEESINEEVVEQVIEKDEEGNEIQKEV

KKVVPKKVKKIIEVQRSVFAKNLGIDEDKLEDLLLKKANFTLVAGSDFYFHKNAKKLAKLLALIQNTTPF

KVFLNPTHTNTLGVAMICDLDNNTQEGKTLGYNEKGDFSFSYEEHANLASASLNQQEGTFLNYDKRVVPT

NAALEFKGYFLNDLANALGFDEEYTINYTKRLPINKGFSPIDFDHLDNFYTNAGDCKRGYELNLECFKQV

AKKEFISPNFENLSLKEDEILLYSANPSYQFGRFSNRASAINEVIFLGVSENLAKEKNLKDKDLVKLKIK

DKELSLSVRVDKDIKNGAFLPYFDEKLDTLSFFDERFVVANLEKLGANHE

>AHK55945.1 NADH:ubiquinone oxidoreductase subunit H [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSDFAFFALETLIKCIIIIAIFASLAGLATYAERKVLAYFQRRIGPDMVGPFGLIQLVADMIKLFTKEDI

IPSNSQKFIFAIAPLISAICAFVSLAAIPMLPEFTLFGRVIQPIVADINVALLFVIGTSGLCFYAVFLGG

LASNNKWSILGAARGLVSIISYESVGALALIAIIMLVGSFSLVDINNYQSDGFFSWLIFKQPLAFVLFII

ALFIETNRTPLCLTENDAEIVAGYGTEYSGLRWGMFFIGEYTSMIAGAILVTLLFLGGFNSFWIIPGWIM

MIVKSSFIFFWYFWARAAFPQLRPDQVMKMCYLILIPLAVLNLLITALTVLL

>AHK55944.1 NADH dehydrogenase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNYYLVDEKRKTPVSTWEKISQALRRSVKLELFVGLFVMMRELLKRNNSATIKYPFEKVKLDNRYRAVH

RLMRFIESENERCIGCGLCEKICISNCIRMETSLDENGRKKVENYSINLGRCIYCGFCAEVCPELAIVHG

TEYENAAEQRSYFGYKQDFLTPIDKLKNQVEFEGAGSLRKDANLWVKKTPNYYDVMIERALENQNTQEQG

ENK

>AHK55943.1 NADH:ubiquinone oxidoreductase subunit J [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIENLAFVFFSVVVLGFFGIAVLSKNMLYSLSALAGGMVFLSGFYFLLDAEFLGVIQIIVYSGAVLGLYS

FAMMFFDASKEFKEQLKAKKSFFTLVVLSTILLLAMLIGFKYQNISTDLPLNDPALFDFNKQLALAIFSK

YLLAFEFIAILLLIALVCAIVLTHKELTKEKQ

>AHK55942.1 NADH-quinone oxidoreductase subunit K [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIEKYFFVAILMFVIGLVGILKRQNLIMLFISSEILLNSANLALVAASKMHNDLNGQVFALFIMGVAACE

VAVGVALCVLWYRRKGTLELKSLKEVEA

>AHK55941.1 NADH:ubiquinone oxidoreductase subunit L [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNLALISLFSPFVAFLFASCFALSEKKQFVGIICSLLVALSAFCSLYLLFCNEAFNVSLFEWFAGVNFG

FDIDAISLTMMSVVGIVATCVHFYSIFYMAHDEGFNKFFAYLGLFVFSMLFLVMSDNFLGLFVGWEGVGL

CSWLLIGFWYKNDTYSFAANEAFIMNRIADLGMLLGIFWLYLQAGTLKYDEVFSMAQSLDHNALILIATC

LFIGAMGKSAQFPFHTWLADAMAGPTPVSALIHAATMVTAGVYLVIRASTLYDLVPEVSYIIALLGAFVA

IFAASMALVVRDLKRIIAYSTLSQLGYMFVAAGLGAYGIALFHLATHAFFKSLLFLGAGNVMHAMNDKLD

IKKMGGLFKPLKITAILMCIGSLALAGIYPFAGFFSKDLILGYSFISFHHGIFLVLLIAAFLTAFYSFRL

LMLVFFTPARHDEHPHEASKIALLAMSPLMVLAIIAGFFEHSFFEYLSTKLVFIDAQNQIVMICASVAAI

LGAILAIFAYKNSWFKESIEENKIHKLLSNDYFIPQFYHQFIVSKYESLCAILKHCDLYIFDRIVEKIAL

YSQNISQKMIMPNSLNLMLRFLVAAFVILLILVWMV

>AHK55940.1 NADH-quinone oxidoreductase subunit M [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNYLIFFPLISAFVVLLLNRGGVKVFSVVVSFMILALNLDIFADFLQGVSFDYNLSFKILKFFSFHVGV

DSIALVLILLSSLMIFLSFLFLKLEQKALISCIFFLEFAIMGLFSAKDGLLFYVFWEFSLLPLLYIMGVY

GKDFRAGVKFFIYAFAGSILMLVALIYQAYLNYQLLNIFTFDLEIWKNNASAVNFTEQLLLFGAFFIAFA

IKAPLFPLHTWAPKVYANSPILVSVMLVVFKMAPFGFLLFCLPLFPDASVYFMPLIVALCIVSIVYNALI

AYRAENIKELIAYSSISHLGVMILGIFSLNALGISGAVFYMFAHGIVTGALFLMVELLYQRYHTYDISFY

HSLAKKAPLFSIFFMLILLASVSLPLTVSFVGEFLILLGIAKINLFYALLAGLVIILGAIYMFAVFRKIF

FMQKQSFIEGFSLLFREIVALVCIVVMIFGLGLMPNILLKPIQKDVDNLIKTMNIRAVEQNTLDFLSKIG

EANVK

>AHK55939.1 NADH-quinone oxidoreductase subunit N [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNNFLNLELLNISLSYPFLFLITTAIVLLLCSGFWKFHRSFYIGISSLSLIVSAFLILNNANAQGLEAK

AFLATLNNDIVSFYASLVILCFSFLYLLMQKEENQGEFYALFLFMIASLLLMVSSSNLVLIFIGLESSSL

ALYTLIAMRGSDNAISSAIKYFSVAAVGAGFFVMAVAFIYLKTGTLDLSANLALKNEFQKDPMLLGAGVM

IFVLCAIKLSLAPFHFWLKDVYYAAHTNLVAFISVVPKVAMLVVVIRLFDFLNNTGFEYIIIVLAIFSML

IGAFAALSQNNIKKMFAYSSVVHSSLVLVACIPLLKEQNFDGILLAIFGYWTLFAFANYAVFMILSNYEN

NSYESLNGLLVKKPLIAFCLSISVLSLAGIPPFGVFWGKFMILNTAILNGYWYLALFVALSSVIMLYAYL

KILIHALFMKNDRVHNIKFSFIQNFILAFCVCVSTFVILLML

>AHK55938.1 paralysed flagellum protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRILFLILLSFLNAFAFELVLNTGRENNQAFAVLHASNDLEFTCQKFITEAKVHFECDIVGMVDNKLKDQ

SFSAFDLKFIQEAQKIKMIILPKIQARMFDTSQNIYIDKELSSSSSHKSKAFTFIFTPELAPIKDYDGLD

FNINFPHESLPYVGALDLNSDPVVIPQSADINTYLRIKKEYDKANYNQVVIDAQNAINRYRGSIFTSEFI

LYKLRAQNKLYTQDPSMRDQQILEKMIDDAKNWTRTFTSDKNFSEVLHIMLRTYIALAQRADVEYTMSIL

DNEQPNNYFTQLSKLDYADYIYNLNEKEKAVNIYENTYFNTKNLDLAARAAMSLAKNLLSNEQVNKAIEY

INTILKANPEYFGKDIPRSLELAKLFNQKGQFDISASIYEDAFAKMSKLDPSYEETLKDLALVLSHANRS

SDAKKYLDLYMDDYLDGKYLDEIKKASDEVFFALGDNNASFLHQRYTDLMKQYANKDENIANKALDEDVA

LYYKEGNFSAILAYKDLIESKKIPNATQFLEKAAINDLKNAIKADNCINAANIFMRFSAYDIGQKIENKK

QMLACLIRTSNVEQALDYIDKNYNEDSIFYGLQKASILFDNKQYPQVIKISKDIANSRILKSDDENFKAY

YLQFLSLLRLNDYNQAIKILQILESFPMNFSMVEAYDALLSYANDHNMQTTILTYAPKAIDYQNFKGINL

FSPNLEFIYLDALTKINKNEESLAVLTDLLKLKLSDEDRARALYIQALTYERMQNIQAEKESLKQCLEIK

SASNWQNLCKSKNQILNQ

>AHK55937.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNSIKIKLSLIANLIAIFALIVLGIVSFYFTKTSLYESTLKNQTDLLKVTQSTVEDFRSTNQSFTRALEK

DIANLPYQSLITEENIINNVGPILKYYRHSINALNVYLGLNNGKVLLSQKSNDAKMPELRDDLDIKTKDW

YQEALKTNDIFVTPAYLDTVLKQYVITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTPGNTFLFDQKNK

IFAATNKELLNPSIDHSPVLNAYKLNGDNNFFSYKLNNEERLGACTKVFAYTACITESADIINKPIYKAA

FIQAIVVIIVVVFSVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFGQISNAINE

NILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARVGSDMNAIH

KIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLTTSSNSQAQ

SLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAGEHGRGFAV

VADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNVEIANESAI

ISSTVSDIANNILEDVKKKRF

>AHK55936.1 NADP-dependent alcohol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQYKILENNRIASKGYAMLSKDAKFTPFEFSRHAIGDNDILIKILYAGICHSDIHTARSEWGEATYPCVP

GHEIAGEVIAVGKNVSKFKVGDYAGVGCMVNSCGECDACKRSQEQFCENGKTIFTYNSCDVFHGNENTYG

GYSNNIVVSEKFAVCVPKDAPMEKVAPLLCAGITTYSPLKFSNIKEGSSVAVAGFGGLGMMAVKYAVKMG

AKVSVFARNENKKADALAMGVSSFYTSCDKNAVKERFDLIISTIPTPYNPAIYLDLLKFGGEMAIVGLPP

HEVAPSISVITFVHKAGKKVYGSLIGGIAETQEMLDFSLKHGIYPETELITPQEIDKAYENLTSGKAKFR

YVIDMTKE

>AHK55935.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKENSPCNFEECGFNYTLALINGKYKMSILYCLFRYEIVRYNELKRFLSSISFKTLTNTLRELENDGLI

IRKEYAQIPPKVEYSLSKRGQSLIPILQAMSKWGKKDKKGKKCLN

>AHK55934.1 NADPH quinone reductase MdaB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNILLLNGAKEFGNSKGQLNLTLHNHALEILKTLGYEVDQTHIDQGYDPKEEIQKFIKADAVIYQMPAW

WMGEPWIVKKYIDEVFGLGAGVLFKNDGRTHENPSKNYGKGGLDHGKKYMFSLTWNAPLEAFNDKNEFFE

GKGVDMVYWHLHKAHEFIGMKALPTFMCNDVVKNPQVEKYLNEYELHLKKIF

>AHK55933.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTRTKYLYILLVIAMFLWGSSWPTSKILANYTDTSIITFWRFFFVVLGSFFVLNFLKIPLKIEKTALKWV

LIAGVLNGLYAFVFFIAIKHGLAGKGGVLVTTMIPIFSYLIFMIAIFFQKNKKSTHKITKSEILGLFLGL

LSGFCLLNLGSLEDLFGKFNILFLTCSFIWALMAVFNHKAKGAHPLAINFYINLISILMFSWILFDVKSY

EIFHFEFKFWISMFVVAFLSTIIGTSIYYYGIHILGSVKANSFVLITPASALICSYFILDEVPNALTLLG

CALAIGAIYFINIYGKKA

>AHK55932.1 allophanate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSIKIIEASINSSLQDFGRKKFAKFGIARSGAMDEDALRMANILLGNKQDEAGIELCLKGGKYEFLDENY

FVLSGAEFEAKLDNQKIKTCKVYQANKGDILELDLAKIGFRGYLCVAGGFEVKSFLNSKSSDAKMGAGVF

EGRALQKDDILNTHNTFIPFNLEARECENPLFKSPKEPIIRVILGTNEDAFTQKGIETFLNTTYKVGLKS

DRMAIYAESSESIEHKNSADIISDPAVFGSIQVPKSGIPIILMAGRQSTGGYTKIATVIENDLSLLAQAK

LGSSFKFQSISMQEALELYKQREMKFKAMDQKINLDFENLI

>AHK55931.1 allophanate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFSVHFSGSKALLLRFEQEISPQINAYVLSTEQRIQKALKEGEIYGIDELVSAYASLLIYFNPCVLSLNS

LLDFLEKIKKDIKLAEQNSSLCIEVPLCYDEEFGLDLEFVCKHNQISKEELISLHTKPYYLVFMLGFMAG

FPYLGGLDERLFTPRLSSPRAKIEAGSVGIADKQTGVYPISSPGGWQIIARTPLEFFDKEDEKNPTLLKA

GMFLKFKAISKDEFFDIQEQVAKKVYQKEIYEYKNH

>AHK55930.1 LamB/YcsF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFKVDLNSDLGESFGAYKMGMDEEILKFVSSVNVACGFHAGDPCVMDETLNLAKQNGVCIGAHPSYPDLL

GFGRRNMQISFEEAKNYALYQLGALFGFAKAKGMKIQHFKAHGALYNMAAIDENLALALCEAVASFDENI

IFLGLSNSAMNEAAKKKGLRYANEVFADRAYNDDGTLVSRKLEGALIHDENLAIKRVIKMIKESKVTSIN

GKEIDLKADSICVHGDNAKALEFVKKIKENLKKEQIQICALENFI

>AHK55929.1 tungsten ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIISLALALALSASAAELKMATTTSTDNTGLLDALKPLYEKESGNTLKWVAVGTGAALKMGEDCNADV

LFVHSPKAEKEFMKKGFGVDRTPVMYNDFIIIADKSLASKFKGKNLKESLELIKNEKLTFISRGDKSGTD

NKEKSLWKNLGGVPEKQSWYQQSGQGMLASIKIAEEKKGVILTDRGTYIKYEANEKGKPNLVIVNEGDDS

LKNFYSVIATNPKHCKNVNYTEASKFIKWVTSDKTLNFIADFKLLNKPLFVIDAKTRKD

>AHK55928.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDYIFDGFKQALFLLFNADESVISAIKTTLLSSSISIVLALLIGFPLGFILGFFEFKLKRFIKLIVDTSL

SFPTVAVGLILYALISSRGPLGEFGLLFTIKALILGQFILALPIVIALFSNLIENMNKKHFLLIKSFHLS

PLKLVLTMIYELRFALISVVALAYGRIVAEVGVAMIVGGNIKYDTRTITTAISLETNKGEFASGIALALV

LILIAFCLNFITHKLKRT

>AHK55927.1 metal ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIEISNLFFNYQNKEVLKIKNLKLDTSKISILMGANGSGKSTFLRILKFLEGDFSKNISYFGNFKPNNKQ

KREIYLLFPEPILLNRSVRANFLFTLKTYGIKEDIEERIKESLMFLNLDESLLSKHPNELSSGQSQKIAF

AIALSVRAKYYLLDEPSAFLDKNTTLLFKKTILKMHENFNTGFLIASHDKHFLDSLAQKKLYLHSGEILE

FENTNVFELENQGVKFCNFIDFSNCKKYKDFKKPPSKIAIDPYKISFFNSKNIPKNNYDFILEKCYIIAL

RSRKSDVFIRVSCMDKILEFALEKQEFLRFDLKLYEELSLYFYEDAICFLN

>AHK55926.1 acetyl-CoA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNQNNQELFKPSKEFSRNARIKNLCEYYDLCDEAKEDFEGFWKRQAFEKIEWFSPFSRVLNEDKAPFYK

WFEGGTLNVSYQCLDRHMKTRRNKAALIFEGEMGDYEVYTYRRLLHETCKAANLLKKFGVKKGDRVVIYM

PMIPETAIVMLACARIGAIHSVVFGGFSPEALRDRIIDAGAKLVVTADGAFRRGKPYMLKPAVDKALSEG

CESVEKVLIVIRNNEPIEYIKGRDYVYNELVKNESYKCEPEIMDSEDLLFLLYTSGSTGKPKGVMHASAG

YILWAQMTMEWVFDIKDYDNYWCSADVGWITGHTYVVYGPLACGATTIMHEGTPTYPNSGRWWRMIEEYQ

ISKFYTSPTAIRMLHADAPNEPRKYDLSTLEVLGTVGEPINPSAWKWFYDEIGGTKSPIVDTWWQTETGG

HMITPLPGATPLKPGCATLPLPGIFAEVIDEEGNKKDEGEDGLLCITKPWPSMIRGIWGNDERYIESYFS

QAKKDGKAVYFSGDGAFYDKNGYITITGRTDDVVNVAGHRIGTAEIESAIAKHPSVAESAVVSILDTIKG

ESLFAFVVLSPASSCDLGGAIETLKELNDILRVEIGPIAKIEKILYTPGLPKTRSGKIMRRILRTIARGE

EIKQDISTLEDSKVVETIVKLAKAEFE

>AHK55925.1 UTP--glucose-1-phosphate uridylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLQTCIFPAAGYGTRFLPATKTLPKEMLPILTKPLIHYGVDEALEAGMENMGFVTGRGKRALEDYFDISY

ELEHQISGTKKEYLLDEIRSLINRCTFTFTRQNQMKGLGDAVLKGRPLVGDEAFGVILADDLCVNEEGLN

VMAQMVKIYEKYRCTIIAVMEVPKEQVSNYGVISGNFVEENLIMVNSMIEKPSPDEAPSNLAIIGRYILT

PDIFGILENTKAGKNGEIQLTDALLTQATNGMVLAYKFQGKRFDCGSVEGFVEATNYFYEKSKC

>AHK55924.1 glucose-6-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNNTLFFKQSEIHTISSYANRINDEVKSGDIGYYHLIDTSLNLIDESLQFIQDKEYVKNIVLVGMGGSS

CGVKALRDMLFNEKSNQRELFILDNTSSHSFNKTLEKIKLEESLFLIISKTGSTIEVVSLFKLLIEHFKL

DMQELKKYFVFITDKDSKLHQEGENLGIKCFFIPANVGGRFSILSAVGIVPLCFCGYNAKALLEGAKACF

EDFFTHKKDEILQKAYHYCTHKNANINVLFSYSDAFKGFNEWYIQLIAESLGKKQGYKRIGLTPIALIGA

RDQHSFLQLIMDGPKNKTVTFLKIKDAQKAPIIPDIHFKFLDSLSNKVNLHELLNAQCDATMHALIAENL

SVDVIELEKLDAWHAGYLMYYYELFTSTCGVMLGINTYDQPGVEVGKLILKNILNS

>AHK55923.1 DNA polymerase sliding clamp subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSVTKQLLQMQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEMAELFDSCAERVLQLGEKAITCQK

VLMENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLWMIG

ATLQGACKM

>AHK55922.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVLNFFYENHPKFEVSYERKNQISKPNIIIKGPRFCGKKTLIFNFLSQFKASEILFLDLYDTRFEKQSL

ERLADFLNENLQIKILCLYNLDFIPNLEKINIPIILSTNIKDLNVNGFEELELDYFDFEEFISVSKKNLP

INNLVGLFLQSGRSKFGEKNILLRQSFTLLELEILKYLALNLGQQISISKIFIELKKRLKTSKDSVYQAI

KKLENTYVIYTLKHDEKKLQKIYFKDFGLRNNLCISKDFSHLFENLVLSELFKFKEEFFYNKYFNFYSQI

SKIAYISSPTLDIDLIKLRAKKILPKALELGIFHVIFITLSSEDNFFEQGVKFEVISFDKFSLGF

>AHK55921.1 mannosyl-glycoprotein endo-beta-N-acetylglucosamidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKPIIIFFSLFLIPLFADDLKSGFGEEYYKLDIDQKRQIFFIKMNEMFDQSFKKIEQERAFIEAFFKDAY

KTGFRTSNQINLEKLITIKNKYRIENLYDFAEYKKRIQKIPKSMGIAQALVESATGTSRFAREANNLFGE

WTWGEKGLIPDLRHPDKKHKIKIFDSLQDSVDSYVLNLNRHFAYEKFRDARAKFESEGKEITGLEAIKTL

DSYSERKGYYINLITKIIKRYNLEKYDTNSNNT

>AHK55920.1 diaminopimelate epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFYKYCASGNDFVITNADRKEDRSALAKELCNRYEGIGADGFIVILPHEKYDFEWEFYNNDGSRAAMCG

NGSRAAAHFAHHINKINPNMSFLTGAGIIKAKVNQDKVEVSLGKIKSVQNTFEELGKTWQLCNTGVPHLV

HFCQNLDEFDTMLCQKMRQKYNANVNFVKILDENHLKVRTYERGVEDETLACGTGMGACFYLAFLNKKVQ

NKVKITPKSGEEVGFAYKNEELFFEGKVKYCFEANYNFF

>AHK55919.1 dephospho-CoA kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKIDRKI

LGEIVFNNKEAKKILENFTHPKIRAKILEQMQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPKELS

LKRIMQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNM

>AHK55918.1 phosphoribosylaminoimidazole synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKISYEDAGVSIDNGNTFVEAIKPLVKETFNDNVVGGIGSFAGAFRMPSGFKKPVILGATDGVGTKLRLA

IDAKKYDTIGQDLVAMCVNDLICNFATPLFFLDYYATAKLEVEVAKAVVSGIAKGCKMANCALIGGETAE

MPGMYAKDDFDLAGFAVGMAEEDEIDRSKFVKNGDILLALSSSGLHSNGYSLARKVLFESLKLKFDDKIE

GKNLIDILLEPTRIYVRDFLTLKPYISALAHITGGGLVENLPRVLPRGMGATIRKHHLKTPEIFYTIGQA

VEESEMYRSFNMGVGLVMVVDPSNVSKILENSDAFIIGEICINEGIVLE

>AHK55917.1 CRISPR-associated protein Cas1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSYDEAFKTLLISSNAKLNLELNHLVIKQDENIAKLFLKDINIIVLESLQISISSALFNAFAKYKIILLT

CDETHSINGVFTPFLGHFQSAKIAKEQMNVSAQKKAILWQKIIKNKILNQAFILKKHNKIEQSNELINLA

KKVSLNDSKNIEAVAAALYFKTLFGTSFSRDELCFENSALNYGYAIIRACIIRAVCISGLLPWLGIKHDN

IYNSFALCDDLIEVFRASVDDCVLKLKGESEFLSKDDKRALIGNLQSKINFDGQNYPLNRAINHYVANFK

NALLYEDELKIVKFDD

>AHK55916.1 CRISPR-associated protein Cas2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIEDKFMRVLLMFDVPTKSKKEQKLASKFRNNLIKLGYFMLQFSVYMRICKGLSSAKSSIENVKKILPPY

GNVRALIITEKQFDKMELLLGGIVFNEKVNNETNLTLFDIDSHGEFKYKNSNNEEIQINKKQEKYHQQNL

FEF

>AHK55915.1 molybdenum cofactor biosynthesis protein MoaA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLMSYEESLKILHSHIKTYEKIEKIALTECLGRILAQDIKAPKNQPEFPTSAMDGYAIKFEDQDKPLKIL

GLTPAGTMPQFSVQNGTCVKTFTGSLMSEGSDTLVPVENIRIENNTLFIEKKVPQAFAVRAVGENYKKDE

ILLKKGTRLNYSEIALLAELGFFHISVFIKPIVGVLSSGSEIKDLGEALENPAQIRSSNHIAIANLAKNL

NCDTRVFPLLKDDEKATFSTLESALQSCDILVTTGGVSMGDFDFLKKAIKEYEIIIDKADIKPGRHIKIA

KANEKFIIALPGFPYSAMVMFNLYTREILNSWLLQPKDYICKAFLQGSYKKKTPYLEFVACNIEFKNGRI

LANLEGKKEGSSAIINNLNNKAALMVVPKECEMLENESLVDIIFMP

>AHK55914.1 molybdenum cofactor biosynthesis protein MoaE [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKHFTLYQGSLDIPKIYSQWYEFSKDKNCGALLTFCGIVREEGGIEALSFDIYESLLKKWFDEWQKRVDF

DGISLLFAHSIGDVAIHESSYFAGILSKQRKLGLKLLNEFVEDFKASAPIWKYDVINKERIYAKERSTKL

CGAGLLKG

>AHK55913.1 molybdenum cofactor biosynthesis protein MoaD [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVKVEFLGPINKENLELEVKNLKELKEILQKDESLKEWLELCAVSLNDEIIFNENTKLKDGDKIALLPPV

CGG

>AHK55912.1 bilirubin oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNRRNFLKFNALTLASMGVAYANPMHDMHSMHKNHSINHDLDTSFINFAPKNLKLLDPKQFPQGEILKAL

PLLKNESKEKNIFRATLEIKENHIELIKGKKTLFYTYNGLVPAPKIEVFEGDKLEILVKNKLKEATTIHW

HGVPVPPDQDGSPHDPILAGEERIYRFEIPQDSAGTYWYHPHPHYTASKQVFMGLAGAFVIKAKKDALSH

LKEKDLMISDLRLDENAQIPNNNLNDWLNGREGEFVLINGQFKPKIKLATNERIRIYNATAARYLNLRIQ

GAKFILVGTDGGLIEKAIYKEELFLSPASRVEVLIDAPKDGNFKLESAYYDRDKMMVKEESNTLFLANIN

LKKEKLELPKNLKIFKPLEEPKEFKEIIMSEDHMQMHGMMGKSENELKIALASMFLINGKSYDLKRIDLS

SKLGVVEDWIVINKSHMDHPFHIHGTQFELISSKLNGKVQKAEFRAFRDTINVRPNEELRLKMKQDFKGL

RMYHCHILEHEDLGMMGNLEVKE

>AHK55911.1 carboxynorspermidine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFYEKIQTPAYILEEDKLRKNCELLASVGEKSGAKVLLALKGFAFSGAMKIVGEYLKGCTCSGLWEAKFA

KEYMDKEIHTYSPAFKEDEIGEIASLSHHIVFNSLAQFHKFQAKTQKNSLGLRCNVEFSLAPKELYNPCG

RYSRLGIRAKDFENVDLSTIEGLHFHALCEESAGALEAVLKVFEEKFGKWIGQMKWVNFGGGHHITKKGY

DVEKLIALCKNFSDKYGVQVYLEPGEAVGWQTGNLVASVVDIIENEKQIAILDTSSEAHMPDTIIMPYTS

EVLNARILATRENEKISDLKESEFSYLLTGNTCLAGDVMGEYAFDKKLKIGDKIVFLDQIHYTIVKNTTF

NGIRLPNLMLLNAKNELQMIREFSYKDYSLRN

>AHK55910.1 hypothetical protein N917\_07540 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGALMDLEKLRLARSLYYQCLGELFVFSFSEERLSKLQEYLKTMQECLFDENLKSNFDILLKHLDDENSI

QAFFKEYDLLFLSLKNSIPTTFSYIEEGFENSNPLLCVRQILVKSKIRRNEKFFKESEDSVGFCLLLMSE

FLRQNEDDLAKELFEKVINKSIDEFLGDVFMNKNANLYKEIASIASAFMEFERLCFEVEKPAKINSKKVQ

NDLSRSEFLRREANKQRRTREKSQGIS

>AHK55909.1 Tat pathway signal protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNRREFLKKSAFALGAAGVLGSTTLALAKDEERKDLVKGKSKKKEVLFQRSANWENYYIKAE

>AHK55908.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSSVGENIKLTRRSFLKMAALSSLATPLLARSETLREASADELKEAYEGSKKVKTVCTACSVGCGIIAEV

QNGVWVRQEIAQDHPVSSGGHCCKGSDMIDMVRSHVRLKYPMKKENGEWKRISYEQALSEIGEKLAAYRK

ENPESVMFLGSAKLNNEQAYYIRKFAAFFGTNNVDHQARI

>AHK55907.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTNHLGDIQRSKCIIIIGANPAVNHPVGFRHFLKAKEKGAKLIVVDPRFTKSAAKADIYARIRPGTDIAF

MYGMLKIIFDEGLEDTKYLDERVFGIDKIREEAAKWTVEEVENVTGISKELLVQITHEVAKNKPTTLIWA

MGLTQHTVGTSNTRLAPIVQMVLGNIGKFGGGVNILRGHDNVQGASDMACLSENLPGYYPLNEATWRYYA

KIWGVDYEWLLGNFVSKDWMHKTGLSLARWWAAALNGKDGNDAIDNAGTPLKALVVMGNGITSTAQQVKV

KEGLEALELLVLADPFVNEAGIIAERKDGIYLLPAATQFETSGSVTATNRSGQWRFKVVDPLYESMEDQE

ILFELAKKLGFYEDFTKTLRDEKGEIVWPENATREIAKAVRSIGLNGWSPERLKKHTLYWDKFDEVTLEG

KDEVAGEYYGLPWPCWSDKHPGSPVLYNTDIEVAKGGMGFRNNFGLEYEGESLLAKNAPLNSPIDTGYPQ

ITKDNIEKVLGITLSAQEKEKMGSTWSYDDSNIIATKCIEKGIVPYGNAKARAVVWTFKDKIPLHREPLH

SPRNDLVQKYPSFEDQKALYRVDTKFVSVQQAKDYSKEFPLNLVTARLVNLNGAGMENRASMYLTRLTPE

MFCEINPELAKEQDIKAGDMIWVHSPEGTKIHVRVKVNPGVAKDMIFLPFHFTGVMQGVDLTHNFPEGTK

PYASGESANTVTNYGYDIMCQIPETKGGLCRISKDGK

>AHK55906.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKVNFANLEKERLKFFCDNERCIDCNGCAVACDEAHELPIHIRRRRVITLNEGIQGKEVSTSISCMHCD

DAPCSIVCPVDCFYIRADGIVLHDKEICIGCGYCLYACPFGAPQFPKDSVFGNKGIMDKCTMCAGGPEAT

NSEKERELYGQNRIAEGKVPVCAAMCSTKALLVGESSKIEEIYHNRLMNRNYGIPNPSESLEWKIAYTGK

ERL

>AHK55905.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRKVFVTLLLSVVSLFAYGSERMGQDTQIWDFHRITNIPNYDTFGKLWTTLQGEYIATIALIAVIAVLSA

FALHYMVIGPKQFSHDGKKIYAFTLFERLFHFIAAISWVILVPTGFVMMFGEVFGGGVFVRVCKNLHAFA

TILFIISIIPMFLCWIKRMLPASYDIRWMMIVGGYLSKIKRPVPAGKFNFGQKSWYYIAVFGGFLMIITG

GFMYFLDFNSTAIQGLFGLTQIELLRISAIVHNFLGIVCAVFFGVHIYMAVFAIKGSIHSMISGYKEEEE

VYILHSYWYKELSNKKQIEPSFSYDPNVKI

>AHK55904.1 formate dehydrogenase accessory protein FdhD [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDPLFTTQILKYKGDESFTCNDTLVREIKLEIFINDEKVGALMATPVDEQALAIGYLMSENIIAKVSDIE

SIETKDDGMSVHIKAKIDKENLAKLNAEGVVISGCGRAHTANIDPEAIEASKISSDAKFSKDEILKQMST

FYTQCELYEKTGCVHTAKLFVDEKTFFIGEDIAQHNTIDKALGKACLAGVDLSQCFLMVSGRLSSEMVAK

AVMHKIPVLVSRTAPTCLGVMIARKFDLTLCGFARENKINIYSGEFRIHG

>AHK55903.1 regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDKNQEKEIISYMRELLNSNEKLDCGTAFKIAKKFNINIEKIGQLADENHMRIDNCELGQFGHLDFEKAK

IEVLKKIEPSLDEKRRIFCKDARDIAKEGCGLKSMRSALKTYKVDVKYCQLGCFKEKKGKQFIVRTKTWI

ENADGDLLFGRGKTELLELIGQTGSLLHASKLMGINYKKAWMHLQTLQKNSQEILVSTRQGRSKESGTKL

TPRAMELMENYSILQKDIEEYANKRFKELFLKGKK

>AHK55902.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFKSLNIGLKLIFSVAAVVVIGLVILISLITKQVSQNITKNTEDILASITKEYATQTQGIFGEMIALNKS

ISGTLTEMFRSTSKEDLDIDNITNIITNTFDNSAYSNFTYLYLIDPPEYFKEESKFFNTQSGKFVMLYAD

EEKDNKGGIKAIQASDEIANLQVVQDILKKAKYGENKVYIGRPIKMNLEGQDFDAVNVAIPIFDRKNQVV

GVIGMTLDFSDIATYLLDPKGQKYDGELRVLLNSDGFMAIHPNKNLVLKNLKDINPNKGAQETYKAISEG

KNGVFNYIASDGDDSYAAINSFKVQDSSWAVLVTAPKYSVFKPLKKLQLIILGASFIFIFVVLGVVYYCV

RKIVASRLPVILSSLESFFRFLNHEKIEPKAIEIRANDELGAMGRIINENIEKIQISLEQDQNAVDESVQ

TAREIEKGNLTARITKNPINPQLVELKDVLNRMLDVLQSKIGSNMNEINRVFDSYKALDFSTEVFNAKGE

VEITTNILGKEIKKMLLASSNFAKDLANQSEELKNSMQKLADGSNAQASSLEQSAAAVEEINSSMQNVSG

KTVEVASQADDIKNIVNVIKDIAEQTNLLALNAAIEAARAGEHGRGFAVVADEVRQLAERTGKSLSEIEA

NINILVQSVNEVAESVKEQTAGITQINDAIAQLETVTKENVEVANVTNNITNEVNQIAAAILEDVNKKRF

>AHK55901.1 regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIDCRNLSCPQPIVETKNALEKLQENEILEIVLNSIISKNNVVKFLNSLNLNPVVDENAQEFCIKVQKK

NFDSSEVNIHDYNVLFLKTDKVGEGELGQNLLVGFLSTLKNLDHAPSKILCVNESVLINVDENHKAHLAM

KELENLGIEIISCGACLEFFNKSKELKIGNIGNAYEILNELFGKAKIITL

>AHK55900.1 segregation protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKTPALLSDIGNNEDASVYQISPDLALVQTLDFITPIVDSAYHFGAIAAANALSDVFAMGAEVINALNI

VGFDTCNHDLNILKELLEGANDKVKECNALVVGGHTIESTELFFGLSVTGKVHPSKFIANNTSKIGDCII

LTKPLGTGILSTALKAQMLNQKHLDIMLKNMIELNYKASQIALKFHPSAMSDVTGFGLLGHLKEMLNKNI

SFEIFESELPFLDGVKEYFNMGLIPAGAYKNLEFIKELTPDLNEEKLLLCDPQTSGGLLISISEKDSLEC

LKKLEDENIQAKIIAKVVNKQENDIIIS

>AHK55899.1 1-pyrroline-5-carboxylate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIQKALALAEELQGQIEANISNSEKEFHAKMQKLLNNPKNKVMLIELLDRSFRCKDKNASFELIEYTLSK

YGIADFFSTFEKFLLFSFLNFGKFAPNLSVPFFVKHLREDTKAMVLDANPSVLEPHIKKRKEQDKITLNV

NLIGEEVLGEAESKYRMQKYEEALKSSYITYISIKITTIFSQINIIDFNYSKEEVVKRLDYLYALALEEE

KKQGVSKFINLDMEEFRDLELTVAAFMESVAKFDIKAGIVLQAYIPDSYKYLKKLFAFSKERVLKGMKSI

KIRFVKGANMESEETIASQRGWELPTFYKKIDTDSNYNKMLDFILEGDNYKYINIGIASHNIFEIAYAYT

RISEVGALDSFTFEMLEGMSLQCSYELSKMHDLILYTPVCDEAHFNNAIAYLVRRLDENTSEDNFMRYFF

NLKVGDKNWNIQKELFLKSLEGIKTLDNTTHRKQDRNKESNIISSYEGKKFSNESDTDFILAQNRVWAKE

IKTKYENLKDYDVYPVIGELDFKAENLNVLEVKDKIEDRVIGKAYLAGEKEIKQALEVAKNSKFTQKSHD

EIYQILAKSAKLMRERRGDLIGLAALEVGKTFLEIDPEVSEAIDFIEFYPHSLEELKKQNPKVTFTPKGI

GVTIAPWNFPIGISVGTIAAPLAAGNVVIYKPSSLSTLTGYMLCKCFWDSGIPKDALIFLPSKGSDISKY

LLIDEAIKFSILTGGEDTAYAMLKANPTLLLSAETGGKNATIVSKFADRDSAIKNIIHSAFSNSGQKCSA

TSLLVLEEEVYHDEEFKKTLVDAASSMAVGNPFEFKNKLGTLADKPSSKVQKALDELQPYEEWALKPKFL

EDNPYLMTPGIKYGTKKGDFTHMNELFVPILSVMKAKDLKEAIDIVNSTGYGLTAGFESLDEREWEYFHT

HIEAGNIYINKPTTGAIVLRQPFGGIKKSAIGLGRKVGIYNYITQFLEIKQEDFDDHLIEDKFSKKLAQI

DLKEAQDFINNLIKMSQSYAYHYKNEFSVSKDYVNIRGEDNLFSYTKIKNMVLRLCGNESLKDVLGVVLG

ANIANIDLSISYDEQDVSMIERIVQSIGAKVLFLKENKENFIKSIKEYERVRYLAKPDVNDEIYKEAAKL

AKIIIREKPLLNGRFELLNYFNEKALSISFHRYGNLGIRAIS

>AHK55898.1 sodium:proline symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEVVQINTPIAVMFVVYALLMLYIGFYFYKQNKNSEDYFLGGRTMGPVISALSAGASDMSGWLLMGLPGA

LYVSGFIDSYIAIGLTIGASLNWIFVAKRLRIYTSVIANSLTIPDYFETRFDDDKHILRIVCAVVILIFF

TFYVSSGLVSGAKLFESTFGIRYDYALTTGTIIIVAYTFLGGYKAVCWTDMIQGLLMMMALIIVPLVMLY

HLGGFGEAMNIVREIKPQALSMGEGVGIVSIISALAWGLGYFGQPHILVRFMSIRSTKDIPMATFIGIAW

MAVCLLSACMIGILGIAYVHKFELSLQDPEKIFIVMSQLLFNPWIAGILLSAILAAIMSTASSQLLVSSS

TIAEDFYKKIFREDAPSHIVLNLGKLGVLLVAVIAFLISTDKNSSVLSIVSYAWAGFGASFGSVMLFSLF

WSRMTRVGAILGMITGAATVVLWKNFANSGLYEIVPGFLVASVVIIIASLFTNVRSGTKAAYEKMLKEF

>AHK55897.1 hypothetical protein N917\_07470 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKITYSLNLQGEACPYPAIATLDVLPKLKSGEILEVLCDCPQSINSIPQDAKNRGFKVLEIDQSGPTLRF

LIQKP

>AHK55896.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNSFKQKYLINFWDNSRSMIALGILSAVYFGIFGGVWAVTGEMTRWGGEFLELLGMNLDGYSYYQKQNLN

GTPLTRTDGIMLIGMFIGCLVAALLANKVKFRLPASNIRIFQAIVGGILSGYGARLAFGCNLANFFTGLP

YFSLHTWLFTVFMVLGIYLGVKICNTSFFKPKAKLERVNKENLPLNKQSLRTKLYFNLGILLFIAFLVWV

FYLVFTNGNISTQNKQSLLALALIFGFVFGFVISRGQICFTSCFRDLFLFGRDNAIKGALIGMIIASLIA

FAFILQGHTSKLIELSPAVAVGAFLFGFGIVFAGGCECGWTYRAFEGQSHFIIVGIANIIGTMILALSYN

FLPKAFKEGIKINLLTEFGNLNGFFINLILFILMFVFVVFYKKHFFKNQLKG

>AHK55895.1 adenylosuccinate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKADIIVGIQWGDEGKGKVVDKLCENYDFVCRSAGGHNAGHTIWVNGVRYALHLMPSGVLHPRCINIIG

NGVVVSPEVLIAEMAQFENLKGRLYISDRAHLNLKHHSLIDIAKEKLKGKNAIGTTGKGIGPSYADKINR

TGHRVGELLEPQRLCEALIKDFEANKTFFEMLEIEIPSAEELLADLKRFNEILTPYITDTTRMLWKALDE

DKRVLLEGAQGSMLDIDHGTYPYVTSSSTISAGTLTGLGLNPKEAGNIIGIVKAYATRVGNGAFPTEDKG

EDGEKIAQIGKEIGVSTGRKRRCGWFDAVAVRYTARLNGLDALSLMKLDVLDGFEKIKICRAYEYKGMEI

DYIPSDLENVQPIYEEMDGWDKVFGIKDYDLLPENAKKYIARLEELAGVKVKYISTSPERDDTIIL

>AHK55894.1 hypothetical protein N917\_07450 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKSKYNSVVKVRKQQLDKAESNLNQAKQRQLEHEKAYELSRQECESLGVLPKSGSIAELRSNLSMAQVGR

EALARAKEKVELSKKEMNHYQFLYQKAHLDYEKMKVLEAEEIKQKQKELAKAEEKFLDEIAISRFFKGEK

DD

>AHK55893.1 hypothetical protein N917\_07445 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKKFILLVFISSVVFGAEQDCEQYFEARKAQIELQTREFDEARQSLEAYKASFEALQKERLENLEKKEA

EVNATLAKIEELKLENARLVEEQQKILNSINDKTQGRVKEIYSQMKDAAIADVLSQMDAEDASKIMLSLE

SRKISGVLSKMDPKKASELTLLLKNLDNNASN

>AHK55892.1 competence/damage-inducible domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRIKLPHIPYIANKMMLDIANSSFVEIKDQLEKLKVCIIEVLEKDILNERKLDERVKELLEQQEDEMELM

QVDRKNMFWLVKKKLAPEFNVILDSEDRHNHLAHQILEELVENDYINFIVSENRVKNLIFSSIESYLKIY

EKLEDEVYEKISNYKTKPIPGSEEYDLIFEKLYQEELRKKGMF

>AHK55891.1 carbamoyl phosphate synthase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKAYIYLENDIFLSAKAFGKSGTFFGELVFNTSLTGYQEIISDPSYAGQFIVFSMPEIGIVGTNENDNES

KEIFASGVLMRELSSSFSNFRAKESLQDYLEKHGKIGIYELDTRYLVKMIRNNGNLRAVISTEISNKEDL

KIALEKSAKIDEVNFVKEVSTKKNYSHKQGVWNASFQKFNDAKRSEKKVAVIDYGVKTNILNELVEVGFE

VEVYPYNVKADELITLYKKGEIQGVFLSNGPGEPRILKQEIAEIKKLAEAKIPMLGICLGHQLLSNAFGY

ETYKMKFGQHGANHPVINLDTKTVEITAQNHNYNVPEELAQVAHITHRNLFGDNVEGVRYKDYPIISVQH

HPESSSGPHESKYIFKEFMNLM

>AHK55890.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSIDFLAIISVAFLSSFGHCYSMCGGFNLLFINLNSKSNNLFLLTFIYNLFRIFAYIVLGIIFGTFGNIL

AINAKVQSLSFFILGIFMMILGFALIFRGNMLSFIENNVFFDSFVKKIIKKSKNFKGLKSAIFLGFSNGF

VPCGLVYFFIANAMSKQNIFEGILVMMIFGISTLPAMLFFSKISQFFSDFLKNLFNYLSYGVIVCYGINL

AYIGFKAFQ

>AHK55889.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKDFFKDQFFKALEKNTIFSRADVQGNLIFVSDKLCQISGYSKKELIGKKHSIFKHPDVEECYIEELLKK

LSYKKPYQVIFKNIDKLGKTFYLETLLIPILDKNNELIEIVAFSHDVSNSFKLNEELALNHAKLRELSIN

LENTVKNHQQEFIQLGKKFEKKMQIALEKNEKDIKIAYEEILKSSLEQMISDIAHQWRQPLNELGIAMFQ

MKQNLKDEKGFAEIYSQSKDMIKNMSETIDVFRTLFNKGVEQCVFIKETLNKALEIAFETIEKNHVNINI

VSKSDYEVLAYENGLIRVFLNLILNSIEAFKNKKRKIITINFSKFGKNYLKITIKDNAGGIDKENLDKIF

QPYFTTKHPSQGIGVGLYISRQIIESFQGKIKVKNGKDGACFEIFLKLKERVE

>AHK55888.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSQECKELIILVVEDEVKARESMINILSERFSKVIGAQNGDEGLKKFKKFKPDLVITDIAMPIMDGLDMA

REIKEISDDVPIVVLSAYSEKERLLRSIDIGIDKYLIKPVDIEELFKVLDYLIGEKIEANMLVKISEEYQ

FNKTKRTLIYSGGEIVLTKKELAFISLLLKQPGALVLHEDIKKNVWIGEHVSDTAVRTFIKRVRDKVGED

FIKNVPSLGYKININK

>AHK55887.1 cytochrome oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHPGNVLNYDYTVARYFMFATILFGIVGMAIGTLIAFQMAYPNLNYLAGEYATFSRLRPLHTSGVIFGFM

LSGIWATWYYIGQRVLKVSMAESRFLMAVGKLHFWLYMLTMVLAVISLFMGVTTSKEYAELEWPLDILVV

LVWVLWGVSIFGLIGIRREKTLYISLWYYIATFLGIAMLYLFNNMEVPTYFVTGMGKWWHSVSMYAGTND

ALVQWWYGHNAVAFVFTVGIIAQIYYFLPKESGQPIFSYKLSLFAFWGLMFVYLWAGGHHLIYSTVPDWM

QTMGSVFSVVLILPSWGSAINILLTMKGEWSQLRESPLIKFMILASTFYMFSTLEGPILSIKSVNALAHF

TDWIPGHVHDGTLGWVGFMTMAALYHMTPRVFKRELYSKSLMEAQFWIQTTGIVLYFASMWIAGITQGMM

WRATDEYGNLLYSFIDTVVAIVPYYWIRAIGGLLYLIGFFMFTYNIYKTIACGRVLDKEPKSASPMAA

>AHK55886.1 peptidase S13 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFSWLEKNPFFFAVAVFVVIAYAGIVEVLPNFAENARPIEGKKPYTVLQLAGRAVYIKDSCNACHSQLIR

PFKSETDRYGMYSVSGEFAYDRPFLWGSKRTGPDLARVGNYRTADWHENHMWDPTSVVPDSIMPSYKHMF

KNNADIETAYAEALTVKKVFNVPYDAENGTKLGSWEDAQAEVKAEAQAIVDQMKNQEVKDAFAKGEIKEI

VALIAYLNSLK

>AHK55885.1 cytochrome B561 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEHLSIVFDVIKNLITFDLATVQKHEWEIFQGYGFFALVMFLSIVLYAYWYHLYRTEKKGERNYENYANL

ALKDDIDDSVLESKRSA

>AHK55884.1 cytochrome CBB3 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQWLNLEDNVNLLSLIGAILIILITLVIVGRMFKQMKEKKGESELSEHSWDGIGEYKNAVPTGWAVVFFL

TIVWAIWYFLWGYPLNSFSSIGQYNEEVATHNTKFEEKFKNLSPEDKIAMGQNIFLVQCSACHGITGDGI

NGKAQNLNIWGSEEGIINVIKHGSKGMNFPGGEMLGAADLGVAEEDIPAIAAYVAKDLSAIKKTANENLV

AKGKEAYATCAACHGEDGKGQDGMFPDLTKYGSAAFVVDVLHSGKAGFIGTMPSFPTLNDIQKEAVGEYV

ISLSRGE

>AHK55883.1 hypothetical protein N917\_07395 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENNNRCVFSLSGVTGMLIATVLLLVILAVLTIWGLKAQQEVMQKPYSLKDVQSVKMFGSKEQDHRSIKE

AQ

>AHK55882.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILQDGFFLAIFFFVLLPSRVFALDAVLFNENILSQKVSNEINLIGKELYQKSNIFIGVMVGDKTEIE

TLLNKQKELPQSYILLLLSKNSHKVDIVGSKGALALIDKEAVLSPYPGTGSILPILATNKGDIYNAAILN

GYADIVDRVAKSLGLQLEHSIGNANRDTINILRILIYGFICFALLYYAQRRIKRKKNVRN

>AHK55881.1 hypothetical protein N917\_07380 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLETKKSFWPYGILLSLLAIIIACIVTIFIASHHPVYEDDFYFDSYQNVENNYNQIQKQQVNFDKFFKVN

FQNDKITFIGKRKIPSYEVDQNSYVANFKISALQNINSNDLKVQVLLTRPFTKNFDQKLEGQVKNGILSI

ALPKLDKGRWELKLKFYANQETVGFFSYELNAQ

>AHK55880.1 hypothetical protein N917\_07375 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLRIFSSSRQIREYYNQKKQQNALLDSAIHIGEFLDKVCLSNFHKASSYESLLLMQEACLKSKDLEKKL

GISVEFFAFLKNNEYLFSFFKELSLEKKSIEDLKNNDYYATYNEHLEILDEVYKNYLALLEKNSFYDDLS

LPKNYTLNKDFLDEYEAIVYDLQGFLSKFEENLLSEISQIKEVVLSFKTSKFNLEYLLKLDFLKIFDLKI

NTHYEINLSKQEILKEEIFKTKNSKMKLKSFELRALQCAFVMDEISHFVRKGLKPENIAVITPDESFCEF

LRLFDKDNMLNFASGISIKESLFYQKFQALYESASSASFVYKNQEDYFEDTQMIFDYHNTLLHSLKLDFI

EFKKYFDEKCDFEYFEKLLALFLENEKQELMYLIRKELYFIKDLLKNQSLTLKELIHLFFMQISQLSLSD

VGGGKVTVMGLLESRGLCFDGVILVDFNEEFIPKRSVNELFLNNEVRKKAGLISYDRRENLQRFYYESLM

KNALEVSICFVENEEKSKSRFLDELDFDFFYETHIHQKAYLNALKLDYEGIKPNLTPIKAPILKHNPFEF

PLSFSRFNLLENQKRTYYYRYILNLAEPRVLSEESKAKNQGNFIHKMLEIYYKNYANNDFDIKVFANLLD

KEYQKYNISELDLEVFKLKFMQFAKNEKEHFSKGFYVVHTELELNNILKLGTDSIKLKGTIDRIDSSKEG

NLIIDYKSGKVPSNSYQLAFYQALYDENASVGFYDLNSMQILHQKAKSLDELRERLKDLVLMSKEEIEFE

NEQDEYCPYKLIYKKELK

>AHK55879.1 recombinase RecB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSQFEPFLALEASAGSGKTFALSVRFVALILKGARINEILALTFTKKAANEMQKRIIETFLNLEKENKTS

ECNELCKLLGKDKEELISLRDAKKEEFLRTELKISTFDAFFGKILRVFALNLGLSSDFTMSEERLDVREI

FLKLLKKDELKDLAYYINLVDEKENFFNELEKFYENAYFQNRPKILNPTKAYINKAYSELRSYCLGLTHV

KNYKNLCDNFKSEVLDLSVFMQSSFMTKFESTKYLQDLESTNLHFSAKRMEFINALNTYAIELENYKIAN

LMNLLNHYSEAKNIFHKDKNTLNFQDVSKKVYELITSEFKDMIYFRLDGFISHLLIDEFQDTSVIQYQIL

RPLIAELVSGEGVKKNRTFFYVGDKKQSIYRFRKGKKELFDLLKQEFSQIKSDNLNTNYRSKELLVDFVN

ETFKEKIKDYKEQFALESKKGGFVRIVESKEQKVKNQAQEIKEKTLETLFEQINFLRSKNISYDDICILC

WKNSDADMVLDFLREQNIPAFTQSNVLLENKASVRLVLEYAKYCIFGDEFYLVFLKELLGFEPRKITLDF

SKNAMENVLFLIKELKLDLNDIALIQFIEYAKTKENFLKLLFEPCALKIVSEQNMGISIMSVHKSKGLEF

DHVILLDSLSKNNSNNEDIMLEYDINQGWQLHIKDKIRELTKEPIYTLFKENITRANYEDDINKLYVAFT

RAKESLIIIKRNEESVNGNYPSYFKGGFLNIHSQERGFLESKEQILSVKKESIQTLQKFEKITLQEIQSE

ERLDSKELYFGNAFHFFMQNLKLPKGENFQILTQRCKSKFRHFLDESDFEKLFKRIEILLKNIQFQNLIG

DGKLLKEQALSFNGEIKQLDLLALKDEEAFIIDYKTGLAMQDKHKEQVGTYKIAISEILQKDKVRAFIVY

CLENEIQILEI

>AHK55878.1 50S ribosomal protein L13 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKITKPNEVKREWIVLDAEGKRFGRLLTEVATILRGKNKPCFTPNVDCGDYVIIINASKAVFTGANKAE

DKLYHRHSGYFGSVKSEKFGDLLEKNPAKLYKLAVRGMLPKTNLGRAMLKKLKIYAGSEHPHTAQIAKEG

K

>AHK55877.1 30S ribosomal protein S9 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MATTYATGKRKTAIAKVWVKPGSGKISVNGVDLNTWLGGHEAIKLKVVQPLLVTKQETSMDIKATTLGGG

YSAQAEALRHGISRALAAMDADFRALLKPKGLLTRDSRTVERKKYGRRKARRSPQFSKR

>AHK55876.1 outer membrane fibronectin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIFLCLGLASVLFGADNNVKFEITPTLNYNYFEGNLDMDNRYAPGIRLGYHFDDFWLDQLEFGLEHYS

DVKYTNTNKTTDITRTYLSAIKGIDVGEKFYFYGLAGGGYEDFSNAAYDNKSGGFGHYGAGVKFRLSDSL

ALRLETRDQINFNHANHNWVSTLGISFGFGGKKEKAVEEVADTRATPQAKCPVEPREGALLDENGCEKTI

SLEGHFGFDKTTINPTFQEKIKEIAKVLDENERYDTILEGHTDNIGSRAYNQKLSERRAKSVANELEKYG

VEKSRIKTVGYGQDNPRSSNDTKEGRADNRRVDAKFILR

>AHK55875.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKTILFDLDGTLIDSTDAILNSFQGAFKALGLTSKNNEEIKNLIGYPLEQMFRMLYPDKVNLSKEFVLA

YREIYAQIYLEQTTLLPKAKEALELGSEIADLGIVTTKGGKFTPILLDYLGVKKFFKTLITLEDVTNPKP

SSEPIILALKGLNKTQENAYMIGDTILDIQAAISANITPLALTCGYGNENELKAHSMVFLNAYEAVNYIA

RLN

>AHK55874.1 Pyruvate-flavodoxin oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGKIMKTMDGNEAAAYAAYAFTEVAGIYPITPSSPMADYTDMWAAAGKKNLFGVPVKIVEMQSEAGAAGS

VHGSLQAGALTTTYTASQGLLLKIPNMYKIAGQLLPCVIHVAARSLAAQALSIFGDHQDIYAARQIGFAM

LCSHSVQETMDLAGVAHLAAIKGRVPFLHFFDGFRTSHEIQKVEVMDYAHFDRLLDREALLEFRNNALNP

ENPKTRGTAQNDDIYFQTREVSNRFYDALPDVVNEYMQEISKITGREYKPFTYYGHKEPECVIVAMGSVT

QALEEVVDYLNAKGEKVGILKVYLYRPFSLKYFFDVMPKSVKKIAVLDRTKEPGSLGEPLYLDVKSAFYG

RENAPVIVGGRYGLSSKDVDPAQMIAVFENLKLDNPKDGFTVGIIDDVTHTSLSTGEKISLGDESTIECL

FYGLGADGTVGANKNSIKIIGDKTDFYAQAYFAYDSKKSGGYTRSHLRFSKKPIRSTYLVSTPHFIACSV

AAYLEIYDVLAGIRKGGTFLLNSIWNAEETIRQLPDAVKKTLAEKEVNFYIINATKLARDIGLGNRTNTI

MQSAFFKLAKIIPYEDAQKYMKELAYKSYSKKGDAIVEMNYKAIDVGADGLVKVEVDPNWKNLELKEKEQ

TNAYKGTEFVEKIVKPMNAAKGDDLPVSAFLGYEDGSFEHGTTEYEKRGVGVMVPRWIEANCIQCNQCAS

VCPHAVIRPFLINDEEMANAPRGVKDHALEAKGTKGEKLSFKIQVSPLDCTGCELCVHECPTKEKSLVMV

PLQEEMDFGEQENADYLFKEITYKDDILNKETTKGAQFAQPLFEFHGACPGCGETPYITLITRLFGERMI

VANATGCSSIYGGSAPSTPYRKSVKNGHGPAWGNSLFEDNAEFGLGMKIATENTRHRIEHIMNESMQEVP

NALSALFKDWIANKDNGAMSVEIKDKMIPILEQNKNIKAVQDILELKQYLSKKSHWIFGGDGWAYDIGYG

GLDHVLASGENVNILVLDTEVYSNTGGQSSKSSRTGAVAQFAAAGKPIQKKDLGQIAMTYGYIFVAQVNS

TANYTHLIKAITAAEAYDGPSLVICYSPCIAHGIKGGLGYSGEQGELATKCGYWPLYTFDPRLEEQGKNP

LTLTGKEPDWDLYEQFLMNEVRYNSLKKANPEHAAELFERNKKDAQRRYRQLKRIAMADYSNEVES

>AHK55873.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MCFSTLFAQDNFEEYFKLIDKENRINFNTLQNPFVNPTFEKLRHIKITAIMLDKVKIYDRWYKKGDMIDD

AIIYEINTKEIKFQYDNLEIAIQINKNDKINININ

>AHK55872.1 type II protein secretion system D protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIRLILILINILFCHYLYALDCQKRLFDISINEKLSIQESLDELAKYCSFSIIVKDKIAKEKLETLQNSV

NIHQMSLDEIFNFFIKEHDLSYDFDGKILRISGINTKIFKISYITSIREGQSITKASVDAKPRQSEYSGS

FDDAEDNMIKSMEKFDFWQNIEKEIIVLLKNSHEDYEAKTPIINPNAGLIIVTGTNSQLKSVKNYLQKLE

NRLKKQVIIDVSILAVSLNESHSSGINWQNFNIGLNSQVNNENSFIQFQNGQGFVKNLGLRANLNFDSII

NFLSQNGKTSVLSNPKLMALNNQQAIISVGDTINYQVKESSKGTENGTTVSESYNNYSIFVGILLNILPE

ISDDGKIMLRINPSLSDFKYPEDNKRQKEPRTIAPDTIQKKLSSVVQVENNQTLILGGLISHDKSNEKNS

INFLSKIPILGSLFKGEVLNSKATEIVFIITPSIVDSVNAPSLKDLGFKHYE

>AHK55871.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKIIPFREEIFHQINQILESQKAFIFLWGKSGSGKSVLLQRLAKKYNVDFINENFKDQSFLKEKIEFLI

SQGQSLIILDEVGMYDYAMLESIRIYSDSISFVLSSHKKLNILKKEHFKSRLSACFKLKNISLLELDDYI

KLKFGMNFSNKCLKFLQKISQGNLRYIDKTLKSFYEINSFFDKNKSQEYILKLSALENGLLR

>AHK55870.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQERIKELELRYKYFLLKKYLKYLLLIILISVIAFCFFVLMQKYNKQKNIYLQAIEHKKHLEQKILQAQI

LQEKNKISREKLYKELEEVKAVQENTHISKIEIDSKILNISDLKKSFYQNPSYEKALNLAKKYFDIKAYQ

KTIFWALKANELDKQKQDSWLIFAQAKRALGEEKEAQSALDAYINYYGLMELDGK

>AHK55869.1 type II protein secretion system E protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MESRMDKIFQAYIDNEISLDEICTKFNITSWDFFNKLANFCNLHFVDLDEDNDFIYEGIPFSLLLKFKFL

LIKNNDGFMIIRSKPCSLELLEQVKTFMICEKIDTAIADELKIAKILNQIRIQEEIKRLSIKLRLEWQEN

HKRDDQSCISQIFDFLLHEILSFHASDIHIEARNNDALIRFRVDGILREFAIFEKDIYEALVFHVKFLAC

LNLAESRKTQDGSFELDFENERYDFRVSCLPLIYGESVVIRILKHDKEILDLYKLNLGNKNLEILKKILH

RPNGMILLTGPTGSGKSTTLYACLNELKSIEKKIISAEDPIEYKIPLVQQILLNSKVGVEFNSVLRAILR

QDPDIIMIGEIRDEESLDIALKASLTGHLLLSTLHTNDALSTIDRLLDMQAKSYLIASALSLVIAQRLVR

KLCPWCKQKSKKHYIEFEGEFFEPKGCERCHHSGFFGRELIAECLEINEDLACAIRENQDKTILMELAKK

YGFQTMFEQGLKKAKEGLTSIDELLRVVR

>AHK55868.1 general secretion pathway protein F [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFYEVEFLKNNQNYTKTIKAENLNTAQAKALSKNWKIIDIKEIQKSNFQRLKDENFILFFKELALLCEV

GLSVQEAIRELYFMHSCKIMKKILDNLILAQNLNQAFENANFGLNRAELALIKTAEKTGKISEVFSQISK

LREKSLESQKQLKKAFRYPTLVFLSIIGAFLFLMLFVVPNFKDLFENLGASLPFITHVMLEIYNFLDDYG

IFCIFLFVIFIVMLILAYKNFHSFAFSCDFLFLKVPLISRLIIYNQNYYFFMVFSLLLKNGISISKAFDL

AIIGLENKFLIFQYKKLFSFIDSGLELSQAFKKIDIFDSLVFSMLSVAMKSGRLEVLSEEIAKYYQQKSE

NLMDRFLIFLEPMMTLFVALLVLFLALGIFLPMWELSSGVNFN

>AHK55867.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGFEHLNTIYYFILFFVALFAGFIDSIVGGGGLITLPALIACGIPAHLSLATNKLQSVFGSFTATLTYFK

STTLPRLAWGVFFTALGAAIGSYSVLFVKDEQLKLIILIFLTLTFLYTALRPNLGKHESEPKIKNIKIFH

LICGLTLGFYDGFLGPGTGSFWIFACVMLLGFNMRKASINTKILNFTSNIIALAIFLWQYELLWAVGLLM

GVGQVLGAYLGSKLVLKTNGKFIKTLFLIVVGATIIKVAWDYFS

>AHK55866.1 hypothetical protein N917\_07305 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNFIHLKAKLDFLANQKNTNHSLFETPDPLQIAKIHNDEFIALICALFAYGNAKNIVNFLKKLDFSLLN

LQEKQIKKELKNLKYRFQNEKDIQEIFITLSRLKNEISLYELFYQAYQERENTTDAILAFMQKIKTLNSY

SSYGYDFFFGKIWQNTPTSPLKRYNMYLRWMVRKDELDLGLFTKIHTKDLLIPLDTHAHKISLTLGLLKR

KIYDYKSVLELTQNLKKLDANDPIKYDFALYRLGQSKEIDKFKE

>AHK55865.1 flagellar hook-associated protein FlgK [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGIFGTLYTGVTGLKASEVQIATTGNNISNANATFYTRQRVVQTTNGYITTGGVQVGTGTAVESIVRLHD

EYSYYKLKGASTQLEYTKYMASTLQEIAQRFPDLQNTGILQDLENYNKAWNDFASNPNENATKIALVKAS

QTLTESVNNTFATLDKIQKKVNDDIKNTVDEINRIGEEIATINKQIYGQEALPTEHANELRDRRDELELT

LSKLVSAVASKNEINQDNRLDTTITDPGHQYNLSIEGFSIVDGINFHPLKLDYDDKNKSYSIYYETPDEK

VRDLTAKISGGQLGAQLDLRGRNYSKSEGKYEDGIIQGYMDSLDTFAKTMINETNNLYASSAKSSVTSDY

LSGLKGDIPLVNYDRTIQPGSFDIVIYDDKGDKKLTKTITIDVNTTMNDIMRQINANTDDNDNKNSNDDV

DDHINASFSYDAKTGDGLFQINAKSGFKVAIEDKGTNFAGAFSIGGFFSGTDASDMKVKDSILNDPSTVR

ASSNGVDSGNDMANKIIQLQYKKVNFYNEDGTIDNLTMEEYYRKLTGKIASDGENNNVVNSSNETLYNSV

YSEYQSKSGVNTNEELAALIQYQSSYGAAAKIVSTVDQMLDTLLGLKS

>AHK55864.1 hypothetical protein N917\_07295 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKQRLDEVNAILAKLIALTEEDIENIKVAKHESVTPSVEEKNKLIAEFITAKKQLDVALVELNNSSTKG

LSELLDDEDKQKLDLLKKNLQNLHSKNKEYAKFVLIVKDFLDGLVNKMFDINDGTNNAYGDKKTNPESIF

KINV

>AHK55863.1 hypothetical protein N917\_07290 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINPIQQSYVANTALNTNRIDKETKTNDTQKTENDKASKIAEQIKNGTYKIDTKATAAAIADSLI

>AHK55862.1 hypothetical protein N917\_07285 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVDNFLNTYSMNSALLDRAAKARSLESSIKINDNDIVTKSKEDKALKEQTNAFEAFFLKQVLDVSLKSQ

NSLFGKDASDEIYSSMYNDTMSKALSGGMGFSKLLYDFLKERG

>AHK55861.1 flagellar P-ring protein FlgI [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRVLTIFLLFMTSIFAVQIKDVANTVGVRDNQLIGYGLVVGLNGSGDGTSSKFTLQSISNLLQGMNIKVD

PNDIKSKNTAAVMVTAKLPAFAKSGDKLDITVSSMGDAKSLQGGTLLLTALRGIDGEIYAIAQGSISTGG

LTPRPGGTGSHSTAATVMGGANVEREIPQNFSQNNDLTLSLKVADFKTANNIERVLNTVFGEEVAKAIDS

RTVKLKKPEDLSNVDFMARVLEQDIAYKPQSKVIIDERTGTVIAGVDVEVEPVLITHKDITIKIDPNNNT

VANQNEIDMKDGGFVDPSSNTLRINNAKSTVANIARMLNKLGATPNDIIAIMENLKRAGAINADLEII

>AHK55860.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMNDEFISVKDFFNHNEKRKKFLQKQEIKPPKEKTKKTKETKLYTNIESGKYKGKKLLLPSLTTTRSTKS

IVKSCVFNVIREDLRSKIFIEAFGGSALIAAEALSNYALKAYAIELDIKAYKIALENAKNIDPNLEVIHA

NTFEILPKLIENSKNEIILYLDPPFDIREGFSDIYEKIYHFLENLDLKTLNLIIFEYHSTIKTPEKIQNF

QKVKEKKFGSTSLSFYSS

>AHK55859.1 Ornithine carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKISLECKDLIIEKTLELFLKDHLVMKKNCDFIISDEKIHTAKPLFIISKNSPFLSIPFSKETLFESLNE

FDNALKAAALQLALEQKRLLEEKIDAIALEFKKDYENKIDLAIKDLKNKLVKALNDE

>AHK55858.1 hypothetical protein N917\_07265 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKLELRIFRFDKTKDYEAYYKPYIYDNYENFASFYDLLLQVQNDDIYFDFDKDEDTYIVVNKQIIPLFT

PLEKIAKEFDFNLCIEPLSTKRAIKDLIIDKNDFLDKYKYLEKFGDEEDKKLYAKYDYLYYATEILDYLP

EYMGDGVFYLASKMIEKYPEKKIEILKTLADKEKGIFYHLESKNEILETTIKNLQNEILNLGLFDKNILH

FDLPKTNAFDNEIKELKEIKHNFKDFNIAFYGFNACDTLKSKLKAKFISYENSIKNNGFSLLNLNPTLSY

KIAADIVLDAYDSGADFMVVKEEKDFYLFDTCAKKLMQTSKRDFEDFYILSRFEFLALIEGIQAPSLKNH

TLKVSLI

>AHK55857.1 thiamine monophosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKEDFIIKAFLNKKNGDDGAIIDDWCFSKDLFFENVHFKREWFSLEQIATKAMLVNISDAISMNAVPKY

ALLGLALPKNLSENEIKALQKGFLKTARKFNIKIIGGDTISNDKIDISLTIISKINDKAVFRKGLKKGHL

LAYTGKLGRSLKGLEILQNGGTLKPNHVFIKPKLRASFFYEIAPLISCAMDISDGLSKDLSRLLALNKCG

ISWFKKLDDYALYSGEEYEILFAFDEKERQNIEIIAKKHGVKLNIFGKAVKGKYEFRGREHHF

>AHK55856.1 tRNA pseudouridine synthase D [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLEEENTIFKPLYSLKHSPINAYFSKNSDDFVVRERPLYEFSGKGEHLILHINKKDLTTNEALKILSEA

SGVKIRDFGYAGLKDKQGSTFQYLSMPKKFESFLSNFSHPKLKILEIFTHENKLRIGHLKGNSFFIRLKK

VLPSDALKLEQALMNLDKQGFANYFGYQRFGKFGDNYKEGLEILRGKKMKNVKMKEFLISAFQSELFNRY

LSKRVELSHFANDFSEKELIQIYKISKEEAKELKKQEQFFKLLKGEVLGHYPFGKCFLCEDLSAELGRFK

ARDISAMGLLIGAKAYETGEGLALNLENEIFKDTLEFKAKMQGSRRFMWGYLEELKWRYDEEKAHFCIEF

FLQKGSYATVVLEEILHKNLFE

>AHK55855.1 peptide chain release factor 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDNYEFSELLKTLKNKVGNIASIIKPENIQTRLKEIEELENSPSFWSDVKQAGIIGKEKTKITNLLKNYE

NAFNALNDASELFDLANSENDTETLEALFNDAPKLEDTITSLEISMLLSGENDGKNAIVSIHPGAGGTES

NDWASILYRMYLRFCEREGFKVETLDFQEGEEAGLKDVSFLVKGENAYGYLKAENGIHRLVRTSPFDSAG

RRHTSFSSVMVSPELDDDIEIEIEEKDIRIDYYRASGAGGQHVNKTESAVRITHFPTGIVVQCQNDRSQH

KNKATAFKMLKSRLYELELMKQQDSANTGEKSEIGWGHQIRSYVLFPYQQVKDNRSGEAFSQVDNILDGD

IKKMIEGVLIALKAE

>AHK55854.1 ribosomal protein S12 methylthiotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKLYLMSLGCNKNLVDSEIMLGHLSAYELCDEPSKADVLIVNTCGFIDSAKKESINAILDLHEQRKKDS

LLVVTGCLMQRYREELMKELPEVDLFTGVGDYERIDEMILKKTNLFSNSTYLQSENSKRIITGSNSHAFI

KIAEGCNQKCSFCAIPSFKGKLKSREISSIIAELKDLVARGYKDFSFIAQDTSSYLFDKGEKDGLIRLID

EVEKIKGIRAARILYLYPTSASEALIKRIIASEIFINYFDMPLQHISDNMLKIMKRGANSTRLKEMLNLM

KSAPNSFLRTGFIVGHPGESEADFEELCEFVKDFGFDRISVFAYSKEEDTAAFDMEQVPFKVINKRLKII

EKIVDEVIEKSFEKEVGQKRLVVCTGKSSEGEFFIAAKDLRWDREIDGEILINESECGNLEMGQIYECEI

LQNLDKKLLAKALRKVDAN

>AHK55853.1 tRNA(Ile)-lysidine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQIKDEILSLLKRGKNLLAFSYGSDSSVLFYLLMQEKIDFDLVMINYKTRKNSDLEELKAKELALKFHKK

IFIKHAPKFQSNFEKKARDFRYDFFEKICLEQGYDHLILAHHLNDQFEWFLMQLSRGAGLAEILGMQECE

KRSNYTLLRPLLFISKDEISSFLKEKDIFYFHDESNENEKYFRNYIRKNFSNAFVSEFHQGLKRSFSYLD

EDRKKLYDFENIKEIQGLLICPKNESLIARAVKMKGLLLSTAQRKELLKGDCVLGGKIALAYKNEQAIVF

EYETCQKLPKNFKEECRIAKIPRLLRAYLYNHKIDISSLSF

>AHK55852.1 dUTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTNIEILENMLKLQQKLNDETNGLNWENGYTKEGKLISWRRCIYMECAELIDSFTWKHWKNISSLTNWEN

VRIEIVDIWHFILSLLLEEYRDKNNKDFKAIATEVNAVSVFQDFCKEEEYPNEGDIYGILNDIELIIHKC

SGFGFNLGELLSTYFTLAIKCGLNLEILYKTYIGKNVLNIFRQNNGYKDGSYKKTWNGKEDNEVLAQILE

QELDFDTIYKKLEECYKKA

>AHK55851.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQIDASKNQSFSMDYTTKSGKHLALSMYDNQSVSYANNEEGKTLNLKRQYGFSFTFEGSKLTQNDLDEIK

NAMKEVEPMIKDFLANSKVGELKPKEIIESAMQMANVLPTPNDENHQNAIMNNFTNKLSDLLKQNQTDDK

DINASMLEDSKKLLDEVLEQMKKQLEKQQEKAKENQDKTDDSLNLYA

>AHK55850.1 hypothetical protein N917\_07215 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDERILEFIKNEQLLSWAMIDEKGVYTASAFYAFDEKNLAFIIASHEDTKHIRLASENSSIALNIAKESK

IAFLKGVQAKAEFKMASKEQMKIYFSKFPFAKFDKSAKIYALELFWLKFTNNALGLSKKLEFYKK

>AHK55849.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNVIYALFFRELKTRFGKNRYLGYIWVVGEPMSIVLLVTIIGTIVREYHHQVMPEGISIFMFLISGIMP

FFMFRSIVTQLMNGTQANLALFAYKPVKPIHVFIARTLLEFCIYFVIFIIILFFAGWFFRLDVFPVHLLG

VLFCIFLLICSAFALGICFAIIWHFVEPLRTLLAYFSIVFYWTSGIIFPTWLTPRPLLDIFYYNPLLHIF

ELLRFNFFENYPLQDEYSYFYAIFWILLVLFIGLFIYYYNRQALTAVKKE

>AHK55848.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKLINLTKSYPLFSGGRHYVFKNFTFEFPENCSIGLMGYNGAGKSTLMRLLSGAELPDSGKIITNKKLS

WPLGLNGAFQGSLTARDNAKFVARVYGYKGKELQEKVKFVEDFAELGKFFDEPMKTYSSGMSARIAFGLS

MAFDFDYYLIDEAGAVGDPAFREKSVKLYRERLSKSKVIMVSHNVAEIKEWCDKIIYMKNGQITVYDDVD

EGIAVYQGKV

>AHK55847.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEENKTLLEKIKDLSIFDSFKIVWFIMIFVVIYYTLIAAPRYVSTMILDVRSTSGESAQTSGILSLLSST

STASEDLNYLKGYIESSDMLKILDEKIKLKNLYQEQHIDLPFKIWDSSSIESYLKYYQARVKVHTDETTK

LLKVEVEGFTPKSAHLIAQAIMQESEKFINEISHKAAREQMAFAENEVQKYKERYQKAQNDLIAFQNKYG

VFDPLKQAETKASLVAQIEANLAQKEAKLLTLQSYMNDAAPEVVALKAEIEAIKKQLLREKSKISANNSS

QKLNDLAAKFQDLTIEATFAQKAYEAALKAYESARIEALRKIKQLVIIQSPDIPESAKYPERIYDILTAF

IVLSLIFGIVKFIKMIIEEHKY

>AHK55846.1 sugar ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILILLFSCILCFGAVDVSQIISAEDQGSATTSIDQNLSSNYDIANKENNLTKIHQILVFGAHLFNGN

FKNYNQRVYNPDYKIAVGDQISLKIWGAVEFSQVLVVDSQGNIFIPKVGAVNLLGVKNSALVSVIKARVN

KIYKSNVFVYADMNAYQNVSVFVTGNVNAPGLYQGLSSDSVIQYLDKAGGINLEYGSFRDIQILRNNSVI

KNIDLYDFLLKGQMDLFPFRSGDVILVGNVQNYAFVNGDVQRPFRFELSNDIKTLADLARVSGAKPIVTN

AIVKSYGEDHKLDVSAYNKMQFSKVLLRTGDEVEFHPEYVSENITISVNGEHNGLKTLVVGKGTTLEDIS

KLIKANPQSNMQALQVFRKSVARTQKELINAQLKELETLALTSGSVTAQGAAIRAQQAKTILEFIQRAKQ

VEPKGQIVIDNPKSYNSVILEDGDTINVPSKNNLIIVQGEVSLPGAFVYDKGKDLRYYINLAGGYGERAD

TSKVLVIRSNGKAEKYHSGIDMKRGDSVLVLPKVDSENLQIFSMLTQILYQIAIATNVVLNL

>AHK55845.1 arabinose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNTLEIAKEVFEKEAQAILDLATNLDENFNQAVNLMLNTKGRCIVSGMGKSGHIGAKIAATLASTGTPSF

FIHPGEALHGDLGMLTSEDVLIAISNSGETEEILKIIPAIKKREIPLIVMCGKKNSTLVKQGDIFLNIAV

EKEACPLQLAPMSSTTATLVMGDALAAALMKVRNFKPDDFALFHPGGSLGRKLLTKVKDLMVSSNLPIVH

PDTEFNDLVDVMTSGKLGLCVVLENEKLVGIITDGDLRRALKASDKPRFDFKAKEIMSINPKVVDADAMA

SEAEGIMLKHKIKEIIVGKEEKVVGIIQLYAIGNV

>AHK55844.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENLNSYIKGHFADSILVKEQILKDENLITLIKNASLEVIKAYKNGNKTLLAGNGGSAADAQHIAGEFVS

RFYFDRPGIASIALTTDTSILTAIGNDYGYENLFARQVQAQGVKGDVFIGISTSGNSKNILKALEFCKQK

EIISIGLSGASGGAMNELCDYCIKVPSTCTPRIQEAHILIGHIICAIVEEELFGKGFSCKQ

>AHK55843.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKLVEQVWDYTKHAKFYSYRPNYAPKTIDMLISLVGKKDIKVADIGAGTGNLSIMLLERGCKVVSVEPN

DAMREIGIERTKDQKIDWVRATGLNSTLQNSEFDWVTFGSSFNVMDRNEALEEAHRLLKSEGYFSCMWNH

RDLNDPVQKIAEDTIVEFVPNYTRGTRREDQRPIIESRKDLFDNIVYIEEDFYFHQSIENYINAWKSVKN

PYWDLETDEGNELFNKISNKISQRLPKEFSIKYTTRCWSAKKI

>AHK55842.1 hypothetical protein N917\_07065 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAELKFKTKAQNLKNLQTKLKKAKVLPLVLTSLEELISNEDKVLQDIQTLKANRLIIRSSSLSEDSMKNS

NAGAFLSLANIKADSKDELLKALYEVANSMPSKSDEILVQPMLENITLCGVGFSVDKDNFSPYFCLQYDE

NGSNSSITDGSSKSAKTYYHYRNYLEFKDIRLQKIIELIKELEVLYDCHFLDVEFAFAIQDDKEELFCLQ

VRPLVMHEKNNLFHSLPKEALYRFYKRFESLKESRSRVLGDKAIFGVMPDWNPAEIIGLRPKRLAFSLYK

EIITDNIWAYQRDNYGYRDLRSHPLIHSFLGIPYVDVRLSFNSFIPKKLDENIAQKLVNFYLDKLNKNHE

LHDKIEFNIVYSCYDFNSSKKLEELLNHGFNENEIKRLEFSLLELTNKIINPRSGFYLKDIQKAYKLKER

YDGIINSNFSLIDKIYWLIEECKRYGTLPFAGVARAAFVAMQLLNSLVEIDFITKEEKDDFLNSLNTVSK

NLSKQTNHLNFHNKDQFLKDFGHLRAGTYNILSPRYDEDFELYFDADQKDSKVYLQDKAFVFSKEKTRAL

NALLKEHGLEINACEFFDFLKQAIEGRELVKFEFTRLLSKAIVYIEELGKYYDIEKEDLAHLDIKSILNL

YSSLYSINPKEQFIEEINRNKKEYELTQAIKLPSLLCNADEIFSFYNHSIIPNFITQKSITAFTAKENDK

DLEGKIVLIYAADPGYDYLFTKNIAGLITCYGGANSHMAIRASELGMPAVIGVGEENFEKYLKAKKINIE

CESEQIFCL

>AHK55841.1 glutamine amidotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFIGITQRLICNDSYHEKRECLALDWGKLFNKDLFKNFTPLPLSYEIDFSYYKHLIKAVILSGGNDLSFY

SPNVLSKKRDLYEKQVIEICLEEKIPLLGICRGAQMIAHYFNSHISPCENHIGKHEVFFSKEKFISNSFH

NFAIEKLGEDLVELCLAKDNTIEAFKHKYENIFGIMWHIERENGLNNIQILKEWFSLIKE

>AHK55840.1 sugar nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNAIILAAGFGSRLMPLTKDQPKCMVEYKNKKIIDYEIEALKSAGINEIAVVGGYLNDVLKNYLNKYDIE

HFFINSKYDKTNMVHTFFCAKDFMLKCIEEKQDLIISYADIVYFQDCVQKLINAKEELAIVVDKSWCKLW

SKRFANPLEDAETLKMTNGYIIELGKKANAYDEIEAQYIGLFKFSYQFLSEVIAFYEMLDRDILYDNKNF

ENMYMTSFLQALIEKYNNAKAVEIDGNWCEIDFMSDLEVQIEK

>AHK55839.1 adenylylsulfate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNNPYIIWLTGLAGSGKTTIGQALYEKLKLKYKNLIYLDGDELREILGHYAYDRQGRIDMALKRAKFAK

FLNDQGMMVIVTTISMFNEIYDYNRKQLKNYYEIYIECDMHELIQRDQKGLYTKALNKEIDNVVGVDIEF

DKPEADLVINNSCRNNLEEKVELIIKKLAL

>AHK55838.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKYYSISKKLIANVRNFYTISLYKKNLKIKKDDLFFGWGRKKSGLKAMNLAKKYKAKFILLEDGFIRSLN

LGVENSPSFSMVKDDIGIYYDATMPSKLENLLNTCEFKDEEIKQAKKAIELIKKYKISKYNNNLDIPDNY

FQKDEKRVLIITQTANDASLEFGLAKDFKTLDMIKDAIKENPKSTIYIKIHPDVLSGKKQSDLDLNSLPK

ECILITENFNPIALLEFFDKVYTKTSGMGFEALMQECECICYGMPFYAGWGLTKDKLECKRRMQKRSLEE

VFYAAYILYAEYFNPYLNQKSNIFDTIQTLAKYKDIEKVNSNKLFMLGFTLWKRHFIKPFFKAKDNEIIF

LNSLKSLARYKLKENDKFFIWGKRIDYNALKTTLIKKAQDENLLHFTPKISLVEDGFIRSISLGSDLTRP

FSLIVDDKGLYIDPNKASKLEELLQNEIFDENMLNRAKNIIKILLENRFSKYNGLKHEDLKINAKIGQKI

ILIPAQVEDDASMILGGFGLSTLDLLKEVRAKNQDAYIIFKPHPDVLSGNRVGLKDETLILEFCDEIVKD

CSIDSAIKIADEIHTITSTSGFDALLRAKKVFTYGMPFYAGWGLTKDKYRCERRIRKLSLEELVAGALII

YPRYINPKTKTLCEIEVCLDIMLNLQKAYFSKKYIKLAIDFKTFMLRKIRRFYEFLAKK

>AHK55837.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRFSTKIKKEFSGKNVLLLQGPVGNFFHHLAVKMRKNQTKVFKLNFNGGDFFFYPSGTRCKCDEKDLENF

YRDFFQNKKIDAILMYNDCRIIHAKAIKVAKELGIEIWIFEEGYLRPYCITLEKDGVNANSSLPRDKNFY

LSQNIFTKESIKEIPGGFKFMAFDAFLYWLFAFILAPFFNNKLHHRTLYPFEFLFWFRSLYRKYLYKITE

KKLNEKIYNLEKKYFLAILQVYSDTQIKYHYKKSIEHFIEETILSFANHARAKSYLVFKHHPMDRGYKNY

FKLINDLSRKYHVEGRVLYVHDTHLPVLLRKALGCITINSTVGLSAILEGCPTKVCGNAFYNFEGLSYPK

KLQFFWREAHAYKPNPVLVCNFKKYLLQTNQFNGNFYKNFFLDK

>AHK55836.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDREVFYIAGYDPKSYRFYYDLFKKNLKDYSHAFNIKADLSKIEKNEQFPFFQISCEGVQTKYHFLTWND

IVKKNWSENYKDALADCYSFFRIYTITGLFIKFGKESIYQLITGYYPFFYVLFSLLFSLVLAFGSFAFLQ

NYMHFSLAIIIGCFLGFLLNHFLFKLGKKLAVFWIARICAFCATWQDKKTGTMQERIKLFANTIVDKLKQ

NENKQDYELVLVAHSVGTIVCIEVLECILRQNLDLSLLHKLKILTLGECIPLVSYQKKADEFRKKLEFVS

RFDLKWYDYTSIIDGACFPQVDFFRTSGVNAKFTPPFLSAKFHTLYEKHEYKKIKRDKNKAHFLYLYSIS

VKGDYDFFSFIIMPKFLEEKVKI

>AHK55835.1 cytochrome P450 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSECPFFPKPYKNKASTLLTFLLKRRSWLDGLYERSYKMQTGYVKMPNFDLYVINDTKEVKRMMVDEVRE

FPKSAFLHELLSPLLGESIFTTNGEVWKKQRELLRPSFEMTRINKVFNLMSEAVADMMDRFSKYPNHAVI

EVDEAMTFITADVIFRTIMSSKLDEEKGKKILNAFVTFQEQSVHTAMRRMFRFPKWLSYVLGDCKRAKAG

DVIRQVLSDIIKPRYDMADNAEFEDILGSLLLVVDADTNKRFSFEEILDQVAMLFLAGHETTASSLTWTL

YLLSLYPKEQEKAYEEITQVLQGGVIEISHLRQFKYLTNIFKESLRLYPPVGFFAREAKKDTQVRDKLIK

KGSGVVIAPWLIHRHEEFWTNPHGFNPSRFEGEYKKDAYLPFGVGERICIGQGFAMQEAILILANILKTY

KLELEEGFVPDVVGRLTVRSANGMRIKFSKRKL

>AHK55834.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKRVRTKIRANFRRRVKRTLKGSLKEKLAGTILLCAIVPLAVLGYLFIVIIGIFFNTARARQGVRALDHF

VNASLFNGYAWESVSSHAWRERNRKKWARIVIKITDFFQKDHCKRANKREQPVVDFILSRNLDKQTIGK

>AHK55833.1 4'-phosphopantetheinyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRVGCDIIAISRIEKIHSRHGKNFLDKFLNPKEQILIKNPATLAGLWAAKEAASKALGVGICELCSFFDI

EISKDEKNAPKLKYSQKITKDFNITQTSLSISHDNGFAIAIVAVV

>AHK55832.1 flagellar basal body protein FliL [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDEELENEETKKKKGGSLVIIIVILLFVLLLSIMGVIAWLISSSSSDESEVKEAPKEEAKADKPKVSAPA

QRGSDFANIGPMYPLDPFTLNLLSDSGSRYVKCTIELEQNSELLKPELDKKVPVIRDIIIRTLTAKTFEE

VSTQKGKERLKDELVGKINEILTDGFIKNVYFTDFVVS

>AHK55831.1 phospho-sugar mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLDVIFREYDIRGLYDKELNEKSVKAIGFCLGQTMLNRGCKNVSVGYDARYSANELFNYLVSGLNKAGIK

IYDIGLVPTPLGYFSLYEGLKFDANVMITGSHNPKDYNGFKITINKESFFGVELKEFSKEVYKHLDDDIE

ENLEVEKYDILNLYVKFMCEQFSFLKDFNYKFGVDCTNGAAGVVIKPLIKALNLKAHVMFAEPDGQFPNH

APDPTEEENLSAIREFLNQNQDYSLAFAFDGDADRMVALSKTHVFCGDELCYLFAKDIPNPRILGEVKCS

KNLFDEVAKFGTIFMGKTGHSNIKKMMKEKDIDLAAEVSGHIFFKHRYFGYDDGIYAFLRALELVYKGFD

LESMIKALPKLYTTPEIKIPVNEEEKFKLVEEFQKEIEKGALKGVKSLCEIDGARIDFGDGWALLRASNT

SPYLITRFEATSLERAKELESMVFTLFNDIKARFKN

>AHK55830.1 hypothetical protein N917\_07000 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQERIDLIVKILDEKKAENIKTIDMSEQEYFVKYVIIAATLGERHALSLIDELKTRLKAKGEEFLNIDSS

EEWSVIDLGDILIHLLTPEHRGIYNIEELLENLKKGRV

>AHK55829.1 nicotinate-nucleotide adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIALFGGSFDPPHNGHNSVVLEALEKLDIDKLIIMPTYINPFKQSFSADEKQRFLWVKKLWGHLPKVEI

CDFEIRQKRPVPSIESVKYLYKLYNPSKFYLLIGADHLEKLHLWHDFEKLNSLVEFVIANRNDIGIPKNF

KDLKTNKKIASSFIRDTLNTNEVCEEIKDEVKKYYEKLQKN

>AHK55828.1 glyceraldehyde-3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAVKVAINGFGRIGRCVARIILERNDIELVAINDTTDIELTKYLFKYDTVHGEFKGSVDSEGDDLVVNGK

KIKVFKSRNVKDLDFAKHGAQIVLECTGAHLTMAKCQEFIDMGVQKVIMSAPAKDDTPTYVLGVNSELYK

GESIISNASCTTNCLGPVCRVLQDNFGIEKGLMTTIHAYTNGQSIIDAKAKDKRRSRAAAQNIIPTSTGA

AKAMKLVMPELNGKLHGQSMRVPVIDVSSVDLTAQLSRKVSKDEINEAFRKAAATNLKGILMVDDDERVS

SDFITCSYGAIVASDLTQVIADDFIKVIAWYDNEWGYSSRLVDMAVYIANKA

>AHK55827.1 phosphoglycerate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSDIISIKDIDLAKKKVFIRCDFNVPQDDFLNITDDRRIRSAIPTIRYCLDNGCSVILASHLGRPKEISS

KYSLEPVAKRLARLLDKEIVMAKDVIGEDAKTKAMNLKAGEILLLENLRFEKGETKNDENLAKELASMVQ

VYINDAFGVCHRAHSSVEAITKFFDEKHKGAGFLLQKEIDFASNLIKHPARPFVAVVGGSKVSGKLQALT

NLLPKVDKLIIGGGMAFTFLKALGYDIGNSLLEEELLEEANKILTKGKNLGVKIYLPVDVVAAPACSQDV

PMKFVPAQEIPNGWMGLDIGPASVRLFKEVISDAQTIWWNGPMGVFEIDKFSKGSIKMSHYISEGHATSV

VGGGDTADVVARAGDADEMTFISTGGGASLELIEGKELPGVKALRSKENE

>AHK55826.1 triosephosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIFAANLKCNHTRASFKIYAKILNKTMGVKCDDIIVFPPSIAFLENENNFIQGAQNFYPCVNGAFTGELG

KEHLDEFGIKCVLIGHSERRALGDEEFIKAKFDFAKEHGYKIVFCIGENLDTKNSGKTLEFLKKQLEIID

LNYEKLIIAYEPIYSIGTGVSAQSTDIAKVLEFLASLTKVPLLYGGSVNENNIKEILSVNHCGGVLIGSA

ALKVENFIKLIKG

>AHK55825.1 enoyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIMKGKKGLIVGVANNKSIAYGIAKACFDQGAELAFTFLNDALKKRVEPIAQEFNSNFVYELDVNNNEHL

DSIAEKIKKDLGEIDFVVHAVAFAPKEALENSFLETSKEAFDIAMQTSVYSLLSLTRAVLPILKDKGSIL

TLSYLGGVKYVPHYNVMGVAKAALESSVRYLARDLGVKGIRVNAISAGPIKTLAASGIGDFRMILKYNEI

NSPLKRNVSIEDVGNSAMYLLSDLANGVTGEIHYVDAGYNIMGMGDVEKNEEGQTVLCWDNQKG

>AHK55824.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKLSNEELKNILEDRIKKLENSTLKEDKVINEESVKILARHLSLGNEIPALAQRFFQIAPKTKLVWLHL

CECTGCSESLLRSELPSFDELIFDFFSLEYHETLMAANGTKAEELLEYVLEEDFILAVEGGVAAIDTFFL

TIGAQGESGYEILEKLAAKAKAIFAVGTCSSYGGIQAAYPNPSKTCGISEVLSQKVVNIPGCPPSDINII

ATLSFFALFGVLPELDEQNRPVWAYGKCLHDMCERKAKFESGIFAEHFDDEAAKNGACLFKIGCKGPYTY

NNCPKVKFNAKTSWPVAAGHGCIACSEKNFWDEFGNYEKPMANIFSYAKLCNEELKQEFFLEEQIKILEQ

IDFEFESNIKLILQNIAKNKLGALLVENYKKSFEKNYAFIEQNFDENPMPSKDFWKYLEISFILVKGAFL

KDKNDFLIVAKNYAFKHASPYDFKLNMNAEKPKLDVSKSFRMTLIYLCGGLDFEGVAYSILKAFEDNIAK

ISSLKAS

>AHK55823.1 hypothetical protein N917\_06960 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTLNELKDGQKAIIVNLNAHKELKNRLLSFGFIKNKNLKKIHSSLKNATIMVELDTSCVILRSDEAKTIE

VNLI

>AHK55822.1 endoribonuclease L-PSP [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSNYPKAIGPYSAYREVNGLLFISGQLPINPASGEIESSDIKEQTKQSLKNIGAILEENGISYDKVIKTT

CFLADINDFVAFNEIYAEFFKAPYPARSAFAVKDLPKKAKVEIEIIAQKG

>AHK55821.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDEGQKQQFIKLTYFLGEVLGEQYEIVFHVITEDGAYIAAIANSHISGRSLDSPLTAFASELMQNKKYLE

KDFLCDYKALVGKSKLIRGSTFFIKNHDKLVGILCINHDTSIMRDLICKMIDLEKIGDMGDILGNISFSQ

NDSSIETLSHSIEDILVQSVDSSYLNSDYQLSITQKEEIAEKLYEKGIFNIKGAVPIVAKFLKISEPSVY

RYLKKFKK

>AHK55820.1 ankyrin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTTLSLEEEKRFEELCKMAFNFARNNECENLKIMIEAGLNVNLKTHKGDSLLMLAAYNNSYESAKMLLEK

GAKVDEKNDRGQTPLAGVCFKGYLPMCELLVKYGANIDENNGLGMTPYTFAIMFGRKDVAEFLLKKSKNN

FLKKISLKILKFIKKF

>AHK55819.1 catalase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKLTNDFGNIIADNQNSLSAGAKGPLLMQDYLLLEKLAHQNRERIPERTVHAKGSGAYGEIKITADLSA

YTKAKIFQKGEVTPLFLRFSTVAGEAGAADAERDVRGFAIKFYTKEGNWDLVGNNTPTFFIRDAYKFPDF

IHTQKRDPRTHLRSNNAAWDFWSLCPESLHQVTILMSDRGIPASYRHMHGFGSHTYSFINDKNERFWVKF

HFKTQQGIKNLTNQEAAELIAKDRESHQRDLYNAIENKDFPKWKVQVQILAEKDIEKLGFNPFDLTKIWP

HSFVPLMDIGEMILNKNPQNYFNEVEQAAFSPSNIVPGIGFSPDKMLQARIFSYPDAQRYRIGTNYHLLP

VNRAKSEVNTYNVAGAMNFDSYKNDAAYYEPNSYDNSPKEDKSYLEPDLVLEGVAQRYAPLDNDFYTQPR

ALFNLMNDDQKTQLFHNIAASMEGVDEKIITRALKHFEKISPDYAKGIKKALEK

>AHK55818.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSVLVIGADEITPIRAVLHDLGAKKIEHWDARNENRVNRKPIPCDTECIVMLTSFLNHNTMKKIKNEAKK

RKIPLVCAKRSVSCVYCEYCKIFNLNKEFSCYKG

>AHK55817.1 hypothetical protein N917\_06915 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLFGFDDKQEFIPQIYRYLNNQELMLTFLTQYNASVDSALKIPLLYAKNTKSLKMIFGNFLHNIMHVSFG

KIQNINIKLNTYAFYFQKRKSLIFNTKISKNVDLLRLLRIYLYGICFDAQILFSSYVYDKVSFQNNGKNI

DQDGDLIIIDKKFAILPLCKEINTHNLEIENEIYELLNLIKENNFEKFYIVCPRNKNFTHFIEIKHFLCD

LNKTMLKLVPYKISNQIIRRK

>AHK55816.1 flavodoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSVAVIYGSAMGNTEGAANTIASKLGISDVFNISDIDAAKMNSYDKLICGTSTWGSGDLQDDWDGFDFSG

LSLGGKTVAVFGMGDSESYSDTFCGGMGKLAQNLKDAGANLVGEVSTDGYTFEASDAVVDGKFVGLALDN

DNQEDQTESRIDAWVEQIKPYFA

>AHK55815.1 hypothetical protein N917\_06905 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKFALILSFFIALFMSACTNATFTQSFIQTSNEGIFIRSQKQQSFKISFQNPSQLQTTLDRDLALKLKN

LGLKEVKENADYEILINLVDMKKHSYAQKITTSARFFYDFDPLESDGEWMVENYYTMQVNLQINSKNHNS

QKTSLLARTAYLGNKERCQLSLENKIINQIVSFFYF

>AHK55814.1 hypothetical protein N917\_06900 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKLSLILVCSASLFAASNSEISDFYSKSIKAQFPNATVSVSNRQKVGNTGFESVIVSVELNGQKQENIL

FTKDSLITPDLIDLKTGISYAQEYEMKKFQEARENFTKNAKAVAQKETMVIALGDKNKPAIYVFSDPECP

YCREHLAQIDDELKNYQVNYILTPVHGKSAFEKSALIYKEAKKAKNDKEKIAILNKYYDANIKNYPKVSD

AELKEVFSLYEKYRSLGLSATPTIIK

>AHK55813.1 translation elongation factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKSVIIGTAGHIDHGKTSLIKALNGFEGDSLKEEQERQITINLSFSNLKLKDKNISFIDVPGHKDLVKTM

VSGAFGFSVCLFVVDINEGLKEQSLEHLEILKILDIKNIILVLSKCDLCENIEQKSVEILEELKNLDYPI

LKVFHTSIKNNQGIEELKNYLYTIENKENDEELIFHYYIDRVFSLKGIGTVVTGSLNEGSITLNEKIICL

DTQKELIVKNIQNHDTNLEQIKACNRVALSLNCDYKELKKGYLLSKKGYFKAFKECDALVKAKNLQNSKM

IFCVGSRQIECKINILKKLENDEFFVHFSFDKNVFLSFDEAFILLQNNRVIGGGKVLNPLSEPLKKEQKN

KFLMFLKNKDFKAAFSFLKDAHKYGFGLLSSYQRFKLSHQKALKLAKELNQVFVDEKNLNVYHLQSLEEI

KNFIKFILEKNPYAMLSAHSLALRITWASENFCELGLKEMSNLLDFQNGIYFKKGIDFEKLQEKNNNQMY

EILKKQGIKPEAPYNLYDFLELDRKSGDNILKKLTQKGLVVRLSHNLFIEKQALEKLMQECLNLLKNQSL

DVQSMKEYFNLSRKYAIAYLEYLDKFPQVSKEAEKRFLTNI

>AHK55812.1 selenocysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKFRTFPQINTLIEDESLKSYPFYIKAFFCKKVVAKLKENFFQDEISKDKLLLEIKKEIKTFYRKDLQS

VINASGVVIHTNLGRSVIHEELYEACKDIICNYSNVEFDLENGKRGSRYALVLEKLKMLFECEDALVVNN

NAAAVFLVLNSLCYDKEVISSRGELVEIGGSFRVPEVIKAAGVKLCEVGTSNKTHLKDYEQAINENTALI

LKTHKSNFALMGFHSEVNIKDLHELAKEKELLSYYDLGSGWCENLNEKLIKNEPKIRKLVQECDILSFSG

DKLFGSVQAGIILGKKELIEKLKQNQLLRMLRVDKLTLSFLNESLKAYLQKDYEKIITLKLLNDDLSFIE

KKALRVQKELKFQTQLKKSKSLVGGGSMPDKSLDTYILTFQGDALKLQTRFRKENIIGRIENDEFVLDFR

TIRENELQKLILTINQMENL

>AHK55811.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQDFVYIKNDVLIPLPDAIEILDQANDKEALICNDKNQKAQIYAPEINFYLKNSQDEILEQSKNVLTLYE

ARASVYDLGLDLEQSKEVQNRLIVADGDAQTVEFLKEHEFKVIALSSAEILAVFGSVGELCAVVKNQGEE

VEIDFDFLLFKAEDLSVVRKDFTRQSGCYNLLNFENLEVLFEFLQSKSPKYHYKTYISYNASVCQYHERR

SEHCAKCAEICPTVAILKDDENKHLEFSQVDCLGCGGCISVCPSGSLDYAPMPRESFFTLCEFYKDKKIL

IIPKKMSLENLNLALPKDVLPFMIEGEKWLSSMHFLTLLQNSGANLVFYTDFVSRGSNEAIVLLNTFFER

KFQKKAIFVAKDEKELQNVLKEQEFIQDLKYDFHNNTLTTRENFAKRMQEMIKNEDFGSMESGEWLRYGK

VEINPNTCTLCLSCVGACNVGALIADKQENALKFNASLCTTCGYCELSCAEKDTLKLFRSGMEFRASYFE

YQTMAKDELFACIECGKEFATKKAVEKIANLMKPKFGNDENKIKTLYCCADCKAKVMIKAMIN

>AHK55810.1 major facilitator transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNNVLPLSFIVGTRFFGLFIVLPVLSLYALKLEGANEFLVGLLVGVYALTQMILQMPFGILSDKIGRKK

TMLIGLIIFIIGSLICSFAENIYTMLLGRMLQGAGAIGAVATAMISDFITEENRGKAMAVMGSFIGLSFA

ASMVISPLMSAKWGLSSLFDLSAALSLLCIILLYTVVPKENKITHENEKTPFFHLIKQKNLALMNLTNFM

QKMLMSIAFLSIPIILVKHLGFASDKLWIVYSASMVAGFIAMGFAGSLGEKKGLAKQILLLGIVFFILSY

LFFAFSNSIDFFIIAVVIFFIGFNLHEPIMQSCASKFCKVHEKGAALGLFNAFGYGGSFIGGIIGGIFLH

LDTLNLLAIILVILALIWLVALFFLKNPADFKNLYLPLETPLNFSTFGENLGVVDIYKNSKNLVVKFDSK

LTSKEELEGKL

>AHK55809.1 nucleoside-triphosphate diphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIILATSNKHKVLELKEILKDFEIYAFDEVLMPFEIEENGKTFKENALIKARAVFNALDEKQKKDFIAL

SDDSGICVDVLEGNPGIYSARFSGKGDDKSNRDKLVNEMIKKGFKQSKAYYVAAIAMVGLMGEFSTHGTM

HGKVIDTEKGENGFGYDSLFIPKGFDKTLAQLSVDEKNNISHRFKALELAKIILKILNKG

>AHK55808.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFAKLLKFFISRPKSTFFGTLFICLFLSFFAFKLSVDASAESLLLEDDADLKTFREISKHYKSDNFLLLA

FKPYDEKPFSNENLAKLKKLHEELEKAPLVERVFSIINAPLLQSSQNTDLKELLKNIPNIESQDINRTKA

QNEILNSPFYKNNIISKDGKVTGLIIYLKPDTVYNNLIEKRDLATDEKEKDQIRLAIKEHQDKQKVITKQ

SLDTIKSIVRNYEKNKDTLYLGGVSMIADDMIAYIKSDLVLYGVSLVFLLGLALYYFFRSWRFVFLPLFI

CFISLSAASGVFALLNFQITVISSNYVALVLIITLSVVVHLITHFIESTQNHPKAKVERIVLETLLAKAN

PSLYAIVTTMIGFFSLILSNIEPIIKLGIMMSIGIGLALIFSYLFLASILVLLKPKNYHKKEFKFNLLAF

CAKTALDPKKRRMIYEISVLAIILALIGISKLRVENSFVNYFKDGSEIKKGLLVIDKNLGGTLPLEVIIR

FPNNKNDQNASDTLDSFESEFENLATQETYWFDSKKTRIAKKVHEFLENKEFVGSVLSLNSLLTLGKNIN

DGKELDDFALAFLNENLPAKFKQDLLSPFVSIENNELRFSMRIVDSDPNLRRNEFLIDLKKQLNELVKND

GVEVQITGIMVLYNNMLQSLFSSQFDTLIFVILAIFILFIIVFRDLKFSVAAILVNVIPLSVVFALMGLL

GIPLDMMSITIAAIAIGIGVDDAIHYIYRFREEIKNKSLEEAIMISHLSIGSALYYTTISIVLGFSVMMS

SNFIPTIYFGILTVFVMILLLSGSLFLLPSFLITIYSKKTKFPNQHKEHILKQ

>AHK55807.1 toluene tolerance protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIFLILTLFFNAFALQLDEISSTMQKNIDASLKLLQDNKEDKKQAANGIFKLFDSIIDYKLMAKLSLS

KNYSKLTPKEQEKFTTAFETSLKKSFTDKLSLYKDQVLKVKNGELKNEKRYFLTTSMVVDGEEKNIIFKF

YNDNNNWLIYDVDVLGVSIVQTYRSQFGDILANQGFDALLQKLESIVIE

>AHK55806.1 hypothetical protein N917\_06855 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRIKFISFILIFFTIFAFAKEQNLDDFEQEYQNYQVNDPLSGYNKAMTSFNVALYDYGLRPVLKGYNAIT

PEFIRLGARNFFDNLLAPLRFVSNVLQFKFEEAGEEFKRFTANTIMGFGGLMDVASKMGLKKHPADLGTV

LAHWGVGSGFHIVLPILGPSNLRDTLTLPATWYASFTAYIDPTWASIAISAYGFGNELSFRLDEIDEIYH

NTPNLYPFLRDAYEQRRNELSK

>AHK55805.1 nicotinate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIFYSYEEFKEDVKILAKEIKEDFNPDALLAIARGGMSLGHSLAVALKTRQLFALNSIHYDNTKKLDTIE

IFNIPDLSKHKKILLIDDIVDSGESLAEIKKVLLEKFPHIELKITTIFYKKTALLEPDFKVKEATEWVDF

YWDINLD

>AHK55804.1 guanine permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSFFKLKENNTSFKTEVIAGLTTFLAMVYIIPVNSSIVGNTGMPIEALITATALITIVASAFNAFFANTP

VAMSVGMGLNAYFTFAVCLGQNIAWQSALGAVFISSIIFLILSFTHFRLWVIRNIPKDLRLAICAGIGCF

IAFLGLSQMGVIMHNKDTLVSIGNFKSPHVLFGIFTLALIIFFWAIKLRGAFILGVLASSIIAWIFHLDN

ASFPVQIFSWPNFSMENGLGAIFLQLDIKSALNITMIPIILTFFITQLFDSIGTITGVGERGKIFDDPKN

GEKKLSKTLMADATGSALGAMTGTSTVTAFVESTTGVESGGRTGLTALVVAICFAFTLFLLPLFKAIPAN

AIYPVLVMVGILMFMEVKNIDFKDSAIAVASFFTIIMMPFTYSITTGFAFGFLSYLLVRIFKREWDKINL

GIIVLSLLSLGNFLLMALQ

>AHK55803.1 hypothetical protein N917\_06840 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNLITKLENEERLNQEEANALWDLDLFTLGKYAHKKRTKLHGKKVYFNINRHINPTNICADTCKFCAFS

AHRKNPNPYLMTHEEIMKIVDETVKRETKEVHIVSAHNKDTTWQWYLEIFKMIKEKYPNLHVKAMTAAEI

DFLHRRFKMSYEEVIEKMLEYGVDSMPGGGAEIFDEEVRKKICHGKVSSENWLKIHKLWHEKSKQSNATM

LFGHIEERHHRIDHMLRLRDLQDQTGGFNAFIPLVWQRDKSFIQTDKIMDSEEILKTIAISRLVLDNIKN

IKAYWATMTLNLAMVAQEFGANDLDGTIEKESIQSAGGAKSAKGTSLKTFIDMIKTSNLIPVERDSLYNE

LKTY

>AHK55802.1 nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNKELEIFKKNLSSYTQSCRKFFLKQGAFSLYHSKNMDNFIKKAYDIVLKDYFDDFSPPSDNIPFCVLA

SKAYANNSLCFNESISLIFVYKDIKAFHLKPMIKAFIEILNDAHLQIDSVILEFNGLYNASNELKTSIIQ

TRFICGSRILFKGIKIKFESIIKENKNDFAKLLLENFKEFDIPFIKQEFNILKDFGGLNHLRSLESLLVL

FKTSPKNYALNFIDEKKLSELRLAGDFLLSLKSAMNLLSAKDEDEFLLINVHDLSELMYKKAKKHFGANE

LLVQKALQSMHTIGFYTHFLAKQIQDGLNHTLKQEYKFKTLVEVLEYLLKLEDKHVIFDLNLVFALGRLK

YGKKDIEKALILFEKIFYKRHSFCVLKLLLDSGILKDLCKPFWTVRFLSDEEGNYSFDEQVFLMLSEFEK

YEDELEILQKLKTDEKMILKLVILLSAIESENEISLAGIYRAYCSKFDLKNEILEWGLKIFKNNNALKDL

VEKEDIYNPIVVSSLVSKLENLENLELLYTLTWLKAKALNYNAFYFRVLDKLLENAKQGFEDENLLEESA

RRVKKELTLKRSKIFLEQDEILQDKIIHIKSNLFIIKNTFEDIVMISKLAKENDFKFWFSNETNLSLQIV

APLHFNIAIILSSLTNLNLIFMNFFELFDDKIYLRFEYDNIISDEQKLKLCELLNSNLSGFNLKKIKKPI

IKKDELKLDLNYSKMYAKLGLNTKDQQGLMAYLMNVFNELELVLCAAKIQTIRQRTRNIFIFQKNEKLEH

SEQKLVNLLISE

>AHK55801.1 glucosamine--fructose-6-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MCGIVGYIGNNEKKQIILNGLKELEYRGYDSAGMAVMQEGELSFFKAVGKLENLANKCTDFESQGYGFAI

GHTRWATHGKPTEINAHPHLGQYSCVIHNGIIENYKEIKDKLEKEGVSFLSQTDTEVIVQLFEFYARNLG

VFEAWQKTIKELRGAFATLLVTKKDPNHVYFAKNAAPLIIGKNANKEWYFSSGDAPLIGSCDEVMYLEDL

SLGYASKDELVVYENDILKSLCFSKLSGDKAYAKKDGFRFFMEKEIYEQSRVMSEVLMGRIQGDEVVFDE

LNNEDLSQVDEITLCACGTSYHAAMASAYLFERIAKVKAKVEIASEFRYREAIIKKDSLFIVISQSGETA

DTLEALKIAKEQGAKTFAICNVDNSNIVRLAHLSLLTRAGIEKGVASTKAFATQVLTLWMLAIFMAQKRN

LNVSAEIKALLHTPNCVSVKQALHEKIHRLSKRYLDGHGFFFIGRDVFYPLALEGALKLKELSYLHAEGY

PAGEMKHGPIALADSKLYTIALMPKHMLYEKTKSNVEELIARDSTVLSISPLEFDLSDDFIKTNEQDHYM

CEFFEMMVITQLLAMEISIRLGNDVDMPRNLAKSVTVE

>AHK55800.1 fumarate hydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEYRVEHDTMGEVKVPNDKYWGAQTERSFENFKIGCEKMPKVLIYAFANLKKSLALVNNKLGKLDDAKKN

AIVQACDEIIAGKFDDNFPLAIWQTGSGTQSNMNMNEVIANRATEIMGGDFRKEKLVHPNDHVNMSQSSN

DTFPTAMSIVAVEQVEKKLIPALDELIATFEKKVKEFDGIIKIGRTHLQDATPLTLAQEFSGYLSMLLHS

KEQIIASLPTLRELAIGGTAVGTGLNAHPELSQKVSEELTQLIGTKFISSPNKFHALTSHDAINFTHGAM

KGLAANLMKIANDIRWLASGPRCGLGELIIPENEPGSSIMPGKVNPTQCEAVTMVAVQVMGNDVAIGFAA

SQGNFELNVFKPVIIYNFLQSLDLLADSMHSFNIHCAVGIEPNRAKIDHNLHNSLMLVTALNPHIGYENA

AKVAKNAHKKGISLKESTMELGLVSEEDFNKFVDPTKMIGPKA

>AHK55799.1 hypothetical protein N917\_06815 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNGKFFLISFILVILFLLLYLFKGFLLVIIIASLMAVATSNINAKFLNLTKGHKFLASILTTTCMVLLF

FAPFVYAMIELAKALKNFDINLVTQTLDYVKNYQFTLPESFNFLEPKIKEFLASIDLNSISKQILSYASS

FTKSGAKFLIDMVLICVFYFFANLYGTELVIYLKSIIPIDKKELDDVLSEVGNVMAVVLYSMVIVAIFQG

ALFGLITIFYGYDGILMGVIFAVSSLIPAIGGALIYMPVSLYEFASNNLNSALVIFIYSVIVISFIADTL

IKPLIIKWINKKLVKTPTKINELLIFLAMIAGISTFGFWGIILGPAILTFFVSTLRMYVILKDKNLI

>AHK55798.1 Holliday junction DNA helicase RuvB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDRIVEIEKYSFDETYETSLRPSNFDGYIGQESIKKNLNVFIAAAKKRNECLDHILFSGPAGLGKTTLAN

IISYEMSANIKTTAAPMIEKSGDLAAILTNLSEGDILFIDEIHRLSPAIEEVLYPAMEDYRLDIIIGSGP

AAQTIKIDLPKFTLIGATTRAGMLSNPLRDRFGMQFRLEFYKDSELALILQKAALKLNKTCEEKAALEIA

KRSRSTPRIALRLLKRVRDFADVNDEEIITEKRANEALNSLGVNELGFDAMDLRYLELLTAAKQKPIGLA

SIAAALSEDENTIEDVIEPYLLANGYIERTAKGRIASAKSYSALKLNYEKTLFEE

>AHK55797.1 histidine phosphotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGILTKLELDYEIDDIEKFLQFFRTMCDRFEPLIIKLGSDSVRYKEAIKELETLAHNTAWAARRLNLEEV

TDFCVFCEEMMAQANRFNGPASDEFTDWMLLMSDQFEKYCRSYENDDSVLAVFNPLIVNVPNIISK

>AHK55796.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQTSPDMFINRELSWLRFNSRVLDQCSKNLPLLEKLKFIAIYCTNLDEFYMIRVAGLKQLFSAGVNASSS

DEMTPLQQLKAIRKYLHQEKELLERYFNEITSELEKENLFIKHYENLDENLKQKCDEYFFSNIFPVIVPI

AVDATHPFPHLNNLSFSLAVKICDKAHPELVKFGMIRIPRVLPRFYEVSANIYVPIESIVHQHAEEIFPG

YKLLASAAFRVTRNADMVIEEEEADDFMMILEQGLKLRRKGAFVRLQIQKDADEQIVEFLNTHMKIFHKD

VYEYSILLNLPSLWQIAGNKTFTHLLSPLYTPKTLPPFDENLSIFDAVEKEDILIIQPFESFDPVYKFIK

EASKDPEVISIRMTLYRVEKNSNIVQALIDAASDGKQVTVMVELKARFDEENNLHWAKALENAGAHVIYG

ITGFKVHAKVSQVIRKQGDKLKFYMHLSTGNYNASSAKIYTDVSYFTSKAEFARDTTSFFHILSGFSKNR

RLQTLSMSPNQIKEKVLEMIRIETSKKNEGVIVAKMNSLVDSDIIQALYEASMEGVQIDLIIRGICCLKP

DEEYSKNIRVRSIIGKYLEHARVFYFKHSEPNYFISSADWMPRNLERRLELMTPIYDERSKAKLAQFLRL

QLSDNVLAYELKNNGEYEKIPSSEKIIDSQQTLEEYVSKIYKTLKKDTDQSRATHLASKLFKEN

>AHK55795.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKTSNLFTIFLVLLFVFFAVGFYTFYNAKGTSYLSNASESCNNCHIMNEVYNEYMAGPHSQKVKGEPRA

TCVDCHLPHNFVAKWIAKAQSGLGHAYAFTFKLDELPTNLSATEKSRKMVQENCIRCHADFAQTAINATT

NPHADKSLNCASCHKDVGHKHGI

>AHK55794.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKNILRLGIVVLVLLIAGVLWLNNDINQKKEDEANKNAIAANADFSLLSDDDPNFEKWGKVFPEQLKMY

LTVEKEEPKATEFGGNLAYSKLIRFPQLTILWAGYPFSLDFNEERGHFWVQVDQMKTARNNKDFLNAHGL

AAFKGQPAACMNCHSGWTPWLIKNVAKGDFTAFNSTNYWTMIKNIPAVDGIVENSPEHAGPHGGKRMGVT

CADCHNPNDMSLRLTRPAAINALVSRGYEKDPVQGVKATREEMRTLVCSQCHVEYYFKPTGEKVKVMGET

IVDDSSKKWWNGTQKNYDEYEFWRDGNKVKEIETDGIVLTFPWSEWKKGQPFRIEMLDDYYDKVRGVFGA

DFTHKLTGAQIIKIQHPESELYSGGVHAANGVSCVDCHMPYVREGAKKVTQHNITSPLRDINSACKSCHK

QSEDYLKAQVLDIQNSVAHDQRTAEYAIVSLIMDTKKLRDELGNMEKFQSDGKADAKKISEELKEVLELH

RKAQMRADFVNAENSTGFHNPREASRMLLQAVDMARMGQTKLVEIAAANGIKDFKTSNLGFEDIQKFNPG

ELYYKVDVNNHKAGERYYADEKDVNGNPPKELLEHDKELAPYNYQVIDKK

>AHK55793.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINKNKLFRQVHIYLSLFFLPCALLFALTGIAYIFGINQDVGLKVEQYQLSKVIESGKEREALIEYLKTN

GLKVPSNTNIIKSKDKGITIGGTHYSANITQNSTNEYNITLKTRSLLGDMIMLHKDKGAWYFSVLSVGFG

ITLFMLYISGLMITLFANKKDRSKQFAVLGVGVVVTLLLAYLSL

>AHK55792.1 enterochelin ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKSLVFAFFAFFLSLILTACNSNSNENNASSTTKTNTATVKVLPISMSDEGDSFLVKDSLGENKIPKNP

SKVVILDLGILDTFDALKLNDKVVGVPAKNLPKYLQQFKNKPSVGGVQQVDFEAINALKPDLIIISGRQS

KFYDKLKEIAPTLFVGLDNANFLSSFENNVLSVAKLYGLEKEALEKISDIKNEIEKAKSIVDEDKKALII

LTNSNKISAFGPQSRFGIIHDVLGINAVDENIKVGTHGKSINSEFILEKNPDYIFVVDRNVILGNKERAQ

GILDNALVAKTKAAQNKKIIYLDPEYWYLASGNGLESLKTMILEIKNAVK

>AHK55791.1 iron ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKLKNITKFYDNKVIISDLSLDFHKGKITSIIGANGAGKSTLLALASRLIKPSSGEIYIDGMNLKNYKE

QILAQKISILKQQNNINLRLKVEELVAFGRFPHSQGRLNTNDKIKINEALEYMELSNLRNEFLDTLSGGQ

KQRAFIAMIIAQDTEFIMFDEPLNNLDMKHSVQIMQLMKNLVKDFNKSIAVVLHDINFASIYSDEIIALK

DGKLLKQGSKDEIINQENLKQIYDMDIPVSQINGKKICIYF

>AHK55790.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRKKMLILSFLTLNMIGIFIFVGLNGFDEYALKSRFLQIAAIIIVAICIAVSTVIFQTLCNNKILTPAII

GLDSLYMLLQSALIFSFGAANLSVYKNDINFLITLVCMVVFSLGLYKILFSSDRSIYLIMLLGLVFGTLF

STLSSFFEVLIDPDEFMVIQGRMFASFDNIAFDVLILAYIISFLSFIWIFRYMKFLDPLNLGKDLAINLG

INYQKISKQLMIIIAILTSISTALVGPITFLGLLVVNITYELFKTAKHSILLSACILISILALLGGVFFV

SRVFDYNATISVVINFLGGIYFIYLVLKGNKL

>AHK55789.1 phospholipase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRKIALFLSLCVFIWASDLQQALEYEKQGDYKKAMEIYKKLALKNSSVLISQEQNNSSQATQTQNSITIK

KEEKQDFSRLALANYLGENESFNPLGISSYKMNYFLPFAYSFNSLGVNNNKSEAKFQLSVKKRLFENLLG

LDEKYYIAYTQTSWWQIYEHSSPFRETNYQPEFFIDLPLYLKDYEFFNNLRVGILHESNGKGDENLQSRS

WNRIYVSTAILYNKFLFVPRLWYRIPENKKDDDNPAILHYMGNFDVNLAYLGDDYFINLMLRNNLKFHNN

KGAIQVDLGYDIFNNGIYWYLQYFNGYGESLIDYNKHLQRLSTGFLISY

>AHK55788.1 molybdopterin-guanine dinucleotide biosynthesis protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQLNELNCVILCGGKSSRMGQDKSKLILKNQNLTQFQVDKFSKIFKNVYVSAKEDKFENHFSLIKDSLEF

EVYSPMLALYSILSNFKNEFVFVLSVDSPKVGENELLKMLPFLEQNYKIIIAKTPLHKHPLCGFYHSSLA

QTCKNFLEKNEQKIGLLFSEIKTKFVEFEDEDAFLNLNFYEEYEKFKSKLK

>AHK55787.1 ferrous iron transporter A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKYTELLQLQTFFSRFKKIDFIKRINDNILELSFDRERFIFDLTRAMSAIYTAKFNAKNYNAPFDFMLKK

YFSNAFIKEVKVLEGNRILCFSVKANKAYKSYESKIYFEFTGKNTNVILTDEKDLIIEALRHIDKSYRVV

KPNVILESLKPYKMDENFEEIKDFADYFSRKFTSIYESKIKQIKNLKLAQVDKKIQNLQELFSSLDEENS

LLLKALEYRKRADVLFANLSVLKDYEREFKLDDFEGKELEFKLEFNPKQSANLYYKNAKKLEQKAKNLNI

QRQNLKEKLDFTLSLKELLLQAKSEIELEILLPKKNSKKNQDHKQEDLVANFYFNEFKICVGKNEKGNEF

LLKNAKKDDLWLHVRDIPSAHTLIVSNKQKISLDVIEFAARLCVSFSKLKKGSYWVDYTLKNFVKVQQKA

FVNYTNFKSINITKD

>AHK55786.1 coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPVSPLGNINYINQNMAYPATQASNELAKEGFAATLNMAEFNEKEKTLNKLEKVNETHEIKEEIKEKAEQ

EEKKKKHNQEAKTSDDEKNEEDESKDPNFKDAQSIHRLDISI

>AHK55785.1 phosphatidate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFNTTRIISALVMIGAIIIIALIDQFFINFIVFAVLLYLSFSEAKKLFALENISIIPLAIAFILGSLSHK

ALLFGILVLLLVVGYLVYKKASLKPALIYIYPSLPILALWQVYLDQGMFALFWLIIIVAACDSGAYFIGK

LMGKTPFSPTSPNKTLEGVIGGLICASVIGTILGVFVYSFWLSLLCSFFVAIFAVIGDLLESYFKREAGV

KDSGDLIPGHGGVLDRIDAVIIAAFVMVALL

>AHK55784.1 1-deoxy-D-xylulose 5-phosphate reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MILFGSTGSIGVNALKLAALKNIPISALACGDNIALLNEQIARFKPKFVSIKDSKNKHLVKHDRVFIGQE

GLEQILTECQDKLLLNAIVGFAGLKSTLKAKELGKNIALANKESLVVAGSFLKGAKFLPVDSEHAALKFL

LEGKKNIAKLYITASGGAFYRYKIKDLNQVSVKDALKHPNWNMGAKITIDSATMANKLFEIIEAYHLYDF

KEIDALIEPRSLVHAMCEFKNGASTAYFSKADMKLAISDAIFEKQDTPILEAVDFSKMPALKFHPISTKK

YPIFKLKNTFLKEPNLGVIINAANEVGVYNFLENKSGFLDIAKCIFKALDHFGVPKISSIEEVFEYDFKT

REYLRS

>AHK55783.1 protein kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>AHK55782.1 hypothetical protein N917\_06710 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKAFTILELVFVIVILGILAAIALPKMSSSKDEAEVSKSLNNLKTLINDISIYTLKNDHLSSIKTMSNV

SGVENVDLSNFNGIKEVNFRVGDDKECLKLVFINKADFILMGISSNEASKNAIINAANQSHEDLENIDFT

SSSSNKACVILSKNENFKNLASKTYLLIGGM

>AHK55781.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFKKEISFIKSLFNKENIALHEPCFIGNEKKYLLECIDSGFVSSVGEFVTRFEEALKEKTKARFVIATNT

GTAALHIALLANGIDENCEVITQSISFVATANAIAYTGAKPVFLDIDENTLSLSPKALEHFLENQTYQKD

NLSYNKTTHKLIKACVIMHTFGLSAHIKAIKELCEKYHILLIEDAAEALGSTYENKALGTFGKCGILSFN

GNKIITGGCGGAILSDDENLAKLARHLSTTAKIPHPYEYDHDRIAYNYRLCNINAAILFAGLENLELFLE

NKRELAKIYKDFFKNHDKCKFIDEKSNEKSNFWLNTLLFKNENLRNIFLEECLKNNIFVRPVWKSLPSLK

AFQNCQSNELMNTKKLEKRLINLPSSVRIANKKE

>AHK55780.1 N-acetylneuraminate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQIGNFNTDKKVFIIAELSANHAGSLEMALKSIKAAKKAGADAIKIQTYTPDSLTLNSDKEDFIIKGGLW

DKRKLYELYESAKTPYEWHSQIFETAQNEGILCFSSPFAKEDVEFLKRFDPIAYKIASFEANDENFVRLI

AKEKKPTIVSTGIATEEELFKICEIFKEEKNPDLVFLKCTSTYPTAIEDMNLKGIVSLKEKFNVEVGLSD

HSFGFLAPVMAVALGARVIEKHFMLDKSIESEDSKFSLDFDEFKAMVDAVRQAESALGDGKLDLDEKVLK

NRVFARSLYASKDIKKGEMFSEENVKSVRPSFGLHPKFYQELLGKKASKDIKFGDALKQGDFQ

>AHK55779.1 pseudaminic acid biosynthesis PseA protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFCKKCVMPDTKPDLHFDEEGVCDACRSQEAKNQNINWQEREKEFFELIKKYKKHPVYDCVIGVSGGKD

STFQVVKMLELGLNPLCVCFEPSVPTKIGRKNLDNLNHLGVDLIHIKRDPKVYQKLAREAFIRTGDNEWQ

NHLGIFTSVPRIAVNFGVPLIIWGESPQIEYGGPASSKNKNILGREWLEEFGGLLGNRASDMLGVNGITE

KDLFLYTYPSDEELQRVGVTGLFLGYYFKWDYKKILEISKKYGFLTLDHPVETTYENFENLDCYSNHVHD

YLKYCKYGFGRATDNACLDIRLGYISREEGVRLAQKYDGKPPKKAIKKYLEFSGFSEEEFQKIVDSFTNK

KIFKRDENGKFIRDYDGSLVRKDECVLK

>AHK55778.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MCFKMIALIDYKAGNLNSVAKAFEKIGAINFIAKNPKDLQKADKLLLPGVGSFKEAMKNLKELGFIEALK

EQVLVQKKPILGICLGMQLFLERGYEGGVCEGLGFIEGEVVKFEEDLNLKIPHMGWNELEILKQVPLYQG

IDNKSDFYFVHSFYVKCKDEFVSAKAQYGHKFVASLQKDHIFATQFHPEKSQNLGLKLLENFARL

>AHK55777.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKTRIIPCVLLKNSQLVKSIEFKDFRTIGHLTSTMRIYNARNVDELIILDIDASKSGEIDFESIEDLAK

ECFMPLTIGGGIKTLEDIQKILNLGADKISINSKALEDMDFISKAGNRFGSQCIVCSIDVKRKGDQFCVY

DRGNLLEKSPLELALEYEKKGAGELLLTSVDFEGKAKGYDLELLKIFQNKLKIPLIINGGLSKPSDGVEA

LNLGADALAGAYIFHFSKYTPKDVKEELARQGFAVRLL

>AHK55776.1 N-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKLKNFAELNSQEIKLIFKWRNHPDISQFMKTKHIDFEEHLRFIRNLHQDSNKKYFLVFQDEQIIGVID

FVNITTKSCEFGLYAIPDLKGVGQVLMNEIKKYAFEILKVDTLKAYVFKDNHKALKLYQQNHFTIYDEDK

DFYYVCLKQSHCKALPS

>AHK55775.1 nucleotidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVLFRSDSSSQIGFGHIKRDLVLAKQYSDVSFACLPLEGSLIDEIPYPVYELSSESIYELINLIKEEKF

ELLIIDHYGISVDDEKLIKLETGVKILSFDDEIKPHHCDILLNVNAYAKASDYEGLVPFKCEVRCGFSYA

LIREEFYQEAKENREKKYDFFICMGGTDIKNLSLQIASELPKTKIISIATSSSNPNLKKLQKFAKLHNNI

RLFIDHENIAKLMNESNKLIISASSLVNEALLLKANFKAICYVKNQESTATWLAKKGYEVEYKY

>AHK55774.1 CMP-N-acetylneuraminic acid synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNLCIIPARGGSKRIPRKNIIDFLGKPLISYSIENALNSGIFDEVVLSSDDEEIIEVALKYGAKAPFVR

DKNLSDDYASSTAVVQNAIEILQSQNQIYDHVCCLYATAPLLNKDILKQAYEKFIQNQSKFLFAATEFEY

PIQRAFYLNENNQVYMFDEKHYKSRSQDLTKAYHDAGAFYFGTSKAWLEEDFIFKPHSSVFVLPRNLVCD

IDTIQDLEFAKILYKVNHESAF

>AHK55773.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQEIKQFFINIERTDINESMENLVSEDFIDSIDIMALVAEIEKFYKKPLKAEFITPENFESFENIKKMLE

TAMKD

>AHK55772.1 amino acid adenylation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTTHIYDFLEKSLIKFSEKTAFVEPFVKERKEITYKDFDLFSKKLASEILKTLGNDNPTQAPVLIILPKG

IDCLISFFGVALSGNFYTLLDEKSPKERVEKVIEVLKPKLFITSKDLNFNLDLPTLYTQDFESFNIDESL

IKHAKEKHIDTNLLYVFFTSGSTGIPKGVSIAHKSVIDYTFWVCETFKFDENEILANQAPFYFDNSILDI

FSSVKSGATLHLLPNHLFAFPNKILECLEKEKVSTIFWVPSVLIYFANTEALNNFSLNALKKMLFCGEIM

PNKQLNIWRKHLPNALFANLYGPTEITDVCSFYIINRTFKDEELLPIGKACKNTELLVFDENMNFISPKQ

IGVKGELFVRGTSLSLGYYNDKEKTKQAFIQNPLHDNYLDLLYKTGDIVSYNEFGELLCYGRADNQIKYM

GHRIELGEIESVINSHVNIKNSACIFKEDIICFYESEEEINFKDFLKDKLPSYMIPKNFIKLDKFKLNQN

GKIDRKVLKELV

>AHK55771.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKTEFLEELKEAMHRDEDLNEDMLLDDIDEWDSLAFVSVMVLYKNLFTLKITAEDLKNCQKVSDLINLA

KLD

>AHK55770.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTRFDKAKISGICVSVPEHKICIDDELESVFSNDIKTLKRMKKVIGLNTRYICDENTCVSDLGKHAANT

LLQGLNIDKNSLDALIVVTQSPDFFMPSTACYLHQLLNLSSKTVAFDLGQACAGYLYGLFVAHSLIQSGL

GKILLICGDTLSKFIHPKNMNLAPIFGDGVSATLIEKTDFNEAFFELGSDGKYFDKLIIPKGAMRIPKAD

IFNDDSLMQTEEFRQLENLYMDGANIFNMALECEPKSFKEILEFSKVDEKDIAFHLFHQSNAYLVDCIKE

ELKLNDDKVPNFIMEKYANLSACSLPTLLCELDTPKEFKASLSAFGAGLSWGSAVLNFKDLYTKNILIYT

KEK

>AHK55769.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLFSPHLKRNELIKFAKELDFSKSQDLLINVHRNHAFEGVQSIIAPFLHFANLRAEFNFSSYDDSLSFD

NFKEASLELLWLDLTRYKNNVQNFIEERLLELRKISQNPILVLSLGEFKTDKKILNCEIFNIEKLIKEYF

DEEDILDLAKEELTGSKLNNKALIFLAQILGLSLIPALVKPALKALVLDLDNTLYQGILGEEGIDNLNLS

PLHKTLQEKIKTFKKQGFLLALASKNEEKDAKKLFEIRKDFILQWDDFDARMINWEPKGENILKIAKKFN

INTNAMLFIDDNIAELENTKITGVKTLLCDENILYKIKLFPNLLKLSNTKEDQIRAKDIAANALREELKS

LSDEEYFQNLEISLNFSKNDLQNIPRISELLGKTNQFIANYTRLNQEKVAQHMQKELIVSVSMSDKLSDS

GIIAIFVFSCKEGNLFIDDLCISCRALGRKLETRMFFKAFELALHFFDLKNNNARLYYQKGERNMPFLSF

LEQISKEFEKNSALIPFQNLNFKGLIIHEN

>AHK55768.1 SAM-dependent methlyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKENIEKLFQAIAQKNPIHSKYLKKIEFSQEDEEEFDKLISYYIQDGISIKEQCDCYLLILNDTLEETKF

FIENGAYRYSSFDEVKDKVYFNESYMKQYMIGLALSSFVWIAHIKVRKYFSQYLQNFTPKTTYFEIGPGH

GEYFARAVKSGKFSAFYGLDISPTSCELTQKMVKQQVGGLITKCDFLCQDFFTYDFDKKADLIVIGEVLE

HVEKPLEFLKRSKELLSDGGEIFATIPINAPAIDHIYLFSHPDEVKDLIEKSGLKFKAYECFMANDYSLE

KALKFKNAITMAVVLNA

>AHK55767.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKQFYEILENILETKVDENTNLSMENCKNWTSLAHIDIIMSLEEEFEIKFNKEDLSLLKSQSALLEKIQ

TLKAEK

>AHK55766.1 C4 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>AHK55765.1 N-acetyl glucosamine/N-acetyl galactosamine epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFNKKNILITGGTGSFGKTYTKVLLENYKPNKIIIYSRDELKQFEMASVFNAPCMRYFIGDVRDKERLSA

AMRDVDFVIHAAAMKHVPIAEYNPMECIKTNIHGAQNVIDACFENGVKKCIALSTDKACNPVNLYGATKL

ASDKLFVAANNIAGNKQTRFGVTRYGNVVGSRGSVVPFFKKLISEGAKELPITDTRMTRFWISLEDGVKF

VLSNFERMHGGEIFIPKIPSMKITDLAHALAPNLSHKIIGIRAGEKLHEIMISSDDSHLTYEFENYYAIS

PSIKFVDKDNDFSINALGEKGQKVKDGFSYSSDNNPLWASEKELLEIINHTEGF

>AHK55764.1 deoxycytidine triphosphate deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGLKADNWIRKMALEHKMIEPFCEANIGKGVVSYGLSSYGYDIRVGREFKIFTNVNSTVVDPKNFVEENV

VDFEGDVCIVPANSFALARTIEYFKMPDNVLAICLGKSTYARCGIIVNVTPFEPGFEGHITIEISNTTPL

PAKIYANEGIAQVLFLQGDEKCDTTYKDKKGKYQAQTGITLPRILK

>AHK55763.1 acetyl-CoA carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKEEIKELVNLFAEANISKIKIKEQDGFEIELERDMCCDVPAPVCPPVPAPQPINVSVVNEAQPSQSVK

SNKPSINSPMVGTFYQAPSPGAAPFVKVGSTVKKGDTIAIIEAMKIMNEIEAEFDCRIAEILVADGQPVE

FGMPLFAVEKL

>AHK55762.1 biotin carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEIKSILIANRGEIALRALRTIKEMGKKAICVYSEADKDALYLKYADASICIGKARSSESYLNIPAIIAA

AEIAEADAIFPGYGFLSENQNFVEICAKHNIKFIGPSVEAMNLMSDKSKAKQVMQRAGVPVIPGSDGALA

GAEAAKKLAKEIGYPVILKAAAGGGGRGMRVVENEKDLEKAYWSAESEAMTAFGDGTMYMEKYIQNPRHI

EVQVIGDSFGNVIHVGERDCSMQRRHQKLIEESPAILLDEKTRTRLHETAIKAAKAIGYEGAGTFEFLVD

KNLDFYFIEMNTRLQVEHCVSEMVSGIDIIEQMIKVAEGYALPSQESIKLNGHSIECRITAEDSKTFLPS

PGKITKYIPPAGRNVRMESHCYQDYSVPAYYDSMIGKLVVWAEDRNKAIAKMKVALDELLISGIKTTKDF

HLSMMENPDFINNNYDTNYLARH

>AHK55761.1 hypothetical protein N917\_06435 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILLSFAFFASLASANTINAIAVVVDKEPITTYDIDQTMKALKIDRNKALGVLINEKMEISQMKQLGI

VVNDLELDDAINKMLAQNKTTLNAFKANLKSKNQSYEQFRTNFKKDLEKRKLYEKIASMAKTDFSDDGAK

KFFEQNKDKFTFYTQINANIYLSNNPQTLENIKNTKKTILKPQNASLNTSNADPRLLGLLSQIPVGSFSP

VLNGKNGYELYEVKSKDGTQTPEYEQVKNEVLNAYVSEQRQNFIQDYFDKLRSKINIEYLR

>AHK55760.1 glutamyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHEKLTTRFAPSPTGYLHIGGLRTALYNYLYARKNGGNFLLRIEDTDLKRNSKEATKAIIEAFKWCGLEH

DGEVTYQSERFDLYKEYVKKLLDEGKAYYCYMSKEELEELRAKQEAAKERPRYDGRYREFTGTPPQGIEP

VVRIKAPQSGEIVFEDGVKGEVRFKAEDIMDDFIIARSDGTPTYNFTVVIDDALMGVSDVIRGDDHLSNT

PKQIVLYEALGFKIPKFFHVAMIHGEDGKKLSKRHGATDVMEYKEMGILPQALLNFLVRLGWSHGDDEVF

SLEDLKKLFDPYHINKSASCYNAKKLEWLNAHYIKTLPFEEINRQLKDLGFDLSVYEKAGFLLDLLRERA

KTLHDIINGAKSIVNAPQNYDENAVQKFVNKNNLELLQAFANTLKDQKTGKDFEDFTNDFLEKKEAKLKD

LAQPIRIALTGSAVSPSIFEVLEFLGVDECKKRIDNFLKVRGK

>AHK55759.1 malate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLKEEALKYHLGGKIDIVPSKPMATSYDLSLAYSPGVAEPCLEIAKDNELAYTYTNKANLVAIVSDGSA

VLGLGNIGAQASKPVMEGKACLFKKFANVNAYDIEINVHSIEEIVNFCKALAPTVGGINLEDIAAPKCFE

IEAALQDLGIPVMHDDQHGTAIISTAGLMNAMEISGKKFKDIKVVVSGAGAAGIASAKMYRNLGVENIIL

VDSKGVISKDRNDLTPQKLEFAVDSKEKTLKEVLKGADVFLGLSAPKILDDEMVLSMAKDPVIFALANPI

PEVMPEDVARLRKDAIVGTGRSDYPNQINNVLGFPFIFRGALDVRASKITENMKVAAAKALADLAKLPVS

DAVKKAYNLSTLEFGRDYVIPKPFDERVKAAVSTAVAAAAVKDGVAKVKNFDEKAYFESLK

>AHK55758.1 uracil phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNIHCINHPLIEHKLGILRAKETKPFQFRMLIDEISSFLLFEASKDFSLKEIEISTPIQKTTVKKLDEK

IMICPILRAALGMLESVFKMIPDASVGFLGFVRNEETLKADFYFQKLPKDAKKRTAIVIDPMFATGGTAI

DACNFLKSQGVKKIKFISILAAPQGLKKFSQMHDDVEVFVACIDEGLNEKGYIIPGLGDAGDRVFNTL

>AHK55757.1 hypothetical protein N917\_06415 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIFGKIDYINLLPLHIYLKKYPLPNGYKASMEYKKGVPSKLNKDLFYRRIDAAIISSIESARKKYKNLDL

GICANKRVLSVLVEKNTSNAKDPSSATSNALAKVLKQDGKVIIGDKALKLYLKDPSKYIDLCAKWHEKTG

LPFVFARFSCVQKKALYKQILKKFPKTKIKIPYYILQNYAKTRDLDIKDVRYYLDEVIYHKISTKEKTAL

KRFVKACKALNLA

>AHK55756.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNLNYGIIGLGKFGSVVADELIAGGHTVIVADKDEEALKSIQNPPSYAYILDSTNISALKEAGFHDVEV

VIVSIGENVEKSILTLMALKDIGVKNIIAKATSNIHGQILSKLGATKVIYPEKESAKRLVKEFLTKDADY

EVFDLSANTIRAIKINIDEKLAGNSLKHVAQNMKVISYKKLNSDWEILPDLETTTVYSGDVVILLGTVKE

LREFEH

>AHK55755.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKQFGLDRRTFKILLAGYIIIALFGALLLHSSWAHTTPIDFLDAFFTSTSAVSMTGLVVKNTAVDFTLAG

QIIILALVQIGGLGYMGIGLFVYILIRKKVGFSARNLLKESLFYPSMDGLFKFFKKVLLFIFTIELIGAI

LLTMRFALEMNFKKALWFGIFHSISAFNNSGFTIFEHGFIAYKHDIAINLIITSLIIIGGLGYFVLVELY

FFQRKKLQNLSLHTKMVVVASIFLIFSSTLIIFAFEYSNPQTIGHFSFFDKILSSYFIAINYRTAGFNTL

DMGHLHDASLFFGSLFMVIGGAPGGTAGGMKVTTVMVLLLYAYWSIRDGRVRIFGHEIPRETISKAFIIA

VGSAVYIVIAVILLSLLESKFDFIALLFETSSAFATVGISVGNGGTLSLCALFSDPSKVIIIIMMLSGRI

GVFAFLLSVFKQDKAIHLKFPEGKVNL

>AHK55754.1 rod shape-determining protein RodA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFRLDRRILTHFDYIQPILFLPIILISFFLIFEANPFLAEKQFVYACVGLFAFMVFFFFPIRKFIWIIPV

AYWINIFLLLSVDIFGVEKLGAKRWLEIPFTHFTIQPSEIFKPSFILMLAYLIYQNPPPKNGYKLKQFIK

LSFYIILPFLLIAKEPDLGSAMVLLLVGFGVLFIMGVHYKIWLSIVIAISVSSPIIYTHLLKPYQKQRIH

DFISEKPSYQVAQSMIAIGNGGLTGKSQDEATQTHFKFLPISTSDFIFAYMIERFGFIGGLTLIIFYILL

IFHLLSLNYKLKDDYFARVAINCVALFIFIYAAVNISMTIGFAPVVGIPLPFFSYGGSSFTIFMIFFGIL

QHLITFRYFWTDIKAK

>AHK55753.1 ferrous iron transporter A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKRFRLSFYLSFLTLLLSACSVSQMNSLASSKEPAVNESLPKVESLKSLSDMSNIAFEWEPLYNENIKGF

YLYRSSDENPDFKLVGTIKDKFQTHYVDTKLEPGTKYRYMMKSFNEQGQISEDGKVIEVSTAPRLEAVPF

VQAVTNLPNRIKLIWRPHPDFRVDSYIIERTKGDDKEFKKIAEVKNRLNAEYIDSDLKPNENSSYRIIAV

SFNGIKSGSSQVVSSTSKALPPQVEHLSASTDGSSKIILTWDAPTYEDFSYYKVYSTSSSFLPFSVLAKT

DKNSYEDIVEGAGKSKYYKVTMVDKDGLESPMPKDGVEGKTLGNPLAPSIILAQSTSEGINLEWSDNDTR

AVEYEVRRYGGEQNAVFKGIKEKRLKDVKALPGVEYSYEVIAIDSAGLRSEPSSKVKAAQ

>AHK55752.1 tRNA (guanine-N(7)-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPNFKSKKIKEINLPYSKDDVEFLWLAKNDNVSLIYTKVQEESFFLQIKKAQNGFVIKGDKHTKPSKIGY

LQKALKIFKEGFCEDIINEAFGLKNNALIEKTPFIVDNFDELLSRLQGKIYIEIGFGSGRHLLYQAKENP

NVLILGVEIYNPALTQVAKLAKAQNVNNILLIQSDARLLLSVLKSKSVEKIFLHFPVPWDKKPHRRVIGK

DFCKECARVLVQNGRFELRTDSFEYFNFTLEQFLTFPAPKFSLRKNENLEISSKYEDRWKKQEKNIYDLW

VWNFNQECKNYELNEFNLSSVEFSKEDLKKIEQNFKNITIKKDDFFLHFESIYKQDENLLLKVAFGAFNK

PEHCYLHLDKTIDFAFKEPFKIQENIKAINELKEILKVQFKI

>AHK55751.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPNLIQANKLTLGYDELVIKEASFAFKDDDFVFITGKSGSGKSTLLKSFYGDLEPISGKLEVCGSLMNKI

GNLELLKLRQRIGIIFQDYKLVQEYSVEKNVMLPLMIKGYSKKVCHDQATKLLKHVNLTFKADKLPNQLS

GGEQQRVAMARALAHNPKLLLCDEPTGNLDEYSSDIIWTLLKSARELLGTCVIVVTHRIPSNLRVDYRRF

NIENGKMNEIF

>AHK55750.1 cell division protein FtsX [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFFKTHLSLILPLLFMMFAFEFILITNATLKHYEELVNKDYNIIVVSKTELDQNVVKTKVPFFAGLESL

DPKDLIDRLKNDVSEKNLKVLKDSLPKFYTLKLNSLPDQNELNSIKNQLLNIVGVSKVETFSKTHDKIYS

LLILMKFVFWLFLFIIILLAFVLFLKQMRIWLYEHTDRIEIMCLFGAPFWFRSFMLYKVVVVDCFIAFVI

LLAFFTQIFDLSIIQESLKAVDIIFPPINFILHLTLIFLATLFICLLCVNTVMFKVKR

>AHK55749.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRKNILIFFCFFLFVDISLANAINEKTKSLEENKRIQEQLNKKLEDLASDILNGEKSLKDLSLQIESLNS

QTSKLEASAKAQNQELNTLTSQNEDLLKSKSNMEGKLISLMAKDFAYDLPIPQGYIESEESFMAFEILGS

LNKVLNEEIFKISKDYEGVSRLIDDKQAQIKKINESLKDYNAQLAKLQSLKQKQISEINKQKTDRAIYAK

KLDDLQAQQEELRKTLNQLKIINDKEDANSNKNDTKIVKNNQKIRQLGSSYQGSSVKRYTGKKTIAPLDS

FTVKQKFGNYVDPVYNLKIFNENVVLRSNKSDAVVKNVLDGKIVFAKDTSMLARVVIVEHDNGIHTIYAH

LDKIAPNIKVGKNIKKGAVVGRIKNDLTFEVTQKNFHINPLELISLN

>AHK55748.1 uridylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQERKRVLVKFSGEALAGENGFGIENSILKFIASEIKELIKNQIEVGIVIGGGNIIRGVSAAKGGLIKRT

SGDHMGMLATVINAIAIQEALESSGLEVRVQSAIQMEAFCETYIMRRAQRHLEKGRVVVFAAGTGNPYFT

TDTTAILRAVEIDADMVIKATKVNGVYDKDPKQFDDAVFLNTLSYDEAMQDNIKVMDDTAIALAKDNKLP

IVVCNMFEEGNLLKIIQGDTSLCSTVKNN

>AHK55747.1 DNA-directed RNA polymerase subunit omega [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDKRIEEVAAKALEKMGNDRYRLSLVVAKRAEQLANGATPLVDFDKNKNKLADIALYEIAENKITLEGLV

ETNR

>AHK55746.1 potassium-transporting ATPase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKPIDEELLLEQLIDNVKNCKDLEAAKALLFEICGHDAILEKAVDYCIFCHEGQFRKSGEPYAVHPILVA

TLVGFLSENKSNILAALLHDVIEDTNCTEEELREQFGSEVLKLVLGLTKIIEIREDNLISSKSKKSLTKS

ALTFRNMLLASIEDVGVLIVKLCDRLHNMLTLDILREDKQKRISEETLVVYAPIAHRLGISSIKNYLEDL

SFKYLMPDEYKLIDNYINSNNQEMQLGLNEFISKIELLFLSNGFRQGSFEIQKRIKHSYSIYLKMQRKGI

GIEEVLDLLGVRILVEKVSDCYLALGILHTHFNPLVSRFKDYIALPKQNGYQTIHTTLFDAKSIIEAQIR

TFDMHKIAEFGIAAHWKYKEDGSVVAPRLDWLTDISMQSINNLENAEDYNAIELYEYAKDSLYVEDVAVY

SPKGEIFTLPRGATVLDFAYEVHTKVGLHAKSAYVNRIKVPLLTELKNGDIVRVVTSNDKFYRCSWIDSV

KTGKAKASIREFCKQKIREINLASSINMLSFIFGVDKNRIETWIEKENLVRRIRQVATDSAYLKDIVNGL

KKYAKKSYWFDKYEIKEQKIGNFTLYCNHKIANVDFDFCCHPKRGDAVLAFVKGGNAIVHHKLCDRADKM

IDNNQDMVFIKWDSNIPKSYKLIFSLENKKGVLAEFLAFLAKMQINLLTINLSSDLNSAVDYFEITMEIP

DNINPDSVKDRLKSRCKILDFTSLNDAYKES

>AHK55745.1 tyrosyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDIKKILAEVKRGCAELIDEERIENLIKNYYEKGENFFIKAGFDPTAPDLHLGHSVVLTKMAFLQKHGAI

VQFLIGDFTGQIGDPSGKSATRKKLDKEQVLINAKTYKTQVFKVLDKEKTQIKFNSTWLNELGAAGIVEL

TSTFSVARMLERDDFTKRFKEQSPISICEFLYPLLQGYDSVALKSDIEMGGTDQKFNLLMGRQLQRVYNI

GKEQAVIMMPLLEGLDGVNKMSKSLNNYIGVTEKANDMYAKILSISDELMFRYYELLSQKSLEEIAQIKK

DIEQGNLHPKKAKENLALEITERFHSKEEANNAKSEFDRIHSQNALPSDMAEFEIQGKIWLAKALVECGL

ESSTSAARRSISANAVSVNSQKVSDEQMYLEQGEYILQIGKRKFAKLKVKE

>AHK55744.1 2-nitropropane dioxygenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLQPLQIGKHTIKYPIFQGGMGLGISWDRLASAVSLNGGLGIISSVGTGYYEERKYASKELNAKPYGSE

NFYSRKGLQALINNARKVCGDAPLGCNILCASNDYARIARDACEVGFNVIVSGAGLPTNLPEFTADFPDV

ALVPIISSAKALKIICKRWQSRYNRLPDAVVLEGPKSGGHQGFTYEQCLDPNYQLEKLIAPVVEEAKNWG

SFPVIAAGGIWDKKDIENAISLGASGVQMGTRFIGTFECDASEEFKSVLLASKEEDIELIKSPVGYPARG

VRTNLLNLVDKRMGPKINCISNCVAPCGRGKEATKVGYCIADRLFDAWSGKKETGLFFTGANGYRLDKLI

SVKELMEKLVNGE

>AHK55743.1 N-acetylmuramoyl-L-alanine amidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKIFVFLVFVFTTLFGVYENELANFDKNFIGSKSEVQVKFHHQLKSLYIQSVINEDEKTKIEILKRLII

SSNTLNLDDKSYANELKESGISETSINALRKAVIKDIKVQNISQDTEKSTFEPIKTVQKNEKKSSNEQIK

NTEKTNSKTSQAPKSSIVSKAKSDDKIYVLKSSKTNQGVEFELNADLDKDQLKSFALDEKGNYRFISDFD

GVLEGGKKEFKFDDYRLVISQFNPKTIRIVVYAKEKIPIDISFKEEKIIFSKETTSQKKTEQVSKISEKK

QDQKTEIKTKVLETKKQDKKTNNEKENQEPLYVLDVDKISNAVVLNLSDDLDEKEIAVFDTKDQKFRYVV

SFKGVLEGNRKSFTFGQNVITVTQYNPKTVRVVLSAPKEFKLLKELDNNNLTLGFYIQTTNQNANKKATQ

SSSKTLNTNYKSGKLVVIDAGHGGKDSGALSDKKGSLKEKDIVLSTALKLGNELKKRGYKVLYTRSSDKF

INLRDRTKYANDKRADLFISIHANAAPNATKAKSSEGVETFFLSPARSERSKKAAEKENQGDFEEINYFS

KQSILNFLNREKIVASNKLAIDVQKNILTQTRKKYKIVDGGVREAPFWVLVGAQMPAILIEIGYITHPNE

GKRIANKAFQDLLVKGIADGVESYFYNNR

>AHK55742.1 FAD-dependent cmnm(5)s(2)U34 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKAKLIFKDNTPFSLDFDDFYFNFKDGLNESKFVYTHSFEWKNQENFIIAESGFGIGLNFFLTLKRFLE

TTPSKRPKKLFYISVEAFYIEKEQLREIYQKLEFYEEFKELLEQFLKFYPKAKEGIYRFYFEDCFLDLVF

EDIAVLKELDFKADVWYLDGFSPNKNSQMFDENLIFEVARLSKKNTQICTFSSASFLQKNLKKYGFRVEK

TKGFRKREMIKAYLENELEFKDKEAYFSRTFSSLKNKKVAIIGAGISSAVLAYELSLRGFEIDIFEKHLE

LGKGASGNESGILSSLILKPKVNLGEFSELSFIEASRFYRQILDLEFKGVVEFAHNDLMQERFDTQRENV

LFKISKNQAFLEEGGVIFPKKLVKNLFEKSKACIYFNHEFQAYKFENGCFSLKFKNDVVKSDYAVLIYAM

GADAKDFVFYDEMKLSKVRGQVTHLKPFLDTPFPLSSKAYICPVKDDLQVIGASYDRLNASLESKEEDDK

QNIENIADFMDKNTKLEIIGSKVGFRSYSSDRFMIVGNAYDEAFYKEEYKALLWTKNKEQKPAKMSCNLY

FNFAHGSRGFSTSVLAARYLCALINNEPLCLEKKYIHAIHPARFLIRKLKKGL

>AHK55741.1 quinone-reactive Ni/Fe-hydrogenase small chain [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIDYHQIESRLSALEKLPSLKDNDSITKALEKSGFSRRDFMKWAGAMTAFLALPASFTPMVAKAAELADR

LPVVWLHMAECTGCSESLLRSDTPTIDSLIFDYISLEYHETVMAAAGWQAEENLESAIQKHKNKYILMVE

GGIPMGDTEHFLTIGAHGKTGYELSKMASENALAIFAIGTCSSFGGIQAARPNPSNAQPLSKVTSKTVIN

VPGCPPSEKNIVGNVLHYLLFGELPALDVYNRPKWAYGLRIHDLCERRGHFDAGEFVHAFGDEGAKQGFC

LYKVGCKGPYTFNNCSRERFNQHTSWPIQAGHGCIGCSEPNFWDTMGPFEEPMASRKFDTVFGLGADSVS

DKIGIGVLTLTGVAIAAHAVISSMQKDKE

>AHK55740.1 hydrogenase 2 large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSQKIIVDPITRIEGHLRVEVVVDDNNVVKEAYAGSTLWRGIETIVKGRDPRDAGFMTQRICGVCTFSHY

KAGIVAVENALGITPPLNALLTRTLMNAALFLHDHIVHFYQLHGLDWADVVSALSADVKKASDEAFKYTS

NPYATGADKLLEVQQRLKTFVDKGNLGPFANAYYGHPTYRLSPEQNLIVLSHYLECLRIQRIIAQCMAIF

GAKNPHPQSLTVGGVTCVMDLLDPARMGEYMVKFQEVQDFVNRAYYPDLVMAGKAYAHEASVLNDIGVNN

LYTFKEFQIGRDEWLFESGIIKNGDLSKVYEVEEDKITEEATHSWYADNEPLHPYDGKTNPNYTGLVDGE

SVDHHGNNVHSKVFDTKGKYSWIKAPRYEGNPMQVGPLANVVVNYAKGNQNVVPVVDEFLKETGLPLNAV

FSTLGRTAARCIEAKIVANNALKAFNNLVENLKVDQSTCAPYVIDNSKEYKGRYMGHVPRGTLSHWCRIK

NGVIENWQAVVPSTWNASPKDANGVGGSYEQCLIGLKIADVKQPLEIIRKIHSYDPCIACAVHVMDTKGN

NLSEYKVNVNL

>AHK55739.1 quinone-reactive Ni/Fe-hydrogenase B-type cytochrome subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNKEEKLQRKAEYEFSIGLRLTHWVRAIAIVILIGTGYYLSYVFQSPISNGEPVNFMQAKYRLVHQAVG

FVLIACIIFKVYLFFCDKVSAKERRSVWDIFNIKLWIEQVKFYIFLGKHPHLKGVYNPLQFVTYFFFYLV

ILGIILTGLILYTHTYHEGLGGLLYHILRPLEAAMGGLADVRTYHRILMWVIMIFVPVHIYMAIFNAVKG

KDGAMDAIISGYKFVKEEQH

>AHK55738.1 hydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFLVLGIGNIMFADEGLGVHLCKQLEKNYKFTHSEFTLDFVDGGTLALQLSYIIARYDRLIVLDCIEAQ

GASIGDVFFFPYDAMPNKISWSGSAHEIEMLQTLQYMELAGDLPKTHILACVPKRIEAMSFKLSDELIQG

AKIMEKTLLDFLSKEGFAYEKIADFSLQELADISYKNY

>AHK55737.1 recombinase RecR [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVKGLEKFNELVESFANLPTIGKKTAIRLAYHLCINNQIDGMKLAHNIENAIRFIKPCEQCGALSENELC

EICSDKERNKNILCIVESPKDILTLEESQSYNGLYFVLDELNEEKLEKLKQIILKLNISELIFALTHSIN

SDATIFFIEDKFKGLNLTFSKIAQGIPSGVNLENVDLISLNKAMNFRTKI

>AHK55736.1 sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKNYSIHTKLIILFVVTFFLVCVLFIVLLKIEGNTYNEEESLKQENLIKNLLISYENTSGVEIGAYLGN

SGFNAIQNPNLVKAIRNNGQSLFKAGGELCTLSSLKYHSNLYFDVQCKDFDGLYEENTSDRVYNLLLIGF

FSFSLLVVFMYFSVLKSLEPLKKLRRQVAEVANGEQPDFLDYQEDEVGKIAFEFQKAFKKNQELIQSRQL

FLRTIMHELKTPIGKGRIISEMIKEDRQKERLIAIFLRMDSLINEFAKIENLFSKNYNLHFKPSRFSTIL

EEAKEHLMIDDFNKVVKVDIRYDALINVDMEIFSVILKNLIDNALKYSNNGTCELFCCKECFTIKNPGKP

LAEPIEHYLEAFTREKHNQVKGMGLGLYIVSEVCKLHNFDLIYFYDDGKHCFKIFFGDKEK

>AHK55735.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINVLMIEDDPDFAQLLSEYLAQFNIKITNFENPKSALNVGIQGYDCLILDLTLPGIDGLEVCREIRQKS

NIPIIISSARGDLSDKVVGLQIGADDYLPKPYDPKEMYARIMSLIRRTKRVEHTNNENINSAFKIDERRH

EITYEDKVLTLTPAEFEILEYLIQQHGYSVSREQLVSRCKNLKDKDSKSLDVIIGRLRVKIGDSSKSPKH

IFSVRGIGYKLIG

>AHK55734.1 molecular chaperone DnaJ [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEISYYEILEITQNADKETIKKAYRKMALKYHPDRNQGDKEAEDKFKLVNEAYEVLSNDEKRAIYDRYGK

DALKGGGFGSSSSGFGGFEDLGDIFSSFFGEGFGSSRRRKSSNDEKIPSDFIVNLKLSFKEAVFGCKKNI

DFTYKCSCKTCNGTGAKDGKLQTCPKCQGRGQVGVSQGFITFAQTCPDCQGIGEKASEKCSDCKGLGYNE

SKDSVELNIPEGVDTGMKLRVNAKGNILKNGTRGDMYVKIIAAEDDTFIRDDDDIYIEFPVFFTQAILGE

SIKVPTIRGEATLNLPKGAKDGQRFVLEKEGVKDVHSSRMGNQIVQISIKFPTSLNDEQKELLEKLSESF

GIKDGMHQEQKGLFEKITNWFKS

>AHK55733.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLVKLSLVAALAAGAFSAANATPLEEAIKDVDVSGVLRYRYDTGNFDKNFVNNSNLNNSKQDHKYRAQV

NFSAAIADNFKAFVQFDYNAADGGYGANGIKNDQKGLFVRQLYLTYTNEDVATSVIAGKQQLNLIWTDNA

IDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGADLLGHSNISTTSNQAPFKVDSVGNLYGAAAVGSY

DLAGGQFNPQLWLAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKTHANGNLFALKGS

IEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNET

VRVGADFVYGGTKTEAANHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQA

LYKF

>AHK55732.1 phosphotyrosine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILFICLGNICRSPMAEFIMKDLVKKANLEKEFFINSAGTSGEHDGEGMHYGTKNKLAQLNIEHKNFT

SKKLTQKLCDESDFLITMDNSNFKNVLKNFTNTQNKVLKITDFSPSLNYDEVPDPWYSGNFDETYKILSL

ACKNLLVFLSK

>AHK55731.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENFNRTLLVCWFGVFTTSMGLSQIAPILPFYIKELGHVDTSEIAFYSGLAFGITPLFMAVFSPLWAFLG

AKYGYKNMLLRASFGMSVLTLWLSFAHSALEVVFVRGLTGIISGFTSAAVVFIAVIAPKEKVAYALGTLS

TASISGSLLGPLFGGFVAEFFSISAVFDVVAFLIACSFVTIYFFIHGRKIQKEAKKNTQKVKENKTLIIV

LFITTFVIQFGTFGVMPILSIYVEQIHQGGNLALWAGIVVAASGISNLFFAPKLGKIADKIGPSKIIFGA

LIFCGICFYLQAVASNVYTLIFVRLLIGVGLGGLLPCVNALLKKSVSAKNLSVIFGFNQTCQFLGNFCGA

FGGGLMASHFSVEFVFTFVCLIFIINAFIFLAFEKKYIFSNQGL

>AHK55730.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEMILFVLVMILLVLLFVVLFRQYKSPKIEEKSTQSFSDIMQLKSIGELSVFQVFSKEIVTKKDSAFNGI

WKNLLGWSLSERQIALIFEFEITFLYDLRDKNFDILPLGDDAYKIIMPECRYKHSIIDMKFYDEKNAKFL

PFLLPDSINSTGISFSESDKNKLIKEAKDEVKDLSLNLIQNLESKIHKSAKDTLEAIAKGFGAKRVEFEF

KDNTQKLDVS

>AHK55729.1 tautomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPFVNIRITKENGEPTTEQKQELIAGVTDLLAKVLNKNKSSTVVIIDEIDTDNYGLGGKSITQARKEKS

>AHK55728.1 DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSEFLTHPFEPFFDKDSKILILGSFPSIKSRQDGFYYQHPRNRFWPILETLFNAKLENITEQQAFLRKKH

IALWDVLQSCKIKNSDDKTISYAKANDLNLILSQTKIQAIFTTGQSAYRFFVKFHPRLEAIALPSTSPAN

LNFSFEQLLQNYEIIKKFTK

>AHK55727.1 polynucleotide phosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNILKNFTNLLSGKKGKIMQYSIEINKNTEIFDIDKVAKQAAGAVLMRQGKSVVLATVAREEKQVEEDF

LPLTVQYIEKAYAAGKIPGGYVKRETKPSDAETLTARIIDRSLRPLFPKGYAYPTQIVVMVLSADPKVDL

QVMSLNAASVALYLSDIPMKAPVCGVRIGKIDGNFILNPNNEELQNSTLDLYVAGVKDELLMIEMRALPD

QKENEIFIEAPYADVLTQTTSQNMNELSEDEILEALNLAQKAILNGSNAYEEAFSKHKKNSQIELKNEIE

HPEILAFIENNFQKQIKEAINQMAKSERASELNKIAKEILNLEITKDWSEESVLNTLAKVKRKLIREQIL

NEGKRADGRSLNEVRPISIETNILPNAHGSCLFTRGQTQALVVATLGGENDSQMIDLLTEKNPISERFMV

NYNFPGFSVGEASPIKAPGRRELGHGNLAKRALYPSVDENYPYVIRLVSEILESNGSSSMATVCGGSLAL

KAAGVPSLKLVAGVAMGLIFEDNKYAVLTDIMGLEDHDGDMDFKVAGSKDGVTALQMDIKLGGIDQEILK

QALYQAKEGRIHILNIMEEAAKEIIVNEEVLPKLELFSVDPSKIVDIIGQAGKTIKEIVEKFGVSIDLDR

EKGEVKIAGSQNEQIKAAKDYIINITSSQKGTKKGPKDKDISGFELGQEFQGIVKKIAPFGAFVELKNGV

DGLLHSSKIKHLNLSENQSLKVKISEIKNGKISVDLCE

>AHK55726.1 hypothetical protein N917\_06245 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MWRKFSLLLGTSIALNAAQVDIYALDAKKEGDILTANNDVIIFSDFYFITANKAIYNEKTGDVELFGDVN

ILRGQNERSHSDYAKINLNSNQADFSNFFFSNNNLEVWFQSKTSHLNDKVFESKVSAVSSCNVEDPDWEI

RFSKGWLNRETNFVHLYNARLYVKNTPVFYLPYFGFSADTHRQSGLLIPKIVLKSSEGLYYEQPIYIATQ

ENWDLELDPQIRTNRGFGLYSTLRFLDSPYSTGELNFGAFRENSSYFHDENLKNQTHYGIELKYSRDDLI

KSLLSDNFQEGLWIDATYLNDVDYLNLGSRDYRDLNSLVTSKINYFLADENNFYGAYARYYIDTSKLSNN

TTLQEYPSFQYHRFLNNLFDERLRYSFDASFHNFYRPAGSYANELNLDLPISYHNAFFGDFLHFTFTERF

YASFVNYSNDPERNHEHYFRNTHDFNLYTDLSKAYENFFHTLNLGVNYILPGAKSGKITQDYLEEYDKEN

EHTSLYTVQYFYNNEGQKKLKHRISLDYLNKQNEFYELENLLTYYFNENINLNSEVLYSYEQSRFTNVIS

QIEVNTNSKFNWMFSHAYQNDEYGKYSFIGTRANYIATPNYNLFGGIWFDTQRAHANMWELGYTYQRKCW

NYSLMYRERIDPQLTSGGITAKNQSGVYFIFNFYPLGGVKYDFSLAESENKI

>AHK55725.1 RDD family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKENLQDRLERENLKIASFGKRVLAFLIDDMVISLIVFIIFYDRLIQAKDLFETTQIVGNFYLGFILLHF

SYQAIFTYLYGASLGKILCKIIILDENLLDKPNLIQSCIRSAVRQVSAMAFMLGFAWALSNDLRKAWEDY

LARTIVVDVA

>AHK55724.1 phosphoribosylamine--glycine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIMILGSGAREYSIALALRRVDKNLEFYFAPGNGATESLGTNLNLKDPVVLATYAKEKGFDLCIVGSES

FLAEGVVDIFKQQGLAIFGPSKAAAMLETSKSFMKSFLKKYRIKTAKFLNTNDIEKAKNFIYSLTPPIVV

KADGLCAGKGVIIAKTHEEAIEETAKMLSGESFGDAGKLVVIEEFLDGYELSIFAVCDGNDFVLLPAAQD

HKKLLDNDQGPNTGGMGAYAPSSLANESLLRKVQKDIILPTLAGMKKEGAEFCGVLFIGAMIVGNKPYVL

EFNVRFGDPECEVLMPLIEDPLELILAATQRRLRHSKIKIKKEFAVGVVCASENYPYKSSPKSEITVNNI

PENSHISYAGVSLEDGKLMADGGRVLVCVGTGKSIEEAQKNAYKLCDNVNFKGKQYRKDIAHQVLK

>AHK55723.1 hypothetical protein N917\_06230 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHGKIAIYMDSTGRGTVTNSANTFFDFNRQIWNDKKSMPSVGMLVEFRTLSSEKKAEDGKLVQTSKTITG

IKPSKFQEFKEGDFITEHDFWKTDNDDELEDLQNSRRSAYITELYRTTDFDTIEKIPLSFTIPQAIQKYF

AHEILSVETLQANLQDEKEIPCILDYLILKRFLFKAYDTLIFMDNSIDQTQFSALKSIMMHLENSYKQMM

ADQKPNITKIFNETFLSLQCHYQALVATIDTRKNRLASLEAQMKTLQSEINLKSNATDADPEKLKARQER

LAKLQKEAEYYRTTLKRLDAIREDFYKKNYNIFENAFKLSREKLFKKIVTGLNLCATIMDVKIWHLSLKS

SGVKNSYFTMSNIENSFCSLSFAEHYLSRLNKSALNPFDQKLLVYIQKITKEQRKKFLVVTSDLDLLCKL

KIENFSQNPYYLVKYAPKKVNYQSLMRDNTFDIVYIDEKHVWENVADIILQGKHFDKSGKTKFKLI

>AHK55722.1 GMP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKADILVLDFGSQYTQLIARRLREQGVYAEILPFNVSLADIKAKEPKGIILSGGPASVYATDAYFCDKG

IFDLNLPVLGICYGMQLMAHHYKATVAPAGHKEYGKANIEIKKDNALFKNLPKKQTVWMSHSDKVENLPQ

GFEVLATSENSPFCVFGNEDKKFFALQFHPEVQHSEFGKNILKNFAKYACNCESIWNMGSFAKTQAEKIR

EEVGNDKVLCAVSGGVDSSVVAALLASAIKEQIIVVFVDNGLLRSGEKEQVEFMFKNTLGIDLISIDASE

IFLSRLVNVTDPEQKRKIIGNTFIEVFEEEAKKHKDVKYLAQGTLYTDIIESSVVGASKTIKSHHNVGGL

PEKMNLKLIEPLKEIFKDEVRALGLELGLSKEVVYRHPFPGPGLAIRIMGEVNRASLELLRKADVILLEE

LKSTGWYDKTWQAFCVLLNVKSVGVMGDNRTYDNAVCIRVVDASDGMTATFSHLPYEILENISRRIINEV

EGINRVVYDISSKPPATIEWE

>AHK55721.1 hypothetical protein N917\_06220 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGKRNNIKMTKNASAVINELMDKPHYKPLKTLFFCKDFLSSFPLAKQRLIAKIYVKNHILNIITLHPAAY

QELNHDDSKIYIKFLIKAYGQKYPLSGFVDIKDIKIFSQKYTYAANKNKNDEKLSKNSYLELSKGEFKNC

FKDKKLFKKFEDLRELIKKGSNLD

>AHK55720.1 excinuclease ABC subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKENLENELKTLPNSTGVYQYFNQEGKLLYVGKAKNLKNRVRSYFAFTPNLHANPRNSLRIQKMIEETV

HLEFIATNSEADALILENSFIKQLHPKYNILLRDDKTYPYIYVDFEEEFPRFEITRKLVKKSKIKYFGPF

FKGARELLDALYLYYPLKQKASCKSPCIFYQISRCLAPCDKLISREKYLEILDEAIHALLNPSVLLKNLE

KQMLVLAQNENYEEAAKVRDQIAMIKDLEVKVEIDIAKLEDFEVFALAFKNSVLSTLRFVVQNGKIISAN

SKITPIKNDIQWDQNEIYKQLILENFSMDIPLLANVIYVYEEFEDRVLLEEILSQRFDKKISIKIPKIGE

KRRICDLAFQNALLNIEKEQKNHDFTIQKELKSYFELENLPNDIEIFDNSHLQGVANVGAMVTYRINSWD

KSKYRKFHLKHKNDYDQMREVLTRRALDFDKIPPPDLWLIDGGKALLDLAKEIIVSSGVNVDILAISKEK

IDAKAHRAKGGAKDKIHSLKGEFSLSINDKKLQFLQKLRDEAHRFAISFHQNTKKKQDLKSSKLANLGLS

SGVMQKLLAYYGNFESIYKADFKDLTMLVGRKAAQKIKEN

>AHK55719.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MILAGIIFIFNLILAYLSIDISKLDSVTEQLKIGMFSSIFVLSLTLFIFAFRQNRNINKIYQKIFCMQND

FLNFQKKIDVDSALDLLKEKFETTSQNLTKISHEKDRYLHLLEENLYQLINISNAMRCLNEGYNKEINSL

ILNALNSQKDQIRLELNEALEHHKSIIGTSHGKVLQFEASVAIVNNDELENFLLANLLSYFGIESTCFKN

LSFDVNDFHLIFIKDKIFNKNVKKNYDFIVMGRHKNTHYEYFLTLPFEKKDLENILQNKLDKVCTLKFKT

PYQNNVLLFKQNDFDATLFFNIIEKQCDKNICINSFSQLKQELSKETYRLILLDYELIKFDLEQMRNLLS

AYKKQHPQSHIIFFSKEKVRDFDCVSEVLSDVSRNDLITLLRKYLPKA

>AHK55718.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKILFGPVSSRRFGRSLGIDLSPSKKQCNFDCVYCELDPKKAQEKQDEIISIDKIISEVKAMLEKNVEFD

FLTLTANGEPSLYPYLNELILSLRSIAKDKKLLILSNGTAVLDEDKFNALLKLDVVKFSLDSAVAKTFYR

IDRALKNIDLEKMIEKMADFRARFNGDLIMEILVVKDLNDNEEEFEALNQALKKIMPLRVDLSTIDRPPA

YAVKKVSEEKLLELSKLIDSTPVLLAKRHYEGEKLSFNEEELLKMLHLRSQSEIDIEVKFDEQSKTLLNQ

LIKEKKVKILDLAGVKFYKV

>AHK55717.1 uroporphyrinogen decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIFIDACFKKPTPYTPIWMMRQAGRYLPEYMEVRKQAGDFLSLCKDYKKASEVSLQPIDILDVDAAIIFS

DILVVPLEMGMNLRFEKGEGPVFGNPISTLEDLEKLDDQNAHKKLNYVYDALKLTREKLSQNKALIGFCG

SPWTIATYMIEGSGSKNYAKCKKMLYQNPELLHKILNKLTQVLKLYLEEQIKAGANAIQIFDSWASALEY

DKFFEFSFNYMLEISNFIKSKYPNIPVILFPKGISGYLDRIDGNFDVFGVDWSTPLDLARDKLSHKYTLQ

GNMEPCRLYDKNAIKEGVEKILKTMQNKAHIFNLGHGILPDIPVENAKYFIKLVQESSAK

>AHK55716.1 hypothetical protein N917\_06195 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVVDNTQKTSNAIFSTTTKVKEKNTSADEFQATLNEVKNKEEKEDKKTNSSKFTNEDIDLGAVREDFRSY

AWQKMREDQYKKNEETLLNKLFTTIDAGNATNNTKA

>AHK55715.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNYKKALFALALSAFCMGVTEFVMAGVLVDVEAYFSVDAKTAGYLTTLYAIGVVIGAPLITIPLSRFHR

HTQLLINLGIFALANFIIFFSQNFYLTAFARFIAGTQHGVFFVIATLAVSAITPDDKKSSALAIMVTGLT

VALVTGVPLGTFIGHYFGFKFIFLLIFIITSLAFFGVWHMMPKNLHPSPTNLKNLIPAFSHQNLLKTYTI

TICSCGAQFVLYTYLQKILVEISGFKVQDTAYILLLYGICAICGNLWGGKIVDKKGAIFSLRLILSIQVL

VFLSVFLTMHSKILIIFSVALIGFFAFSTIPALKMLSITKAKRHTYKVIDSTVSVNEAAFNVGIALASFL

GGIVLARLGIEFNALFSALFVSPALIFALLFAKDKLNYKKFQRKSFTKV

>AHK55714.1 hypothetical protein N917\_06185 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIILLLGLSLASLGALSFDELIYKDEVKPSFDCSKIKYDGKSDDELMICNKIGVRNEFDNKKLALVDN

IYSSLYQNISKKADKKMKKDFKAISKKMLKERKICIKNMQNTKAGENPLLSLLNASDCMQEAYIKVLLEL

MQRAKKDTKTKEVLEQIFKNKVDKYENLLTQSLNTNKDLQDFIDSLAKEDLIDSRAKFKL

>AHK55713.1 4-hydroxythreonine-4-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYEFNF

IKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKAWED

AGLKYKGHTDALRDFFKKNAIMMLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKKMGL

LGFNPHAGDYGVIGGEEEKIMEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPYPLV

ADTAFTKTGLKNCNRLVAMYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINTKSY

FEAAKFAINLHSKA

>AHK55712.1 pyridoxine 5'-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLLGVNIDHIAVLRQARMVNDPDLLEAAFIVARHGDQITLHVREDRRHAQDFDLENIIKFCKSPVNLECA

LNDEILNLALKLKPHRVTLVPEKREELTTEGGLCLNHAKLKQSIEKLQNANIEVSLFINPSLEDIEKSKI

LKAQFIELHTGHYANLHNALFSNISHTAFALKELDQDKKTLQAQFEKELQNLELCAKKGLELGLKVAAGH

GLNYKNVKPVVKIKEICELNIGQSIVARSVFTGLQNAILEMKELIKR

>AHK55711.1 exopolyphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLGIDLGSNTLRAVQMDEKLNKLKEYEFVIGAAKNLNQSGEISKEAIQRLKNTLSILAKEQDLSKARAVA

TAAFRKASNTNEIFAHLKKEFGIDFKLIDAKSEAKISVLGMQSGLRRLKIWGEFAYCDLGGASCELSFGK

SFKSFDFGIISFYEKNYHSYYKSCISYKKLIKKYPKFIINIKDKKLKIHFLIANPYLKHLAFRAFDEVAM

IKKELRSLGAKTVVLNSGVPTTLSALKQNISYEKYEATKVNGKKLCHKDFLNYAIKLFHMEEKKAIKEVG

TMRKNYLSAGCLLFYALFDKHKLLVIDEGLREGVCLASMKNIKF

>AHK55710.1 hypothetical protein N917\_06165 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFSDFFHAWLHESYYKNAVSIGKNGDFFTAVSVGNLFGTLLAKHFLNLIDEKILKPPLELVEIGANEGY

LSRDFLAALLELRPEIFSQISFFIIEPHEKLRTLQKKTLEGVEFTHKNSLKECHFKNAFFFCNELFDSFT

CELIDHDKMAFVENFKLIFKNMDENLITKCKALNLTKGELSLELENFFKDLNQTCERFIFAGFDYGTLNP

QSFSLRIYQKHEVFSPFEVSLKDFFGKSDLTYNVNFTHLQKLIKEYDFKPLAFKKQSLAFMDFGFEDLLE

YAKNKNIKTYESFLSQAKILFFNFDEKFHFFEFQKN

>AHK55709.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKALWILLSLTLWLFGAQNLELIKGQALFLELDKKDFLSLKNNDKNIPTFAHPKNQEKILAIFSLPYKNP

PQNTKLIAFYKDKKEEIFIKTLEGNYKSEKLQIENKKIFPPKTIQERITKELKEANAIYSSYTPKALFNG

AFNIPLNSFITSDFGKARTFNEKVASYHSGTDFRATTGTPIYAANSGVVKIAKDRYFAGNSVVIDHGFGI

YSQYYHLSKIDVKIGQKIKKGELIGLSGATGRVSGPHLHFGILAGGKQVDPLDFVSKFNAIFQ

>AHK55708.1 glycyl-tRNA synthetase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSELLIEIGTEELPAIPLLKELANIEKKWNNVLEEYRLVSDFKFYYTPRRLVFFHENFADKQEDSFAEFI

GAPKNVAYKDGVLTPAGQSFLQKARISENELSFKEIKGKEVLYHQKAIKGLQSQEILGEMVEKFLKSLSF

GKSMRWGANSFEFIRAIRSIACILNDELVNFQSYGVKSTKKTFIHRSVSYDLQDFNNAKEYFELLEKNYI

ILDPIKRKEKILEQFKLIESQKNIQIGEDEELLAEVVAITEYPNALLGSFEEEFLEIPSEVIITSMRENQ

RYFAVFNDKGLSNHFIVVSNAVCKDYSKIIHGNERVLRARLSDAMFFYQNDLQNGLKPEKLAKMTYLEGL

GTMQDKSLREIKIAEILCQMLHNDKIENISTALKYAKADLATQMVYEFTDLQGIMGSYYAQKMGLDYQIC

LAIKEQYLPNSEQAPLPSTEFSSIVALANKLDTLIGLFSIGKIPSGTKDPYALRRAANGIIKIALNLNKE

FDIQILLEKLSNHYKSFDMQILKDFIFERLYTFYTVNASFVKAVLSSQNTDLIHINQSVNALIKLSKKDN

FNENFATFKRLANIATKNPHKVDESLFVQEAESKLYKAFQEKTKANSLQEKLENLFALKPFIDEFFNQVM

INAEDEKLKNNRQALVYEIYAEFLKIADLKELSL

>AHK55707.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINVFFDMDGTLIDSANAISCAVNEIRQDLNLAPLSREIIMQTINTPNIDWAKELYNIENFHHSSFKEGY

EKYFVKHYEQSVVLFEGVKELLEFLKSKNCFLAIATNAPQSSLSNILKKHDIIPYFDKILGVSLGIEPKP

HPMMLELLKSEAPYKTSVFIGDSQKDKECAKNANLPYFHAKWYQKNLKENEFSNASELKGFLQKYL

>AHK55706.1 hypothetical protein N917\_06145 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKNEEKALRVKYLRNLEKFFNGAISALKKEDFDKTKFEERMLKNAKFFEKNPAVNLNSTYAKNLEFFVN

ACLDFSKEKSELLNLANALDKQKKQGEKKEKHKNYLKDYE

>AHK55705.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDNFLEIFLITVAIAIVLNVIFKKFEIPTIIGYIAAGEIISEIYHLSGKGEITHIAEFGIVFLMFTIGLE

FSFKHLMAMKQEVFLNGSLQMLTCGFVFMLLAIGILGLGDKSATIVGFALALSSTAVVLKILNDNGDINE

QYGRKALGILLFQDIAVIPLLLLVDIFSSNNQNIEKLLFTSLISALILITLLFFIGKYLVDRIFRLIIHT

SSQEIFISTVLFMVIGASFLANYFGFSYSLGAFIAGALIAETKYKHKIEADLIPFRDLLLGLFFITVGMQ

IQLDVVAQNWFLIIVLTLLVMALKFGIVFGFLFLYTKKRVALKTAFAIAQIGEFALAIFSLLQAKNMLDI

KTSQILIVVSILTMIITPFILNNIRKITNVVEDIALNTNAVQNIDSNIKLKNHLVVFGYGRLGQEVVQKI

KNTGVPYLVLESDLNLVELGVSRGENVVFANAAQEETLKIANIEECAVAIITVTNEAKLEILCQVLANYP

KPIDTIIHVNGTLKKMLFSSIDENIRIIRSEKVIARNLVQEALECRIHKNT

>AHK55704.1 MerR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEQHYDEPVYLISVVAKVLSIHPQTLRQYEREGLIEPSRTDGKIRLYSQRDIDRIKLILRLTRDMGINLA

GVDVILKLKNQLHEFENLIDELRLELSKQQDKEAASKAVVKHKNSFDLIFYEKK

>AHK55703.1 cobalamin ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNSLYETLGVSKNASADEIKKAYRRLARKYHPDINKEKGAEEKFKEINAAYEILSDEKKRAQYDQYGDSM

FGGQSFHDFSRNTGGVNLDDILKDLFGGGFGGRSRGGFNGFSSKGFSSGFGGFGGFEEEILDSNLELHIP

FEKAVKGGEHSFNFQGETIKFKIPHGIKEGEKLRIRSKGKQSRNGARGDLIIIVKIEESPIYTREDDDLY

QKVDISLKTALFGGKINIKTLKEGKEEAIINITPNSKNNQKIRLKGYGVQNRKSDIYGDMYLILNVVLPN

LDTLDEKFIELLKEKLP

>AHK55702.1 serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIFLSLSLASALFAASINFNESTATANRVNPAAGNAVLSYHDSIKDAKKSVVNISTSKTITRANRPSP

LDDFFNDPYFKQFFDFDFSQRKGKNDKEVVSSLGSGVIISKDGYIVTNNHVVDDADTITVNLPGSDIEYK

AKLIGKDPKTDLAVIKIEANNLSAITFTNSDDLMEGDVVFALGNPFGVGFSVTSGIISALNKDNIGLNQY

ENFIQTDASINPGNSGGALVDSRGYLVGINSAILSRGGGNNGIGFAIPSNMVKDIAKKLIEKGKIDRGFL

GVTILALQGDTKKAYKNQEGALITDVQKGSSADEAGLKRGDLVTKVNDKVIKSPIDLKNYIGTLEIGQKI

SLSYERDGENKQASFILKGEKENPKGVQSDLIDGLSLRNLDPRLKDRLQIPKDVNGVLVDSVKEKSKGKN

SGFQEGDIIIGVGQSEIKNLKDLEQALKQVNKKEFTKVWVYRNGFATLLVLK

>AHK55701.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTNILMIEDDLELAEITAEYLEKFDMKVDIAHEPYIGLSKLALKEYQLIILDLSLPGLDGLEVCEEIRKK

YDTPIIVSSARHDITDKVNALELGADDYLPKPYNPKELQARIKSHLRRISNTKSAIAKSVKDLVYDQYKH

IITMKGQELTLTNAEFDILSYLIKKEGGVVSREELVYNCSSISEDSSNKSIDVIISRIRQKMGDDPKTPK

YIHSIRGIGYKLTQ

>AHK55700.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKSSIFYTITFIFIFAGVSVILGFLWLIEYDQQNYTRELNTKYSLIANARLLNFAGVISEKEFEEQTKN

YNKMDEITEAKQIRKILFRGDVLARVEVNNGLIEIISYNRQVYLNIIYDGKVYLYKDQDYQTYRYFIIKA

IAVAVICILVLLYIYIFKKLKPLKRLKKQIDKFAQGKLGDIEDVSTGVDEISQVSEAFYQAIVQIRKLNQ

SRQFFLRNIMHELKTPITKGLLTLEMIEDNKYKERLNGVFTRLEILINEFAAIEQITSGAAFINRKKYNI

LDVLDEAKEIAMRDDSNIRIFMEESFFVNVDFKLFTTAIKNMIDNGIKHSEDGFVQIDIIDDYICFKNRG

PELNNTLEYYTQAFTQGSKQKSSFGLGLYIVNTILETHGMKLDYLYEDGVNLFYFRNLKSVIVKE

>AHK55699.1 CopG family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKRNVKTYSFRMPLELKERLDNLSKNLSKPKSTIVKEAIEAYLNEVEDFSFAVNALEELKDGDYQKASKK

IDKIVKNLKQTK

>AHK55698.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLPKWDNSYSVHNAKIDEQHKKLFKLAAKVEVVSDRSVSKNEVKELLAEFFNYMKDHFNDEEKYMQLIGY

PNLEEHRKIHKEIIQTMINLIKDIKSTNDLKEKLYIVAKKWLLEHILYEDMKVEKWRSSSLSTDDGGDVS

FEAAEDEDNEHPQFYLYTCNCPGKIHDVPYSIHQKIELQGRKFTCKTCKQAIKFYKKYS

>AHK55697.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAAKILLLEDDLSLSEIIEEFLNDEGYEVFLCDNAQEALDMAYERYFDLWILDVKVPLGDGFSLLKELRK

SGKQTPAIFMTSLNTTNDLKQGFDAGCDDYIKKPFELAELSIRVKALLKRAFSHKNEDFEDLGDGFRFEF

TTQILYHNNKALTLPSKEIKLLSLLLKNKNNFLSTERIFEELWDYDEEPSELSLRAYVKNLRKILGKEKI

INQRGRGYCYG

>AHK55696.1 sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKKVIRQILLIYLTTTGIFLTIFFALWYQKLYEELVVLKGATLRENHRNIVISILNSRFTPIDISAKNI

AQSTALKFAIFDAKKIVFSNIDFDLRKAKIELKGRGICDNKVFFLASMSADHYFLRHASNEEVNTNDGLQ

ILIQGEDVGKDLFWIRTKVFSFAIMAFCILGLISYILVKIALKPLEDKISTLNRFIKDSTHELNTPLSVI

LMSIEQLEHQNLGDNTKFTRIKLAAKSLSQVYSDLVFYNFPNTLETEKQKFDLRILLEERLEYFKVFFEQ

KKITLKLDLNQANIFAPKSQISKLIDNLISNAIKYNKKGGVISIILKANFLSIADTGCGISKSNLNHIFD

RYTRFNTDQGGFGIGLSLVKKVCDDNDIKIICESVENQGSVFKLNW

>AHK55695.1 molecular chaperone GroEL [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKEIIFSDEARNKLYEGVKKLNDAVKVTMGPRGRNVLIQKSFGAPSITKDGVSVAKEVELKDSLENMGA

SLVREVASKTADQAGDGTTTATVLAHAIFKEGLRNITAGANPIEVKRGMDKACEAIVAELKKLSREVKDK

KEIAQVATISANSDEKIGNLIADAMEKVGKDGVITVEEAKSINDELNVVEGMQFDRGYLSPYFITNAEKM

TVELSSPYILLFDKKITNLKDLLPVLEQIQKTGKPLLIIAEDIEGEALATLVVNKLRGVLNISAVKAPGF

GDRRKAMLEDIAILTGGEVISEELGRTLESATIQDLGQASSVIIDKDNTTIVNGAGEKANIDARVNQIKA

QIAETTSDYDREKLQERLAKLSGGVAVIKVGAATETEMKEKKDRVDDALSATKAAVEEGIVIGGGAALIK

AKAKIKLDLQGDEAIGAAIVERALRAPLRQIAENAGFDAGVVVNSVENAKDENTGFDAAKGEYVNMLESG

IIDPVKVERVALLNAVSVASMLLTTEATISEIKEDKPTMPDMSGMGGMGGMGGMM

>AHK55694.1 molecular chaperone GroES [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFQPLGKRVLVKRVEETKTTASGIIIPDNAKEKPLMGEVVAVSKEITDIANGDKIVFAKYGGTEIKLDN

NEYLVLNLDDILGILK

>AHK55693.1 hypothetical protein N917\_06075 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIFYGIVAFVVVLLIALYTILFTSFGNNIVANIAQKKIKENAGLDVNITRFNLRFSSLELQANIANMA

DCNLQGALSPFKLGFDLDYLISLNQNYAKNLGLNLNQNLSFGGKIQGKASDFTLDGKGYLLGSNVLLNAR

MYNYSPIALNLDAQNLKIEEILHLLSYPSYAKGFLNAQAKISAQNLKPDGNIIIKLDTSYINYEAIKKDF

SLDLPLNSNPKAEILANVKEDKIYAVSKIYNDYLNLQTQKTLYDMSKNILSTDFNLNIPSLAKLEKLTKT

RLNGSLGVIGETSVVNNALSSLNAQVIGLGGEVKASLKNNKIFADINEASLEKLLALAGYGALVSGNLNA

KLLNADLDFSNFDLEAKINNAKINTNELKKLAKIELPNTIFSFDAKANAKNSNIAYNALLASNLLNIKKL

QGTYNLKNSELNTDLNAFIDDLSQFSAIAGQKLQGKADLTAKAHIIGTQIQNLNANANLADGVIKADSNG

KKLDLNIDKLDLSKLFVIAGMPNYASGIVNAKVNLDNIDFSNLNGKANLEAKGILNAATLSKILNKNFPN

NTSYDLNTKINFKNNIAQFDSVLNSSLADLTKLQGSFDISKMLLNSDFNLKINDFSKLGFLLDRKLKGKA

EFNGKVGFDKNLNFVVNSPNLFEGKLQSTLKDNLLLADLNGVDLSSLAQGLDFMDVYQGKADVKANYNLL

SEEGEVNLDMKEGKLKPNLITNALKILTLKDITNDVYRTANAKALIKKENIKFDLNMQADRSYILVQSGA

LNSKSGALNLPFDIKFDRANFKGSITGTTENPKVNLNAGSVLNSIKNVVGGGMSDGAKSTGDKVDKAVNK

LLNKIF

>AHK55692.1 riboflavin synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFNGLIREIAKVQSYQNNTLSLKAKYCPNLGDSIAVNGACLSVTKLYEGGFEVELSRESRTHIVIENLKD

KVHIEPALRYGDRIDGHLMQGHIDFIGTLEKIQKDENGVDFYISLPKEAMKFMAEKGSIGVDGVSLTINE

ILKNGIRLTIIPITFKETLFKDYQVGRKINIESDLLARYIYAQLQGKNKGLSWEEVERISYLY

>AHK55691.1 laccase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGRSRKNFLSLLENDKVGIFCAFDKDYNVFRAKIHNENLFSHLGFKDIEKCVFMDQIHSHKVIIYDENLK

NLSCDGLISKEKNIALCVLSADCLPLILYHESGIIAALHSGRKGSFENILKECVDQITMQNSHLDKNKFH

LFILPGICAKNYEIDGEILEFAKKEFKEFVQDDKLDLKALVKFQAQNLGIENIKDCGICSFDDESFFSYR

RDKTTKRFVSVVYLKD

>AHK55690.1 hypothetical protein N917\_06060 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYERKDLRVLKIIQKAREFGDGDLLNEALVKQLIDADFCEINEKEKEELATLLHSLINAKDKALLSN

>AHK55689.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKLLLLFIFVVQSFAALSVEELTWDNGDTLLKFLQRNSIPMSLYYGLDREDQELASDIAYKIKYQVLKD

ENNNIEQVLIPISDDLQIHIYKDKDGQYTLAFTPVSYQKEDRILHLTIKSSAYQDVYEESGSSTLARAMV

RAFRGSINFRNIQKGDEVTLYYEQKRRMGKLWGDINIKMAMVEINKSAREVFSYNDIFYDRDGKELESFL

LTKPVNYTRISSPFTTARYHPILKRYRAHLGIDYAAPTGTPVKSAGKGVVTFIGTKGGYGNVIQIKHDSG

YMTLYAHLSRFAKIKNGQKVNQGQVIAYVGSTGMSTGPHLHFGVYLNNKAINPASVVKIAKSELSGKAKE

NFKHIIAGYEQVVKEALASNQPNPPKEEDFENYIEF

>AHK55688.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFKTIVCFLALNLSLFAVGFDLKPIKSELVKVDDIYGYIKDSDDIKLYSSGVVVQHFSNSQSIIARASVI

DKKNGLAKLEFSVFSALKQDALPLPNVLPKVGDEVVLNFLYDRGLVIAPDEQTYNELVREFPQIYFTHID

IFGAQLIRTATLSPKRSDFRQFCDDNAVGILVVALENHAEVVDCQDFNKLYEVPISKPTSVQVPFYSRIG

GYKSNFFDFNSQEIGNYYRYYDALINLPKVQ

>AHK55687.1 FAD-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKEFEQYFKRFLGEENAYFDEIHKRAYSYDATKKHYLPDGVLFPRNEEDIARILKFCNENNIIVIPRGS

GSGFTGGALAVNGGVVLAFEKHMNKILEIDLENLVAVVQPGVINIHLQKEVAKYGLFYPPDPASMEYSSL

GGNVSENAGGMRAAKYGITKDYVMALRAVLPSGEIIRAGKRTIKDVAGYNLAGILIASEGSLAVLSELTL

KLIPLPKFKKTAFAIFPSVKSAMNAVYKSLASGVSPVSMEFLDNLSIRAVESKFNKGLPIEAGAILIADV

DGNVKEAIDEDLRNLEHYFLEAGASEFKIAKDEQETADIWFARRNCSQSIAMYGTLKLNEDITVPRSKLP

TLLEGIDEISKKYGFKIPCFGHTGDGNVHTNVMVPDKNDKEQVKKGYEAVEEIFKLTVKLGGTLSGEHGI

GLSKAPFMNLAFSEAEMNLMRNIKKAFDPNNILNPFKMGL

>AHK55686.1 ribonuclease BN [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNFFTILLNLRDKEILNYAAALSFYTVLSLIPILFVCFSVFTQISSFKAYYEKAKQVIFAFLIPTQQDV

VATYIDTFLKNSVNLGIVGLIAMAFTSLAFFSGYDFVINRITKNEPKGLWQSISSYWTLLTLVPLGLGLS

FYISGFIQQTLDDYKIGFNFFEILPFVIIWGLFFISYSSSVHKGTLKSLALVSFGAGTIWYIGKNLFVYY

VVYNKTYASVYGSFSTILFFFIWIYISWIIYLFGLKLYYFLNHNHNEGNKIRKNTKKS

>AHK55685.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQDMIDTLIKYGYIVLFFYSLGGGMVGILAAGVLSSQGKMDLSFCIALAFIANTIGSTLLFILGKYYKKD

IMPYFKKHRRKIALAMIKTKQHGIILLVTQKFIYGLKTFIPIAAGMAKYNFIKFFIINTLASLAWAIVLG

FTAYTFGYVIEAIFDKLSLYPYAAPLFLLFLAGIIWLYLSKFSKK

>AHK55684.1 ribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIESLIALIAAIVGLGIGYLVAKKINDAKYEIFVEQAKAKAKAIEYEAELILKDAKNSILNAELEVKKKY

EEKTHKFQKDFNQKFDDLSKKEQKLQQEEEKLKEDKEYLCKSQKHIQNLQSDVDKLKNKYQEKLDDVLKI

LEHSTGLTQNEAKEIILKKVEENSREQIAHIVRKYEEEAKNEAKRKANFIIAQATSRFAGEFAAERLINV

INIKNDELKGRIIGKEGRNVKTLEMVLGVDIIIDDTPGAIIVSCFNLYRRAIATKVIELLVEDGRIQPAR

IEEIHEKVCKEFDSAILEEGETIVMDLGLNKIHPEIVKLIGKLKYRASYGQNALAHSLEVAHLAGIIAAE

CGGDENLARRAGILHDIGKALTHDFEGSHVDLGAELCKRYKEHPVVINAIYAHHGHEEATSIESAAVCAA

DTLSAARPGARREVLEAFLKRVSELEDIAKSKEGIKNAYAINAGREIRVIANAQLVNDDESVLLAKEIAA

EIQEKMQYPGEIKVNVIRELRAVEYAK

>AHK55683.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIKKILLLVAISCLFVACSNDKEKQQNDVNLSTEASINQSDDMNFKLNLIDGGSISVKKENAVLNFNDE

DKVTLFVFFTTWCTPCIAEIPHLNKLQEKYNNDFNIVGVLLEDKSNDEIQKFIEQHKISYKVANGENNYL

LAKALGGVNGIPTMFLYNKHSKLINQYLGLIPEEMLEIDIQKAIL

>AHK55682.1 cell division protein FtsY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFNFFKKGLAKTLENIVGVKGENKKITKDLLEEILLEADVSYEIVEEIIYYLPPQNEVKKEDLKRVMGSY

FLYEKKETNQEKPFVELILGVNGAGKTTSIAKLAYLYKNQNQKVILGACDTFRAGAIEQLKLWAQKVDVD

IVLTAQGHDPSAVTFDTISKAKAKDFDRVIIDTAGRLQNQKNLAHELEKIVRISNKALEGAPHRKILVLD

GTQGNAGILQAKAFNELVKLDGVIITKLDGTAKGGALFSIARELELPIFYVGVGEQMTDLQEFNASAYLD

TLLDPIFE

>AHK55681.1 DNA repair protein RadA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKNKALFECQACGNQQSKWLGKCPDCGAWDSFVELKAEQIKVLKELAQVSMKTSEAVCIEDVELEHFTR

YSTDDNELDLVLGGGLVEGSLVLIGGSPGVGKSTLLLKIASNLAKQGKKVLYVSGEESKAQIKLRADRLE

ANTPNLFLLTELCLENILEELHKKDYSILIVDSIQTLYSNKITSAAGSITQVREITFELMRVSKAYNIST

FIIGHITKEGAIAGPRVLEHMVDVVLYFEGDATKEIRLLRGFKNRFGGTNEVGIFEMTAKGLISAKDLAN

RFFTRGKAISGSALGVVMEGSRALVLEVQALVCESSYPKRSATGYEKNRLDMLLALLERKLEIPLGHYDV

FVNISGGVKVSETAADLAVVAAIISSFKNRPLSKDSIFIGELSLNGEIREVFSLDTRLKEAKMQKFKNAI

VPSKPLEDIGLKCFVAKELSQVLEWM

>AHK55680.1 F0F1 ATP synthase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKDLFLFSSLLDASHTFSYFFHIGLVALIAVIVAMMATRSMQLVPRGMQNLGEAFLEGVLSMGRDTMGSE

KGARKYLPLVATLGIIVFFSNIIGIIPGFHAPTASLNLTLSLAIIVFVYYHFEGIRAQGFVKYFAHFMGP

IKLLAPLMFPIEIVSHLSRVVSLSFRLFGNIKGDDLFLMVILALVPYIAPLPAYVLLTFMAFLQAFIFMI

LTYVYLAGATVVEEGH

>AHK55679.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIYILEFFKGASLALMLFGALFFFFKYNSFFYLCLGIIPGLLLSLIFVLLIENHKLKNENKLR

>AHK55678.1 5,10-methylenetetrahydrofolate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MCSFSFEVFPPRKDENIKNLHAILDDLGQLSPNFISVTFGAGGSINSQNTLEVASLIQEEYQIPSIVHLP

CIHSSKEKITQILQKCKEKNLNQILALRGDICENLKKSKDFSYASDLISFIKKQEYFEIYAACYPEKHNE

SKNFIEDIHHLKTKVNAGTDKLITQLFYDNEDFYTFKQNCALADIDIPIYAGIMPITNKRQVLKISQLCG

AKIPPKFVKILEKYENNTLALEDAGIAYACDQIVDLITSGVDGIHLYTMNKSKAAIKIYEAVKHLLKEEL

HA

>AHK55677.1 5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNSIISYPRIGANRELKFAIEKYFKNQSSKEELLKSAKDLRIRHWQEIQKAGIDFIPSNDFSLYDNVLD

AAVLFNIVHTKYKNLNLDALDEYFAQSRGYQGENGDVTALAMKKWFNTNYHYLVPECDNADIIALTGDKI

FKEYLEAKELGIESKPVLIGIFTLFKLIAFKDEKTQKLAKEKLLNAYIELFDKLNELKVTWLELDEPYLV

YDLSKEDIALFEEFYQELLNHKKDLKILLQSYFGDLRDIYPKLLESKFDALGLDFIEGKQSLALVQQYGF

AKDKILFGGLINGKNIYANDYAKSLKLIKELQKYTQNIILNTSCSLLHVPYSTEFESKLDSSYLKLFAFA

KEKLQELKDLKEILNSSEENPLFRANQELFKNIPERLDEKVKARLKALKKEDFTRTPSFKERALIQKEFL

KLPLLPTTTIGSFPQSADVRSNRLAFKQEKISAQNYTEFNQQKIKECIQIQEEIGLDVLVHGEFERNDMV

EYFGENLKGFLFTQNGWVQSYGTRCVKPPVIWGDVSRTKPITLAWSKFAQSLSQKIVKGMLTGPVTILNW

SFPREDISLKESTEQIALAIRDEVLDLENAGIKIIQIDEAALREKLPLRKSDWHSEYLDWAIPAFNLVHS

GVKAKTQIHTHMCYSEFSDILKEIDAMDADVISFEASRSNLSLLDTLKAIRFKTEVGPGVYDIHSPRVPS

VEELSLTIEKILNKLPKEQIWINPDCGLKTRAYEEVITSLKNLVTATQKIREQL

>AHK55676.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTLFTKAFCVATLFTGFAWANEELKVGSSITPHADILRFIKSALQKQGYDLKIYEFNDGVIPNVMVENGE

LDANYFQHEPYLKEFNQRQGTHLVKVASIHIEPMAVYSKKHKEFHPKEGQSISIPNNPTNESRALRIVVS

KGLIEVKDNELITPLDITKNPKKLKFVELKDAQLTRSLDDVDYSLINSNFAILAGLNPVKDGLYTESKYS

EYGNIIAVKEGNENLPKIKALVKALQSNEVKKFIEEKYQGALIPTF

>AHK55675.1 2-oxobutyrate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLPILDLQAYEKDKSTFLKNLREIASKIGFFYLINTSIDKNLNEKLFKLGKEFFNLSRSSKELISMVHS

PQFRGYTSEGFEYTAGSKDYREQLDIGTERDALNWNLNSPLWQRLEGPNLWPSEIPELKKTFLTWHKQTK

KACLKLLKAFAQALDLPNNAFDKLYGENSYEHCKIIHYPKSSKNITQGVGSHKDGGLITFVFQEKQSGFE

AFIDGKWLSIPPLENSVVVNIGEFLELATNGYLKATIHRVNLSPKERFSIAYFLGVQLDKDIPIFKLNPE

LAKESKGVDTDPKNPLLRNVASNYFKRMIRSHPDVASIYHSDLIEKFSFA

>AHK55674.1 S-ribosylhomocysteinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPLLDSFKVDHTKMPAPAVRLAKVMKTPKGDDISVFDLRFCIPNKDIMSEKGTHTLEHLFAGFMRDHLNS

NSVEIIDISPMGCRTGFYMSLIGTPDEKSIAKAWEAAMKDVLSVSDQSKIPELNIYQCGTCAMHSLDEAK

QIAQKVLNLGISIINNKELKLENA

>AHK55673.1 glutamyl-tRNA amidotransferase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFEVVIGLEVHAQLNTKTKIFCSCATSFGEAPNTNVCPTCLALPGALPVLNEEAVKKAIAFGKAVNATIN

KKSVFNRKNYFYPDLPKAYQISQFDIPIVEKGELFINVKGENKRIGITRAHLEEDAGKNIHESNFSKVDL

NRAGTPLLEIVSEPELRSSDEAVAYLKKLHSIIRFLDISDANMQEGSFRCDANVSIRPKGDTKLYTRVEI

KNLNSFRFIQKAIEYEVKRQSEAWEDGTYEQEVVQETRLFDTTNLVTRSMRGKEEAAEYRYFPDPDLLPV

LLKDEFLDIKIPELPDEKKVRFIDKLGIKESDAEVLISSLEMSRFFESLISQNLNPKLCVNWLNTELMGL

LKGELTIENSPVDAQKLGVLIKRIEDGTISAKAAKDVLAFVFENTSVEIDEAIEKLGLKQVSDDSAIEAV

IEQILNANADKVAEYKSGKDKLFGFFVGQTMKEGKGAFNPAKVNEILKTKLG

>AHK55672.1 glycerol-3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRIAVIGAGKWGSALHLALKENHNCFISSLHQRDLEDFVSIKEALECEYLVFALSSQGMRAWLKENFINK

GQKILIASKGIEDQSCQFLDEIFLDFVPKENFCVLSGPSFAAEVMQKLPTALMISGINQELCKKFASFFP

DFIKTYIDNDVRGAEICGAYKNVLAIASGISDGLKLGNNARAALISRGLIEMHRFGKFFGTKEETFLGLS

GAGDLFLTATSVLSRNYRVGLKLAQNQKLDSILAELNEVAEGVKTAYAIEKLAKMKGIYTPIVNEVVAIF

KGKSVQEATQNLLKQND

>AHK55671.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIIKNAKIYGDSLQDIEIKEGKITNIDSNLQGEEILDAKGMTLLPSFVDLCVSLKNDKFSLANLELLENE

CLKGGISSIVLRDCMDFDEESFALFLQNLAQRKMQIFSSVRVKDANGKLKNLATLLNKGACALELDSSLD

ANTLKVSSQYAFMKDSPIFVRCYDKDFDDNGVMNDCEMSFELGLIGMSKIAETSQIAKMKELAKFYKNKV

IFDLLSLKDSLVLLDEKDLKLVSIHHLIKDDSACEDFNTAAKLMPPLRSKEDVLALREVLKEGKISFLTS

LHSAKSISLKDLAFDEAAFGIHSVCEFISLCYTFLIKEGFLNWQELCRFTSKNPSEFLGLNSGVIEVGKE

ANLVLFDENEEIFAPKSSLYSEDKLFGKIKMHIIKGKNILEK

>AHK55670.1 phosphate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKDNLIAFVIFIISTIAFVIWGFGYISQHQLILFILASIFGIFMAFNIGGNDVANSFGTSVGAKTVTIK

QALIIAAVFELSGAIFAGAEVTKTIRSGIVIFPNSLDPMLFVIIMLAALLSSGVWIFIATKKGLPVSTTH

SIVGGIVGASIMMGLLKFDGIQTLSMVKWSEILRIAISWIASPLLGGIVAYIIYSYIDKKILKPSEKLND

DLKNIKKERKKFKEEYFLNLKTKSQEEQIKELSAIALDEEEQENNFYRNKMKEFKDQEKDIDIYSILKTH

MPIIACIAAAIISAMFLFKGLNNVSTLDILQNFWIIGIIGTISYVVTFAIVKIVKKTELNKTTDRIFSWF

QIFTASSFAFSHGANDIANAIGPFAAILDVLKNGTINATSPVPFAALAMFGVALVVGLWFLGKEVITTVG

SKLATIRPTTGFSAELGASIVILLATQFGIPVSSTHILIGAILGIGVYNKNANWIMMKPIGLAWIITLPA

AGIMAALVFLGFKLSLGI

>AHK55669.1 hypothetical protein N917\_05945 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRGIFYIIALFSLLNGDELTEALAKNNNQNSWEHFDYKNTKEAPKIQEENVDFKSTFDSLLSKTLENNNG

IDKTDGNLDFQNENAQVKNLSSLYEGENNSLLFQKELFVAQDNYNYSGGLINRYEKDDFLFGVNGFIDKQ

KEQKDTKSFGTEFGYSKFIKAYSNYYIPNEAEKKLQLGMSFVIPTYTAFAFDISKDNDKTNYQVSYSPYS

VFSLNLLRRDYSARETVDDTVVQVGFSFNFNESFLKQFRKKDNTLEEVNRYDFLQRTH

>AHK55668.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

METLSQTLAERKPPLYKRIIKSLGFWVIIGIITGIVLGYTDKELAIASKPGVDYFIGALKVLIGPIIFVT

LVLGIISLESLKKVGSIGAKAVIYFEVVSTLALAIGIFMANVMQPGHGMNLDPSQLDTKSVQKYISQTTE

VSASSEIMHILKDAMPTDIITPFTEGKTIQVLVIAIITALIISLMRIEDKQAIQRVFEVVQNFVFKILQI

IMYFSPIAAFSAMAVLIAQYGIGSLINLAYLLLVMLISCLVFIFGILGLICYFAKVNIFKFMRFISREVL

IVFATSSSESALAPLMRKLEKAGLSKATVGLVLPTGYSFNLDCTNIYLAMSLIFLAQAFNVNLSLAHEIS

ILIVLMIASKGAVGVTGSGFIVLGSTLAALGNMEISEANATLAQVLPVAAIGVLLGVDKFMSEMRAVGNL

CGNSVAALIVAIWDKQIDWEKFRYAMDNPEKFHNAGMN

>AHK55667.1 PAS sensor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEIVLSENALITSKTDLKGNIIYANNDFLKYAGYKVDELLYKSHNIVRHEDMPRTVFKCLWDYIQKGDE

IFAFVKNKAKDGNFYWVFANVSASFDTNGNIINYYSVRRAPNRKSLSIIEEVYKILLEKEQKSGINAGVS

ALMDIVSSYKMTYNELIFNLQENN

>AHK55666.1 PAS sensor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSREIFLQEDSLITSKTDLKGKIVYANDDFLKYAGYTMGEVLNKPHNIVRHEEMPKTVFKYLWDYMKEGK

EIFAYVKNKTKDNNYYWVFANVTPSIDVNNNIIGYYSVRRMPNKSAISTIESLYSDLLRAEQQQGLNKGV

EMLKNFCKDADKTYNELIFSLQEAK

>AHK55665.1 tRNA uridine 5-carboxymethylaminomethyl modification protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFDVIVIGGGHAGVEASAAAARMGKKTLLLTTLIEQIGAASCNPAIGGLAKGHLVKELDAMGGLMGEITD

EAGIQFRILNESKGVAVQGSRAQIDMDKYRIIARNKLLKLPNLEISQEQASVLIVENDEVKGVKTNLENI

YFAKKVILTTGTFLNGLIHVGENKLQAGRVGELASVNLGNYLQTLGLKMGRLKTGTCPRVDAKSIDFSVL

EIQDGDVNPKAFSFRSRNFNPTQLPCYIARTNTTTHEIIKNNFYRAPLFTGQIEGVGPRYCPSIEDKINR

FSDKESHHLFIEPQTIDATEYYINGFSTSLPYEVQTQMLRSVEGFENAKITRFGYAIEYDYIEPTELKHT

LELKKIKNLYCAGQINGTTGYEEAAAQGFMAGINASLSIDMKEPLILRRDEAYIGVLIDDLVVKGTKEPY

RMFTSRAEFRLLLREENAILRLGKYGYDLGLLSEQDFTYIQNIANNLQKGLEFLLSKEFTPNNQNNAFLE

SLGEDKISSIVNLQKIVARASFDIEKLKKLDPIFETMDHYSLREILNEAKYYHYISMQKAQVEKMKNLSE

LKIPENFDFKSVSGLSNEVVEKLNHHKPPTIFAASQISGITPAALDILQIYIKMQKKKA

>AHK55664.1 arsenic transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLAFFIFLSTLVLLFWRPWNLPIWVFSSLGAFFVFIFQLVDFKDACFVFSLVWDSSLTLVGLIILSFSLE

ALGFFDFIASKILYFSREKNQEKIYISTKKMMLFLLIFVFFLSAFFANDGAILIITPIIIALFSTLKDCK

NHAFILSSFLLSLSFLCDASSNALVISNLTNIITANYFKIEFLEFAKNMFLPNFFVLLSTIVTVFVLYVR

VLPKRLEFKLIKKEQISLKLFFLCIVFLFLFVISFFIGEIFDIKISFFALLWAGIFWLIVLKIQGKKSIK

ILFEAPYGVLLFSFGLYMVVFALHKIGVSEILVKSYAFLMQDKSGIFGVALISAFGSSVFNNLPMVLIGD

LALKEYFENFSFDSLMIYAHLLGVNIGPKLTPIGSLATLLWLGVLARKGINISFWQYCKFGFLITLPVLV

FSLFALIV

>AHK55663.1 ubiquinol cytochrome C oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MATSESRRSFMGFAFGSVAAVGGVFSLVAMKKTWDPLPSVKAAGFTTVDLSGMQDGELRTIEWRKKPIFI

LKKDASMPKDEKRDVVVDNAAYTVVIGLCTHLGCIPAYQPSEQLFKCACHGGEFDTSGKNVFGPPPKPLE

IPPFKIDGTKLVLGEEGPEYKKMIAEA

>AHK55662.1 ubiquinol cytochrome C oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAQIRKANGLVDWLDQRLAVHKLLDVLMVKYWIPKQINFLWAMGVILTTLFAVLFVTGLLLVMYYKPDTA

LAFDSVNKTIMQEVDYGWLWRHMHGVAASVVFLIIYIHMLTGIYYGSYKKGREMIWVSGMLLFVVFSAEA

FSGYMLPWGQMSYWAAQVITNLFGGIPFIGPELVIWIRGDYAVSDPTLTRFFMLHVCLLPIVIIAIIAFH

FYSLRIPHVNNEISEELDFDLEAEKYMAGDTKGSKVIPFWPGFLSKDFMYISFFMIFFFYLVCFKFEFAM

DPINFDPANALKTPAHIYPEWYFLWSYEVLRGFFFDIAGIKAFDIGLAAFGIAQVIFFLLPWLDRSDVVK

PAHERPLFFIWFWILLIDLIVLTVYGKLPPTGVNAWVGFYASIVFLLLLIVVLPVITIMERKGAKQ

>AHK55661.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MREIKIFLVVVVFTALVYWGVEPYAHSVMKPHVAPANFDFAVEDTTFAKGIVEAKELALKDAQASGDAKR

IESANKELEKAKEELSKVETLWVDVAKIDFAKGDAKKGKEFFENNCFACHGVKEDGIAANITDSSMGVIP

PDLSAAGAIFDEKFLAALIMHPALALKVDHKFGDAFIMTAYNKDTSGESEEATNANIANVIAYLKDVSVK

FEANEDATIKKDVEAKYAKMENSAQKAALMEKDIKFAKDKATFIEACGRCHDMKYDSFFTPSNQNDLKTY

LGSVPPDLSMMIRSRGEQYLHDFINNTQKLLPGTAMPRVGLTEAAQAKVVSYIDQVGDSKKEERKTTGIY

VMIFFVILSIFAIGWKRSVWSKLH

>AHK55660.1 SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLEKTLIKSILKKWDYGDFRVVFWDKEEFFIGNKPAKFSLIFKEKIPFLELFGDTSLVFARHYMQAKLDI

EGDYDEMAKVLYYFSNQQFFKTKKDVLSKITQKQESKNIKSHYDIGNDFYKLWLDDTMSYSCAYFKEPNN

TLYEAQINKIEHTLKKLDLKEGEKLLDIGCGWGWLSIMAAQKYGVKVVGITISEEQCKKAKERVKELGLE

DKIEIRLQNYQDLEFENYFDKVVSVGMFEHVGKENLGLYFMKVKQVLKPGGSMLLHSILAMFEGKTNAWI

DKYIFPGGYLPSLREVVSAMSEWDFHLLLAESLRMHYAKTLDLWDENFNKVLDKVREKYDEEFIRMWDLY

LRSCASAFRVGSVDLFQFLITKEINNNLSLTKDYIYK

>AHK55659.1 30S ribosomal protein S2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVSMRDLLECGVHFGHQTRRWNPKMKKFIFGERKGIYVIDLQKTLRYFRYTYNIVRDAAAEGKTILFVGT

KKQAGGAIKEYAEKCGMPYVNHRWLGGMMTNFGTIRQSIRKLEVIEKMEEDGSIKLLTKKEALMLTRKKE

KLLAYLGGIRYMKTQPDMIFVIDTVKEKIAVQEANRLRIPVVAPLDTNCDPDLVTYPIPGNDDAIRSVQL

FCQEMAEAINEGKALREQDGEALVNEEKEITDEEKKEVLDEAMSEEDFGEEQE

>AHK55658.1 elongation factor Ts [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTEITAAMVKELRESTGAGMMDCKNALSETNGDFDKAVQLLREKGLGKAAKKADRLAAEGLVSVKVSDDF

TSATVSEINSETDFVAKNDQFIALTKDTTAHIQSNSLQSVEELHSSTINGVKFEEYLKSQIATIGENLVV

RRFATLKAGANGVVNGYIHTNGRVGVVIAAACDSAEVASKSRDLLRQICMHIAAMRPSYLSYEDLDMTFV

ENEYKALVAELEKENEERRRLKDPNKPEHKIPQFASRKQLSDAILKEAEEKIKEELKAQGKPEKIWDNII

PGKMNSFIADNSQLDSKLTLMGQFYVMDDKKTVEQVIAEKEKEFGGKIKIVEFICFEVGEGLEKKTEDFA

AEVAAQL

>AHK55657.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MELLRAENLSHSFDYPLFEGLNLTLNTKDCIAIQGSSGCGKSTLLHILSSLLIPKKGEVFFKGSNLYQMD

ENERLKIRRYDFGIIFQTHYLFKGFSALENIELASVLSGQDLDEKILKRLGINTLLHQKIGKLSGGQQQR

VSIARVLCKKPKIIFADEATGNLDFDNAKNVIELLISYVKENDAALFFVTHDSKLASFCDKTYTINANGI

C

>AHK55656.1 guanylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQGFVLLISGPSGAGKSTLLKKLFDEFEDELYFSISSTTRKPREGEKNGIHYHFISHEEFQKGIDSDHFL

EWARVHENFYGTSLKHTQNALDNGKIVVFDIDVQGFKIARKKMADKIVSVFITTKNKDELKKRLIKRNTD

TIIQLEKRLQNASDEMKELSEYDYLIINDELKQSYEALRAILIAHKFRTKGQNLGQIQNIWNEGE

>AHK55655.1 preprotein translocase subunit TatA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGGWSSPSHWLIILLIVVLLFGAKKIPELAKGLGKGIKTFKDEMNNDDEVAKNTQKIEENKNTTNNTNAD

ASIDETKKA

>AHK55654.1 arginyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKSIIFNEIKKILECDFALENPKDKNLAHFATPLAFSLAKELKKSPMLIASDLASKFQNHDCFESVEAVN

GYLNFRISKTFLNELANQALTNPNDFTKGEKKQESFLLEYVSANPTGPLHIGHARGAVFGDTLTRLARHL

GYKFNTEYYVNDAGNQIYLLGLSILLSVKESILHENVEYPEQYYKGEYIVDLAKEAFEKFGKEFFSEENI

PSLADWAKDKMLVLIKQNLEQAKIKIDSYVSERSYYDALNATLESLKEHKGIYEQEGKIWLASSQKGDEK

DRVIIREDGRGTYLAADIVYHKDKMSRGYGKCINIWGADHHGYIPRMKAAMEFLGFDSNNLEIILAQMVS

LLKDGEPYKMSKRAGNFILMSDVVDEIGSDALRYIFLSKKCDTHLEFDISDLQKEDSSNPVYYINYAHAR

IHQVFAKAGKKIDDVMKADLQSLNQDGVNLLFEALNLKAVLNDAFEARALQKIPDYLKNLAANFHKFYNE

NKVVGSANENDLLKLFSLVALSIKTAFSLMGIEAKNKMEH

>AHK55653.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYIFIIVLSALLDIVANLLLKKSDGFKHKIWGLAAIVNAILAFFLLSFSLKYVPLSIAYSTWGAIGIIGT

CLGGWILYKEKLNKIGILGIIIVIIAVFLLNY

>AHK55652.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNIAKKELFVAWFFLIAAIVFEVLGTSFLKMENQILGYIFMALFIAFSYFFMGKAIKKIQVGIAYAVWEL

LGIILILLVSFIVFKESLTLTQILGIVLSIVGIIMINIGEVKE

>AHK55651.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGRAFEYRRASKEARWDKMSKLFPKLAKAIQVAAKEGGTDPDMNPKLRSAIATAKANNMPKDNIDAAIKR

ASGKDSADIKNIHYEGKAAHGALVIVECMSDNPTRTVANVKAIFSKNGGEVLQNGSLGFMFTRKAVFHLE

KFAGDLEELELDLIDAGLEELEQNEEELVISGDYTAFGELSSAIEAKGLVLKKAGLEYIPNNPVSFSEEQ

LSDIEKLLDKLEDDDDVQAVYTNID

>AHK55650.1 peptidylprolyl isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKTIDTSKVNEYKFALIETEKGTMKLKLFGDEAPQTVCNFATLANEGFYKDLNFHRVIPNFVIQGGCPH

GNGIGGPGYEIICECDDQEHKHERGTLSMAHAGRDTGGSQFFICHSPQAHLDGVHTVFGQIDPKDEESLE

VLDSIRQGDKILDIKICDKI

>AHK55649.1 hypothetical protein N917\_05830 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTRFSLILSACLLSSSLFAKNTDDEITKLQKQLAQIQAELAQIRKEREAQVKQNEAVKAELADLNDRAD

ETEFQAALSKVKFGLEFSTAVSNTNYKVSGQDYSANNKWMNELHLNMNADINDKTKFYGRLSMAKNWSQM

GWSGTPYDLDAGRNTRSSGPVLYVDRAYLDYYITPEWIATVGRQPGTDGPGSNLRNNALRQSTYPALAIN

ALGDAAVITYKPESLQDHKVAIRAAYGKTYQWDEESGKVRDWMSDQKDADANLYYAAVEGELPIEGMGDN

LIIFNVAHMTDFALPIPGSMLLGDDDEVVNLGNLTLANIHFENYKAFGTNFNWFASLGYSNGSNNEINPL

LSTALQSKGYGNGKFNEKDGYAVHVGGRYDFTKALKVGYEFFWGSRYWYTMSRPSINDPLNIRMTRGTAH

DFYVIYQLDRYQFLRLSYTNIQNIWGNRGLPFGGAKKDKARADNIMLMYNVKF

>AHK55648.1 hypothetical protein N917\_05825 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRKILFASLLPIIALADCASLMAKYEAPEPESKTMKQVERWINKKVSDPADAAVLKECMIARAADNPNQV

SVAGK

>AHK55647.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQEIISFIVETASAWGYLGIIILMTLESCFIPFPSEVVMIPAGYLAHKGELDITLCILSGTLGSVLGALI

NYYICFFWGKNFVLKWGKYFGINEAKFAKFEEFFNKHGEFSTFTCRLLPGIRQYISMPAGLVKMKLINFI

LFTALGSAIWVAILVFLGYYIGQNEELIKTYLTQILIIIIVFVILASLIYIKIKKPFKKA

>AHK55646.1 lactate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKIGIVGLGYVGAASAYSIVIQGICSELYLYDIKQDLALAHARDLEDMSAIHFSYTKIFHVPNLENLAS

CDIIILAFRKESLKELPSRLVELKNNILELKDIVLTLKNANFKGKYIVATNPNDTITYYTQVLSQLPKNH

VFGSGTNLDSSRLKKLLAKDLNINSKDIFACMIGEHGDSQFAALSNASVLGQNLLDFYKQKLGKDLDIQE

LEKAVISEGYFIYERKGRTEFGIGTSCANLAKAILEDRKSLYPVSVVFDDIAFSMPAIIGKDGIEKVFEL

KFNEKEKIKLENSKQQIKNAIQSVKDKI

>AHK55645.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKPDIQRLTNFLIIYTKTLLGAGTYTARVAKCVGRIAEVYGYEININFFFHHITLNVVDMDDNSIQRTY

VIPNHHAHVNFKLIFDLSALSWAIYDHKYDLEKAKVVFGQISQQKKHSYLLNLLFVSMANSAFCRLFGGD

FGAGNLVFFATFVGLLLRYILTKAKIDLRIQYILCSFISSWFVFFGLDMGYTNTSDVALGSSILYLIPGV

FFINSVIDILKDHILMGLSRIISVAILICCIALGIYMTLSISDFGILR

>AHK55644.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIEFILRDMFFAAVAGFGFAYACNPPLKTLILSALLAAIAHGLRFTLVEYFHFQTLAIATFVASFCIGCL

GIVLAKIIKTPAEIIAFPALIPMIPGIYAYKAILYLISFIRSDDLKAKSEFLVQFFDYFFTTVSVTLALA

IGVSVTLLIFFEQSFMMTRHAKKH

>AHK55643.1 hypothetical protein N917\_05800 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLCPVCNVDLVMSDRSGVEIDYCPKCRGVWLDRGELDKIIERSVPNTANFNQAPRQESRYNDSAYHQHND

YYKKKKKESWLGELFDF

>AHK55642.1 cation transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYKFLSHEPLANKSCHHNHEEHSHEHHHSHADARSVDKKILKISLLMTFSMMLVQFIYSILSNSLALLSD

TLHMFSDVFALALSFLAIIAVEKWQDHQKTFGYFRLEVLVAFINALTIILSALFIIYEAIEKFINPKEID

AKTMIIVAILGFLVNGINALMMFKGANLENVNMKSAFLHMMSDLLGSLAVIIGGIVVYFSDIVYIDTILA

IVLSILLLRWAIILLKQSANVLLESSPVDIEKVRQVLLLNPSVDEVVDLHITQITNKMLVASMHLKVRVC

NLKEFEKLSQDLSHKLLHEFEIGHITIQPIRSENEI

>AHK55641.1 heavy-metal-associated domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFKVKNVNCMNCVNLIKNSLEDEFGNIEVDLEQKILSLNLEENQVSNFTKEFQDLGFEIVERL

>AHK55640.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEELRIKIGKMTCVNCSNAIERACKKIDGVKDASVSYVNSSGVFLLEDQKKRKDIIAKIKNLGFEILEDE

QSLNAYKAKKHLELRKNLLLSIVLSVIIMYFEMFVKSSFSQNIQMALSFFGIFYCGRDFFSHAFLGFKSK

NLDMNTLVALGTLSAFVYSFLVYLQIFKEEDLYFSGAMMIISFVLLGKYLESKAKFKAQDYQRILENIDT

KKTKILLEDESIKEISSSFVKSGDVLLVKEGESIVADGVVLLGSAELDMSFLNGEFLPVLKKEGDEVQAG

AVVLNGALRIKANKKAMDSTLEQIKNLVFEAGSIKSPLANLADQISKYFVGGIIFFAFLVFVFWVLKADL

NTAFLHSCAVLLISCPCALGLATPIALVVASANAAKNFILIKNPAALEKLALVKYAFFDKTGTLTKENLS

IFKHNLSKDDFDKLCQIESLSSHPIAKALHKDHFFDLKGEGRVIVGSGIKYKEDNDNYLVGNAQFLHENE

IDTKESDIFFDTFKEYVRVYFAKNKKCLGGVLLSNALKDGAKELVLNLKKQNLKTFILSGDHVKNVEKIA

KELQIDEFHAQLKSEEKLQIIQKFKKTLFVGDGINDAAALSAASVSMSFSKANELAKKTGDFILIKDDLS

AIFKCFKLAKKTRGIIKLNLFWAFIYNVLCIPIAAGFIPFISLSPHIAALAMCFSSITVVLNSLRLKRI

>AHK55639.1 DNA polymerase III subunit gamma/tau [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLQALAIKYRPKTFDELIGQKTVSVSLKYALNHNRLAHAYLFSGLRGSGKTSSARIFSRALVCEQGPSDT

PCGTCKHCLAALEGKHIDIIEMDAASNRGLEDIQALIEQTKYTPSMARFKIFIIDEVHMLTPQAANALLK

TLEEPPSYVKFILATTDPLKLPATVLSRTQHFRFKQIPQSEILNHLKEILLKENVKFEEEALKFIARSGN

GSLRDTLTLLDQAIIFCQNEISISKITDMLGFLDPQKIKAFYQAILTKDKEKVFVYLEELQDYEASSVID

EMLFYLKESFFAKSTEFSTLIYERFFRILSKAKNMLCDDDGFTLCVMAFMMMEASHLKEIDAQIQEIKQE

NTTNIISRITPSPIIPHLEKKTEKNAYEILLDSIYDRDFDLAECFKQSTNFISFENNTLNINSNAQGQNR

DTLNKGFKLIQELFKAKFGENAKINVQKALTIDENKLQSLTQELPNNENKNIDIQSSINMLKEGAKKFDP

QEDLKEALKDCFGEPSIEN

>AHK55638.1 transcription termination factor Rho [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKEKKQHQRTHVPVEGYKIEELKLLDLENLVKIANECEIENPREFRRQELIFEILKAQTKKGGFILFTG

ILEISSEGYGFLRGMDSNLSDSVNDAYVSNSQIKKFALRVGDIVTGQVREPKDQEKYYALLKIEAINYLP

LQEAKERPLFDNLTPIFPTEKIKLEYDAMKLTGRVLDLFTPIGKGQRGLIVAPPRTGKTELMKELATAIA

KNHPEMHLIVLLVDERPEEVTDMQRCVKGEVFSSTFDLPAYNHVRVAELVIEKAKRMVETGKDVIILLDS

ITRLARAYNTATPSSGKVLSGGVDANALHKPKRFFGAARNIENGGSLTIVATALIDTGSRMDDVIFEEFK

GTGNSEIVLDRNIADRRIYPAINIIKSGTRKEELLQGVANLQKIWAIRSAISQMDDVEALKFLYSKMLKT

KDNVELLSIMNE

>AHK55637.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKCEHCKLDYKQAQMIEYKGKFFCCKGCESVWEILHESGLDEFYEKLGNQTLSPVNFQNEMKNYDEFITK

TKEGFSEIYLMIHGIECAACVWLNEKILTKQEGILELDINHLNHKARIVFDEQSISLVQILRLIESIGYK

ASAYDASKASKKADLLKREFYSKLVVAIACVMNIMWIAVAKYAGFFSGMDKDTKDILNFAEFILCSPVLF

YTGSHFYKSAFKTLKMHSLNMDVLVISGASLAYVYSLWAMFFRVGEVYFDSVAMIICFVFIGKYLEMFSK

KRALDTIDGLNDFLQNEVLVFNGKEFVSKEVQKVCLGDRILLKTGDKILIDGICKSGEMSVDTSSLNGEN

TPKLIQKEDEIFSACIVLDGSVEYEATKFYKDSKLSQIIQLLELASSKKAKLESLVNSLLAYFSRTVLLI

AFICFAFWFFYKEESFEISLVNAIAVLIIACPCALALATPVSNLVALGRALKKHILFKSSSVIEDLSKCD

CVVFDKTGILTKIELELKEVFLDKALDLNELYNFVKLSKHPISQNIVLYLKQKGAKDLNLDFKKHSSIQA

KGLSAELNEGLLLGGSSKFLQEKGIVAKEFDNTHFIFAKEGKILAFFEFDSVLREGAKELIAYLKKEKKE

LMILSGDHQKAVEKIAKKLEIQNYQASCLPEDKMKTIENLSKNYKVLFVGDGVNDALALKYASVSMTLRE

GSDLAIESSDVLLLKNDLLSLKKAIKLSKNTFKIIKQNLAFSLFYNACTIPLAFLGMINPLFAAISMSFS

SIIVVLNALRIKE

>AHK55636.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNSIIMMMIGVSILAFFIILATLLWGIKNKQFDDDYKFTTLNDDEDSLRDAIELERRKKEALDKKRLS

>AHK55635.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKLLVVSALACLGVSAFAADGATLFKKCAVCHGANADKVYLNKVPALKTLSSAERLQYMKEYSEGKRNA

YGQGAIMKLNLKGLTEEDFKAIEAHIETLK

>AHK55634.1 D,D-heptose 1,7-bisphosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFIFFLKKLYYNVFMKTKALFLDRDGVINIDKKYVYKIEDFEFCDGIFELCRYFLARNYLLFIATNQSGI

ARGYYKESDFFKLCDYMLKEFAKQDIKIDKIYHCPHLEGCECRKPKAGMLLKAKDEFDLDMKNSIFIGDN

LSDMQAGLNADIGTLILVNEEKKEGDFFRQFKNLKEILNFFKEKDI

>AHK55633.1 ADP-L-glycero-D-manno-heptose-6-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIAITGGAGFIGSQLALNLQEKHEILIIDKMRSSATFENGNLQSFGHFKNLLEFDGELFAGDINDEKVL

KKIEDFKPEIIFHQAAISDTTVFDQTKVLQTNLNTFKDFIELSIDLNAKLIYASSASVYGDAKSPQTVGK

DEEPKNPYAFSKLMMDKLAKKYYDKAHLVGLRYFNVYGKGEFYKNKTASMVLQFGHQILAGKNPRLFEGS

DQIYRDFTYIKDVISANLIALDSKCGVYNVGSGKARTFQDIVDILQKELKTDLPCEYIPNPYVKSYQFHT

EAKLDQTWNYQPKFSLEEGIKDYLGEIKRLFEKEVNA

>AHK55632.1 cytochrome C biogenesis protein CcdA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLEFLSQQKPKILIIGDFMVDNYTWCDCSRISPEAPVLIAKTLKEDKRLGGAANVYANLKSLGADVFALG

VVGDDESGKFLQENLKGEFLIQKGRKTPFKNRIMAHNQQVLRLDEEDISEILLENELIALFDEKIKDFKA

VVLSDYAKGVLTPKVCKAVIEKAKVLNIPVLVDPKGSDFNKYSGATLLTPNKKEALEALKFENLEGENLE

KGIKKLKEDFSLRYSIITLSEAGIALFDEGLKIAPAKALEVYDVTGAGDSVIAVLAFCLANEIEIFKACE

LANEAAAVVVSKIGSVSVSFDEIKSFKRVDFEKKIKSKEELLVLLKQNNKKIVFTNGCFDIVHFGHIKYL

DKAKRLGDVLIVGLNSDASVKRLKGESRPVNSEFQRACMLAAFYFVDFVVIFDEDTPLELISFLKPDILV

KGADYKDKLVVGADIVSRVELIDFEEGFSTSKIIEKIKDKK

>AHK55631.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINLVEKEWQEHQKIVQASEILKGQIAKVGELLCECLKKGGKILICGNGGSAADAQHFAAELSGRYKKER

KALAGIALTTDTSALSAIGNDYGFEFVFSRQVEALGNEKDVLIGISTSGKSPNVLEALKKAKELNMLCLG

LSGKGGGMMNKLCDHNLVVPSDDTARIQEMHILIIHTLCQIIDESF

>AHK55630.1 ADP-heptose--LPS heptosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIFIHLPTWLGDTVMASPALYTIKEHFKDAQFILYGSFVSTALFKEFPNSKIIIENKLSRYKQALSLRK

ELGKIDLSFAFRSAFSSKIILHILKTKQRYFFDKNKYKEEHQVLKYLYFIENSLSIKAHFKDLKLPFKLK

FQNPLILRNGKKILGLNPGASFGSAKRWDASYFAKVALNFSQSHDILIFGAGKAEQELCNEIYQILKEQN

IKVKNLCNKTTIKTLCQNIAFCDLFITNDSGPMHLSAVYKVKTVAIFGPTKFTQTSPWQNENAKLVHLDL

ACMPCMQKTCPLKHHKCMKDLKPEKVIEQAKNLLKNSHL

>AHK55629.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPQLSIIIPLFNSCNFISRALQSCINQTLKDIEILIIDDKSKDNSLNMVLEFAKKDPRIKIFQNEENLGT

FASRNLGVLHSSSDFIMFLDSDDFLTLDACKIALKEMKKGFDLLCFDAFVHRVKTKQFYRFKQDEFFNQK

EFLEFLSKQRHFCWSVWAKCFRKDIILKSFEKIKIDERLSYGEDVLFCYVYFMFCEKIAVFKTCIYHYEF

NPNGRYENKNKEILWQNYQDKKKSNELVKKLCLNFKNNDFHKKLFEVLEKEEFDLQRRVDEARN

>AHK55628.1 lauroyl acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNSDRIYLSLYYILKFFVTFMPECILHFLALIVARIAFYLNKKHRKIINTNLQICFPQYTQKERDKLSL

KIYENFAQFGIDCLQNQNTTKEKILNKVNFINENFLIDALALNRPIIFTTAHYGNWEILSLAYAAKYGAI

SIVGKKLKSEIMYEILSQSRTQFDIELIDKKGGIRQMLSALKKGRTLGILTDQDCVENESVRLKFFNKEV

NYQMGASLIAQRSNALIIPVYAYKEDGKFCIEFFKVKDSQNASLEELTLYQAQSCEEMIKKRPWEYFFFH

RRFASYNKEIYKDAK

>AHK55627.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIAIVRLSALGDIIQSAVVLQFIKNFKKDIEIHWFVDEKFEGILKNHPLINKLYALPLKDKKILKSLKI

LLKARKNNYNAVIDLQGLIKSAIVSRILSRNNFGFDKNSLKESFAHNFYNQKLELDYNENVFVRYLSLTS

FMLNTDFNVKNLAFKQDIFSVDENLKQLLNNKLKLDKNEKNILIHVGSSVENKIYPKTKLAILCKLLINE

FQQTKIWLAWGNVKEYEFAKEVLNLSGIDETHIELAPKFNLEELMAFTKMMNLIIGNDSGPTHLAFALNK

ASITIFGATPSYRNAFQTHINKIIDAGKKIQNAKHIDKSDFCITRIEEEDIFKLAKGLLNEK

>AHK55626.1 polysaccharide biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKNEGYICVFDCESVPDVELIRKTLGFEGSDLEVSLKALQWQKEQSGSEFLPLPYHKIISICAVLSDNF

GKFIKVNKIDGQNEKEMIENFFNFIENYEPKLVSFNGKNFDMPVLVLRALKYNLKAATYLDTQSDKWNNY

KTRFSELKHCDLLESLGSNGRGIKLDTLCSMVGLPGKYDVHGDEVMKLFYENKLEKIHEYCESDVLNTYM

LFLKYELIKANVDEEDYVGFLSYMRDFLCAKKSDRSYTEVFAKACESEISKVRS

>AHK55625.1 UDP-galactose-4-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKILISGGAGYIGSHTLRQFLKTDHEICVLDNLSKGSKIAIEDLQKTRAFKFFEQDLSDFQGVKALFERE

KFDAIVHFAASIEVFESMQNPLKYYMNNTVNTTNLIETCLQTGVNKFIFSSTAATYGEPQTPVVSETSPL

APINPYGRSKLMSEEVLRDASMANPEFKHCILRYFNVAGACMDYTLGQRYPKATLLIKVAAECAAGKRDK

LFIFGDDYDTKDGTCIRDFIHVDDISSAHLAALDYLKENESNVFNVGYGHGFSVKEVIEAMKKVSGVDFK

VELAPRRAGDPSVLISDASKIRNLTSWQPKYDDLELICKSAFDWEKQC

>AHK55624.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKISFIIATLNSGGAERALVTLANALCKEHEVSIIKFHAGESFYKLENEVKVTSLEQFRFDTLYHKIASR

FKKFFALRKALKESKSDVFISFLDTTNIACIAAKIGLKTPLIISEHSNEAYLKPKIWRFLRRVSYPFCDA

LSVLGSSDKVYYERFVKRVKLLLNPCHFSDEISFDSSFEKENLVLFIGRLDHNKNPVMFLKAIAHLDKNL

QENYKFVIAGDGQLRQELEYKVKSLGIKVDFLGRVENVKALYEKAKVLCLCSFVEGLPTVLIESLYFEVC

RISSSYYNGAKDLIKDNHDGLLVGCDDEIALAKKLELVLNDENFRKELVNNAKQRCKDFEISHIKEEWLK

LIAEVKNA

>AHK55623.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPKLSVIVPTFNRQVLLEKAIKSIQNQDFKDLEIIVSDDNSSDDTKSVVQNLQKDDDRIKYFLNQNYKQG

PNGNKNNGLDQASGEFVTFLDDDDELLSGALSTLMQKANEGYAHVFGNCLIEKEGNLSKEFSGKGLEKDS

EISKKDFLMAKFSGEFFSVFKKSLLENKRFNEEFYGNEATLWVNLYKEKSFYIHKAFRIYRIFRQDSVTL

GASKNAYRVYLGYLELAKILENELRMSKDKDYKKTCASYYKMAAYYAKLAKNYKALYKCLFKSLSIKINA

PALILLILSIIPNNMIEKLSKIRVALCKN

>AHK55622.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKLGIFIYSLGSGGAERVVATLLPILSLKFEVHLILMNDKISYEIPECQIHFLECSKPSENPILKFLKL

PFLALKYKKLCRNLGIDTEFVFLNRPNYIALMARMFGNKTRLVINECTTPSVMYMKNNFNSLVNKFLISL

LYPKADLILPNSKGNLEDLVQNFSISPKKCEILYNAIDLENIGQKALEDIALKDKFILSVGRLDKGKNHA

LLIRAYARLKTDLKLVILGEGVLKDELLALIKELNLEEKVLLLGFDNNPYKYMAKCEFFAFASVFEGFSN

VLIESLACSCAVVCTDHKSGARELFGDDEFGLLVEVDNENSMFQGLKTMLEDDKLRKAYKNKAKTRAKAF

DKVKIARDALKYLLG

>AHK55621.1 peptide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKKEYLKNPYLVLFAMIVLAYVFSVFCRFYWVWWASEFNEYFFNNQLMIISNDGYAFAEGARDMIAGFH

QPNDLSYYGSSLSTLTYWLYKITPFSFESIILYMSTFLSSLVVIPIILLANEYKRPLMGFVAALLASVAN

SYYNRTMSGYYDTDMLVIVLPMFILFFMVRMILKKDFFSLIALPLFIGIYLWWYPSSYTLNVALIGLFLI

YTLIFHRKEKIFYIAVILSSLTLSNIAWFYQSAIIVILFALFALEQKRLNFMIIGILGSATLIFLILSGG

VDPILYQLKFYIFRSDESANLTQGFMYFNVNQTIQEVENVDFSEFMRRISGSEIVFLFSLFGFVWLLRKH

KSMIMALPILVLGFLALKGGLRFTIYSVPVMALGFGFLLSEFKAILVKKYSQLTSNVCIVFATILTLAPV

FIHIYNYKAPTVFSQNEASLLNQLKNIANREDYVVTWWDYGYPVRYYSDVKTLVDGGKHLGKDNFFPSFS

LSKDEQAAANMARLSVEYTEKSFYAPQNDILKSDILQAMMKDYNQSNVDLFLASLSKPDFKIDTPKTRDI

YLYMPARMSLIFSTVASFSFINLDTGVLDKPFTFSTAYPLDVKNGEIYLSNGVVLSDDFRSFKIGDNVVS

VNSIVEINSIKQGEYKITPIDDKAQFYIFYLKDSAIPYAQFILMDKTMFNSAYVQMFFLGNYDKNLFDLV

INSRDAKVFKLKI

>AHK55620.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRIGFLSHAGASIYHFRMPIIKALKDRKDEVFVIVPQDEYTQKLRDLGLKVIVYEFSRASLNPFVVLKNF

FYLAKVLKNLNLDFIQSAAHKSNTFGILAAKWAKIPYRFALVEGLGSFYIDQGFKANLVRFVINSLYKLS

FKFAHQFIFVNESNAEFMRNLGLKENKICVIKSVGINLKKFFPIYVESEKKELFWKNLNIDKKPIVLMIA

RALWHKGVKEFYESATMLKDKANFVLVGGRDENPSCASLEFLNSGAVHYLGARSDIVELLQNCDIFVLPS

YKEGFPVSVLEAKACGKAIVVSDCEGCVEAISNAYDGLWAKTKNAKDLSEKISLLLEDEKLRLNLAKNAA

QDALQYDENIIAQRYLKLYDRVIKNV

>AHK55619.1 UDP-galactose phosphate transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYEKVFKRIFDFILALVLLVLFSPVILITALLLKITQGSVIFTQNRPGLDEKIFKIYKFKTMSDERDEKG

ELLSDELRLKAFGKIVRSLSLDELLQLFNVLKGDMSFVGPRPLLVEYLPLYNKEQKLRHKVRPGITGWAQ

VNGRNAISWQKKFELDVYYVKNISFLLDLKIMFLTALKVLKRSGVSKEGHVTTEKFNGKN

>AHK55618.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLQQRNLMARTEKIYIYGASGHGLVCEDVAKNMGYKECIFLDDFKGMKFESTLPKYDFFIAIGNNEIRKK

IYQKISENGFKIVNLIHKSALISPSAIVEENAGILIMPYVVINAKAKIEKGVILNTSSVIEHECVIGEFS

HVSVGAKCAGNVKIGKNCFLGINSCVLPNLSLADDSILGGGATLVKNQDEKGVFVGVPAKRM

>AHK55617.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>AHK55616.1 UDP-GlcNAc C4,6 dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIFYKSKRLAFFLTSDIVLILLSVYLAFSLRFSGDIPSIFYHGMMVSAIILLVLKLSFLFVFRIYKVAWR

FFSLNEARKIFIALLLAEFCFFLIFYFFSDFFNPFPRSAIVIDFVLSYMFIGTLRISKRMLVDFKPSRMK

EEETPCIVVGATSKALHLLKGAKEGSLGLFPVGVVDARKELIGTYCDKFIVEEKEKIKSYVEQGVKTAII

ALRLEQEELKKLFEELVAYGICDVKIFSFTRNEARDISIEDLLARKPKDLDDSAVAAFLKDKVVLVSGAG

GTIGSELCKQCIKFGAKHLIMVDHSEYNLYKINDDLNLYKEKITPILLSILDKQSLDEVLKTYKPELILH

AAAYKHVPLCEQNPHSAVINNILGTKILCDSAKENKVAKFVMISTDKAVRPTNIMGCTKRVCELYTLSMS

DENFEVACVRFGNVLGSSGSVIPKFKAQIANNEPLTLTHPDIVRYFMLVAEAVQLVLQAGAIAKGGELFV

LDMGKPVKIIDLAKKMLLLSNRNDLEIKITGLRKGEKLYEELLIDENDAKTQYESIFVAKNEKVDLDWLN

KEIENLQICEDISEALLKIVPEFKHNKEGV

>AHK55615.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYIKDIQRFEDNRYRARAYMSYILTRNLPNKLPDIHLETIKTALDKIAHEVVVFDALYILDISGMQIENA

ISLNKAHEIGQGEDRSTRSYFYRAVKLRRCVLSDPYPSVLNNELCVTASMPIYDDKNNLLFVVCIDIKLE

DILKIIQAGKFEFVFTQFSRLVYFCFALVLFVITCFLFQKGFFSLFDNQAIGIEHMFESTIAITLALAIF

DLAKTLIEQEVLGRTKKEEGGIQKTMVRFLGSIIIALAIEALMLVFKLAIGDLSQMIYAIYLIGGVSLLL

LGLSVYLFTVKYKNNNI

>AHK55614.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLLVVDDSSTMRRIIKNTLTRLGHDDVLEAEHGVEAWDLLTKNEDVKVLITDWNMPEMNGLELVKKVRA

EKKYEDMPIIMVTTEGGKAEVITALKAGVNNYIVKPFTPQVLKEKLEDVLGTGSGEGAAE

>AHK55613.1 ribosomal protein L11 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKKYYELFFIVEEQYKNLFLDFAFDLGIEAIEEKDNGVYIRSHESLEEFSWALEIFAQKLTTTFNLNHK

IISNLSLVEKENKDWIQEYKKGIKPILVDNVYIHTTWQEEKKNCINIKINPALAFGSGHHESTYSCVKFL

QKFSKSKLRALDLGCGSGILGIIMAKFGCNVEICDTDELAIDSSLENARLNGVDFHKAWCGSIDKANGLY

NLIVANIIADVILILEKDIKNHLEDNAILILSGILDKYSTRIKEKFQDLELIDEMQINEWCSFVYKNNKK

G

>AHK55612.1 cell division protein FtsH [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNNNTQNNKGNPQGNNFFNKNPIFIFAIFAIIMIIIFKGFFDGNGSFGGALNGNEVNKNVPYSELKKLIE

SGQINQVSIGQTTIKAISSSHNTVYTAKKVNDPELVSLLDSKNIAYGAYSETNWFTDILFSWVLPVFIFF

GIWMFLASRMQKNMGSSILGIGSSKKLVNSEKPKVKFSDVAGVEEAKEEVKEIVDFLKYPERYIKLGAKI

PKGLLLVGPPGTGKTLLAKAVAGEADVPFFSVSGSSFIEMFVGVGASRVRDLFENAKKEAPAIVFIDEID

AIGKSRAASGMMGGNDEREQTLNQLLAEMDGFGTESSPVIVLAATNRPEVLDAALLRPGRFDRQVLVDKP

DFKGRCDILKVHMKDVKISPKVKVEDIARLTAGLAGADLANIINEAALLAGRDSKKYVEQNDLVEAVERA

IAGLEKKSRRINEKEKKIVTYHECGHALIAETTKGAKRVSKVSVIPRGLAALGYTLNTPEENKFLMQKHE

LIAEVDVLLGGRAAEEVFIGEISTGASNDLERATDIIKAMISMYGMSEIAGLMVLEKQRNTFLSGGQTIK

DYSEKMAESLDDYVKKTLDERYKDVKDTLNTYKGAIETMVAALYEEETIEGNKVREIIKEFEDQNSLPTR

LQELEEVKTEVKVEE

>AHK55611.1 phosphatidylserine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKDFIAKDGYLSLIILSLVFIFMWIFYSFSILLLALIVICIFLFRTPKRELVCSDEKAIFAPIDGRVTKI

ENIHHKDLGECVEITIKNALYDAGNFNTPFAMSIIDIRLRHGLFLCSELKSAKMMNERAFILAKVKENKT

IALRIYAGSFDRKLKLDNISHDLKAGDRMGFLINGSISLLLPKDTRIHIGLNDEIKAGSLLGYFA

>AHK55610.1 CDP-diacylglycerol--serine O-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNNRPQLIYILPNLFTAASAFLGVISIIASIHGNYYTALIYIILSLICDGLDGRVARLTNSTSKFGVEFD

SLADLVAFGVAPAVLFYMAIGYDFGKLGSLITAFFVVFGAIRLARFNVTTGTYEPSVFIGLPIPTAAVVS

AIWTYAFISYDFLKPYGVVFLVLQAILGLLMVSNIRYPSFKKLDFNRSSVLKVLIILIIIFSFLYLYPLE

SLVILASLYVLYGIIRVLYTIIVSKFKTRNQE

>AHK55609.1 hypothetical protein N917\_05550 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKEFFQELQDILYEKNITIKFHSFQNFYEDFKSHKFIFNHEHQSIFKKNTSQQITLFHPTRIRRPKFLN

STHALAKIIHSVAHIEFNAINLALDASYRFKNLPLQFYYDWLEVADEEIKHFKLLNSALEELGYKYGDFP

VHDNLESALEATKDSLSFRMGIVHRGLEAKGLDANPFVVQKLQSSNHSIKNLLMEYLEIILNDEIKHVKK

GDTWWKFANQNKYNFIELCKTFKQFSLAGKKLNIQARIKAGFTQEECEVIEKFYS

>AHK55608.1 methionine sulfoxide reductase B [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKELNEEEKKVILNKGTEAPFSGKYNDFYEKGIYQCKQCGASLYKSEDKFKSGCGWPSFDDEIKGAIKRI

PDKDGIRTEIVCANCNGHLGHVFEGEGFSAKNVRHCVNSISLEFVKTKD

>AHK55607.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFSSMGSELYLMFFAAITLLAILNPFGNLTQFLAMSDGLPLMLRKKLFRTILYTAFTIVLVFLLSGPLFM

NYIFRVSLDDLRVSGGLVLIIMAIKNLLFSTKIATKDFSSYQDMDDKEILRQSLIPMAFPMLVGPGTLAS

VIVIAEDGGLDVALGGVMIAFIFMFILFHFAATIEKIVGKLILHVFSRIAQVFIVAMGFKMIIVGLKDIF

NL

>AHK55606.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFGAKKNNTKIIEQLEKKCNGLGDILRSIGNTMAVIEFTTDGVILEANQNFLTTMKYSLSEIKGKHHSMF

CLPEVVNSSAYSDFWKDLRDGKARSGLFRRIAKGGIDVYLEANYLPISDNNGYVYKIIKFANDITQRHYE

MLDLRNTIAAANRSMAIIEFKPDGTIITANENFLRAMDFNIDEIKGKHHSMFCDSNYRHSKDYVQFWEDL

REGKFQSGKYIRYGRNNKKVYLEASYNPVKNDDGKIYKVIKFATDISEQVKKDQEKLRLISELAEKNDNL

TQDGDRVIENTVSNVQNIADMMSQSSNLVSSLNQQSDEIKSIIQTISDIADQTNLLALNAAIEAARAGEH

GRGFAVVADEVRNLAERTGHSVNEITTTINSIRNVTSQVVESIKSGLEDVNQSVELAKEARECMEKIRES

SAEVAKAMS

>AHK55605.1 leucyl/phenylalanyl-tRNA--protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKSSNLYSKLLNAPKNAPVFLSQNLEADFIVKAYTFGLFPWTSKPVTWWCPDPRCILIPNQIHIQKNMKK

FINLYQIKLDYDFLKLITLCRDTRSQSWIDDEFITTYYKLFTQGYAHSLELYENNELIGGIYGLILGKVF

FGESMVSIKKNASKVAMIKLCDLLKPYDFIIDCQVYNQHLEFMGAHNISRKEFLNILKEKCNQESGFKNF

KDLIT

>AHK55604.1 ATP-dependent Clp protease ClpS [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPKTQTLEQTKLSEPKMYKVILLNDDVTTMDFVIEILMNIFHQNLEKASQTMLEIHHNGSGICGIYTQEI

ALSKQKKVMDAAKLANFPLQAKVEEE

>AHK55603.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKISALFLISLAFFLNACSKEEEIQNDFMFEEYHKGDKIVLNSVNGGSKTLIRTDKGFVVEGEEGKVLM

FDFFGTFCTPCKEEALDLSKLWKNNSSKFIIIGLTHFEDVSDETVKKFAGDYGAYYFLSNGSSNDRIIAQ

ILKDIDYQNMEQLPFKVVLKNGIYQKISDYWNNNTPTNFYLGKIPTELMQEDLNKIYKGK

>AHK55602.1 single-stranded DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIIARNKKALFDYSIIERFEAGIVLKGSEVVALRAGRANLKDSFVRIIKNEIFLLNSHISLLHTTHSFY

KHEERGARKLLMHRKQIDKLLGKVSIEGYTIVALDLYFNTKNKVKATLALAKGKNLHDKRETLKKKQADL

EARAAMKNYK

>AHK55601.1 4-diphosphocytidyl-2C-methyl-D-erythritol kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKAYAKANIFLKLTGFDSRKYHLLESRFILLKDVFDELELVDKESDSKKEFEIISNFKCENNIIQKAYLL

LSRRYNNELKELFSKKSLKLTKNIPVCAGLGGGSSDCASFLLLINETLNLKLNLQELINLSIQLGSDIAF

FLSGFHSANVSSCGEIIEEFEDDIPNLKWTFPQISCQTKAVYDEFDRGIFDFQKNNNQAQIYKKLSTKEL

LQNFKNKELNDLFTPCATLYPKMKSYLQEDFFLSGSGSSVFKVDR

>AHK55600.1 carbon storage regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLILSRKENESIIIGEGIEIKVVQTGKGYAKIGIEAPKSLMILRKELVQQVKDENLHSVVQNDIKLDDLS

KKLIK

>AHK55599.1 tRNA pseudouridine synthase B [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKIFAAFKPRGLSSNAFLSTLKKKYKNKKAGYSGTLDPFAKGVLIVAFGQYTKLFRFLKKTPKTYKATL

WLGVYSLSLDDQNIKEIKNIKEFDLPNLQQIIDQMQGIISYTPPQFSAKRINGTRAYELAKKGIEVNLKP

CQMEVFDCKILSYNHPFLNIEITVSEGAYIRSYCELFARKLGINATLSSLERIKEGKFVYNNEKSLNVLK

YINLKPNFIKDLNKLENGAKIFVEELEFHDKGDYYIETEKYFSIINIKENTVKYLLNKVEKC

>AHK55598.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLFEDLNDSQKQAVSHIDGAMLILAGAGSGKTKTITTRLAYLIGEVGIPSHNTLTLTFTNKAASVMRHR

ALNFLQGNHNPLLCTFHKFGLLFLKLHFERLERKNSFIVIDTDDTKKIIKDLIHDKNKDNVYDIIQYISY

CKNEGKRVSNVFEDLNLLKEHNFEKYQNEYKFANYYRAYEEYLLKQNFVDFDDLLLLSNLILENDINFAK

EQSLLYNYITVDEYQDTNTLQYKILKNLCCMHENITVVGDDDQSIYSWRGAKIENILNFQNDFKNVKLVK

LEQNYRSVGTILQAANNLISHNEQRLGKTLICTKDTGENIKILKNENEKDEGLYIAQEVKKLLNSGVEAK

EIAILFRVNALSRAIEEAFMKKQISYKLLSGMRFYERLEIKDLISYLRLILNPSDDLSFKRIINRPKRSI

GEKALKNLEEYAKKRQISLFDALCESDGGVGILTTKKAQNEANIFIQNIHTLKSYDNAKKVFDNIEELFK

IKDYFSEQDDGDERIRNLDEFYANLREKLKEDPEASLEDLLSEISLLSDQDNLDEECVCLMSIHASKGLE

FDYVFIIGFDEGFFPLNSEENLEEERRLAYVAITRAKKFLTISVANSRFYHGSRANINPSRFLEESKLIN

EKSKNQNIQKTSFCKGDLVKHKIFGIGRVVEANKSGKEEKLNINFGGIMRVIMASFVEKAV

>AHK55597.1 hypothetical protein N917\_05485 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLETILKNENFIHTMQKHCYEVISHLIEENIEFSIVANTNFIDFNPELPKELDIKQNPYALFALGGYTFE

SIQLNKDFIQFHAGFGNDDFDSFVKVDLGAITQIQVENSILFVNFSLYKREDSKNLQKSKNIFLNNPKNK

DIFKK

>AHK55596.1 oligoendopeptidase F [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLEWDLSALFHDKEALQNFTQDQIQQSLNFKKNYENKLYTLNANEFLQALKDYENLNQALGKIMTYAYLL

FAKNTQNGSFYAQYEEECKKIEENLLFFELEFCELAPEKSREFTTFCKDYDFYLSNLLQNKRYNLSKNEE

RIMLYLSNTGANAFSRLFDESMSALKIPFEGKKLSEEEILSKMYDENRKIRKKAAKKFSKVLQKNSRLLS

FIINMIKTERKNISLLRGYENAEISRHISNQISQKSVDSLIASAQKHFNLVSQFYKRKKQILGYDELKDY

DRYAPIGKEASFDFKTSKNIVLEAFQAFSPQFYDIAKNAFDQGWIDVYPQENKQGGAFSHSATSDAHPFV

LLNHTNKRRDLFTLAHELGHTIHQKLSYNVSYLNQNTPLTTAETASVFAEMLVFDFIKDKLKKEELLSLY

ANKIEDIFATFYRQINFTCFERRLHAQENELSTEEINKIWMEESQKMFQDSVKLTKNYASWWSYIPHFIH

SPFYCYAYAYAQLLVLALYGLYKSKKCENFKELYIKMLSLGGSVSPKELVGMFGFDIEDENFWEIGIKEI

QKLINEFMELQSC

>AHK55595.1 aspartate carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRHLITTKDFNKVEIMELFKEASDFLDEKPRTFLEGKSITTIFFENSTRTLSSFESAARRLGARVLRLDV

SRSSSSKGETLYDTAANLDAMSPNAIVVRHANSGVPLILAKHMHCPVVNGGDGKHAHPTQALLDLFTIYN

HFQGNVEGKKICIVGDIKNSRVAASNIELLSRFNLDITLVAPPHFMPNTHLKKHYKLDENIIANSDIIMS

LRTQTERHNKTVYASLKDYANDFCIQKSLVKDKKLILLHPGPVNRNIDISDEMMSNERTLVLKQVKNGVA

IRMAVLKKLILENEG

>AHK55594.1 serine/threonine transporter SstT [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFSKIIQSYAKGNLIVQICIGIALGILIGISSKEISEIANLLGILFTSALKAIAPMLVFILILTSICTKD

FSQSGAKIKNIIILYIVGTFFASACAVLANFFFPVKLVLDGVQTATNSSPTHMSDIFKDLLFKIVDNPIN

ALSSGNYLGILTWAIAGGIALKHCSNEAKQVFIDINEGVLKIVKFVVKLAPFGIFGLVANSVAQTGAQGL

LSYVKLLILLVATMLFVTFVINALIVFFYTRKNPFPLIFICLRHSAFFAFFTRSSAANIPVNMALCAKLG

IDKEFYGISIPLGATINMAGAAVTIAILSLTAANTVGIEISLLQAFLLSIIATFAACGASGVAGGSLLLI

PLACSLFNIDYDIAMKVVAIGFIIGVIQDSVETALNSSTDVLFTAICSKNELNYNIK

>AHK55593.1 S-adenosylmethionine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYLFTSEVVSAGHPDKCADIIADTIVDILLKNDKNSRVASEVFVAGNKVVIGGEVKSNHKLSKADYDNLV

KDVLKNIGYDGAGHFSKEQCLHPDEVDVMVFLNEQSPDINQGVDQEDGETGAGDQGIMFGFASCEAEEYM

PAAISYARMLCDRVYAYAKANPHELGVDIKTQVTIDYGTKANFENCKPQSIHTIVVSAPCVESMKIEDLR

SLVMKLILDSNLPKELFDPNKTRILINPTGKYVNHSSLHDSGLTGRKLIVDSFGGYSPIGGGAQSSKDYT

KVDRSGLYAGRWLAKNIVAAGLAKKCIVQLSYAIGVAKPTSVSVDCMGTNTSVNDDVLSDFVMQNFSLTP

NWIRDKFHLDKPSKETFLYADVAARGQVGQKDYPWEKLDALEQFKKLL

>AHK55592.1 apolipoprotein N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLKLNFLPYFSFIPKKLNTNSIIFKIIKVFFIAILLSNSIYLSFFENIFTQTISPFLAIWGLVLLLKSK

TSKQYFWIGFFVGILWFWWIGLSSIYFNLNYLVPIIPIIIGFIYGLLFRLCYLLKFDFLRLCGIFCISFI

HPLGFDWFNWGIFTVYGFFDPSYRGIICIFLIAYFIYEGYISRYYKIAIVLILFFSGFQYNEKQAQTLNL

NYKLINTNISQDQKFLQENLKSNSDILIQDILQAINEKKELVILPETAFAFDLKNTKYELMLKELSYKIT

IITGAFHVEKEHTYNSTYIFKKGNVYILNKHFLVPFGEEIPFFKDLTKKYFLKNIEEFSKGPIQSKYKLD

NQIITNAICYEATKEQNYQNSQIIIALSNNAWFNNSSEYKLQQLLMKFYASKYGVSVYHATNGKENIVIL

PKKLLSKDWKNLSKEIFNDKK

>AHK55591.1 preprotein translocase subunit YajC [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAENSILTSLLPLVVLFAIFYFLVIRPQQKQAKAHKQMLESLQKGDKIITNGGLICEVVKPEEDFIKVKL

NEDNVTAKISREFIAKKIDA

>AHK55590.1 preprotein translocase subunit SecD [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRNSKINYRLIIFIAVFIFGVAFSLPSFLQSERGAKINLGLDLQGGLYMLLGVDNEEAVKSKIKSIASSL

SYSFNKENILNDGLNTHDDILEFTLLDNADIAKVENLLKEIKGINIQSENMHYKISFTSKEVKNIENFAL

LQAVETIRNRLDQFGLAEPTVAKQGDDKILVELAGIKTKEDELRAKERITKAAHLQLMEVDDSKMGQAST

MSDAEAASYGLILVPDSRNPNLKYTLKSIPILDGSMLTDARVGLSDKSNYPVINFTLNAEGSKKFADYTG

ANVGKRLAIVLDNKVYSAPSINERIGGGSGQISGAFTQEEARDVAVALRSGALLAPVKLLEQRSIGPSLG

ADSIKMSMIALIGASVFIVVFMMMYYGVAGIFANIAMLVNVLVVVAVMAMFGATLTLPGMAGLVLTVGMA

VDANVIINERIRELLRDGVNIRVSIEQGYKNAMSAIIDSNITSLVTSVALYAYGTGAVKGFAVTLGIGIV

VSMITAILGTHGMFDYFMQRIEKNNNTRFWFGYRRR

>AHK55589.1 preprotein translocase subunit SecF [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQFFSEKKIYDFMRMRFAAISLSFILFFGSIYLLWDRGLQYGIDFSGGTLVQLKYENAAPITQIREILEN

QGTFQNLSVTEFGSNEEVTIRFLGSNDNVSNDIGEHISTLLKDTGKFEVRRADVVGPKVGDELRNKGLMA

IAVSLIAILIYIALRFEWRFALAAIISEIHDVVITLGAISLFKIDVNLDTLAAVLTVLGYSLNDTIIIFD

RIREGIKTSKKTELAPIINESVSATLSRTVLTSGLTLATVVILYFFGGEMIQGFSLALIVGIIAGTLSSI

FVASPTLLWFKFSVLEFRNKEIEKAKRKQDKERNRAMYEKGTV

>AHK55588.1 leucyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAYEASLIEKKWQKIWDENEYFEPKDDLNLPKKYILSMFPYPSGRIHMGHVRNYTIGDALARYYRKIGFN

VLHPIGFDSFGMPAENAAIKHKIHPKSWTYENIAYMKKELFSLGFSFSKKRMLATSDPLYTKFEQEFFIK

MFEKGLIYTKEANVNWCEQDQTVLANEQVEDGKCWRCGHEVVQKKMPGYYVKITAYAEELLKDLEELKDK

WPNQVLTMQENWIGKSEGLEFSLNLDEESKQKTKESSLEVFTTRADTIYGVSYIALAPEHKIVQNLLSQN

LLNQDVLNKIKVIQNQSPRERQSSEKEGYFLGIYAIHPLSGEKIPLWVANFVLADYGSGAVMAVPAHDER

DFEFATKYNLAIKQVIQTQENLPYMQKLGKLINSQEFDNLDCNEARLKIISQFEAKNIGKRVVNFKIRDW

GVSRQRYWGAPIPMIKCQSCGIVPQKLENLPITLPEDVQITGEGNPLDKHPTWKNCICPKCGKEAQKESD

TLDTFFESSWYFARFASDEKTWQEKALDEKSVKYWMSVDQYIGGIEHAILHLLYARFFQKALRDLGYLTQ

NEPFDRLLTQGMVLKDGAKMSKSKGNVVDPDEIIEKYGADTARLFILFAAPPAKELEWNDDAVEGAYRFI

CKLYDRAQNVKKGELVELKQENLNKEEKYARLKVYEALKKSFEVYHQSFAFNTLIAACMEALNALALCKN

EALEQEAFYIILNILEPIIPHVCFELSEELFKCKNFKKLELKEEVFVKDTLNLAVSINGKKRAEFEISSS

ASKEEILAFAKENTAKWLEGKSIVKEIYVEGKLVNLVIK

>AHK55587.1 hypothetical protein N917\_05435 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILIFCIGLFLGACGYIPTSKIANNIFDEKVYVNVELSQQDPKNSIYVADTLKEMVISKLGRKLALKH

EADDVINVKMNNLEFIPLAYDKNGYVISYKAKLNLDFNVVFKDGSSQAFSTSGSYNFEISPNSIISDSAR

YEAIRAASSEAFDEFISVIAIKGQKRDSKY

>AHK55586.1 hypothetical protein N917\_05430 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIPNTNEIAKQTLIALKERKLKPTPENYTEIFEELSLKYGITSSNKAKLDKYKTLLLPIYQQELNSKTIR

SLEELISFLISVLNRQSGKQFSEFFDFLYTISKTLQISKDKKIRDLAKVTSIRISKTMDSESIYLLTKKW

KELERNYDENDLEEQARKYGISKYDDYDSVIKKLLVKLEERSYEHFSELLCLGLNPSLVEDLKIQGFIQN

LTQKPFVIGEENFKNELMEFINHRIMVDNMYVQKNLNFFNDNLKKIYELLVLLNKSNEKNMDFINTLKPD

ENGEVKLSFEDLKLKFKQLGEKITSLNNQIEFTQSLEEREAWSVLKELDKMDENFNKYKVNYSLALFSIV

NYRFIMEKYGMGSLNEIFVRFKKILKDSCSEFDELWMIDEKSYLIVSPGKSKDEITQLVNTNLKTIENFR

FIYKQDIITPKIHVAYLDKQSKPSINILDELIKQIAAVNEQHNES

>AHK55585.1 folylpolyglutamate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVENFLAQKSINYDKIDRFLMFRMYEKYKKYFKNIPIIQLIGTNGKGSTGRYLTQLLENLNYKIGHYTS

PHIFSFNERFYLDGKIANDEELEQAHIRLEEIFKQDLQKLSYFEYATFLAMILFQKCDFIVLEAGVGGEY

DATSIFERRMSIFTRIGFDHIQILGNSLEDIARTKLKVMAPIALISDEQEQNVLNLAKKIAFLKKANLQV

SSLNPFLKEKFEIYCKKFVLPYFLKHNLKLALKACEILTSQEKTLEALKKLQELNLQGRCQEISPNFFVD

VGHNPMAAKAMLDKFQGEKINLIYNAYLDKDIFQILNTLKPIIDTIQIYKYKSAERKLADDEIYSIASKL

GMQCKEFVKLEENKKNLVFGSFMLVENFLKEWCGKK

>AHK55584.1 peptidase M24 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVKNKFTITITDINGSRHFYLNQIIKKIVFYIIAFIVLFLVFSGFYIKYLDSKLSDISEKREELLKKSKE

LELSNSQMQKSIEEKTQQYAAIEDKIASFEEALGLEAENNLTISARLDNLQLTNEQQLGILGQIPNGWPI

ENKGITGNFGWREHPLLKRREFHPGIDLRAEIGTPIYAPASGVVEFSGYSDNGYGYNVILLHNFGFKTVF

AHMMRKEVVKAGQFVNKGYSGNTGLSTGPHLHYEVRFINKTLEPLYFLNLQRKNMNDFFNQERRVPWQSL

IKAVSAQHPALAQKQQ

>AHK55583.1 transcription-repair coupling factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQASFYEYLQNPKICELFLCKDEKQADLLAQVSRFKGLKTFVLPDFRAQFGDDLRAFSKELFDLCKILNA

YHKEEEKKILISPLNTVLKKLPSKKHLQNYHIDKKQNFDLKCFEDEISRLGYEFVDIVQDKGEISIRADI

IDIFCINEENPIRILLFGEEIESIRYFDLQSQKSIPNELEHFEICPFLKYFDKENYEIFKDKLEDFQSDA

LIHDINSLGFWCIDDFFDYLELDFLACEKFDINEYEKDISFVNAKILPQAKKFKELQSSYNKDFFEFHKN

KKITLLAKNEALFKALELEDTQNIHFVKSDLRLNLISPEELIISLNQKEKQKTRKKASLIIDELKNGDYI

VHEDYGVGKFLGLEMIVISGAKKEFVAIEYQNSDKLLLPVENLYLIDKYLGVSGSIPSLDKLGKTSFIKL

KEKLKTKLLAIASEIVIMAAKRSLVQAKKITVDLNRQTDFIASAGFIYTSDQDKACHEILQDFQSGKVMD

RLLSGDVGFGKTEVAMNAIYPVVKSGFCAFLFAPTTLLSHQHYKTLKKRFDPFDIKVFKLDRFTSSAEKK

QVLQNLKENKACVVVGTHALLSVECENLALVIIDEEHKFGVKQKEKLKEITQNSHILSMSATPIPRSLNQ

ALSSIKSYSVLQTPPEDRMDVRTFVKENDDALLKEAIARELRRGGQIFYIHNHIASIEQCKKHLLELFST

LRILILHSKIDAKMQEEEMLKFENKEYDLLLSTSIVESGIDLPNANTIIVEKSDRFGMADLHQLRGRVGR

SDKQGYCYFLIEDKNAITKDALKRLVSLESNSFLGAGSILAYHDLEIRGGGNLLGVDQSGHIEQIGYSLY

LKMLEDELNALSKNEVDQKENKLDLKLNVNAFLNSELISEDRLRLELYRRLSKCEQVHEVYEIESEIEDR

FGKLDIYTKQFLSLITIKILALNKFKSISNYEQNIQFTALNDEKELIKAKSKDDDDILEAILTHLRKA

>AHK55582.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDWNKTYAAIYRARKDYLKPIFEIDPIALKDLVGMESQKKALYENTLNFIQDKGANHALLWGSKGTGKSS

LIKAIFNEFKEQGLRLVELNKEDLFALADIIDEIRLENFKFILFCDDFSFEKGDDSYKFLKPLLEGSIEK

APNNVIIYASSNRRHLLSESITDNLDTQITHTELHLSDAAEERLSLSDRFGLWLSFYQGNLEEYLKMIDF

YFKDYSCDKELLHAKAKEFATLRASRSGRTAKQFYLAFKENFK

>AHK55581.1 nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTGAQIFTKLLNLDLNYHDFDWLENQGLSEFELLISVVLTQNTNWKNVLKALENLKKENIASLEQINTLS

NLELATLIKPSGFYNTKAKRLKGLVESIINTYENLENFKTNVSRKWLLNIKGLGFESVDGILNYLCKREI

LVVDSYSLRLAFHLGYEFENYEELREFFQSGIESEQENLCKILGRKCELYELYQIFHALIVAFAKQSFKG

QKLSPKGEEWIKILKEDL

>AHK55580.1 phosphomethylpyrimidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKAKGSELIPVLTIAGSDCSGGAGIQADLKTFSAHNLFGMSVVLSVVAENTARVISVHDIPTQSVDEQML

AVFEDIVPKATKIGMIGSCELMSCVAKNLSEFKPQNIVIDPVMFAKNGYALMPQENCDFFKQTIVKFADI

LTPNIPEAEFLCGFKIANEEQMIKAAKHLCSLGAKAVLLKGGHSEINANDVFYDGKEIYILKGERIETKN

THGTGCTLSSAIASNLAKGKDLFHAVSEAKEYVRNAIYYSLNLGKGCGPTNHFFKFLDEK

>AHK55579.1 thiamine-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNKLDLSLYLVATKGSKSEECFLNTLENAIKGGVSIIQLREKELNAREFYKLGLKVQKLCKSYKIPFLI

NDRVDIALALDADGVHLGQEDLEAKLARKLLGDEKIIGLSLKKLEQLEFIQGVNYLGCGAIKATPTKESS

LLSLELLSQICDKSPIGVVAIGGIDKEALVELKGINLSGVAVVRAIMDAKDAFLAAKELKRKIYENLSLK

>AHK55578.1 uroporphyrinogen-III synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIYLLNETPFEGVENLILNEIVFYDFSVDLSLYDALICTSKNALKALQHAKITLNFKLNLYAVGQSTAQ

YAKNLGFKKIKIPSKAYGKDLFLEFKEELKMQKCLYLRAKNIVSTLNLDLKNVGVDLDEMIVYENVFKKG

DKKLIHPAIFIFTSPLSVENFLKFYSLKEEDKVVVIGQSTAKKLLNFKNLYICENQSLLNCVKLAKTLV

>AHK55577.1 hypothetical protein N917\_05380 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKAYVLIWTIFLILLISLWMSLTLNISSYTPKIIQDSYYYLQAQILSHNATQFSKYFLYQAKQENKECL

DNIYFNYTKALIKIKYFYPIAQCVNFKFSNFNPDANLSKDGVIIAHISIALNRDKNVNDEILLTKSIIIY

PKENFWNLKN

>AHK55576.1 hypothetical protein N917\_05375 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKAFTLFELIISLILFTFITSLLSKPLMDFYHLNFTALHTNNLITQAHLNLLKIEKLIQNCINITFSQN

TLKCLLKDELISLKDNKLYLINSALILENNHTLYSPHSDFKTQLQNRKDLYNDNEHISYAYKINKIEKIS

ILENGISANFTGSFIPLQAQLVIKLQNEELIYEIKPKFNEQLNQQGLISKNISSFNLQNNKLKICLKRQT

KHCLEKRILL

>AHK55575.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKAFILIESISAITIISLIFIGIFYYYIQLYKNYENLNIFERLYKLQEELYEKPIFKTIILQTSALKPI

VLQEQFVNDGIFQFQKLYFQDQNYSVYFKE

>AHK55574.1 pyrroline-5-carboxylate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLYILANGSMATALAYGLKDDYEICIVGRSIEKLQALAKEGFKTLLYKDFNIEGKDVILAFKPYALENIA

QMLKGQARILISVLANVDFEKLQTIKAQNYVRIIPNTAAKYKASTTPYILKNSHFENEILDILKTFGSAY

KLDNEIQMNAAMAISGCAPAFLALIAESIANAGVYEGLSKELSLNLTRSLFKSSNALLEHEHPAIIKENI

CSPGGVTIKGIKILEQKGIRGSFFEAINASSAK

>AHK55573.1 flagellar assembly protein FliW [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTLAVKCPILGFEETKNMEFSTIDEVFVRLKSLDGKDFSFVLINPYLIRPDYEFDIPTYYQELLSLTPES

NMKIFNIVAIAKSIEESTVNFLAPVVINLDNNTMVQVILDTVNYPDFFQADQIANYIKK

>AHK55572.1 hypothetical protein N917\_05355 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKGIFLLVFLSVFFSACSTKNDEGLYNLSASEWYKQIIKDLQDKDLEKADDHYNGMASEHVADPLLETT

LIILAQAHMDEEEYKLAEFYLDEYNKKFGNSRNADYIRYLKIKAKFDAFAVPNRNQALMLESQKEIDTFL

KDYPYTEYEPLVQTMLTKFNLAVFYLNSTIENLYQRIGHDESAQIYKQRLQESEFYQQSIIKPELPWYRS

IFERF

>AHK55571.1 Lon protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQIEEIQNYPANLPVLVEDELFLYPFMITPIFINDSSNMKALDLAIKNDSMLFVAPSKLENGRNFDEIYN

CGVIGTIMRKVPLPDGRVKILFQGYAKGKIIEQISNKPLEAKIELIKEDFLEGTKKEALLEVLKEKVKNL

ANISHYFSPDLLRTIEEGFDASRICDLILNTVRIKKQVAYEFFVLTDLEQKLVKLIDLIAQEIEANKIQK

EIKNKVHSRIDKVNKEYFLKEQLRQIQKELGSDTQKEDEVREYQKRLELKKKFMHEDAYKEIKKQIEKFE

RIHQDNSEASMIQTYIETALDIPFEKISKKKLDIKEVSKQLNHDHYALNKPKERIEEYFAVRELLEKRKI

AEKDGAKVILCLYGPPGVGKTSLANSVSKALKRELIRIALGGLEDVNELRGHRRTYIGAMPGRITQGLIE

AKQINPVIVLDEIDKLNRSFRGDPSAVLLEILDPEQNSKFRDYYLNFNIDLSKVIFIATANDISNIPAPL

RDRMEFIELSSYTPSEKFHIMKKYLIPDELKKHGLKSNELSIDDETIELIISDYTRESGVRNLRRKVAEL

CRKSAKKLLLENIKKVIINTKNLNEFLDKKVFEIEKNNGENQVGQVNGLAWTSVGGDVLKVEAVKIKGKG

ELTLTGSLGDVMKESARIAFSMIKVLIDEGKIKIPKKIIIDPKVNVYDSYNIHIHVPDGATPKDGPSAGI

TISTAIASIFSDKKVKADVAMTGEIDLKGKVLPIGGLKEKLIAAYKADIKTALIPRKNYERDLKDIPSEV

RDNMEIIAVDTFSDVLEYTLV

>AHK55570.1 30S ribosomal protein S18 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAEKRKYSRKYCKYTEAKVEFIDYKDTAMLKHALSERFKIMPRRLTGTSKKYQEMVEVAIKRARHVALIP

YIVDRKEVINNPFEGL

>AHK55569.1 single-stranded DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFNKVVLVGNLTRDIEMRYAQSGSAIGASAIAVTRRFTANGEKREETCFIDISFYGRTAEVANQYLTKGS

KVLIEGRLRFEQWSDQNGQNRSKHSIQVENMEMLGNSNAPQQGGNFGNNSFSNNNYSGNYENQSYDPYMS

ENQNFNKAKANPAPQRNQSPQHEEKLKEIDIDAYDSDDTNLPF

>AHK55568.1 30S ribosomal protein S6 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKHYEVLFILKPTLTEEEVNTKLEFVKEVLTKNSAEIETVVPMGTRKLAYKIKKYERGTYFVIYFKAPTN

LIAELERVLRITEEVIRFLIVKYENKKEIAAWEKLSHGIKQSKKEIKPLDAPEIQ

>AHK55567.1 hypothetical protein N917\_05330 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKKFSYPIPNFTDRRKSIIFWRYLRFQARKILYFPQVRLLEKTLNKEKNKHLKDFFSQRPYACYNATRR

FCDKSFKANERVKTLIYDVDKGLACFKFLPEEQIIFSFDEDFELFLGYNYNVCEEGFWAFSLKFKKYTIL

QCNFCFTLENNLLLSCIQGHKYKDFNILEINKILTKKCHGLRPVALLIECSKMLCEILKLQATLGVHEKN

QIRSQKGKEKGYFVDYQKIWLENGGELIKINKHKYYKLHHSQKNLEEIPSQKRSMYKKRFAMLEEIKTNL

DKTLSIQD

>AHK55566.1 zinc metalloprotease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRSLLLLIVILILGIKFYSIEFLATVLVISFLIFFHELGHFLAARSLGVKVEVFSIGFGKSLIEREFKGT

NYRLSTLPLGGYVKLKGQDDMRPGFENLDKDSYSILSPLKKIYILFAGPFFNLILAFFLYIIIGNLGLNK

LAPQIGNIAPNSAAQEIGLQKNDTILEINGIRIQTFDEISKHLSLDPLKILINREGKNLEFILTPKIGQG

YNDFGQIVEKPQLGVSPNGTSTLVKHQGLESFKYAAQESFQASTLIIKGIVKLISGEVEAKNLGGIITMT

EITSKAAQNSFTLLLFITALISINLGILNLLPIPMLDGGHILFNLYEMIFRRKVPQRTFEYLSYTGMAIL

LSLMLFATYNDISRIIGE

>AHK55565.1 CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLPNILAIFRMVLAPLLFFLLIHKFENIHQSWINYFAALTFSLAALSDFFDGYIARTWKQTTKLGGILD

PLADKMLVLAAFLGLLLTGKANEWVIYIILVREFFITGFRVVMISENLNVNASFAGKLKTAFQMTAIGFL

IMEWIGGEILLYIALILTLYSGFEYIYTYIKAQKKGEK

>AHK55564.1 nitroreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKELEIFSTRYSCRNFKNEKLKKEDLNSILEIARLSPSSLGLEPWKFIVVQDEKRKEELSKICNQQKHV

KDCAALIIIISRLDFLDYFEEKLRKRDMSETEMQKRLDTYMPFLKSLNQEQKISYAREQAHIALASILYS

ANALNIASCTIGGFDKEKLDSYLSLDIQKERSSLVVALGYCNDKKNPQKNRFSFDEVVKFI

>AHK55563.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEIKLKEDLEKIYPLIKQLRNNLSLKDFLDKIQLATQTQHYKLFAYENEGSYKAACGVMPFNVLYHNHC

LYICDFVVDEALRGKGIGQAFLKKIQIWAKDQGYEELELSSSFFRTQAHEFYIQKMGFEKSGFVFKKNIK

L

>AHK55562.1 competence damage-inducible protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKHLLYLIGDELTINEKFKNYIYRTYEEKFKEINEIRIQNKTDKDLPFLLENLLNQYDFITLFTSPLHYA

TVAKILATLNDDNLILKDDTLVPDKAEFSKNSFVCNFSNSKINVVKINPSEKLPDLLGHIKLNFAYFCIF

GMDDESAILLLQTLTKSYEISIKSTKFLDNLVLIKATCANFGKLDGFLNSVKNLFGQKVFLGKDPIHFIS

SKLLEKKLKISFAESCTGGLCASTLTKISGVSEIFEGSIVSYSNRIKHEWLGISESVLENNGEYSERCVY

FMLKGIFKTANPDFALAISGVVGEKDEGKIKSGTIYIGAMFRDGTFIQETLYLDGDREFMQEQAVLATFC

LLLKLKPEIFEI

>AHK55561.1 isoleucyl-tRNA synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDYKETLLLPSTTFAMRANLAELEPQRFKKWFEQNYAYEKMKENRKNAKKSFTLHDGPPYANGHIHIGHA

LNKILKETIIKTHYFKGESVRFTPGWDCHGLPIEQQVEVKLGEKKKSLSKKEIREFCRQHASEFVDIQRE

EFKDLGIIADWDKPYLTMKFEFEAAIYRTLCEIAKKGLLCERSKPVFWSWAAKSALAEAEVEYQDKEDYS

IFVAFDLDVKACEKLGVSKASAVIWTTTPWTLVANQAIALNPNENYVITKEGLIFASALLKSMVEKGLTS

GEIQKELNAKEFEKLEAINPLNGRKSVLIMGEHVLMDGGSGLVHTAPGHGEDDYYACLKYGIEVLMPVDD

SGCYDETLRAKGLLPSHLLEEFIGLHIFKANEKILELLGEKLLHSSKFIHSYPFCWRTHKPVIYRATKQW

FILMDEPKLQGKTLRECAKEQLLKTTFYPQSGVKRIGSMVENRPDWCISRQRDWGTPIAFFRDKNTKEVI

FDDELFDFVAAIFEKHGADAWWEFEIKDLIPTNSKYKAENLEKVYDILDVWFDSGSTFNAVLNSGLYDAG

EKRASMYLEGSDQHRGWFQSSLLVGTAINESAPYESILTHGFTTDEKGQKMSKSKGNVIASEYVAKTYGV

EILRLWILLSDYSSDLKISDNILKQVGEQYRKIRNTIRFLLANTNDLKDLEVKEFSFIDKWILSRATKVF

KASKEAFFAYEFAKGFSLLLNFLSADLSGIYLDISKDRLYCDSENAQRRKSAQVAMALMAKELLNLLAPN

LSYSVDEALEHANVLIKGDAKDVFDLSLTQDFDYDFGIDDTFLMSAREKFFEQIDILKKDKIIKSTLELN

LNISFNKFPNEELADWFMVSQISNENEEILAEFEVENEKFKITKASLCKCPRCWKLQSKNEETPCLRCEE

VLKGVQC

>AHK55560.1 aspartyl/glutamyl-tRNA amidotransferase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MITLKEALKYSKEELENLKKELNEKAKKEKKLGAYIEQFLDKDLSVSGEGVPVAIKDNISVKGWELTSAS

KILQGYIAPYDASAIVNLKANGFSPFGRCNMDEFAMGSSTASSCYGKTLNPLNFERVPGGSSGGSAAAVA

GGLALASLGSDTGGSVRQPAAFCGCVGFKPSYGRVSRYGLASYSSSLDQIGVLTQNVEDAAILYDAIAGY

DKMDSTSANIEFIKTVPNLNANKKLKIAVIENYVNDADSEVKNALLKTIDMLKANGHEIVYKNLLDSKFD

IAAYYIIATAEASANLSRYDGVRYGKRSENIQNLKEMYVNTRSEGFGEEVKRRILLGTFVLSSGYYDAYY

IKAQKARAFIKAKYEEILQDCDLIFMPVTPTTAFKFDTQKSPMQTYLEDVYTISVNLAGLGGISVPVAKD

KEGLNISAQLICKAYDEQTLLDGALSLEQMIKN

>AHK55559.1 inosine 5'-monophosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISAAMDTVTEHRAAIMMARLGGLGVIH

KNMDIASQVREVKRVKKSESGVIIDPIFVSPKASVAEALEIMAEYRISGVPVVDEDKKLIGILTNRDLRF

ESDFSNLVENVMTKMPLITAPKGCTLDDAEKIFSTNKVEKLPIVDEQGRLEGLITIKDLKKRKEYPDANK

DNFGRLRVGAAIGVGQMDRVDALVEAGVDVVVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAA

KALCEAGVDAVKVGIGPGSICTTRIVSGVGVPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVG

ASSVMIGSLLAGTDESPGELFTYQGRQYKSYRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYV

GSIRSVVHQLLGGLRSSMGYVGAKDIEDFQKRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>AHK55558.1 coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSFEENLKHANESLEKLNNQELALDESVKIYKEGLESIKKARLELEKAKLEVEQIDE

>AHK55557.1 carbon-nitrogen hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKIAALQFPTLALSESRLDYYLKASKDNGANLVVLGEYVINSFFTELLHMPKNMIKEQSEAKKESLIKL

AKKYELEIIAPYVSVEAKSYKKLCLKVTPNGVKSYEQQILMPYEHWNEEKFFSNKTPSELKIFTFNYEKL

KCALLFGFETHFDIFWQQIMAKKIDLVIVPSACTFESKQRWEELLKTRAFLNSTSILRVNRIGKTKDEWN

FYGDTLFINAFGEIESKLGSEEEMLIIEPKKSDEARKLWGFDKILKNF

>AHK55556.1 UDP-N-acetylmuramate--alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNIHFIGIGGIGISALARFLREKGFKISGSDLKESKITKELEKEGVKVSIPHHKDNILNKDLVIYSAAI

KEENPEFKYAKELGIKCLSRKEALPLILEDKRVFAVAGAHGKSTTSSILASLLDDASVIIGAILKEFGSN

MIYKESQNLVFEADESDSSFLNSNPYLAIVTNAEAEHLDHYGNEVSKLHHAYTQFLDVAKIRVINAEDEF

LKNYKNESIKLYPSKDIKNCTMCIENFKPFTSFELKDLGEFKVFGMGYHLALDASLAILAALNFLDIETI

RTRLKNYQGIKKRFDILHADENLVLIDDYGHHPTEIKATLSAAQEYVKLGGYKKITAIFEPHRYTRLATN

LKEFAKAFEGVDELVILPVYAAGEEPIELDLKAVFPKALFVEDIKREGKFLVASKGQVFEEGLIIGFGAG

DISNKLRQKNE

>AHK55555.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSRVFLYFLIILILALITFALREKLGKKTKPFFGILLVIFIVLAVFFEFENTQKSHLRTDIIVAFNQNKN

ILCKDINVSKAYFNYEFGTGSFISKDNNQSFNSLIIDIKDCRLNDE

>AHK55554.1 DNA strand exchange inhibitor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNDTKEELISKLDLNSYLEEFKALFARDKEIFLQGDSNLHFKRIHELCEVEFPTMPELSNLDKALVHLSK

QGILHLDEIFEFVKIFRYFEKLKKIKLGTNLGSWLQKIEFVSGALELCLNFDEKGELKESLDERLVNLNA

ALRLKNESIIAEFKKFCYTKALMPYLIDTQIHLINNLEALLVRGGFNHAIKAKIIGRSSGGGFYIVPLSV

ENLQNDIEKIKNQKEEIYYEYAKNFSAFLAKNLPFLKFINTAFDLFDHYSARVLLAKKRDFEFVLCDQST

DLVLKNFAHPALKNPKSVSLEFKKQVLIITGVNAGGKSMLLKSMLSAAFLAKHLLPMHIKASESKIGTFK

EFDAIIEDPQNVKNDISTFAGRMLHFSRLFSKKNLLLGIDEIELGTDFEEAACLYSVLISKLIANNLKII

ITTHHKRLAMLLAKNEQVELIAALYDEELSRPKYEFLKGTIGKSYAFETALRYQIPPNLVSEAKKLYGED

KENLEELVGKNINLELELKAKLENVEKKEQKVDEILLSLKEQKEKNEQEFRTSLRNLEFKFHKAIEEAKK

TIQLKDIKDKQRSLNKTNELKKEIILPSMEQNEELRVGDFVKYEKIKGKIISISKNDAMVESDGIKLRVP

LKLLKKSTPTPKISPKTSISVAKPTNLSVSLDLHGLRSDEAISRLDKFISDALLAGFDEVLVYHGIGTGK

LAFAVREFLKTHKSVKGFNDAPINQGGFGAKVVRL

>AHK55553.1 NAD-dependent deacetylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNIMILSGAGLSAPSGLKTFRDNDGLWEEYDVMEVCSATGFRKNPKKVLDFYDARRAQLQNVKPNHAHE

KIAQLKEKWGKNLFVITQNVDDLLERAGCKDVVHLHGFLPELRCLKCEGIFNIGYEKFTDKQCPKCKSKD

LRHNIVMFEEQAPAYATLYSLLHQTSLFISIGTSGAVLPVGQYASMCEKSILNIYEKDVNLERYFDKIYI

EDIISAIDKIALDIENFMKDGNV

>AHK55552.1 lysine transporter LysE [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFDSFLSGVFLGFGVSVPFGPVNILILTYALKAFKNSIAVGLGAFSMDMLYLFLLQFGLLNFLDNVIFMR

FLAIFGFCFLTYMAYLMLRKKKESLNLEHKEFKESLLKSYIKGAFLNGSNPFVIGFWLSAASVVLSSDHA

YLMTLGLVVAILFWVSALAFVVARYSHVFSAKVVFIINIISAIIIEYFALNLLYKTFLG

>AHK55551.1 succinyl-diaminopimelate desuccinylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNAKEFLIELLKFKSVTPNDDGALNFIAMELSDFEAFFIEKEGIKNLLLTKKFKDEGEHLAFGGHVDVVP

AGEGWSNNAFAPVEKEGFIYARGAQDMKSGVAAFVDAAKNADFKGARLSLILTSDEEGEAIYGTKAVLEW

MQERDMLPDYAVVAEPTCVKKIGDSIKIGRRGSINGKLLIRGKQGHVAYPEKCINPVHDFAPVLKLLAGF

DLDPGSAEFSPSKIVITDIRGGMGVCNVTPNDLKLMFNVRNSPDTSLEDVKSYVEKICHGLNYELELKQS

SEAFLTNIDNKIVQKMNESVQKITHEVPELNTKGGTSDARYFAKYGVKVVEFGVCNDRIHAIDERVSIEE

FEKLCLVFKDLIENF

>AHK55550.1 thiamine biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIINGQKLELKELKFMDFIKEKGFKIELIALELNGEIVPKSEFENLILKENDKAEIVSFVGGG

>AHK55549.1 thiamine biosynthesis protein ThiF [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMRVKFNGKELDTDFKTSLEFFENISKNENDVWIINGFATKENIALNENDELFCIEKNTLPPKDALDAMM

RARHTPKLHDKLKNGRVAVCGLGGLGSHIAINLARSGVGYLKLIDFDVIEPSNLNRQAYRVSDLGKFKTE

ALKEQISEINPYISVEICTLKIDEDNLESLFKDIDIVCEAFDSAIAKAMIAQNFHRFYKDGILICASGLA

GYGDSNSIQTRKIAKNFYVCGDLVNGAKLGNGLMAPRVNICAGHQSNLVLELLANKE

>AHK55548.1 thiazole synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQENLKNDKLKIGKYEFDSRFILGSGKYSLELIKSAIEEAKAQIITLALRRANTGEIANILDYIPKNITL

LPNTSGARNADEALRIARLSRELGCGELIKIEVISDSRYLLPDNYETIKACELLAKEGFTPLPYMHADLY

AARAMRDAGAAAIMPLAAPIGSNKGLCAKEFIQILLNEIDLPIIVDAGIGSPSQACEAMQMGVSAVMVNT

AIAEAKDIALMARAFSLAVNAGRVAFLAGVASVSEAKASSPLTGFLRD

>AHK55547.1 thiamine biosynthesis protein ThiH [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQDYMQHLPHMQEIKSEILNKVLTQVQSYDESQFSAKDVKNALNQTHLSIEHLKALLSSAAEDFIEELAF

KSAKVKQKYFGNSISLFTPLYLSNYCNSKCVYCGFQKGNKIARAKLNEAEIHEEMQAIAKSGLEEILMLT

GEGREFASVEYIANACKIAREYFKVVGVEIYPMNEDEYKILHEKGCDYVTVFQETYNPLKYSKIHLAGEK

RIFPYRFNAQERALKAGMRGVAFAALLGIDDFRKDALATALHAHFLQQAYSHAEISISVPRLRPIINNAK

IHPKDVSEKRLLQVLCAYRLFLPFAGITISSRERIGFRDEVIKLGATKMSAGVSVGIGEHKGEKKGDEQF

EISDDRSVDEILAMLKRSNLQAVMSDSIYVG

>AHK55546.1 thiamine-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MWDKKIIAISDRKCVEIDFLKQIEKLAKAKVDAIVLREKDLSEFEYYDLAKEVLSICAKQKVTCFLHFFD

RECLKLGHRYFHAPLSLLRKEPKLTKYFHILGTSVHSKEELLEAMSYKVNYAFVGHIFESSCKMGLEPKG

IDFLKSLLEFSQIPLYAIGGINAQNIENFKDINVVGVCMREILMKEKDLKKYLLECRQNLR

>AHK55545.1 AraC family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKILSLPEDLKQLKGVNYKKIKSCTFAKYTQTDTSHSTFVNVGSHLLTFVRKGYKILHTASKDYKINSY

ETLFLKAGSYTLSNVGLSKGVYEAYLFFFDNAFLIELIYKYKDFFKLDQKFQNYEIFWVKNDKILQGILE

SFSPHFEENTQILDPIVSLKFEEIFLHLLLNKNIYFISFLSGILKEFRLDLSQLFEYCGREFLSVNEMSN

FAKLDLATFSKEFKKCFGQSPKKWLDEKRLQKAKILLKFSKKNINEIANECAFSSVAWFIERFKEKYEQT

PKQYQKTKNLYFLSKN

>AHK55544.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKYVLSLALLGSLLGASELKYQEFDGFKSPESIFVDKNYVYVSNVGEKLEPLAKDNDGFISKLDKNGKV

LEYKFLTHLNAPKGMMEIGKTLYVVDIDVLRGFDLKTKKEIFNLPIKGAIFLNDIEKLDDNTLLVSDTGT

GLILKVDLKTKQYDELLKLDLAKFGGPNGLYLDRKKHKLFIAGYHPDGVSGGVVMAYDLNTKELSIIKNE

KESYDGIVPYKDGLLVSSWGNNLNGYIYNLDNVKSVKLELPLMKGPADIFIEGNILWIPKMVEGKIFKVE

LNK

>AHK55543.1 UDP-diphospho-muramoylpentapeptide beta-N- acetylglucosaminyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTIALTGGGTGGHLAIVRCLLESAIKKNIECVYIGSQNGQDKAWFENEVRFKEKFFLSSKGVVNQSKFDK

ISSLLHTLKLSKDCREIFKKYHIQAVFSVGGYSAAPASFAALFSHLPLFIHEQNSKSGSLNMLLKPFATK

FFSAFEKEISPYPVADKFFDNARIRKELKNIIFLGGSQGAQFINELALNLAPKLQEQNIKIIHQCGKNDF

EKCKKHYQSLNIQADIFDFSLNLEEKMKNADLAISRAGASTLFELCANTLPTIFIPYPYAAKNHQYFNAK

FLQDQALCQIFMQNSINLDEFFKSILKLNLENISTRLQNITQKNGADMLIQKALFDNLTFIR

>AHK55542.1 cell division protein FtsW [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVADKRLFYLSCILITIGIVFSYSLTAFTVLFLDYSEFHFFIRQLFFGISGILIMFFISRLDPDKALSKK

IILAILIVSFIFIIILPFLPSVLATASGGAKRWIRLGPLSISPVEFFKIGLIYFLAWSYTRRIDDSKKAI

RHEALILLPYCILASIVIGYIYITQNDLGQSVISFFLILALAFFAGASKRLFAFGTLIIMMIGIMVIFSN

QRRIQRIASWWGNIQDAFLPMLPDWLANALRVSSNSEPYQISHSLNAIAHGGMFGEGLGLGTFKLGFLSE

VHTDFVLSGITEEIGLLGLGVICYIYLWMILRIFRIAGRCEAKQDFIFCSGIALLLLFSFFMNAFGIISL

TPLKGVAVPLLSYGGSSMWAICIGIGYVLMISKKVKL

>AHK55541.1 acetyl-CoA carboxylase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNQIHKILIANRAEIAVRVIRACRDLHIKSVAVFTEPDRECLHVKIADEAYRIGTDAIRGYLDVARIVEI

AKACGADAIHPGYGFLSENYEFAKACEDAGIIFIGPKSEVIHKMGNKNIARKLMAKNGIPIVPGTEKLNS

YSMEEIKIFAEKIGYPVILKASGGGGGRGIRVVHKEQDLENAFESCKREALTYFNNDEVFMEKYVVNPRH

IEFQILGDNYGNIIHLCERDCSIQRRHQKVIEIAPCPGISDNLRKTMGVTAVAAAKAVGYTNAGTIEFLL

DDYNRFYFMEMNTRIQVEHPITEEITGIDLIVRQIRIAAGEILDLEQSDIKPRGFAIEARITAENVWKNF

IPSPGKIGEYYPALGPSVRVDSHIYKDYTVPPYYDSMLAKLIIKATSYDLAVNKLERALKEFVIDDIRTT

IPFLIAITKTREFRRGYLDTSFIETHMQELLEKTEDRHQENKEEVIAAIAATLKKIRESRE

>AHK55540.1 hypothetical protein N917\_05175 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDFLDSLKSIKKEMQANTNTSKLAKKSSKSGASVKNLEKLAKDIREKNQETNIDKEMQEIFLKQEKLQDE

FSEFIKNADIKKI

>AHK55539.1 arginyl-tRNA-protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLEIGFCTLEDQCPYLKDKRSRIEYKYIENCPKEINNELIKRGWRRFGRYFSRPICKDCDECLSLRILVN

EYNFSRSERRVVNKNINTKVILRTPNLSNEHLFLYDKYHRFMEEKKNWKRYDLSFKQYYNLYVDGFMNFG

YELAFYIEDKLVCVDLIDILEDGISSIYCFYDPDFSYFSLGKFSLLNEIQIAKKMNLDYIYLGYFVKKCQ

SLSYKADYTPNEILKGTKELFENEVLWEK

>AHK55538.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQIVQTLETINVNTDDISVFQYFKDLITKNFTKVIGRKNKIFSFFEENEIPQRRYFLKVLDQKYRKSTNE

GIENLQDAHFKTFRLIFEQNNMLKPMLFIKIDFVAGRILMKLSSNEKLFITYIRNYFQDHNIEYNEMTNI

LILEYKNENTLELFEAFADESEHLKYCVNFEVDREEYKKFRQNIHNKENMKWKFNALAKLFSNYFNTLEC

TPQNDLSEIRQKYLILVKLYHPDFHQGKSAIEKAYAREQFEKIQIAYDNLKALYKNNT

>AHK55537.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFKLAINRPITVLMFFLALMIFGLISAFSMSVNLFPNVSIPLIKITSKINGDLNFVESKVTKEIENALSE

IDGVKTITSAAYDNFSVSVVEFKLGKNLEVAANDVRDKIGTLSLPSKPEIEKISSDSGSAISLFLYSKDK

LQLMREINDKIKPFLQRVEGVGKIEAKGFLEPQIRIELKPNQLRKYNLNALDVANIIKSQNFKQALGELN

NNQDNYIIKGYFEATNLEELSNLRIKTGVFLSDIANISSLYEDEKQSALYEGKEGVLLELGKITNYNTLE

MIKNVKNALPILEKQIPKDISINMLYDKSLNIHKHLSQVIFDMVLGIFLTLVIVFLFLRNLSTTLIACIA

IPTSIISTFFIIDLLGYDLNRLTFIALTLSIGIFIDDAIVVIENIAKKLKTYPPLQAAFLGINEIGFSVL

SISIVLLCVFIPISYMNSISGLFFNALGISVASGIVISFLVSVFLIPSIGARFLNPKENKFYEKTEAFFE

KIEQKYENLLYKILQNKVKFILATLVFIGLSFALATRIGLDFLPMEDDSEIQVLLESKKDLSLEAMKEKS

LNLLEKIKNDSNVKYAFLLVGYDDAKDATKAKIYVKLKNLDERNLRQSAIVSLYRQKFQDESLKIKILEL

PKIEGAGIDDPVQFLILGDDLNTLKEAASQAKEILGTNARIVDISDNANATKDEVALHINKEKAKLLDVN

PQYIAGVLGYSFSQLSVGSMDRGNSKDDIILSFAPEFKKDIEALKRISIKNNQGINLELSSVVDFIYSKD

LKTINRYNKNRSVKITAGVNDLSLGAVQKLLLDNMDKILNNNPSLSYAFSGFINLLGETVQGFAMAVALA

FVLIYLVLAALYESFILPLIIMITMPLAFGGASIGLFITGHNFSLFVLIAIILLFGMVGKNAILLVDVAN

KKCHEGLDPDKALLIAGKSRLRAILMTTFAMIFAMLPLALSRGAGYEANSPMAIAIIFGLISSTLLTLLV

VPALFKFCFKLDSKLRKIYEREKLN

>AHK55536.1 hemolysin D [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILFLLLVFNCAFGEEIYASFNVEASKQSKLALESIGLVQKIPVEIGQKVSKGELLLALDQESEKIAL

QNAQNSYQLALVEYENTKSRMQKIKAVENVIDKQSYEDMKAKFDAANLNLNKAKINIAYYKNIMAKKELR

APYDAIIANKFIQVGEGVGGVAQPLIEIFSYPQSKLILSFDEKYKDKVRLGDDFFYKIDQNGTELKGKIN

LIYPSIEVKTRKIYAEVQTTNLTPGLFGEGRIITKD

>AHK55535.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFEKYLKSAIFLALYPLAMLASNLHEFIALSQNNESYLIKQMQSEQANLDKEQAFRNYLPSLSLNSAYVA

NNKDRFIIDPQESLFAKVSLNFLLFDGGAREANLRALESREKLSLLDKEQNKNYLALNAITLYFNTLSLE

KILLANQQKVSFLKSTFERLQKFYDAGLSPKDELESIKAKYHLSLLELSQNELKLANIQKEIKILSDTDF

KVQGNAFLENPQQEKSQNYEVMIAKEQINLAKESVNLAKAEYFPKFYIQDNFNFYKNNYNPKVPAPFANL

ADQFLEKYSQGNQFILGMEWKIFDFNARAKEVEKERLNVQIANANARFSERKNKEELNYLDKSLKVLQEQ

ILALNLSLNAANLAFESVDKKYQAGLVSYVEYLQALEVKFKAQSDLELAKNEFEITKANYYFNAGIDLNS

KVKE

>AHK55534.1 elongation factor 4 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSVKNIRNFSIIAHIDHGKSTLADRIISECGAISDRQMSSQVMDTMDIEKERGITIKAQSVRLNYKFNNE

NFVLNLIDTPGHVDFSYEVSRSLASCEGALLVVDASQGVEAQTIANVYIALENNLEIIPVINKIDLPNAD

VEKVKHEIEHIIGIDCKDAICVSAKTGVGIKELIETIITKIPAPKTDDEAPTKALIYDSWFDNYLGALAL

VRIYEGSIAKNDEVLVMSTDKKHIVQDLFYPHPLSPIKTQSLQSGEVGVVVLGLKTVGDVQVGDTITLVK

NKAKEAIGGFEKAKAFVFAGLYPIETDKFEDLRDALDKLKLNDSSITYEPETSLALGFGFRVGFLGLLHM

EVIKERLEREFNLDLIATAPTVTYEIYQTDGELIKIQNPSELPPVNKIDHIKEPYVKATIITPSEFLGNL

ITLLNRKRGVQVKMDYITPERVLLEYDVPLNEIVMDFYDKLKSLTKGYASFDYEPIEFRVGDLVKLDIKV

AGENVDALSIIVPNEKAQSKGRELVSAMKEIVPRQLFEVAIQASIGNKIIARETVKSMGKNVTAKCYGGD

ITRKRKLLEKQKEGKKRMKAIGKVNLPQEAFLSVLKID

>AHK55533.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFKKFLIFIVPILFLSACATKQDTFAQVNQISKNSQCSSCESPGGFEAKIKGLLYISDVGIQCCANKRTL

DTGIALKKVYLHRFYDLKEGQKVLNAKGKKLFVDVNFNAVFYTYLKQELEARGIVVLDNNDQNSPYVSKI

DLEFISYGATQDAIGLHSKLVGVLQVSDINKNKKFTIRTKQDVQGFDDLKETTFYTHLLIKQMANKAASL

ISEL

>AHK55532.1 phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRCINCGAFALLCFCELCELELSEFSLNVRKLDNNFKVYSFYKYHEIQHLLHSKHYFYGYFVYKMLAKLS

FAKFKDFFDPRMTINVIALDDKVEDMLYSHSAILARYLKTKFVKPVFNVLKAQNSVKYSGKSLEFRQKHK

RNYKLLKTIHEPVILVDDIVTTGSSLLEAKKVLEENKISVLFALVLADAKV

>AHK55531.1 DNA gyrase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENIFSKDSDIELVDIENSIKSSYLDYSMSVIIGRALPDARDGLKPVHRRILYAMQNDEAKSRTDFVKSA

RIVGAVIGRYHPHGDTAVYDALVRMAQDFSMRYPSITGQGNFGSIDGDSAAAMRYTEAKMSKLSHELLKD

IDKDTVDFVPNYDGSESEPDVLPSRVPNLLLNGSSGIAVGMATNIPPHSLNELIDGLLYLLDNKDASLEE

IMQFIKGPDFPTGGIIYGKKGIIEAYRTGRGRVKVRAKTHIEKKTNKDVIVIDELPYQTNKARLIEQIAE

LVKERQIEGISEVRDESNKEGIRVVIELKREAMSEIVLNNLFKSTTMESTFGVIMLAIHNKEPKIFSLLE

LLNLFLTHRKTVIIRRTIFELQKARARAHILEGLKIALDNIDEVIALIKNSSDNNTARDSLVAKFGLSEL

QANAILDMKLGRLTGLEREKIENELAELMKEIARLEEILKSETLLENLIRDELKEIRSKFDVPRITQIED

DYDDIDIEDLIPNENMVVTITHRGYIKRVPSKQYEKQKRGGKGKLAVTTYDDDFIESFFTANTHDTLMFV

TDRGQLYWLKVYKIPEGSRTAKGKAVVNLINLQAEEKIMAIIPTTDFDESKSLCFFTKNGIVKRTNLSEY

QNIRSVGVRAINLDENDELVTAIIVQRDEDEIFATGGEENLENQEIENLDDENLENEESVSTQGKMLFAV

TKKGMCIKFPLAKVREIGRVSRGVTAIKFKEKNDELVGAVVIENDEQEILSISAKGIGKRTNAGEYRLQS

RGGKGVICMKLTEKTKDLISVVIVDETMDLMALTSSGKMIRVDMQSIRKAGRNTSGVIVVNVENDEVVSI

AKCPKEENDEDELSDENFGLDLQ

>AHK55530.1 hypothetical protein N917\_05125 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIYFMLAIAGIFAGCVPSANSATKNSSANSTAPSQDVIVQKVDKDDVRDIIREEKMLAPDASETELSF

TAVGEGIAPMNTVSTAQALALAKRAAITDAYRQLASKLYGVKVNGKDTVKDAMLRSSTITAQVNGLIKNA

SIIDENFNQGLYRVNLELKIDADKWKELFAY

>AHK55529.1 hypothetical protein N917\_05120 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MERIVCLLIFLSFKLFAQDEFIFWAELSSKNFILFHQNQNLSLAMTQSENVEEQWVCEISYSDQDLKVLP

RTSLGLIDDNMPKTIKFNFLNSHKDELSDCFIGARISVKDIVNTDLLRAQSETYVKILPLRFTVEFGEQN

AIIYYLKKK

>AHK55528.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLVIVEDDINMRKSLEIALAEYEEFNIKSYKSATEALKKIDDNTDLIITDINMPGIDGIEFVKACENKY

DFIIMTGNATLSRAIEAVRLGVKDFLTKPFDVDTLVEAIKRAKIIREKTADKKSKKNEKKEENKDFFSTS

PNLEKTLNLSQKAAKTDASVMFFGESGVGKEVFSRYIHTHSKRSNKPFIAINMAAIPANLIESELFGFEK

GAFTDANATKIGLFEMANEGTLFLDEIGEMPYEIQAKLLRALQEKEITRLGSTKSIKIDVRIISATNANL

DEKIKNGEFRSDLYYRLNTVPINIPPLRERKEEILGIAQKVLEDTCKEYDFKEKQLSQEAKNALLEYDFP

GNIRELISVVQRACILSENDEISSEDLFLEARSIKKDVKNLEKELICEVLLSVDYDKDQASQILGMDIKI

LNEKIKKYQIKDK

>AHK55527.1 aspartate-semialdehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKKQKIAIVGATGAVGEELLNVLDELDFPVESILPLASAKSVGSEVEFKGKAYKVKELTENVFKENPID

IAFFSAGGSVSEKYAKFAVESGAVVIDNTSHFRMEKDVPLVVPECNPEDIKDWKKTGIIANPNCSTIQMV

QVLKPLNDAFNLKRVDVSTYQAASGAGKEGMQELVEAMQSFFAFKLDEFEPQTFPYTLALNLIPQIDVFM

DNDYTKEELKMVNETQKILHKNLEVSATCVRVPVLRSHSEAITMHFEKEIDVKKAKEILKKAPSVIVIDD

PKNKKYPMPLMTSDTNETYVGRIRADVYDKKILHLWCVADQIRVGAATNAVRIAQKWLELKNK

>AHK55526.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLEKIFESLLVRSRIVTILPVIFGLIGAFVLFFIASYDVLKVIFYTYNYFFDAGSNVDLHEDVVALIIGA

VDLYLMALVLFIFSFGVYELFISEIEEFKQTKQSKVLEVHSLDQLKDKLAKVIIMVLVVNFFQRVLQMKF

ATPVDMAFLAGSILALCVGLYFLHKGGH

>AHK55525.1 hypothetical protein N917\_05095 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIFLIGMILNHFVFAAPLDEVFKDIEVSGTVRYRYDIKKEKKYNKKTHRYQNKTQTEITIK

>AHK55524.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIARWLFISSIFVVALFGINLKSFFTYTFDANKQYDMEKAKALYFQNKCNTCHGDNAEKSVIGSRILKDM

SPEDIKGALIGYTLDSSSSTTASQMAFYARNLSHEDIDNIIAYIKGGNFALDLQVKDLLEEEPAQKTKHN

IFLK

>AHK55523.1 branched-chain amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDSTLFLQQLVNGLSLGSMYALIAVGYTMVYGVLRLINFAHGDIMMVGAYAALFCMTNLNVPFLGALSLA

MIFAACVGIATDRIAYKPLRQAPRISLLITAIGISFFLQNLFNMLFTSTPRTFTPPSYFEESVNFGGVIT

TYGSLMVPALTFVILIAVLWILYKSKYGIAIRALAFDIQTVNLMGIDANRIIAIVFALGSALAAVGGVFW

AANYYSVEPTMGTLIGLKAFAAAVLGGIGSVVGAVLGGLIIGFTEVVVVAFFPDLSGFKDAFAFIFLVFI

LLFRPTGILGINFEKSRF

>AHK55522.1 branched-chain amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMVRIKVSHLIFLIASIIFIFISPYIFGDYGLNIVNQIAIFIILAVSYNLINGVTGQFSLEPNGFVAIGA

YAAALVLLSADAKNDQFFLDGPSSFILAIHSNSFILALIVAGICSSLLALILAFAVFRVRGDYLAIVTLG

FGIIIKIAAINFPSITNGSRGLVDIPQFSTIYWTGGIAIVAVILILNIVYSKYGRAMKAIRDDEDAASAM

GINTFWIKTLAFSTSAFLEGVGGGLLACLLTTVSPTQFDFLLTFQLLIIIVLGGLGSTTGAIIGAILVIG

GSEWLRFLDELNIKIDSLNLDIQSTPGLRMVVFSIVLILVMLFARKGIMGYYELSDVIRGIKKRFKRSKK

>AHK55521.1 branched-chain amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MILELKQISKSFGSVKAINETSFKINEGEIFALIGPNGAGKTTLFNIITGNYKPSSGSVEFLGERIDHLK

PHKIVHLGIARTFQNIRLFSSMNVLENVLIGFNKQMKYNIFEAFLHLGRFGKIEQVFKEKAYAILEELGI

AEFAYEKATSLSYGQQRKVEIARAMATQPRLLLLDEPAAGMNSSESDELAGLIFKLRKDYKISVLLIEHD

MKFVNKLCDRVLVLDYGKTIFEGKLCDAVNHKEVIAAYLGDFDANS

>AHK55520.1 amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLIVKDLHVYYGLIEAVKGIDFKVETGHIVSLIGSNGAGKTSTLNALLNSVKRTGEVNFLGYDTKRHLTH

TLVQKGIALVPEGRRVFINLSVEENLKIGAFNNAENYEHLREQMYKLFPRLASKKHALAGTLSGGEAQML

AISRALMSEPKLLMLDEPSLGLAPKIVGEVFDIIVRLKEEGITILLVEQNAYSALKISDYAYVLENGRIV

MENEAKNLIGDDEIRKKYLGL

>AHK55519.1 cytochrome C biogenesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNIIKSIGDLRVSVVLFLLFALFCALATFIESAYGTPTAWAMVYDTFWFEYIQLLLGINLLCGMFRYKM

FGLKKLPLMIFHISFLFILVGSAMTRYAGFEGILPIREHTQNSLIESSKTSLRISAIKDGERYSAVNDRY

IGNLPFANSFKLKLNLGDDQAVLKYKDLILNAHYTYKENNNSDPLLVLMLSQKGSQGVDVKFEKGEVKNI

EGVNFAFMNDNVKAPFVKIDENLTLSSSENLHFLSMLDGQNLDLKIGEKANAKERRLYEINDISFVVKAA

SLHAQEALEGSNRPQDESFWLWFKSAWLEVGRTMLISTFGEPQNWKNSLLLHFKDFALSNENKNLELTGS

NALKLELSYKNESKEFYIFEYNKPIMIELADQKFFISWALSYEQLPFDIYLRDFVLDRYPGSMSPASYAS

EITVKNNNENFDYRIFMNNVLDYDGYRFYQSSYDQDEKGTVLSVNKDPGKIPTYIGYFLLCLGMFMNFLN

PHSRFRTLARLINKDTLKHTSVIIFILLLSFGSEKTFAQDLNSTLPVVNTNHAKALATLIVQKSADGRMV

PFDTLSREILEKIHQSDSYKGQNSNAVMLSMLVDVDKWQLEPFILMPQNQAVRDAIANILEIPSAKYIAY

KDFFDENNRYKLQKYVENANRKNPNARGVFDKEIIKLDERANVVNLVFSGELFKFIPVQNNPNNVWLAPF

SAVTTLKGDEGHIVLALIQNYFSAVENAFKDGNWIRADEGLKFIKEYQEKIGYKVMPSKTKVEMEIFSNK

AEIFVKLAPVYLIAGFLLLILVFSKMVVPNLKISFIFKVVYVLNVLAFVIHTVGLGLRAYLSGHAPWSNG

YESMVYIAWALSLSGIFFSRKSPIALSLTSILSGVVLMVAHLSEMNPQITNLVPVLNSYWLSIHVSVITA

SYGFLGLCALLGIFTLFLMCFLKKDGKYNLNILRNITEATRINEMAMIFGLCLLTVGNFLGAIWANESWG

RYWSWDSKETWALVSILVYAAILHLRMIPKYCNQFVFALWSMFAYWVIIMTYFGVNYFLTGLHSYAAGEA

AQIPNYVYWGFALMVVLAFFARRKRNFVGKL

>AHK55518.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVIFCAALALLLFLGVIAYLITSDGKKTIKKQKTSQKQHVAEKTKKFDTDLDKMIIAASDVKLTDIELKE

LAKLYVQTHKLGSKTSKELDEAAKKKLEFVSALAANINASAQTVSYLNKELKKIYGSYKKEIDAYEHMGL

AKRKIKEDK

>AHK55517.1 magnesium transporter CorA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLELHENLKKILQAKNLETFYSEIYGQKIFVYVGLNLETWLFNDEKIYKLQDGEFKLSSIEEFSNFIKSI

LEDFKVQNTHFQNLLEHKEGIILKGGFVKNFYKKSFVLRQKINKNLKQINLLSEAFNLLLSEQAQYKKHL

KILNLSISILSKNTKEHLARIDTLYTLTNAIKNEKMNKSIYLLSILSSIFLPLNLIVGFFGMNTNNLFFK

DSPYGTLYIFSLICCILIVGFIFYYSKKTKEFDLDEGKKAKKQTK

>AHK55516.1 queuine tRNA-ribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEFKLKHKDGMARVCEITTAHSTFLTPVFMPVGTVGAVKSLDANDMKNELDAKIILANTYHMYLRPTSKV

VKDFGGLHGFTKFDRSFLTDSGGFQAFSLSKNSKHFNEGIEFKSHIDGSRHLFTPKSVLDTQYDFNSDIM

MILDDLVALPATKERVKISVDRTILWAKEAITYHKNMQNKGIGIGQNIFGIIQGGTDYEERKRCALSLNE

MPFDGLAIGGLSVGEENALMYETVQNLNPYLDENRPRYLMGVGTPEDLVENVERGVDMFDCVMPTRNARN

GTFFTSFGKFNIKKAEFINDHEVIDSTCSCYTCRNFSRGYLNHLFKAKELTFFRLASLHNLHYYLELARK

MREAILNNSFTQFKRNFYHLRGK

>AHK55515.1 potassium transporter TrkA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNNILIIIDGILAKHFLERLCFEKGLGYFFTVVCQNSEKNNLNISSEYIDLHYFDPTSTARLENIMSKDF

KQAFIYMQDEFETKKSYEALRSLNPNLEIEIMDFWGLSVNDTHANLADARMTLSRRFMDFLPDIALTAQY

IGLGVGEIMEVKIPAGSIFAYRHISSIQQKRWRIVLIYRNSKIYFVKPSFVLEPNDSILIVGDPVVLQSI

FHNIRGKAGQFPMPFGSNVFALIDMKNMNQNMQERVLDTTLKLTQKSNAKRFFIHVINPKLGVMYEKLKK

LSEDKEGVFFDYFNTDFKQISMWLQNNDIGLVVTDIKNFEKEKQAFFDLKIPIMKVGEASFDELKEAIIL

SADESELENNANVITDLSKQLDFGVILYYYNPNSQNTTDMEEYFRSLSKLYDKNIQIINKNDENPLLNLQ

YREDLLQFVSFQKELLNRDFARNLSTNLNRHYYKMRQNYQLFIPVE

>AHK55514.1 3-dehydroquinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQVEVKLKENAYKVYIDELEELEFDSKVFILSNPKISGLHLKTLLSKIKAKEIFIATVKDGEEYKNLSTM

EEILNQMFNSKLDRKSVLISFGGGVISDMGGFAASIYQRGIDFINIPTTLLACVDAAVGGKTGVNNNFGK

NLIGTFYQPKAVYCESFFLKTLSSRELAAGMAEFIKMAAMFDYSILDFIEKIDEKSFLNATCENEIFTQI

IAKSIELKSRVVEQDEKESRLRMLLNYGHTFAHVIENFTDYKLYLHGEAVAIGMVMANQLALNLGLLDKM

QSQRIKDILLKFGLPISYKINNVDEFYEAFFMDKKSSNKKINFVLASPLGKGLIKGDISKEDIIATLREF

Q

>AHK55513.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIIILTFFVVFAFGDVNRTIINNINEKINTLNTVISASIWNIRYENFIKYQDINDELIILNLNLKKTS

DIHQQEELKRKIANLEEQLNLLKEYKDLNFAQSLSAPDNIETLSKLTNPLAIIGAFSHIKKLKGEKEEYI

FKFNDFKNLVDKIREKNSELKELVELKPSVENIEALKASDKKLEEFEQALNFASVSYSVYEKKIDEELSR

VSAEIKVQSLRAVNILVAIVIVIAIAFMLKFIAKKYIKDSERYYTATKIINFININIIFLILLFAYIENI

TYLVTILGFASAGLAIAMKDMFMSMLGWCVIIFGGSFRVGDRVKVFQNDTTYIGDIIDISFLRITLYEEL

TLETYNKNRRSGRIIFIPNNYVFTNLLANYTHHGMKTVLDGIDISVTFDSNLDKAQEIVENIVTRHAKGY

TELARKNIARLQHEYSIKNPKVEPRFFMFFEHWGMRISAWYMTNAYAALVLRSTISKEIIKEFNKHKDIK

IAYPSQNLYLGNLNQNHFEQHHENMYFHARNKD

>AHK55512.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEKVFFKTFGCRTNIYDTELLKSYVKDYEIINDENKAQIIVVNSCTVTNGADSGIKSYVNTMQKKGIKV

ILTGCGAVSKGKELLDKKQVFGVLGASNKDKINEFLGAKTSFYELGNLNFIDKDIVCEYENHTKAFVKIQ

EGCDFACSYCIIPSVRGKSRSVDEKALLKQVEILGANGYSEIVLTGTNIGSYGLKNGTTLGKLLQKMGQI

LGIKRIRLGSLEPAQLDESFLEILDEAWLERHLHIALQHTSEKMLRIMRRRSHTDNDLKLFNTIASKGYA

LGTDFIVAHPGESEELWQEALRNFKEFPLTHIHAFIFSPRNNTHSATMKDVINGTLAKERLNTLKSIVEK

NNYEFRKKNQVSLEVLVENQKDGFFEGYDQFFNKIKIKSDKDIAKEWIVISEYEVQEKSNFTNLKG

>AHK55511.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNKKIILASFMVLCMLLGILYFKNEPKYIDENLYQSLLSQNLIQKAVIDKDEIWLKAEGENYVIIKDGI

DIKTLLSKVPVEVKKDNTLWVFFVLLIFIIALFISLGYFARKKELAKYPISNKNQNHTQAQNSNINLESS

HIKPVISNITFNDVAGVDEVKMELSELVDFLQNPKKYKEFGVKMPKGVLMVGPPGVGKTLIAKAVAGEAG

VPFFYQSGSSFVEIYVGMGAKRVRELFSKAKMMAPSIVFIDEIDAVGKARGEMSNVERDSTLNQLLTQMD

GFEDNSGVIVIAATNKIELMDPALLRSGRFDRRIFLSLPDFKDRLKILEIYMKDKNNNINLNKIAKASVG

FSGAGLETLVNEAAINALRRNSALVEESDFYAVLNKVLLGKKKILSFNNEEKKIQATYQAAKALSAYYFD

IGFEKITLIEDRFKEYEHNIRSKSELINRIKVYLAGSRAMRLIYNESYTNSQDDFLKIKELLDYMLSFDM

LKESNLSEQKKEMDEFLNSMKDKILKLSELLLEKEKIEYDDVKDIMQV

>AHK55510.1 hypothetical protein N917\_05005 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIKFLNIITILSLSLNADIIISADNLPNVSKEFLQHNFKAPIGIVQKDKNSYEVYLSDGTELEFDIDGA

WKEIENKAFPFDLDFLPQNLANIIKNEFPNTKAREIERKINHYKIKLDNDIKILIDFNGTILYKEFDD

>AHK55509.1 phosphoglycerate mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIYIIRHAKASKSEDIDDFERKLTKSGKEDLKKLFKNLASHEIHPDLVLSSPAVRTAKTAKKIAKFYN

FDKNRICFDERLYLCNVENLLKILQDIDDEFNEVFLVGHNPSLMELGELLSSLCLASFPTSSILCLEFDI

KEFKNLKKHSGKLVFFEHVRKLKEEKDLGF

>AHK55508.1 RNA polymerase sigma factor RpoD [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNAKTQEAELEELFQENAKDYITYEKLVKYLTKQPSASTTKKVQALMKKHKVQLFSAAEIAQMKNIEDAK

RLQEEKQKLQDTSLENEFDLANENDLLEWSRSDSPVRMYLREMGQIALLNKDEEIEISKKIELGEDIIID

AFCSVPYLIDFILDYKEPLINRERRVKELFKSFDDEEKSDDKLDELDIDEDEENETELESDEENTKKNSK

KEDERTLKVIEKFKALEKAKKDWLKTSKDKESGDELLDKLSIAFKKNILKEKLMDLGPTSKLISEIVKSM

ETALKSDEEFDKELKRLEYRLPMFSDELKKRHADILKDITKLSKEEITERALETTMVSTYMEIKKLFQTK

EASEKSFDLEKSRLKEILEQIKRGKKISDEAKGRMAKSNLRLVVSIAKRYTNRGLPFLDLIQEGNIGLMK

AVDKFEYKRGYKFSTYATWWIRQAISRAIADQARTIRIPIHMIETINQINKIIREHLQKDGKEPDVSVIA

KEVGLSVDKVKQVIKITKEPISLEAPIGNEDDGKFGDFVEDRNSLSPMDHILKDDLKEQIDEVLDQLNDR

EKAVIRMRFGLMDDESDRTLEEIGKELNVTRERVRQIESSAIKKLKHPKVGRKLKNYIEGWK

>AHK55507.1 LysR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIKDIEIFLDLLNTQSPTHTANNFSITQPNVSIVIKNLENKFDGILFERLGKKLLPTPKALELGKNWLK

IIQAYYQSLEKLNDESMLLGEIKIASTQSISEHFLAPILFDFKAEFKNIEIRSQTQNSKECLNLLKNGNI

EFAIIEAELDPALVEYENLEINFWQDDELIVATSDKKLNEKEFYIDELLEQKWILREVGSGLRDKFLNEI

GASSKKLNIFLELDRMAAIKELVLQKKAISIFSKKSIEKELKNSTLYEIKLKNIDLKRKFYTLKRKNYNF

NRALEKFEKIFKS

>AHK55506.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTSFLAHSVAIVRSNFKGLLFTACIVIFAMYLSSVQSIKDTTHLAATAFAIIIGVLLSPWFFKYQHHFQ

AGVHFSAKKLLRLGIVLYGFNITLTELLSVGLKGFLLSAIVIFFVFIIALFVGTKIFKLDKETSMLVGAG

SAICGAAAVLALESSLKSDPFKGILAVGTVVIFGLVFMFLYPIAFSLNLFPFFDQNAMGVFMGATLHEVA

NVAGAAEMAKDMAGFEQGASNVAVIIKMMRVILLVPFLLIVTYFFAKNQHSSSGKTAKSITIPYFAFAFL

GMIVLNTYLASKESILGIATSDIISLGKTLCTLCIVFAMAALGLQIDFKKFLKSGSRVFGLAFVLGLVLI

FGGYFLTLAFKGILW

>AHK55505.1 hypothetical protein N917\_04975 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILVSVLSSCLLASALSAVSFKEDSLKISFEGYKTKDMIGTKGEFKNVEYKFSKNIKDLASYLKGAKA

TIKPSNAFMGEGNDIITNNITKVFFPALLGDTDIKVVFQDVIAGENKGVISAKITMDKKSTIVPLTYTIK

DNKFEAKGQLDLHTFKNGSKALKALSDVAAGHGGISWPLVDISFNADLAE

>AHK55504.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIFKDYDFLQNYDLKNFEEKVKIYKELLSKFNRIHNLTHLKNIDENIFDSIKILDFYDFSKAKNIADIGS

GAGFPVVFLAFLLQSNFHLFEPNPKKAAFLRTLKIECELPNLHIYKEKVQEYKNTFKADIITSRALMDVK

PLLEICKNLKDENTVFILWKGSEIYQELENIKDYEIFENNLRRYCILK

>AHK55503.1 GTP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEIKISEIANLPSKWGNFQMQSFKENDKEHLCIFKNTPKDTLNLRIHSECLTGDALGSLKCDCGEQLEFS

LKYIEKNGGMVIYLRQEGRGIGLFNKVNAYALQDKGFDTIKANHQLGFKADERTYEIVEFILKHYEISKV

NLLTNNPEKLDSIKEKIITRIPILIEPNRFNVEYLNIKQTQMGHLK

>AHK55502.1 delta-aminolevulinic acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFKRFRRLRLNENLRSMVRENSLSVNDLIYPLFVVNGTGIKKEISSMPDVFQMSLDEILKECQNVVNLGI

KAIILFGVLENEKKDSCGSDALDDEGLVARSIREIKKNFPDLFIISDLCFCEYTDHGHCGIIDPKIKSVD

NDATLEISAKQALVHARAGVDMIAPSGMMDGVITTLRKALDKEGFENLPIMAYSTKFASSYYGPFRDVAE

SAPSYGDRKSYQMDFANGKEALEESLEDEAQGADILMVKPALAYLDVVKEISLHSNLPLCIYNVSGEYAM

LKAAKNAGVIDYEKVLYETIIAFKRAGAKLIITYHAKELAKMLKGEK

>AHK55501.1 ornithine carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAMIFEKNSTRTRMAFELAITELGGKALFLSSN

DLQLSRGEPVKDTARVIGAMVDFVMMRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWNK

MQNGIAKVAFIGDSNNMCNSWLITAAILGFEISIAMPKNYKISPEIWEFAMKQALISGAKISLGYDKFEA

LKDKDVVITDTWVSMGEENEKERKIKEFEGFMIDEKAMSVANKDAILLHCLPAYRGYEVSEEIFEKHADV

IFEEARNRLYVVKALLCFLDNQRGRE

>AHK55500.1 hypothetical protein N917\_04950 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKELEKYSTCLKRIDEFSQNLGIKKKDRTIFKMKQSENENEKCLVLENGSFDSPEPWFVIDENDEIHTLL

SLQSLKNILESLKQSQKENFELRLEKAIYQQIPVDFNDVWTVAMDEIKQKAQNGTMEVSIDLEKLISKIK

QEHPNLFVDMQAMIERVNQNERL

>AHK55499.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRDYKAFVKYSKAGPRYTSYPTAVEFNANFKYEEYIEILKKQDRSLSLYFHLPFCRSACYFCGCNVIYTA

KEESKERYLTYIFKELDILSTILDTKREVVQMHFGGGTPTFFSAKQLQSLILKIRSVFGNFSKDAEISCE

IDPRFLNEEQAIVLTQNGFNRISFGVQDFDEKVQKEIHRIQSFELTQNALNLVRNKGIKSVNMDLIYGLP

YQNLQSFTQTLEKVMLLNPDRLAIFNYAHVPWLKKNMRKFDENTLPSPDVKLEILEFCEKFLSKNGYKMI

GMDHFAKENDELFKALENGTLHRNFQGYTTKGGADLVGVGLTSIGEGQRHYAQNFKDMSSYEAALDRGVL

PFERGVILSDDDELRKAVIMELMANFKLDIKSIEKEFSIDFKEYFKEDLKALEEYKDFVNFDENFIKVNE

TGVLLIRNIAMCFDAYMKNISEDKKVFSKTV

>AHK55498.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFSQISDACVKCGKCIPVCTIHEENRDEITSPRGFLDLLTAYKEGSLELDKEAKKVFESCFLCTNCVEV

CPSKLRVDNAIEEVRYDIAKKFGIAWYKKLIFFFLRRRKILDLVAKLGYVFQSCAFKIQNENENTGMKAR

FSMPFVKKGRLLTSFNKKSFLNSNPKFINNDGEKTIGFFVGCLANYFYIDTANAVLKITKELKINVDLMK

EQVCCGAPQFFTGDFKSVEVLAKKNIEYFEKKLEKLDAIIVPEATCSAMLKIDYEHFFIMQNDLDWAKRA

KCVSSKIYMASEYFYKFTSLEEILKTKNKFNYSITYHDPCHARKMQGVFKEPRELLKTNYHFVEMSNSNT

CCGFGGVSMQTDYYDRALSVGLKKAQMIDESKASVVSAECSACRMQISNALEQNSSKVVFASPLELIAKA

L

>AHK55497.1 hypothetical protein N917\_04935 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMKIVFKGKSSEYEIQRSCFCVDAFVIKDKIEERDGVDFITSNVDLLEFSDDSFTFEEIVKHFNICDTED

MIIVEDFDMKSNKDNQNQEDDIEHNILKSEKIIHENTKQTSMQFKNLKFFSRIFKNENFLSDFKESKQEV

VTIKKHEKLEIFKNLSQEDQEISFVKIEILNYDSNEDSLSFNLDIFPSGMSYKYGILKGSMHIILQGKTS

STMLFPFLKSMIYKNKSENSSEKIFTLMINQKKHYKLIANLS

>AHK55496.1 hypothetical protein N917\_04930 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEFLAFIFLIIIFLFVVFIIVTRYEKKIKLLNQNIQNMKEDIADLKETTQKNRSLIEKNRSNIENIIK

>AHK55495.1 peptidase M20 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLIPEILDLQGEFEKIRHQIHENPELGFDELCTAKLVAQKLKEFGYEVYEEIGKTGVVGVLKKGNSDKK

IGLRADMDALPLQECTNLPYKSKKENVMHACGHDGHTTSLLLAAKYLASQNFNGALNLYFQPAEEGLGGA

KAMIEDGLFEKFDSDYVFGWHNMPFGSDKKFYLKKGAMMASSDSYSIEVIGRGGHGSAPEKAKDPIYAAS

LLIVALQSIVSRNVDPQNSAVVSIGAFNAGHAFNIIPDIATIKMSVRALDNETRKLTEEKIYKICKGIAQ

ANDIEIKINKNVVAPVTMNNDEAVDFASEVAKELFGEKNCEFNHRPLMASEDFGFFCEMKKCAYAFLENE

NDIYLHNSSYVFNDKLLARAASYYAKLALKYLK

>AHK55494.1 hypothetical protein N917\_04905 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKILFSPSESKNENCVKNPINENSFIFKELFPYRMEALKHYEEFIKNASLQNLQELFGIKNENEIDKFKH

DLKQAPTQEAILLYTGVSYEYLNFKALDKKSQAYILENTLIFSNLFGIVRANDTLPFYKFKQGAKIGNFA

IEKFYKEHFSKALDEYLENEEILDLRAGFYDKFYTPKKKFYTYKFVKNGKVISHFAKAYRGILLSISAKN

QVKNNKELLANLPSNLKLKEIQIKGLKEEIVLEILD

>AHK55493.1 hypothetical protein N917\_04900 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKGIFLSIGIAVLFSACGNSIDEKTVKKYENQLNQTVKQEIASLSQDSGIKIEFSDFKCNADGDFIACL

SPNFKTLTKDNNDEYQELFQAKNIKIRSNEIYKGKANASISIKEYYNDLFKNQKSIQSNLVFEDFKLGEK

VVSDINASLFQQDPKISSFINKLSSDSYTLSFDNSINKQENNYLDNLDIKFYNAKLNFNTNLNINLKEDL

LNYLDSKGIKFNTQTLVMDKQAINELLNIANYEQASDFSNTIQKYIILNNFKIDSTLKTEGVFSSYIATA

KENLQTLKAQSQNEEQALIFDKALAILNNITQNDDYKLNLDLKFKNIPVSDYSTQGIDSIEKLSINNQDA

TEALKIILPFIMFSMLMGGASF

>AHK55492.1 glutamine ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILLSVLTAFVAVVLAACGGNSDSKTLNSLDKIKQNGVVRIGVFGDKPPFGYVDEKGNNQGYDIALAK

RIAKELFGDENKVQFVLVEAANRVEFLKSNKVDIILANFTQTPQRAEQVDFCSPYMKVALGVAVPKDSNI

TSVEDLKDKTLLLNKGTTADAYFTQNYPNIKTLKYDQNTETFAALMDKRGDALSHDNTLLFAWVKDHPDF

KMGIKELGNKDVIAPAVKKGDKELKEFIDNLIIKLGQEQFFHKAYDETLKAHFGDDVKADDVVIEGGKI

>AHK55491.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKKYKNIIYASLGGILEFYDFVLFAFFLDIFAKVFFPQNDAFWMQINAYIAFGAAYLARPFGSIVMAHF

ADRYGRKNIFYISMLLMVLPSFALAFLPSYESIGIFATLILFTIRILQGLAVGTEVSGAWIYVSEFVKGR

QIPLALGFISATLTIGLLLGNIATLGIRSYFTPEEVQSYAWRIPFIIGGFFGILALFLRNKLSETPEFIK

VQNEKKILSFPLFEALKTHKMSMLVCFLMTMVLTSGVATLMILPKYFESLLAMSKTSALWVQNFAILAVI

FGALFQGFLASKWGSYKICSIFSIAFIIFGMLFGFYDENFLFYFLLACFAQGIITFAPVFMTQIFKSELK

FSGLSFAYNISYAILGFLTPFIVNAFYKEYLGIYLAIVGSCSLLCVFLLKRVFARSKIKELSIVF

>AHK55490.1 aminoacyl-histidine dipeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNVIENFKQLCKIPHCSYETEQMKEFLSSYAKDKGFKVSVDKAGNIHAIKGKPKICLQSHYDMVCMGDA

PNLEVYEENGFLRAKNSSLGADNGIGIAIMMSAMAEFENLECLFTNDEEVGLMGVNLLEHTLESKMLLNL

DHESDDEIMIGCAGGVDIEASLSFNTLRKKGKIYELCAQNFKGGHSGINIIRNEKSSIKEMAKFIQENEG

EIISFEGGERINSIPKHAKALVHFKDEVKSNNWIKCEFKEENEFEICDQSKKLLSLINSFTHGVRAYDEN

LDIVQTSINLATLRMQDNQIKFALFARSNILDGLKQVEFETLEFFKAFDFKIRSFNFYPPWEGKPNALSD

MVFKALKKVSPNAKVSAIHAGLECGIIEKKQELLCASIGPNIHNPHSTDEHCEIASVEKISKVVFEVLKD

NA

>AHK55489.1 nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRINYKKIFNLRKLLSDPKKLFSVLIFTLVVVFIQNYIAQNSSFEGKVVRIIDGDTIEVNHENKLARIRF

FGIDAPELKQSFGKQSKEALSRILSGKQVEIIYKNKDTYGRIVAIVKLNDVDINRFLVSKGYAWADTYYS

NAYTKEQENAKKNHLGLWKESNPIEPYKWRKHNKF

>AHK55488.1 hypothetical protein N917\_04875 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKYTLMVLLVLGISGCFVNERGISNRFYDDCKEYYDGSGTYHKDCPKNWVDIKMTP

>AHK55487.1 Hot dog fold protein HP0420 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKKDNFEEYAQLEEYASAEDISRVRAELLTCPELNTSLAGTIIEIDKNYAKSILITTSEMVADDQGLIF

DAFIFAAANYVAQASINKEFSVIIGSKCFFYAPLKLGDVLELEAHALFDETSKKRDVKVVGHVKEVKMFE

GTIQVVSTDEHIFKLKRPPLNTVKPTENQEQGAKINNPEAVAAALMASVGGK

>AHK55486.1 tRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQENLLEKQFLNHPLYAKIQELKALNLACNFSLGDSVNLSTNSQAKDEILAIAKELKPWRKGPFKIDDLF

IDTEWQSFIKFNILKPFMNEISQKCVADIGCNNGYYMFKMLEFNPAKLIGFDPSIKYRLQFELINALAKT

PIKYELLGVEDLPSYSLKFDVIFCLGVIYHRSDPIKMLKDLKAGLNKNGVVFLDTMYIEDEREIALVPNK

TYSKIPNIYFVPSISALKNWCERAGFKEFEVLATKKTDENEQRKTEWIDSFSLENFLDPKDKNLTIEGYE

APKRVYIRIKI

>AHK55485.1 acyl-CoA thioester hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKMRVYYEDTDAGGVVYHSNYLKFCERARSEIFFNKKVDIFDASKGHFLLAKANCNFLKPAKLGDMIEIK

TKILEVKNASVEILQEIYKDEILLFKMELTLAFIKNEKPARMDMQLKKLFEELF

>AHK55484.1 hypothetical protein N917\_04815 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIFLIFFLSCFLLNAKEQKLVDVKPVENFYPKLSVQECNTNCLFDLLESRLYLSFLSEFADQNDQFLS

NVYAKLLNSITDFEKNVQKITSVKLAIIIPEKTIKSYSNTIINSSIAYLLRQRAEIKVKVFLTGTEDNDK

IRAALDAAQAQGYQYAIAGFTLKGANELKNYSGNMKIFIPTIHKNNIQISNQNIIFGSIDYDAQIATLLS

KSNANIAIFSDGSALSSNLNSRILAQNNNARIYTIEGEKLDFSRLLRSQGGVNNASIFFNTPLIKTALAS

SQLRIYNIHPYVLLSTQINYNPTFLSLTQQGDRENFIIANSINNHDDNLVYLNEIFNQSIDYNWIAYATS

IGVDYFYTEFLNKKSESLFDEKIKNSQVDYKVRLMQGKQASFEELK

>AHK55483.1 family 4 uracil-DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIRSLYYLKAMGFNFVDTHTNHFEQVQNFQELKQLVSSCTLCQFSKTRKFSLMEPKIKNAKLLILDVFGQ

KSENESGILLNSKKGEKLKHYIYQILGLCDEDFYFSYLFKCFCNGKFDDFSLQSCLPFFWNELKLIQPAF

LLCLGEYTFKSLGFKDYHILKGEVFAYKNFFIMPSYDLDFIEKNPSYEKNFIQDLKKIKGFL

>AHK55482.1 diadenosine tetraphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSEFKIIDLRQEDLDILQEMIIEFAKYEDMLDFLQCTKEKLEHSLLKNKFARAFLLKENEKTIGYMIYFY

TFSSFWGSGGIYLEDIYIREDFRKKGYGKAVFKFLGEICKKENLKRLDWVCLNDNILGINFYESLNAKHL

KQWRNYRLSGENLEKLCDL

>AHK55481.1 50S ribosomal protein L34 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKRTYQPHGTPRKRTHGFRVRMKTKNGRKVINARRAKGRKRLAV

>AHK55480.1 ribonuclease P [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNFDKFSTNEEFSSVYKVGKKWHCEGVIIFYLNSYEKKIAVVASKKVGKAVVRNRSKRILRALFAKFER

YLQDGKYIFVAKNEITELSFSRLEKNLKWGLKKLECFK

>AHK55479.1 membrane protein insertion efficiency factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGIEKTRMFQMICLKILRFYQKFLSPLKPAACRYYPSCSEYALWQFQKKNFFLAFFSTFFRILRCNPFFK

GGFDYPRVSKNFYPINLCFKPIFLAEKQLCFLYIPYKNKSFYLIKIIFKRTNQ

>AHK55478.1 insertase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNNSNNIFQQKRILLAVVISFLFFVIYDYFFIPKQPLKIEQNITQKNQQNTSINNTPNIQNATTNTPSAA

LVSQDSVISKVQSKHFEAQIDSFGRISAFYLKDRKYQNEKGEFINLVSKENSPYPLEMRFSDPSINSEAF

KIPYVANASNLFVDENGSQVLKLTQNLSGLKIEKDITFYPKGNYEIEVKLSKNANYFISPGYRPNIAVDS

YTVHGALVMDNKETIETYKDGDVEKDESANNVVMTSAFDRYYATFFYNFDKPLNVAISKDANQNPIVFAY

SDNEFKAGGYIGSKEHVILRSIDPRLEAVVEYGWFTFIAKPMFEFLNFLHQYIGNWGWAIVVMTLIVRII

LFPLTYKSMISMNKLKDLAPKMKDIRERYKGDPQKMNMHMMELYKKHGANPMSGCLPILLQIPIFFAIYR

VLLNAIELKAAPWAFWIHDLSVMDPYFILPILMGATMFLQQLITPMTIQDPMQAKIMKFLPVIFTFFFIT

FPAGLTLYWFVNNLCSLVQQWVINKIFAKEHHKKTSGA

>AHK55477.1 hypothetical protein N917\_04780 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIEAIDLQSALTEASRSLECSVMDLEYEIIQHPRKGFFGFGRKKAIIEAKAKKRILKKNPKKEFTSSKN

HKPETHEPKQENKIEIKNEKNKSQKEKYTVKSDEIFDSFHRESKGVRNTQDILDEIRIQLVKLLESSQFK

IELSELRMYDEDCVLIRLDGEDAALMIGKEAHRYKAISYLLHNWINLKYNLLVRLEIAQFLENQIQGMQL

YLQSVIEKIKIHGRGQTKPLDGVLIKIALEQLRAEFPDKYVGIKQNNDQRFVVINDFFKKDE

>AHK55476.1 tRNA modification GTPase TrmE [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSDTIAAIATAHGVGSISIVRLSGERALEFALKLSHKTKLTPRHATFTKLFNQNNEIIDEAIMIYFKAPY

SFTGEDIVEFQTHGGFSVSEVLLEELVSLGARLALAGEFSKRACLNGKMTPLKALNIQDLILSKSALAAK

IIARNMQGNLGELLEKIRTDLVKTLAFVETSIDYADDDLPSDLLEQISTMCEENSKILKEIYTLSQSKKG

LIEGFKIAIVGKPNVGKSSLLNALLSYERAIVSDIAGTTRDTIEENFKLGTHLLRIIDTAGIRESKDVIE

QIGVALSKKSLEDADIILAVFDASRVQDKEDEKIFDLLANTDKKIFWILNKSDLENVFKNTQNKNFIKLS

AQKDITLLKEELQNYLNSFDSEGIMVSSLDLINACKISSEAIFRAKGLLEESSLEFFAFELNLAINELAR

FTKDFQRDEILDEMFGNFCLGK

>AHK55475.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDKETIKAHKISDEEYAQILEILGREPNLLELGVISAMWSEHCSYKSSKKYLNGFPTKAPWVIQGPGENA

GVIDIGQGMAAVFKVESHNHPSFIEPFAGAATGVGGILRDVFTMGARVVAGLNSLKFGDIHDEKCGKHQK

YLVKGVVNGISHYGNCMGVPTIGGECAFDECFNGNILVNAFALGVCKSEDIFYAKAEGVGNPVIYVGSKT

GRDGLGGAVMASDSFNEESKSLRPTVQIGDPFSEKLLMEACLELFKTDYIVGIQDMGAAGLTSSSFEMAG

RSGSGMKLYLDKTPMRESGMTPYELMLSESQERMLICAKKGYEDKVIEIFKKWDLDAVVMGEVTNTGKME

LFWHDELVGLIPIEPLSEKAPILSRPTSEPKYLSEIKNYKFELKSSVQELFIQMLQNENINNKAFIYDQF

DSSVQTNTIKADGRLGASVIRIKENGASVAMAIECNSRLNYVNSKIGAALAVASAGRKVACTGAKPLAIS

DCLNYGNPQNPEVMWQFAQGCEGIKEACKELNTPVVSGNVSLYNETEGVSIYPSPTIVSVGVLEDANKTL

KASFEKENLSVYLLGESLGEFSGSMVMKIQDKKVSGSLKELDYKAELALWDLLYKANQNSLLECANSVGI

GGIAMTLAKMFAISSVGANLTSDFDDEKMIFDESASRAIIGLSKENEEAFLNLAKEFGVKAYKLGVSTSQ

KHFKLDSIELSKAELDKLYFESFKEQIQ

>AHK55474.1 molecular chaperone DnaJ [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTLVLIILVVLVFYWYYKTWGKQDFLNSATRGAKGFAKGFARGVMEERMDEFKRRMNYYVIALLAKIAKS

DGRVSENEAEMIKDLLDANAKDEKERAFLKASFNEHKENLSDAFYVAKDFLKEVPLPKNERFNVLRVLVF

MALIDADFNAKKREILEQIAKAFDIAKSELDAFIASLSNLKSTKKELSLDEAFAILELPNNADLNAVKKQ

YRNLAKKYHPDILNANNVSEEELKIGVEKFQKINEAYEKVKKHLER

>AHK55473.1 phosphoribosylaminoimidazolecarboxamide formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRALLSVSDKEGIVEFGKELENLGFEILSTGGTFKLLKENGIKVIEVSDFTKSPELFEGRVKTLHPKIHG

GILHKRSDENHIKQAKENEILGIDLVCVNLYPFKKTTIMSDDFDEIIENIDIGGPAMIRSAAKNYKDVMV

LCDPLDYEKVIETLKKGQNDENFRLNLMIKAYEHTANYDAYIANYMNERFNGGFGASKFIVGQKVFDTKY

GENPHQKGALYEFDAFFSANFKALKGEASFNNLTDINAALNLASSFDKAPAIAIVKHGNPCGFAIKENLV

QSYIHALKCDSVSAYGGVVAINGTLDEALANKINEIYVEVIIAANVDEKALAVFEGKKRIKIFTQESPFL

IRSFDKYDFKHIDGGFVYQNSDEVGEDELKNAKLMSQREASKEELKDLEIAMKIAAFTKSNNVVYVKNGA

MVAIGMGMTSRIDAAKAAIAKAKEMGLDLQGCVLASEAFFPFRDSIDEASKVGVKAIVEPGGSIRDDEVV

KAADEYGMALYFTGVRHFLH

>AHK55472.1 hypothetical protein N917\_04745 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKMLQIALAATFFAGCASTSLTSSTSKGNNELVQNQLFKIEKIIVNGKTFDPKNAEESPNISFENNKFY

GYSGCNRFFGSYQTKADTLQIEGDRVASTQMLCHPMDVMDFENSFLSNFKGTFKISNENGKLVLSNDEMK

IFFK

>AHK55471.1 agmatine deiminase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKSIPEWSEQEYLMLSLPHEKSDWNPYLEEILQSYKEFVKVVSEFQKVLLIAPKQSDFENFKDIKNVEF

FKCDTNDTWIRDFGAIDIVENGRLKALDFTFNAWGNKFQSELDNAVNSKLFKEKFKEELKKVDFILEGGS

IDFNGEGVMLTSSHCLLNENRNSHLNKTQIDTKLKEIFGLKQIIWLENGFIKGDDTDHHIDTLARFIDKN

TIAHCICEDEEDEHYLPLQKMKEELKKTGFDLLELPIPKPLYYEERRLGATYANFVFINNALIVPFYKDK

NDEIIAKRLSKALPNHKIIGVDARVFLRQNGSLHCSCQNRFKGLR

>AHK55470.1 cation transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSLQKKATLVASLCAIVLALVKFIVGLTSGSVAVLSSAIDSLMDFAISAFNFLALKKSSQKANENYNFGF

SKIEALMGLLEGVFIVGVGIFIFYESILKIYYKEEIKDLNSSIYVMIFALIMTFFLVLFLNYVAKKTKSL

IIESDALHYKTDCLTNACTLGALVLIYFTNLHIIDAIFGIVISLYTAFSAFKIIKKALAFLMDEALPKEQ

VDKICTLISNNPEIISYHELKTRKTPSCNYLSVHLVFCPIISLLNAHKISDEIEEGVRKMFENEKWDIQI

HLDPYDDAEQERQRQ

>AHK55469.1 apolipoprotein acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIALIQQKFHLNKEQTIKKTCEFIEEASKQGAELVCLGELHQSEYFCQSENVDFFDYANDYEKDVKFWA

NIARKNQIVLIASLFEKRSAGLYHNTAVVFEKDGSIAGKYRKMHIPDDPCFYEKFYFTPGDLGFEPINTS

LGKLGVLICWDQWYPEAARIMALKGAEILIYPTAIGWFDKDKDEEKQRQLNAWLGVQKGHAIANGLYVVA

INRVGFEKDVSGVEEGIRFWGNSFVFGPQGEELCLLDSQNECVKIIEIDKKRSENVRRWWPFLRDRRIEY

FTDLTKRFID

>AHK55468.1 hypothetical protein N917\_04725 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKSCLYFTFIVLFLTACSTKNLTSLHRENLEQKNENQHYVKLEYEQNVNILPQFAYDINFDAKRYKKYFF

NPWHDSFKNYKGQNIFWSFPLYLNSKNTYYFFNKQIIPLSWFKNAINNANIQEFGKLNQKALIIQNTIIK

NLPTQRAILKNPFFENEGIPFDYASDGILNTGAPVLISHFSKDKRYAFVLGEAGFGFVESKNLEFFSNDR

AKIYENLNFITPLKEKFAIYSEDGKFLFESRIGAIYPYYKEDKNYFYGKIGSKKYKISKKDVSKFPLQFN

DKNLKNQLSQVLNLPYGWGGYNFERDCSLLTRDIFSAFGLYLPRNSAAQKNSFNHFDISTLSNSQKKDFL

NRFGKAYLSLLYLPGHIMLYAGQITDNNIAIHNIWGLRKDATQRLLISSSVITSLEIGKNEILEDNLLLS

RLKEISFINLNEQEKEQIKSYLENIQNK

>AHK55467.1 helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFDKLEKILAYDNVFLSGGAGVGKSFLTNELIKSYRKQKKLAIALGSSALSAFNIGGVTLHSFFCLGYCD

DMMKLSVLDRNQKQKEKLTKLKELLKTIELIIIDEISMVSANVFEMIGFRLKNSQFNGKILVVGDFFQLP

PVIKEKKETLFNHSYYAFSSFFWQDLNFKNIKLSQPKRTQNMEFYNHLSLIRQGFLDEKILSFFESLRID

YKELENLEDDYTLLCGINKKVNNINQEKLSKLETPLVCFKAQVKKEDKRIKDEELDSWIRSLNILEELNI

KIGARIIFCVNNWDKNYYNGEQGIIEDILYEEEKIYISIIKNNGMKILLEPYTFFMEELEQSGKDFVVNI

LASVTQFPIKLAYAITIHKSQGMSIEKLVCDIDHIFENGQLYVALSRATNPNTLKIYSTKKINFGFYFAN

ILKIDSNVIEFYKKHNFLDLEIQEQII

>AHK55466.1 hypothetical protein N917\_04715 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIFLSVFLVLSLNAQNLEIDKIRTDLYSKSGANVLKKVEISLEFDGNNLKENENKLIDAVNTVISGFF

YEDIFTEIGKNNFKKTLEKFLDKKYKIKLDDIYIISLSGVEKFDLEEFKRFLESTEAKEKGMGSEVKKAL

ENLEVPKTQVPSVEKIPTPSVPNLEVKQVEQLFKDPDEENKNDNGEINIDNLNTPKMTPDIEEKIKRDLI

ANPPQIFKENNASKPYHLPQTGYDIKLDENSTQN

>AHK55465.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKTFLIFFIFIGQLFALDLNFNTFSSNFTQIVKSKNSTLSYSGHFILSKDQAYWSYDTPSKKEIYINKN

QVTIVEHDLEQVIFSHLDNIPNLNEIFKKASLIDKDKLVAKYDNINYTIKLNQEQIQSISYKDEFENDVI

INLNNQIKNPKINSDVFKAKIPQNYDIVR

>AHK55464.1 preprotein translocase subunit SecA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFLNALKAVFGTKNDREVKKYFKRVAQINALEGNYQNLSDDELKAEFAKFKEQILSGEKNENDVLNDVFA

IVRETGKRTLNMRHFDVQLIGGMVLHDGKIAEMKTGEGKTLVATLPVVLNAMSGKGVHVVTVNDYLAKRD

AEQMSAIYNFLGFSVGVVLSSQNSDIEHKQAYDCDITYGTNNEFGFDYLRDNMKFSKAEKVQREHNFVIV

DEVDSILIDEARTPLIISGPTNRTLDGYIKANEVAKQMQKGEAVLPPAKPEGDFVVDEKNRNILITEAGI

AKAEKLFGVENLYSLDNAILAHQLDQALKAHNLFEKDVHYVLRNNEVIIVDEFTGRLSEGRRFSEGLHQA

LEAKENVKIQEESQTLADITFQNYFRMYNKLAGMTGTAQTEATEFSQIYSLDVISIPTNIPIKRQDKDDL

IYKTQNEKFKAVIEEIKKANAKGQPVLVGTASIERSEVFHNMLVKEKIPHHVLNAKNHEQEALIIQDAGK

KGAVTIATNMAGRGVDIKIDDEIRALGGLYIIGTERHESRRIDNQLRGRAGRQGDPGISRFYLSLEDNLL

RIFGGDRIKSIMDRLGIEEGESIESRIVTRAVENAQKKVESLHFESRKHLLEYDDVANEQRKTIYRYRNE

LLDENYDIRAKISQNIAEYSANVMNDYMLDESGSNVNFENLKAKILYECSTQISEKDFENLSVIEMQDKL

SQILENSYNEKMLRLEIKELRNIERILYLQVLDNAWREHLYQMDILKTGIGLRGYNQKDPLVEYKKESYN

LFLELVNRIKFDSIKLLFSVQFNQEEAQNLENKANEENEKLLQSSVEMGASEDNLGEAEFKKVPRNAPCP

CGSGKKFKECHGKSGPKQGILA

>AHK55463.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKSVLKYLLFKYLRFDKEQPFINLSMLLAFLGVCVGLCVLLVAMAIMNGFDKEFEKRFFVMNYPITILP

KFYAPVNDEFIDELRKTFPNLLFSPYLSTQVVVKGDNRFEGGVLFGVNFNDEKKINEVVAKALKDENLSG

FDILVGSALTDEFGLHKNDKLSLIFSNLNPSGFSLVPQTKRFDVKARFTSGLAFYDKAYMYTDVDALKKV

LGIPKNPNYDGIHVYSDNAFKDVEKIKSYLKDDYAVVGWWEQNKNFFSALELEKRALFIVLMLIILVASL

NIVSSLLMIVMNRRSEIALLLALGASKNEVKKSFFALGMLIGGGGMIVGVVLAFFALWLLGNFDIVTLPV

DVYGTSKLPLDLSLMDFSLTIVGALIIIALSSFYPAKKATQINILDTLRNE

>AHK55462.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSLFTQKNKNFKPLKPLSKSKIITNLILLILFLILFCYCSFSISAYHFDFSAIATYKEKFLQGFLNTLII

SFFSLLLSIILGGVFCAFSLSSIVFLRFLSTFYIELVRGTPLLVQVLLIYYIIANNLGLDNRYVAGVIIL

SCFSAAYLAEIFRAGILSISISQLESARALGLKEMQVFAYVIFPQALKNILAPLSGQFANLIKDSSLLSV

IAVNELTQSAQEINSYTFATLEAYVILAITYLVLTLPISIFSRYLERKCQK

>AHK55461.1 hypothetical protein N917\_04655 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLIIGHKLLKNLDFSFIESVEEVKDNKVYCIVYDEKLISYLSQNDFEFAILVQNKDEIFLANALGAKFLL

CNDKKLAKFASKVAEFYVFDSRVLMIVDKLENFKKFYKLKIDGIILKDNIDNFPKN

>AHK55460.1 2-acyl-glycerophospho-ethanolamine acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKKSFLKIYGLIPFLLIAFINAFVDLGHKIIIQNTIYKAYEGSEQLFLNAIVNALILLPFILMLSPSGF

LADKYPKNIVMKISAIFNVILTLIICICYYSGAFWMAFIFTFIMGAQAAIYSPSKYGFIKELVGKDFLAM

GNGVINAVSIVAILAGMALFSLSFESLYSSMYNQTDEILKEVAPLGIVLILFSCIEVFFAWRLPKLKQTN

KDLVFNKKDYIRGKLLINNLKLVFKNKTIWLCIIGISFFWAISQLYLVSFPVFAKNELFIENTFYVQISL

AFSGIGVILGSLVAGKFSKNYIELGFIPLGALGMFLMAFLMPYFISLLSYSFLFFFFGFCGALFIIPLNT

LIQFHAKENELGQILAGNNFFQNIAMLGFLLLATLFVKFEINVIYLFYFIALVTFIGSFYILLKLPFSLV

RILLSIAFLQRYRLLVEGFENIPEKGGALLLGNHISFIDWAVVQMAIPRKIYFVMERSIYSKWYIKIFLD

KFGIIPVSSTGSKTSLELIAKHIKEGNLVCLFPEGTLSRHGQLNEFKAGFELACECLSEDDGKIIPFYIR

GLWGSAFSRSDEEFSARNRTLNKRKIAIAFGKAMPLHSKKDEVKAKVFELSFMAWKSQCEAMHTIARAWI

DTAKKNLNQIAIIDTLAGDISYRKMLTLSLFLNFFIKRKSKELNINLQRGSYAPKEEAIGILLPASFASS

LTNLSVLIAEKIAVNLNFTAGEKALKAAIKNAQISQIYTSKTFLEKLANKGINLNFDTNIHLIYFEDIVE

DFKMQKTKIFSMMLAVSIIPSFILKSIFTPSKNNLAIAAILFSSGSEGSPKGVMLNNRNILSNIAQISDV

LCTRNNDVILSSLPPFHAFGLTVTTFLPLLEGIKSITFSDPTDALGVAKAVAKNNVTIMCGTSTFLGIYA

RNKKLDALMFESLRIVVSGAEKLKNEVRTTFEMKFKKSIFEGYGATETTPVASVNLPNHFDVDYWLIHRA

NKEGSVGMPLPGTAVRIVDPNNYENLKTNEDGLILIGGHQVMVGYLNDKEKTDEVVKEIDGIRWYNTGDK

GHLDEDGFLYIVDRYSRFAKIGGEMISLGAIEEEIAKFIDTEVVKFCATSLEDEKKEEQIVLLIECNNEI

FEGVCEAIKNSNIPTLFKPRYYFQIEKIPLLGSGKVDLKKVKELAKNLAI

>AHK55459.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFVFIPLFTIFILLAGGYFAKRIGVLKQKQARTFLDFAIIFALPCLIFDKAYHLNFDFSLIIFIFIGLFS

CILAAFFAILIGKVFHFSKVTLVSMFLLSCFGNTIFVGMPIVAGIFNDPQFSAEVIFYDALATTLPISLF

GPFILSLGNGEKVSLLANVKKILSFPPFLALLFGFLCKLITLPEFIFSPIRLFGASATPVALFAIGLGLG

FMAIKTSYKPTIVVIFAKMILAPLFFVFCLKIFNLELKDSTIVAIIESAAPTMTLAGAMVMKAKLDSNLA

VSAVAFGVLFAFVSMPILIWTLL

>AHK55458.1 F0F1 ATP synthase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKVLFLLLACTAVAFAAETNAPVEQEAINVWIKAFSVLAAGLGLGVAALGGAIGMGNTAAATIAGTARN

PGLGPKLMTTMFIALAMIEAQVIYALVIALIALYANPFIVLQ

>AHK55457.1 biotin attachment protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKKFIDVMDTSFRDGFQSVYGARVLMDDFFPAVEAAKEAGITHFEFGGGARFQSLYFYLNEDAFTMMDR

FRAIVGKDANLQTLARGVNTVTLDTGSSELIDLHAKLFAKHGTTTIRNFDALNDINNLKFSGECIAKHGL

KHEIAITLMDLPPNCKGAHDVPFYEKILKEILAAEIPFHSICFKDASGTSNPNKIYETIKMARKILPQDM

HIRLHTHETAGVSIACYLAALEAGVDGIDLAAAPVSGGTSQPDILTMMHALKGKDYDLGGLEEEKILKYE

EVLKDCLKEYFLPPEATMVNPLIPFSPMPGGALTANTQMMRDNNILDKFPQVIHAMREVVEKGGFGTSVT

PVSQFYFQQAFNNVMFGSWKKIAEGYGKMVLGYFGKTPVAPDANIIELASKQLNLEPTTELAINIADKDE

SKSIAYTKTLLEKEGIETSEENIFVAAACKEKGIAFLKGEAKVNIRKLASMPKPMSADENKFTVAVNGNK

YHVEVSYGFDKDVNVKSVKKVEENKNIISSNSTSSVDAENEVLAGISGNVFKIYVNEGEEVKSGQAIMVL

EAMKMEIEVNAPKDGIILELCIKIGDTVNEGEVLAIYKN

>AHK55456.1 phosphoenolpyruvate carboxykinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKFDKLGLDNIKEIFHNLSYDELNAHEKANNEGLSTDNDTFCVDTGIFTGRSPKDKYFVKQDPSSKYIA

WGKVNQPITKELFDKLLTKAKQELSGKKIYVQDVFCGASLQSRKAVRFVTEIAWQAHFVKNMFIRPSQEE

LENFKADFIVYNACKCINEDYKQDGLNSEVFVIFNVEENIAVIGGTWYGGEMKKGIFSMMNYWLPLENKL

SMHCSANVGEKDDVALFFGLSGTGKTTLSTDPKRRLIGDDEHGWDDEGVFNFEGGCYAKTINLDPEHEPE

IYGAIKRNALLENVVLRADKSVDYADASKTENTRVSYPIEHIENHEPSLKAGHPKNIIFLSADAFGILPP

VSKLSKEQAMYYFLSGYTAKVAGTERGITEPQATFSACFGEPFMPLHPTVYARLLGEKIEKHEVNVYLVN

TGWSGGSYGVGKRMSIKATRACINAILDGSITKCEFENFEVFDLAIPKALEGVESVLLNPINTWLDKNAY

IATRDKLAHMFIQNFKRYEDVKEGIEFSKFGPKI

>AHK55455.1 argininosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNEMWSGRFSGASDELLKEFNASLNVDKTLFNEDIQGSIAHATMLESCGILKKEELDAIIKGLEQVRSE

IEQGKFIFDIKDEDIHMAVEKRLSEIIGSEIGGRLHTARSRNDQVATDFKLFVKKSHIELIKLLKELIQT

MLEHAKVHKKTIMPSFTHLQHAQPVSFSFYILAYAFMLMRDIKRLQNSLELADFSPLGSCACAGTSYAIN

RELSAKILGFKDIMPNAMDGVSDRDFALDLLYDIAVIFTHTSRLCEEMILFSSSEFSFITISDSFSTGSS

IMPQKKNPDVCELIRGKTGRVYGNLISLLTIMKALPLAYNKDMQEDKEGIFDSVKTAKDSLIILNAMLKE

IQINKENMLNACKKGHLLATDLADYLVREKNIPFRKAHFIVGNVVAQAEAQGIDISEIKDLSKIDPVFDE

KAMELLNFEFSLNSKQSEGSSSIASVEKQIQILEGFIQNL

>AHK55454.1 GTP-binding protein YchF [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSLSVGIVGLPNVGKSTTFNALTKAQNAQSANYPFCTIEPNKAMVEVPDLRLNELAKIVKPERIMHSLIE

FVDIAGLVKGASKGEGLGNKFLSNIRETEVILHIVRCFDEENITHVEGGVDPLRDVEIINTELILADIEQ

LSKKIEKLTKEAKANQKGAKESLELANSLLDHLNKGLAASSYPEKESEIYQALIKELRLLSAKEVIYGAN

VDENGISEDNDYVKALKEYAKKNDHEVIKLCAKIEEELVGLSDEESHEFLSSLGVNESGLDQIIRTAFAK

LGLISYFTAGVVEVRSWTIKKGWKAPKAASVIHNDFEKGFIKAEVISYEDYIQYKGENGAKEAGKLRLEG

KDYIVLDGDVMHFKFNV

>AHK55453.1 aminopeptidase A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFELNDKKLDAIKADFELVFIQDKNLKIFNKEKDFFKLNNYKGEGALLDLNNKKLYLELKSLAYEDIRL

SLCTAYKTLEKLNIKSVKLPSIIGDCVVRSFASLVEGVLFGAYKFDKYKSEKKTSTLEKFIISNEELNGK

KFNKDEAKIGLERGEILANATNFTKNIVNEIPEIYTPLKMAEDAQNLAKENKNIICKIYDEKFLAKEKMN

AFLAVNHASVHPPRLIHLSYKAKNAKKRVVFVGKGLTYDSGGLSLKPADFMLTMKADKSGAAAAMGIIKA

VAELALDLEVHCILGATENMIGGNAYKPDDVLISREGVSIEVRNTDAEGRLVLADCLSFAQDLKPDLLID

MATLTGACVVGLGEFTSAIMGNNEELQNDFYLSSKKSGEYTTILHFNPHLRELIKSNIADVSNTASSRYG

GAITAGLFLDKFIRKEYKDKWLHLDIAGPAYTEKSWGYSSFGAGGAGVRMCVNYLIQILRKAK

>AHK55452.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEEFLKNLLYQYKDLAYIIIFLWCILEGELALILAGIFAHQGHVNLGFVIFIAGLGGFVGDQIYFYIGRY

NKCYIQKKLKTQRRKFAVAHLLLQRFGWPIIFIQRYMYGFRTIIPMSIGITRYSAKKFAIINLFSAWVWA

SITILLAWYFGEQIWKMVTWAEEHWYYAAIIIIAFLSLLLFGFKQMEKAILKDKRKKS

>AHK55451.1 adenine phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKLTQEEQKYLLDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFI

FASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKVELHKDAFKNIQNARVLLVDDLIATGGTAIA

SYELIQKAGAKCVEACFLINLKDLNGANKLEKLTSVYSVLEI

>AHK55450.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFTNWLVLTILICATIYLIVMLFYYKTLLNKEKTSKDFIKNNLDDTEIVIRKLQIQLQRSLGNIDILTEE

LNKIKADLTSLRTRNSQYRLENDKLRQRIKELEAKIEALL

>AHK55449.1 ribose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLREKIYIASDHAGFELKEKICVFLKEKNIIFNDLGTNTCASCDYPDYAHLLAEKINKRSFGILICGSGI

GISIAANRHKNIRCALCHESLSAELARRHNDANVLALGGRLIGVELAIDIIEKFIQTPFEEGRHMQRIQK

IEVKI

>AHK55448.1 chemotaxis protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLILIGSSTGGPNQLKFLLKDIDVKNTCVVIAQHMSASFIPSFVGQFNKEAFSEVCLLNDKEILSNKIY

ICPKNTILSGNLNIVAAWQDVASSFKPSVDLLFHSAVSLAKTNKILAIILTGMGDDGAKGLFELYKTGVR

CLCENEADSVVYGMPKRAKDMNPHLKPMSLKEIKKEIVNFIDQD

>AHK55447.1 chemotaxis protein CheR [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKKITPSELELNEFIKIINEMSGIDLTDKKNILALKLNKFLEGTNTKNFSEFLGKLKSNRQLKQETLDF

VTIGETYFLRELAQLKEIIYYAKSLEKRVNILSAPCSSGEEVYSLALLAAQNFIKDMYILGVDINSSVIE

KAKLGKYQGRTLQRLSESEKRRFFLESEDKFYTINKNELCTCKFELCNVFEEKFSRLGKFDIIASRNMII

YFDHESKLKLMERFHRILNDKGRLYVGNADLIPETIYFKKIFSPRGVYYEKV

>AHK55446.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIELKNVNKYYGTHHVLKNINLSVKEGEKLVIIGPSGSGKSTTIRCMNGLEEVSSGEVVVNNLVLNHKNK

IEICRKYCAMVFQHFNLYPHMTVLQNLTLAPMKLQKKSKKEAEETAFKYLKVVGLLDKANVYPATLSGGQ

QQRVAIARSLCTKKPYILFDEPTSALDPETIQEVLDVMKEISHQSNTTMVVVTHEMGFAKEVADRIIFME

DGAIVEENIPSEFFSNPKTERARLFLGKILKN

>AHK55445.1 amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVFRKSLLKLAVFALGACVAFSNANAAEGKLESIKSKGQLIVGVKNDVPHYALLDQATGEIKGFEVDVAK

LLAKSILGDDKKIKLVAVNAKTRGPLLDNGSVDAVIATFTITPERKRIYNFSEPYYQDAIGLLVLKEKKY

KSLADMKGANIGVAQAATTKKAIGEAAKKIGIDVKFSEFPDYPSIKAALDAKRVDAFSVDKSILLGYVDD

KSEILPDSFEPQSYGIVTKKDDPAFAKYVDDFVKEHKNEIDALAKKWGL

>AHK55444.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNESVGFVEHLRQILTSWGLYDENSISPFAVWKFLDALDNKDAFINGFIYTLEVSILALLIATIFGTIGG

VMATSRFKIIRAYTRIYVELFQNVPLVIQIFFLFYALPVLGIRLDIFTIGVLGVGAYHGAYVSEVVRSGI

LAVPRGQFEASASQGFTYIQQMRYIIVPQTIRIILPPMTNQMVNLIKNTSVLLIVGGAELMHSADSYAAD

YGNYAPAYIFAAVLYFIICYPLAYFAKAYENKLKKAHLTR

>AHK55443.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENVFNAQNIEFLMQGLFLTLKIALATCIISIVFGTFLAITKNYGDRLSKFLAACYIDIFRNTPLLLWML

AACFVLPVFFGQFPQAFWGTIGFSLYTSSVMAEIIRGGLNSIPKGQFEAAYSQGFGKFFTLFYIILPQTF

RKIIPALLSQIVTTVKDTAYLAGLGIAELTYNSKTILAKLTSFEEILAMIGVVAGIYFIICFSLSMLVRY

YAKKTAYIS

>AHK55442.1 ribose-phosphate pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRGYKIFSGSANVEFARQVSKYLSLPLSDAGVKRFSDGEISVQIDESVRGKDVFIIQSTCAPTNDNLMEL

LILTDALRRSSANSITAIIPYFGYARQDRKANPRVPITAKLVANLIQAAGIDRVATIDLHAGQIQGFFDI

PVDNLYGSIVFNDYIKAKHFKNAIIGSPDIGGVARARSVAKHLGLDIVIVDKRREKANESEVMNIIGDVK

DKEVILVDDIIDTAGTIVKAAEALKEKGAKSVMACCTHAVLSGKAYERIASGVLDELVVTDTIPLKEQLP

NIKVLSVTPVFAEVIRRVYHNESVNSLFI

>AHK55441.1 carbon starvation protein CstA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTQLSTKILWLFVAALGAICFGYLALQNGESVSAIYLVVAAVCIYMIGYRFYGSFVAYKVLELDKNRATP

ALVENDGRDFVPTNKAVLFGHHFAAIAGAGPLVGPILAAQMGYLPSMLWILVGGVLAGAVHDFVVLFIST

RRKGRSLGEMIKDEMGKFTGGVAMVAIFGIMLIIIAILAMVVVKALAESPWGLFTIAMTIPIAIFMGIYM

RFIRPGRVGEASIIGFVLLILAIHYGSVIAADPYWAKIFTLEAPTLAIVMMAYGFIASVLPVWFLLAPRD

YLSTFLKIGVIVVMAVAIVLVAPDLQMPKANTQYFDGTGPVFAGGVFPFLFITIACGAISGFHALISSGT

TPKMLENETHTLAVGYGSMLAESAVAIMALICACILHPGLYFAINSSSALIGTDVVNVAQTISSWGFSIT

PEEITTLTTNIGEYTILSRTGGAPTFAIGVALILHELFGGVDLMAFWYHFAILFEALFILTAVDAGTRAC

RFMVQDILGNVYKPLGDIHNYPAGLLATALSVAGWGYFLYQGAIDPKGGIYTLWPLFGVSNQMLAGMALL

LATTILVKMGKARYTWVTLVPAVFVLVATLYGGIQKIMPYEEGNKIANAVSHVAAVSIQSQKIKDLEFKL

NNTKDEKEISTIRKEISIATQNKVGNLLNAILCVFFMIATLLVIISCIGICLGKIKIPLKETKYIKIDEF

QKI

>AHK55440.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRDMGEPKLKIVAMPSDTNPAGNIFGGWILSQIDLAGAIAARELSPERVVTISMDKVVFKEPVFIGDIIS

CYSKVVNVGNTSISVEVEVTAQRVDSQGCTSCINVTSALVTYVSVTRDGKKNPISEELKRIHGFLNA

>AHK55439.1 CiaB protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNNFKEIAKLVRKYKERNNALYEFLDKEDVGEYFRSLISLSELKQDKTTMLAILRRLIDLKEENLVQEWK

KNNFKEDKIIELKHKFYEEVRKFYEKEHQNLINEIKEKKLLNNFYQSLIQGVHNIGLIMNIFEISWTKEI

IEKNNKILSTQFPNLDDAMEFLRKNHLYQKTPEGEICERSYGVLVRIGNLWKFVPYARFFENEILKLEFA

FENMIDQLKIFASSEEEKAYIEYFEKLKLAFCEKDEDRVIKAWQEAEFAWMKVKSPLQVGHPLEYYEDNY

THAVALEWDIRIEDENDFDVLKFGNEIKESFEHVYKNIGLEDCELEKEVLSNIEKTQLYICTPMIFYGAE

LKGLFSAQVVPNDEFVSSKAGKKIFAFINFVYENAKTKPFMKISSEVFDKEFLDFGRNILFYQEKIWKRV

YEVSTIGHEFGHIFFIANDTEKTMNQSGFFKNIEEYKATTGGLINFFYHEQDDLIMPVFHELIKRAIGLI

SWQRVDEVRPYYTEGLIHLSLLFESEVLIFENNNLKINFDLGYYEKFKELTLKNYHELAKHYALRLDAKE

FLSRFCEIEDNIFLPIMPKCKEFVKFYYDLYEKIGNEIDNSGEFERYKKK

>AHK55438.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKADFISLVAQTAGLTKKDATTATDAVISTITDVLAKGDSISFIGFGTFSTQERAAREARVPSTGKTIK

VPATRVAKFKVGKNLKEAVAKASGKKKK

>AHK55437.1 cysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVHEKVSELIGNTPIIHLKKFGINVFAKCEFLNPSHSIKDRAAFEMIKDALDSKKINQDTTIVEATSGN

TGISLAMICADLGLKFIAVMPESMSLERRKMITLFGARLELTPANLGMKGAVDKANEILLNTPNSFMVSQ

FENISNKNAHRKNTALEILRDLDNELDIFVAGFGTGGTISGVGEILKEKLEKVHIVGVEPLNSPLLSKGE

AGSHKIQGIGANFIPAILNKEVIDEVITVSNEDAINTAKELAKSGLMVGISSGANVFAASMLAKKFPDKR

ILTMLNDTAERYLSTDLFA

>AHK55436.1 hypothetical protein N917\_04510 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKNIILFIVIVAIILGVIFFIKNHQNSYDFILKSDLKEETTLKDFKGDKLIIYFGYTYCPDVCPATLSL

VGKALKQINNPKAHLLFISLDPNRDNNLSNTNEWLRYFYPKADALIAKDEKTLQKITKQYNVQYQKIDLN

DSFMGYSIAHSNMLYLIDEKGHFYKEINDLNPQEILRELRIFLNSQ

>AHK55435.1 hypothetical protein N917\_04505 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRKIIFILAFAFVIAILYIIFDFYVIKDSQKITKTDFSTPLTCDLNVKDCTYSFNNKKVLISLNPKPLQS

LDVTNLKIVNLGNYNNLGIKIYGLNMYMGEIKPKIHRLNSTDYESKIVLAACVLDTMRFRVEFMDNNKPI

GFYFDFELKK

>AHK55434.1 hypothetical protein N917\_04495 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIRNFFIGMSFLGILFLAFYTLYDKKKESIFSLNTCQPLTCDLNLQDCVFSFNKKNIEVSAYPKPIKIFN

KTTIKIKNFPHYSNLKIKIYSLNSYIGDIIPKFNIVNGDILINFIGRSITDDSRFRVEFLNNNAPTGFFF

DFDVTMQKNFQTGNTH

>AHK55433.1 hypothetical protein N917\_04490 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKRLALLIALSSLMLHASDLVKIYLNQGLDAVGVAIEKELTQKDFWLSEIGDKNISLGYYDDNVAIVLT

NKTDKILRVYSYEDGKIRKDFEQKEIITGLMGDKKIEGDLKTPVGFYELGRKFNPGDPYYGPFAFATTYP

NLLDKVQGKTGGGIWIHGYPLDGSRLDEFKTRGCIALFNNNLEKFAKVVQDKKVFVMTEEKEKIRAKKDQ

IASLLADLFTWKLAWTNSDTNAYLSFYDEQEFKRFDKMKFEQFASMKKSIFSRKEDKKIKFSDINISPYP

NLENETMYRISFYEDYYTKNYRFRGDKILYVKIDSKGKMKILAEQ

>AHK55432.1 alanine racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSLIKIDQKAYEYNLRHIAKKIGSFQRLICVFKDNAYGHGAKLLAPLAKNLGVSFVAVKSEEEAREIEEF

FENILILSHRPHGNENSRFIYALNDISQVKNYKQDIKIHLKIDTGMHRNGICVENLEHAINLIQGSDLKL

TGMFTHFASADEMDGSFFVQKENFQKAKKIVKKYFSNLLFHSYNSAALFRGKIPEDEYCRVGLVQFGYGD

SNLKRVLSLYAHRLSQRILQKGQSIGYGGIFTAAKDMEVATYDLGYADGLFRYNGRGELVLGNGKAMLGK

MSMDSFSCENSGEEICVFKDADIWADFFHTINYEILVKLNPNIQRVLV

>AHK55431.1 RNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFNIVLVHPRIPQNTGSIGRMCFNAGFKLHIVKPIVFDISQKAVRRAGLDYWDKLEPIIWENLEEFLNEN

MIYKNRFFFATTKSQKAYFDAEFQKNDFLFFGSESYGLPMELMQLNWENAITIPMKSYGRSLNLATSVGI

ISYEALRQNFRNFAS

>AHK55430.1 amino acid carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLDIMLDFANKASDIIANKIVPNTDIIMVVLLIVCGLYYSFLTRFVQFRMLSSVFKILTEKNEGHAKEH

ISPFQALMISTASRVGIGNIAGISLALATGGAGALFWMWVMAFFGGASAFAESTLAQVYKSKDDTGGFKG

GPAYYIKKALGSHFFGAFFAFILIITYAYGFNGLQSQTMTSSFKVYYDMFNPNAAVDFASSSWPMIIGIV

LTIFGAWMFFSHHTKIGKISSLIVPFMALAYVLLAVIAVLMNFDKIPSVIHMILQSAFDFKAIFGGFAGS

ALVIGIKRGLFSNEAGMGSAPNAAAAALTSHPAKQGVIQAFSVLIDVVVCTSSGFLVLFSMAYLGLGENK

IDGGMPLVQEAMREYYGSFGIHFITIAIVLFAITSLIGNYYYAQANVKYLTNSKFVMNLFRITAVAMIFI

GSQMNLKLAWNLADLTMAFMATTNIISLLLLGGIVNKVLKDFNTQQKSGIDPKFNASKLGIKNAECWD

>AHK55429.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIEVKNLQKKYGELEVLKNINTTISKGDVIAIIGPSGGGKSTFLRCINRLELADSGEILINKQNILDKEI

DINKIRQKVSMVFQHFNLFANKNVMENLCLTPIKTGILSQEEAIKKAKLLLAKVGLADKENIMPHKLSGG

QKQRIAIARSLMMNPDVILFDEPTSALDPEMIGEVLSIMKDVAKEGLTMLVVTHEMGFARNVANRIFFMD

KGKIAVDASPKEVFENPSNERLREFLNKVLNH

>AHK55428.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNQKNIRIFVFFVIIILWGYFSFPIEILKIQDPSGVASYGYTENAKAYLKSYLITLLLTACAVIIGVIIG

FSLAILRFSKFKTLNFIIDEYIDIIRGTPVILQLMIFAFVIFTFIDNLYAAILALGLNSSAYIAEIVRSG

INSVDKGQMEAARAMGLDYKTSMKEIILPQATKNILPALANEFISLFKETSVVGFISVIDITMQSQSLQA

VLYNPKPIIFTGLVYYVSVKIFSYFAKKLELRMNKND

>AHK55427.1 4-methyl-5(B-hydroxyethyl)-thiazole monophosphate biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKKVLIPLAQGFEEAEFIGIADVLKRAKELNPDLEVVIASLNSELLVKGANSISIKADCSIEDVDIENL

DAIALAGGFEGMMNLKNSNVILNIIKQLHSKNKIVAAICASPIVLNEAGVLEGEFACYPSCEVGLNGNRV

NKAVVVNKNVITSAGPATAILFGLELAKKLCGDEIYQKLYEGMLLPLTK

>AHK55426.1 hypothetical protein N917\_04450 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQEKTIFELIVEGKLPCNKVLESDDFLAFHDIAPKAPIHILIIPKKYFKDFQEFDPELMAKMTSFIQELA

VLLGVDKSGYRLVTNCGKNSGQEVFHLHFHMLGGFELPKEKTKKENPQALF

>AHK55425.1 phenylalanyl-tRNA synthetase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNFIEQIQKCENLNDLEAIRISVLGKKGILTEGFTKLKELEDEAKKEFAAKLNAQKEIFNEAYLAKFKD

LENLALEERMKQDALNFNYFDESITTGALHPVMSTMDKIIEYFIALNFSIEKGPLIEDDFHNFEALNLPK

SHPARDMQDTFYFDDKRLLRTQTSPVQIRTMLAQKPPIRMIAPGAVFRRDFDITHTPMFHQVEGLVVEEG

QKVSFANLKSVLEDFLRYMFGDVKVRFRPSFFPFTEPSAEVDISCVFCKGKGCRVCKHTGWLEVLGCGIV

DPNVYNFVGYENVSGYAFGLGVERFAMLLHQIPDLRSLFEGDLRLLEQFR

>AHK55424.1 phenylalanyl-tRNA synthetase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIITKSWLNDWLELEEISSDKIAKTLNSIGIEVDRVGALKAPDKVVVGYVKEKIKHENSDKLSICQVDIG

SETLQIVCGAANVDAGQFVAVATKGAIMSNGMEIKEAKLRGVDSCGMLCSSLELGFEKINEGIMLLDESI

GKLELGRPLNTYEIFNDELIEVELTPNRGDCLSIYGIARDLAAALNLNLKEPKPFKESENVLGIGRILRL

AAEKELNGLYNYRAIGLKEEIQTNLLLSLRLAQIEGLGKNSIENLLNYATHSTGVLFNAYDLSSFSEKDE

EFTINLSKQVHGETKVSYKDKLLSFSGIFQNNESRCKDDSKIIIIEANYTDPLVIADAKIYHKDQDEKML

YRSFRGSEPKLNLGMDFLLGIFEQIPNLVIYSSSQQILTDKELPIIPISIEGISDIIGQNVDKDEVLKIL

KKLGFELILSGEGLINVKAPLHRPDIKNLSDICEEVVRIIGIDNIASKGLEFIEKNRLNSAYKNYIEFLN

LRKRAVASGYFESLHYVLDNGEELKRLGFDSVKLKLINPITAELNTLRTTLLNHLLNAASLNAKNSKKII

KLFELGAVFNVNNQELNRIAFIHSGLKEEAKISNKAKPESVQFYDFLLDIKNIIGDFKLKSSKYNILSPY

EQADIYLSDIKVGFIGRLHLKIENERDLPKTYICELDLDLIRQDFKIAKPYSKFPAITRDLSVLIPKGFE

YNQIKNCIEELNLEILENFRLVDIYSDENLKEFYSITISFSFRDINKTLEDNQVNECMDKILNTLKNLGL

DLR

>AHK55423.1 3-phosphoshikimate 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIYKLQTPVNAILENIAADKSISHRFAIFSLLTQEENKAQNYLLAQDTLNTLEIIKNLGAKIEQKDSCV

KIIPPKEILSPNCILDCGNSGTAMRLMIGFLAGISGFFVLSGDKYLNNRPMRRISKPLTQIGARIYGRNE

ANLAPLCIEGQKLKAFNFKSEISSAQVKTAMILSAFRADNVCTFSEISLSRNHSENMLKAMKAPIRVSND

GLSLEINPLKKPLKAQNIIIPNDPSSAFYFVLAAIILPKSQIILKNILLNPTRIEAYKILQKMGAKLEMT

ITQNDFETIGEIRVESSKLNGIEVKDNIAWLIDEAPALAIAFALAKGKSSLINAKELRVKESDRIAVMVE

NLKLCGVEARELDDGFEIEGGCELKSSKIKSYGDHRIAMSFAILGLLCGIEIDDSDCIKTSFPNFIEILS

NLGARIDY

>AHK55422.1 4-hydroxy-3-methylbut-2-enyl diphosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIIELAKNYGFCFGVKRAIKKAEQIKDAATIGPLIHNNEEISRLQKNFNVKTLENIQALSNEKKAIIRTH

GITKQDLEELRKKDIEIFDATCPFVTKPQQICEQMSKEGYEVVIFGDENHPEVKGVKSYVSTKAYVVLDK

KELQNIKLPNKIAVVSQTTKKPEHFMEIVNFLILKTKEVRVFNTICDATFKNQDAIKELSLKSDVMVVVG

GKNSANTKQLFLIAKTNCEDSYLIETEEELKKEWFLDKKHCGISAGASTPDWIIQKVIAKIENFRIN

>AHK55421.1 30S ribosomal protein S1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSEVNKKVQDGVDDYLEEEDFGQLLEAFDKSREEATTEGVIVEIKNDEVYVDIGKKSEGILALSEIQGDN

SKLLFNVGDSIKVAVMGSRGGRSLLSHKKALRKEKVIEFIKNYQENQDDIFTVKVVGKNKGGLIVVDEND

VEFFLPKSQYGFKETNNIIGKTFKVKIIKIDKDEQSIIVSRKKTLDDERRKRKELINNVAQQEDLIEGIV

KKITTYGMFVDVGGVDGLVHYSEISYKGPVNPGTLYKEGDKVPVKVIKYDKERKHLSLSIKAALPDPWSE

IKDTLDIGDTIKVIVSNIEPYGAFVDLGNDIEGFLHISEISWDKNIKNPKDYINKGQEIDVEVIEINPNE

RRLRVSLRNLLSRPFDEFMKSYKIADVVEGEITSVTSFGAFVKLGGIEGLLHNEDASWDRNDKCKDKFSQ

GDKIKVKIIKIDEENQKISLSTKELSSSPVQEYAKIHKVGDIVKGAIRDIKDFGVFVELSKNVDALIHKE

DISTSMLENLKIGDDIEAAIVFIDEKKNRIRLSVKNLVRIKEREVLNEINNDDKVTLGDIIKDQLA

>AHK55420.1 hypothetical protein N917\_04420 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKYITISILSILLLILLAVVFTLLWQFKANVNFIPQFAKDTNTQPSIQTQNQDLSWQEELAKWPTRDFT

PAAEKFTLYFDADTSELKEKNKYYQLIVGKYDIYSMFCLRQTLNSFNVKYFLLKSGHSPEIFLDTGNEKL

IDDIIKELKKYKINTEVKEIWL

>AHK55419.1 3-phosphoglycerate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKKIIVCDAILDKGVDILRKAEDIELIEAAKFPKDELMQMLSDIEVAITRSSTDVDVNFLNHAKKLKAL

VRAGVGVDNVDIPECSKRGVIVMNVPTANTIAAVELTMAHLLTSARSFVNAHNFLKIERKWEREKWYGIE

LMNKTLGVIGFGNIGSRVAIRAKAFGMKILAYDPYISASKITDLDMEQAKNLDEILEKSDFITIHTPKTK

ETNGMIGKQEIAKMKDGIRLINCARGGLYTEEALYEGLKSGKIAWLGIDVFDKEPATNHPLLDFENISVT

SHLGANTLESQDNIAREACEQALSAARGVAYPNALNLPIKTEDLPPFVAPYIELVSKMAFLAVQIDKNPI

KSIKLEAEGIIGEYANSMLTFAAVGALGGILGEKINYVNAEFVAKEKGVELSCETLPNSGYNNKLSVKII

TENSNISVSGTVFNENEQRIVGLNGFKTDFKPKGKMIIFKNKDIPGVIAKISSVLAAKNINIADFRLGRD

GFGYALAVVLIDEKVQKEVLDELKQLEACVFVQYVEI

>AHK55418.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKFKILIIEDDIDLNELLVLKLKSSGYEVISLADFFGVEDLLDNEQIDLLIVDRNLPSGDSLEKIQDLR

EQGYKEAVIFLTAKALHQDLLEGFESGCDDYVCKPFDFNELLLRIKAILKRHKKEEEKLSFGDFILDLVS

YEFFYKNQKLEISNLDYELLKCFFENPNTLLTRQFLSESVWKDDTTSDKTINIALTRLRNKFPKLKDHII

SVRGIGYKLC

>AHK55417.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKTKNIFIVFFVVLALIFGFIFYTFTNSYLNFLLIKQYEQKIKSLDDVLKFSLLEHLNDANIKDFAKDT

RADFIILNNDMKISSVKNPDFFSNLKEGEILNFNSKKILTKSFIYKGYKYIIIVYPRFLDLELFWTKMAI

GFGVCLLFVFILMLLLGRRIEKNFNKILDFLDSIGDHKVVILEKGIFKEFNLLNEKLLKTKDKILKNTQK

NKKQSDKITLKNTQLASVISAISHELKNPLSVIDLSLEMLKDEKLEDKKLKKELLEKISRQSVKLNALTH

KLNFVFNLNSEALQMQEFDLFSLCEKITKNPGFERVALQGKSTKVKADEFLIEQVIINLLSNALKYSQKK

VILTARDQKIIVQDFGKGIEEDKIKLITKKFYKIDVKSDNSFGLGLFLVKKILNIHKSYLEISSTLGYGS

SFSFKLSQG

>AHK55416.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MALIDLIEASKKFGDKIVLNEVNFSANEGEKIAIIGKNGEGKSTFLKTLLGALPLDSGRIIRQNGKSIAM

LSQTVDFNANLSVKEAIKQELVEIYNTLEEYEILHKKLEEDPSNKDYLQKIDTLMTLIDSKDAWSIESKI

IRVLKEFSLLEYENRIISTLSGGEIRRVGLCILLLKNPDILLLDEPTNHLDVYMTSFLEELLKNSKMCVI

FISHDRYFIDAIAHKCVEVEQGKLSIFKGGYANYLEKKTQILQSLAKSHETLLKQLKSEEEWLRRGVKAR

LKRNEGRKERIFKMREEAKKNPGAIKRLKLEISRAALNFNGEKTINRKKMLFELKNISKNINNKNLFKDF

STRILQGERIAIVGRNGCGKSTLLKILLGQIKQDSGEIKRGELKIGYFDQARSLVNSDKSLLEIFCPNGG

DRVEVRGKNMHVYGYLKNFLFPKEFLDKSVALLSGGEKNRVALALLFAKEYDVLILDEPTNDLDIATINI

LEEYLLSFEGAILLVSHDRYFVDKIATKLYAFEGNGYINILHTLYTEYLENEKEIEELDNFALELQTQEQ

NNNQKEKSSKKLSYKENEILKNHPEKIDFLEQKIAKLNQDLSDPNVYQEIGINKLYQELEVMQKELEILE

NEYFLVLEKSENL

>AHK55415.1 lagellar hook-associated protein FlgL [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRITNKLNFTNSVNNSMGGQSALYQISQQLASGLKIQNSYEDASTYIDNTRLEYEIKTLEQVKESTSRAQ

EMTQNSMKALQDMVKLLEDFKVKVTQAASDSNSQTSREAIAKELERIKESIVQLANTSVNGQYLFAGSQV

ANKPFDSNGNYYGDKNNINVVTGAGTESPYNIPGWDLFFKADGDYKKQISTNVSFTDNRWDLNKDPDKTK

YLTGDSKWQQLIGQSYVKDNSLDADKDFEYDDSKLDFPPTTLYVQGTRPDGTSFKSAVLVKPEDTLEDVM

ENIGALYGNTPNNKVVEVSMNDSGQIQITDLKQGNNKLDFHAVAFTPQADDKTELNNIIQAAQDEGITME

DVTNRVMTAALGNPNNGDITNLNNPVTIQINGQNFEIDLKQTDFIKSKMTDTDGNAANGADYDNVYFEKN

GNTVYGNVSQVIKGSNAYATDSTKLSEVMAGDSLNGTTLNLKVNSKGGNSYDVTINLQTSTVSYPDPNNP

GQTISFPIMHTNPATGNSGVVTGSNDITYGQINDIIGMFAADKIPTTTIQANNGQINNADYTQIQQLMKD

SQATVDVSMDYKGRISVTDKLSSGTNIEISLSDSQSGQFPAPPFTTTSTVQNGPNFSFSANNSLTIDEPN

VDIIKDLDSMIDAVLKGNMRADSESENPRNTGMQGALERLDHLADHVSKLNTTMGAYHNTIEGVNTRTSF

LSVNVQSIKSNVIDVDYGEAMMNLMQVQLAYQASLKASTTISQLSLLNYM

>AHK55414.1 cell division protein FtsK [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGEWVYKANLFLFGEFAYYYPFFLFILNYVYYKRNYKLANFTRRELFGIGFAFFSSLLLFAVFYPNSGYI

LELAYAIFSTILGHTGSGIFALLLLLFSLVLLFPKFAKEILKIELDFTYLLKVEQAFKSLLMRVFGGENE

KEDVGKSEPIVPKLNILQDSIYGNLQINKKGETNNLEQIIKDSNINASKNSITTAKENFEKLKNQILDET

IEIDKQSLKESRSFVHEHSQQVRNFAQKASKMSISLDEDFNFISEEEVDMIPERFLKPKKLEDIKQIDTN

KNLDEPSYKRKNIEIPVSNQEVKPKIFTKELELRENLIKKEKLEQEYKAYQNEILENKVKQEIKKLEEYD

AINSSDIIEGNKYSFNSPKTIKTETEESDKINENKNLDKADNIFEFAPIVEELNHPYIEPTPIKNINEIV

IEEKNTLDFIQNTETKIDNEKTNDQEIKLQKAVLAKEIAINQALLREIEQGEIEKPKDFTLPPLDFLANP

KEHKQEINESEIDKKIYNLLEKLRRFKIGGDVISTYVGPVVTTFEFRPSADVKVSRILNLQDDLTMALMA

KSIRIQAPIPGKDVVGIEVPNDEIQTIYLREILQSEVFKNAKSPLTIALGKDIVGNAFVTDLKKLPHLLI

AGTTGSGKSVGINSMLLSLLYRNSPKTLRLMMIDPKMLEFSIYNDIPHLLTPVITDPKKAVNALSNMVAE

MERRYRLMADAKTKNIENYNEKMKELGGEKLPFIVVIIDELADLMMTAGKDVEFYIGRLAQMARASGIHL

IVATQRPSVDVVTGLIKANLPSRISYKVGQKIDSKVILDAMGAESLLGRGDCLFTPPGTSSIVRLHAPFA

SEFEIEKIVDFLKDQQSVEYDESFLKDQQSVGVTTNESFDGEADELYEEAKRVILEDGKTSISYLQRRLK

IGYNRSANIIEQLTQNGILSEPDAKGQREIL

>AHK55413.1 30S ribosomal protein S15 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MALDSAKKAEIVAKFAKKPGDTGSTEVQVALLTARIAELTEHLKIYKKDFSSRLGLLKLVGQRKRLLSYL

KRKDYNSYSKLITELNLRDK

>AHK55412.1 Rrf2 family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLFTKASEYALLSLIYISQKETPQDVDSLALELDIPKSFLAKILQTLAKDGLLKSFKGAKGGFVLIKEPS

QYTIKEIVNSAEKKDISVFECSGGTCPNNKEENCTLMPMLVNLQNKVDEFLDSITLEDIMKNNGKK

>AHK55411.1 flagellar biosynthesis protein FlhA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKNKIVDLVFPFLGPLIAPVLKAKSLTIVGFLVCILAIIIVPLPSPILDFFLALSIALSVLIILISIYI

PKPTDLTTFPTLILIITLFRLSLNIATTRMILSEGQNGPEAVSEIIAAFGEFVVGGNMVIGVIVFCILVL

INFMVVTKGSTRVSEVQARFTLDAMPGKQMAIDADLNAGLIDEQTARARRQEVIAEANFYGAMDGSSKFI

KGDAVAGIIITIINIIGGFLIGSFQHDMALSDAASTYTILTIGDGLVSQIPGLITSTATAIIITRASKDE

ENFAEGTLTQLLSEYRTLLIVGFVLFIFALVPGLPTLSLGFMALVFLSLGYLTKQVKEGKIDITTVKKSK

PSAAAASQSGAGGTTAAPAKKSEEEILKEEEHKINDILKVEILELELGYGLIKLAENELTERIRSMRRSI

AESLGFLMPKIRIRDNLRLKPNEYSFKLKGVSIASAEIYPDKYLAMDSGFITEEIEGIATKEPAFNSDAL

WIDANLKDEATLNGYIVIDPASVISTHMSELIKAHASELLTRQEVQNLLDKVKNDYPIIVEGALGVAPVS

LIQKILKDLLKHHIPIKDMLTILESVSDIAEVSKSFDMIIEHVRASLARMITNMYLDDKGNLDIFILDSA

SSAVLMENVQFRDGSYHLPLSVAQTGTLVDTLRAEVAAVANGRIKPFILCVEPQLRKFIADICYNFSINI

VVLSFAEIAENTNFNTEGIIRIEL

>AHK55410.1 hypothetical protein N917\_04360 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIYHLSHTDLDGYACQFIVNFYFKSVKFYNSNYGKEINENFNSIIGDIEKDENFGKAIILITDLNLNLN

QCEEFEKICKEKNTKIFLLDHHQSGEECAQKYSWYLLDSKRCATKIVYDFFSKICTPVLELSKFVDVVNA

VDIWLSEDENFELGKVFLGLIANAKEINRVMFKESQIDYMFFLLDKAWKFIGKENANILLDNATHFIKKD

YFARKNDDTLSNLISYFVVEKLSELKENFSIEYEGHKGILTSNIGNTSVIGNDFLVKNPDYDFFIDVSSR

KTLSFRANGKIDVSLMAKNLVGGGGHKNASGGLFATFKDGANYNYIKAQIIDLIKSKELKKENNESKQ

>AHK55409.1 cell division protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNQNNNKTLKNELEDLQYELSIVLEAMLLYAGVKREKLENAIEAYIDNIDNVLENSNKEGVDEILEVVEF

LKNKYKDFFQ

>AHK55408.1 hypothetical protein N917\_04350 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKCILIFFSLYSLSFANIYEKLNDFAYEKKPNKDFKIQEVKLVQFSQENKDCLELLIEASQVRILNSYN

SCQKLSKDESFQKFLNEDFLKLYKNNGYLINENLQNLKNTMQDIMIYYKLRYSFSKDVKDMSKNKNLDIL

NIDEKDGGTLLYKINNQACVGIELTRHDSRMAMKIYGIENLDKECKLFIQSPSFKDLSYTKKDFKWYYLE

>AHK55407.1 hypothetical protein N917\_04345 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNLSIQEKKDLDNCVFQNLGRQDTFTLSVVFKNFYLKIKAFILNNTT

>AHK55406.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSCIKMKDKCRNFSLSKWQDTRKPWLILIIVTIGLTCIAHFLFQEYLFMKPCEQCVYIRFDMLVMAIGGM

IALINPANNIIKIFSYSLAFYGIWLGLEHCLTLNHIHEVVHSENPFAGVDGCREIPIYPFNLPLYKWASS

WFLPTGECGMDTPVVPENAYNHLNAFQKFFIGTPPDFENGLYSNGWYLIPSLKFMNMAICCLIAFLCCFV

VLFAMFIAYVLDKNKPNAKIFALVIVALVLVLKFIGESKNPNQNIASLNQVVLRYS

>AHK55405.1 integrase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKYPLDCEENFEKSFLFWLAKYVKFKLNSLSNKELKNPQALAEVNFALTKGVKNIDELDALAKKARNAGL

SGVNTYFNPLKKVFEYLNFYKLYSLKQIDEELIVEVLASITGALSDASKKNYRIAVINFFDFLDKQNEED

EKAHIFDINLKNWAGIAGSKGVKLPEFMSKEELKKFLDAIENADFKNNTIRNKLIIKIIIFTGIRVSEAI

NIKMGDISEENDLYIIRIRAKGNKYRVVMIKKELIYDLLKNVSINYISKDALLFVNKKGTPLTQSYVSRI

VEQLLFRAGIRKQKNGAHMLRHTFATLLYKKQKDLVLVQEALGHASLNTSRIYTHFDNDKLKLAAQVAKE

LSDS

>AHK55404.1 para-aminobenzoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTLENYAVFGKYFYHDLKHTLKAFNHKESKKCFKFIEKYKNDFYILMLTDYELYRYFQDKNFTSKKAYLS

VFAFKKRKKFQKEDIDEEKFIPEFINFLDQDNYKENFIKVKEAISKGRVYQINLTQNFKFHSKMDSFELF

KLLLSRQDTEFKAFIKDETREILSFSPELFFKTKKRKIFTKPMKGTIKRDKDPIKDEENKIFLQNDTKNL

SENVMICDLLRNDLSKIITKKSLKTKLFEIQSHPTLHQMTSRAQGKLKKNISLHQIFKALFPCGSITGAP

KLESIKFIEELEQRDRGIYCGTIGLIHKNKNKFSVAIRTLEKQDEIYTYSTGSGLVWDSKFKDEFEELKL

KSAILNPCDFHLFETMYFKNSQILFLKEHLLRLINSALKFNFNTHKLFKDFYNILNQKSSYKKYQNFTLF

KLDEKIFHKKHSLFYNFPLPFKNPHKEGILKLILYKDGRYEFQQSALKQNSNDILLLSDDKINSKSDNLY

HKSSLRTFYNQHSYKWQQNLCYDIAFFNEKDELCEGSRTNLILEKNSQFYTPQIQSGMLNGVYRNFLINL

GLIKEKALFKQDLFEAENIYCINSVRGLKKVKLQ

>AHK55403.1 para-aminobenzoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILFIDNYDSFSYTIIYYLKELSFECKVIKNDGFKKAKELEKFDFTHLIISPGPHSPKESKLSLKAIK

YFKKNKKILGICLGHQCIAEIFGGRVSKMQNPMHGKISKLYFKKDPIFKGIKKEIEICLYHSLHISSMPE

KCKILAHNSENIIMAIKHKKYPIYGLQFHPEAVLTQKGKKILKNFMKL

>AHK55402.1 UDP-N-acetylglucosamine 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTYLEIEGTNHLSGNVTISGAKNAALPLIVSSILAKNEVKINNVPNVADIKTLISLLENLGAKVNFQNNS

ALLNTNTLNQTIAKYDIVRKMRASILTLGPLLARFGHCEVSLPGGCAIGQRPIDLHLLALEKMGANIQIK

QGYVVASGNLKGNEILFDKITVTGSENIIMAAALAKGKTKLLNVAKEPEVVQLCEVLKDAGLEIKGIGTD

ELEIYGSDGELLEFKEFSVIPDRIEAGTYLCAGAITNSKITLDKVNATHLSAVLAKLHQMGFETLITEDS

ITLLPAKEIKPVEIMTSEYPGFPTDMQAQFMALALKANGTSIIDERLFENRFMHVSELLRMGADIKLNGH

IATIVGGKELNAADVMATDLRASSALILAALAAKGTSKVHRIYHLDRGYENLEEKFKDLGAKITRLEE

>AHK55401.1 molybdopterin biosynthesis protein MoeA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNIFETLKDLENQISCLDESELISLEKAKDRILAKDLYARKNLPSFDNAALDGYAFNYTDINEALEIKG

TIFAGDKNFYTVAKNECYKIMTGAKMPKNADTILMLEDECIEENKLIIKKVPKQYNAYRYKGEELKKGEI

LLQKGTKLNDKHIALLASQGLYKIEVIRKIRIGIFSSGNELKEPWQECDEESIYNANALPLLTMLQNASY

LGIIKDDFKSTKEALENTNFDLLITSGGASVGEADFMEKALDELGFTPLFKGLKARPARPTKLYRKGENF

VLILPGNPMAAYLSCFIFAKKIINLLSGNLDNPLTFYGKMGMDLKLKSGRNNLILGNLEKGIFTPFNENK

FGSGMILPLIKSEFLLISEENTGELKKGDEITLLKI

>AHK55400.1 signal peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEILKKLYKFSQSWTGTVVIVLLVIFFFIQAFVIPSGSMKNTLLVGDFLFVKKFSYGIPTPHIPWLEIPV

LPDFNKDGHLIKAQGPQRGDIVVFRNPRNEKEHFVKRCVGTGGDRIVYANKTLYVRMHEGDEFMKEHYPN

DLVTLGGQIYVKEPYKQKGIHYDPKKDIESDILRFLSIGDFAMSPAYIKELGNHIGFSGGNAYVFDVPEN

EYFMMGDNRDYSYDSRFWGSVPYRLIVGKPWFVYFSWDKDKNVRWERIGRFVDTLENDEQYIHDHDDEDK

LS

>AHK55399.1 bifunctional 5,10-methylene-tetrahydrofolate dehydrogenase/ 5,10-methylene-tetrahydrofolate cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTLLDGKALSAKIKEELKEKNQFLKSKGIESCLAVILVGDNPASQTYVKSKAKACEECGIKSLVYHLNEN

ITQNELLALINTLNHDDSVHGILVQLPLPDHICKDLILESIISSKDVDGFHPINVGYLNLGLESGFLPCT

PLGVMKLLKAYEIDLEGKDAVIIGASNIVGRPMATMLLNAGATVSVCHIKTKDLSLYTRQADLIIVAAGC

VNLLRSDMVKEGVIVVDVGINRLESGKIVGDVDFEEVSKKSSYITPVPGGVGPMTIAMLLENTVKSAKNR

LN

>AHK55398.1 hypothetical protein N917\_04240 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIVLMFFLFSISLFGADFITLKEYSKMLYENPRGISCKECHGADGSEQILGYYMKNGIKTAYKVPSIQN

LSFENFKNSLNQSKDAKSIMPNYSLTNDEIVTLYNYIKQFSKEEK

>AHK55397.1 glutamate-1-semialdehyde aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTNKKAFKETCKFIAGGVNSPVRAFANVQSEPKFISHGKGAYIFDIDGNSYIDYVQSWGPLLFGHCDKDI

QKACQKALHKGSSFGAPTLLETELAKLVLSDFPHLEKIRFVSSGTEATMSAIRLARGFTKKDKILKFEGC

YHGHSDSLLVSAGSGAATFNSPSSLGVLEDVAKHTLVAKYNDINSVKELFEKNKDIACVIIEPIAGNMGL

VPAKQDFLEELAKICKNNQTLLIFDEVMSGYRASYLGSYGINHIQADIITFGKVIGGGLPAAAFASRAEI

MDILSPLGGVYQAGTLSGNPLAMAAGIASLTKAKKKTKLYDKLGKLAKKLTQGMKKLADEKGLPLQACHV

GSMFGYFFTKDPVSNYQDALKSDLALFSKFHKNMLENGIYLAPSQFETGFICSKMDDKIIDTTLEAVRES

FKRI

>AHK55396.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSNILKEEKNHLENSNSKRQKIIRKTLEAADGLSLGISMVVAVFIGVGIGYLLKKFTPYPWLFWLGVFWG

ISAAILNVYKAYKVQVKSYEEFKERDELIKEKIQKEKNK

>AHK55395.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEHKKALFCIFAIIHLFFWIIFSSLNHFKLDTFLSYEIAFFSVLLIIFASYLNYKKVIIKKSKNYEKDFN

FISSLFIKKKQNLSKIIHFKVLKDDLKPNVKEKIHFFAMFFTLFKLMAYVILVAGFLFLHRQDKLDIFAY

ICGISSLLVCVFIFILYIKKYESKKNY

>AHK55394.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSPKKIIKSMTALFAGMAFLFAGNALIVSSIGVILKENGESSLAVGVVSSCFFVGALIGTISTHKIISRI

GHIRSFGLFGAIFGISAMLHTVSENLIFWAVLRFFIGICYYGLLMVIESWLNEKSKNAIRSRILGFYEIV

FYLAFGIGVLIIALNLSKHSVFILSATLILLSSLPLNLIKIKEPVLPASSPISIPKIFDIAPLAIVTSFI

AGMLINGFFSMASLFILLQGFDTKAVSYFIFCGVLGGFIAQTIIGTISDKLGRKFAIITCASIGFITMLI

FIFFKLHLYMQYFLGITLGIGIFCLYALALARANDVLVSKNKGVELGRGVLFCYSLGSLFGPLILGFLMQ

YFEIKGFIWFYIVSLAFLILFAINKPNILNKKFKKKPGNMVIFDD

>AHK55393.1 hypothetical protein N917\_04215 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINTQLASQIANTQKNDLKVDNSASKDKTNLKDNPKEALAQALKQNLGLSKDASSEEILAKFVQNETGTK

LKELVNKLLDQINAQKNPDSPVLKQGKNLNLAPNFANELKILSTELAKSDTFTQVLDRLNQILKPASEIK

NNNLAPLFKNSGVFLEAKLKDALNEELLPKSFHSLLSTIKGLSSEKLSVQIAQLANTNLSPKDTLKELKN

IINSSKNENKQILNQSSFKALLNLSSKLENFKNYISKNPSHAQEKITPIANKILKELNSIKNDFFKALNK

PENLMIKDPNILKQTATAFEKLENTLKNILGNQASKIQDKENILENLLSNKENMKEEKLNHNTKNQDEEK

HIKASKEDENLDSGIKTHEEDTQDTKNDIQNNETENKPDNDIKNSTPNQEKIKDEKQEKSKENIKENPKF

YETKTENKTSINTNTNTSNPNTNNTQNLNNTQNIQSNNNQTMQNIFKNQEFIKQNIVKNLAFNVENLDLE

QVQDLSKNLSNLSRRLNESLKELEPYTQNAKLNQAELKNLEHKLNLSIKDLAQIKPKTEQDIAESLHHDV

KSTLLQISNLAKNEGNEAVYNQANRLLAQIEINQLMSLANDSINTYLPFSWDDLNDSKIMFRRGKKDKFF

AQIKLEFAKLGDLEILISLNNEKYIDINIMAENIEFRKTIYENAHELKRNINKAGLLSANFFVGDIIRSK

FDTRNMKNLDLEMGMDKKV

>AHK55392.1 hypothetical protein N917\_04210 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKIKRSIKKAVALGYQKEKNSAPKVLASGKGESAAKIISLAKEHGVPIKEDEDLIEILSKLDLGDEIPP

NMYKAVAEVFAFIYQMANKTPKN

>AHK55391.1 phosphatidylserine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSFSKESSRLFGFVAGIKFPKMIQKVINENYVKYFNINMSEFKAPCEYESLNALFTRTLQIPRKFEEGFI

SPSDGKILECGSTFLANEEHFAFSIKGHAYSVEELLKDSFEKDELKNGLDYVNIYLSPKDYHRYHSPCDM

QILSATYTSGVLYSVNEKHLERISNLYVKNERVSLKCQNEKGIFWLVFVGAQNVGKMRFNFDASIQTNAK

ISHNFTRKYENLNFKKGEELGNFELGSTIVLISQKGLLTFNLKVGQGIKFGEKIAD

>AHK55390.1 metallophosphoesterase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIFLIFSFIVLLIFGLANVYIYKRLIKKITLFKYFYKIFSFIFIVLFLAQAVFLIFRRDEYLSDTWYEIL

AMFYAPTYCLFFMTLAWDFVKLILALMGKRDKTYNLILRLIFELSLIVLSVFLIYASINNALKTPEVKSV

DVEIPNLKKDLKIVMLTDIHLGKNLHENFLDKLITKVNLQSPDMVVIVGDLIDTNPKDLKNYISKLNDFN

STYGTFYALGNHEYYHGINEVLDLLRKHTNMKILVNQNLDLGFIDIAGLGDLAGLDRGLYAPDLARIKVD

LNTSKASILLTHQPKTALLYDLSDFDLVLSGHTHGGQIFPFMFLVKLQQGFVHGLYDLGEKTKLYVSSGA

GFWGPSLRVFAPSEIVILNLKGKK

>AHK55389.1 glutamyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYRFAPSPTGDMHIGNLRAAIFNYICARQKNMDFILRIEDTDKARNIAGKEEEIKEILNLFSISWQHYYI

QSENLKFHRQMALKLVSEKKAFACFCTEEELEAKKELAKKQGKAYRYDGTCEKLADIDVLECEKPFVIRL

KKPTHTMKFTDFIKGELSFEPENIDSFVIMRTDKTPTYNFACAVDDMLENVTCIIRGEDHVSNTPKQEHI

RASLGYNKAMTYAHLPIILNEEGVKMSKREAHSSVKWLLESGILPSAIANYLIMLGNKTPCEIFTLEEAI

KWFDISKVSKAPARFDLKKLLQINREHIKMIKDDELNKILDLNKDLAQLAKFYTQETSTIKELKEKMQAI

FNAKDFGEFETEYKILKELLKDIELFENYEDFKNELLNKSNLKGKKFFMPLRIILTGNIHGPELSDLYPY

IKNFIHELARI

>AHK55388.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVIDSFIISIFQVLQIVINIYTWIIIITALLSWVNPDPYNPIVQILYKLSYPAYALVRKIPTRIGNIDLA

PLIIVLALQFLGIFLGNILRSIL

>AHK55387.1 lytic transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKKILVFLFIFSSLNATQYSIEKLKKEENSLAKDYYIYRLLEKNKISKKDAQDLNSHIFRYIGKIKSEL

EKIIPLKPYINPKYAKCYTYTANTILDANLTCQSVRLNSLVFIASLNSKDRTTLAQTFKNQRPDLTNLLL

AFNTSDPMSYIVQKEDINGFFKLYNYSKKYDLDLNTGLVNKLPNHIGFKDFAQNIIIKKENPKFRYSMLE

INPENVSEDSAFYLGVNALTYDKTELAYDFFKKAAQSFKSQSNKDNAIFWMWLIKNNEEDLKTLSQSSSL

NIYSLYAKELTNTPFPKIESLNPSKKKNNFNMQDPFAWQKINKQIRDANASQLDVLAKEFDTQETLPIYA

YILERKNNFKKHYFIMPYYDNIKDYNKTRQALILAIARQESRFIPTAISVSYALGMMQFMPFLANHIGEK

ELKIPNFDQDFMFKPEIAYYFGNYHLNYLESRLKSPLFVAYAYNGGIGFTNRMLARNDMFKTGKFEPFLS

MELVPYQESRIYGKKVLANYIVYRHLLNDSIKISDIFENLIQNKANDLNKS

>AHK55386.1 molybdopterin-guanine dinucleotide biosynthesis protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKQLIIAFSGPSNSGKTTLITKIADNFLQQNLKVLIIKHDPADKAQFDFNGKDSFKFFQSGAEVMVLSPT

RTTFFSHENRDILKALKLSPDFDICLVEGLKTLDLPRISVFCKEIDESYFIFSNAIASYEKISHPYLTWL

DLNDIQAICQYILKNAKNLQGEL

>AHK55385.1 fructose-1 6-bisphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>AHK55384.1 hypothetical protein N917\_04165 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNEVRDEFEQDMDKKKEILLSCQNSKNLNSCYNCDEIFNCQTRKNYVDAVYNSMSKGKTEGGFDF

>AHK55383.1 methionyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRYITTPIYYVNDVPHLGHAYTTIIADTLARFYRLQGHETRFLTGTDEHGQKIEEAAKLRNSTPQEYADK

ISFEFKKLWDEFEITYDIYARTTDTRHIEFIKAMFLKMWQKGDIYKDEYEGHYCISCESFFTQSQLINDC

SCPDCGKQTRILKEESYFFKLSKYQDKILQWYEEKDPILPKNKKNELINFVQNGLKDLSITRTSFDWGIK

LPQEINDDKHIIYVWLDALFIYVSSLDFQNKGENAKFWPAHVHLVGKDILRFHAIYWPAFLMSVDLPLPK

FIGAHGWWTKEGEKMSKSKGNVVKPKEVVDAYGSEAFRYFLLREVPFGNDGDFSENMLINRINAELSNEF

GNLLNRIIGMSTKYSQGNISKEGVLKFYNAELNQAKEHLNLAVEFLENLQCNRYLEELFKALSVANLAIS

KYEPWSLIKENKHEQANALVALCANILAKTSLLLSPTLPKSSQKVALALNFEISSANYTKMILDNELLDF

KANPCEALFPKVEKALLKQEIKEEPKKEESPKIKIDDFAKIEIKVAKVLDCQNIEGSEKLLKFQLELDDK

EIRQVLSGIAKYYKASDLIGKQVCVISNLKKAKIFGHESDGMILSAKSGDKLVLIAPEQLVQNGSLVG

>AHK55382.1 hypothetical protein N917\_04155 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQISNLGELLNATLIHEGSVLSVEGFAINLNELKTGFAFFNNDKKEIAQAVKKGAYAIITENDITIEDKE

IFYFRVENLERALVRFLRFFCEDKECEFLLFKSYELSLCKAFYFNILKGNIFADFEKLIKAKKGEIFCYC

EENYLNKLCTYSHSLKDANFTLLSRSSFFFTTLICENLYFKNLNLPFFYANSFAKIISFLKEKSQKIIFD

FNKIDDFKIYFIDDKFEITPFGSSSQAFIVSNNQNTFEFWKEKFKNIKDFKIASKNSLFCDFSYNQLSDL

RKLKNFKYCLILENYDIFEQEFENKENQTPSLF

>AHK55381.1 methylated-DNA--protein-cysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFKVYYKMPLCYLSLHSDGKFLTRVDFCDNKRSEKNCSLLDLAKYELDLYFTHKLRKFSIPVLIQGTDFE

SKVYKALMEIPYGKIATYKDIAEKINHPKAFRAVGNANSKNQIPIFIPCHRVIASNGIGGYNGGLEIKRF

LLENEGVNLK

>AHK55380.1 bifunctional aconitate hydratase 2/2-methylisocitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSFMQEYNKLVEERAALGIPPLPLNANQTRELCKLLENENNEELANLLENRVNPGVDDAALVKCEFLDSI

LKGKISAPNIDKKRALRMLGTMLGGYNVKVLIDALKDENIAKDAAEVLKNIIFVHDNFHTIAELSKNNPH

AKEVLQSWANADWFNKKEKLPQVIKCIVFKVAGETNTDDLSPAGDAFTRSDIPLHANAMLKVRQTGSLEK

IKELKKSGREVVYVGDVVGTGSSRKSAINSIQWHLGKEIEGVPNKHSGGIIMGSTIAPIFFNTAQDSGAL

PIICDVTNLEMGDEFEIHPYEGKIIKNGSTIAEFTLSPNTLLDEVRAGGRIPLIIGRGLCTKAREFLGME

SENIFTKPEQPKSSSGGYTLAQKMLGRACGVEGVRPGMYIEPITLTVGSQDTTGPMTRDEIKELASLGFN

ADFVMQSFCHTAAYPKVSDSNLHKTLPNFMTSRGGVSLKPGDGVIHSWLNRFVLPDTVGTGGDSHTRFPI

GISFPAGSGLVAFAAVTGSMPLNVPESVLVRFSGELQAGVTLRDLVNAIPYYAIKQGQLTVEKKNKKNIF

AGKILEIEGLPNLKVEQAFELSDASAERSAAACSVDLSIESVSEYIKSNISLIEAMIEVGYENKATLARR

AEKMREWLKNPTLLRADKDAKYAYIIDINLNNIKEPILACPNDPDDVATLSEILADDKRPKNIDEVFVGS

CMTNIGHYRALGEILKDKGILKTRLWVVPPTKMDKAQLINEGYYSIFGAAGARIEVPGCSLCMGNQARVN

DGAVVFSTSTRNFDNRMGMGAKVYLGSAELAAVCAILGKIPSKEEYLQIVSEKLSNEHKANIYRYLNFNE

IENFKLEN

>AHK55379.1 ankyrin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRLKISNLKINSNLILNNKIKIFKGKILKLLFTSFCCFASLMASDAINCDNIKNNKTLLNESSNLDYLNI

ASSCKESLKNQDFTKKLYAISNEIRGSNSSCNGVAYLPKLQQFDFLLLKIAIDPIAYQKTLDTPENLEKK

YDILKSYFRYWAYQSIGNFRLYKAFWQEYNNAIEPLEKYFESNFNFDKGSNIYYTSNALNEFLNWAVGET

KIYKDISPLAKIMSNKNYSVSYIQDFIFSNNPSQDDLTIALQAALLNQREKEILELLIRFGARIDEGYES

AIFYALESYENTNFLIQNGANVNQANAFGKTPLFYAIEFNRLDIIKLLLDNGANVNQKYINNNEKLALSA

NIGSNTPYFITFCALEHTSKNVLMHAAAYGNVEILKLLISKGANFNAVDDLGFNALDFALSAGKKENADY

LKSLGLKANENLFYGGSLE

>AHK55378.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTAFITGASSGFGRACVEAFIQEGYKAIALARRKERLEELKNAYKDKIYTLCIDVRNQKEIFEAIENLP

KEFQEIDVLFNNAGLALGVDEFDKLNLEDINTMVDTNIKGFLYVAKAIIPILRKQKNAYIFNLGSVAGRN

PYFGGNVYCGTKAFVGQFSLALRNDLRGSNIKVTNIAPGLCKTEFSEVRFKGDIQKADAVYENTQFISAN

DIAKVVMSIINLPSHINVNEIELMPVTQTWNGFYIERDE

>AHK55377.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKFLVSLFLPLVAFANSSEAAANANLFGAFTLIPPLVAIALAFITKDVILSLFTGVLSGTFLLSLSTNI

FKAQHLTFVNYYNTTVESFSKIISYILGSTSDPVNAGIILQILCIGGLVALITKMGGAKAVALKFAKRAK

SAVSAQVNTWFLGLLIFFDDYANLLIVGPIMRPLADKFKISREKFAFIIDSTAAPVAGIAVISTWIGLEV

SLIKTAYEHIGISNISAFGIFVETIPYRFYNIFMLFFVVMTAIMGREFGSMYKAEVRARTTGQIAPLPKS

GTLDTTELEDQFLAPKEGIKIRAFDAIVPIFTLIILAILGFYFNGLSTLEGEELAKASTNPLSFETFRAA

FGNADSSVVLFQAALFAAIVAIFIGVRRKIFNLKEAVETWIYGWKTMIFTIVLLLFAWSLSSIVKDLGTS

LFITSLLADKLPEFILPATIFAFASAISFAIGTSYGTMGILMPLAVPLAHEIAKINGMDANAMHHYMVIN

ISCVLTGAIFGNHCSPISDNVILSSMSAKCDHMEHVRTQIPYALFICGISLIAGYIPVSLGLSVWFVLPL

NFILIALLLRLIGKKVP

>AHK55376.1 tRNA (uracil-5-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSLENFGNFLTLDEKHSFIKKYFKEFYTKDFKLFASKDKHYRTRAELSFYHENDTLFYAMFDPKSKKKYI

IEYLDFADEKICAFMPRLLEYLRQDNKLKEKLFGVEFLTTKQELSITLLYHKNIEDIKSNLENLSNILHI

NLIARSKGKKLIFKTENLRQTLNIQDRKIFYEFNNDCFIQPNTAINEKMITWVCEILNTQKRMDLLELYC

GYGNFTLALAPFFFKILATEISKSNINFALKNCELNNTTNIHFARLSSEELSLAIKKEREFFRLKDIRLD

DFNFSHVLVDPPRAGLDKSVIDLIKKYGNIIYISCNPMTLKENLKELSLTHRVEEFALFDQFVNTPHLEC

GVFLSKV

>AHK55375.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEEFYPYTLTIHLLCAILFIGYLFVDVFVLGVVKKKNPNFDKSLFSATGVKIMPFVVLLLFLSGGALAGF

HFKPLNLLFAVKIILAFGILSLVVFSLFCHFILKKKNPLGVFIHPFVFVLCIAIVILAKLMNYFFIPC

>AHK55374.1 CoA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNEKETISYIINTSKNIVIFALSPDKTKASYRVAEFLQRKNYKIFPIYPKEEFILNEKVYRNLDQIEEKI

DTLILFRKGEVALEILPKLVEKNIKNLWLQLDISNETAKEECKKLDINFIQNRCIMLEYPHFKTKEK

>AHK55373.1 threonine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLELNKIYKAKQQISGFVNKTPFIYSSFLSDICQSEIYLKNENLQITGAYKIRGAYNKIANLSTEQKQHG

VIAASAGNHAQGVAISAKKFSIKAVIVMPESTPLLKVSATKALGAEVILRGDNFDEAYAFATSYAKENNL

SFIHPFEDEFVMAGQGTLMLEMLDEISDLDMIIAPVGGGGLISGISSTAKQINPNIKIIGVGAKGAPAMY

ESFHAKKIKNAKSVRTIADGIAVRDANPINFNIILECVDDFIQVDDEEIANAVLFLLEKHKIIVEGAGAA

SVAALLHQKINTQNHKKIGVVLSGGNIDAQMLNIIIEKGLFKSYRKMQIYVTLVDKPGALLHLTDSLKIA

NANIVKIDYDRFSTKLDYGDAMISITLETKGKEHQEEIRKILTQKAFNFYESF

>AHK55372.1 tRNA pseudouridine synthase A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIKIIFSYDGSAFLGSATQPHKKGVQDALSGALSHLGIFSPLLMASRTDKGVHASYAVASVECGDYFTN

LEYLQKQLNKFSHPFIHIKKIEKVKDDFEVRFDVKSREYRYIFSHASYSPFMASYVHFYPKFDLGKANEL

LGFFVGKKDLKFFCKSGGDNKTTLREIFIARAYAYKDFSIFHFKANGFLRGQIRLSVASVLKVLEGKMSE

KELKEQIEAKKQYNHFLAPPNGLYLSRICY

>AHK55371.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLSLRYVLNQFLSTNLSIFFVLFAIVSMVFFIQLAKLTSSIEISFLDLLKLYGFMLPRILIFTLPISFF

ISLTLALFRLSKENESIVLFTLGFSPMILAKFFLKIASLISAFMLVVALVMIPIVFELQDNFVNYKSTQV

KFNYKTGEFGQKFLDWMIFIEKQDSDKYENIIMYRPKHKADDKEQLIIAKEAHVQRKDDSFAFSLNQGKM

YNFEQGQSIFSGEFDTLVVNTQFNTDNLQTKKFYEYWNDLNENLQRAREFVIYTTIALFPLASTLFALCF

GLVTYRYEKGYVYLGMFGVIAIYFGLLSSFSQPPILACLGIFSLSLFVSAYCFKKMILSRY

>AHK55370.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIFFIIILGACLGSFCTSLASRIIEKKLFFISRSFCFSCDTKLKYYEIIPIFSYIFLKAKCQTCKCHLSI

SLLINEILGAILLILVYSLSQNFYDFLFLSLFLFNLFLLSLIDIKLKAVPQILLWSAFLFAFFYAFRESE

ILHFLIFKEFSGGFLLNAFSFGGFVFLLKSLVFFLMNFQKKDEILENLGDADIIIMSCIGGILGFEYGFL

VLFIASILTLPFFIFFRIKAIKEQELAMIPFLNIAFVAVLFYKNLGLF

>AHK55369.1 UDP pyrophosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNELKHLAVVMDGNRRWARAKGFLAKLGYSQGVKTMQKLMEVCMEENISNLSLFAFSTENWKRPKDEIDF

IFELLDRCLDEALEKFEKNNVRLRAIGDLSRLEDKVREKITLVEEKTKHCDALCVNLAISYGARDEIIRA

AKRVIEKKLELNEENLTQNLDLPLDVDLMLRVGNAKRLSNFLLWQCSYAEIYFSETLFPSLTKREFKRII

KEFRNRERTFGK

>AHK55368.1 hypothetical protein N917\_04085 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSMINSTLPIQMKVLAKSGYGHYTLLLNHKKIQTKSMIELEIGAEYLAELYMQNGGVIQFKHLSKRPNFK

PFEEGLALIIAILEDKISYKKFIIQNLLDCKDIERYQILKEMLFASFENIYHIPFNFENKSCLFQMRKRA

KYLEIYLYFSVFGALKILIDSQGISVFTPFAKVQKFLNEHLDFNVSQENKIEPLFVFKRLFDFKG

>AHK55367.1 phosphopantothenate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTILLAISGSIAFYKSYELISLFKKEGFRVKVLLSNGLLKFASKMSFEALVDEVLCEENESWQNSNNHI

AFSKDVDLVLFTPASVNSINKLAFGIADNLFIQTLIAANKPLIIAPAANTNMFHHFSTQNSLKILKENKA

LIIEPICKVLACKDEGVGALAEVKDIFNITKRELLKEKFWCNKSVVITGGGTRERIDDVRCVSNFSSGKM

AKAIADAFYFLGARVKLLSSVEFDTPYELCKFESSKDLKELLDKNLSHDFLIMTAAVSDFIPQSVKGKIK

KNEHLQGLNLHLSLNEDLLKTCKFQGKKIGFKMEFDSQNALENAKKSLKDKQLDMVCLNIIDQKNYFGSD

QNELYFITLNNENKSTLQSKEKLAFELVKWCEKL

>AHK55366.1 N-acetylglucosamine-1-phosphate uridyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTSILILAAGLGTRIKSQKPKVLQELCQKSMILHILKKAFALSDDVSVVLSHQKERVEKEILEYFPKTQ

ILEQDLQNYPGTAGALSGFEPKNERVLILCGDMPLVEQTSLEALLGNNAKLNLAVFKARDPKSYGRVVIK

NDSVEKIVEFKDANTQEKEINTCNAGVYVIDSRLLKELLPLIDNNNAAKEYYLTDIVKLAKEKDVMIKAV

FVDEDEFMGINDKFELSIAENFMQKKIKKYWMQQGVIFHLPQSTFIGADVEFVGECEVYENVRIEGKSKI

INSIIKSSSVIENSIVENSDVGPLAHLRPNCELKNTHIGNFVECKNAKLNTVKAGHLSYLGDCEIDSGTN

IGCGTITCNYDGVKKHKTIIGKNVFVGSDTQFIAPVKIEDEVIIAAGSTVSINVEKGALFINRAGHKMIK

DYYYKKFQK

>AHK55365.1 flagellar biosynthesis protein FliP [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILLFLLLSMSLFAAEATIPTVNLSLSAPNTPNQLVTTLNIVIVLTILALAPSIVFVMTSFLRLIVVF

SFLRQAMGTQSMPPNTILVTLALILTFFIMEPVATKSYNEGIKPYLAEKIGYEEAFIKGAKPFKDFMLKN

TREKDLALFYRIRNLPNPKTIDDVPLTVLVPAFMISELKTAFEIGFLIYLPFLVIDMVVSSVLMAMGMMM

LPPTMISLPFKLLIFVLVDGWNLLVQRLVESFVT

>AHK55364.1 amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIILIFISFFALNLSAKDLVVGMELGYPPFEMSDKTGKASGISVDFLEAFAKKNGYKLVVKNIAWDGL

IPALKTAKIDLIMSSMTITDKRKKVVDFSIPYAKANLAILTPLNSDITNIKDLDKKGKVLALKRGSTGHL

YAVKNLKNATINLFDKENAAILEVIQGKADGFFYDQLTIYRTWQKHQDTTRAILAPFQENPEFWGIAVRK

GDEALKDKLDNFIDESRKNGFLDFLGNKYLKDIKEVFKQNNITFFL

>AHK55363.1 3-deoxy-manno-octulosonate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDAKMIIIPARLKSSRFHEKILCDIGGVPMFVATARRVSSVDEVCIALDDEKVLSIAKEYGLNAVLTSKD

HESGTDRINEACKKLALKDDEIIINVQADEPFIECENLLKFKEFASFCLDKKAFMASCYKKITQEEAMDP

NLVKVLCDKEGYALYFSRAKIPYERENYEESFKGHLGIYAYSVKALREFCSLSSSALERAEKLEQLRAIE

NGKKIKMLEISTTSMGIDTKEDYERALKIYLEK

>AHK55362.1 threonine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLVESRNVNNVSSFKEALINPNAPEGGLYSPLNLPIFEGEKYANLSYKDFALKLIESFGFGEEELFKKA

LKSYESFDDKNTPISLQKISEKTYINELWHGPTRAFKDMALQPFGVLLSEFSKDKNILIICATSGDTGPA

TLKSFENAKNVKVACMYPKGGTSGVQELQMRALDKDNLKVFAIDEDFDAAQRTLKELLFSKDFQNEIKAL

NYELCAANSVNFGRILFQIIYHYYASLKLFNEFLEEVQIIVPSGNFGNALGAFYAKKMGAKISKIKIASN

ANNILSEFFNQGVYDLREKSLKKTISPAMDILISSNIERLLFAKFKDKRTKELMNLLKNERYFKLEKEEL

QSLQEDFEADFCTDEECMQFIKQSKILIDPHTATCFKMLDPLKPSIITSTAEWTKFTPSMIKALYDRDSK

NEKEDLKFIAKEFNVQVKDEILALFDLKNSDEKVFEARNIKKEILDWMQK

>AHK55361.1 tetraacyldisaccharide 4'-kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNEEKNYELWLDNYFFKPNFWQKCLAFILLPLSVLYAFFAILNTFFRKKIVFKKPVISVGNLSFGGNGKT

PLCKAIAREFDGVFIVLRGYKRKSKGLFVVKNQNEILCTLTQSGDEAMEYAFEENIKGVIVSEDRVKGIE

KAFELGAKIVVLDDAFSKFHIKKFDILLESKIKPYFNFTLPSGAYRLPKFYEKRADFIALEGRDFVRYSF

VKENPKAVLVTAIAKPFRLYEHFIKARACYFFKDHYEFKKEELENLLKKHNCDTLMLTFKDFVKVKDFGF

KCQIIELNIELKDSLREKIKTYIKEFEQ

>AHK55360.1 NAD synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDWQKITEKMCDFIQEKVKNSQSQGVVLGLSGGIDSALVATLCKRALKENVFALLMPTQISNKANLEDAL

RLCADLNLEYKIIEIQSILDAFIKQSENTTLVSLGNFAARIRMSLLYDYSALKNSLVIGTSNKSELLLGY

GTIYGDLACAFNPIGSLYKSEIYALAKYLNLHENFIKKAPSADLWENQSDEADLGFSYTKIDEGLKALET

NDEKLLRTLDPSLIAMLKNRMQKNAFKGKMPEILEI

>AHK55359.1 beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQIIKQACGVYETNCYILFTPKGEFIIDPGTDALLFIKKHVKNPLAILNTHGHYDHIWDNAKVKKEYNIP

IYIHKNDAFMLHDDFNQGYDSSDADFLVDNEDILNICGVDFKFHFLPGHTPGCTMIEIVGKNIMFSGDFL

FYRSIGRWDFPYSDANLMKQSLEKVMTYKEDFKLLPGHGQETTLKEEQVHLPSWLRYF

>AHK55358.1 hypothetical protein N917\_04020 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MELDQILLYAFIFLNLFALFGLFLGNKKKNQFNDKKFYKICPCKKMAENGSLSTICIYSAVGGFFYSVLS

IGFVGFGNWTLNFIFLLALLSVFLGWKLKLD

>AHK55357.1 7-alpha-hydroxysteroid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNTEFQGKTLVISGGTRGIGKAIVYEFAKVGANIAFTYNSNAQIADEMVQDLEKNYKIKARAYEFNILEP

ETYKELFEKIDVDFDRVDYFISNAIISGRAVVGGYTKFMKLKPKGINNIFTATVNAFVVGAQEAAKRMEK

VGGGSIISISSTGNLVYIENYSGHGTAKAAVEAMARYAATELGEKNIRVNVVSGGPIETDALRAFTNYEE

VKQATINLSPLNRMGQPEDLAGACLFLCSSKASWVTGHTFIVDGGTTFK

>AHK55356.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAVETC

KGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLYNVP

GRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNGGKGVISVT

SNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFRLPLCSPSK

ENFAKIEEVMKKYKIKGF

>AHK55355.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIAYEKIQLKNKLEVYALPVNKNSDVISVDIFYKVGSRNEIMGKSGIAHMLEHLNFKSTKNLKAGEFDEI

VKGFGGVDNASTGFDYTHYYIKCAKKNLDKALELFAELMANLNLKDEEFQPERAVVLEERRWRTDNNPLG

YLYFRLFNHAFMYHPYHWTPIGFFKDIENWSIEDIKEFHSIYYQPKNAILLVSGDIESKEVFELSKKHFE

KIKNTKTIPKIHTKEPKQDGVKRIYLHKNSDTELLALAYKIPNFKHKDIPALNALSELLGSGKSSLMSEI

LIDKLNLINDYYAYVNDCIDENLFIFICNCNPNVNAEKVEKELLKIIDKLKMGKISQKDLQRVKNNVKSD

FIFSLNNASAVANIYGSYLARGDINPLLNYEKDIQNLELKDLISCAKKYFIQENSTTVILRKDSNG

>AHK55354.1 diguanylate cyclase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAYEMIKLLLFKLNPEHAHALVEYSLRALSASFPGALSFLAHKYIVDDESLRQNLLGLDFNNPVGLAGGF

DKNATMIRPLSALGFGFLEVGTFTPKPQEGNEKPRLFRLVKQESIQNAMGFNNEGAEKIALRLAKTYPFV

LPLGVNIGKNKITPNDKALEDYFTLFRDFKDLCDYFIVNISSPNTKNLRELQNDDFLNTLLEEAKKITSK

PILIKIAPDMKIDDALNLCENAIKKGADGFILANTSVDYSLLDNNRTFGGISGRLITEKSGIFFKEVTKI

LFGKTLLIASGGIDSADIAYERIKNGANLVQVYTALIFKGPSLVKNINQNLIELLRKDGFLHISEAVGVN

LK

>AHK55353.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHNEMNLKEVLIRFKPFYKRYWKQFAIAIFGMILASGGTAGSFYALEPILNYIFVEKNEALLYTVPFLLV

LMYFFKNLGTYLQSFYVSFIGTDMLRVLRARVLKNVLRLDMDFFKRYRSGELVSRCTNDINALQSIVSNI

IPDFFRELLTAIGLLAVVLYQSPTLAFFALVILPLAIFPLVWFAKKLKKYARNIQETNSDLLSYLGEIFS

NIELIKANDNEKKESDKFAKHNDTLCKLNLKSARIDALTSPLMDMMGSVGVAVVIIVGGREVINGSMSVG

SFISFVSALFAIYTPLKRLSSLYGKLQGAVAASERTFYLLDLEPQIKGGSKELKNIEKISFENVEFAYEN

PHKSVLKGVNFDFVKGQMLALVGTSGGGKSSIINLLMYFYEKQKGKILLNQEDISTFTIESLHAKIGLVT

QNIYLFNDSFAANIAYSEELEEEKVIQALKLANAYEFVKEMGGIWAEVKEHGKNLSGGQKQRIAIARALY

KNPDVLIFDEATSALDNESEKAIVKTIENLKQDRLILVVAHRLSTIENADKIVVLDKGKVLAIGKDEELL

QTCSLYQKFKSKEKTKPSFS

>AHK55352.1 cysteinyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRLLDSVTKEKIKLDKKDISIYLCGPTVYDDAHLGHARSSVCFDLLRRVLLAQGNRVKFARNYTDIDDKI

LKKMAQSGQTLEEITEFYIKSYEEDMRVLNVLDPDFKPRATHYITAMLDLIKKLAKDGFVYTLEDGIYFD

TSKDEKYLSLSNRNLEENISRLSNEVQKRNESDFVLWKFDENFYESEFGKGRPGWHTECVAMIDSIFENT

LDIHAGGIDLLFPHHENEAAQCRCGCKRKLANIWLHNGFVKIDGEKMSKSLNNSFFIKDALKEFMGEALR

FYLLSSHYRSHFNYSLSDLENAKKRLDKFYRLKKRLDLGEISDFDVLNDIGIKSEIAKQILEILNDDLNV

SKALALLDDFISSANLELDKESKNKILKQNIKEALSELAKIFGFGFMDATLYFQWGVSKEEREEIEKLIL

ERTEAKKNKDFNTADAIREQLNSKKITLLDTPNGTIWEKINA

>AHK55351.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MALDEKIIAYTENPARELLSVASRTNLSLNELDFSLLAFSTQYRFGDLEWEKISEKELTLFDKDEIFLKN

DLQIKQEYKIEIFHGINQSKASQAVKLVANKNLTKIVAQIDFTNLDFHEKLALELLQNIYKKMLKLKFLI

GIRIFDFKKKLMSFCNQYKNTPLNKTIQITVAQGIDPIESQDESLILTYKEKTKNYTIDEKRSGIIVVDE

NEVVLKHVKFKQGKEGKDLNLHTLKVLAANENKVKFSCSSAFKQVEQDGYTEYIALKKGYVVQDGEKFDI

ANELDFNGVDFKNIGIIRAGLDKNVKINIKFLSEVKDAVNSGVGIECEELNVVGSVGSNTQLNATKMKIE

GTTHSKAKIQAKQAYIKTHRGFAEAEILNIDLLEGGTIKAKEVRIKKSLGGNIQADKIYIENLESNNSCV

FFENTTIERINGDNNKFHAKIKTLDKNYDEEFAILGEQISKLNHKINKIRQYILSSKNGILSVEKKITEL

KNQGQNVPVQYEKALKDFSLQNLELNKLQNEEKELLERKKSLQLELINLQKMLFEATFINKSGKWTDMNE

IKFSLLEPKEDIFCSSFVNESAKFIGIKKVIQNNQESIEIHKKLDYEEKDIAWLSASKE

>AHK55350.1 Holliday junction DNA helicase RuvA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVVGIEGIITKKEPTFIIVKCASGLSYGIFISLFCSAKIQTQEKHEFFITQIIKEDSNKFYGFLDKDEQK

MFEMLLKVNGVGANTAMAVCSSLDVNSFYKALSLGDESVLKKVPGIGPKSAKRIIVELSDTKTKLENVSD

DKSEALAALLTLGFKQEKIISVLVSAQATGTSELIKEALKKLG

>AHK55349.1 D-alanine--D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFAILFGGNSYEHEISIVSAVVLKKVINQNLEFIFCDEERRFYHIPSEKMNSKTFSTKAYKKEKELFIK

QGGFFSKGFLKENKLECECVINLIHGRDGEDGKIAALFEFYSIKFIGPRLEASVLSFNKELTKLYAKSVG

VKTLDYTILRKNQNSKEKLSFPCIIKPARLGSSIGISIVKDEKDLEYAKDVGFEFDNDLVVEEFKNNIKE

YNLAGCMINDEFVFSIIEEPKKKEFLDFEQKYLSFSGHNELIEADLSEELKEKLKDSFKKIYNPLFKGAL

IRCDFFILDNEIYLNEINPNPGSLANYLFKDFNTTLNALADQISLEKMIKINYNFLHSINGQKGKL

>AHK55348.1 prevent-host-death protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLSFKQDEIYTATEVVRNFSPIMEKLKKSESGKIVILKNNKFEAVMLSMKEFERLQNAMQLLENIYKNQK

A

>AHK55347.1 2-hydroxy-6-oxohepta-2,4-dienoate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAQTQLSYKNKTYQISYEILGDLSLPQILILHGWGADKKLMKQSFCPFLKDFCQIYMDLAGFGNSSVEEI

LNTQDYANITELFLKQKKLNVCFFMGHSFGGKVSTLLAKEKDTLILLSSAGILAKKSLKVRFKIRIFKIL

KLFGLGKFYRYFASKDGANLSPIMYETFKKVVDEDFSEIFAKQKAKSLIFWGKSDEATPLYCGEKMHQFL

KNSTFYPLEGDHFFFLKHSAFIAQKIKEI

>AHK55346.1 UDP-N-acetylmuramoyl-tripeptide--D-alanyl-D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLINTLYFINSLFFNFCIAFYLMSALQWYSYKFKRVFFHYHKPLWHLYFLFIPYFLFLAFPLYSLVYFAL

IHTPILYFWNKGIDKKLVFTSKVKWFFVFVFVYNAIFTILALRFSFLFNLFSLPFALLSLKIYEFFTNLY

YKKQAKAKLRANENLKIILITASFGKTSIKNFLYELLKDDFKSYKTPRSVNTLLGIVADINANLSQDTQI

YIAEAGARLKGDIDEITHFLQPQISIVGEIGNAHLEYFKSVENIRSTKLEALNSERLEKAFLHSSTQKEE

DKLISLYDDKLSLIHSSLEGLEFKVDIENKSYDFKSQILGDFNAQNLCVCILCAHYLGIKLEKIQKQVLN

INSVEHRLQVLSREPKFIIDDGFNGNFKGMSTSYKLCKSYKGRKVLVSPGIVEVSEEENIKLAKIINECF

DLAIISAQINAEIFKKELKIKTIILKEKSQLVQTLAKETKHGDLILFSNDAPSFM

>AHK55345.1 signal transduction histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNESILKSLDSNEKETLQKGLESLIEQTYVIENEYKTLNENYNSLRAMVDEIIEVLPSALWILDKEKNII

LQNQEALKNPKLLSIISLDKIRDELEFEGRFYAVKIIAHNEKTIVSATDISDEKRNERLASMGSVAAHLA

HEIRNPIGSISLLASTLFARSELKNKHIVLEIQKAIARVERIVNSTLLFTKGVHINALNFNLLELKEECE

SAINSYNFTSQIDFEISFLDKQICADKALLGLVLQNLIYNAIDAIEESECEKPMIKILASYDNEKICIRV

YDNGCEIKDEKLVFEAFKTTKLKGNGLGLSLSKEIINAHKGELSFQSDPKNFYFTLPLV

>AHK55344.1 hypothetical protein N917\_03945 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHKNLSLSKLFDFYSVFEGFEKLNILNFEDDVFTNIERILLDDYLKIKSYFALDETSSYALTLLAKNNRK

RFSINRKIQHFKALSTLKYLLETGIIKLEYSKEAKKIKDKRQKIKKELRSYVVQDKIIFSNHFTRFFFYF

LKPNEKLILQNRYKEVLECIKEKFELYQSFCFEQLSRELLEKKFNINGVQSYWDKNLELDLYYQDENLCF

VGEVKFKNKKICKNILNLLKSKAKSLNLAPNYYIIISKNGFSKEIDKICEQNLLLLDLNDFKILLEE

>AHK55343.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQISDLKKELILKKGILHFDFTASALALKCVEKEILKILPTYANTHSDSSLNSFKTQQTYEQARKDIKKS

LSLDENFALIACGTGSSSAIKKFQELIGIYIPPLVKERYFTQIDKNTLPLVIVGPYEHHSNELSFREGLC

ECIRIPLDKNGEIDFDFLEKTLQKNKKRKIIASFSLASNVTGILSDYKRISEMVRKFKGIVAFDASSFIP

YKNISCQYYDALFISSHKLIGGIGGSGLLAIKKDLCGNKPSFAAGGTVGYVSRTSQCYLCNEEALEEGGT

PGILQLIRASLAFKIKDSIGVKNIEKKEEILKDYFFEKLKTIPNLILYAKNLKTRLPIFAFNIKGISPFD

IAYELSKKYHIETRAGCACAGPYGHDLLGLKDNQKLKTKPGWLRISLHYTHEKEDIDYFFNALNKTIVKL

SH

>AHK55342.1 formyltetrahydrofolate deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MISVLKICTKDQKGLIYRISDVIFKYHINIVKNDEFVGEGMFFFRALLEGEFDKEAFIGTLEAMLGQEAL

IELCEKRKKDIVVFATKESHCLGDLLIKHYSNELEANIKAVISNHNSLKDLVEKFEIPYHFISAENLDRK

EQENQILKCLEQYKFDYLVLAKYMRILSPDFVRHFEGKIINIHHSFLPAFIGANPYKQAFERGVKIIGAT

AHFVNNNLDEGPIITQAVSPVNHEFTWQDMQQAGRNIEKDVLSKALDLAFEDRIFIHNNKTIIF

>AHK55341.1 multifunctional Cca protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVGGSVRDLFLGLKICDYDIELYDIKPKDFEKIMQKLGAQGFGKSFFVYKFKNYDLALARTENKISYGHK

GFEVQICNDEKLGAKRRDFTINSMMINLFNDEFLDFYGGLKDLGVGFLRHIDKQSFQEDSLRVLRAVVFA

SRFNFKITSESLKLMQSMDITDLSKDRINAELCKFFKSPRLDVGYRYLQELGLEKQVFGFESVFKSSEFQ

NLLRQSREFVKSDALFLYLYLNFFNLEKDIFFKRTKLKKEYLKYANQAFYLDDISDFELAKIAFEMPLKE

WLGLWSKKRIEQAKRLGLYENKFESKILAKDFINAGFCGKILGLKLQEARENELKEYIKGLAK

>AHK55340.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLEDLAKKTISEVSSIMEEQRRQNEILKEQELNRKTEIKDELPPMEFVCEELDTPQDLEDKISMAKFEE

EQKIQNNIEISTQENKEFKKEEPFLQNEILNPSVMTEVQTLNEDIFLKHLRERILVLFEGLNSIKKDDLE

NRLNLTINFLEFLLANIEDKLKK

>AHK55339.1 hypothetical protein N917\_03920 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNTVTEASIYEAQGLKDEALEIYKNILKEDPNNQNAIDAVRRLSGFRSKHKDLNTQMLDFFINMKSDEE

INEFKRWLIKI

>AHK55338.1 hypothetical protein N917\_03915 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVFLIPLLIIIGVIFGIDYVYFKNQDLKVQVKKEQKELNSSLEKEKKEYIEKLFKTK

>AHK55337.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNNLSSVLILAKEEYINDLKKAISEIPFCSVELCENEKIIVVIESENLEDELNSYKMLEKLPNIISINMV

FSYQDLNDDIQKAINSGAIETIEKNENAENVRYYGSVFNQFS

>AHK55336.1 hypothetical protein N917\_03905 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKFLFILSLFCVLSYAYELKLNANITALKLDKQNLYIGTDKGEILQYNIKDKSLKELLSLPKIKNYYGD

DFAKIYNIDIFKHTLLILSEGDFGAKNLSFYKENLQIKKLEENSIIKAFFINENTYLLISIGSEIELIDK

SLKNIKKFNFSHSSLNDAVLNEDKSRLIAGFESGEVELFDLKNWKMLKNYDKMHKDNIYQVDFKNNVILS

CGTDRRIGVVKNEEQNFLQKDFLIYTCALSPSGEFAVYSDNEAGVSEVFSTSDFKPVKTFNNENLMSEFI

IFLNNKDFIVSGFGDSIMFRSIDE

>AHK55335.1 nitrate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKKLVLLGSAAVVFFAACAMNSGVSSEQIGLRKASLENENKVNLVEANFTTLQPGESTRFERSYENAPP

LIPHAIEDLLPITKDNNMCLSCHDKAIAADAGATPLPASHYYDFRHNKTTGDMISDSRFNCTQCHVPQSD

AKPLVGNSFKPEFKNEQLKSRSNLIDVINEGVK

>AHK55334.1 quinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKYLIARRIVQLGILALFSFKATDFILQGNLSSSRLFNTIPLSDPFAVLQIILASWSIDLMALIGALIIF

FIYGLLLGRVFCSWVCPVNLITDFAAFVRNKLTLNNKFLILPKNLRYFVLVLVLVLSFVFSLPVFESFSY

IGMIHRGIIFATSSWIFVAFILFCIDTFLSPRAICSHFCPLGAFYAFISRFALLKIKHDSDKCTKCYECI

RICPEKQVLWMVGKESTSVKSGECIRCARCIEVCNDDALNFNIFDLRNK

>AHK55333.1 quinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKGRREFFVSAFKAACLCTGGGFLANLALKADDNYALRPPGAENEARFLSKCIRCGLCVKACPYDTLKLA

SLLDSPKNGTPFFKAREIPCYLCKDIPCIRECPTDALDKKHLEQGIESLKMGIAIVDSASCVAHWGIQCD

ACYRACPLIDRALKLELKRNERTAKHAFLLPSVDHEVCVGCGLCELACITEKPAIRVLPREYVLGKAGSH

YVKGWDEKDEGRIKNADTSKHFNVKKATNYLNDGEL

>AHK55332.1 nitrate reductase catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNRRDFIKNTAIASAASVAGLSVPSSMLGAQEEDWKWDKAVCRFCGTGCGIMIARKDGKIVATKGDPAAP

VNRGLNCIKGYFNAKIMYGEDRLVMPLLRMNEKGEFDKKGKFQQVSWQRAFDEMEKQFKKAYNELGVTGI

GIFGSGQYTIQEGYAALKLAKAGFRTNNIDPNARHCMASAVVGFMQTFGVDEPSGCYDDIELTDTIITWG

ANMAEMHPILWSRVSDRKLSNLDKVKVVNLSTFSNRTSNIADIEIIFKPNTDLAIWNYIAREIVYNHPEA

MDMKFIKDHCVFATGYADIGYGMRNNPNHPKFKESEKDTVEKENVITLDDEEATSLSYLGVKAGDKFEMK

HQGVADKNWEISFDEFKKGLAPYTLEYTARVAKGDDNESLEDFKKKLQELANLYIEKNRKVVSFWTMGFN

QHTRGSWVNEQAYMVHFLLGKQAKPGSGAFSLTGQPSACGTAREVGTFSHRLPADMVVANPKHREISEKI

WKVPAKTINPKPGSPYLNIMRDLEDGKIKFAWVQVNNPWQNTANANHWIAAAREMDNFIVVSDCYPGISA

KVADLILPSAMIYEKWGAYGNAERRTQHWKQQVLPVGAAMSDTWQILEFAKRFKLKEVWKEQKVDNKLTL

PSVLEEAKAMGYSEDDTLFDVLFANKEAKSFNPNDAIAKGFDNTDVKGDERKIQGSDGKEFTGYGFFVQK

YLWEEYRKFGLGHGHDLADFDTYHKVRGLRWPVVNGKETQWRFNTKFDYYAKKAAPNSDFAFYGDFNKML

TNGDLIAPKDEKEHSIKNKAKIFFRPFMKAPERPSKEYPFWLATGRVLEHWHSGTMTMRVPELYRAVPEA

LCYMSEKDGEKLGLNQGDLVWVESRRGKVKARVDMRGRNKPPVGLVYVPWFDENVYINKVTLDATCPLSK

QTDFKKCAVKIYKA

>AHK55331.1 thiol peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSIVNFKGNPVKLKGNSVEVGADAPKVNLKAKDLSVIEIGAAGKTQIILSVPSLDTPVCATEAREFNKKV

ASYNGAEVIVVSMDLPFAMGRFCSTEGIENLSVASDFVAKEFGEKYGVLINEGALEGLLARAVFVIKEGK

VAYKELVNEITEMPDIAKLDAFFGGSSCCGGCGCH

>AHK55330.1 hypothetical protein N917\_03875 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILILSLAASFLNAEILVYGPGGPAPVLKELALKFEEKTKEKVIVTAGPTPAWVDKAKENADLIFSGN

TSMMDDFAKKIPSLSLENLSVLNVRPSGIIVRPNNPKNIKNFEDILKDGINVMVVDGAGQVGLYEDMALK

SAKRENLVKLRKNIKIYAKNSKAAVDEWNNNPNIDALIIWSHWAKALGDDKALFIKDKNAVIYRAAEIAP

TKKGLENKKALEFVDFIKSQEAQKVWKKYTWKEVK

>AHK55329.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPLSKLNNEQYLAATADFGHNLVIASAGTGKTSTIVARISYLLSKGVAPQKIMLLTFTNKASKEMIGRLG

KFFDKNITSKILAGTFHSTAYTLLRNADKNIALKQASELKTLLKSVYEKRTFRHLSDIKPYQSSYLYDLY

SLFQNKAHNQDFYTWFCQNYEDQSIYAEIYEDILKEYDNEKKRFNYVDFNDLLINLKDLLKEEKYEFDEI

LVDEYQDTNTLQSSLIEAFHSKSLFCVGDYDQSIYAFNGADINIIGGFKDRFKDAKIFSLNKNYRSSRSI

LALANKVILNNERLYPKELIVTRNDEFKAPSLLTFEELFDQYQNIAKMILTSGVSLEEIAVIFRNNSSAD

GVEVALREQGIASVRKGSGSFFESLEVKAFSSMLALVVNPKDIMAFIHLVQYTKGVGGVLAKEIFDALLK

LGHGNLIKGFLDPDKNVNLQNHQKRNYQLGLFADLEELASETRFKFESEFDAHPILRLSKINDLCARNLE

KIYLFLKKAMEIKHSLTLVNLICENSFYREICEELATKRATNKAGQVDLLRKSENLEKIETKFNVLKELT

KNYSDIYKYYNFLTLGASEMSSGKGVNLLSVHASKGLEFDLVFVIDLAQGRFPNQKLMGMGGSLEEERRL

FYVAVTRAKNILYLSYAKYDKNKKTSFAPSRFLIEAGLCKGELTID

>AHK55328.1 hypothetical protein N917\_03865 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLKIFSIIVGILIAVIVILGGTYYYLFEYSKPKNYTLNTNTYTEQKSYTNNYDNPYSPSIQTNNSSSNV

NTNNNTIQKQETNPLLDENQSLNNDTFNISISENNQSLNNDTNTSNNINTNENKQILDTDKEKLKQENKQ

AKIEALKKEISKQQKILERERAIKKELQSNKSNKNKYLNTAREYLSIGKNSRLEPELSTENMKVYILDGK

FLSQYRINLLKDMLSIIQDNAKDYYLSIFVKMLPKGEMKLTIYNKEIIFSDMKKAYKYISLDRLSPYLNN

PKELNEHVAREEILERLKLQIKKDGKGSDFSKHIKSLKTGLNTAQYFFPFCEIIEISSIK

>AHK55327.1 valyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYDKNLEKEYYQICEERGYFEIDGNKTIQEKDKNFCIMMPPPNVTGVLHIGHALTFTLQDIMTRYKRMDG

YKVLYQPGLDHAGIATQNVVEKQLLTQGIKKEELGREEFIEKVWEWKEQSGGKILDQMRTLGITPAWSRL

RFTMDEGLVNAVKKAFVELYDKRLIVRGNYMINWCTHDGALSDIEVEYKENKGKLYHIKYFLKDSDEFLV

VATTRPETFFGDTAVMVHPDDERYAKFVDKEVILPISKKAIKIIADKHVEKEFGTGVVKVTPAHDMNDYE

VGLRHNLDFISVFDEKGILNEHCLEFQGLERLEAREKIVAKLESLGFIEKIEEYNNQIGYCYRCNNIVEP

YISKQWFVKKEIAQESIEKVALGESKFYPNHWINSFNAWMKDLRDWCISRQLWWGHQIPVYYCECSHEWA

SQHTPKTCPKCQSQNFKQDEDVLDTWFSSGLWAMSTLGWGNENWGKDKIWSEKDLKDFYPNSLLITGFDI

LFFWVARMMFQSTNVLHQLPFKDIYLHALVKDEQGRKMSKSLGNVIDPNESIKEYSADILRFTLALLAIQ

GRDIKLSNDKLLQVRNFTNKIYNAKNYLLLNESKFEDLENITLHSELAKYIYAKFQTCVKDVRENLDNYR

FNDAANTLYKFFWDDFCDWGIELSKAEKSSVKELGSIFKEALKLLNPFMPFISEYLYHKLSDTELKTSPS

IMISKYPKFKEQDKNIEKIFSLLIESIVSIRRAKSLIDLGNSKIEKAYIKFNDKKIKDEIKAYMNFIIML

AKCEQIEFSEEKLPKAICDVSENLEIFITLENVDLSGILTRLENQKNKLEKESFKLNSMLSNEKFIANAP

KEVVEQNKEALENLKIQLEKISVELQNLRG

>AHK55326.1 methionine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKIKNLKKYYGKELVINDVSLEIKKGEIYAIVGHSGAGKSTLLRCINGLENYQEGSLKVFDQEIKDLSQ

KKSKELRMLRKDIGMIFQNFALMERKNVFENVAMPLRTHYTQCKFHAKLFNKEYMSEKEIAQKVNSLLEI

VGLDHKNKSYPRELSGGQKQRVAIARALALNPKILLSDEATSALDPNTTKNILELISKINAEFGITVVLV

THEMDVVKDIAQKALLLEHGQIIGSGAIDELFLRPNAKMKEFLGESDFLPEHGLNIKLYFPKEVAQNSVI

THMARTLNIDFNIVWGKIEKLNGKALGNLVININEKDKDKVLDYIEKSGVLWEVAS

>AHK55325.1 methionine ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNEENISIVSAFFSRISQFFNEFSWQDIKEVSLSSITSFNENYENILKPALNETIYMSLMAVLFGFLLAI

IPGILLAIWDKNGIKENKIAYSILDFITNILRAFPFLILIVVLLPLSKIIVGTSIGTNAAIVPLAIGIAP

YLAKMLESAFKEIDKGIIEAAKSYGASNIQIIFKVIFSEALPAIISGITLTLIFTIGFSALAGTVGGGGL

GDVAIRYGYERFNKEVMIQTVVILLILVQLVQILGNLFYTWAKNSKTTYIIATLLILLGVSIVININNDE

NFFWQVIVFILFLGSLLYKGFKK

>AHK55324.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIKSLFIASILTLSLNANALETITVAATPVPHAEILEQVKPDLEKQGYKLEIKEFTDYVLPNLAVDNGE

ADANFFQHTPYLEEFNKNKGTKLIKVAAIHIEPMAVYSKKYKSLDDIKEGVKIAIPNDPTNESRALDIIA

KKGLVKFKDKALKTPLDIIDNPKKIKFVELKPAQLPRALNDVDFAVINSNYALSANLNPAKDSVFIEDKE

SPYANILVVRVGHENDPKIKALIQALQSDKIKQFIIEKYNGSVLPAF

>AHK55323.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLFKIIILACILNLSSLFAQNITIGATPNPFGSLLELMKDDFKNKGYELKIVEFSDYILPNRALEEKEL

DANLYQHKPFLEEYNLKKGSNLIATTPVLIAPVGVYSKKIKNLENLKEGARVAIPNDATNESRALELLEK

AKLIELNKNTLKTPLDINKNPKKLKFIELKAAQLPRALDDVDIAIINSNFALGAGLNPSKDTIFREDKNS

PYVNYVVVRSEGKNSEKTKVIDEILRSDKFKAIINEHYKDILIPAF

>AHK55322.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNIKKIFLSVLFTISLSFGADKTIIIGATPTPYAEILNFSKPLFQEKGWKLIVKEFNDYNIPNIALNEKD

LDANLYQHKPFLDDFNTHKGTKLSSLGAIVLVPMAIYSNSIKDIKDIPNGAKIAIPNDATNESRALDLLA

KANLIEFKSQSTLKTPIDISKNPKKLKFIELKAAQLPRALNDTDLAIITTNYALGAGLNPLKDGIFMEDK

DSLYAIVLATRKGEETSQKSLVIKEILTSDKIKNFIIEKYKGSVIPTF

>AHK55321.1 flagellar basal body P-ring biosynthesis protein FlgA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIIFLTFFIVINYIQAASLEEIKTALAKEFRNNFPKIIISQIDLKITSLPKDFDQYEFLRIANGRFNQA

QGFLRAEFKTPQNIQKNVFFRYFIQANLEVLKSERAIKRGDKLGAFDYKSVLIDFDKVPLNALTLDDVDN

LVAKSNINKNAILRANMFKTTALIRRNDPIIGVLSEANVDVLIELVALQSANMGERIRAKNKEGKVMQGI

VVGKNRMIIQ

>AHK55320.1 3-octaprenyl-4-hydroxybenzoate carboxy-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVLLGISGSSSVNLGLKLLKNLENQCELYCILTQGAKLNFKTENQANLEEICQENFKYTHFLDDKNLSL

SVASGSFGIEKTIIAPCSISSLAKIHAGFADTLLMRAAAVALKERKKLILGVREMPFSTLNLEHMLKLSQ

MGVIIAPPIIASYSKANNLEQMENFIAGKWLDLLEIKHNLYEKWQNF

>AHK55319.1 phosphopantetheine adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTCLYPGTFDPITNGHLDVIKRALKIFDEVIVAIAKSEHKKPCYDLEKRKELALLATQNLKNVKIIAFDN

LLVDLAKELKVNTIIRGLRAVSDFEYELQIGYANHALWEDMETIYLMPSLKHAFISSSIVRSIVAHGGDV

SSLVPKEILPFLKDQSCM

>AHK55318.1 thymidylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYVVFEGIDCVGKSTQISLLKEIYKDAIFTLEPGGTELGKHLREILLNKTHPINKRAELLLFLADRAQHF

EEILKTNQNKLIISDRSFISGMAYAKDFENDLLFALNSFALENFFPQKIIFLKGDANLIQERLSQKELDS

IEKRGIEYFLSVQDKLEKVLHFLKEKISVEILTLDAKESKEKLHQQIKEFLQ

>AHK55317.1 histidyl-tRNA synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINALKGMKDLLDKDAYYYEKVIKICEEVAKNYGFTFINTPHLELCTLFKRSVGESSDIVGKEMYEFIDK

GENHVCMRPEGTAGVVRAYIEKKLDKNTSVKRWFYYGSMFRYERPQKGRLREFHQFGVESLGIPNVYEDA

SIILMLVEIFSRLGIDFKLQLNSLGCSQCLPKYRDRLVEFLDSKEGFCEDCLRRKNLNPIRVLDCKNEHC

QNLLENAPLLINNLCTSCQKDFETLQQILKDNGVKFELDSKLVRGLDYYSKTAFEFISDEIGAKAAIAGG

GRYDRLIEYLGGKSGYGIGFAMGIERIITILEQKEEKIQREGIYLCAMDEIYIQKLLHIATNLRKEYKVL

LSYEARKLAKHLENADKNNTEIFLCMGENEAQNESLFYKNLAKKEEKMIKISDLKKVL

>AHK55316.1 arginine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDYGIDIWGNENFIIKNGKVCINYEKKPAIIDIVKELRDDGYKGPLLLRFPHLIQKQIENIYGNFNKARK

EFGYKGGFNAVYPLKVNQYPGFVKNLVKLGKDYNYGLEAGSKAELLLAMAYNNEGAPITVNGFKDRELIN

IGFIAAEMGHNITLTIEGLNELEAIIDIAKERFKPKPNIGLRVRLHSAGVGIWAKSGGINSKFGLTSTEL

IEAVNLLKENKLLEQFTMIHFHLGSQITEIHPLKKALNEAGNIYTELRKMGAKNLKAINLGGGLAVEYSQ

FKNEKSRNYTLREYANDVVFILKNIAEQKKDLEPDIFIESGRFVAANHAVLIAPVLELFSQEYAENKLIL

KKQNPKLIDELYDLYKSIKPSNALEYLHDSIDHLESILTLFDLGYVDLQDRSNAEILTHLITKKAILLLG

DKQNPADLLAIQDEVQERYLVNFSLFQSMPDFWGLEQNFPIMPLDRLDEEPTRSASIWDITCDSDGEISY

SKDKPLFLHDVDVEKENYFLGFFLVGAYQEVLGMKHNLFTHPTEAIISINEKGYEVEGIIEAQSILDTLE

DLDYDIHAIMDILNERISNSKLVNDKQKKHILGELYLFLNDNGYLKSIGV

>AHK55315.1 serine acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFWGIIKEDFSQPKAQDPAFNSCIELFFNYPGVWAVVNYRFAHFFYIRNFKRIARMISGISQFLTGVDL

HPGAELGRRIFIDHANGVVIGQTAIIEDDVLIYQGVTLGGTSLEKGTKRHPTIKKGVIIGSGAKVLGNIT

IGENAKIGSNAVVVKDIGANLTAVGIPAYIIEERKNKNIRAIDANCDDKLEKLEKKILELENLILKQPES

QK

>AHK55314.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLTKRSQVLEESITLAITALANELKAKGEDIISFSAGEPDFDTPQTIKNAAISAIEKGCGKYTAVAGIPE

VLKAIQTKFKKDNNLDYETNEIITNVGAKHSLFECIECLVEKDDEVIIPSPYWVSYPEMVKFAGGKPVFI

EGLEENGFKITAEQLKKAITAKTKVLMLNSPSNPVGSIYSKEELTQIAKVLEGTQITVLSDEMYEKLRYD

GFDFVAFASVSKDALKRTVTINGLSKCGAMPGWRFGYMASKNKALISAVKRLQGQSTSNICSITQHAAIP

ALNGECDKDIEKMRQAFEKRRNLALDILKQIPNISVYKPEGAFYLFVNIQKIEKDSMKFCQKLLEQEKVA

VVPGVGFGMDGYFRLSYATSDELIKKGLERIANFIKNYK

>AHK55313.1 cupin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIIQWNGAEFSPKEVKINVLIDNEKGKEIQILLAKDSVMKEHKAPFAIHVQVLSGKIWFEVEKEKFELN

ALDMISLEANVAHSLGGLENSIIRLSLNKSDSVQRVNAVLKKP

>AHK55312.1 zn-dependent hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLSFKIFDISNTQRSKAKKVQGKKYEIFLNENEHSLITPKVSFKEILRYYYLYPKNAIPSFKLPFFKPD

LSGFSTPHITWLGHSSLFISFKEYKILIDPIFNTHASPISFINKAFKNAPVYNINDFNEIFAVIITHSHF

DHLDAKSVKALKDKAKFFITPLKVGNYLKSYGVSEKKIIELDWWSGIEFGDLKIMATPAQHSSSRGDGKN

KTLWASFVMEFLSVDKRVFFSADGGYFTHFKKIGEYFGSFDLACLESGQFNIAWPYSHSFPEQILKEAKD

LNAKAVMPIHWGRFLAGTHAWNEVVKFLYENLDLPLITPKMGEAYEVGAKFKQDFWWKEE

>AHK55311.1 molecular chaperone DnaK [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKVIGIDLGTTNSCVAVYERGESKVIPNKEGKNTTPSVVAFTDKGEVLVGDSAKRQAVTNPEKTIYSIK

RIMGLMINEDAAKEAKNRLPYHITERNGACAIEIAGKIYTPQEISAKVLMKLKEDAEAFLGESVTDAVIT

VPAYFNDAQRKATKEAGTIAGLNVLRIINEPTSAALAYGLDKKDSEKIVVYDLGGGTFDVTVLETGDNVV

EVLATGGNAFLGGDDFDNKLIDFLANEFKDETGIDLKNDVMALQRLKEAAENAKKELSSANETEINLPFI

TADASGPKHLVKKLTRAKFEGMIDSLVAETITKINEVVSDAGLKKDEIKEIVMVGGSTRVPLVQEEVKKA

FNKDLNKSVNPDEVVAIGAAIQGAVIKGDVKDVLLLDVTPLSLGIETLGGVMTKIIEKGTTIPTKKEQVF

STAEDNQSAVTINVLQGEREFSRDNKSLGNFNLEGIPPAPRGMPQIEVTFDIDANGILTVSAKDKATGKA

QEIKITGSSGLSEEEINNMVKDAELHKEEDKKRKEAVDARNAADSLAHQVEKSLSELGEKVAAADKENIQ

KALDDLRETLKNQNASKEEIESKMKALSEVSHKLAENMYKKDEPNTANDKKKKDDDVIDAEVE

>AHK55310.1 heat shock protein GrpE [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSEQKQEFENENAENSEHLQDENLQNIEDVEQNKLQKDYDELKDKYMRANAEFENIKKRMEKEKLSAMAY

ANESFAKDLLDVLDALEAAVNVECQDEISLKIKEGVQNTLDLFLKKLEKHGVALIKDEKEFDPNLHEAMF

HVDSENHQSGEVVQVLQKGYKIADRVIRPTKVSVAK

>AHK55309.1 HrcA family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKSRDKKDLILESIIQTYLLDNAPIGSNELNSNLCIPASTIRVYLKRLSDEGLITQLHISSGRIPTILTM

QNYWQNFWEKEQDKNIHIKNESFLKELSKEFEIYCLVYGGRSLVLKEVLDLNTKFIVLDFEDEELVLKYE

KEAWNFLQSLIGLDLSSIEKIALRVHFIDLVEKIASLRQNLICYRSNEERAYQIYQNDEFVKLLDCQIHR

HFKESLEFEPLFKEGFMGLKVDAQFLGEDVNIILAGSVYTDYKKILQYIKEAA

>AHK55308.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILSIALVALVGLFLGACSDSKNKESNASVELKVGTAPNYKPFNYKENSKLTGFDTDLVEEIAKKNGI

KIVWVETNFDGLIPALKAGKIDMIASAMSATDERRQSVDFTKPYYMSKNLYLKLKNNDSLQTKNDLEGKK

IGVQLGTLQENTAKAIKNAQVQSNKDLNIAVLALKNNKIDAIVADQDTAKGFLAENPELVSFYQETDGGE

GFSFAFDKNKQKNIIEIFNKGIDEAKTDGFYDTLIKKYELE

>AHK55307.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLVLFDLDDTLIQGDSAKLWLKFCVEKGFLPQEYLEKIVFYQKQYQEKKFDMDEFMTFFLQSVKGKNED

RISSLVDEFIKIYIKPYEKAKELIIKYQDQRCIIISATAEFLVRKIASFLGVRESIAIKCERVGDKFSGK

AYGIYSFKEGKVLRLKEYLGKDYEKWMKDSYFFSDSINDLPLLESVSKAFVCNGDEKILKIAKERKYEIL

TF

>AHK55306.1 spermidine/putrescine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAYLKIKNFKKAYGDKIIFEDINFSAKKGEFITLLGPSGCGKSTLLRCIAGLSQINGGKISLNDKDLTKL

SPQKRNIGMVFQNYALFPNLNVFENVAFGLKIKKMDKKDIEKRVKKMLKLVELEEYAKTYPHKLSGGQMQ

RVALARSLVIKPDLLLLDEPLSALDAKIRKYLRVQIKEIQKELELTTIFVTHDQEEALELSDTIILMNEG

KIIQNSNANNLYLLPESHFVASFIGNYNILSPKELDSLGLKHDFKKDIALRPETIEISNEGLEAKIKEKS

LLGNIIRYRVRVQEIEFKVDTLNFSTHSTYEAGDKIALKFNLSLAKELK

>AHK55305.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNENLSLKAKIYHYAVLFLVFLFLALPLMATFLYSISTSWGVSVLPDDLTLKWYQELFHDERFLLALWHS

LLVCVGSILLSVILVFPLVFVLNYYFLKLKAFVNILIIMPFAVPPIVSCVGLLQLYADNIGGTAWILIFT

YFTIALPFIYRALDNAISNVNLNELITSNAMLGGSLMGAIFKLILPNLRNGILVAVFLSFSFLIGEFLYA

NILVGSAYETLQVYLYNIKNQSGHYSSALVIVYFVLIFITTFIASLIKE

>AHK55304.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEKFLAFLSILPFFIVFTFFMIAPLIWIVFNAFYVEEDEIYSLANFIHIFESKFYLQSIINSLQISFIS

SIFGLLIGLLASYSLFVLAPSKICKFLFSLNTMISNFSGVPLAFAFIIVLGSNGVVNVFLKNLGIEPFVS

VYANFGVNIVYVYFQIPLAILLLLPAFKSLENSHLNACKMLGGGNFLYWLKIALPLLAPALFGVFVILFA

NAFGAYATIYALSSGNFNVAPVRIAALIAGDINLDPYMASALSIIITIIMLVVTFIANFLSKKYNFKVL

>AHK55303.1 hypothetical protein N917\_03630 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKAILVVLDGLNCKSASINMGYLNALCKENLGKFYSLECELPSMSRPLYECLLTGVKPVLSGIINNKLS

FSKQTSIFDLCKEQGLKAGGAAYHWVFELYNKKEFIPSLHRHIEDENLTLPYGHFYYEDDYLDSHLFADG

EHLRNKYNLDFTLIHSMNIDDAGHKFGSHSIEYANKTKKVDILISEYLPTWLEQGINVIITSDHGMTEGK

SHGGLSEDEILVPFFTFGSAFSYENAKIKQDEICGSICEILGLKHDKRYNDEILKAKK

>AHK55302.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKKFFLSLGLVALLFSNSQAIDENLIKAAQAEGRVNSLAMPDTWANWKDTWADLKNLYDIEHSDTDMSS

AQEIAKFKTEKKNASGDIGDVGASFGEIAVKQGVAQPFKTSYWDQIPTWAKDKDGNWLLAYTGTIAFIVN

KDVVKDIPKTWQDLLKGNYKITVGDVSVAAQAVSAVLAANYALGGDEKDLSPALAFFNTLAKQGRLVNND

VSIANLEKGEVEVGLVWDFNGLGYRDKVGKDRYEVLIPADGSVISGYTTIINKYAKHPNAAKLAREFILS

DKGQINLAKGYARPIRIDHITLPDDIKAKLLPSEQYKNARAIKDQKAWEKSAKELPQLWQEKVIVDMK

>AHK55301.1 magnesium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLYIYIKTQNALVQRINFNLDSQELPQNILWIDLLHPSAAEIAFISSEFNLEFPTKEEREEIELSAKYWE

DNATITINAHFLVRDLKSDEEDRNLIKLRTEIVTFATAKNILFTIRYNEFSTFEEIQARILASPKNFEDG

FDIIDKMFEVRVEKDADLLEWIDKEARRLRTSVLEKKDEYSYDEMLKDISSLQELNMRVRDSLFDKRRAM

TSLLKSDKIDKDIKQNLTIVLKDLNSLVEFSVSQLNILDNIQTILASQINIEQNKVIKIFTVATVAMMPP

TLIGTVYGMNFKFMPELELHYAYPIVLGVMVISIILPLVVFKKKGWL

>AHK55300.1 molybdopterin adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDTINIGILTLSDRASSGIYEDKATAEIERVLNSYIKNDIIYHKELIPDDYDLIIKKLLYLADEKKCDLI

VTSGGTGPALRDVTPEATEAVCDKMMPGFGELMRLESLKYVPTAILSRQSAGIRNKSFIINLPGNPKAIK

ECLEPVFPAIPYCIDLIEGAYIEANDEVIKVFRPKKKCQN

>AHK55299.1 molybdenum cofactor biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFFKKKISQKQKEKPKIPINDVILDDRLCKFKNKVQKISKDEASASLLARQLSRLIRANKF

>AHK55298.1 peptidase M48 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTLIAILCLYTALLSWISYAQIRFLEREKDKQAQILSEKDYQNAADIAIENEKFKLFSNFYNLIISIAWI

GFGFLYLKELLILNNTRFENTLFLLSFLIITSILNLPLSIYESFIKDKAHGFSNMTVKLFIKDTMKSLIL

TLIFGFLILYTLLFCYDFFGTFWWIAAFIFAFCIIVIINLIYPTLIAPIFNKMKKLDDENLLKKISSLMK

QCGFSANGVYVIDASKRDKRLNAYFGGLFKSKRVVLFDTLLKALNERELLAVLGHELGHFVHKDIIKALF

NGAITMFLLFFVFANLPEFVYLESHLEGVNGGVFALLFILANIFSFLISPMLNALSRKNEFAADQHGAKV

TSKEDMKNALIALARENKAFIKTSKIYTFFYLSHPSISDRIKALS

>AHK55297.1 N5-glutamine S-adenosyl-L-methionine-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTIKNALMEAKSSLKGYENEAVFILCEYLKKDKAWLFLNQDIKIDHEPYFELIKRFKSGEPFEYIFEKVD

FWGLEFKIKKGILIPRYDSEILLFQILNLCKKNTFNGILEIGFGSGILSIVLAKELGLKITACDINPKAL

ELALENAQLHKVDHLIDFKLCNFKQIKENYDFIFSNPPYIKNSYPIDIWVQKEPKEALFGGEKGYEILEE

IIHFSLDKKVKFLACEFGYDQKEILEKILYQNNFIVDFFKDEQGYNRAFIAKFTNMRYDKK

>AHK55296.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKAVNLFLLASIIGVELILGIVVAPTIFFPQNLIGEGVLSHFQSGLMMTQIFIKMGYLLIFVSVVNFLYE

IYSLIKDEMKFQIKFSKFMLSLLILILSLIFVFYFTNTIIELQNLGENATKTQEFISIHNASEVVIKIIL

IMQVFLYFLSFKIAKK

>AHK55295.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMISDATMMQQNYYLNNAQKASDKALENIAAVRAISGVDSANLAIADSLRSQSSTIDQGVANAYDAIGVL

QIADASLTNISQSADRLNELSVKMNNAALNDSQKGMLRTEATRIQESINDSFNNATYNGKNVFQTMNFVV

GSGTETTNLNPLATDGLSIDSQDSITNFMDQLGSLRSEIGSGINAITSNINASVQNSINSKAAENNLLNN

DMAKNVNDFNANYLKENAAAFVAAQSNMQLQSKIANLLQ

>AHK55294.1 YggS family pyridoxal phosphate enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTLEQILEKTKNVRLVAASKYVDASIIEKLFDQGIVEFGENQVQALAQKKENLDEKKLDIKWHFIGTLQS

NKINLLIKQKPILWHSCNGIKIAKAMDKRLDYKLNTLLEINSANENSKSGLDPNQAVEEYLQIQEECSNL

NLCGVMSIGSHSQDKENIIKSFETTFKIYEILQKHGAKICSMGMSNDFEIAIKCGSNLVRLGSILFKNLK

>AHK55293.1 DNA polymerase III subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSQFTHLHLHTEYSLLDGANKLKELALTLKEQGATSVAMTDHGNMFGAIDFYQTMKAQGLKPIIGIEAYL

HNHDELDDKSSRQRFHLCLYAKNEIGYQNLMYLSSQSYIKGLYYYPRINKKLLEDYSEGLICSSACLQGE

VNWHLNTYSERNVRFGAKGYEAAKEAALWYKKVFKDDFYFEIMRHGIGDQRMIDDDIIRLSKELNIKIIA

TNDTHYTFKERAAAHEVFMCIAMGKKLNDPDRMRHSVHEFYVKSPEQMSELFADIPEAIENTQEIAQKCN

LELNLGNPTPPNFKFTREYAKDHNIILPEETKEFSFDNDDMVFEELCKKGLEERLKFIDESKHEEYKQRL

EVEINIIKNMKFSGYMLIVHDFIKVAKDKGIPVGPGRGSAAGSLVSYCLRITDLDPIPYSLLFERFLNPE

RVSMPDIDVDFCQDRRAEVIDYVIDKYGADKVAQVITFGKLLAKGVIRDVARVCDMSIQDADELAKLVPE

ELKITLDAAYEKEPKIKEFIDRHPKGLEVWEYARALEGLNRNAGMHAAGVVISNESLWKKTPLFRQSKND

ERHLVTQYSKDHLEDVDLIKFDFLGLKTLTVINNAIKLIKKRYNKDIIWETIDVNDSKVYKTIQSGNTLG

IFQIESGGMQSLNARLKPERFEDIIAVLALYRPGPMESGMLDDFIDRKHGLKSIEYPFDSLEKVLEPTYG

VIVYQEQVMQIVQIIGGFSLGGADVVRRAMGKKDPEKMKKLKTDFADGAEKQGYDRAKAEDLWELIVKFA

GYGFNKSHSAAYALITFQTAYLKTYYPSEFMAALLTSEENNVDKIAVYIDEMKKMNIKLLPPSINKAIRE

FSALEQDGKDAIIYGLGAIKSVGIPAVENLLEARQDGEFKDINDFLGKIDPTKINRRTLESLIKAGAFDE

FGFTRKALFDNMENLSEASRKMAEVRKNAASSLFGEEELTSGVQVNFTPKNEEFEVMEKLGYEKEILGIY

VSGHPLDRFYEQINAIDYVKSLDFESLKNNGEILSIGKIEDFKSMMSKNNKRYGRIEILDYYSSFDATVF

ESNVEEIENIIKDENLKNNAYGFVLGFKAEGGEKPSFFLKAIKDLQSLEDGEIKAIKKFGAKKDFKNKEE

NHFTAEPKEFEKNIIELDLTRLNRELIYEIHEIARNAHNPNEKNNKKLVLKVISAGSCLLYHTDFIISDS

IVEEISNKYA

>AHK55292.1 ArsC family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLYGIKNCNSVKKAMDALTQKGIVFDFMDIKKINQDILYTWLKQKSFEELINTAGLTSKKLGLNKEKVK

NLNEKELEKIVLENPSCIKRPIIEYEQNIYIGKEYEKML

>AHK55291.1 phospho-2-dehydro-3-deoxyheptonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MWAKNSWKNYPIKQQPIYPDQEEMNRVLARLEKLPPLVFAGEVRNLQKSLARVCKKEAFLLQGGDCAESF

ENFGAVNIRDMFKILLQMAIVLTFAGGCPVIKIGRIAGQFAKPRSSDFEELDGISLPSYRGDIINGFEFS

EQARIPDPHRMLEAYYQSAITLNLLRGFAKGGLADLHEVHRWNLGFLKKSELHKQYTDISEKISQALAFM

EACGINTSNTPSLREVSVYTSHEALLLPYEEALTRVDSLSGEIYDCSAHMLWIGERTRALDEAHVHFLSG

VKNPLGVKIGPSASADDIIALANVLNPNNEEGRLNIIIRMGADKIINNLPKIFSKLKSEGLNLVYSIDPM

HGNTVKAGNFKTREFDKIMQEVRSFFEIAISEGVYPGGVHLEMTGKDVTECTGGASNVTAQSLEDRYETQ

CDPRLNADQALELAFLIADLVKKTRK

>AHK55290.1 hydroxyisourate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFSIKKTLLILASVPMFLSATEYQLSTHVLDITSGQPAPKVKVELYKLEANQQWKKVSEEFTEENGRIGD

LLPYEKAENRAFGIYKLKFFTKDYYTSHKINTFYPFVEVSFELSKDQKHYHVPITLSPFGYSTYRGS

>AHK55289.1 50S ribosomal protein L19 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNKYIEQFEAKQIEGKNVPDFRAGDTLKLAIRIKEGDKTRIQNFEGICIARRGNGVSETFIVRKIGANN

VGVERIFPIYSESLESITVLRRGRVRRARLFYLRDRRGKAARIKELKK

>AHK55288.1 tRNA (guanine-N1)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFSFVSLFPNLMEFYFQDSILARAKEKKLFKLNFYNPRDFSKNSYHKVDDYKIGGGAGLLMQAEPMYEV

LRSIQEKKENPYFIFLNPSGKTFNQKDAKRLSKKEHIVFVCGRYEGIDERVLEIFANEVFSIGDFILTGG

ELPALVMCDAILRNVNGVLGNMESLEEESFENNLLEAPAFSKPFIFEKKNKKFYTPSEFLKGNHARIASL

KTTLASCKTKFFRPDLFLEHERKK

>AHK55287.1 ribosome maturation protein RimM [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSEKDFVQVAKLGKTVGLKGYVKLHNLSDFSSQFKKDATFFIKNTKEMLKIKHYNANNSTVLFENYEDIE

KAKELTNLILFQSIEKSRQTCKLKKDEFFYFDILECEVFEEDKRLGKVVDILETGASYLFEIQSDEKWVE

KKYPKIFFIPYLDKFVKNIDIEKRQIFCTQDAFLILENS

>AHK55286.1 RNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVENFLREYAKLIADYPEQIDTQKIELSENFFEIVLFAHKVDTGKLIGKNGKMINAIKTVISAYKSKDAS

SYRVTVKALE

>AHK55285.1 30S ribosomal protein S16 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTVIRLTRMGRTKRPFYRIVVTDSRKRRDGGWIESIGYYNPMVEPEVIKVDAERLAYWKSVGAKLSDKVA

SITSK

>AHK55284.1 signal recognition particle [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFELVSESFKSAINKLRFVDDEKALKNALETLKKALLKADVHHKVTKELLTLIEEDAKQNGIGQKQFLNA

IKINLENILSVNGKNQGFVFASKPPTVVLMAGLQGGGKTTSTIKLANYLKLRNKKVLVAACDLQRLAAVE

QLRQLCEANEIELFFIENEKDPIRVAKEALKKAESSMVDVLLVDTAGRLAIDEALMDELRAVKDVLNPDE

IFYVADAMSGQDGVKTAASFNEVLGISGVILSKFDADTKGGVALGIAKQIGIPLRFIGVGEKVADLEVFI

PDRIVSRIMGEGDLATLAEKTAAIIDEKEAKKLNQKIKKGEFNFNDFLNQMESIKKLGSMKSLIGMIPGL

GGMANAVKDIDLDNSKEIIRIKAMISSMTPKERENPDLLNNARKRRIAEGAGLSQVEVNRFLKQFSNAAK

LAKRFSGKKGMESLTQMMSQARRQF

>AHK55283.1 ribosomal large subunit pseudouridine synthase C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQEKAYKLLALQEKISNREAKDLIDKGCVFSYGKKVVVARALMSDKARFNVIKAKNPQIIFEDDKIIAIN

KPYAYVSEDLEKKFNAKLLNRLDKETSGVILLCKDEDFRKLCIEEFKKHRVYKSYIAVLDGVLAEEVEVN

EPIFTIKVKGGALSKVSKDGLSALSIITPIMMQSKKTLAKIVIQTGRTHQIRVHAKFIKHGVVGDEKYAK

ISSDRMYLHSYEIKIFNYHFRANLDSGFAKFGFDIKNLDF

>AHK55282.1 3-deoxy-D-manno-octulosonic acid transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIFFYYFLTWTAFLFCAVFILLLSFLKSKYKISLKSRFFLYKNLHQEKADVHFHACSYGEVRSIKALVLK

FDSRITTITQTGFECAKEFCKKVNYLAFENFLPFWLKPCKVLVIFEAEYWLMLVFMARIYKAKIILLNAR

ISDKSYHSYQRFSFFYKKIFSYIDEVFAQSDLDKARLESLGAKNVKIFKNIKANLEIKNNKIYTKPKEKL

IIFASTHKDEEELLLDHFKLEENEKLIIAPRHPERFKEVENLLLNKGLEFEKFSSLKDENKKFSKKILLL

DALGELVNFYAISDVVVLGGSFIEGIGGHNPIEAAYFDNVLISGKFIHNQKVLFEEVENVYFCEKLKDLN

DKVHYLNLKAKISKKENLDLIIQTIQKGIDARKSL

>AHK55281.1 zinc ribbon domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKYLEQLVLLSKIDQEIDSYEPKIDSINKTLKDAELKIEKINADLEKIDEEIKDIENQKIQNNAHISEF

SAKIKDLSKKSGVVKTEKEANALKIEEDIAKEQLDAANDEIVRLDKILENKETYKKELEEEKIKQEQNIN

EIRVSIKSEMEVLEKDRMSVYDKKTKLVSEMNQKVLSFYEKIRKWAKNTAVVPVKKQACYGCFMKIYDKT

YLSVVKGEEIVTCPHCGRILYKEQEEQN

>AHK55280.1 hypothetical protein N917\_03510 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLSEIYNFLDQLSPFNIQESWDNSGILLGDRDSEISTVYLSLDIDENIIKEASENSLIITHHPLIFKGL

KDLYDKTYPRAFIKEMIYKNISLISMHTNYDLSHLNTYFTEEILGFKISFKDKFLIYVENSMSFEALCDW

VKKKLNLQILRVSDCGKKDIKRIAICTGSGGDLISKVDADCFLSGDFKYHQALEALSNQISLIDLGHFES

ERYFSQCLAKDLKNLPLQVIITVSKNPFQYF

>AHK55279.1 glycyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTFSQMILNLQNYWQEQGCAIMQPYDMPAGAGTFHPATFLRSLGKKPWAAAYVAPSRRPTDGRYGENPNR

LGAYYQFQVLIKPSPDNIQELYLKSLENLGFDLKSHDIRFVEDNWESPSLGAWGLGWEVWLDGMEVTQFT

YFQQVGGIAVDLVSAEITYGLERIAMYLQNVDNVYDIVWSEFNGEKIKYADVHKQSEYEFSKYNFEVSDV

KILNEQFENSYKECKNILEQGLALPAYDYCMLAAHTFNLLDARGAISVAQRQDYMLKIRELSKNCAEIYK

KNLNEAE

>AHK55278.1 hypothetical protein N917\_03500 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQTYLELEEFCKLVHLNEDVVKGMMANGALNFKEEEGKIYIEAHQGTFSVVPSSAKSQTAMVNSMTLAGE

SFVEKTIGTILNLHEKVLDAKDETLEALKNENKFLKDALYSMQELYDEDRKTIETLNNELKHAREEIEFL

KRKYKLMWSKTAEIFGAKTEPDLEMNKNLEKPIENMEQ

>AHK55277.1 N5-carboxyaminoimidazole ribonucleotide mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFVSILMGSKSDYETMKEAAKTLESFGVKYELIISSAHRSPKRTKEYIANAEEKGVKVFIAAAGMAAHL

AGAVAAYTTKPVLGVPMSGSNLASMDSLFSTVQMPSGIPVGTLAIGKAGAINAAYLAMQILAIYDVDLAQ

KLKEDRLEKEKKLVSDSKEVEVLL

>AHK55276.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIIPEIVAPAGNFTKLKIALAYGADAVYAGVNNFSLRSRTAREFNYESFEEAIKYTHERGKKIYVTLNGF

HLSSQIEGLKRHILKLREMKPDAFIVASVGAMRLVKELAPEISLHVSTQANILNYLDAQVYKDMGAKRVV

IARELGLKDAKALKENCDIELEAFVHGSMCFAYSGRCLISSVQSGRMSNRGSCANDCRFNYELYAKNPEN

GTLFRLEEDENGTHIFNSKDLNLCSYIEKIMQENCISAFKIEGRTKSEYYVALTTRTYKMAIQDALEGKF

ESSKYEKEIATLKNRGFTDGYLVSRPLEKTDTQNHNTSIEEGSHQVHAISEDGRFFKCKGKIVLNTPYEI

LTPLGDVIQTCDNELGKIYQKEGKYFIEFKKLIAKNNKEFSEIHSGNEHEIQLPNKISALSFLRKEI

>AHK55275.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTQEELDALMNGDVDLDSETEAEVKTEESNTEEDALMLEDVKIADYKPNPSVVWPPPPPNQEHKVVHQLD

DVTKDSELKATEMMDKLESINNFFADSESLLKEINKAIEKNIDIFSKLNEKFPNVESFSEALELNNQAKK

SSKEIVGNLQSGQDEVMMAMDAMQYQDIHRQKIERVINVMRALSRYMSSLFEGKIDDKKRVSSAVHIEGD

STADVVSNDDIEALIASLGQK

>AHK55274.1 glutamine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGKFVNNIDDFFKFCKQNEVLFVDFRFTDMIGTWHHITYNLHAINEETFQTGIPFDGSSIHGWQPIEKSD

MILKPDAQSAFLDPFTADPTIIVFCDVYDIYKGQMYEKCPRSIAKKAIEHLKNSGIADTAYFGPENEFFV

FDSVKIVDTTHCSKYEVDTEEGEWNDDREFTDSYNTGHRPRNKGGYFPVQPIDSLVDIRSEMVQTLEKVG

LKTFVHHHEVAQGQAEIGVNFGTLVEAADNVQIYKYVVKMVAHLNGKTATFMPKPLYGDNGNGMHVHMSL

WKNGVNLFYDKDGYSGLSQTAINYIGGILKNARSVAAFTNPSSNSYKRIVPGFEAPCILTYSCQNRSASC

RVPYGIGKNSARIEIRFPDSTANPYLAFVSLLMAGLDGIKNKTIPVGPMDENLFDLTLDEIREKGIEQLP

HTLRGSLEALIRHNSYLKPVMSDIFIDDYQHLKFETQVWPVEARPTAYEFKTCYSC

>AHK55273.1 flagellar basal body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMRSLHTAATGMVAQQTQIDVTSNNIANVNTAGFKKSRAEFADLMYQVMKYAGTSTSATTLSPSGIEVGV

GVRPTAVTKVFTEGNLKSTSTDGLDMAIAGNGFFQIQLPDGTIGYTRNGQFTKDNEGNIVNSDGYRLLPE

MTIPEGATAINVATDGTVSVMLPGEQQETQIGQVELVQFINPAGLHSMGDNLYLETGASGAPVAGIAGQD

GLGTIRHGFIELSNVQLVEEMTDLITGQRAYEAGSKAITTSDDMLGIVNQLKR

>AHK55272.1 flagellar basal body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNGYYQATGGMVTQFNKLDVITNNLANINTSGYKRDDVVIADFKRIFKETQDELPIENHTRDASRFVNT

TIDGIPQVSQEYTDFSLGSLKATNNPLDLAMTREDAFYLVQTKDGEVRLTKDGNFQLDDEGYLVNKQGYK

VLSSDYFNNPQNAGIRIPNGAVQISVDKNGSIEVDGAQNARLFVAQVDDIRALQKDGDNVYKIDDLTRIR

DLKNSNAIRQGFSQGSNVNPVTEMVGLIEANRMVEMYQKVMTAHMDDLNQEAINKLAAVK

>AHK55271.1 cell division protein FtsZ [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSEFLVEEMQHNKGAKIKVIGCGGGGGNMINHMVKMGLNDLDLIAANTDAQAISISLAKTKIQLGEKKTK

GLGAGMLPEVGAESARESFEEIKASLSQSDIVFIASGFGGGTGTGATPVIAQAAKEIGALTVSVVTMPFA

FEGKQRKKLAESGLLELKKESDSILVIQNEKLLSIIDKKAGIKDAFRLVDDILARAVKGMVSILLDNGDI

NVDFADVRTIMSHRGLALMGVGSASGENAIEEALSNAIESPLLDGMDIKGAKGVILHFKTSSNCSLFEIS

AAANSIQEIVDENAKIIFGSTTDDSMEDRVEVTIIATGFEDKDTVAKKSTEEAQASKKNPYLSLKKVSGG

YDEEIMAQIETPTFLRRQMD

>AHK55270.1 cell division protein FtsA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNILGIDLGSTQTCAIIAQKDEDGLKIIGFSKSKTNGVKKGAITNIELASKSIEEAVRSAEMMSGVHYDR

VVVSISGAYTKSVDSIGVVNIPNHEIGIKEIHRAVSTAKHTANLPSGYEIIHVLPYNFKVNDLEHVDDPL

GMSGNRLEVSTHIVISQESHIKNLKKAVELADLRVDNIVLSGYASAIACLDDSEKELGAVLIDMGGAICD

MVVHTGNSIRYNDCLQIGSINITQDLSMALHTPLKEAEKIKLNYAALSQQPNTLIQIPSMGDERKVNEVS

LDIISNVIYARAEETLMILAKILSDNRYANAIGGGVVLTGGMTKLAGIDELAPATFDNRSVRLATARKDL

ITGFSEIFNDPENTCAIGLCLYGAGYFTPYELDSNEKLRYKGEIENFNRQIKQDIVLQKDAESEIKSDFF

DENLQENDTIAIQEQLDFKEPKEKKPSVFSNIWHKIMNQF

>AHK55269.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLTWMQHHKKYLVVTIWVSTIAFVGAGFLGWGAYDFNLNRSSSVATVGNEKIGFSEFDTRYRQILSYYNQ

ISNGALTPENAEQLGIKNIALSSLVEDKLLLNFAKDLGIGVNENQILQKLANTREFQDPTGDFNKTIYYE

LLNANNLAPKDYETQLANEVITDKLNQIFNIPSKDEELKMLASSYFMQDALSIAKIDYDKKNIKINEEDL

KKLWNEHKEDYKTKKIYEISTYFLPVSNEKIDDKELEKFYNQDENKLKYKDFAGKVMDFQSAKNEVAKDY

ALMQLKNVANAKFLDLKNGKDNFQKDQNISESDVYYPIDLLNKAKNGDVLRPAPYNNGYIIVKLNKVDPI

RNKTFEEAREEVLPMYLSEQARKNLEEKAKNSLVNFKGDDIGFVSRDSSRESVKVSDKILNDSEFAYFLM

NVFNTDQNSSYVVINDNKAILYKINKQKLDMNSDKFEQYKTMLEQNLQNLKANELKQELVDELKKIYPIK

IYYKGN

>AHK55268.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEIPHIPVLLNEVQEIFKNLKTGYFLDCTLGFGGHSEALLKNHPDLKFIACDQDQQALKFSKKRLKDFRN

RITFMQSNFSEVLEKISHKEELRGILADIGVSSFQLDNNERGFSVNSDFLDMRMNQNSKISAYEIINTYT

KEQLTSIFKDYGELHDAHFIAEKICLERSKNLIKSAKELYQIIGKGKQNHRKISKATLAFQAIRIEVNQE

LKVLKDFLEHLENLKPKNCILAIISFHSLEDRIVKQFFKKWSKNCICNEKIMRCECGNNHSLGQIITKKA

ISASKEELLKNSRSSCAKMRAFYFNNLDNK

>AHK55267.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLEDDFIKERQNIRQKMLKFSRAINQGKPLDDDLRDEISSDDILRRRFKKKTPNKFLEELDEEYESKHTK

KSNIYLKEDLINVKLEEKQSLAKKIFSKMKERRKEENKKTKKNFLFSRKKANEIKNIQTKTQIQTKSNQA

TTQTKQEKKELTNSIEKIQKTETKIQKPLIIEKKLDVKNQPNIKKSLENLQKKITPQENKQELPKPSNQA

QEKQQNDEDAQKAKNILLEGFSNATKEDRNLNFNHLLFAALLVSFALFLFAPQIYIRNQIYYLSREIATL

RTEESVLNEENKDLKRRLENMRFQNQILDYLE

>AHK55266.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKFKEFSLRFLFKVSEQPVLIRDLLEANALFNDGMLVDPSKLNFNFKILNSYIYFGVFCAVILLPLLLI

THYFLTKLDFHISIVSAVMVTACVFIGYDIFKVYTRKIISKKIIQKAWALHFPYFAYEKYSTMAGEFYKE

ALKEEIPKANLEQYVLDKIIHSK

>AHK55265.1 acetate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKILVLNSGSSSIKFKFFDNKVVKASGLVEKIGEQNSKVVLKNTLNNESFERELTINNHEEGLSIVNELF

KESGILADLNALDGCGHRIVHGGRNLSEHCLVDDYVLKEIDRVSIFAPLHNPAHLAGIKTMIKAAPSVAN

AAIFDTAFHRTMPDFAYMYALPYDFYDKHNIRRYGFHGTSHAYVSSRAAKFLQKDQNELNVISAHLGNGA

SVCAIEKGKSVDTSMGFTPLEGLVMGTRCGDLDPAILPFISHLKGLTIEEIDTLMNKKSGVYGICGYNDF

RDIEREIEQGNDKARLALDMFCYRLVKYIGSYFAVLPKTDAIIFTGGIGENDSLVRQKVCERLAHLGIEL

DFELNKQRISGERMINHANSKVKVLVIPTDEELEIARITEELIGKN

>AHK55264.1 phosphate acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MANLYLMRSRSDELNTIISTNLLKNYSKIYKNIAIYCPVIYIHRVPVLQGWLEEFNINQTVKSAYGFTFR

EAMEEFSKDPHNFFNVILEEYEELKRKYDFVLVNSFCEFGILDGFDLSIKLAKNLNTPIAAIINDEDKLI

AQKYFDHALDGRNYVLINENFNFEEVQKLKEYDFITPHRFKYELIKQSIKNKKTVVLPESNDERILKAAE

ILLKSKVVDLILLGDEEKIKQDATRLSLDLSAMQIMNPLNSEYNQKFTSILYEARKSKGMSLEEAKMLVQ

DKTYFGTLLIHTGKADAMVSGASTTTAETIRPALQLIKTKEGISSVSGIFFMGLEDQVLAFADCAVNPSP

TAEQLATSAYVSAMTAKSFGLEPRIALLSYSSGDSGKGESVDLVKEALKIAKEKYPELNIDGPMQFDCAY

DPKTAAKKMPNSKIAGHANVYIFPDLNAANICYKAVQRTANALAIGPILQGLKKPVNDLSRGCLVDDIVD

TVILSAIQAQ

>AHK55263.1 flagellar L-ring protein FlgH [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKVLFYVLPFAFFGCSATVDPQISMKPPAYVEELAPKQSNNVESAPGSLFGKGDNPLFSDKKAMNVNDL

VTVVIQESTTQSTQANKATSRTNTSNLGGGALTGSSGVVANALNKVNAYSNIGFQTNSSNNYTGTGSQSR

NESFNTTISTRVIKILSNGNYFIEGSRELLINGEKQIIQLSGVIRPYDIGQDNTIDSKYIADAKILYKTE

GEVDRSTRKPWGSKVIEAIWPF

>AHK55262.1 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEYKRFKTRQIKVGNVLIGGDAPISVQSMLFTKTRDIEGSLEQINRLYFAGANIVRLACLDMADARALKE

IKAKSPLPLIVDIHFNHNLAVYCAEFIDGVRINPGNIGSKENIKEVVKACKERGIPIRIGVNHGSIEKQF

SDKFGYGVDAMLESAMYNIKLLEDLDFFDIKISMKTSDAQKTIEAYERLRPLCDYPFHLGVTEAGTKFHS

TVKSSIALGNLLLKGIGDTMRVSMTGELEEEIRVARAILQDSGVQKSGVNIISCPTCGRIQSDLLSAIKI

VEEKTKHIKEPLNISVMGCVVNALGEAKGADVAIAFGKNQGLVIRHGEVVAKLKESELVDRFLAEVEDEV

KSRVVKE

>AHK55261.1 primosome assembly protein PriA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQRSDIRYYELAICGLYLDNLTFHSFDEIKPLTQVLVDLKTKKNLKAIVLKECQKPDFKTVEIKEITEYF

LTPLQFELANFIVYYYASKLGFVLGFFETSPKYECHKMFFKDTPKLSNQQQNALSFLQKENNSLLFADTG

SGKTEIYISLIKECLEQGKQALLLMPEIALTPQMQKRLEVYFKDNFFLWHSKISKKKKQEYLERFCKGEV

LLVAGARSALFLPFRNLGLIVVDEEHDNSYKASNQPFINARDLALFLGQKNNIQVILGSATPSLTSFYKQ

KSFRLKGTFFESKKHFLYDENELGITPMLLSELEKSLKHQKQAIVFLPTRANFRQIICKDCGETIKCPFC

SIAMSMHKKKNILKCHYCNYTSLIEQNCPSCKGEMLEARKIGTAELLELLQNALPLAKIAKFDSDEITSV

KKLNTILKNFNENKIDILIGTSMLAKGHDYHSVDLSVILGLDEYLLRPSFRASEETLALAMQVAGRAGRK

GEARVLLQTKNRAFFERYIENYDAFLKDELENRKDLYPPFKRLLRVLIEDKDQKSAQKLCEKFASQFRNI

KQVELVGYGICGVEMLYGKYRFYLLLRSENHKALVAIENYILQFKNASADIDPIDFV

>AHK55260.1 hypothetical protein N917\_03400 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKAFTLLELVFVILILGILSSLSLSFINTTKDEVKILKLKMDYEMLSSALALMRSQMRLKNLNFPEILD

NAQNNQAKEKLFYCLNDCDYSLLDTPIYSDFKSWIKIGKNHYRFALNAKEMVEFIYDSKEGLLKCIGSSR

CKDLI

>AHK55259.1 hypothetical protein N917\_03395 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MADNLKQVIVNVNAKDFIVKCSEEFANFLEDDIALISGGTKKIELKRFVDAFVKKSYENYILERELKKLI

KAINEELPTK

>AHK55258.1 ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFDEKIINTMTDKVNELIEKYNEVCEANEALRNELVSVKAQNEAKSNQIMRLEEELKSRNIESEDIYKKI

EAVLGR

>AHK55257.1 excinuclease ABC subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLELTSEFKPSPDQQEAIKGIVKSIKKGNKYQTLLGVTGSGKTFTMANVIKELNIPTLIMSHNKSLCAQL

YSEFKGFFSKNHVEYFISYYDYYQPEAYIPRTDVFIEKDSSTNEDLERLRLSATASLLSYEDVVCIASVS

ANYGLGNPNEYIGMVLIFELGMQISQKELLKKLVDMGYKRNDNFFDRADFRVQGDIIDIYPAYYEDEVVR

LEFFGDELDAMYHYNVLENKKGKDLKRFILYPTSQFSVGETRLKQAIKDIKAELNERLAYFEHENKLVEY

QRLKQRVEFDLEMLTSTGMCKGVENYARHLTGLKEGDTPYTLFDYFAIKDRKFLVIVDESHVSLPQFRGM

FAGDRSRKQTLVDYGFRLPSALDNRPLMFDEFIHKNCQFLFVSATPAPLELELSKENIFHQIMRPTGLLD

PLIELKDSDNQVEILFDEAKKVIQRNERVLVTVLTKKLAEELTRYYLELGIKVKYMHSDIDAIERNEIIR

GLRSGAFDMLIGINLLREGLDLPEVSLIAIMDADKEGFLRSTTSLIQTMGRAARNVNGKVLLFCKKITKS

MQEAMDTTNERRKLQMAYNKKYNITPTSVKRHIEESLKNEEDLGEIYRKGKKLEKMPASERAKLVKELRK

QMLEAAKALEFEKAAAIRDEINKLRDL

>AHK55256.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDFLTSLSEAGQFAIQIIIVLICLFYGAKKGGIALGLLGGIGILMLVFAFHIKPGKPAIDVMLTILAVVV

ASATLQASGGLDVMLQIAERILRRNPKFLTILAPFVTCFLTILCGTGHVVYTIMPIIYDIAIKNGIRPER

PMVAASISSQMGIIASPVSVAVVSLTALLLNANHKLAGFDGYINLLQITIPSTLFGVLCIGIFSWFRGKD

LDKDEVFQEKLKDPEFKKYVYGDSKTLLGVKLPKSNWVAMWIFLGAIALVALLGVFDFLRPNWGQVVKNG

IPQVDALGNPKMDVLSMVSVIQMFMLLAGSLIIIFTKTDAKKIGSNEIFKSGMIALVAVFGISWMADTMF

AVHTPMMKAALGDIVKEHPWTYAVMLLLISKFVNSQAAAISAFVPLALGIGVEPGVIVAFAAACYGYYIL

PTYPSDLATIQFDRSGTTHIGKFVINHSFILPGLIGVITSCIAGYFIAMAAGYL

>AHK55255.1 RNA polymerase sigma54 factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKQKITQAPKTKISQTLRSWLPILQANIEDLKENLDKFAEDNPFLNVQDSIQTHDKGKNYFDSFYKHNV

NSAFVDSKGLAKKSVYELLNEQILPPLFPTSKSQELAKKIIECLNEEGYFEHDEEFLKEYSLEEIERVRA

RFKFLDPVGVGAKDYKEAFLFALENMELDEDIDEFCRMLIMDFENIQNYTKEPLYKEALAVLKRFSTPPF

LEYFEDSRIIVPDIFVYKENGEIKVKINDDYYPEISIQTDGLEHDFLSHYIKEAKNLVDALAMRKATLYK

IGLMIVEYQYDFFMGKEIKPMTFKDLALDLERNASTISRAVANKYLSCERGLIPLRDFFAFALDEEGETS

NVGVKEFVANLVKNEDRNKPLSDSKILELIKEEFKVDIGRRTITKYRKHLNIASSTDRKKLYELEG

>AHK55254.1 lipopolysaccharide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFMSKLEIVNLEKIIKKTKIIHGISLEVNSGEVVGLLGPNGAGKTTTFYMICGLISPSSGKVLLDGLDV

TKDPLNKRARSGIGYLPQESSIFKDLSVEDNLLLAAQIFYKDKKILHDKVEQMLELLSIEPIRLRKGLSL

SGGERRRCEIARSLMCEPKFLLLDEPFAGVDPIAVAEIQTLIKELKRLGIGVLITDHNVRETLAICDRAY

VIRSGSLLASGNADEIATNKDVKKYYLGAEFKLLD

>AHK55253.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEFILAKNEIKTMLQIMPKEGVVLLQGDLASGKTSLVQAWVKFLGLDVRVDSPTFSTMQKYENHDICIY

HYDIYQEGLEGLLANGLFENFFEKGLHLVEWGGENLKKTLMKFGISTIQIKISIKDDKRKYEIYE

>AHK55252.1 argininosuccinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNEVKKVVLAYSGGLDTSIILKWLQDEYNCEVVTFTADIGQGEELEPARKKALSLGIKEENIFIKDLRD

EFVKDYVFPMFRANAIYEGEYLLGTSIARPLIAKTQAQIALQTGADAVSHGATGKGNDQVRFELGYLAFS

PDLKIIAPWREWDLNSREKLLAYAQKHGIDISKKKGKSPYSMDANLLHISYEGLVLEDPAHAPEEDMWRW

SKSPKDAPNESEIIELDFQKGDLVAINGEKLSPAGLLTKLNELGCKHGIGRLDIVENRYVGMKSRGCYET

PGGTILLKAHRALESITLDREAAHLKDELMPKYASLIYNGYWFSPERMMLQALIDESQIHANGRVKLELY

KGNVMVIGRESANDSLFNAAYCTFEEDEVYNQKDAAGFIKLNALRFIIAGKNGRKF

>AHK55251.1 50S ribosomal protein L9 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVLLIKDVKALGKAGEIKEVKDGYGQNFLIAKGFAKAATNEVLRKYESDKKKEAENLRFEIANLEKLKE

ELSKITLEISKPVGANGSLFGGVTKDEIAHALKEQSHIEIDKKSLECDTLKSLGIHEVSVKLGHAIHAKF

NINIKAE

>AHK55250.1 peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFHATTILAYKGKNKSVIGGDGQVSFGNTVLKGNAVKIRKLNNGKVLAGFAGSTADAFNLFDMFENLLQS

SKGDLLKAAIDFSKEWRKDKYLRKLEAMMLVLDRNHIFLLSGTGDVVEPEDGQIAAIGSGGNYALSAARA

LAKHTDLDEEELVKSSLQIAGEICIYTNTNIKTYVIEDEK

>AHK55249.1 ATP-dependent protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLTPKEIVKFLDDYVIGQKKAKKIIAIALRNRYRRMQLSPELQDDIVPKNILMIGSTGVGKTEIARRLA

KMMGFPFIKIEASKYTEVGFVGRDVESMVRDLANAALNLVKNEQREKNKDKIDEFIENKILEKLLPPLPK

GISDEKQEEYKNSLEKMRTKLRNGDLDESTIEIEISQNMFDTNPNLPPEMGAMQDIVKVIGVGSKKVKKE

MKIKDAKNALKNEAGEKILDQESIKSEALKRAENEGIIFIDEIDKIAVSSGNSNRQDPSKEGVQRDLLPI

VEGSNVQTKIGTLKTDHILFIAAGAFHLSKPSDLIPELQGRFPLRVELDSLDDKALYEILTRPKNSLLKQ

YSQLLKTENLELEFDDEAIKEIAKIASRANEEMQDIGARRLHTVIEKLLEDLSFEADEYAGKKFVVDKKM

VEEKLGDIIENKDLARYIL

>AHK55248.1 GTPase Era [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKSGFVSIIGRTNAGKSTLINSLLEEKIALVSHKQNATRRKIKAIVMHEKNQIIFIDTPGLHESGATLNQ

LLVQSAIKSMGDCDVILFVASVFDSTKDYENFLSLNPQVPHIITLNKVDLTDNATLLKKLSEYAKFSQHF

KAIIPYSSKKKSYKKGLLDEIVKYLDEHEYFYDPEFLSASSEKEIYRDFILESIYENLSDELPYSSEVLI

HRTKDTPNLLILEANIITDTNSHKGMLIGKEGATLKRIGKDARFKISKLAQKKVLLKLFVTVKKNWQKDE

EFLKKLLNDEN

>AHK55247.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKINSLNKINFIKSTDLLYAQRTGISKEDELFNNLTADFKLSKPFDYQIAFFKHNEIYHCFLAPVYKLKK

SRFCFPEPLIFQALFDERFIEESDYCVLNLYDQTLYLYFYQEGKFINLKKIENFNPGNMDLFFKQNRFTE

LLKHYESKLLLYQDLNTIKHYFSSQIKCLNLNDILDKNSLLKLSSYSIKNLDQNCNFIKHNKIKISISFK

IILIFIFSFSLSMMILLFKDFIEYKQNKEIQNKNFIIQEEISKLKQDKQKLLTNIQDLNFTLSNKISSTQ

QQFHILSTITKEINLDKNKAIILNQIISWLNSNDLKITNLEFEQTKIILSFIDENHFKRALENLNSAFKI

LDKNEETFNIILEVIHE

>AHK55246.1 hypothetical protein N917\_03285 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKIEVFLQNLNPREKFLFISFICLCALFLAFKIHDHFLEDIFQKTLVEHNYLALNEAKIENSHLKEIET

KLTKQIKIEEEKLKYYKEKLHLFSYDKDFFNKKINNLSKNLIINEIKFSQENKNFIHYNYVSLSLNGNFK

DLLNFIQNLENLPIALKIDKIKLYNTQGLKLKLDLMFKFVNL

>AHK55245.1 peptidase M24 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSIYKQRVLELRRLMKENNIDAYLILSADPHLSEYLPEYYKNRVFISGFKGSVGTVLITQEEGFLWVDGR

YWLQAQKELEGSGILLQKQDAKNTFTKWLEKNLSEDQILGIDFALLPLSLQKDLKINCKANLKHIDLISP

LWKDRPTLPQEKIYEHELEYCSYSRKEKLALVRQKMKNLNATSHLISSLDDIAWLTNLRGNDVNYNPVFL

SHLLILEDKALLFVDQKKVNSELEKKLNLDGFWLKNYDEIIMELEELANTNLLIEPSKMTALLINSLDKS

VKIIQEINPSTHLKAAKNTKEIAHIQDAMIEDGVALCKFFAWLEEAIKNKELISELDIDVKASEFRAQSK

YYISDSFATIAGFNENAAYPHYKATKESFAYLKKDGLLLIDSGGQYKNGTTDITRVVPIGKANAEQIHDY

TLVLKAHIAISSAIFPKDITMPLLDAITRAPLWKEQIDYIHGTGHGVGYFLNVHEGPQVLSYLSPVLEKT

KAKEGMLTSIEPGIYKVGKWGIRLENLVIHTKVENPKNKDFGEFLYFKPVTLCPFEISCIDTKMLDEKEK

EWLNNYHKEVFEKLSPKLGDYPKALVWLEKRTKAIF

>AHK55244.1 penicillin-binding protein 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRMRLVVGFILLFFIFLLSRVYYLSIKSNVYYEELAKQNAIKTEFLPPVRGQITDRNGTLLAINDLGFSI

SIKPYLSIKKSNKGILDKELSELTNLFPDLNASKLAEIYKRNDSYYNQDFIKVVDFIPYDEIISHYSELN

LNKTIKIDPVVKRKYPFGKLASHIIGYVGKANLQDVQENEIAKLSNYTGKSGIERYYNDILQGEKGTRVY

KVNALNQEVEQLSYTPAMSNDIELTIDIELQSYLTSLFEGNAGAAIIMNVNDGSILAAGSFPEYDLNPFV

TGISFKDWDELSNSLDHPFTNKLINGYYPPGSVVKMGVGLSFLNSKNISPSTHYVCNGSIELGGRFFRCW

NRSGHGPVDLKHAIKYSCDVYFYNGSLQVGIDQISETLSRIGFGVKTGVDLPSEFVGTLPSKEWKMQRYR

QSWFQGDTLNTAIGQGNFLATPMQIARYTAQIAKSGEVIPHFLKSIENNNTTIENQMDENKKEIFTLFEK

SQLPYIRDAMYAVANEQGGTSYRYLHNLDVKVAAKTGTAQVVGFSQTDKNRVDEKQFEYYTRSHAWLTSY

APYSKPKYVVTVLLEHGGRNITSGATVAKIYQKMIELGYFK

>AHK55243.1 GTP-binding protein YsxC [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIISAKFITSLVKFDENLSSNFSEVAFLGRSNVGKSSLINSLCKQKNLAKSSATPGKTQLINFFEVICRR

NEEKFNINFIDLPGFGYAKVSKNLKEIWNQNLDEFLKLRTSIKLFIHLIDSRHTHLEIDVNLNDYLKRFL

RPDQKILKVFTKCDKLNQSEKAKLKNEFKDSILVSNLNKFGLDSLEDIIINQTLGLDK

>AHK55242.1 organic solvent tolerance protein OstA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVARQIILLLVCVSVTWATQIEVKALNFYSDENKGESILSGNVEVIRGDDILNSEKLIIYTDKNRKPIRY

EAMQNARFKIVLKGKTYKGSGDKFIYNVIKDTYEINGHAYINELGSNQKLFGDKIIVDRKANIYRVESKD

QKPARFVFDLKDK

>AHK55241.1 hypothetical protein N917\_03230 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAIKIFGILIALFTITFTILSLQDPYSLNLQTNALNFKNIEAKNLKAYESNTSIIKAYYKANSWVRYADR

DEFNDFITLNLDFNLSANRLEFFNKDMSKVLFEGNVTYIGSNNVKIISQEVEYQPKDKILHTNTNFKALI

NGSIINGNTLNYDVKNKILNIQGVNAWLQDK

>AHK55240.1 3-deoxy-D-manno-octulosonate 8-phosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTELIFLDVDGCLTDGKIIYTSNGEFIKEFNVKDGAAIEAWLKLGKKIAIITGRNCPCVEKRAKDLKIKI

LYQGIKDKLACAKEILQKLNLDFSQCAAIGDYFNDKALLESVGLSFKPKDGHKDLNVDIVLSKKGGKAAV

AQMIEILVEKNHLEEEWNKLWL

>AHK55239.1 RlpA-like lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQIKTITLKLSAVSLGALFFSGCLGTSFFSSLDNAQVYYPSNDFKSSPSSSGTKGTMKPYTINGKTYYPT

VVAVGETADGIASWYGPGFHGKKTSNGETYNQNALTAAHKTLPMNTILKVTNLNNNRQVTVRVNDRGPFV

NNRIIDLSKGAASQIDMIASGTAPVRLEVIGFGSSNSGNNIVHSNVNYGNSGEIANNGQIYEGGNFMVQI

GAFKNPAGAQTIAARYKTYRTYSSTIRTSSVDGLNRVFLTGFRSEDEARDFAASGAFAGAFVVRE

>AHK55238.1 lytic transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILLCFLICFNFLFAQINTPEFYERQMNVLRNLDINPSFISDLIFVQTQQDIKSKHAQTLIDSMQNFS

KVTPMIRKILAQQEVPDEILYLAMVESGLKTHSVSNAKAVGVWQFMQPTARNLGLRIDAYVDERRDPVKS

TYAATNYLKELKEEFGKWYLALLAYNCGNGKLRQAIKQAGSDDLSVLLNPDKKYLSLETRNFIRKILTLA

FLANDRDFLLDKDASLMNYALSNEFAKVDVPSSASLKEIAKNLNMDLATFKKYNPQFKHNFTPPGKGYYM

YIPLNKVAFFDKNFKAEKLAKVDTTIPMTRTYTVKSGDSLYKIAKNYNISVDEIREFNKIAKNHLSINQK

LIIPIKENKNANKNNYTKVVSR

>AHK55237.1 TatD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFLNLDFQDGLRIVDTHCHLDSEAFKDDLDETLNRAFKNGIEKIIIPGADIKDLPYAATIAHKYKNIFFA

AGVHPYEIDNYDEKILRQYLCDEKCVAVGECGLDYFRFKSDLAEEIQKEKENQKKIFIAQLELAIEFKKP

VIIHSREANHDTYEILHGYSKDLVGGVLHCFNASEHLLTLFEEGFYFGIGGVLTFKNAKKLVEILPKIPK

DKLLLETDAPYLTPEPYRGKRNEPLLTQFVVNKMCEVLNLSRKELLEICFNNSEKLFFKGY

>AHK55236.1 diguanylate cyclase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKKILIIDDNKMLGKLLAKKIQMTLDYEVDIAFGFAEAKELMNNDYFLAFVDLCLPDAPNGEVVDYVIE

KKIPAIVLTASGDKATKEKFMDKDILDYIFKESETCIDEIISSIVKLNQYAKTKVIVAMSKLPERNEIKK

ILTQRQFNVLAAAHGEEAMSYLNDNNDVKLIIADVNMPVISGFELLTQVRERFSDDELGVILLGDHNDSF

EANSFKNGVNEYLFKPLSKESFNCRLDRCLSYMDDKKFLSTYNVLDPVSGVKNYNALIDGIDDYFNEIAT

KDEEFAFAFLDIDNLQMINDEYGREVGDEVIKICANEIVNETKGRDLVGRYSAEKICILLKNISQERAIK

IFSRIRVNIKKAGVLVNLDEVFFTASIGVVFGKSGDKIDSLADKASKILSQAKDNGKDRVEVCS

>AHK55235.1 DNA repair protein RecN [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINRIFMKENLGFKKAELEISKGLTVFTGLSGAGKSVLFKGILSAFSLSESEAKIVEIEVDDKLDLESFG

IESEEENVFKLLKEKNTKYFINNQSIAKKSLQNLSKTFIKYLSAKENNEFGNEKFLNLLDALEMQENTNF

VSFLEDFKKDFNAYSQISNELNAILEEEKKVEELKELARAQIEKISSINPKIGEYEELLILKKKLSKKDK

LEEAWSKAERIFELEKVVIEALNLSEVDASFFSECLNELRVICENQKMEDLDFDVEALLDRIENLSYLIK

RYESIENALEVLKQKKYELEHYENLSFEKKELEKKFQELKQKLEEKAQILTQTRKKNLKKLEKCLNNYLK

DLYMKDASLTLKENEKISILGKDEIMLDINLAHLKNLSSGELNRLRLAFIATECNILNAGKGILFLDEID

ANLSGKEAMSIAKVLEELSKFYQIFAISHLPQLSSKAHNHFLVEKNGEESKVKKLDQEERIKELARMVSG

ELVSDEAIEFAKTLFKN

>AHK55234.1 inorganic polyphosphate/ATP-NAD kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNKIDYKNIKKIGLVTRPNVSLDKEILKLQSILSIYKVELVLLKESSEILDLPKYGLDDLFKISDFVIS

LGGDGTLISLCRKACEYDKAVLGIHAGHLGFLTDFKVDEAENFFQAFFQGEFRIEKPYLLSIFLEDRQGK

ILEKLAFNDVVISKNNQASMAHIEVFRKEKKFNEYFGDGLIVATPAGSTAYNLSANGPIVYTLAQAFILT

PVCSHSLTQRPIVLPKGFEIEIMAKDCMLCIDGQENYKMNDFKSIKVGLSDKNVALIHPKNRDYFQILKE

KLHWGN

>AHK55233.1 aspartyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRSHYNTDLGISHVGQSVKLCGWVNSYRDHGGVIFIDLRDRSGIIQLVCDPNDSKEAHEIASNARNEFVL

ITEGTIRPRGEGLVNPKLKTGEIEVVVSKLTIENESAVPPFAIADESVNEELRLKYRFLDLRNPKLYENF

ALRSKACIAARNSLANMGFLEVETPILTKATPEGARDYLVPSRVHQGEFYALPQSPQLFKQLLMCSGFDR

YFQIAKCFRDEDLRADRQPEFTQIDVEMSFCEQKDVIKVAETFLKDIFKACGKEIQTPFRQMQYKDAMEN

YGSDKPDLRFDLKFIDVIDIFTKSNNEIFANIAKDTKKNRIKAIRVPKGDTIFSKRQMQRFEEFVRKFGA

QGLAFIQVKKDGLKGPLCKFFSEEDLNELSKRCELEVGDVVFFGAGAKKTVLDYMGRFRIFLANELKLID

PNALEFLWVVDFPMFEQNDDGSYSAMHHPFTMPKNIDETDLEEISSIAYDVVLNGVELGGGSIRIHKNDI

QQKVFKLLNIDEEQQKEKFGFLLDALSFGAPPHGGIAIGLDRLIMLVTGANSIREVIAFPKTQRAQCLMT

DAPSPASNEAMRELGIKLRENIK

>AHK55232.1 adenylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKELFLIIGAPGSGKTTDASLIAQADATNITHYSTGDLLRAEVASGSELGKTIDSFISKGNLVPLDVVIN

TIVYALKAAPTKTIIIDGYPRSVEQMMEFDKVLSEQNEICLKGVIEVRVSEEVAKERVLGRNRGADDNEE

VFYNRMKVYTEPLNEILDFYQKKKLHFIIDGERTIEPIVADMKELIKKIQSI

>AHK55231.1 inorganic pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLSKIKIGDIPNKINAVIEIPYGSNIKYEIDKDSGAIMVDRVMASAIFYPANYGFIANTLADDGDPVDI

LVLNEYPIQAGAVIPCRLIGVLIMEDESGMDEKLLAVPNSKIDARYDNIKTYTDLPQATLNKIKNFFETY

KILEPNKWVKVQDFKDEKAAIEILEKAIKNYK

>AHK55230.1 methionine sulfoxide reductase A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNIVLGGGCFWCVEAVFERLKGVINTEVGYSGGKPNPSYESVCNGDGNIEVVKINYDEKQISLLEILTL

FFKIHDPTSIDKQGGDIGIQYRSIIFYENEEDKILAQNFIEEQQKIFSKKIVTKISRLQTYYKAENYHQH

YFINNPDQGYCQAVIAPKLQKIQSD

>AHK55229.1 hypothetical protein N917\_03170 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLSRIEKLYTKDEMQNILSSFAQEKNVCVFANTLKTSIEELEKEFLKQNLKFKKINVYCYLFDAKDKAIL

SSMKAFNEAHFYIQNYSSYLCALNLEVKAGQSVLDMCAAPGGKSINLANFMQNTGYLACNEMSRDRFFIL

QKNLKNYGVNAKVFMKDGKNIGNLCPLKFDKILLDAPCSTFAKIGFDLEKSYKEIKNIAKTQKKLLHSAL

KALKIGGELVYSTCTFTKEENEEVIENALKSEFKLELLDIDLENVEAKAGQSEEFAEISKCRRILPSLDY

DGFFIAKLRKLC

>AHK55228.1 Holliday junction resolvase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRALALDVGLKRIGVALCIDKKIALPLDAVLRKNRNQAANEIKNLLKIHEISLLIVGIPKGGSSEEEMTR

RIKHFVSLLEFDKEICFVDESGTSKEALGYGVANTRKKDGKLDSLSAFIMIKDYFAL

>AHK55227.1 DNA processing protein DprA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MASEILPDEFLELFKDLKKPPKKLHYKGNLSLLKQDKIAIIGSRRMSVYTKNCVFSLASMLKNAHLCVVS

GGALGVDITASMAAMPNTIGIFANGLDQIYPRTNEKIIKQIYENALALSEYEDDYLPKNYDFLLRNRLVI

ALSKAVVVAQADIKSGSMQSAKLALELNKPLYVLPQRLGESTATNLLLKENKAKLICDFKEFVSEFASID

MNQDEFLEFCKKGVSVDEALKIYGQKVYEYELEGKISIEGLFIRVLA

>AHK55226.1 hypothetical protein N917\_03155 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKKKLVQIQRYLIIAILFLLCIALALGILVKYQNSQDVSSVKPDYFIDKQEDLISLNKDHYEIGIFQEN

EFDNNKSVSILEQKIQEIDDLNTSLNEQNLSSVEQNLSLEQNQSLEQNFILKDTNLTQDQNLTFNEDIHL

NKISKKPKLAIIIDDMANASQVRGLKALNLKLNPSFFPPDKNHSETPKLALKFDFYMVHLPLAAINYNKP

ELDTLNPNDSKERIFKKIKQIKKDFKDLRYINNHTGSLFTSNEEAMKKLYEALKNQNIFFVDSKTIGNSK

ANKIAKELSIPYIQRDVFLDNEDDVNYVKKQLENAVKLAQKKGFVIAIGHPRKNTFKALEQSKDLLKGVD

LVYLSEIYGK

>AHK55225.1 ketol-acid reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAITVYYDKDCDLNLIKSKKVAIIGFGSQGHAHAMNLRDNGVNVTIGLREGSVSAVKAKNAGFEVVSVSE

ASKIADVIMILAPDEIQADIFNVEIKPNLSEGKAIAFAHGFNIHYGQIVVPKGVDVIMIAPKAPGHTVRN

EFTLGGGTPCLIAIHQDESKNAKNLALSYASAIGGGRTGIIETTFKAETETDLFGEQAVLCGGLSALIQA

GFETLVEAGYEPEMAYFECLHEMKLIVDLIYQGGIADMRYSISNTAEYGDYITGPKIITEETKKAMKGVL

KDIQNGVFAKDFILERRAGFARMHAERKNMNDSLIEKTGRNLRAMMPWISAKKLVDKDKN

>AHK55224.1 ribonuclease R [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEFLNSLSYGISSHEVNNEFKQIFRELLTNHIIKEHKNKYYLNNGFAFGVLDISSKGTGFLQCFDESFK

KDLLIENKNLKGANYKDIVAVKLLPLKKKRPSAKVILVLKRANETSLMITKRYGEAVLGMNIKTGLSTAL

KASQKSLKALPLGTILKIENENNNIIEVLGHIDDESVDEKISLALFNKNNEFSDACIKEALANGDSVDAS

MYENRMDLRALPFCTIDPIHAKDFDDAIYFDTQKREIYVAIADVSEYVYAYSAIDKEARNRGFSIYFPHI

AIPMLPRPLSENICSLKPHLDRLAYCFKITLNHENKVIKEELFEGIINSKRRFNYDEVDEILIQKPDLKE

LSWLYELFEITKNLRKMRLKNAFEFRTEELRMNLDENLSLKSTVFEKDTPSHNLIEDCMLLANKAAAKLI

DIGVFRNHLSADVRKIDKLLNELRELGIDVNFKPNLPELIRDIQALADELNLRAEVDKLIIKAQKKAEYS

SVNAGHFGLGFDKYSHFTSPIRRYSDLILHRLLKAKQKNDEKLFNYLLLNIESTCENLSTLEREADKVAF

DFMDRKFARWAAKNIGKKFKALVVQNDGVCIAKLDDEIKGADIILYDTRVNLLENVEVQIMEADIVMAKI

YAKITQRLIKEENV

>AHK55223.1 DNA polymerase III subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYRKELQILLSKDSIPNFFFLYGADNFQSELYAEFIKEKYKPDETLKLFFEEYNFTRASDFLSAGSLFSE

KKLLEIKTSKKIPTKDLKVLVELCKNNTDNFFLLELYDESSKQSDIEKIFSPHFVRFFKANGAKEGVELL

SIKAKQLGVEITQNALFTLFTSFDENLYLAASELNKFSGLRVDEKTIEQYCYSLNTGSFESFFDKILKKQ

DFKSELEKILDNFNEIALINSLYNSFYRLFKIALYAKINGKIDFKELLGYTPPPQVGQNLSSQAFSLKIE

QYKEIFTLLLKSEYELKTNPKLVKKEFLISNLLKLARILKN

>AHK55222.1 hydrogenase nickel incorporation protein HypA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHELSIVESLIELCEENALNNKAYNVQEIYVKIGRLSGIEVDLFKRCFETFKENSNICKNAKLFIELAPL

EILCLKCDQTSILEENVFKCPKCQSIEYKIIQGEDLHLMRLVMK

>AHK55221.1 hydrogenase assembly protein HupF [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNISLAHGGGGEEMNELLTKLFKIFDNEILNANNDAAILGNLALSTDSFVLSPIFLDEEVNIGKLCVCG

SINDVLMVGAKPKYLSLGLILEEGFELEKLERILKSIKEECEKCGVMLVCGDTKVVPKGKADEIYINTTA

LGEIISKKESKNIKAGLSILLSGDIGRHGASVLIKRNELEADIKSDCKALNKEVLELLEKDIKVVAMRDA

TRGGLSAVLNEWAKQSGNDLLIFEEKIIVQDEVLGLCELFGYEAYELANEGTFILCVEKEDELKALEILK

KYNVNASIIGEVLEEKKARVILQNAYGAKRFLESPKGELLPRIC

>AHK55220.1 hydrogenase formation protein HypD [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFIDEFRDKESILALKKLIEQELKNPINIMEICGGHTHSIMKYALPSILPKEINFIHGPGCPVCVMPRV

RIDTAIKLASMKDTIFCTLGDLLRVPGSEISLLDLRAKGADVRALYSPLEVLEIAKQNLNKNIIFFAIGF

ETTTPMSALLLQKVIEEKINNVFFHINHITVPAPVEAIMNDENVKINAFLGPSHVSVITGYGIYEPLAAK

FKTPIAVSGFEPVDILESVLNIIKQSNEGTFKVYNQYKRAVSKEGNVKAQNLVKKYFRVCDFEFRGLGLI

KDGGLELKEEFSAYDASKKFDCTVQSKNESKACICGQILRGLAKPYDCKVFGKACTPRSPIGSCMVSGEG

ACAAYYKYSKVNA

>AHK55219.1 hydrogenase formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MCLSIPSEILEIDELNNALVQTLGVKRKVNLDLIDEPLKQGDYVLIHVGVAMEKIDKEAALESIKTYQEI

VEKMNSGEIKSDEGDLGLNEFHR

>AHK55218.1 hydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MCKDCGCSINSSHTHGHHHDHHHENPSLKEGKTIEVISKILSKNDEEAKHNRAHFNEANTLCINLMSSPG

SGKTTLLESTIKALKNELKIAVIEGDLETNNDALRVKNAGALAYQITTGQSCHLDAFMVHEALHHLAIDD

VDLLFIENVGNLVCPASYDLGEHLNVVLLSITEGSDKPQKYPVMFKKADIVLITKADLAHHFDFDIKEAT

RLIKELNPRADIITLDAKNGTNMELWYKVLKLKKELF

>AHK55217.1 3-hydroxydecanoyl-ACP:CoA transacylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MCHLGYKIKISGLVQGVGFRPLVYELALKSKLFGEVRNDGFGVEIILACTQKECENFIENLKNHLPPLAR

IDQLIITQISISNYENFSITPSLENTKSTPMLSDFAFCKECKKEFFDEKNPRFLYPFITCTHCGPRFSII

KSLPYDRAHTSMQELLMCEFCKSEYEDPKNRRFHAQPISCPKCKINVFLKNPKGEILAKDQEAFMQSAKF

LKEGKILAIKGIGGFHLMCDAFNEEALKTLRLRKNRPKKPFALMCKDLQSAKELAFIDEKEEALLGGVLA

PIVILKAKKAFSLIAPDVDKIGIMLAYTPLHLLLFEYFKGSLVATSANLSGESIIKDEFNLCKKLDKVFD

FYLDYDREIINASDDSIAQVVNGETMFLRTSRGLNPFYLERNFNKKGTFLALGAELKNEFVIFYENKLLI

SPYIGDLKSLDVHERFFKLLEFFKQNYDLKFDAILCDKHPHFSYAKEFEERIKISHHYAHFCAAYFEYEE

NFAKDEKALAFICDGTGYGEDGKIWGGEVFVGNLKEYERIAHFENFTLINSDIKNIQNLALSLIFHYDLE

DKAKDFLAKIPKIKLKNLKKIYSHSNLQTSSLGRIIDAFGSIVFNLEKSSYEAQVGLMCEAFYDKNLDFS

YKLFVEKGQVNFKNLILGALQDEKTKAITGMFNALANFIIDFSKDYDLKVLLSGGVFQNKTLLEILKAKN

FDFFIPLKYPCNDSSIALGQMVHFLNLEK

>AHK55216.1 hypothetical protein N917\_03105 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTLDFDFIYNADNDIFEYLLRFYAKNYNYILSKEENTYHFSIDADEENLKTFCDSLNFMSHSVFLKKFDV

KAGQGFNPCIPEDKEFSRFSYITHLNSNAYQEKKLLNKNEWGVFCECEFSSNLSEFEKINEENFNTFLNL

AFDLLSQEKKIYLKDKNGIYEFSLFKNEFIGDFLLPCDIKAINSVFVCSNENLKLLASLEKPLMKLRLNA

MFRKNHNLDFSDFKIRLARDLFCFALGLKLFENEYKFLSVKKIEEYQKDFYISALDEQVVVLEGFEFINA

KARELIFSKEDKNMARISYLVSRYKEKAFILELSKDYEDILLINKELNLLKLCLPKHSKELYEEIKKDEI

GARLLENFNKEFPLLDENFELQNNFYSLLGLLGRVLNLGRNLQESASELLKIADESKMPRGVKIDYRLKE

DKSFDYTRTLRSAMSFMLAGVDSANIAYGAVESLAYFLRDTYDELREKKQSDLALISGSLFEHKSLLKNT

LKHLKNCQLSDVPLRI

>AHK55215.1 hypothetical protein N917\_03100 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MARQSSSLKSFIYKDECYFYSKKCIKTLRLRLNEKGEFVLSIPYFCTFKSVYEFLDKSSSWMNEAKKRFE

KKVLKDDELIFLAKKYKIIFDENTKKTYFDKDKIICQNKAKLDLFLRQNAKKIFTFYLKKWSQKTGLFYT

HLSIKNMKTRWGSCNHNKAYVNLNLKLIQKSLRAIEYVILHEISHLKFPNHSKEFYTFIEHFMSDFRQRE

KEFLS

>AHK55214.1 multidrug transporter MatE [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKKQLSLTRLSFPIFWDLLSKYLTVIINTAMVSHYSNFLVGAMGAGNQILDLFITIFSFLSVGCSVLIA

QAIGAKDHVLARKVIHQSLFLNALLGFVCGVLILWHGEYLLYLLKIPQELLKDSEIYLHMLAICLFFDAI

GIVLAAIVRVYNMAYWVMFIGFLMDIVVICGNYYVLHYTKSELFGVGLSNIFARIVAIVALFAILFYKLK

IHLKIKEMIKLEKEVLKKVLNIGGFSAGENLLWIVQYTIAFAFVASLGEASLSVQTIYFQISMLIMLIGQ

AISIANEIIVGKLIGARYENIAYKHAWRALYFSVIASALVAFLNYLCQDFTMQILGLKEELKNLMIPLFA

LSIFLEISRTFNIVMVNSLRASGDAKFPFFSGLVFMMGVSLPVGYVLCFHFNLGILGVWIGFCADEFLRG

MVNSYRWKSKKWQGKALV

>AHK55213.1 phosphate ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIAKTTNLNLFYGKKQALFDINMQIEQNKITALIGASGCGKSTFLRCFNRMNDKIAKIDGLVEIKGKDVK

NQDVVALRKNVGMVFQQPNVFVKSIYENISYAPKLHGMIKNKDEEEALVVDCLQKVGLFEEVKDKLKQNA

LALSGGQQQRLCIARALAIKPKLLLLDEPTSALDPISSGVIEELLKELSHNLSMIMVTHNMQQGKRVADY

TAFFHLGELIEFGESKEFFENPKQEKTKAYLSGAFG

>AHK55212.1 phosphate ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKLFKKRQKASKSFKRLCKMGLYINLIFLCIFLGSVAYLGFPAFKQTYIFVEANRNSPAYDLLSRAEQR

KIRTGQITEKSWLLANSEVDQYMKQKYNRLSEKQRTLVDDLMQKGEIELKFNSNFFLNGDSKSPENSGIL

SSVVGTLLVMLVCMVVSVPIGVAAAIYLEEFAPQNILTHFIEVCINNLASIPSILFGLLGLGVFINLFGM

PRSSALVGGLTLAIMSLPIIIVSTKAALKSVDINMKNAAYALGMTKVQMVKGIMLPLAMPMILTGSILTL

AGAIGETAPLMIIGMIAFIPDVASSIFDSTSVLPAQIYSWSAMPERAFLERTAAGIIVLLGLLVVLNLSA

ILLRKYFQGKLK

>AHK55211.1 phosphate ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKEKIIKFALFLCAFVSVIVSFAIMLTILIEALKFFQKESVVTFLFSSQWAADAAFMNADGTSKQGVFG

ALSLFWGTFYISLIAMLTALPLGVMCAIYLGVFAGKKSKNYLKPILEIIAGIPTVVFGFFAAIVVAPFIV

WFFSLFGIQASFQSALGAGFIMGIMIVPIVASLSQDCIEAVSEKRINGAYALGMTKKEVVFAVILPEAIP

GIVAACLLGLSRALGETMIVVMAASLRPNLTLNFLEDMTTVTVKIVEALSGDQAFDSSLALSAFSLGLVL

FVITLIINMFSVYLINRFHKRKNL

>AHK55210.1 phosphate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILSLSVTSLALCGALNAVDLKIAGSSTVYPFTSFVAEEYASIKNTKTPIVESLGTGGGFKVFCEGTT

DISNASRPMKLSEFETCKKAGVTDIVGMMIGYDGIVLAQNKTNAPLNITKKELFLALAKEIPQNGKLIPN

PYTNWNQINKNLPNRKISVYGPPSSSGTRDTIEELVMSDVSKKIPEYKGEYKTIRQDGAYIPSGENDNLI

VSKLTIDKDAFGIFGYSFLVSNSDKINAANIDGVTPSEESIADEKYELARSLFIYINAKKNPKEAFDFAK

IYMSDDLAKSGGELEKIGLVPLSDDKLKASQKHVEDRKILNDELVKAGKVF

>AHK55209.1 ferritin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLSKEVVKLLNEQINKEMYAANLYLSMSSWCYENSLDGAGAFLFAHASEESDHAKKLITYLNETDSHVEL

QEVKQPEQNFKSLLDVFEKTYEHEQFITKSINTLVEHMLTHKDYSTFNFLQWYVSEQHEEEALFRGIVDK

IKLIGEHGNGLYLADQYIKNIALSRKK

>AHK55208.1 acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTYFSLEFSILMIAFFAIYWTFKNDYKIQNILILIFSYIIYILINPYFALVLFIYTFFIHYFALLIFVRR

KRYIFATCMAFIILNLCFFKYFPSIKGSVDEILNFFGLEFLNIDLVLPIGISFYTFTSITYLVEVYQKRR

LESFLNLATFLSFFPTLLSGPIMRSSFFFEQAYQKREFKHANLIIILLVFGIVKKVLIANYLGIYAKSIL

DFPQSYNFIQLLSAIYAYAIQIYCDFSGYVDLVCAFALMLGFTLPPNFNMPYLAKNLKDFWARWHISLST

FIRDYIYIPLGGNRKGIPRTVANILIAFILSGMWHGNTLAFIVWGLLHGIGIVFIHLLTLSKFSLQKIPA

LGRFLTFQFVCFTWIFFYYSKNLEDAIEYFKACYYNFFQIPSYNDIYMLVAFGVLFMIYPLFINFKEYCI

KILNLTPFLLKPFIIAFILLLVFAFMPDGIPDFIYSSF

>AHK55207.1 hypothetical protein N917\_03055 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSVVRFFFILIIVLGLVVVVMNQSISSYIEQKYHFAFYPHNDLLKEANGFKIKLEQIRAILSNEPLPQTN

EETTNQENKSIDENLSKIDKVLNTLENDENTSHKETNPTLIQDANISFIDNTKLELQNGDEFLFIGDSLM

QGVAIALNRDLRNLNLKVTDLSKQNTGLSYKSYFDWSKATNEAFIKNSNIKYLVVLLGANDPWDIKKGGN

YHRFGSLSWIDIYTSRVDEIIKIAKKHKAKVFWFEIPPVKKEDLNKKIQVLNKIYSDEILKNKEIFINTK

LFFSVNDEYSAYIKDENNRSIKVRTDDGVHFTPSGAREMSKLLLEHIKLKEENASK

>AHK55206.1 hypothetical protein N917\_03050 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLVNKFKVILLFFIIFTSSYAQNLNTNDTIDSILNQNKNHSALTSYVSKKDLKNLEKKLEKNQNIGIRIY

GDSHMAADFFPRVIRGYLIRSNSIGFAYPLQPKYQQNLNLVYSYKNFEILNSRNPANAGHNFPLGGIIAK

AKTKGAKINLDTTLDKKNFKIGFLFKAKQNTNAFSIKDAKNQSYELRTTQINKWSYKELELDLPLQISAL

QKDAELGGYFITNKDNNVFLDTIAINGAKSDLWLSWNQEVVKKELELLHNDLIILAYGSNDALFKGFEKQ

KFKNNLKKWISILKTYNKNAVIMLISPPTVVQKQGKNYKLAPDFFTIRKALYEVAKEEKTLIFDMHQFMQ

DSGGKNKWIEQKLSLNDVHLTIKGYELMAKKLLEDLKNIIDY

>AHK55205.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIILSIFLAFFLSACGVKLSLPKEVDLTQEQMKDLNLTYDWYRSYDNAKLNEFLNFVLLNNSDINIARK

TLLSALARADLIDYDLYPTLSGNLGFGADKDLNSGKQSKNFNNSLNLSYELDIYGKLRDSASASEFSAKA

SAYDLENLKISMINTALNDVFELAYFNDVDKLLRAYLSNLEQMKELYNYKYKLGKIEELDLLNIEQSLLR

AKQNLLSNDQNRNLLIKNLQDLLARQEGFAYIEYFKTLSLNDFKTLSPDFNIPLKALAYRADVRSKLNSL

KSAFKDYSSMQKSILPSISLGGALSGSDKKIDDSFKFEILSGNVKISLPFLDYGRVKQNIKISQFAYEQL

LISYEQVLQSAMNEFALNYKDYQSDTLLLQNLQNINIKQELITKAYYEKYILGKSELKDYLDANNTLNST

QQEFLRARFNLLKTINSYYQITALSFNNENLEFPKY

>AHK55204.1 macrolide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIFLKNICKNIGENAILKNVSLSIEKGEFVAIIGQSGSGKTSLLNIIGTLDTPSSGTYVFDEYEVTKLNN

DEKARLRREKIGFIFQRYNLLSLLSAKENVSLPAVYAGKNLQERSQNAKKLLNDLELAHKLDSKPNELSG

GQQQRVSIARALINGGELILADEPTGALDSKSGIMVLEILQKLNEQGHTIVLVTHDPKIAAQAKRVIEIK

DGEILSDTKKEKAQEKLILKTMPKEKKTLTLLKNQAFECFKIAYSSILAHKLRSILTMLGIIIGIASVVC

VVALGLGSQAKVLESIARLGTNTIEIRPGKGFGDLRSGKTRLNFSDLETLRSLEYLEAVDAHSNTSGVAT

YTNISLSARAEGVGVNNFAIEGLRIDAGRILNNDDVKNSTNVAVLDFNAKKNLFPDEKSENILGRVVLFN

SQPFKIIGVLQKDTDKPIEDNVVRFYIPYTTLMNKLTGDRNLREIIVKVKDDVSSTLAENAIIRILEIKR

GQKDFFTFNSDTFKQAITANKRTTTILTACVAVIALIVGGIGVMNIMLVSVSERTREIGIRMAIGARRED

IMMQFLIEAVMICTIGAILGVILSIFVIFAFNTLSTDFPMILNAYSVLLGLLSSMFIGVVFGFFPARNAA

NLNPISALSKE

>AHK55203.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKKIVLIILIAILGSVGAYFIFFNNDEKISYLTQKIQKKDISQTIEAVGKVYAKDQVDVGAQVSGQIIK

LYVDVGTHVKQGDLIAQIDKDKQQNDLDITKAQLESAKANLESKKVALEIANKQYQREQKLYAAKASSLE

NLETQKNNYYTLKANVAELNAQVVQLEITLKNAQKDLGYTTITAPMDGVVINVAVDEGQTVNANQNTPTI

VRIANLDEMEVRMEIAEADVSKIKVGTELDFSLLNDPQKTYHAKIASIDPADTEVSDSSTSSSSSSSSSS

SSSSSNAIYYYAKFYVANKDDFLRIGMSIQNEIVVASAKAVLAVPTYAIKSDPKGYYVEILENQKAVKKY

VKLGIKDSINTQILEGVNEDEELIVSSSADGLAPKMKLRF

>AHK55202.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKLVENLALKYYDKVVDLRHQIHMHPELEFEEENTAHLVCKILDEFGIKYQKNIAKTGILAIIEGKKKS

QKKPKCVLLRADMDALPVQEKTNLSYASKIDGKMHACGHDGHTAGLLGAALILNELKDEFCGTIKFMFQP

AEEGSGGAKPMIESGVLENPYVDAVFGCHLWGPLLENTAQIVSGEMMAGTDIFDLEFIGRGGHGAHPHTC

IDPIIMTTQFVNNIQSVISRRLAPYEAGVITVGQICAGTTYNVIPTNAYLKGTVRFLNDKTQDILKSSLE

EVAAATAKSNGGDYKLKYTKEFPPLINDEKAVLIARKAFAKVLGEENIIVSSKPDMGAEDFAFLTRERMG

AYVFVGISKDLNHPALHHSSTFCWDDENLKVLMQGDVMMALEFLNL

>AHK55201.1 thiol:disulfide interchange protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRIFGIILLSFCLCFASILSLNEAFNVKSNSYNNSISIDIELGKDIYLYSNKLKLYINEKDISSLINLPQ

SSTRGNENVYYQKLNLALPNLLLERFAKNTTNLIKLEFQGCSEQGLCYNPQTWYFDLISKKDAFEISKPY

KAQKTDKKTKIESEESSIANFLATDNFFWILLSFFGYGLLLSLTPCILPMIPILSSLIVAKSNAKFSKKY

SFFLSFIYVFFMSLAYAIAGVIASFLGASIQGILQKPIILILFALIFIAFAFAMFGAFRFELPLRFQTFI

HKKSEKGKGVVGIAIMGFLSALIVGPCVAAPLAGALIYIANTGNALLGGSALFIMSFGMGIPLLFIGLGL

GFIKPGFWMEKVKIFFGFVMLAMAIWILSRIIEENYILIAYGILGVFFSVFMGIFEKSFTIISKIKKSIL

ILILAYSLSIFLGGLFGAKNFLNPLNFNTISASKHALSYDYINNFEQLKQEIQTNTKPIMLDFTASWCEN

CKLLDELTFSDERIIQKMQNYKLIKVDVSENNNEQIKTMKEFNVFGPPVLIFFENGKEKLKITGFISADD

LLKKIEP

>AHK55200.1 sulfurase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIQSLQIGKIKNYKNFQSAFIKDTYLEETQIDFLGVLDDQIADKIHHGGYHKAIFTNSCQNYPIWERFL

NKKLNFGSMGENLSIDGLCEQNVCIGDIHQFSNAILQVSEPRKPCVKISKIHNNPNFTHEIFKTGLSGWY

YKVLQVGQIRKHENIKILEKNSTSLSVFELNQLFYSPHQILKQNPNLLDKLEKLNSLISQNWHETIHKRL

KNTYDISYMDSL

>AHK55199.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQRQTWSSTLTYILTVAGATIGFGATWRFPYLVGENGGGAYVLVFCIAMIIIGIPVILVENVIGRKAMTN

SVDAFKQKWQSIGYMGLLGSFGIMAYYMVLGGWVLVYIWELTLGNFSLANVVSKEFTHQFFNDKIAFNPL

GVGIFTTVFVIINYIILKRGIIDGIEKSVKFLMPLLFICLIIVVGRNLTLDGAMAGVKFYLEPDFSKILS

PKLLIDVLGQVFFALSLGFGVMITLSSHLNKNENMAKTAIYTGVLNTIIAVLAGFMIFPALFSAGLAPDS

GPSLVFETLPIAFSHIHFGTIVCILFFVLLLIAALTTSLPIYQVIISVLEEKFKYSKNLSINLTLGFIFI

LGNLPCILTYGPWRDIVIIKGKNIFDSFDFISGNILFVLTAFFCCIYVGWILGKQESLKELSNNNTLKSS

WFGIWFYYVKYIVPLIILIIFIYGILN

>AHK55198.1 1-aminocyclopropane-1-carboxylate deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFIKTISPIQKINFNGFEFYIKRDDLLGEINGNKARKLAFYIHQRYPKNQSFVSYGGSQSNALAALSIF

AKQRSYKLVFACEKISTFLKNNPCGNYALALENGVDFVENIHSLSLKQFALSLCKKDDVFIEQGIANLEA

QYGYMELAQEIQMQSQSLKLDFDIFLPSGTGTSAAFLAKYSKFKVFTCACVGDIKYLKKQILTLDPSYDF

SNLEFLTSDKKYHFAKPYKEFYELYMDLKLKCNIEFDLLYDILGLSIALKQEWKKPLLYIHQGGILGNST

MLERYKFKKSV

>AHK55197.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNESKEDSNFWIAYADLMAGLLFVFILLIGAIVVKYVLTQSDLKEIKDNLNKQEARLEESKEELRNKEA

IVFKLSSDLNNASSALNLANSQKAELEANITNYKQLSKDLNSTLDNKDKQILILLGQLEKKDEELKNLQE

DFQKAKEKVQNLGLIRENLSKELQSKLDNNITIDEKIGSISLPAEVLFDKDSYVLKNEAKASLRKILSEY

FDAILEDPKIFSNIENIIIEGHTDSDGSYIYNLDLSQKRAYEVMNFIYTFYKSDKLQKLLMASGRSFSDP

VFVNGVEDKDKSRRIEIKFSIKNDNALKDVEKFFEFH

>AHK55196.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDIKSDEISELVLPEGKDARGSLVYFKIIFIPAFLYILILLGYFNVIDFKVELHTVIMTGVIFFTALIFA

RHSAEYAYSIFEQQKDEFKQALKRHIMRHFLAIGKDTKSNANFDDFAYTYIKGARNENFASIGSAIFPMM

GILGTFISIAFSMPNFSSSDTAALEQEIADLLSGVGTAFYVSIYGIFLALWWMFFEKYGKSKIDRLLNRQ

KNATSGFFWTKEELDQRYLTESLQHFEKIGAIFKQVSNDDFFAELDHAIDRKFGIFQDMLNVEEKAIRLS

SEHIKQTMGELSKAQRDQRDLGKLYSEMLNGIGLLNQNLKEINTRMSEQYNRLLDISSDKIHHLDKTLSA

FDEKIERFGKNFELYEKAMLESQEKVFEGFKASLFEGMHKFKEVYEEEKSIDAKIKMMDELKKEMKALDE

ETSQMMSKLSGDENQNKENETKQIEDFSESKTEENQDEIQAEISKQESNDELKNEDKENK

>AHK55195.1 fructose-bisphosphate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGVLDIVKAGVISGDELNKIYDYAKAEGFAIPAVNVVGTDSINAVLEAAKKVNSPVIIQFSNGGAKFYAG

KNCPNGEVLGAISGAKHVHLLAKAYGVPVILHTDHAARKLLPWIDGLIEANAQYKKTHGQALFSSHMLDL

SEESLEENLSTCEVYLQKLDALGVALEIELGCTGGEEDGVDNTGIDNSKLYTQPEDVALAYERLGKISDK

FSIAASFGNVHGVYKPGNVSLQPEILKNSQKFVKDKFALNSDKPINFVFHGGSGSELKDIKNAVSYGVIK

MNIDTDTQWAFWDGVREYELKNRAYLQGQIGNPEGDDKPNKKYYDPRVWLRSGEESMIKRLEIAFEDLNC

INKN

>AHK55194.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKFSLVAATLIAGVVLNVNAATVATVNGKSISDTEVSEFFAPMLRGQDFKTLPDNQKKALIQQYIMQDL

ILQDAKKQNLEKDPLYTKELDRAKDAILVNVYQEKILNTIKIDAAKVKAFYDQNKDKYVKPARVQAKHIL

VATEKEAKDIINELKGLKGKELDAKFSELAKEKSIDPGSKNQGGELGWFDQSTMVKPFTDAAFALKNGTI

TTTPVKTNFGYHVILKENSQAKGQIKFDEVKQGIENGLKFEEFKKVINQKGQDLLNSAKVEYK

>AHK55193.1 endonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKRNLEIKELFLKHFDKPVTELKFSNLYELLVCVMLSAQCTDKRVNLITPDLFKAYPDIKSLANANLSSL

KTYIQTCSFFNNKAQNLIKMAKAVCENFDGEIPLDEQNLKSLAGVGQKTAHVVLIEWCGANFMAVDTHVF

RVSHRLGLSKAKTPEATEEDLTRTFKDNLNYLHQAMVLFGRYTCKAKKPLCKECFLNHLCKSKDKELK

>AHK55192.1 endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIFIFLLTISLNIFALEPYKPSADFSSYFNNINCSQILDKFFYLNCYDYKLKGTKAVAYKVEASNLKDR

QIKKRPRFEDDTNIPKKYRTTWSNYKNSGYTRGHTAPNASFSFSKAAQNSVFLMSNITPQNAQINNKIWN

EIEQRERNLALEFQSIEVLNLVLYDKEPQYIKNRIAIPSFYVKIIKTPKFKECYQAPNHEVNDENIKQYQ

INCDKF

>AHK55191.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEINALTITTLYIIGISAEGMTGALAAGRHKMDLFGVIFIALVTAIGGGSIRDVLLGHYPLTWVKHPEYI

ILICFCALVATKIPRVVTKLETLFLTLDAIGLVVFSILGAQIAIDQNHGFIIAVAAAVITGVFGGILRDI

LCMRIPLVFQKEIYAGIAIIAGAIYYSLIIWLELNALVCTLLTLFIGVFARLLAIKYQWSLPIFSYNEEK

>AHK55190.1 hypothetical protein N917\_02965 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRRLSILLAILIVINITACDSKTENYYKNLPSEAKEKAKECKESGTLSEDCINALKVGVKPTNEEGKYSP

NTPKKSDNQILEALKQNDLKKEKTTKDINQSSENNESIIIPPIAETPSEIYPSKTTENNQSSIFSDDVNM

TQEK

>AHK55189.1 hypothetical protein N917\_02960 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKITLFLSLIGIFFAACEQTKSVEYYQNHPEEAKKRSLECRHKAIISQDCVNAYKIGFPKDEWEDENISN

P

>AHK55188.1 tRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKDELFKQSPKKQFEFDKSVASVFDDMINRSVPFYRENLELCGNLLAKILPTNASVCDLGCSSANFLIFL

ANLRKDFKLFGVDNSASMLEVAKSKAKAYGLDISFFEANLCEFDFFTCDVFVANYTMQFIRPPKRQELLD

QIYKNLNSKGILIMSEKILYEDAFLSKNIIELYADYKEKQGYSKFEIAAKREALENVLIPYSQKENLNML

EKAGFKKIESIFKWANFETFIAFKD

>AHK55187.1 riboflavin kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNIFTTISKINITSLAIGCFDGMHLGHLKLVKCLDENGALLVINKFKGQFLCSNRQKEEISGKKVIEVD

FESIKSLDGRDFLSFLKKEFVNLKFIVVGYDFSFGKNRAYNAKDIESLSGIKTIIVDEFSIDGIGVHASL

IKDFLSKANLQKAKEFLGRDYSIKGKMIKGQGLGSKELFATINLDCEGYFLPQNGVYVTLLKSQRKTYKS

VSFLGVRSSDENFAIESHILEELGENFTQGEFFELEFISFLRENQKFQDLKKLKNQIAKDIEQARELLRK

NDER

>AHK55186.1 hemolysin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRFDFFVSKRLNISRNKALELIENEEILLNGKSFKASFDVKNFLENLKKTQDLNPEDILLANELKLDLLS

EIYVSRAALKLKKFLEENDIEIKHKNCLDIGSSTGGFVQILLENQALKITALDVGSNQLHPSLRVNEKII

LHENTDLRAFKSEEKFELVTCDVSFISLINLLYYIDNLALKEIILLFKPQFEVGKNIKRDKKGVLKDDKA

ILKARMDFEKACAKLGWLLKNTQKSSIKGKEGNVEYFYYYIKN

>AHK55185.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVLLMSLLKNSSYILTLLSLFGFLLTWQRSAFSLFFLISIFLTLFWEFFLFLKLRKNIIKEATLIKGSL

FYRVSMGDFYLYIFSFFLAIFGLVSLFLNFLNLEKIDFVFIFIILPLLMIFLKKELHLQFVDNAYNDFRI

VVIASFFTALFYAFYGLFFTYNELLNLELFSRKIIAYKSASFVYFDFLSEFLHFVSNLKFFIFSYFGYLG

FRALNFIFDFFNFFMFCSLLAFVFNFVLKIKIKIIVLFLCFIMVLGNYFLKEQRNNALKSEQEQILLWMN

NFNFLKDNNLSLIQKEKDLFEKDLKDLREIFKKNAFEIGIWWFSKEKEDLEKRINESLK

>AHK55184.1 NAD-dependent DNA ligase LigA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKEEYLEKVALANLWMRAYYEKDEPLASDEEYDALIRELRVFEEQNKDEISKDSPTQKIAPTIQSEFKK

IAHLKRMWSMEDVFDESELRAWAKRAKCEKNFFIEPKFDGASLNLLYENGKLVSGATRGDGEVGEDITLN

VFEIENIPKNIAYKERIEIRGEVVILKDDFEKINEKRALLNQSLFANPRNAASGSLRQLDTSITKERNLK

FYPWGVGENTLNFTKHSEVMQFIRELGFLKDDFVRLCANLDEVLKAYDELLALREKKPMMMDGMVVRVDD

LALCEELGYTVKFPKFMAAFKFPALEKTTRLIGVNLQVGRSGVITPVAVLEPVNLDGVVVKSATLHNFDE

IARLDVKINDFVSVIRSGDVIPKITKVFKERREGLEMEISRPKLCPTCQSELLDEGTLIKCQNIDCEDRL

VNSIIHFVSKKCLNIDGLGENIVELLYKHKKITTLESIFHLKFNDFEGLEGFKEKKINNLLNAIEQAREC

ELFRFITALGIEHIGEVAAKKLSLSFGKEWYKQSFEAYANLEGFGEQMALSLCEFTRVNRTRIDEFYKLL

NLKIEKLEIKSDGVIFGKTFVITGTLSRPRDEFKALIEKLGGKVSGSVSKKTDYVLFGEEAGSKLSKAKE

LEVKCIDESAFNELVKE

>AHK55183.1 dihydropteroate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFFKINPNTDFNLLCSFINPHKMGQKIMSEKTKIHFIFIKDISTPAANILKQDALRVGAELITHKEVIT

AKITHSNALLMASKEQIQKLVVKEKLQDFGLKNLALFLQKDFLKPKKAELMAVINVNEDSFNAKSRVSEE

DFEKRLNDFLALKPEYIDIGAVSSRPGSEYCGKEEEFKRLKKVLDLIYEKNYYEQAIFSLDSFDEYCLEY

ALNKGFKLINDITSLRNLNLAKLASKYGAKYCLMHMQNNPNNMQDNPFYEDLLDEMTLFFKEKLELLESF

GVKESILDVGIGFGKSAGHNMILIKHLEHFLQFNKPLLIGASRKSVINAYFQSEIKDRLAGTLYLHLKAF

ENGASIIRVHDLYEHKQLFALAQAMDNIGV

>AHK55182.1 DNA polymerase III subunit delta' [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFISKIIISEDFLGIKEEMINNFGIKKLRFFIPQNEFLLDDARAVEKESYIAETEEKIIVLMADSYRIEA

QNFLLKLLEEPPKNIKFLIVIPSKNLLLPTIKSRLICEKRKVEKEVKKLDLDLKRMDLRMLFDFLQKNEN

LDKNELMDQIALLAKECVKYKDFNAEELEFFYESYELAKLNSKSGVLLATLLLNYYTKK

>AHK55181.1 hypothetical protein N917\_02920 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSDFLSFTLENIRNGGAFMAWLESRRLEWAPLMAARLKYLLEGRTFVLMCDEQRSWYEEYFLKNINSKAT

RPMLPFVSLNSLCKKKVQSSEDIALLNDLLDISFPNGYVYFYIGSASDNKSLIAKSRDDSLLWLFDEQLQ

DSFYLNSKDKDLDIKLISLYQLFDVSLDAILFSKVQLG

>AHK55180.1 aspartate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLIVQKYGGTSVGTLERIEAVANRVIQSAQQGNQLVVVVSAMSGVTNTLIEQAEYFSKTPNGKDMDMLLS

SGERVTSALLSIALNEKGCPAISFSGRKAGIITDSVFTKARIHHIDTKAIKSELQNGKIVVIAGFQGVDE

EGNVTTLGRGGSDLSAVAVAGALNADLCEIYTDVDGVYTTDPRIEPKAKKLDKISYEEMLELASLGAKVL

QNRSVELAKKLNVNLVTRSSFNNNEGTMITKEDGMEQALVSGIALDKNQARVTLRNIEDKPGIAAEIFSV

LANENINVDMIIQNVGVDGATNLGFTVPQNELELAKNAMQKILSSKTTIESDSAVLKVSIVGVGMKSHSG

VASKAFKALADEGINIGMISTSEIKISMIVHEKYGELAVRALHECYGLDK

>AHK55179.1 preprotein translocase subunit TatB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSFGEIIVILVVAILVLGPDKLPEAIVQIAKILKAVKRNIDDAKSSIEKEIRINDLKEEAKKYKDEFSST

NENIRKKLSFEEFDDLKRDILDKTKVDLTFDSRDDKVKNNLSGQNLNTEEKPNLSKLETQDKNGKINV

>AHK55178.1 preprotein translocase subunit TatC [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFEELRPHLIELRKRLFISVACIVVMFIVCFALRSYILDILKAPLIAVLPEVAKHVNVIEVQEALFTAMK

VSFFAAFIFSLPVIFWQFWKFVAPGLYDNEKRLVVPFVSFASIMFAFGACFCYFVVVPLAFKFLINFGLN

EDFNPVITIGTYVDFFTKVVVAFGLAFEMPVIAFFFAKIGLIDDSFLKRHFRIAVLVIFVFSAFMTPPDV

LSQFLMAGPLCGLYGLSILIVQKVNPAPKDKESDE

>AHK55177.1 S-adenosylmethionine tRNA ribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKDLLLSSYDYTLANELIANYPTNPKEDARLLVFDRKNKEIFHTTFKNLQDFLPNCAIFFNDTKVIKAR

IYGNKASGGKIELFLHQPFLNSHNPLFLAQIKGRIKKDEILYFKEDLKVRVVELLNDGLRKVQFFQNDKT

LDTSNLYNLLDKIGHIPLPPYIKREDEKSDLKDYQSIFAKNLGAVAAPTASLHFSETMLENLRKKHEIYH

LTLHVGAGTFKSVECENIQEHKMHSEFFNIPQQACEIIDSKQAILGVGTTVTRTIEYYTRTKTKNGFCDL

FLHPQNPPIRQNHLLTNFHLPKSTLIMLVSAFIGREQCLKLYELAIKEKYRFYSYGDAMLIL

>AHK55176.1 UDP-3-O-(3-hydroxymyristoyl) glucosamine N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLSEIAEFLSLEYKGEDIEISALNSLLKANFTELTYCDGEKNTKDIPHTGAAAILVSKEYENLVPKDTK

ALITQSPHLSFAFLSKLFAKPLISTAKEKVQNIAKSARIMPNVYIGDNVNIGENVIIMAGAYIGDNVSIG

DESIIHPNVVIYNDTKIGKKCHLLANCVIGSDGFGYAHNKNGEHYKIYHNGNVVLEDFVEVGACTTIDRA

VFDSTIIKAGTKVDNLVQIGHNCNIGQNCIIVAQTGISGSSELGRNVIMGGQSATSGHLKIGDFSTIAAR

GGVSKNLEGGRVYGGFPIMLQKDWLKLQAKIAINFKEKSQD

>AHK55175.1 acetolactate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRRVLSVIVLNEHGVLSRIVGLFSGRGYNIDSLTVAPLENKEFSRINIVTSGNERTFEQIVKQLHKLIPT

YKVIESEEFIDKEMALVKIPLNENLGGLDAVLKAYNGTIANSNENFLFLMVADDANRIDNFLKTIKKYNP

SDIVRSGSVLMEIK

>AHK55174.1 acetolactate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKELSGSAMICEALKEENVKIVFGYPGGAALNIYDEIYNQKYFKHILVRHEQAALHAADAYARMSGEVGV

AIVTSGPGFTNTITGLATAYSDSIPLVLISGQVANSLIGTDAFQEIDAVGISRPCVKHNYLVTCIEEFPR

ILKEAFYIARSGRPGPVHIDVPKDVSATLGLWEYSKEISMKTYKPVYKGNSKQIKKFAELLKEAKRPLFY

LGGGCISSNASEQIRELIKFTKIPAVETLMALGTLRSDDVFNLKMAGMHGSYAANMALSECDLLVSVGAR

FDDRITGKTSEFAKHATIVHVDIDPSSISKIINAHYPIVGDIKEVLKELLEELKKENFNTTFKEWHETLK

RYNELYPLSYEDSNEILKPQWVIEECAKMAPDARIITDVGQHQMWVAQFYPFNYPRQLATSGGQGTMGYS

LPAALGAKLAVGEEVVINFVGDGSVLMNIQELMTAYEYGIKAINIILNNAFLGMVRQWQSMFYKEHFSQT

DLSTQPDFIKIAQGFGCEGYEISNKEEFIQAFSQALKSDKTSLLNVKIDRFEDVLPMVPAGGAIYNMILP

KAKDRQ

>AHK55173.1 aspartyl-tRNA amidotransferase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTLKEQILNDIKEAMKQKDDFKRDSLRTLNAAFKQIEVDERIELDNERIYKIIASEIKKRKDVIELYLKA

NREDLAQKEQNEISLFEIYLPKQLSDEELTLALKQLIEELGVSSLKEQGLVMKEAKIKLGASVDGKRLNL

ALKELLQ

>AHK55172.1 3,4-dihydroxy-2-butanone 4-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFVSVEQAIKDLQAGKMLVMVDAEDRENEGDLIFPAQFSTQEKVNFMIKEARGVVCVALDETLAKKFEL

PLMVPKNTSNHETAFTITVDAKDATTGVSAYERNMTIQIFADDNAKASDFVRPGHINPLIAKKGGVLERT

GHTEGTVDLCKLAGLKGACVICEIVKDNGDMARREDLEIFCQKHDLNMIAVSDLIEYRLKHESLIKLEEK

SQSVLAGFKAEKFIFSDHNQTQHIAFCFKDIKKCENVKFHISGSDFELLTSDKFSKLLEQIKFLSENGGV

IVFMQGEKSSTTQYKNYGIGAQILRYFGIEEIKLLSQSCDKDYIGLEGFGLNLKACNFN

>AHK55171.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEYDKLSIRLVQILSKFNNGESLSAQELAQEFNVDTRTIQRDLNERLTFMPIKKENGRYVLESFALGKL

SFKDIQNFATLSGIAELYPKLDQGFIVDLLSHRVNKVLMVKNEGFQKVDYELFKDLSVAILKHNVLNFFY

KEKERQIKPYKLVNYKGIWYLLGDENDKLKHFNLDKISKLRTKNENFIPNEKLEEQIQNDPNIWLGESKE

VILKLDKNAKEYFFRKEILSNYQIIDKDETSYTLSTQVSYEDEILHLVKQWIPYIKILAPIELKIRLEDI

LKSYLNNLSK

>AHK55170.1 hypothetical protein N917\_02810 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKQIAFGSIALTATGYGIKKLYEKLSKPERKFDTHAIVPSCKDVINTEEYKLKRELEIEQKKNQIQEFL

CECMECYSGFSKYFNSKEFLEFEQNFTSKNNHKTEFLLSSYKDQMIKVIDYAKKFKCLSAFLETQSEKND

LAVVKMISESMERKTQRFYLQTKFQTFPQYIFPSVWSSPMWDKQWE

>AHK55169.1 replicative DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQQEYYDLDLERAILSSCIMSEEAYASIAGDISPKDFSLKAHQDIFKAVIACSNNKEPISVSFLRKHKKI

DEQILAEILATPSMIDLPAYVNELHEKSVKRQLLSFAHLLPTRINEDRAVSEIADEIGKEIFSITNRVNS

RDIKDVDMVISELFEEFKKQKTLENKGIIGLDTGFEGLNKMTKGFKGGELIIIAARPGMGKTTLCLNFID

KVLRQKKGVALFSLEMPATQIMQRMLSSKTSIPLQKILTADLNDDEWERLGDACNDYSQKKLYIYDSGYA

TIADVRAILRRLKSQDESIGLCVIDYIGLMMSNSNFNDRHLQVSEISRGLKLLARELDMPIIALSQLNRG

LEQRANKRPLMSDLRESGAIEQDADAILFVYRDEVYREQEEKERENKAKAEGKAYQRLFIPNPMQENAEI

IVGKNRNGPVGTIEVVFLKEKSCFVDKPIGYETTEFTG

>AHK55168.1 hypothetical protein N917\_02800 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKYLFSCVLASILTQSATAVEFQEGFSGNLSIGVGARDIKSNISTLANSDYLSSHNADNSDSSFIPFIG

AELYYGNLIDNDRIFIKNYNGRDISGIALGYERAYLERFSTSFSVISSLREKAYANPYAIGNREETDVDR

YGFKISQLYESDFGKFTTSYLFSKNKYDKDTIAQSSLKREGYYHEIELNYNYSLLNLGLNYDYNDADGKA

QSYSRYGFSIGTNLAFANDYIFTPNLNLSKYEAVGTDPIFHKKQDGNIVKLNLKVVKNQFLGYNGLYGFA

NYGIEKRNSDIGFYDETYQIVLTGIGYKF

>AHK55167.1 pyridine nucleotide-disulfide oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIDLIVVGAGPTGIGCAVEAKLKNKEVLILEKSNNICQTLMQFYKDGKRVDKAYKGCEGTNHGHVPFE

DGTKESTIETFQNALKEHNIEVEFGSEVESVKNENGVFLVSTAKGVYECKNIIVAIGRMGKPNKPDYKLP

MTLTKIINFNANSVLGNEKILVVGGGNSAAEYAVDLANSNQVSLCYRKKEFTRLNDINLKDIHEAGNSGK

VELKLGIDINEVEDDNGKAKVNFTDGTSDIYDRIIYAIGGSTPLDFLQKCGINVDDKGVPLMDENKQSNV

KGIFVAGDIATKNGASIVTGLNDAVKILSVL

>AHK55166.1 gamma-glutamyl phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRNLLENIKKNSQKLLNLTPKDKEKIILKLAQILRENFKIILEANKKDMANFTKSGAMKDRLLLDEKRIL

ALCEGLEKIAYIEDPIGKISKGWKNYAGLSIQKMSIPLGLICVIYEARPSLSAEIAALMIKSSNACVFKG

GSEAKFTNEAIFTLVNKVLKEFDLQDCFAMFTQRDEILQILAFDDLIDVIIPRGSSNMIQEIANNTKIPL

IKQNKGLCHAFVDQSANLDMALKIILNAKCQRVSVCNALETLLIHEKIAKNFISLLIPEFEKFKVKIHAH

ENALAYFNNSNLKIFKANENTFDTEWLDFALSVKLVKDCDEAIEHINKHSSLHSETIISNDASNIAKFQR

LINSSCIYANASTRFSDGGEFGFGGEVGISTSKLHARGPMGIEDICTYKYIINGEGQIRE

>AHK55165.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKIEILKQHFKEIAKLNSSEQVWQMPFFAALGVGIVLGLSVFFGKLNYGLIAMIGALSFLYVPSTPLYH

RMAVVMCCSFGIVSSFFLGILTHFLPAIFAFIPIGIMAMGSSILIRYYNIGAPGYFFFVFSCVLGAYSPF

EAKDFIFLVGLVFLGAMVANLMALLYSIVVIYGFKNALPSEIPPREYIGFDAVFVDSLIMGSFVAFSIFI

GTFLELERSYWIAISCTAIMQGVTLNSIWIKQIQRIIGTALGVCFAWWLLSKQFHDIELILLMMSLFFIG

QFLVNRNYALAMIFFTPYATYLSEAANFMSENADKLILARLIDVVIGSILGLLGGFVIYKPYLRVHFERI

AKYIFRIKQKA

>AHK55164.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIDTHAHIFLKKLNTVANARYKPDYDASFKDYKANLDHYDFNKGVLVQPSFLGIDNEFLLQSIEKDENI

KAIVVVDENIKFDELKKLKERKACGVRLNLIGKELPNFKSMVWTQFFENLSKLKMQIEIQRDLDNNLVDI

VENLIPYGCNIVIDHLARANANLTNLEDLICLKNSRIFFKISGFYRAKIDYANNEQAVKFAKKIYEILKE

HFPLSNFVFGSDWPHTNFEANINFSSALVAFNEVVVSKKEQEQILGDNACALFGF

>AHK55163.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVFLIISSIIVAIILGYITRHNVGIFAMIFAYIIGAFFMDLAPKKIIAFWPISIFFVIFAVSLFYNFATV

NGTLEKLAGHLMYRFANHPYLLPFVIFVVSAIIAALGAGFYTVLAFMAPLTFLLCDKIGLSKIAGAMAIN

YGALGGANFITSQSGIIFRGLMENSGIEANEAFANSSIIFAFTIILPIVVLSFFVFNAFKNNIKISVISK

PDPFDYKQKTTLILMFMMIVVVLIFPVLNIIFPHNETISYFNKKIDIAMIAMIFVAIALFLKLADEKQVV

ALIPWGTLIMICGVGMLISIAVEAGAIKLFSDLVENEINVIFIPLIMCAIAAFMSLFSSTLGVVTPALFP

IVPSIAASSGLSEALLFSCIVVGAQASAISPFSSGGSLILGSCPDKYKEKLFKDLLIKAVPIGFIAAILA

TIIMSFIL

>AHK55162.1 hypothetical protein N917\_02765 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKFIKQFSFIALENIFRELPNKITHSFNDINDIKPPKLMYPIFYGSYDWHSSVHSHWLLVKILKDFSHF

APKDEIIKALDSQFSKEKAEGELKYLQNPAHKGFERPYGWGWFLKLTLEINLLAKENDKAEIWAKNLEGI

ADFFVKEFKEFLPKMDYPIRVGTHFNSSFALYFALEYARFKKDQELEYCIIQSAKKWFLNDKNMQALEPC

GDEFLSPVLMEAVLLSAVLHKNDFVKFFKAYLPNLEAKEPATLFTPVSVSDRSDGKIAHLDGLNLSRAWC

FKILSNFCDENLKILLRNNATEHFDKAIAHIEDDYLGSHWLGSFALLALDVDIL

>AHK55161.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MISLDLLYYIVGILFLVFGILSFSNQAKDIKSRISGGVFWISYSFTFLLAGVLPHFVMGCIVILLALIAG

FNLLKPAKIEVSKEEKEYEIKHANIYKNKLFIPALMVPLITLIGTFLFPYLSFFENKNATLMALIIGIII

SSVVACFMFKASPKRAVKDAAHTMDHISWAALLPQILATLGVVFVSTGMGDQVSKLLSSYISLDNAFIAV

AVYCIAMALFTIVMGNAFAAFPVITAAIALPILIIQMHANPAIIGAIGMLSGFCGTLMTPMAANFNIVPA

ALLNLDDKNGVIKAQFMSGLVLLVANIFLMYFLAFRF

>AHK55160.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEWLLLASIPLIVLGFALKINPFLVVTSVGIYAGLVSGFDFVKVVSDIGKSFVDNRYVAIIWLILPLLAV

LERKGLREQAKNLISKIKVASTGRILMCYFVFRQVTAALGLLSLGGHAQMIRPLIAPMAEAAAKLKFKNL

THKDSQKIKAFSAGTDNVAVFFGEDIFIAVHSILFIKAFYESNGIIVEPLHLSVWAIPTGILALIIHCSR

LYLFDKRLEKTYKGLSDDKS

>AHK55159.1 elongation factor P [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MASYSMGDLKKGLKIEIDGIPFKIVEYQHVKPGKGPAFVRIKIKSFIDGKVLEKTFHAGDKCEAPNLEDK

TMQYLYDDGENCQFMDTQTYEQVAISDDDVGEAKKWMLDGMMVDVLFHNGKAIGVEVPQVVELKIIETAP

NFKGDTQGSNKKPATLETGAVVQIPFHVLEGEVIRVDTVRGEYIERANK

>AHK55158.1 hypothetical protein N917\_02745 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKQWLSDFKLALIQEDVNKLENLLDELDMKAFIKNLAKESPSEDFLKENANDVFYQVQALLQEAVILIEQ

KKKTKAVEIQKFQKALTYFKS

>AHK55157.1 flagellar biosynthesis protein FliS [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNNLAYNAYSQNQVGIESPQKLIEMLYEGILRFCARAKVAIRNEDIEQRVYFVKRTTAIFIELINTLNY

EKGGEVAHYLSGLYTREIQLLSLANLENNEDRINEVINVTKGLLEAWREVHNNETVAQ

>AHK55156.1 flagellar cap protein FliD [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAFGSLSSLGFGSGVLTQDTIDKLKEAEQKARIDPYTKKIEENTTKQKDLTEIKTKLLSFQTAVSSLADA

TVFAKRKVVGSISDNPPASLTVNSGVALQSMNINVTQLAQKDVYQSKGLANDGGFVNAQLNGTADLTFFS

NGKEYTVTVDKNTTYRDLADKINEASGGEIVAKIVNTGEKGTPYRLTLTSKETGEDSAISFYAGKKDSNG

KYQKDINAEKIFDDLGWGLDVSASIDPDKDKKGYGIKDASLHIQTAQNAEFTLDGIKMFRSSNTVTDLGV

GMTLTLNKTGEINFDVQQDFEGVTKAMQDLVDAYNDLVTNLNAATDYNSETGTKGTLQGISEVNSIRSSI

LADLFDSQVVDGTTEDANGNKVNTKVMLSMQDFGLSLNDAGTLSFDSSKFEQKVKEDPDSTESFFSNITK

YEDINHTGEVIKTGSLSKYLNSNGGNTNGLEFKPGDFTIVFNNQTYDLSKNSDGTNFKLTGKTEEELLQN

LANHINSKGIEGLKVKVESYNQNNVTGFRLNFSGDGSSDFSIKGDANILKELGLSDVNITSKPIEGKGIF

SKLKATLQEMTGKDGSITKYDESLTNDIKSLNTSKDSTQAMIDTRYDTMANQWLQYESILNKLNQQLNIV

TNMINAANNSNN

>AHK55155.1 flagellar protein FlaG [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEISKANGQMDTALANISQRTSETQASLNIQTDRSQGQEGDDGQQRGVSEKLADITKKLNEQMDSLDTNV

RFGYSDKIGSMYISVTEKSTGREIRQIPSEEAMRLAEYFRDVIGMIFDKES

>AHK55154.1 3-octaprenyl-4-hydroxybenzoate carboxy-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEFIQILKENDLLRVIEEPVDVDLEIAHLAYIEAKKGEKGKALLFKNPIDKKLNKQYKFPVLMNTFCNK

KALNLAFGRDYKEVAEEISKLIKLHIPTSFKAKMDFFMNLLSFKNIPPKRLKKNKALYDYEILNSLEELP

ILKTWEDDAGKFITMGQVYTQNLDKTQNNLGMYRLQMSDKNELLIHWQIHKDGANFYHEYKNAGFKKMPV

SIAIGGDPLYIWCSQAPLPKGIFELLLYGFIKKTPAKITPCENGIFVPYDSDVVIEGYVDLEEFKIEGPF

GDHTGFYTPAELFPVMKVEKIYAKKDAIYQATVVGKPPLEDKIMGLGTERIFLPLLQTSVPDLIDYNMPE

NGVFHNLILAKIDAKYPAHAQQIMHAFWGVGQMSFVKHAIFVDKNAPSLKDYDALIPYMLDRFNTKKILI

SEGICDQLDHASPNSCFGGKAGLDACEEIQVEELEILEDEKLLELFKTKVELLNLKQFYKESKSPIVCIL

LDKKEKIEQSFDKLLEFKKYFRILVFLDAENKLENSYMLVWRVVNNIDAKRDIFIKEERLGVDASAKGEA

EGYLRAWPKQTDCTKSVIEDLILRNILENNPDLFNKFEIF

>AHK55153.1 porphobilinogen deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLIIATRKSQLALWQSEHVAQILKNTHQIEVLLEGFKTKGDVLLDSPLAKIGGKGLFTKELEESMLRKE

AHLAVHSLKDVPSFFPQGLVLAAVSKREQSNDAMLSQNYKDFLSLPKGAKIGTTSLRRKMQLLLLRPDLE

IISLRGNVNSRIEKLKNNDFDAIILAMAGIKRLNLDKQVNFVYEFSKDELIPAASQGALGIESINDEKIL

ELLKCLNDENALIETSIEREFIATLEGGCQVPIGINAELLGDEICVRAVLGLPDGSEILKDKRMIKKNDF

KGFGESLAKEFIAKGAKELLKKAESMI

>AHK55152.1 integral memnbrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNYKLSLSPLFVLEIIASVLFIVFFGFGNFLFFILLSMIFGAVLLGIFWKNMLEFQMGGLKDMLTQFSFV

IAGFLLIFPGIITSVFGIFVFFFGIALKLITKSKYQYTKQEYQNSNEEIIDVEIIEDRK

>AHK55151.1 prolyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMRFTKFYAPSLKEAPKDASLPSHIFLTRAGFVEQIGSGLYNFLPLGKRVLDKIKNIVKEEMDKAGAQEV

NLSFITPASLWQESGRYNVFGKELLRFKDRKENEFVLGPTHEEAMLSLVKNKITSYKQLPLHLYQIGLKF

RDEARPRFGLLRCREFLMKDGYSFHANEEDLGREFELMYKTYSQILQRMGLDFRAVEADSGAIGGSGSKE

FMVLAKNGEDDILICENCDYAANVEAAKRAKKTCQDERPEANYASKFHTPNIKTIDSLAQFFKINAFYTI

KAVVKKAIYENESKLVVFFIRGSDDLQEVKAQNTCSALELVDASEEELKKAGLVAGFIGFVGLKDIDFYI

DFELENEKQMIMGANEKDYHLIGIDVVNLNKDRFKDLIEVKEGDCCVKCGAKLKQSKGIEVGHIFKLGQK

YSKAMNANFLDENGKSQPFYMGCYGIGVSRLLAVAIEANHDEKGCIWNKTLAPFVLEIIVSNLKDEKALE

FANKLYRDLTNLGLEVLLDDRNERFGVKMNDFELMGFPYALVIGKGLENNEIELIQREGLVKELIKTDEL

MEILKKKVL

>AHK55150.1 glutamyl-tRNA reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYYCISFTHKNTDIALREKLSFSNEAKKGEFLKIISTHENIEECLVISTCNRVEIVAFVKMACAEFIVKS

LALLCDVDKDILLEKADIFEDSGAIHHLFSVASSLDSLVVGETQIAGQLKDAFAFAVKNNFCGVHLSRAV

HSAFKCAAKVRNETQISKNSISVASVAVAKAKELADLTQKKAVVIGAGEMGELAAKHLIAAGAKVIILNR

DLQKAKDLCERLGVLSEYDSLENLKKYLNQYEFFFSATNAPNAIITNSLIEELSYKRYFFDIAVPRDIDI

NENENISVFAVDDLEIVVQKNLALREQEARMAYGIIGRETSEFFRYLNDLALMPIIKAIRLQAKEYADKQ

LEIALKKGYLKKSDKEEARKLIHQVFKAFLHTPTVNLKHLQGKMQSDTVINAMRYVFDLQNNLEGLNQYK

CEFDMENNDEIY

>AHK55149.1 octaprenyl-diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKIDELIKQFLQELGYEPILNMLSNVKSGKKLRSKLLLAIADESEIAFKICAAIELIHLASLLHDDIID

ESELRRGARSVNAEFGTKNALMLGDILYSKAFYELSKMDARFASIISDAVVKLAIGELMDVDLGEKFNIN

KEAYLKMIYNKTAVLIEASARCGAILAGLYEKDFAEYGKNLGLAFQMIDDILDIKSDEKILGKPAMNDFK

EGKTTLPYIYLYENLQEQDRIYLQTLFKKDLNENEKEWLKTKFEEQKALEKAILEAKTYAKKARKAIEKY

DNNKLNDIIKAMIDREF

>AHK55148.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFKISPYLICIFFIFSNVLASEPTFDYTYKFILKKDERASVQIKEIGYEDKVQNFDFYWTLFDNTNIIVH

SKFRKYPRQFVMSLRRNLDWVTQTLIPDYTNPHIDRARLILEFSGYNKGLATFTVYIEDKESRLMVEFLD

PRKKALQNPPQNNQVVPMINFNEPQVKPLTSKENNNSN

>AHK55147.1 hypothetical protein N917\_02690 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDFFDEMFNKTPKEKFIEIIQNGNLGALEKVFEEFFADHIAMVELLEKQGLTEMDVKNFILENGDFIEER

QNDIYIELGAKILGHEG

>AHK55146.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKYQLRFGGEGGQGVITAGEILAEAAIKEGRQAFKASTYTSQVRGGPTKVDIIIDDKEILFPYAVEGEVD

FMLSTADKGYKGFRGGVKEGGIIVVEPNLVHPESEDYKKWQIFEIPIITIAKDEVGNVATQSVVALAIAA

YMSKCIDLDVLKETMLHMVPAKTRDANAKAFDLGVKYATQAKPHS

>AHK55145.1 2-oxoglutarate ferredoxin oxidoreductase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAFNYDEYLRVDKMPTQWCWGCGDGVVLKCIIRAIEKLGWNMDDVCLVSGIGCSGRMSSYVNCNTVHTTH

GRAIAYATGIKLANPSKHVIVVSGDGDTLAIGGNHTIHGCRRNIDLTHIVINNFIYGLTNSQTSPTTPKG

FYTVTAQFGNIDPNFDACELTKAAGASFVARGNVIEANKLENLIYKALAHKGYSFVDVFSNCHINLGRKN

KMGEAVAMLDWIKNRVVDKAKFESMDFEERKDKFPTGILHEDNSQPEYCHAYEEVRRAAKEKRMVDLGAL

K

>AHK55144.1 2-oxoglutarate ferredoxin oxidoreductase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MREVIATGNVLIAKAAIDCGCKFFGGYPITPSSEIAHELSHMLPANDGTFIQMEDEISGISVAIGAAMSG

VKSMTASSGPGISLKAEQIGLAFIAEIPLVIVNVMRGGPSTGLPTRVAQGDLFQAKAPTHGDFASIAIAP

ASLEEAYTETIRAFNLAEKYMTPVFLLMDETVGHMNGKAVLPDLKDIKVYNRKKFEGDKKDYKPYAAGEN

EPATLNPFFTGYRYHVTGLHHGDIGFPTEDGVIVKKNMERLIGKIKNNQEDICTYEEYMLDDAEFLIIAY

GSVSRSAKEAIQRLREQGIKVGLFRPITLYPVAEKKIAEVVSKFKKVMVSELNMGQYLEEIERVTSRRDF

ISLHRANGRPITPSEIIAKVKENI

>AHK55143.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSMTAPKDTPVWVDEHRCKACNICVSYCPAGVLAMRDDVHAVLGQMIEVVHPESCIGCTECEIHCPDFAI

MVAKRDEFKFAKLTAEAKDRAVAVKNNKYKKLA

>AHK55142.1 succinyl-CoA synthetase subsunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSILVNKNTKVIVQGFTGKEATFHAEQCMAYGTNIVGGITPHKGGQTHLGKPVFDTVADAVKATKADVSL

IFVPAFAVGDSVIEAADAGIKLAVVITEHTPVKDMMFAKQYANKKGMKIIGPNCPGIITSEECKLGIMPG

FIFKKGCVGLISKSGTLTYEAANQVVQGGYGISTAVGIGGDPIIGLAYKELLSEFQKDDETKAIVMIGEI

GGSLEVEAAKFIKENISKPVVAFIAGATAPKGKRMGHAGAIVGSADESAAAKKEALKSYGIHVVDSPALI

GEEIQKILG

>AHK55141.1 malate--CoA ligase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNIHEYQAKAIFVDNGIPTLKGKVAFSVDEAVANAKELGGSVWAVKAQIHAGGRGLGGGVKIAKNLDEVK

DYASKILGMNLVTHQTGPEGKLVQKLYIESGANIVKEYYLAILFNRMAEQITIIASSEGGMDIEKVAKES

PEKIAKVGIDPQIGFKMFHGLEVARVLGLDKDEGKKLISMIAKLYKLYMDKDMNMLEINPLIKTAEGDFY

ALDAKCSFDDSALYRHPEIAELRDTTEENPAEREAAEFGLSYVKLDGDVACMVNGAGLAMATMDIINYSG

AKPANFLDVGGGASPETVAKAFEIILRDKNVKVIFINIFGGIVRCDRIANGILEATKNVEVNIPIVVRLD

GTNAAEAKTILDNSNLKNIKAATNLKNGAELVKSLVG

>AHK55140.1 malate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKITVIGAGNVGSSVAYALILREIANEIVLVDINEDLLYAKELELTQSIAALNLNIDLLCTKDYTHTKNS

DIVLFSAGFARKDGQSREELLQLNTSIMLDCAKKIKDFTEDPLFIILTNPVDFLLNTLYESGIFSSKKII

AMAGVLDNARFKYELAKKLNVKMSRVDTRLIGFHNDDMVLVKSYASVKNKNISEFLNEEEFEDLENEVKT

GGAKVIKHLKTSAYLAPASACIRMLESIRSGEFLPMSVILHGEFGVQNKALGVMARLGLEGVIEIMKMDL

SLQEKDKLEKSLIKYQYKGE

>AHK55139.1 isocitrate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTKTNFKLTLAFFFICNILKNENKNKYFKGLKMQITYTLTDESPALATYSFLPIVKAFLSRAHIGVKTS

DISLSGRILATFSEYLKEEQRCEDALELLGELVKRSDANLIKTPNISASIPQLKAAIKELQDKGYMLPNY

PDEPKNDEELQIKTKYQKVLGSAVNPVLRQGNSDRRSTKAVKDYAKNNPYRVVEFNPNSKTRVSYMKEGD

FFSNEKAVLIDQDCVANIEFTSVDGKKEILKEGLKLEKNEILDATFMDVQKLQEFYAKEIKASKDDDVLF

SLHLKATMMKVSDPILFGYAVKVFFKELFIEFQDEFEKLGINPNNGLSELLSKIENSSKKDEILKKYSEI

LAKSADISMVNSDKGITNLHVPSDVIVDASMPAMLKNGARLWDKEGKEKDTNAVIPDQTYATIYEAVIED

LHKNGTLNPSKLGSVSNVGLMAKKAQEYGSHDKTFVAKEEGTFKIVSNGKVLLEHKVRKGDIYRANQAKF

DAVLNWIDLGIERSELSGAEAIFWLDSKRASNKIMITLVQNRLKEKGKNVAILTPKEACLRSLELIREGK

DVISITGNVLRDYLTDLFPILELGTSAKMLSVVPMLNGGAMFETGAGGSAPKQVEQLVEENHLRWDSLGE

FLALQASLEFYANKCGNHKAKVLAECLDEAIGEWLENNKAPSRKVKEDDNRTSHFYLAMYFANHLARQAS

DMELQSFFKDIALELSSNEEKIRAEFNDAQGVKVDLGGYYKFDDEKANKIMRPSATFNAILEKIGQR

>AHK55138.1 hypothetical protein N917\_02645 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKKILYIVVFFVVLILALFIVLKNGIVISSIQFDFLKLEQLYIKLDKKLIVRAKNITINETQNSEISSQ

THSSDNASTEILKITKNLKYLYTFVKEIDIQNLNIKDNHVRILFKDNEFFIDNDLLFLKLTLQRQNKELI

ADIKKLLLKDYDLSIDGNLSINTKSEFYYFQGRASGELLDFNASISYKDKNLAYKIEDLNIRNITEIFKR

VNKRIELPQSLNLWVAYRAKGEFYHLDYLQGFIDFTKDNYYLDNISASGYVNNVKVRLDDKMNAIEIPKL

DLNLNKQKLDFVFNKAFYNGADLSSSKVYLYDLFDEKKVGIYLRIKSDNLKFDEKLAKALEDYHFSLPFY

QKSGKIKSDLELKIDFHDKGEISYSGILALENASISLADFNITKAFVKLNQNDLNIENASVKNGFLEADF

NAKFDLQKQQGNFNTQISRLYFDNAELLDLKNQNVEVKLDYSQNVNISIPQWNLILNFKDGLEANLNNPK

ILFSFSPLLKKLGFINAKNVYYKTLNFEDFNASVNDAYFKNNLLINGQTPYENDSFDIVKNKGIMEIHTQ

SDTASAKISSDNKEIHLKNLSYIYRKHSNSSNSTFDIATNTQNISFGGANVALILADSNKTLAFDRVEAD

LKGNALDLKGSRGNAKFDLYYSSNDLNLNVSNIDDNYLNEFLQKQAVQDGVFNLSIKGSGLEYFDGQIDF

KNTYVKDLKGINQLISFIDTVPSLLMFKSPTFNQKGLSLHDGKIIFNRKKDLLSVSAINLNGDSVDIYGL

GSANLRLNTVDFSLELKTLKSASEAISKVPILNYVILGKNQEISTNLKIDGSIDDPKFHTEILTDTLKTP

FNLIKNIIQLPANLLN

>AHK55137.1 flagellar basal body rod protein FlgB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINPFKSKELVTGALAGRNLRNQLINANLANVDTPFYKARDIEFETALVNRANEIFKKNDNKELQLAVTE

EEHQKPWKFPDPSKSTIYLRDGHLARNDANTVDLDVETTEMSKNTVMITALDGVLRRQSNIFSSILDASS

KLS

>AHK55136.1 flagellar basal body rod protein FlgC [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAYLSDFDISGYGLSAQRFRMNVISSNIANANTTRTAEGGPYRRREVIFKATDFDKLLNEQINKDNNFLK

YENPLNDPSSPEEAKPAIQSVVVDKVVRDDKDFRMKYDPSHPDANAEGYVAYPNVNPVIEMADLIEATRA

YQANVSAFTSAKTISQSAIDLLRG

>AHK55135.1 flagellar hook-basal body protein FliE [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNNINDLRLNNNISNTNKSQNSTGIGDEFAKMLKNEINDLNKAQESGEAAMTDIATGQVKDLHQAAIAIT

KAESSMKFMLEVRNKAISAYKEITRTQI

>AHK55134.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQEYKKNRVSKVAFAYCMALLFMIIFISSTFFLTSKRHIPNTEKDQYALALRGSIITKDNFTITSSKQIY

RAEIDLRSINKDKFDLFLKLFQIYSGISNDQVADIKKRMQNQKKRSYNFVLLQNLDSKQASYLKDLAKKL

YIQGFFKAFTNNSGRVETRGLNIIEHEEDRIYMSKDSFTPIIGYTKMILDPESGILKNIGVKGLEKYYDA

CLSPVQNEKIQGLKDIGGNIILNLNSLQQKKINGCDLYLNLSLKLQKSIEKAIDQRNEDLKANEIIVGVM

ESKTGRILALASSRRYDPQNRGKDLSVLNASAIEYGYEAGSVIKPFIFTTALRLGKIKMDEVINTYGGSY

KLGRFTIKDDHKMDKMTMEEVIRYSSNIGMIQIAKRLNNIEIVSGLKIFKFGEKSGIDLPYEQKGEIPNP

KRLRDIEKSVLSYGYGLKTTFIQLLAAYNVFNNDGFYITPRLAEKFYQNGRFTNLDDDVKKEKILSSEAA

KTMQNVLINVIEKGTGKKAITQGIIAGGKTGTARIAERQGYTSNRYNASFFGFANDLNHAYTIGVLVRHP

TKPYSYYAAQSALPMFKDVVDILINEEFLTPIQDNNQTSTNN

>AHK55133.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLGIYLLIAALSFLALYFAVKKLTLNIDERTLLEPIKMDIYPKFCDLIDEKIREFKENIQNANLTLKNSN

QKDEFLEKLGDLSRELTFIQTMNLSNKNDSIWQNELFSFLKELENLLLEYLEKGEEEAENLREFLMDEFE

KLKG

>AHK55132.1 rhodanese [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIENISASLWTKQDLNAYQIFDVRTPLEWEEGILPNAQCVALYDNQGLLNAKFLDEFQSKRDESKKLAFI

CRSGHRSMVAAEFIAEKLGLESINLDGGMLALKGC

>AHK55131.1 heat shock protein Hsp90 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQFQTEVNQLLQLMIHSLYSNKEIFLRELISNASDALDKLNFLSVSDDKYKSLKFEPKIEIKIDKDKKTL

SISDNGIGMDKDDLINNLGTIAKSGTKSFLENLSGDAKKDSQLIGQFGVGFYSAFMVASKIEVLSKKALD

DKAYLWSSDANGYEIDDANKEEQGTSITLYLKDDEFANAYKIESIIEKYSNHIQFPIFMEKEEFTPAKEG

EEEGKTELKISQINKANALWRMQKSSLKAEDYERFYEQNFHDSNKPLLYLHTKSEGKLEYNSLFFIPQNA

PFDLFRVDYQSGLKLYVKRVFISDDDKELLPTYLRFVRGIIDVEDLPLNVSREILQENQILKGIKEASVK

KILGELEKLKNNDKEKYLSFFKTFGKVLKEGLYGFGGEKDSLLKLMLYKSTKGENLRSLEEYKNDLQGEQ

KEIFYIAGNNESLLRTSPLLEEYKQKNIEVLLMDDEIDSLVTPMLEFEGLKFVSINQVEDKNELSDEEKN

TFAPLVAKFKELLKDQVEDVRLTSRLKDSPSCIVYDKNKPDFAMQQLLKQMGQEQNFKPILEINPKHAIF

TGLKNNESFSADIATLVLNMAKLSEGMGVDNPAEFNASLTKIINKAFS

>AHK55130.1 chromosome condensation protein CrcB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNTLLVVGFGGFIGAILRMLSINLVNKFFPYSISFGTLFVNVLGSFIIGLLFSYAQNKGLSPLLKSFIS

TGFLGAFTTFSTFSYQNLLLLQSGNYLHFALNIILNVFLCLFAAWLGFLIFK

>AHK55129.1 1-acyl-sn-glycerol-3-phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIYKKIKALYFWIFFVLSVALVIFCFCFTKSQNTLWKIRKIWAKFQRYTISYKQEIIGTFNPQAQMILMN

HQSALDIIALEELYPKNLCWIAKKELGEIPIFKVAMKKPKLLCIDRKNPRDLVRVLKEAKERISEDRVLA

IFPEGTRSKNEKMLKFQSGAKILSEKLNLKVQPILIVDSAKILDTKSFSASSGVLKIICMDLVDTNDEKW

LENTRKKMQELLDQERAKLC

>AHK55128.1 hypothetical protein N917\_02575 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKILLTLIFSIVVLFGRGEISVFSGQDENMQKELQKLPQEEQKIYQNIPPSDENNDFESNVDDPFVAKGS

LVLTNDEYPSRVYVGEVFPITIYARTTENIKFDFNISVEKTNLSFLNPDAKWEFINNEYKTTLWFEAKNS

NASLSKISIKLLRNNEAFQEADINLNPIKFENTLFNKDFSHLVASSLEIKKVKASYFDDANIIMMIELNA

TNTNLKSFFIEGIQKQGIENLKGDFNASSAFYYAILPLSKTNFEFSYFNKDSKKLENINLKLKISDDEIS

TQSDLNPVNKDLNIYKQYALWFLAVLFGVLFVWRKNYIILALAVVCFALSFLVDTNTQNAIIKAGSRAKI

LPTEPSTYFYTANADEKVEVLGKRQNYIKVLFSDGKIGWVNKDDLQKN

>AHK55127.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVAIIRFPGTNCEFDTTYAFEKLGVKTQIVWHEEKEFDADLVVLPGGFSYGDYLRCAAIAKLAPAMQGV

FNHAKKGGYILGICNGFQILLESGLLKGAMKHNNNLSFISKNQSLRVVSNDNAFLKNFKKDEIINLPIAH

GEGNYYADETTLKELQDKDLIILKYEPNPNGSVFDIAGICDENKKIFGLMPHPERACEKVLGNDVGLKML

KGFLLENFINFNF

>AHK55126.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEVIVNISLKNGVLDPQGKAVEKALHSLNFNSVKEVKIAKQIKISLDEKDEKLAKEQVKKMCEELLVNSV

IEDYELIIEKE

>AHK55125.1 phosphoribosylaminoimidazole-succinocarboxamide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKKEMLYEGKGKKLFKTDDENLLISEFKDDLTAFNAEKRGNESGKGALNCKISTEIFHLLEKNGIKTHL

VEIISDTEQVVKKCKIVPIEVIVRNVATGSLTKRLGIKDGTVLPFALVEFCLKDDALGDPFINDEHCLIL

NLVQNEAQISEIKNMARKINSILTPFFDNKNLRLIDFKIELGLTKDNELVLADEISPDSCRFWDKFSNEK

LDKDRFRQDLGNVKMAYEEVLKRILN

>AHK55124.1 peptidase S41 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMELILKTKRFFAGLAGFATTFILCLFLTSHLQAKVDQKEEQVQKRLEALDKLTKTLAIVEQYYVDDQNI

SDLVDKSLSGLLSNLDAHSSFLNEKDFNDMKIQTNGEFGGLGITVGMKDGALTVVSPIEGTPADKAGIKS

GDIILKINDEATLGINLNDAVDKMRGKPKTQITLTIFRKGATKPFDVTLTREIIKIESVYAKMIENENIL

YLRVTNFDKNVVDVASKELKKYPNVKGVILDLRNNPGGLLNQAIGLVNLFVDKGVIVSQKGRIASENQEY

KADPKNKISNASLVVLVNGGSASASEIVSGALQDLKRGVIVGENTFGKGSVQQIIPINKTEALRLTIARY

YLPSGRTIQAVGVKPDIEVFPGKVNTQEDGFSIKESDLKQHLESELEKIDKNKKEDKQENKDNKNLISQK

QINDDAQLKSAIDTIKILNIKQGQ

>AHK55123.1 hypothetical protein N917\_02550 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MCQEKHTHTHSQKHLKAVCNRLSRTIGHLSAIKRMVENDKDCSEILIQLAAVKAEVNNTAKVVLKEHLAH

CMVHAVEENDIQSIEELNKAIDMFMK

>AHK55122.1 septum formation protein Maf [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLILASSSISRANLLKTAKIDFRQVSFDYDENLNKNISPFLYVQKIVLEKERQFLSTLGKDFQNQNLLFA

DSIVCIDEKILTKAKDKKEAYEMLALQNGKYASILSAFLLVKPEKRVFSLSKTTLYFKNFDENALRDYVE

NDLYKGKAGCIMCEGFHQNFITQQVGNLSTALGLDIQTLKAYL

>AHK55121.1 alanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDIRKAYLDFFASKGHEITPSSPLVPDDATLLFTNAGMVPFKSIFTGEIPRPNPPRKTSCQTCIRAGGKH

NDLDNVGYTARHHTFFEMLGNFSFGDYFKEQAIAYAWEFVTEVLKLPKDRLYVTVHENDDEAFNLWQKHI

QKERIYKFGDKDNFWQMGDTGPCGPCSEIFYDQGQEHFNSSEDYMGGDGDRFLEIWNLVFMQYERSADGV

LSPLPKPSIDTGMGLERVTAIKEGKFSNFDSSLFMPIINEISKLCNKTYVYESGASFRVIADHIRSSVFL

LAQGVSFDKEGRGYVLRRILRRALRHGYLLGFKQAFMYKLVDVVCDLMGGHYTYLNEKKDFIKEQIRLEE

ERFLSTIENGIEIFNEELKNTKEIFSGEVAFKLYDTYGFPLDLTADMLREKNLKVDEEKFELFMNEQKAR

AKASWKGSGDKTASGDFKNLLEKFGENHFVGYEKAECESKILALLDEDFKEVSTLKDAGWVMLENTPFYA

TSGGQSADSGFIAKREVLDTQKFFNLNLSFIKAGEELKVNDIVHARIDTEKREQIARHHSATHLLHHALR

EILGSHVSQAGSLVESNKLRFDFTHHKALNKEELESIEKRVNKMIINSSEAILENMPLEEAKKSGAIALF

NEKYQGNVRVLTLGESKELCGGTHVKNTAQIGSFYIVKESGVSAGVRRIEAVVSKAALEFVKNQLEELSK

VKDELKNNDILSGIKKLKNEILSLKNELKNSSKTELDSKNIQGVEICVKRIDNGDIKAMIDDFKNKFAKA

VILLIQVKDEKITLAAGVKDVPLKAGALVKEAAQILGGNGGGRDDFATAGGKDLSKINEALKQSLETIEK

AL

>AHK55120.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFINLQAQYLAYKDEINAEIESVLSSSSFIGGAKLNEFEQNLAHFLGVKHAIGCSSGTSALYLALRVLD

IGKDDEVIVPSFTFIATAEVVALVGAKPVFADINLSNYNLDFKAVQKAITSKTKAVIAVSMFGQMSDLRA

LEEILKDKNITLIEDGAQSFGASFKGEKSCSIAKISCTSFFPSKPLGAYGDGGAIFCHDDEIAKKIRILL

NHGQTQRYKHEFIGINGRLDTLQAAILNVKLKYLEKELDKRQKLAQIYNANLKNCQIPQINPNAFSAYAQ

YSVLVEDRASVLRKFEKANIPYAIHYPTPLHKQPCFSEFSNLELKNSEYASEHILSLPFSPFLSEEEQEQ

VICIFKD

>AHK55119.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIGIIGLGKMGQNHLNELSKNSHFKLNALFDLCKNPNLNIFDDIFYDDLDKFLNQNNDIIIIATPTNSH

LTIAKKVFKQCKCVLIEKPLALNLKEIDEISNLAKEYSIKVGVGFCERFNPAVLALKKELENEEIISINI

QRFSPYPQRISDVGILQDLAVHDLDLLCFLSKQEITKTNLLKKYTQDQTRESESIILCGLEKCIASIHQS

WNSTQKLRKIHLITKNHFYEANLNDFSLLKDGNFIELTQQSPLFSEHEALLKLIDNQPNHLASTSDAYKV

QEILERFA

>AHK55118.1 ferrochelatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLVLFLNMGGATNLQDCEVFLKNMFNDPYILGIKNRFLRKFVAWIITKARVKAMQENYKKMGGKSPLNE

LTQSLCDKLNLKQDEFKFDFVNLYVPPFATEILQKYTLNASDEIILFPLYPHHSCTTVTSSLEVLQNEIS

KQKIQAKVKTIDIFYKNELYNEMIVSHILAKKSKFDAKILIFSAHSLPQSIIDKGDLYEKHVNDHVEILK

EKLKDHFDEFILAYQSKLGPVKWLEPNTSDVLANLNDKALIYPISFCIDCSETIFELGMEYKHLSKYNYD

LISCPNDSDEFMEFILKYLSDLN

>AHK55117.1 tRNA 2-selenouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFWLLKMLSEVEFVEFQKENFSLLIDARSPREFLHSHLIGALNFYALNDEEYQEIGTIYKKNQALAKAMG

ASYICQNTTKHILEITQNFRIGEKVGIYCSRGGLRSKSIAVILSELGFRVVRLKGGFKAYRTFVTHYFEN

EINFDFFALCGNTGCGKTELLEQLPQAINLEKMANHLGSSFGDILGKQPTQKAFEAELFHNIQNLENFAF

IESESRKIGDIILPLKFYEKMQKAFKIYCFCSLENRVRRIQKIYQEKMTPLKFQQCVQKISPYISLNLRQ

DLLQSYERKEWQKLIVMLLEYYDKTYKKPDKIDLELNTDDILKAKEELLDHFKVQLLF

>AHK55116.1 HIT family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQYLYAPWRSEYFEKVKSICPFCDCANKIKSDEELGVIFRAKHCFGVMNRYPYSAGHFMVIPYIHEEHIE

NLSDEIWQEMSYFVRLGVKILKEQIHANGVNIGMNLSKDAGAGIAFHCHYHLVPRWSGDTNFITTIGETR

VCGTNIEQVYQKLVLAFKNAQ

>AHK55115.1 indole-3-glycerol-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MILDKIFEKTKEDLKERKLKLPYDMLGRSLASNPFFPKDVIKALKRVEKEVKIIAEVKKASPSKGVIRED

FDPLSIALNYEKNKAAAISVLTEPHFFKGSLEYLSLIRRYTQIPLLRKDFIFDEYQILEALVYGADFVLL

IAKMLSMKELKKLLEFARHLGLEALVEIHDKEDLSKAIFAGADIIGINHRNLEDFTMDMSLCEKLIPQIP

NSKIIIAESGLENKEFLEHLQNLGVDAFLIGEYFMREKDEGKALKALL

>AHK55114.1 hypothetical protein N917\_02485 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYRYLLFVLAAFFLAACGSSKINVVYPDYTKYKSNDFDLRVMKAYNYEYYKQYKEARDEFLSLYQDYNNT

NFLENAFLLTLANNLDKQAELDNLAKPYLNQNDNLKRLSALYALNSNDINNAQKLMKELLTKKDSDPRNL

ELYGDILVKKNDLKNATKYYRSAYNQVQNEEILFKLIGIYAILNDTLNIKNVLEFSRKTNGCTLKTCVLL

AKIYFDEKNIEALKSIYKELYQLTKNKSFVLALVELLNSQGKTEEALKISLQYDLDDDIKLALYQNLKRF

DDAKKMSLALYHKTKNKEYLLRAAVFEFEAANEAKKITPKVIDSVKEKFEQAIDKDSNALYLNYYGYLLI

DYDLDVKKGIELVKLALEKDPQNLYYLDSLAWGYYKLGDCKQAWEILKQTLDDKEFANSDESKAHIKAIK

ACIKP

>AHK55113.1 hypothetical protein N917\_02480 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIFDKNFSYAFDENACEKCGGKCCTGESGNIFASKEELEVLRKHLNLESKEFAEKYLRKVGFKMSFKEVE

CEDGFACIFFDTQKRNCSIYDFRPKQCRTFPFWEYFKTHQKELEKECIGICYLS

>AHK55112.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSDLITLAQLSQGYRYNSDSLILADFILKQGIKGAVFDVGAGCGIIGILLKKNIANLSLSLIDIQKENIE

LIEKNLKSNKIQGDIFHDDFNQFQIIKKFDFIVCNPPFYRQGAYKSEDQHKAISKFQEFLPLHSFLAKTN

SMLKPNGTLYFCYEALALDEICFILKDMKMKITKLCFVHTHQSKKARLVLIQVKKGSKSPCEILPPFFVY

ENEILSKQMQEIHLRFRLKSYDI

>AHK55111.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKIAFFITFVISFLAAQSPVNFKEDNNITKERNIFKEQLPKRIKIPTH

>AHK55110.1 elongation factor P [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSRSTPLKKVRNIGIAAHIDAGKTTTSERILFFTGMSHKIGEVHDGAATMDWMEQEKERGITITSAATTC

FWKDHQINLIDTPGHVDFTIEVERSMRVLDGAVAVFCSVGGVQPQSETVWRQANKYGVPRIVFVNKMDRI

GANFYNVEDQIRNRLKANPVPLQIPIGAEDNFKGVIDLVTMKALVWEDDTKPTDYVEKEIPAELKEKAEE

YRTKMIEAVSETSDELMEKYLGGEELSLEEIKTGIKAGCLSLSIVPMLCGTAFKNKGVQPLLDAVVAYLP

APDEVANIKGEYEDGTEVSVKSTDDGEFAGLAFKIMTDPFVGQLTFVRVYRGCLESGSYAYNSTKDKKER

IGRLLKMHSNKREEIKVLYAGEIGAVVGLKDTLTGDTLASEKDKVILERMDFPDPVISVAVEPKTKADQE

KMSIALNKLAQEDPSFRVSTDEESGQTIISGMGELHLEIIVDRMLREFKVEAEVGQPQVAYRETIRKTVE

QEYKYAKQSGGRGQYGHVFLRLEPLEPGSGYEFVNDIKGGVIPKEYIPAVDKGVQEALQNGVLAGYPVED

VKVTVYDGSYHEVDSSEMAFKLAASMGFKEGARKAGAVILEPMMKVEVETPEDYMGDVIGDLNKRRGQVN

SMDERGGNKIITAFCPLAEMFGYSTDLRSQTQGRATYSMEFDHYDEVPKNVADEIIKKRNG

>AHK55109.1 30S ribosomal protein S7 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRRRKAPVREVLPDPIYGNKVITKFINSLMYDGKKSTATTIMYGALEAIDKKGGEKKGIDIFNDAIENIK

PLLEVKSRRVGGATYQVPVEVRPARQQALAIRWIISFARKRSERTMIDKLAAELLDAANSKGASFKKKED

TYKMAEANKAFAHYRW

>AHK55108.1 30S ribosomal protein S12 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPTINQLVRKERKKVLEKSKSPALKNCPQRRGVCTRVYTTTPKKPNSALRKVAKVRLTSGFEVISYIGGE

GHNLQEHSIVLVRGGRVKDLPGVKYHIVRGALDTAGVAKRTVSRSKYGAKRPKAGAAK

>AHK55107.1 DNA-directed RNA polymerase subunit beta' [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKFKVIEIKEDARPRDFEAFQLRLASPEKIKSWSYGEVKKPETINYRTLKPERDGLFCAKIFGPIRDYE

CLCGKYKKMRFKGVKCEKCGVEVANSKVRRSRMGHIELVTPVAHIWYVNSLPSRIGTLLGVKMKDLERVL

YYEAYIVENPGDAFYDNESTKKVEYCDVLNEEQYQNLMQRYENSGFKARMGGEVVRDLLANLDLVALLNQ

LKEEMGATNSEAKKKTIIKRLKVVENFLNSNLNANTDSDEAVPNRPEWMMITNLPVLPPDLRPLVALDGG

KFAVSDVNDLYRRVINRNTRLKKLMELDAPEIIIRNEKRMLQEAVDALFDNGRRANAVKGANKRPLKSLS

EIIKGKQGRFRQNLLGKRVDFSGRSVIVVGPKLRMDQCGLPKKMALELFKPHLLAKLEEKGYATTVKQAK

KMIENKTNEVWECLEEVVKGHPVMLNRAPTLHKLSIQAFHPVLVEGKAIQLHPLVCAAFNADFDGDQMAV

HVPLSQEAIAECKVLMLSSMNILLPASGKSVTVPSQDMVLGIYYLSLEKAGAKGSHKICTGIDEVMMALE

SKCLDIHASIQTMVDGRKITTTAGRLIVKSILPDFVPENSWNKVLKKKDIAALVDYVYKQGGLEITASFL

DRLKNLGFEYATKAGISISIADIIVPNDKQKAIDEAKKQVREIQNSYNLGLITSGERYNKIIDIWKSTNN

VLSKEMMKLVEKDKEGFNSIYMMADSGARGSAAQISQLAAMRGLMTKPDGSIIETPIISNFREGLNVLEY

FISTHGARKGLADTALKTANAGYLTRKLIDVAQNVKITIEDCGTHEGVEINEITADSSIIETLEERILGR

VLAEDVIDPITNSVLFAEGTLMDEEKAKILGESGIKSVNIRTPITCKAKKGICAKCYGINLGEGKLVKPG

EAVGIISAQSIGEPGTQLTLRTFHSGGTASTDLQDRQVSAQKEGFIRFYNLKTYKNKEGKNIVANRRNAA

VLLVEPKIKTPFKGVINIENIHEDVIVSIKDKKQEVKYILRKYDLAKPNELAGVSGSIDGKLYLPYQSGM

QVEENESIVEVIKEGWNVPNRIPFASEILVEDGEPVVQNIKAGEKGTLKFYILKGDGLDRVKNVKKGDIV

KEKGFFVVIADENDREAKRHYIPRESKIEFNDSEKIDDANTIIASAPKKERKVIAEWDAYNNTIIAEIDG

VVSFEDIEAGYSADEQIDEATGKRSLVINEYLPSGVRPTLVIAGKGDKAVRYHLEPKTVIFVHDGDKIAQ

ADILAKTPKAAAKSKDITGGLPRVSELFEARKPKNAAVIAEIDGVVRFDKPLRSKERIIIQAEDGTSAEY

LIDKSKHIQVRDGEFIHAGEKLTDGVVSSHDVLKILGEKALHYYLISEIQQVYRGQGVVISDKHIEVIVS

QMLRQVKVVDSGHTKFIEGDLVSRRKFREENERIIRMGGEPAIAEPVLLGVTRAAIGSDSVISAASFQET

TKVLTEASIAGKFDYLEDLKENVILGRMIPVGTGLYGEQNLKLKEQE

>AHK55106.1 DNA-directed RNA polymerase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLDNKLGNRLRVDFSNISKQIEIPNLLQLQKKSFDYFLNLDNGESGIEKVFKSIFPIHDPQNRLSLEYVS

SEIGKPKYTIRECMERGLTYSVNLKMKIRLTLHEKDEKTGEKVGVKDIKEQEIYIREIPLMTDRVSFIIN

GVERVVVNQLHRSPGVIFKEEESSTVANKLVYTAQIIPDRGSWLYFEYDAKDVLYVRINKRRKVPVTMLF

RALGYKKQDIIKLFYPIQTIHVKKDKFLTEFNPNDFMDRIEYDIKDEKGKIVHQAGKRLTKKKAEQLIKD

GLKWIEYPVEILLNRYLANPIIDKESGEVLFDSLTLLDESKLAKIKEQKSFDIANDLANGVDAAIINSFA

QDGETLKLLKQSENIDDENDLAAIRIYKVMRPGEPVVKDAAKAFVNDLFFNPERYDLTKVGRMKMNHKLG

LEVPEYVTVLTNEDIIKTAKYLIKVKNGKGHIDDRDHLGNRRIRSIGELLANELHLGLAKMQKAIRDKFT

SLNADLDKVMPYDLINPKMITTTIIEFFTGGQLSQFMDQTNPLSEVTHKRRLSALGEGGLVKERAGFEVR

DVHATHYGRICPVETPEGQNIGLINTLSTYAKVNELGFVEAPYRKVVNGKVTNEVVYLTATQEEGLFIAP

ASTKVDAKGNIVEEFVEARQDGETILARREEVQLIDLCSGMVVGVAASLIPFLEHDDANRALMGSNMQRQ

AVPLLTASAPIVGTGMEQIIARDAWEAVKAKRGGVVEKVDNKSIFILGEDDKGPFIDHYTMEKNLRTNQN

TNYIQHPIVKKGDIVKAGQIIADGPSMDQGELAIGKNALIAFMPWNGYNYEDAIVVSERIIREDTFTSVH

IYEKEIEARELKDGIEEITKDIPNVKEEDVAHLDESGIAKIGTHIKPGMILVGKVSPKGEVKPTPEERLL

RAIFGEKAGHVVNKSLYATASLEGVVVDVKIFTKKGYEKDDRAIKSYDKEKMALEKEHHDRLLMMDREEM

LRVCALLSKASLNSDQKIGDKNYKKGQTADISELEKINRFTLTTLIKAYSKEIQKEYDDLKNHFQNEKKK

LKAEHDEKLEILEKDDILPSGVIKLVKVYIATKRKLKVGDKMAGRHGNKGIVSTIVPEVDMPYLPNGKSV

DIALNPLGVPSRMNIGQILESHLGLVGLRLGDQIQEIFDRKQKDFLKELRAKILEICSIPRLANEKEFIK

SLSDEELLNYARDWSKGVKFSTPVFEGVNIEEFSKLFKMAKIDMDGKTELYDGRTGEKIAERVHVGCMYM

LKLHHLVDEKVHARSTGPYSLVTQQPVGGKALFGGQRFGEMEVWALEAYGAAHTLREMLTIKSDDVEGRF

SAYKALTKGENVPATGIPETFFVLTNELKSLALDVEIFDKDEDNE

>AHK55105.1 50S ribosomal protein L7/L12 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAISKEDVLEYISNLSVLELSELVKEFEEKFGVSAAPVMVAGGAVAGGAVAAAEEKTEFDIVLTDGGAKK

IEVIKIVRALTGLGLKEAKDAVEQTPSTLKEGVAKAEAEEAKKQLEEAGAKVELK

>AHK55104.1 50S ribosomal protein L10 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTRSEKVEIIAKLEEGFKASEAIVVCNYRGLSTKKLEELRNNARENNVKVQIVKNTLANIALNNSGKTGL

VLKDTNIYLWGEDQLSVSKVAAKFEENNDKFEIKTAHIEGEVADVAKVKALAKMPSRNELLAMLLQVWNA

PITNFTIGLNALKNKKESE

>AHK55103.1 50S ribosomal protein L1 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKIAKRLKELSQKIDSNKEYALSDAIDTIKTLKSAKFDETVEIALKLNVDPRHADQMVRGSVVLPAGTG

KKVRVAVIAKDAKADEAKNAGADIVGSDDLVEEIQKGNMNFDVLIATPNLMGLVGKVGRILGPKGLMPNP

KTGTVTMDVAQAVNNAKSGQVNFRVDKQGNIHAGLGKVSFSKEQLWDNVSTFVKAINKHKPAAAKGRYIK

NAALSLTMSPSVKLETQELLDMK

>AHK55102.1 50S ribosomal protein L11 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKKVVGEIKLQIAATKANPSPPVGPALGQQGVNIMEFCKAFNERTKDMAGFNIPVVITVYADKSFTFIT

KQPPATDLIKKAAGISKGTDNPLKNKVGKLTRAQVLEIVDKKIADLNTKDRDQAAKIIAGSARSMGVEIV

D

>AHK55101.1 transcription antitermination protein NusG [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSTHKWYAIQTYAGSEMAVKRAIENLVKDNGIEEQLKEIVVPTEDVIEFKNGKEKISERSLYSGYVFALL

DLNTELWHRIQSLPKVGRFIGESKKPTPLTEKDINLILEKVHNRAAPKPKISFEEGENVRITEGPFANFT

AIVEEYDMVRGLLKLNVSIFGRSTPVEILYSQVEKII

>AHK55100.1 preprotein translocase subunit SecE [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKLITYFKLSKAELRKVIFPLKEQVRNAYITVFVVVAVISLFLALVDWLMSSIVSAIV

>AHK55099.1 50S ribosomal protein L33 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRIKVGLKCEECGDINYSTYKNSKNTTEKLELKKYCPRLKKHTLHKEVKLKS

>AHK55098.1 elongation factor Tu [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKEKFSRNKPHVNIGTIGHVDHGKTTLTAAISAVLSRRGLAELKDYDNIDNAPEEKERGITIATSHIEY

ETDNRHYAHVDCPGHADYVKNMITGAAQMDGAILVVSAADGPMPQTREHILLSRQVGVPYIVVFMNKADM

VDDAELLELVEMEIRELLSSYDFPGDDTPIISGSALKALEEAKAGQDGEWSAKIMDLMAAVDSYIPTPTR

DTEKDFLMPIEDVFSISGRGTVVTGRIEKGVVKVGDTIEIVGIKDTQTTTVTGVEMFRKEMDQGEAGDNV

GVLLRGTKKEEVIRGMVLAKPKSITPHTDFEAEVYILNKDEGGRHTPFFNNYRPQFYVRTTDVTGSIKLA

DGVEMVMPGENVRITVSLIAPVALEEGTRFAIREGGKTVGSGVVSKIIK

>AHK55097.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSILKIENLQKYYGSHHALKDINLEVKAKEVVVILGPSGCGKSTLLRCINGLEEIASGNIYIDNEKIDKD

FKEWPRMRQKVGMVFQSYELFEHLSVEENILLGPMKVQKRKKDEVLKEAKIWLEKVGLLHKIHAYPRELS

GGQKQRIAIVRSLCMNPELMLFDEVTAALDPEIVREVLEVMLNLAKEGMTMLIVTHEMGFAKAVADKIIF

MDEGKIIEENDPKSFFKNPKSERAKKFLNLFDYHNIDKNNIGL

>AHK55096.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLELLNTDTLLRLWQGLFVTLEISFISIIITSIGGLFLGILMSFKNTYIYAFCRLGLEFVRVMPLLVWLF

VVYFGFPRWFGWDLSSVSAAIIVFSIWGCFEMMDLVRVSLQSIPKHQYESASSLGLNTVQSFAYVIIPQA

MRRLTPMSMNLLTRMIKSTTFAYLIGAVELVKVGQQIIEFHNRNDFAPFIIYGLIFFIFFILCYPITLYS

RKLEKKWS

>AHK55095.1 polar amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDFDFILAQAPAFLTAAWLTIKLSFFGIIFSLIIGLFCILMSYFKIKILENICKLYIEFSRNTPLLIQLF

FLYYALPKFNIHLEQIPPLDLICLSVEETLRPSFACAIVGLSFLGGSYMAESLRAGFEAIRKQQFEAGLS

LGFSKFGNLRYVILPQALAISMPSISANIIFLIKETSVVSIIALPDLVNLMKSLNSLTYKTDELLFLLFM

GYLCIILPLSFILLKFEKRLLHA

>AHK55094.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKDYLELLSSVGKLKKFQKNSILFYEGEEAKNFFILLKGKIRIYKSTASDKEITLHYFNPPNFIAEMPAF

KKLNYPANAVFEEDGEILEIDFINFQNLCSENKEFNFLLISSLFDKIKILEKKLSQNALDLRTRLLKYLL

ENEKNLDTISQKQIAIDLNVRAQSLSRVLKELKISELIDTKKGRIEILNKDMIMKELW

>AHK55093.1 ATP-dependent DNA helicase RecG [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIKESDFEFFKKLKIRSAIDLALLLPKKIENLNPSKNPKENEICTQKITIKSVSSRKNQLFGLGFCEEW

QENISFVFFHPRAWHFGICKVGKELIFNAKLSHFNHTWQFNNPKILTSFEGFSPKYQILGLKDTKIAAFI

HKYLNYENLKESGIEDKYIHFLLNLHAYDEKSFFMFENLQNFSKDLKYIEIYNFLKRLKAKKTHFKAHQI

NVFNIANWLKDLPFSLTKDQLNALKDIEKDLHSKEAKRRVIMGDVGCGKTLVLLGAALMVYPKQAILMAP

TSILAYQLYEEAKKFLPDFMNILFIKGGKKEKDLEQNIQKANLVIGTHALIHLESHNAVLVMIDEQHRFG

SAQREKIHSLNKQEFAPHFIQFSATPIPRTLSMIQSELLNFSFIKQMPFKKDITTYCIQNEGFSKLSEKI

KEEIAKNHQIIIIYPLLSASDKIPYLSLEQAKEYWQSHYEKVFVTHGKDKQKDEILERFRDEGNILLSTT

VVEVGISLPRLSMIVIVGAERLGLATLHQLRGRVGRVGLKSACYLYTKLKEIPSRLKEFASTLDGFKIAE

LDLKNRLSGDLLDGFMQHGNEFKFFDFSKDEEILEKVKKDLAKKLPN

>AHK55092.1 peptidase M16 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQYLESRGIKIPFIFEKNSDFPIVVLKLVFRNCARSYDEIAGLAKMFSRILNEGVDDKFFKDLEFRAINL

EASSGFESLEINLSCLKENFDFALKSLEKLLLKPRIEEKTLQKLKINALGELASKNSDFDYLAKNLLNAQ

IFKCKEFQSPNDGDEKSIETLSLKDLQNFYKNFIHLSDLVVILGGDLEEKQAKEDLLKLLSKLQIGKKNT

PKKYELGKNIKDEILVRPESEQAYIYFATPFFADFKDKDLYLAKIALFVLGQGGFGSRIMEEIRVKRGLA

YSAYAMLDMNMSFSRVFGYLQTKNESAKEAKKIVKELFEDFIKNGMTQNELDQAKNFLIGSTPLRYESLS

KRLSMSFNEFYQGLNLGYYKEELKLMEKVKLETINAYIKKHQELLNISFASIQNEN

>AHK55091.1 hypothetical protein N917\_02280 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKRLDKKEALDLLHHASLTELGEMAYKRKLELHPEKITTFVVDRNINYTNVCCIDCSFCAFYRHHKEDDA

YILSFEEIGKKIEELEAIGGTQILFQGGVHPKLKIEWYEELVSWIKEHYPNITVHGFSAVEIAYIAKASK

ISITEVLKRLQAKGLFSIPGAGAEVLSDRVRDIIAPNKCDTATWLEVHRQAHKIGMKSTATMMFGTVEND

EEIIDHFEHLRKLQDETGGFRAFILWSFQSDNTALIQKHPEIMKQSSNKYLRLLALVRLYLDNFKNLQSS

WVTQGSLIGQLALKFGANDLGSTMMEENVVSAAGASYRMNQDEMIRLIRSLGENPAKRNTAYEILERF

>AHK55090.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNYIELLKNNKNIRILASVQFIVYFGAWFSQTGVFTLLVELNAPTWATATSAMLAFLPGVLLAPINGVIV

EKNKPKKLLLSMISIELISIFCLIFVTSLSMLWLLFILIFIRLCVASIYFQAEMSLLAKILTPQELKLAN

EMHSVIWAISYTAGMASAGIFIYFLGVKTAFLFDCILILIGISFLVRLSIPDFHQKTQSRFFTMIKEGFF

YVLNNKIIFHLILLHAFIGLTAYETLVTLLAQHQYKEVLSAALVIGFLNAVRACSLAIGPMVLSKFINDK

NLFYMYLGQGLGIILWALTQFNFYISFLGLIGAGFFTSALWAYTYTMIQKNADKEYHGRVIAYTDMIYLS

FSAIISMLMGFLFEIGLSLELITGLLGMIFIFAAFYWKWFYKKYL

>AHK55089.1 transcription elongation factor NusA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKIADIIESIANEKNLNLENVREKVATALINTAKRIYGQEYEFFVDPKNLNLYQKITIVADNDERLQNK

SESFIALSKAKSEAPDVEIGDELTYECSLENLGRTAVNTLHKELEYHIQKLLEQTIFEKYKNKVGQMVFG

TVVRVDNEENTFIEIDELRAFLPRKNRIKGEKFKIGDVVKAVIRRVYTDKGIKIELSRTSPKFLECLLEA

EVPEIKDGYVNIIGCARIPGERAKIILQANGTNIDPVGATVGVKGVRINAVSKELHNENIDCIEFTNESE

ILISRALAPAIVNSVKIEDKKAIVSLNSEQKSKAIGKNGINIRLASMLSGYEIELNELSSSQLNNAISNE

EAMKNLQDLFKI

>AHK55088.1 hypothetical protein N917\_02265 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MELKLARTLINEKPKNISLEKIEEAIEKEGQKFFYFDKDNTHKQLIALVNHFEKKGVSIYHRTVKYGLDD

NDFMYEVHIL

>AHK55087.1 (dimethylallyl)adenosine tRNA methylthiotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSAKKLFIQTLGCAMNVRDSEHMIAELTQKENYALTEDIKEADLILINTCSVREKPVHKLFSEVGGFEKV

KKEGAKIGVCGCTASHLGNEIFKRAPYVDFVLGARNISKITQAIKTPKFMGVDIDYDESEFAFADFRNSI

YKSYINISIGCDKHCTYCIVPHTRGDEISIPFNIIYKEAQKAIEKGAKEIFLLGQNVNNYGKRFRNEHKK

MDFSDLLEELSTIEGLERIRFTSPHPLHMDDKFLEVFANNPKVCKSMHMPLQSGSSEILKAMKRGYTKEW

YLNRALKLRELCPNVSISTDIIVAFPGESEKDFEETVDVLEKVRFEQIFSFKYSKRPLTKAATMPNQIDE

EIASRRLSTLQNRHSEILDKIVKKQENKTFKVLFEELRAGNSIAGRTDNNFLVQVEGSEELLGQFKEVKI

TNAKRMVLYGEIV

>AHK55086.1 hypothetical protein N917\_02255 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGKSFKIHCLTYIIFILQWLIFLSCKKHYKGEKVDRKAGVILFWHGKLALMPFAFRHYRQKNKKAYVMIS

HHKDGEQIAKIIKLFGLDTVRGSTSRGASSALRAAFKVLEQNDDIVITPDGPRGPYHSISDGSIILAQKK

ELKIRILNYEANRFWKFKSWDKMILPKPFSKITYSLSEPLDILSLDKEKAKEFLMKQFDKISLADQFKE

>AHK55085.1 clan AA aspartic protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLFLLKKIFPQLFISIILEDKKNIVKASIYRGNKLISSNEKTFDKSENLLEYIKNLSKHFLFYHTALFLD

AKEQGLIPSTNIQDCEHFNIGKISLQHILLNNALVYTATEHVEYYSELFEEYRGLDFLYSPFALLYYNMQ

KEKQPDDQILLYGFKQGYLLAIIVAKGNTILYGDFKIFEQELGLELELPSEDNQEIENNNDDTEVTLDNF

NEALNNKFDLLDQENNLETLDNNDNFNLDELNQFSNDMELCRYIITSIEKFYNDDKYAGVFINGILLYSE

SDININAIDFLESETFLEIKTKQINTLDLMIELMRKEVK

>AHK55084.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTYSFIQPRKKPIFTLFDKIWLGLFGFSILFILLVYFTYTIKIALINSSIDDEKQQVIVLQNQTKQNEML

YEILFDQSQIAKNFNTQNQIVKESLRNLFDIIVKTDNITLESVEQDEYSLKLIGVTPTREMFTLLLETPL

KSIFDQSYTTYYRLDNGWYRFVSISKQIPGVADER

>AHK55083.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKDKSLEEIDLLKLIICALSFISVCTALILFLLLPTLKNYKQANLRENSQLAILKAAKSKFDFSEDKIST

LRSENNKSLEQFEQNFNIGNFNIFLQKYFQNVKIQETKPEKQEKYLKNRLAIKATMNNPRRLYDFIDALK

NYNNLIKLDYPLNLKAGEQGISIDLTLKVYSS

>AHK55082.1 phosphomethylpyrimidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTQMNYAKEGIFTKEMQIVAQKENLSKDFLLENIACGKIIIPANINHKSLDPNGIGFGLRTKVNVNLGV

SNDCVDYSEEMKKVELAHKFGIEAIMDLSNYGKTSRFRDELVNVSKAMIGTVPVYDAVGFLEKDLKQINA

KDFLDVVYHHAKSGVDFMTIHAGINSRAAHIFKQSKRLTNIVSRGGSVLYAWMMMKDAENPFFEYYDDLL

DICLKYDVTLSLGDALRPGSTHDASDGAQISELIELSLLTQRAWDVGIQVMIEGPGHMAINEIEANMQLE

KRLCKGAPFYVLGPLVTDIGAGYDHISGAIGGAVAAASGADMLCYVTPAEHLRLPNLEDVREGIVATKIA

AHAGDIAKLPKERARDDEMSKARQEIDWEKMFKLAIDGEKAKKMFNERRPDDLNSCSMCGKMCAMNTMNQ

ILKGEDVSLA

>AHK55081.1 DNA polymerase III subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSLQQIDQIISILNKQSKPYDWVMQEFAKVEELKNFDLDLETFELLGLGLTLNKDNIFTLKTRTTKIKDE

IFCIVDIESTGGVSKGEILEIGAVKIQNSKEIGRFQSFVKVKEIPKNITELTGITYEMVENASSLAKVLS

DFRLFLKDSIFVAHNVRFDYSFISKALNECGFGILLNRRICTIEFAQCCIESPKYKLEVLKEFLGVENMH

HRALDDALAAAEIFKYCLGKLPYHIKTTEELINFTKTARIKQK

>AHK55080.1 ribulose-phosphate 3-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYVAPSLLSANFLKLEEEVKAIEAAGADLLHIDVMDGHFVPNLTFGPCVIEKISTISKLPLDVHLMVKDV

SKFVDLFISLKPKFISFHMESEVHPIRLCEYIRSQGIHPAIVLNPHTPIDSIKHMLEFVDMVLLMSVNPG

FGGQKFLPLIHEKIKELRQMIDKKNAKVFIEVDGGVNGLNASDLEESGADILVAGSYIFSSNDYKTAISS

LKLEF

>AHK55079.1 50S ribosomal protein L28 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MARVCQITGKGPMVGNNVSHANNKTKRRFLPNLRTVRVTLEDGTTRKMRIAASTLRTLKKQNSK

>AHK55078.1 hypothetical protein N917\_02215 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLHEYRELMSELKGKDAHFDKLFDRHNELDDMIKDAEEGRTSLSSMEISTLKKEKLHVKDELSQYLANYK

K

>AHK55077.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFGSKINHSDLQKLEEENKNLTHKIEKFQSENLELKNKITSLEQAALESKLKTDLLNVLLTGVLKNITII

QGDMLENVNKAEVISSYSKTSLAEMDELNHIANSINASLGNITESANKTRDVAGTLHRSVDEITNVINLI

KDVSDQTNLLALNAAIEAARAGEHGRGFAVVADEVRKLAEKTQKATTEVEMNINLLKQNANEMYTQSEQV

EKISIDSNAHIMSFSEKFTHLVNEAHSTNSNAVGIASEAFVSLAKLDHIAFKLNGYKEIFSKSGKQLADH

TSCRLGKWLASTGKERFGQNKSFLKINEPHEKVHENMNNAITIANTEDISKDITQHSIINKCEVAENASL

DLFNVFKEMLDESDH

>AHK55076.1 NUDIX hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAFKNLKELSFEKSNYIKPKRFAYESNGRLCTWDFIESKDSVSVLLYHKELESFIFVRQFRIPLWYHQMH

DKDYVKDDDMGYTIELCSGLVDKKLSLEEIAKEECIEELGYAPKNLEKIGDFYTGFGSGVSKQSFYFVEV

DEKDKISSGGGVDDEEIEAVYVKVQDFEKKCKNMIRTPLLDFAYMWFLKEKWGKLKII

>AHK55075.1 acetyl-CoA carboxylase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MASYLDFEKNIQQIDEDIINAQIKGDTEAVSILKKNLEKEISKTYKNLSDFQRLQLARHPDRPYALDYIE

LILNDAHEIHGDRAFRDDPAIVCFMGYLGEKKIIVIGEQKGRGTKDKIARNFGMPHPEGYRKALRVAGLA

EKFQIPILFLIDTPGAYPGIGAEERGQSEAIARNLYELSDLKIPTIAIVIGEGGSGGALAIGVADKLAMM

KNSVFSVISPEGCAAILWNDPAKSEAATKAMKVTADDLKSQGLIDDVIDEPTNGAHRNKEAAAVAIADYV

KKSLNELENIDVRELSANRMQKILKLGAYQEA

>AHK55074.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKRVVVTGIGMINALGLDKESSFKAICNGESGVNKITLFDATDFPVQIAAEVKNFDPLEVVDGKEVKKID

RFIQLGIKAAREAMQDAGFSEELDKEEFGIVSASGIGGLPNIEKNSIICSERGPRKISPFFIPSALVNML

GGLISIEHGLKGPNISCVTACAAGTHAIGEAYKSIALGNAKKMLVIGAEAAICPVGIGGFASMKALSTRN

EDPQHASRPFDKERDGFVMGEGAGALVFEEYEEAKKRGATIYAELIGFGESADAHHITSPTLDGPLRAMK

KALNMAGNPKVDYINAHGTSTPVNDKNETAAIKELFGNNIPLISSTKGQTGHCLGAAGAIEAVVSVMVLR

DGVVPPTINQLVKDDECDLDYIPNISRKVDLKVVMSNSFGFGGTNGCVVFKKVD

>AHK55073.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MATFDDVKAVVVEQLSIDADAVKMESKIIEDLGADSLDVVELIMALEEKFEVEIPDSDAEKLIKIEDVVN

YIDNLKK

>AHK55072.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLFSNLIKENQKIWNAYLHHDFVKKLEDKSLKQENFLFYLKQDYIYLLNYAKCYARLALNSNTAKELRFA

MKFQNYIVEGEMELHRAILSLGINADELDIKDESLVNIAYSRYMLSVGENGDFLDMLVALSACAIGYAKI

GAEIINRLKNENLKDHPYKEWILTYGSENFQNEAKEFEDFVNSYTSSVGAQKFQKLSEIFHTVTRLEVAF

WEHSLRMELNL

>AHK55071.1 heterodisulfide reductase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKEYAFFPGCVLSQAAKESKISLEAIAPILGWKLNEIKGWSCCGASQAQCVDPIATLVANARNIALAEE

MKMPMLTTCSTCMLTLTKAKNTLDKGAKERINIFLAQGGMKYQGSTPITSLLWELYEDLDNLKSKVKKPL

SNLKVALFYGCHSLRPEDAFGKKESSTNPKSFESVVEVLGAKIVPFEKRLDCCGFHASYPAEKSVKKMSS

QIVNNASENQADCVVTPCPLCQMQLDIYQERFQDYTNSKARLPIIHLSQLVGLALGLSKEMVGLDYNIID

ASKIA

>AHK55070.1 (2Fe-2S)-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>AHK55069.1 succinate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGEFSRRDFIKTACISVGALAASSSGVYALDDSSKMDKDINLPSCDVLVIGSGGAGLCAAAAVRKENPKL

SVVVATKMMPSRNATCMAEGGINGVTDFSNGDSYKLHAYDTIKGGAYLVDQDAALKFCELAGKAIFNMDF

IGTLFSRNEQGGVAQRLMGGASKKRCNYSADKTGHILMHSCLDDAISSGVKFLMNHELLDIGVVDGKCEG

VVLRDIQSGGIYPVLCKALVIATGGYTRIFYNRTSTPFIATGDGVAAALRAGLGFEDPEMIQFHPTGVAN

GGTLITEAARGEGGYLLNNRGERFMKNYHEKMELAPRDVVARAIETEIREGRGYGEGLGAYVLCDVRHLG

KEKILKDLPKIRHTAMLFENIDLVDTPVPIRPTAHYSMGGIEVAKFEDMGTKIAGIYVGGEASCISIHGA

NRLGGNSLADAVVTGHLAGIGATNYAKDASFGKGAKTHELAQKWQVRFKEITNNGGNGQEMYELREELGS

QNWDNMGIFRTQEKLDLLAKKLEDIQARYEKIRIPNPNEVMNTAFTDYVELGNLILLSRCACLAARNRLE

SRGAHTREDYPKRDDKNFLKHSIVNLENDELKLSYKDVVVTEFSLDGRRVQ

>AHK55068.1 pyridoxamine 5'-phosphate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDLKEIAQFLDDNAPAFLATLGTCGNPRVRPIQSPLLVGDKIYFCTANTKGLFKHIKNYNDIEFCSCAKD

GTFLRLRANAVFEPNLEVKKMMFKKYPYLVNLYETPQNPKFEVFYLDHLSARMQFMNGEFKLFKA

>AHK55067.1 3-ketoacyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFSGKNVLITGASKGIGASIAKTLAGFGLKVWINYRSKPELADALKDEIIASGGVAAVIKFDASKEDEF

ENGVKTIVESDGELSYLVNNAGVTNDKLALRMKLEDFSGVVDTNLSSAFLGCREALKTMSKKRFGAVVNI

ASIVGEMGNAGQVNYSASKGGMIAMTKSFAKEGASRNLRFNCVTPGFIKSDMTEVLSNEIKQTYQDNIPL

KRFAEPEEVANCVAFLLSDYASYVTGDVLKINGGLYM

>AHK55066.1 phosphoglyceromutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKQKCVLIITDGIGYNKNSKFNAFEAAKKPSYEKLFKEVPNSLLKTSGLAVGLPEGQMGNSEVGHMCIGS

GRIIYQNLVRINKAIENKELEKNENLKKLLAKCKRVHIIGLYSDGGVHSMDTHFKAMLEICAKNGNEVFA

HAITDGRDVSPKSGLNFIKDLKEFCENLGVHFATLCGRFYAMDRDKRWDRVKEYYECLLGKAYKVPNLLE

YLQKSYDENVTDEFIKAAQNENYKGMREEDGIIFINFRNDRMKQLVEVLNSKDFKEFEREKIFENLLTMS

VYDDKFKLPVLFEKEKIENTLAQVISKAGLSQLHTAETEKYAHVTFFFNGGKEELLENETRVLIPSPKVK

TYDEKPQMSAFEVCDAVKKGIEKGEDFIVVNFANGDMVGHTGDFNATIKAVEAVDTCLGEILECAKKHDY

AFIITSDHGNCEAMQDEKGNLLTNHTTFDVFVFVQARGVSKIKDNMGLSNIAASVLKILDLEIPKEMNEA

LF

>AHK55065.1 phospho-N-acetylmuramoyl-pentapeptide-transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYYLSDLSHYAFFTYISVRAGFAFFIALCLSLFLMPKFITWAKAKNASQPIYEYAPETHKTKCHTPTMGG

LIFISSAVIASLFCIKFDNIFAISALLCLILFCLIGLIDDLGKVLKKDNHSGLSPRMKLLAQIIAGLICI

LPLYFSSELSTELFIPFYKHPLFDMEIFAIAFWILVLISSSNAVNLTDGLDGLATVPGIFSLSTLGIFLY

LSGNLNYSEYLLLPKIQGLGEVVIICAALIGALMGFLWYNCYPAQVFMGDSGSLALGGFIGFLAVISKNE

ILLLLIGFVFVLETVSVILQVGSFKIFNKRVFKMAPIHHHFEKVGWVENKIIVRFWMIALLSNLLALASI

KLR

>AHK55064.1 UDP-N-acetylmuramoyl-L-alanyl-D-glutamate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKISLFGYGKTTRAIAENLVDKFGPFDIYDDHFTETKKDTLGNLLLNPNDFDDNLSDIEIPSPGFPPKHK

LIQKAKNLQSEYDFFYDIMPKSVWISGTNGKTTTTQMATHLLSHIGAVMGGNVGTPLAELNPYAKLWILE

TSSFTLHYTHKAKPEIYALLPISPDHLSWHGSFDNYVQDKLSVLKRMNECDVVILPKIYANTPTKAHKIS

YEDEKDLAVKFGIDTEKISFKSPFLLDAIMALAIEKILLDTLSYKLLNSFVMEKNKLEELKDSQNRLWVN

DTKATNESAVMAALSRYKDKKIHLIIGGDDKGVDLSNLFDFMKGFDIELYAIGISTEKMLDYAKKANLKA

YKCEVLSKAVNEISNHLRVNEVALLSPACASLDQFNSYAERGKVFKECVNKI

>AHK55063.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKAFSLLEFVFIILILGIVFNLGSLYLKKDNLLEGAIQILNDIQYTQSLAMMQEGIRVDELTIAKREWF

KSKWQIYFIKSAATGYDQTYTIFLDKNGDGNANLGKTEINIDREIAVDVINHNKLMNSGQSGVISKDDEK

TTQRFNLTKRFGIEKVEFKGSCSGFTRLVFDEMGRVYSPLKNANYAYEKTLAKNNSDCIIRLLSKKHALC

IVIDTLSGYVYIPDFKTLKSQFVNIKNKNYECSKI

>AHK55062.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKIKNYKLIIILLSLDLLALLYGTSTLSISADEADIYFGEQGKSLIFSHSLLYYISHFGTFIFGQNDFG

LRLPFLFFHFLSCLLLYLLALKYTKTKIDAFFSLLLFVLLPGTVASALLVNAASLVIFLTLAILCAYEYE

KKWLFYILLIIVLFVDKSFNILFLTFFFFGIYKRNAILFTLSLVLFGASISFYGFDTGGRPRGYFLDTLG

IFAACFSPLVFVYFFYTIYRLTFQKYKNLLWFLMSVTFVFCLLLSLRQKLFLDDFLPFCVICTPLLIKTL

MQSYRVRLLVFRLRYKIFIECSIIFLIFCYFLIVANQLLYYFINNPNRHFANNYHFAKELALELKKQDVL

ELATAPSLQKRLRFYGIKNSNKFYLKALKQADKHDMDKKIVKVKLGKYEKVYQILNYD

>AHK55061.1 phosphoenolpyruvate carboxykinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQTIDQIFQTQIDIKKSTFLSFLCPFKDFKFLIETLKKEHPKAVHFVYAYRVLNDFNQIVEDKSDDGEPK

GTSGMPTLNVLRGYDLINAALITVRYFGGIKLGTGGLVRAYSDAANAVINNSSLLSFELKKNTTIAIDLK

NLNRFEHFLKTYSFNFTKDFKDCKAILHIKLNEKEEQEFEIFCKNFAPFEIEKL

>AHK55060.1 hypothetical protein N917\_02095 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQVNYRTISSYEYDAISGQYKQVDKQIEDYSSSGDSDFMDMLNKADEKSSGDALNSSSSFQSNAQNSNSN

LSNYAQMSNVYAYRFRQNEGELSMRAQSASVHNDLTQQGANEQSKNNTLLNDLLNAI

>AHK55059.1 hypothetical protein N917\_02090 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKFRIQYSAGFGHYTQNHKGFGPTIYIEEVVEFDNGKDYFDYIDFYKTYSKSDDTYFHISFLEDRPLSD

KEITIRNEYRKMRDENCKKAKEEFIANNELDVEHLPTHHD

>AHK55058.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVEVKNLTMRFANQLLFENVNLKLVRGQRYGLIGANGAGKSTFLKILSGEIESSSGEIVFDEGLKIAVLG

QDQFAFENYTIKDAVMCANKRLYEALKEKEKLYMSEEFTDEINERLGELEIITAEEDPNYDCETRCEKIL

SSLKIKDFDALMSTLQSADKFKVLLAQVLFLGADALFLDEPTNNLDLEAISWLENELLRHEGTLVVISHD

RHFLNKICTRILDVDFKQIRDFAGNYDDWYMASTLLAKQAELKRDKTLKEREELENFIRRFSANASKAKQ

ATSRAKALEKLELEEIKISSRRDPSIVFRTNREIGNEVLEIKGIGKAYDKQLFSNLELKIEKNDKIALIG

ANGVGKSTLAKIIAHAISPDSGSIHLGATIELGYFPQDTSNLICENLKLYEWLMSEKFKDLDEIRKCLGR

MLFSGSDQEKMAASLSGGEKHRLMLSRLMLERPNFLLLDEPDNHLDLESIIALGEALYNFKGVVLCISHD

RELVSAFANRIWHLENGKLTDFRGTYQEFLGENDG

>AHK55057.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEGASGGSIFVTILLFILYMLPAIIGLSRKHSNWLIISLLNLFFGWTIIVWLVCLIWSFTGSFKQTIIIK

EKNEK

>AHK55056.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTKKSKRDMAYELDIDVSTLYNWRKYKPNLYRIVMLGFKFDELLDNSKKTHEELLHIEQTIQDEIAKFK

>AHK55055.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFLLDFLISLSFIFEISALVLSFYFKNSKIFFLTLVLLGAKLPYFYTSFFQANLFVALFLPMIFTLFCVG

KHHVLILNKKNIASITTLIFIGILSIILPRNTTFNSAGLEFHFIALDFFKPVSELGFLFFLVGLILIFIK

TFKTKEYYLLIAFFTAYFQFLFQEGAGIRYFEFASLVFCFYLLNHAYRLAFFDTLTKLPNEKSLTRFTKG

KNNYIIALLHFNELKDTKESYTKLILKQIAKILKRFRAKIFIVENDFILIFNDKNQALNHLAFLESTLKN

TEFNLENENFKPDFKLIWQESEENLDKNLQSLRARLLD

>AHK55054.1 hypothetical protein N917\_02055 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKVLLSSLVAVSLLSTGLFAKEYTLDKAHTDVGFKIKHLQISNVKGNFKDYSAVIDFDPASAEFKKLDV

TIKIASVNTENQTRDNHLQQDDFFKAKKYPDMTFTMKKYEKIDNEKGKMTGTLTIAGVSKDIVLDAEIGG

VAKGKDGKEKIGFSLNGKIKRSDFKFATSTSTITLSDDINLNIEVEANEK

>AHK55053.1 histidine triad (HIT) protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIYENDLIYIEKEEAQVPWLKIFTKEIYKEFSDCPLELQKELFEKILFCEKAMIEFYKPEKINIASFANY

VPRVHFHVMARFKEDAFFPECMWGKQQRETIKLDLPKFEEFVKFLNSKIF

>AHK55052.1 hypothetical protein N917\_02045 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQISSSYNSYDYYSSKPSFDKTNQSDSTQKDEKNLSENKDDKEKNGEQTQMVNGVELSQKEVAQVRELQS

IDRNVKAHEAAHQAAGGGLAGAASFTYTRGPDNQMYATAGEVPISMQKGNTPEETIANARQIAAAAMAPA

DPSPQDYKVAANATKMEFEARAEAMKLKAEEAKEKEEENKEKDDKNSENSLEKTDKDSKNNDKNSNFDKD

FKNLVTRTYQQNSQNNDIKFSIAS

>AHK55051.1 GMC family oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAEVLKKVDVVTVGAGWTGGIVAAELTKAGLNVLSLERGHMQSTENFNYIHDEWRYGINYGLMQDCSKDT

VTFRHDPSGLALPYRKMGSFLLGNNVGGAGVHWNGWTFRFMPYDFEIQTLSKQRYGNKLGNDYTLQDWGV

TYKDMEPYYDRFEKTCGVSGEPNPLAEKMGAFRSSPYPQEPLENTKMLKRFESAAKSSNLHTYRLPASNS

KGGYTNPDGQDLAPCQYCAYCERFGCEYGAKASPLNTVIPKAMSTGKYTIRTYSNVTQILKKDGKVTGVK

FVDTRTMKEYIQPADIVVLTSYMFNNAKLLMVSNIGEQYDPKTGKGTLGRNYCYQMNMGTTAFFDEQFNT

FMGSGALGTTSDDFNGDNFDHSKEKFLHGAMIYSVQLGTRPIQSAPLPAGAPTWGAEFKKALNYNFTRAI

TVGGQGASLPHKNNYLSLDPTYKDAFGMPLLRLTYNFTDQDRALHKFITDKTAEVAKRMQGVKSIKKGAY

LKDYSVVPYQSTHNTGGTTMGADRETSVVNTYLQHWDADNLFVVGAGNFQHNSGYNPTDTVGALAYRCAE

GILKYHKSGKSLA

>AHK55050.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQDNIIDRRSFFKLGLLGGSVVAASTIGGGAVLKAAELTHSHQASQGKSNKIRGRMFFQTQTEFDTLSAA

CERIYPKDEQGEGAIGLGVPYFIDNQLASAYGYNDREYMQGPFMEGKAEQGYQTPMQRKDIFLEGVHALE

ENAQKRYKKSFSLLKGGDQDKILSDFEKGKIQTTGFKSSYFFTLLRDMTVAGVLADPIYGGNDNKNGWRM

MQYPGAQMSYVDKIASDEFFNIEPMGLADMES

>AHK55049.1 hypothetical protein N917\_02020 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRIFLTLFLFFNSLFALSELEEGLKLYEANKFDKAYEIFKSLCEKDISKACFSLAFMHESARGVSKDLNQ

AYKFYDKACKLGLANACSNMALLLQNQGYENEALLAFNKACTLGESLSCNNIALFYEKEKDGQMASSFYK

RSCDLKNARACYQLGSLYDKGELVKASVKSALAFYSKSCTLGFGEACYLLGRYNQLEKQDLTKAKRYFGM

ACDQKHQEACAAYKELNSKDIELY

>AHK55048.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQINLLNDFIKAYENTYSVSFDDSFKGRIQELCKELNEPFMHASYALENELKELVFSLDKNVNIAIIGQF

SSGKSSLLNLILGRDCLPTGVVPVTFKPTFLRYAKEYFLRVEFEDGSDIITNIEKLAFYTDQRNEVKQAK

SLHIFAPIPLLEKITLVDTPGLNANENDTLTTLDELKNIHGAIWLSLIDNAGKKSEEDAIKANLELLGEN

SICVLNQKDKLSAEELDNVLNYAKSVFLKYFNELIAISCKEAKDEQSYEKSNFQSLLDFLTQLDTTVLKE

KFVKRKILNLCEILEDENQLFVGIFDRLLNQFQSYEKHLLLAYENFLKEIEILNHQILEQLKSISERISS

EIFASVKEKDAYFYKESKGFLKKDLYTRYDYKAPYISSDDAFLAMFYNSDVMSKEFKKIKNELYKSFEEI

KMKLKDFINILEREILLFKAEFSNIQKDHIFQSDKNFSELRAFCNASDEYFLKDFKELLFKSILELDLFF

EKLNLKAFTNYENATKLSLAFFSRKINESRVLYELDSSEFVLFYPKKSEIYERVLNELNVYEFETLLINK

PILTKIAKNFLEQSQNLIQEKNKFLDLKKAELQKRRAQILNVRESIKED

>AHK55047.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKELFQKIWQNELQFLNFDAKFQDKSKLDTAECAIILSVNKDNYERYFLLKEFQELCKKIDLRVDIFSMQ

NAQICILNLFKSGFISKQDLLKALKILEKISKNTEIFDFILQEKVQSIDQKALFQNDFKELNTINLELQK

LSFDENLKSRLQKTLEKFQNLEFNIAITGVMNAGKSSLLNALLKEDFLGVSNIPETANLTVLSYGKSEEA

KIYFWDKKEWQNILESSHFNADLKEFIDKLDKSVNIEDFIKDKPLIQNIALCELKNFSSAKNKISALIKK

IEIKSHLEFLKNNISIVDTPGLDDVVVQREIVTNEYLRESDFLIHLMNASQSLTQKDADFLVHCLLNSRL

SKFLIVLTKADLLSKKDLEEVIVYTKESLKSRLVDLDENLVEKIDFLCVSAKMASDFYKGLASKESLQKS

GMQEFENYLFNELYAGEKSKIALRAYKKELHLELKNILSEYEMQNRLIKENKQGVSEENQKLLLELQKQN

TLLKEAQDEISNSIAKLKNIDSGIDNLVLLLAKKLKERLIDEFKYLKNNAQKLNLSRILNIVDITTKDGI

NDILREIKFENIKKIEELKTNLSLKYDFLKDDFDNGFEGFKDGISKNIDSIFQSEKFALLRLKIEKLSNL

KSDLYELETNLDTVIFDTFKEFKMSEILNSLNINGAFFEFLNDKLKHYEKNQKSKLESLEKVLQSLKNQD

ANILNSFEENLEKIEKLKQLEMGLLNAD

>AHK55046.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>AHK55045.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNIQYSDALVIGGGLAGLRAAIEVAKSGQSVTLLSICPVKRSHSAAVQGGMQASLANGAKGEGDNEDLHF

ADTVKGSDWGCDQEVARMFAQTAPKAVRELAAWGVPWTRVTKGPRTVVINAQKTVIEEKEEAHGLINARD

FGGTKKWRTCYIADATGHCMLYGVANEAIKHQVKIIDRMEAVRIIHDGKKCLGVIARDLTNGQLIAYIAR

GTMIATGGYGRIYKQTTNAVICEGTGAAIALETGLCRLSNMEAVQFHPTPIVPSGILLTEGCRGDGGILR

DVDGYRFMPDYEPEKKELASRDVVSRRMMEHIRKGKGVKSPYGDHLWLDISILGRAHVEKNLRDVQDICK

TFNGIDPADEGPKGWAPVLPMQHYSMGGIRTKPTGESQWLNGLFACGEAACWDMHGFNRLGGNSCAETVV

AGMIVGDYFADYCKNNGEVIDTNVVKDFLTKEYQYLKSLVDKEGKHNVFEIKNRMKEIMWDKVAIFRTGE

GLKEAVDELEKLYKDSQDVKVHCKELDCANPELEEAYRVPRMLKIALCVAYGALLRTESRGAHYREDYPK

RDDLNWMKRTNTFWVEGETLPRIEYEELDIMKMEIPPAFRGYGAKGNIIENPLSEKRQAEVDAIREKMEA

EGKGRYEIQNALMPYELQAKYKAPNQRIGVDYE

>AHK55044.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRELIEGYLGKSIEGKKSKMPAKLDFIQSASGLFLGLFMWVHMLFVSTILVSEDFFNSVVHFLELKFVYD

NPVMSYLTSFLAACVLVVFFVHALLAMRKFPINYRQYQILRTHSKKMNHSDTSLWWVQAFTGFIMFFLGS

AHLIFIVTNADKISGDMSGDRVVSHFMWLFYAVLLVCVELHGSIGLYRLCVKWGWFEGKNVKESRKKLKT

AKWIISIFFLVLGVLSLAAFIKIGYENYQNQTQTTAMIKNYNGANYEYTI

>AHK55043.1 prolipoprotein diacylglyceryl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEFWQHIYSNFNVIAFSIFGLKVHWYGIMYVIALLLALLLAKFFVRKFQLDINEKHLDSYFIWVEIGVIL

GARLGYILIYDANTMYYITHPWQIFNPYINGEFVGIRGMSYHGAIIGFLIATLLFCKKYKTNPWIFLDLV

ALSVPLAYVFGRIGNFLNQELFGRITNVPWGIYVDGVLRHPSQLYEAFLEGIVVFIIVYLARFKQSFQGE

LILVYAGAYSLARFICEFYREPDFGIGFVLWGMSMGQILSFIMFITALLVYICIKFKKVNI

>AHK55042.1 hypothetical protein N917\_01985 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKYILLASSMLILAACGGTSSNFVNVSMPNFKPQVPTKVEPIDSGVSIALVPINIEQNNNYSDYFENSV

LKIRIEKEIDLLKQNLEEQIKTIAQLKGYKIVTTNPDYTLKSSISIYTEEKNVQKTSNFMSGDYVKSNLG

INFKGKIDFIDAHNPQNSTNLSSSTKLDSLVALNYPIKNDDGVNMFKTTISTVPTQLNKGLEQPAFEIDK

SFLAFYKNTLNTLYNNLPKATDIGKTIPNTNSGFNSFDGDATFEESLPQTNSNQNNTIENAPTQNIPTNP

SSTNQNNQSKNQDGVEIFE

>AHK55041.1 shikimate 5-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFLAVIGDPISHSKSPRMHNNAIKALGLDSIYTRYHLRNANCLREDFFKLGLSGANITLPFKEKALDIA

DVKDDFARNIGSANTLCLKEDKIYAYNTDALGFLEAIKDFDNIKKALILGAGGTALALAYVLKQKGVEVY

IANRSKERFKDFLAYPTYLYKNLQDFDFDLVINSTSAGLKDENLPCDRELLDRILPKAKFAFEVIYGRET

PFYRLCKEYHLKIKDGLDMLLWQGVFAFELFFEIQDKREMIKNAMQQALILK

>AHK55040.1 ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MISPMDMSLIKIIGDHYYIRRDKIVNKITHRGRLFFDKFERVDAPLNLNVMREHAAKKIVVAHDLITKDN

KVENIVFDYNGFNAERFYHRAQLILREEGFINFTAYKTKTPGHLHLYIHKGHTALNEGYSLASKLSMMFA

SKMPVEWKVFPSMDVPREFNILILPYEVYQKERGSSWSKHM

>AHK55039.1 serine hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSLEMFDKEIFDLTNKELERQCEGLEMIASENFTLPEVMEVMGSILTNKYAEGYPGKRYYGGCEFVDEIE

TLAIERCKKLFNCKFANVQPNSGSQANQGVYAALINPGDKILGMDLSHGGHLTHGAKVSSSGKMYESCFY

GVELDGRIDYEKVREIAKKEKPKLIVCGASAYARVIDFAKFREIADEIGAYLFADIAHIAGLVVAGEHPS

PFPYAHVVSSTTHKTLRGPRGGIIMTNDEELAKKINSAIFPGIQGGPLMHVIAAKAVGFKFNLSDEWKVY

AKQVRTNAQVLANVLMDRKFKLVSDGTDNHLVLMSFLDREFSGKDADLALGNAGITANKNTVPGEIRSPF

ITSGLRLGTPALTARGFKEKEMEIVSNYIADILDDVNNEKLQENIKQELKKLASNFIIYERAMF

>AHK55038.1 lysyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFDNILEQQRIEKAKELKNLGINPYPHFLEKEMSLKTFKDKFSYILEQVEKRDESVNAVVAGRLKLLRIA

GKSIFANIEDEDTNLQIYFSKDSVGEELYTILKKNLEVGDIVLVKGFPFVTKTGEFSLHASEVKLATKAI

VPLPEKYHGLTDIEQRYRKRYVDMIMNVEVRKDFLVRSKVVSLIRHFFENKGFLEVETPMMHPIAGGANA

KPFVTFHNSLGVERFLRIAPELYLKRLIVGGFEAVFEINRCFRNEGMDLTHNPEFTTIEFYWAYHNYKDL

MDLTEELFALLLDKLNLGKTIEFDGKMINFSKPFERITYKDALCKYGGLDRDLIEDKEKILTKLKADGFE

ANEKLELGHLQAELFDNYVEEKLINPTFVIDFPISISPLSRRSDEDSQIAERFELFICGRELANGFNELN

DPLDQYERFLKQIEAKNAGDEEACEMDEDFVNALGYGMPPTAGQGIGIDRLVMLLTNKKSIRDVILFPAM

RPLKSELKEKE

>AHK55037.1 Fur family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLIENVEYDVLLERFKKILRQGGLKYTKQREVLLKTLYHSDTHYTPESLYMEIKQAEPDLNVGIATVYRT

LNLLEEAEMVTSISFGSAGKKYELANKPHHDHMICKNCGKIIEFENPIIERQQALIAKEHGFKLTGHLMQ

LYGVCGDCNNQKAKVKI

>AHK55036.1 colicin V synthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFYWFDAFILGFTLLLGLKGIINGLIKEIFGLLGIIGGVFIASKYATQAAEFIQSTFYKIENQSLAGFA

GFLAILIIFWIACLLAGNFLSKLIKLSGLGFLDRIGGFIFGGAKIFLIFAILVFCVARIDFLNDKLDNFA

KNSYTLNLLKETGSFIMNQPLTENSLDHASEKLQDIVSDLNNTQKGE

>AHK55035.1 glutamyl-tRNA amidotransferase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQIDEKLLSKLEKLSALQITKNRNETIAQLSEIVNFVEKLNELDLDSQEITVSTIKGGAPLRIDEIRNSN

VIDEVLDCAPKKQEHFFVVPKIIE

>AHK55034.1 hypothetical protein N917\_01940 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGLKDNLKAVKNELNTEEQFIENFIKGERFIRKYKFYISAVVIILVAWFAGNFIISKINDYKTKEANEIY

ANLIQDPSNKNLLEQLKNKNTNLYAIFLLKENINDFNNTTLQNELKQIYNNAQTNTLLKNIIALSLGDKS

IFLKNYDKLLEAYKLLEQNKIEEANVLLSQIKENSSLNQIAKNLKHYQGITQ

>AHK55033.1 hypothetical protein N917\_01935 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIFLTLFCLIFLCACGTKRQYFEPKQTDGDLSHNSNLKSKIVDWNLVSAKLSNNTTILKNNISIDKFK

LPKNYMLLAYQDGEYFTADNNGNLKIFDNSYNEIYNFQFDASVVGVASNGDDLALVLANNTIVLANRSLG

IKFSQTLTSAPAQDSRTANPIFLDNIIVYPTLDGKILILSRNNLQIIKDVVISAENFFNNVIHLSVIGDK

LIAATAKKIIVVSPARTLYLDADIKDVALSDDGIFILEKDGTIIKTDYNLRKIAEKKFEFAIFVKSNIYN

NYLYIFEKTGYLIKMNLNLDNAQVFKLSEAVDKISFMGNGKFYYGDKILDLL

>AHK55032.1 tram-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKILEQTIKALKLNLKPYDLSMLTRKKSYICAKDQNNILFMYTGKTKFLMKDALFLENLAQQININNKY

FFSMASLCSKAKNHLEMKGFNIYVAL

>AHK55031.1 pantothenate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLLCDIGNSNANFLDDNKYFTLNIDQFLEFKNEQKIFYINVNEHLKEHLKNQKNFINLEPYFLFDTIYQG

LGIDRIAACYTIEDGVVVDAGSAITIDIISNSIHLGGFILPGIANYKKIYSHISPRLKSEFNTQVSLDAF

PQKTMDALSYGVFKGIYLLIKDAAQNKKLYFTGGDGQFLANYFDHAIYDKLLIFRGMKKIIKENPNLLY

>AHK55030.1 malate:quinone oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSQQEFDVLVIGAGISGAALFYELARYTNIKNIALIEKYNTAATLNSKGTSNSQTIHCGDIETNYTLEKA

RKVKRTADMIVKYGLMQNAQNNFMFSHQKMALAVGDIECDYMKKRYEEFKELYPYIKFFDKAKIKQIEPK

VVLGEDCNQDRPENICAMGVESGEVFTTVDFGKMSINLIEQAQKQNKNTFVAFNQEIIHIEKKDDIFILK

TSNHQEYHAKSVVVNAGAHSLYLAHKMNLGMDKSCWPVAGSFYLTKQKLLNGKVYMVQNPKLPFAALHGD

PDLLADMNTRFGPTALVIPKLERYHGLKSVPEFFEALKLDKTVLKVTFNMFKDATIRNYIFYNYLFELPF

VDKSLFVKDAKKIVPSLKASDIYYAKGFGGVRPQVIDKTKGELMLGEASITETPGIIFNMTPSPGATSCL

GNAERDAKLVCNYLGMEFNEDKFSSELL

>AHK55029.1 pyruvate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKKTKIVATVGPASEKEEILRQMIINGVNVFRLNFSHGTHEYHKKNLDTIRRVAKELHTRIGILQDISG

PKIRTGELKEPFELKKGDRLDFYRETILGEKIAQNHYKISINQKSILDMLKIDEYIYLYDGSIRAKVVNI

DNQKIETIIENDGFLNSNKGINFPNTKINIDVITQKDKNDLLWGIKNEVDFLAISFVQNAHDIDEVREIL

AQNNAKISIFAKIEKFDAVENIDEIIKSSDGIMVARGDLGIEVPYYKVPNIQKEIIQKANNASKPVITAT

QMLFSLAKSKTATRAEISDVANAVLDGTDAVMLSEESAVGIDPANAVDIMCQTIIETEKRYPYNKFNDFN

DLDNTDKIMRSSAHLATDLNADAIFSLTSSGKSAIKIARYRPNIEIIAVGHSEKTLNSLSIVWGVNPAIL

VNKSNELTELLKDSVRSSVEKGFMDEDKCYLLTAGFPTGVEGTSNLIRILNKEQIAYYLQ

>AHK55028.1 hydrogenase-4 component G [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQVNTFSNIASMARTQVSNKKADDAKENTKDKNVQSANSSKDVDKNTLEKLNALGGKGITQIYLVQFQQQ

TMNAVIGSSNAQTGLDSLLNGANLDTAKSILTNIDFASLGYSSKNPLDMNTDELQQLVSEDGFFGVENTA

NRIADFVIKGGGDDVEKLKKGLEGMKKGFEQAEKMWGGELPQISQNTIDAALKKVSDRIDELGGKTLDLQ

A

>AHK55027.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAEQEDIILEKPEDGLNQPRLDESLEGFKGQEGQAPEDEEFASLPEELPQENSESGFKFTRESAPEDVST

FEEVESQEPTPWYKDRKFMSLVGLSLGIICILVFTLFYLTFSEGKIKPDIIASKPLEQPVIMPDESYKYN

DMQRIDGMIQKANALYLKGEVEQALKVYEQVAVYNESLSNYNLGVSQMNENKFQEAFESFKKAIANGENQ

SVAAINAAVCALKLNDKEKFRYYIDLAQVYLPKEGKSKLYDYYLSLINYYKGYYPEALQMLQRTDVEPYS

DVAKYLSAKIYAKMDFDSKAIQQLNSQGNFESSLSLGLLYARIGEYAKAKVALSTAMKIERDFNQSLAAL

TLVDIKTGNYQDMLARLQNSYDNDKDRYKILDTYKIQVRLNKDLFNIAVAQNSFSKDLLKKQKDQFDLLF

YFAPYQVFDSKQAALYIKKANVTDFVDDSTDAGIYLNISKALSSTNVKIANIINYALNQKLRLANQEFQK

LIKDYPEHSILHYNLALTYAQMQNYELAYKHFSSSYHLNPKNYLAGAFAMFCAKLIDIDTTKLYNEILDN

IAADSNFKANMQKSMLFLVNNNYISMLPYLDETKKDTPLSLIFEAIVAKNNNLNNQVDVKIAKLRSELPE

DILANILYFNSLNSNLNIKEYAQNAQIHFKNLKLDYRSVFGGPNIAREFYVNLMHIAGLLNLERQKFKEL

INVSGAKDEGILQTLAYLDIFAQQYEEAYALYNSLIDDYGAKDTKTLFLAAVAAVGANNPNSAIALLQLS

KLTDKNNKESKAALGMLYQEVKNYEAAISQYKTLPNNFKSEFFTFDINNN

>AHK55026.1 seryl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLDLKNLQNNFDEVAKKLKNKKVDENILKKLAELFASLKKEKIALEEFQAFQNKFSKELATAEDKESLKA

KLSENKSKINEQSAKVNALENELEEIAHAIPNIPDECVPVGEDENENVELKKVLNPPSFDFTPKEHFELG

ESLNWLDFMRGVKISQSRFCVLKNEGALLSRALVNYMIDFNRSRGFEFVNVPFLVNGATMFGTGQLPKFK

EDMYKVDDEDLYLISTSEIPVTNLYSGEILASETLPIKMTCYSACFRKEAGSAGRDTRGIIRQHQFEKVE

LVSITKPEQSDSVFNEMLECASDLLSSLGLAHRHLMLCTGDLGFSAAKTVDLEVWLPGQNKYREISSVSN

CRDFQARRAKIRYKNEQGKNELVHTLNGSSLAVGRTLVAIMENYQDKEGKIHIPDVLKKYF

>AHK55025.1 tryptophanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRVLTGLQPSGDLHIGNYFGAIKQMVDAQEKSQMFMFIANYHAMTSSQDGEKLKQNSLKAAAAFLSLGID

PQKSVFWLQSDVKEVMELYWILSQFTPMGLLERAHSYKDKVAKGLSASHGLFSYPVLMAADILLFDTRIV

PVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKMSKSYQNTIDIFSSEKTLKKQ

ISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEAREK

YNELLEKPSHLKEILDFGATKARKIAQEKMQKIYEKIGL

>AHK55024.1 shikimate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKAKNIVFIGFMGSGKSTLARALAKDLDLVFLDSDFLIEQKFNQKVSEIFEQKRENFFREQEQKMADFFS

SCEKACIATGGGFVNVSNLEKAGFCIYLKADFEYLKKRLDKDEISKRPLFYDEIKAKKLYNERLSKYEQK

ANFILNIENKNIDELLSEIKKVIK

>AHK55023.1 GTP-binding protein Der [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQSIILIGKPNVGKSSLFNRMARQRIAITSDISGTTRDTNKTQIHIHSKKAMLIDSGGLDESDELFKNVK

KNTLKVAKESDIILYLVDGKLAPDDEDRQFFYSLKKLGKPIALVINKVDNKKDEERAWEFANFGVKEIFN

LSVTHNVGLDELYEWLEKFLHEEFLIPDEEENLEDFLEYYEEGKEFQFKEVDQNHIRVGIVGRVNVGKSS

LLNALVKQERSVVSSIAGTTIDPVNESVVHKDKVIEFVDTAGIRKRGKIQGLERFALNRTEKILSHSQIA

LLVLDAHEGFNELDERIAGLVAKHYLGVIIVLNKWDKSEMDFDKTVKELRLDRFKFLAYAPVISVSALSG

KRVHVLLDKILQIFENFTQKIQTSKLNTLIENATRAHPLPHDYGKLVKIYYAVQYDLAPPKIALIMNRPK

ALHFSYKRYLQNQIRKEFNFEGVPLVIASRKKGSKENDES

>AHK55022.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKVIKHNLGIYFMILACLDFALMGACAKILSKEMSSIEIMFFRNIIGIFFIVYLLKRSKAHKEGGYFWL

LVFRGVVGTLSLYMFFYNVSNITLGGAFAFQKTAPIFITLIAFVVFKENIGIKGWIGILIAFGGVLLIAQ

PWVHNLNHSGFDLKNSVIGITSGFLAALALTSVRELRKSYTTEQIAFSFILLGTLMPLISMISAEFFEPQ

HLDSLHLDFILAPFVMPSLTAWLIIAIMGTLGTIYQIHVTKAYGIAKQAGVVAGVSYLDVVFSMIVGIIL

GDNLPSTMVFLGIIGIIFGGLILVKNKGKK

>AHK55021.1 2-dehydro-3-deoxyphosphooctonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKMILIAGPCVIESKDLIFKVAEQLKNFNENPNIEFYFKSSFDKANRTSINSFRGPGLEEGLKILQSVK

DEFGMKILTDIHESNQANPVSEVADVLQIPAFLCRQTDLLVAAAKTKAKINIKKGQFLNPSDIKYSVKKV

LQTRGIEDEGYEAAQRNGVFVAERGASFGYGNLVVDMRSLVIMREFAPVIFDATHSVQMPGAAGGSSGGK

SEFVEPLARAAAAVGIDGFFFETHINPCEALCDGPNMLNLTRLKNCVNTLLEIQNIIKENK

>AHK55020.1 6,7-dimethyl-8-ribityllumazine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNIIEGKLNLDSNTKIAIINARFNHIITDRLVEGAKDAFLRHGGKEENLSLILVPGAFELPYALKKAIES

KKFDAICCVGAVIRGSTPHFDYVSAETTKGIANVSLNHNIPVSFGVLTTDTIEQAIERAGSKAGNKGFEA

MTTVIEMLNLSKEL

>AHK55019.1 transcription antitermination protein NusB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MATRHQVRQSVISLLYAFELNSQNNVFVDEILDEKKIRNEQKNFTLNLYNGILDNLNNIDETLNSFLNDN

QITALGHVERAILRLGAYELLFTDTPSAIVINEAIELAKELANDNSPKFINGVLDALIKAKK

>AHK55018.1 orotidine 5'-phosphate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEELKKVDDFKIFLDLKFHDIPNTMAD

ACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSALTSFDEENFFSIYRQKIEEAVINFS

KISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQKRVANLAMARENLSDYIVVGRPIY

KNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEEWIKTRPDKEHALKEFYAKCGIKY

>AHK55017.1 sulfoxide reductase catalytic subunit YedY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLITPEKLYKQRRNFLKLGAGALISSSVLASKLSALNFTSDTNPNKLEISDEELATNYVNFYEFSTDKRK

AVSLAQNFNTQNWKIDISGEIEKPLTLSMEDILKFPLEERIYRFRCVETWSMVVPWVGFELRRLIEMAKP

TSEAKFVKFTTLLDKSQFPDQDALFPTIDYPYVEGLRMDEAMHPLTLLAVGMYKKALKPQNGAPIRLVVP

WKYGFKSIKSIVKIEFTKEQPKSTWESYAPSEYGFYANVNPNVSHPRWSQANERALGDFFTKPTLMFNGY

EKEVASLYKNMDLKVNF

>AHK55016.1 ferric reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQTKYFKFLAYFSFIISLIYGFYHIIKAFDFVKEAYIYTGIFALIFLNLSLLFSLLKFKKTKNYPKILGI

FAAFWAILHFLNYFIFDRNAQILRLFDDISHRLLEAIGFIAFLIIFLMLLSSFKIFKKLSKIRKLGYLCL

ILASYHYFLTPKIPMFWEWSALIIALFYFIVRYTKTLKS

>AHK55015.1 hypothetical protein N917\_01835 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFFLLVFCFVNLALAKVYKGELHFYHLQDKEIFAIVYDNAPMTPLFDRDKNQTSSSFLIVDDINGNLEI

PLVKINDFWQDERKKYKINSSKMLTYDNKNFQGENLGTTTLELVETQDGIRIKRSLDFIGFNDDFKEFHP

VHKGVFSFEQIRQKPIFLQDGKISFEEWYYFYEDGMSRAILELNNFVYDINAHAFVKLNDLYNTENQKFQ

NLLHEKLKNTCDECFEDLQNLQFNNNFLLNNGKLKICYLPFEGHFLDENICVEFNEDELKEFKK

>AHK55014.1 hypothetical protein N917\_01830 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKHCLALCFVFFLCACSVKNQNFSSQSLMVLIASPMIKINDTAFLKKENNALNLEVYKLGQAFFELKIKD

KICINAVCYDKQVFNQKFFKNVYYDDILSDILKANPLWQGKNLEKTDCGFEQNLKAKNYEIFYQVCDNKV

SFFDKISHTKIILTHIQN

>AHK55013.1 hypothetical protein N917\_01825 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MASEHSFDISAALDKQELKNAFEQAKKELDSRYDLKGIKCEIDLSEKESIFKLSSSSEGKLDVLKDIVIS

KLIKRGINPKAIKELSRESGAMFRLNLKANDAIDSENAKKINKVIKDSKLKVNSSIRGEEIRVAAKQIDD

LQAVMKLVKELDLELNISFKNLK

>AHK55012.1 2-hydroxyacid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIVCLDAATLGDYDLSVFEKFGSLQIYTTTNKEQTIERLKDANVAMTNKVVIDKDVIDACKNLKLILET

ATGVNNIDIEYAKEKGIIVKNAAGYSTMSVVQHTFAFMFAFLNQVLYYDKWSKEGKWCESPIFTDYSRIL

NTLSGKKHGIIGLGTIGKEVAKISKAFGAEIYYYSTSGANKNADFVHLELKDLLKTCDIISIHAPLNEKT

KNLLAFEELKLLKDNAILINVGRGGIVNENDLAKIIDEKNIRVGLDVLEIEPMMKNHPLLSIKNKENLII

TPHVAWASKEALNALMDIVYNNLKEWIENGK

>AHK55011.1 glutathionylspermidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQLLQVDKLQKDYLENIGFSWHTDEDGSDYISNKLVCVKESEANAYYEAVNELYDMFIAAAQEVINNDRF

DELGIPFNLIDAIKMSWENEVHWHLYGRFDLAGGLDGKPIKLIEFNADTPTALFESAILQWALLKQNGMD

ESAQFNSIYESLMDNFKRLITLDESVEGFEEHYQGWKILFSSVAGSKEEEITTKLLAHIANEAGFQTNFS

FVDEVEFSEEGIFKEGENYEYWFKLIPWEDIAIEEGELAMLLTQIMRNQRAIILNPAYTLLFQSKGILKI

LWELYPNHPLLLETKDTPLEGKNYVKKPVFGREGANISIIKDGKTLHENVGPYGNNKAIYQEYVEFNSCE

NEYYQAGVFFAYEGCGLGFRKGGLVLDNYSKFVGHIIKD

>AHK55010.1 hypothetical protein N917\_01810 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIKKIIQIGMIGGLAAVAGGALAGCGSNNDNADTLNQAANAQGAFVIIEETAPGQYKIKDQYPSDETR

VVLKDLNGTERILSKEEMDALIKEEAAKIDNGTSNLTKDNGQISSGGLSLGETLLASAAGAILGSWIGSK

LFNNQNFANQQRGAFSNQSAYQRSVNSFNKAGTTSSASSAKKSGFFGGGSKATSSSSSFGS

>AHK55009.1 30S ribosomal protein S21 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPGIKVHPNESFDEAYRKFKKQVDRNLVVTEVRARRFFEPMTEIRKKQKISARKKMLKRLYMLRRYESRL

>AHK55008.1 4Fe-4S ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQGHITNYTKKRYFVYLIASIIIFSLPFIRINENHFFLLSFDHSKLNLFFISFSTQEFYLMPFVLIFLFL

FIFFITTLGGRIWCAWSCPQTIFRVIYRDIIQTKFLKIRKNINNKQKEYERQYFKKFLGVIIFYFISLVA

VSNLLWYFIPPEDFFNYIQNPGEHLLLLGILFCASLLFTLDITYLQEKFCVYVCPYARIQSVMFDHDTMQ

VIYDEKRGGLIYDGHTKLHKKPPEGECIGCEACVSICPTHIDIRKGMQLECINCLECADACSKVQSKFNR

PSLINWTSAKAIETRSKVHYLRFRTIAYFIVLLIALLALIIMGSKKESMLLNINRSSELYNISNVKGELV

ISNAYTFLFQNTDSKPHEYYFTANLEGINDGIEIIRPNKPFKLKAGEQVKKIVVIRATKNLANNDKKDVI

FPLHIKAYAKDNEKISVFRKSIFVYPKSTLIKDKNELK

>AHK55007.1 TetR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNSNRTPSQKVLARQEKIKAVALELFLTKGYQETSLSDIIKLSGGSYSNIYDGFKSKEGLFFEILDDICK

KHFHLIYSKTQEIENGTLKEILTSFGLAFIEIFNQPEAVAFGKIIYSQVYDKDRHLANWIENNQQNFSYN

ILMGFFKQQNNSYMKKNAEKLAVLFCTMLKEPYHHLNVLINAPLKNKKEQKEHVEFVVNVFLNGINSSKA

>AHK55006.1 hemolysin D [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLFQKNTILALGVVLLLTACSKEEAPKIQMPPQPVTTMSAKSEDLPLSFTYPAKLVSDYDVIIKPQVSG

VIENKLFKAGDKVKKGQTLFIIEQDKFKASVDSAYGQALMAKATFENASKDFNRSKALFSKSAISQKEYD

SSLATFNNSKASLASARAQLANARIDLDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYAD

FFISDTDKLNLVRNTQNGKWDLDSIHANLNLNGETVQGKLYFIDSVIDANSGTVKAKAIFDNNNSTLLPG

AFATITSEGFIQKNGFKVPQIAVKQNQNDVYVLLVKNGKVEKSSVHISYQNNEYAIIDKGLQNGDKIILD

NFKKIQVGSEVKEIGAQ

>AHK55005.1 RND transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFSKFFIERPVFASVVAIIISLAGAIGLTNLPIEQYPSLTPPTVKVSATYTGADAQTIASTVASPIEDAI

NGADNMIYMDSTSSSSGTMSLTVYFDIGTDPDQATIDVNNRISAATAKMPDAVKKLGVTVRKTSSTTLAA

ISMYSSDGSMSAVDVYNYITLNVLDELKRVPGVGDANAIGNRNYSLRIWLKPDLLNKFGITATDVISAVN

DQNAQYATGKIGEEPVTQKSPYVYSITMQGRLQNPSEFENIILRTNNDGSFLRLKDVADVEIGSQQYSSQ

GRLNGNDAVPIMINLQSGANALHTAELVQAKMQELSKNFPKGLTYKIPYDTTKFVIESIKEVVKTFVEAL

ILVIIVMYMFLKNFRATLIPMIAVPVSLLGTFAGLYVLGFSINLLTLFALILAIGIVVDDAIIVVENIDR

ILHENEQISVKDAAIQAMQEVSSPVISIVLVLCAVFVPVSFISGFVGEIQRQFALTLAISVTISGFVALT

LTPSLCALFLRRNEGEPFKFVKKFNDFFDWSTSVFSAGVAYILKRTIRFVLIFCIMLGAIFYLYKAVPSS

LVPEEDQGLMIGIINLPSASALHRTISEVDHISQEVLKTNGVKDAMAMIGFDLFTSSLKENAAAMFIGLK

DWKDRNVSADEIAMELNKKFAFDRNASSIFIGLPPIPGLSITGGFEMYVQNKSGKSYDEIQKDVNKLVAV

ANQRKELSRVRTTLDTTFPQYKLIIDRDKLKHYNLNMQDVFNTMNATIGTYYVNDFSMLGKNFQVNIRAK

GDFRNTQDALKNIFVRSNDGKMIPLDSFLTLQRSSGPDDVKRFNLFPAAQVQGQPAPGYTSGQAIEAIAQ

VAKETLGDDYSIAWSGSAYQEVSSKGTASYAFALGMIFVFLILAAQYERWLIPLAVVTAVPFAVFGSFLL

VYLRGFSNDIYFQTGLLLLIGLSAKNAILIVEFAMEERFKKGKGVFEAAVAAAKLRFRPIIMTSLAFTFG

VLPMIFATGAGSASRHSLGTGLIGGMIAASTLAIFFVPLFFYLLENFNEWLDKKRGKVHE

>AHK55004.1 outer membrane channel protein CmeC [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNKIISISAIASFTLLISACSLSPNLNIPEANYSIDNKLGALSWEKENNSSITKNWWKDFDDENLNKVVD

LALKNNNDLKLAFIHMEQAAAQLGIDFSSLLPKFDGSASGSRAKTAINAPSNRTGEVSYGNDFKMGLNLS

YEIDLWGKYRDTYRASKSGFKASEYDYEAARLSVISNTVQTYFNLVNAYENENALKEAYKSAKEIYRIND

EKFQVGAVGEYELAQARANLESMALQYNEAKLNKENYLKALKILTSNDLNDILYKNQSYQVFNLKEFDIP

TGISSTILLQRPDIGSSLEKLTQQNYLVGVARTAFLPSLSLTGLLGFESGDLDTLVKGGSKTWNIGGNFT

LPIFHWGEIYQNVNLAKLNKDEAFVNYQNTLITAFGEIRYALVARKTIRLQYDNAQASEQSYKRIYEIAK

ERYDIGEMSLQDYLEARQNWLNAAVAFNNIKYSYANSIVDVIKAFGGGFEQSEDTSKNIKEESKNLDMSF

RE

>AHK55003.1 chain-length determining protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDKAKIVQNLNALFKQRAEFYSYFDENIAKINNTEVFDFKNAKNLNPEEVYKQFYHFDYAIRKLLPAIYK

AYEITDADLDKDF

>AHK55002.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLFQNLALKYSHTMMEKSLQKGFNVELLKQPEEKIPKQDKSYMLYAHVPFCHTFCPYCSFHKYYYDENL

AKVYFQNLREEIKIMKNKGFDFTSMYVGGGTTLIDEEELLKTLELCKKLFNIKEISCESDPNHIDPNKLS

MFKGIIDRLSCGIQSFDDETLKKVARYNKFGSSKELQEKISKALGILPIFSIDLIFNLPGQNEKQLLNDL

EIAKNLAPQQITTYPLMKSNLTKDNIAKSLGVSIKDNEFTYYQIIREFFKDYTQNNGWSFSLEKNKLNDE

YVSSHHEYLGVGSGAFSFLDGELLINAFNLNDYAKFIQEKQNANIAKACFDKKEIIKYVFLTGIFSGKIE

IDKFNKTLNCNLEKELFIELLGLKTSGAIIKDQNALIATEFGQYLFVVLMKDFYTGMDLVRAVFRDDKRL

KNKDYIDIMKENIDPLNSASMEFKAETN

>AHK55001.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTEWINDYYFWIKWVHYLAFVSWMAGLFYLPRLFVYHAEHKDNKGFVEVVKIQERKLYYYIQTPAMIVTL

ITGSLMLHAHKEVLMVGAGFMHVKLTCVTLLIIFHIHNYYCLKALANDTSTKSGKYFRIYNEFPTIMFII

IALMMVVRPF

>AHK55000.1 peptidase A8 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKTFKFIFYFWGAFVLVFALDQWVKSLTLAGFRWQSEYLDLTYALNTGVAFSMLSFLEHNLKYLHLALI

GVLFIYLFWQRTLLKTHSIAFGMMLGAGVSNLLDRFIHGGVVDMFFWHKWFNFAIFNVADVMINISVALI

LIQEIFKKRKKDDRMD

>AHK54999.1 phosphoglucosamine mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLFGTDGVRGKAGEFLDSFLAMRLAMAAGIYFKDKSITNNILVGKDTRRSGYMIENAIVSGLTSIGYNV

IQIGPMPTPAIAFLTEDMRCDAGIMISASHNPYYDNGIKFFDAHGNKLSEDIEKKIEEIYFDDKLIQASK

VDMEKIGQAKRIDDVIGRYIVSIKNSFPKDLTLKSLRVVLDVAHGAAYKVAPTVFKELGAEVIVMSDKPN

GLNINENCGALHPANLAAEVKRLRADVGFAFDGDADRLVVVDEKGEVANGDSLLGVLALYLKEQGKLQSS

VVATIMSNGALKEFLNKHGIELDTCNVGDKYVLEKLKANGGNFGGEQSGHIIFSDYAKTGDGLIAALQFS

ALMLSKKKSASSILGQVKPYPQLLTNLKIAEKKDLDKIKGLKELKKDLENKNINTLFRYSGTENLIRLLL

EARDIKLLEKEMKNVVEFFKKALNG

>AHK54998.1 cytochrome C biogenesis protein CcsA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVKSLLIASLVAFSSLNAASLIDEAKNSGLVALPKDQKGVDEILKQNGVKASEFTLEKAELGKKLYFEP

RLSKSGIISCNTCHNVGLGGTDGISTAIGHKWTANPHHLNSPTVYNAVLNNTQFWDGRAGTLADQAKGPI

QADPEMATPAKLAVEKISSLPEYVSEFKKIYGKSGVNFDNIADAIANFERTLITPSRFDKFLEGDEKALT

KEEQKGLKLFIDKGCVACHNGVNLGGNMQAFEVAGKYKFANLGDFKGDANGMVKTPTLRNVAETAPYFHN

GAIWNLKDAIKEMGSVQLGIKISDKEAKSIETFLKSLTGTKPAIVYPQLPISTEKTPKPEL

>AHK54997.1 glycerol-3-phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENLIIYAFIYLLGSIPFGLILAKFFAKTDIKKEGSKSIGATNVLRVVKEKNPKLAKKLAIATIILDFAK

AAIPLLTLKFLHYDQALLWSVAVLAILGHCFSIYLLFEGGKGIATGAGAMIVLLPLEVLTAFIVWVVIGK

IFKISSLASLAALLAFVVSSFIFNYDLEIHTHAPVFIIAFIIVYKHLPNIKRLIFKEECKVI

>AHK54996.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRILVIEDEISLNKTIIDNLNEFGYQTDSSENFKDGEYFIGIRHYDLVLANWTLPDGDGAELVNTIKHKS

PRTSVMIMSSKTDKETEIKALKAGADDFVKKPLDFDILLARIEARLRLGGTNVIKIEDLVIDPDEEKITY

KGQDIELKGKPFEVLTHLARHSDQIVSKEQLLDAIWEEPELVTPNVIEVAINQIRQKMDKPLNISTIETV

RRRGYRFCFPKKS

>AHK54995.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSLLITKDCVCCDACREECPDEAIYENSPIYVIDPDLCSECVNDFSEPACIVACPYECIIPDPDNVETIE

ELKLKHRDREF

>AHK54994.1 guanosine polyphosphate pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKKTAVVDLGSNSIRMVIFEKTSRYGFYTTCEYKRKVRLGENAYNNGKILQEEAMQRAEDALAFFKQCA

LKHKCKKIFIVGTSALRDAPNSKNFIKRIKDNLSLNIRCIDGKSESYLGGLAALNLLSPFKDGTTLDIGG

GSSELCLIKNNRIISCISLDIGTVRLKELFYDTGKMDSLEEFIKPILEQIPKEFCNQNLIAIGGSLRAIS

NSIMQKNSYPLKNLHDFRYMLDEEKGHILKIFNSNLDSLINFGIKKDRFDTIKEGIFIFLKIAEKIKAKQ

VITSGVGIREGVYLQDLLRPKITFPPNFNPSLKCLQDKFLQSKQKNKTPHFALQIFTTLKNLHKLNDNYK

HTLLNAAKLCHIGEYLNFYFANEHSAHFVLGGLNYGFSHKEKALIASIIKLNGKKVNPYNLEPYKQLLPN

IHTISWLNFILCLAKTLSANEDKIDFAFANNTLYIYQENKILNLPKDELKKIAKPATIALAINQKI

>AHK54993.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRLLVLFFLILPLYSVELISYNIYDRNDRVDLMLSFDNAYNGKISQKKEKNLTLLTFSDLTYSKDELKEL

NSQLVDKISISSKNNNTYIMLQNKQNINLELSSINDKFGVRIRAIEQGKANIESAPTTTANNSQELMPKP

KSTSLEGYDYTNYILVMLILVILLIVLWWFKKTMVYKNNNVSRDFTMIFQRFLDKNNQLVVFDHANKRYT

MIIGNSNVLLESIEIPEEQTIKHTEKTEKNFDSFFEENKKRIQNLIEQRQKGKKS

>AHK54992.1 flagellar motor switch protein FliN [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSDDIEFNIHHGLLQSYEDILDITVDFVSELGTTNMSVAELLKLEVGSVIDLEKPAGESVELYINKRIFG

KGEVMVYEKNLAIRINEILDSKTVLQYFKKEI

>AHK54991.1 hypothetical protein N917\_01705 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKILEYSITHFCEHILRLRIEAAQDISGELYGASIPIMGKSEGECNFYLFFPKEFLKKIAEILINDEKF

KEDDWCDLTKECANQIIGYAKNLLNDAKGDDEYKLGIPEYLGKVDFSEIVLDEALTYKFENCYFRIGYCK

>AHK54990.1 tryptophan synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVDFRKFYKENANVAYTVLGYPNLQTSEAFLQRLDQSPIDILELGVAYSDPIADGEIIADAAKIALDQGV

DIHSVFELLARIKTKKALVFMVYYNLIFSYGLEKFVKKAKSLGICALIVPELSFEESDDLIKECERYNIA

LITLVSVTTPKERVKKLVKHAKGFIYLLASIGITGTKSVEEAILQDKVKEIRSFTNLPIFVGFGIQNNQD

VKRMRKVADGVIVGTSIVKCFKQGNLDIIMKDIEEIFKK

>AHK54989.1 tryptophan synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKAYYGDFGGQFLPESAMFALNELEGAFLKFSKDKLFKKELNELLKTYVGRPTPLYFARNLSKKYQHEI

YLKREDLNHTGAHKINNAIAQALLAKKMGKKKIIAETGAGQHGLATATAAALLGLECEIYMGATDVQRQA

LNVYKMELLGAKIHAVQSGLKTLKEATTAAIQAWVGDIKNIFYVVGSAVGPYPYPKMVMHFQSIIGKECK

MQLQKLNKKVDYIIAAVGGGSNAAGIFYDFIKDENVKLIGIEAGGLGIDTPYHAATLNKGKTGIIHGMKT

KVLQDDLGNILPVHSVSAGLDYPGIGPLHAFLFESKRAQYHAISDEECMQALKLLCKEEGIIAAIESSHA

LAFLEKLCPTLKKKSVIVVNLSGRGDKDMQMIRDYKKGVIYG

>AHK54988.1 N-(5'-phosphoribosyl)anthranilate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKLKICGIKDEKNAKDLAFLNIDFFGLIFAKSPRRVSLEQARNLSAIFHEKDKKVVGVFVDENLEQILR

CIKEAKLDGIQIYRTITKEEFEILKVQNVFVWQVISVENSLDLKSEIFANLVLFDAKGILKGGNGISFDW

TLLGSYTKDFILAGGIGLDNVHKAVKTGAKILDLNSKLEDEKGLKDINKIKQILKELKK

>AHK54987.1 anthranilate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MILLIDNYDSFVFNVKSMLEQLSNDEILVRRNDAISLSEIKNLNPTHIILSPGPKHPSQSGICLEIFKAR

LNIPVLGICLGHQALALAFDSLVVKMQEPMHAKNSLIKQCRENELFSNLPSNFSVMRYHSLEVKQLSDEL

EILALDEKGVIMALGHKNLPYYGVQFHPESYFSEYGLQLFSNFLKQDIKKPQKQENPLSFYLQKMSENHF

LQSDDFEQICKIIMSKDYEILQVVALLILITEKSLNEKSLSAFVRQILRYSQTFSDESEMIDICGTGGDG

FKSINVSTTSAFILAALGVKVAKHGNRAISSSSGSTDVLEALNITTPNTLESVLKQLNNQGLSFLHAPFF

HPLVGELKEIRSRLGVRTVFNVLGPLLHPNLKLKYQLMGNYHAPVHRLLIEVLKNLGRKKALVVRGNDGM

DELSICDESKIYELCEGEILEYSICPEQFGFKRAFHSEIIGSSAYDNAKDLKDILSGRMQGAKFDLVVLN

AMFALYTANKASSPLVAKDMILEAIYSGKVIEYFKEYQAYAKA

>AHK54986.1 anthranilate synthase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFVKNVNFYYRQILEKFENSYFAEDLTKVIIGIDCDYLDANELSFSEFKAKYYEALSKNKICDFAGFFGV

FSANFVSLFEKIPLSSKKNYDFPLFLFANAKAYLIYEKNSKMFFKFGASKYFEYLKDDIEPMKKKQKNDF

EILNSLEDEKNDFLKMCEKAKEYLLSGDIFQVVLSKQLCIKHQVNAFDYYESLSALNPSAYMFYFPSKYG

VVLGSSPEFLLKIKKREIYLAPIAGTRNLENNCDLLALEKDLLSDEKELSEHKMLVDLARNDASKFGTQT

RVENLFSIIKNKFVMHIVSEVYANMKEDASIFDVIEAVFPAGTLSGAPKIRALEITSELEDCDRGIYGGA

VGFLNFNEDITLAILIRCAFFTQDKAYLASGAGIVLQSESQKEYAEICAKRKALLVAFENLKKENQ

>AHK54985.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEITDLPYLIIGIISGIASGLFGIGGGMIIVPSMFALGASAHHAIGISVLQMIFAAVFGSYINYKKKNLN

LKDGIMIGFGGLIGASFSGMLLKALSDVALTSVFLAVSCIFFIKYAFGIKENIVQNQRSVWVKNVILFIA

GAFTGIFAISLGIGGGLLIAPILAYFLGYDSKKVVSLSLFFVIFASVSGIISFSNSGVIDSEVIHKGILV

GIASMVGVFIGIKIIEKMHISAHRKILLCVYALSILGTTHSLLNKLNFINF

>AHK54984.1 UvrABC system subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNDTIKIIGARENNLKNIHLEIPKNKLIVFTGLSGSGKSTLAFGTLYAEGQRRYIESLSAYARQFLDKVG

KPDVDKIEGLTPAIAIDQKTTSKNPRSTVGTITEIYDYLRLLYARVGIQHCHRCGQKISSMSVSDIVSEI

LKFPKGAKIIIYSPLIREKKGTYADLLENLRNKGYVRAQIDGVLVRLDEEIELAKTKKHTIKLVIDRLEI

QEDLLSRLASDIEKGLQESFGEIEIEVLNHEEINLNKHYHFSEHSACFDCKISFVPLEPLSFSFNSPKGA

CEACDGLGIRYTLDMKKIIDENLSLENGAVKIMYGFNKSYYYKFLIAFCEQNEIPIKIPFMQLNEVQKRL

VLYGNAKTIEFLWKRNRLKRTFEGVVKMAYEMLKDEKDLAEYMSEKICKDCGGHRLKPESLAVKVAKKSL

GEILDMSIEDSTAFFADEKNFSYLSEQQKLISKPILKEINERLFFLYDVGLGYLSLGRDARTISGGEAQR

IRIASQIGSGLSGVMYVLDEPSIGLHERDTAKLIKTLRNLQQKGNTLIVVEHDKMTIEEADFIVDIGPKA

GKFGGEVVFSGTYKELLKSKSETALYMNGKKQISQLQNRTQKEWLELKNVNINNIQDLSVKFPLQNLVAI

TGVSGSGKSSLILQTLLPFAQEELNRAKKVKKLGGVQIEGLEKLDKVIYLDQSPIGRTPRSNPATYTGAM

DEIRNLFAATKEAKMRGYKAGRFSFNVKGGRCEKCSGDGEIKIEMHFLPDVMVVCDTCGGKRYNDATLEI

KYKGKNISEILNMSVLEASEFFTAVPKIKQKLDTLVKVGLDYLTLGQNATTLSGGEAQRIKLAKELSRSD

TGKTLYILDEPTTGLHFEDVNKLILVLQHLVDLKNSVFVIEHNLDVIKNADYIIDMGPEGGVKGGKVIST

GSVEKVAKEHKKTRSYTGYYLDLELKNTQKS

>AHK54983.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFDFLYNDISYLGLFMVCFLSSTLLPLASEAFVLGFIKLDFNPNLVLIVATLGNTLGSLSTYALAYFGKE

KILEKYFSKSLKKLENFNANFAKFGSIFAFFTFLPLVGDLFALGLGFAKYSFLKTIFFILLGKLSRYTFI

IFIANSF

>AHK54982.1 nucleoside hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRLILDTDIGNAIAGANTDDGLALALILSSKEIKLEMLSTVCGNVPSLVAYSVAKDLFQRLNLNIPVYLG

ANEALKEPSKAWRQRLDESVKNFKLEYLWENIKSPEILENINPDAIFKMGELVSKNPKEISICAIGPLTN

IAMTMKIFKDFDINLKELFIMGGSFDMPYYTKDTNFGFDPEAASIVLNSRAKITLIPYNATMQTLLTHED

LKELQGKNILCDFIVETLGVWIDYASKTRGTKGTWIHDALTIACALDSSIADFDECYADVICDSSLARGM

SWRCFREPKMSMGVDLSTKNCVKILKNVDNARLLKLIKERLLKGVCYENYESITT

>AHK54981.1 DNA polymerase I [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTLTIVDTFGFFFRLYYALKGFKNSQGQASGMISGFANFIYSLKNEYKSDYIVFALDSKGKTFRSEIDP

NYKQNRTPPPPELLEQIPICIKMIEKMGFISVSQEGYEADDIIASFVKTCENRDIFVRIITQDKDLYQLI

KDGKTSIYSPISKNDYDEAACLEKYGVKPNQIRDFLALCGDSSDNIPGVKGIGAKGAKTLLDEFGSIEGI

YENLTLVRNERSRNLLLEGKENAFLSKKLASLYDNLEVQNLIEKATYPDEEPLLKILEILEHYELNTLLK

KLRQNPDNKDKNLGFKATLVQDENKLFEILNTLDKESIIAFDTETTGLDTKEAKIVGFSFCMNENEAFYV

PLTHNYLGVGEQISLQSAKKAIEVIFNHFVIGHNLKYDFKIIQNNFDLNLPQKYADTMILAWLKNPSLRV

NMDDLALRLFNYETLHFESLVKKGENFASVELEKACKYAAEDAYITLRFYLYFLKNLETPLLELAKNCEF

DFIKIIMMMEENGIKLDTNALEILMKKFENEIKNLSEEIYTLCEDRFNLNSPKQMGDILFEKLKLPSGKK

GKTGYSTDEKVLNILLDKHPVIAKILDYRELAKLYSTYCEPLLKLALKDKNSRIYSSFLQTGTATGRLSS

KDPNLQNIPAHGQYAKDYKSCFVAKDGFSFISLDYSQIELRILAHFSEDEKLLNAFANDEDIHARTAIMI

FGESNYETRSVAKSINFGLIYGMGYKTLSQNLKIEANLAKSYIEKYFENFTSIKKYFEKVKNEAKQNGFI

VTLSGRKRYFDFENAKPMQIAMYERESINSILQGSAADVIKLAMLEINKELNEDKKLILQIHDELIFEVK

DDLCENFVKKTRDIMENIVKLKVKLKTSSSIAKNWGDLK

>AHK54980.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDLSTILGMVLAVTSISVGDILEGGNPLHVVHLSSFLIVMPTAAFCAMTSTHKKIVKAAYKELKVVFKGS

GVNLPERIAQLIEFAIIARRDGLLALESRTSEIENEFLKNAMMMLVDGKSFEEIHESMEIQTEQLEEHYK

ECAEYWIVFGETCPTMGLVGAVFGLILALKLLDNPQAMAAGISGAFTATVTGIFGAYALFAPWGKKLKAN

GMDLVKEQIVITEAIKGIAEGANPRDLEAKLFNFLSHDDPRISQFDKG

>AHK54979.1 flagellar motor protein MotB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKKHKCPECPAGEKWAVPYADFLSLLLALFIALWAISKTNPAKVEALKTEFVKIFDYTSTQTVKEESKT

QEKYKGAAKEESDELKSLKQMTMTQQETIKRLQAALDQSDNQVALNLPSKVEFERGSAQIVSADIQDYLK

RMAELTTYLPPQAKIEIRGYTDNSDSIIRSYELAYQRAENVLKYFIEGGANLKNISIKSYGLNNPINGNP

QTLENNRVEIYFKVDTADTSTQKSVLELINKIGTKAP

>AHK54978.1 flagellar biosynthesis protein FlhB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAGEDQEKTEEPTSKKIEDARKEGNVPKSQDAAAIVTLIIGVTITLFMMSFMGERIVNLYRYYQSFIGVE

FDLRIIQAIMIKSIFEVLIILAPIVLSIMIAGVLGNIMQFGFIFTTKPIMPNLGKINPLKGLKNLFSLKK

IVESIKIILKVGIVFTIAFIVLLKFMQELPRVELYTMVAQLTWLRDRAIVLAAIVIVAFLIIAVLDVFLV

RFQYFKGLRMSKQEIKDEYKQMEGDPQVKGRIRRLQMEAARRRMVQDVAGADVVITNPTHYAVAIRYDTG

KEQAPRVVAKGVDFLALRIKQVAYENNVVVYENPPLARELYKACDVNDLIPREMFKAVAEVLGFVYNTNN

KSRLAGQVKKGN

>AHK54977.1 peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIVTKKALDFTAPAVLGNNEIVQDFNLYKNIGPKGAVVFFYPKDFTFVCPSEIIAFDKRYQEFKNRGIEV

IGISGDNEFSHFAWKNTPVNQGGIGQVKFPLVADLTKQIARNFDVLYAEAVALRGSFLLDADGTVRHAVV

NDLPLGRNIDEMLRMVDTMLFTNEHGEVCPAGWNKGDEGMKANPKGVAEYLGKNEAKL

>AHK54976.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAVKITDICIACGSCIDECPVNAIVDDTNNPEGEDRYYVYANKCVECVGHNDQPACASACPTDGCIVWSA

VESGQPSRDNIGADMRSGDTPVFA

>AHK54975.1 nucleoside diphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMISGPV

VVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>AHK54974.1 hypothetical protein N917\_01610 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIPFSKINTKEYPFKLNLENIIFEGNLVKINPKLVKINAIMQGFIYRPCDSCGTELELEIKENLELFAS

DGIFKDEANELSNTIEFFDGHIDLIEVAISELEAYLSDYFYCINCNN

>AHK54973.1 50S ribosomal protein L32 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAVPKRRVSKTRAAKRRTHYKVSLPMPIKDKDGSYKMPHRANPTTKEY

>AHK54972.1 phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINIAIDAMGGDFGEKPIIEGVLKALETKPFNAILVGNSKILKPLIPKKLEQYIQYEEASEIFSMNGNAT

DALKNKETTIYKAINLLKEKKVDAVVSAGHSGASMSLATLKLGRLKGISRPAIATLMPNIVNKTLLLDVG

ANTDCKAENLFQFAIMGEVYAREIMQIQKPRLALLSNGEEECKGNELTKESHQLMKKIPNFIGNAEGRDI

FNGEIDVLVCDGFDGNVILKACEGVATAIFQLLKNEVKQSFISKIGALLMKPSFKKLKKHTDWQEYGGAP

LLGVNGCVIISHGKSDSRAIKNAIFQAINFSQSHINKFIENELGKYNA

>AHK54971.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKASLKSIASYIPEKILSNADLEKMVDTTDEWITRRTGIKERRIASENENTSDLGTKAALKAIERANLK

PEDIDAILVATLSPDYFTMPSTACKIASNLGLVNISAFDISAACSGFIYLLEQAKALVESGLKKNVLIIG

AEKTSSIMDYNDRSICILFGDGAGAGVVSLDNENHILDVHTASNGNYGDLLMTQRSQKSSLCQTLSMQMK

GNEVFKIAVNTLSNDVVEILAKNNILAQEIDLFIPHQANLRIIKAVQEKLNLSDEKCVITVQKYGNTSAA

SIPMAMNDAYEEGRLKKGNLILLDAFGGGFTWGSALLKFGGENF

>AHK54970.1 endoribonuclease L-PSP [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKRFDECDRMSQIIVFDKYFKTAGQVAFEPSGDIKKQTKEALAELDALFEKIGANKGDLIQIQIWLANM

QDFDAMNEIYDAWIKNYPKPVRACVGSALAEGYLVEIQAFGKLREN

>AHK54969.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRKINFSAGPSTLPLEILEQAQKELCDYQGRGYSIMEISHRTKVFEEVHFGAQEKAKKLYELNDDYEVLF

LQGGASLQFAMIPMNLALNGVCEYANTGVWTKKAIKEAQILGVNVKTVASSEESNFDHIPRVEFSDNADY

AYICSNNTIYGTQYQNYPKTKTPLIVDASSDFFSRKVDFSNIALFYGGVQKNAGISGLSCIFIRKDMLER

SKNKQIPSMLNYLTHAENQSLFNTPPTFAIYMFNLEMDWLLNQGGLDKVHEKNSQKATMLYECIDLSNGF

YKGHADKKDRSLMNVSFNIAKNKDLEPLFVKEAEEAGMIGLKGHRILGGIRASIYNALNLDQVKTLCEFM

KEFQGKYA

>AHK54968.1 exodeoxyribonuclease VII large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTPTELNLKAKALLETHFDDIVLSGEISKITLHGSGHWYFDLKDERSSIACAMFKGANLKVGFKPAVGDF

LELCGSVSLYPESGRYQFIATSMKKAGFGDLEAQFLALKERLQKEGLFDPRFKKSLPKFPKKVGIITSKT

SAALQDMLKLIHQKEYFLAKIYIFDALTQGNNAPFSLIQALKKADDMDLDVLIIARGGGSREDLFCFNDE

NLAREIFKAKTPIISAIGHEIDYVISDFVADFRAPTPSAAIDTLFYSKLDIEQSLDLMEEKLMQLWNYKI

QNYENLLLNLSKFFKFNSLPKIIDEKIKQSHNIEKQLNHLLANQMRYNELKLDKLQNAYLQHENFFNKSK

KFICIRKNGKIANLEDLKSDDIVILSSQTSQKEAKIL

>AHK54967.1 ubiquinone/menaquinone biosynthesis methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKQEKIIEMFNQIAPTYDKANRILSFGADVAWRKKACQRVMSLYLKKDLKIADIACGTGDMIEIWQESA

LKMEKNILNIKGIDPSSGMLNVAKEKFPNVEFIKAGAQNLPLESQSLDILSISYGIRNVVERQKALSEFA

RVLQKDGILVVLEFTKREKGGFIAACRDFYLKNILPSIGGIISKNKSAYEYLPNSIEGFLSKKEFILELK

NAGFEMLDYKSFSFGVSSMFIAKKL

>AHK54966.1 hypothetical protein N917\_01570 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVYEIQKNFLLSDCTLLENLKKDNIPFRNSKFETFYTQITSNHSVKFQSFCNEFYKITKFNNSILEQNQE

EKISKKKFEKARKKIIGKSIKKERFEFKFCSLKSYIDIYEEPKICILKIFFPTLDSSNEFKIPKDFKIQK

ELHHDLNSKHIVLYGFEYQNFDIEKYFKIIEKNQNFSLDFPNYINAYDGFRIFLFYLFKKLKFYWTLSLE

RKDKQSLCEFLFYSRSLYIVLSSMNTILDKNLSNILALKFKDITKKTQDILASENSNQDLLLFLSDEKIQ

DLFNDFDFFIKENSFYEGDCKDRFFKQLVALELRKKIILFRKNILKNFDLELFENSFFELAIFLEYFYHF

LEIKNLNKLYEKYSKDRDKNIFSKIINNKNKFCKLLKKSSKNLKIYKG

>AHK54965.1 peroxide stress regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MELLQMLKKHELKATPQRLCVLKILKRHEHPNIDELYIEIKKEYPSISLATVYKNLNTLQEQGLVVEINV

LNQKTCYDIYEEEHIHVVCTKCGGIEDLSFKDAKLYEYQEHLEKKIGNLVNHLSVCAYVDNCKKCH

>AHK54964.1 1-deoxy-D-xylulose-5-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKKFAHTQEELEKLSLKELENLAASMREKIIQVVSKNGGHLSSNLGAVELSIAMHLVFDAKKDPFIFDV

SHQSYTHKLLSGKEEIFDTLRQINGLSGYTKPSEGDYFVAGHSSTSISLAVGACKAIALKGEKRIPVALI

GDGALSAGMAYEALNELGDSKFPCVILLNDNEMSISKPIGAISKYLSQAMATQFYQSFKKRIAKMLDILP

DSATYMAKRFEESFKLITPGLLFEELGLEYIGPIDGHNLGEIISALKQAKAMQKPCVIHAQTIKGKGYAL

AEGKHAKWHGVGAFDIDSGESVKKSDTKKSATEIFSKNLLDLASKYENIVGVTAAMPSGTGLDKLIEKYP

NRFWDVAIAEQHAVTSMAAMAKEGFKPFIAIYSTFLQRAYDQVIHDCAIMNLNVVFAMDRAGIVGEDGET

HQGVFDLSFLAPLPNFTLLAPRDEQMMQNIMEYAYLHQGPIALRYPRGSFILDKEFNPCEIKLGKAQWLV

KNNSEIAFLGYGQGVAKAWQVLRALQEMNNNANLIDLIFAKPLDEELLCELAKKSKIWFIFSENVKIGGI

ESLINNFLQKYDLHVKVVSFEYEDKFIEHGKTSEVEKNLEKDVNSLLTKVLKFYH

>AHK54963.1 flagellar assembly protein FliH [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVNRSNVISGGASDQHVVEGYRFKVISEFDNHTGEKKHTQTPDEENTNISLNDEKPVEENQVIASTQAVM

ETQIPTFQPSFVEDLLKKTDEMSSNIIKLQMQIESQENEFNNRLNSELENAKEKFTKEGYEKAKEEFQKE

LSDFKDKYLKSIAKLDNACENLENFIEKNEKELADTAIDIAKEVILKELELNSSKIAYALAKDLIGELKG

ASAIELKVNAEDYEYLKEQFDQNAHIKISLDDAISKGSVVIISDAGNIESNLNSRLTKIKKMVNNE

>AHK54962.1 flagellar motor switch protein FliG [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKLSEEQKMVYDDLSMPEKVAIFLIQLGEDATTSVFSHMEIDVITEISRYIAMAKNVDRSVATAVLEEF

YTLLQSNQYIKSGGLEYAKEILFRTFGPEIANKILEKLTKSMENNQNFAYLAQIKPQQLADFITKEHPQT

IALILAHMDSIHAAETLEYFSDELRAEVVIRMANLGDISPSIIKRVSAVLESKLESLTSYKVEVGGPRAV

AEVLNRLGQKASKSTITYIEQSDERLAETIKELMFTFDDIQKLSTQAIREILKVADKRDLMIGLKGASEE

LKQKFLANMSTRASEAFLEEMGFLGAVRVKDVEDAQRKVVEVVQKLAEQGLVQTGDADEMIE

>AHK54961.1 flagellar M-ring protein FliF [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDFKNMLHQIGQLYQNLTRKQRIVIAASIIVVVGFLVFLALFRGSGSNANNGYAVLVENVSPSSSAAIVA

KLEQNNIPYKLESENKILVPQDQVYRQRMFIASEGLIKDSRVGFEAFDTQAFGATNEEQKVKYQRAIEGE

LARTIETLEPIRSAVVHIAFPKDSVFTERQIPPTASVVVNVREGLKLTRKQIDGIKNIVSAAVPKLTKEN

VKISDQSGVPLDEQEAYEDDLVRAQIKFKSDQEKALEDKIIENLAPFAGGMDKVKVSVNIDFDFSKQESQ

SEIYDPNPIVRSEQTLNEERTGRKDPEIQGVPGAVSNIGPVEGLDNKGQIDTYKKNQVTTNNELSKTITN

TKKQFATVLRTSAAVTIDGKYQDVVDENGDVKSEYVPLTKEELASVESIVKNTINFSATRGDSVVVQNLP

FHRESIRVESKVKTFYNRFVEPFIPPVKYFIAAILLFIFYKKVIAPFTQKMLEDVAAQEEMQQGPNAVLD

DAEDALEKFNAARKKVEEQLGFGDNFNEDSIQYEVLLEKLRGLVSDKGEEIAALLQNLIQNDSEFGEKDM

>AHK54960.1 histidinol-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFNEFLNNLSNYEPGKDIEVIAKEYGVKEVIKLASNENPFGTPPKAIECLRQNANKAHLYPDDSMIELK

STLAQKYKVQNENIIIGAGSDQVIEFAIHSKLNSKNAFLQAGVTFAMYEIYAKQCGAKCYKTQSITHNLD

EFKKLYETHKDEIKLIFLCLPNNPLGECLDASEATEFIKGVNEDCLVVIDAAYNEFASFKDSKKHLEPCE

LIKEFDNVLYLGTFSKLYGLGGLRIGYGIANANIISAFYKLRAPFNVSNLALKAAVAAMDDDEFTEKTLE

NNFSQMELYKEFAKKHNIKIIDSYTNFITYFFDEKNSTDLSEKLLKKGIIIRNLKSYGLNAIRITIGTSY

ENEKFFTEFDKILR

>AHK54959.1 chloride transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPNLEEFRNKIDAVDDKILDLLNERMTYVKSIGELKQSSGGSIYRPERERAIINRLKNANLGLLDQNAIE

AIYQEIFAVSRNLEMPQTIAYLGPEGTYTHQAARSRFGAMSRYIALANIEDVFKELSNKEAKYGVVPIEN

NTEGAVGITLDCLGKYNELKIFGEIYMDIHHSFVGINENLKEIKRIYSHPQGYNQCRKFLESHELSAIEF

VPSKSTANAAYLASQDKYAAAICSRIAAKLYNVPVLFDKIEDNAANKTRFLILSDIKNPKMPNCKTSILA

HTAHKPGGLSFLLEQFKKENINLTKLESRPVKSKEFLHSFYIDFEGHIDDENVKKALKDIQEIVWLGSYL

SGEKDEI

>AHK54958.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFFLDVQGTLISDHDKSLIHGAKELIDFLNAKNLPYLIITNNTKKLDFLEKLQQKGLVIKENAYIDPFSV

LKHLLRPCKVAAFGADEFVKSLENLGFELDFVNPSAVLVASYDDFKFKDFATMIELARREVRFIAMHETS

IYKKDGRPYPGVGSIMAMLKNAIDFEYEVVGKPSIAFYKEALNLIRRQNSKIDFEDIKIISDDFRGDLLK

AKELGMKTLLVLSGKISDTKGLDTDLLDGVYPSVFEFLKDLKCQI

>AHK54957.1 diaminopimelate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDYKQLKQEFNTPFYIYNFDFIKERFLNLKEAFKARKSQIFYAVKANSNLSLLQMLANLDSGFDCVSIGE

VKRALKAGAKAYKIIFSGVGKTKEELRQALEYDILYINLESEAEMMLLESVAKELNLKARISIRVNPNVD

AKTHPYISTGLNENKFGVEIDIARKMYLYAKNSSFLEPVGVHFHIGSQLLDISPIHEAAAIVAKLVRELK

ALQIDLKFFDIGGGLGVAYEKNECEPDLYDYAQGILAQLHGLDLTIGMEPGRYLVAKSGEFVCSVLYEKQ

NKTKRFVVVDGAMNDLIRPSLYEAYHEIILPYNQGEESLCDVVGGICESGDFFAKARSLPSTQSDDIMVI

KNTGAYGFSMSSNYNTRNKVCELALEEGQVRLIRQRENFEDQIALEEKFLKA

>AHK54956.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MWIFFRFISGIYLKNFFIIFFSLLGFYCGIDLLLNFKDLPKAANLDLLYVMFLSFSAVPYVLPISLIFAL

VVSLISMIRANEFVSLYALGLSRNYVILFPFLWALFFCCIYIGLNFTSFAYANDYKRNILKNGTIMNQSG

EVFLKFNNNFVYISKINNGQNSAQNIKIFNINDLNLSSFASAKNAHFEGESWILRDGNITLLPKNYELAN

DGLKIQDFSELKSLEGFKPKIIEGVASNSDYSISDALESFELFKAQNVNTDTLKINLYKFVFTPFFAPFL

MLIMYYFFPVIARFFNLAFVTFIAFVVTLMIWGVLFLLTRLSENSVIASEIGIVVPIIILGCLSAYMYYK

HR

>AHK54955.1 peptidyl-tRNA hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MILVVGLGNIGVEYENTRHNVGFMLIDLLLKESNFTNLTNSKFKGELFKIGSSLLLLKPSTYMNNSGLSV

KAVNDFYKCERMIVIHDDIDINLGALRFKKGGSSGGHNGLKSIDTLCGNDYERVRIGVGKGENVISHVLG

KFKSEEEITLSKVLEHAKKALLELIENDDLSAISSKYSLKA

>AHK54954.1 50S ribosomal protein L25 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLEGIVRESIGRKAAKALKRDGYLIANIYGKGLENINAAFKVNEFIKEVRKKTTLIFDVKVGSQTLSVVV

VDYQKDPVTAELKHVDLKVAQKGVISKYMVPVKITGTAIGLKNKGVLIQSKRRLKVKCAAENLPNFFELD

VSKLDVGDALLVRDIVVPAGVTMIDADRVAVVGVEKAR

>AHK54953.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNEKFNINIAWFLIILGGIIECFWVSGLKYSTEIWQYILTAIGVCISFTCFLKACERLEVSITYSVFVGI

GTIGVVLNEMFIFNEAVSIIKLVLIAILLLSIIALKWVSKEA

>AHK54952.1 quaternary ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEWFYLFLATACEIFGVVIMKELVSTKNKLYLLALIVCFGFSFTFLSLSMQNIAMSVAYAIWTGAGTAGG

VMIGVLFYKESKSFLKLFLIAVIITCTAGLKFLS

>AHK54951.1 ATP-dependent dethiobiotin synthetase BioD [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQIYVSGIHTDVGKTHFSAAFCANFNYDYFKLIQAGTPTDSEFIAKFSPKTKIFKEGIFLQTPASPHLGK

IKEKLDYKALDIILPKSKNLLIELAGGLFSPMDENYTMIDFVNIFKHPTILVAKYYLGSINHILLSIEAL

KQRNINLLALVMMGKKDILQDDFIKNYAKIPIINLDFFDENSILNKDFKEQMQEILQLKIP

>AHK54950.1 adenosylmethionine-8-amino-7-oxononanoate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNQILKNLDLKHIWHPCTQMKDHETLPLIPIKKAKGVWLYDFDDKAYMDCVSSWWVNLFGHCNEKIANA

IKKQVDELEHVILAGFTHEPIIKLSARLCEKVGRNFNKCFYADNGSSAIEVALKMSFHYHLNKGVKKSKF

LSLSNSYHGETLGALSVGDVALYKDTYKALLLECLSTPVPQGKDYTKELEILKDILEKNASEICAFILEP

LVQCAGNMHMYEARFIDEAIKLCHKFGVQVIFDEIAVGFGRTGTLFALHQCKQSPDFICLSKGITGGFMP

LSVVLTRDEIYNAFYDTYESQKAFLHSHSYTGNTLACAAANAVLDIFEDENILVKNQILSEFIKKEFSRL

EKFDFLGNFRTCGMISAFDILSTKYKRVGLFVFQKALEKGLLLRPLANTIYFMPPYIITKEQIVYVLESL

EQIFKEF

>AHK54949.1 8-amino-7-oxononanoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLEKILQDLEQNHNLRTLTPLKHENKFVYKQDHKLLNLVGNDYLYLASSKELKAEFLNTLKEQDLFFSS

SSSRSLSGNFEIYEKLESFLKTKFKDKEILHFNSGYHLNISCIAALSSVSKTLFLTDKFIHASMIDGLRL

GRADFFRFHHKDMNHLESLIQKHYENYENIIVLSEALFSMDGDFSDFKTLCELKRRYDKIKLYIDEAHSV

GCFDEEGLGLVKKLALENEVDFLVFTFGKALASMGACIICDEKYKKFFINKARAFIYSTALPPINVAWTQ

FIFKKMPYFKKEREKLELLSTFFKSKLQEKNHIVLGDAYIICLLLGENKKALEISQKLQKAGFFAPAIKE

PTVPKNTARIRFSLHAGLNTEELERIIELL

>AHK54948.1 hypothetical protein N917\_01480 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKYEFLCKNPDSKKLIVVFGGFASHSSHFSHLKSDKNVILFYDYENFDLNFDFKAFDELFLIAFSMGVCV

ANRLLKELNFKQKIAINGTNLGIDKSKGIHPAIFRKTLQNFKLENFKEALFKERKNLTKDFIFKDEKALK

IELEKLFDFALVKQEENLLWDKVYSSKKDEIFPPNALKNAFSKLIFLNEPHFAFFHFKTWDEL

>AHK54947.1 biotin biosynthesis protein BioC [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFLKAKDYEKHAKVQDFMGLKLCEILKNLRISHFEKVFEFGCGRGELSKKLQNFITFDEYLKNDILDFK

ENSSILIFDMNEIAKQDLSKEKFDLIVSNATLQWLDLKRIIPSLRDMLNQNGILLLSTFAEQNLKEIKQS

TGFGLNYFSLNELEQIFKVYFNEVKITQELIKLSFDNALDVFRHLKLSGVNSLGFYPLNKGFLKEFEEKF

QNKLTYHPVFILCKNDIK

>AHK54946.1 molybdate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKFVVFFGILLFVSCLNAQNLSIFVASSASKAMSEVKDEFLKTHPEDKIELVFGASGKYYELLKQGREF

DLFFSADTKYAKAIYDDKNALIKPKVYVLGVLALYSLDENLLQGGVENLKEKANKITHLSIANPKVAPYG

VAAKEVLENLGLNELLKDKIVLGENISVPVLHVDSKNSDIAIVAYSLVSSINHPKGKAVIIDAKYFSPLE

QSYVITKYAKDKKLAFEFNEFIGSSKAKEIFKKYGFSTP

>AHK54945.1 molybdenum-pterin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLIKGQICELLNQEDIVIVKILSKEVIFSVLMLELKSLENLKIGVSVELLFKEHELCFSASKTLLSVEN

SFLAKITKIKKGKLLYQVFFDFKGNELSSIITKEKALELEICENQEWLCFVKANDIVLRSHSA

>AHK54944.1 molybdenum ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLDPAFLQTLYLTFKLAFITTFILFFIGVFLAYLLSFVRFPFKTILQSFISLPLILPPSVLGFYLLVTFS

ANSFLGQVLKEYFNLSLVFSFEGLVFASLIFSLPFMVNPLQSAFSSINPNLLDASYSLGKSKIYTLFRVI

LPNSKAGIFSACAMSFAHTVGEFGVVMMIGGHKQGETLVASIAIYDELEILNYSLAHQYAFILFIFSFLV

LFSLYFINKKMSFQ

>AHK54943.1 GTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIRIDINHPMNTAKGRLDLNFKKDIESGKITALFGESGAGKTTLLKIIAGLIKPKLGRIEVDNELWFDSS

KNFSLALQKRKIGFVFQDYALFPNMNIKENIAYAASSKAKVSELLALMKLENLAKIYPKHLSGGQAQRVA

LARALAREPKILLLDEPLSALDFKMRANLQDELTKILEYFKISTLLVSHDLAEIYKLSHRILELKNGKII

KDFPKNEFFTHSNISAKLRLSATLLEIKKSDILVVLTLLLNQDIIKITLSEEEFLKAYQDVKIGDTLLLS

IKAFNPIIVGKLDK

>AHK54942.1 aspartate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNITLLKSKIHRASVTEARLDYIGSISIDEKLLQASGILEYEKVQVVNVNNGARFETYTIATQEEGVVCL

NGAAARLAEVGDKVIIMSYADFNEEEAKTFKPKVVFVDENNTATKITNYEKHGAIF

>AHK54941.1 MoeB/ThiF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNDRFTRIKWLVGEEKFQKISQTKVLVCGLGGVGGICVDALYRSGFKNLTLIDADKFEITNQNRQIHSEN

IGEEKAKVFERIYKVKGIVSKIDENFLKNFDLSEFDLIIDAIDDIPAKVALAHLIDFKKQIFISSTGGAR

KLDPTRIKTTSIFKTHGDALAKKFRYELRKSGFKGNFDVVFSDEEAHCKDLGSFMGVTASFGLALASLAL

RKVLAKKS

>AHK54940.1 stationary phase survival protein SurE [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEILITNDDGYESEGLKKLIKMLTKEFKAKITIVAPASEKSACSHSITLTKPLRFVKVGKRFYKLDDGT

PADCVYLALHALYKKRLPDLVISGINKGANVGEDITYSGTCAGAMEAVLQGIPAIALSQFYKKSEKELDY

KNALQITKKIIQNIFDKGFPLEKKEFLNINFPAKSKIKGIKICKAGKRVYNFEAHSNVNPRGVEYYWLAA

ANLDFEDEKNSDIALLKKGYATITPIMLDLTAYERMKKVKKWLKANDE

>AHK54939.1 ABC transporter ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIITLFGACALAFSMANADVNLYGPGGPHTALKDIANKYSEKTGVKVNVNFGPQATWFEKAKKDADIL

FGASDQSALAIASDFGKDFNVSKIKPLYFREAIILTQKGNPLKIKGLKDLANKKVRIVVPEGAGKSNTSG

TGVWEDMIGRTQDIKTIQNFRNNIVAFVPNSGSARKLFAQDQADAWITWIDWSKSNPDIGTAVAIEKDLV

VYRTFNVIAKEGASKETQDFIAYLSSKEAKEIFKKYGWRE

>AHK54938.1 transcription elongation factor GreA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKEPMSQFGYDKLAAELKDLKDNQRPAVVIEIDTARSHGDLKENAEYHAAREKQALIESRIAELSDLLA

RAQVIDPSSYEHDSVKFGSSVVIMDLDTEKESKYTLVGICEGNLDKGYISIASPIAKAMLGKKEGDDFKV

RLPKGESEFEILSINYEPLKF

>AHK54937.1 UDP-2,3-diacylglucosamine hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLIGEISATHEFAKPYIELLEELALKIEIIYLEGNHDFNLSCFFKRVKIFNLQEQPIKLNLHTSKGNNLV

LNSAFIKLAHGDIFLPPLLQFTLKTLRNHYLLVFLNFLNIITRNFISNKILQNQNKKNLFYQIKDFENLA

KKRYEKYENLGFWVCEGHYHQNHQINKENIKYLNLASFAYERSFFVVEYQQEIKFREQKLRGQNV

>AHK54936.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFDENIVKTGSNEMELVDFRIFKQGHDKVYEGIYGVNVSKVREIIKIPSLTELPGVPDYIEGIFDLRGVV

IPVVNLAKWMQITEPESTMLKPRVIITEFSNILIGFIVHEAKRIRRINWKDIEPATFSTGSGALDKGKIT

GVTRIENDEVLLILDLESVVEDLGIYAPKTDIDFGKIEKFTGTALILDDSMTARKRVKEMMQQMGFQVVE

AKDGVEGINKLEELSQIYGESLNDTLKIIVSDVEMPQMDGFHFAARIKEDPRFKDIPIVFNSSLSNEFMN

EKGVQEAGGEGYLVKFNASDFFNEIAKVIKKHQSQEQG

>AHK54935.1 chemotaxis protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEDMQEILEDFLVEAFELVEQIDHDLVELESNPEDLELLNRIFRVAHTVKGSSSFLNFDVLTKLTHHMED

VLNKARHGELKITPDIMDVVLESIDRMKTLLNSIRDNGNDTAIGMDIEPICARLTAISEGESPVVATDSN

EKSIPQAELEAPKQEIATPEPEVDVNQLSDSEVEAEIERLLKVRKAEDQARRAQKKQTTNAAPKPTNNTA

NKPTESGEKKVPASGSNASSMDQTIRVEVKRLDHLMNLIGELVLGKNRLLKIYDDVEERYEGEKFLEELN

QVVSQLSIITTDVQLAVMKTRMQPIAKVFNKFPRVVRDLSRELGKQIELEITGEETELDKSIVEEIGDPI

MHMIRNSCDHGVEDPATRAANGKPEKGIVQLKAYNEGNHIVVEITDDGKGLDPNGLKAKAIEKNLITERE

ADQMTDKEAFALIFKPGFSTAAKVTNVSGRGVGMDVVKTNIEKLNGVIEIDSELGKGSSFKLKIPLTLAI

IQSLLVGTQEEFYAIPLASVLETVRVPIDDIYTIEGKNVLRLRDEVLSLVRLSDVFGVKQVLESGDQTYV

VVIGVAESKLGIIVDTLVGQEEIVIKSMGDYLQNIQGIAGATIRGDGRVTLIIDVGAMMDMAKEIKVDIK

AQLESSAKKPKEQPSDYKVLIVDDSKMDRTLMQKALEPLGVSLIEATNGVEALNIIKSGEHDIDAMLIDI

EMPRMDGYTLAGEIRKYSKYRNLPLIAVTSRTSKTDRLRGVEVGMTEYITKPYSPEYLENVVRKNLKLG

>AHK54934.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSNEKLEQILQKQQTQMAGPDVDQREDDIIQLVGFVVGDEEYAIPILNIQEIIKPIEYTRVPSVPDYVLG

VFNMRGNVMPLIDLAQRFHLGSSKMTPQTRYIVLRGETNGTGVGGNAGFVIDRLTEAIKIHRNRIDPPPE

TLVKDKGMIYGIGKRDENILTILKVEALLKREF

>AHK54933.1 phosphoserine phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKLCVFDFDATLMDGETIDILATAHGKGNQTSEITRHAMTGELDFFESLQKRVSFLKGMSYKKVLELSS

TLPLMRGAHELIQYLKSKNIQIVIFSGGFHEGINPAMQKLGINLGFANYLHHKNDILTGLVGGEMMFSNS

KGLMLQRLKSFLNLKTDEVMCVGDGANDLAMFNESGLKIAFCAKEILRSQADICIDIKDLKEIIKVI

>AHK54932.1 transaldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNFSLWCDFIENSFLDNEFLNLLSHGINGATSNPAIFKNAILNSPIYKDKILKLKEKKTKDIYEELAIS

DIQKAADKLAPLFYQKNDGFISIEIDPRLHDNTTLSLGEAKRLYSAIGKENIMIKIPATKASYEVMYELM

KNGISVNATLIFSLEQSQKCFEALNAGLVEFRKNNIALKEQNTRTPQAVISIFVSRFDRLLNPKAKEQNR

IGILNANLAYNNIYSKNEPNIRALFASTGVKGDDLPKDYYIKELLFENSVNTAPLDAIEAFKGKMHFKKP

LMNFEIYTELNQIISQSEREKACNDLLSDGLEQFCIAFEDILKAL

>AHK54931.1 Sua5 YciO YrdC YwlC family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIYLAQTDTTVGFLSKNLEEINALKGRDKNQPCLITSAKFCELKSLARIPKSFKNLVRRSKKTTFIYPNN

QAIRIVKECKHANFLSKNGYFYSSSANKHGKEFDEEWARSVADIILDEKFFENIPSKILKLSKNKMIKIR

>AHK54930.1 carbamoyl phosphate synthase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPKRTDIKSILLIGSGPIVIGQACEFDYSGTQAAKTLKELGYRVVLINSNPATIMTDPEFADATYIEPIT

KESILSIIKKEKIDAILPTMGGQVALNVAMEVYESGLLGDVKFLGANPEAIKKGEDRQVFKECMKKIGMD

LPKSMYAYNYDEALKAVDEIDFPLMIRASYTLGGAGSGVVYNMDEFKELTNTALALSPIHEILIEESLLG

WKEYEMEVIRDRADNCIIVCSIENIDPMGVHTGDSITIAPALTLTDKEYQVMRNASFAILREIGVDTGGS

NVQFAINPKNGRMIVIEMNPRVSRSSALASKATGYPIAKVATLLAVGFSLDEIKNDITGTPASFEPVIDY

IVTKIPRFTFEKFPGANTTLGTAMKSVGEVMAIGRTFKESIQKALCSLERSLSGFDRVKFEDRNDLVFKI

RNANEKRLLYVAQAFREGFSVEELYELCKIDPWFLTQIKEIVDFEEQIDMDILNNKALLRKAKTMGFSDK

MIALLVNLKDNLELSQNDIYYVRMKQKIIAEFSEVDTCAGEFEALTPYLYSSINVSELTQSKNDAKDKKE

KKVMIIGGGPNRIGQGIEFDYACVHASFALKDMGIKTIMYNCNPETVSTDYDTSDILYFEPIDFEHLRAV

IEREKPDGVIVHFGGQTPLKFAKRLSAFGAKIIGTSARVIDMAEDRKKFAEFITKLGINQPKNSTATSVE

EAVLKASDIGYPVLVRPSYVLGGRAMRVVNDEAELRLYMQEAVDVSDKSPVLIDQFLDNATEIDVDAICD

GKDVYVAGIMEHIEEAGIHSGDSACSLPPCNIDEKMQEFIAQKTADIALNLGVVGLLNIQFALHNNELYM

IEVNPRASRTIPFVSKATGIPLAKVATRVMWQGNLKEALKFYDTFKVVNFDTKILRPKTPKYMSVKEAVF

PFAKLSGSDLELGPEMRSTGEVMGISKDFANSYAKSQIASFNHLPEQGVVFISLKDKDKKYTKKIAAEYV

KLGFKLMATGGTCKEILESGFECELVHKISEGRPNVEDKLKNGEIHLVINTSDSHSFKGDTKKIRENIIR

FKIPYFTNLRSALAGAKSIKAIQSKSCLDVKSLQEWLKS

>AHK54929.1 rod shape-determining protein MreC [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNKIFYVLVLAFLVFISFYYGGLIKQNVLRVNDFVIGNFYNIKDYLGEKISEHFNQANQIQQLKARNKE

LEDIAVKVTSFANQLNRILEDQNSTKYLPQVSLTRVISYVQLNDYKKLWLDWSKIPVGKNRGLIYQGYTA

GIAINKNGRAMALLQGDDQCVFSVYIGKSKAPGLIQGEDGRIVVKFIPKWAKINTGDEILTSGLDNIFFS

DIPVGIVNRVNDEDMYQSVEVKPYVKISIPAYLYVVDNL

>AHK54928.1 rod shape-determining protein Mbl [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MILDQLIGFFSSDMGIDLGTANTLVLVKDKGIVINEPSVVAVERERYGSKAKILAVGKEAKDMVGKTPGN

IEAIRPMKDGVIADFDMTEKMIRYFIEKTHRRKSFLRPRIIISVPYGLTQVERKAVRESALSAGAREVFL

IEEPMAAAIGASLPIQEPKGNLVVDIGGGTTEIGVISLGGLVISKSIRTAGDKLDMSIVNYVKEKYNLII

GERTGEEIKITIGSAIQLPKELSMVVKGRDQVSGLLSRIELTSEDVREAMREYLKEIADALKMVLEMMPP

DLASDIVENGVVLTGGGALIRGLDKYLSEIVRLPVYIADEPLLAVAKGTGKALEEISLLQQLTNEE

>AHK54927.1 ATP-dependent protease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPRKCSFCNEVENPQRRILANENDDAFICEYCVEGAYSIIYGEEKEFKEPKQSHNTEFKDITPKELKAYL

DRYVIGQDRAKKVFSVGVYNHYKRLFKAELQDDDTELFKSNILLVGPTGSGKTLLAQTLAKFLDVPIAIC

DATSLTEAGYVGEDVENILTRLLQAADGDVQRAQKGIVFIDEIDKIARMSENRSITRDVSGEGVQQALLK

IIEGSLVNIPPRGGRKHPNQEFIQIDTSNILFVCGGAFDGLETILKRKLGDKVVGFFDDAKEENKALLEK

IEPDDLVHFGLIPELIGRLHVIASLNELNEEDMVRILTEPKNAIIKQYQKLFAIDGVNLKFEEDALRAIA

QLALERKTGARGLRSIIEEMMVDLMFELPEYKDYDIVITKEVVKDNAKALLIKRKIS

>AHK54926.1 UDP-N-acetylglucosamine acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIHPSAVIEEGAQLGDDVVIEAYAYVSKDAKIGNNVVIKQGARILSDTTIGDHSRVFSYAIVGDIPQD

ISYKEEQKSGVVIGKNATIREFATINSGTAKGDGFTRIGDNAFIMAYCHIAHDCLLGNNIILANNATLAG

HVELGDFTVVGGLTPIHQFVKVGEGCMIAGASALSQDIVPFCLAEGNRASIRSLNLVGIRRRFDKDEVDR

LSRAFKTLFRQGDLKENAKNLLENQESENVKKMCHFILETKRGIPVYRGKNNA

>AHK54925.1 3-hydroxyacyl-ACP dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIDVMQIQEILPHRYPFLLVDKITELKVKEVVLGYKNISISDHVFMGHFPGHPIYPGVLILEGMAQTGGV

LAFESMEDKVDPKSKVVYFTGIDGAKFRNPVRPGDRLDYEMSVVKNRGNMWIFKGQAFVDGNLVAEAELK

AMIVDK

>AHK54924.1 hypothetical protein N917\_01320 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLVHICCSVDSHYFIEELRKTYPDEKIIGYFYDPNIHPLSEYELRFLDVKRSCDKLGIKLYKGEYEYEKW

LNAVRGYEDEPEKGARCEICFDVRMGSSVKFAAKIGEKKLTTTLLTSPKKDLEQLKNALQKECEPYGVEF

LAPDFRKNGGTQRQFALAKKEMLYHQNYCGCIYGLKKQKQDKNFIDELMSSVNKQILPVSIEARIALYKK

VVLWEKKGIKFEILREKFLNYRLLSALIKLDKKPVKSHILFYSHFKNAYTRFSLDEENLKQNLKEGFYRS

TKDEIVLVEFWRFNAFFKNKWKNFEDFLKKPLSVQAEIKWRNKLFGTYNLSPIIILENILPSRYEVIAKS

EIYHDNQEVLVKI

>AHK54923.1 bacterioferritin comigratory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSLNIGDKAPQFELLNQDGVKIALKDFIGKKVILYFYPKDNTPGCTTEACDFSANYDKFGGKNAVIIGIS

PDSVASHEKFISKFDLKHILLSDSEKEVAKAYGALGLKKNYGKEYEGLIRSTFVIDETGKIAQIYSNVRV

KDHALKVLESL

>AHK54922.1 tautomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPLVNIKLAKPSLSKEQKAELIADITELLSTKYNKSKERVVVVLEDVENYDIGFGGESVEAIKAKASK

>AHK54921.1 branched-chain amino acid aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MISADKIWMDGKLVDFKDATLHFLTHSLHYGNAVFEGTRAYKTDKGLAIFRLEDHTKRLLESAKITLLNC

PFSQKELENAQIELLKANNFKSNVYIRPLIFLGDGVMGLYHIKAPVRVGIAAWEWGAYLGEEGLEKGIKV

KISSFARNSVKSCMGKAKASANYLNSQIAKFEAIEAGYEEALMLDEEGFIAEGTGECFFIVKDGVLITPP

NDFSLKSITQDTVLKIAHDLGITVLRQRISRDEVYTADEAFFTGTAAEITPINNIDARIIGNGLRGSVTK

KLQDAYFDVVYGRNEKYASMLTYI

>AHK54920.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPADLNDYFNKKNGNSNNNGNNNRQNFNFKAPEFNFKGFGKFSPFVYGVIIIILFLIVAKPFMVINSGEM

GIKSTTGKYDPNPLEPGLHFFLPFVQKITIIDTRVRQINYASIEGSNENLSSGSGVINKNSISVLDSRGL

PVSIDVTVQYRLNPLQVPQTIATWSLNWENKIIDPVVRDVVRSVVGKYTAEELPTNRNTIATQIEEGIRK

TIEAQPNEPVELRAVQLREIILPSKVKEQIERVQIAKQEAERTKYEVERANQEALKKAALAEGEANATII

SAKGKAMAVKIEADAQAYSNKEIANSLNTPLLNLKQIETQKEFNEALKVNQDAKIFLTPGGAVPNIWVDT

KDAKKQSAANMN

>AHK54919.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKLREIVLFYTTHLYLVDYMLILLVFFLFTCVLLLCVFLRHRPIAALFIIAFDIIICFLVYIYGYKLID

NEVRTRKIAITDQKMIQSSNDLIVDFNITNNSKNNFKECKITAKIFADKIPNDNIIEEYKKKFIPFRQKS

REIKDLKKNATQVQRIAFENFNYENNYTIRLVSECF

>AHK54918.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MHFTIFHIIAFIILLICFALICILIFLKVKQKEMALISYTIATIFTALLIYSIFLTINQFTTQADLSKLT

YTRDLRHESVIVSGKVQNLTKFEIKKCYLILSILNQQQVGGEIFNDKNIRNAKMQNTSVSYTIEIIDTLP

GNTYKEFRASVPFPPTFNNPEFYHTLKCI

>AHK54917.1 hypothetical protein N917\_01275 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQFTFEQIFIAMLLTLFAGFSTAIGSIIAFFSRKDDLRVLSLGLGFSAGVMIYISFMEILPTALKDFKNH

YDSHWAELLGLACFFGGILISLLIDKLIPEDVNPHEPKEDLSELKICPLPQKGQNPPKFHPGEKLHQINT

KALKRTGIFTALAIAIHNFPEGFATFISSLDNLTLGIAIAIAVAIHNIPEGLAVSLPIYHATGDKKKAFI

YSALSGFAEPLGAFVGALILLPFIGDLTLAISFAVIAGIMVFISLDELLPAAKTYDKAHDSLYGLIAGMA

IMALSLNLLGQ

>AHK54916.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQSINSGKSVGISAKLTLWVGILVVLILAITSAISYFDSRNNTYELLKDTQLKTMQDVDAFFKSYAMSKR

NGIQILANELTNRPDMSDEELINLIKVIKKVNDYDLVYVGFDNTGKNYQSDDQILDLSKGYDTKNRPWYK

AAKEAKKLIVTEPYKSAASGEVGLTYAAPFYDRNGNFRGVVGGDYDLANFSTNVLTVGKSDNTFTEVLDS

EGTILFNDEVAKILTKTELSINIANAIKANPALIDPRNQDTLFTAKDHQGVDYAIMCNSAFNPLFRICTI

TENKVYTEAVNSILMKQVIVGIIAIIIALILIRFLISRSLSPLAAIQTGLTSFFDFINYKTKNVSTIEVK

SNDEFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLD

VLQARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQT

AVQSLTTSSNSQAQSLEETAAALEEITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAI

EAARAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQ

TTKDNVEIANESAIISSTVSDIANNILEDVKKKRF

>AHK54915.1 SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLWDKKAKTYARYQNTLNTIQKQTFEYLQNLKISFQDKSIIDIGCGTGVWTLHLAKEAKEILALDSANA

MLEILQEDAKKLNLNNIKCKNLSFETWMQNNPNVKFDLAFLSMSPALQNEKDYTNFLNLAKIKIYLGWAD

YRKSDFLDPIFKYFNTEFKGFYKKDLENYLLEKNIFFHKIVFDETRKVQRTKEEAIENALWHLSMNKITA

SKETVSSFVENNITETIESKIKLLIINNL

>AHK54914.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLKNPLDMHLHLRDNQMLELIAPLSARDFCAAVIMPNLIPPLCNLEDLKAYKMRILKACKDENFTPLMT

LFFKNYDEKFLYSAKDEIFGIKLYPAGITTNSNGGVSSFDIEYLKPTLEAMSDLNIPLLVHGETNDFVMD

RESNFAKIYEKLAKHFPRLKIVMEHITTKTLCELLKDYENLYATITLHHLIITLDDVIGGKMNPHLFCKP

IAKRYEDKEALCELAFSGYEKVMFGSDSAPHPKDTKECCGCAAGVFSAPVILPVLAELFKQNSSEENLQK

FLSDNTCKIYDLKFKEDKILTLEEKEWQVPNVYEDKYNQVVPYMAGEILKFQLKH

>AHK54913.1 ArsR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFENLIREILGKKRFELLKFLCENADENGFIMIKISDLEEKLHQSKPTIIATFKFLEEKKLFKRLKNGF

YQLNIGDKNET

>AHK54912.1 DeoR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKPKYHFLNNARYALEGLFALFKNEMAFRIELCIIIPAIVFSFFLKISFLEHLLLISVLILILIVEALNS

AIEACVDLITNEWHEKAKIAKDCASAAVFFSVLLALFVWGFILYNIYL

>AHK54911.1 sulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLRLTWFQFTFFNSLMIVLLNFNLFYFVYEKNTQNWLITFVFIVAYFALVHVICSLLFIKFFTKFFSILF

IISSFLSVYFISFYGVLIDSDMMQNVVQTDIKEVKDLLNLKLILFVVLALLLVFYVVKVKIDYYGSFKSH

IKIKIINIISGLIVVCAVLIPLSKTFLPFFRNYNEIRMYNTPFYQIYAVYRYYVRFVKAKPEFKTIANDA

YRENNHTKKLLVLVVGETARAANYSLGGYTKNDTNFYTKKDNVVFFDNFSSCGTATAVSLPCMFSISKRE

NYSSSEFQENAMDVLYKTGVDAVWFDNNSGGCKGVCDRLAYKQKLSSDLDENLLAPFKEKLNHLSDQNII

VLHLQGSHGPTYYKRYPSEFKKFTPTCDTNELSKCDSEALINTYDNTLLYTDYLLSEIIKLLKEQKSYES

SLFYLSDHGESLGENGIYLHGMPYAIAPSYQTHIPAIFWSNDKNLMNLAKEYKGLKLSQDNLFSTLLGYF

DVKTSVYEPEYDLLNPKLKANP

>AHK54910.1 exodeoxyribonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLLSWNVNGLRAICDKNALDWIAQEQIDFIGFQEIKAHEDKFPKKIYEYPFKHMYFNSAKRAGYSGVMS

LCNFNSEVKKCEFFDDEEGRVLEHRFKNIALFNIYFPNGQKDEERLNFKMQFYADFLVYLDKLLKDGFEI

IICGDVNTAHKEIDLTHPKANANTSGFLPIERAWIDDLLKLGFIDTFREINGEIKEKYSWWSYRMKARER

NVGWRIDYFFISKGLKDKLKNAFIRDDIFGSDHAPVGIEIDI

>AHK54909.1 hypothetical protein N917\_01230 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNTLIIFENSLSNLGKDEASDLLEDLSFNLAYKQISHNPHETKKVLNSLLVEFLTILKKLDFFDDENVT

KVIKALVKASIVDAQNSLYEYISEAELLNKQIENQKNLIKNQISDNFFEFENILQECSFCDEFSGGLNDA

ILFDIEMLGILKETAESAFLTTLEKAEDIELTSSEIAKNLVYNAICEAHFEKERILKISSIILNTAFEIA

NESMAYAKDLCLGVIKGTRDGIVLAMEKFKASLTYANFEEDVSLKSKELIGIEDDFIALLKKEIQLQNDP

CKSIVENLLEHELDNLFAKFRRLAGESREQLILVLNDIKKNPKINDFNKLTQRKLNRFKQEIFELEKIAS

EKYKDLNSKKAKKLGVRLWEKAKKFVKK

>AHK54908.1 hypothetical protein N917\_01225 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVNLCDLKKEPQINYPTFWDYKVIFEVHVKASEIFEEILGQREYKFKHSNSSASGKYQSYLLNVYVDSKK

DRLDIFDKLKAKAKFVL

>AHK54907.1 molybdenum cofactor biosynthesis protein C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLSHLDEKNHPKMVDVSDKNITLRIATASGIIYMSQEAFDVIKNNTAKKGPVLQTAIVAAIMGVKKTSE

IIPMCHPLMLSKVETNIVEFVKECAFKLIVTVKCEGKTGVEMEALSGVSIGLLTIYDMIKAIDKSMRITD

IVLESKEGGKSGKFVRS

>AHK54906.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKTLNQKDIKVLGLSSLGGTLEFYDFIIFVFFANYISTNFFPKDLSSFWQMFNTYGIFAAGYLARPLGG

VILAHFGDKFGRKRMFMISILLMVIPTFTLAFIPNYESIGFLCIVLLVFIRICQGIAIGGELPGAWVFVY

EHAPQGQKRTYLGILTASVVGGILLGSLVFLIMNKIYTQEELHEWAWRIPFFLGGIFGIISAYLRKFLRE

TPVFEQMKKDKALEKFPLKEVFKKAKMGIVLSMMITWVLTGCIVVMILLMPSYMAKILQINTSIQTYLQI

GGILLICLGCIISGILADKIGVIKSCVFFSVFFGIASLLYFNTLYRQNADFNLVACLYLLVCFFSGVMNF

CPLIMSEVFDAKIKFSGLSFSYNIAYAIAGGLTPQLAFFLHSFALNNLSNFWRFSLGLYVFFLAIIALLC

AFIFSYLNNTQRTYSQ

>AHK54905.1 cysteine permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKSLILPPNEFLDHYILNAEFHRFAGISKNAYKFWKNAEIGRYQGTRIIFLHRNCILEKHQQALRQCSGL

NGFVLASAFCSFTGLAPSHLVEKNNSSIYKLLELKEICGIKFVNLKKFYDFLGLNYHQHIYIEKCHFFSP

APFEKRIKITESMCVGYY

>AHK54904.1 hypothetical protein N917\_01200 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIGDMNELLLKSVEVLPPLPDTVSKLRKYVSEANSNIETMKVAEIISSDPLMTAKLLQLANSPYYGFTRE

ITTINQVITLLGVGNIINIVMADSIRDNFKIDVSPYGLNTQNFLKTCNEEATFIANWLNDEDKKLSHLLV

PCAMLLRLGIVIFSNFLIQNHKDKDFLAFLNKNENLALAENEFLGVDHISFLGFLLHRWNFDDVLIESIC

FVRTPHAAREKVKKSAYALAITDHLFAPHDGSSPFNAKAAVALLKEAKTQGINFDLNNLLSKLPNKAKEN

LNKED

>AHK54903.1 50S ribosomal protein L20 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MARVKTGVVRRRRHKKVLKLARGFYSGRRKHFRKAKEQLERSLVYAYRDRRRKKRDFRRLWIVRINAACR

LNDLSYSRFINGLKKAGIELDRKILADLAMNDAAAFAKIAEAAKKAL

>AHK54902.1 50S ribosomal protein L35 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPKMKSVKSAVKRFKVGKNKIKRGSAFRSHILTKKPAKRMRGLRTAKYVHSTNVKAVEKMLGI

>AHK54901.1 hypothetical protein N917\_01175 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTINSANPYQNLTLSNPLQNSSALNLIKDSKALDQEGNENSLEQLSYIFNNTTYASEFGFRINEEGFFDK

DLNKIANIPESYDINIKSVRSIAKELAKQDENLNYNKIDLPYLLNSYHSSLKSINSEFLQDDNAYLSRDL

ISKLSSGFSTDNGEFLGQISRIYNNQEEIDLALSNITNLNTLMLDNKITNFHFDKAIENTSSNEILKPYL

TKNAEVSKSGLLMNFIYHDIKTQNEKEFNFFMKPATLELSSHQNLQKILKGETDIEDYIKKENEKKMSFD

LYLYINGVDKKTSTQDKLSVFFQQYINYQKDMDLREFANSSSIFQIYIDQNRNDFDALKKQYQNQSQDTQ

RLEEANQLRSSSIENFLDRRQKQANINKILNSYMSVMV

>AHK54900.1 bacteriohemerythrin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTYNEKIISMNNDLLDHQHKELFEISKKLSLMNQRHVGTKELKIVLRELLIMINRHFSDEEAFMREIEYP

YINHHTRIHRKIILEIEEIIISEAKFVNIMTEKLNLVVQDFIFKHTAKEDSKIVKYYEEKFKK

>AHK54899.1 cysteine desulfarase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVYLDNNATTMLDPNAYELMLPFLKDMYGNPNSLHQYGSATHPALREALDKLYAGLGANDLDDIVVTSC

ATESINWVLKGVYFDHILDKERNEVIISSVEHPAVTAAAYFLKSLGVKVIELPVNEEGVSTVEDLRKVIS

DKTALVSVMWANNETGMIFDIKAMAELAHEFGALFHTDATQAVGKIKVNLTQVGVDFASFSAHKFHGPKG

VGGLFIKKGLKLTPLLHGGEHMGGRRSGTLNVPYIVAMGEALRIANTMLDFEDSHIRRLRDKLEDQILAL

PDTTVVGKREHRVPNTILASIKGVEGEAMLWDLNKNGIAASTGSACASEALESNPIMEAIGAEHDLAHTA

LRLSLSRFNTEEEIDYAAKQIKNATQRLRAISCTYAYNPNNYK

>AHK54898.1 nitrogen-fixing protein NifU [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGKNSLIGGSIWDEYSQKVQDRMNNPQHMGEFSEEDAKARNAKLIVADFGAESCGDAVRLFWLVDEKTDK

IIDAKFKSFGCGTAIASSDTMVDLCIGKTVDEAVKITNLDVEFAMRDNPETPAVPPQKMHCSVMAYDVIK

QAAAHYKGISPEDFEDQIIVCECARVSLGTIKEVIKLNDLHSVEEITQYTKAGAFCKSCIKPGGHEKRDY

YLVDILAETRAEIDREKLKNTMKSDVAFDEMTVVGQLKAVESVLDAEIRPMLHNDGGDLEVIDIQKAEGA

AIDVYIRYLGACSGCSSGSGATLYAIETILQEELSPNIRVMPV

>AHK54897.1 mechanosensitive ion channel protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIIFSLCFFILHLGAQEFKFIDANISKEDEGIYALVEKYVDLNNQIKEFKKNNDENSSTFNGILSEFE

KDKKTILAKIPDMIVGQKINEEAVARFLKAKEKLLDVQKKNINKPYIYTDATLNLVYFNIVESFYSSLFE

VEKLFKNTASSEDLIATVDKAMENLQNSSNVNLDSFKSKITNPEELEKITLKERYISNAVDSYSEILKYL

RSNADLLESNYIFSLLELQVWIDRINEAIGVSFVNIGKIVISALVLVFFISLRRFFANIVYFFLVQLFYR

NKNDVDDIKVIFIENIKKPVGFLLIVYAISLCLTIATYPAPLSVNLSNFFHIVYAVLIAWLILRMLDGYG

VVLVSKLAQKSGKKEVVNLIIKILYFVIIIIALLYILAQLGFNISAIIASLGIGGLAVALAAKDIIANFF

ASILLLFDNSFNQGDWVEVSGIEGTVVETGLRKTTIRTFDNCLVFLPNSTIMGANIKNWSKRRMGRHVRM

YLGVGYDATPEKLEQCVKDLREFLHTSDLVAHDEDSALKYGDHTTKYRQNLVSINDLEGYKNACYVALSE

FADSSINIELYFYIKEIGGKDFREARQSLMLEFMRIIEKNGLTFAFPSRSIYIENLPPLDLQAKAIK

>AHK54896.1 carbonic anhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENLISGAIKFMQEDFKEHEELFESLKNKQNPHTLFIGCSDSRVIPNLITNTGPGELFVIRNIANIVPPY

RVGEDYLATTSAIEYALNSLHIKNIVVCGHSNCGGCNALYYSDEELNKIPNVKKWLTMLDPIKKDVMIFA

RDDLAMRSWLTEKLNLVNSLQNILTYPGVQEALDEGKIEVHAWYYIIETGEIYEYDFKAKIFTLIQDRKV

Q

>AHK54895.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSLYDRDYSRSKEFENTRSSELSIFIKQTYQLFAASLLAATVGAYVGIFALASFFIQSQVTFWILFAVEI

GLLFALQWKKREAPLNLVLLFGFTFCSGLTLTPLLISVLALPAGGIIIAQAFALTTVAFAGLSVFAMNTK

KDFTVMGKALFIVLIVIVAASLLNLFFQSSIVNLAISAVAAILFSFYILYDTQNIIRGNYETPIEGAVAL

YLDFVNLFVSLLNILRSFNSR

>AHK54894.1 preprotein translocase subunit SecG [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MITLLIILQFIIVVVICIAVLLQKSSSIGLGAYSGSNESLFGAKGPAGFLAKFTFVMGILLIANTIGLGY

LYNKASKDSLAEKIKVENNNTTIPSAPIVPTTPNTNSIAPSAPQLPSDVNSSK

>AHK54893.1 ribosome-recycling factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNEIFNKQKTQSEKSLEALKKDFTTLRTGKVNIHILDHITVDYYGTQTPLNQVATVLASDASTISITPW

EKPLLKTIESAIAAANIGVNPNNDGESVKLFFPPMTREQREENVKQAKAMGEKAKVSIRNIRKDANDAVK

KLEKDKAISEDEAKKAYDEVQKLTDTYTTKIDEGVKSKESELLKV

>AHK54892.1 orotate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLEQIYKDCGAYLEGHFLLSSGKHSQFYLQSAKVLEDPKLAAKLCDELAKIIASYKIEFDSICSPALGG

ILAGYELARACSKRFIFTERVNKEMTLRRGFEVKKGEKFIICEDIITTGGSALESAKIIESLGGIVVGFA

ALANRGFCAVENLKSPRKDNAKLPENLPLFTLGNFEFEIYDETNCPLCKKGNKAIKPGSRGN

>AHK54891.1 ribonucleotide-diphosphate reductase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQRKRIYNPSSNETLGDRKVFDGNPHGILNFTKAKYTWALKLWDLMEANTWFPKEVDTTKDALDYRCNLT

AGEKRMYDLVWSQLISMDSFQTNNLADNINPYITAPEINAVLARQAYEEANHSKSYAVMVEAICDNTDLI

YEMEKHDETLREKNDFISSIYEELAGDVDDNKLLLAMVANQILEGVYFYSGFTAIYALARAGKMLGSAQM

IRFIQRDEITHLLLFQNMINSVRKERPDLFHDENINKIYDMFKKAGDLEIKWGKYITQNQIMGFTDDIIE

EYIHYLVDQRLSAINLDKLYNAKHPIKWVDDFSKFNDQKSNFFESKVTNYSKGSISFDDF

>AHK54890.1 nicotinate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTSKTSLALLCDFYEFTMSQGYFKNNKKDQICYFDIFFRKIPDSGSFAIFAGLEDILDFVENLSFDAEDI

EFLRKQGIFDTEFLDFLANFKFKGEIYAMREGEVIFPNEPLLCIKATTIEAQLLETFLLLSLNHQSLIAT

KTNRIVRAAKDSKILEFGSRRAQGSEAALKGARAAFIGGCIGSACTLAGKIYNIPINGTMAHSWVQMFEN

ELEAFKAYVKIYPKNPVFLIDTYDCLNSGLKNAIKVFKEFGIQEGGVRIDSGNLLELSLKIRQELDQAGL

QKCKIIVSNALDEWSIKKLKEQNAPIDIFGVGERLITASSDPIFSCVYKLAALEDQGIKPKIKISENNEK

STLPHFKKLFRVYDKNTQKILFDELYVFDENPNQDENLERKELLELVYKEKRLLKKSSLNTIQDYTKEQI

SKLDESFLDLDRFVKFEVKLSPKLQNITEDLLKTRF

>AHK54889.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLIKFKNHSPKLGQNVFVAEGAKIIGEIEIGDESSIWFNCVLRADVNFIKIGKRTNIQDLSTVHVWHREF

DEKGKLKDAGFPTIIGDDVTIGHNCVIHACVIKNRVLIGMNAVIMDNALIEEDSIVGAGSVVTKGKKFPP

RSLILGNPAKFVRELNDEEVSFLKQSALNYVDFKNEFLKDLQ

>AHK54888.1 protein-L-isoaspartate O-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNAFEQKRCQNMAEEIAQKVFINEELFNAFCQIPREIFSPLKAHAYRLDALPLANSQWISSPLTVAKMTM

ALDFKNADSILEIGCGSGYQAAILSKVIRRVFTIERIENLAKKAAQTFRELELFNINVKFDDGQNGWKNY

APYDRILFSAYATQIPEILLDQLSDDGILVAPILHNGKQFITRLRKNGTNLQKEILEECLFVPIVDGKE

>AHK54887.1 acetylornithine aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDYKEQSHIIPTYKRFDIVLEKGQGVYLFDDKAKKYLDFSSGIGVCALGYNHAKFNAKIKAQVDKLLHTS

NLYYNENIAAAAKNLAKASALERVFFTNSGTESIEGAMKTARKYAFNKGVKGGQFIAFKHSFHGRTLGAL

SLTANEKYQKPFKPLISGVKFAKYNDISSVEKLVNEKTCAIILESVQGEGGINPANKDFYKALRKLCDEK

DILLIADEIQCGMGRSGKFFAYEHAQILPDIMTSAKALGCGLSVGAFVINQKVASNSLEAGDHGSTYGGN

PLVCAGVNAVFEIFKEEKILENVNKLTPYLEQSLDELINEFDFCKKRKGLGFMQGLSLDKSVKVAKVIQK

CQENALLLISCGENDLRFLPPLILQKEHIDEMSEKLRKALKSF

>AHK54886.1 acetylglutamate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKYLEKANVLIEALPYIRKFNSKIILIKYGGSAMENEELKHCVMQDIALLKLVGLKPIIVHGGGKDISA

MCEKLGVKSEFKNGLRVSDKATIEVASMVLNHINKNLVHSLQNLGVKAIGLCGKDGALLECVKKDENLAF

VGTIQKVNSKILEELLEKDFLPIIAPIGMDENFNTYNINADDAACAIAKALRAEKLAFLTDTAGLYEDFN

DKNSLISKISLEQAKILAPKIEGGMHVKLKSCIDACENGVKKVHILDGRVKHSLLLEFFTDEGIGTLVG

>AHK54885.1 N-acetyltransferase GCN5 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLIRAMQKSDYEAVYKLWCEIKGFGIRSIDDSKENIENFLDRNPNLSVVAVIDEEIVGSILCGHDGRTGG

FYHVCVHKDHRKKGIAHEMAKFCLEALKAQKINKIALIAFKNNDLGNEFWKHYGFTLREDANYYDLSLNE

YNQTSFNA

>AHK54884.1 N-acetyl-gamma-glutamyl-phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIKVGILGASGYAGNELVRILLNHPKVEISYLGSSSSVGQNYQDLYPNTPLNLCFENKNLDELELDLLF

LATPHKFSAKLLNENLLKKMKIIDLSADFRLKNPKDYELWYKFTHPNQELLQNAVYGLCELYKEEIKKAS

LVANPGCYTTCSILSLYPLFKEKIIDFSSVIIDAKSGVSGAGRSAKVENLFCEVNENIKAYNLALHRHTP

EIEEHLSYAAKEKITLQFTPHLVPMQRGILISAYANLKEDLQEQDIRDIYTKYYQNNKFIRLLPPQSLPQ

TRWVKSSNFADINFSVDQRTKRVIVLGAIDNLIKGAAGQAVQNMNLMFDFDEDEGLKFFANL

>AHK54883.1 DNA modification methylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKENPSFLKEQIITYLGNKRALLSFLNNGFKVAKKELGKDKFSFCDIFSGSGVVSRFAKAHSNYILANDL

EDYSKLINECYLANKDKDLLQNIKKYYKNLIQNLDFQKGFISELYAPKDDDDIKKNERVFYTFKNALYLD

TIRQKIENEIPKELRHFFIAPLIYEASVHSNTSGVFKGFYKGKDGIGKFGGEGQNALKRIKGEIELKMPI

FSNFSCEFEVMQKDANMLAKELDFFDVVYLDPPYNQHPYSSNYFMLNLIANYKKPEEISKISGIPKDWNR

STFNKSKFAQDALFELINDLKARVILLSYNCEGFVKKEIFLKRLSTLGKCRILEQKYNTFRASRNLKNRN

IHLHEQLYILVKN

>AHK54882.1 translation initiation factor IF-3 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKEKEVLLNEEIRADEIRCVGDDGKVYGIISSDEALEIANRLGLDLVMIAADAKPPVCKIMDYGKFRYQ

QEKKQKEAKKKQKVIDIKEIKLSVKIAQNDINYKVKHALEFLEQGKHVRFRVFLKGREMATPEAGVALLE

KIWTMIENEANRDKEPNFEGRYVNMLVTPKKA

>AHK54881.1 threonyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKEVIAYLDNETIIDSQSVKNTNLKEIYFDNSKESLEVIRHSCAHLMAQAIKSLYPEAKFFVGPVIEDG

FYYDFRVESKIGEEDLVKIEKKMKELAEAKIEISKYEITKSEALAKFQNDDLKQEVLLRIPDRAVSIYKQ

GEFEDLCRGPHVPNTKFLRFFKLTRVAGAYLGGDEKREMLTRIYGTAFADKESLKEYLTIIEEAKKRDHR

KLGTELKLFTFDDEIGGGLPIWLSNGARLRSKLEHMLYKIHRLRGYEPVRGPELLKADAWKISGHYANYK

ENMYFTQIDEQEYGIKPMNCVGHIKIYQSDVRSYRDLPLKFFEYGVVHRHEKSGVLHGLFRVREFTQDDA

HIFCMPSQIKEQVLEILAFVDNLMKLFDFSYEMEISTKPEKAIGDDEIWEIATKALKEALDEQGLKYGID

EGGGAFYGPKIDIKITDALKRKWQCGTIQVDFNLPSRFKLEYTDSDNEKKQPVMLHRAILGSFERFIGIL

TEHCAGEFPFFIAPTAVGIVPIGEAHIAYAKEIQKELLELNIDSEVYEKNESLSKKIRIAEKQKLPMILV

LGDDEVAKRSVALRDRRAKEQKNLSLDEFIKLVKEKMSEVHF

>AHK54880.1 UDP pyrophosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENLYALILGIIEGLTEFLPISSTGHMILGTTILGIDIDEFWKSFLIIIQLGSILAVIFVFWRKLFQGLD

IWLKLAVGFFPTGVIGLFVAKYLNALFNGWVVVGMLIFGGVVFILIELAHKNKQYRINSLEEISFKQAFC

IGIFQSLAMIPGTSRSGASIIGGLLLEFNRKVAAEFSFLLAIPTMIIATAYSIYKEPELLGNANSLIPLG

IGFITAFIVAVLVIKFFLKFISKFDFIPFGIYRIILGFVFFYLYYSGILNAGSEFKL

>AHK54879.1 peptide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYKKQNLPELTLRGLILGSILTIIFTASNVYLGLKVGLTFSSSIPAVVISMAVLSLFKTSNILENNMVQT

QASAAGTLSSVIFVIPGLFMCGYWSEFPLWQTFMICLCGGGLGVLFTIPLRRTMVVESKLAYPEGRAAAE

ILKVANKDQSSKKGKQGIKEIALGSFIAAIFSLLSNGFKLAASESNFAFIWNKMAFGFSMGYSLALLGAG

YLVGLAGAIALFVGMFLAWGIFTPYLSNFEFDSTKNAVDLASSVWSSKVRLIGTGAIAIAALWTLIELLK

PVIEGIKEIVKNVKITNQEKNERTNIDLSLKSIFILFVLMVVGLFITFYSFVEDANLSIYYQMLFSFVGT

LVSVLIGFFVAAACGYMAGLVGSSSSPISGIGLIGVIISSIVFLVLGVELFQDPMLSKFAVALAIFTTSV

ILATAAISNDNLQDLKTGHLVGATPWKQQVALLVGCVFGALAIVPVLNLLYQAYGFVGAMPREGMDASSA

LAAPQANLMSTIAQGIFHHNIEWGYMAFGVFVGILMIIIDKILKGTQKMSLPPLAVGIGIYLPPAVNIPL

VIGGILKYIVMQHLTKKYAKNSHKEEKLASCEQRGTLFASGLIVGESIFGVIIAGITVFSVSMGGSENPL

ALNLANFHDSELFALIFFVGVVLYFIKRIVKKDA

>AHK54878.1 hypothetical protein N917\_00995 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKSILFASALLASSMLFADSLKLEGTIAQIYDNNKTLLIDSIYGGQMAIKVLPNTEIEMDDCGIFGTDK

DGTFKDLQVGNFLESKISYGTPATPNTQAIPVARKIEIQCYKKAY

>AHK54877.1 hypothetical protein N917\_00990 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKWIFIVFCFILGFIIHIFYIGYTNELLFNKFIKNSNPDYTITDIYFKKGFLTSKGSFTLNHSHTQLST

KINLKFNNYFFLNKIIKGNFTNPFDFLDEVLKNNKLGTFTLKLHDNNSKIFLNIKDINLSNEGGDTIING

GYIEVLMNKNLEIKNMKIHFDMINFSQFYTKFVLQNLNYEQFFNNPVQFYELNLFSDSQQEINFDYLVLD

NNKINSFYSKNQVNFNEENSAVNLNIQGKSNEIDLKSLLGQNLNFDKTKFNITINKFFNSNFNISHFIQK

NLDLKIQNLILEKNKQNISLQGNLNINNSYQAKLQVISSDEPDEIFPWTKDYGGLNQYFLKENNNFFLNL

SYDSLANPQLKINGSEFSNMDLN

>AHK54876.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSLALTFRPENFDDILGQYELIEIFKKFTALQKLPHSIFFGTAGSGKTTFARVVAKEFGLDFYEFDGGNF

KLEELRKILDNYKNSLYKPLIFIDEIHRLSKTQQEMLLIPMENYRLILIGASTENPYFVLSSGIRSRSML

FEFKSLGAKELETLLLRVQEKMKFSIDKEAKDFLLKSADARAMLNLLEFVLVLDEKHISLENLKKLRNTI

NSEGVSSKDTHYILASAMIKSLRGSDVDAAIYYLARLIDAGESADFIARRLVIFSSEDVGNADPNALNLA

VSTLDAVKNIGYPEARIILAQCVVYLASTIKSNASYKAINEALNYVKNNEALEIPNYLNNNHQEKQNYLY

PHDFGGWVEQKYLGKNLKFYHSKGLGEEAKLLDNLYKLKNHKA

>AHK54875.1 dihydrodipicolinate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIKIGIYGAKGRMGKQIEECLKSETQARISILYDKGGNLGELFEKSDVIIDFSSPSGTHELLNYARTMPK

PLVIGTTGLDEKILHLMQSASEVMPIFYATNMSLGVAVLNYLASKASQMLRNFDIEILEMHHRHKKDAPS

GTAMTLAQSVAKARNLELEKVRVSGRDGIIGERSKDEIAVMSLRGGDIVGRHTVGFYEDGEFLELNHTAT

SRATFAKGAIKIAIWLSKQEAKMYSINDFLGI

>AHK54874.1 amidophosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MCAVVGVINSKNASTYAYYALFAMQHRGQEASGISVSNGKNIKTIKAKGEVSQIFNPDNLKTLEGEIAIG

HNRYSTAGNSSLNDAQPIAATSVLGDIALAHNGNLVNKEEVRSRLIQDGAIFQTNMDTENVVHLIARSKQ

ESLKDRFIESLKECIGAYCFVLASKDKLYVVRDPHGVRPLSLGRLKDGGYIVASETCAFDLIEAEFIRDV

KPGEMLIFTQGNDKFESIELFSQTPRICAFEYIYFARPDSIVEGKSVYEVRKKMGEALAKKFAYKADFVV

PVPDSGVSAAIGFAQYLQIPLEMAIVRNHYVGRTFIEPTQELRNLKVKLKLNPMRKVLEGKEIVVIDDSL

VRGTTSKKIISLLRAAGASKIHLAIACPEIKFPDTYGIDTPTFEELISANKNAEEVREYVEADTLSFLSI

EELTQSIGDERKYSLISFDGDYFIK

>AHK54873.1 ATP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLEKLRSKLGKENLSAIFGEITKISATSIEIRGLKTGVGDIVKLVSNENENLNTLAMVVEIKEQFSYLS

PFSFIEGFKIGDRAFISDAGMQIGVSDELLGRVVDPFMRPKDGKGAIEATKYMPIMRAPIDAMKRGLIEE

VFPVGVKTIDALLTCGVGQKLGIFAGSGVGKSTLMGMIVKNSKAPIKVVALIGERGREIPEFIQKNLGGK

LDDTVIIVATSDDSALMRKYGAFCAMSVAEYFKEQGKDVLFIMDSVTRFAMAQREIGLALGEPPTTKGYP

PSVLSLLPQLMERTGKEEGKGTITAFFTVLVDGDDMSDPIADQSRSILDGHIVLSRELTDFGIYPPINIQ

NSASRVMSDIISPEHKLWARKFKRLNSLLKENEVLLRIGAYQKGSDKELDEAISKKEFMQKFLGQNPEES

FEFNQTLELLSQIDTPNTPLPPTQNINVGSASATLPNPNLK

>AHK54872.1 GTP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKKFEDCVKTMLEIIGENPNREGLIKTPNRVFKAYEFLTSGYTQNVKEILNDALFESSNNEMVLVRDIE

FYSLCEHHLLPFFGRAHVAYIPNKKVVGLSKIPRLVEVFARRLQIQEQLTEQIAQALMENVDAKGVGVVI

EARHMCVEMRGVQKANSTTTTSALRGIFLKNEKTREEFFSLINSAKQVRF

>AHK54871.1 trigger factor [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEVKAKQLDSVNATASVKIPSGMIKSEVENLAKKASKSVKMDGFRPGKVPVSAVLKRYERELTQDAEQNL

FKSAVNSALQELKKENKELVGEPYFEKFDRKDGEIIAELILSFKPEIKLEGYEKLIPEYQTPKVSKKEID

EKKDELLKRFATPEAIKTKRALKEGDFAKFDFEGFVDDKAFEGGKAENYVLEIGSKQFIPGFEDGMVGMK

IGEEKDIKVTFPKEYGAAHLAGKDAVFKVKLHEIQELKIPELDDEMLKKLLPGEEKASVEVLDEKLKEQI

KNEKLFKLVNDELKGKFADALIEKYNFDLPKGIVEQETDMQMRAAFNTFSEKEIEELKASKEKYQEKRDS

FKEEAQKSVKLTFIIDELAKLRKIEVNDQELIQAIYFEAYRYGMNPKEHLENYKKQGALPAVKMALIEEK

LFNDIFIPKTEKSEKVSKKEKEDK

>AHK54870.1 ATP-dependent Clp protease proteolytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFIPYVIEKSSRGERSYDIYSRLLKDRIIMLSGEIHDELAASIVAQLLFLEAEDPTKDIYLYINSPGGVI

TSGFSIYDTMNYIKPDVCTICIGQAASMGAFLLSCGAEGKRFALPNSRIMIHQPLGGARGQATDIEIQAK

EILRLKTILNDILAKNTKQKVAKIAKDTERDFFMSAQEAKEYGLIDKVLEKSFK

>AHK54869.1 peptide deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVRKIITYPNPRLFLNSEIVNKFDTELHTLLDDMYETMIASNGVGLAAIQVDIPLRVLLVNIFDENDEQK

KEDLLEIINPEIIPLDEEMITCTEGCLSVPDFFEEVKRYNHILLKYQDRFGEFKELEAKGFLAVAIQHEN

DHLNGHLFIEKISFAKRQKFDKEFKKKKKNHKKEK

>AHK54868.1 Fis family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKLKCISFHEGLDIIEVESTFTRGLPNLSIVGLASTAIKESVERIKATLLSCDFAFPAKKITINLSPSG

IPKKGSHFDLAIALLILLQNEELDDFFVVGELGLDGSIKSTNELFSLLLFLSAKIKKAKIVVPKSIAQKA

SMIPNLEVYGLENLNEAIEFFKEKNYENFRFSHNHPLFANPLQIENEIFLQNMDFKLDFKDIKGQEKAKR

ACMIAALGMHNILFEGSPGSGKSMCAKRLVYIMPPQSLSEILMQNAYMSLDSKDCEFTKIRAFRHPHHTS

TRASIFGGGTKNARIGEVALANGGVLFFDEFPHFNKQIIESLREPLEDHKIHISRVNSKITYETKFSFIA

AQNPCPCGNLFSKNLSCVCSENEIKKYKNHISAPIMDRIDLYVAMDEISKDDKTSISSKEMSEKILQAFI

FSKKRGQKEFNGKLKDEDLSRFCVLEKDAKDTLDLAISRYNLSLRSLNKILKVSRSIADLEQSLNISKTH

ILEALSFRARN

>AHK54867.1 hypothetical protein N917\_00940 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENKSIAIFIDAENIPAKYAKSIFDIASDYGEVIIKRIYGDWTQKNIQGWREQIAEYSLIAMQQFNFAAN

KNSSDMYLITEIMSIFYEKNIDIFVIVSSDSDYTSLIQKLRENKKQVIGMGLEKSIKSYVNAFSEFFYLD

KDESKKEDILSKDYLRALINITEQLIDEKGRAEYAQIRTNMNRKYSDFHPQNYGFKNFRALIQKFLPKMK

KFEEEREKNIYFLVKKDYESYY

>AHK54866.1 kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKAIIDNIKILEQNAINKGLDELILMENAGLNLAKLIKKEAKKIRIQRKIRKVKILFLLGGGNNASDGLV

ALRNLKHAKAYKIGFKENTLFKKQEQILQNYAFKFCKKEPNFKKFHIIIDCILGTGSNRCLDEKTSLIIQ

KVNQSKALKIACDIPTNLGFYPCFKADITFCMGALKEILLEDFAKEFVGRIKIANLGIRSKKFYPNSQAF

LLEKKDLKTIDRKINANKGNFGHIYIVANASAGTLAGLGALNFGAGLVSLVAQKSFSPLLMLKEKIENNA

SAIALGMGLENLDFLKDEILQNTPLILDANCFLSEALLWYLNRKDVVITPHPKEFIKLYKMCFDENLDIE

TLQKNRFFYARKFSQNYDCVLVLKGANPIIVQKEKLFVVNLGNQALAKGGSGDVLSGMIAAHLGFGFSAL

EAAKNATLAHGLVAKKYKFNKNSFDALKLIKGLKCL

>AHK54865.1 phosphoribosylglycinamide formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLVKLAVLFSGNGSNLENILEKLHKKTIGENTYEIVLCLCNKKDAFGIQRAKKFGLNTVIIDHKAYNTRE

EFDTILVQKIKESGANLTVLAGFMRILSPVFTKNIKAINLHPSLLPLFKGAHAIKESYESDMKVAGVSVH

WVSEELDGGMIIAQKAFEKRNLSFEEFEEKIHSLEHEILPLSVIEIFS

>AHK54864.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFEWIFSIDAWITLATLSALEIVLGIDNIIFLAILVSKLPPEHRDKGRILGLAFAMITRILLLLSLFWVM

KLVTPLFSVLGNEISGRDLVLLLGGLFLIVKSIKEIKEQISHQEESQSHFKASNKLWIVVAEIAVIDIVF

SLDSVITAVGIAQDVTIMIIAVIIAVAVMLFASKPIADFVEKYPSIKILALAFLVLIGVVLVAESFDIHI

DKAYIYTAMAFALVVQILNILDQKKEKNG

>AHK54863.1 serine/threonine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRILLVLRGNYYAGQEEFIKNNKLQNYTLDLNALRLLSGSVKNIVSEYKILNVKNDEDLSKILLKLLEMR

MQKGEFSIINAYNETLKIYKDLAKQYRYKIYVIVFDSSLKQCQEKNLLEAKKNGYIIPYALLEKTQDLLK

KNPKKYPILDSRDWKKCLYQMPNLSKYKKIHHIGDLQGCYSVLKEYIKTIKEDEFYIFLGDYINRGIENG

KVIKFLLKICEKENVCLLEGNHERHLIKWANGELSNSKEFNENTLKDFRKEKLTPRDARKLYPHLKECLY

YKFQNKFIFCSHGGVNFIPSKPEKISFIPSHDFIYGVGGYEDSQKVANQFCNFTSDNLYQIFGHRNKEKL

PMKIAKRVFLCEGKIDDGGYLRVVTLDEKGFECIEIKNQIYKKK

>AHK54862.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFSSFFKSKKWALWAYLGLFLLLFFLYIQTSLNVAINSWYSDFYNVLQKPKIELLDSNSTQKIEENLENN

ATLIQEANQRAEQNFQKANFINKGALYYYQNLLEYFFNSRAMIEKPNYSASDFYALILVFLAIAIPYVLI

ATINIYFASVYAFKWREAMTFSYLKFWKNKDDNIEGSSQRIQEDTYNFSKIVESLGLSFIKALMTLVAFI

PILWSLSDVVSKALFANLSENSFFYFLKNIDGLLVYIALLISLGGLVVSWFVGIKLPGLEYNNQKAEAAF

RKELVYAEDNRKEYAKNETMIELFTGLKFNYKRLFLHYGYFNIWLILFEQMIVIVPFLIMAPGLFAGAIG

LGIVMQINNAFDQVRSSFSIFITNWTTITQLRSIYKRLKEFEKNISYKS

>AHK54861.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKKCFYFVFLLLNLNAEANATDTNLSFDSSKIETEAPKIELSLSSLYQNADEVVKGVIYILVLFSILAW

AVFISKLMQFYFMKKNLDLSIQKIKELKNLNELDQTKDFAGVLSLEIQDELEKSEYKNDHIKERIELRLQ

NTISKQITASKNGLSLLASIGASAPFIGLFGTVWGIMNAFIGIANLGNASLAVVAPGIAEALFATAFGLI

AAIPAVLFYNYLTRKNLKLMHHLDELANFVYILFHRSYFNDKN

>AHK54860.1 hypothetical protein N917\_00875 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSMKKIILFLLCVGFAFACSEHSHTDFKDLNKTEYNSQLKDKI

>AHK54859.1 iron deficiency-induced protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIFFMFLTAVSFLGASELNIYSARHYNADFEIIKKFEEKTGIKVNHTQAKASELIKRLSLEGSNSPAD

IFITADISNLTEAKNLGLLSPVSSKYLEEFIPAHLRDKDKEWFAITKRARIIAYNKNTNIDISKMKNYED

LAKAEFKGEIVMRSATAPYSKTLLASIIANDGNKEAKAWAKGVLENLATNPKGGDRDQARQVFAGEAKFA

VMNTYYIGLLKNSKNPKDVEVGNSLGIIFPNQDNRGTHINISGIAMTKSSKNQDAAKKFMEFMLSPEIQK

ILTDSNYEFPIRNDVELSQTVKDFGTFKEDQIPVSKIAENIKEAVKIYDEVGFR

>AHK54858.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYKTLKYYKLGAILLALFLALPIFGIFAELFYILFQNFNTSDLTQFSSIKENLSHFFDYLFLKFIKDTFI

ISMGVLCLSLILGVSSAYLIANYDFYFCKILEKLLILPLAIPAYILAFVYVGIMDFQGFFHENFGFRIDF

FNHYGVIFVLAISLYPYIYLFAKTAFKSEAKEAYEVAKIMKYSEFRIFTRVALLSARPAIFSGALLVLME

TLSDYGASAYLGVDTFSAGIFKLWYDLNDSYSSSVLSGILMLFVFLIMYVDYYYKNKHHYSFNQNLALFI

KKRKLNPIKQILSCIYCFMIAFVGFILPFIWLVYWGLKDHKLFESQFYIISFQTIILALITALITTFLAY

FLMFSSRIVKNHFFNLFILKISSLGYSIPAAALGISIIVLFVFLDKFFHMSLLGNSLLVLVFAYIIRFLA

SAIYSLEGGYNKIHLNIDEASLNLRTSYFILFFKIHTPLMKHFLFLAFIIVFIDTIKELPLSRILAPFGF

ETLSVKAFWFASDERIYDAALPSLFIVFLSLMVVVWMDKITRKDDVRN

>AHK54857.1 spermidine/putrescine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLEIKNLSKNFGKIQALENINLHVKEGEFLSILGGSGSGKSTLLRIIAKLEQASSYDLFSCKGEVALMFQ

NYALFPHLNVEKNILFALYDKKDKNQILNHLLKTFEIEDLRYKKIDEISGGQAQRVAFARAMARGCKLLL

LDEPFSNLDQNLKQDLRRELKKMIENQGITAIMVTHDIEDAYCMSDQIAFLEKGKILAHANPKELYFKPD

FKSAQILPDLNIIEEKLDLEDEFFAWIASKNYIFGYAELKIGNRFEAKILQKEFLGAFCRLKLLYKNIIF

FILVSSSYDLEEKISFDIINF

>AHK54856.1 saccharopine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNLLIIGAGGVSRVATVKCAMNSDTFSKITLASRTKSKCDEIAAFIKERLGVQIETAQIDADDSNAVVE

LIKKTEAQILLNVALPYQDLSLMDACIKAGIDYIDTANYEHPDLAKFEYKEQWARNDEFKQAGILGLLGS

GFDPGVTNVFCAYAQQNLFDEISYIDILDCNAGDHGYAFATNFNPEINLREVSAKGRYWENGKWIETQPM

EIKMEWDYPEVGVKDSYLLYHEELESLVKNIKGLKRIRFFMTFGQSYLTHMKCLENVGMLGIKPVIHQGK

EIIPIEFLKTLLPDPASLGPRTKGYTNIGCVIRGKKDGKDKQVYIYNVCNHEECYKETGAQAVSYTTGVP

AMIGTKLIAKGIWQGKGVFNMEEFDAKPFMEELNSQGLPWKIIEMTPSLGE

>AHK54855.1 superoxide dismutase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFELRKLPYDTNAFGDFLSAETFSYHHGKHHNTYVTNLNNLIKDTEFAGKDLVSIIKTSNGGVFNNAAQV

YNHDFYFDCIKPSTGCGCGGSCQSIDANLQAALEKEFGSLENFKAEFIKGATGVFGSGWFWLVYNTKNQK

LEFVGTSNAATPITEDKVPLLVVDVWEHAYYVDHRNARPAYLEKFYAHINWEFVAKAYEWALKEGMGSVS

FYANELHPVK

>AHK54854.1 hypothetical protein N917\_00835 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKVVLISALLGAFAANVFAANTPSDVNQTHTKAKADKKHEAKTHKKTKEQTPAQ

>AHK54853.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDFYSLIFLSCALGMDAFAVSLCKGFSVKKLHLKHYLIVGIYFGGFQALMPTIGYFIGITFASFIASIDH

WIAFILLSLIGLKMIKESLENENCDSNANQFGFKTMLALAIATSIDALAVGVSFAFLNVNLLLAIFLIGI

ITFILCIIALKIGNKFGIYLKNKAELLGGLVLIILGVKILIEHLFFD

>AHK54852.1 tRNA delta(2)-isopentenylpyrophosphate transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFFEIALIGTTASGKTYIANTLAREFNAVVLSLDSLCVYKEINIASAKPSQDDLASIKYFGVNLLSVNEH

FNVELFIREYQKAKEFALARNLPLIIVGGTGFYLKTMIDGLSEKTLESKSSLNNDEIYALLLNIDPNYKI

EKNDTYRLKKWLGIYEQTREIPSEFLKRTQKTGVLKDIEIYELAWDKEILKKRIKTRTKEMLDNGLLDEA

KILFSKFDHKLKALNSIGLKECKEYLDGEISFKELENLITIHTTQLAKRQRTFNKKFQSKALEFDKALAT

LRMKFSIEK

>AHK54851.1 prenyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNTFWIKFKDILELVVFKHSIFALPFLFSSMIVASKLANDTAWFGFKALILGIICAVSARNFAMATNRLM

DEDIDKDNPRCANRPNVSGKIGRKSVWIFIIINALIFISCSYFINTLAFYLSFPVLLVLAIYSAFKRFSS

LAHLVLGFCLGLAPIAGSVIIMGEIHIYSVILCLGVTFWTAGFDLLYSLQDMEYDKKIGLHSIPAKFGSK

ATLFISSFCHILAVLFWLLFVWEVWGVALGKIALIGVIISGIILALEHKIVHKNFAHIDRAFFTLNGYLS

IIFFIFIWIDLLWN

>AHK54850.1 hypothetical protein N917\_00810 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MELALFKAGFEAHLECCEIENNRFLGEYLKLGAISQILKWKKLALRIDFDEGEKIIFDLLLSLKEDILRL

ENSLDKNKELIPLKQKGVIESLNFEYLNFLDTILEEDKEYYLRFDLNNQKIAIFIKAQSQTLAKIIKIKP

EDKMAFDAFVVEIQRNMIRNKKGQE

>AHK54849.1 hypothetical protein N917\_00805 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSDDVLYLVFIIVLLIAMLAYMNIKERENNAKIAKLQNVIEDITKELHYFRKELGVKDDSEEDEDYKTSL

LKEEIMIELDKQISSKITPVLRTLKTMEHIIEDFQNEQQNRLLNLEQKAQSMAKLTPNYDTEEQKIENLF

KEGKSIEQIAKDLRIGTGNVELVLKFKKLIK

>AHK54848.1 molybdenum cofactor biosynthesis protein MoeA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLIDQFGRKINYLRISVTQRCNFRCLYCMPKIPFDYQPKENLLSFEELFLFVKAAIDEGIEKIRITGGEP

LLRKDLSIFIKMISDYKSDIDLAITTNGFLLKDFAKDLKNAGLKRLNISLDTLDHKKAKTLAQKDVLDSV

LSGIDEALNLDLKVKLNTVALKNLNDDELISLLEFAKSKKAQIRFIEFMENTHAYGKLQGLKRDEIIQIL

SQKYQIQLIKKDEKAPVSIYKADDYEFGIIDPHSHEFCDSCNRIRLSAEGLLIPCLYFDEALSIKEAVRK

GDIKAAVEILQEVLRNKPEKNKWSVVDNETSSRAFYQTGG

>AHK54847.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQLVESFLSIQGEGKYNGKLAIFMRFAGCNFNCLGFNVKISKNDKTLIGCDTIRAVFTKDFKESYETLNA

NELLKRVIKLKKDFDPIVVITGGEPLIHYENPEFIEFIQMLLKNKFEIHFESNGSIEIDFDRYPFYKECI

FALSVKLQNSGIKKDKRLNFKALKAFKNYAKDSFYKFVLDANTLDNSFLEINEILKEAPNQIFCMPMGEN

EQNLKKNAQKIAEFCIKNGYNYSDRIHIRLWNDKEGV

>AHK54846.1 6-carboxy-5,6,7,8-tetrahydropterin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIIRKLFEFENAHIVRFCSSKRCKSSIHGHSYKVEVLLESKYLDNAGMVYDFGLLKTYIRQIIDSFDHAI

TLFKYDDAKYLEEMKKYSSRWICLPVNVSAENFCRVFFILIDALLKQTKMVNGEQGVTLQSIIVHETRTG

YAQGFREDAYSELMPKISLQDIEFSNGIKAEWNDIDFYNKLKNEEIFINPKEI

>AHK54845.1 cytochrome CBB3 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKAKILIALSFFLLVLSACSNDEKNISKTQNTDQEVVQIEQNDEKTELSDSNLPLPVDDEAQSSNDEHE

VNPSIINSLYKQKCATCHGEKGELKPKNSTAIKTLSNKIFIQKIKTIKDKNHSFLSDEQIQNLADFINKG

K

>AHK54844.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDQSYEFFLALHLYSLYASGFLMLFYLILTQGNFKTEFIFIRRIRLFLPIYYLFLALIIFTGCLLSAMKQ

FQMNVNIWVMIFSWILIFALAIFHFVCFKKARRFRKYATFRWISCLILPFEIFLLFLPFLIERYL

>AHK54843.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQFLYNKQAGEEFIQLQGENFNHLKVRRVKENSELNLRNLQDNFLYNYTITNLTRNSCTLKFLNKKSQNI

KQSELNLALAIIDIKILEKTLPFLNELGVKKLHLVFTNFSQRNFKIDLERFEKIIISSCEQCGRNTKMDL

IIHQSTQEFVQKFPNAIMVDFQGEQQSHFDEKELYFIGPEGGFNNDERLLFNRKISLKSSNILKSQTAII

AIASKILL

>AHK54842.1 50S ribosomal protein L31 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKEIHPEYVECKVSCACGNTFTTKSNKAELRVDICSNCHPFFTGSEKIVDAAGRVEKFKKKYAMQ

>AHK54841.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLYFIPTPIGNLSDISFRALELLKTCDLVFCEDTRVSKSLISLLNTKFHTDIHISKFIALHSHNEKEVLA

SIDLKIFEKNVAYLSDAGMPGISDPGKALVEFAQENNITYEILPGANAALVALVSSAFCQKEFIFIGFLA

NKGKERQKDIEKILNFPYPSIIYESPKRILSLVEQIMILDNQREIFLIKEISKKFEKKFKGNAKELSEIL

KKSNLNGEWVVVLQSKEQNFLQNTLCEKDIMDLELSLKAKAKLLSKINGKNAKEIYQKLLLSQD

>AHK54840.1 RNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIVYGKQIFFYILEYHKDCINELYLAKECDKITFSKIAKSGFKIKKLDFKTAQAYAKGGNHQGFLLDIKE

SSFANLNEIKKNDFIVMLYGISDVGNIGAITRTAYALGVGALIFIGEKLAMEGVIRTSSGAALDLPIVIS

NDALSVINELKQVGFYFYASDGSGKEIHSVKISNGKKVLVLGSEGFGLSSKIVKKCDECVGIAMKNNFDS

LNVSAAFAILCDRMLNA

>AHK54839.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLNWKKIQELNLKEVAAKTQIELDFLEALVEKNFAVLSRFNVKGFVKILSREYELDFSDFNEEYEAYLNE

NNPTPQTKSKMITPKLDAYSQKSFNTWPFLIVLIVLVIIGSGIYYFDTLKTFFKDEQNNTSATVIDIIGQ

AQENLKSLGGNNVVVIDNNKAQETNRTESVLPSQNISLQENDKNISIENNISENNTTLLDEEKNTQIQED

TNTPKTDSLKEAHFKTSTKIWIGLIDLKSLKKTSFVKEKDFNISLDKDQLILTGAAALTMFDQENKEQKF

PAGISKRFLIKDGKITSISAAEFVKLNKGKEW

>AHK54838.1 hypothetical protein N917\_00750 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVKKIIILTFWVNISFAISSLELAKNLVNNPSKNSQLELLFSNNSYIDNNGNCDIAKISQILKTNSLIAL

TLSNPQSLRLNFKAKADEVMFFKILSDVLTDAGYIYFIPTDLILREGNIDYTIQVESQYVLDPGTLYNLL

KENSVYINNIKRIGVYDYEYDLNFSNAVLKTNTNVNLNTPKSLEKPLKDYVLDLKNATNLIIDANDLDNW

FPKIFFLDKNLNLIKAVKSENKNNHFSELIPNGAIYAIVSDMYSLDNIRRGLKITLKK

>AHK54837.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFDEIRFNTIERLPNYVFAEVNAIKMAARRAGEDIIDFSMGNPNGKTPQHIIDKLCESANKDKTSGYSTS

MGIYKLRLAICNWYKRKYNVNLDPENEVVATMGSKEGFVNLARAIINPGDVAIVPTPAYPIHTQAFIIAG

GNVAKMPLAYNEKFELDENQFFENLHKTLNESIPCPKYVVVNFPHNPTTVTCEKSFYERLIATAKKERFY

IISDIAYADLTYDDYKTPSILEIEGAKDVAVETYTLSKSYNMAGWRVGFVVGNKRLVSALKKIKSWFDYG

MYTPIQVAATIALDGDQTCVDEIRATYDKRMHILLEAFENAGWKLQKPRASMFVWAKLPESKRHLKSLEF

SKQLLQRASVAVSPGVGFGEAGDEYVRIALIENENRIRQAARNIKKYLKE

>AHK54836.1 homoserine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVAILGYGTVGSAVVKFLLENDKLIRARCGQSITPVIALARSPKKNALIPITHSVAEILNADVDVFVEL

MGGVDEAFKIVSEILKKKKAVVTANKAMLAYHRYELENLAKNLAFGYEASVAGGIPIIKVLKEGLSANNI

LAIKGILNGTSNYILSSMSQKNMSFKQALQIAQNLGYAEADPTFDIEGQDAAHKLLVLSSIAYNLKAKPE

DILIEGISEIAPEDMYFANEFEFTIKLLGIAKVRENKVELRVHPTMIDKEKMLAKVDGVMNAISINGDLL

GESLYYGAGAGGEATASAVISDLMDIARDQVKAPMLGFVNTLEYKLLSKDEIYTKYYLRVKVEDKIGILS

KITQLMSENNISIDSFLQKPKKNDENYSTLFFTTHLTYEKSIQNLLEILRKQDFIKTKPFMMRIE

>AHK54835.1 hypothetical protein N917\_00735 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGVKAYLDGILGEDKACKFLKKQGFEILKRNFHSKFGEIDIIAKKDEILHFIEVKFTQNDYEVSERLDRK

KLEKILKTIEFYHLKNGISSDFQIDLICIKNDVIQFCENISF

>AHK54834.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGKYIELTSDNFAQAKEGVALVDFWAPWCGPCRMLAPVIDELSNDFDGKAKICKVNTDEQGDLAAEFGVR

SIPTLIFFKNGEVVDQLVGAQSKQAISDKLNSLL

>AHK54833.1 thioredoxin reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLDVAIIGGGPAGLSAGLYATRGGLKNVVMFEKGMPGGQITSSSEIENYPGVAQVMDGISFMAPWSEQCM

RFGLKHEMVGVEQILKNSDGSFTIKLEGGKTELAKAVIVCTGSAPKKAGFKGEDEFFGKGVSTCATCDGF

FYKNKEVAVLGGGDTALEEALYLANICSKIYLIHRRDEFRAAPSTVEKVKKNEKIELITSASVDEVYGDK

MGVAGVKVKLKDGSIRDLNVPGIFTFVGLNVRNEILKQDDSKFLCNMEEGGQVSVDLKMQTSVAGLFAAG

DLRKDAPKQVICAAGDGAVAALSAMAYIESLH

>AHK54832.1 transcriptional initiation protein Tat [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MERRLFLKGSALGSMVAFFASSNLSAAMLKDKDLLGFKAVSASTQDKVIVPQGYEAKVLISWGDPLFSKA

KPYDENKIIDMNAVKNAHLVFGDDNDGMSFFPLSKNRGILAVNNEYINPEIMFNHHGKNLSKEDILYEQA

SVGVSILEIEKKGDDWTVVLDSKYNRRIDANTKMQVSGAAKKEVLKNEKFVHGTFANCANGQTPWGTYIT

CEENFDDFFGSLDENLEFNDSLKRYGFNKTSLYGWEKFDERFDLAKNMDEANRFGWIVEINPFDAQSTPV

KRTSLGRFKHENAEIIVEKDGSVIVYMGDDEMNEFIYKFVSKHKYKKGADTSKILDEGILYVGQFNGNVG

DFKGQGKWIALEYGKNSLNEKNGFKSQAQVLINTRLAASIVGATPMDRCEWIASHKQSGSKEVFATLTNN

KNRQEPNAANPRTKNVYGQILKWMPKNSHKDDDFTWEIFALAGNPDNQQGLYKGSNNITSENKFNSPDGL

KFDRDGRLWIQTDGSYSNKDEYESMGNNCMLAANPKTGEIRRFLTGPIACELTGIAFSEDYTTMFVGIQH

PGEGLKGSTFPYGKTPRSSVMMIRKLDGGVIGS

>AHK54831.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIILFILSLGIFYTFTQAKNLEQEQNTSSNLVSVSIAPQAFFVKKIAANTLDVNVILPPNSNEHNFEF

KPSTMKKLEKSDIYFTIGLEFEKVFTDKFKQNFPKLQVINMQKNIALIQTHDTHEHSHEHEHHEHGHFDP

HTWLDPILVQTMALNIYDTLIQKYPQNENLYKENLDKFLAELDSLNLQIASKLEKLKNREFVVYHPSWTY

FAKRYNLTQIPVEILGKEPKSKDLQKLITLMKDKNLKVIFVQNGFPENAAKTLAKECDAKIYKIDHLSYD

WENELLKTADAFSHNL

>AHK54830.1 cation ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLFFEISNLNYAYDNEIILKNINLSYDNKDFLSIIGPNGAGKSTLVKLILGLLKSKNEIHFKALQRKEIG

YVPQHTLANPNFCPRVLEIVLMGLVSKKIFGFYGKKDKEKAMQALKSVGMEKFWNKTIDSLSGGQRQRVF

IARALASECKMLILDEPTASVDNKSAIQIFELLISLHQKGMGILLICHDINLVLAYSDKIAHLNKELFLH

TNTKEKEKSSFLKHLYENHSHFCDVEMSLNTCFCNEENCDSKKLCEQEFTRRNLKKTEFKKENFCLKFSK

ENNA

>AHK54829.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLEILNFTFFQNALLGAILVSIACGIIGTLVMINRLFSMAGGITHGAFGGIGIAFYFSLPILLSTGIFTL

FLAFLVAFLAKRYEHRSDSIIAVIWAFGMAVGIILIDLSPSYNTDLMAYLFGSILAVGTQDLWLMALVDS

VMVLLIFLFYRQFEALSFDVEFTKVRGINTSFFHYLLIALMAFCIVISIRLVGLILVMALLSIPSFIAEN

FTKRLGFIMILASFLSMIFCILGLILSYYLNLSSGACIIAIACFGFLVHLIGKFLKR

>AHK54828.1 ribosome maturation protein RimP [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNLEALCKEAGLSFYDDELVSENGRKIYRIYVQKEGGVNLDDCARLSEILSPIFDVESPVNGEYFLEVSS

PGLERKLSKIEHFAKSIGELVKITTNEKEKFEAKIIAVDDENITLENLENKEKTTINFNDIKKARTFVEW

>AHK54827.1 ribosome-binding factor A [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNPSEIKKLRTESILKELIPEALANLDDENLKNLCVVDVECKKGRYDAFVYLDKMFFNVHEQEKILSSLK

KASRALQNYCMSEQGWYRCPNFHFKFDDRLEYQNHMDALFEKIKKDKNES

>AHK54826.1 translation initiation factor IF-2 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKIRIHEIAKELGYDSKEIIEKANELGLGIKTASNAVEPEIAAAIYEYIQTREIPEAFKKNIKTPTAKK

PKKENIKEQEKLNESEKKEPKKEEKLKQEVKKEELKIEKENAKEEEKQEIIDAHKPQSLASATLAKRRGL

VIVKKKKDEEEIQVKKEEVKNSNDISINNEERLSLKTMFSNADESLKKKKKEKKSFVASKKESTEKMNFL

DEHDFGDISLDDEDEVVLPDFSVKEQEKPQNINKKQPNFIRQAVGNSAGFGFEGGIQRRSRKKPSKKIEK

KEVEEVGSVAISKEIRVYEFADKIGKSTSEVISKLFMLGMMTTKNDFLDEDAIEILAAEFGIEINIINEA

DEFDYVKDYEEETDEKDLVTRAPVITIMGHVDHGKTSLLDYIRKSRVASGEAGGITQHVGAYMVEKNGRK

ITFIDTPGHEAFTAMRARGASITDIVIIVVAADDGVKPQTKEAINHAKAAGVPIIIAINKMDKEAANPDM

VKTQLAEMEIMPVEWGGSYEFVGVSAKTGMGIEDLLEIVLLQADILELKANPKSFAKASIIESSVQKGRG

AVATVIVQNGTLTVGSTVVAGEAYGKVRAMSDDQGKALKEIKPGECGVIVGLSEVADAGEILIAVKTDKE

AREYANKRHEYNRQKELSKSTKVSIDELGAKIKEGNLKALPVILKADVQGSLEALKASLEKLRNDEIKVN

IIHSGVGGITQSDIELASASENSIVLGFNIRPTGEVKERAKDKGVEIKTYNVIYNLLDDVKALLGGMMSP

IISEEQLGQAEIRQVINVPKIGQIAGCMVTEGVINRGAKIRLIRDGVVVYEGNVSSLKRFKDDAKEVAKG

YECGVGIEGCDDMRVGDYIESYKEVEEQASL

>AHK54825.1 hypothetical protein N917\_00670 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKHIPIRMCIVCKNRFEQNMLFRFKVVLGDIVPKAEHGRSGYLCQNCIEREDKVLQKAFSKICKNLNTK

ITQQGLKEIFLNGKD

>AHK54824.1 homoserine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKILVPATSANLGPGFDCLGLSLKLFNETQIQKSGVFSISIGGEGSDNIFLKKNNIFVNIFYEIYEKLSG

KKDNFRFIFQNNIPLSRGLGSSSAVIVGAIASAYYMSGFKVEKECILDEALIYENHPDNIAPATLGGFVC

SLVEKNKVYSIKKEIDKDLAAVVVIPNLAMSTEQSRQALAKNLSFNDAVFNLSHASFLTACFLEKKYEFL

KFASQDKLHEINRMKNLPELFEVQKFALENKALMSTLSGSGSSFFSLAFKDDALALAKKIQTKFKDFRVQ

YLEFDDNGFEIC

>AHK54823.1 glycoprotease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIGIYQDDKLIKTYKSEEKASEFLPKILDELLKEYDFTSLIYANGPGSYMGIKISYVSLSTLSIVKNIPL

FAVSAFELNGYKPISANKNFCFVYKEGEICLEQNIPAEFFLPKNLQELKLNNDNLPFYFLDAI

>AHK54822.1 UDP-3-O-(3-hydroxymyristoyl) glucosamine N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKQLTLAKTVKGVGIGLHKGEPIEITLEPLEANSGIVFFRSDLNASYKASPENVINTQMATVLGDDRGFI

STIEHLMSAINAYGIDNVRIVLNANEAPVMDGSSISFCMMLDEAGVKELDAPKKIMVIKKPIEVRDGNKF

VRLTPTKEPRINYTIKFDNAVIGEQSYNFEFSKKNYIENIARARTFGFLKDVQALRSMNLALGGSLENTI

VVDENRILNPEGLRFKDEFVRHKILDAIGDLTLLGYRVFGDYTSYAGSHHLNHLLTKEVLKDKDAYEIVS

LEKTTQKAYEKVFA

>AHK54821.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAKRKGKTYLSVLILVLIAILIFFISRLSIFEKNPPQILMPDVVYTDLKKPILVHIKDDESSIKNVQIIL

HKDDNTSAMVIADEKISNLKDITLQVALPKFGYKENVKSFVLEVIAKDSSFWNFFSGNEARKQIAVLVDN

TAPKINIISNSYQIEQGGAGAVVFKADDANLDKVYIETNKGKIFKATPYVKEGYYAALIAWDARDEEFRA

FVIATDKAGNISKERIRYYFVNRKYRVSNINLTDKFLDGKIENLANQYAPKDNNLNRYEKFKFVNETLRN

SNEKLIHEITSKVPEEKIDNFDLNLFLPLKNGMKVADFADHRYYSYNGQFVSDSYHMGLDLASVAQAPII

SNNAGKVVFAAENGIYGLNLIVYHGFGVYSLYGHCSSKNVDLDEMINKQSIIGKTGTSGLALGDHLHFGV

LVQGVETRPEQWQDKKWIENNIYNVLNDGKKIILGKN

>AHK54820.1 prephenate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIAIIGLGLMGGSLGLCLKENKLISCVYGMDLSKENEKDALQLGLIHELIEFKDLALCDMIFVATPVNA

IIEILQKLVDLPSNVTIIELGSTKRKIIESLPKNLIKQTLFAHPMTGTENSGPKAAFKELYKDAVCVLCD

SEIADDLHQKRAVEIFSHLGMKIVFMDSKAHDHHAAIISHLPHVISFSLANFVMKEEDKRNIVHLAGGSF

KGMSRIAKSSPQMWESIFLQNKDNLLSSIDFFQQELERCKQMIQLDKNDELREWMKQANTLREIL

>AHK54819.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKHLISICALVAMANAATIKDIKFIGLNHLSNTSAINIAGLKIGEEINPAKINTAILNLYKQNYFENIA

VENNNGILEIIVTEKPTIAKVTITGIASNDRKQVESILGIKRGTLLDEGNIKEAIERIKAYYEAKSYFDT

IVEYKKKTLENTDGLELEFIVNRGENIIIDNVHLSGAKKFSYSDIEPAVVNKEKEFMGWMWGRNDGKLKV

FELSNDSSRIADEYMKKGYLDVQVSSPYLKTYTDTYQANLTYFIKEGKPYKIKSISIENPLFDDKQNAQT

VKDLRSSAGKTINIEDIRKDVKTIETQSADLGYAFVEVYPDIQKNDQTQEATVVFKVIPHDKVYIRNVII

SGNSRTVDRVIRRELYITEGNLYNRTDLSESKNALKRTSYFDDVNIKEEKVDDTHIDLIVDVKEASTGAI

SGGIGYGSSDGILLNASLSDTNIFGSGIKSSVSVDKSDDTLSGRISLVNPRVLDSQYSLGGTLYSNDYEW

DNYSEKNYGFDITIGRQFARYYNVSLTYNLEQSDIYHLSPTLLRTGYELGKSIKSSITPAITFNDTDDYY

LPRSGIIASTSLEYAGLGGDQEFISSSSKFNFYQGLQDYIGYDLIYRYKASFYKVWDEGYLPINQRIYLG

GIRSIRGFESRTVSPKNQWGDEIGGTIAFANSVELSFPLIDRIKLRGSVFFDYGMIGRKNLDEIKRMSTG

IGIEWITPIGPLQLVFAKPLNDKKGDDTNSFEFNLGTRF

>AHK54818.1 inositol monophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKEFLDACLNANLQIRKYLNNIPQNDLKLCSKLGYDKNQGYELDLKCEQIFIKYLSCFGQIFSEESGLIG

KASPKQMILDPLDGSSNFVSKIPFYGTSIALMEKDQAKSAFVCNLVSQEIFAFNNKQAFKSNLSDPKYSP

LTPNLFSKIGIVEKISLYPELLDFLTKNQLKFRSLGATALSLAYASYFSFVLILGKTRIFDTAAALAIHQ

NLYIEKNENFLLLSQDKKIFDIILEFLKNN

>AHK54817.1 acetyl-CoA carboxylase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFADIFSKIRRQQPSVKEAPNHWVKCQSCHALMYYKEIESCFNVCPKCNYHMRISADERIKLLSDEGSF

IEYDANLEAIDPLKFVDSKSYKKRLSEGESKTGRKSSVISGECEINGLKTQLVVFDFSFMGGSLGSVEGE

KIVRAIQRAITSKTSLVIVSASGGARMQESTYSLMQMSKTSAALKLLSKEKLPYISILTDPTMGGVSASF

AWLGDLIIAEPEALVGFAGARVIKQTIGADLPEGFQKAEFLLEHGLIDAIVERGEQKQYLSDVLKFFSGK

>AHK54816.1 50S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQVNIFCIQKSDEFKTCSEKYSKLISKYATLKEINVFNKKIALAQNLNAIEAKKSYEEAFMPYKKGYCIA

LDEKGKDLTSIEFAKLIQDKNELSFFIGGAYGLREEFNQSLDFRLSLSKLTLAHQFVKTLLLEQIYRAFC

INNNHPYHK

>AHK54815.1 molecular chaperone DnaK [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKNEIQNFKNILEERKKAILENLQSNSNEIEALHNSVPSDSVDFSVIETGSQIDFAISTNLKEELIEIE

DSLDKIKNGTYGICESCDDEIDSQRLKVKPHARYCITCRQIAEQGKKHEN

>AHK54814.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIKLFLLASFIYIALIFAFAWHLELGSYTLNISTYTFELPIMIWLVIPLFIYMILAVLHIAFYGFLRYL

KFKHFFKDAAKFEAYTQDLLLEKDLKTTFQTKEFRSVAQLFKTIKTHEKIPHSNKINEILDLIDGLNKNE

FFNLSKFKLENNNVLYLQNEKNHLKNDANYAYNKLKNLNEIKDEFEEIAFNTLIEKASYEQIKNVKIPKK

PSEVLTLIKRFKEGNLELSVAEYEVLLSHNILSEKDYLNAAKLSTKLLNPDAILGIFNKIKNEKSEALRA

YLYLLAEFGLLDELREQIHNDDKKFNDFKAFLALREKNIKIDLNQLIQ

>AHK54813.1 tRNA-dihydrouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MIDFSKKPLFLAPMAGFSDLPFRNVVKKFGADITISEMISSNALVYESSKTLHMLERAELENPYIVQIAG

GDKEVLKKAVQMLNEMDFVDGIDFNCGCPVNKVVKQCAGSALLENLELFKNLVGVIKENNKKSLTSVKFR

LGFNEKYPEKMAKICESLGVDFISIHGRTRKQLYSGKADYGSIASAKASVKIPVIANGDINAQNAKEVYK

ITKCDGLMIGRASVGNPWIFYEIKSGKSVDEKLKKEIILTHFDEMIKHYKDQGVSIFRKHLHEYSKGHKD

ASTFRDTVNRIDNVEEMRKKIEEFFSLT

>AHK54812.1 heat-shock protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MILSDEKCDFLESIASFLSPKDVELVFVDSKEMQEINLEQRKQDKTTDVLSFPLENIDESLPLGSVVINV

DLAKEKAKELGHSYEEEISLLFIHAMLHLLGFDHENDNGEMREKEKELIEHFNLPKSLIVRTLED

>AHK54811.1 recombinase RecO [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQGFILHTQKVKDEDLIVYILSPKMLIKAYRFYGLRHSSILSGYKIDFALEENPSFLPRLKDVLHLGFLW

IMQRDKMLIWQEFIRLLYRHLKDVEELDSFYFDLLDECVKRFEKQNPKRVIVDAYLKILEFEGRLHKDFF

CFACDEKIQNSITLLRAFLPSHSQCALGFEFEEKKLKQFYSSKNCAIFDDEEIENLYHLIKEGL

>AHK54810.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKAFVLVDYQNDFIDGSLGFDKALKIKENILKALNQIDFNNTHLLLTYDTHDEHYLQSKEGLNLPVKHC

IKESLGWQMPKEFEPFLQKAHKIFYKNTFGSLELANFIQKSDYEELHFAGLVSHICVFCNIILAFGAKPN

ARIILHQNLSASFDENLEKSAFDILRAYGIEIV

>AHK54809.1 PP-loop family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINLSKKLIRQVAQANAKFGLIKDGDRVLLGLSGGKDSLALAHLLNRMQAHAPFKFELEAVTLSYGMGED

YSHLHAHCEEHGIKHSVLDSNIYEVSGDTIRENSSFCSYFSRMRRGALYTYALEKGFNKLAIAHHLDDAA

ESFFMNFIHNGALRTLAPIYQSKRGITVIRPLIFVRERQLRDNATQNELSVIGNEFCPGMKLSEKNVKFP

HAREEAKQLLANLEKDHPKLFTSLKTAFANLHTESFWLQKA

>AHK54808.1 S-adenosylhomocysteine nucleosidase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIAILGAMSEEITPLLETLKDYTKIEHANNTYYFAKYKNHELVLAYSKIGKVNSTLSASVMIEKFGAQA

LLFTGVAGAFNPELEIGDLLYATKLAQYDLDITAFGHPLGFVPGNEIFIKTDEKLNNLALEVAKELNIKL

RAGIIATGDEFICDEAKKAKIREIFNADACEMEGASVALVCDALKVPCFILRAMSDKAGEKAEFDFDEFV

INSAKISANFVLKMCEKL

>AHK54807.1 malonyl CoA-ACP transacylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNAAFIFPGQGSQSLGMGKDFYENSIKAKELLQNASDFCKIDFKHLLFEENEKLNQSEFTQPAIVLNSLM

AYSVLLEKKPDLSSKFALGHSLGEFSALAVNGAFDFLEALSLVNKRGLFMQEDCAKVEAGMMVVLGLDDE

KVEELCQKAQKENKQIFAANYNCDGQIVVAGLKPDLASYESVFKEAGAKRAMLLNMSVASHCPLLENASA

KLCVELEKVLKPNFKAVISNANAKIYTSKEEALELLKAQLISPVLYKQSIKACENEVDYFIEFGASVLKG

LNKKITSKETYALTNMNDIDEFLKVV

>AHK54806.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAIEKNSVVSMFYELKDANTNEVLESNLYSQPISFILGKGQILESLEEEVMKLDCPSNADVVIKKEKGLG

EYDENAVQTLPKEQFAGIDLKVGMELFGEGENGETVRVTVKEIGENDVTIDYNHPYAGRDLLFSLNIVDA

RAASEDEILTGIIAGSHSCGCGSGHGHDHHHGHGHGGGGCCGGGGCGCH

>AHK54805.1 hypothetical protein N917\_00565 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIFTVALLGATLLYAESSAFGAGDITSNSSYGLTSNEKLFKEKLDNLNNENIQTNARINEINERIEGL

QSTLEGINSQYAKSNSRLSQVEENNQNIENNFTSEIQKLKAYVEESRKIQEANNKQVKKVLAELSSLVDA

INANYVSKNELNDANLSVKTITPSVVVSTTDSNSTIENNNTQNTQDDKAKQIDESWKKKKNNEILELAIK

DVDKNAFEDSKAKLNFLITKQYKPARANFWLGEIEYKQKNYNNAIVYYKKSSSLSTKGDYFPKLLYHTAI

SLDKTGDTKTANGFYKALKTNYPNSPEAKASPNRK

>AHK54804.1 peptidoglycan associated lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKILFTSIAALAVVISGCSTKSTSVSGDSSVDSNRGSGGSDGWDIDSKISQLNDTLNKVYFDFDKFNIR

PDMQNVVSTNANIFNTEVSGVSITVEGNCDEWGTDEYNQALGLKRAKAVKEALIAKGVNADRIAVKSYGE

TNPVCTEKTKACDAQNRRAEFKLSR

>AHK54803.1 translocation protein TolB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIVAIFLVFLGSLWAEDPVIDVVNSGVVLPKIIVKDNSNLSDENLKKSFYNIIVNDLKVSSNFEVVAN

ATETSNYIFEYTLNKNGNTLSLNVKIKAGGSDKSEQTYTLNGLEQYPFLAHKSVKASVNALGLAPVDWMD

HKILIARNSSSKKSQIIMADYTLTYQKVIVDGGLNLFPKWGNKEQTLFYYTAYDHDKPTLYRYDLNTNKA

SKILSSGGMVVASDVNVDGSKLLVTMAPKDQPDVYLYDLNTKNLTQLTNYSGIDVNGNFIGSDDSKVVFV

SDRLGYPNIFMQDLNSNSAEQVVFHGRNNSAVSTYKDFLVYSSREPNQAGVFNIYLMSINSDYIRQLTAN

GKNLFPRFSSDGGSIVFIKYLGAQSALGVIRVNANKTFYFPLRVGKIQSIDW

>AHK54802.1 energry transducer TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKNYGLSNLNSFLLALAIYISIVILVFFRLVSEVEPAIQYTDIKDSFVDIELAEPSKQVITQSNTPKEIQ

KPTEQIDIEKLFAQTTNKTVKTEDIDQKASNFNELFGNIKEIQEEKTTKIQSSAKSGISSAPKPQASELV

KQLNDSLLQEESSTQGESTKAQKIGIYDEFLGKVVRIITQRWTQYYPNSEKISVKVKIFIDENGKFGYTS

VEKSGNPLYDAKVAEFLESQKGKFITYPPQNKNISITMNLRDEVKVKND

>AHK54801.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MPFDDEKPELNITPLVDIMLVLLAILMVTAPSITYEEKINLPQGSQKNTSTPTVKSLIISINAKKEIFLN

QEKYDFISFADNLAQRKAQFNTEDPVFIRADKSLKYDDVISVLRSVKNLGFNKVALQTE

>AHK54800.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFEAIFHFFNSSSIITYIVLLWLSLYFILAFSILFARLTYLATWRNKEKESLETLLLGEKDLSRTDSIL

RKCNDTTSNHLEIYKNLASRRASAGLTWLSIIASTSPFIGLFGTVISILETFGGLGTQNSLSIIAPKISE

ALVATGCGILVAIPAYTFHLIIKRKAFELLSIIDSEIKVISSSK

>AHK54799.1 F0F1 ATP synthase subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNDLINFEIVTPLGVIYQGEVKSVTLPGSEGEFGVLKGHAALVSSLKSGVIDIEKADLNHELIAIDAGHA

KVDEDKICVLAKGAVWVCGSDESEIEKNLAQAKDLIKSMSSDNAALAATFSKLDNARMH

>AHK54798.1 F0F1 ATP synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQGFISQVLGPVVDVDFNDYLPQINEAIVVNFESEGKKHKLVLEVAAHLGDNRVRTIAMDMTDGLVRGLK

AEALGAPISVPVGEKVLGRIFNVTGDLIDEGEEISFDKKWAIHRDPPAFEDQSTKSEIFETGIKVVDLLA

PYAKGGKVGLFGGAGVGKTVIIMELIHNVAFKHSGYSVFAGVGERTREGNDLYNEMKESNVLDKVALCYG

QMNEPPGARNRIALTGLTMAEYFRDEMGLDVLMFIDNIFRFSQSGSEMSALLGRIPSAVGYQPTLASEMG

KFQERITSTKKGSITSVQAVYVPADDLTDPAPATVFAHLDATTVLNRAIAEKGIYPAVDPLDSTSRMLDP

NIIGEEHYKVARGVQSVLQKYKDLQDIIAILGMDELSEEDKLVVERARKIEKFLSQPFFVAEVFTGSPGK

YISLEDTIAGFKGILEGKYDHLPENAFYMVGNIDEAIAKADKLKG

>AHK54797.1 F0F1 ATP synthase subunit gamma [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSNLKEIKRKIKSVHNTQKTTNAMKLVSTAKLKKAEEAAKRSKIYAQKIDEILSEISFQINKIVHNEDDV

RLSLFHKKEQIKTVDLIFITADKGLCGGFNIKTLKTVSEMLKEYEAKNINIRLRAIGKTGIEYFNFQKIE

LLEKYFHLSSSPDYEKACEVIHAAVDDFLNGNTDEVILVHNGYKNMITQELKINHLIPVEPKSIEQTHNS

LLELEPEGTELLKDLMKTYFEYNMYYALIDSLAAEHSARMQAMDNATNNAKARVKQLNLAYNKARQESIT

TELIEIISGVESMK

>AHK54796.1 F0F1 ATP synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFKADEISSIIKERIENFDLNLEIEETGKIISVADGVAKVYGLKNIMAGEMVEFENGDKGMALNLEESS

VGIVILGKGEGLKEGASVKRLKKLLKVPVGEALIGRVVNALGEPIDAKGVINANEYRFVEEKAKGIMARK

SVHEPLHTGIKAIDALVPIGRGQRELIIGDRQTGKTTVAVDTIISQRGQGVICIYVAIGQKQSTVAQVVK

RLEEHGAMEYTIVVNAGASDPAALQYLAPYTGVTMGEFFRDNAKHALIVYDDLSKHAVAYREMSLILRRP

PGREAYPGDVFYLHSRLLERASKLNDELGAGSLTALPIIETQAGDVSAYIPTNVISITDGQIFLETDLFN

SGIRPAINVGLSVSRVGGAAQIKATKQVSGTLRLDLAQYRELQAFAQFASDLDEASRKQLERGQRMVELL

KQPPYSPLSVEKQVVLIFAGTKGFLDDIAVSRIKEFEDGIYPFIEAKHPDIFEQIRSKKALDSDLEEKLA

KAINEFKANHL

>AHK54795.1 F0F1 ATP synthase subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENIIARRYAKAIASRADINDFYQNLCILNSAFVLPKFKNIIESNEIKKERKMEFLDSFFDIKNSSFQNF

LRLLIENSRLECIPQIVKELERQKAFKENIFVGIVYSKEKLSQENLKDLEVKLNKKFDANIKLNNKISQD

DSVKIELEELGYELSFSMKALQNKLNEYILKII

>AHK54794.1 F0F1 ATP synthase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKLFFIIFLLPLYAFGASNGSGEYDIIPRTINFLIFVAILYYFVATPFKNFYKNRIVKISSKLDEIQKK

LLESKAKKLDTMKKLEEAKASAAAALITAKKEAEILVQNIKKETQDELDLLQKHFEEQKDYEFRKMEKEL

VSNTLNEIFSDPNMTLKQSEIIELMMKKVS

>AHK54793.1 F0F1 ATP synthase subunit B' [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFEDMHPSIMLATMAIFLAMIVILNSMLYKPLLKFMDERNDSIKNDENKVKENSQEVLGVNDELEAIHIN

TREEIQKIKQSAIAAAKEEAEQILRSKKEELERKMASFYADLAVQKKELQEHLNIHLSELKQALQNNIKK

I

>AHK54792.1 chromosome partitioning protein ParB [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGLNKDRGLSSLISDMDTVYSKELGFDKNQSTMIEIDQISPNPFQPRKNFDQEALDELANSIKEFGLIQP

IIVFKKNNKFILIAGERRLRAVKALGKKEILAFIADIDENKLRELALIENIQRENLNPIELANSYKDLMQ

VHKITQENLAELIHKSRTQITNTLRLLNLDIRTQELIASGKISQGHAKVLVGLDQKDEKMLVDSIIGQKL

NVRDTEKIVKKIKNNESLPNQEFEDEIKKLKQILNRFGFDCKNKNNDFVIHLENIDKIKKLIKMLEKL

>AHK54791.1 sporulation initiation inhibitor Soj [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSEIITIANQKGGVGKTTTAVNLAASLAVAEKKVLLIDVDPQANATTGLGFNRNNYEYNIYHVFIGRKKL

SDIILKTELPQLHLAPSNIGLVGIEQELAKGENNEKKMLLKNQIQEVIDEYDFIIIDSPPALGSITINAF

AASDSVIIPIQCEFYALEGVAMVLNTIKIIKKTINSKLRVRGFLPTMYSSQNNLSKDVVDDLKQNFKKQL

FTINGNEDDFIVIPRNVKLAESPSFGKPIILYDIKSPGSVAYQNLAYSILG

>AHK54790.1 biotin--protein ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEKGLKVKIVCVESIDSTHLFLCKQIRNGKIDENFAIYALEQINGVGSRENSWQSSKGNLHLSFCIKEED

LPKDLPLASVSIYFAYLLKEVLQEKGSKIWLKWPNDLYLDDKKAGGVISAKISNFIIGGMGLNLKFAPQN

TALCDIEISLKDLVSEFLQKVEKKILWKNIFSKYMLEFEKSRKFSVHHEGKVFSLENSFLYEDGSILLGD

KRVYSLR

>AHK54789.1 methionyl-tRNA formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIIFMGTPSYATCILKALVENENFKLVALFTQPDKAVGRKQILTPSDTKAFLSQNYPSIPIFTPSSLK

DKNIIREIKDLNPDFIVVAAYGKILPKAILDLAPCVNLHASLLPKYRGASPIQSAILNKDEKSGVCTMLM

EEGLDTGAILESLECDIKDKNSSEVFELLANLAAKIILSTLLNFDKITPKKQEESLATLCRKIKKEDGLI

NLQNARELYQKYLAFTPWPGVFLENGLKFLELELVDELKQNAKMGEILELEKESFLLACKQGVLRIKKLQ

ESGKKALDGRTYLNGKRLKSEDSLC

>AHK54788.1 gamma-glutamyl kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKRIVVKVGSHVISEENTLSFERLKNLVAFLAKLMEKYEVILVTSAAISAGHTKLDIDRKNLINKQVLAA

IGQPFLISVYNELLAKFNKLGGQILLTGKDFDSRKATKHAKNAIDMMINLGILPIINENDATAIEEIVFG

DNDSLSAYATHFFDADLLVILSDIDGFYDKNPSEFSDAKRLEKITHIKEEWLQATIKTGSEHGTGGIVTK

LKAAKFLLEHNKKMFLASGFDLSVAKTFLLEDKQIGGTLFE

>AHK54787.1 GTPase CgtA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFIDSVKITLASGDGGKGAVSFRREKHVPLGGPDGGDGGNGGDIIFVCDNNTHTLVNFKGKRELRAQNGA

GGMGRNKNGKKGENLELIVPEGTQVIDAQTNEILLDLTKEGQRELFLKGGKGGLGNTHFKHATNQRPDYA

QPGIKGESRLVRLELKLIADVGLVGFPNVGKSTLISVVSNAKPEIANYEFTTLTPKLGLVDVNEYNSFVM

ADIPGIIEGASGGKGLGLAFLKHIERTSFLLFVLDPMRQMPLKEQFIVLRKELEKFSNELFGRKFGIMIS

KSDSVRLGEEFAEQIALNINELDNYLKEINNPQSFLIKVSSLEKTGLKELKFMLLEEIKTLRNNKKNLTI

>AHK54786.1 50S ribosomal protein L27 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAHKKGQGSTQNNRDSIGRRLGVKKFGGEFVRAGNIIIRQRGTATHAGNNVGMGKDHTIFALIDGFVKFE

RKDKDRKKVSVYPA

>AHK54785.1 50S ribosomal protein L21 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYAIIKHSGKQYKVSVGDELKLDHFEAESKASIEVSEVLAINDKELKVGAPFVAGAKVVLEVINHGKDKK

VVIYKKRRRKDSKLKRGFRRQFTRVVVKDIKA

>AHK54784.1 hypothetical protein N917\_00460 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIIKILFLGLFLSLSLNAKVITTTSTKSSTGEGTGLTREDAINNAIIEAIGKMSGVSINSLKKSNTSVS

TDNSGSNIQDNYSEQISKATKGRADTYEINSVEQDANGKYTANVTIFKTTTTKKYQAPGLSADNRRSITV

FDSTPDAAKRGIGSALQQKIISDLLQSRKFNVLDRDSSGYYEMEKALIKSGDAASDEVYKLKNMLATDYI

LLFSISGLEGKQKTSNLTGKSKTEIEVIVDYRVLLFATRQIKFSNTLSMKVNLKDNSLSANETALKQIAN

RIAGDILNAIYPLKVASVENNEVIFSQSLNQGDVYECFALGKVIKDTYTKENTGRVESKTGSIEITRTSP

KFSYAKITEGSVKVGDICRPLSNTGSGNGYTIGRDANYQTQEGGGVNLGF

>AHK54783.1 hypothetical protein N917\_00450 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKTKILGTALIGALLFSGCAQTAYTDGKASQVKKGDALTLGLDRQDFESAAETMINSMLSDPAFANIKP

GTRKVIAIGRVVNDTPQRIDTEKLTAKITSALRKSGKFVLTSAVAAGGALDSMSEDVRELRDNDEFNQKT

IAKKGTLVSPDFSLAGKIRQDNVKLSNGKTQVEYFFLLRLTDLTSGLVYWEDEQTIDKTGSSKSVTW

>AHK54782.1 hypothetical protein N917\_00445 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKNILFILMFLLSACAPSYQINSNQNTVILGSNLPKSLVKQFQKRINSNGYLEFEVILRSTFAKDVIYK

VDWLDKDGFVLRDVLNEDYQALRIPAGQEVILRKLASDTRANDFRLEIKAKN

>AHK54781.1 hypothetical protein N917\_00440 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIKVGLIFSGIACLFLTACVNQVKQNTTFENTLTQKYCGDDFFNQNLEKIKKNDDVIYTGLNAGLIARN

CGDFNKSNVFFDAVEESYKYDVDLENVSPKAAKFIGTTLLNDNIVDYDGSLYERIMVNIYKALNYMEEDD

YENARVEFNRVLMRQDKAKEYFAKEIEKNRADLDKAKEDKNYDKNMNENSKVIEAQYDNLFKEFDTTKNF

INPYATYLASIFFFMDKDYRKAADLFREVAIIYPKNKTIKKEAKIFKEYATKIKVKKAKKYVFVVYENGF

GVVKDEFALTLPFIVDKKIISTNIALQTLKKREASFANLNINGQNTNDFVDLDNIVATEFKINMPAMIAK

ALAQTIIKTTLNVAVANNDSTGGWLSLATAVATAATNKADVRSWRGLPKSIAIATIENDGNLEIKDPQGN

ILFQKSLDKNKNALVIVRSFAPYLPASVAIMEK

>AHK54780.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDIMIILQVIVLLGAIFIGIRLGGIAIGYAGGLGVVILGLVLGMKPGNIPWDVILIIAAAIAAISAMQQA

GGLDYMVRVTEKILRSSPKFINYLAPACGWLLTILAGTGNAVFSLMPVVVDVAKSQNIKPSVPLSLMVVS

SQIGITASPVSAAVVYMSGVLEPLGWNYPTLIGIWISTTFVACMLAAFIVSLITPMDLSKDSVYQERLKA

GLVKDAGAVLHGEDKPGAKLSVVIFLITVLAVVLYATAISSNIKWIDPVVVSRDAAIMSFLLTAATLITW

LCKVEPGKILDTSVFKSGMTACVCVFGVAWLGNTFVAGHEASIKEVAGDWVKQTPAMLAVAFFFASMLLY

SQAATAKAIVPVIITALGISAANPHDSYMLVACFAAVSALFVLPTYPTLLGAVQMDDTGTTRIGKFIFNH

SFFIPGVLAIAIAVALGFVLAPMLI

>AHK54779.1 aspartate ammonia-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGTRKEHDFIGELEISDEVYYGVQTFRAVENFDISHDRLKDFPRFVRALARVKKAAAMANHELGLLDKNI

QDAIIKACDKILEGGYYDQFVVDMIQGGAGTSTNMNANEVIANIGLELMGHKKGEYQYLHPNDHVNLSQS

TNDAYPTALHLALHDYLSDLAKAMEHLKKAYERKAEEFKDVLKMGRTQLQDAVPMTLGREFKTFAVMIGE

DIQRVLEARKLILEINLGGTAIGTGINSHPDYPKVVERKIREVTGFEYTVAEDLIEATQDTGAYVQISGV

LKRVATKLSKVCNDLRLLSSGPKCGLNEINLPKMQPGSSIMPGKVNPVIPEVVNQVCYFVIGADVTVTFA

CEGGQLQLNVFEPVVAYSLFNSVVMLEKAMYTLADKCIDGITANEKICSDFVYNSVGIVTALNPYIGYEN

SASIAKEAMNTGKRVADIALERGLLSKEQIDEILTPSNMLNPHMEAKK

>AHK54778.1 uracil-DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEEITINIDKIKINDDWKEFLRDEFQKKYFLEIKKQYLNAINQNIIIYPPANLIFNAFNLCPLKEIKIII

LGQDPYHQPNQAMGLSFSVPKNVKIPPSLNNIFKELQNDLNITPAKSGDLSSWAKQGVLLLNSILSVEAN

KAASHSSWGWQEFSDAIIHKLSNEKSGLVFMLWGNYAKNKEILIDNTKHLILKAAHPSPLARTGFLGCKH

FSKANEFLKKVGKIPIDWKIV

>AHK54777.1 aspartate racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTIGIIGGMSFESTITYYKTINQAINDKLKSLNSAKILLYSVNFEEIENLQSQDKWQEAAQILTQCAKK

LELAGANFIIIATNTMHKVFDEIQQNINIPILHIAKSSAKALKQENIQKIGLLGTKYTMTQDFYKKMLIE

ENISVITPSDEDIKIVNDIIFNELCKGEIKQDSKEKYLNIIKKLQEKGAKGVLLACTEIGLLISKNDTNI

KIFDTSLIHALDAANEALKDL

>AHK54776.1 cytochrome C oxidase assembly protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFFGLELEGLQIYWWLILSLLGGLLVFMFFVQGGQTLIDELSKDELEKTMLVNSLGRKWELGFTTLVLFG

GAAFAAFPLFYSTSFGGAYWAWLCILFCFILQAVAYEYRKKENNVYGSKTYEIFLKINGYLGVFLIGVAV

SSFFSGSEFILNEHNFVSWQNPLHGLELLLNPFNYLLGLALVFLARLLGAAYFMNNINDENIKIRAMKKL

MINSILFLPFFLGFLAWIFLKDGFSVDTNGVVSMSANLYLYNFLNQMIFAVLLVIGVILVLLGMVQGTKG

CSKAIFTLGLGTVLTVFALLSSIGLGQSAFYPSLSDLQSSLTLKNASSSYYTLSVMAYVSLLVPFVLAYI

IYVWNAMDKVKITREEIANDDHAY

>AHK54775.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNELSSVDWSRAQFALTALYHFLFVPLTLGLSFMIAIMETIYVKTKNERWKKITKFWLSLFAINFAIGVA

TGIIMEFEFGTNWANYSWFVGDIFGAPLAVEGIMAFFLEATFFAVMFFGWDKVSKGFHLLSTWCVAIGSN

LSAFWILVANGWMQYPVGMSFNPDTARNEMQSFFEVALSPVAISKFLHTIGSGYVISALFVMGISAWFML

KGRHIIEAKKSLVVGASFGLVCSIFLFFSGDESAYRVTQTQPMKLAAMEGVYQGEHRAGLVPFGILNPKK

TIDNNESVFLFDITIPYALSILGNRDPNSFVPGIEDLIYGNESKGIEPMQNRIDRGKIAIQTLKDYKLAK

ENNDTIAMANHKSILETHFKDFGYGYLEKPSDTIPPVALTFYSFHIMVALGSFFFLLFIVTLYLTMANDI

EKFRKVLWVCLLSIPLGYIAAEAGWIVAEVGRQPWAIQDLLPVHIAATQLGKVNVQISFWIFAVLFTALL

IAEVKIMLTQIKKGFDAHAGHTPLMGKGEK

>AHK54774.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MYLKHLYFSISQIFNFYKEGFKNLTLGKTLWKIIFIKLFVMFVILKLFVFDVNFNSIFKSDKEKSTFVLK

NLTLEGK

>AHK54773.1 cytochrome C oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKIIVFILCCFMTFFLYACSSKFENVNPLGRSFGEFEDTDPLKLGLEPTFPTNQEIPSLISGADLVPIT

PITPPLTRTSNSANNNAANGINPRFKDEAFNDVLIFENRPAVSDFLTILGPSGAALTVWALAQGNWIWGY

TLIDSKGFGDARVWQLLLYPNDFAMIKNAKTNTCLNAYGNGIVHYPCDASNHAQMWKLIPMSNTAVQIKN

LGNGKCIQAPITNLYGDFHKVFKIFTVECAKKDNFDQQWFLTTPPFTAKPLYRQGEVR

>AHK54772.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIICLFLSFNLAFANLENFNVGTWNLQGSSAATESKWSVSVRQLVSGANPLDILMIQEAGTLPRTATP

TGRHVQQGGTPIDEYEWNLGTLSRPDRVFIYYSRVDVGANRVNLAIVSRMQAEEVIVLPPPTTVSRPIIG

IRNGNDAFFNIHALANGGTDVGAIITAVDAHFANMPQVNWMIAGDFNRDPSTITSTVDRELANRIRVVFP

TSATQASGGTLDYAITGNSNRQQTYTPPLLAAILMLASLRSHIVSDHFPVNFRKF

>AHK54771.1 cytochrome C oxidase subunit IV [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIITLFFMFITLAFATPTGDLKDFTEMVSIRSLETGIFLSAFRDTSKDPIDQNWNIKEIVLSDELKQK

DKLADELPFGYVQFTNPKESDLCLAILEDGTFGAKSCQDDLKDGKLETVFSIMPTTTSAVQIRSLVLESD

ECIVTFFNPNIPIQKRFGIAPCTLDPIFFAEVNELMIITPPLTAATPLE

>AHK54770.1 lactate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEQILTWQQIYDPFSNIWLSALVAFLPILCFLVCLVVLKLKGYQAGFLTVILATLVALFAYKMPWNLVGA

SFIQGFTNGMWPIAWIIIAAIFLYKLSIKSGSFEIIKKSVMSITPDHRIQVILIGFCFGSFLEGAIGFGG

PVAITAALLVGLGLRPLQAAGLCLIANTAPVAFGAVGIPIIAMANLVGIEQHSVSAMVGRMLVPLSLTIP

FFIVFLMDGFKGIKETFPAILVAALSFTTTQFLSSNHLGAELPDIISAVVSLAVTTVFLKFWKPKNIFRF

DNESNFTQDNTLSFNQILKAWSPFILLIVCIIIWTQPWFKALFDKDGILSYTSITLQFSNITTGILSPSI

TGIGEAKPLSLALGVDLINGKTVAQAGTAILLAAFLTIAILKIKAEDAAECFWVTLKEMAIPCITIGLVV

AFAFISKNSGMSTTLGLAFAHTGDAFSFFSPIIGWIGVFLTGSDTSANLLFGTLQQVSAQKLGISEALFL

AANSVGGVVGKMISPQSIAIACAAVGLVGKESDLFKFTLKYSVAFIILIGIWTCIIAFFLQGIIPEVIVK

>AHK54769.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMKKVYFYATCLGSTAMQQSVLNAIKLLRREGIEVIFKKNQTCCAQPSFNSGYFDESREIALYNVDLFDK

DYPIVVPSGSCAGMMSHDYKELFKNRPEFSKIKTFSSRVIELSQYLDEVLKVDYEDKGVPIKVTWHSNCH

ALRVQKSIQASKNLIKKLKNVELVELQYEEECCGFGGTFSVKEPEISNAMVRSKIKDIQNSGAKYLISGD

GGCLLNIDGTMKRMGLDIKGIHLYDFLLKRLEGGRL

>AHK54768.1 iron-sulfur protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSQKIPHEQIVQIKLNDKQMQENLMTAMHTLQKNRLNVIDARFKDWQGLRAKAKQAKNNALMSLEERLLE

FEKNATKNGIKVHWASSDEDACEIVYEIMKEKNITKLLKGKSMASEEIGLNHYLEKKGLKAIETDLGELI

LQLNEEPPLHIVVPAIHRNRHEIGEIFKEKLGANLENDEPESLNAVAREHLRKDFEGLKLGLSGVNFAMS

REGAFWLIENEGNGRMCTTAPDIHIALCGIEKIMESFEDAATMVSLLTPSATGQFIPTYNNIITGPRKNG

DLDGPKEVHVILFDHNRSKMLAHEDYYEALRCIRCGACMNFCPVYDQIGGHAYQTTYPGPIGEVISPNIF

GIDHTGDILNFCSLCGRCSEVCPVQIPLADLIRKLRCDKIGQGKNPPLGANNVHHNALEAFAFKQFKNIA

TNGDKWRFSLSKAHYFNWTVQNFASILPVIKKWYAFKELPQIKMDLYKEVQKLEGVSYE

>AHK54767.1 hypothetical protein N917\_00365 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKIDEISSKSKANILEHLKKAYKETTFTRIESIDPVEHIQTTQDMLTEMKQKMSDNKYIVENATKDTLE

EKINEIVAKYSFKSMIYGADLNLNLEQIKAEKKICFDKEIENLRSEVFHSDFSIIHARAGVSSHGVALIP

SSKTQPRMLSLAPKLCIVLLKKENVVKSLSEALNLVKKENEILPTNILFIAGPSRTADIELITVFGVHGP

QIAHIIIY

>AHK54766.1 hypothetical protein N917\_00355 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKNIVFFEVKGGSDKGEDGYRKDTMPMVNALKAKGWNAEVIFFEVGKKDEIYKYVKENFDGYVSRINPG

NLKEENEYFDMLRKLCADKLVGMPHPDAMIGYGAKDALTKLADTDLVPSDTYAYYDIKTFKENFPKSLAK

GERVLKQNRGSTGEGIWRVSVEGNVSGDSLPLNTKIKCTEAKDNHVEHRELGEFMDFCEQYIIGDNGMLV

DMTFLPRIKEGEIRLLMLYNTPVNVVHKKPAEDADAFSATLFSGAKYRYDKPEDWKTLVDMFLGELPKVR

EKLGNYDLPLIWTADFILDTDEKGNDKYVLGEINCSCVGFTSHLELADEVASNIINIVSKTKA

>AHK54765.1 endopeptidase IV [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQILKSFFKALGCGIKFINTYFKTFVLLLIVIWILIPSANSSSNLANLERIDLKGEIFDSSAVLEKIINA

KNDSNIKGVLFVIDSPGGAFAPSMELALAIKDLKIKKPVLVYASGTMASGSYLAGVGANKILANPASFIG

SIGVIMQGADLSGLANKLGIKEQTIQAGEFKSAGTFARAWNENERNFLQGLIDQSYDLFTGFVAKERALD

LNKKDQWANARVFLAAKAKELGLIDELSNYENAKKELEKLANVSNPVWKEEDKIDKFLNRLEGQTSSLIS

KSLIEIAYKTNSSFINAR

>AHK54764.1 chlorohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MFIVAARYLFLCDEDFTILENQAFVFEDKILELGELDNLKKKYPKAKIIKTPKNSVILPAFINPHTHLEF

SANSTTLHFGEFLIWLKSVINSRSILNAQAKEELILQSIKKMQKSGIGTIGEISSFGSDLDPCLKASHKG

MRIVFFNEILGTNENQVEDKKQEFLKRFENSLKFKNDFFIPAISIHSPYSTHPSLAHFALDLAKKQNLLA

STHFLESKAENIWLRESKGGFKKWLENFTLHPKPLYTPKDFVKLFKGVRTLFTHCVYLKEYEWLDKNLHS

ITHCAFSNRLLSQKSLDLKTALKSGLNIHLGTDGLSSNISLSLLDEMRANLLIHKNFDLLELASKLLQMV

TLYPARALNLNLGELKKGKIADFNVFELGECDKKQAPLQFILNAKEVDKLFIKGKECKF

>AHK54763.1 3-dehydroquinate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIMIIQGPNVNMLGVREVGIYGAMKMEEIHEQMKLAASQNNVELDFFQSNFEGEIVDKIQECLGTVDGI

IINAAGYTHTSVAIRDAIAAVALPTIEVHISNVYRREEFRQKSLIAPVCSGTIVGFGPFGYHLALMGIIQ

ICEQIKNLRAMQQAQQTNK

>AHK54762.1 flagellar biosynthesis regulator FlhF [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGQLIHTFTVEDTEQIIPKVKEDYGDKALIITNKQIRPKTLNRSALYEVMVAIEESDYEEHLKKQGKSLP

AKKSSPKPSSTSLAEEKIRSQIPQEDEDVVLDFSNTRLNTNLNTVKNNDLAKKTYQDFPQNKINPHQNKT

LGFDDFKEKLSEVSNEISKVTNTPLENYTPNPNYNKKIENFEKQFEKQINKLNDKIDLLADMMWDDKAEA

RKNLMIPPEFASIYKQAKESGMLENHLEAIMKATIENMPAAMKTNKDAVQRYFHSLLRNILPCRVESDIK

KQKIMMLVGPTGVGKTTTLAKLAFRYAYGDKRYKTGIITLDTYRIGAVEQLFQYAKMMKLPIIDSIEPKD

LDEAIKSLNNCEVILVDTIGNSQYDQSKLAKTKEFLMHSNAEIDVNLVVSANTKHEDLMEIYKNFSFLNI

DTLIITKFDETKVFGNIFSLVYETNIPLSFFSIGQEVPDDLEVANSDFLVHCILEGFNKGKNNE

>AHK54761.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNNQANKLRNLMSQNGTKKSQNTHFIAITSGKGGVGKSTISANLANVLANNGYKVGLFDADIGLANLDVI

LNVRIQKNLLHVLRGECSLEDILIEVKPNLWLIPGESGDEILKYNDKNIYERFLNQASILDELDFLIIDT

GAGIGGNILNFLEMADEVIVVTVPDPAAITDAYATIKTTSKTKENLLMLFNVVKNENEALKVFENIKKVA

DANIKNPLNLEFLGHLSASKDVSGSIKKRTLFSDENTASSDEIKALASKLLYRLERKVLDNVSNRSFSSF

FRKIIERF

>AHK54760.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRPENYVAFFTVCGFFIGLAFSIISIDEAFDILIFTCFITFMFYVFVHIAIMNFIDVKKISGRIFNKHDY

EKTSNNIINDLVIREKKMDIILEKLNEEREELKKNEFKERRRNAKRAA

>AHK54759.1 RNA polymerase sigma 70 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MLKEPPKAYAQMLKKEQDELVLSYMPALRAMAFRLKERLPSSIDVNDLISIGVEEMIKLSRRYDKEQNDN

FWGFARKRVNGSMLDYLRSLDVMSRNNRKIIKDIDAIMDEYFLEHECEPDDEYLAKKLDLDVEKIKEVRT

AHAISYTLPIDEQIELYNEDNTLEKIEKEELLEKIHEVLDDLKERDQLIIQLYYYEELSLKEISEILQIS

ESRISQIHKKLLKKLRERLV

>AHK54758.1 flagellar motor switch protein FliM [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAEILSQEEIDALLEVVDDNTDTPIASNSKDEKDERNIVVYDFKRPNRVSKEQLRTIKGIHDKLARNLAS

QISSMMRSIVETKLHSVDQMTYGEFLMSLPSPTSFNVFSIKPLDGNCVLEINPSIAFPMIDRLLGGQGDS

YEASRELTDIELNLLDSILRIIMQRLKESWATVTEIYPSIEAKESSPNVVQIVSQNEIVIMVVMEIIIGN

SSGMVNICYPVVHLESILSRLANRDIMMGETSAKKSRNKELKTLIGRAEVVYEAILGKTLINVHEFLELK

QGDILRLDREADDKAIVSIDKKDVFLAQIGLHRFRKSIKILELIRTDKDEIKEILEKYEEERKAKASVYD

EPEEEDEEI

>AHK54757.1 flagellar motor switch protein FliY [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINDFLKMFTNECISTIEGLTGKSAEFSEYKEFDVNTSDTLKAPLVYAIFNIANGGKIGILAGAILMSAI

GEWMMGEEEITKNDKLGPDEMDAAKEAIQNIISAFSTTLGAQKDIPKMDFSIESCEFVPESVDFKDFKKL

FLYDVKIGDLEEQVSLAMDQTLHNILSGKPAETGNTSTDSNHNTEEKAIMLSEELKNINLIMDVRLPVRV

RIGNKKMLLKDVLTMDIGSVVELNQLANDPLEILIGDKRIAYGEVVIVDGNFGVQITEIGSKKERLEQLR

>AHK54756.1 lysine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNEKISQDLEKFANIPNLKNAVTFFGSARLKEDNFYYQQAKILAQKCVQNGFCVISGGGGGIMRAANEGA

FSQNNNTNSMSSVGFNIFLPHEQKLNDFVEYNITFESLAIRKMALIEKSLAFVIFPGGFGTLDELCEILT

LKQLEFKKDVPIILFGSEFWRGFDEFVRNSLLKLEVISKGDELKYKITDDLDFIINTLKEI

>AHK54755.1 thiouridylase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKILVAMSGGVDSTVTAYKLKNLGHEVIGCYMKLHGKPNYHEENIKKVEKVANFLQIPYHILDLQEDFKN

KVYMPFVDTYKEGKTPNPCALCNRFIKLGKLLEFAKSLGCEKLATGHYARLENNLIKTAVDESKDQSYFL

ASADKEALKYLIFPLGEMKKEDVKKFASTIEVLKSFATQKESSEICFVEDTYVQVLDQFMDTKIPGEVLD

SSGKVVGKHEGYMHYTIGKRRGFEVRGAHEPHFVLKINPKQNQIIVGTKEELKISEFNLKNINLFIDAKE

LDCEVKIRYRSKSTPCKVEIYEDKSAKIILKDPVYGLASGQMAVFYDHDKVIASGFIE

>AHK54754.1 hypothetical protein N917\_00240 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNFQVKTLETFNPFESLNHEQANTEQILDFRVIDFKLLCSSVKPAKTKTYERKDFDLFYADDFFVKNYNT

IVQKFLIEIYPKTQSFPFTVKLRSNSNLTHLKASINLTENFKYYPNLKFDILQNIYKIMIKQKFLILRLD

KNLFDKIDDFILSIQKSPSIKEIELEIAKGVDKIEHKSDEIIYHRDVNEECFDENINYDEGNYCKPIEKN

ELLFEYIYRILGKEGRNLRGEILHLNPIAFLDNPFIIKDESIYTEELEDRIKYFSANYGFLNKDHTGYCI

ANNLKLSQIGLKTTGSIKTNTDENINLEITNFDISDDAIKSGIVNVQASNIKVNGNVGATKLYGKNISIK

GLTHAKSEIFAQDIFITTHKGTLQADTVYIKNLENGTIIAKNVFVENCMGGKIEAENIYICNLLTDNTLY

PRKNLIITNNIKFKNNIVVSPLVSIENNSDTECENLKNLSLKIKSKLDDTISKMQNYYDYLIKNQIKIIK

LQKTKNPSAIEMKFSNLYHDIIKKYNHLSISYKKLVKLKYQIDAKLNFLNEMVYNVKIYIKAENIGEDNF

LKFYPNTNTNLELKHHINLKDYEKVLYLEKGQQVSYIKSSHNYSESDIEEIKIIFKKLEKDNS

>AHK54753.1 flagellar hook protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MMNSFYNGISGVKSNSFGIDITANNIANVNTTGFKYSDAQFKDIFYTTITTQSTNPAQGGYGSGAASSQV

VFEQGSPVASDGEFDVALQGKGFFGVLGADGNAYYTRNGSFRRDANGYLVDSYGNFVLGTMNPAFTGINY

SDRVAGLMGDYLNTGTPVNNGFTVNSNNSFSIGTTASQGAIKVPVNMYLPPQVTQNVKWSGSLNTNTTTE

VVKVDLDPSKFNITKTEDGKYVVSGSVSKEDVFSAKAGDRIILNFTDDNGVKTSFEATLDENLNFKSNEL

DLKGLDENSIKLDTAQISTEQQKANKDILESPIYNADGSKSTLRVTLERVLPQEGDNIQYKAIAQIYDSN

GNAVGNPTEGNMVFDKNGALLQNNITSIANPNGGTINIDLGSPYDANKPGSGYSGIYIKQGVEKNVVTQQ

DGVAEGFFEQYNISDDGSIVAQFSNGKNAIVGKLALYNFINEQGLVAMGDNIFAATANSGDASFIMKDGQ

VVNTAKFKGGFLEQSNVDLSAELSNLIVTQKAFDASSKSITTSDQMIQKAINMKR

>AHK54752.1 flagellar basal body rod modification protein FlgD [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MISSSDWNLNTTATTSGTTSSGSTSGTTRTDSSSSSGIVSNPNATLDKDAFLKLLLIELQHQDPTDPMDS

DKMLTQTSQLSALEMQQNTNTTMQKMVETMQKLSDSFSTSMSTSALGAIGKMATVSDNKIKLTGADELIA

LKMYLPEDSDENGVTLEIYDSNNKLVFSEKSDAKSISQGLFTMEWPGRNNDGVYAGDGEYTVKMVYNNKN

GEKITANYGTYPIEGVVFKDGVAYAKMAGQEVPFDAIQEITDYKLGSSSSTGGSGSSGDSSGGSSDGDSS

GSGSTEDGDKEEKA

>AHK54751.1 flagellar hook-length control protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSNLAPQNDVLNLTPSKTSTTSSSFSKTSKNKEHESSDSKNSTQDDTESFLNSLLNSINETNEFLPDHMK

ISQKEVVNEAMSRLQKGAFDESDKISIFESASFMQILSLLDKLKTDTADVKLANLSTQLSSLIKTEANFN

ALKGASNLSELLDIAKDLGLNVKNIKVDRLLDLKATFPNLDKADFFKGAVDNVFKEIINNKISNVSKNLN

HNLENTTHTTSTHSMQKTNSKDSGSLLSQTLKNLDSILSSKESKHEKNDKVKSKIEEDTTDAKNTLKNIK

NDEFAKNLTEELNIKDKKNQDNLNKESKDLNKDFNKELNKNQEKNNLNQENIQDQNKNLKNNDQNLNLDK

NLNKEIVKDTQKLVSNLTQKDFNLNKEPKNNNKENKDIKQNFFDQKLNFENLNKTQVVQNKENNANFNNN

NTNNKETFTQEQTKTHSENVDKNSLDELNSLVKDLNKVTQNNARNITPKETLQYFSQDLKEAVDQYKAPI

TKLSITLNPNNLGEVEVTLIQRGNNLHINFNSNANAMNLFIQNQAEFKNSLVNMGFTGLEMNFSDQGKRE

QNQNQGKNRSGYGFKDALDGKNESEKVNLELVLAKYF

>AHK54750.1 hypothetical protein N917\_00220 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKPLNEEIFVEFKSDLAERKNEVLLQVLELLETFRSDENEKMARISSELTEILENEENLEKILNAKNLE

ELLNILTALNEDKMIKVYEDSYLKEKFPNVMVDKFLK

>AHK54749.1 GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MENIRNIAVIAHVDHGKTTMVDELLKQSGTFSEREQISERVMDSNDIEKERGITILSKNTAINYKGTKIN

IIDTPGHADFGGEVERVLKMIDGVLLLVDAQEGVMPQTKFVVKKALSLGLKPIVVINKIDKPAADPERVI

NEIFDLFVALDANDEQLDFAIVYAAAKNGYAKLDLNDESDNMEPLFKTILERVPAPSGSDENPLQLQVFT

LGYDNFVGKIGIARIFNGVVKKNQSVMLAKADGTKVNGRISKLIGFMGLEKMDIEEAGSGDIVAIAGFEA

LDVGDSVVDPNNPMPLDPLHIEEPTLSIVFSVNDGPLAGTEGKHVTSNKIAERLEAEMKTNIAMKYESTG

EGKFKVSGRGELQITILAENMRREGFEFCMGRPEVIVKVEDGVKTEPFEHLVIDVPEEFSGAVIEKLGKR

KAEMKTMAPTGDGQTRLEFEIPARGLIGFRSQFLTDTKGEGVMNHSFLEFRPFSGAVEKRNNGALISMEN

GVALGYSLFNLQERGVLFIEPQTKVYTGMIIGEHSRPNDLDVNPIKGKNLTNVRASGSDDAIKLVPPRKL

SLERALEWIEEDELVEVTPVNVRVRKRYLDPTQRKRMEKAKS

>AHK54748.1 poly(A) polymerase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDLKSLENNRLYILKRLGILKFLSIIEALLVGFLAFVFIRDALIAVILAVFVGVFFFRFTAKKLKLAQKE

LQINALNLFLRRFGAKFKKQSLSQKDFLKLGLTKDLKEFKSQNCFEFKDFKIYDIQFLDENKRFFCGILL

EISKANKNPSFENEEQIYIKLTDKNFTLNHIFSKENHYLITTLSNPFFIDIKKDLESNFKDLEENLNSIK

NKLFK

>AHK54747.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKHILLLGLCLSLSLSAKSVSDYKVGEELSDKEGVEYFKELSKRPVQEWPNKNLSINDVPKGKQGDLIR

YGIELLSKTESTLGPYSKLKKTSNEVNCISCHMDNDGNGLPGTKKYVIPFLNILNNYPRLDIETMKIISV

EDRIRGMGGTDSHRFPNDSKEMKAILAYFKWLKEAYGIKDGVKLEGDFFAKMNFPNRPADPVRGKKLFEE

NCVACHGERGLGVKNDNYEQGSGHLYPSLLIYPDGGHMAMIPFLARFLKSAMPFGASADNPILSDEDALD

IAAYVNTGFVRMPITTTENRAGLDTAYSKSPSLKPEYFASPQQNLDPKEYIKVKYGPWKNPNHFPGE

>AHK54746.1 hypothetical protein N917\_00200 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQNLNQNEQIKCPSCGSFIDISTALYAQILDKAKQEMLKQKKEFDDEVNAKRAEYTKALNDLKTQKIEQE

KLINEQVSQKLLLEKQKFEQELLIQKQNFQKEFSEKFNKEHENEMKIMQEELEKKSKELSEFLSIKAENE

RLKREQKENEERLKFQAKEEAFKEFKEQESKNLEFEREKMRLEFQKSTQEQDLKYKELETNFKSVAQKLE

DAQRRIEQGSQQLQGEAAELLIEEYIQSEYLSDEVKEVPKGVNGADCLHIVKDNFGNICGSILYESKRTK

EFNKEWLDKLKLDSIAAKSDIAVLITKTMPKDKEKTHFKEGILICTFNEFKGVLAVLRESIINAYKLKNA

LQNKDEKNHILYEYLNSKEFNTQITFILKTYQNMKEELEVEKRALQNIWKKRERAIENLSFNSTAIVSSL

NAIFSDLQGGNLIGEEGIKSLENLAKDED

>AHK54745.1 multidrug DMT transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQKHTKIHGFAKFKLIVILALMSSIAPLSTDMYLPALSHVEQSFQTNSFLTQLSIASFFIAFALGQLIYG

PLSDIFGRKIPALVGIFFFIVSSLFCVIIDDIYAFIALRFFEALGGCAGVVIARAIVNDLFEIKEAAGIF

ALMMVFSSLAPMLSPTFGGILLEYFSWHSIFATLFALGILLFLMILFGLKESAPHLKNKKFSHHEAMKSY

KFVLSDKRFLVYILCASFALAAMFAYITGSSFVFTQFFSLSEQKFALLFGANALGFVICANINARLVLKY

ESEKILAKALMIMFISTVILLVNAFFHPNFLLFELSIFTSIAMLGFIAPNTTTLAMARFKEHSGTASAVL

GTVQFGFAGLISFVVGAINANTPIILAFVMCACVLVANMIYFLIKIKEKK

>AHK54744.1 hypothetical protein N917\_00190 [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTNNIFMALAIVLASLILAFGFNKALSDFKTLERSVSVKGLSQKEVEADTLILPIKFTRSNNNLTNLYE

ELEQDKENIIKFLEKQGIKEDEISYNSPNIIDRLSDPYSNDTQAAYRYIGTANLLIYTQNVKLGKSILEN

ISSLAKFGIVTKIDDYDIEYLYTKLNDIKPQMIEEATLNARNAAIKFAQDSNSHLGKIKKASQGQFSISN

RDKNTPYIKTIRVVSTIEYYLKD

>AHK54743.1 L-asparaginase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNMCDEI

WLRLAKKIAKLFAEGIDGVVITHGTDTMEETAYFLNLTIKSDKPVVLVGAMRPSTAISADGPKNLYNAVA

LVVNKEAKNKGVMVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNAPFD

VSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVSSRV

VAGCVAVSDSDEKLGFISAEDLNPQKARVLLMLALTKTSDPKKIQEYFLKY

>AHK54742.1 recombination protein RecJ [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKIINKNEIKKILASRFEKDLHTKLCDLPLPCCLKDAYKAANRIKEAVEKNEKVAIVGDYDVDGIISCVI

MAEFFDDIGFDYIIRIPNRFKDGYGLNAEIINELDVNLIITVDNGIAALEAAKLCKEKNIDLIITDHHMP

QDILPDAFAIINPKQKDCDFPEIEICGAQVAWYLIAALKEVCKLKYDMCKFLELLAIAIVADMMELRDLN

RALVRRGIDHINKSKRAAFRAIKHYYQKDKFALDNIGFLIAPLINSAGRMDDASISYEFLHTKDFNKALE

YLEQIVSFNESRKDEEKQLFEDSLNQIDENDSCIVVSGLNWHEGVLGIVASRLAKHFNKPAFVFSQNEEH

LKGSARSVGKIDILALISKTNSILSNYGGHKGAAGISLNSENFEQFKNKIKKECSQISESEFLDTDEILG

ILEPSEIDFEMLEILESFEPFGHKNPRPFFVLENLCVKNKKLLGKDEKHLKLVLTKENKTIEALFFNFDK

EPELNQNISLLGSISKNEFRGMVTPQFVVKEIL

>AHK54741.1 CTP synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKQTKYIFVTGGVLSSLGKGIAAASIATLLKNSGLKVSILKADPYINVDPGTMSPFEHGEVFVTDDGAET

DLDLGHYERFLDESLSQDNNFTTGRVYQSVIEKERRGEYLGKTIQVIPHIVGEIKDRIKKAGEGKDILIV

EIGGTVGDIEGLPFLEAIRALRLEVGKNNAMNIHLTLVPFIKAAGELKTKPTQHSVGELRRIGISPDMII

CRSEKALDRDLKDKIAISCGVEKNCVIESVDAASIYQIPLNFLKQDILSPIAEILDLKNLKPNMENWDSL

VKRVIAPSNEVKIAFVGKYVDLKESYKSLTEAIIHAGAALDTKVELKWVDSEKLENMESSEVFKDVSGIL

VAGGFGYRGVEGKIKAIQYARENKIPFLGICLGMQLALVEFARNVLKLKDVNSSEFNEKCQNPVVYLIDE

FMDTNGEKQIRTAKTPLGGTMRLGAYKCDIKEKSLLAKVYNEVKSVKERHRHRYEANPKYRADFEKYGLI

VSGESKGLIEAVELNCHPFFLAVQFHPEFTSRLEHVNPVICSFIKAAINYEDN

>AHK54740.1 FAD-dependent thymidylate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQITLLFHTPLSVCSHATRTCWQSFEKGDCGGEKDKELIDRVGNKFKHASTLEHLNYTFYIQGISRACLQ

EVARHRHTSPSVKSTRYTLKELRNEAEFKIGDFENASRYLVLCGNEEVDNASIKALENLRTILQKSISLD

IAKYCLPESYKTELTLTINARSLQNFISLRSSKSALWEIRNLANALFEALPQEHKFIFEHCLHKDIE

>AHK54739.1 sodium:dicarboxylate symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDKQFFQDFLMLSQAHTIATLAILCVVFYALKKMRDIKINFSLRMLFALLMGLGFGFALQYLANFPDAEE

ASNILWYSETKHWFAFVSSVFVAFIKMLVVPLVSICIIKVIIEIDKNIKISSLLGISLFWILFSTAIAAT

LGIFLGYSFDLGSNFAIYEGDKQIREIQTFSNIILGLIPSNIITAINKENIIAIVIFSFFIGISAKKISK

KEEYEQAFKSFHNFILTFYNIMMNMTATVIRFMPYAVVCMMANVLLSNGFEAIKTAGLFIMLIYIAMFIM

FGVHFLLLASQGLNPIKYAKKAFPVWLFAFSSRSSLGTLPMTTSTLQNKFGVNSAIANFVASIGTTTGLN

GCAGYFPALAAVFVAFATHTHIDFTFALMIVLVAVIGSLGIAGVPGSATMAASIMLAGIGFGNNFVMLSL

ILAIDPIIDMARTASNVSGAMTSALCTAKNLKALDKEIYNS

>AHK54738.1 ribonucleotide-diphosphate reductase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKVIKRNGRTEELDVSKIKKCTSDAVKDLEGVNLSELELDAKIQFRDGISTEEIQKTLIKTAVDKIDIDC

PNWTFVAARLFLFDLYKKVNGMNRYNHLREYFQKGEKEGRILLGLKEKYDLDDLNAYIKPERDMQFTYLG

IKTLYDRYLIKDSKGMPIELPQQMFMAIAMFLAQNEFNPQEWAKKFYDLISKFELMLATPTLSNARTTRH

QLSSCYIGSTPDNIEGIFDSYQEMALLSKFGGGIGWDWSKVRAMGGSIDGHKNAAGGIIPFLKITNDIAV

AVDQLGTRKGAIAVYIEPWHMDISDFIDLRKNSGEERRRAHELFPALWINDLFMKRVRANDKWTLFDPAD

TADLCDLYGEAFEKRYEEYEKDESITKEIVEAKELWKKILLNYFETGLPFLCFKDSANRANPNAHVGIIR

SSNLCTEIFQNTEPNYYQIKVVFENGDELHFDEEQKVVIDGGYEKPAKKISTLDSIEGNKVYIVEKYKND

GKTAVCNLASINLSKVYTKEDIERVVPTAIRMLDNVIDLNFYPHRKVKDTNLKSRAIGLGVMGEAQMLAE

AKIHWGSDEHLNKIDEIMEQISFEAINASSNLALEKGSYEDFEGSNWSKGIFPIDVASPKAKALTLREGL

FDQSECDWVKLREKVKKDGMRNGYLMAIAPTSSISILVGTTQTIEPVYKRKWFEQNLSGMIPVVVPNLSL

DTWQYYTPAYELDQKILVKAAAVRGKWIDQGQSLNIFLSLDKASGGYLNEIYQLAWELGVKSTYYLRSES

PDSEKVNVADRSIECEGCQ

>AHK54737.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MVERYSREIMAKKWDMQAKYDAWLKVELAAVKAWNKLGLIDDTDCEKILKNAKFDIARIDEIEKTTKHDV

IAFLTSVSESLGEESRFVHYAMTSSDCIDTAVALQIKESLELILEDVSLLLEAIKKRALEHKNTLMVGRS

HGIHGEPITFGLVLAIWYDEISHAKELLEHAKEVISYGKISGAMGNFAHAPLEFEEEVCKNLGLKAAPVS

NQVIQRDRYAQVISAIAILASSCEQIAVAIRHFQRTEVYEAEEYFSVGQKGSSAMPHKRNPVLSENITGL

CRVLRSFVTPALENVALWHERDISHSSVERFILPDAFITADFMLMRLTNLIDKLLVYPENMMKNLNLTGG

LVFSGRVLLELPFKGISREEAYKIVQRNAMKVWADLQNGKAAINEKNESLFLLALLSDEDLRKSLSEEDV

RKCFDYNYYTKNVDAIFKRTFK

>AHK54736.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MAYIKIKLSNNGKKAFQVLMENLKISINEAQKLIDKKRLFCDGILVEEKNKILNGLVELIVYENNPKGVE

IVFENEDFAILEKESGILSHPNGRHCKYSLSDEIWHLWGKEACVAHRLDKETSGLILIAKNKKAQIDLKS

LFEKKLVQKEYLALAHGKIEENFIVDKAINLTKNYDDVKTRMQICKEGKQAITEFEILEYFPKINATLLL

CKPLTGRQHQIRVHLHYKNHTILGDPLYGLSKQQIESILDEKLNPKERLKLTGALRLCLHSYRLKFQYKN

QNFDINSKINIKEIFNNSIK

>AHK54735.1 fumarylacetoacetase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKFVNFIQGQKPNLGVLNSSGKIVSFDDLGIETNDMNEFIIHFDKFKHKLTDLDSKIAYEIPQENYLAPI

IEPRQDIICLGINFLDHAKESAKFKGEKFEEREYPVYFGKRCNQATAPFGDIPLHADVTSQLDYECELAF

ILSKDAYKIKAKDAKDYIFGYTIINEISARELQKRHKQFYRAKSLEGSTIMGPYITSVDEISYPPKLQLQ

SYVNDELRQNSNTQLFIFDIAYVLEELSAGMLLKAGSIISMGTPSGVGMGLNPPTFLKSGDKVRCVIENL

GELCNKIKNINY

>AHK54734.1 cytochrome C biogenesis protein CcsA [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIIMILCLSYANIVFAVDMITPIPNSISYDKEKAKLGKSLYMDKSLSKDGKVSCNTCHRLDQHGVDGL

EFSIGVDNQLDKPFNTPTTFNSVFNFVQFWNGRAKDLAEQATVPFFNPKEMGLSPELLLQKVNSNENYVK

TFKKLYGEVTVENIALAVAEFEKTLITPNSPFDRYLSGDQNAISTQAKKGYEDFKANGCISCHQGQNIGG

NMFQKIGIFEEYPNQEDLGRYEITKREADKMVFKVPSLRNIAKTAPYFHDGSIPTLDACVQFMAYYQLGK

FLDQETVDNIVAFLESLTGEYHDK

>AHK54733.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTNKKSSFLIKFIILSTLVLAFILVLLGIIFNNYSSSKDNKELINIVQQLEISDEKINSVFQNSFNFINY

DPSVQAIKKMQENFTKLKTFGIDINKAEEIFNAKLIQLNYFKSANSIAVNSKLYLFELAKNYFEELEQNH

ETNKNNYKTMSSMLSVLSTENILQKTTLNQLNNLMKEIKNDTKSENLQLFLKHYNMIVKQISIMQDNSSI

YENNSLMKELKQLNTFTQNTIEQSNLFKFYIALAVFGITLVLFVFFILLTLKKVIMPIHTLEKLSANLAS

KEANLHSRLNIDPKSELGQSAQYINSFISTVQNSIIEAIENAKSSHQNSQKLKNNSMMLENSSNSQHEQI

QGVKEITHVLDDHINLAGNLAQESIENMQDMHILMDKVELTLSELVNLINENNEKEQNIVANMDNLTQSA

DNIIEITNSIKDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVGQLADKTSKSLLNINATVNTIVQQI

NDNKALMDLIHDSMKETSSKTNDLQQELVNSMHKLESSIESTQTMKDKSMEVKDKMLILGTNIDKVNELA

NSVKDLSCEINNISQNVLNGASKLSEKLSSFQ

>AHK54732.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MEFLELLLVLIALILIIKKPEKENLAFGLVMVAWLLMVFFYVGHKTGALLTIMNL

>AHK54731.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNEINKTKNFYTLMCLAGFLIILLPVGIANLIFGYMLGDSPCTLCWGQREAMIFIGVMALFIVRYGMKGK

YLAALLIMTAVGLYQSFAHYGNHAHRDLDQGFGLAVFGIHTYFWAEVVFWAVVLLLGVIFAFAPKFNAFE

AELNGEKFRKYTKFSFAAVLISAIIVASNVFQAFVSTGIPPYVGQGDPVRFSLNPKYIIWSKEGWNGLWQ

NISFLGKRDVKAPDYAFAPASEKLGIKFDNDINNAPFAKINDELKITNEQTINFDKAINTLDYINNEFVA

SSKWDVAFLDNNFSVKEGFELDPYFSASIDPIIGIIPYMNDKFILMGSNKSFLRFAKNPNASEEDIAKQY

ADFVKGNDKFKGQGESLGRGRLDTVRAKFNHVASMTTDGNYLYLATVPNNKDAKTFVISKVSLKDRVLSG

EFTPKANLKEGKTLGDLYVTSMTFKDGEIYALSKNHNVIAVIDPVKEEVVKTIAFPSSITNARSIFFKDG

KINILSYQDGANKLYTLN

>AHK54730.1 7-cyano-7-deazaguanine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MSKKALCIISGGMDSTLCAYLAKKEGYEIIALHFDYEQRTQEKEKECFKQICKALKVEKSYILDVSFIKD

IGGNALTDKSIDIPKNELCTSDTPPITYVPFRNGIFLSIAGSLAEKENCESIFIGVVEEDGSGYPDCTDE

FIQKAQEFINEGTSKNFKVCIKTPLVRLNKAKIVELALKENVPLELTWSCYESEDEACGECDSCLLRLRG

FEKAGFKDKIKYKS

>AHK54729.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MINIKLIEHIFKAASISRWNDYPRMANLVELDKQAHKFIIAYFIAKMEKDVDMRVIIEGGIFEFLSRVVV

TDIRPDVYHEIVRQKKAEVNAWVLSKIEPMIEDIEDGEFLKRFEAYLNGNAYAKERLILKAASYFATRWE

FNIVYQTSAFLNDIDEIKNKVEEELEDYYELIGARKIALNQKIAKIIDLSGRLRFQKRWAQTPRIPETAV

LGHMLVVAILGYFYSLKIKACDKRLENNFYCALFHDLPESLTRDIISPVKYGIDGLHDIINDYEMKLINE

RILPFVPEGLRAEFSYILGIREGRNGESNFVKNEFENRTYKNAKIELCSGSLSSFNENEFGAIDGKALKY

CDKIAAYIEAGLSISYGVKSKELESGFLGMHEFFKENPTIDGVNFFEICESLREYFKI

>AHK54728.1 dihydroxy-acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRSDAIKKGHLRAPNRSLLRACGLKDEDFDKPFIGVANSYIDIIPGHYFLNDYAKIIKDEIRKNGCVPFE

FNTIGVDDGIAMGHEGMLYSLPSRELIANSIETVMNAHQLDALICIPNCDKITPGMLMGALRVNVPTIFV

SGGPMASGVTKKGEKISLSSVFEAVGAYESKKISEEEFKDIECSACPSGGSCSGMFTANSMNTLCEAMGI

ALEGNGTILALSKEREELLRKAARRICEIALDERFKIRNIITQKAVRNAMVVDMAMGGSSNTVLHMLAIS

REAGVALDIKDLNFISSKVAHIAKIAPSLNSVYMDDIHKAGGVSAVMAEISSRQGHILELDALTITGESL

KERLKNAKIKDENIIRKVDNAYSKVGGLAILFGNLAKQGCVIKTAGIIGERKFKGKAVCFNSQDEAIKGI

IKGKVQKGNVCVIRYEGPKGGPGMQEMLSPTSLLMGMGLGADVALITDGRFSGATRGLSVGHISPEAAEG

GLIGLLKDGDEIEIDVDAYTIHANVSEEEIAKRKKEFALPQKEVSSRWLRMYQKLVSNASKGAVLDME

>AHK54727.1 non-heme iron protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MRQYETYKCQKCGNEVEVQNVGGGKLSCCGEEMKCITTDLTAVNLMKAFAGESMARNKYDLFADVAEEEG

WHAVARHFREAAENEKWHARAEFKAYHEIVDGKPLEVTTKNLVTAAEGENYEHTTMYPNFAKIAEDEGKK

AIARLFTAIGKVEIEHEREYLALKKMLEEEEFFNSEVEELWVCEVCGHIHRGKKAPAACPLCKAPKEYFK

REFLG

>AHK54726.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKLLFLFFALTAFLFGAVNINTATLKELKSLNGIGEAKAKAILEYRKEANFTSIDDLKKVKGIGDKLFE

KIKNDITIE

>AHK54725.1 ribonuclease HII [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKTLFDTKELLNEFDINLIGIDEAGRGALAGPMMMAACKLNKQLDGLCDSKKLSEKKREELYEIIIKNSN

YLILAFSSEQIDALGLSTCLKKGLKLIKKHFKTENNFLYDGNTNLGINGIKTQIKADTSILQVSAASILA

KVSKDRVMNFLAKDFPCYEFEKNKAYGTKAHKEFIAKFGICKLHRKSFKLL

>AHK54724.1 glutamate synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MGNARGFLDFKRMDFKKIAPKERILNYKEFTIPLDKKEQEVQGGRCMDCGVAFCHTGVMSEGKDVGCPLN

NLIPEWNDLVYRSLWKEAYERLDLTNPFPEFTGRVCPAPCEDSCVCAINGVSVSIKNNELSIIENAFKEN

LVRVNKPKQYNGKKIAVIGSGPAGLACANTLNSLGYKVSVFERSDKIGGLLMYGIPDMKLDKSIVQRRVD

LLKKSGIEFKVNENIDSKDKVSKLLKEFDALVLCTGASKPIDLDIEGRKLKGVEFALDFLTQNTKTLLKT

GKGADMAKGKNVLVIGSGDTSVDCIAVATRQGAKSIVRFERSPKRPLQRSQNNPWPLKADIFTTDYGLEE

AIAVYGKDPREYQKMTKKFLGKTHVEGVEANDLKREFKEGKAINVEISNSKKTYKADLVLLAMGFSGCEE

AISKNFGVKLDEKNNISTENFQTTHKKIFACGDARKGQSLVVWAIKDGIECALSLHQNLAK

>AHK54723.1 glutamate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MDLENILENNQSIGLYHPKNEHDACGIAAVANIRGIASYKVICDALEILMNLEHRGGTGAEENSGDGAGI

LIQIPHDFFKTQELGFELPKKGDYAVAQMFLSPNTDAKEEAKEIFLQGLKDKKLEFLGFREVPFNPSDIG

ASALKAMPYFLQAFVKKPSKISAGLEFERVLYSTRRLIEKRAINVPKFYFSSFSSRTIVYKGMLLSTQLS

DFYLDFKDVNMKSAIALVHSRFSTNTFPSWERAHPNRYMVHNGEINTIRGNVDSIRAREGLMQSEYFENL

DEIFPIIAKLSSDSAMFDNTLEFLALNGRTLEEAFMMMVPEPWHKNENMESKKRAFYEYHSLLMEPWDGP

AAIVFTDGVIMGASLDRNGFRPSRYYLTKDDMLILSSETGALKLDEKNIKAKKRLEPGKLLLVDTARGRV

IADNEIKEHYANAKPYKKWLKNLVELEKQKSGVYKHQFLKEDEVLKLQKAFGWSYDELKMSVAAMAQNGK

EAIAAMGVDTPLAILSKTYQPLYNYFKQLFAQVTNPPLDAIREEIVTSTRIYLGSEGNLLKPDENNAKRV

KIALPVISNEELFEVKALNKFQVKEFSILYDYSKKTLEKALDELCVKIEDEVKKGVSIIILSDKGVDEKN

AYIPALLAVSGVHNHLVRKNLRTHTSLIIESGEPREIHHFACLLGYGATVINPYLVYESIQKLIANKDLN

LSYEKAVENFIKASSSGIVKIASKMGVSTLQSYNGSALFECLGLSSKVIDKYFTSTTSRIEGMDLEDFEK

ELIALHKHAFNDTHKALDSKGIHGFRSAKEEHLIDPLVIFNLQQACRNKDYKSFKKYSALVDEKQVNLRS

LMEFDFSEAISIDKVESVESIVKRFRTGAMSYGSISKEAHECLAQAMNKIGAKSNSGEGGEDEERYEIKE

GVDKNSAIKQVASGRFGVDLNYLSHAKEIQIKVAQGAKPGEGGQLMGFKVYPWIAKARHSTAGVTLISPP

PHHDIYSIEDLAQLIYDLKHANKDAKISVKLVSENGIGTVAAGVAKAGANLILVSGYDGGTGASPRTSIP

HAGIPWELGLAETHQTLILNKLRDRVRLETDGKLMNGRDLAIAALLGAEEFGFATAPLIVLGCTMMRVCH

LNTCPFGIATQDTELRDRFKGKVDDVINFMYFIAEELREYMARLGFERLDDMIGRVDKLRQKSVQGKAGK

LNLDKILKSLPTYNRTAVHFKDYKDNKLEKTIDYRILLPLCKNAVEKKEPIKLSLEVGNQSRTFATMLSS

EILKTYGKDALDEDSIHIKAIGNAGNSFGAFLLKGIKLEIIGDSNDYLGKGLSGGKIIAKISNEATFSPE

ENIIAGNACLYGATKGEVYLDGIAGERFCVRNSGALAVVLGTGVHGCEYMTGGQVVVLGDVGANFAAGMS

GGVVYIFGRHNEAHVNTELVDIKDLNAKDEKELKAVIEKHITYTDSKKAKDILEKFDKKDFFKVMPRDYE

KMLKMLDLCKNEKDPNLAAFLKITQK

>AHK54722.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MTLLTNPIIISVVLMTLLCLFRFNVLLSLLISALVAGVFSHLELVDTMNILISGMKENLKTALSYILLGA

IAAAISKTNLTAYLIKIVSHFISHKKYLLLLSIALISCFSQNLIPIHVAFIPLLIPPLLSLFNKLKIDRR

AVACALTFGLTTPYMVLPVGFGLTFQDLLKDNLNANNVSASLNDVTNTMYFAAICMIAGLFLALFVFYRK

PREYQEVEIAKVDLENLEMTRKEWGVLAGLVLTLILQILTMNLPLSGLLGFVLMVILGGVEFSKVNEVFD

DGLKMMGFIAFVILVAAGYGEVLKESGSVVDLVNSVVPWMEQSKFLAVFFMLLIGLIITMGIGTSFGTIP

IIATLFCPICLELGFSTALIIFILGVAGALGDAGSPASETTMGTTVGLNADKQHDHIKDTCIPTFIFYNG

PLLILGSIIAMFL

>AHK54721.1 molybdopterin containing oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKQNDQKENRRDFLKNIGLGLFGISVLSNFSFENFLGSKALAKELPDFKIEGKKDLIYHGEKPLTAETEI

YALDSDFTKPENFFVRNNGLPPSLETIKERLHKGWTLEIDGESIINKKSYTIEDLKKKFKTYTYALTVEC

GGNGRSEVIPSTKGTQWGYGAVACGRWTGVRLKDILKDCGIKNDAVYIGYYGIDTKLNGEETSPISRGVP

ISKALQDETLIAWAYEGKDIPLVNGYPLRLVCGGYPASTSGKWLYKISVRNKIHDGEKMEGSYKVPVNPV

KPGDFNYKGEMKIIESMPIRSVITNIKNGSEIKANKKFEVRGKAWAGELEVSEVYVSNDYGVTWTKAKVE

KPLNRLAWQKWSAQISIPTKGYYEIWARAIDSQGNSQPMVLAQWNPGGYINNACHRVNVYGV

>AHK54720.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKKIILILALFLSASWAQNLEINPDTGLIIDPDSPLVEANCLACHGSNLITNMHASRKAWLAAIRWMQDS

EGLWEIEPEDEEKILNYLEKYYGEKYDTRRRIPLAILLQNKTH

>AHK54719.1 DNA gyrase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MQENYGASNIKVLKGLEAVRKRPGMYIGDTNIGGLHHMIYEVVDNSIDEAMAGHCDTIDVEITTEGSCIV

SDNGRGIPVDMHPTENMPTLTVVLTVLHAGGKFDKDTYKVSGGLHGVGVSVVNALSKKLVATVERNGEIY

RQEFSEGKVISEFGVIGKSKKTGTTIEFWPDDQIFEVTEFDYEILAKRFRELAYLNPKITINFKDNRVGK

HESFHFEGGISQFVTDLNKKEALTKAIFFSVDEEDVNVEVALLYNDTYSENLLSFVNNIKTPDGGTHEAG

FRMGLTRVISNYIEANASAREKDNKITGDDVREGLIAIVSVKVPEPQFEGQTKGKLGSTYVRPIVSKASF

EYLTKYFEENPIEAKAIMNKALMAARGREAAKKARELTRKKESLSVGTLPGKLADCQSKDPSESEIYLVE

GDSAGGSAKQGRERSFQAILPLRGKILNVEKARLDKILKSEQIQNMITAFGCGIGEDFDLSKLRYHKIII

MTDADVDGSHIQTLLLTFFFRFMNELVANGHIYLAQPPLYLYKKAKKQIYLKDEKALSEYLIETGIEGLN

YEGIGMNDLKDYLKIVAAYRAILKDLEKRFNVISVIRYMIENSNLVKGNNEELFSVIKQFLETQGHNILN

HYINENEIRAFVQTQNGLEELVINEELFTHPLYEEASYIFDKIKDRSLEFDKDILEVLEDVETNAKKGAT

IQRYKGLGEMNPEQLWETTMDPSVRRLLKITIEDAQSANDTFNLFMGDEVEPRRDYIQAHAKDVKHLDV

>AHK54718.1 DNA polymerase III subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MKLSINKNTLESAVILCNAYVEKKDSSTITSHLFFHADEDKLLIKASDYEIGINYKIKKIRVESSGFATA

NAKSIADVIKSLNNEEVVLETIDNFLFVRQKSTKYKLPMFNHEDFPNFPNTEGKNQFDIDSSDLSRSLKK

ILPSIDTNNPKYSLNGAFLDIKTDKINFVGTDTKRLAIYTLEKANNQEFSFSIPKKAIMEMQKLFYEKIE

IFYDQNMLIAKNENFEFFTKLINDKFPDYEKVIPKTFKQELSFSTEDFIDSLKKISVVTEKMRLHFNKDK

IIFEGISLDNMEAKTELEIQTGVSEEFNLTIKIKHLLDFLTSIEEEKFTLSVNEPNSAFIVKSQGLSMII

MPMIL

>AHK54717.1 chromosomal replication initiation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-mcK12E5]

MNPSQILENLKKELSENEYENYLSNLKFNEKQSKADLLVFNAPNELMAKFIQTKYGKKIAHFYEVQSGNK

AIINIQAQSAKQSNKSTKIDIAHIKAQSTILNPSFTFESFVVGDSNKYAYGACKAIAHKDKLGKLYNPIF

VYGPTGLGKTHLLQAVGNASLEMGKKVIYATSENFINDFTSNLKNGSLDKFHEKYRNCDVLLIDDVQFLG

KTDKIQEEFFFIFNEIKNNDGQIIMTSDNPPNMLKGITERLKSRFAHGIIADITPPQLDTKIAIIRKKCE

FNDINLSNDIINYIATSLGDNIREIEGIIISLNAYATILGQEITLELAKSVMKDHIKEKKENITIDDILS

LVCKEFNIKPSDVKSNKKTQNIVTARRIVIYLARALTALTMPQLANYFEMKDHTAISHNVKKITEMIEND

ASLKAKIEELKNKILVKSQS

>AHK54716.1 O-acetylhomoserine aminocarboxypropyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLAN

VEGGAFGIPVASGMAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEKV

IDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSKYVSGQ

GTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAWL

LLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDYE

HARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQA

IES

>AHK54715.1 homoserine O-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPLIIPENIPAYELLKEHAFIMGLRRAKHQDIRPQEILIVNLMPKKIETENQILSLLANSPLQVNITLLA

TTSYVGKNTPFTHLEKFYKGLEEVKKHKFDGAIVTGAPVEQMDFEKVAYWEELLEIFDFLKQNVTSSMYI

CWGAMAALKYFYGVDKISLDKKIFGVYKHDKVSPDLLLTNLDEKVLMPHSRHSSMDEEQILALQKQGKLK

ILLRNKKIGSALLRDEKNIFILGHLEYFKETLHQEYVRDNFIQKAKNYYDKKGNIKYNWRSNANTIFANW

LNYDVYQSTPFVL

>AHK54714.1 hypothetical protein N919\_08635 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKSIAIIGGSIAGLSAALFFASAKNEELDFDITVFDEGKADLKAAAIYNVPFFPKGAKADEIYTHIKAQ

IASMLEVKYIDSKVVSISGEKGDFTVNDEQGLGIKADYIIVATGANKSDIKELEDFVIPHELMPKPNKFC

FKHHGRQIIKEGIYAAGLASGVTTMVACAMGSANEAACAILSDIKGAVSVYHDTPTTRV

>AHK54713.1 hypothetical protein N919\_08625 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVKFIPVILACSAILASANTISNVSAQTSAVAPAPATSYPVYPQYAVPPQDHFNGLPKILPVKFKISIQ

VLLS

>AHK54712.1 hypothetical protein N919\_08620 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDWEAYGYEIKLNNYMELYFDRNGNFLGQEFDN

>AHK54711.1 hypothetical protein N919\_08605 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKQIFEISNSVQQKSKDNTFNLLLQLSL

>AHK54710.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNTIIQKAVNKDLNSILEITKDALNAMKTMNFHQWDENYPNEIVFQEDIQAQELYVFKENDEILGFICI

NEKFKPEFYKQVIFNKNYDDKAFYLHRLAVKQNAKGKGVAQKLLNFCENFALENHKASLRADTHSKNFPM

NSLFKKLDFNFCGNFDIPNYQDPFLAYEKILNQKAF

>AHK54709.1 hypothetical protein N919\_08555 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLDIFEIIFITTVVIIGFGGIVFVVTKEKK

>AHK54708.1 50S ribosomal protein L29 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKYTEIKDKTAAELATMLKEKKVLLFTLKQKLKTMQLTNPKEISQVKKDIARINTAINALR

>AHK54707.1 hypothetical protein N919\_08385 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFDKIHYYYFNANYEKCLNLSEQFLKESPKFALEFATLSSYKLSLFQKALYYAQELFSLNPTSFNGLMLA

KSYIENLRLDEALNLLQTLLTRKDDLEDELKLELAFIYKLSNKLEESEQIFKELLSKDMYNLNLWKNYAE

IYFKHDFTKALNAHEHLCHFMQDLIDKLQKGIIAEQTNLNLVKLEDRLHSKTKENLTISKIEDFLTHQIL

PQKAYLLFKLFRISDSLELFQSLQEANQHHAQFWQNYAKVLEFNSNYQEAYHAYKKCLSLDSHATYQFDL

AYLLMRMGVDDNFEEGKKYYESRLFYAHNETFSTYHYNESLKAFNKFGVDAFKNKEVLVFCEQGFGDTIM

YARCLEKLCKIASKVLFAPQSAMYEMFKNQIKFLNQNDDIFKNVKVLKNLPTNFDYAIPICSLPFFIDIK

LDEILRLKTPILPQKKPHNQRKKLGIFYATPNAENSDLLRNVKFEFLFDVLKDLDYEIISFQMQLKEELP

KVIEDRSKLIKNWNDTLNYLYDIDCMLSIDSAIAHLSLAMDIPTIVLLHPRFDWRWGKFENPKSYFWPKA

KCFIIKEQEETKRNLQKLIKDILN

>AHK54706.1 hypothetical protein N919\_08380 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGVAINTKIDTFTNNGFINSPGSGQWNNGIWISSNATIEKLVNNGTIKGGHSAIMVTSQHIKTVENTGII

HAEGEWGSSILLEYGGFIEHIINTGTISNNNVGIGSAYGVFGTLTIKDGGMVYGKYSAIGVGRSQTLGDL

YIDGRSNNGTVSGIYSEEHGILLENNSRTQKIELKNGGIIKGNIDGIRLINSASLSGEMILSGEGSRVEG

GRGVGILNRSGKIEGSIKVEDGATVTATSNRAIANSGSGSITGGITVSGKNTKLEGNIINTGNASIGSDI

KIEGGAKVEGGLVNQGNGSISGSVQVSGGSSIDSITNEGNGAISGSITVYKDSKLDSITNTSTSSTGISG

SITNNSDNKLEISNSGNIGGKIESTGSADMVISNSNGGTISGGISSSGSGSTSISNSQGSTINNGITVSG

SAQVEISNQGSVGKDENGNTVTNNGSGSVGIKDWLVSTDKNTGKLNTVVIGGSRAFNVKVENITVDQSNV

DLEELNDINNIISGVNQNNIGNIGTNGSGEISLSFDPITGKLTTDFNLNASISGATFRSLISTTSRRSTF

IDNVMGNSMQSFALASSSKSQSIAMSEKGNLYADASDYIKSDLNNGSYGSNKEHSLFILPYTSSQNVELS

LNEESKGHTKGTIIGYSTLKDSGIYGVYAGYEDTKMGSTYFDINNRTYYAGLKYFNTLFTTEKGQEVYIK

AQGKAALIKNDLTEKIGNNEAKAEPNSYAYGVNTALGMNFISNKDIFSPEIGLAYEGGYTEAFSMKDTIG

QATVKGGERTYANYLNLFSTKTSLTWFRDWLPNLKTSVELGAKFNINPKVEAEARFGNIKVSDEFDLPRV

QKFVSTSFIVPVNEAFYFSLNYNGMFDKDGNTHTGFAQFNYLW

>AHK54705.1 autotransporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNITLTKIPIGEGKEPCLNSKKIVLSLATISFLASCANAKLNSEIKTYDEVNKNVKTRSASVYSPQAKI

NTTINSLHNQQVTITGNGTSNSLTIGSSGTLGSIGNTGKIIYAHANGSNTLTLANLTNNRTINGKIGIEN

NGNFTGTIAVNTFENTGQINGQIYMGIWGNNSGTLNIDKFDNSGTIIDNNKGVFLKERIPTYKPLITVVL

LVQIRV

>AHK54704.1 hypothetical protein N919\_08305 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKLGLVLAVLVALNVSAFADLIVINKKDLVPVSASEMQNKYFQESIKSTLTEPLFKKATFYEADIVAKV

DPRTYNSTQAIIQKEYSDKSNYVYYKQVLILTSDGKRARLSTLSCEIASFDKKGYLCGGTADHNYSIK

>AHK54703.1 hypothetical protein N919\_08255 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLLNTPCRGIIDTNFESKRISITSTLKFQEKKKK

>AHK54702.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKKMVLSETFPGILLIFFTFLALLCKNSSLSVIYTDFFHANFTVGFDHFQISKSLDLWINDGLIAIFFL

CIGLELKYEILRGQLKNIRAVSLPIFGALGGMITPALIFIAINYSHDFAMKGWAIPTATDIAFAVGILML

LGNKIPTSLKLFLLSLAIFDDLGAIVIIALFYTDQLSALAIIICLFCIFALLLLNYYHITHLSLYVLVGV

VLWIAMLKSGVHATLAGVIISLFIPLDTKNKKPYLHEVLKDLNPWVVYFILPLFAFANAGIDIRDMHLGS

VFSPVSLGIILGLFLGKQLGVFTFCFIAIKLKLAKLPENIKYGKFYGICILTGIGFTMSLFIDGLAYKNS

DIFEYADKLAILVASFLSAIVGFIYLKIVK

>AHK54701.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNNIVHKLKTLVLNEAFGGVLLIVCTLLALLVQNGSFSEHYREFLNLKVGFSVGEFELNKPFLLWINDGL

ISIFFFAIGLELKKEFLHGDFKNPKNIVLPFMAALGGILIPAMLFALVNIGDAYTLKGWAIPTATDTAFA

LAILMMCGKHIPSSLKIFLLSLAIFDDVGAILIIAIFYTTKLSIAAFVIAGLAILVMLILNLLGITRKSF

YFICSVILWISVLKSGVHATLAGIVTAFFIPMQTKNGEAFLEEIYESLKFWIAFIILPLFAFANAGVNLS

NIDIGAIFSGVSIGIFLGLFVGKQVGVFLFSYLAIRFKFAALPQGSNLKQLYGVCILTGIGFTMSLFIDG

LAYEVSDIFNYADNLAILIASFCSGIWGFIYLKFFTTRS

>AHK54700.1 cell envelope biogenesis protein TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTLFLNHKYQASYITFIVFIPLLFVIFHSNDFFKMEIKNEDSFSLAIKQFTQTNPTNETKPTESIIEPI

KPKPQPKVIKKTPEKMQKKIKKTPPHPIPNKTPIAPTQEVKTFAKTTDTNVKPKITQLTQGKDNHPVLKE

IQKAIQQAQFYPRQAKKMRMQGTVKVEFLWKENKTLADLKIIEISGYDLLDKSALESIRKASLNFPHYNG

DLRITLPIIYDFKTLRG

>AHK54699.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFSGFFYARNDLRLFKIEKKNELKSFFYKDYTLSSYKDDLNLNNEIFFYQSLKEGLFKENDEILVSNLG

KKIILFRNFTQNCDNFNETKLKQILLLFFLLLASVFFASLAMINEFGAIDLLFLTICLLLLVMGVINLGL

LFKQIRILKSFSKEEMKEFLSQRMKKYTKV

>AHK54698.1 alpha-ketoglutarate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQELTRTKKIRSIIAASSGNLVEWFDFYIYAFTATYFAHTFSTSDNPVIQQINAFGVFAAGFFMRPIGSW

LFGSLADKVGRKKSMVISVVLMALGSFMIAALPSKDTVGDLAIILLLIARLIQGLSVGGEYGIAATYLSE

LATEGKRGFYSSFQYVTLIGGQLLAVASISIMFLFFSIDDMKDYAWRILFVIGGILALGSLFVRKMMNES

ATKLHQHEDRGTLKALCKSWKPFLMVLGVTSGGSLAFYTITTYTKTFMENTGMDKMLVNNLFLGALFILM

IIQPLFGYIGDKIGHKRSLIVFCILALVGIYPIFSLIANNAQNNPSLTFMLVVLLFVILSFYTSVAGIFK

AKLFPEHVRALGTGLGYAISNAVFGGSAPWVALQFKNAGIENGFFIYIAIFTIIMLIATLCLPKKSELN

>AHK54697.1 metallo-beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFNFITTLLKTNLYFLEEKTTSKNSNQTHIISLKQSDDEFLNLLFSFLVPQSDEDKNFIEKTRTKIKRNE

HNIVLIKNPNFNALIDTGFLDTIDTLKEKLHIHKTDFKDITHIILTHAHPDHIGALMSEENLFPKAQILI

DKKKYDFWIKSDRQEIKNTLLKLKNIEFIDHSKDLIFQNSGIKAIPAYGHTPGQNAIIIDDKIVFWGDLL

HLYDIQIPKPKIAIKFDIDQNEAIQTREKLLKEFKERKLKVIGTHVPFIKPKFLD

>AHK54696.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MANFKAFYKEAKYIFKDRIFNDYARCYAYGIDASCYFYIPKIVIIAKNEDEIKQIIQLANTYKTPITFRA

AGTSLSGQSSCDGVLVVIKFAFKKIKINKDANEITLGCGVVGIHANESLAFLKKKIGPDPATINSALIGG

IINNNSSGMCCGTKDNSYKTLRSIRVILANGSMLDTSDALSVARFKDENKKLINELREIKEEINANKELK

DLIIKKFKIKNTTGYSLNAFVDYDDEIDILAHLLIGSEGTLGFVSEVKLAVLDDLEFKACALLFFDNINN

AANTIKEFAKVDFVSSAEIMDYASLKAASTYDELRDILADIKEGNTCVLIQSEHSNELKLDENINKIKEI

SKLAYKSYFSKNKAEYDLWWKIRKALLPIAASLRKAGSTVITEDVCFNIEDLADGIKSIQELFYKYGFGD

NGIIFGHALAGNIHFIITPDLNNKLEFDNFSNLVKEMSNIVASYGGSIKAEHGTGRMVAPFVEVEWGKQA

YLINKKIKSIFDKDSLFNPDVIISDDKDIYKKNIKQVSWIDEKLNTCMECGFCERFCPSNEYTITPRQRI

AILREIKRLESLNDDESKAKLKDIKKYYNHLVDSSCAACGVCSFSCPLGINFADFSLKYRKNNIGFISKI

LGNLAYKNHEKTLKIAKFSLSIANKFDNLSLDNKLEKASNFLSIIPRTRAYLPKVNDYELKSHKRVCNVV

YFTSCLNKSFKPNEKMHDKRSLQEVFESLCKKANIGIIYAPNDLCCGKAYENFQDIQDKNIQKINDFLSN

IDSPIVLDHSACSAKLISDHSKYEIYDLSEYLLKFIAPKLRIDKINENVGLYIMCAARKLGLNENIIKLT

KLCTNGKVLIDNDTYCCGFAGYKGFFKPQLNISATKGFKKFYAKTNIKRGFSTSSTCEIGLSDATGISWQ

HIAYLLDECSEAI

>AHK54695.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAYTIKKVEKETKISAHTLRFWAKKGLFPFVQKDENSVKYFSKSDIEWVKWIEWLRISGMPIEQVKHYIK

LCSLGIKTAKERQEMLKQTKKKLQNQIKTLKESEKVLSKKIKIYEEMLANEVDGFNPESKDYQPCDKLHK

FKG

>AHK54694.1 permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIYVVFLIFLIFIISFVFSKFKEDSFLKHIPKNTKSSIFTQSAHNPSNFIFKQKSCCANTQDKSKNITIN

YKELFKESLKNYKKLLPYIVVAVFIGAFIHGFIPQEILQKYLNGNEILSIALAAFLGIFLYLRVETIIPI

GLALLQMGISQGVIMSFLIAGAGCSLPELVLLKQMFKMKFLFLFVMIILGVAISFGIFINLI

>AHK54693.1 hypothetical protein N919\_07755 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLSFTFASKKALKSGMVEQEQNGVKAPKNIALK

>AHK54692.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQSFLNTFKEFLYLFTELSVLFIAISFLVSIINQKYEGIFKNNLLVTKFQVILKLYF

>AHK54691.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKYHSLCPIETTLNLIGNKWKILIIRDLLQGTKRFGELRKSISFTKNQNISQNVLTQNLRELEEAKLIK

RKVYAEVPPKVEYSLTSLGNSLESILKSLENWGNSYKNIV

>AHK54690.1 dihydrodipicolinate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIAILCASGKVGKEISKEALKRNLEPVCFVRNSSKMNEFLPQAKIVQRDLFELDSKDLIDFDIIIDAFG

EWENLSLHKKHIECLSVILQGSKAKLFVVGGAGSLYMDENHTTRLMDMPDFPKEYLDIAKASAEVLEFLR

NEKGFKWVYVSPSAIFSPDLPKSNHYKIIGEKFEVNANNESKISYSDYASAMIDIVLNSCYENTRIGVIS

L

>AHK54689.1 type I restriction endonuclease subunit M [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKKKEIKLEDALWKSADKLRKNIDAAEYKHIVLGLIFLRYISDSFMQKYEELLKEQDDGADPEDADEYL

ADNIFFVPEKSRYNYIRDNAKNPKIGKMLDEAMDEIEKHNDTLKGVLPKVYAKDNLDSKCLGELIDLIGN

IAFDTGKSTDVLGHVFEYFLGEFALAEGKQGGQFYTPKCVVELLVTMLEPYKGRVFDPCCGSGGMFVQSE

EFVKSHQGRLDDISIYGQESNQTTYKLAKMNLAIRKIESSQVIWNNEGSFLNDAHKDLKADFIIANPPFN

DSDWSGELLENDGRWKYGVPPASNANYAWIQHFLYHLSPNGGVAGFVLAKGALTSNTTNEAAIRKALIED

DLIDCIVNLPAKLFLNTGIPASLWFIRRQKLPKTVKKTLFIDARDLGTRINRRNKTLNKDDINQIANIYK

AWKNGTDYEDIKGFCKSVSIDEIRELSYVLTPGRYVGLADSDDEFDFDTRFNELLAKLKSQIKTEQELSE

IILKNLEKIK

>AHK54688.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDFKFVLRLLEANQFENEVVEYKKNNKDFIVLGKNISALSNTAALLGIDKAYIIFGIEDGTLNIVGTNFK

PKQEKKGNEELESWLHKVLKPNIEFKIHEITEKEIRLVVFEIEATKISPIKFEEKAYIRIGSNRKELDKY

PEKEKKLWQVLSGFSFENEIAKSNLNIQDIYDLLDYSKCFDMLDISYDNYSSDEYIIEKLIEHGLVKNLN

DSFAITNLGAILFAKDLTKFKGLNRKRIRFIRYQGKNKIHTLEELEGRKGYAIGFQGLISYIMQYVPKNE

VIENAIRKDTTLYPEIAIRELVANAIIHQDFTINGRNPMIEMYSDRIEITNNGKSLIDIKRLIDMPSKSR

NDKLANLMRIMGICEERGSGVDKVIDSVEAYQLPAPDFINNEDYFQAILFSHMPLEDMTKQDRIRATYQH

CCLKWASREAMTNASLRARFKIGDKQHSKASKIISDTLEAGLIKQQDPENKSTKHVKYVPFFV

>AHK54687.1 type I restriction endonuclease subunit S [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNNWKKCKLGDIAEITMGQSPKSEFYNFDNIGMPFLQGNRTFGRKYPYFDTYCTEYKKIAKKGEILFSVR

APVGDINFANNDICIGRGLCSMNAKNGENEFLYYLLHNLRSVIINNESGSVFGSVNKNDLQTIEILLPLL

EEQRQIATILSSIDDKIELLHEQNKTLEELAQTLFLNWFKDREFNSTISDFISMQNGFAFKSKDFIDYGN

NGVIKIKNISNGIVDIVNTDKISQNTINEVNNKFNINSGDILFAMTGAEIGKMGIVPSTNKKLWLNQRVG

MVKERFLGARFLAYIHLTSEFGYDYVINSATGSAQENISATDIENCPFVKLTSEEIVSYSKQLNDFFEKI

IFNLGEIQTLENMRDILIPKLLNGEIKITN

>AHK54686.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKYKFVKFQVKNFRSLLDITLNIDNNNINTICGENNIGKTNFLRALNLFFNHNNGVEYNQNEDRPYHIQ

KGSTGGRKTELIGYFTKNNVTHILKVEFHKDKIVYILNGKMVEWKVARDIVESFKLLFIEASNVNMPSVI

SAILENDALLALDNKRKKQSEPLRTLKLFIEQSKKAIEDIEKDINIYLKQMLDFDNTLKDKEIKIRFAEF

EKLRDVVKTMTSVTLDDGNDHLMDHKGSGAQRIVLLSLMQYITDKITTDIIWAIDEPEAFLQPKLQKKIM

EIFKNIVREKKQPIIMTTHSQYFVDFNNLVNTHLFKLTKEEKIYARKKGRVFQEINTKPIYIGTAFEKLS

VIKKHLGIETNDNWDIMPYNILVEGEEDKKYLQMLIEILNLSMPNIIHSGGATKIAGFLEYFNNQCSYTS

FKPYFICIFDNDEEGRKQYNKISKDNLYPNIKLDAKKLKRYGESIQENNRDIWEIEDFMPIKIIVDAVNI

ILKYKQYNTITNSQISDRKKLAFKNMSILDYLEKCIADRNEEKERFILNTESRKKEICQNAFRAREKYTK

NDLEDYHVDFMNELIDSFNKVDLIKKDN

>AHK54685.1 restriction endonuclease subunit R [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKAKTSEFDLEQFVISSLLEHGWCYEKPVRATDEVLLETSLVNALCRLNPQLDLSKANEIYKELKSKNH

LSLLDSNENFHYKLVNGVNINTTKDGESRADIINLIDFNNASNNEFIATNQLSITEAKENKIPDVVLYIN

GIPLVLMELKSPSDENATINSAYNQINTYKQTIPSIFTYNAFCVISDGYFARAGSISADFSRFMAWKSSD

GINYAPNKSLEIKTLIDGMLNPKTLLDIICNFIVFEKEQIRDLNGILSIKTTKKIACYHQYYAVNKAISR

TITASSKDGDKKGGVVWHTQGSGKSLSMVFYSAKAIKALNNPTILLITDRNDLDDQLFGTFASCANLLRQ

EPKQANDKEHLKELLRVASGGVVFTTIQKFSPENDNVFECLSLRDNIIVIADEAHRTQYGFDAKVVEEKS

KSGDVLGQKIVYGFAKYLRDALPNATYIGFTGTPIESHDINTPAVFGNYIDIYDISRAVEDGATVSIYYE

SRLAKIELSEEGKRLVNELDEKLENQDSQKAKATKLEALVGSTSRLKQIAKDIVKHFETRSSKLGGKGMI

VSISRSVAIKLYDEIIKIRPSWHSDELSSGAIKVVMTSSSSDGVEFSKHHTSKIQKQFLANRMRNIDDEL

KLVIVVDMWLTGFDVPSLHTLYIDKPMKGHNLMQAIARVNRVYKDKPSGLVVDYLGIASDLKKALSFYSE

SGGKGDIITTQEDAVKVMIEKLEIVEQMLPNDYEKYFELDTGAKLEYILDVEEHILSNEDGKNRFIKEFA

ALDKAYTIAMPHEKALSIKNKIAFMYAIKARFLKFAKENENENLLNQALIKQVVDKAIVSSKVVDIFDAS

GIKKPDISILSDEFLLEVKNMKRKNLAFEMLKKILNDEIKAREKLSLTKAKKLAQMLSDAIKKYNNKLIS

SSEALDELINMSKSIVSMEDEAKKLGLKDYEYAFYSALACNDEYEKILGNEKLLALVSEILQIIKNNVSI

DWMIKENVRARLRVAVKRVLNKYGYPPDMQQLAIDGVLAQAEILAKELANE

>AHK54684.1 biotin transporter BioY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLELIGELSLQNYMGEWLEIARKPAFFQKSCLNSKAKYELKYKNGIPYVEIENFCSKKNEISSIKGKAKI

VSNRQLAVRFNIFMNLFNKVNYEIIFVDSEYKVAIVGSPDKKYLWILARNIIDEKNIKELLNIAKQRGFD

ISDVVFDKY

>AHK54683.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMKLKFRKSLILNALLFYILFPWLPVVFLFIAYFFTIKLDVVTANFVSISLVFLVEFARHRNARKLGEDM

MVILKAMAEIFISVVSIIIAAGVFAEGIKALGGVNILANAVSNLGTGNFAWFGILLSIAILSFLVYFATV

IMGSGIAAFNTFGKLALDIATKLGVAPITLVLPIEIASCLGRAASPIAGGIIALAGFAKVAPMDIIKRTT

PLLLIAMLVNVLVAFYLAQTNPLPKEQNTTKIELKIQK

>AHK54682.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MALKIVISSYAGLLLLACIYPVLISLKIRPITAVCVLSLIALDYGPKDGNSINMADMVGQSDNVVGLSLN

YQIYSVITYVVVNCHLDSFLFYLD

>AHK54681.1 hypothetical protein N919\_07595 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSVAGFTAYMKHINASAKLAFLANKPSGKIKK

>AHK54680.1 hypothetical protein N919\_07590 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPIFMICSTLLAVIVVAYYILKYNLIFVFFFQILSCLFLLFTSQEHLYQKPQAESIQAF

>AHK54679.1 CRISPR-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MARILAFDIGISSIGWAFSENDELKDCGVRIFTKVENPKTGESLALPRRLARSARKRLARRKARLNHLKH

LIANEFKLNYEDYQSFDESLAKAYKGSLISPYELRFRALNELLSKQDFARVILHIAKRRGYDDIKNSDDK

EKGAILKAIKQNEEKLANYQSVGEYLYKEYFQKFKENSKEFTNVRNKKESYERCIAQSFLKDELKLIFKK

QREFGFSFSKKFEEEVLSVAFYKRALKDFSHLVGNCSFFTDEKRAPKNSPLAFMFVALTRIINLLNNLKN

TEGILYTKDDLNALLNEVLKNGTLTYKQTKKLLGLSDDYEFKGEKGTYFIEFKKYKEFIKALGEHNLSQD

DLNEIAKDITLIKDEIKLKKALAKYDLNQNQIDSLSKLEFKDHLNISFKALKLVTPLMLEGKKYDEACNE

LNLKVAINEDKKDFLPAFNETYYKDEVTNPVVLRAIKEYRKVLNALLKKYGKVHKINIELAREVGKNHSQ

RAKIEKEQNENYKAKKDAELECEKLGLKINSKNILKLRLFKEQKEFCAYSGEKIKISDLQDEKMLEIDHI

YPYSRSFDDSYMNKVLVFTKQNQEKLNQTPFEAFGNDSAKWQKIEVLAKNLPTKKQKRILDKNYKDKEQK

NFKDRNLNDTRYIARLVLNYTKDYLDFLPLSDDENTKLNDTQKGSKVHVEAKSGMLTSALRHTWGFSAKD

RNNHLHHAIDAVIIAYANNSIVKAFSDFKKEQESNSAELYAKKISELDYKNKRKFFEPFSGFRQKVLDKI

DEIFVSKPERKKPSGALHEETFRKEEEFYQSYGGKEGVLKALELGKIRKVNGKIVKNGDMFRVDIFKHKK

TNKFYAVPIYTMDFALKVLPNKAVARSKKGEIKDWILMDENYEFCFSLYKDSLILIQTKDMQEPEFVYYN

AFTSSTVSLIVSKHDNKFETLSKNQKILFKNANEKEVIAKSIGIQNLKVFEKYIVSALGEVTKAEFRQRE

DFKK

>AHK54678.1 hypothetical protein N919\_07495 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFKIVLRPPGLNFAAQPAALTKCVKF

>AHK54677.1 hypothetical protein N919\_07395 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKALEYLIVIGLVAAAAITAWSVLTVNHLHIG

>AHK54676.1 hypothetical protein N919\_07255 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILTSALALGAMTLIVDCGDGDLVELKNNGNDQAMFDLGNQEIMKKYPNYKLYDYTSVRTISDINNPE

GKIKEMKRDLEIDKTPYSNYVFLLNPNDKKTIKL

>AHK54675.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDILKLAIKDFLSLKFLKFALIPLIFSLILMLFLGVLGFSALLDYFNSLFSVGEDSFWAWFYALHFVQIL

ITIISFLFSGFIVVFASVFLALFITSFLTPFIAKEINQKYYHYDNTNEVSTLKTIFEIFKIFIKFIGILL

LCTLALFLPFINIFVYYLAFYYLFHKLLMIDVTSTILDKESFKNFHSDFSPLEFKFSTLCFYLLSSVPLL

GLFLQVFFVIFLTHLSYQRILKLKAKA

>AHK54674.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPLLSVIIPFGLSKERPYIEERVLQKAKFFQSDENIEFIFVEGYSSKDHELKNFIQANHHIYLKDMDQKA

FSQGRCRNLGASYAHSNVLLFLDVDCYISLDNFEKILKLIQIKNISQNINALIVLPVVYLNKEANEKLKQ

YDDKFWDILIQEDLFTAKNTWVKFFAPSSTSSIVINKHQFLRLGGNDENFIGHGYEDFDLFARILKACVS

FEKMPTNLSYDARNWNFFNFKGFRSWFSLLGYEACFYGIYIYHFYHIEPNQNAYMQNKDKNHQLFYKHLK

NIKKHDLKPLQVFKAKGEKVLMLFKDQNYDFKDISVYVGEIIYKNISDFFIAKELKYELLLDFLQQEKIT

KIFLDASIKLQFNGIDYCDIFYFQKGILPHSWFFAKKLDLGYKQDLNLSEQKLYQVKEYFLTLKEDEKKV

ILDFLSQNNDDKYDLYKMLYYLINELYSFEHDGIFYQIIIDKEKMLIAQKHDKSFYPLRSFVYKPYLHEL

KSIRPFSFLMKILGLEYLGAMISHTKFYRLARKLFFNPKGFFEDFNYKIMKGKI

>AHK54673.1 UDP-glucose 6-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIVIVGIGYVGLANAILFSKNNENEVVLLDIDENKIQSINNHKSPIKDKLIEKFFVQNISKLHATSNIK

EAYFNADFAVIATPTDYDEQLNFFDTRSIENVLKDIKNINSKINVIIKSTVPIGYTKTIKQKFNMSNIVF

SPEFLREGSALYDSLYPSRIIIGDKSVLGKTIGDLFLKNIEKKNVDIFYMDSDEAESVKLFSNTYLAMRV

GFFNEVDSYARKHNLNSADIIKGISADDRIGKYYNNPSFGYGGYCLPKDTKQLLANFYNIPNSLIKAIVE

TNEIRKKFITQLILEKKPNILGIYRLIMKQNSDNFRNSVIIDIIKYLQEYNSNIELIIYEPLVKEKKFLN

IKVENDFNVFGAKVDLIIANRFDDKLKEIKDKVFSADVFYTDI

>AHK54672.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTVGVVIPIYNVEKYLRECLDSVVNQTYKNLQVVLVNDGSTDENSLNIAKEYTLKDERFILFDKENGGQ

STARNVGIEFFSKEYDFKNITQELKENSLVEFKLDNEDNPYNIYKIYKSSNFFKNKDELLNFKAPDIDYI

IFLDSDDYWELNCIEECVPKMDGVEVVWFDSCSIFEEGFKKQWSSLLKLYDLHEGVIKSKVWLEYSINKK

IYNFYFTWSGMIDFIYLKNIKLKFIDYIIHQDHHFGMLLFAKCKYIYIFPSSMHTYRIRSNSTINLSDSE

LQIHIPRYMQSIYDSFNINIKEAKEYYSSMSMFYVLKNCFNDKILMENRYNAYLLEKAFFKFICERCLRI

FLLKRDPCCIKIQIKKILKQYKNYRYVHLTNFYGAFIYFKIFKINIIKKYIRYLFFR

>AHK54671.1 UDP-galactopuranose mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYDYLIVGSGLFGSIFAYEATEKGYTCLVVEQREHIGGNCYTENIKNINVHKYGAHIFRTSDQNIWDYMN

QFCEFNHFINSPIAIYKDEIYNLPFNMNTFSKLWGIKTPNEARKIIEMQKQIIQHPPKNLEEQAISLVGT

DVYEKLIKGYTEKQWGRSCKDLPASIIRRLPVRYIYDNNYFNDPYQGIPKGGYTAIFDKMLKKSKVILNT

DFLKYKDKFKNKAKKIVFTGCIDAYYDYRYGALEYRSLKFEHKILNLDNFQGVAVVNYTDKEIPYTRIIE

HKHFEFGNTDTTVISEEYPLEWIKGIEPYYPINDEKNQALYEKYKQLAKHESNVYFGGRLGEYRYYDMQD

VVRSALLFCKNELKNKQG

>AHK54670.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISDK

KSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYILESNKGKYSKITPIDF

LYNQIISFKTHPNIFNFQSINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINEAFY

MLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLDFLK

RFSQDFRKILKDKELDENLFGDGDMKIIYSIVENPENYYFLYMGYCNDMFGKLYFGASERIKWQLSYRIG

KLLIDLKNPVQILKFPFKLFLEIKQFKFEQKIYKTTIKFYPNLQLPPLEEYSDYEQALKTKKHLSYILGK

SFINNPILFIFKIKKIYKQYKKDISSSKKNIKELSDYDFLLNRHKQIFDYTPDFKCPVTFNEKLIYRILY

DRSCIYSFLADKIKMRFYVASALSDNHEYSWDKIDILNEKSILFNNIDDLQDKIFETNKCKYLPKIYGIY

KNIYDINFNELPNSFVLKTNHDCGGYVIVENKQEFLRDTVVFSNAMKKLKKHLEWNYYSVFREWHYKDIE

PRVFAEELLLGENKKPADTYKFHIFDKENLSNNFIQVTTDRFDNYQRAMFDLSWNLAPFNFMYDNKNVTM

IPKKPNLLDSMINISLILAKPFDYVRVDLYQFDKKIYIGELTFTHGAAGEKVIPKEWDKKLGDLWRLKRL

DNASK

>AHK54669.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQANKNIQKLTPYLSIPHKIWNSSQSNILKLDWNEATIPPSPYVIESIKKFLVNGNLNWYPNTKNLYLLD

KIAEYTKQINSSFVELFEGSDSAHECIIDVFLDKCDKIGIVSPTYDNFRSRANGVGIETISFTLDDNFNL

DFDSLEYFIHEKRIKLLYLCNPNNPTGKSYNIQKIKSLIINNPNVMFIIDEAYYEFTSQSVCDLVEQCNN

LIITRTFSKAFALASFRIGYIISHPENIESINKLRNPKSVPMLSQIAANAALEDLQYMRDYVDEVSCARM

EFVKFLNTLTTGGGGIFNDSVANFVLIQNENISLFVGFLEKEGIFIRNYSHLISKNCRISIGTRNQMSYV

AEKIQEFAKKQGGFHLV

>AHK54668.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFDAIIVRIIFTFVFFKDLMLIKLNDYEKNITQKIKDLKNASGSHSPSIFTMAEQIPELNIKIDSCFLSN

PYATALFLRYLKEELIDGQKLRSVLEFYPSQNSIIAKTVADFIGIDPKNVFIGNGAIEIIQAVMHNFVGK

KIIVNIPTFSSYYEFAKSETNVVYYQLSKEDNYNLNIEHYLNFVKNENPDSVVLINPNNPDGGYINYEKL

RYILSELKYVKNIIIDESFIHFAYENKDYNGINIEYLFKEFHNTIIIKSMSKDFGVAGIRIGYAIMSEDK

IRGLLKNGYLWNSSGLSEYFLRLYVRKNFFDEYDKVRREYIQETQTFFRKLSGIKQFKVYPSMANFALVE

LLDGSSSTDFVAKMLIKYGIYMRTCNDKIGLEGEFIRIASRTLEENDMVLKSICDVFKE

>AHK54667.1 phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKEILALFDFCETLTNFQTLDRYLPLAGSKNINYTQSKNLARRERFQRENLPYPRYEWLIDLDVDLAEE

IAQEFVYTDVMANLNQNVMDRLFWHQDEGHTIVIVSGGLTIYIKEFARIYNIENIVAVDLEIYKNKLTGN

IDGIHTMQERKLYKLAQKFNLKQFDLKNSYAYSDCVSDIPLLSLVGNPNVIECGKDLQWARILGFNILLK

Y

>AHK54666.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISDK

KSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYIFAYGKTEYVNVLRNSC

EDIYNYKVNWNKDIRIFLGSDGINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINE

AFYMLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLD

FLKRFSQDFRKILKDKELDENLFGNINMQRINKIIENPVIYYYFSRGARARLQNQLVYRLGKVVVEAKSF

NKIIKLPFLMLKICLEHNFEHKVYRSIVQFRPDLKLLPLECYLDYHEALVIKEHLSYKFGKLILLSFKGW

YKGKIFILPFMLKKRYKEYKNKMI

>AHK54665.1 UDP pyrophosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQRFKKWFLSIIKNFKQHEKIKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNT

KIDLNNTKIDLNNTKIELSQLKKEHYKVLDFHLRKITPQAFLEIVEIHLAESCNLNCFGCNHFSQIAEKE

FPDIEIFKKDMQRLSEISKGIVGTFRLMGGEPLLNPNCIQFFDITRYFFPKSAIWLVTNGILLDKQNEDF

WNSCQRNKMQIRPTKYPIKINWDLIKDKCDQYDIPLIFFNNGELEKTSWKFSLDPSGNCDNYHSFTNCSM

ANHCVQFKDGKLFTCTFPAHVQHFNKKYGNHFEVCEFDFIDIYKAKDYQEILFFLSKPIPFCRYCKVSQW

AEIGKWRSSNKTKHEYLI

>AHK54664.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKKILLITPELEYTGALNSFKRICEVLLNNKYAVDIWTYNEGPYISEFDKLGVYVEVISEDDIDSKWVH

ERISKYSLVIANTIVVYKCVELIQNLTPVVWYIREAENLPDFFWKPERKLALEKAKKLYVVSEYAKDFII

HNYNKNVEVLHNYVDDVFYEKHDDFLKQIKSDKLKFLALGTIEKRKGYDVLLQAFIDLPVDIRDQCELHF

AGRFWEGAKDFFPKILSLAKKFPNIFYHGELRDRKKIHSLIFQCNVMVVPSRDESCSLVALEGAMMSKPL

ILTENIGAKYILDENSGWLVKTGSVDSLKNAFIQAYKNKNKLDAMGANSRNNYLQTSTYEIYEKNILKMV

RDEICKNQYLYRINQENYVLFSFDIFDTLISRNIAKPSAVFLIMKQKMRNMDFPLNLVKNFDRIRVEVEQ

YYYRNVCKNKYEDTNFDEIYNLLQQNFSLSFQQKEELMKLEINTEKETLYPIKKNIELVEELIKNEKRVV

LISDMYFSSSIIRTFLNKFSPIFNNIPIYMSSEFRLKKNSGNLFKAILNLEKVDPKKWIHCGDNWVGDYL

KPSNLEISTNFYINQLLPYEEFALNRNSLDMDLQKIIGISKKIRLENTLTNLQEIGVSFGAPMLLPYVQW

ILNIALKNSIRCLYFIARDGYVLQKMTDMLIQAKKINIKTKYLYGSRESWREPFRNKDKLKIQLIDEYLD

QEIDKQEIFAFVECCGTGETLDYIVKRIESNQQFKNMFFGSLYLYRSKLNKTKTQSLFMLPLNENYTYGI

ELFVRSLQGQVLGYDKKDGRVIPVFDFLEGEALQKFRYDEYIDGVMLFMEYIVKTDNYEKIFDNMNVTIL

YLNYLSNNYIDKKFIEIMGNVPFILNGVKDRVGIFAPRLNNKITLDQKNSFFNWSVLRSCKDIRVKYNMD

NDCYFGLIGAVDIIKSHLSYKLGKVILLNIKNPLKWIKLIVLIPILIFSHHEQKKIYLTEKKINIDLSFY

KDYNEAIMVRNFFSYQLGELILKTSRKWNVLAIVILPYKIAQLYRKKFKKG

>AHK54663.1 capsule biosynthesis protein CapA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDNSKPLIIAGRDDGFGERMRALLNALYISKKFGFKFGFVWRDINNIQNLLDGKVLIPWANLPTREYLFD

QDFIKSYYRQDIEFAYETPVLWSLYRQSIKNILKKPYEKEWGWYSTQGDLSEYFTDVDEGEYRTELVSCW

KQIDFSSHVKKIFEKAHSKFLDIGKFVAIHIRTGEVIHDEFYRNILYHCRYKIFPYPFALEIALKEIKKG

HRVIFFGDDLNLIQNLKEYCSFNKQAQENIFSIDDIIAFEQLDNGYDRLLFELVLMSKSEYIFGSGTTGF

SRCASWIENKIFINIFDHLSLIEQYEIILKYIDIENIDDLYRSCNYFFLFLLSEQLNLNFDIKLRYLSKS

LRYDSGSLNSEVFYINLLLQNEKFKEADDRLEQVICKNKKKFFDLLLGYGQNPTFPYDIYMNYYFKDFDQ

YSNIFYVACRIFSEFNIPESRVNTYYPNFHPIIFDQFKMFIFKDLPKSDQEIGAVKKIRNHLAYKLGVAA

IKNSKSLWGYIRMPYVLSYIRDMHKESQNKMDKKSISLEYYSDYESALKEKEGFVYKLGQIIIKAHKNWH

KGGYIMLWFEVKKLKKEFKKGK

>AHK54662.1 dTDP-4-dehydrorhamnose 3,5-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAIEFDIQESKILKGVYIITPNKFRDLRGEIWTAFTDEYLSKLVPDGIKFKHDKFINSHFNVLRGIHGDV

KTYKLVTCVYGEVHQVVVDCRKDSPTYLKWEKFIISYKNQQLILLPPNMGNSHYVSSKEAVYYYKLAYEG

EYMDAPDQFTYAWNDERIGIDWPTNTPILSDRDILATKNKG

>AHK54661.1 hypothetical protein N919\_07125 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKLLKELNNNIKLSNQLSYQILMSNIISNLDIDKKDKEILLLLLQARDRNYIRINNNEQCYQNIINYLN

LIRPLELPLCDLLRIGGNGDGGYVMYNGGGDMSDINAKALSLGVSDSSPWDLEMAQRGFKVIEYDASIEK

CPYDHENIVFHKKFIGNVNNENTITLVQALKDNNLDENKPNILQCDIENCEWDMLENIDISILNKYFSQV

IFEFHGCNPEEQDGVEKRISLLKKLNEYFVPMHTHFHNHGKIFYSQGLFFSTTLEVSYLRKNLINLDIMK

YRDVAGGFKNLDFPWISNPEIPIRFRGY

>AHK54660.1 GDP-4-keto-6-deoxy-D-mannose-3, 5-epimerase-4-reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQTNSKIYIAGHKGTAGTALVENLQKRGFNNLVLKTRQELDLVNQQAVAKFFKEEKPEYVFLTAVLPCGA

ANVAQRADFIYENLMIQNNVIHNSFLNNVKKLVFFGSGYMYPENAKNPLKEEYLFQGDLEYGAYSFGAAK

IAGAIMCESYNIQYGTNFITLVLNNLYGTKANFDFGKSRVLPALLRKFHLAKLLSEGNITQILQDLKMNN

FEEAKEYLHNFGISKKSVEIWGTGKVRREFIHSDDLADVAIYTMQNIDFKDLIKDRKSKNTHINIGTGID

YSIKEVALMVKNIVGFSGELVFNTSRPDSTMDRLMDCSKIHSLGWKHKIELKDGIKMMYEWYKTQN

>AHK54659.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKKVLITGGAGYIGSVLTPILLEKGYEVCVIDNLMFDQISLLSCFHNKNFTFINGDAMDENLIRQEVAK

ADIIIPLAALVGAPLCKRNPKLAKMINYEAVKMISDFASPSQIFIYPNTNSGYGIGEKDAMCTEESPLRP

ISEYGIDKVHAEQYLLDKGNCVTFRLATVFGISPRMRLDLLVNDFTYRAYRDKFIVLFEEHFRRNYIHVR

DVVKGFIHGIENYDKMKGQAYNMGLSSANLTKRQLAETIKKYIPDFYIHSANIGEDPDKRDYLVSNTKLE

ATGWKPDNTLEDGIKELLRAFKMMKVNRFANFN

>AHK54658.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKEQLEVLKEALNGLIYQIDNHQQARKPIADVERIISELQVLNHWNKQENVYNALHLIQGAIADPQGLG

RLNLLLDNARIPKQYYDIFYKMLYVDKYGGGDGYRPVCIDCGGHAGLITDIILHCGGQSYIFEPNIYLNY

FLRKKYENNINVKLFQKAVSDRNYETDFIMFGNRILSQGNRIVESVQDSQTEKTYKVQVIDLCEFIENEI

LTQHKRIYFLKLDIEGMEFEIMKKIIEKKIYKKIDYIACETHEYMFDDSEKKIGELKQLINKCNIQNILL

DWI

>AHK54657.1 dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTIRTQTPLRLGLAGGGTDINLYCDKYTGYVLNATISLYIHCTLIKREDGKIIFDSPDTNSYCEYESKE

FLGNDGKLDIFKSIYNRIVKDFTKKPLSFSLHTYSDVPSGSGLGGSSTLVVGVIKAFAEWLNLPLGEYEI

AKLAYEIEREDLGIVGGAQDQYAATFGGFNFMEFYNNKRVIVNPLRIKNWIASELEARTVLYFTNITREA

KDIEEHKKGKLGDEKSLEAMHAIKQDAIKMKEALFRADFGTLAQILGKSWRSKKIISEIVSNDELERIYK

LAIDNGAYSGKTSGAGAGGFMFFFVDPTKKYNLIKALRKEQGYVQDFSFTKEGVKSWRI

>AHK54656.1 D-glycero-D-manno-heptose 1-phosphate guanosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQAIILCGGLGTRLKSIIKDIPKPMAPINDKPFLEFIFEYLKKQGIKEVILAVSYKYEVIKEYFKDEFLG

IKIKYSIEKEPLGTGGAIKETLKFVKNEAYVLNGDTFFDIDLSKLKLNESKICLALKQMNDFDRYGTVNV

DEQDLVISFEEKVFKKQGLINGGIYLLTKDIFNDFALQEKFSFEEFLQENYKKLKARACIFDDYFIDIGV

PEDYYHFLINN

>AHK54655.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFVGFFLHTSGEKAMERFLKEVGVVLIGAFGYEDGKRY

ISIFNFLISEACACNDLKFAIGILDVNCQKYDKFCFLLQNKPVLILLRDPIDSLKSFINVRHQKNGFNEI

LKIDINNTDFDKINDRIVYVHESNGCFNPDTNQKFPSLESIKALSDTNHWMLMYNIRRNKTIEFFRFNKI

IYIDMMDIVGDKTLFTLEKLSKILNFSSPDKNNKIFYQQLYSPLTVLLPCIIKVNNKVKIFVSNRFSVKN

IQIMENCIDITDKFKEIFHENLIIFCSKDHFDSLINNQTLYNVVLEYINKFLISLKKRINVEKNKEVKVD

DVLDYFKKNISVAKSYKDILDEELVYIKQHRPDIVASWKYYQEFERMCKELDENNQNPSLSFSNQ

>AHK54654.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFMWFFSHGAGAFTLGQFFYHLFKINILDYFCGGDGDI

RYYKFYNKLLELKDKRNIITINDIDPSWYGNQHKRDKLFSSFQKITPILFQIRDPIELIKHAYGRKWGNN

LAKTKEFDLSYQFNDIITEVEVYNYNLPNTLEGQRPQSFLWKSLIECFDKFNDCFYLDISKIRGEETIHT

LNYLSNKFNLKQIKINDKEFVTKSYFKGNLYFLLPLTLYLNKEDLNTNIPNKKINKNNSLIININFFQND

NNLFNLYSELSILDMDSSVGFYIDKQDYNKLKNDSIFYKQVIDYLRNFAYELKNRIQIEEDLMLKVEDVL

RHLYNNKNARVSAKNILDEELVYIKQHRPDIVASWKYYQEFEKMCKELDGDI

>AHK54653.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKQGDFTKVAKHYHNRPAYSPFLLEKLVACINDKNKNLKDLNIVEVGAGTGKLTKMLGEMFGCQISAVEP

NDNMREEGQKFTQNLSNISWHKGSGEETCMSNNQADWVIMASSFHWTDPKKSLPEFNRILTGGGYFTAIW

NPRHIVEGSVFDEIEKEIKHIVPDLARVSSGTQNVKKWEEILVSTGDFIDCFFMECDYKEFWDKERYLGA

WHSVNDIQAQAGEKRWKEILEMIEAKISHMQSIEIPYKIRAWTARKA

>AHK54652.1 iron transporter FeoB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIKIALVGQPNVGKSLLINALCKANMKVGNFSGVTIEKASAKTFYKNYEFEVIDLPGTYSLDGYSEEE

KITRHFLNQNDYDVIVNVLDATNLERNLILSAELLSLNKKMLLALNMCDEAKKEGIELDTSILSQEFQSQ

VVEISAKTKENLELLLQKIIILFESKFIPRSQFYTPLCEKSPEKEDLLYFINELSKKIITHKKEERNLTK

KIDALLIHKFFGLPIFLFLMWLLFQLTFSLGQIPMDYIESGFNTLGEFVKNNISNTFIASALADGIIAGV

GAVILFLPNIMILFLGIALLETTGYMSRVAFLLDGILHKFGLHGKSFIPLITGFGCSVPAFMATRTLKNK

RDRLLTLFVINFMSCGARLPVYVLFIGAFFPSEKAGNYLFGIYILGAILGLCAAKFLRMTAFRGLDEPFV

MEMPKYRMPNWHLVWFMVYNKAKMYLKKAGTFILLASLLIWFASNFPKSEENLNDFNAQERAIEQSYLGQ

FGKGIEPIFQPLELDWKLSVSLISGLAAKEVMISTMGVLYSLGKDVDETNNDLKGIIAKNIPIPSAVAFI

LFVMIYNPCFAATIVFSKESGKLKYTLFLFLFTCTSAYIVAFIGLHIAKILLN

>AHK54651.1 2-methylcitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQVSIKPYPSCHFAHGLIDCAIALKNDGLKADEIKSIRCFVDEVPISFICDPLEAKYTPNSAYEAKFSMP

FLMALGFFDGKITLESYENLKREEVLEFAKKISYKKRKSQGFPKYFPGHLEASLQDGRIIQKDVFINKGN

FDNPLSFEELKAKFLANAQIYLDNTKANKILDQIINLENLNHFSF

>AHK54650.1 2-methylcitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFYSEILADFIFNLQYENIPNTVVQRAKELMLDSLGTAIAASKEECVLNAFKAFENLSTEKNTPVWVHDK

KLDPIYAAMLNGIASHALDFDDTHTEAILHASAILTPLCLSYGFHVSKDAKKIIKAFIIGWEIAARVGIA

SKGTFHKRGFHTTAIAGIFGSVSASAILLDLNKEQIINALGLAGSFASGINEFLSNGSNSKVLHIANAIK

NGILIANFAKNNMSEPLSIFKGRDNIFKCFGIEQECDKTELDKGLGEI

>AHK54649.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTGISVFDHRLLADSWSTQEMRAIFCEQNRIQKWLDVEAALAKAQAKLKIIPKKAADEIAKKAHYKFMDM

DFIFAEFKKTKHPLVPTVRGLEKACDNNLGEYVHFRVTTQDIIDTGLVLQFKEAMTLVKSELKAIAKALA

KLAKTHKNTAMMGRTLALQALPITFGHKVAIWLSELDRHFERILELEKRLYVGSIVGAVGTKASLSDECN

EVEKLTLENLGLEVPNISWQSTRDRFIELGFVLGNINATFNKIAHQLLILSHNEIDEVAEPFGKGQVGSS

TMPHKRNPAVSENAVTVSNAFKANLAILSDIERHEHERDGQVWKMEWKLLPEMFLMLSVVLANMKFALSD

LEVKKDKMLKNLDTLKGFVLAERVMFALSDHYGKQHAHEIVYENAMLGIEQQKTFKEVLLADTRVSQVLK

EKDIDALLDATSYVGYAPKLVDEFLAKIKNSAILK

>AHK54648.1 hypothetical protein N919\_06885 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILFLFCSFFLAFAKPSLEIPKLSKQAKQNFILENVKFNYNGTIYKIFIAKNKNENSNYKYKIIYLLD

GNAFFPLFLNLFNTPVKENLLIIGIGYDNNLAFDTQKRTKDYTPTTNLNKQGGGSKEFRNFLITQLIPYI

NKMYPIDFSHQILFGHSFGGLFAIDTLLYDSKIFSHYFIISPSLWWDNSEFLPNIIKLQTCPKIYIGLGS

LETNSSIIKGVAKLNAQKLSEKISKETNCKTHFKLFKNETHGSVISKAMLWMKKLLDLN

>AHK54647.1 peptidase S8 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKFFCLTLVCKLFALSEFELHHIDKVHKLGYSGDTIIIGVADDAFNQDHISLKDKILKSTYPTDTAGKQ

LIPDLKKSTHGSHVAGIAVGAKIGDSKPYGVAYGAKFYGAGVFPNGSYTQIPDIYNFFKDVSIINNSWGI

NFYPYFNLKASNSGLVDCTQTNQGTSYNICNTPLEYVMKADKVANDMMRLSKDKGVLNVFAAGNEGILSP

ALHAILPSYDESLRAWLAVGALDANEITLESDGTLIIKSQGLADFSNGFKGATNFSLVAAGVNINNVDSS

TNDKFTKKSGTSMAAPMVSGTAALVKQNFPFLDGKQIADILLSTANKNYKAPKFTVKQVTDGTNQPKFLI

VYISQDPPGIEDEIKRDLKQLYNGIQVQVNGQWIDYSDYIWDNRDSAQSQKLNTSTISSINGVVRVEKEE

LFGQGILDAQKALKGLSILDANRLSDQDVLKYEQEPNTAYYTINTAGYDAEFSNDISQRKWDESTHLSSA

INKPTHLANLNIGLSKEGEGILIISGQNTYEGATLIKQGELKLKGKVKNNAYVEQKAILSGNGIVGQNLN

NKGIVRPGNEDLNDLTVQGTYTQEGVDSKLQLDFGNYKNSKLIAKTYDIKSGNLEYIPLPKYYILNKPVK

INLGDLEKSLSSFNHVLIQNTYALNFDFVLSDDLVSINKTLIKPNLKPNAYEIPNTSLGNALRQLRSRAD

LSQTYQEFFASLDNGIDVKTKLNRIEGSGYLSTFSNHNQSNLMQNNMLFTLHPLNINNFAQNNNILLAST

YLPRIFSNEEYFWHLTPSYKYYKDKDFSGQKTGANISLGENFSSGFLAYALSLSSAKFNFNNGSDLKSYN

MDLLLNYNHDLDFIKILSGLGIGVGFNTLNRFVVEQPIEGKYKTLQTSAQLGVTKDIILGQDFIFNPLMY

FTHSFFYQEDFKENKSPFAKNYESLKHHSINANLGFNLAKNIEQDDYQASFSTFVIFEKRIYGRTLENKA

SFVDFPIAFIQKYKLKDNILSQGFNSEFLYKNNVFWQFMLMNRFSHNAYELHLMSSVGKRF

>AHK54646.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFFKHILSLKVLIALLLFFGMISLFIGVISINVKDILNLNSTQLEIITLTRIPRLIAILLTGMSLSICGL

IMQQLTQNKFVSPTTAGTMDCAKFGILISLIFFTGASFFTQAIIASIFALLGSFIFIQILRKIKLKDVIF

VPLIGLMFGGIISAITTFFAYALNYIQNIQGWLQGSMANVMQGNYELLYISLPLFILAYFLAHKITIVGM

GEDIALNLGISYNGILFLGLMIVSIITSLVIVSVGIIPFLGLIIPNLVALYLGDNLRKNLIYIALCGALF

LLVCDIISRLVIFPFEMPLSITTGVLGSLIFIFLLLKRKVYA

>AHK54645.1 hypothetical protein N919\_06725 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQTQYSLDMAGKIYRAEFYELRGANLQQLLEANINSKLIKNAKNLDLNTLKMARSKDKFLGSILVEFE

>AHK54644.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIVSKAYEIDSCDDVELGIKRESKLEFKLWYDDEKTPEALVFVVQGMGDDISSIQYVGDYMVRQFNTAVV

GVNYHCIGNRPQTGSSFFMDDIDKLILKASCEAADIKLPYDVDKIQDYKAMSEIFHFVNNQIVEGKQKGN

FTPNYFLNLHVSLQPTKNEYQNFGIMQAQDLLNVALYLKKHAPFDTMGGGIPIIMIGGSHGGYLAHLAAK

IAPWLVDGVLDNSAYAKFLWRVVGFGKEIDFMQYSEFATFDFFHHIKTHCSTKTFWTSNSSSPRFFSPAR

RKIRNLLEEDHLLKQSKCLKTCFISYHSLYDEYVSLKEKTMFYEELEKLGFDVTLHSITKESQVDGKFIK

NLNHGMGIPVKLLIKKELPLMLEKIKQNSKKDYKEKCISYPCEDLLYQFSEKDDKMSLKIDKI

>AHK54643.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTILEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELCSGKIYLVDIEEERVDIQL

LILFDMKDMFEYLSLYEMFVNNVYYKKFYEDVWHKADELCEKNIKVVIRNLNSSLCIGFECYSHLLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENKTSLNMLSCATHPSLVHFLDNKSVVLRDDPLYQRFNLNDFGYIDTGTHVSHFSYT

LALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRIKLE

YLFACNEQKAKFYNATEGGARINFTEELSFKECCEKLLTKEKPQFELPKSLTKNRSDKLLVKFKEKIQKD

QDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDGILKAVMYERGLKIS

LVYKENIIDNASFISAYIKAYHEWLLYFMEKLEQRINIIIDSFKELP

>AHK54642.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLLEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELKVYKVVLFDCVAKDLEIQI

AMIFDQQSILEYLSLYEMFISSHYYLKYYETSILSLNELCIKSASVAIRNADITCFLPLLTHGQFLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENLKQSIIALECATHPNIVRSLNAENCMIVLRNKALYQRFNLNDFGYIDTGTHVSHF

SYTLALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRI

KLEYLFACNEQKAKFYNATEGGARINFTEELSFKECCEKFLTKEKPQFELPKSLTKNRSDKLLVKFKEKI

QKDQDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDETLRGAFAYRGK

MIADVLKLHIQDKTHFITAYIKAYHEWLLYFIEKLEQKYKSLSKV

>AHK54641.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGFRINTNVAALNAKANADLNSKSLDASLSRLSSGLRINSAADDASGMAIADSLRSQANTLGQAISNGND

ALGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTVKATIGATQSSKIGLTRFETGGRISTSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALADEINKNADKTGVRATFTVETRGIAAVRAGATSDTFAINGVKIGKVDYKDGDANGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGQIDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TAITNLDQIRADIGSVQNQVTSTINNITVTQVNVKAAESQIRDVDFAAESANYSKANILAQSGSYAMAQA

NSVQQNVLRLLQ

>AHK54640.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGFRINTNIGALNAHANSVVNARELDKSLSRLSSGLRINSAADDASGMAIADSLRSQAATLGQAINNGND

AIGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTIKATIGATQSSKIGLTRFETGGRISSSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALAEEINKSADKTGVRATFTVETRGIAAVRAGTTSDTFAINGVTIGQVAYEDGDGNGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGRFDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TATTNLDQIRADIGSVQNQLQVTINNITVTQVNVKAAESTIRDVDFAAESANFSKYNILAQSGSYAMSQA

NAVQQNVLKLLQ

>AHK54639.1 PseE protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MREENNFNKNLKALSGFEYNNLRKKLEDLKELREFTFTQGKDNLDINIIKKRNLKKMYQDPIKELEKNLE

YFKDFTRYPVLFFYGFGNGILYKILLQNQALKRIIIFEKELELIFLALNFIDFSKDLSLGRLIILHHDDI

NLPKMDKVFRLIGDLFYRSYNLHIANDFYEHYKEDILKLNKLNMQIIKNHNLMHGNDPKDALQGIEQFVY

NLPSMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGIKPDYV

CMLERDEIVAECFNNDFKDFDKDIIFLVASLVHKKTISYLKKNKRKYILIIKGQPFARCLGLDDYGYINA

GMSVSHMAYELAENLGHNNIILIGQDLAYAKDGQTHSQGFIHANLHNGDYERDLDRFSTTAYGGNGKVQS

SEIWTLFRQIFENFIAFSKSKTYNCTEGGARIESAIEKPFKELCEDLLKNKKDKKFKKLQVLNTKEQVKL

GLKIYQKIKKNMNLSLNFKKECKKVQKQIHNLTHGKNKLSLEQINQNIDKIKEKLSNKKYLFLQEILGPT

LHHEQSILTPLYLKDIKDESDKQNKLFAWVYAHEALIENIIELLEVQDKRLKIAILPLLDFLEKKKAL

>AHK54638.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGGGYNENLLYQDPIKELQTMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWV

IFHILDFSNELQNARLMVLENDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAE

NFKNIILRNGNDPKDALQGIEQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYA

SKATIFCADSSYPILAKHGIKPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNL

VITQKVLAFPYYINLKDFSYAAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYE

SQMYEHILTEAYGGNGKVETHSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACEN

LLDKDLNKPFEKLEPLSLNKQNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLA

IRKIDEFKNKLENIKQMQDLYEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGH

IKAQENALIKNILPLEEKLKERKLDKWMERVRR

>AHK54637.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGL

>AHK54636.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MREELFLKNTQALFEVDEFLACTLRSLKYLTFALIQDENGINFKKDDIFLYENPNKELLENLTLFKTEYN

KYPVLFFYGFGNGMFYKTLCKNKQHKHIIIFEDNLEILTLAFHLFDFSEELKKEQLILFYTPNINTAQLT

TLFTYEIIQKSVKIFNLFIHNDFYQQFYSTQIQNINTQLIEMIRFIVLNKGNDPHDSLVGIKHTLDNLPK

MLNHGIFQEFLKERRAKVENAIIVSTGPSLIKQLPLLKKYANKATIFCADSSYPILAKHGIKPDYVCMLE

RDDIVSKCFDNDFGDFNKGILFILASVVHKEVLDFLEKDQRAYMLVHRPLNFAASLKLDEYGYLGVGHSV

SNMIYELAGALRFENIIFIGQDLAYGEDGSSHPKEHIHGSQGEEIRGEKYTLAYGGKGKVRTQLTWNLFR

QAFEKDIFWAKEKLNITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFDFPKFLDKKLAKEKLEKT

KKYLQKSILESKEFIKKTQTQLQKLRYTLEKNDKNFQTLEKIKNDLLNLFKEFKKLKLFNELCQAIYFHN

ECEILKFEVLNTNKQKENLIDFLKIQHNWFIQGLGYLDTQNKTIEKSLENWNFDDIIKK

>AHK54635.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMTFTPTQKELFNKNIEALSNLFLKESLKEIKSSKFELILGKDNLDINLKDTSDNTFLYENVIDELNSML

NTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQSARLMILQTS

SLDIELFSNFCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLVQDFKDSILSHGNDPLDALQGIEQ

FVYNLPQMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHNIKP

DYVLSLERIPLTSEFFNNDFGEFDKDILFVLKSYVHPHTTKYLQKNNRNFMLVSTYASFINYLKLDDFGY

FNMGFSVANMNFLLAIHLKHKNIVLIGQDLAYAKDGLSHTKDYSNLDKHEGHFQRDKNKYTTQAYGDNGK

VESSFVWTLFRHNFEQDVANAKKNYYITTYNCTEGGARIEGTIEKPFLWACENLLHKDLNKPFEKLEPLS

LNKQNEFLLKAYYKVYQSIKHCRDFSNKFIKSYDKIKNSFMSLQNSQENETLIKEIIKDIDKIKTQIDEL

YNTQKDLMQILGPLLTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNIL

PLEEKLKERKLDKWMERVRR

>AHK54634.1 flagellin modification protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLENKIIFVAGACGRIGKALCEKILLSKGIPILADINKECLNKLQENLETNFKTKLLSLELDITKQESLQ

TALQKSQERYGKIDAFVNSSYPFGKDWGKTPYYELKYEQICESLNLHLAGFMLAAQEFVKFFKQQGYGNI

INLSSIMGVYAPKFENYEGTSMQSSLEYSVIKAGINHMSSWLAKELFNQNIRVNTLASGGILDNQNELFL

KAYRKCCASKGMLDADDICGTLVFLLSDESKFITGQTLVVDDGWGL

>AHK54633.1 Post-translational flagellin modification protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAEILCTICARGGSKGVKNKNIRKINKLEMIAYSIIQAQNSKLFKHIVISTDSDEIASVAQKYGAEVFFK

REAHLANDRTAKLPVMRDALLRSEEHFKTCFETLIDLDASAPLRSSLDIKKAYESFVENDNSNLITAVPA

RRNPYFNLVEIQNNKVVKSKEGNFTTRQSAPKCYDMNASIYIFKRDYLLENDSVFGKNTGLFVMDESTAF

DIDSELDFKIVEFLISLKNLSPKDF

>AHK54632.1 flagellin modification protein PtmF [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVLIIGFGSIGKKHFLALKNLNHEVSLLSLSAKKEEFKNTPIYRSLKECDLNEFDLFIIANITTEHFNT

LKTLDELVKDKTILVEKPLFEKSQNFTSSKNHIYVAYLQRFNPVIVALKRLLKGEKIYFASLVCNSYLPH

WRALDYRQNYSAKKELGGGVLLDLSHEIDLAFFLFKDLELIYSQNAKISELDITSDDFAFLALKNSQEAK

IHIELDYFAKFNKREIIIHTLEKSFKADLINNKIEIYHKNQSQKILNFENDTIKTLQNLHHAVFEKDKEL

CDLKQALKVLELCDEVRKKNG

>AHK54631.1 alcohol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDINKLKLTPDSSIKEALKIVGQERVRLGIIVDKKDKFLGVISDSNIRKALISGKTLKDSIKDIYTKNPI

TIKENTSKEQLLKISAKTDIYDFPVLDEKGQILSIKSISSLLKANPNSIIIMAGGLGSRLKELTKDTPKP

MLKVGKKPILESIIQRLKNQNFENFIFCVNYKKQIIEDYFQKGQKFGVKISYIKERKKLGTAGALSLIKQ

EFKESFIVMNADILTELDFNALLKAHKKSKALMSVCVREFEQQIPYGVITQKQGFIENIEEKPTQKFLVS

AGIYVLENEILNLIAKNEYLDMPELIKLVLQKGKVNTYIINDYWIDIGRPDEFLKANEDFK

>AHK54630.1 UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKRKICIVSATRAEWYLLRNLCHEIQNDKDLSLQIIATGAHLSPEFGLTYKEIEKEFKITKKIPILLAN

DDKISLCKSMSLAFSAFSDAFEDLKPDMVVILGDRYEMLSVASVCLLMHIPLVHLCGGELTLGAIDDSIR

HSISKMSHLHFVSHEIYKKRLLQLGEEEKRVFNIGSLASTIIKNMNFLNKKDLEKALEMKLDKELYLITY

HPLTLNVKNTQKEIKTLLKKLDTLKNASLIFTKANADENGLLINEILQNYCQKNSHKAKLFDNLGSQKYL

SLMKIAKAMIGNSSSGISESPFFKTPCINIGDRQKGRLRTQNIIDSEINDLDQAFEKLESKEFKQNLKNF

KNPYDNGKNPNKIIKTCLKNVNLDTILHKNFIDL

>AHK54629.1 hypothetical protein N919\_06635 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKTLIIAEAGVNHNGDLNLAKKLIEIAADSGADFVKFQSFKAKNCISTKAKKAPYQLKTTANDESQLQM

VQKLELDLKAHKELILHAKKCNIAFLSTPFDLESVDLLNELGLKIFKIPSGEITNLPYLKKIAKLNKKII

LSTGMANLGEIEEALNVLCKNGAKRQNITLLHCTTEYPAPFNEVNLKAMQSLKDAFKLDVGYSDHTRGIH

ISLAAVALGACVIEKHFTLDKNMSGPDHKASLEPQELKMLCTQIRQIQKAMGDGIKKASKSEQKNINIVR

KSLVAKKDIKKGEIFSEGNLTTKRPANGISAMRYEEFLGKIATKNYKEDELIRE

>AHK54628.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDIIFANQSLYYIPLKELKQNILEFYELLNTGGILFATMMSKKNYYFSHSQKEEKNGLSKVEINGRLNET

SFIHFIDKAEDLENLFQPFETLFLGDYDPINFYNFEGSAHHYIYIGIKK

>AHK54627.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNSLEAYTMKYNENGYGLLFPDGHVVRFYERILKYKLNKINGNLLDFGCGNGVHSAYFQSKGFKTFGID

IVPSLKEIWEQNISGGGVL

>AHK54626.1 N-acetyl sugar amidotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIYCDHCVMPNTRPGINFTKDKEGKNICSACINHKNKENIDYKARFKELEVLCDKYRRMNGKFEYDCAIA

VSGGKDSHFQVHIMKEKLGMNPILFSVEDNFTMTEAGKKNLKNLSETFGCHIISLKPDIKTQKKVMLKTF

EKYGKPTWFIDRLIYSYPFAMALKFNTPLLVYGENVSYEYGGSDTEETPSAKEIFLNGVASDLNINEFID

DEIKEENLQLFFNPNKDKLDKLNPIYLSYFVKWNSYSNYIFAKSRGFTDLEGEWDRTMCAENFDQVDSIG

YILHAWMKYPKFGHACASDYAARFVRYGLLSRKEAIELVQKRDHKLDNKCVEDFCNFIGISKTTFWKIVE

KHYNMDLFYKNDFGEFKLKNKLQ

>AHK54625.1 hypothetical protein N919\_06615 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDDLNCDFIHFFNTIYIKLIELCGSNLERFTPLKDLKKLGFHIICSKGNRGALANLLLFNEISSFFKIIE

KYDYNFKECQTVYDLLYEKRNLLNIIDTIGIELCNKICKNLKEDDENFYHPKIFKKAL

>AHK54624.1 3-hydroxyacyl-CoA dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEINIIDFGLMGKQISALFYLLGYEIGVYNKSKLNIYEFEKQIKLLQRKIDFSNFNAGKINIYQHIEDL

KNSLTIESLNEDLNLKKEIMQILRDNNIVFSRVWMI

>AHK54623.1 NAD-dependent dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRNILVTGADGFIGSHLCESLVKKGFKVRALSQYNSFNFWGHLEKSPFLKDMEVISGDLRDSFFCEKITK

NIDAIFHLGALIAIPYSYTAPQSYVDTNVNGTLNMLEAAKKNEISHFIHTSTSEVYGTAFYVPIDEKHPL

QPQSPYSASKIAADMMALSYYNSFNLNVNIARPFNTYGPRQSARAIIPTIITQILSGAKEIKLGDLSPKR

DLNFVLDTCEGFISLLNLKHFGEVYNIGSGVEYSMQEVLDLIQKILDSKVKIIQDEQRLRPKNSEVFRLC

CDANKLKKATNWQSKISLEEGLRQSIEYFKENLENYKSELYNV

>AHK54622.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQNARLMVLE

NDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAENFKNIILRNGNDPKDALQGI

EQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGI

KPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNLVITQKVLAFPYYINLKDFSY

AAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYESQMYEHILTEAYGGNGKVET

HSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFEKLEPLSLNK

QNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLAIRKIDEFKNKLENIKQMQDL

YEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNILPLEEKLK

ERKLDKWMERVRR

>AHK54621.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGVIMKIYFIKIP

LKSCKLC

>AHK54620.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLINQTFEIDSCDDVELGIKRTSKLEYRISYDDEKDIKAIVFIVGGFGANANISFLDFDREYIAKNFDVV

VVHVFYHCFCARQSIDQKYNPKLIPNQDDLERVNGILKNINLGHLSVNKDNFEQIIPLIEQKVNKMKQAG

LVDESQKIELSCDFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGVCLPFLACILGREMNQGEFYFEGSGYRLYCFVYKYWNRNMNSSYYFGDENYLIRAVLN

SNHLQIQSNLNKNTIFVSYHSIQDMGAPVQNKIELYKCYQELGYDATLHLIKDENDIDGRFVKSLEHGLR

MTDRALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFVFKDLEDKFELEMIN

>AHK54619.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTAYLHIGTTNTGNQEKQGFLMQNEEKLLQKAYIYPKSLRVANRHWALVDMVLELVQKEDILKKESVLSH

ITNERLLRAIENFKSESALHKDKKFIFSAEGIVWDFSTKKHVEILEKIMRELGFTQIYIIVYFRDTLGYL

NSHCSQDHKNNMGYYSADFAPQDHPRKYIFDYEWICKTHAEVFGEENLIVRLLREDYVGGTLLKDFVYHL

GLEWDESFVLKQTKNESFNLLGMELMSRLNQKDLKQDNLNSLLFMARRKFEGSKEKRLKFAVQKDIAKAY

VDYFASSLEWVKNKYFPHKNSLFTPVNWEEYEQNYTLTHMLSKDWDDVADFIAQIIVSKNEIISSLKEQL

ELARKD

>AHK54618.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLINQSFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSTLADFTKDDLKLIEKVLRKYNIPCDQLANNTVVSHCEYLSEIMTELKMLN

RLPYDFEERLSATFIPSRGEYQNFGIMAAIDHINALKDLVKRFPKLADLPKIYGGGSYGGYLALLIAKIA

PWYVDGVIDNSGSAVPPLNYIIGRELEFKSKDTNGDMYMQGDHFFVSCFLKTHWTRKENSPYFFNNENYF

IRTLLNKDHLILQSQKNKNIIYVSYHSKEDPLTPANFKELTMQILKILGYDVSLNLIDENKIDGKFIKNL

DHGCGIPDKALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFTFKDVENQLKLIIN

>AHK54617.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLINQTFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSAYKYFQEEDIENIKNLLNQFHFSYGEINNDNALFLANSLVKHVENLKMQN

KLDHNFKLNFTSTFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGSALPPLNYILGREMEHSYGDYYEDFPHNRIIFFLKTHWTRKENSPYFFNNENYFIRTL

LNKDHLILQSQKNKNIIYVSYHSDKDPLTPANFKQQTMQILKILGYDVSLNLIDENKIDGKFIKNLDHGC

GIPDKALFRKELPLMLEKLQKRKSFMQENSISYPCGNKVFIFKDVGDKFELVIKD

>AHK54616.1 hypothetical protein N919\_06500 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNTTLNLPLHHIGVACKNLEKERECFFKLGFYKESEFIDEKQGVRGEFIIPCNEAFPQYRFELLQNLND

KGPLDSYLKNNTKMYHLAYESKNIAQDLILLEQQGGICIVPIMQASYFAKLCFIMMPNRLLIELVELK

>AHK54615.1 hypothetical protein N919\_06485 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKYLLEFENKKYSTYDFIETFYKLGLQKGDTLCVHTELFNFGFPLLSRNEFLQTILDCFFEVIGKEGTLI

MPTFTYSFCKNEVYDKINSKTKMGALNEYFRKQTGVKRTNDPIFSFAIKGAKEELFLKDTTSCFGENCVY

EVLTKENGKYMTFGGQGHTLTHYAEEQFNVFYRYHKIFSGILIDENNISYNKTISYYVRKLDISSEPNLI

NIINIVNNTKNFKKNNFAGDHINIYNAKEYIEILWKKLDINQTILIENYDTIY

>AHK54614.1 hypothetical protein N919\_06480 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKGAKADIFLKENSSCFGKDSVYEILTREGGKFMLLGLNYGHALTHYAEERNTSFCRYFKEFKGFVIDEL

GQKREKRINYYVRDLEKAYVCSLDKINEIVRQTRYYKSIKFAGDFLESYDAKEYVKAIGNALKQDKFAIY

EKLLL

>AHK54613.1 aminoglycoside N3-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKYFLEHNGKKYSDKDLIDAFYQLGIKRGDILCVHTELMKFGKALLTKNDFLKTLLECFFKVLGKEGTLL

MPTFTYSFCKNEVYDKVHSKGKVGVLNEFFRTSGGGRLGELATLFFPLL

>AHK54612.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQTFLVDENSRLDVFLAKKLNQSRNQVALLIEKDCVQVNDKIQDKNSFKLKNGDIISIASLKLCNEIKPQ

FEVDFDIDVLYEDEDLLVLNKPSNLVVHGASSVKNATLVDWLIEKKYTLSNLGGEIRAGLVHRLDKDTSG

AILIAKNNFTHQKLSEQLADKSMGRIYLALIDLPLKEDKIIVEKFLMRSPSNAIKKIAIDKENKFSKNAK

SAFINVVKTENLTLMAAKLFTGRTHQIRAHLASLNRYILGDSLYGYKGKYDCRIMLHAYFLYFIHPKTKE

QIFVKAPLMEDFKNIMFEQINLGENDEKISLEFLLEFFNSFA

>AHK54611.1 competence protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSLWNSFSYSFKEFHYLFFSVVVIFIFNILLEYNNFLNFKNQKHYLIDNALLTHQYIKYNKKNKKYWVLK

LQTENFTFYTTSFKDLNLSKNQFLSLRIITHNINFKDYLSKSFYAPSYDFEKLKEKEYNPIISYFLNQHT

NEKIKEFYGALFFALPISLELRNDVNYYGIAHLIAISGYHIGLLFSLIFFILAPIYSFFQKRYFPYRNLR

LDLSILIFALLLAYACLIGFVPSFVRSLIMAFWVFYLLCKNIKIINFVTLFCSILLCISLYPRLLFSIGF

LFSILGVFYIFLYMHHFANKFNNLINIILLNIWTFFAMVLPVLYFFPLISYQQILGIILSGIFVIFYPLV

LFLHLINYGDLLNFILDEFFKFKIYGTNIHIPFWIFISYLIASLISVRFKYLAFLCIFANFIPFIMIVI

>AHK54610.1 5-formyltetrahydrofolate cyclo-ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKTDFRALQKIRLFKHSKLNFKQDYKIFKECLKIIKLFKAKNILIFIPLHYEPNLIKFRHILNKNYKLF

VPFMQDKSLKIVKLRLPFIKKRFGVLEPIDSFFKAKIDLAIVPVIGVDKNLKRIGHGQGFYDRFFENLNY

KPHIIFIQSIDALSQNNLTQKHDISGKLYINPYKKYYKKERKNDRITYRTYSRYSRTRYRIFSCKKNQ

>AHK54609.1 biotin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVKNGLLLTIFLSVIGVLGVIFIHIFVGAIIFVLIAVLMIYLLRQHKDEQIMIDKLLVLCRELKEGNFDN

RIIYVKTKSKKLAEIADNLNNTIDGLEAYLTEINTSISCSQKGEFYRKALPEGLKGIFAHNIEFINKALA

NIEVTARSTFKNALSRTLMDLSLGNQNKDMSQISSSLNQDISMMKNVYDTVDAISHTATENGSEVDSLQS

AMGSLMDVVNSSKETVQTFVANSQNITSVVEVIRDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVRK

LAERTQRSTSEISIAIQTMQQDFVNIQSGSEQVFNIVSESEERINKFSQAFKRLEENSSALGVNFGSFAK

RLILSVVKIDHILYKSNIYLNLNGAQNFNLESVDPISNLCQDERAQGVINELSSETELNLAKEFIKDNAK

KAIEESSQDYIDQKAYDAIVNDIKSLEQRSAEILAKLKI

>AHK54608.1 flagellar biosynthesis protein FliR [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEFVNYLGDKNVVTFMLLLARMGGLIVFFPFFSHNSIPMVIKSTIVLFLTMYLYPLARLESLHLDSFFVL

QLISEVIFGMIAGLMLQIIFAIIMMAGEQIAFTMGFTMASILDPSSGTSMPITSQILNLLALMFFLAFDG

HHLMLLFLSHSLGYISLGGFYPHENLMHYLNMGMFNIFIIGFTMSFPILGISLLADVIFGLLMKTMPQFN

LLVIGYPIKIALGFVVLIAILLVMMQYFKNLILELFTHMQTLFFF

>AHK54607.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKILLLNENPVVSRLVSLSAKKMSYDFEELNAYSENLGNYDVIVVDSDTPAPLKILKEKCDRLIFLAPRN

QNVEDIDAQILQKPFLPTDFLNLLNNKDANKHTSIDLPMLSNDENPYADISLDLDNLNLDDLPDENSLDI

NSEGMEDLSFDDDAQDDNANKTLETQNLEHETIKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEP

SLDELDDKNDEDLEIKEDDKNEEIEKQELLDDSKTNTLEMQEELSESQDDNSNKTLETQNLEHDNLEQET

IKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEPSLDELDDKNDEDLEDNKELQANISDFDDLPEV

EEQEKEMDFDDLPEDAEFLGQAKYNEESEENLEEFAPVVEEDIQDEIDDFASNLSTQDQIKEELAQLDEL

DYGIDSDNSSKVLEDFKDEPILDDKELGTNEEEVVVPNLNISDFDTLKESDIQEALGEEILEKNEEPIVS

DVTKDDNSEEIVNELSQSIAGAITSSIKDDTLKAALKGMNMNININISFKED

>AHK54606.1 hypothetical protein N919\_05790 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQQKCFCISKMIRFSKIIILLTVVSLAGIVVFGNVTDYNSNFQFVSHVMSMDTKPDLFR

>AHK54605.1 hypothetical protein N919\_05785 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAITSPVIYHIGYIAIILFETFIALTALKKVLMICLKLEI

>AHK54604.1 hypothetical protein N919\_05780 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFKARNLDAQSFHNAKIFWDYFFNLCILWFFAFQVVVAEWFGMWMSKVWKGLPDTIRLVTYMFLALIFIS

LKNDD

>AHK54603.1 hypothetical protein N919\_05720 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKQEISSFWYTPRGYKGIGLMELLSIKSFIDNGYKFILYTYNLDDKIFKKLDELFDDFELKDANEIVSFK

NYFRDDRGSGVAAFSDYFRYNLLYLKKKGGGYG

>AHK54602.1 hypothetical protein N919\_05715 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MICLNYIDLNEEYIFTQEVDEDNKKSRITTSFLKFSRYSDFGKNLIQEAEKIINKRKKISWGVIGPWFLA

DHVKKCGLENFVWDYKRTCQIPWCNVKIFLDNTSIDISQPFLHLFSEMWRLNNMEKNTFHQMGVYGQLLK

KHEIEKLYNQINTCLKTSMLDNIASFLTKFFIKKL

>AHK54601.1 bifunctional beta-1,4-N-acetylgalactosaminyltransferase/CMP-Neu5Ac synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTLFYKIIAFLRLLKIDKKLKFDNEYFLNLNKKIYDEKHKGFFDFDPNSKDTKSPLNPWAFIRVKNEATT

LRVSLESMLPAIQRGVIGYNDCTDGSEEIILEFCKQYPSFIPVKYPHEVQIENPQSEENKLHSYYNYVAS

FIPQDEWLIKIDVDHYYDAKKLYKSFYMASKNTAVRFPRINFLILDKIVIQNIGECGFIDGGDQLLIQKC

NSVFIERMVSKQSQWIDPEKTVKELYSEQQIIPKHIKILQAELLQWHFPALKYHRNDYQKHLDALTLEDF

KKIHYRHRKIKKINYTMLDEKVIREILDKFKLSGKKMTLAIIPARAGSKGIKNKNLALLHDRPLLYYTIN

AAKNSKYVDKIVLSSDGDDILEYGQTQGVDVLKRPKELALDDTTSDKVVLHTLSFYKDYENIVLLQPTSP

LRTNVHIDEAFLKFKNENSNALISVVECDNKILKAFIDDNGNLKGICDNKYPFMPRQKLPKTYMSNGAIY

IVKSNLFLNNPTFLQEKTSCYIMDEKASLDIDTTEDLKRVNNISFL

>AHK54600.1 UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIVFVSGTRADFSKIKSLMMKVENSNEFELFIFVTGMHMSKKFGSTYMEIEKCGFKNIYKYINHDKYY

QMDKALSSTIDGFSKFIHEIEPDLIVVHGDRVEPLAAAIVGSLNNILVAHIEGGELSGTIDESLRHAISK

LAHIHLVNDEIAKKRLIQMGEDEKSIFIIGSPDLELLNNTISLDEAKKYYDIKFKNYAIAIFHPITTEIN

SLYKQSEEFVNALIKSEKNYIVIYPNNDLGFELILQNYERLKNNERFKIFPSLRFEYFISLLKNANFIIG

NSSCIIKEALYLNINGILVGSRQDGRTDINKTIRVNAEEKDILEAILNTSKCTNITNKRLEILNSSEQFY

RLLKNNILFTINKQKIFMDKK

>AHK54599.1 polyhydroxyalkanoate synthesis repressor PhaR [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIKIDKLTISQKNPLIIPEIGINHNGSLEIAKLMVDAAKRAGAKIIKHQTHIVEDEMSQEAKNVIPGNA

NISIYEIMEQCALNYKDELALKEYVEKQGLVYLSTPFSRAAANRLEDMGVSAYKIGSGECNNYPLIKHIA

QFKKPMIISTGMNSIESIKPTVKILRDYEIPFVLLHTTNLYPTPSHLVRLQAMLELYKEFNCLYGLSDHT

TNNLACIGAIALGASVLERHFTDTMDRKGPDIVCSMDESTLKDLINQTQEMVLLRGDNNKNPLKEEQVTI

DFAFASVVSIKDIKKGEILSMDNIWVKRPSKGGISAKDFEAILGKRAKKDIKNNIQLTWDDFE

>AHK54598.1 alpha-2,3 sialyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSMNINALVCGNGPSLKNIDYKRLPKQFDVFRCNQFYFEDRYFVGKDVKYVFFNPFVFFEQYYTSKKLIQ

NEEYNIENIVCSTINLEYIDGFQFVDNFELYFSDAFLGHEIIKKLKDFFAYIKYNEIYNRQRITSGVYMC

ATAVALGYKSIYISGIDFYQDTNNLYAFDNNKKNLLNKCTGFKNQKFKFINHSMACDLQALDYLMKRYDV

NIYSLNSDEYFKLAPDIGSDFVLSKKPKKYINDILIPDKYAQERYYGKKSRLKENLHYKLIKDLIRLPSD

IKHYLKEKYANKNR

>AHK54597.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYKLKNKTQTIKENSLIEFNIEGNNPYEIYTVYKSYKAFNNEQDLTNFTYPIIDYII

FLDSDDYWELNCIEECVPRMDGVDVVWFDSIEYHDIEKSYFKHHSRLKDINIKKECRINPIEWLKLLRQN

KIKDFAFAWSGIIDFDYIKDKKMKFKDAIFAEDHLFGILLFSQAKNIYVYPKVFYYYRIRANSLTNQDKK

ITKDNILPYFKDIFIAFEENATLAKEYFKYVSWVETSLELVRFVENYHDKKISSLLKDTILYFYIKNAFK

IKKFDKDPLCIKEKLQLLKPYKISKIRYKVMKFLISLRN

>AHK54596.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIQQNNSLIYNTLTKKLSSFIPIKSTRRKLRNHIQYKLEHPKVTNYLSNNYINPFLEGKIPHFDFEKKH

YFKNDKIIWQFWYQGKNQASPMIQQCFNSVQSQMKDDYTIIILDKDNIKDYLDFPPFVIEKLENNFFGEK

TITFFSDLLRVCLLATYGGIWCDASIFLSSKIPSELCDKDFFTFERSKIKPSKEKLKKFIKSGYFSYGYF

NWNDDFKVKMLSSFMIAKTNNTFIQTLKDILMNYWKNEQSSENHYYFILHIIFELLKEHGFVNDIYKNMS

DIECHLLQFSAKEKFNSTLWEEIQKQSFLHKLTHFKSIKKDSMIDKIILQS

>AHK54595.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYETQYIEKENELNVFKIIGDNPQNIYKIYKYKNALASDKLEISKIDYIIFLDSDNY

WELNCIEECVVRMQNVDVLWFDHACIYDDGIEDKGQKTRMNVFNFTQECTITPRDYAKQAIKVGSRDISF

SWGGMIDFSFLKQLKLKFINKIINEDIHFGMVLFASADSIYILPKRLYLCRLRANSISNHDKKVTKANVS

EYFKDLYEFFGENAKEAKNYLKAASRMITALELIEFFKDQKNENSQAIKEAFLPFYVKKALMIKKFKKDP

LNLKEKLPIIKPFIQTKIPYDLWKIWQKIKGILDKINFAK

>AHK54594.1 glycosyl transferase family 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLKQISAIIIVKNAKQTLLECLNSLKDFDEIILLNNESSDNTLNIANEFKKDFANLHIYHSAFIGFGAL

KNLALSYAKNDWILSIDADEVLENECIKELKNLELQEDNIIALSRKNLYKGEWIKACGWWPDYVWRIFNK

NFTRFNDNLVHESLVLPSNAKKIYLKNGLRHYAFRDISHLIDKMQYYSSLWAKQNIHKKSGVLKANLRAF

WTFFRNYFLKNGFLYGYKGFIISVCNALGTFFKYMKLYELQKQKPKTCALIITTYNQKERLKLVLDSVKN

LAFLPNEVLIADDGSKEDTARLIEEYQKDFPCPLKHIWQEDEGFRAAKSRNNAIKASKSEYIILIDGDMI

LEKDFVKNHLEFAKRKVILQGSRVILNKNESEEILKNNNYSLAFNKKGFKNQRSIFLAKCVYKFSKLTKK

FFKKSQLVKGSKTCNMSFYKSDFEAIEGFNEKFIGWGREDSEFVARFLFNDGVFKRLKFNALAYHIYHEE

NSKNMLEINHQIYLETIKNEKTTWR

>AHK54593.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>AHK54592.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHFNNNLVVHYIVNPSPLGWIVINLLTICLICYIFPLKNSLKHKKLFSLKANVNSKNSRIIKYTGIAAFL

GGLIGIWYNFEGFYQLLFFFELENENLKTLWSLQVSVSSVITGMLLLLIYVINLAMVCENGIYIVSKFNL

FYMYFIKREDLEIVKIEKMKFLNQVEVCFVIKTKNKILLKCFESIYKKEDLEKLKNWYENKL

>AHK54591.1 ATP-dependent Clp protease ClpA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKYQENLQKYLDNAKNLSLINHHEFVTCEHVLFALLKLSTDFKDIFEEFSDGDLELLETELKNYISQNNQ

VIKQEIEPTISVVLDEILLSSKNKNNEIKIIDFLEKLIQDSRSYSSYLLKKHNINLNKIQELQNHENIQN

LNNHTSDLTLLAQNGKIDPLIGRKFELERMMQILSRRKKNNPILVGEAGVGKTAIVEGLALAIAEKKVPK

NLQNAKIFSLDMASILAGTKYRGDFEKRIKEILSELEKIPNAILFIDEIHTIVGAGSTGESHTDFSNLLK

PALSNGTLKCIGATTFMEYKNTFDKNKPLSRRFAKINVDEPSQEESLQILKGLKNKYEEFHHIKLNDEIL

QYAVIWGKKFFNDKFLPDSAIDLIDELGASFALNPRAKKNANLKDLENVLAKMTHHHKMFEFDQNKALMN

LKTNLKAKIFGQDEVIDSLVSSLKQSFAGFKNSNTPRGVFLFTGSSGVGKTELCKALAEFLGLNLERFDM

SEYAEKHAISKLIGSPAGYIGFEEGGLLSNAIRKNPFSLVLFDEIEKAHPDLSNTFLQIFDNAELTDNSG

LKVDFKNTIIIMTSNLGLKESNELGFLSKNEEKSNRAIKDFFAPEFINRIDKILHFNDLNDAILVKIIEK

ELDEISKNLNNIKLSVDDKAKIYLAKKAYNKEFGVRLLKRIISEEIGEKISDEILFGKLKKGGIAKIKLG

KNEKLEFIF

>AHK54590.1 hypothetical protein N919\_05425 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAIFNKGGISPTSSSSSETTVISSGARIEGKFYFASMLHVDGELSGIIHSESIVVIGKNGNLKGELQADK

IVVNGCFEGQLEANSLEILAGGVVNGDISTQKISIENGGRFNGTSKIKEDTIKLIENNNEE

>AHK54589.1 hypothetical protein N919\_05305 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLENPIPNSIIITTIAVVLAFSALAVFLIKKTKENK

>AHK54588.1 sulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRKILLQIFIFSVLFIATFAINRILMQNSFIPTGLISDKNEIFLMYLLGVFHDIRFLSAAFLPFLLCGFL

SLIFSNIKINNKLVIYSKNFYFIFSSVYIIVLSCLCIGFSYVKYYYYEIYKTKFDIFMFTLKDDNTKTIL

SIIYHDYPILKILALMLIFGVFVFFLNLKILNLKLKPVNLRLFPLIALNLILIIVYVIALRGPFKHVAIN

VQNYSFSEYSVVNDTMLNPIMAFSWALKQYKEEAALKVITPLKAQELKEKLFDYLHQSPINLKAEKNHPS

VFVNLMESFGLNLADFTNTEHNFLGSLDKHFKQDFLFKRFLSSSNGTIPSFANLFFVSPFSNISTSKFQK

TYLDLTPIAVYKKAGYKVIFVSAGNGSWQNIKNYLSILGVDEIIDENILMKEYNGAKDSENGYGIADEFL

YKKVYDLLQKNPHKTLIIALTISNHPPYKIPQNDLPKLQNIPQTLLNMLPYEKDKQDNIIKAYTYANNEF

GKFLDKVKQSPFKNSVIIAATGDHRVREMSMDLNSQKAFAYSVPFYLYIPKDLQDNIYYDKDRVGSHKDI

FPTLYALSLNNVKYLSVGGRNMLARPSDEKLEFGINDAVWIDKKGIYSGGKGYYFESNDTLKDMNKAFNL

DGYTKDFDKFYRELNLYQLAERLGISK

>AHK54587.1 restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MITKDNLKQVLENLGFKNKNENYVKTINNYTLLIDYKNQSINYPKEIKIHDKTTSNFSHPENFVVFECVH

RLLEKGYKAEYLELEPKWNLGRDKKGGKADILVKDNENNPYLIIECKTTDSKNSEFIKEWNRMQEDGGQL

FSYFQQEKGVKYLCLYTSDFSDKLEYKNYIIQAYDNEEYLKEKELQNSYKKSNNNIELFKTWKESYELQY

FKQGIFEENVNAYKILEITPTFDNLKELKEEGKYHEFAKILRKHNISGKENAFDKLVNIFLCKIYDETFN

KNNLKFGYFGVMADTYANMQDRLMWLYKEAMKEFLGEKITFVSNEDIEKDFKQLKIKTLKEVMQNYIKEL

KFYSNNDFAFLEVHNKELFLKNALVLKEIVELFANYKLTQNSTNQFLGNLFELFLQKGMKQDEGQFFTPI

QICEFIMYSLPLQEMLSKSSKALRVIDYACGAGHFLNTYANELKRYLTEDELKEHYKNIYGIEKEYRLSK

VSKVSSAMYGQNEINILYADALASFELANTNNLEGEKAKPQIESNSFDLLIANPPYSVKGFLETLSDKSK

NTYKLFNDDINIETNNSIECFFCERANQILNDNAKAAIILPSSILNKDSIYKNTREILFQNFDFIAIVEL

GNQTFGATGTNTIILFLRKKETFKQENHLISQDYSLIKERIEAENLKDNENFYQNYLSAYCDFRKFDKEL

YSNFLNGNLDSKLAELEAFKDYRNAFRQTSDYKKLKESKIYKESKDKQDLEDKAFLAYTQAIEKDKLLYF

CLSLNQEVLIIKSPSDIKEQKKFLGYEWSNRKGDEGLKELHEPYLSPLFERGNPQNETKLNTLICKAFLK

TLSDIPKDLQGYASKARLIDMMDFEKVEFNKAISLNVKSRDELNPFKNSKYELVRLGEVCDLNKIRNQAS

ATEIEKMNLNSGNVKLLPSSKNYEWWTDEKTAGQFINEGEVITLGVARYANIKKHKGKFVSANNHILSVK

DKSKIIFDFLYILLEICGQKLYKQGQQYPQFDTNIFYSFKIPLPPLEIQKQIVAECEKIEEQHNTLSLSI

KEYQKLIKAMLQKSGIIEDNQEYELNSILENLQKLESKLDFNLLLSLIEEQISHSEVLVEETQSKERKQD

FNAFKNFSKTIQELLQTLSTPPKDGWKRISLKNEQYMELNPSKKEISKLDENMLVSFIEMASVSDKGYIQ

SKIDRSLNEVRKGYTYFIENDILIAKITPCMENGKCAIAKNLTNNIGFGSTEFHIFRAKTGLDSSFLFYN

LNQQNIREKAALAMTGASGHKRVPISFYENLTIPLPPLEIQEKIVQNIELVEQQIDLLNLKLEFLEKEKE

KILQKYLFS

>AHK54586.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MASFKKIFWINVTIVIIVAFNLRAPITAVGPIIDIIKDKYYLNSTVAGILTSLPLIAFGSISFIVGYFSP

IRAIVFGIFLIFLGEIIRSYFGVYGLFLGMLAMGCGIAIANVLLPSFIKEKFPKKMASIMGIYSLVLSIS

SIMGIALAIPLLSVFDLAGAMFFWAIFSFVALVVYYPQAKNGRFFRIKKKTHKKINLFTNLTTWKITLFM

GFQSFLAYSLFFWYVQIVVEKGFDKEFSTSMVLFAQLVAAPVSLFGPLLLGKLRQNLHTFYIAGLCSMYV

IAFGMLFIFDSKISIIISAFIMGFPWGGVFGIALLFIAQKSSNAQIAARLSALAQGFGYLIAAQGQWIIG

FLHDKFENFSFAILMLVFVGILVNIFGYLSYKSQIIK

>AHK54585.1 branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKLTLTLSVLTMVNCLYAKDINIGVVLPLTGTVAAYGQDVFNGIELANKLQPKLSNGDVIKLITIDTKG

DKLETSNGVNRLIATDKVLGIIGEATTPNTIQAISIAEEKKIPLIAPVASGDKLLDKKKYASRVCFKDSF

QGDKFATYVSKDLGLKNAVIIIDQSNVYSLGLARAFENSFKNNGGKIIKKLVINSGDKDFRAVVSQLKSL

NPDFVYMPIYHPEAALIARQARQIGFDKLLVAGDGVNNQTFIDLGGSAVNGVIFTDSFDYNSPSTQLGKD

FVAAYEKVKGTKELPAFSAMGADAYFVMLNAMNACVDNLSSECINSKIHQTKDFQAVGGVISIDESGNAI

RSVVIKEIQNQKQNYKTIINP

>AHK54584.1 branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKSLILASILSLSLSAAEVKIGVVLPLSGATAAYGQSALEGIKLANSMQSALSNGDKVSLAIIDTKGDK

LESSSGANRLVSQDKVIGLIGEMVTANTLQVMRVAEDNKIPLIAPAATGDRLLDKKIYSSRVCFMDSFQG

SSLAKYVFSKLNYKSAVIVVDQSTDYSLGLAKAFEKQYKSNGGQILRILRVNSGDKDFRAIVAQVKSLNP

EFIFLPLYYSEASLFARQSKLAGLNIPMGSADGVADQTFISLAGDASEGYIFTDSFDANNPTTKLSKEFI

SVYEKAKGTKEVPNFSAMGADAYFVMLNAMNACVENLTSKCVNEKIHQTKNYQGVSGVISIDQTGNATRS

VVVKEIKNQKQNYKDIINP

>AHK54583.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLTIFLIFLNILCYFLISYDYYNILGLNILFFNGAYWQLLSSMFLHGNLTHLILNMIVLFQFGRMLETYL

GALCFIFIYFIGGLLCSLLSVFYVYFDFKYFGENINVIGASGAICVLMGFYAVIDKNSTKGLIVAILLMS

FVPLLMGVNVAWYGHIFGFMCGYILAKIKEVK

>AHK54582.1 hypothetical protein N919\_04935 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKIPYFSFLKLDFEIYHLNTSKNFYGFFILYFSFFIFKLIYKFSKSNKKIYKKIIKLKKIIKDNKYLIF

LCYILINI

>AHK54581.1 hypothetical protein N919\_04930 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKSLLFHFRRIGVEFIIFSVYAVFSISWAATGSLMPLISNDLALNTQQATLITSMIVVAKIFGASFTAF

LVYKFGLKKGYFLGCILMSSGIFLSFVDSYSGILIIRFLTGLGSACALVCLVPIAQQWFEKKALHFVISF

NITSNLVGITLGLVLAESISNYFGNWRDSLSFYAWINLILLILWLFVGKDENKKEEKKNNAKDLIYALKS

RVTWGMIIFYIGPILFLNSLFTFLPTFYAQYAGFSKELADFAKKEIPALANFAIIFGPYLGLFFKRKNIS

FKIMLLSGGACIFICGFCMLFLQNLVLIQIFAVLSGIFYSM

>AHK54580.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSAFWSITFVILSFNLWVVSWSVDKTHSFTLGFVYIFALIFISAILAQFVLPRREKFIQGEK

>AHK54579.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLEQSPYKEDANSKNYNNTLKVKDGVIIIDHSNTSDDNNSKTINTKKNTQKNQPNLSNDNTLKTKTPNSN

TPSLKNTSKEESIHKVSFSFHITNKNINFKDLGLDEQVLQEALNDYKKESISVQDLQDIANIISYYVQVS

GYPAATAYIPQQELKDQIQINITLGVLGKYVVQNNSSVRDYAIESKLPNHKGEIITTKLVEDAVYKVNEM

YGIQTLASLKAGDNPGETDVVIETTPSDSFVSVLFYGDNYGIKESGRYRDGASMSFNNIAHQGDSLNAYL

QRSDEAQTNYSISYTTFLGNLKITPSYSKRNYALGGAYKNANFIGTSENLGIDLKYPLWITTYNSFYLTS

SYYHKKLSNSRLNIMTIDKSSDTISFSIEGVYNGISNDSFSYSANVSYGNVKDGGTTILGMSSKTDGDGF

GKFAKLNVNLNNAYFFNDTFTHLFSLNYQQVVNGATLDSSETISLGDPYGVRAYNNGDGEGDNAVVASFG

LRMATPLKDFYITPFYNIGYSWYENDSKLYRASETNYMDAYGLQLLYNKTGNFYVKLDLARALKKYKLDD

DYSSKAYVSFGKYF

>AHK54578.1 hypothetical protein N919\_04865 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKMIKIQKVKSLLDLVKKLKNKQSLKIKNQTNTKENLNKTHYLTI

>AHK54577.1 hypothetical protein N919\_04860 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLQLFIQTTDEDPNINEDDKQASIDEASTQESGNVV

>AHK54576.1 hypothetical protein N919\_04855 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKGQENAQKTYDTAVNAYNEAVKACNTALSGITGNNGDKVIAGLKQAIDKVSSDLQQATIALQIATAST

NSSLENSNKTLASASINGTSHLTVNENIVQTISQYPL

>AHK54575.1 hemagglutinin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSIRSNKGLTGPGGDPTDTIGYKETSDLIAKDNISNEVLNSIFNDLKFNSSVDISDLSKFYKDGKILTAD

ELTSINQSMDFITALYGQTQDSNNATFANALKEVLGNSYGDLGKANQVIIKTKEILSQNS

>AHK54574.1 hypothetical protein N919\_04845 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEFTKDGKLSAFKGNPKTISPVIKSNAGNVINLETITVGERVAMAGNQVSNMKYGGTDYGKFIFTNKKE

QSNTVYLNVYSNDTFVIRGPASNTIKKKTL

>AHK54573.1 hemeagglutination domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKLNKLSLSLVVGSLLFTQSYALPSGGKFTHGTSGSISVSGGFNIASNETVNFGQGKTNQNYLNIVYGS

KSSHYRWNTQ

>AHK54572.1 hypothetical protein N919\_04835 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MREDEVLSFKARHGVNTAGHSIKTVRVLPFLITAKTDHADASYNKLILEQGELSSVFYLKPKDTHIKNPS

NSKSNQRMNFLMSSTFTHYGNASYNQTILQKDAHISMGVENTYDLALNGAPYLIGAIATYGDSTNNSLNI

EAGSSVEFFTSLPKKDKNGNNTFDERITHLVGGLAYQGNVKNNKIFIKDANMIIHGPSKAYASLAAAHIS

AGYIDSGTDKNFQASKNLLDIDGFNLDMYMNHDKQPLAYNSVLFADFWGGKTEQGQALDNTINLKDIKNL

KKDKNNENIFAQALFNFYAGASNNGEANYNTLNIELKHPLEIANNFLGYNQHSFYGGFATKGANHNTINI

KNDLTTTDLSQSYKDALNIVAARTLEGSADYNKVYINNSMSTLPVYIYTAKKNILNNQDFYPSSANNNEV

VIKDFASFRNLTVLTEAKEASYNTINYNNVQSITDVSNIDKGSKIIIRALDKANHNTIDIKNYSSNAADN

AYLIMAYNEAAYNKIIINDTLFGVASDKREGILSIIAGLSNNAHDNTLIINNLNLDEYKNNNSIFIAPSA

ITGLSEAKSYNNTLYIGGNLNIFKNTFIDILAGALVHYEDNYSASNAAAPSDISLSKNNRLILNTKVEAR

IINNFEHYYLIVSNKINTTPLLKSYDAPINISS

>AHK54571.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFKTIGFKVSAAIFVVLLISFIVMQVILNLDFKNTANKMSRANLDTVSTSVFQTMRMAMNLGDPEKIKEA

IEDAKSIEGISDIKIYPSKDTIDLFEMKAPQISNDKRIIEQFSNPKIQALEENVNLRLIRPLIADESCVA

CHANANVGSVIGVMDISHSLEGVQKDISKTSQSYIVIFTIALIFTLCVVLLMLKVVVGKPVLELLNHAKE

LAQGSGNLKARISVKGQDEIALACGYIN

>AHK54570.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSNKANSANEKSFLLLEQMLKSLFNVANKVSTVSQNENELAKKVENMVNQAGNIQKATQMMDEIADKTNL

LSLNAGIEAARAGAFGRGFSVIAEDVRQLAQNSEEFLGNVAQITKELLQSINEVSAELKKNAQSVQALND

DTALLVDDANEVKLCNEDARALVTQCTEKIKISQENIQNLLSRMQENVEVSEKNEEISKILLQVADELKI

VCHNLESELNQFQI

>AHK54569.1 hypothetical protein N919\_04640 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSSKFSKIGFILAVAGSAVGLGNAWKFPTLVGQSGGSAFILLYIILTLGVGFVIFLAELSIGKISEKDPV

NAYEKLAPSNKKAWSYVGFTMVGAILIVSFYTLVIGWIVKYVFLSITGNLPMDLEVSKAQFGFFISEDFL

SQFICFTLVFLCVFYIVSKGVKNGIEKLNVWMMPSLFILLILMLVYAISKDGFIMAVKFLFVPDFSKINT

SNVLEALGLAFFSLSLGVGTIITYSASLPDKTNFITSTLNIIFINLLVGLLMGLVVFTFIFEFGYNPNQQ

GPGLVFISLATLFEKIGVIGCIFGAAFFISLIFAGITSAVSMIEPFTFYLINTFGMSRKKALILIGIVVY

ILGMLCILSSLKSTQFGFFGMSFFDLLDSVSSKVIMPLGGILAAIFVGFVMKKEALKILFKPYMRGIFFE

LWYVFLRFISPLAVVIVMIAAFLK

>AHK54568.1 sodium:alanine symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRTYFSKIGFVLTVAGGAVGLGNAWKFPTLSAENGGFVFVLLYLFFTLTIGFSIFLAEVAMGRLSKSDLA

NAYSNLAIKYGNRWRYGGVFMLGGIFVLSFYLVIMGWVLKYTVVSLYYLPKTLDEAASNFQNLITTNLTS

SVFFFTLSFFLTLLIVSKGLIKGIEKLNVVIMPSLFLMLVFMLFYCMGFKQGFANAFSYLFYPDFLHFKF

SSIAEALGLAFFTLCLGIGCIVTYSSALDKKTNFIKSSVYIVLINLLISFIMGLIVFTFIFEFGADPHTQ

GVGIVFISLMSLFNQLGALGYIFAFCFFLALFFAGITSAVSMIEPLTFYMINNYQISRVKALFLIGLFVF

VFGICCILSLNLNFFSMFSFFGKDFFTLLDKLTSNFLLPLGAIVCSIFVGFFMNKKQIYKIFSKFISRKI

FLIWLFFIRFISPIAIILVMCYQIFV

>AHK54567.1 hypothetical protein N919\_04545 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFKKFKYYYEKAERFFHPLVGLSSYDKYLEHMKQKHPGKIPKTRGEFFKECLDKKYNSGGLNKC

>AHK54566.1 hypothetical protein N919\_04470 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEILDFILIVIFVFLMIVLVIGFNHQMMQKNKEREERFKKYKKGEQNE

>AHK54565.1 hypothetical protein N919\_04350 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKFSIVLTLLLCGSCALALDPNLEKTKSATGIDLPTAKWNLPKELNEDGTIDETKMPKNSEYSKMVILG

NKILNETSKYVGPQAKDPKKKICGK

>AHK54564.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNQSGFVGIWARFPQYNARGDKVITLADRINGCFERSTNGKRMPSDTPEMKAMLTYMQWLSQGVPVGAK

IEGQGLKKIDFILKAADPKKGKAIYMDKCAVCHQENGLGLKNEDSTGAYYLYPPLWGDDSYNTGAGMYRL

SKLLLILKKICLKVRLT

>AHK54563.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPQGAPDLSLEDAYDVAAYMNSQARPIKANRNKDFPDRKIKPLDMDVGPYDDSFSTTQHRYGPYTNMIKK

>AHK54562.1 protein-disulfide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRNFFCKFVLALVFYSSFALANNSFITLNPSLPSSENSVIEAFSYKCIHCYNHHKFGTLEKLREAFPNLH

FKLYPVSLMNGEFSKEMNELFTFAQYKDEQNGKDASYSDSLSHKLADVYFVSYFLNKQRNFSNLDEFYDI

GLKAMNVNKNEVLNFLNTPKAKEILSEFQRANDIAKTYGTPAFVVNGKYQINPSAINSMQDLEDLVKKLS

NMK

>AHK54561.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAFNLSKGVSLGEPKPKIDEFNWGAKEPSVQIQFSGSGTDYQAMPFSVDQAFNPKK

>AHK54560.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MCDTIIEVDENGNVVDDWRLYKILDPYRSTIIKTLDQSAVCLNIDASKVGKTLSDEELAKMDESDKFGDI

AGIGRNWAHIKGGIKNFKNIYCNL

>AHK54559.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNWGNIYNRGIMISFRQNKDGALTWGFGQRYVKYDVWEEKFSIANYLLSI

>AHK54558.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVEFLFLDFILLIVKVSYTKTANGKSQKVIDEIYKITTPWASIEPSGRH

>AHK54557.1 arylsulfate sulfotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRLSKTLCMAILAGSTLLAPNALMAMGGPSRVKIDWQIQGQMGMIKMNPYGLSPLTAIIMNNGYVLSDIK

KSNGQTIS

>AHK54556.1 thiol:disulfide interchange protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFPVKLARSIVVCAFLAGISASALSEGKEYVILKNPIANADNYSVGLKAMNVSKADFENFLKTPEAAEL

LKSYEIANPISQNYGTPAFVVNGKYQIVPSAINSPEALIEITKELSKQK

>AHK54555.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGVFLVLLGGIFWAISGVLAEYLFKNNYSVDWVCFYRLLSTGLILIFLSFKAQKILVFTNLKESLSICMF

GFFGLLLTQFGYFKAIYYTDAGTATMIQYCAPLIIMLYLCFKNKKFPKLIEIFALILIIFALFLLATKGD

IEAVVLNYWGIFWAVIGAFGVAFYSLSAREVILKYGLFWIMGWASLFASFVFLLILQFDKGLIHYAFNLK

AFFSMGGIVFIGTIGAFCLYLKGVEYIGALRASMIASIEPVAAALMSFLFLKTRYSLLDIFAFVLIILSV

ILNAKKTKVS

>AHK54554.1 hypothetical protein N919\_04275 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQINNSLNSLSQYVKVNSNEENQNSKNQEQNALAQDPAVEVNISKEAKEKSNTSNQNNSQAPAQALNAQN

NTQQDSSSNSEDKLTELTQKLAEIQAKIVELTAKMSKANEDQIKSIESQIATLNAQASTIQAQIQELQSQ

QA

>AHK54553.1 hypothetical protein N919\_04190 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIYSVILGAFLLGACSLKDQAIVDTNLKSQTLMFTQKYKITQDKINAIITMSYLNPILDKTSKDDVLAL

SFTPNTLKIQNLEVFINNKKANIEKLDDEYLKYIIQNNYTDYFKASLPSVKEETRLVAKICLDHLPCFEL

NFQKYPKSLYYRSEDVDTQYN

>AHK54552.1 hypothetical protein N919\_04075 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLEFIFTLILDFTFYSIKTLEKVFLGRTALVILFVVFIALFCVKGLFLYILLALELFLLLYLFLGILFLR

FYKS

>AHK54551.1 hypothetical protein N919\_04070 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKVAFFLLFLFLSCTVLNAAREYCKYAYQEDRAIPLILNYGIRLGVVGAGVANAPAPGGSTYNSKIDMM

AARCH

>AHK54550.1 flagellar basal-body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MITQTMQSKESKESKENSKISFANAFLKQNASKLNEIQNANSQTLARSEALNSTNTTNTSNNTNFSISSK

TSSPNYDISSEFKNSIYTLKYKQVDISNTSTNTAYGYSVDKDGYMGSDFNKAAGLPEDFKIHKSTLDEIK

KAAENDPVVSSTKEYLGVSSYYSNIDIANTIKQYYNLFSNALGQSFSNDKTSFSEADINSMPSGYGVSGT

QWMDFNEPSNRMNITGLKDFSNSLISNVYKTPEQAKEADEI

>AHK54549.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKSLVFKNFIINALGILFSRILGLARDVLIALFLGAGLYSDIFFVALKMPAFFRRIFAEGAFGQSFLPNF

VKAKKKGAFCVSVMMQFSLIVFLFCLLVSFFSSFFTKLFAFGFNADTIALAAPLVAINFWYLFFIFLVTF

LGAILNYRQKFFITSFSAALFNLSIVIAAFFVDKNAPQNTLYYFSYATVLSGVAQLILHLLVLKNNPVIR

AMTLSIKFKKTKAKLQGFYGNFFHGVLGSSATQFSSLLDTTIASFLMSGSISYLYYANRVFQLPLALFAI

ALTQVSFPKILKHLKSDQENLALKFMQRALALLSILLIASSIVGSVFALEISKLLFERGNFTHEDSVITA

YVLIAYLIGLLPFGLQKLFSLWLYAKFKQKTAAWIAVKSLIISALCSMAFIFLIKDESLKVIAVALSSSI

SAFYLLGANIKEFGFKKFFALISIKICLLVIVALIVFTILLILIKPYILSFFIGIFTSFKGVF

>AHK54548.1 ferric enterobactin uptake receptor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKICLSVCAIGLLSSNAISQNVELDSSIVSASGFTQDIKEAPATINVITKKELQSKPYRDVAEAIADIP

GVDLYASKGKTGSYNITMRGITGYTLVLIDGRRQGIGGEVGPNGFNEISNSFLPPISSIERIEVIKGPMS

TLYGSEALGGVVNIITKKVSDKWETSVSLDALLNENKDWGNTYGTSIYSSGPLMNDKLGLTLRFREFYRQ

QSNVEFTNGSGQRVQGDQAQSPTKANNFNIGTRISYLANDYNTFIFDIDFSRNHYDNKQGQLGTITSPGR

TPGSLTGGYADIMEVDKFVTYLSHEGVYENFSITSGLQYNRVSNDGREVVGQSTQPFLGENRDIVAEDII

LDTKSVIPLGQSHILSVGGEYRLEKMQDKIASPTNFDQYLLAIFAEDEYSIKDDLRLTFGARYNHHEIFG

NNVSPRAYVVYNPTNELTLKGGVSTGFRTPYANRLINGTYSYSGQGRFPTYGNPDLKEETSLNYEIAAIY

NNDLFYVSATGFLTNFKDKISSQSYNNSEPIPGIGTCDADRCSRAINHGKVEYKGVELGAGISPLDNLNV

NFAYTYLDTEVKEAQDRSVIGKPEQDSLKHNIMLKTEYSFYNKITPWIKGEWQIDRYMGDTNINREYYKD

IFLASMGVRYDINKQWSINAAIYNLFDKSFTNGWESYASGSGSTWVNTYNRIEEGRRMYISINGNF

>AHK54547.1 cell envelope protein TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTFISNHKNQSSFITLFVFTPLFFVFLYSKDFLHIQPNETIKENKFNMAIKHFVQNSSDMKPTQPTQTI

QEPSNVQPKEPVQEIKKIKPRKEKPIAKPKKIIPPANAKAISQPKKDTNMQQQTPQASSYQSVSLTSNSE

LLKEIKSAIDEALIYPRQARKMRMSGEVLVEFTWTKEKKLENLKILKPSKYDFLNKSALETIRIASKKFP

QYEKTFHIKIPLVYKLS

>AHK54546.1 transposase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLAVEDLQIKNMCKRAKLKNIKAKSGLNKSILNISFYQFSQYLEYKAKHNGKFFIKVNPQYTSKTCSVCG

NIKKNLMFKDRVYLCEKCGNTLHRDINAANNILKRGLKSFGLGISLEDYKLKAFRIS

>AHK54545.1 transposase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNTFFKMRYHRDLPNTYKFNQITIIKNHNKYYLAFSIIYDESNVSLMSSKDFDIKKAVDIDLNINEITLS

SGELIATNSKLLSRAEY

>AHK54544.1 hypothetical protein N919\_03755 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGVVYDEINIAVNTCKGLVLSKKRLLALNLSFFIQ

>AHK54543.1 hypothetical protein N919\_03725 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGIRFQTPLEGLYSTPFYDIGYSWYENKEYQSENHYLMDAMGI

>AHK54542.1 hypothetical protein N919\_03720 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNVGVNFSYPVFLYTEYSLYLVSGFTHKKIKDYYLDGLVSNEKARNSVNLGIERTYRGLENNVLSYTLNF

IYGNVENDGDFSGFNGVNLGNFGKMNLNLSNKYQF

>AHK54541.1 hypothetical protein N919\_03715 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKNLKGKVITTKNVENEIYKINEIYGIQTNANLQSGDGCGESDVIIEVNKGEIV

>AHK54540.1 hypothetical protein N919\_03710 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRKILVVLVLLQVFSHAEELNNNKIRELIESSPEANEPQNKNLKNTLKNQKSPVNFKEQNTTNITNSQTD

QNEAKVFVREYVLHIDNKDLTFKKLRISEK

>AHK54539.1 hypothetical protein N919\_03705 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEIGEADARSSGLRCIVSDNFKTMNICVNAK

>AHK54538.1 hypothetical protein N919\_03700 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQYNNEVTGKKDFDSAVRKKFNDIKYLDNNSYAFADSFTKATDAVKLSKDDFDPKLLQRILDDLMNGKYT

YDFDTKTWTYTDSKGVVGKDEASEITQSLNFLNAFKDTGVEQEFLKLWQGSQEQNYKNYTNLYEKWTQKK

TAMDKIKTGEGYFASFKEELQKYQEALAQLDKENKNYEKIKESGLVSDETLRAIYEKLLEQKEALEKQFA

DLSGNEGFRYKLENEILNSQGFSIEGKDVDGKVYTGNFNFKGKLASLPEKPNISIYEPDKQGGEDPDKPS

VLPPEIPEKVVEAPIKIQTEVDAKKRRR

>AHK54537.1 hypothetical protein N919\_03695 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSAGNYKTQAGKVIGDPGISVNNNFSNIYVYHNLENGYIDEGQNFLSLCNIIMK

>AHK54536.1 hypothetical protein N919\_03690 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGGIGRQIDGGNFNNVVVNDIEKLITSGNDSKTGGFTGKVGNLKINNAYLFYKMEQF

>AHK54535.1 hypothetical protein N919\_03685 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTVNDLVINTAVNTKVGGIIGWGNGSGGNNTINFTNVAINNISIVAKKVLMWVA

>AHK54534.1 hemagglutinin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKMSKHIVLSFAVSSLLFSQAYALLSGGKFTHGTSGTIHTSGNTVTITGKGQNHVIQWGGGFNIGQNES

VNFNGKNQNYLNIAYQKDASKIDGALNRGNNNIFLVNPMGVLIGKTGTITAGKFVASTTALSDDNVKTFL

EKGASFSPAFDVSKQGNIINLGKINADNIVLIGNKVEINKGKITLDVLKLEGNKVYVDAGVVKDTKNIVA

KAEQEAIIQQSITSFEEDGALLGNSSSKFSFDDSSKVKNWTKYGSIADATEWNKFADFWNVNKEKFRTAF

DHFRLIDDIDFSGVKTYIVGDNTSNAFAKSFDGSGYALKNVNINSSNQYVGIFGVVQNSYIRNFNIQGLK

IASTGYDA

>AHK54533.1 hypothetical protein N919\_03675 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGVENIYTLPLNGVPYISGSVAFDGEAKDNKLILESNTKIDLHNSQYFSDEEGKDIYDERITRLMGAFGI

NSNLQNNKVLIDSANIVLHGPDGEYTARSTFEILGALADVNNLKKYNVSKNSVIIKNLNLDLMVNSQNKI

TFYDAVLFGEIYGGRTLQGNAEKNSIEVYHFNSLDHLNKNIKTHASLNLYGGYSNDGEANGNKIVFRLKK

PLKISDNFYGKNYYNLYGCFATEGANFNVFDIQNDLTYEKVPQNYSDKFTVYAARTLSGKANNNTLSIKD

SVISLPLYAFITSETTLDGIDYIADESNNNEVNFENIKSSKNLSLMINAKNVSNNKINYNLIQSLTEASS

LGKGSKIILKATQNANNNLIKLKDCSSAAVESSCIIKADKESAFNKIINNNTAFSTASDKRQGYVGLIAG

VSANSHDNIMELVNLNIDEYKNQDAIFLAPSGTSDISNFKSYNNTLYLGGELNFFKDVNIDLLSGSVFHE

VNKKGKIITQILPHQEDFSKNNRLIIDTQDVKSEVVNNFENFTFILPNKIKNPILTIEKLINLPANGSME

ILTKNKPTKGKYILIQSDVGIYDGDNGLLNQQELENLLEKMKNNKNKFNYNKIEKLAKSTLKNVNFSFEV

SDDAKIIYINIL

>AHK54532.1 glycerophosphoryl diester phosphodiesterase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKVILTSAMLCSVLFGVQEYEANLAGHIIIDSKSTVKPPKDAPDFFKTYGKFANIAREEKIGTFKSKGN

RETDFYLPFKNQPIQGHSGIKYIPKKDVFWVISDNGLGKKYNSYDAMLYAHEFKFDFKNSKYELLKTVFF

KDSDKKYPYPITTETTKERYLSGVDFDTESIQVINDEFYIGDEFGPYLLHFDKNGNLKEVFDVYVEGKKL

ISPDNPSLKFSDKPDGENEKFNIKRSKGFEAMASSKDGSKLYLLLEGSIYNNNAYENEKGKEYLRIIEFN

VKNKKFTGKTYKYFLEDKSHSIGDFNMIDDKYGIIIERDQKEGTKDKACKEGEDTKHCFNNVAQFKRIYK

VKLDDKTHEAQKISYIDLLNIKDRNKISKKPLVNDKFVFPFETIEGVDIVDDSHIVVENDNNFPYSSSRE

PNKTDDNEFILLEVKDFLKSK

>AHK54531.1 restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNYYQELKKYLNNNLFTSYSLEIDFPKIYNFNANQKAFRDILTKITKIYDKNKFIKQNEHQFEDEFISKV

LEILGWCFVRQDEKIIQGKLEKPDFLLFSNDKLKSKYENLDKETKKSSNDFTIILESKAYNIEIDNKKVK

DNPHFQILRYLGNLKKNYGFLTNGRFWRFYDNSILNSNKVFYEINLEKIIEDQNIEAFAYFYSVFSAFNF

TEKEDHLEITLQNNKLSKIKIEDDLKSIIYGTNGNESLFEFIGSRIYNKTKADLKLIYENSLYFIFRLLF

IAYFEDKFEIILEKHKYFKSKISLRTLLENLQEDESSSGGFGELENIFNIYNKGKGNFDMPVFNGGLFDE

SKTALLSTPKIFNDKDLKFILNQLLNFKDKNLSFKRDYKTLSVEHLGTIYEGLLSYFFEIANEDIYYVSY

KEKSKEIECYFDNYDFKILEKSKKVEKYTFYKKGQIYLKNTSNSRKASASFYTPQSIANFLIQSALKDKL

NNENILKFKILDNACGSGHFLVGVLNAITHIVLSDFDHFTNLKELYEEEKENILNHIKDFVQDYEVDESD

ILKRLLLKRIIYGVDLNPFSIELTKLSLWIDSFIFTTPLSFIEHHIKCGNALINSNLSDFKDLIKQNSSN

LFTNSITQEFEILQEVFEKLDNLKDTNEEQIKQSKQIYQNEITPKLNKLNLYLNYINTLHFVNKEELQIL

KALSQDDIQNLSQNEQAKAIISKYQKEFNFFNYELEFPEIVENQVFKGFDIIIGNPPWDKTKFSDSDFFP

QYKSDYRSLIASKKKEIQDNLLAKDYIKQNYEKQKAYINDLSEYYKKAYPLNKGSGDGNLFRLFVEKNLS

LLKQDGNLAYVLPSALMFEDGSLILRKEILENKTLEYFYSFENNKAIFIDVHRSYKFALMLIKNTQANHT

HKIKMMFYKTDINSLKNKDEILTLNLKDIKKLSPTHLALMELKDKQALEILRKSYNAFQNLSFDYIDFRR

ELDMTNDKDLFIEEFREGLLPLYEGKMIHQFDANFSQATYFLEKAKFDERLKSKELYRAKKATGKELNPK

LIKYDREFFRLGYRKIASDTNERTLIASLLPKNCGGADSTYSNIPKQYVLKDDVICMDIVPYERILFVLA

LFNSLVVDFIIRNMVQINVSKSYLERIPLPQPSDEEIQNNEIYKTLAKNALLLQLYNDQNRHFDELKQEF

NIKNEEIPKTKKAYDILRAKNDLLVKELYGLSDDEFSYMISTFKVLNEKQSEYITLLKTI

>AHK54530.1 invasion protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNLLFYIKNNLTPTLAQILLQALKNSNNEKFFTFVLENIETICTWLNSNKFRDRYLSTKHPYPPLINPN

FIEIDSSRHCAELAWDLNLPLPKHYKFIYISPHGVGAAAFLRYLNQCCDVTCFASWVLPPDSKERYCINY

MCLNDNTIAQYAINISEINLPYFDKYLSLLDFNSKIICGVRDPIGLLKHSWGRDWSKVLRNYPPEFNLTY

DWRYYINYLTHQNHKIKIDINELQQGVFIISYLLKYFNKDNVYYLDMEEIRQSKAFDTMNLLAINFNFTP

PIKIN

>AHK54529.1 invasion protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGVYIDKNDFKQLEQNNLLFSTIKHYLYDFLYQIKITIDETESKMMKEKDVIDYFIKNKSLIYTFLIYLK

MN

>AHK54528.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQRQSPEQILKKLEVKAKEEEKNKLVKLKIFLGYAAGSGKTYAMLSEARTLRDNGVDVVLGYIEPHDRPE

TMALAQGFESIANLEIPYKNIVLKEFDLDATLKRKPALVLVDELAHTNAKGLRNEKRFQDIEELLKAGID

VYTTLNIQHLESLNDLVANISKIEVKERIPDRIFDEADQVELVDIEPNKLLKRMQDGKIYKEKQAKLALE

NFFRQERLIALREIALRRLASRVNLRASEQRLINDDLAYHTGEHILVCINASNAKVIRAAARLALAFHAK

LSALYIKNPNIKEAKALEENIELAKSFDAKIISVYDDIARQIAEYSSLSNVSKIVLGKNKDKKSLKKRFL

KLSLKKHPILIYILSMKIKFLLLKYEVKKSFDFLGFLKITGVLLLATFIAFVFHKFNTQPSNIVMIFILA

VFASSFISDNKIFAFYSSLVSVLIYNFFFLEPIFSLKVHDSGNIITFTTMFIVGFLTAVFTRRLKLQSKE

LTKRAYRTAILLENSENLARVKSKQELWEQLGNQALKLLNLPIIIYPINKNNILSKPLLFFNDDKQMLKN

CFSADEIAIAQWVATNKERAGVCTNTLPNANAMYLPIEDGKKLKGL

>AHK54527.1 hypothetical protein N919\_03385 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHVYSFFMALAIAILTAKTLTFSSPKIPKI

>AHK54526.1 hypothetical protein N919\_03380 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIPRISQSSKITKEELEKIIQENTESKF

>AHK54525.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MICLETLLSFFVVMLILCTLVYPFALNTVAKFIFPYQSSGSLVDKEGRPTLDVSKAVGSKLLGQDFNKPY

FLHSRTSVSNYNTSDTNESSVSSGGFNYAMSNPALKERVQKYLQKFLDENPQITKEQIPLDFRIRS

>AHK54524.1 potassium transporter KtrB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVKNPVMFMVEVGSILTLILSIFPTLFNGNSDERIYNILITFILFIILFFANFAESIAEGRGKAQAATLR

QSKKDSKARHIKSDGSEEMLNSSELKIGDIVLVKAGELIPNDGEIIEGTASVDESAITGESAPVMREAGG

DFSSVTGGTTVLTDFLKIKILVGAGESFLDKMINLVEGAARQKTPNEIALNTLLIVLSLSFLMVVVSLYP

FMQFLGVSLPISWLVALLVCLIPTTIGGLLSAIGIAGMDRVTRFNVIALSGKAVESCGDVDTMILDKTGT

ITFGNRLANEFYEVQGISKEEMIKACVLSSLKDETPEGKSIVALAQKMGYELEGNDIKEFIEFSAQNRMS

GVDLQDNTKIRKGAFDAIRAYISEMNGKIPSDLETKVMEISNLGGTPLVVCKNEKILGVIYLKDTVKPGL

KERFDELRKMGIKTLMCTGDNPLTAATITKEAGLDGFIAECKPEDKIKAIKKEQAQGKIVAMTGDGTNDA

PVLTQADVGIAMNSGTQAAKEAANMIDLDSNPTKILEVVEIGKGLLITRGSLTTFSMTNDIAKYFAILPA

MFSVVLPQMQILNIMHLATPKSAILSALIFNAIIIPLLIPIAMRGVKFKPMKSEHLLLRNLSIYGLGGMI

APFIGIKIIDIPTAWILRILGV

>AHK54523.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLTLENKFQSIATGPVAALESIKHLGTNGGGFFGTNSSMPFENPTLLTNFLQILSMMLIPSACVVAFGLM

VYHRKEIQGFALMGKEEGGGVIFGAMGIIFIISLLLIYFSEKMSNPNLDSLGLNANLGNLEGKEIRFGTD

GSSLFSAVTTAFTTGSVNNMHDSLNPLSISATLLNMMLNVAFGGEGVGLMNMIIYVLLTVFICALMIGRT

PEFLGKKIESAQMKLIALVILIHPLLILVLSALAVVFAKDSISNPSFHGLAQILYEFSSSAANNGSGLEG

LKDDNLFWNLSTAFAMFCGRYLVLIAQLAIAGSLLAKNTQENTANSLKTDNLTFMFVLVCIIYIFAALTF

FQCLLYQALQNIYLYGIKESQCLKNKINSLQKKF

>AHK54522.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLNTVISFITNTNLQHYSGENALSLLSQNTGILLAMFVSSASGYSACMAFCRALCSMQMGNFMKILRVL

LRV

>AHK54521.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLEILITLIIAFILALIFGNYLYKIASCKKTIFDFIFNPIDNLIYKICAIDRKNMTWQKYSLHLIAFNAL

VAIFSFVIFYLQDKLF

>AHK54520.1 hypothetical protein N919\_03350 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRKGYPMDIIFALLLLLAFGSLCFFICFCEIQTKDTRMIFLLVLSLILALYLFYALLYPEKF

>AHK54519.1 hypothetical protein N919\_03325 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFQKLIFFAKIAFMRVDKFLNVVNITKRRAISEDMCKSGVVGINGVIVKASKEVKVDDIITLHFTEYTQK

YKVLALPSTKSIPKNAQNEYVVKL

>AHK54518.1 hypothetical protein N919\_03320 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEQNLLTPLLYFFKKIASKNFSLMKFGYNFIIFKSILTKDIL

>AHK54517.1 hypothetical protein N919\_03280 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKQEIQKLDTNFLGHRKPLFSLSMVELWERFAFMVFLQELVFSSTLPGGWITDNYSGQKRLYF

>AHK54516.1 hypothetical protein N919\_03275 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFFLGLTFIVIGTGFFKTNASVTVGILYKQNDTRCDTGYTIFYIGINIGAFIAPLICGFVQAKWNYHLGF

G

>AHK54515.1 di-/tripeptide transporter domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLISLLILYFKAALELEEFHKNCTLKQNWEQPFKKVKNLTLILSISLLSIIGFFLMFINLVNINPI

>AHK54514.1 amino acid transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVIYFIYLFVFKALNKREKQQLIILIVLFFAATFFGVLLNKNPTAYNLFAQDFTNRNIFDWKIPTNWFQS

FNPIFIIILAPIASYIWIFLEKKIYIFLPLENLL

>AHK54513.1 di-/tripeptide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDIFREKNIYFSSIGKFTLGILFAGIGFMMMTFASQNLINNNGLPISMAWIIISIFFLTLGELCVSPIGL

SIMTKVAPDLIKNQVMGLWFVASALGNALAGFIGGKASEENIAYLPNLFYQCMWILLGAVIILLILKKPI

NKILKINIKEKI

>AHK54512.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRRNLSAYKAKFNGAYVFLGFFFLIYQILGSTFVYTPLLYGIFFCYMFCLLEERERTFSKLDFRWYFSLF

FLFFTDITYNFFIFSSWLAFFIFYYLCADWIKTNLKIGKFIPVVFVLCAYGIILFLDMILSYIGDEKIKI

LGWAYIVSVFIECCLAYVFFKGKI

>AHK54511.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIINQIYSIDSCDDVELNIKRGSKLEFRLTYDDSKEIEAIVCIIPGGAEDMNSYIYIDDYLTRNYKVAVI

NINYHCIGNRPHLGSSFYLDDIDKFILDTSLKAINLKCINVYGINSYENLNNAFIRIDQEIQKLKLNQQL

HQNYKLKTHVSFLPFKNEYQNFGIMQAMDILNAIFYIKENSPFKLMRGGGIRTILFGNSYGGYLANLCAK

IAPWSIDFILDNSSFVNLFGNIFRLIGFGKEIDFTRYHGTYDDTLFKNIFLYLSDKTYWNNNKFSKNYFS

NARKIIREPLNKEHLIIQSLYPNPKYILYHSIFDERSPFKNKENFVHILKELNFKVEFFAISQVDNKFIK

NLNHGMGLSTKLFFKKHLLQILKEPLQDKICKKEVSYKCDELVYTFKEENHQIILNITN

>AHK54510.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQENNSPKAQAVVKKNEIYVSVKRKKSTIEYEKDLKNLQIELLKFQNHVKAKGLKVLILIEGRDAAGKGG

AIKRLIEHLNPRGCRVVALEKPSDVEKTQWYFQRYIAHLPSAGEIVIFDRSWYNRAGVEPVMGFCTPQQH

KDFLREVPLFENMISNSDIIFFKFYFSVSKDEQKKRFEKRRSDPLKQYKLSPVDQKSQELWDKYTLAKYS

MLLASNTPTCPWTIISSDDKKKARLNLLRFILSKVEYPNKKTGDFSKIDAKLVRSGEEEIRKMEANLEKL

DSKKADEKIKDLD

>AHK54509.1 RNA pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENEKNYRPNVAAIVLSSSYPFECKIFIARRSDMDNIWQFPQGGIDKGESVKNALFRELKEEIGTDEVEI

IAEYPEWLSYDFPSKIVKKMYPYDGQIQKYFLVRLKHGATININTKHPEFDDYQFVSVKQIFEMINHFKK

NIYVRVIKYFEEKGYI

>AHK54508.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNHLLILYNPYYQEDVIKQHLSILQEKSQVAFGKIKSKLNDQEKQNSLEEIYQSTNEENFLQLFLSDYAN

LFVAKVVKISKNVDESLIPSYYKEKNLEVEDFFIISDLRELVREDFSRLRDKFLANFITPNDHTYAIYGN

HYTYPLPVRLKEECSYFLGDEKHYLSVYKSKEYLAMQENFIRFVFGKRIFYLLHSDSISNIIHAELELLQ

SENDLLNDFTSIIVKYSKTLEYEIYAFAKKVLLKACMKDPSLYDLAYNVQGKSFILKDFFTQKPNLGSIK

FLLRHENIQCHLGKSLTQFINYPFSKSLTIIQEIRNEAVHAKAPSLNEVKKLRNEILGIEGVSLLKRILT

HKEIS

>AHK54507.1 hypothetical protein N919\_02840 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENKFKINYDQTTTNGRNGTNGKVDNLSMKNHHLKSIGHSPDIFGLFVSIVNQFTNTSTFVSNGKIITID

TNTFELQGGNFIAKIFCGFFNWFGHLASDWCGSSGGKERGAGIPMPFYNLFLLCDFGNFGQHRQTLAQIA

TQVFEQGYDLRHGVTMSIPVMINKMLIRFMYIIKAKFYHKKEWKECIPKDNIPELNKMLLIGSGTFLLID

TGGAWIKSKNPITNPVVFLSEINLINVIRFSTLILKEIYILYNNGKIDNKKLEKYLDDTCKILLIEAHNK

SKPFKEILK

>AHK54506.1 hypothetical protein N919\_02835 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MITYSNLSDVKKRIEDEFTHRNAECDKYDYLIAITCGAIAGIMDIFLVGNPKDSYLGKKVDKTVEKMTQK

FAQLCGWDKQKALDKNKDLTKSV

>AHK54505.1 hypothetical protein N919\_02830 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDKIQENTKIEKAILAEKQQIFLIQNKLSEIEKNIKE

>AHK54504.1 hypothetical protein N919\_02825 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENICQFIIENIDKNSLNTKKIKLVFNMQEQEITTISKIFKVSSEHIIAFYDTSTSFNYFSKTTGICFTG

KEVIFKRKEDEVLMKINYEDFKEANKSLPEKTTTLQDIKFPISFHNLGTSYLSFDDFKKKNYIEENDELI

INFLHILTSKNNIESFKNESMFPQALEKTNESIKENYIKVIIKIILDQYGFLDEKRSIKIFALMNKINVA

SETRYKIQDFLHNKHSSFEDLLNIIKQESRFMQFKYILISLIKDLIDIDFEDNKIYNFLYENKDIFKIKD

LKEIYWVKEIIKKEYQIILDDNKEIQQIFNFISETATKNNISLNGLHLSGMTIGMSVSIMELLGFGELIK

LPLIDSSKKYHNKNKQQLRLFIIQEILKENQKTITQIIDIINNLIEQCNTNTQNLQELIKLLKLASKNNE

TFKEREKLLYCPETLSLITINNHLKEDDIQFIEQYYTYNQNTHKYERNDNLSSSDLEKLSNFFKLKNL

>AHK54503.1 hypothetical protein N919\_02820 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGLQSLIKIGGFKSYQIAVIVANQVMKVLLGRGLSLAANATLTRALSLFSGPVGWTIMTTWTALDLASPA

YRVTIPAVLQIIILRLKHNTKN

>AHK54502.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGIILGILSLIAGFVAIVLMCGLYFIAFMVFVGIAILIFLSMQPYPYNIIFCAIYLITILALVLWRKT

>AHK54501.1 multidrug transporter MatE [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSSIFSTLSPFRLFVKYAVPNVISMAFISFYYIVDGIFVGKYLGSDALAALALIIPFIMMSFALADMIAI

GSAVQISMHLGLGKKNLARKIFSSSMLIIFIISCFIGILEYFLGPVLIDCLNVSDEIKTMTKECMFVFAL

FAPFTMLSFALDNYLRICGKTAYSMVMNVIIALSNIVLDYIFIVELGWGLFSAALATCLGLVLGGIFGIF

PFLFQNLELKISSLYMNLKIFKNILYNGSSEFFGNISGSLYSIFANFVLLKISDTQAVAAFSIVLYIDSF

IIMLIIAIGDAMQPALSYNYAKKDFSRIKAIIKVVFFAGGFLSLFSIVLILIFGENLITLFTKENNQEFK

TFAYTALMLFAFNYFFAWFNVLSGSFLTAFNKASFSLVLSLAQNLFIPLFFLLFLSCFMGLNGVWLSPFF

AEFCVLILAWIFLKRIFKDLSL

>AHK54500.1 aminodeoxychorismate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTIPFLSTINKANISTTKNTTIYKIFFFIRNFFLIFILGIFYYLTQPLKSNSVVFIPQGSISQIITYLKQ

NKYQMSNIDKYILFFLGHPQSGWINIGTKDLNRAEFLHKLTIAKAALQTITLIPGETSVIFLEQAAKQLG

LDKDILLKEFQAQAPYDEGVFLPETYKIPKGITENLLIQMLLNHAEISNKKTSEKIFGDYNPKKWHQYII

IASVIQKEAANDNEMPIVASVIYNRLKKGMKLQMDGTLNYGIYSHVKVTPQRIRQDNSSYNTYKFTGLPK

EAVCNVSLAAIRAAIFPLKTDYLYFVRDKNTGVHIFSTNIDDHNKAINLQKGK

>AHK54499.1 Na/Pi-cotransporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MISLVKFSDTAIEALRKESEHLYNNTYAVVAHAIGFSRKDIQSDKSFKEILENKKWFSKNVDLDYLYQTR

IKVLFEAIIDFSTKAQVYINDETKNHKIFTFKMAAKNLAETTKNLKIIQANIKKYSSSSNEFLALEYNKI

RSNLGELLRSIEELRVVEDREKLYLIIKNLQKGKEILKEIDTLTLSNVEHLISVRKITTAEGISILNDTT

FAAKIAEELIGAVEVIFSKDISN

>AHK54498.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLTGVIQSSTVIMAIIVAALLAQQISLENSLAATLGTSVGGVVTAVLASLSTNIEGKKLAFANCIFNFGI

AFLIVLIFPYFIHFLIFYPLR

>AHK54497.1 sodium:phosphate symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTNLGIGFKVFSGDLLEKILVKSTDTKIKSILFGTLSTLIMQFSILVSIVTISFLSAGLISLGAGIGIIF

GVNLGNTASSWLIVGLTNIKILMLAIPLLIIGVLFFFQKDSILKGLGNIFIGIGFFFLGVDYIKSGFENF

KHIIDLSRFDFAGFKGVFVF

>AHK54496.1 molecular chaperone ClpB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MANIQDFLTDNMLSNLESAASLAIHSKNNEVVPLHLLWALSVDSTSILNQILNKLNISKEALELEIKSRI

SKLATSSNVNRENIRFSNELINSLENAKGLMSANGDSYLSVDTWLISESQKSPIKEILAQFLDLREFQKE

LESLRAGRKMDSKTSDETLDSLNKFGIDLTLKASEGKLDPVIGREEEIERLMQILIRKTKNNPILLGEPG

VGKTAIVEALAQRIIKKDVPKSLQNKKVIALDMSALIAGAKYRGEFEDRLKAVVNEVIKSENIILFIDEI

HTIVGAGASEGSMDAANILKPALARGELHTIGATTLKEYRKYFEKDAALQRRFQPVNVGEPSVNEALAML

RGIKEKLEIHHNVTINDSALVAAAKLSKRYIADRFLPDKAIDLIDEAAAELKMQIESEPSSLRKVRKDIE

TLEVENEALKMENDEKNQKRLDEIAKELANLKEKQNALNSQFENEKSVFDGISAKKKEIDLLKNEASLAK

ARGEFQKAAELEYGKIPSLEKEVEILEDKWKKMSENGVLLKNQVDEDLVAGILSKWTGISVQKMLTSEKQ

KFLEVEKHLKESVIGQDKALSALARAIKRNKAGLNADNKPIGSFLFLGPTGVGKTQSAKALAKFLFDDEK

AMIRFDMSEFMEKHSVSRLLGAPPGYIGHEEGGELTEAVRRKPYSVLLFDEVEKAHKDVFNVLLGILDDG

RATDSKGVTVDFKNTIIILTSNIASNAIMNLSGKEQEDAVKNELKNFFKPEFLNRLDDIITFNPLGKDEA

YEIVKLLFKDLQMSLENKGIKASLSENAALLIAKDGFDPDFGARPLRRAIYDLIEDKLSDMILADELHEN

DSIIIDAKDDEIIIKKA

>AHK54495.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKILKYIFSFFTLLFITGFIYVAYLFTSADTEGYTFKEYKPPLTTQIYDRNGKLVANIFEQHRFYAPYEE

LPPRLIEALVAIEDTSFFEHNGVNIDAIFRAAVKIIKSGGKTMEGASTLTQQFIKNTELTPERTIARKIR

EALLAYKMETILTKEQILERYLNFIFFGHGYYGVKTAALGYFHKNLNELSLKEIAMLVGMPKAPSSYDPT

KHLDLSISRANNVISRMYNLGWISKADYDTAIKEIPQVYDDTLTQNAAPYVVDEVIKQLSPNIKDLKTGG

YKIILNIDLDVQNMAQNALKFGYDEIVKRDKDANLSTLNGAMVVVNHQSGDVLALVGGVDYEKSNYNRAT

QSMRQPGSSFKPFVYQVAINLGYSPMSEIADISRIFEGGAGNNEDWKPKNEGGKFLGLITLKEALTRSRN

LATINLALDMGLDVLYSKLMEFGFKDIPPNLSIVLGSFGISPLEYSKFYTMFGNYGTIKDPQIIRQVQDK

TGKTIMEFNSNERKVSDEAQSFLVLDMMRNVVEKGTGRNARVKDIEIAGKTGTTNKSVDAWFCGLTPEIE

AIIWYGNDNNKPMRYTEGGARTAAPVFREFLTQYIEKFPDTTRKFSIPNGVYRGNYKGESAYYTTKSPLP

KANMKFNESEIIF

>AHK54494.1 ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHGIGGVCEGIATGLFASVKANPNVITKNALGGGIFYQWKFRAFKRANSYYYDLYDFFSSHKLYYFLRSF

LVLQT

>AHK54493.1 ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNCFIAFGVITLQWVVLGFSFSFGKDEGLGLVGNFENFLLEGISGYNASGVSNILFMIFQMMFALIASAI

ITGSLVGRIKLGVLVIFLLFWSTLVYDVLAHMIWSSEGFLLKRGSLDFAGGGVVYISSGVAGLVGALIVG

ARKSDDEDKNAHSISYAFLGVILLFIGWLGFNAGSAGEMNDIAINAFIVSIISAACGFLSWVVLEGSSIK

TDYFRWA

>AHK54492.1 aldehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQEQGKTRVLASIEINFTADYMDYTAEWARRYEGEIIQSDRANEHIYLYKSAIGVIGGILPWNFPFFLIA

RKMAPALLTGNTIVIKPSSETPNNAFEFAKLVSQSSLPKGVFNLVAGKGSVVGYELSSNENIGMVSLTGS

VEAGTRVMEAAAKNIIKVSLELGGKAPAIVCKDADIDLAVEAIKASRICNNGQVCNCAERAYVHTSVYDE

FVDKFVKAMSKVSVGNTLKGDFDMGPLVNQAGVDNALAMLQRATAKGAIVECGGKITDTSGYYFPASVLT

NVKHEDEIMQKEIFAPILPIAKFDTLDEVIDMANDCEYGLTSSIYTQNLDIAMRASREIKFGETYINREN

FEAMQGFHAGFRKSGIGGADGKHGLEEYLATHVVYLQYNTNKQ

>AHK54491.1 aldehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTTYLNYIDGKFIPHNGEFIEVLNPATKEVISRVASASLEDTKRAIEAAKKAQKVWEAKPAIERANHLKE

IAS

>AHK54490.1 hypothetical protein N919\_02435 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQRYGQIIKIKKEKIEEYKELHTKPYEGVCEMIKECNIQNYSIYLFGEYLFAYFEYIGADFEADMAKMAR

DESTQKWWKVTDPCQISLGYAGQKWLNMEEVFHLD

>AHK54489.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKIFDAHLHLWDLEKIPISWIKDDEKLEQNYDFFRMKQEYKEFEFIGAMYVEVNSDDLEKEALFALEQK

KLHNLLFCLADFKHKEELSSFREVMHTSKKGAKRLFEADFEEKIEILKTFNIPFEACIKNEELGFLEKFL

SKNPNLKVVLNHLGSPKINRLNEYKKDLSFLKKFQNLYIKLSIPDGFSQETPKEFIFELFAFLKENFSEN

KFIFGSNYPVAKITPAKWAKLIIESKIFDDLDKIFYKNALLIYKGG

>AHK54488.1 major facilitator transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTDSKNIKIAIVLVTSLFFLWGVSYGLIDVMNKNFQNHLHISQHESGFLQFAYFGAYFIIALPAGYIANR

FSYKMGIIFGLALYAIGALLIIPATNLASFHLFLFAFFILACGIGSLETSANPYMTKLGDEKNASFRINA

AQSFNGLGQFVGPIIGGALFLSITKQEEGASKEQIQAALVANMGNVQLVYIGIAVIVILILIAFVANKLP

EGSAVSDDYKQKDDSKPIYVFKHRHFNLGLLAQFLYIANQVAAGAFFINYVVEHNEGLKDAQGAYYFSIA

LVAFMLGRIVSTPLMKIIKGEKILGFYSLINVLICFSLYFASGFFSIVLLIALFFFMSISFPTIFAVATK

NLPLNQVKLGGSLLVMSIVGGAIMPIIIGFINDHYGTGAGYLAMAPLFLYVAWYGFIGSKVRKNAKDF

>AHK54487.1 short-chain dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDLKIKNKVCIITGGAKGIGYGIAKLWASEGGIPVIFSRSMPKEHDKELKKLSSEYEFYEIDLKNYEQIE

KLVKKVAIKHGGIYALVNNAGTNDNLHIENTSTQDLIKSYENNLFHYYTMTKECLPYIKKEQGSILNIVS

KTGITGQGRTSAYASAKAAQMGFTREWACAFAKDNVRVNAIAPAEVMTPLYEKWLQNFPNPKEQYEKIAK

AIPLGHRFTTIEEIANTAVFTLSPLASHTTGQILMPDGGYVHLDRALNWDEN

>AHK54486.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKHANSIKLELVCKKISWRILPLIVLMFCLSMLDRTNISFVKSHIEIDAGIGEAAYALGAGIFFIGYAIF

EVPSNLFLHKLGAKIWLSRIMITWGLVTMAMIFIQGEISFYVLRFLLGLTEAGFSPGIILYLSYFFPAIY

RSKAYGIYQMGVPIAFVFGSLISGFILDYTPNIYFKNWQWMFLIEGGITVLVGIFCLFYLDSHPKDAKWL

DIKEKDILLKHIEISNTKAKDYSIKDIFKSILVWKFVFVYFCIQLSVYGVLFYLPSKIAQILQINVGFEV

GLLNAIPWIFVFIALPIFTSLADKKHSWNLHAILFLLLASLSMIASTFVTNLAAFLFFISLAAIGFIVIQ

PIFWNLPTQVLKGKGAAAAIALIGSLGNLGGFVAPTLKTYIENHFGVEFGLIVLALIAIL

>AHK54485.1 altronate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIMGYRREDGKFGLRNKVIIIPSVHCANKVCENIARKCNGAVYINHQHGCSQLEFDALQTRDVLIGHG

SNANVFGVLIIGLGCEVIQAKAVAEKIKEAMPYKKVEYLVIQECGGSKNTIENGIKIVNEMLESAAKLQK

SEGDFSDLILGTECGGSDSYSGLSANPTLGSLSDFVIDEGGAVILAETTELIGCEAILAKRAKNDEIAKK

VYDKILAYENLVKSFHADIRGANPSPGNMAGGLSTIEEKSLGCVYKAGTRTLMDVIDYAKPVVSKGLTFM

NTPGNDIEQLSAMVAGGANICVFTTGRGTPTGSAIVPTIKMSSNTFCYENMNDAIDINAGSIIDGVKTKE

EVRDELIELIVRISDGELVKAELNEQNDFSAWRLATTC

>AHK54484.1 altronate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKGYIIVNEKDNVATALRDFKKGEKVANIELLNDIASGHKFALKDIKKDEIIIKYAEAIASASCDISTGE

WVHIHNTAGIRGRGDKE

>AHK54483.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGILKGTLPALLTPYKDDGSINEKEFIRYCEFGISKGLNGLFCNGSAGDSQALSVEEQVKLMKLTKKATK

NNIPIITGITSTIYENTFILAQKAYELGLDALLLAMPYYYKLSEDALFEYVKYLASEVKLPLYVYNIPLF

APALSLKFIEKVSKLDNVVGIKDSSGDALLLNHILDVVPSNFDVFVGREEFYVGALLAGVKGSMTSIGGV

FPELMSEIYKSINEKNIGRALLIQKSLLKAIRFGMSIAFPMGFALLLKARGFEFVNASIHPLSPATKEEL

NTRFDEAKELIKTIEKETGIKL

>AHK54482.1 ArsR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHQPTLRVLNILELLAKEKLTLSAIAKKLNIPAGTLWPILQTLQEKKYIKCDLKNKSYYLDFKIIELGCN

IKNENNIFEIIKKHMKNIRNLTNQTCQMGILKDGNVLYLEKIDANNTVQLKSFIGTSYPAYATSLGKALL

SNKNKKELEKLYPKNFDKITENTLNNINELYQQIKQIKKEKIAIEIGEMNPQIECMAIGIEHKNKIIAAI

SISYLIYCSNKAFREKNKKILLEEKNKIEKVLKIYFNDLDTLY

>AHK54481.1 group III hemoglobin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFETINQESIAKLMEIFYEKVRKDKDLGPIFNNAIGTSDEEWKEHKAKIGNFWAGMLLGEGDYNGQPLK

KHLDLPPFPQEFFEIWLKLFEESLNIVYNEEMKNVILQRAQMIASHFQNMLYKYGGH

>AHK54480.1 3-ketoacyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRLYFSLFAFFIRNLLRLQFLKLNLLRIDNEI

>AHK54479.1 hypothetical protein N919\_02080 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFKKVILFFLMGFALLQANSLDKCDNTAVVSNLKEKIPSEIFKNLYELSGLKAQGIDYEDYAKGLKEIAK

HDGMVNYTDMIEVNSISNFDLNFDSCMATINAALKGEQRKGLWSVVYKVSNINQVKITDITYINGDFQ

>AHK54478.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKFLSICSLIAMLLSGCGSDFPGQPSDVARVQQNKYPNGNLKKEIPYNKDSRIHGLKRAFYDNGQLRAE

ENYKNGKKDGISREYSRNGQLLEEVHFKDNRGYGDFASYYENGNMRAKGKLLGYNEDGMPEFEGNYKEYY

ENGTLMCDYNFDNKGKFDGVQKRYDENGALEDEENYKNGLKNGVFREYKKGEIVREEEYKNGILVAKPKN

>AHK54477.1 hypothetical protein N919\_02040 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNILHANSSHRFHKCMPKEVHQIYDTLKLMEQQEGTKKSRSQKRRAK

>AHK54476.1 hypothetical protein N919\_02035 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MITLSSFNRYFGNNPLQTLTKIRDESIENAKI

>AHK54475.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENQKNEFDDIILEKSNKSEKVKKILLRVIALVILFLAIMIVMKLINGSGDENTQNQSVLPSEPIATQDN

NNDTSFESMPITDNTSAEDQFEALRKQFQDEQNTTQNTTTSSSNNNDTTNFAMPDQEVPAEPTATTSANT

TPQASTPKQEVTQTAKSKEEAKKQTAVKKEKESAKQTPKKEQNANDLFKNVDAKPVHPSGLASGIYVQIF

SVSNLDQKSKELASVKQKGYDYKLYKTTVGSKEITKVLIGPFEKADIAAELAKIRKDIAKDAFSFTLK

>AHK54474.1 hypothetical protein N919\_01855 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNYQQLECDYFNLYNQFLSVDFQISLFEKDHKGLIKDFIFFYYQILKQKDLSYLLEVRNKISLKVYNYMQ

EHSTSPKDLSLICLRENKHIEFFQIFYKALAYFVAFRKKLDGEQKIKNLISNINDCFGYHFLNSDFNNLQ

NFQKSDLFTLPEKHLKYFHFAMIHLCFMVLNPLNFKDSNRHLDKAINYLVDGTFEIYELIFKEYFLLFSK

DKELKDELRKLKKLEFKILMQETSKIKLLNHYKEFCEEIFYNIELEKITQN

>AHK54473.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKLKNFLILKNIEDTQIYKELKCAKNEALILRELCRNYVVSISSINAFTLLSTIFGNDKYLYLDALEDL

KKLIERGFVNQNSSFFKSLENNKTQTLTLALLQSELSLSEYFLEFLEAKPRLNFEKQEAYADYLEYLKDE

FARIQLYERLSFIQKSAYNSEIKNQIKLYERHIKERLKKSKFYNVLADIFKEYNLEHKEQIIFLALLKEE

YALSNESSISREMNSLLSLISENDLERHKNKKLLQENAPLLNLIECDEYLNAFGDISKSFFIIDEILQRI

INFEPKQSKKIKIESVLKDQDIFELIEPSTDINDIIMPENTKELLENILKQQDKKVLERLHSWGIKSNKN

IEAKIIFYGPAGTGKTMSALAMAKSMKKSVLSFDCSKILSKWVGESEQNVRKIFDTYKNIVQTCKQSPIL

LLNEADQFLSTRVDGSSGSDKMHNQMQNIFLEQIERFSGVIIATTNFLESLDSAFSRRFDYKIEFKKPDF

KDRLKIWEKFLPKKALFEKDFDINILSNYELSGAQILMVVKNTALKVAVSKDGVFKIQDFIESIQKELNS

SFDKSKIVGF

>AHK54472.1 hypothetical protein N919\_01750 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQTFLAKFKDNYNKAKIKKFKQALKLELVWNLIVQV

>AHK54471.1 hypothetical protein N919\_01675 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFQNIIKYKDFIIFILNLKQNLYLLIKINLDFKNFHKSLNF

>AHK54470.1 hypothetical protein N919\_01650 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTNQQIDGIADKNFNTPEGRKVFKKAVFSCWLGTAMEYADFALYGLAAATIFSEVFFPEQTPVIALLLSF

VTYGIGFIARPIGALFFGHLGDKHGRKNVMMATIALMGISTTLIGFIPSYAVIGVWAPICLVALRFMQGF

GAGAELSGGTVMLAEYAPSKRRGLVSSVIALGSNSGTLLASFVWLLMVQMDEASFKEWGWRVPFMGSILI

ALFAVYIRFHVKETPVFEKQKNEMMKLRLNNEKHMKKDERSFWQRSRAFWTMVGLRIGENGPSYLAQGFI

VGYVTKILLLDKSVATTAVMIASLVGFLVIPLAGYLSDKFGRCITYRMFCLLLMIYAFPAFMLLDSKNEI

IVILTIIVGMSLASLGIFGVQAAWGVELFGVKNRYTKMAFAKELGSILSGGTAPMVASALLAYYGSWWPI

ATYFVLTAGIGFVTTFFAPETRGRDLNKIEDAI

>AHK54469.1 beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKITLFLLFLNLVFGQDKILNNWFKEYNTSGTFVFYDGKTWASNDFSRAMETFSPASTFKIFNALIALD

SGVIKTKKEIFYHYRGEKVFLSSWAQDMNLSSAIKYSNVLAFKEVARRIGIKTMQEYLNKLHYGNAKISK

IDTFWLDNSLKISAKEQAILLFRLSQNSLPFSQEAMNSVKEMIYLKNMENLELFGKTGFNDEQKIAWIVG

FVYLKDENKYKAFALNLDIDKFEDLYKREKILEKYLDELVKKVKNDG

>AHK54468.1 3-methyl-2-oxobutanoate hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRKSMISFLEKKAKNEKITMVSAYDYHSARILDNSDIDIILVGDSLAMTVLGMQDTLSVTMDEMLIFTKA

VSRGAKKSFVLADMPFMSYQSSDRDAILNASRFIKESHANGVKVEGGIEIASKIKLISQSGIPVVAHLGL

TPQAVNMLGGYRVQGKDLQSAQKIIDDAKAVQDAGACMLVLECVPVKLAQKISSILEIPTIGIGSGKYCD

GQVLVYHDLLGLNKDFKAKFVKHFDKIDPQVGVEKYRDEVKSGIFPSQEHSFDYLDDELLDKLY

>AHK54467.1 pantoate--beta-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQVITSVKEAKQIVKDWKSHQLSIGYVPTMGFLHDGHLSLVKHAKTQDKVIVSIFVNPMQFGPNEDFSSY

PRDLERDIKMCQDNGVDMVFIPDATQMYLKNFSTYVDMNTITDKLCGAKRPGHFRGVCTVLTKFFNILNP

DIVYMGQKDAQQCVVVRHMVDDLNFDLKIQICPIIREEDGLAKSSRNVYLSKEERKASLAISQSIFLAEK

LVREGEKNTSKIIQAMKDILEKEKLIKIDYIELVDFNTMENIENITDNVLGAVAAFVGKTRLIDNFLVQG

LK

>AHK54466.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLRKADIKDLNACLSLFEQSVKTLCAKDYTKDQICAWIKIDRQQWEEKFKYDEIFVYEKRGKIASFISVK

QEQKLLDLLFTHPDFVRQGLAQNLLDFILKTYLHNEIYTFASLSAKDFFLKNGFELIRENKVIKEGQNLK

KILMKKDVIYKN

>AHK54465.1 glycerol-3-phosphate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRTWSLSGVFIGYMGYYLVRNNITLSTPFIQNQLNLSKSDIGTITGSMLIAYGISKGAMSVISDKADPKK

SWL

>AHK54464.1 hypothetical protein N919\_01410 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MALGLILCALVNVLLGFSNSFYAYVGFVIALGVFQGMGVGPSFITLANWYPKKERGIYTAVWNISHNIGG

GIVAPIVSLSGFALAALLGVSMANFNETYWHMNHFYTPAACAVIISLYALYAVKGNPKNEGLVDITEINE

MRGIKTEEIKAIETPNLSSFEIFYHYVLKNKNAWYVAWMDTFVYMVRFGLISWLPIYLLETKGFNKEQIG

IAFWLFEWAAIPSTLLAGYISDKIFKGYRMPPAIGAMVIIFFMIIGYFTSNNLYMVIFFAAMAGCLVYIP

QFLASMQTMEVVPAFAVGSCVGLHGFMSYVVGASLGTKA

>AHK54463.1 hypothetical protein N919\_01405 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLINSYNVTKILLKSNFCLVFLQAKVKIVIDASF

>AHK54462.1 ipid-A-disaccharide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTFLVCALEPSANLHLKEVLKAYKKDFGEFELHGIYDESLCKEFDLNSKPLYSSHEFSAMGFIEVLPLI

FKAKKAIKELANLSFTQKINGILCIDSPAFNIPFAKALKKAGSKIPRIYYILPQVWAWKKGRIPIIESHF

DILASILPFDNQFFNKSTYIGHPLLDEIKEFKNQEDINHTFSKKDDEKTIAFLPGSRRSEIRRLMPIFKE

LSQKFKGKKILCVPSFNLEKLEVYGDISEFKIESNTPKVLKKADFAFICSGTATLEAALVGTPFVLAYKA

KAIDIFIAKLFVKLKHIGLANIFCDFAGKEALNPEFLQDKVNVLNLYEAYNKYDYKAFFAKVDFLKEYLQ

FGSAKNLAKILNEI

>AHK54461.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIFISFVVLATCLWAKNTAYTDEVVSLYLNKDDTKVIGRLLPTNPFEVLKSENNRVLLKIDGYVNPKA

PSVIYFNDSQRIIVAAFSKNTKLNFSQRITGKNGKWDKVSLEIWADKKEFVKDNKEMLNRAKELFVNNCG

ICHAIHKEKEFTANAWPAIFRSMADRTGIDKKDRWLVIEYLQKNAKDFKTK

>AHK54460.1 trimethylamine N-oxide reductase I catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLDRRKFLKIGASLSALPLIPSLSAGKTVEASKVSLGLVKNGEVITAAHWGILKLTIKDGKIVKSEPWEK

VTKMDNPLQHYTADMVYKSRVKYPYVRKSYLENPDNPKPELRGKDEFVRVSYDEAIKLIAKELKKTRDSK

GASAIFGGSYGWKSSGNMQNSRILLHRFLNVTGGFVGATGDYSTGASQVIMPYVVGSIEVYEQQTSWENI

LSDSKYVVIWGADPLSTLRIAWTSNEQRGLAYFEKLKDSKIKVICIDPVKTTTAKFLNAKWIAPRPNTDV

ALMMGMASHLIAKKKVNYEFLDTYTTGFDKFKDYLEGKEDGVKKDTKWASKICGIDEKTIKNLAETFYDN

STMIMSGWGMQRAHHGEQPHWMLVTLCAMLGQIGTKGGGFGLSYHYSNGGVPTCKGGVIGGMTAGSLGIW

KNGKFKGLSKAEASSEGAEWLQNAASYSFPVARIADALLHPGKTIDHNGAKITYPDIDFIYWVGGNPLVH

HQNTNTNVKAWRKPRTVVVNEIYWTPTAKMADIVMPVTSSYERDDITMTGDYSNMHIAPMKQAVEPVGES

KDDYVIFSDICKIYGKDVFNAYTENGKKAKDFIKEYYNSALKQTQSFGEAFATPMPSFEEFWAKNEPITF

EPTAESLEWTRFSEFIEDPILNALGTDSGLIEIYSETIKNYNYDDCKAHPTWFEPIEWLGNASKEAPFHL

LTNHPRDRLHSQLCHTSLRDTYAIKDREPILINSKDAKKLGIKNGDVVRVFNKRGEVLAGAVVSDEIMQG

VVRLCEGAWYDPNENGLCKCGNANVLTMDIPTSKLANGNISHTGLVNIEKFKGELPKLTAFSAPKGAN

>AHK54459.1 hypothetical protein N919\_01260 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVKNLIIKFGRLILDAIAVISFVVALLYSLFMMFSIGFLAGLLSLIVSFIALFLSFFCNLSCYRYQRCSC

K

>AHK54458.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAYEDEEDLNYDDYENEDEEYPQNHHKNYNYDDDDYEYDDDNNDDDFYEMD

>AHK54457.1 chemotaxis sensory transducer [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MILFSEDMIENLCTNKIKLFSDIKDYTERKKLIEKEVLFINIPFEAHCINTLYYLIYDGLSQSESSLLEL

LYKHNPYPCALVGGGSSGNMDFSGAFIFYNGEILKNQALSIHVQFKPKYRFNLMKSQNFNPQSNITFTIL

DVSLYDKTVRELINKKPFRLKLYVIILTALLKNLKIKCKNILLL

>AHK54456.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQEYTFALKIGEDYLISPMEINPNKTLFSYCDIESAQELSLLKKTNFIEAIKKDYEKFSLNKPKPLGAIF

NDCILRRLHNKEHLNQIHFNDFPIVGFSSFGEIYGVGIAKSLVAIFFYEVENFNDFKPRYLKTFIQKYSD

FKYYYLNIRAQKLEMTNEINKIILNQLKQNTSEIDKNTSIFKEIFEELENIRRSLTTISESFTNFTNYLE

YNLYQSEEKMNLEKEVQSSLKNIDQLNSILDLISGIAEQTILLSLNAGIEAARAGKLGRGFAVVADEVRK

LSENTQMGLGEMEGAIKLVIQTIQSIAKSSNSSTQEMNFIRDKTNEFSKIISNLINSGKEISDKLEQRSN

VSEDFEKNVNQLKCYEDVLAKLNQY

>AHK54455.1 serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFINLGNDYKLNDKTRFNFEFEKTFFGDLNVDWSANANLRYSF

>AHK54454.1 hypothetical protein N919\_01075 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYADPIKAGDQILEDQASQRRYEGKKIKECL

>AHK54453.1 pathogenicity protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHKRMGELRNNPYESGVWLRTFGWGTSDEYNSGKYFEIQSGHDKLNEYSNFELYSGVRFL

>AHK54452.1 hypothetical protein N919\_01065 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSNLQVEKSAIYRKVDAKKLSANNTIFKINADFENSKSDYINSKESTQGVNNTLVLIFLNNPSKKRV

>AHK54451.1 boa domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSANTDKALIFDGNIYNKEGVFRTENAKLNFQGHARIHAYVSKEQAKKLQEHGLSALTKPVSFTQEDWED

RVFVLKELNLEKKRVLFRA

>AHK54450.1 hypothetical protein N919\_01055 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKPKKMIFFNKMGEGELVVKSQSVDTGLRMGEDQGKS

>AHK54449.1 hypothetical protein N919\_01050 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYFSQNGSINLNSDVDLGASVLNLIKIQIGK

>AHK54448.1 hypothetical protein N919\_01045 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKDGKKIENVSLISKTNVGYVSYKNSFDDKIIVIRELKKCKIARICIFLKMEV

>AHK54447.1 hypothetical protein N919\_01040 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKFKSQFDLLEICLYYWQNQDILENNFGSIAEAKR

>AHK54446.1 citrate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEIFLALLGFFSLGLIVWLLLKDYTTPALAFISVSISVACILLILERLGFGVGVALGVKGGVFDIKTLVV

FIKDGVKSVTDTAALFVFSILFFSVLNASGFFTKILNAFLSKMKANVYQVCILTVFIAAAVHLDGSGAST

FLIVIPALLPIYERLGIRKTSMLLIITSAMGVMNVIPWGGPTLRAATNIGMDANLLWHHIIPIQIVGLVL

SLLLAIWIAKIEIKRGAGAGNLSGINLNIEKSEHHNEKWFWLNLLVAIGVIGLLISGIIPSYICFMIGLA

IILPLNYPNLKTAKKVLDRASAGAMLMYITLIGAGILIGVFDKSGIMEKMGVLILNFVPDYLGAYIPLMV

GILAVPMAIIFCTDSYFYGVMPIVLSVTKAFGAEPLTIAIIMVIARNCATFISPVVPATLLGCGLAEVNI

KDHIKRSFFYIWGISIICLIFAEVAGII

>AHK54445.1 hypothetical protein N919\_01005 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAYGSSNPEDLAKNFTKDLYSGDTKSVMSYIDLSEAKSDEEKTFVSDKITQVVAENAAKAKRMGGVKDIQ

IEEKTINKDSAKIRVLVLFNNDNNQSSNVFLAKKDRKWLVLLK

>AHK54444.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFFLLKKIENGLFYLNKILYFFLILFLLIGILGFFINSNPSNQIIKKPYLPFLEIGDLVFRAGIGSESFL

IENLSQSPYSHIAMVVKTSPTILIHATTDDDKNAKNQVILSSMDDFLKLSHKIAIKRLKFDEKTKQKIVA

KDLEHLGRKFIISTDKDAFYCTTFLEQSINSITPFHLQYTLIKAPFNEGLYLFPQTFFENNQSVLIYESQ

NF

>AHK54443.1 PhnA domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKDANGIELNAGDSVSIIKDLKVKGASTTLKRGTTIKNIKLTSKEGEIEARVDKFGVIVLKTEFLKKI

>AHK54442.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDPSQVLDLNQTSTASFDAGYSILMVVVALALVFLNGFFVLSEFSIVKVRRSKLEEMVKEKKAGAKKALE

VTSRLDTYLSACQLGITLSSLALGWIGEPAIAKMLEIPLINLGFSTVIIHTMAFIIAFSIITLLHVVLGE

LVPKSIAIAVADKAVLFIARPLHWFWMLFLPCIKIFDFLAAISLKLFGIKPAKESELTHSEEEIKIIASE

SQKGGVLDEFETEIIRNAVDFSDTVAKEIMTPRKDMICLNKQKSYEENMQIICEHKHTRFPYIDGSKDTI

LGMIHIRDIIQNELNHKSQNLDTFVKPLILVPENISISKVLVMMNKERSHTALVVDEYGGTAGILTMEDI

MEEIIGEIKSEHEEDSYKKLAENIYEFQGRCDIETVEEMLVINYDEDLEQVTIGGYVFNLLGRLPMVGDR

IEDELCYYEVKKMDGNSIERVKVVKKTNKDEE

>AHK54441.1 biopolymer transporter TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKSSVIFGFVLSLILHTLVLMFFLFSFYTQEKSSGVDFKQGAEFTSIMMVSEFPIGELKEVSIDQKKSNS

QDKNKKQDERISFNSQDKNAVLKVQKKIEKQDENQAQKEIANASENSKFKNESLSAPLQSNKDKTQTIVS

GNAKEQVKSYQALLMAHLTKFKKYPQEAIMQKQEGVVRIRVSIDESGNVLSKELKKSCPYAALNDEALSL

FKRASPLPKPPKEMLKNGDKISFVMPIDYNIKDYLGKK

>AHK54440.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKTEMAHKEEELSEINITPFIDIMLVLLIVFMAVTPLITSSIKIELPKSSQQAEDKLKNPIILYLNTDN

TLAINDDKLSLENLSSALDIKTKGNKEEIIYFHIDKSVKYEDIMQVMQKLKENGYGKIALSSKKMD

>AHK54439.1 TonB-denpendent receptor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKLSLFCAVGLCFASFAFSEELEFDSLEISGSKIKNDEKPFVTPGATSTREGIGSDTQSIDSIVRSIPG

TYTNTDQAQGTVQVNIRGMSGFGRVNTMIDGVTQTFYGSASDDPARFHSQTGTSAFGAVIDTNFLIGVDV

TRGTFEGVGGANALMGSANFKTIGINDIVHDGNIFGFLGRFSYGSNGIGPSYMSAVAGKTELENNGYVGA

LFGYSAKRITQNYTVGGGGKIGSSMVDTDGDGIADTNIAPFDPDFLTQKPNSQLFKLEYVPNSFTNTIFS

YRRYQNELAGRKIHNDNYQLDFWHNPNEWLNVNTLIAYNQGIQTYGSKSTFAANDAIANTKAKNTATTFD

ISDTLEGEWHRFNLNIRFGANILLNDYKNTLNTSIQGVNSIPFQPRGKQNLFTYYLDNSLNYGIFTLDTN

VNLLDWNIKGHRPACDEVNFMCFPKAATDIDKNGLRLNASVMLSAAIHELITPFVSFARTNRAPNVQEMF

FSNNEGNGINSFLKPEQANTWQIGFNSFKHGLLKDDDRFGFKAVYYHTKIKDYIYNEQFYLEDPSKDPPS

SQFYMHLNSADDTIFKGVELELSYDLGFAYAKAMYSRQDTSSTISQTSGPLLGSFSASKIMELPKDYANV

ELGFRLNDKISFGGIAKYTGKAKRVNPNTDDWNKDPNNPYYPKPTTQDLPKIPIIVDLYWNIEWFKNLTM

RAEVQNLFDKNYMDALNAYNSLDNQLQYNGAGDPIYLFSNSARGRTFIVSFEYKY

>AHK54438.1 iron transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFYTILSILFISFMLSACAVLQKSSPLQENKDFYILDTHTQKKISFEDMILELLKADVILLGEKHDEVK

HKISQVMIFNALEGNLSSQNINFDVALEMLASTEQNHLDKAFKNKKTIKANELTNALNWDKVWKWKDYEQ

FVNVVFYSKSKILGANLSRSEITSIYNGAQPLKGYVSTTNEVKKQLFDIISLSHKLNPEENKELLDKLVE

IQQFKDRRMADVLVHHVNKVLLLAGSYHTSKKIGIPLHIQDFKSSKKIVVVNLSYGEIDLKDSDYVLIYK

GEE

>AHK54437.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDNSLSAYTQKYDKEGYGLQYPDGHVIRFYERILKYKLSKTSGKLLDFGCGNGVHSKYFKNITGGGIEPY

GIDIVPSLKKVWEKDPCLDSKNFHIISPNSSFKKLFNTKMDFIFANQSLYYLTKQAFKEAVQEFYELCNE

GAIIFATMMSDKGYSMYERGELMDNSLREVKGCPSGRLSGSSYIRFTKDIEELKEDFKPFKPLFWGDYEL

INLYNFEGSVEHFIYIGQK

>AHK54436.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKSVKLKVSLIANLIAVVCLIILGVVTFIFVKQAIFHEVVNAEINYVKTAKNSIESFKARNSLALESLAK

SILKHPIEQLDSQDALMHYVGKDLKNFRDAGRFLAVYIAQPNGELVVSDPDSDAKNLDFGTYGKADNYDA

RTREYYIEAVKTNKLYITPSYIDVTTNLPCFTYSIPLYKDGKFIGVLAVDILAADLQAEFENLPGRTFVF

DEENKVFVSTDKALLQKGYDISAIANLAKTKEDLEPFEYTRPKDGNERFAVCTKVSGIYTACVGEPIEQI

EAPVYKIAFIQTAIVIFTSIISVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFG

QISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARV

GSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLT

TSSNSQAQSLEETAAALEKITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAG

EHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNV

EIANESAIISSTVSDIANNILEDVKKKRF

>AHK54435.1 mcrBC 5-methylcytosine restriction system component [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNSIFSIIEHQAFSKEDLKEIFKEKAEGFYKELEDFAKNNENLLGFKNKNSLKAKNYVGIIQTKSGVLEI

LPKCTNLDSYKKEDSSSNHDKEKLRRCYELDNISKNNDFYEKDFKFNPKNLLINMLKTLKNSPFKKSQIS

SLQSSKIPLFEVFITMFLDEFDSVYKKGLMRSYLSCEENRAFLKGKLLFNEHIKQNLIHKERFFTSNDEF

VLDIAPNRLIKSTLNFLKSKTSLNKFRLIKAMQMLDEVEFSKNYEKDFSYKISRHFDYYENLLLWCKIFL

KNESFMPYHGKNEAFALLFPMEKIFEDYVAYMLKKVNSTQDIKVQNNGKYLISKNDENCFMLKPDLYIKN

KMILDTKWKIPNDSEDEKKQGIAQSDLYQMFAYACKFKIYDIKLVYPLCEKTQDLQRKIAEKFFVFKASE

HLYFKEQGQKDIKVQVFFAPLPF

>AHK54434.1 endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MWNLDEKKLQEMLDGFLNFQEVWTLEKVKNMTLEEYTNIKKDNPNRDDFTFWIESKLDNLGSIWGGSAFK

FGIYRRNDESQKESSSGRLYSQNYAWIAKYGNNENEAFNNIKEKIIQIIQASQDNNLKTIEKIDFGDAIK

WKIAFHYQDVKNIKIVNIFSKNVLDLISLNEFKEKLKIYQIHKKLLENKNLSLVKMIENIAIPLWNKYGM

DSQNYIDKMKNLFSEYLNKKKLDKNTINKYIQVIENISKEFLKENLYSCDLFSFDQNINKLNKNEEFKLK

NSNGHNMYSSALNYYRAFLIDYYEQDIFITERVQSEESNMKIIPLNQILYGPPGTGKTYHTIDKALEILG

ENLESRDEKKAKFDEYVRKGQIVFTTFHQSYGYEEFVEGIKPIIDNDENSQEVKYDVKDGIFKELCDKSL

KNYILSMQNENEIDLDKLIFEFANYINQDFLNKGNEFPLENKVSIKKILLNFKDEYRSFSLGGSIKSPQS

LTIDIIKRDYLNFKNKKILSFKDIKPKYDSQSDYHGNAIYYFMFYNKLKEFENIQNEKFKIKKEILKSYI

IIIDEINRGNVSKIFGELITLIEPSKRIGEKEELKVTLPYSGEKFGVPKNVYIIGTMNTADRSITSLDTA

LRRRFEFVEMMPDVSKLSMDCEGINLQELLKAINTRIEYLLDREKTIGHAFFVSVENLEDLKKVFQNKII

PLLQEYFYNDYALINAVLNDNDMIFEDKKDDKYLQKIKNLDSVNSERSIYNIASFDDKIWDKIEIYQAIY

NDEIANKLKNENE

>AHK54433.1 hypothetical protein N919\_00610 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIVFPLSSFNRYFGNNPLQTLTKIRDESIENGNPELTKKQREELGNDLIDLYKISKKFSDKIELVEGSIE

DKLRNNELPESEVKNLFQWMDENAKHPRWMHIDGVSYDEAYVKIFHTSKSIDEFKEKYLELQKKYFVDFN

NIDSSQKKLQETSEEDKKAFKPIQVESKSETYKDDNKMNELLRKLLETKFGTSDELEILFGMNFSNDNAG

EFNKILSQNTSAKIIDIKA

>AHK54432.1 hypothetical protein N919\_00460 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILFIGSLVMASLLYAQGSQPVEITQQDINTQNEMSDASTKDITPKSIEDFFEEFADNFGIEYGITKD

GKTFYTGKSTVAVNDTDPQFAQALQNAYQKAMLNLQSEFIRDAFGRIATSKIQNYEADNSTNAKEFDELP

KGDKVDQILNKLTQLAGAQLDKALKDLGIDTNSLSEDRKKTLLKQEFLNKTMTNAIGSMSGLVPVQTIVT

QRRGEYDVGVVAVISNKTRQLAKDMALARQSAIKGKGKAISEYLPKDTKGFLNEYGIRLVYDENGAPIIL

SYGNWGYVADPSNAKKTNILEDRAKETALTMADAAIIEFINTNLSLKDERTTGDTYEEIIKQSINVNDSS

TQEQTQNITNIIDKVNSKIKASASGKIRGIRTLKKWSYTSENGIEHVGAVRFYSYENLANTNEALNSKSN

ATKNEAKKSSSIQRSSNVVNSMDDF

>AHK54431.1 hypothetical protein N919\_00420 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLHALFLLAWPLVIYLSYKFIMLNINQLEKDSKL

>AHK54430.1 2-amino-4-hydroxy-6-hydroxymethyldihydropteridine pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKIQGVKHFEKSRFFPFFSQNIRSFKYLALIGLGSNIEPEKKRFDMLFRVMMDDKRFKILSTSPMLINE

AFGFKEQKDFTNAVMLIQTNLHARALLKVLLYYEVKFKRKRTFKNAPRTLDLDLLYFSQKVKRDKWCEVP

HKGAKERVSVILPLGMI

>AHK54429.1 hypothetical protein N919\_00305 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKILKILLFLPILALSTKAEWVVKSYQEIKNERVIRQTYEQSCGASSLATLLNILDDQKKFDELELLKI

MSGQELYTDMVSFADLNDAVKKLGFQSNSYQINRENLDKLVNIPMLVKIEDDPRFPHFVIIINHKGNYLQ

VLDPSHGEYISSKSQFFSIWDRYNKGGYALIVAPKKELKPFKLNTPKSLHFDFSPFSLF

>AHK54428.1 hypothetical protein N919\_00300 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIFLTFMVLVNCVFASDELNIDSLFKKQIGLRSITSFSLLSTGNANSYSLYPNITIGGDPTIWNDTKQ

VFLTQTFIYTLTPKFDILISGGGSYARQEYTNFFTNAYSHKDRIGFDNLWLGFIYTGDSIADLIPQITFQ

TAVVQREKAINQTKNFYLKSQSLQASLRGYSDPVVYSIYTGFGYNQSRKFKTLKIEYGNSIYVGGDLSII

LSPKITLDLGAEQRFQMKQKINGYQNSEVRSIPTLSLGSTYSINSDTAVSVNASFGGSSASPDSIFGISL

WKKF

>AHK54427.1 hypothetical protein N919\_00295 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEVKGGYITYLKRLSDNEVIAFAKPDWNLELTLFQDSNGDQYYWNREGLVRFGGMCGIETTNCLVNSKH

SYINQKRLWETMSIVGDDPYRNFLGYTVKRNIGISNLGKRFVYFSYGVAVINEQSGSWYRVKSSPVFE

>AHK54426.1 hypothetical protein N919\_00290 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINSLNSNLNYDYNTSNFKQDKNIDFKINKHGVAVITGEGALPYRGKKFEYNPKIFGLDESISKKDMQEF

NNFMKSNALKDPNKIEKSPLKDFNPAYTKWDPTTEKMMLGFFVSYSKMFHLGYDIIKKADEFYKEFDALI

SKDLSLNEFKTKYIDFKQRYDEFVKEYEMAMGDKMLLSSDDEIITQQSEKPFKAIQGESKNKETYKDDST

RNELVKKLLEGKFSTSKELELLFGMKFSDDDAGEFNKILSLNSTPKSIDIKA

>AHK54425.1 2-oxoglutarate translocator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFFIVQLALGAPPLFYAFIMIASGNVMMALTHYAIGTAPVIFGTGCVTLKKWWSTGFVISIVDIVVMIAV

GLFWWKILGFY

>AHK54424.1 2-oxoglutarate translocator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MALLGLSLVLISGVLTFGEVLAEKAAWNTLVWFSALVMMATLLGKLGVTQFLAEA

>AHK54423.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFLPGIAVMLLMPLMLYFLSPLEIKSTPNASTFAKDKLKELVKMKNSEKIILSVFVSLLLLWAGALGLFF

WNFS

>AHK54422.1 anion transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFITATAPNPLVVDLIAQATNLEVHLTWGGGNRL

>AHK54421.1 anion transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MISIIVARGVIKTGLGEHLAYHFISILGKKT

>AHK54420.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVKWSRDFSIKNMQLDKQHELIFEITNLANDLALNIQDNNTQHKNDLKQILVKLFQYIKIHFKDEEKFM

ESIDFPLIEEHKKSHQILVEKTKELLEHSNDIVKMSQELSILTKDWILDHFANEDLWIANFTKKTLHLQE

IHYTLEQYIKLKSIKQDLRAEKTYDYICNCSLRIHAVPQTIHQELVSKENTLKCEKCGQILVHLDYFDLN

QNFEKFNAIFEDALQNHHFTTQENDMRGGG

>AHK54419.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEELTKEQRQIIEEEIKKEIKKANTFLKPELINKIIQDIIGDIKGKINNKFKCPKNLEEILSSIPQKVYV

SLGKEEIKQILKLDFCCFVDNVFYIDSAPKIEPYEHNQNKTAIEEQRIIQCSYDDLLYLFKTYPLIFNHC

IFDYKIDKKTPIEQIKKLSFLNCNFKKEVYLNFQECLDSFQMDNCVFEDRVTIKGKFNDNVYFNNSIFKN

YADFHECEFEKTANFYGVRFNKTPNFSQAIFRGNLNAVNANLNFTFDDLQERIKQEYEDFNKNIENKKSL

DKFANDFRDSFRTFKNALIKDNNLLDASNFHKYELYCKEIELKQNWDKRGENVKNTTDLEKNVSRIRDFM

DFLLLGFYRKLCDHHTDFLKVFNNLILLIALYALFVFGFTWLHDDKLEDTRAILTLFGFFDKFRLYFDII

STIFVVFGCGFFVCKLDSYEKKNNVSKKQNINFIYIIGDFLNLIKSLLFASFIPCVFYVLFSLFGFFLNL

GKDFGYSLLINTLFVSLYICLVYTKSLFFGRYVVLIFSYIVFIIMLIKQPNVIHPLIGKIANESDKFFNY

PSLIVLNILYTILLALVLFSLQKTARKNSIVPS

>AHK54418.1 type II restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHFTLLNEKDFFNPYYRKKQIMQNEFDIFSKALMQYLERLESSQSENEDYLVANALSPFLTMLNFKTHIK

TKQKGKSEIDLSISKDEFSKDLEVLIEAKKPNSKEFITHTKVNSKALHETILYYFRNREYSFSLKFIIIT

DFYKFYIFKISEFEELFYKNPSFKKLFEEFCNPNSLFKGNTEEFYKEVAKLIENSKENLKGFLIDLTFLK

DKQKSNFKNLASIYKTFHRDFLLSEFNPNDANSLNNAFYKELLYILGLYESKQNSKLIIAKSEESKEEQG

TFYTAINSKLKEENFETILKLLILWLNRILFLKLIESNLVRFNDDKNLKFLNFKKIPDFDKLSELFFEVL

AKEKSTRKKSEFTYLPYLNSSLFEKQSIENTLEISSLSNDLKLFYYKNTVLKDDKCKAKKGQVGLLEYLF

EFLDSFDFGSDDEQSEILSQKELISSSVLGNVFEKLNGYKEGSFYTPSFITSYMCKESITKVVLDKFNAQ

FDLDAKDISELRKSLRKEDKKAQKELLNSIKICDPAVGSGHFLVSALNVMLSIYDELNLFDEEFYLEVQN

DEILITGRKGEFIEYKRPSTPKDKTHLIQQELFHTKKDIIENNLFGVDINPNSCEITKLRLWIELLKHSF

YQSFDDGNYHDLKTLPNIDINIKCGNSLVSYFETGKSLNHYPNIKERMGKYKRIVKDYKEGFYTDKSHIN

QEIKNLKISFKNFCFADKFKKEMKSFNDKCEKYSKKYGNFLAVDDENLKFFVSANLTLFDFDEKEAIKEF

ANLKKEYDNIFNLESNHPFEWRFEFPEILDDDGNFKGFDLIIGNPPYIRQEELKELKPHLAKNYKVYKGT

SDIYTYFYELGFNVLKDRGGVLSYITSNKYTRAGYGEALREFLLKNVKFLEYTDLNGIKVFDSATVDTSI

LCFEKSKSKDNKFKYLALSNEILKTCAYDIGLYKDFAEFSQNSLSKESFTFSDENTSALKAKIERIGTPL

KEWYGLNINYGIKTGLNEAFIITTEKRNEILANCKDEAEKERTAKLIRKMLRGRDIKRYSYEWAGLWVIG

TFPSLKIDIEQYPALKQYLSQFLPHIEQSGEKGCRKKTSNKWFETQDNIAYYEEFEKEKIVWAEMTKEAC

FVYDNSNFFTNQTCYFFTHCDYKYLLAILNSRLIVYYMQYISSHLGQGAFRWIRQYIEKLPIPKINSKNE

KLADELINLVDEILKAKEQDKNANTQELENKINSLVYKLYNLTEEEIKIIEGK

>AHK54417.1 hypothetical protein N919\_00175 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKFIERLLEEDIKFEKDVNNGLSDINIFDALNIETKENYHSKFIAYLIDINKDHYQKNFAKVFLEKLGK

SLVNTKFENLNIEDIKSVETEACIKDNRRIDILITLSDKRYIIIENKIYAKDQKNQLKDYINFVRKNIKN

IKDCYKNILTIYLHQDECASPSDYSLGNFTIKTNLIKDKNENNVSYYLKMDYMWIKEWIDECIKIYEEKS

TKDQKFILDIQNIIFTLNQYKSILQWYIADEYTQRDDVLEFIFQDIIKMQNLKNAMILYRYNKNKSELKN

LNEEKYKKAKDIIQHKWSNICEYIIEEFFDSFEHKEIKIGDITFIGNKIEENRVNHGVFIFYPVDYKNES

IYPCIYIYFKKKYYDIIGLTFEISNDDEEDIENEKYKECLKLFKDVKEENVRKYQNHYYCDKLINNEKLE

GEYAFIYWLIENQNSKKDFIQILNDFFIKKPIQEAYKGINDILNS

>AHK54416.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKYFQKRYTLAFFIGILAGIFGAIVKWGWEVPFPPRNPNVFWPADALERVTPPKIFLEQLGLPTDWTYM

FSGMQMPLSIFIVHVGFSIIFGVAYCMIAEKWHRITMWQGAVFGFFVYLFAHVIIMPLIAEVPPLSEIPF

DEHLSEIFGHIVWLWGMEIVRRDIRNRITKEIEE

>AHK54415.1 hypothetical protein N919\_00040 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAGFQSPITINEAMQRIKNNEYLLPAFQREYVWEPWQIEELFDSLIRGYPISSMLFWKVKDESKTAWKFY

RFLEYYRESYHTHNDYFNTSNHKDFYAILDGQQRLTSLYFALFGNYDIHRSYNKWENNDRYFKICHFYFN

LTQSKKPENENIEYEFLWLDKLETKEQNIYIDKYQQKWFKCQYLYQYDSGRVRKIAKEFNLNENEEDRLD

LLHQKIFDKNLINFYLEEEQDPDKAVNIFIRINSNGEPLDYSDILFSIAIANWNKIDARTEINNLVDKIN

ENFDISKDLILKGFLYLFHNNIKFQINSFDKNFIESIEAKWEGIKNAFIETFRLLRSFGFEAKTLSSNNA

ILPILYFIYHKNLTNNIVDSVKCNENRAIIKKWLLRAIILKPFGGSSDTVLSNMRKAFIKDFKQNSGFFD

REIELFPLEEIEKEAKYIQTIDEEYLENNVIECRKNSPEAFAVLSLLYPNLDYKNNNFHKDHLHPESAYK

EYEKLYKATDNCISFNIYDSLPNLQMLDANENESKNNKPLKQWVNEKCNGNRKEFLGKHLIPDVDLSLEN

FNNFIEERKKIIIDKLKSILNKE

>AHK54414.1 Holliday junction resolvase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYKFYLKFYKKRLKSAFVFYFSKGMNLKILGIDPGSRNCGYAIIEADKGKNILIEAGLIKIKPSTLQYQI

TELCEGLDLIFKNHSFDEVAIEDIFFAYNPKTVLKLAQFRGALSLKILQIHGDFAEYTPLQVKKAVTGKA

KATKEQVAFMVKRLLGLSKDIKPLDITDAIAVALTHAANLRVRV

>AHK54413.1 flagellar hook protein FlgE [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMRSLWSGVSGLQAHQVAMDVEGNNISNVNTTGFKYSRADFGTMFSQTVKIATAPTDGRGGSNPLQIGLG

VSVSSTTRIHSQGSVQTTDKNTDVAINGDGFFMVSDDGGLTNYLTRSGDFKLDAYGNFVNNAGFVVQGWN

INWDDQTIDSSRTPQNIFIDPGMHIPAAKSTEVAIKANLNSGLNIGTSSRNLYALDSVHGWNTKTQRAED

ENDTGTTQFYTTSKNSVEVTEKGVDAGSLFNAKGQGLNLRDGQGIWVSYADATYSTNKVGVNAFDPNLQQ

NQTAAFWGTANQKVNLDITLNGVRIQNADIQSIDDAIAYINTFTAPTDTRDGTGVKAVKNKDGSGIDFVN

DNADGTTDNMKNINLVVANTNTAGELWNAVWNNNNQTFTFNNNGNGQAGTPTINKNGSSLWTATNITFTP

QPPQAATNVQLTGGLNAQIITAHKYIYSSNPVDIGPMYNPDGGPAFQPGANATTRPTEPGSAAYWDAVNG

GLLNTNVRTFRTTEDLRELLQRDARYGVDYDGSGTFAAADINQNIKVVVTADGHFAISNANEQSTVPPNA

INGVGNATTTDPKNMSFNITAYSNKQGTVSTNDAFTAIFKAFDGPLVIGNQIKESEQLKLSAFSAGLEIY

DSLGSKHTLEVQFVKQSTTQDGGNEWQMIIRVPEPAEINTTGEGPNNIIVGTARFNNDGSLASYTPRTIN

FSPNNGAAPNQQIKLSFGTSGSNDGLVSSNSASTLTGQATDGYTSGNLKPDAIRVDDKGNILGEFTNGKT

FAVAKIAMASVANNSGLEEIGGNLFKVTANSGNIVVGEAGTGGRGEMKTSALEMSNVDLSRSLTELIIIQ

RGYQANSKTISTSDQMLQTLIQLKQ

>AHK54412.1 7-cyano-7-deazaguanine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRYGEKEIKEFDVENMEIWPNDAKNDYIIKITLPEFMCCCPRSGYPDFATIYLEYMPDKFVVELKAIKLY

INTFMYRNVSHEASINEIYNTLKDKLKPKWIKVVGDFNPRGNVHTVIECRSDMVVPK

>AHK54411.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKKFLSIIAGIALFSSSAFAEEKSGFFIGADAAYVQTKVQGNLKHNQTGAVFNGDLSSSIPILGLKAGY

RFNDLHRLYLAYNYSDEFSDIIRTPKLKIESDFSTHKFLMGYDFTPKIFERVRAVAGGYLGYAKTNLDLK

TSLLSLSQKFDGFVYGVKIGAIFELGASNEIEAGFKVEKIEYNTRDFYQKAIGSNLYDPRQTNYGLYLGY

TYKF

>AHK54410.1 hypothetical protein N919\_08610 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKELLEIKKEMEPVIHEANVKLNVLAREVIVRKKEYEIYGPMVDRVYLDNAIYVKVMSSGRDVKTDNVT

IKNGFYMVFVAPEKESTKDIKNKLKVAYEGLDNKFIATLIRSCQRFKEIINKTQATLAKASKMNVVVKTN

LGEASAALKFNITIEYTKENQKLTRENSKSAGSFRDTKTYINLVVEKNTDSQICEKLLDDVEKYFIGGG

>AHK54409.1 2-isopropylmalate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKDNKIIIFDTTLRDGEQALGSSLGINQKLQIALALENLGVDVIEAGFPVSSQGDFKAVQKIASKVKNST

ICALSRALDKDIDMAYEALKVAKHFRIHTFIATSTLHMQDKLKKDFDEILSMAKRAIIRARSYTDDVEFS

CEDAGRTPIDNLCFMVENAIKAGAKTINIPDTVGYTLPSEFANIIKILFNKVPNIDKAIISVHCHNDLGM

ATGNSLSAILQGARQIECTINGLGERAGNCALEEVVMAIKTRKDYLKGFYTDIKCENIFKTSKLVSAITN

ESIPSHKAIVGSNAFSHSSGIHQDGVLKNRQTYEIISPSAIGIHENRMLMTARSGRAMIKTCLENLGYDE

NTYNLDDVYERFLRLADKKGQVYDYDLEALMFLSYESEEENEFVLEKLSVISGNIPTACVCMRIKEELKT

EACTGNGPVEAVFNCIARITNLKPALKAYSINAKSSGVDAQGQVDVDLEFKGRKFHGKGLSTDVIEASAQ

AFVSAYNAIYRSLKVEERKMA

>AHK54408.1 3-isopropylmalate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTYKVAVLAGDGIGPLVMKEALKILTFIAQKYNFSFEFNEAKIGGASIDAYGVALSDETLKLCEQSDAI

LFGSVGGPKWDNLPIDQRPERASLLPLRKHFNLFANLRPCKIYESLTHASPLKNEIIQKGVDILCVRELT

GGIYFGKQDLGKESAYDTEIYTKKEIERIARIAFESARIRKKKVHLIDKANVLASSILWREVVANVAKDY

QDINLEYMYVDNAAMQIVKNPSIFDVMLCSNLFGDILSDELAAINGSLGLLSSASLNDKGFGLYEPAGGS

APDIAHLNIANPIAQILSAALMLKYSFKEEQAAQDIENAISLALAQGKMTKDLNAKSYLNTDEMGDCILE

ILKENDNG

>AHK54407.1 3-isopropylmalate dehydratase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKTLYEKVFDAHVVYEGKNELPILYIDRHLIHEVTSPQAFSGLKMAKRRMARADLTLATIDHDVSTKSM

DLNACSDMAKEQITTLMQNTKEFGVRLLGLGDKNQGIVHIVGPELGFTLPGVTLVCGDSHTATHGAFGAL

AFGIGTSEVEHVMATQTLKQAKLKTMKIECKGQFQKGVYTKDLILYLIAQYGTAKGTGYAIEFCGELIRN

LSMEARMTLCNMAIEFGAKVGMIAPDEITFEYIKGKEFAPKGEEFQKYCEYWKSLRSDEGAKYDASITLD

VSKIKPQISYGTNPSQVIGIDEKIPKISDFKNQSEQKSLLDALYYVNLEQDQVIEGVKIDIVFIGSCTNG

RLEDLKIAADILKGRKIHKNVKALIVPGSMQVRKEAENLGLDKIFIEAGCEWRYAGCSMCLGMNDDKANS

GQRVASTSNRNFVGRQGKGSITHLMSPASAAACAIEGVICDNRKYLGV

>AHK54406.1 isopropylmalate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKFIIHKGIACPLEYANIDTDQIIPKQFLLAVSKQGFGKHLFHDLRYLDDKESVLNMDFNLNKKEYQNS

SILVSFENFGSGSSREHAPWALVDYGIRAIIAPSFADIFKNNALGNGLLTIELAKDEVLEIVDELKKSQD

KNIEISLLEKRVFFKDKIFSFDLDDFHRICLLEGLDNIALTLKHEAQIKAYEKNSKSFLV

>AHK54405.1 50S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKELVNILDFLPEELGEKIKPMFRVKQIYQWIYQKYANNFSDMSSLPKDLRLELARNFHFSPVKCVKNEQ

SKDGSIKYLFELIDGLRVESVLLPMKEEKIDAEGKRISHARYTICVSSQVGCKSGCSFCLTAKGGLKRNL

SAGEIVGQILWIKKQNNIPYERRVNIVYMGMGEPLDNLKNVSKAVKILAQNEGLAISPRRQTISTSGLAK

QIKELGQMNLGVLLAISLHAVNDELRTELMPINKAYNIAAIMDAVREFPIDQRKRVMFEYLLIDGINDKL

EHAKELVKLLNGIKAKVNLILFNPHEGSLYKRPSLENAIKFQDLLSNKGVTCTIRESKGLDISAACGQLK

ERAKEQ

>AHK54404.1 purine nucleoside phosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIICAGGNENFSFAKAIGIGLVESAFHLSQLCFKEKPSKLIFIGTCGLYDKGEILEIYRSSHAFNVEFSK

ISHAFYTPAKYEICLEKENVSRETIKINSSNYICQNSKAAKEFSKLGFFAENMEAFSVLSVAKNLNIDAE

CILCATNFCNENAHEDFIKNHQKAKENLEEYLKKYHYI

>AHK54403.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVKAKKQYGQNFLIDKSVLAKIIQAIPKEMNNIIEIGPGLGDLTQELLKISQVKAYEIDNDLIPILKKKF

QKELECGKFNLIHQDASEAFNPSLDEKPYFLVANLPYYVASHIILKALEDKNCLGLIVMAQREMAEKFCA

KEGNSEFSSLGVLSAMICERKILFDVDPQCFNPPPKVMSAVMSLIKTKDFDELCEIENFKNFLKDCFKAP

RKQLLGNLKTYKAKVLEVLSTLGLKENIRPHEICVDLYLKIYDKLKDEYGRKQRDK

>AHK54402.1 ribonuclease J [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDENKEINKNEQNPNSNSKNNKRYKYKNRRKKLADSLQNENDTPKIDQNSNKENSENSENKTEKKKKKNR

NLPSKLTGNEDWQIALAECIEANRISHENRLHPLKYNNSSEHKIRITPLGGLGEIGGNISVFETNKDAII

VDIGMSFPDGTMHGVDIIIPDFDYVRKIKDKIRGIVITHAHEDHIGAVPYFFKEFQFPIYATPLALGMIS

NKFEEHGLKAERKWFRPVEKRRVYEIGEFDIEWIHITHSIIDASALAIKTKAGTIIHTGDFKIDQTPIDG

YPTDLGRLAHYGEEGVLCLLSDSTNSYKEGYTKSESSVGPTFDQIFARTKGRVIMSTFSSNIHRVYQAIT

YGLKYGRKVCVIGRSMERNLYTTMELGYIKLDRKIFIDADEVSKYKDNEVLIVTTGSQGETMSALYRMAT

DEHKFIKIKPTDQVIISAKAIPGNEASVSAVLDYLLKAGAKVAYQEFSEIHVSGHASIEEQKLMLTLTKP

KFFLPVHGEYNHITKHKETAMKCGIPERNIYLMSDGDQVELCQKYVKRIKTVKTGKVFVDNQINKQIADD

VVIDRQKLADSGIVVIIAQIDKATKTLINKPRVFSYGLVADKHDHAFSKDMAEVLGQFFINVKDEVLNDP

RFLENQIRQVLRKHIFRKIKKYPTIVPTIFVM

>AHK54401.1 ribosomal large subunit pseudouridine synthase B [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRINKFISHNTRYSRREADELIKQGLVKINNKIALLSDEVKFDDKVFVKGKRVQKRTQFSVIIYHKQKGE

IVSKKDDRGRKTIYDTLPRQFSTWLSVGRLDYASEGLLLLTDSPVIADALMHSDLEREYYLKVKGTVSKQ

VIEAMQNGLEIKNEKKGAHAKTKITSMSFAPFIDFEIFGSSGGYTKLRVVINEGKNRELRRFFGHFDLEV

MDLKRVAFGALDLGMLKAGKHRYLENGEYEKLRDFLKFNEIRY

>AHK54400.1 30S ribosomal protein S10 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MERIRLKLKAYDHRVLDRTVAAIVEAVKRTGADIRGPIPMPTKIKRYTVLKSPHINKDSREQFEIRIHAR

MLDIVAATPDTVDSLTKLDLAPEVSVEVRAMGK

>AHK54399.1 50S ribosomal protein L3 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEYIVEKIGMSRTITNPSIAVTLLRVVNAKVCEVEGGKALVAYPKGKASNKCVAGQQKKYNLSAEYNRFA

TLEVANTEAGDLDETPLNEAKILKVSFNTKGRGYSGVMKRHNFAGGPASHGSRFHRRHGSIGNREWPGRV

QPGMKMAGHYGNTKVTIKNEVVSYDAENKILVVKGAVPGYNGAMGKIRIAK

>AHK54398.1 50S ribosomal protein L4 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKVVVLNDKLEKAGELDLPSKYAEVNPHNLYLYVKSYLASLRANTAHTKGRSDVSGGGKKPWRQKGRGG

ARAGSTRTNVWVGGAVAFGPTNERNYFQKVNKKQKRLALERALADKAAKGVLFTADSLAIESGKTKDANA

VIKKLGVKDALIVKDLLDEKTLLAYRNLANCYVVDVTEVNAYLVSVFNAVIMEKSVLESITKEG

>AHK54397.1 50S ribosomal protein L23 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MADITDIKTILYTEKSLNLQEQGVVVIQTSPKMTKTGLKAVLKEYFGVTPKSINSLRMDGKIKRFRGRLG

QRNNYKKFYVKLPEGVSLENTEA

>AHK54396.1 50S ribosomal protein L2 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAIKTYKPYTPSRRYITGLSSEDITAKPSVRSLLVKLPAHAGRNSYGRITSRHKEAGAKKLYRIIDFKRR

KFGIEGKVEAIEYDPYRNCRIALIAYKDGEKRYILQPRGLSVGDIVAAAESGLDIKPGNAMKLKNIPVGT

IVHNVELKPGKGGQMIRSAGAYAQLMGKEEKYVILRLASGEMRQVLAECMASIGEVGNEEWANVTIGKAG

RNRHRGIRPQTRGSAMNPVDHPHGGGEGKKNSGRHPVTPWGKPTKGAKTRRKKASDKLIISRRKGK

>AHK54395.1 30S ribosomal protein S19 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MARSLKKGPFVDDHVMKKVIAAKKANDNKPIKTWSRRSTITPDMIGLTFNVHNGKSFIPVYITENHIGYK

LGEFAPTRTFKGHKGSVQKKIGK

>AHK54394.1 50S ribosomal protein L22 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKALIKFIRLSPTKARLIAREVQGMNAELAMASLKFMPNKGAKYIANAISSAVANGGFEANEVIVKSCR

VDAAAVLKRFRPRARGSASRIRKPTSHILVEVAKAEVKSEEKKTVAKKTTTTKAPAKKTTSTKKATVKKE

S

>AHK54393.1 30S ribosomal protein S3 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGQKVNPIGLRLGINRNWESRWFPTKANLVENIGEDYKIRAFLKRKLYYAGISQILVERTAKKLRVTVVA

ARPGIIIGKKGSDVDNLRKELQDLIGKDVNINIKEERKAGASAQLAAESVATQLEKRIAFRRAMKKVIQG

AQKAGAKGIKVSVSGRLGGAEMARTEWYLEGRVPLHTLRAKIDYGFAEARTTYGNIGVKVWIFKGEVLHK

GMQPEKTEESAPAKKPRRTRRGK

>AHK54392.1 50S ribosomal protein L16 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLMPKRTKYRKMMKGRNRGYANRGTEFTFGEFALKATEAGRINSRQIEAARIALTRFVKRQGKTWIRVFP

DKPLTKKPLETRMGKGKGAVEEWVMNIKPGRIIYEMAGVSEEMAREALTLAMHKLPFKTKFVTRESQNEI

Y

>AHK54391.1 30S ribosomal protein S17 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAFKREIQGVVVKIAGEKTASVLVERKVVHPRYRKIVKRFKKYLIHDERNEVKVGDTVVAVECRPLSKRK

SFRLKSVLATGVE

>AHK54390.1 50S ribosomal protein L14 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIQSFTRLAVADNSGAKELMCIKVLGGSKRRYATVGDVIVASVKKALPNGKVKKGQVVKAVIVRTKKEIH

RDNGSLIRFDENAAVILDNKREPIGTRIFGPVGREVRYGGFMKIVSLAPEVL

>AHK54389.1 50S ribosomal protein L24 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAVKLKIKKGDSVKVITGDDKGKTGKVLAVYPKTLKVVVEGCKIAKKAIKPSEKNPNGGFINKEMPMDIS

NVAKVQE

>AHK54388.1 50S ribosomal protein L5 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMRLKEKYNQSIKPALVKEFDIKNPMLIPVIEKVVISVGAGELAKDQKVLQNVADTISLIAGQKAVITKA

KKSVAGFKVREGFPVGVMVTLRKENMYAFLDKLISIALPRVKDFRGLSRDGFDGRGNYNFGLDEQLMFPE

VEYDKILRTHGMNISIVTTAQNDKQAQKLLELIGVPFTKGK

>AHK54387.1 30S ribosomal protein S14 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKKSMIAKAARKPKFKVRAYTRCQICGRPHSVYRDFGICRVCLRKMGNEGLIPGLKKASW

>AHK54386.1 30S ribosomal protein S8 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINDIISDSLTRIRNAGMRKLETTKLLHSKVVEALVGIFQAKGYIESFNVIEEDKKKFINVVLKYDEKGK

SVINELKRISKPGRRVYKGKDEIKRFKNGYGTIVVSTSHGVLANDEAYKAGVGGEILCTIW

>AHK54385.1 50S ribosomal protein L6 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSRIGKQPIAIPAGVEVKLEGNLLKFKKGNLAKELDTKANVNVEIKDNNILFSPKGEDRQSRAYWGTYRA

LAYNIVVGLTQGFSKTLEINGVGYKAALKGKVLELSLGFSHPINYDIPEGIEIVVDKNTIAVKGSDKQVV

GQVAAQIREFRPPEPYKGKGVKYSDERIIRKAGKTSKK

>AHK54384.1 50S ribosomal protein L18 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRANVLKRKLTLRIKRKKRIRAKISGCENFPRISVFKSNRTLYIQAIDDVKAVTLAAVDGRKLGVKANKE

GAKKIAAEFAKTLKVKKIEQAVFDRNGYVYHGVIAALAESLRENGIRL

>AHK54383.1 30S ribosomal protein S5 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKYNREEFEEVIVDIGRVTKVVKGGRRFRFTALVIVGNRKGLVGVGYGKAKEVPDAIRKAVDDAFKNIV

EVKTKGSTIAHDVEVKYNASRILLKPASEGTGVIAGGSTRPIVELAGIKDILTKSLGSNNSANVVRATIK

ALTMLKG

>AHK54382.1 50S ribosomal protein L15 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLTKAAGSTHKTKRIGRGQGSGMGKTATKGGKGQTARKGYNEKRGFEGGQQPLQRRLPKVGFTSKIQKP

YVINVEKITAVKELSEITFESIKSVHKISKSVNKIKLIGASAKDLVSKIKDENISVTGSK

>AHK54381.1 preprotein translocase subunit SecY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNRALTNKILITLAFLFAYRVLAYVPVPGVNADVIAEFFNNNQNNALGLFNVFSGGAAERFSIISLGIMP

YITASIIMELLAATFPNIGKMKKERDSMQKYMQIIRYATIVITLVQSIGVAIGLQSLHGRGGAGAIMVED

LNMFIALCAISMLAGTMLLMWLGEQITQRGIGNGISLIIFAGIVSGIPRAISGTVGQINSGEMNFLTAFA

IFALILITIGVIIYIELGERRIPISYSRKVVMQNQNKRIMNYIPIKLNLSGVIPPIFASAILMFPTTILQ

TSTNPYLQAINDFLNPNGYLFHVLTFLFVIFFAYFYASIVFNAKDIAENLKKQGGFIPGIRPGEGTSSYL

NEVASRLTLSGSIYLGLVATLPWVLVKFMGVPFHFGGTSVLIVVQVALDTMRKIEAQIYMSKYQTLSAVG

L

>AHK54380.1 multidrug DMT transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNDKTYKFHPNDTKMDKKIIQITEKSGFKAAVFSMAAMTMLGSVVISSALPAINRHFEELLTQSGATLAS

SFTLAHLDILVRLVLTIPAIFVVILSPFAGILMDKFGKLKFILPAMVVWTLSGISGFFLNDIYAILTSRA

IFGMATAFIMTGASALLGDYYSRGGFNRRENALSLQGFFCAVGGAVFISIAGFVSSYSWRYPFLVYGLGI

LITLMAIIYLFEPRKFKFYNHTKIETKTNYWQFFPIYFIGFFIMVVYYISPTQLPYYIEEHLGLDPKYIG

ISMSVSALCYGFFSLSYRYIIKFLSIKTIYVLTLFIVSCSFLLLFLVDSFFTVLIALALLGMGGGIMLVN

NTAYLFSICPENARSRAYGILASCIFLGQFLSPIISQPIVRQMGLVDAFLIWSIVIFIVCIVFLFLKQKP

RIN

>AHK54379.1 DNA topoisomerase I [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKNLIIVESPAKAKTIGNFLGKDYEVIASKGHIRDLPKSSFGIKIEDDEFIPEYRITSDHSALVKELKS

KAKDAKEVYLATDEDREGEAIAYHIAKAIGKDENTLPRIVFHEITKSAIENALKNPRKLNMHSVNAQQTR

RLLDRIVGYKLSPLLGQKIQRGLSAGRVQSAALKIIVDREKEIRAFVPLEYFSIDMIFQKDLDAELVEFD

KAKIEKLTITNKDRAKLILEACKNEVYSISDIESKERKIAPPPPFMTSTLQQSASNRLGFNPKKTMMIAQ

KLYEGVNTHEGVMGVITYMRTDSLNLAKEAVENARKFIQANFGKDYLPSKANVYTTKTKGAQEAHEAIRP

TNLSFTPEIAAKFLDKDELKLYTLIYNRFLACQMSPAISQTQNVFVKNDRVVFKISGRKILFDGYYKVYG

DMDKDKILPNFKIGQNLKVQNLEMNSHFTEPPSRYSEAGLVKKLESLGIGRPSTYAPTISILTSRDYVTI

DKKQLIPSDVAFNVTEVLEKNFSDIVDSKFTSNLENTLDEIAEDKADWQETLKEFYYPFMRKIEEGKTKI

ASQKTVTKLGESCPDCGGELAIRKGRFGEFVACLNFPKCKYSRNLKSESKNESENTAAKAKANGTGITCP

SCQKGEIVERFSKRGKFYGCSAYPKCNFISKYKPSEEKCEECGETLVIKELKKGTFLECLKCKIKKEMKD

>AHK54378.1 biotin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIMLCAISNIASGNCSEDCKYCTQSAHVKTDIQKYRRKELSQIVLEAKMAKKNEALGFCLVTAGLGLDD

EKLEYVCEAAKAVQKEVPNLLLIACNGMASVEQLKELKKAGIFSYNHNLESSKEFFPQICTTHTWESRFQ

TNLNAKEAGLMLCCGGIYGMGESEEDRLSFRKSLQELQPFSTPINFFIANENLKLQVPRLSADEALKIVR

DTKEALPQSVVMVAGGREVVLRERQYEIFQAGAGAIVIGDYLTTKGEEPSQDIIKLKEMGFTFASECH

>AHK54377.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHQSVIDTQALIDLKILIVIALCLLFSPHIAKILRLPLSATEIILGAIIAHFGFIGKSENFALLANVGFY

YLMFIAGMEVNLRAFFNMDKEIAKKSFFYIFLLYALSSFIVWIFGLSLVFVIIIPVMSVGLLSLLFKDFG

KECYWLNIAMIVATLAEVISIVLLTIAGAFLREGTGIIDVAQSILYLNIFLGLCLLGFKMLGVLFWWYPQ

LKVVLMPWEDKNEKDIRFCMAIFILIIVAMVITKLEIVLGSFIAGSFIATFFDHKKDLEHKLSTFGHGFL

IPIFFIHIGSTFDLKMILDYKIVLQAFLLMFVMVGLRILCASVFLKRIGFKNMILFGLSHSMPLTLLIAT

ATLGYSGKVIDEKLYSALILTALFEAIIVMSMIKFLSNSKK

>AHK54376.1 type II citrate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSNSVTITDNRNGKSYEFPIYDGTTGPSVVDMSSFYKQTGMFSYDEGLTSTATCKSKITYIDGENGILMH

RGYPIEWLAENKLYLDVVHLLLYKELPDATRLEAFRYEMKKRSFIHEGMHRLFDSFPDNAHPMAVLQGAV

SSLSAFYPDHLNMNVKEEYMEMAARIVAKIPTIVATAYRYKHGFPMAYPNLDRGFTENFLYMLRTYPYDH

VELKPIEVKALDTVFMLHADHEQNASTSTVRAVGSTHAHPYACIAAGIGALWGHAHGGANEGVIRMLEQI

GSVDRVDEFIKRAKDKNDPFRLMGFGHRVYKNFDPRAKVLKKLRDQLIDELGIDTNLIKVATRIEEIALS

DDYFVQRGLYPNVDFHSGLILKALGIPNEMFATLFVIGRTPGWIAQWIEQKEQESLKIVRPRQLYLGETS

KI

>AHK54375.1 CysQ protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNLDKFLEIAINASNQASKAILEERKNFKTWEKEDKSPLTSADLASNKILNDILGSTDIKILSEEKLLS

KEECEELKTFWLIDPLDGTSGFLKGSDEFCVMISLVHDNRPVLSLIQNPSKGDIFYAHAKTKVYKNDKPL

QIDQQEYEKNKYKALLSVNHLSKEDEDFAKEHQLEAINIGSGLKFCAILEARAGVYKRFEKLNIWDIVAG

DFLINQNGGFMGDFSKKYILYNPLSYKSNPFICVSSRNFLQDFL

>AHK54374.1 hypothetical protein N919\_08390 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRYCFILFLSLVLSSNLLANNFSQKKVIKIEKSADSFEVIDLNQNVANPNLNQQKALFDSSTLIEKKSQI

TKDKDIDFAIVLTSRKNFGYFLDGFRVSDKEFSTLFAKNLIQSLKLNWVNSAANGIYQSPKTLSYFSPKD

AKLINVSPFLTQEKDKAKMYAKFTDYVVVVNLQDFYVNITNYFITTSKEGVANVNFKIISTSNGKILVAK

NAELNLTLKDQDAKQNYQDIINQMPKMLADVIKNQIFHLKLLN

>AHK54373.1 UDP-N-acetylenolpyruvoylglucosamine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIIDFKKYSSVRIGNEFEVLVLDQICDFDGFLIGGANNLLVSPKPKNIGILGDGFNFIQILDRNKDFIHL

RIGCKTKSSKMYRFAKENNLKGFEYLSKIPGTLGGLLKMNAGLKGECISQNLIKIATSQGEILRANINFD

YRFCPLNTHFFWAEFKLNFGFDTLKDEALKNARSNQPSGASFGSIFKNPKNDFAGRLIEAVGLKGFSKGD

AMLSDKHANFLINKKNASFEDAFFLIELARKKVFEEFGTNLENEVIII

>AHK54372.1 flagellar biosynthesis protein FliQ [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDESTLVALGVQTFKITLLLSLPMLLAGLIAGLVISIFQATTQINEMTLSFVPKIILVVVILIFLMPWMT

TTMIDFTENILNQIPTFIK

>AHK54371.1 succinyl-CoA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKITIAHSPDADDIFMYMAIKFGWIGNDFAYENTALDIQTLNEFALKNEFDATAISFGLYPLIASEYAL

LRTAVSFGEGYGPKLIKKKDTHLKRNFKVALSGANTTNALIFRMKYPEARIIYKNFLDIENAVLSGEVDA

GVLIHESILNFDQSLYVEAELWDIWLEFAKENLPLPLGGMALRRSLPLSDAIKIERDLTNAVKIADANRK

ILAPMLMERKLIRVDEEKLDTYLNLYANKNSISMNQTQLLAVDTLFKLGYDYKFYDKIIHVNDFLIPSEY

EEARNS

>AHK54370.1 recombinase RecA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDDNKRKSLDAALKSLDKTFGKGTILRLGDKEVEQIDSIGTGSVGLDLALGIGGVPKGRIIEIYGPESSG

KTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDLI

VVDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTT

GGNALKFYASVRLDVRKVATLKQNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVK

LDIVDKSGAWFSYKDKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMISGSEDDEGEE

>AHK54369.1 enolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLVIEDVRAYEVLDSRGNPTVKAEVTLSDGSVGAAIVPSGASTGSKEALELRDNDERFGGKGVLKAVANV

NETIADEILGLDAFNQTQLDDTLRELDGTNNYSNLGANATLGVSMATARAAAAALGMPLYRYLGGANASI

LPVPMCNIINGGAHANNNVDFQEFMIMPFGFTSFKEALRSVCEIYAILKKELANSGHSTALGDEGGFAPN

LANNTEPIDLLMTCIKKAGYENRVKIALDVASTEFFKDGKYHMEGKAFSSEALIERYVELCAKYPICSIE

DGLAENDFEGWIKLTEKLGNKIQLVGDDLFVTNEDILREGIIKKMANAVLIKPNQIGTITQTMRTVRLAQ

RNNYKCVMSHRSGESEDAFIADFAVALNTGQIKTGALARGERTAKYNRLLEIEFESDEYLGEKL

>AHK54368.1 hypothetical protein N919\_08345 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIFWAFLVVIGAIYFGNMFFGQYSLDTLLSLENTKEELNKKIILLKEQNAKAQKDYFELKGLYPNEN

>AHK54367.1 hypothetical protein N919\_08340 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTRILAIFFIFTSLLYADENPFKTDQNITLVAPPEFQKEEVKFNSSARILKSITFNYINLDGSEDKIDL

DVNKSIDWHDTYTISRFKSPDPSKVLDVSVTIPEKNSSKQESNSTANVEIPLQVAKIYDFISYAVYKNKI

KLNTSDEMITDFSVGNPSKIVIDFRSKMISPTKNIRLSNSIFKRIDFGSHKGYYRLVIYLDGTYNYNIQK

DATGYMINLL

>AHK54366.1 DNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRFVFLICCACLVFANEILLLSKFDKQDFNSKDFNAYLMSEKLDGVRGIWDGKYLKTRQNYKIKTPDFFT

KNFPPFAIDGELWIARNKFDEISALIRSGDSNLTLWKEVTYNIFDVPNACEEFQISTCTLKNRLAVLEEY

LQKYPSAYIKIISQIPVENQNNLNQFYESIIKNQGEGIVIRKNLSPYEKGRSKNATKLKPYDDAECELVG

FRKGKGKFENQVGALLCKMPNGQIIKIGSGLKDEDRKNPPKIGSIVTYKFNGLTKNSLPRFPVFLRIRDE

NP

>AHK54365.1 hypothetical protein N919\_08300 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKTILTILFLLTLTQAKEIQIYESPTCGCCDLWADYMKAKGYEVSVHKTNDFLKIKEKMGIKDEYQSCH

TGVIEGYAIEGHVPESAIAWLLENKPKDVIGISAPGMPQGSPGMEQGYSEKYPVILMKKDGSYELYGYFI

GDKKL

>AHK54364.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGIFRIQAYFFALIIALFFVACDSGENFKALNSDKTYNFAYNGFEKSLKLNDKAQNFALVFFTKDCGVCK

EQIPILQNLAKNYDFNIFVVLGDANDANDAKAWADEKGLSNLAMFYEKRAAKYLSSAIGEIYGVPVLSFF

KEGKMDEKFIGLTPYSILEKEIKKVKS

>AHK54363.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKSLLILSILFLLNACSFENSKDTGKVGEKSAEISAKDTLGKAVKLADDNTSLKVLVFFQNGCPSCLKE

LPSLDEFIQNHPNKISVYAINSIDNANVVKVLAEQFDFKNVKVLKDDLKITNDRYAVFATPTTIIIKDGM

IKDRILGEKPWEFFESKLISLL

>AHK54362.1 GTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKELIKINNLNKEFGKVKALNNINLSVYEGEWLAIMGPSGSGKSTLLNILSLMDTPSSGEYILDNENLE

QMDEEQKITLRREKIGLVFQQFHLIPYLNALENVMLSQYYHSSVDEEDAKMVLEKVGLSHRLTHLPSQLS

GGEQQRVCIARALINNPELLLADEPTGNLDEANEQIVLQTLQKLKNEGKTIVLITHNPDLAKFADRTLIL

QHGVLK

>AHK54361.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVDKFFLNELFKSISFSYQRLFIIVLSVFIGALTCSAFLNIYFDIDIKLSKELKAYGANVMISPKQDENF

ISNTEYEKIKENLKARALTPFLYDFLNLGSTSGVVLGTDFRALKITKPFLEVKEGSFSLNDFDENSAFLG

VNLAKQLGLKAGNELQIYNPNNGKSIKLTIKGILSSNDEFDSIVLAPLSVVQNLSDRAGINYANAVVYGN

FDEVKAKTQAISNEFIDAKPISSVSLSEGLVLGKIKALMFLIILVVLIIVTTSVNTTLSSIIFSRKKEIA

LRLALGAKKSEIFKLFASECFIVSFFASLIGAFCGIFLANVFGYLIFNSSIDFRFIAVFIALIISLIFAF

LAAFFPIKRALKINVCENLKGE

>AHK54360.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLAKMIFNSIFKNKIQKFLAFLTCFLATLLLSTMLNITLSIGDEVTKQLKSYGSNILVLPKGSSLSIEIG

NELYEPLKNKNYLEEKNLYMIKDIYWRNNITALAPFLEGKITIENSQQKALIYGAYFQKAIKIKDDDDFI

TGIKSLYPYLAVQGEWAKDDSNEIMLGEDFAKNNKLKLGDTIKFIGENNQSKEAKIVGILLHANPKMSNK

IIAPLNLAQDLLNKQGLYSSTEVRAFTIPESALSEKVRRMGEEKLDQLEYDKWYCSAYVGSIASQISDGL

PGADAKALNAISDAQSLVVKKIQSLMGITCIICLIVASIAISSLMSSEIHRRKKEIGLLKVLGANTFQIY

LIFASENLIVALFAALLGFIFGTALSQIISLSIFGYFIDIAFVALPLSFIFAGLIALLGCLLPIKNITQL

SAAGVLYGR

>AHK54359.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSIYFVHFLISVLPLSILMAFITPNKKYIFKSFFVVFLGFLFGYFAFFIAAQFLKTENLIFNFDFVFIGL

LLVSFIFYFWKKIEILNFILLGILSFCTALHYYFLSQDFPIFTSSLIDSEGISSLGFIALALLVCILIFF

FLKWQKNFNQKTSFMLFLLLILIESDKALANILLTLMRNSIIETHAFLVSFVGKSNYFGVFGIYVYLIFI

TFLAFLSLKIRKKNISKKQILDINYRKNEAKTSLINRYFSSVFISCVVSFCIVLYFFMVSSKPLTIDEPK

EILPDKNGKFIFDIALLRDNKLHRFAYISAEGKVIRFFLINKREDKDSPVAVFDACMICGDMGYIKKDGQ

LICISCNVRIFLPSVGKSGGCNPIPLKYEYDGNKITIDVKDVIAGSNYFSQIKEIEVQDPVSKTKVINTQ

APFSYSYKGVTYYFSNQNNYEEFKKDPTKYVEENEAQFLIQRRNDVG

>AHK54358.1 iron transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKKVLSVVAAAAVISTNLFAGEVPIGDPKELNGMEIAAVYLQPIEMEPRGIDLAASLADIHLEADIHAL

KNNPNGFPEGFWMPYLTIAYELKNTDTGAIKRGTLMPMVADDGPHYGANIAMEKDKKGGFGVGNYELTFY

ISNPEKQGFGRHVDEETGVGKWFEPFKVDYKFKYTGTPK

>AHK54357.1 iron permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIFKIIFLIISIFLSSSAFARVDDYINEANLIKDMLKQSIETYKKGDNLGAKKLSEDAYFQHFENMEGS

IGRNIGRKAITMERKFVNLRRMYKDEAPLTQINALIDSLYYDLDEVAPILQNGYRLKAEASDINYDKAKA

EKSSLEANAKREADAEALIAQMMGVDKKDLAQSSLTTQAPIPINNDTSKLTDDNASTDLQAAAAMDVRLQ

FILDNISTKFSQAANAFKEKNYQTSKDFLNDALFSDYRNTKVEILVNKFTKAGNDQKIQQAIRTLIRQIN

DAKIDEKGLRDGLDNIEEQIFDVFLQIPNSELSSLQISGFNDETKGKDYAKVSNDIKLALDEILKNYDGF

SASIVDDLQGIYLDIFEASGMENKIGAVDSGLKLKIESLFSKSVALIKASTDKKELEATFNDLEQLIASS

VDKIQDSTPYSLFIWALGIILREGLEALIIVVAIVSYLVQSGNKNRLNIAYSALFTGVILSFVTAFGVSW

LFKENAGQSRELIEGITMLIAVLLLFYVGFWLLSNAQNKKWTSFIKQGAIDAISNNSAKTLWITVFLAVY

REGAETVLFYQALLFDAKTSTDFGAVFGGLGLGILILIVLYFLLKAGAIRIPVKQFFYITSYIIFYMVFV

FTGKGIAELIEGKVIIPSLIPMNFEPILWLGIYPYYETLIPQFIVLIMLIIGILITKQISKKGVKS

>AHK54356.1 hypothetical protein N919\_08250 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVSDVSMGNVNLMTAVNTSVLKKSMDTNEALMNELIEGMEGVSQASAPQASSSSGLDIYA

>AHK54355.1 hypothetical protein N919\_08235 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRHIFFIITIIFFISGCSFYQNLNYRPSYNTNKEARLKVIANEWKKTPYVLGGTSKKGADCSGFTQSALA

QLNIRIPRTTKTQLGSGRKVSKSKLQTGDLVFFKTGRGPNGMHVGIYMSKGKFIHLSTKDGVKEVELNSS

YWKARYIGARRY

>AHK54354.1 glutamate racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDTIIKFCLEALDFFEQFQIDMLIIAC

NTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIATKATIKSEEYQKRLLSQGYTNINAL

ATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLLGRSLSKYFGDKTKLIHSGDAIVEF

LKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>AHK54353.1 methionine aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIELKKPDEIEKLRIANQIVAKTLNFLENEIKIGMSLKQIDKMAEDYILSLGAKPSFKGLYGFPGAICTS

LNQVCIHGIPDDKIIKEGDILGLDVGSLIDGYYGDAARTIAIGEVSPADKALISCAKDALYHAIDIIRDG

MRFKELSAALGEFIHVRGFVPLRGYCGHGIGRKPHGEPEILNYLEKGASAKSGPKIKNGMVFCIEPMICQ

KDGTPKHYNGKWDAGSIDGLNAAHYEHCVAVINGRAEILSMI

>AHK54352.1 hypothetical protein N919\_08220 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKSDLDIFKKHLGEIQGVNEFKANQICSQINDANDFIGALQVLDMSLKKIEKSILERIDENSDDMQKRTL

DATASQLIQNCSFMGTALFGNIFNVYVGKKLFEFEIANPLLILQTSNYEGVLAYIQDKRDEIKIILSELS

TAITMGETMDNAGIYNSTMDFKNLFK

>AHK54351.1 hypothetical protein N919\_08215 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKQLFCILTFIFMLCGCSLRHETINKNENIILKDEGIDSNIFFKKTGKILKIRNANAPLYLNSRAIVYI

DNGFSNKYAHYFWGDLPSNLYSFLILSKFEQSNIFTTLLSSTSSLSADYSLESRINSFEQILNNNENYAQ

ISISVNFINLENNQIIAHKIFNTKEKIEKKDIRSTYNAFQKALNKIGNEIVFWVNSNLS

>AHK54350.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENRANYFFVGLFVFGVFFASLGFILWLGGYSKEESFKYYEIHTQESVAGLGIKAPVRLLGVEVGSVEEI

SIYNQDELGVNIRIKVKNNTPIKEDTFATLQLQGITGLKFIQLQGGSKNSKDLVSMQGKLPVIPFKESFL

ATIDRQSEHIFSLVKTADDKSKELLSEKNLKNLEILLQNLAELSANLNANSKNLSLNLSNASLKIGKMAD

NISLSAQNFNSSLKNIKESTMILKNFIKKADEKLNTYDDIKASLMQNLELFKRVLIESNILIENLQNSPA

DLIFKETKPKLGPGEK

>AHK54349.1 phosphate ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVIKAQNIITKFGEKIVHDGVSFEIKKNEIFGILGGSGSGKSVLLKQMLMLEHFDDGEYEILGYKLKNIN

EEDALALRKKWGVVFQFAALFSFFNVYENIAIPLKEYTHLDENSIQELVLMKLKMVGLNESVLKQFPSEL

SGGMQKRVAIARALALDSKLLFLDEPTSGLDPHSSREFDDLVLELKKSFDLNIILVTHDKESMKNLLDRF

IILENKKVGFCGTYEELRLQNERLFKRFME

>AHK54348.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNTNFKFQNNTLFIFGIWDKTSIYKLKIKDFLALIQSKEVIFDFKDLKAIDTAGVRFFLALENDLKNKNI

KITKEGLNSRFQTLFELCEKNYQRLGKTKKSHQNFSEYFIDLGKLSLELLKILRKFINFTGAFFTSLFLC

LKNPKNFRFIAFLYHIENSAFKALPIVILTALLVGVVLAYQAAYQLAQFGANIFIVDLMGISATRELAPL

IAAIVIAGRSASSYTAQIGVMKITDEIAAMNTMGFRSFEFIVIPRVMALVVAMPLIVAISDAISIIGGMM

VAKLNLDISFAEFLRRFREAVDIKHIFIGLAKAPIFGFLIGLIACFRGFEVKNTTQSIGIYTTKSVVNAI

FWVIAFDALFSVILTSTGI

>AHK54347.1 transketolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNIQILQEQANTLRFLSADMVQKANSGHPGAPLGLADILSVLSYHLKHNPKNPTWLNRDRLVFSGGHASA

LLYSFLHLSGYDLSLEDLKNFRQLHSKTPGHPEISTLGVEIATGPLGQGVANAVGFAMAAKKAQNLLGSD

LIDHKIYCLCGDGDLQEGISYEACSLAGLHKLDNFILIYDSNNISIEGDVGLAFNENVKMRFEAQGFEVL

SINGHDYEEINKALEQAKKSTKPCLIIAKTTIAKGAGELEGSHKSHGAPLGEEVIKKAKEQAGFDPNISF

HIPQASKIRFESAVELGDLEEAKWKDKLEKSAKKELLERLLNPDFNKIAYPDFKGKDLATRDSNGEILNV

LAKNLEGFLGGSADLGPSNKTELHSMGDFVEGKNIHFGIREHAMAAINNAFARYGIFLPFSATFFIFSEY

LKPAARIAALMKIKHFFIFTHDSIGVGEDGPTHQPIEQLSTFRAMPNFLTFRPADGVENVKAWQIALNAD

IPSAFVLSRQKLKALNEPVFGDVKNGAYLLKESKEAKFTLLASGSEVWLCLESANELEKQGFACNVVSMP

CFELFEKQDKAYQERLLKGEVIGVEAAHSNELYKFCHKVYGIESFGESGKDKDVFERFGFSVSKLVNFIL

SK

>AHK54346.1 geranyltranstransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLKELFIHHLEKNLPKVESFHPFFNEALALMLKAGGKHFRAQLLLSVVQSNKPELLNQALDVALALEFI

HTYSLIHDDLPAMDNADFRRGIPTLHKSYDETTAILVGDALNTEAFLVLSHAHLKDEIKIKLIKTLAFNA

GLNGMVIGQAIDCFFEDKRLSLNELEFLHTHKTARLIAAALKMGCEICELNNEESNQIYKLGLKLGLIFQ

INDDIIDVTTSQEQSGKPTNNDIHKNSFVNLLGLEQAIKTKENLLSECEQDLEKLNEKLAQMIQNLIIQY

L

>AHK54345.1 peptide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILIICMLFTLSFGIERPKFEDFLAGYERNKASMLNYEGMPAFALSENLLAVLKQPNAKLNKYVKYDP

FLNLYLVRTDFSLIPTPMGDEEKLTRNDWVGIWDPNKPYIGHIKYLAQNIDEKDQLDFNSKIGLLGTPCC

EMMGIALNNSSFIGNRYLKHFMKYNDVYWGDIGVDFVVRENKIYVNNVRKNPQFLINDQVISVDGLPAND

LRKLNEKILFADRGSTLYFQVLRDNMDLNISTEVFAKDLSKFNLPDSKPKPKITNFTSNLGLTVNASLVV

TKIDPKSKVSNAGFMVGDKILRVNNIILNNFKELQNILSAGNDFSILIERKSTKLPLSNFNNELGGNANS

GGDGKFQFFIRLTK

>AHK54344.1 hypothetical protein N919\_08180 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFENMDFSKMGELLNQVQEKAKNIELELANREFSAKSGAGLVKVSANGKGEIIDVSIDDSLLEDKESLQI

LLISAINDVLAMVAQNRSSMANDVLGGFGGMKL

>AHK54343.1 UDP-N-acetylmuramoylalanyl-D-glutamate--2,6-diaminopimelate ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLKLENSFITDNTLECEKECFFLQTTQNAKFHAQALEKGAKIIDVNECKKLLKIDEKIQIIGITGTNGK

TTTAAAIYSILLDLGYKCGLCGTRGAFINDEQIDEKSLTTSPILKTLEYLQIATQKKCDFFIMEVSSHAL

VQNRIEGLNFAAKIFTNITQDHLDFHGTFENYKEAKELFFTDESLKFINKDALAIKFNVRNAFTYGIENP

ALYQIKAYSLEEGISTIVTNKNQTFHIDSPLLGLFNLYNLLVASACVNELVKPDLKDLEKAISGFGGVCG

RVEQVAKGVIVDFAHTPDGIEKVLDTLKNKKLIVVFGAGGDRDKTKRPLMGKIVEHFAKIAIITSDNPRS

EEPKTIMEEILSGFTKKEKVLMIEDRKEAIKKALELKENDDLVVILGKGDETTQEIKGIKYPFSDKVVVN

EILKNQG

>AHK54342.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNYKKLGIEHFYKKDFKTAKMYFSMAYEKRKNKRLLNFICLCDLALKSPKEASLLFDFYIEHYKISSID

KDLEEILSTIEFKKQENKQENEFEDGHALNYQDFLKSEEELGFQKSFENIINSTKLVIDNRDDFLDFLEK

LLDNGYKDMTLNYIENVMPHFWANDRFIKLQEKLMGFKSEIKT

>AHK54341.1 nitrogen-fixing protein NifU [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMPFSDEELINPVKASLEKSLPMLERDGGGLEFLGIKNGIVYVHLIGACKGCASSGTTLKYGLERQLKID

IHPEITIINLNGGADEFAKL

>AHK54340.1 DNA primase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MITKESIENLSQRLNIVDIIENYIEVKKQGSSFVCICPFHADKNPSMHINPIKGFYHCFACKAGGDAFKF

VMDYEKLSFADAVEKVASLSNFTLSYTKEKQENKKELKSILPSLNAYFKDNLKHHKEVLTYLYQRALNDK

DIAKFELGFAGASEDSIRLLQNQKIPLEDAMSVGALKKDENNEFYASFIWRITFPIYDHKDLLVGFGGRT

LNPNVPAKYVNSPQNILFDKSRIFYAFNIAKENIAKKKEIIVCEGYMDAIAFHKAGFNNAVAVLGTALTE

HHLPLIRRYDAKVILCFDNDEAGLKAATRSAFLLSTNKIDGKVAILQGGKDPAELVAKNESTKLHNILDE

GIELGEFYIRRLISTHSIISALDKQKALETIQKFTFNLEPLVANSYTSLVSNLLKVDEKFIVLSQNSKKT

IQTPLISQNKYNFPKEKIHIAELELIAFLKQHPDICNDFKQISDSVCFKHKILLDKILEKKGYEDSDIRE

FESKNIRKNLNYSEFLLGICKVNLAFLNNVKIKNSTLALKKQLFTLIDKNLNLLIKNLNTAELNNFLKEY

LSFLKYEKNEEILQQSFRNLNGIFGNKNFTAYDLGFSIQNNDEPF

>AHK54339.1 hypothetical protein N919\_08155 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDFFFVEYRDPLVGLIILTILVFVVAVANYIWKIFANKDEEQKLEKFIKKFEMDNAHKELLRNSSLSFGN

LSFLAEIFTKSGEFEKATQIYLIALEKCKDKQEREFIFLSLAKVYFKAGFLERAKEVLLQALKLRPRNIQ

ALKLLKIVYLKLRSYKENLELLECLFELNEDVQKERDFIKALELCTFNITDEEKKKKLLEFKIEDNPMLG

RLVFEKYHMFLGQNFFDICDLLYRENEAFNLENQDFLEFFYALGKISKHDDTHQFVFKNSNFKMLKILKD

NSFNAGLEFSYRCSECKNVMPLFFYHCPVCYEFNTCKIIYEVKNNETH

>AHK54338.1 ribonuclease H [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKHIEIYTDGSCLNNPGFGGWAYILRYKEYQKEGFGAEANTTNNRMELMAIIESLKALKEPCEISLFTDS

NLMVQSINEWLEGWIKKDFKGKKNIDLWKEYIKVAKSHKIKAFWVKAHNGHLENERCDTLAREAALKIAR

ENDEKH

>AHK54337.1 ribonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAVLDLVVGEYLFHKFAKDAEGDLSKL

RAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALEAIIGAIHLEAGFEFAKTIALRLIE

KNFPQIDAKILIKDYKTKLQEITQGKIGQTPQYETVRAFGPDHLKQFEIALMLDGKELARAIAGSKKEAQ

QMAAKIALEKLGAL

>AHK54336.1 chorismate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNTFGTRLKFTSFGESHGVAVGCIIDGMPAGVKFDEEFLQNELDKRKGGSKFATPRKESDKAQVLSGVFE

GYTTGHPIAIVVFNENAHSKDYDNLKDLFRPAHADFTYFYKYGIRDHRGGGRSSARESVARVAGGAVAAM

LLREFDICVQSGVFGVGTFVSNLKEEEFDFEFAKKSEIFCLDPKLESDFKNEILNARNSKDSVGAAVFTK

VSGMLIGLGEVLYDKLDSKLAHALMGINAVKAVEIGEGINASKMRGSCNNDALKDGKFLSNHSGGILGGI

SNGENLILKTYFKPTPSIFAKQESIDKFGNNLKFELKGRHDPCVGVRGSVVASAMVRLVLADCLLLNASA

NLNNLKNAYGLK

>AHK54335.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKALALFSGGLDSMLAMKLITAQGIEVKALNINIGFGSTSDKSEIMKKRAAMVGADFEMIDVRNSYLQEV

LFNPQYGYGKHFNPCIDCHAFMFKTALAMLKEENASFIITGEVLGQRPMSQRSDAMAKVKKLALDEEDLI

LRPMCAKNLPLTKPEREGWVDREKLEGIIGRSRKRQLELAAKFGLEDFESPGGGCLLTLDSFAKKIRDFI

EFDKDMQVNDAQLLKYGRHLRLPNGAKMIIGRNELENTLLKGLKTPKYEAIEIGDLIGAYSLVDEKISEK

DLELALKIALTYTKHEVGKSYELKFKNQAYTSIAFENKADINQFFIS

>AHK54334.1 hypothetical protein N919\_08130 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKIILVLSILSSFAFANSCANYEQELKKCNSLKNSHERKMCRLGLFAKCKKG

>AHK54333.1 hypothetical protein N919\_08125 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIDTSASLTHSLTNNVDKKELSVLKKEDQDKIPVQDLSSLNSDGVKVVFENKQGELIALNLSDENYSSL

QKNFGSYMNYVARNDGSIRLNGEVNQFVSNWFESVKDNFGSLNSNLNNKQQSVKLNFNTSTLQQSMQNLG

FKTSDEKISDDANIEEKLNFFIDKDVNKDGKVDDSDVKEPSMREILSDIKEASGGGANAMKTIDPQKINK

KDDKENNIKEKEDEDLLQKAQEKGLSALSADEQAKLEASNPEEFEKLKQKSLQELSQNLSKDFQNKIENQ

EAQIVDKRV

>AHK54332.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKLPKNEGLNIVPFIDIMLVLLAIVLSISTFIAHGKIQISLPSSENATNISNNEKKLLITIDEKNTFYL

NDKLADLNEVQNAIFSLDKKTIVELKSDKNAKFESFVKIIDFLKAKEHENFQILTEKNK

>AHK54331.1 biopolymer transporter ExbB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEFLKDYIDLIIFLILGIMAFIAFWCVVERMLFFRKINFKNYENQEQFDDAISENLTTIYIIYSNAPYIG

LLGTVIGIMVTFYEMGLAGNIDVKSIVVGLSLALKATALGLLVAIPALMAYNALLRKVSLLSNAYKANKN

A

>AHK54330.1 hypothetical protein N919\_08105 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTIDLNHNFTSFVLLDEVDFNFSELKSILEDKFNIKIADENFTKEGVIFSYENMLVTLNLINNPIPNHEV

EYYANFNFMWKDALEQTKKHKAHLLIAVLSQDQSKLEQAKMFTKIAALCLDNKHALGFYTGAVVLEPSFY

IENAKMLDDNRLPVYNWIYVSVYPSENGVNAYTYGLRNFDKLELEVCDLNIEEKELFFCIYDIVLHILTY

DINLKDKDILKFEDGKEIKFIKSQGISVENESLKIIF

>AHK54329.1 hypothetical protein N919\_08100 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKAKLTLLALLGTTVLLAKDMVVPASELPNNAKEFISKNFKTAQIGLVKKDIDSYDVILNDGTEIDFMIN

GEWKEVDGKYKALPHTILPNVMKKVSATQPNAQILEVDKEINGYKFKFNNNMEVYTDMQGNILGQKLD

>AHK54328.1 serine/threonine transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>AHK54327.1 serine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSNLSIFKIGVGPSSSHTLGPMLAGNLFCKKVAKKLDEIDRVEVTLYGSLSLTGKGHLSDKAVIWGLNGL

EAKNLSAAIQDEVNKNAIENAQIDFCGEKKLSFNYEKDLIFSKDFLPLHENGMKIKAYDCKGGLVDEETY

YSVGGGFVLTAAELEKKGKNSNQNKKKKLDIELNNAKEALELCDKRDWDLAELSYRYELQFHTKEEICAY

CLEIWEVMQEVYYNGTHPNEDYLPGKLHLKRRAKGLKERVAMTADPMGIIDFISLYAIAIAEENASGAKV

VTAPTNGACAVIPAVMLYLKNHTIGFSDEKVIEFLLTAMLIGSFYKKNASISGAEAGCQAEIGSASSMAA

AAMATVLGANAFKACNAAEMAMEHHLGLTCDPVAGLVQIPCIERNAFGAIKAISAARMAMTRKSTPMVSL

DEVIETMYETGKDMNYKYKETSLGGLATNLKTVC

>AHK54326.1 riboflavin deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEFYMNLALNEAWKYQFLTYPNPAVGCVILDKNEKILAIKAHEKAGLAHAELNAIAHAFKSLRPEISLP

KEANALHEFICKNHQGVFKDSIAFVTLEPCSHQGKTPPCAKLFSELGFKKIFISVKDENKIASGGAEFLK

KQGIEVEFDILKEEGKKLLKPFLKWQKGQFKLFKLALSMNGSPFGKIVSNELSRTYAHEIRAVIDLLVVG

GETIRKDCPILDARLCKAKAPNLCILSRQNIDNFDKNIPLFKVPNRQIYTQIPSEAKFLMYEGGENFLKI

FKDEIDMFLIFQSSSLNDEKNVTIPLNFKPLYRNFLGSDTYGIYEL

>AHK54325.1 hypothetical protein N919\_08055 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLAFFKGLGVGFLCLLLFVAGVVFNVEFLGKKDSNHDLYFSRNIEVSNTLKPDILYANINFWANENLSSK

ITLDNSEKAEITNTFNQILERSKKENFCSGGSFSLEPNFSYKDGIQTPKGQRFDANLECEFKENQLADFN

KLLNDINSIIAKNNFISVSTPAIQTKFSKDTLNNNKENLYKELLKTSYEYEKTYSLDLNKTCVLKNLQVN

ANTNIAPRMLNAKSDNIELSSPIISKKEQILNAKALFICK

>AHK54324.1 adenine glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKKELEKLQENLLLWYEKNGRKTLPWRNLQSQNCDESLKHIDRAYGVYISEIMLQQTQVKSVLERFYFP

FLQKFPTLESLANANEDELLKAWQGLGYYTRARNLKKAALECVDKFGAKLPKDVEDLKKLSGIGAYTAGA

IACFGYDQKVSFVDGNIRRVLSRLFALENPSMKELEKRAKELLNLNHAFDHNQALLDIGALVCVGKNAKC

RICPLYDFCQGKFHTELYPRAKKILYESLNLNLFLFEFNKKFAIQKSQDKLYKGMYNFPFFKEGEYKLSK

DMGFVGEFKHSYTKYKLNIKVYHQILNNENKNYEFKTLKELESTALSALSLKALKLIKL

>AHK54323.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFKKIYIELSDICGLKCDFCPSQKGIRGVMSEEKFQNLAYEISNKAELFTFHLLGDPLLLPNLENYLKI

AKDEAMKLEITTSGFYLNSKNQALLLGYENIHQINISLMSFLSQSKISLEQYFKPILELCKKHLEQKSLS

FINLRLWNLDANFKAPKSNLKIYEFLAKEFEAKIDANLSKNRLQRHILLHQNKLFKWPNLKDEPLYKKGK

CHALKEQIGILSDGSLVPCCLDTKADINLGNVFENNFDKLFRSPRIKMMKKAFEEDKRIEKLCQTCEFFK

ARLGD

>AHK54322.1 hemin transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILIIMSLFLIALNAKERLVVLDPASIETLFMLKAEDQIVGIATLQHSNIYPKDQTSKLTSVGTFSNP

SLEKIVALKPSLVILSSYSLNLEEGLKNFGIKSINLKAERLEDITKNITTLGQITKKEKEAELLKQEFNQ

KFKKLSDKPLNKSAIYLYSSNPLMAFNDNSLIADILRLIGIKNLSPQSQISRPVISAEYILKQNPDILIL

GINAKNNLLDTNALLKNTKAVKTGSIYFNKDTPILLRLSPKIIDRIQEFKTKLENNNF

>AHK54321.1 heme ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKIHNLSFAYHQKDLLKNIHLELKNQAFIGILGPNGSGKSTLLKLILKNLSPNKGVISLFNTNIKDFSL

KEFAKICGFVPQKSELNTPLKVIDVLLMSKYPNLKHAFSSYSKEDILEIKEFAKDLRLENFLERSILSLS

GGEFQRMLLARALLKKPKILFLDEPTSALDLNYAIELLNLCEKLVKEKNIAVVAILHDLNLASIFCDKIL

FLKEGEIKYFGTSKELFTQEILKEIYDLNCEIIYKNSKPYILALKEKK

>AHK54320.1 iron ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNLNTHSKILVIIGLLVAYIIASFTALCLGDENLNPKELFSYIFSQDEILRQIIIDGRLPRIIMAILIG

MLLASSGAITQNVFSNPIADPYIIGIASAATFGAVLAYLLKLNDYYYGILGFVCSAFFALGVFKISSKAS

IATLLIIGIAASSFLGAFTSFFTYLIGEDSFKIVAWLMGNIGNASWFRVGILILPLIFCLFYFYAHKNEL

NILLSGDDEARNLGVNAQKLKINLLIVSSLAVSFAVAFSGLIGFVGLIIPHTIRLLLKNYNNALVIPLCT

AFGGLFLLICDTLARTLLAPVQIPIGILTAFFGAPIFLYLALSARRFL

>AHK54319.1 ligand-gated channel [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHPNKKAFKLSLFALLLITNLNAQESNKAINLQKVVVSTTGFEQDADSNLRNVISIEGKDLQNKGYVSLE

QALERISSISFVNFGLGRNIDMRGQGNKSNIAVKVMIDGHAINVLDNSHGVTPLDSINLDNVERIEIIPG

GGSVLYGSGTRGGVINIITKKQKSDAFAINLKSSAYDHGGLGGNLGINGAKQINENLAFSFDIQSFNLDG

YQEGYNEKGYFINTKTYIDINDNSDLTLGYNYFKSKNTSSGYLTKAQAQSDPTQKGKSDNITQINRPEIS

LDYHYYFDDIWEFNLEAFWQNQKINYLKDVSTMSYMNMSLPVYQNGSGFEDTLTGISLKNKLNYANNSYF

IFGYEFANHDAKRKSLVYYSVPSVINYHRMTTLIDMTKQSHSIFALDSHNFNEFFTLSGGARYEFSSYNT

DRSYRNEMSMNGRPPSPTIIDSTTLFDTNKNANNFAFEITPNFKYSDTGKLYIKYERGFVSPSPAQFVNK

DKNSQKYYSANLNPEIFDTFELGIDDFWWDFYGFNLTLFYTLSKDEISYLGNPHSTSGSWWKYYNIDQTR

RLGVELSLSQNFLDDDLIFRESLTYLDAKISKGVNDGMRIPYVSKIKATAGLEYAWNKNFSNFIDLTYFS

RAKDGGTIDENTGKMSKNSWIRDYFLTDIGMKYNYKKLQILAGIRNLFDKRYYTYQDSINDQYLVGNGRN

YYVEFKYAF

>AHK54318.1 hypothetical protein N919\_08015 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFESIISHMNDHHKSNLVDLCKKFGGIEQVQDVFLKSVDFNGLDLVYNDKENLRVEFPKKADENTIKDA

IISLCMSAKSEQNFSGVEKELNEFMLSFNSVALATLNANGEVVCSYAPFVSTQWGNYIYISEVSEHFNNI

KVNPNNIEIMFLEDESKAVSVILRKRLRYRVNASFLERGERFDQIYDEFEKQTGGEGGIKTIRKMLDFHL

VKLEFKKGRFVKGFGQAYDIENGNVAHVGASGNPHKFLHKH

>AHK54317.1 peptide chain release factor 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLASKLDPFFKRFEELNSLLSSSDILNDISKMTTLSKEQKNLEPIVLKAKEYLKTLDNIEENKALLNDPE

LGELAKEELKTLEELKPKLEEEIKILLLPKDPNDERNIFLEIRAGTGGDEASLFVGDLVKAYARYAENRG

YKLEIVSSSEGSVGGFKEIIMLVKGTGAYSRLKYEGGTHRVQRVPQTESQGRVHTSAITVAVMPEVDDIE

IEINPNDLKVDVMRSSGHGGQSVNTTDSAVRITHIPTGIVVVNQDGKSQHKNKESAMKVLKARLYEMQES

ERLAKESEARKSQVGSGDRSERIRTYNFPQNRISDHRINLTLYRLDAIMQDGLFDEIIEPLITHHQAQAL

QEQNL

>AHK54316.1 30S ribosomal protein S20 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MANHKSAEKRARQTIKKTERNRFYRTRLKNITKAVREAAANGNKNAANEALKVANKSIHAMVSRGFIKKQ

TASRRVSRLALLVNKIA

>AHK54315.1 phosphatidylglycerophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKLFLTFFYSGSVKKASGTFGTIAALIPAFFILKYLGINTLFLLSILIFVASIRVIDDYEKKTGIHDDK

HIVIDEVAGVFLACAIAASVENSIVNFILAFVLFRLFDITKPSIIGKIDKKVKGGLGVMLDDMLAGLFAG

LLSAVIYGFLLKFNLVFWDINLKDLF

>AHK54314.1 sulfate adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKSARKNKNIIIDQNEFGILSLIKEGLLGTCTHLMNEKEVNEIIKSGKFKGESFPYPLSFAPKNAEEALN

DIKSGDRIDLMLDEKVVGHIDFKSQFKNNKNFSDIFSPNTCSLEDMGTTCISGKIEIYNSQIEKIKENFQ

QIKNNLNAQKITAIVSSFDPLHRAHERMFRWTIDKADLVVIFLVESFDVNGFEFELKEAYLKKFIQNYLP

PDRIFIFPLKNINIFHAHLNPGLESIIAKSLGCTKLVVGQNHTGLGMFYDDNQPKTILDDFSKDYGIEVI

VLPEFVFCDQCRMIVSTRSCPHGCHHHLHYNSQSLKDLLRAGIIPPAIFIRKEVSSVILTSLFPNRLKNM

QKIYNELFPTDGILEYKNDEEFYQKLLEIHQMSYMV

>AHK54313.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVLIIENEIYLAQSISIKLSDAGYSCEIINSFDEYNGEKYYDIILLSTNTNNFLKAVGQFKHSIIILLI

SYISTDTVSNPLKLGASDYIQKPFMIEELIRKIKHYQDFRKLSILNKAYQSYIKSRLETIKIPEYNYKKL

KLPLILKSNKQSSADAFVFNYANECDITLSFIDLTSTNSVEKVMKLPTENNLLFLSNFQALKAAEKEKLL

DFIQNKNVILHTNSNTDDLKINCINLNDNEKNINSNEILTIDEYVKYVIINYQNIFPDTDLSKKLGISRK

SLWEKRKKYEISKKK

>AHK54312.1 2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSEMSLIMLAAGNSTRFNTKVKKQFLRLGNDPLWLYATKNLSSFYPFKKIVVTSSNITYMKKFTKNYEFI

EGGDTRAESLKKALELIDSEFVMVSDVARVLVSKNLFDRLIENLDKADCITPALKVADTTLFDNEALQRE

KIKLIQTPQISKTKLLKKALDQNLEFTDDSTAIAAMGGKIWFVEGEENARKLTFKEDLKKLDLPTPSFEI

FTGNGFDVHEFGENRPLLLAGVQIHPTMGLKAHSDGDVLAHSLTDAILGAAGLGDIGELYPDTDMKFKNA

NSMELLKQAYDKVREIGFELINIDICVMAQSPKLKDFKQAMQSNIAHTLDLDEFRINVKATTTEKLGFIG

RKEGMAVLSSVNLKYFDWTRL

>AHK54311.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEQILEKLKTVKYPGFEKDIVSFNFVKDIKIQDDGVFIDIEIVSANPEVANEIRKNTIEALSSLALKNI

ELNIITPKIPEEKSNSRSGKNIAPQVKNFIMVSSGKGGVGKSTTTVNLAISMAKMGKRVGILDADIYGPN

IPRMLGETKTQPEVVGQRLKPILTHGVYMMSMGVLIEEGQGLMWRGAMIMKAIEQLLADVIWPELDVLFL

DMPPGTGDAQITSAQSIPIAAGVCVSTPQTVSLDDSKRALDMFNKLHIPIAGVIENMSGFLCPDNGKEYD

IFGKGTAEDMAKAYKSEVLAQIPIEMIVREGGDEGKPVSFYHPESVSSKRYLMAAEKIWSFIEKINNEGG

ADNSAIQPVMNGKSACSH

>AHK54310.1 2,3,4,5-tetrahydropyridine-2,6-carboxylate N-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINTKEDFLLLIKQIEQKSGYKKPKAFGIARLDRGQLNKNKILQASFALINYEQNFGSAAIMLEAFMQRG

VEIDFNASEFVQTLKLEDIDFALSCFKPFLEEDGHQNIDLLKIIKDKFKDDEFSFVCLFEDKEPLSVESI

YLKLYLLSTKKVPLRSINLNGAFGLLSNVAWSDDKPIELEYLRANEMRLKMSNQYPKIDFVDKFPRFLAH

IIPEDNTRILESSKVRMGASLAAGTTIMPGASYVNFNAGTTGACMVEGRISSSAIVGEGSDVGGGASILG

VLSGTSGNAISVGKACLLGANSVTGIPLGDNCIVDAGIAVLEGTKFLLKDAEELAKLNPYFNFDKEIYKG

LELKGLNGLHFRQDSISGAMIVALNKKAVKLNEALH

>AHK54309.1 phosphoribosyl-AMP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNFKELNEKIAWQKVDNLLPVIIQDAKTCEVLMLGFMNNEALEKSLESGKVVFFSRTKQRLWMKGEESG

NFLNIIDLSLDCDNDTLLILANPVGPTCHTGDISCFEKISKNADFVFLARLEKLINARKNADENTSYTAK

LFKSGTKRIAQKVGEEGVETALAATVKDKEELICEAADLMYHLSVLLADANLSFSDVISKLKERHKA

>AHK54308.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLTKRIIACLDVKDGRVVKGTQFKNHKDMGDIIELARYYSQNGIDELVFYDIAASARKERISREWVSEVA

KNINISFCVAGGIKSEEDAAELLANGADKISINSPALNDPSLITRLAKSFGVQCVVVGIDSFKDENGNLK

VFQYTGDEKTSKHSGKSTLEWVKKVQDLGAGEIVLNMMNQDGVKNGYDLEQLEAVYKICKVPLIASGGAG

KMEHFLEAFKLGIDGALAASVFHQKLIDIKELKIYLKNQGLSIRI

>AHK54307.1 HrgA protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSSKLSYKELTLEILKQSDRPLSVNEIWQKALEQGLDKKLSSIGQTPIATLGARIYVDIKELQHNSLFIK

ASQKPTTFWLKERENELLKLDNKNEITNEKQEKNKFHERDLHPLLVKFLYENLDFNLNCKTIYHEQSKKG

KGGEDKWNYPDIVGVYFPYDDYEKETITLLENIKQNSYKLFSFELKIALNFSNLKECYFQAVSNSSWANE

GYLVVLQEIDSEVLSELRRLNQSFGIGVIKLEKDISNSQILISAKEKELDIQTLNMLINKNPNFKEFIDD

INKQIKVGKEAKIQANFDEIKSDEEMEKYLKEKCILEK

>AHK54306.1 1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)methylideneamino] imidazole-4-carboxamide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTQIIPALDLIDGEVVRLVKGDYEQKKVYKYNPLKKFKEYEKAGAKELHLVDLTGAKDPSKRQFALIEKL

AKEVSVNLQVGGGIRSKEEVKALLDCGVKRVVIGSMAIKDATLCLEILKEFGSEAIVLALDTILKEDYVV

AVNAWQEASDKKLMEVLDFYSNKGLKHILCTDISKDGTMQGVNVRLYKLIHEIFPNICIQASGGVASLKD

LENLKGICSGVIVGKALLDGVFSVEEGIRCLAN

>AHK54305.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIIIIDTACANLASLKFCLDRLGFNATISRDLKELESADKLFLPGVGTAKEAMKNLEQFNLIDFIQNTK

KPLLGICLGMQILGNFSEELNQETLKLIDFTTQKFKAKEGFTFPHMGWNEVYSSHALFKGLEGAYFYFVH

SYCVGLGKYTIADCEYSQKFSASVMKDNFYGVQFHPERSSEAGEILISNFIKDIG

>AHK54304.1 imidazoleglycerol-phosphate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSQKILFIDRDGTLIEEPKSDFQIDTLEKLRFEKDAIPTLLKLKKFGFKFVMVSNQDGLGTPSFPKENFE

IAHEKMLDILKSCGIEFQDIFICPHFENENCACRKPKTAMLEEYIKHELYDKEQSFVIGDRESDMILASN

LGVRGLKYGELSWKEIENEILSSFRSASYQRTTKETDIKVKVCLNGGKVSIKTGIDFFDHMLEQIAVHGG

IGLEISCKGDLEIDEHHSVEDVALALGACIKKALGDKIGIARYGFALPMDECLASCAMDFCNRPHLVYKA

KFKKSHLGALSTEMIEHFFYSLSYAMGVSLHLKVKGKNDHHKAEGLFKAFAKALKMAVKIESENLASSKG

VI

>AHK54303.1 bifunctional histidinal dehydrogenase/ histidinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQILVYDNLDEKQKEEALKRPAISAKDEISKIVSSIIKEVQEKGDKALIEQALKFDKAEISKIKITQEEI

TQASNRLDKDLQEAILVAYENIKKFHEAQIPHEIALETTKGVKCEVLTRPIEKVGLYIPGGLAPLFSTVL

MLAIPAKIAGCEKIVLASPAKINDAVLFCAKLCGVDEIYQMGGAGAIAALTYGTQSVLKVDKIFGPGNAF

VTEAKRQVSSDINGAAIDMQAGPSEVLVIADDLANEKFVASDLLSQAEHGADSQVILVCLSQDFAKKASD

EVQSQLELLPRKELASKSIANSRIIIAKDLNQALEISNLYAPEHLIIQTQNPRELLKGVKHAGSVFLGAY

SPESMGDYASGTNHVLPTYGLTKTHSSLGLADFSKRMTVQELSKEGFLALGKSVEILAQNEHLDAHKNAV

TFRLESLK

>AHK54302.1 ATP phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQENTRLRIAIQKSGRLSKESIELLSECGVKMHIHEQSLIAFSTNLPIDILRVRDDDIPGLIFDGVVDLG

IIGENVLEENELERQSLGENPSYKLLKKLDFGYCRLSLALPQENKFQNLKDFEGLRIATSYPQLLKRFMK

ENGINYKNCTLTGSVEVAPRANLADAICDLVSSGATLQANNLKEVKVIYESRACLIQKENALSKEKQALV

DKIMLRVAGVMQARESKYIMLHAPKEKLDKIQALLPGVERPTILPLAHDEKNVALHMVSKENLFWETMEA

LKEEGASSILVLPIEKMLK

>AHK54301.1 50S ribosomal protein L17 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRHKHGYRKLGRTSSHRAALLKNLTIALVNSGKIETTLPKAKELRGYVERLITRARLGDFNAHRAVFASL

QDKNATNKLVTEIAPKFKDRNGGYTRIIKTRIRRGDAAEMAFIEFVA

>AHK54300.1 DNA-directed RNA polymerase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRNITTSAYTPTEFTIENISDTVAKISAWPFEIGYGITLAHPLRRLLYTSTIGYAPTAIHIDGVAHEFDS

MRGMLEDVALFIINLKKLRFKIKGDSNKEIVEFSFKGSKEIYGKDLNNDQVEVVNKDAYLATINEDAELK

FTLIVEKGIGYVPSEEIKELINDPKFIALDAFFTPVREATYDIEKVLFEDNPDYEKVVLTVTTDGQITPN

EAFQNALEAMYKQLSVFDKITNVRSVIKNQATSNELENTKLLQNITDLNLSARSYNCLEKAGVVYIGELA

LMSVSELAGLKNLGKKSLDEIKNIMESIGFPVGTSKLSDNKEILKNKIAELKAQNEG

>AHK54299.1 30S ribosomal protein S4 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MARYRGPVEKLERRFGVSLALKGERRLAGKSALDKRPYAPGQHGARKGKISEYGLQLREKQKAKFMYGVS

EKQFRRLFAEAARREGNTGVLLIQLLEQRLDNIVYRMGFATTRRFARQLVTHGHVLVNGKRVDIPSFRVE

AGAKIEIIEKSKNNPQITRAIELTAQTGIVAWVDVEKDKRFGIFTRKPEREEVVIPVEERFIVELYSK

>AHK54298.1 30S ribosomal protein S11 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKRKIVKKKVVKKNIAKGIVYISATFNNTMVTVTDEMGNAIAWSSAGGLGFKGSKKSTPYAAQQAVEDA

LNKAKEHGIKEVGIKVQGPGSGRETAVKSVGAMEGIKVTFLKDITPLAHNGCRPPKRRRV

>AHK54297.1 30S ribosomal protein S13 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MARIAGVDLPKKKRIEYGLTYIYGIGLFTSRKILDKVGISYDKRVHELSEDEAAAIRKEIQENYMVEGDL

RKQVAMDIKALMDLGSFRGLRHRKGLPVRGQKTKTNARTRKGKRKTVGAKS

>AHK54296.1 50S ribosomal protein L36 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVRPSVKKMCDKCKVVRRKGVVRIICENPKHKQRQG

>AHK54295.1 translation initiation factor IF-1 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKDDVIEIDGTVLEALPNANFKVELDNKHVILCHIAGKMRMHYIRIMPGDKVKVELTPYSLDKGRITFR

YK

>AHK54294.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRKSKFGTKEIKILGLSSLGGTLEFYDFIIFVFFAEYIANVFFPKDMSEFWALLNTYGAFAAGYLARPLG

GIVMAHFGDKFGRKNMFMLSILLMVLPTFVLAFIPGYETLGFLAPVLLILIRIFQGIAIGGELPGAWVFV

REYCQEKQKAFFLSCLNSAMALGILLGSIVFLIINAFFSIEEIAAYAWRIAFFVGGIFGIISIYLRRFLQ

ETPVFKQMKKESSLSSFPLKDLFKEKDIVKNLFSSMMMTWVLTGCVIVLVLLMPKFMPSILNLSGVEGSY

LQILGILGIALGGAFMGYLVDKFGLFKICIFFSLTFVFFSFLYFYALYELKNLVLVCILYSIICFLGGIN

VFAPILMSEVFRAKIRFSGISFSYNISYAISGGITPQLVFWLNTLASKNENPFLYGMSIYMIFLALLAIC

AVFIVKDKIKF

>AHK54293.1 multidrug ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPFIMELLKQNKLKLISFLLFSFITSAVGVLTLVFINDYLLKNAQNIPIFYFIVLLLIFFISSTIVELGL

SIFGQNFIFKMQRRVVKQILDTPLLRVAKVGKARILASLGSDVRNISFGLLRLPDFLQSSILILCTSVYL

CYLSPQIFALCVVWIMVIFITNNFLMMKVYQYFRKARENDDALQNNYQNILDGHKELLINRDRAKLYYED

EFENNARLKKKNSTLGNLFNNLSNNWTNVTLLALVGVEFYLALKFEWASVADATTIALSILFLRTPLVSM

IGSFPTLLLAKIALDKIAKLELDDYIEGFKKTHYISEWKKISFRNTQFAYEENFHLNPVNIELKKGELVF

LIGKNGSGKSTFCMLLTGLFKPSKGGIYVDDTLIDDKNLDEYRSLISAVFSDFHLFTKTLNKENFASEEK

IAFWLEFLELKNKTSVKDNELTLTKLSTGQKKRLAMLIALLEERDILVLDEWAADQDPVFRRFFYKKLLP

LLKEQGKTIFAITHDDAYFDSADRIFLAQNGEISELKGENIKELAKNLVEKFD

>AHK54292.1 globin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKEQIQIIKDCVPILQKNGEDLTNEFYKIMFNDYPEVKPMFNMEKQISGEQPKALAMAILMAAKNIENL

ENMRSFVDKVAITHVNLGVKEEHYPIVGACLLKAIKNLLNPDEATLKAWEVAYGKIAKFYIDIEKKLYDK

>AHK54291.1 peptide ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLRWFVLLFLLFLNLEAKIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKS

WDISKDGLVYDIFLRDDVLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLF

KPYPAFLDALSIGMLPKHLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLI

IKHIFDPSIASAELKNGKIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALN

YAVDKESIVKNLLHDYAFVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEF

EIWAMSNDPLRVSLAGILQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQD

SALNDEGWNFGHYHDKKVDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGI

KTRTLGHHGVGFTWNVYEWSK

>AHK54290.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKRLVFSIFIAFFSTFLCFVLLHFSKGSIAYANGVNSQSKEFVQRIEQNLGLDKPLLEQYKIWLFKALK

GDLGVSFLSGESVLKLIKERIFNTFILGFSALMLLFLLSVFLALLGYYYKESFIDKIITFLAFNFFALPP

FVLALLFVLIFGIFWKILPVMGSSDIGFEDDFLNRLEHLILPVLVLVLSHLALFLRIARNFINESFSQIF

IQNLYARALREKDIYFLVLKYSLSPIVAYFGGSALSFMMGTYVVESVFAYKGLGSLLFKSIIFKDYPIVL

ALIFFSVLLAAFFTFLSDIVARILNPRLRRLDFV

>AHK54289.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFKFLIILAPLIFLFLCALFAPFLALFDILSTHLENLHQAPNFTYILGTDFLGRDLFSRLLFALRNSLII

GVGGSLLSIIFALCYLFLARCFFYVFCMRILEFFLALPAFLLMMFFQSMITSDVFLMIFLIALIHWCFIA

RIIESELKRLENLDFYKANIVLGRTKFRAFFKDLIPALKTLIFTLFIFNIVHAIATEATLSFFGLGLGFE

IPTLGTLLSESSKAVFIGAWWMILFPLLSLLLLFLPLLWLGNFLQKIWGIRS

>AHK54288.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVRNLNISSKNNLLLKDINLDIKTGKTLMILGQSGVGKSLLGKALVRLLDSNFTISFDELSFHNSCIFN

FNKEELRNFRSKVALVLQDAELSLYPYLDIGNLCHLVLKTHTKLKQKERKDYAFSYFQKLGFENLDRLWH

SYANELSLGMARRVSLALALLNQPQILICDEITASLDKENASKIISILKELKNTTALVCITHDLNLVNSL

ADEILMLEKNSSNLYSLNEFLRYYNA

>AHK54287.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKVCNLSKFYELKKHWYLKKERHIIFDNVNFSLNENDNLIILGKSGAGKSTLARILCFLEDPSEGEVWY

ENLNLHKLDKNKQRLLRKQIQYCFQDQKMALNPYKKIKNLIQDGLENFNLQKNDDLILEFFDFFSLKKQI

LEQKSYELSGGEATRVGLIRALVLNPKLLILDEITSAFDIKTSKEILTFLYDYQQKNNISYIFITHQSDL

FYKFNHKKLKL

>AHK54286.1 NADH dehydrogenase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSHIDASHPYFGIFLMLVLASVIFFGLVFLASKIGNNFAAKNRKKLGLGIYECGPIPVKQANKINSQFFI

IALIFILLDIEVVFLFPWALIFKDLGWFGFLEVFVFIVLLGVGFLYAYKKGAFAWQSIK

>AHK54285.1 NADH dehydrogenase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAEHQVNYASGLPVVLTSVDKLVQWGRSNSLWALSYGLACCAIEMMAAGGSRYDFDRFGTIFRASPRHSE

VMIIAGTLCKKHAEFTRRLYDQMPDPKWVISMGSCANTGGMFNTYSTVQGVDRIIPVDIYVPGCAPRPES

FQFALMILQKKIRKEKASRKIAPKRLI

>AHK54284.1 NADH dehydrogenase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRKYSDKKNAQTQNYYKDRFYHAPHTVKSDVNESVFKEDFEVLKTQVEILNSFVELDFWVIEIKKEDNVK

TLQMLKTLGYLSFTEASAIDFIADKNGFEVFYQLLNLEKKLRVRIKTFVGVKERLQSVAHVFKGANWSER

EIYDMFGIFIINHPNLKRILMPDDWFGHPLLKTYPLKGDEFARWYEIDKIFGKEYREVVGEEQRDSGFAD

DKDTLNFARLYHEVPKGGQKKEISFKQEYQEDEGVAFVKKVKRDEAKILEKRR

>AHK54283.1 NADH dehydrogenase subunit D [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIPSKLKPYYENIAFEQEDSKMIINLGPQHPSAHGNLRLILELDGEQVVKARPCIGYMHRGMEKMAENM

IYQEFIPTTDRMDYIAASANNYAYCAAVEKLCGLEIPRRAAVIRMILLELNRITSHLLWLATHALDIGAM

SVFLYCFREREYVLDLIEKYCGARLTHSSMRIGGVMLDLPENYLEEMLAFCDKFPNDLKDYEDLLDDNRI

WRLRTENVGVVTKEQALNWGCTGVMLRGSGIKYDIRKEEPYLLYNEVEFGVPYATQGDSYARYKVYMQEF

RESLKILRQCAMLYKDTSPEILATHPEYVSASKEQILTQNYSLMQHFVLITQGLKPPKGEVYVPTESPKG

ELGFFIHSDGTGRPYRLKARTPSYWHCAFFEEMLVGTYLADVVAIMGNVNIVLGEIDR

>AHK54282.1 NADH-ubiquinone oxidoreductase chain E [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRRVDLRKSKELFEDLAQIIKEAKQGEVLVVLFEIGDFSPVEKSFSFVKEQGCELLNSLKFNQVDWTIVI

KKERV

>AHK54281.1 NADH dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIYDNALCFLDMPSLKNKNLCEKIGVNSINISCLEDKNLKAKFYKCEIASLSFVLALLCKLSDEGQFCDL

DEGYLSAESCFGEEEAGEVLAFLKEVKYLIIDKNIHSYKDSENIKYFLNFLSVKYGLKILDSDEEECDFK

KAKLNTLKELDNYDGLVLFRANLQDKNLHCSKQFLQIAKCKDQSEVEILAKDFSFKTKLCLDENLQGTIA

FLNYENNGFDFTPIRIKEAK

>AHK54280.1 NADH dehydrogenase subunit G [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTVKINGIDCAFEEGEYILNIARRNDIFIPAICYLSGCSPTLACRMCMVEADGKKVYSCNTKAKEGMVVE

SDLQNLWDERNEIMQAYCINHPLECGVCDKSGECELQNFTHKSRVNVQKHWIKDTHKPHKHWGMINYDPA

LCIVCERCITVCKDKIGESALKTVPRGGDSVDNSFKESMGKDAYAIWTKFQKSLIGPANGDTLDCSFCGE

CTSVCPTGALIGSKFQYTSNIWELKRIPASNPHSSDCELMYYDIKQSGISNQKEKIYRVSNDFAFASLNK

AARFAFDTQNEADKDEKAFKELVELFEKNEIKNIKFNSFITNEEALILQNLKKKFNLSLINEEALKFKEF

LQEFIANSGEFYSANTQDITKSDFLVVAGMLLRYDAPTLSYKINNALVMNKGSGLYFHPMEDMGIAKYSK

NFIPHIHKNGDEEQILYFLLQKFSQDEGIKTHLAEFFVSENKEIEESINEEVVEQVIEKDEEGNEIQKEV

KKVVPKKVKKIIEVQRSVFAKNLGIDEDKLEDLLLKKANFTLVAGSDFYFHKNAKKLAKLLALIQNTTPF

KVFLNPTHTNTLGVAMICDLDNNTQEGKTLGYNEKGDFSFSYEEHANLASASLNQQEGTFLNYDKRVVPT

NAALEFKGYFLNDLANALGFDEEYTINYTKRLPINKGFSPIDFDHLDNFYTNAGDCKRGYELNLECFKQV

AKKEFISPNFENLSLKEDEILLYSANPSYQFGRFSNRASAINEVIFLGVSENLAKEKNLKDKDLVKLKIK

DKELSLSVRVDKDIKNGAFLPYFDEKLDTLSFFDERFVVANLEKLGANHE

>AHK54279.1 NADH:ubiquinone oxidoreductase subunit H [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSDFAFFALETLIKCIIIIAIFASLAGLATYAERKVLAYFQRRIGPDMVGPFGLIQLVADMIKLFTKEDI

IPSNSQKFIFAIAPLISAICAFVSLAAIPMLPEFTLFGRVIQPIVADINVALLFVIGTSGLCFYAVFLGG

LASNNKWSILGAARGLVSIISYESVGALALIAIIMLVGSFSLVDINNYQSDGFFSWLIFKQPLAFVLFII

ALFIETNRTPLCLTENDAEIVAGYGTEYSGLRWGMFFIGEYTSMIAGAILVTLLFLGGFNSFWIIPGWIM

MIVKSSFIFFWYFWARAAFPQLRPDQVMKMCYLILIPLAVLNLLITALTVLL

>AHK54278.1 NADH dehydrogenase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNYYLVDEKRKTPVSTWEKISQALRRSVKLELFVGLFVMMRELLKRNNSATIKYPFEKVKLDNRYRAVH

RLMRFIESENERCIGCGLCEKICISNCIRMETSLDENGRKKVENYSINLGRCIYCGFCAEVCPELAIVHG

TEYENAAEQRSYFGYKQDFLTPIDKLKNQVEFEGAGSLRKDANLWVKKTPNYYDVMIERALENQNTQEQG

ENK

>AHK54277.1 NADH:ubiquinone oxidoreductase subunit J [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIENLAFVFFSVVVLGFFGIAVLSKNMLYSLSALAGGMVFLSGFYFLLDAEFLGVIQIIVYSGAVLGLYS

FAMMFFDASKEFKEQLKAKKSFFTLVVLSTILLLAMLIGFKYQNISTDLPLNDPALFDFNKQLALAIFSK

YLLAFEFIAILLLIALVCAIVLTHKELTKEKQ

>AHK54276.1 NADH-quinone oxidoreductase subunit K [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIEKYFFVAILMFVIGLVGILKRQNLIMLFISSEILLNSANLALVAASKMHNDLNGQVFALFIMGVAACE

VAVGVALCVLWYRRKGTLELKSLKEVEA

>AHK54275.1 NADH:ubiquinone oxidoreductase subunit L [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNLALISLFSPFVAFLFASCFALSEKKQFVGIICSLLVALSAFCSLYLLFCNEAFNVSLFEWFAGVNFG

FDIDAISLTMMSVVGIVATCVHFYSIFYMAHDEGFNKFFAYLGLFVFSMLFLVMSDNFLGLFVGWEGVGL

CSWLLIGFWYKNDTYSFAANEAFIMNRIADLGMLLGIFWLYLQAGTLKYDEVFSMAQSLDHNALILIATC

LFIGAMGKSAQFPFHTWLADAMAGPTPVSALIHAATMVTAGVYLVIRASTLYDLVPEVSYIIALLGAFVA

IFAASMALVVRDLKRIIAYSTLSQLGYMFVAAGLGAYGIALFHLATHAFFKSLLFLGAGNVMHAMNDKLD

IKKMGGLFKPLKITAILMCIGSLALAGIYPFAGFFSKDLILGYSFISFHHGIFLVLLIAAFLTAFYSFRL

LMLVFFTPARHDEHPHEASKIALLAMSPLMVLAIIAGFFEHSFFEYLSTKLVFIDAQNQIVMICASVAAI

LGAILAIFAYKNSWFKESIEENKIHKLLSNDYFIPQFYHQFIVSKYESLCAILKHCDLYIFDRIVEKIAL

YSQNISQKMIMPNSLNLMLRFLVAAFVILLILVWMV

>AHK54274.1 NADH-quinone oxidoreductase subunit M [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNYLIFFPLISAFVVLLLNRGGVKVFSVVVSFMILALNLDIFADFLQGVSFDYNLSFKILKFFSFHVGV

DSIALVLILLSSLMIFLSFLFLKLEQKALISCIFFLEFAIMGLFSAKDGLLFYVFWEFSLLPLLYIMGVY

GKDFRAGVKFFIYAFAGSILMLVALIYQAYLNYQLLNIFTFDLEIWKNNASAVNFTEQLLLFGAFFIAFA

IKAPLFPLHTWAPKVYANSPILVSVMLVVFKMAPFGFLLFCLPLFPDASVYFMPLIVALCIVSIVYNALI

AYRAENIKELIAYSSISHLGVMILGIFSLNALGISGAVFYMFAHGIVTGALFLMVELLYQRYHTYDISFY

HSLAKKAPLFSIFFMLILLASVSLPLTVSFVGEFLILLGIAKINLFYALLAGLVIILGAIYMFAVFRKIF

FMQKQSFIEGFSLLFREIVALVCIVVMIFGLGLMPNILLKPIQKDVDNLIKTMNIRAVEQNTLDFLSKIG

EANVK

>AHK54273.1 NADH-quinone oxidoreductase subunit N [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNNFLNLELLNISLSYPFLFLITTAIVLLLCSGFWKFHRSFYIGISSLSLIVSAFLILNNANAQGLEAK

AFLATLNNDIVSFYASLVILCFSFLYLLMQKEENQGEFYALFLFMIASLLLMVSSSNLVLIFIGLESSSL

ALYTLIAMRGSDNAISSAIKYFSVAAVGAGFFVMAVAFIYLKTGTLDLSANLALKNEFQKDPMLLGAGVM

IFVLCAIKLSLAPFHFWLKDVYYAAHTNLVAFISVVPKVAMLVVVIRLFDFLNNTGFEYIIIVLAIFSML

IGAFAALSQNNIKKMFAYSSVVHSSLVLVACIPLLKEQNFDGILLAIFGYWTLFAFANYAVFMILSNYEN

NSYESLNGLLVKKPLIAFCLSISVLSLAGIPPFGVFWGKFMILNTAILNGYWYLALFVALSSVIMLYAYL

KILIHALFMKNDRVHNIKFSFIQNFILAFCVCVSTFVILLML

>AHK54272.1 paralysed flagellum protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRILFLILLSFLNAFAFELVLNTGRENNQAFAVLHASNDLEFTCQKFITEAKVHFECDIVGMVDNKLKDQ

SFSAFDLKFIQEAQKIKMIILPKIQARMFDTSQNIYIDKELSSSSSHKSKAFTFIFTPELAPIKDYDGLD

FNINFPHESLPYVGALDLNSDPVVIPQSADINTYLRIKKEYDKANYNQVVIDAQNAINRYRGSIFTSEFI

LYKLRAQNKLYTQDPSMRDQQILEKMIDDAKNWTRTFTSDKNFSEVLHIMLRTYIALAQRADVEYTMSIL

DNEQPNNYFTQLSKLDYADYIYNLNEKEKAVNIYENTYFNTKNLDLAARAAMSLAKNLLSNEQVNKAIEY

INTILKANPEYFGKDIPRSLELAKLFNQKGQFDISASIYEDAFAKMSKLDPSYEETLKDLALVLSHANRS

SDAKKYLDLYMDDYLDGKYLDEIKKASDEVFFALGDNNASFLHQRYTDLMKQYANKDENIANKALDEDVA

LYYKEGNFSAILAYKDLIESKKIPNATQFLEKAAINDLKNAIKADNCINAANIFMRFSAYDIGQKIENKK

QMLACLIRTSNVEQALDYIDKNYNEDSIFYGLQKASILFDNKQYPQVIKISKDIANSRILKSDDENFKAY

YLQFLSLLRLNDYNQAIKILQILESFPMNFSMVEAYDALLSYANDHNMQTTILTYAPKAIDYQNFKGINL

FSPNLEFIYLDALTKINKNEESLAVLTDLLKLKLSDEDRARALYIQALTYERMQNIQAEKESLKQCLEIK

SASNWQNLCKSKNQILNQ

>AHK54271.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNSIKIKLSLIANLIAIFALIVLGIVSFYFTKTSLYESTLKNQTDLLKVTQSTVEDFRSTNQSFTRALEK

DIANLPYQSLITEENIINNVGPILKYYRHSINALNVYLGLNNGKVLLSQKSNDAKMPELRDDLDIKTKDW

YQEALKTNDIFVTPAYLDTVLKQYVITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTPGNTFLFDQKNK

IFAATNKELLNPSIDHSPVLNAYKLNGDNNFFSYKLNNEERLGACTKVFAYTACITESADIINKPIYKAA

FIQAIVVIIVVVFSVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFGQISNAINE

NILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARVGSDMNAIH

KIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLTTSSNSQAQ

SLEETAAALEKITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAGEHGRGFAV

VADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNVEIANESAI

ISSTVSDIANNILEDVKKKRF

>AHK54270.1 NADP-dependent alcohol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQYKILENNRIASKGYAMLSKDAKFTPFEFSRHAIGDNDILIKILYAGICHSDIHTARSEWGEATYPCVP

GHEIAGEVIAVGKNVSKFKVGDYAGVGCMVNSCGECDACKRSQEQFCENGKTIFTYNSCDVFHGNENTYG

GYSNNIVVSEKFAVCVPKDAPMEKVAPLLCAGITTYSPLKFSNIKEGSSVAVAGFGGLGMMAVKYAVKMG

AKVSVFARNENKKADALAMGVSSFYTSCDKNAVKERFDLIISTIPTPYNPAIYLDLLKFGGEMAIVGLPP

HEVAPSISVITFVHKAGKKVYGSLIGGIAETQEMLDFSLKHGIYPETELITPQEIDKAYENLTSGKAKFR

YVIDMTKE

>AHK54269.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKENSPCNFEECGFNYTLALINGKYKMSILYCLFRYEIVRYNELKRFLSSISFKTLTNTLRELENDGLI

IRKEYAQIPPKVEYSLSKRGQSLIPILQAMSKWGKKDKKGKKCLN

>AHK54268.1 NADPH quinone reductase MdaB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNILLLNGAKEFGNSKGQLNLTLHNHALEILKTLGYEVDQTHIDQGYDPKEEIQKFIKADAVIYQMPAW

WMGEPWIVKKYIDEVFGLGAGVLFKNDGRTHENPSKNYGKGGLDHGKKYMFSLTWNAPLEAFNDKNEFFE

GKGVDMVYWHLHKAHEFIGMKALPTFMCNDVVKNPQVEKYLNEYELHLKKIF

>AHK54267.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTRTKYLYILLVIAMFLWGSSWPTSKILANYTDTSIITFWRFFFVVLGSFFVLNFLKIPLKIEKTALKWV

LIAGVLNGLYAFVFFIAIKHGLAGKGGVLVTTMIPIFSYLIFMIAIFFQKNKKSTHKITKSEILGLFLGL

LSGFCLLNLGSLEDLFGKFNILFLTCSFIWALMAVFNHKAKGAHPLAINFYINLISILMFSWILFDVKSY

EIFHFEFKFWISMFVVAFLSTIIGTSIYYYGIHILGSVKANSFVLITPASALICSYFILDEVPNALTLLG

CALAIGAIYFINIYGKKA

>AHK54266.1 allophanate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSIKIIEASINSSLQDFGRKKFAKFGIARSGAMDEDALRMANILLGNKQDEAGIELCLKGGKYEFLDENY

FVLSGAEFEAKLDNQKIKTCKVYQANKGDILELDLAKIGFRGYLCVAGGFEVKSFLNSKSSDAKMGAGVF

EGRALQKDDILNTHNTFIPFNLEARECENPLFKSPKEPIIRVILGTNEDAFTQKGIETFLNTTYKVGLKS

DRMAIYAESSESIEHKNSADIISDPAVFGSIQVPKSGIPIILMAGRQSTGGYTKIATVIENDLSLLAQAK

LGSSFKFQSISMQEALELYKQREMKFKAMDQKINLDFENLI

>AHK54265.1 allophanate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFSVHFSGSKALLLRFEQEISPQINAYVLSTEQRIQKALKEGEIYGIDELVSAYASLLIYFNPCVLSLNS

LLDFLEKIKKDIKLAEQNSSLCIEVPLCYDEEFGLDLEFVCKHNQISKEELISLHTKPYYLVFMLGFMAG

FPYLGGLDERLFTPRLSSPRAKIEAGSVGIADKQTGVYPISSPGGWQIIARTPLEFFDKEDEKNPTLLKA

GMFLKFKAISKDEFFDIQEQVAKKVYQKEIYEYKNH

>AHK54264.1 LamB/YcsF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFKVDLNSDLGESFGAYKMGMDEEILKFVSSVNVACGFHAGDPCVMDETLNLAKQNGVCIGAHPSYPDLL

GFGRRNMQISFEEAKNYALYQLGALFGFAKAKGMKIQHFKAHGALYNMAAIDENLALALCEAVASFDENI

IFLGLSNSAMNEAAKKKGLRYANEVFADRAYNDDGTLVSRKLEGALIHDENLAIKRVIKMIKESKVTSIN

GKEIDLKADSICVHGDNAKALEFVKKIKENLKKEQIQICALENFI

>AHK54263.1 tungsten ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIISLALALALSASAAELKMATTTSTDNTGLLDALKPLYEKESGNTLKWVAVGTGAALKMGEDCNADV

LFVHSPKAEKEFMKKGFGVDRTPVMYNDFIIIADKSLASKFKGKNLKESLELIKNEKLTFISRGDKSGTD

NKEKSLWKNLGGVPEKQSWYQQSGQGMLASIKIAEEKKGVILTDRGTYIKYEANEKGKPNLVIVNEGDDS

LKNFYSVIATNPKHCKNVNYTEASKFIKWVTSDKTLNFIADFKLLNKPLFVIDAKTRKD

>AHK54262.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDYIFDGFKQALFLLFNADESVISAIKTTLLSSSISIVLALLIGFPLGFILGFFEFKLKRFIKLIVDTSL

SFPTVAVGLILYALISSRGPLGEFGLLFTIKALILGQFILALPIVIALFSNLIENMNKKHFLLIKSFHLS

PLKLVLTMIYELRFALISVVALAYGRIVAEVGVAMIVGGNIKYDTRTITTAISLETNKGEFASGIALALV

LILIAFCLNFITHKLKRT

>AHK54261.1 metal ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIEISNLFFNYQNKEVLKIKNLKLDTSKISILMGANGSGKSTFLRILKFLEGDFSKNISYFGNFKPNNKQ

KREIYLLFPEPILLNRSVRANFLFTLKTYGIKEDIEERIKESLMFLNLDESLLSKHPNELSSGQSQKIAF

AIALSVRAKYYLLDEPSAFLDKNTTLLFKKTILKMHENFNTGFLIASHDKHFLDSLAQKKLYLHSGEILE

FENTNVFELENQGVKFCNFIDFSNCKKYKDFKKPPSKIAIDPYKISFFNSKNIPKNNYDFILEKCYIIAL

RSRKSDVFIRVSCMDKILEFALEKQEFLRFDLKLYEELSLYFYEDAICFLN

>AHK54260.1 acetyl-CoA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNQNNQELFKPSKEFSRNARIKNLCEYYDLCDEAKEDFEGFWKRQAFEKIEWFSPFSRVLNEDKAPFYK

WFEGGTLNVSYQCLDRHMKTRRNKAALIFEGEMGDYEVYTYRRLLHETCKAANLLKKFGVKKGDRVVIYM

PMIPETAIVMLACARIGAIHSVVFGGFSPEALRDRIIDAGAKLVVTADGAFRRGKPYMLKPAVDKALSEG

CESVEKVLIVIRNNEPIEYIKGRDYVYNELVKNESYKCEPEIMDSEDLLFLLYTSGSTGKPKGVMHASAG

YILWAQMTMEWVFDIKDYDNYWCSADVGWITGHTYVVYGPLACGATTIMHEGTPTYPNSGRWWRMIEEYQ

ISKFYTSPTAIRMLHADAPNEPRKYDLSTLEVLGTVGEPINPSAWKWFYDEIGGTKSPIVDTWWQTETGG

HMITPLPGATPLKPGCATLPLPGIFAEVIDEEGNKKDEGEDGLLCITKPWPSMIRGIWGNDERYIESYFS

QAKKDGKAVYFSGDGAFYDKNGYITITGRTDDVVNVAGHRIGTAEIESAIAKHPSVAESAVVSILDTIKG

ESLFAFVVLSPASSCDLGGAIETLKELNDILRVEIGPIAKIEKILYTPGLPKTRSGKIMRRILRTIARGE

EIKQDISTLEDSKVVETIVKLAKAEFE

>AHK54259.1 UTP--glucose-1-phosphate uridylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLQTCIFPAAGYGTRFLPATKTLPKEMLPILTKPLIHYGVDEALEAGMENMGFVTGRGKRALEDYFDISY

ELEHQISGTKKEYLLDEIRSLINRCTFTFTRQNQMKGLGDAVLKGRPLVGDEAFGVILADDLCVNEEGLN

VMAQMVKIYEKYRCTIIAVMEVPKEQVSNYGVISGNFVEENLIMVNSMIEKPSPDEAPSNLAIIGRYILT

PDIFGILENTKAGKNGEIQLTDALLTQATNGMVLAYKFQGKRFDCGSVEGFVEATNYFYEKSKC

>AHK54258.1 glucose-6-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNNTLFFKQSEIHTISSYANRINDEVKSGDIGYYHLIDTSLNLIDESLQFIQDKEYVKNIVLVGMGGSS

CGVKALRDMLFNEKSNQRELFILDNTSSHSFNKTLEKIKLEESLFLIISKTGSTIEVVSLFKLLIEHFKL

DMQELKKYFVFITDKDSKLHQEGENLGIKCFFIPANVGGRFSILSAVGIVPLCFCGYNAKALLEGAKACF

EDFFTHKKDEILQKAYHYCTHKNANINVLFSYSDAFKGFNEWYIQLIAESLGKKQGYKRIGLTPIALIGA

RDQHSFLQLIMDGPKNKTVTFLKIKDAQKAPIIPDIHFKFLDSLSNKVNLHELLNAQCDATMHALIAENL

SVDVIELEKLDAWHAGYLMYYYELFTSTCGVMLGINTYDQPGVEVGKLILKNILNS

>AHK54257.1 DNA polymerase sliding clamp subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSVTKQLLQMQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEMAELFDSCAERVLQLGEKAITCQK

VLMENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLWMIG

ATLQGACKM

>AHK54256.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVLNFFYENHPKFEVSYERKNQISKPNIIIKGPRFCGKKTLIFNFLSQFKASEILFLDLYDTRFEKQSL

ERLADFLNENLQIKILCLYNLDFIPNLEKINIPIILSTNIKDLNVNGFEELELDYFDFEEFISVSKKNLP

INNLVGLFLQSGRSKFGEKNILLRQSFTLLELEILKYLALNLGQQISISKIFIELKKRLKTSKDSVYQAI

KKLENTYVIYTLKHDEKKLQKIYFKDFGLRNNLCISKDFSHLFENLVLSELFKFKEEFFYNKYFNFYSQI

SKIAYISSPTLDIDLIKLRAKKILPKALELGIFHVIFITLSSEDNFFEQGVKFEVISFDKFSLGF

>AHK54255.1 mannosyl-glycoprotein endo-beta-N-acetylglucosamidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKPIIIFFSLFLIPLFADDLKSGFGEEYYKLDIDQKRQIFFIKMNEMFDQSFKKIEQERAFIEAFFKDAY

KTGFRTSNQINLEKLITIKNKYRIENLYDFAEYKKRIQKIPKSMGIAQALVESATGTSRFAREANNLFGE

WTWGEKGLIPDLRHPDKKHKIKIFDSLQDSVDSYVLNLNRHFAYEKFRDARAKFESEGKEITGLEAIKTL

DSYSERKGYYINLITKIIKRYNLEKYDTNSNNT

>AHK54254.1 diaminopimelate epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFYKYCASGNDFVITNADRKEDRSALAKELCNRYEGIGADGFIVILPHEKYDFEWEFYNNDGSRAAMCG

NGSRAAAHFAHHINKINPNMSFLTGAGIIKAKVNQDKVEVSLGKIKSVQNTFEELGKTWQLCNTGVPHLV

HFCQNLDEFDTMLCQKMRQKYNANVNFVKILDENHLKVRTYERGVEDETLACGTGMGACFYLAFLNKKVQ

NKVKITPKSGEEVGFAYKNEELFFEGKVKYCFEANYNFF

>AHK54253.1 dephospho-CoA kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKIDRKI

LGEIVFNNKEAKKILENFTHPKIRAKILEQMQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPKELS

LKRIMQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNM

>AHK54252.1 phosphoribosylaminoimidazole synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKISYEDAGVSIDNGNTFVEAIKPLVKETFNDNVVGGIGSFAGAFRMPSGFKKPVILGATDGVGTKLRLA

IDAKKYDTIGQDLVAMCVNDLICNFATPLFFLDYYATAKLEVEVAKAVVSGIAKGCKMANCALIGGETAE

MPGMYAKDDFDLAGFAVGMAEEDEIDRSKFVKNGDILLALSSSGLHSNGYSLARKVLFESLKLKFDDKIE

GKNLIDILLEPTRIYVRDFLTLKPYISALAHITGGGLVENLPRVLPRGMGATIRKHHLKTPEIFYTIGQA

VEESEMYRSFNMGVGLVMVVDPSNVSKILENSDAFIIGEICINEGIVLE

>AHK54251.1 CRISPR-associated protein Cas1 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSYDEAFKTLLISSNAKLNLELNHLVIKQDENIAKLFLKDINIIVLESLQISISSALFNAFAKYKIILLT

CDETHSINGVFTPFLGHFQSAKIAKEQMNVSAQKKAILWQKIIKNKILNQAFILKKHNKIEQSNELINLA

KKVSLNDSKNIEAVAAALYFKTLFGTSFSRDELCFENSALNYGYAIIRACIIRAVCISGLLPWLGIKHDN

IYNSFALCDDLIEVFRASVDDCVLKLKGESEFLSKDDKRALIGNLQSKINFDGQNYPLNRAINHYVANFK

NALLYEDELKIVKFDD

>AHK54250.1 CRISPR-associated protein Cas2 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIEDKFMRVLLMFDVPTKSKKEQKLASKFRNNLIKLGYFMLQFSVYMRICKGLSSAKSSIENVKKILPPY

GNVRALIITEKQFDKMELLLGGIVFNEKVNNETNLTLFDIDSHGEFKYKNSNNEEIQINKKQEKYHQQNL

FEF

>AHK54249.1 molybdenum cofactor biosynthesis protein MoaA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLMSYEESLKILHSHIKTYEKIEKIALTECLGRILAQDIKAPKNQPEFPTSAMDGYAIKFEDQDKPLKIL

GLTPAGTMPQFSVQNGTCVKTFTGSLMSEGSDTLVPVENIRIENNTLFIEKKVPQAFAVRAVGENYKKDE

ILLKKGTRLNYSEIALLAELGFFHISVFIKPIVGVLSSGSEIKDLGEALENPAQIRSSNHIAIANLAKNL

NCDTRVFPLLKDDEKATFSTLESALQSCDILVTTGGVSMGDFDFLKKAIKEYEIIIDKADIKPGRHIKIA

KANEKFIIALPGFPYSAMVMFNLYTREILNSWLLQPKDYICKAFLQGSYKKKTPYLEFVACNIEFKNGRI

LANLEGKKEGSSAIINNLNNKAALMVVPKECEMLENESLVDIIFMP

>AHK54248.1 molybdenum cofactor biosynthesis protein MoaE [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKHFTLYQGSLDIPKIYSQWYEFSKDKNCGALLTFCGIVREEGGIEALSFDIYESLLKKWFDEWQKRVDF

DGISLLFAHSIGDVAIHESSYFAGILSKQRKLGLKLLNEFVEDFKASAPIWKYDVINKERIYAKERSTKL

CGAGLLKG

>AHK54247.1 molybdenum cofactor biosynthesis protein MoaD [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVKVEFLGPINKENLELEVKNLKELKEILQKDESLKEWLELCAVSLNDEIIFNENTKLKDGDKIALLPPV

CGG

>AHK54246.1 bilirubin oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNRRNFLKFNALTLASMGVAYANPMHDMHSMHKNHSINHDLDTSFINFAPKNLKLLDPKQFPQGEILKAL

PLLKNESKEKNIFRATLEIKENHIELIKGKKTLFYTYNGLVPAPKIEVFEGDKLEILVKNKLKEATTIHW

HGVPVPPDQDGSPHDPILAGEERIYRFEIPQDSAGTYWYHPHPHYTASKQVFMGLAGAFVIKAKKDALSH

LKEKDLMISDLRLDENAQIPNNNLNDWLNGREGEFVLINGQFKPKIKLATNERIRIYNATAARYLNLRIQ

GAKFILVGTDGGLIEKAIYKEELFLSPASRVEVLIDAPKDGNFKLESAYYDRDKMMVKEESNTLFLANIN

LKKEKLELPKNLKIFKPLEEPKEFKEIIMSEDHMQMHGMMGKSENELKIALASMFLINGKSYDLKRIDLS

SKLGVVEDWIVINKSHMDHPFHIHGTQFELISSKLNGKVQKAEFRAFRDTINVRPNEELRLKMKQDFKGL

RMYHCHILEHEDLGMMGNLEVKE

>AHK54245.1 carboxynorspermidine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFYEKIQTPAYILEEDKLRKNCELLASVGEKSGAKVLLALKGFAFSGAMKIVGEYLKGCTCSGLWEAKFA

KEYMDKEIHTYSPAFKEDEIGEIASLSHHIVFNSLAQFHKFQAKTQKNSLGLRCNVEFSLAPKELYNPCG

RYSRLGIRAKDFENVDLSTIEGLHFHALCEESAGALEAVLKVFEEKFGKWIGQMKWVNFGGGHHITKKGY

DVEKLIALCKNFSDKYGVQVYLEPGEAVGWQTGNLVASVVDIIENEKQIAILDTSSEAHMPDTIIMPYTS

EVLNARILATRENEKISDLKESEFSYLLTGNTCLAGDVMGEYAFDKKLKIGDKIVFLDQIHYTIVKNTTF

NGIRLPNLMLLNAKNELQMIREFSYKDYSLRN

>AHK54244.1 hypothetical protein N919\_07545 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGALMDLEKLRLARSLYYQCLGELFVFSFSEERLSKLQEYLKTMQECLFDENLKSNFDILLKHLDDENSI

QAFFKEYDLLFLSLKNSIPTTFSYIEEGFENSNPLLCVRQILVKSKIRRNEKFFKESEDSVGFCLLLMSE

FLRQNEDDLAKELFEKVINKSIDEFLGDVFMNKNANLYKEIASIASAFMEFERLCFEVEKPAKINSKKVQ

NDLSRSEFLRREANKQRRTREKSQGIS

>AHK54243.1 Tat pathway signal protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNRREFLKKSAFALGAAGVLGSTTLALAKDEERKDLVKGKSKKKEVLFQRSANWENYYIKAE

>AHK54242.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSSVGENIKLTRRSFLKMAALSSLATPLLARSETLREASADELKEAYEGSKKVKTVCTACSVGCGIIAEV

QNGVWVRQEIAQDHPVSSGGHCCKGSDMIDMVRSHVRLKYPMKKENGEWKRISYEQALSEIGEKLAAYRK

ENPESVMFLGSAKLNNEQAYYIRKFAAFFGTNNVDHQARI

>AHK54241.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTNHLGDIQRSKCIIIIGANPAVNHPVGFRHFLKAKEKGAKLIVVDPRFTKSAAKADIYARIRPGTDIAF

MYGMLKIIFDEGLEDTKYLDERVFGIDKIREEAAKWTVEEVENVTGISKELLVQITHEVAKNKPTTLIWA

MGLTQHTVGTSNTRLAPIVQMVLGNIGKFGGGVNILRGHDNVQGASDMACLSENLPGYYPLNEATWRYYA

KIWGVDYEWLLGNFVSKDWMHKTGLSLARWWAAALNGKDGNDAIDNAGTPLKALVVMGNGITSTAQQVKV

KEGLEALELLVLADPFVNEAGIIAERKDGIYLLPAATQFETSGSVTATNRSGQWRFKVVDPLYESMEDQE

ILFELAKKLGFYEDFTKTLRDEKGEIVWPENATREIAKAVRSIGLNGWSPERLKKHTLYWDKFDEVTLEG

KDEVAGEYYGLPWPCWSDKHPGSPVLYNTDIEVAKGGMGFRNNFGLEYEGESLLAKNAPLNSPIDTGYPQ

ITKDNIEKVLGITLSAQEKEKMGSTWSYDDSNIIATKCIEKGIVPYGNAKARAVVWTFKDKIPLHREPLH

SPRNDLVQKYPSFEDQKALYRVDTKFVSVQQAKDYSKEFPLNLVTARLVNLNGAGMENRASMYLTRLTPE

MFCEINPELAKEQDIKAGDMIWVHSPEGTKIHVRVKVNPGVAKDMIFLPFHFTGVMQGVDLTHNFPEGTK

PYASGESANTVTNYGYDIMCQIPETKGGLCRISKDGK

>AHK54240.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKVNFANLEKERLKFFCDNERCIDCNGCAVACDEAHELPIHIRRRRVITLNEGIQGKEVSTSISCMHCD

DAPCSIVCPVDCFYIRADGIVLHDKEICIGCGYCLYACPFGAPQFPKDSVFGNKGIMDKCTMCAGGPEAT

NSEKERELYGQNRIAEGKVPVCAAMCSTKALLVGESSKIEEIYHNRLMNRNYGIPNPSESLEWKIAYTGK

ERL

>AHK54239.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRKVFVTLLLSVVSLFAYGSERMGQDTQIWDFHRITNIPNYDTFGKLWTTLQGEYIATIALIAVIAVLSA

FALHYMVIGPKQFSHDGKKIYAFTLFERLFHFIAAISWVILVPTGFVMMFGEVFGGGVFVRVCKNLHAFA

TILFIISIIPMFLCWIKRMLPASYDIRWMMIVGGYLSKIKRPVPAGKFNFGQKSWYYIAVFGGFLMIITG

GFMYFLDFNSTAIQGLFGLTQIELLRISAIVHNFLGIVCAVFFGVHIYMAVFAIKGSIHSMISGYKEEEE

VYILHSYWYKELSNKKQIEPSFSYDPNVKI

>AHK54238.1 formate dehydrogenase accessory protein FdhD [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDPLFTTQILKYKGDESFTCNDTLVREIKLEIFINDEKVGALMATPVDEQALAIGYLMSENIIAKVSDIE

SIETKDDGMSVHIKAKIDKENLAKLNAEGVVISGCGRAHTANIDPEAIEASKISSDAKFSKDEILKQMST

FYTQCELYEKTGCVHTAKLFVDEKTFFIGEDIAQHNTIDKALGKACLAGVDLSQCFLMVSGRLSSEMVAK

AVMHKIPVLVSRTAPTCLGVMIARKFDLTLCGFARENKINIYSGEFRIHG

>AHK54237.1 regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDKNQEKEIISYMRELLNSNEKLDCGTAFKIAKKFNINIEKIGQLADENHMRIDNCELGQFGHLDFEKAK

IEVLKKIEPSLDEKRRIFCKDARDIAKEGCGLKSMRSALKTYKVDVKYCQLGCFKEKKGKQFIVRTKTWI

ENADGDLLFGRGKTELLELIGQTGSLLHASKLMGINYKKAWMHLQTLQKNSQEILVSTRQGRSKESGTKL

TPRAMELMENYSILQKDIEEYANKRFKELFLKGKK

>AHK54236.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFKSLNIGLKLIFSVAAVVVIGLVILISLITKQVSQNITKNTEDILASITKEYATQTQGIFGEMIALNKS

ISGTLTEMFRSTSKEDLDIDNITNIITNTFDNSAYSNFTYLYLIDPPEYFKEESKFFNTQSGKFVMLYAD

EEKDNKGGIKAIQASDEIANLQVVQDILKKAKYGENKVYIGRPIKMNLEGQDFDAVNVAIPIFDRKNQVV

GVIGMTLDFSDIATYLLDPKGQKYDGELRVLLNSDGFMAIHPNKNLVLKNLKDINPNKGAQETYKAISEG

KNGVFNYIASDGDDSYAAINSFKVQDSSWAVLVTAPKYSVFKPLKKLQLIILGASFIFIFVVLGVVYYCV

RKIVASRLPVILSSLESFFRFLNHEKIEPKAIEIRANDELGAMGRIINENIEKIQISLEQDQNAVDESVQ

TAREIEKGNLTARITKNPINPQLVELKDVLNRMLDVLQSKIGSNMNEINRVFDSYKALDFSTEVFNAKGE

VEITTNILGKEIKKMLLASSNFAKDLANQSEELKNSMQKLADGSNAQASSLEQSAAAVEEINSSMQNVSG

KTVEVASQADDIKNIVNVIKDIAEQTNLLALNAAIEAARAGEHGRGFAVVADEVRQLAERTGKSLSEIEA

NINILVQSVNEVAESVKEQTAGITQINDAIAQLETVTKENVEVANVTNNITNEVNQIAAAILEDVNKKRF

>AHK54235.1 regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIDCRNLSCPQPIVETKNALEKLQENEILEIVLNSIISKNNVVKFLNSLNLNPVVDENAQEFCIKVQKK

NFDSSEVNIHDYNVLFLKTDKVGEGELGQNLLVGFLSTLKNLDHAPSKILCVNESVLINVDENHKAHLAM

KELENLGIEIISCGACLEFFNKSKELKIGNIGNAYEILNELFGKAKIITL

>AHK54234.1 segregation protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKTPALLSDIGNNEDASVYQISPDLALVQTLDFITPIVDSAYHFGAIAAANALSDVFAMGAEVINALNI

VGFDTCNHDLNILKELLEGANDKVKECNALVVGGHTIESTELFFGLSVTGKVHPSKFIANNTSKIGDCII

LTKPLGTGILSTALKAQMLNQKHLDIMLKNMIELNYKASQIALKFHPSAMSDVTGFGLLGHLKEMLNKNI

SFEIFESELPFLDGVKEYFNMGLIPAGAYKNLEFIKELTPDLNEEKLLLCDPQTSGGLLISISEKDSLEC

LKKLEDENIQAKIIAKVVNKQENDIIIS

>AHK54233.1 1-pyrroline-5-carboxylate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIQKALALAEELQGQIEANISNSEKEFHAKMQKLLNNPKNKVMLIELLDRSFRCKDKNASFELIEYTLSK

YGIADFFSTFEKFLLFSFLNFGKFAPNLSVPFFVKHLREDTKAMVLDANPSVLEPHIKKRKEQDKITLNV

NLIGEEVLGEAESKYRMQKYEEALKSSYITYISIKITTIFSQINIIDFNYSKEEVVKRLDYLYALALEEE

KKQGVSKFINLDMEEFRDLELTVAAFMESVAKFDIKAGIVLQAYIPDSYKYLKKLFAFSKERVLKGMKSI

KIRFVKGANMESEETIASQRGWELPTFYKKIDTDSNYNKMLDFILEGDNYKYINIGIASHNIFEIAYAYT

RISEVGALDSFTFEMLEGMSLQCSYELSKMHDLILYTPVCDEAHFNNAIAYLVRRLDENTSEDNFMRYFF

NLKVGDKNWNIQKELFLKSLEGIKTLDNTTHRKQDRNKESNIISSYEGKKFSNESDTDFILAQNRVWAKE

IKTKYENLKDYDVYPVIGELDFKAENLNVLEVKDKIEDRVIGKAYLAGEKEIKQALEVAKNSKFTQKSHD

EIYQILAKSAKLMRERRGDLIGLAALEVGKTFLEIDPEVSEAIDFIEFYPHSLEELKKQNPKVTFTPKGI

GVTIAPWNFPIGISVGTIAAPLAAGNVVIYKPSSLSTLTGYMLCKCFWDSGIPKDALIFLPSKGSDISKY

LLIDEAIKFSILTGGEDTAYAMLKANPTLLLSAETGGKNATIVSKFADRDSAIKNIIHSAFSNSGQKCSA

TSLLVLEEEVYHDEEFKKTLVDAASSMAVGNPFEFKNKLGTLADKPSSKVQKALDELQPYEEWALKPKFL

EDNPYLMTPGIKYGTKKGDFTHMNELFVPILSVMKAKDLKEAIDIVNSTGYGLTAGFESLDEREWEYFHT

HIEAGNIYINKPTTGAIVLRQPFGGIKKSAIGLGRKVGIYNYITQFLEIKQEDFDDHLIEDKFSKKLAQI

DLKEAQDFINNLIKMSQSYAYHYKNEFSVSKDYVNIRGEDNLFSYTKIKNMVLRLCGNESLKDVLGVVLG

ANIANIDLSISYDEQDVSMIERIVQSIGAKVLFLKENKENFIKSIKEYERVRYLAKPDVNDEIYKEAAKL

AKIIIREKPLLNGRFELLNYFNEKALSISFHRYGNLGIRAIS

>AHK54232.1 sodium:proline symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEVVQINTPIAVMFVVYALLMLYIGFYFYKQNKNSEDYFLGGRTMGPVISALSAGASDMSGWLLMGLPGA

LYVSGFIDSYIAIGLTIGASLNWIFVAKRLRIYTSVIANSLTIPDYFETRFDDDKHILRIVCAVVILIFF

TFYVSSGLVSGAKLFESTFGIRYDYALTTGTIIIVAYTFLGGYKAVCWTDMIQGLLMMMALIIVPLVMLY

HLGGFGEAMNIVREIKPQALSMGEGVGIVSIISALAWGLGYFGQPHILVRFMSIRSTKDIPMATFIGIAW

MAVCLLSACMIGILGIAYVHKFELSLQDPEKIFIVMSQLLFNPWIAGILLSAILAAIMSTASSQLLVSSS

TIAEDFYKKIFREDAPSHIVLNLGKLGVLLVAVIAFLISTDKNSSVLSIVSYAWAGFGASFGSVMLFSLF

WSRMTRVGAILGMITGAATVVLWKNFANSGLYEIVPGFLVASVVIIIASLFTNVRSGTKAAYEKMLKEF

>AHK54231.1 hypothetical protein N919\_07475 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKITYSLNLQGEACPYPAIATLDVLPKLKSGEILEVLCDCPQSINSIPQDAKNRGFKVLEIDQSGPTLRF

LIQKP

>AHK54230.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNSFKQKYLINFWDNSRSMIALGILSAVYFGIFGGVWAVTGEMTRWGGEFLELLGMNLDGYSYYQKQNLN

GTPLTRTDGIMLIGMFIGCLVAALLANKVKFRLPASNIRIFQAIVGGILSGYGARLAFGCNLANFFTGLP

YFSLHTWLFTVFMVLGIYLGVKICNTSFFKPKAKLERVNKENLPLNKQSLRTKLYFNLGILLFIAFLVWV

FYLVFTNGNISTQNKQSLLALALIFGFVFGFVISRGQICFTSCFRDLFLFGRDNAIKGALIGMIIASLIA

FAFILQGHTSKLIELSPAVAVGAFLFGFGIVFAGGCECGWTYRAFEGQSHFIIVGIANIIGTMILALSYN

FLPKAFKEGIKINLLTEFGNLNGFFINLILFILMFVFVVFYKKHFFKNQLKG

>AHK54229.1 adenylosuccinate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKADIIVGIQWGDEGKGKVVDKLCENYDFVCRSAGGHNAGHTIWVNGVRYALHLMPSGVLHPRCINIIG

NGVVVSPEVLIAEMAQFENLKGRLYISDRAHLNLKHHSLIDIAKEKLKGKNAIGTTGKGIGPSYADKINR

TGHRVGELLEPQRLCEALIKDFEANKTFFEMLEIEIPSAEELLADLKRFNEILTPYITDTTRMLWKALDE

DKRVLLEGAQGSMLDIDHGTYPYVTSSSTISAGTLTGLGLNPKEAGNIIGIVKAYATRVGNGAFPTEDKG

EDGEKIAQIGKEIGVSTGRKRRCGWFDAVAVRYTARLNGLDALSLMKLDVLDGFEKIKICRAYEYKGMEI

DYIPSDLENVQPIYEEMDGWDKVFGIKDYDLLPENAKKYIARLEELAGVKVKYISTSPERDDTIIL

>AHK54228.1 hypothetical protein N919\_07455 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKSKYNSVVKVRKQQLDKAESNLNQAKQRQLEHEKAYELSRQECESLGVLPKSGSIAELRSNLSMAQVGR

EALARAKEKVELSKKEMNHYQFLYQKAHLDYEKMKVLEAEEIKQKQKELAKAEEKFLDEIAISRFFKGEK

DD

>AHK54227.1 hypothetical protein N919\_07450 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKKFILLVFISSVVFGAEQDCEQYFEARKAQIELQTREFDEARQSLEAYKASFEALQKERLENLEKKEA

EVNATLAKIEELKLENARLVEEQQKILNSINDKTQGRVKEIYSQMKDAAIADVLSQMDAEDASKIMLSLE

SRKISGVLSKMDPKKASELTLLLKNLDNNASN

>AHK54226.1 competence/damage-inducible domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRIKLPHIPYIANKMMLDIANSSFVEIKDQLEKLKVCIIEVLEKDILNERKLDERVKELLEQQEDEMELM

QVDRKNMFWLVKKKLAPEFNVILDSEDRHNHLAHQILEELVENDYINFIVSENRVKNLIFSSIESYLKIY

EKLEDEVYEKISNYKTKPIPGSEEYDLIFEKLYQEELRKKGMF

>AHK54225.1 carbamoyl phosphate synthase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKAYIYLENDIFLSAKAFGKSGTFFGELVFNTSLTGYQEIISDPSYAGQFIVFSMPEIGIVGTNENDNES

KEIFASGVLMRELSSSFSNFRAKESLQDYLEKHGKIGIYELDTRYLVKMIRNNGNLRAVISTEISNKEDL

KIALEKSAKIDEVNFVKEVSTKKNYSHKQGVWNASFQKFNDAKRSEKKVAVIDYGVKTNILNELVEVGFE

VEVYPYNVKADELITLYKKGEIQGVFLSNGPGEPRILKQEIAEIKKLAEAKIPMLGICLGHQLLSNAFGY

ETYKMKFGQHGANHPVINLDTKTVEITAQNHNYNVPEELAQVAHITHRNLFGDNVEGVRYKDYPIISVQH

HPESSSGPHESKYIFKEFMNLM

>AHK54224.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSIDFLAIISVAFLSSFGHCYSMCGGFNLLFINLNSKSNNLFLLTFIYNLFRIFAYIVLGIIFGTFGNIL

AINAKVQSLSFFILGIFMMILGFALIFRGNMLSFIENNVFFDSFVKKIIKKSKNFKGLKSAIFLGFSNGF

VPCGLVYFFIANAMSKQNIFEGILVMMIFGISTLPAMLFFSKISQFFSDFLKNLFNYLSYGVIVCYGINL

AYIGFKAFQ

>AHK54223.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKDFFKDQFFKALEKNTIFSRADVQGNLIFVSDKLCQISGYSKKELIGKKHSIFKHPDVEECYIEELLKK

LSYKKPYQVIFKNIDKLGKTFYLETLLIPILDKNNELIEIVAFSHDVSNSFKLNEELALNHAKLRELSIN

LENTVKNHQQEFIQLGKKFEKKMQIALEKNEKDIKIAYEEILKSSLEQMISDIAHQWRQPLNELGIAMFQ

MKQNLKDEKGFAEIYSQSKDMIKNMSETIDVFRTLFNKGVEQCVFIKETLNKALEIAFETIEKNHVNINI

VSKSDYEVLAYENGLIRVFLNLILNSIEAFKNKKRKIITINFSKFGKNYLKITIKDNAGGIDKENLDKIF

QPYFTTKHPSQGIGVGLYISRQIIESFQGKIKVKNGKDGACFEIFLKLKERVE

>AHK54222.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSQECKELIILVVEDEVKARESMINILSERFSKVIGAQNGDEGLKKFKKFKPDLVITDIAMPIMDGLDMA

REIKEISDDVPIVVLSAYSEKERLLRSIDIGIDKYLIKPVDIEELFKVLDYLIGEKIEANMLVKISEEYQ

FNKTKRTLIYSGGEIVLTKKELAFISLLLKQPGALVLHEDIKKNVWIGEHVSDTAVRTFIKRVRDKVGED

FIKNVPSLGYKININK

>AHK54221.1 cytochrome oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHPGNVLNYDYTVARYFMFATILFGIVGMAIGTLIAFQMAYPNLNYLAGEYATFSRLRPLHTSGVIFGFM

LSGIWATWYYIGQRVLKVSMAESRFLMAVGKLHFWLYMLTMVLAVISLFMGVTTSKEYAELEWPLDILVV

LVWVLWGVSIFGLIGIRREKTLYISLWYYIATFLGIAMLYLFNNMEVPTYFVTGMGKWWHSVSMYAGTND

ALVQWWYGHNAVAFVFTVGIIAQIYYFLPKESGQPIFSYKLSLFAFWGLMFVYLWAGGHHLIYSTVPDWM

QTMGSVFSVVLILPSWGSAINILLTMKGEWSQLRESPLIKFMILASTFYMFSTLEGPILSIKSVNALAHF

TDWIPGHVHDGTLGWVGFMTMAALYHMTPRVFKRELYSKSLMEAQFWIQTTGIVLYFASMWIAGITQGMM

WRATDEYGNLLYSFIDTVVAIVPYYWIRAIGGLLYLIGFFMFTYNIYKTIACGRVLDKEPKSASPMAA

>AHK54220.1 peptidase S13 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFSWLEKNPFFFAVAVFVVIAYAGIVEVLPNFAENARPIEGKKPYTVLQLAGRAVYIKDSCNACHSQLIR

PFKSETDRYGMYSVSGEFAYDRPFLWGSKRTGPDLARVGNYRTADWHENHMWDPTSVVPDSIMPSYKHMF

KNNADIETAYAEALTVKKVFNVPYDAENGTKLGSWEDAQAEVKAEAQAIVDQMKNQEVKDAFAKGEIKEI

VALIAYLNSLK

>AHK54219.1 cytochrome B561 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEHLSIVFDVIKNLITFDLATVQKHEWEIFQGYGFFALVMFLSIVLYAYWYHLYRTEKKGERNYENYANL

ALKDDIDDSVLESKRSA

>AHK54218.1 cytochrome CBB3 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQWLNLEDNVNLLSLIGAILIILITLVIVGRMFKQMKEKKGESELSEHSWDGIGEYKNAVPTGWAVVFFL

TIVWAIWYFLWGYPLNSFSSIGQYNEEVATHNTKFEEKFKNLSPEDKIAMGQNIFLVQCSACHGITGDGI

NGKAQNLNIWGSEEGIINVIKHGSKGMNFPGGEMLGAADLGVAEEDIPAIAAYVAKDLSAIKKTANENLV

AKGKEAYATCAACHGEDGKGQDGMFPDLTKYGSAAFVVDVLHSGKAGFIGTMPSFPTLNDIQKEAVGEYV

ISLSRGE

>AHK54217.1 hypothetical protein N919\_07400 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENNNRCVFSLSGVTGMLIATVLLLVILAVLTIWGLKAQQEVMQKPYSLKDVQSVKMFGSKEQDHRSIKE

AQ

>AHK54216.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILQDGFFLAIFFFVLLPSRVFALDAVLFNENILSQKVSNEINLIGKELYQKSNIFIGVMVGDKTEIE

TLLNKQKELPQSYILLLLSKNSHKVDIVGSKGALALIDKEAVLSPYPGTGSILPILATNKGDIYNAAILN

GYADIVDRVAKSLGLQLEHSIGNANRDTINILRILIYGFICFALLYYAQRRIKRKKNVRN

>AHK54215.1 hypothetical protein N919\_07385 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLETKKSFWPYGILLSLLAIIIACIVTIFIASHHPVYEDDFYFDSYQNVENNYNQIQKQQVNFDKFFKVN

FQNDKITFIGKRKIPSYEVDQNSYVANFKISALQNINSNDLKVQVLLTRPFTKNFDQKLEGQVKNGILSI

ALPKLDKGRWELKLKFYANQETVGFFSYELNAQ

>AHK54214.1 hypothetical protein N919\_07380 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLRIFSSSRQIREYYNQKKQQNALLDSAIHIGEFLDKVCLSNFHKASSYESLLLMQEACLKSKDLEKKL

GISVEFFAFLKNNEYLFSFFKELSLEKKSIEDLKNNDYYATYNEHLEILDEVYKNYLALLEKNSFYDDLS

LPKNYTLNKDFLDEYEAIVYDLQGFLSKFEENLLSEISQIKEVVLSFKTSKFNLEYLLKLDFLKIFDLKI

NTHYEINLSKQEILKEEIFKTKNSKMKLKSFELRALQCAFVMDEISHFVRKGLKPENIAVITPDESFCEF

LRLFDKDNMLNFASGISIKESLFYQKFQALYESASSASFVYKNQEDYFEDTQMIFDYHNTLLHSLKLDFI

EFKKYFDEKCDFEYFEKLLALFLENEKQELMYLIRKELYFIKDLLKNQSLTLKELIHLFFMQISQLSLSD

VGGGKVTVMGLLESRGLCFDGVILVDFNEEFIPKRSVNELFLNNEVRKKAGLISYDRRENLQRFYYESLM

KNALEVSICFVENEEKSKSRFLDELDFDFFYETHIHQKAYLNALKLDYEGIKPNLTPIKAPILKHNPFEF

PLSFSRFNLLENQKRTYYYRYILNLAEPRVLSEESKAKNQGNFIHKMLEIYYKNYANNDFDIKVFANLLD

KEYQKYNISELDLEVFKLKFMQFAKNEKEHFSKGFYVVHTELELNNILKLGTDSIKLKGTIDRIDSSKEG

NLIIDYKSGKVPSNSYQLAFYQALYDENASVGFYDLNSMQILHQKAKSLDELRERLKDLVLMSKEEIEFE

NEQDEYCPYKLIYKKELK

>AHK54213.1 recombinase RecB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSQFEPFLALEASAGSGKTFALSVRFVALILKGARINEILALTFTKKAANEMQKRIIETFLNLEKENKTS

ECNELCKLLGKDKEELISLRDAKKEEFLRTELKISTFDAFFGKILRVFALNLGLSSDFTMSEERLDVREI

FLKLLKKDELKDLAYYINLVDEKENFFNELEKFYENAYFQNRPKILNPTKAYINKAYSELRSYCLGLTHV

KNYKNLCDNFKSEVLDLSVFMQSSFMTKFESTKYLQDLESTNLHFSAKRMEFINALNTYAIELENYKIAN

LMNLLNHYSEAKNIFHKDKNTLNFQDVSKKVYELITSEFKDMIYFRLDGFISHLLIDEFQDTSVIQYQIL

RPLIAELVSGEGVKKNRTFFYVGDKKQSIYRFRKGKKELFDLLKQEFSQIKSDNLNTNYRSKELLVDFVN

ETFKEKIKDYKEQFALESKKGGFVRIVESKEQKVKNQAQEIKEKTLETLFEQINFLRSKNISYDDICILC

WKNSDADMVLDFLREQNIPAFTQSNVLLENKASVRLVLEYAKYCIFGDEFYLVFLKELLGFEPRKITLDF

SKNAMENVLFLIKELKLDLNDIALIQFIEYAKTKENFLKLLFEPCALKIVSEQNMGISIMSVHKSKGLEF

DHVILLDSLSKNNSNNEDIMLEYDINQGWQLHIKDKIRELTKEPIYTLFKENITRANYEDDINKLYVAFT

RAKESLIIIKRNEESVNGNYPSYFKGGFLNIHSQERGFLESKEQILSVKKESIQTLQKFEKITLQEIQSE

ERLDSKELYFGNAFHFFMQNLKLPKGENFQILTQRCKSKFRHFLDESDFEKLFKRIEILLKNIQFQNLIG

DGKLLKEQALSFNGEIKQLDLLALKDEEAFIIDYKTGLAMQDKHKEQVGTYKIAISEILQKDKVRAFIVY

CLENEIQILEI

>AHK54212.1 50S ribosomal protein L13 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKITKPNEVKREWIVLDAEGKRFGRLLTEVATILRGKNKPCFTPNVDCGDYVIIINASKAVFTGANKAE

DKLYHRHSGYFGSVKSEKFGDLLEKNPAKLYKLAVRGMLPKTNLGRAMLKKLKIYAGSEHPHTAQIAKEG

K

>AHK54211.1 30S ribosomal protein S9 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MATTYATGKRKTAIAKVWVKPGSGKISVNGVDLNTWLGGHEAIKLKVVQPLLVTKQETSMDIKATTLGGG

YSAQAEALRHGISRALAAMDADFRALLKPKGLLTRDSRTVERKKYGRRKARRSPQFSKR

>AHK54210.1 outer membrane fibronectin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIFLCLGLASVLFGADNNVKFEITPTLNYNYFEGNLDMDNRYAPGIRLGYHFDDFWLDQLEFGLEHYS

DVKYTNTNKTTDITRTYLSAIKGIDVGEKFYFYGLAGGGYEDFSNAAYDNKSGGFGHYGAGVKFRLSDSL

ALRLETRDQINFNHANHNWVSTLGISFGFGGKKEKAVEEVADTRATPQAKCPVEPREGALLDENGCEKTI

SLEGHFGFDKTTINPTFQEKIKEIAKVLDENERYDTILEGHTDNIGSRAYNQKLSERRAKSVANELEKYG

VEKSRIKTVGYGQDNPRSSNDTKEGRADNRRVDAKFILR

>AHK54209.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKTILFDLDGTLIDSTDAILNSFQGAFKALGLTSKNNEEIKNLIGYPLEQMFRMLYPDKVNLSKEFVLA

YREIYAQIYLEQTTLLPKAKEALELGSEIADLGIVTTKGGKFTPILLDYLGVKKFFKTLITLEDVTNPKP

SSEPIILALKGLNKTQENAYMIGDTILDIQAAISANITPLALTCGYGNENELKAHSMVFLNAYEAVNYIA

RLN

>AHK54208.1 Pyruvate-flavodoxin oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGKIMKTMDGNEAAAYAAYAFTEVAGIYPITPSSPMADYTDMWAAAGKKNLFGVPVKIVEMQSEAGAAGS

VHGSLQAGALTTTYTASQGLLLKIPNMYKIAGQLLPCVIHVAARSLAAQALSIFGDHQDIYAARQIGFAM

LCSHSVQETMDLAGVAHLAAIKGRVPFLHFFDGFRTSHEIQKVEVMDYAHFDRLLDREALLEFRNNALNP

ENPKTRGTAQNDDIYFQTREVSNRFYDALPDVVNEYMQEISKITGREYKPFTYYGHKEPECVIVAMGSVT

QALEEVVDYLNAKGEKVGILKVYLYRPFSLKYFFDVMPKSVKKIAVLDRTKEPGSLGEPLYLDVKSAFYG

RENAPVIVGGRYGLSSKDVDPAQMIAVFENLKLDNPKDGFTVGIIDDVTHTSLSTGEKISLGDESTIECL

FYGLGADGTVGANKNSIKIIGDKTDFYAQAYFAYDSKKSGGYTRSHLRFSKKPIRSTYLVSTPHFIACSV

AAYLEIYDVLAGIRKGGTFLLNSIWNAEETIRQLPDAVKKTLAEKEVNFYIINATKLARDIGLGNRTNTI

MQSAFFKLAKIIPYEDAQKYMKELAYKSYSKKGDAIVEMNYKAIDVGADGLVKVEVDPNWKNLELKEKEQ

TNAYKGTEFVEKIVKPMNAAKGDDLPVSAFLGYEDGSFEHGTTEYEKRGVGVMVPRWIEANCIQCNQCAS

VCPHAVIRPFLINDEEMANAPRGVKDHALEAKGTKGEKLSFKIQVSPLDCTGCELCVHECPTKEKSLVMV

PLQEEMDFGEQENADYLFKEITYKDDILNKETTKGAQFAQPLFEFHGACPGCGETPYITLITRLFGERMI

VANATGCSSIYGGSAPSTPYRKSVKNGHGPAWGNSLFEDNAEFGLGMKIATENTRHRIEHIMNESMQEVP

NALSALFKDWIANKDNGAMSVEIKDKMIPILEQNKNIKAVQDILELKQYLSKKSHWIFGGDGWAYDIGYG

GLDHVLASGENVNILVLDTEVYSNTGGQSSKSSRTGAVAQFAAAGKPIQKKDLGQIAMTYGYIFVAQVNS

TANYTHLIKAITAAEAYDGPSLVICYSPCIAHGIKGGLGYSGEQGELATKCGYWPLYTFDPRLEEQGKNP

LTLTGKEPDWDLYEQFLMNEVRYNSLKKANPEHAAELFERNKKDAQRRYRQLKRIAMADYSNEVES

>AHK54207.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MCFSTLFAQDNFEEYFKLIDKENRINFNTLQNPFVNPTFEKLRHIKITAIMLDKVKIYDRWYKKGDMIDD

AIIYEINTKEIKFQYDNLEIAIQINKNDKINININ

>AHK54206.1 type II protein secretion system D protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIRLILILINILFCHYLYALDCQKRLFDISINEKLSIQESLDELAKYCSFSIIVKDKIAKEKLETLQNSV

NIHQMSLDEIFNFFIKEHDLSYDFDGKILRISGINTKIFKISYITSIREGQSITKASVDAKPRQSEYSGS

FDDAEDNMIKSMEKFDFWQNIEKEIIVLLKNSHEDYEAKTPIINPNAGLIIVTGTNSQLKSVKNYLQKLE

NRLKKQVIIDVSILAVSLNESHSSGINWQNFNIGLNSQVNNENSFIQFQNGQGFVKNLGLRANLNFDSII

NFLSQNGKTSVLSNPKLMALNNQQAIISVGDTINYQVKESSKGTENGTTVSESYNNYSIFVGILLNILPE

ISDDGKIMLRINPSLSDFKYPEDNKRQKEPRTIAPDTIQKKLSSVVQVENNQTLILGGLISHDKSNEKNS

INFLSKIPILGSLFKGEVLNSKATEIVFIITPSIVDSVNAPSLKDLGFKHYE

>AHK54205.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKIIPFREEIFHQINQILESQKAFIFLWGKSGSGKSVLLQRLAKKYNVDFINENFKDQSFLKEKIEFLI

SQGQSLIILDEVGMYDYAMLESIRIYSDSISFVLSSHKKLNILKKEHFKSRLSACFKLKNISLLELDDYI

KLKFGMNFSNKCLKFLQKISQGNLRYIDKTLKSFYEINSFFDKNKSQEYILKLSALENGLLR

>AHK54204.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQERIKELELRYKYFLLKKYLKYLLLIILISVIAFCFFVLMQKYNKQKNIYLQAIEHKKHLEQKILQAQI

LQEKNKISREKLYKELEEVKAVQENTHISKIEIDSKILNISDLKKSFYQNPSYEKALNLAKKYFDIKAYQ

KTIFWALKANELDKQKQDSWLIFAQAKRALGEEKEAQSALDAYINYYGLMELDGK

>AHK54203.1 type II protein secretion system E protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MESRMDKIFQAYIDNEISLDEICTKFNITSWDFFNKLANFCNLHFVDLDEDNDFIYEGIPFSLLLKFKFL

LIKNNDGFMIIRSKPCSLELLEQVKTFMICEKIDTAIADELKIAKILNQIRIQEEIKRLSIKLRLEWQEN

HKRDDQSCISQIFDFLLHEILSFHASDIHIEARNNDALIRFRVDGILREFAIFEKDIYEALVFHVKFLAC

LNLAESRKTQDGSFELDFENERYDFRVSCLPLIYGESVVIRILKHDKEILDLYKLNLGNKNLEILKKILH

RPNGMILLTGPTGSGKSTTLYACLNELKSIEKKIISAEDPIEYKIPLVQQILLNSKVGVEFNSVLRAILR

QDPDIIMIGEIRDEESLDIALKASLTGHLLLSTLHTNDALSTIDRLLDMQAKSYLIASALSLVIAQRLVR

KLCPWCKQKSKKHYIEFEGEFFEPKGCERCHHSGFFGRELIAECLEINEDLACAIRENQDKTILMELAKK

YGFQTMFEQGLKKAKEGLTSIDELLRVVR

>AHK54202.1 general secretion pathway protein F [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFYEVEFLKNNQNYTKTIKAENLNTAQAKALSKNWKIIDIKEIQKSNFQRLKDENFILFFKELALLCEV

GLSVQEAIRELYFMHSCKIMKKILDNLILAQNLNQAFENANFGLNRAELALIKTAEKTGKISEVFSQISK

LREKSLESQKQLKKAFRYPTLVFLSIIGAFLFLMLFVVPNFKDLFENLGASLPFITHVMLEIYNFLDDYG

IFCIFLFVIFIVMLILAYKNFHSFAFSCDFLFLKVPLISRLIIYNQNYYFFMVFSLLLKNGISISKAFDL

AIIGLENKFLIFQYKKLFSFIDSGLELSQAFKKIDIFDSLVFSMLSVAMKSGRLEVLSEEIAKYYQQKSE

NLMDRFLIFLEPMMTLFVALLVLFLALGIFLPMWELSSGVNFN

>AHK54201.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGFEHLNTIYYFILFFVALFAGFIDSIVGGGGLITLPALIACGIPAHLSLATNKLQSVFGSFTATLTYFK

STTLPRLAWGVFFTALGAAIGSYSVLFVKDEQLKLIILIFLTLTFLYTALRPNLGKHESEPKIKNIKIFH

LICGLTLGFYDGFLGPGTGSFWIFACVMLLGFNMRKASINTKILNFTSNIIALAIFLWQYELLWAVGLLM

GVGQVLGAYLGSKLVLKTNGKFIKTLFLIVVGATIIKVAWDYFS

>AHK54200.1 hypothetical protein N919\_07310 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNFIHLKAKLDFLANQKNTNHSLFETPDPLQIAKIHNDEFIALICALFAYGNAKNIVNFLKKLDFSLLN

LQEKQIKKELKNLKYRFQNEKDIQEIFITLSRLKNEISLYELFYQAYQERENTTDAILAFMQKIKTLNSY

SSYGYDFFFGKIWQNTPTSPLKRYNMYLRWMVRKDELDLGLFTKIHTKDLLIPLDTHAHKISLTLGLLKR

KIYDYKSVLELTQNLKKLDANDPIKYDFALYRLGQSKEIDKFKE

>AHK54199.1 flagellar hook-associated protein FlgK [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGIFGTLYTGVTGLKASEVQIATTGNNISNANATFYTRQRVVQTTNGYITTGGVQVGTGTAVESIVRLHD

EYSYYKLKGASTQLEYTKYMASTLQEIAQRFPDLQNTGILQDLENYNKAWNDFASNPNENATKIALVKAS

QTLTESVNNTFATLDKIQKKVNDDIKNTVDEINRIGEEIATINKQIYGQEALPTEHANELRDRRDELELT

LSKLVSAVASKNEINQDNRLDTTITDPGHQYNLSIEGFSIVDGINFHPLKLDYDDKNKSYSIYYETPDEK

VRDLTAKISGGQLGAQLDLRGRNYSKSEGKYEDGIIQGYMDSLDTFAKTMINETNNLYASSAKSSVTSDY

LSGLKGDIPLVNYDRTIQPGSFDIVIYDDKGDKKLTKTITIDVNTTMNDIMRQINANTDDNDNKNSNDDV

DDHINASFSYDAKTGDGLFQINAKSGFKVAIEDKGTNFAGAFSIGGFFSGTDASDMKVKDSILNDPSTVR

ASSNGVDSGNDMANKIIQLQYKKVNFYNEDGTIDNLTMEEYYRKLTGKIASDGENNNVVNSSNETLYNSV

YSEYQSKSGVNTNEELAALIQYQSSYGAAAKIVSTVDQMLDTLLGLKS

>AHK54198.1 hypothetical protein N919\_07300 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKQRLDEVNAILAKLIALTEEDIENIKVAKHESVTPSVEEKNKLIAEFITAKKQLDVALVELNNSSTKG

LSELLDDEDKQKLDLLKKNLQNLHSKNKEYAKFVLIVKDFLDGLVNKMFDINDGTNNAYGDKKTNPESIF

KINV

>AHK54197.1 hypothetical protein N919\_07295 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINPIQQSYVANTALNTNRIDKETKTNDTQKTENDKASKIAEQIKNGTYKIDTKATAAAIADSLI

>AHK54196.1 hypothetical protein N919\_07290 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVDNFLNTYSMNSALLDRAAKARSLESSIKINDNDIVTKSKEDKALKEQTNAFEAFFLKQVLDVSLKSQ

NSLFGKDASDEIYSSMYNDTMSKALSGGMGFSKLLYDFLKERG

>AHK54195.1 flagellar P-ring protein FlgI [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRVLTIFLLFMTSIFAVQIKDVANTVGVRDNQLIGYGLVVGLNGSGDGTSSKFTLQSISNLLQGMNIKVD

PNDIKSKNTAAVMVTAKLPAFAKSGDKLDITVSSMGDAKSLQGGTLLLTALRGIDGEIYAIAQGSISTGG

LTPRPGGTGSHSTAATVMGGANVEREIPQNFSQNNDLTLSLKVADFKTANNIERVLNTVFGEEVAKAIDS

RTVKLKKPEDLSNVDFMARVLEQDIAYKPQSKVIIDERTGTVIAGVDVEVEPVLITHKDITIKIDPNNNT

VANQNEIDMKDGGFVDPSSNTLRINNAKSTVANIARMLNKLGATPNDIIAIMENLKRAGAINADLEII

>AHK54194.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMNDEFISVKDFFNHNEKRKKFLQKQEIKPPKEKTKKTKETKLYTNIESGKYKGKKLLLPSLTTTRSTKS

IVKSCVFNVIREDLRSKIFIEAFGGSALIAAEALSNYALKAYAIELDIKAYKIALENAKNIDPNLEVIHA

NTFEILPKLIENSKNEIILYLDPPFDIREGFSDIYEKIYHFLENLDLKTLNLIIFEYHSTIKTPEKIQNF

QKVKEKKFGSTSLSFYSS

>AHK54193.1 Ornithine carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKISLECKDLIIEKTLELFLKDHLVMKKNCDFIISDEKIHTAKPLFIISKNSPFLSIPFSKETLFESLNE

FDNALKAAALQLALEQKRLLEEKIDAIALEFKKDYENKIDLAIKDLKNKLVKALNDE

>AHK54192.1 hypothetical protein N919\_07270 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKLELRIFRFDKTKDYEAYYKPYIYDNYENFASFYDLLLQVQNDDIYFDFDKDEDTYIVVNKQIIPLFT

PLEKIAKEFDFNLCIEPLSTKRAIKDLIIDKNDFLDKYKYLEKFGDEEDKKLYAKYDYLYYATEILDYLP

EYMGDGVFYLASKMIEKYPEKKIEILKTLADKEKGIFYHLESKNEILETTIKNLQNEILNLGLFDKNILH

FDLPKTNAFDNEIKELKEIKHNFKDFNIAFYGFNACDTLKSKLKAKFISYENSIKNNGFSLLNLNPTLSY

KIAADIVLDAYDSGADFMVVKEEKDFYLFDTCAKKLMQTSKRDFEDFYILSRFEFLALIEGIQAPSLKNH

TLKVSLI

>AHK54191.1 thiamine monophosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKEDFIIKAFLNKKNGDDGAIIDDWCFSKDLFFENVHFKREWFSLEQIATKAMLVNISDAISMNAVPKY

ALLGLALPKNLSENEIKALQKGFLKTARKFNIKIIGGDTISNDKIDISLTIISKINDKAVFRKGLKKGHL

LAYTGKLGRSLKGLEILQNGGTLKPNHVFIKPKLRASFFYEIAPLISCAMDISDGLSKDLSRLLALNKCG

ISWFKKLDDYALYSGEEYEILFAFDEKERQNIEIIAKKHGVKLNIFGKAVKGKYEFRGREHHF

>AHK54190.1 tRNA pseudouridine synthase D [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLEEENTIFKPLYSLKHSPINAYFSKNSDDFVVRERPLYEFSGKGEHLILHINKKDLTTNEALKILSEA

SGVKIRDFGYAGLKDKQGSTFQYLSMPKKFESFLSNFSHPKLKILEIFTHENKLRIGHLKGNSFFIRLKK

VLPSDALKLEQALMNLDKQGFANYFGYQRFGKFGDNYKEGLEILRGKKMKNVKMKEFLISAFQSELFNRY

LSKRVELSHFANDFSEKELIQIYKISKEEAKELKKQEQFFKLLKGEVLGHYPFGKCFLCEDLSAELGRFK

ARDISAMGLLIGAKAYETGEGLALNLENEIFKDTLEFKAKMQGSRRFMWGYLEELKWRYDEEKAHFCIEF

FLQKGSYATVVLEEILHKNLFE

>AHK54189.1 peptide chain release factor 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDNYEFSELLKTLKNKVGNIASIIKPENIQTRLKEIEELENSPSFWSDVKQAGIIGKEKTKITNLLKNYE

NAFNALNDASELFDLANSENDTETLEALFNDAPKLEDTITSLEISMLLSGENDGKNAIVSIHPGAGGTES

NDWASILYRMYLRFCEREGFKVETLDFQEGEEAGLKDVSFLVKGENAYGYLKAENGIHRLVRTSPFDSAG

RRHTSFSSVMVSPELDDDIEIEIEEKDIRIDYYRASGAGGQHVNKTESAVRITHFPTGIVVQCQNDRSQH

KNKATAFKMLKSRLYELELMKQQDSANTGEKSEIGWGHQIRSYVLFPYQQVKDNRSGEAFSQVDNILDGD

IKKMIEGVLIALKAE

>AHK54188.1 ribosomal protein S12 methylthiotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKLYLMSLGCNKNLVDSEIMLGHLSAYELCDEPSKADVLIVNTCGFIDSAKKESINAILDLHEQRKKDS

LLVVTGCLMQRYREELMKELPEVDLFTGVGDYERIDEMILKKTNLFSNSTYLQSENSKRIITGSNSHAFI

KIAEGCNQKCSFCAIPSFKGKLKSREISSIIAELKDLVARGYKDFSFIAQDTSSYLFDKGEKDGLIRLID

EVEKIKGIRAARILYLYPTSASEALIKRIIASEIFINYFDMPLQHISDNMLKIMKRGANSTRLKEMLNLM

KSAPNSFLRTGFIVGHPGESEADFEELCEFVKDFGFDRISVFAYSKEEDTAAFDMEQVPFKVINKRLKII

EKIVDEVIEKSFEKEVGQKRLVVCTGKSSEGEFFIAAKDLRWDREIDGEILINESECGNLEMGQIYECEI

LQNLDKKLLAKALRKVDAN

>AHK54187.1 tRNA(Ile)-lysidine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIKDEILSLLKRGKNLLAFSYGSDSSVLFYLLMQEKIDFDLVMINYKTRKNSDLEELKAKELALKFHKK

IFIKHAPKFQSNFEKKARDFRYDFFEKICLEQGYDHLILAHHLNDQFEWFLMQLSRGAGLAEILGMQECE

KRSNYTLLRPLLFISKDEISSFLKEKDIFYFHDESNENEKYFRNYIRKNFSNAFVSEFHQGLKRSFSYLD

EDRKKLYDFENIKEIQGLLICPKNESLIARAVKMKGLLLSTAQRKELLKGDCVLGGKIALAYKNEQAIVF

EYETCQKLPKNFKEECRIAKIPRLLRAYLYNHKIDISSLSF

>AHK54186.1 dUTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTNIEILENMLKLQQKLNDETNGLNWENGYTKEGKLISWRRCIYMECAELIDSFTWKHWKNISSLTNWEN

VRIEIVDIWHFILSLLLEEYRDKNNKDFKAIATEVNAVSVFQDFCKEEEYPNEGDIYGILNDIELIIHKC

SGFGFNLGELLSTYFTLAIKCGLNLEILYKTYIGKNVLNIFRQNNGYKDGSYKKTWNGKEDNEVLAQILE

QELDFDTIYKKLEECYKKA

>AHK54185.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIDASKNQSFSMDYTTKSGKHLALSMYDNQSVSYANNEEGKTLNLKRQYGFSFTFEGSKLTQNDLDEIK

NAMKEVEPMIKDFLANSKVGELKPKEIIESAMQMANVLPTPNDENHQNAIMNNFTNKLSDLLKQNQTDDK

DINASMLEDSKKLLDEVLEQMKKQLEKQQEKAKENQDKTDDSLNLYA

>AHK54184.1 hypothetical protein N919\_07220 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDERILEFIKNEQLLSWAMIDEKGVYTASAFYAFDEKNLAFIIASHEDTKHIRLASENSSIALNIAKESK

IAFLKGVQAKAEFKMASKEQMKIYFSKFPFAKFDKSAKIYALELFWLKFTNNALGLSKKLEFYKK

>AHK54183.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNVIYALFFRELKTRFGKNRYLGYIWVVGEPMSIVLLVTIIGTIVREYHHQVMPEGISIFMFLISGIMP

FFMFRSIVTQLMNGTQANLALFAYKPVKPIHVFIARTLLEFCIYFVIFIIILFFAGWFFRLDVFPVHLLG

VLFCIFLLICSAFALGICFAIIWHFVEPLRTLLAYFSIVFYWTSGIIFPTWLTPRPLLDIFYYNPLLHIF

ELLRFNFFENYPLQDEYSYFYAIFWILLVLFIGLFIYYYNRQALTAVKKE

>AHK54182.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKLINLTKSYPLFSGGRHYVFKNFTFEFPENCSIGLMGYNGAGKSTLMRLLSGAELPDSGKIITNKKLS

WPLGLNGAFQGSLTARDNAKFVARVYGYKGKELQEKVKFVEDFAELGKFFDEPMKTYSSGMSARIAFGLS

MAFDFDYYLIDEAGAVGDPAFREKSVKLYRERLSKSKVIMVSHNVAEIKEWCDKIIYMKNGQITVYDDVD

EGIAVYQGKV

>AHK54181.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEENKTLLEKIKDLSIFDSFKIVWFIMIFVVIYYTLIAAPRYVSTMILDVRSTSGESAQTSGILSLLSST

STASEDLNYLKGYIESSDMLKILDEKIKLKNLYQEQHIDLPFKIWDSSSIESYLKYYQARVKVHTDETTK

LLKVEVEGFTPKSAHLIAQAIMQESEKFINEISHKAAREQMAFAENEVQKYKERYQKAQNDLIAFQNKYG

VFDPLKQAETKASLVAQIEANLAQKEAKLLTLQSYMNDAAPEVVALKAEIEAIKKQLLREKSKISANNSS

QKLNDLAAKFQDLTIEATFAQKAYEAALKAYESARIEALRKIKQLVIIQSPDIPESAKYPERIYDILTAF

IVLSLIFGIVKFIKMIIEEHKY

>AHK54180.1 sugar ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILILLFSCILCFGAVDVSQIISAEDQGSATTSIDQNLSSNYDIANKENNLTKIHQILVFGAHLFNGN

FKNYNQRVYNPDYKIAVGDQISLKIWGAVEFSQVLVVDSQGNIFIPKVGAVNLLGVKNSALVSVIKARVN

KIYKSNVFVYADMNAYQNVSVFVTGNVNAPGLYQGLSSDSVIQYLDKAGGINLEYGSFRDIQILRNNSVI

KNIDLYDFLLKGQMDLFPFRSGDVILVGNVQNYAFVNGDVQRPFRFELSNDIKTLADLARVSGAKPIVTN

AIVKSYGEDHKLDVSAYNKMQFSKVLLRTGDEVEFHPEYVSENITISVNGEHNGLKTLVVGKGTTLEDIS

KLIKANPQSNMQALQVFRKSVARTQKELINAQLKELETLALTSGSVTAQGAAIRAQQAKTILEFIQRAKQ

VEPKGQIVIDNPKSYNSVILEDGDTINVPSKNNLIIVQGEVSLPGAFVYDKGKDLRYYINLAGGYGERAD

TSKVLVIRSNGKAEKYHSGIDMKRGDSVLVLPKVDSENLQIFSMLTQILYQIAIATNVVLNL

>AHK54179.1 arabinose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNTLEIAKEVFEKEAQAILDLATNLDENFNQAVNLMLNTKGRCIVSGMGKSGHIGAKIAATLASTGTPSF

FIHPGEALHGDLGMLTSEDVLIAISNSGETEEILKIIPAIKKREIPLIVMCGKKNSTLVKQGDIFLNIAV

EKEACPLQLAPMSSTTATLVMGDALAAALMKVRNFKPDDFALFHPGGSLGRKLLTKVKDLMVSSNLPIVH

PDTEFNDLVDVMTSGKLGLCVVLENEKLVGIITDGDLRRALKASDKPRFDFKAKEIMSINPKVVDADAMA

SEAEGIMLKHKIKEIIVGKEEKVVGIIQLYAIGNV

>AHK54178.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENLNSYIKGHFADSILVKEQILKDENLITLIKNASLEVIKAYKNGNKTLLAGNGGSAADAQHIAGEFVS

RFYFDRPGIASIALTTDTSILTAIGNDYGYENLFARQVQAQGVKGDVFIGISTSGNSKNILKALEFCKQK

EIISIGLSGASGGAMNELCDYCIKVPSTCTPRIQEAHILIGHIICAIVEEELFGKGFSCKQ

>AHK54177.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKLVEQVWDYTKHAKFYSYRPNYAPKTIDMLISLVGKKDIKVADIGAGTGNLSIMLLERGCKVVSVEPN

DAMREIGIERTKDQKIDWVRATGLNSTLQNSEFDWVTFGSSFNVMDRNEALEEAHRLLKSEGYFSCMWNH

RDLNDPVQKIAEDTIVEFVPNYTRGTRREDQRPIIESRKDLFDNIVYIEEDFYFHQSIENYINAWKSVKN

PYWDLETDEGNELFNKISNKISQRLPKEFSIKYTTRCWSAKKI

>AHK54176.1 hypothetical protein N919\_07070 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAELKFKTKAQNLKNLQTKLKKAKVLPLVLTSLEELISNEDKVLQDIQTLKANRLIIRSSSLSEDSMKNS

NAGAFLSLANIKADSKDELLKALYEVANSMPSKSDEILVQPMLENITLCGVGFSVDKDNFSPYFCLQYDE

NGSNSSITDGSSKSAKTYYHYRNYLEFKDIRLQKIIELIKELEVLYDCHFLDVEFAFAIQDDKEELFCLQ

VRPLVMHEKNNLFHSLPKEALYRFYKRFESLKESRSRVLGDKAIFGVMPDWNPAEIIGLRPKRLAFSLYK

EIITDNIWAYQRDNYGYRDLRSHPLIHSFLGIPYVDVRLSFNSFIPKKLDENIAQKLVNFYLDKLNKNHE

LHDKIEFNIVYSCYDFNSSKKLEELLNHGFNENEIKRLEFSLLELTNKIINPRSGFYLKDIQKAYKLKER

YDGIINSNFSLIDKIYWLIEECKRYGTLPFAGVARAAFVAMQLLNSLVEIDFITKEEKDDFLNSLNTVSK

NLSKQTNHLNFHNKDQFLKDFGHLRAGTYNILSPRYDEDFELYFDADQKDSKVYLQDKAFVFSKEKTRAL

NALLKEHGLEINACEFFDFLKQAIEGRELVKFEFTRLLSKAIVYIEELGKYYDIEKEDLAHLDIKSILNL

YSSLYSINPKEQFIEEINRNKKEYELTQAIKLPSLLCNADEIFSFYNHSIIPNFITQKSITAFTAKENDK

DLEGKIVLIYAADPGYDYLFTKNIAGLITCYGGANSHMAIRASELGMPAVIGVGEENFEKYLKAKKINIE

CESEQIFCL

>AHK54175.1 glutamine amidotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFIGITQRLICNDSYHEKRECLALDWGKLFNKDLFKNFTPLPLSYEIDFSYYKHLIKAVILSGGNDLSFY

SPNVLSKKRDLYEKQVIEICLEEKIPLLGICRGAQMIAHYFNSHISPCENHIGKHEVFFSKEKFISNSFH

NFAIEKLGEDLVELCLAKDNTIEAFKHKYENIFGIMWHIERENGLNNIQILKEWFSLIKE

>AHK54174.1 sugar nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNAIILAAGFGSRLMPLTKDQPKCMVEYKNKKIIDYEIEALKSAGINEIAVVGGYLNDVLKNYLNKYDIE

HFFINSKYDKTNMVHTFFCAKDFMLKCIEEKQDLIISYADIVYFQDCVQKLINAKEELAIVVDKSWCKLW

SKRFANPLEDAETLKMTNGYIIELGKKANAYDEIEAQYIGLFKFSYQFLSEVIAFYEMLDRDILYDNKNF

ENMYMTSFLQALIEKYNNAKAVEIDGNWCEIDFMSDLEVQIEK

>AHK54173.1 adenylylsulfate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNNPYIIWLTGLAGSGKTTIGQALYEKLKLKYKNLIYLDGDELREILGHYAYDRQGRIDMALKRAKFAK

FLNDQGMMVIVTTISMFNEIYDYNRKQLKNYYEIYIECDMHELIQRDQKGLYTKALNKEIDNVVGVDIEF

DKPEADLVINNSCRNNLEEKVELIIKKLAL

>AHK54172.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKYYSISKKLIANVRNFYTISLYKKNLKIKKDDLFFGWGRKKSGLKAMNLAKKYKAKFILLEDGFIRSLN

LGVENSPSFSMVKDDIGIYYDATMPSKLENLLNTCEFKDEEIKQAKKAIELIKKYKISKYNNNLDIPDNY

FQKDEKRVLIITQTANDASLEFGLAKDFKTLDMIKDAIKENPKSTIYIKIHPDVLSGKKQSDLDLNSLPK

ECILITENFNPIALLEFFDKVYTKTSGMGFEALMQECECICYGMPFYAGWGLTKDKLECKRRMQKRSLEE

VFYAAYILYAEYFNPYLNQKSNIFDTIQTLAKYKDIEKVNSNKLFMLGFTLWKRHFIKPFFKAKDNEIIF

LNSLKSLARYKLKENDKFFIWGKRIDYNALKTTLIKKAQDENLLHFTPKISLVEDGFIRSISLGSDLTRP

FSLIVDDKGLYIDPNKASKLEELLQNEIFDENMLNRAKNIIKILLENRFSKYNGLKHEDLKINAKIGQKI

ILIPAQVEDDASMILGGFGLSTLDLLKEVRAKNQDAYIIFKPHPDVLSGNRVGLKDETLILEFCDEIVKD

CSIDSAIKIADEIHTITSTSGFDALLRAKKVFTYGMPFYAGWGLTKDKYRCERRIRKLSLEELVAGALII

YPRYINPKTKTLCEIEVCLDIMLNLQKAYFSKKYIKLAIDFKTFMLRKIRRFYEFLAKK

>AHK54171.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRFSTKIKKEFSGKNVLLLQGPVGNFFHHLAVKMRKNQTKVFKLNFNGGDFFFYPSGTRCKCDEKDLENF

YRDFFQNKKIDAILMYNDCRIIHAKAIKVAKELGIEIWIFEEGYLRPYCITLEKDGVNANSSLPRDKNFY

LSQNIFTKESIKEIPGGFKFMAFDAFLYWLFAFILAPFFNNKLHHRTLYPFEFLFWFRSLYRKYLYKITE

KKLNEKIYNLEKKYFLAILQVYSDTQIKYHYKKSIEHFIEETILSFANHARAKSYLVFKHHPMDRGYKNY

FKLINDLSRKYHVEGRVLYVHDTHLPVLLRKALGCITINSTVGLSAILEGCPTKVCGNAFYNFEGLSYPK

KLQFFWREAHAYKPNPVLVCNFKKYLLQTNQFNGNFYKNFFLDK

>AHK54170.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDREVFYIAGYDPKSYRFYYDLFKKNLKDYSHAFNIKADLSKIEKNEQFPFFQISCEGVQTKYHFLTWND

IVKKNWSENYKDALADCYSFFRIYTITGLFIKFGKESIYQLITGYYPFFYVLFSLLFSLVLAFGSFAFLQ

NYMHFSLAIIIGCFLGFLLNHFLFKLGKKLAVFWIARICAFCATWQDKKTGTMQERIKLFANTIVDKLKQ

NENKQDYELVLVAHSVGTIVCIEVLECILRQNLDLSLLHKLKILTLGECIPLVSYQKKADEFRKKLEFVS

RFDLKWYDYTSIIDGACFPQVDFFRTSGVNAKFTPPFLSAKFHTLYEKHEYKKIKRDKNKAHFLYLYSIS

VKGDYDFFSFIIMPKFLEEKVKI

>AHK54169.1 cytochrome P450 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSECPFFPKPYKNKASTLLTFLLKRRSWLDGLYERSYKMQTGYVKMPNFDLYVINDTKEVKRMMVDEVRE

FPKSAFLHELLSPLLGESIFTTNGEVWKKQRELLRPSFEMTRINKVFNLMSEAVADMMDRFSKYPNHAVI

EVDEAMTFITADVIFRTIMSSKLDEEKGKKILNAFVTFQEQSVHTAMRRMFRFPKWLSYVLGDCKRAKAG

DVIRQVLSDIIKPRYDMADNAEFEDILGSLLLVVDADTNKRFSFEEILDQVAMLFLAGHETTASSLTWTL

YLLSLYPKEQEKAYEEITQVLQGGVIEISHLRQFKYLTNIFKESLRLYPPVGFFAREAKKDTQVRDKLIK

KGSGVVIAPWLIHRHEEFWTNPHGFNPSRFEGEYKKDAYLPFGVGERICIGQGFAMQEAILILANILKTY

KLELEEGFVPDVVGRLTVRSANGMRIKFSKRKL

>AHK54168.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKRVRTKIRANFRRRVKRTLKGSLKEKLAGTILLCAIVPLAVLGYLFIVIIGIFFNTARARQGVRALDHF

VNASLFNGYAWESVSSHAWRERNRKKWARIVIKITDFFQKDHCKRANKREQPVVDFILSRNLDKQTIGK

>AHK54167.1 4'-phosphopantetheinyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRVGCDIIAISRIEKIHSRHGKNFLDKFLNPKEQILIKNPATLAGLWAAKEAASKALGVGICELCSFFDI

EISKDEKNAPKLKYSQKITKDFNITQTSLSISHDNGFAIAIVAVV

>AHK54166.1 flagellar basal body protein FliL [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDEELENEETKKKKGGSLVIIIVILLFVLLLSIMGVIAWLISSSSSDESEVKEAPKEEAKADKPKVSAPA

QRGSDFANIGPMYPLDPFTLNLLSDSGSRYVKCTIELEQNSELLKPELDKKVPVIRDIIIRTLTAKTFEE

VSTQKGKERLKDELVGKINEILTDGFIKNVYFTDFVVS

>AHK54165.1 phospho-sugar mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLDVIFREYDIRGLYDKELNEKSVKAIGFCLGQTMLNRGCKNVSVGYDARYSANELFNYLVSGLNKAGIK

IYDIGLVPTPLGYFSLYEGLKFDANVMITGSHNPKDYNGFKITINKESFFGVELKEFSKEVYKHLDDDIE

ENLEVEKYDILNLYVKFMCEQFSFLKDFNYKFGVDCTNGAAGVVIKPLIKALNLKAHVMFAEPDGQFPNH

APDPTEEENLSAIREFLNQNQDYSLAFAFDGDADRMVALSKTHVFCGDELCYLFAKDIPNPRILGEVKCS

KNLFDEVAKFGTIFMGKTGHSNIKKMMKEKDIDLAAEVSGHIFFKHRYFGYDDGIYAFLRALELVYKGFD

LESMIKALPKLYTTPEIKIPVNEEEKFKLVEEFQKEIEKGALKGVKSLCEIDGARIDFGDGWALLRASNT

SPYLITRFEATSLERAKELESMVFTLFNDIKARFKN

>AHK54164.1 hypothetical protein N919\_07005 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQERIDLIVKILDEKKAENIKTIDMSEQEYFVKYVIIAATLGERHALSLIDELKTRLKAKGEEFLNIDSS

EEWSVIDLGDILIHLLTPEHRGIYNIEELLENLKKGRV

>AHK54163.1 nicotinate-nucleotide adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIALFGGSFDPPHNGHNSVVLEALEKLDIDKLIIMPTYINPFKQSFSADEKQRFLWVKKLWGHLPKVEI

CDFEIRQKRPVPSIESVKYLYKLYNPSKFYLLIGADHLEKLHLWHDFEKLNSLVEFVIANRNDIGIPKNF

KDLKTNKKIASSFIRDTLNTNEVCEEIKDEVKKYYEKLQKN

>AHK54162.1 glyceraldehyde-3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAVKVAINGFGRIGRCVARIILERNDIELVAINDTTDIELTKYLFKYDTVHGEFKGSVDSEGDDLVVNGK

KIKVFKSRNVKDLDFAKHGAQIVLECTGAHLTMAKCQEFIDMGVQKVIMSAPAKDDTPTYVLGVNSELYK

GESIISNASCTTNCLGPVCRVLQDNFGIEKGLMTTIHAYTNGQSIIDAKAKDKRRSRAAAQNIIPTSTGA

AKAMKLVMPELNGKLHGQSMRVPVIDVSSVDLTAQLSRKVSKDEINEAFRKAAATNLKGILMVDDDERVS

SDFITCSYGAIVASDLTQVIADDFIKVIAWYDNEWGYSSRLVDMAVYIANKA

>AHK54161.1 phosphoglycerate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSDIISIKDIDLAKKKVFIRCDFNVPQDDFLNITDDRRIRSAIPTIRYCLDNGCSVILASHLGRPKEISS

KYSLEPVAKRLARLLDKEIVMAKDVIGEDAKTKAMNLKAGEILLLENLRFEKGETKNDENLAKELASMVQ

VYINDAFGVCHRAHSSVEAITKFFDEKHKGAGFLLQKEIDFASNLIKHPARPFVAVVGGSKVSGKLQALT

NLLPKVDKLIIGGGMAFTFLKALGYDIGNSLLEEELLEEANKILTKGKNLGVKIYLPVDVVAAPACSQDV

PMKFVPAQEIPNGWMGLDIGPASVRLFKEVISDAQTIWWNGPMGVFEIDKFSKGSIKMSHYISEGHATSV

VGGGDTADVVARAGDADEMTFISTGGGASLELIEGKELPGVKALRSKENE

>AHK54160.1 triosephosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIFAANLKCNHTRASFKIYAKILNKTMGVKCDDIIVFPPSIAFLENENNFIQGAQNFYPCVNGAFTGELG

KEHLDEFGIKCVLIGHSERRALGDEEFIKAKFDFAKEHGYKIVFCIGENLDTKNSGKTLEFLKKQLEIID

LNYEKLIIAYEPIYSIGTGVSAQSTDIAKVLEFLASLTKVPLLYGGSVNENNIKEILSVNHCGGVLIGSA

ALKVENFIKLIKG

>AHK54159.1 enoyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIMKGKKGLIVGVANNKSIAYGIAKACFDQGAELAFTFLNDALKKRVEPIAQEFNSNFVYELDVNNNEHL

DSIAEKIKKDLGEIDFVVHAVAFAPKEALENSFLETSKEAFDIAMQTSVYSLLSLTRAVLPILKDKGSIL

TLSYLGGVKYVPHYNVMGVAKAALESSVRYLARDLGVKGIRVNAISAGPIKTLAASGIGDFRMILKYNEI

NSPLKRNVSIEDVGNSAMYLLSDLANGVTGEIHYVDAGYNIMGMGDVEKNEEGQTVLCWDNQKG

>AHK54158.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKLSNEELKNILEDRIKKLENSTLKEDKVINEESVKILARHLSLGNEIPALAQRFFQIAPKTKLVWLHL

CECTGCSESLLRSELPSFDELIFDFFSLEYHETLMAANGTKAEELLEYVLEEDFILAVEGGVAAIDTFFL

TIGAQGESGYEILEKLAAKAKAIFAVGTCSSYGGIQAAYPNPSKTCGISEVLSQKVVNIPGCPPSDINII

ATLSFFALFGVLPELDEQNRPVWAYGKCLHDMCERKAKFESGIFAEHFDDEAAKNGACLFKIGCKGPYTY

NNCPKVKFNAKTSWPVAAGHGCIACSEKNFWDEFGNYEKPMANIFSYAKLCNEELKQEFFLEEQIKILEQ

IDFEFESNIKLILQNIAKNKLGALLVENYKKSFEKNYAFIEQNFDENPMPSKDFWKYLEISFILVKGAFL

KDKNDFLIVAKNYAFKHASPYDFKLNMNAEKPKLDVSKSFRMTLIYLCGGLDFEGVAYSILKAFEDNIAK

ISSLKAS

>AHK54157.1 hypothetical protein N919\_06965 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTLNELKDGQKAIIVNLNAHKELKNRLLSFGFIKNKNLKKIHSSLKNATIMVELDTSCVILRSDEAKTIE

VNLI

>AHK54156.1 endoribonuclease L-PSP [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSNYPKAIGPYSAYREVNGLLFISGQLPINPASGEIESSDIKEQTKQSLKNIGAILEENGISYDKVIKTT

CFLADINDFVAFNEIYAEFFKAPYPARSAFAVKDLPKKAKVEIEIIAQKG

>AHK54155.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDEGQKQQFIKLTYFLGEVLGEQYEIVFHVITEDGAYIAAIANSHISGRSLDSPLTAFASELMQNKKYLE

KDFLCDYKALVGKSKLIRGSTFFIKNHDKLVGILCINHDTSIMRDLICKMIDLEKIGDMGDILGNISFSQ

NDSSIETLSHSIEDILVQSVDSSYLNSDYQLSITQKEEIAEKLYEKGIFNIKGAVPIVAKFLKISEPSVY

RYLKKFKK

>AHK54154.1 ankyrin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTTLSLEEEKRFEELCKMAFNFARNNECENLKIMIEAGLNVNLKTHKGDSLLMLAAYNNSYESAKMLLEK

GAKVDEKNDRGQTPLAGVCFKGYLPMCELLVKYGANIDENNGLGMTPYTFAIMFGRKDVAEFLLKKSKNN

FLKKISLKILKFIKKF

>AHK54153.1 catalase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKLTNDFGNIIADNQNSLSAGAKGPLLMQDYLLLEKLAHQNRERIPERTVHAKGSGAYGEIKITADLSA

YTKAKIFQKGEVTPLFLRFSTVAGEAGAADAERDVRGFAIKFYTKEGNWDLVGNNTPTFFIRDAYKFPDF

IHTQKRDPRTHLRSNNAAWDFWSLCPESLHQVTILMSDRGIPASYRHMHGFGSHTYSFINDKNERFWVKF

HFKTQQGIKNLTNQEAAELIAKDRESHQRDLYNAIENKDFPKWKVQVQILAEKDIEKLGFNPFDLTKIWP

HSFVPLMDIGEMILNKNPQNYFNEVEQAAFSPSNIVPGIGFSPDKMLQARIFSYPDAQRYRIGTNYHLLP

VNRAKSEVNTYNVAGAMNFDSYKNDAAYYEPNSYDNSPKEDKSYLEPDLVLEGVAQRYAPLDNDFYTQPR

ALFNLMNDDQKTQLFHNIAASMEGVDEKIITRALKHFEKISPDYAKGIKKALEK

>AHK54152.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSVLVIGADEITPIRAVLHDLGAKKIEHWDARNENRVNRKPIPCDTECIVMLTSFLNHNTMKKIKNEAKK

RKIPLVCAKRSVSCVYCEYCKIFNLNKEFSCYKG

>AHK54151.1 hypothetical protein N919\_06920 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLFGFDDKQEFIPQIYRYLNNQELMLTFLTQYNASVDSALKIPLLYAKNTKSLKMIFGNFLHNIMHVSFG

KIQNINIKLNTYAFYFQKRKSLIFNTKISKNVDLLRLLRIYLYGICFDAQILFSSYVYDKVSFQNNGKNI

DQDGDLIIIDKKFAILPLCKEINTHNLEIENEIYELLNLIKENNFEKFYIVCPRNKNFTHFIEIKHFLCD

LNKTMLKLVPYKISNQIIRRK

>AHK54150.1 flavodoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSVAVIYGSAMGNTEGAANTIASKLGISDVFNISDIDAAKMNSYDKLICGTSTWGSGDLQDDWDGFDFSG

LSLGGKTVAVFGMGDSESYSDTFCGGMGKLAQNLKDAGANLVGEVSTDGYTFEASDAVVDGKFVGLALDN

DNQEDQTESRIDAWVEQIKPYFA

>AHK54149.1 hypothetical protein N919\_06910 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKFALILSFFIALFMSACTNATFTQSFIQTSNEGIFIRSQKQQSFKISFQNPSQLQTTLDRDLALKLKN

LGLKEVKENADYEILINLVDMKKHSYAQKITTSARFFYDFDPLESDGEWMVENYYTMQVNLQINSKNHNS

QKTSLLARTAYLGNKERCQLSLENKIINQIVSFFYF

>AHK54148.1 hypothetical protein N919\_06905 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKLSLILVCSASLFAASNSEISDFYSKSIKAQFPNATVSVSNRQKVGNTGFESVIVSVELNGQKQENIL

FTKDSLITPDLIDLKTGISYAQEYEMKKFQEARENFTKNAKAVAQKETMVIALGDKNKPAIYVFSDPECP

YCREHLAQIDDELKNYQVNYILTPVHGKSAFEKSALIYKEAKKAKNDKEKIAILNKYYDANIKNYPKVSD

AELKEVFSLYEKYRSLGLSATPTIIK

>AHK54147.1 translation elongation factor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKSVIIGTAGHIDHGKTSLIKALNGFEGDSLKEEQERQITINLSFSNLKLKDKNISFIDVPGHKDLVKTM

VSGAFGFSVCLFVVDINEGLKEQSLEHLEILKILDIKNIILVLSKCDLCENIEQKSVEILEELKNLDYPI

LKVFHTSIKNNQGIEELKNYLYTIENKENDEELIFHYYIDRVFSLKGIGTVVTGSLNEGSITLNEKIICL

DTQKELIVKNIQNHDTNLEQIKACNRVALSLNCDYKELKKGYLLSKKGYFKAFKECDALVKAKNLQNSKM

IFCVGSRQIECKINILKKLENDEFFVHFSFDKNVFLSFDEAFILLQNNRVIGGGKVLNPLSEPLKKEQKN

KFLMFLKNKDFKAAFSFLKDAHKYGFGLLSSYQRFKLSHQKALKLAKELNQVFVDEKNLNVYHLQSLEEI

KNFIKFILEKNPYAMLSAHSLALRITWASENFCELGLKEMSNLLDFQNGIYFKKGIDFEKLQEKNNNQMY

EILKKQGIKPEAPYNLYDFLELDRKSGDNILKKLTQKGLVVRLSHNLFIEKQALEKLMQECLNLLKNQSL

DVQSMKEYFNLSRKYAIAYLEYLDKFPQVSKEAEKRFLTNI

>AHK54146.1 selenocysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKFRTFPQINTLIEDESLKSYPFYIKAFFCKKVVAKLKENFFQDEISKDKLLLEIKKEIKTFYRKDLQS

VINASGVVIHTNLGRSVIHEELYEACKDIICNYSNVEFDLENGKRGSRYALVLEKLKMLFECEDALVVNN

NAAAVFLVLNSLCYDKEVISSRGELVEIGGSFRVPEVIKAAGVKLCEVGTSNKTHLKDYEQAINENTALI

LKTHKSNFALMGFHSEVNIKDLHELAKEKELLSYYDLGSGWCENLNEKLIKNEPKIRKLVQECDILSFSG

DKLFGSVQAGIILGKKELIEKLKQNQLLRMLRVDKLTLSFLNESLKAYLQKDYEKIITLKLLNDDLSFIE

KKALRVQKELKFQTQLKKSKSLVGGGSMPDKSLDTYILTFQGDALKLQTRFRKENIIGRIENDEFVLDFR

TIRENELQKLILTINQMENL

>AHK54145.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQDFVYIKNDVLIPLPDAIEILDQANDKEALICNDKNQKAQIYAPEINFYLKNSQDEILEQSKNVLTLYE

ARASVYDLGLDLEQSKEVQNRLIVADGDAQTVEFLKEHEFKVIALSSAEILAVFGSVGELCAVVKNQGEE

VEIDFDFLLFKAEDLSVVRKDFTRQSGCYNLLNFENLEVLFEFLQSKSPKYHYKTYISYNASVCQYHERR

SEHCAKCAEICPTVAILKDDENKHLEFSQVDCLGCGGCISVCPSGSLDYAPMPRESFFTLCEFYKDKKIL

IIPKKMSLENLNLALPKDVLPFMIEGEKWLSSMHFLTLLQNSGANLVFYTDFVSRGSNEAIVLLNTFFER

KFQKKAIFVAKDEKELQNVLKEQEFIQDLKYDFHNNTLTTRENFAKRMQEMIKNEDFGSMESGEWLRYGK

VEINPNTCTLCLSCVGACNVGALIADKQENALKFNASLCTTCGYCELSCAEKDTLKLFRSGMEFRASYFE

YQTMAKDELFACIECGKEFATKKAVEKIANLMKPKFGNDENKIKTLYCCADCKAKVMIKAMIN

>AHK54144.1 major facilitator transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNNVLPLSFIVGTRFFGLFIVLPVLSLYALKLEGANEFLVGLLVGVYALTQMILQMPFGILSDKIGRKK

TMLIGLIIFIIGSLICSFAENIYTMLLGRMLQGAGAIGAVATAMISDFITEENRGKAMAVMGSFIGLSFA

ASMVISPLMSAKWGLSSLFDLSAALSLLCIILLYTVVPKENKITHENEKTPFFHLIKQKNLALMNLTNFM

QKMLMSIAFLSIPIILVKHLGFASDKLWIVYSASMVAGFIAMGFAGSLGEKKGLAKQILLLGIVFFILSY

LFFAFSNSIDFFIIAVVIFFIGFNLHEPIMQSCASKFCKVHEKGAALGLFNAFGYGGSFIGGIIGGIFLH

LDTLNLLAIILVILALIWLVALFFLKNPADFKNLYLPLETPLNFSTFGENLGVVDIYKNSKNLVVKFDSK

LTSKEELEGKL

>AHK54143.1 nucleoside-triphosphate diphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIILATSNKHKVLELKEILKDFEIYAFDEVLMPFEIEENGKTFKENALIKARAVFNALDEKQKKDFIAL

SDDSGICVDVLEGNPGIYSARFSGKGDDKSNRDKLVNEMIKKGFKQSKAYYVAAIAMVGLMGEFSTHGTM

HGKVIDTEKGENGFGYDSLFIPKGFDKTLAQLSVDEKNNISHRFKALELAKIILKILNKG

>AHK54142.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFAKLLKFFISRPKSTFFGTLFICLFLSFFAFKLSVDASAESLLLEDDADLKTFREISKHYKSDNFLLLA

FKPYDEKPFSNENLAKLKKLHEELEKAPLVERVFSIINAPLLQSSQNTDLKELLKNIPNIESQDINRTKA

QNEILNSPFYKNNIISKDGKVTGLIIYLKPDTVYNNLIEKRDLATDEKEKDQIRLAIKEHQDKQKVITKQ

SLDTIKSIVRNYEKNKDTLYLGGVSMIADDMIAYIKSDLVLYGVSLVFLLGLALYYFFRSWRFVFLPLFI

CFISLSAASGVFALLNFQITVISSNYVALVLIITLSVVVHLITHFIESTQNHPKAKVERIVLETLLAKAN

PSLYAIVTTMIGFFSLILSNIEPIIKLGIMMSIGIGLALIFSYLFLASILVLLKPKNYHKKEFKFNLLAF

CAKTALDPKKRRMIYEISVLAIILALIGISKLRVENSFVNYFKDGSEIKKGLLVIDKNLGGTLPLEVIIR

FPNNKNDQNASDTLDSFESEFENLATQETYWFDSKKTRIAKKVHEFLENKEFVGSVLSLNSLLTLGKNIN

DGKELDDFALAFLNENLPAKFKQDLLSPFVSIENNELRFSMRIVDSDPNLRRNEFLIDLKKQLNELVKND

GVEVQITGIMVLYNNMLQSLFSSQFDTLIFVILAIFILFIIVFRDLKFSVAAILVNVIPLSVVFALMGLL

GIPLDMMSITIAAIAIGIGVDDAIHYIYRFREEIKNKSLEEAIMISHLSIGSALYYTTISIVLGFSVMMS

SNFIPTIYFGILTVFVMILLLSGSLFLLPSFLITIYSKKTKFPNQHKEHILKQ

>AHK54141.1 toluene tolerance protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIFLILTLFFNAFALQLDEISSTMQKNIDASLKLLQDNKEDKKQAANGIFKLFDSIIDYKLMAKLSLS

KNYSKLTPKEQEKFTTAFETSLKKSFTDKLSLYKDQVLKVKNGELKNEKRYFLTTSMVVDGEEKNIIFKF

YNDNNNWLIYDVDVLGVSIVQTYRSQFGDILANQGFDALLQKLESIVIE

>AHK54140.1 hypothetical protein N919\_06860 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRIKFISFILIFFTIFAFAKEQNLDDFEQEYQNYQVNDPLSGYNKAMTSFNVALYDYGLRPVLKGYNAIT

PEFIRLGARNFFDNLLAPLRFVSNVLQFKFEEAGEEFKRFTANTIMGFGGLMDVASKMGLKKHPADLGTV

LAHWGVGSGFHIVLPILGPSNLRDTLTLPATWYASFTAYIDPTWASIAISAYGFGNELSFRLDEIDEIYH

NTPNLYPFLRDAYEQRRNELSK

>AHK54139.1 nicotinate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIFYSYEEFKEDVKILAKEIKEDFNPDALLAIARGGMSLGHSLAVALKTRQLFALNSIHYDNTKKLDTIE

IFNIPDLSKHKKILLIDDIVDSGESLAEIKKVLLEKFPHIELKITTIFYKKTALLEPDFKVKEATEWVDF

YWDINLD

>AHK54138.1 guanine permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSFFKLKENNTSFKTEVIAGLTTFLAMVYIIPVNSSIVGNTGMPIEALITATALITIVASAFNAFFANTP

VAMSVGMGLNAYFTFAVCLGQNIAWQSALGAVFISSIIFLILSFTHFRLWVIRNIPKDLRLAICAGIGCF

IAFLGLSQMGVIMHNKDTLVSIGNFKSPHVLFGIFTLALIIFFWAIKLRGAFILGVLASSIIAWIFHLDN

ASFPVQIFSWPNFSMENGLGAIFLQLDIKSALNITMIPIILTFFITQLFDSIGTITGVGERGKIFDDPKN

GEKKLSKTLMADATGSALGAMTGTSTVTAFVESTTGVESGGRTGLTALVVAICFAFTLFLLPLFKAIPAN

AIYPVLVMVGILMFMEVKNIDFKDSAIAVASFFTIIMMPFTYSITTGFAFGFLSYLLVRIFKREWDKINL

GIIVLSLLSLGNFLLMALQ

>AHK54137.1 hypothetical protein N919\_06845 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNLITKLENEERLNQEEANALWDLDLFTLGKYAHKKRTKLHGKKVYFNINRHINPTNICADTCKFCAFS

AHRKNPNPYLMTHEEIMKIVDETVKRETKEVHIVSAHNKDTTWQWYLEIFKMIKEKYPNLHVKAMTAAEI

DFLHRRFKMSYEEVIEKMLEYGVDSMPGGGAEIFDEEVRKKICHGKVSSENWLKIHKLWHEKSKQSNATM

LFGHIEERHHRIDHMLRLRDLQDQTGGFNAFIPLVWQRDKSFIQTDKIMDSEEILKTIAISRLVLDNIKN

IKAYWATMTLNLAMVAQEFGANDLDGTIEKESIQSAGGAKSAKGTSLKTFIDMIKTSNLIPVERDSLYNE

LKTY

>AHK54136.1 nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNKELEIFKKNLSSYTQSCRKFFLKQGAFSLYHSKNMDNFIKKAYDIVLKDYFDDFSPPSDNIPFCVLA

SKAYANNSLCFNESISLIFVYKDIKAFHLKPMIKAFIEILNDAHLQIDSVILEFNGLYNASNELKTSIIQ

TRFICGSRILFKGIKIKFESIIKENKNDFAKLLLENFKEFDIPFIKQEFNILKDFGGLNHLRSLESLLVL

FKTSPKNYALNFIDEKKLSELRLAGDFLLSLKSAMNLLSAKDEDEFLLINVHDLSELMYKKAKKHFGANE

LLVQKALQSMHTIGFYTHFLAKQIQDGLNHTLKQEYKFKTLVEVLEYLLKLEDKHVIFDLNLVFALGRLK

YGKKDIEKALILFEKIFYKRHSFCVLKLLLDSGILKDLCKPFWTVRFLSDEEGNYSFDEQVFLMLSEFEK

YEDELEILQKLKTDEKMILKLVILLSAIESENEISLAGIYRAYCSKFDLKNEILEWGLKIFKNNNALKDL

VEKEDIYNPIVVSSLVSKLENLENLELLYTLTWLKAKALNYNAFYFRVLDKLLENAKQGFEDENLLEESA

RRVKKELTLKRSKIFLEQDEILQDKIIHIKSNLFIIKNTFEDIVMISKLAKENDFKFWFSNETNLSLQIV

APLHFNIAIILSSLTNLNLIFMNFFELFDDKIYLRFEYDNIISDEQKLKLCELLNSNLSGFNLKKIKKPI

IKKDELKLDLNYSKMYAKLGLNTKDQQGLMAYLMNVFNELELVLCAAKIQTIRQRTRNIFIFQKNEKLEH

SEQKLVNLLISE

>AHK54135.1 glucosamine--fructose-6-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MCGIVGYIGNNEKKQIILNGLKELEYRGYDSAGMAVMQEGELSFFKAVGKLENLANKCTDFESQGYGFAI

GHTRWATHGKPTEINAHPHLGQYSCVIHNGIIENYKEIKDKLEKEGVSFLSQTDTEVIVQLFEFYARNLG

VFEAWQKTIKELRGAFATLLVTKKDPNHVYFAKNAAPLIIGKNANKEWYFSSGDAPLIGSCDEVMYLEDL

SLGYASKDELVVYENDILKSLCFSKLSGDKAYAKKDGFRFFMEKEIYEQSRVMSEVLMGRIQGDEVVFDE

LNNEDLSQVDEITLCACGTSYHAAMASAYLFERIAKVKAKVEIASEFRYREAIIKKDSLFIVISQSGETA

DTLEALKIAKEQGAKTFAICNVDNSNIVRLAHLSLLTRAGIEKGVASTKAFATQVLTLWMLAIFMAQKRN

LNVSAEIKALLHTPNCVSVKQALHEKIHRLSKRYLDGHGFFFIGRDVFYPLALEGALKLKELSYLHAEGY

PAGEMKHGPIALADSKLYTIALMPKHMLYEKTKSNVEELIARDSTVLSISPLEFDLSDDFIKTNEQDHYM

CEFFEMMVITQLLAMEISIRLGNDVDMPRNLAKSVTVE

>AHK54134.1 fumarate hydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEYRVEHDTMGEVKVPNDKYWGAQTERSFENFKIGCEKMPKVLIYAFANLKKSLALVNNKLGKLDDAKKN

AIVQACDEIIAGKFDDNFPLAIWQTGSGTQSNMNMNEVIANRATEIMGGDFRKEKLVHPNDHVNMSQSSN

DTFPTAMSIVAVEQVEKKLIPALDELIATFEKKVKEFDGIIKIGRTHLQDATPLTLAQEFSGYLSMLLHS

KEQIIASLPTLRELAIGGTAVGTGLNAHPELSQKVSEELTQLIGTKFISSPNKFHALTSHDAINFTHGAM

KGLAANLMKIANDIRWLASGPRCGLGELIIPENEPGSSIMPGKVNPTQCEAVTMVAVQVMGNDVAIGFAA

SQGNFELNVFKPVIIYNFLQSLDLLADSMHSFNIHCAVGIEPNRAKIDHNLHNSLMLVTALNPHIGYENA

AKVAKNAHKKGISLKESTMELGLVSEEDFNKFVDPTKMIGPKA

>AHK54133.1 hypothetical protein N919\_06820 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNGKFFLISFILVILFLLLYLFKGFLLVIIIASLMAVATSNINAKFLNLTKGHKFLASILTTTCMVLLF

FAPFVYAMIELAKALKNFDINLVTQTLDYVKNYQFTLPESFNFLEPKIKEFLASIDLNSISKQILSYASS

FTKSGAKFLIDMVLICVFYFFANLYGTELVIYLKSIIPIDKKELDDVLSEVGNVMAVVLYSMVIVAIFQG

ALFGLITIFYGYDGILMGVIFAVSSLIPAIGGALIYMPVSLYEFASNNLNSALVIFIYSVIVISFIADTL

IKPLIIKWINKKLVKTPTKINELLIFLAMIAGISTFGFWGIILGPAILTFFVSTLRMYVILKDKNLI

>AHK54132.1 Holliday junction DNA helicase RuvB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDRIVEIEKYSFDETYETSLRPSNFDGYIGQESIKKNLNVFIAAAKKRNECLDHILFSGPAGLGKTTLAN

IISYEMSANIKTTAAPMIEKSGDLAAILTNLSEGDILFIDEIHRLSPAIEEVLYPAMEDYRLDIIIGSGP

AAQTIKIDLPKFTLIGATTRAGMLSNPLRDRFGMQFRLEFYKDSELALILQKAALKLNKTCEEKAALEIA

KRSRSTPRIALRLLKRVRDFADVNDEEIITEKRANEALNSLGVNELGFDAMDLRYLELLTAAKQKPIGLA

SIAAALSEDENTIEDVIEPYLLANGYIERTAKGRIASAKSYSALKLNYEKTLFEE

>AHK54131.1 histidine phosphotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGILTKLELDYEIDDIEKFLQFFRTMCDRFEPLIIKLGSDSVRYKEAIKELETLAHNTAWAARRLNLEEV

TDFCVFCEEMMAQANRFNGPASDEFTDWMLLMSDQFEKYCRSYENDDSVLAVFNPLIVNVPNIISK

>AHK54130.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQTSPDMFINRELSWLRFNSRVLDQCSKNLPLLEKLKFIAIYCTNLDEFYMIRVAGLKQLFSAGVNASSS

DEMTPLQQLKAIRKYLHQEKELLERYFNEITSELEKENLFIKHYENLDENLKQKCDEYFFSNIFPVIVPI

AVDATHPFPHLNNLSFSLAVKICDKAHPELVKFGMIRIPRVLPRFYEVSANIYVPIESIVHQHAEEIFPG

YKLLASAAFRVTRNADMVIEEEEADDFMMILEQGLKLRRKGAFVRLQIQKDADEQIVEFLNTHMKIFHKD

VYEYSILLNLPSLWQIAGNKTFTHLLSPLYTPKTLPPFDENLSIFDAVEKEDILIIQPFESFDPVYKFIK

EASKDPEVISIRMTLYRVEKNSNIVQALIDAASDGKQVTVMVELKARFDEENNLHWAKALENAGAHVIYG

ITGFKVHAKVSQVIRKQGDKLKFYMHLSTGNYNASSAKIYTDVSYFTSKAEFARDTTSFFHILSGFSKNR

RLQTLSMSPNQIKEKVLEMIRIETSKKNEGVIVAKMNSLVDSDIIQALYEASMEGVQIDLIIRGICCLKP

DEEYSKNIRVRSIIGKYLEHARVFYFKHSEPNYFISSADWMPRNLERRLELMTPIYDERSKAKLAQFLRL

QLSDNVLAYELKNNGEYEKIPSSEKIIDSQQTLEEYVSKIYKTLKKDTDQSRATHLASKLFKEN

>AHK54129.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKTSNLFTIFLVLLFVFFAVGFYTFYNAKGTSYLSNASESCNNCHIMNEVYNEYMAGPHSQKVKGEPRA

TCVDCHLPHNFVAKWIAKAQSGLGHAYAFTFKLDELPTNLSATEKSRKMVQENCIRCHADFAQTAINATT

NPHADKSLNCASCHKDVGHKHGI

>AHK54128.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKNILRLGIVVLVLLIAGVLWLNNDINQKKEDEANKNAIAANADFSLLSDDDPNFEKWGKVFPEQLKMY

LTVEKEEPKATEFGGNLAYSKLIRFPQLTILWAGYPFSLDFNEERGHFWVQVDQMKTARNNKDFLNAHGL

AAFKGQPAACMNCHSGWTPWLIKNVAKGDFTAFNSTNYWTMIKNIPAVDGIVENSPEHAGPHGGKRMGVT

CADCHNPNDMSLRLTRPAAINALVSRGYEKDPVQGVKATREEMRTLVCSQCHVEYYFKPTGEKVKVMGET

IVDDSSKKWWNGTQKNYDEYEFWRDGNKVKEIETDGIVLTFPWSEWKKGQPFRIEMLDDYYDKVRGVFGA

DFTHKLTGAQIIKIQHPESELYSGGVHAANGVSCVDCHMPYVREGAKKVTQHNITSPLRDINSACKSCHK

QSEDYLKAQVLDIQNSVAHDQRTAEYAIVSLIMDTKKLRDELGNMEKFQSDGKADAKKISEELKEVLELH

RKAQMRADFVNAENSTGFHNPREASRMLLQAVDMARMGQTKLVEIAAANGIKDFKTSNLGFEDIQKFNPG

ELYYKVDVNNHKAGERYYADEKDVNGNPPKELLEHDKELAPYNYQVIDKK

>AHK54127.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINKNKLFRQVHIYLSLFFLPCALLFALTGIAYIFGINQDVGLKVEQYQLSKVIESGKEREALIEYLKTN

GLKVPSNTNIIKSKDKGITIGGTHYSANITQNSTNEYNITLKTRSLLGDMIMLHKDKGAWYFSVLSVGFG

ITLFMLYISGLMITLFANKKDRSKQFAVLGVGVVVTLLLAYLSL

>AHK54126.1 enterochelin ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKSLVFAFFAFFLSLILTACNSNSNENNASSTTKTNTATVKVLPISMSDEGDSFLVKDSLGENKIPKNP

SKVVILDLGILDTFDALKLNDKVVGVPAKNLPKYLQQFKNKPSVGGVQQVDFEAINALKPDLIIISGRQS

KFYDKLKEIAPTLFVGLDNANFLSSFENNVLSVAKLYGLEKEALEKISDIKNEIEKAKSIVDEDKKALII

LTNSNKISAFGPQSRFGIIHDVLGINAVDENIKVGTHGKSINSEFILEKNPDYIFVVDRNVILGNKERAQ

GILDNALVAKTKAAQNKKIIYLDPEYWYLASGNGLESLKTMILEIKNAVK

>AHK54125.1 iron ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKLKNITKFYDNKVIISDLSLDFHKGKITSIIGANGAGKSTLLALASRLIKPSSGEIYIDGMNLKNYKE

QILAQKISILKQQNNINLRLKVEELVAFGRFPHSQGRLNTNDKIKINEALEYMELSNLRNEFLDTLSGGQ

KQRAFIAMIIAQDTEFIMFDEPLNNLDMKHSVQIMQLMKNLVKDFNKSIAVVLHDINFASIYSDEIIALK

DGKLLKQGSKDEIINQENLKQIYDMDIPVSQINGKKICIYF

>AHK54124.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRKKMLILSFLTLNMIGIFIFVGLNGFDEYALKSRFLQIAAIIIVAICIAVSTVIFQTLCNNKILTPAII

GLDSLYMLLQSALIFSFGAANLSVYKNDINFLITLVCMVVFSLGLYKILFSSDRSIYLIMLLGLVFGTLF

STLSSFFEVLIDPDEFMVIQGRMFASFDNIAFDVLILAYIISFLSFIWIFRYMKFLDPLNLGKDLAINLG

INYQKISKQLMIIIAILTSISTALVGPITFLGLLVVNITYELFKTAKHSILLSACILISILALLGGVFFV

SRVFDYNATISVVINFLGGIYFIYLVLKGNKL

>AHK54123.1 phospholipase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRKIALFLSLCVFIWASDLQQALEYEKQGDYKKAMEIYKKLALKNSSVLISQEQNNSSQATQTQNSITIK

KEEKQDFSRLALANYLGENESFNPLGISSYKMNYFLPFAYSFNSLGVNNNKSEAKFQLSVKKRLFENLLG

LDEKYYIAYTQTSWWQIYEHSSPFRETNYQPEFFIDLPLYLKDYEFFNNLRVGILHESNGKGDENLQSRS

WNRIYVSTAILYNKFLFVPRLWYRIPENKKDDDNPAILHYMGNFDVNLAYLGDDYFINLMLRNNLKFHNN

KGAIQVDLGYDIFNNGIYWYLQYFNGYGESLIDYNKHLQRLSTGFLISY

>AHK54122.1 molybdopterin-guanine dinucleotide biosynthesis protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQLNELNCVILCGGKSSRMGQDKSKLILKNQNLTQFQVDKFSKIFKNVYVSAKEDKFENHFSLIKDSLEF

EVYSPMLALYSILSNFKNEFVFVLSVDSPKVGENELLKMLPFLEQNYKIIIAKTPLHKHPLCGFYHSSLA

QTCKNFLEKNEQKIGLLFSEIKTKFVEFEDEDAFLNLNFYEEYEKFKSKLK

>AHK54121.1 ferrous iron transporter A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKYTELLQLQTFFSRFKKIDFIKRINDNILELSFDRERFIFDLTRAMSAIYTAKFNAKNYNAPFDFMLKK

YFSNAFIKEVKVLEGNRILCFSVKANKAYKSYESKIYFEFTGKNTNVILTDEKDLIIEALRHIDKSYRVV

KPNVILESLKPYKMDENFEEIKDFADYFSRKFTSIYESKIKQIKNLKLAQVDKKIQNLQELFSSLDEENS

LLLKALEYRKRADVLFANLSVLKDYEREFKLDDFEGKELEFKLEFNPKQSANLYYKNAKKLEQKAKNLNI

QRQNLKEKLDFTLSLKELLLQAKSEIELEILLPKKNSKKNQDHKQEDLVANFYFNEFKICVGKNEKGNEF

LLKNAKKDDLWLHVRDIPSAHTLIVSNKQKISLDVIEFAARLCVSFSKLKKGSYWVDYTLKNFVKVQQKA

FVNYTNFKSINITKD

>AHK54120.1 coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPVSPLGNINYINQNMAYPATQASNELAKEGFAATLNMAEFNEKEKTLNKLEKVNETHEIKEEIKEKAEQ

EEKKKKHNQEAKTSDDEKNEEDESKDPNFKDAQSIHRLDISI

>AHK54119.1 phosphatidate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFNTTRIISALVMIGAIIIIALIDQFFINFIVFAVLLYLSFSEAKKLFALENISIIPLAIAFILGSLSHK

ALLFGILVLLLVVGYLVYKKASLKPALIYIYPSLPILALWQVYLDQGMFALFWLIIIVAACDSGAYFIGK

LMGKTPFSPTSPNKTLEGVIGGLICASVIGTILGVFVYSFWLSLLCSFFVAIFAVIGDLLESYFKREAGV

KDSGDLIPGHGGVLDRIDAVIIAAFVMVALL

>AHK54118.1 1-deoxy-D-xylulose 5-phosphate reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MILFGSTGSIGVNALKLAALKNIPISALACGDNIALLNEQIARFKPKFVSIKDSKNKHLVKHDRVFIGQE

GLEQILTECQDKLLLNAIVGFAGLKSTLKAKELGKNIALANKESLVVAGSFLKGAKFLPVDSEHAALKFL

LEGKKNIAKLYITASGGAFYRYKIKDLNQVSVKDALKHPNWNMGAKITIDSATMANKLFEIIEAYHLYDF

KEIDALIEPRSLVHAMCEFKNGASTAYFSKADMKLAISDAIFEKQDTPILEAVDFSKMPALKFHPISTKK

YPIFKLKNTFLKEPNLGVIINAANEVGVYNFLENKSGFLDIAKCIFKALDHFGVPKISSIEEVFEYDFKT

REYLRS

>AHK54117.1 protein kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>AHK54116.1 hypothetical protein N919\_06715 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKAFTILELVFVIVILGILAAIALPKMSSSKDEAEVSKSLNNLKTLINDISIYTLKNDHLSSIKTMSNV

SGVENVDLSNFNGIKEVNFRVGDDKECLKLVFINKADFILMGISSNEASKNAIINAANQSHEDLENIDFT

SSSSNKACVILSKNENFKNLASKTYLLIGGM

>AHK54115.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFKKEISFIKSLFNKENIALHEPCFIGNEKKYLLECIDSGFVSSVGEFVTRFEEALKEKTKARFVIATNT

GTAALHIALLANGIDENCEVITQSISFVATANAIAYTGAKPVFLDIDENTLSLSPKALEHFLENQTYQKD

NLSYNKTTHKLIKACVIMHTFGLSAHIKAIKELCEKYHILLIEDAAEALGSTYENKALGTFGKCGILSFN

GNKIITGGCGGAILSDDENLAKLARHLSTTAKIPHPYEYDHDRIAYNYRLCNINAAILFAGLENLELFLE

NKRELAKIYKDFFKNHDKCKFIDEKSNEKSNFWLNTLLFKNENLRNIFLEECLKNNIFVRPVWKSLPSLK

AFQNCQSNELMNTKKLEKRLINLPSSVRIANKKE

>AHK54114.1 N-acetylneuraminate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIGNFNTDKKVFIIAELSANHAGSLEMALKSIKAAKKAGADAIKIQTYTPDSLTLNSDKEDFIIKGGLW

DKRKLYELYESAKTPYEWHSQIFETAQNEGILCFSSPFAKEDVEFLKRFDPIAYKIASFEANDENFVRLI

AKEKKPTIVSTGIATEEELFKICEIFKEEKNPDLVFLKCTSTYPTAIEDMNLKGIVSLKEKFNVEVGLSD

HSFGFLAPVMAVALGARVIEKHFMLDKSIESEDSKFSLDFDEFKAMVDAVRQAESALGDGKLDLDEKVLK

NRVFARSLYASKDIKKGEMFSEENVKSVRPSFGLHPKFYQELLGKKASKDIKFGDALKQGDFQ

>AHK54113.1 pseudaminic acid biosynthesis PseA protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFCKKCVMPDTKPDLHFDEEGVCDACRSQEAKNQNINWQEREKEFFELIKKYKKHPVYDCVIGVSGGKD

STFQVVKMLELGLNPLCVCFEPSVPTKIGRKNLDNLNHLGVDLIHIKRDPKVYQKLAREAFIRTGDNEWQ

NHLGIFTSVPRIAVNFGVPLIIWGESPQIEYGGPASSKNKNILGREWLEEFGGLLGNRASDMLGVNGITE

KDLFLYTYPSDEELQRVGVTGLFLGYYFKWDYKKILEISKKYGFLTLDHPVETTYENFENLDCYSNHVHD

YLKYCKYGFGRATDNACLDIRLGYISREEGVRLAQKYDGKPPKKAIKKYLEFSGFSEEEFQKIVDSFTNK

KIFKRDENGKFIRDYDGSLVRKDECVLK

>AHK54112.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MCFKMIALIDYKAGNLNSVAKAFEKIGAINFIAKNPKDLQKADKLLLPGVGSFKEAMKNLKELGFIEALK

EQVLVQKKPILGICLGMQLFLERGYEGGVCEGLGFIEGEVVKFEEDLNLKIPHMGWNELEILKQVPLYQG

IDNKSDFYFVHSFYVKCKDEFVSAKAQYGHKFVASLQKDHIFATQFHPEKSQNLGLKLLENFARL

>AHK54111.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKTRIIPCVLLKNSQLVKSIEFKDFRTIGHLTSTMRIYNARNVDELIILDIDASKSGEIDFESIEDLAK

ECFMPLTIGGGIKTLEDIQKILNLGADKISINSKALEDMDFISKAGNRFGSQCIVCSIDVKRKGDQFCVY

DRGNLLEKSPLELALEYEKKGAGELLLTSVDFEGKAKGYDLELLKIFQNKLKIPLIINGGLSKPSDGVEA

LNLGADALAGAYIFHFSKYTPKDVKEELARQGFAVRLL

>AHK54110.1 N-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKLKNFAELNSQEIKLIFKWRNHPDISQFMKTKHIDFEEHLRFIRNLHQDSNKKYFLVFQDEQIIGVID

FVNITTKSCEFGLYAIPDLKGVGQVLMNEIKKYAFEILKVDTLKAYVFKDNHKALKLYQQNHFTIYDEDK

DFYYVCLKQSHCKALPS

>AHK54109.1 nucleotidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVLFRSDSSSQIGFGHIKRDLVLAKQYSDVSFACLPLEGSLIDEIPYPVYELSSESIYELINLIKEEKF

ELLIIDHYGISVDDEKLIKLETGVKILSFDDEIKPHHCDILLNVNAYAKASDYEGLVPFKCEVRCGFSYA

LIREEFYQEAKENREKKYDFFICMGGTDIKNLSLQIASELPKTKIISIATSSSNPNLKKLQKFAKLHNNI

RLFIDHENIAKLMNESNKLIISASSLVNEALLLKANFKAICYVKNQESTATWLAKKGYEVEYKY

>AHK54108.1 CMP-N-acetylneuraminic acid synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNLCIIPARGGSKRIPRKNIIDFLGKPLISYSIENALNSGIFDEVVLSSDDEEIIEVALKYGAKAPFVR

DKNLSDDYASSTAVVQNAIEILQSQNQIYDHVCCLYATAPLLNKDILKQAYEKFIQNQSKFLFAATEFEY

PIQRAFYLNENNQVYMFDEKHYKSRSQDLTKAYHDAGAFYFGTSKAWLEEDFIFKPHSSVFVLPRNLVCD

IDTIQDLEFAKILYKVNHESAF

>AHK54107.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQEIKQFFINIERTDINESMENLVSEDFIDSIDIMALVAEIEKFYKKPLKAEFITPENFESFENIKKMLE

TAMKD

>AHK54106.1 amino acid adenylation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTTHIYDFLEKSLIKFSEKTAFVEPFVKERKEITYKDFDLFSKKLASEILKTLGNDNPTQAPVLIILPKG

IDCLISFFGVALSGNFYTLLDEKSPKERVEKVIEVLKPKLFITSKDLNFNLDLPTLYTQDFESFNIDESL

IKHAKEKHIDTNLLYVFFTSGSTGIPKGVSIAHKSVIDYTFWVCETFKFDENEILANQAPFYFDNSILDI

FSSVKSGATLHLLPNHLFAFPNKILECLEKEKVSTIFWVPSVLIYFANTEALNNFSLNALKKMLFCGEIM

PNKQLNIWRKHLPNALFANLYGPTEITDVCSFYIINRTFKDEELLPIGKACKNTELLVFDENMNFISPKQ

IGVKGELFVRGTSLSLGYYNDKEKTKQAFIQNPLHDNYLDLLYKTGDIVSYNEFGELLCYGRADNQIKYM

GHRIELGEIESVINSHVNIKNSACIFKEDIICFYESEEEINFKDFLKDKLPSYMIPKNFIKLDKFKLNQN

GKIDRKVLKELV

>AHK54105.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKTEFLEELKEAMHRDEDLNEDMLLDDIDEWDSLAFVSVMVLYKNLFTLKITAEDLKNCQKVSDLINLA

KLD

>AHK54104.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTRFDKAKISGICVSVPEHKICIDDELESVFSNDIKTLKRMKKVIGLNTRYICDENTCVSDLGKHAANT

LLQGLNIDKNSLDALIVVTQSPDFFMPSTACYLHQLLNLSSKTVAFDLGQACAGYLYGLFVAHSLIQSGL

GKILLICGDTLSKFIHPKNMNLAPIFGDGVSATLIEKTDFNEAFFELGSDGKYFDKLIIPKGAMRIPKAD

IFNDDSLMQTEEFRQLENLYMDGANIFNMALECEPKSFKEILEFSKVDEKDIAFHLFHQSNAYLVDCIKE

ELKLNDDKVPNFIMEKYANLSACSLPTLLCELDTPKEFKASLSAFGAGLSWGSAVLNFKDLYTKNILIYT

KEK

>AHK54103.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLFSPHLKRNELIKFAKELDFSKSQDLLINVHRNHAFEGVQSIIAPFLHFANLRAEFNFSSYDDSLSFD

NFKEASLELLWLDLTRYKNNVQNFIEERLLELRKISQNPILVLSLGEFKTDKKILNCEIFNIEKLIKEYF

DEEDILDLAKEELTGSKLNNKALIFLAQILGLSLIPALVKPALKALVLDLDNTLYQGILGEEGIDNLNLS

PLHKTLQEKIKTFKKQGFLLALASKNEEKDAKKLFEIRKDFILQWDDFDARMINWEPKGENILKIAKKFN

INTNAMLFIDDNIAELENTKITGVKTLLCDENILYKIKLFPNLLKLSNTKEDQIRAKDIAANALREELKS

LSDEEYFQNLEISLNFSKNDLQNIPRISELLGKTNQFIANYTRLNQEKVAQHMQKELIVSVSMSDKLSDS

GIIAIFVFSCKEGNLFIDDLCISCRALGRKLETRMFFKAFELALHFFDLKNNNARLYYQKGERNMPFLSF

LEQISKEFEKNSALIPFQNLNFKGLIIHEN

>AHK54102.1 SAM-dependent methlyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKENIEKLFQAIAQKNPIHSKYLKKIEFSQEDEEEFDKLISYYIQDGISIKEQCDCYLLILNDTLEETKF

FIENGAYRYSSFDEVKDKVYFNESYMKQYMIGLALSSFVWIAHIKVRKYFSQYLQNFTPKTTYFEIGPGH

GEYFARAVKSGKFSAFYGLDISPTSCELTQKMVKQQVGGLITKCDFLCQDFFTYDFDKKADLIVIGEVLE

HVEKPLEFLKRSKELLSDGGEIFATIPINAPAIDHIYLFSHPDEVKDLIEKSGLKFKAYECFMANDYSLE

KALKFKNAITMAVVLNA

>AHK54101.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKQFYEILENILETKVDENTNLSMENCKNWTSLAHIDIIMSLEEEFEIKFNKEDLSLLKSQSALLEKIQ

TLKAEK

>AHK54100.1 C4 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>AHK54099.1 N-acetyl glucosamine/N-acetyl galactosamine epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFNKKNILITGGTGSFGKTYTKVLLENYKPNKIIIYSRDELKQFEMASVFNAPCMRYFIGDVRDKERLSA

AMRDVDFVIHAAAMKHVPIAEYNPMECIKTNIHGAQNVIDACFENGVKKCIALSTDKACNPVNLYGATKL

ASDKLFVAANNIAGNKQTRFGVTRYGNVVGSRGSVVPFFKKLISEGAKELPITDTRMTRFWISLEDGVKF

VLSNFERMHGGEIFIPKIPSMKITDLAHALAPNLSHKIIGIRAGEKLHEIMISSDDSHLTYEFENYYAIS

PSIKFVDKDNDFSINALGEKGQKVKDGFSYSSDNNPLWASEKELLEIINHTEGF

>AHK54098.1 deoxycytidine triphosphate deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGLKADNWIRKMALEHKMIEPFCEANIGKGVVSYGLSSYGYDIRVGREFKIFTNVNSTVVDPKNFVEENV

VDFEGDVCIVPANSFALARTIEYFKMPDNVLAICLGKSTYARCGIIVNVTPFEPGFEGHITIEISNTTPL

PAKIYANEGIAQVLFLQGDEKCDTTYKDKKGKYQAQTGITLPRILK

>AHK54097.1 acetyl-CoA carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKEEIKELVNLFAEANISKIKIKEQDGFEIELERDMCCDVPAPVCPPVPAPQPINVSVVNEAQPSQSVK

SNKPSINSPMVGTFYQAPSPGAAPFVKVGSTVKKGDTIAIIEAMKIMNEIEAEFDCRIAEILVADGQPVE

FGMPLFAVEKL

>AHK54096.1 biotin carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEIKSILIANRGEIALRALRTIKEMGKKAICVYSEADKDALYLKYADASICIGKARSSESYLNIPAIIAA

AEIAEADAIFPGYGFLSENQNFVEICAKHNIKFIGPSVEAMNLMSDKSKAKQVMQRAGVPVIPGSDGALA

GAEAAKKLAKEIGYPVILKAAAGGGGRGMRVVENEKDLEKAYWSAESEAMTAFGDGTMYMEKYIQNPRHI

EVQVIGDSFGNVIHVGERDCSMQRRHQKLIEESPAILLDEKTRTRLHETAIKAAKAIGYEGAGTFEFLVD

KNLDFYFIEMNTRLQVEHCVSEMVSGIDIIEQMIKVAEGYALPSQESIKLNGHSIECRITAEDSKTFLPS

PGKITKYIPPAGRNVRMESHCYQDYSVPAYYDSMIGKLVVWAEDRNKAIAKMKVALDELLISGIKTTKDF

HLSMMENPDFINNNYDTNYLARH

>AHK54095.1 hypothetical protein N919\_06445 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILLSFAFFASLASANTINAIAVVVDKEPITTYDIDQTMKALKIDRNKALGVLINEKMEISQMKQLGI

VVNDLELDDAINKMLAQNKTTLNAFKANLKSKNQSYEQFRTNFKKDLEKRKLYEKIASMAKTDFSDDGAK

KFFEQNKDKFTFYTQINANIYLSNNPQTLENIKNTKKTILKPQNASLNTSNADPRLLGLLSQIPVGSFSP

VLNGKNGYELYEVKSKDGTQTPEYEQVKNEVLNAYVSEQRQNFIQDYFDKLRSKINIEYLR

>AHK54094.1 glutamyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHEKLTTRFAPSPTGYLHIGGLRTALYNYLYARKNGGNFLLRIEDTDLKRNSKEATKAIIEAFKWCGLEH

DGEVTYQSERFDLYKEYVKKLLDEGKAYYCYMSKEELEELRAKQEAAKERPRYDGRYREFTGTPPQGIEP

VVRIKAPQSGEIVFEDGVKGEVRFKAEDIMDDFIIARSDGTPTYNFTVVIDDALMGVSDVIRGDDHLSNT

PKQIVLYEALGFKIPKFFHVAMIHGEDGKKLSKRHGATDVMEYKEMGILPQALLNFLVRLGWSHGDDEVF

SLEDLKKLFDPYHINKSASCYNAKKLEWLNAHYIKTLPFEEINRQLKDLGFDLSVYEKAGFLLDLLRERA

KTLHDIINGAKSIVNAPQNYDENAVQKFVNKNNLELLQAFANTLKDQKTGKDFEDFTNDFLEKKEAKLKD

LAQPIRIALTGSAVSPSIFEVLEFLGVDECKKRIDNFLKVRGK

>AHK54093.1 malate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLKEEALKYHLGGKIDIVPSKPMATSYDLSLAYSPGVAEPCLEIAKDNELAYTYTNKANLVAIVSDGSA

VLGLGNIGAQASKPVMEGKACLFKKFANVNAYDIEINVHSIEEIVNFCKALAPTVGGINLEDIAAPKCFE

IEAALQDLGIPVMHDDQHGTAIISTAGLMNAMEISGKKFKDIKVVVSGAGAAGIASAKMYRNLGVENIIL

VDSKGVISKDRNDLTPQKLEFAVDSKEKTLKEVLKGADVFLGLSAPKILDDEMVLSMAKDPVIFALANPI

PEVMPEDVARLRKDAIVGTGRSDYPNQINNVLGFPFIFRGALDVRASKITENMKVAAAKALADLAKLPVS

DAVKKAYNLSTLEFGRDYVIPKPFDERVKAAVSTAVAAAAVKDGVAKVKNFDEKAYFESLK

>AHK54092.1 uracil phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNIHCINHPLIEHKLGILRAKETKPFQFRMLIDEISSFLLFEASKDFSLKEIEISTPIQKTTVKKLDEK

IMICPILRAALGMLESVFKMIPDASVGFLGFVRNEETLKADFYFQKLPKDAKKRTAIVIDPMFATGGTAI

DACNFLKSQGVKKIKFISILAAPQGLKKFSQMHDDVEVFVACIDEGLNEKGYIIPGLGDAGDRVFNTL

>AHK54091.1 hypothetical protein N919\_06425 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIFGKIDYINLLPLHIYLKKYPLPNGYKASMEYKKGVPSKLNKDLFYRRIDAAIISSIESARKKYKNLDL

GICANKRVLSVLVEKNTSNAKDPSSATSNALAKVLKQDGKVIIGDKALKLYLKDPSKYIDLCAKWHEKTG

LPFVFARFSCVQKKALYKQILKKFPKTKIKIPYYILQNYAKTRDLDIKDVRYYLDEVIYHKISTKEKTAL

KRFVKACKALNLA

>AHK54090.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNLNYGIIGLGKFGSVVADELIAGGHTVIVADKDEEALKSIQNPPSYAYILDSTNISALKEAGFHDVEV

VIVSIGENVEKSILTLMALKDIGVKNIIAKATSNIHGQILSKLGATKVIYPEKESAKRLVKEFLTKDADY

EVFDLSANTIRAIKINIDEKLAGNSLKHVAQNMKVISYKKLNSDWEILPDLETTTVYSGDVVILLGTVKE

LREFEH

>AHK54089.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKQFGLDRRTFKILLAGYIIIALFGALLLHSSWAHTTPIDFLDAFFTSTSAVSMTGLVVKNTAVDFTLAG

QIIILALVQIGGLGYMGIGLFVYILIRKKVGFSARNLLKESLFYPSMDGLFKFFKKVLLFIFTIELIGAI

LLTMRFALEMNFKKALWFGIFHSISAFNNSGFTIFEHGFIAYKHDIAINLIITSLIIIGGLGYFVLVELY

FFQRKKLQNLSLHTKMVVVASIFLIFSSTLIIFAFEYSNPQTIGHFSFFDKILSSYFIAINYRTAGFNTL

DMGHLHDASLFFGSLFMVIGGAPGGTAGGMKVTTVMVLLLYAYWSIRDGRVRIFGHEIPRETISKAFIIA

VGSAVYIVIAVILLSLLESKFDFIALLFETSSAFATVGISVGNGGTLSLCALFSDPSKVIIIIMMLSGRI

GVFAFLLSVFKQDKAIHLKFPEGKVNL

>AHK54088.1 rod shape-determining protein RodA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFRLDRRILTHFDYIQPILFLPIILISFFLIFEANPFLAEKQFVYACVGLFAFMVFFFFPIRKFIWIIPV

AYWINIFLLLSVDIFGVEKLGAKRWLEIPFTHFTIQPSEIFKPSFILMLAYLIYQNPPPKNGYKLKQFIK

LSFYIILPFLLIAKEPDLGSAMVLLLVGFGVLFIMGVHYKIWLSIVIAISVSSPIIYTHLLKPYQKQRIH

DFISEKPSYQVAQSMIAIGNGGLTGKSQDEATQTHFKFLPISTSDFIFAYMIERFGFIGGLTLIIFYILL

IFHLLSLNYKLKDDYFARVAINCVALFIFIYAAVNISMTIGFAPVVGIPLPFFSYGGSSFTIFMIFFGIL

QHLITFRYFWTDIKAK

>AHK54087.1 ferrous iron transporter A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKRFRLSFYLSFLTLLLSACSVSQMNSLASSKEPAVNESLPKVESLKSLSDMSNIAFEWEPLYNENIKGF

YLYRSSDENPDFKLVGTIKDKFQTHYVDTKLEPGTKYRYMMKSFNEQGQISEDGKVIEVSTAPRLEAVPF

VQAVTNLPNRIKLIWRPHPDFRVDSYIIERTKGDDKEFKKIAEVKNRLNAEYIDSDLKPNENSSYRIIAV

SFNGIKSGSSQVVSSTSKALPPQVEHLSASTDGSSKIILTWDAPTYEDFSYYKVYSTSSSFLPFSVLAKT

DKNSYEDIVEGAGKSKYYKVTMVDKDGLESPMPKDGVEGKTLGNPLAPSIILAQSTSEGINLEWSDNDTR

AVEYEVRRYGGEQNAVFKGIKEKRLKDVKALPGVEYSYEVIAIDSAGLRSEPSSKVKAAQ

>AHK54086.1 tRNA (guanine-N(7)-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPNFKSKKIKEINLPYSKDDVEFLWLAKNDNVSLIYTKVQEESFFLQIKKAQNGFVIKGDKHTKPSKIGY

LQKALKIFKEGFCEDIINEAFGLKNNALIEKTPFIVDNFDELLSRLQGKIYIEIGFGSGRHLLYQAKENP

NVLILGVEIYNPALTQVAKLAKAQNVNNILLIQSDARLLLSVLKSKSVEKIFLHFPVPWDKKPHRRVIGK

DFCKECARVLVQNGRFELRTDSFEYFNFTLEQFLTFPAPKFSLRKNENLEISSKYEDRWKKQEKNIYDLW

VWNFNQECKNYELNEFNLSSVEFSKEDLKKIEQNFKNITIKKDDFFLHFESIYKQDENLLLKVAFGAFNK

PEHCYLHLDKTIDFAFKEPFKIQENIKAINELKEILKVQFKI

>AHK54085.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPNLIQANKLTLGYDELVIKEASFAFKDDDFVFITGKSGSGKSTLLKSFYGDLEPISGKLEVCGSLMNKI

GNLELLKLRQRIGIIFQDYKLVQEYSVEKNVMLPLMIKGYSKKVCHDQATKLLKHVNLTFKADKLPNQLS

GGEQQRVAMARALAHNPKLLLCDEPTGNLDEYSSDIIWTLLKSARELLGTCVIVVTHRIPSNLRVDYRRF

NIENGKMNEIF

>AHK54084.1 cell division protein FtsX [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFFKTHLSLILPLLFMMFAFEFILITNATLKHYEELVNKDYNIIVVSKTELDQNVVKTKVPFFAGLESL

DPKDLIDRLKNDVSEKNLKVLKDSLPKFYTLKLNSLPDQNELNSIKNQLLNIVGVSKVETFSKTHDKIYS

LLILMKFVFWLFLFIIILLAFVLFLKQMRIWLYEHTDRIEIMCLFGAPFWFRSFMLYKVVVVDCFIAFVI

LLAFFTQIFDLSIIQESLKAVDIIFPPINFILHLTLIFLATLFICLLCVNTVMFKVKR

>AHK54083.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRKNILIFFCFFLFVDISLANAINEKTKSLEENKRIQEQLNKKLEDLASDILNGEKSLKDLSLQIESLNS

QTSKLEASAKAQNQELNTLTSQNEDLLKSKSNMEGKLISLMAKDFAYDLPIPQGYIESEESFMAFEILGS

LNKVLNEEIFKISKDYEGVSRLIDDKQAQIKKINESLKDYNAQLAKLQSLKQKQISEINKQKTDRAIYAK

KLDDLQAQQEELRKTLNQLKIINDKEDANSNKNDTKIVKNNQKIRQLGSSYQGSSVKRYTGKKTIAPLDS

FTVKQKFGNYVDPVYNLKIFNENVVLRSNKSDAVVKNVLDGKIVFAKDTSMLARVVIVEHDNGIHTIYAH

LDKIAPNIKVGKNIKKGAVVGRIKNDLTFEVTQKNFHINPLELISLN

>AHK54082.1 uridylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQERKRVLVKFSGEALAGENGFGIENSILKFIASEIKELIKNQIEVGIVIGGGNIIRGVSAAKGGLIKRT

SGDHMGMLATVINAIAIQEALESSGLEVRVQSAIQMEAFCETYIMRRAQRHLEKGRVVVFAAGTGNPYFT

TDTTAILRAVEIDADMVIKATKVNGVYDKDPKQFDDAVFLNTLSYDEAMQDNIKVMDDTAIALAKDNKLP

IVVCNMFEEGNLLKIIQGDTSLCSTVKNN

>AHK54081.1 DNA-directed RNA polymerase subunit omega [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDKRIEEVAAKALEKMGNDRYRLSLVVAKRAEQLANGATPLVDFDKNKNKLADIALYEIAENKITLEGLV

ETNR

>AHK54080.1 potassium-transporting ATPase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKPIDEELLLEQLIDNVKNCKDLEAAKALLFEICGHDAILEKAVDYCIFCHEGQFRKSGEPYAVHPILVA

TLVGFLSENKSNILAALLHDVIEDTNCTEEELREQFGSEVLKLVLGLTKIIEIREDNLISSKSKKSLTKS

ALTFRNMLLASIEDVGVLIVKLCDRLHNMLTLDILREDKQKRISEETLVVYAPIAHRLGISSIKNYLEDL

SFKYLMPDEYKLIDNYINSNNQEMQLGLNEFISKIELLFLSNGFRQGSFEIQKRIKHSYSIYLKMQRKGI

GIEEVLDLLGVRILVEKVSDCYLALGILHTHFNPLVSRFKDYIALPKQNGYQTIHTTLFDAKSIIEAQIR

TFDMHKIAEFGIAAHWKYKEDGSVVAPRLDWLTDISMQSINNLENAEDYNAIELYEYAKDSLYVEDVAVY

SPKGEIFTLPRGATVLDFAYEVHTKVGLHAKSAYVNRIKVPLLTELKNGDIVRVVTSNDKFYRCSWIDSV

KTGKAKASIREFCKQKIREINLASSINMLSFIFGVDKNRIETWIEKENLVRRIRQVATDSAYLKDIVNGL

KKYAKKSYWFDKYEIKEQKIGNFTLYCNHKIANVDFDFCCHPKRGDAVLAFVKGGNAIVHHKLCDRADKM

IDNNQDMVFIKWDSNIPKSYKLIFSLENKKGVLAEFLAFLAKMQINLLTINLSSDLNSAVDYFEITMEIP

DNINPDSVKDRLKSRCKILDFTSLNDAYKES

>AHK54079.1 tyrosyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDIKKILAEVKRGCAELIDEERIENLIKNYYEKGENFFIKAGFDPTAPDLHLGHSVVLTKMAFLQKHGAI

VQFLIGDFTGQIGDPSGKSATRKKLDKEQVLINAKTYKTQVFKVLDKEKTQIKFNSTWLNELGAAGIVEL

TSTFSVARMLERDDFTKRFKEQSPISICEFLYPLLQGYDSVALKSDIEMGGTDQKFNLLMGRQLQRVYNI

GKEQAVIMMPLLEGLDGVNKMSKSLNNYIGVTEKANDMYAKILSISDELMFRYYELLSQKSLEEIAQIKK

DIEQGNLHPKKAKENLALEITERFHSKEEANNAKSEFDRIHSQNALPSDMAEFEIQGKIWLAKALVECGL

ESSTSAARRSISANAVSVNSQKVSDEQMYLEQGEYILQIGKRKFAKLKVKE

>AHK54078.1 2-nitropropane dioxygenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLQPLQIGKHTIKYPIFQGGMGLGISWDRLASAVSLNGGLGIISSVGTGYYEERKYASKELNAKPYGSE

NFYSRKGLQALINNARKVCGDAPLGCNILCASNDYARIARDACEVGFNVIVSGAGLPTNLPEFTADFPDV

ALVPIISSAKALKIICKRWQSRYNRLPDAVVLEGPKSGGHQGFTYEQCLDPNYQLEKLIAPVVEEAKNWG

SFPVIAAGGIWDKKDIENAISLGASGVQMGTRFIGTFECDASEEFKSVLLASKEEDIELIKSPVGYPARG

VRTNLLNLVDKRMGPKINCISNCVAPCGRGKEATKVGYCIADRLFDAWSGKKETGLFFTGANGYRLDKLI

SVKELMEKLVNGE

>AHK54077.1 N-acetylmuramoyl-L-alanine amidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKIFVFLVFVFTTLFGVYENELANFDKNFIGSKSEVQVKFHHQLKSLYIQSVINEDEKTKIEILKRLII

SSNTLNLDDKSYANELKESGISETSINALRKAVIKDIKVQNISQDTEKSTFEPIKTVQKNEKKSSNEQIK

NTEKTNSKTSQAPKSSIVSKAKSDDKIYVLKSSKTNQGVEFELNADLDKDQLKSFALDEKGNYRFISDFD

GVLEGGKKEFKFDDYRLVISQFNPKTIRIVVYAKEKIPIDISFKEEKIIFSKETTSQKKTEQVSKISEKK

QDQKTEIKTKVLETKKQDKKTNNEKENQEPLYVLDVDKISNAVVLNLSDDLDEKEIAVFDTKDQKFRYVV

SFKGVLEGNRKSFTFGQNVITVTQYNPKTVRVVLSAPKEFKLLKELDNNNLTLGFYIQTTNQNANKKATQ

SSSKTLNTNYKSGKLVVIDAGHGGKDSGALSDKKGSLKEKDIVLSTALKLGNELKKRGYKVLYTRSSDKF

INLRDRTKYANDKRADLFISIHANAAPNATKAKSSEGVETFFLSPARSERSKKAAEKENQGDFEEINYFS

KQSILNFLNREKIVASNKLAIDVQKNILTQTRKKYKIVDGGVREAPFWVLVGAQMPAILIEIGYITHPNE

GKRIANKAFQDLLVKGIADGVESYFYNNR

>AHK54076.1 FAD-dependent cmnm(5)s(2)U34 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKAKLIFKDNTPFSLDFDDFYFNFKDGLNESKFVYTHSFEWKNQENFIIAESGFGIGLNFFLTLKRFLE

TTPSKRPKKLFYISVEAFYIEKEQLREIYQKLEFYEEFKELLEQFLKFYPKAKEGIYRFYFEDCFLDLVF

EDIAVLKELDFKADVWYLDGFSPNKNSQMFDENLIFEVARLSKKNTQICTFSSASFLQKNLKKYGFRVEK

TKGFRKREMIKAYLENELEFKDKEAYFSRTFSSLKNKKVAIIGAGISSAVLAYELSLRGFEIDIFEKHLE

LGKGASGNESGILSSLILKPKVNLGEFSELSFIEASRFYRQILDLEFKGVVEFAHNDLMQERFDTQRENV

LFKISKNQAFLEEGGVIFPKKLVKNLFEKSKACIYFNHEFQAYKFENGCFSLKFKNDVVKSDYAVLIYAM

GADAKDFVFYDEMKLSKVRGQVTHLKPFLDTPFPLSSKAYICPVKDDLQVIGASYDRLNASLESKEEDDK

QNIENIADFMDKNTKLEIIGSKVGFRSYSSDRFMIVGNAYDEAFYKEEYKALLWTKNKEQKPAKMSCNLY

FNFAHGSRGFSTSVLAARYLCALINNEPLCLEKKYIHAIHPARFLIRKLKKGL

>AHK54075.1 quinone-reactive Ni/Fe-hydrogenase small chain [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIDYHQIESRLSALEKLPSLKDNDSITKALEKSGFSRRDFMKWAGAMTAFLALPASFTPMVAKAAELADR

LPVVWLHMAECTGCSESLLRSDTPTIDSLIFDYISLEYHETVMAAAGWQAEENLESAIQKHKNKYILMVE

GGIPMGDTEHFLTIGAHGKTGYELSKMASENALAIFAIGTCSSFGGIQAARPNPSNAQPLSKVTSKTVIN

VPGCPPSEKNIVGNVLHYLLFGELPALDVYNRPKWAYGLRIHDLCERRGHFDAGEFVHAFGDEGAKQGFC

LYKVGCKGPYTFNNCSRERFNQHTSWPIQAGHGCIGCSEPNFWDTMGPFEEPMASRKFDTVFGLGADSVS

DKIGIGVLTLTGVAIAAHAVISSMQKDKE

>AHK54074.1 hydrogenase 2 large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSQKIIVDPITRIEGHLRVEVVVDDNNVVKEAYAGSTLWRGIETIVKGRDPRDAGFMTQRICGVCTFSHY

KAGIVAVENALGITPPLNALLTRTLMNAALFLHDHIVHFYQLHGLDWADVVSALSADVKKASDEAFKYTS

NPYATGADKLLEVQQRLKTFVDKGNLGPFANAYYGHPTYRLSPEQNLIVLSHYLECLRIQRIIAQCMAIF

GAKNPHPQSLTVGGVTCVMDLLDPARMGEYMVKFQEVQDFVNRAYYPDLVMAGKAYAHEASVLNDIGVNN

LYTFKEFQIGRDEWLFESGIIKNGDLSKVYEVEEDKITEEATHSWYADNEPLHPYDGKTNPNYTGLVDGE

SVDHHGNNVHSKVFDTKGKYSWIKAPRYEGNPMQVGPLANVVVNYAKGNQNVVPVVDEFLKETGLPLNAV

FSTLGRTAARCIEAKIVANNALKAFNNLVENLKVDQSTCAPYVIDNSKEYKGRYMGHVPRGTLSHWCRIK

NGVIENWQAVVPSTWNASPKDANGVGGSYEQCLIGLKIADVKQPLEIIRKIHSYDPCIACAVHVMDTKGN

NLSEYKVNVNL

>AHK54073.1 quinone-reactive Ni/Fe-hydrogenase B-type cytochrome subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNKEEKLQRKAEYEFSIGLRLTHWVRAIAIVILIGTGYYLSYVFQSPISNGEPVNFMQAKYRLVHQAVG

FVLIACIIFKVYLFFCDKVSAKERRSVWDIFNIKLWIEQVKFYIFLGKHPHLKGVYNPLQFVTYFFFYLV

ILGIILTGLILYTHTYHEGLGGLLYHILRPLEAAMGGLADVRTYHRILMWVIMIFVPVHIYMAIFNAVKG

KDGAMDAIISGYKFVKEEQH

>AHK54072.1 hydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFLVLGIGNIMFADEGLGVHLCKQLEKNYKFTHSEFTLDFVDGGTLALQLSYIIARYDRLIVLDCIEAQ

GASIGDVFFFPYDAMPNKISWSGSAHEIEMLQTLQYMELAGDLPKTHILACVPKRIEAMSFKLSDELIQG

AKIMEKTLLDFLSKEGFAYEKIADFSLQELADISYKNY

>AHK54071.1 recombinase RecR [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVKGLEKFNELVESFANLPTIGKKTAIRLAYHLCINNQIDGMKLAHNIENAIRFIKPCEQCGALSENELC

EICSDKERNKNILCIVESPKDILTLEESQSYNGLYFVLDELNEEKLEKLKQIILKLNISELIFALTHSIN

SDATIFFIEDKFKGLNLTFSKIAQGIPSGVNLENVDLISLNKAMNFRTKI

>AHK54070.1 sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKNYSIHTKLIILFVVTFFLVCVLFIVLLKIEGNTYNEEESLKQENLIKNLLISYENTSGVEIGAYLGN

SGFNAIQNPNLVKAIRNNGQSLFKAGGELCTLSSLKYHSNLYFDVQCKDFDGLYEENTSDRVYNLLLIGF

FSFSLLVVFMYFSVLKSLEPLKKLRRQVAEVANGEQPDFLDYQEDEVGKIAFEFQKAFKKNQELIQSRQL

FLRTIMHELKTPIGKGRIISEMIKEDRQKERLIAIFLRMDSLINEFAKIENLFSKNYNLHFKPSRFSTIL

EEAKEHLMIDDFNKVVKVDIRYDALINVDMEIFSVILKNLIDNALKYSNNGTCELFCCKECFTIKNPGKP

LAEPIEHYLEAFTREKHNQVKGMGLGLYIVSEVCKLHNFDLIYFYDDGKHCFKIFFGDKEK

>AHK54069.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINVLMIEDDPDFAQLLSEYLAQFNIKITNFENPKSALNVGIQGYDCLILDLTLPGIDGLEVCREIRQKS

NIPIIISSARGDLSDKVVGLQIGADDYLPKPYDPKEMYARIMSLIRRTKRVEHTNNENINSAFKIDERRH

EITYEDKVLTLTPAEFEILEYLIQQHGYSVSREQLVSRCKNLKDKDSKSLDVIIGRLRVKIGDSSKSPKH

IFSVRGIGYKLIG

>AHK54068.1 molecular chaperone DnaJ [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEISYYEILEITQNADKETIKKAYRKMALKYHPDRNQGDKEAEDKFKLVNEAYEVLSNDEKRAIYDRYGK

DALKGGGFGSSSSGFGGFEDLGDIFSSFFGEGFGSSRRRKSSNDEKIPSDFIVNLKLSFKEAVFGCKKNI

DFTYKCSCKTCNGTGAKDGKLQTCPKCQGRGQVGVSQGFITFAQTCPDCQGIGEKASEKCSDCKGLGYNE

SKDSVELNIPEGVDTGMKLRVNAKGNILKNGTRGDMYVKIIAAEDDTFIRDDDDIYIEFPVFFTQAILGE

SIKVPTIRGEATLNLPKGAKDGQRFVLEKEGVKDVHSSRMGNQIVQISIKFPTSLNDEQKELLEKLSESF

GIKDGMHQEQKGLFEKITNWFKS

>AHK54067.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLVKLSLVAALAAGAFSAANATPLEEAIKDVDVSGVLRYRYDTGNFDKNFVNNSNLNNSKQDHKYRAQV

NFSAAIADNFKAFVQFDYNAADGGYGANGIKNDQKGLFVRQLYLTYTNEDVATSVIAGKQQLNLIWTDNA

IDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGADLLGHSNISTTSNQAPFKVDSVGNLYGAAAVGSY

DLAGGQFNPQLWLAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKTHANGNLFALKGS

IEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNET

VRVGADFVYGGTKTEAANHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQA

LYKF

>AHK54066.1 phosphotyrosine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILFICLGNICRSPMAEFIMKDLVKKANLEKEFFINSAGTSGEHDGEGMHYGTKNKLAQLNIEHKNFT

SKKLTQKLCDESDFLITMDNSNFKNVLKNFTNTQNKVLKITDFSPSLNYDEVPDPWYSGNFDETYKILSL

ACKNLLVFLSK

>AHK54065.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENFNRTLLVCWFGVFTTSMGLSQIAPILPFYIKELGHVDTSEIAFYSGLAFGITPLFMAVFSPLWAFLG

AKYGYKNMLLRASFGMSVLTLWLSFAHSALEVVFVRGLTGIISGFTSAAVVFIAVIAPKEKVAYALGTLS

TASISGSLLGPLFGGFVAEFFSISAVFDVVAFLIACSFVTIYFFIHGRKIQKEAKKNTQKVKENKTLIIV

LFITTFVIQFGTFGVMPILSIYVEQIHQGGNLALWAGIVVAASGISNLFFAPKLGKIADKIGPSKIIFGA

LIFCGICFYLQAVASNVYTLIFVRLLIGVGLGGLLPCVNALLKKSVSAKNLSVIFGFNQTCQFLGNFCGA

FGGGLMASHFSVEFVFTFVCLIFIINAFIFLAFEKKYIFSNQGL

>AHK54064.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEMILFVLVMILLVLLFVVLFRQYKSPKIEEKSTQSFSDIMQLKSIGELSVFQVFSKEIVTKKDSAFNGI

WKNLLGWSLSERQIALIFEFEITFLYDLRDKNFDILPLGDDAYKIIMPECRYKHSIIDMKFYDEKNAKFL

PFLLPDSINSTGISFSESDKNKLIKEAKDEVKDLSLNLIQNLESKIHKSAKDTLEAIAKGFGAKRVEFEF

KDNTQKLDVS

>AHK54063.1 tautomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPFVNIRITKENGEPTTEQKQELIAGVTDLLAKVLNKNKSSTVVIIDEIDTDNYGLGGKSITQARKEKS

>AHK54062.1 DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSEFLTHPFEPFFDKDSKILILGSFPSIKSRQDGFYYQHPRNRFWPILETLFNAKLENITEQQAFLRKKH

IALWDVLQSCKIKNSDDKTISYAKANDLNLILSQTKIQAIFTTGQSAYRFFVKFHPRLEAIALPSTSPAN

LNFSFEQLLQNYEIIKKFTK

>AHK54061.1 polynucleotide phosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNILKNFTNLLSGKKGKIMQYSIEINKNTEIFDIDKVAKQAAGAVLMRQGKSVVLATVAREEKQVEEDF

LPLTVQYIEKAYAAGKIPGGYVKRETKPSDAETLTARIIDRSLRPLFPKGYAYPTQIVVMVLSADPKVDL

QVMSLNAASVALYLSDIPMKAPVCGVRIGKIDGNFILNPNNEELQNSTLDLYVAGVKDELLMIEMRALPD

QKENEIFIEAPYADVLTQTTSQNMNELSEDEILEALNLAQKAILNGSNAYEEAFSKHKKNSQIELKNEIE

HPEILAFIENNFQKQIKEAINQMAKSERASELNKIAKEILNLEITKDWSEESVLNTLAKVKRKLIREQIL

NEGKRADGRSLNEVRPISIETNILPNAHGSCLFTRGQTQALVVATLGGENDSQMIDLLTEKNPISERFMV

NYNFPGFSVGEASPIKAPGRRELGHGNLAKRALYPSVDENYPYVIRLVSEILESNGSSSMATVCGGSLAL

KAAGVPSLKLVAGVAMGLIFEDNKYAVLTDIMGLEDHDGDMDFKVAGSKDGVTALQMDIKLGGIDQEILK

QALYQAKEGRIHILNIMEEAAKEIIVNEEVLPKLELFSVDPSKIVDIIGQAGKTIKEIVEKFGVSIDLDR

EKGEVKIAGSQNEQIKAAKDYIINITSSQKGTKKGPKDKDISGFELGQEFQGIVKKIAPFGAFVELKNGV

DGLLHSSKIKHLNLSENQSLKVKISEIKNGKISVDLCE

>AHK54060.1 hypothetical protein N919\_06255 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MWRKFSLLLGTSIALNAAQVDIYALDAKKEGDILTANNDVIIFSDFYFITANKAIYNEKTGDVELFGDVN

ILRGQNERSHSDYAKINLNSNQADFSNFFFSNNNLEVWFQSKTSHLNDKVFESKVSAVSSCNVEDPDWEI

RFSKGWLNRETNFVHLYNARLYVKNTPVFYLPYFGFSADTHRQSGLLIPKIVLKSSEGLYYEQPIYIATQ

ENWDLELDPQIRTNRGFGLYSTLRFLDSPYSTGELNFGAFRENSSYFHDENLKNQTHYGIELKYSRDDLI

KSLLSDNFQEGLWIDATYLNDVDYLNLGSRDYRDLNSLVTSKINYFLADENNFYGAYARYYIDTSKLSNN

TTLQEYPSFQYHRFLNNLFDERLRYSFDASFHNFYRPAGSYANELNLDLPISYHNAFFGDFLHFTFTERF

YASFVNYSNDPERNHEHYFRNTHDFNLYTDLSKAYENFFHTLNLGVNYILPGAKSGKITQDYLEEYDKEN

EHTSLYTVQYFYNNEGQKKLKHRISLDYLNKQNEFYELENLLTYYFNENINLNSEVLYSYEQSRFTNVIS

QIEVNTNSKFNWMFSHAYQNDEYGKYSFIGTRANYIATPNYNLFGGIWFDTQRAHANMWELGYTYQRKCW

NYSLMYRERIDPQLTSGGITAKNQSGVYFIFNFYPLGGVKYDFSLAESENKI

>AHK54059.1 RDD family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKENLQDRLERENLKIASFGKRVLAFLIDDMVISLIVFIIFYDRLIQAKDLFETTQIVGNFYLGFILLHF

SYQAIFTYLYGASLGKILCKIIILDENLLDKPNLIQSCIRSAVRQVSAMAFMLGFAWALSNDLRKAWEDY

LARTIVVDVA

>AHK54058.1 phosphoribosylamine--glycine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIMILGSGAREYSIALALRRVDKNLEFYFAPGNGATESLGTNLNLKDPVVLATYAKEKGFDLCIVGSES

FLAEGVVDIFKQQGLAIFGPSKAAAMLETSKSFMKSFLKKYRIKTAKFLNTNDIEKAKNFIYSLTPPIVV

KADGLCAGKGVIIAKTHEEAIEETAKMLSGESFGDAGKLVVIEEFLDGYELSIFAVCDGNDFVLLPAAQD

HKKLLDNDQGPNTGGMGAYAPSSLANESLLRKVQKDIILPTLAGMKKEGAEFCGVLFIGAMIVGNKPYVL

EFNVRFGDPECEVLMPLIEDPLELILAATQRRLRHSKIKIKKEFAVGVVCASENYPYKSSPKSEITVNNI

PENSHISYAGVSLEDGKLMADGGRVLVCVGTGKSIEEAQKNAYKLCDNVNFKGKQYRKDIAHQVLK

>AHK54057.1 hypothetical protein N919\_06240 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHGKIAIYMDSTGRGTVTNSANTFFDFNRQIWNDKKSMPSVGMLVEFRTLSSEKKAEDGKLVQTSKTITG

IKPSKFQEFKEGDFITEHDFWKTDNDDELEDLQNSRRSAYITELYRTTDFDTIEKIPLSFTIPQAIQKYF

AHEILSVETLQANLQDEKEIPCILDYLILKRFLFKAYDTLIFMDNSIDQTQFSALKSIMMHLENSYKQMM

ADQKPNITKIFNETFLSLQCHYQALVATIDTRKNRLASLEAQMKTLQSEINLKSNATDADPEKLKARQER

LAKLQKEAEYYRTTLKRLDAIREDFYKKNYNIFENAFKLSREKLFKKIVTGLNLCATIMDVKIWHLSLKS

SGVKNSYFTMSNIENSFCSLSFAEHYLSRLNKSALNPFDQKLLVYIQKITKEQRKKFLVVTSDLDLLCKL

KIENFSQNPYYLVKYAPKKVNYQSLMRDNTFDIVYIDEKHVWENVADIILQGKHFDKSGKTKFKLI

>AHK54056.1 GMP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKADILVLDFGSQYTQLIARRLREQGVYAEILPFNVSLADIKAKEPKGIILSGGPASVYATDAYFCDKG

IFDLNLPVLGICYGMQLMAHHYKATVAPAGHKEYGKANIEIKKDNALFKNLPKKQTVWMSHSDKVENLPQ

GFEVLATSENSPFCVFGNEDKKFFALQFHPEVQHSEFGKNILKNFAKYACNCESIWNMGSFAKTQAEKIR

EEVGNDKVLCAVSGGVDSSVVAALLASAIKEQIIVVFVDNGLLRSGEKEQVEFMFKNTLGIDLISIDASE

IFLSRLVNVTDPEQKRKIIGNTFIEVFEEEAKKHKDVKYLAQGTLYTDIIESSVVGASKTIKSHHNVGGL

PEKMNLKLIEPLKEIFKDEVRALGLELGLSKEVVYRHPFPGPGLAIRIMGEVNRASLELLRKADVILLEE

LKSTGWYDKTWQAFCVLLNVKSVGVMGDNRTYDNAVCIRVVDASDGMTATFSHLPYEILENISRRIINEV

EGINRVVYDISSKPPATIEWE

>AHK54055.1 hypothetical protein N919\_06230 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGKRNNIKMTKNASAVINELMDKPHYKPLKTLFFCKDFLSSFPLAKQRLIAKIYVKNHILNIITLHPAAY

QELNHDDSKIYIKFLIKAYGQKYPLSGFVDIKDIKIFSQKYTYAANKNKNDEKLSKNSYLELSKGEFKNC

FKDKKLFKKFEDLRELIKKGSNLD

>AHK54054.1 excinuclease ABC subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKENLENELKTLPNSTGVYQYFNQEGKLLYVGKAKNLKNRVRSYFAFTPNLHANPRNSLRIQKMIEETV

HLEFIATNSEADALILENSFIKQLHPKYNILLRDDKTYPYIYVDFEEEFPRFEITRKLVKKSKIKYFGPF

FKGARELLDALYLYYPLKQKASCKSPCIFYQISRCLAPCDKLISREKYLEILDEAIHALLNPSVLLKNLE

KQMLVLAQNENYEEAAKVRDQIAMIKDLEVKVEIDIAKLEDFEVFALAFKNSVLSTLRFVVQNGKIISAN

SKITPIKNDIQWDQNEIYKQLILENFSMDIPLLANVIYVYEEFEDRVLLEEILSQRFDKKISIKIPKIGE

KRRICDLAFQNALLNIEKEQKNHDFTIQKELKSYFELENLPNDIEIFDNSHLQGVANVGAMVTYRINSWD

KSKYRKFHLKHKNDYDQMREVLTRRALDFDKIPPPDLWLIDGGKALLDLAKEIIVSSGVNVDILAISKEK

IDAKAHRAKGGAKDKIHSLKGEFSLSINDKKLQFLQKLRDEAHRFAISFHQNTKKKQDLKSSKLANLGLS

SGVMQKLLAYYGNFESIYKADFKDLTMLVGRKAAQKIKEN

>AHK54053.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MILAGIIFIFNLILAYLSIDISKLDSVTEQLKIGMFSSIFVLSLTLFIFAFRQNRNINKIYQKIFCMQND

FLNFQKKIDVDSALDLLKEKFETTSQNLTKISHEKDRYLHLLEENLYQLINISNAMRCLNEGYNKEINSL

ILNALNSQKDQIRLELNEALEHHKSIIGTSHGKVLQFEASVAIVNNDELENFLLANLLSYFGIESTCFKN

LSFDVNDFHLIFIKDKIFNKNVKKNYDFIVMGRHKNTHYEYFLTLPFEKKDLENILQNKLDKVCTLKFKT

PYQNNVLLFKQNDFDATLFFNIIEKQCDKNICINSFSQLKQELSKETYRLILLDYELIKFDLEQMRNLLS

AYKKQHPQSHIIFFSKEKVRDFDCVSEVLSDVSRNDLITLLRKYLPKA

>AHK54052.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKILFGPVSSRRFGRSLGIDLSPSKKQCNFDCVYCELDPKKAQEKQDEIISIDKIISEVKAMLEKNVEFD

FLTLTANGEPSLYPYLNELILSLRSIAKDKKLLILSNGTAVLDEDKFNALLKLDVVKFSLDSAVAKTFYR

IDRALKNIDLEKMIEKMADFRARFNGDLIMEILVVKDLNDNEEEFEALNQALKKIMPLRVDLSTIDRPPA

YAVKKVSEEKLLELSKLIDSTPVLLAKRHYEGEKLSFNEEELLKMLHLRSQSEIDIEVKFDEQSKTLLNQ

LIKEKKVKILDLAGVKFYKV

>AHK54051.1 uroporphyrinogen decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIFIDACFKKPTPYTPIWMMRQAGRYLPEYMEVRKQAGDFLSLCKDYKKASEVSLQPIDILDVDAAIIFS

DILVVPLEMGMNLRFEKGEGPVFGNPISTLEDLEKLDDQNAHKKLNYVYDALKLTREKLSQNKALIGFCG

SPWTIATYMIEGSGSKNYAKCKKMLYQNPELLHKILNKLTQVLKLYLEEQIKAGANAIQIFDSWASALEY

DKFFEFSFNYMLEISNFIKSKYPNIPVILFPKGISGYLDRIDGNFDVFGVDWSTPLDLARDKLSHKYTLQ

GNMEPCRLYDKNAIKEGVEKILKTMQNKAHIFNLGHGILPDIPVENAKYFIKLVQESSAK

>AHK54050.1 hypothetical protein N919\_06205 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVVDNTQKTSNAIFSTTTKVKEKNTSADEFQATLNEVKNKEEKEDKKTNSSKFTNEDIDLGAVREDFRSY

AWQKMREDQYKKNEETLLNKLFTTIDAGNATNNTKA

>AHK54049.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNYKKALFALALSAFCMGVTEFVMAGVLVDVEAYFSVDAKTAGYLTTLYAIGVVIGAPLITIPLSRFHR

HTQLLINLGIFALANFIIFFSQNFYLTAFARFIAGTQHGVFFVIATLAVSAITPDDKKSSALAIMVTGLT

VALVTGVPLGTFIGHYFGFKFIFLLIFIITSLAFFGVWHMMPKNLHPSPTNLKNLIPAFSHQNLLKTYTI

TICSCGAQFVLYTYLQKILVEISGFKVQDTAYILLLYGICAICGNLWGGKIVDKKGAIFSLRLILSIQVL

VFLSVFLTMHSKILIIFSVALIGFFAFSTIPALKMLSITKAKRHTYKVIDSTVSVNEAAFNVGIALASFL

GGIVLARLGIEFNALFSALFVSPALIFALLFAKDKLNYKKFQRKSFTKV

>AHK54048.1 hypothetical protein N919\_06195 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIILLLGLSLASLGALSFDELIYKDEVKPSFDCSKIKYDGKSDDELMICNKIGVRNEFDNKKLALVDN

IYSSLYQNISKKADKKMKKDFKAISKKMLKERKICIKNMQNTKAGENPLLSLLNASDCMQEAYIKVLLEL

MQRAKKDTKTKEVLEQIFKNKVDKYENLLTQSLNTNKDLQDFIDSLAKEDLIDSRAKFKL

>AHK54047.1 4-hydroxythreonine-4-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYEFNF

IKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKAWED

AGLKYKGHTDALRDFFKKNAIMMLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKKMGL

LGFNPHAGDYGVIGGEEEKIMEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPYPLV

ADTAFTKTGLKNCNRLVAMYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINTKSY

FEAAKFAINLHSKA

>AHK54046.1 pyridoxine 5'-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLLGVNIDHIAVLRQARMVNDPDLLEAAFIVARHGDQITLHVREDRRHAQDFDLENIIKFCKSPVNLECA

LNDEILNLALKLKPHRVTLVPEKREELTTEGGLCLNHAKLKQSIEKLQNANIEVSLFINPSLEDIEKSKI

LKAQFIELHTGHYANLHNALFSNISHTAFALKELDQDKKTLQAQFEKELQNLELCAKKGLELGLKVAAGH

GLNYKNVKPVVKIKEICELNIGQSIVARSVFTGLQNAILEMKELIKR

>AHK54045.1 exopolyphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLGIDLGSNTLRAVQMDEKLNKLKEYEFVIGAAKNLNQSGEISKEAIQRLKNTLSILAKEQDLSKARAVA

TAAFRKASNTNEIFAHLKKEFGIDFKLIDAKSEAKISVLGMQSGLRRLKIWGEFAYCDLGGASCELSFGK

SFKSFDFGIISFYEKNYHSYYKSCISYKKLIKKYPKFIINIKDKKLKIHFLIANPYLKHLAFRAFDEVAM

IKKELRSLGAKTVVLNSGVPTTLSALKQNISYEKYEATKVNGKKLCHKDFLNYAIKLFHMEEKKAIKEVG

TMRKNYLSAGCLLFYALFDKHKLLVIDEGLREGVCLASMKNIKF

>AHK54044.1 hypothetical protein N919\_06175 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFSDFFHAWLHESYYKNAVSIGKNGDFFTAVSVGNLFGTLLAKHFLNLIDEKILKPPLELVEIGANEGY

LSRDFLAALLELRPEIFSQISFFIIEPHEKLRTLQKKTLEGVEFTHKNSLKECHFKNAFFFCNELFDSFT

CELIDHDKMAFVENFKLIFKNMDENLITKCKALNLTKGELSLELENFFKDLNQTCERFIFAGFDYGTLNP

QSFSLRIYQKHEVFSPFEVSLKDFFGKSDLTYNVNFTHLQKLIKEYDFKPLAFKKQSLAFMDFGFEDLLE

YAKNKNIKTYESFLSQAKILFFNFDEKFHFFEFQKN

>AHK54043.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKALWILLSLTLWLFGAQNLELIKGQALFLELDKKDFLSLKNNDKNIPTFAHPKNQEKILAIFSLPYKNP

PQNTKLIAFYKDKKEEIFIKTLEGNYKSEKLQIENKKIFPPKTIQERITKELKEANAIYSSYTPKALFNG

AFNIPLNSFITSDFGKARTFNEKVASYHSGTDFRATTGTPIYAANSGVVKIAKDRYFAGNSVVIDHGFGI

YSQYYHLSKIDVKIGQKIKKGELIGLSGATGRVSGPHLHFGILAGGKQVDPLDFVSKFNAIFQ

>AHK54042.1 glycyl-tRNA synthetase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSELLIEIGTEELPAIPLLKELANIEKKWNNVLEEYRLVSDFKFYYTPRRLVFFHENFADKQEDSFAEFI

GAPKNVAYKDGVLTPAGQSFLQKARISENELSFKEIKGKEVLYHQKAIKGLQSQEILGEMVEKFLKSLSF

GKSMRWGANSFEFIRAIRSIACILNDELVNFQSYGVKSTKKTFIHRSVSYDLQDFNNAKEYFELLEKNYI

ILDPIKRKEKILEQFKLIESQKNIQIGEDEELLAEVVAITEYPNALLGSFEEEFLEIPSEVIITSMRENQ

RYFAVFNDKGLSNHFIVVSNAVCKDYSKIIHGNERVLRARLSDAMFFYQNDLQNGLKPEKLAKMTYLEGL

GTMQDKSLREIKIAEILCQMLHNDKIENISTALKYAKADLATQMVYEFTDLQGIMGSYYAQKMGLDYQIC

LAIKEQYLPNSEQAPLPSTEFSSIVALANKLDTLIGLFSIGKIPSGTKDPYALRRAANGIIKIALNLNKE

FDIQILLEKLSNHYKSFDMQILKDFIFERLYTFYTVNASFVKAVLSSQNTDLIHINQSVNALIKLSKKDN

FNENFATFKRLANIATKNPHKVDESLFVQEAESKLYKAFQEKTKANSLQEKLENLFALKPFIDEFFNQVM

INAEDEKLKNNRQALVYEIYAEFLKIADLKELSL

>AHK54041.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINVFFDMDGTLIDSANAISCAVNEIRQDLNLAPLSREIIMQTINTPNIDWAKELYNIENFHHSSFKEGY

EKYFVKHYEQSVVLFEGVKELLEFLKSKNCFLAIATNAPQSSLSNILKKHDIIPYFDKILGVSLGIEPKP

HPMMLELLKSEAPYKTSVFIGDSQKDKECAKNANLPYFHAKWYQKNLKENEFSNASELKGFLQKYL

>AHK54040.1 hypothetical protein N919\_06155 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKNEEKALRVKYLRNLEKFFNGAISALKKEDFDKTKFEERMLKNAKFFEKNPAVNLNSTYAKNLEFFVN

ACLDFSKEKSELLNLANALDKQKKQGEKKEKHKNYLKDYE

>AHK54039.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDNFLEIFLITVAIAIVLNVIFKKFEIPTIIGYIAAGEIISEIYHLSGKGEITHIAEFGIVFLMFTIGLE

FSFKHLMAMKQEVFLNGSLQMLTCGFVFMLLAIGILGLGDKSATIVGFALALSSTAVVLKILNDNGDINE

QYGRKALGILLFQDIAVIPLLLLVDIFSSNNQNIEKLLFTSLISALILITLLFFIGKYLVDRIFRLIIHT

SSQEIFISTVLFMVIGASFLANYFGFSYSLGAFIAGALIAETKYKHKIEADLIPFRDLLLGLFFITVGMQ

IQLDVVAQNWFLIIVLTLLVMALKFGIVFGFLFLYTKKRVALKTAFAIAQIGEFALAIFSLLQAKNMLDI

KTSQILIVVSILTMIITPFILNNIRKITNVVEDIALNTNAVQNIDSNIKLKNHLVVFGYGRLGQEVVQKI

KNTGVPYLVLESDLNLVELGVSRGENVVFANAAQEETLKIANIEECAVAIITVTNEAKLEILCQVLANYP

KPIDTIIHVNGTLKKMLFSSIDENIRIIRSEKVIARNLVQEALECRIHKNT

>AHK54038.1 MerR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEQHYDEPVYLISVVAKVLSIHPQTLRQYEREGLIEPSRTDGKIRLYSQRDIDRIKLILRLTRDMGINLA

GVDVILKLKNQLHEFENLIDELRLELSKQQDKEAASKAVVKHKNSFDLIFYEKK

>AHK54037.1 cobalamin ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNSLYETLGVSKNASADEIKKAYRRLARKYHPDINKEKGAEEKFKEINAAYEILSDEKKRAQYDQYGDSM

FGGQSFHDFSRNTGGVNLDDILKDLFGGGFGGRSRGGFNGFSSKGFSSGFGGFGGFEEEILDSNLELHIP

FEKAVKGGEHSFNFQGETIKFKIPHGIKEGEKLRIRSKGKQSRNGARGDLIIIVKIEESPIYTREDDDLY

QKVDISLKTALFGGKINIKTLKEGKEEAIINITPNSKNNQKIRLKGYGVQNRKSDIYGDMYLILNVVLPN

LDTLDEKFIELLKEKLP

>AHK54036.1 serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIFLSLSLASALFAASINFNESTATANRVNPAAGNAVLSYHDSIKDAKKSVVNISTSKTITRANRPSP

LDDFFNDPYFKQFFDFDFSQRKGKNDKEVVSSLGSGVIISKDGYIVTNNHVVDDADTITVNLPGSDIEYK

AKLIGKDPKTDLAVIKIEANNLSAITFTNSDDLMEGDVVFALGNPFGVGFSVTSGIISALNKDNIGLNQY

ENFIQTDASINPGNSGGALVDSRGYLVGINSAILSRGGGNNGIGFAIPSNMVKDIAKKLIEKGKIDRGFL

GVTILALQGDTKKAYKNQEGALITDVQKGSSADEAGLKRGDLVTKVNDKVIKSPIDLKNYIGTLEIGQKI

SLSYERDGENKQASFILKGEKENPKGVQSDLIDGLSLRNLDPRLKDRLQIPKDVNGVLVDSVKEKSKGKN

SGFQEGDIIIGVGQSEIKNLKDLEQALKQVNKKEFTKVWVYRNGFATLLVLK

>AHK54035.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTNILMIEDDLELAEITAEYLEKFDMKVDIAHEPYIGLSKLALKEYQLIILDLSLPGLDGLEVCEEIRKK

YDTPIIVSSARHDITDKVNALELGADDYLPKPYNPKELQARIKSHLRRISNTKSAIAKSVKDLVYDQYKH

IITMKGQELTLTNAEFDILSYLIKKEGGVVSREELVYNCSSISEDSSNKSIDVIISRIRQKMGDDPKTPK

YIHSIRGIGYKLTQ

>AHK54034.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKSSIFYTITFIFIFAGVSVILGFLWLIEYDQQNYTRELNTKYSLIANARLLNFAGVISEKEFEEQTKN

YNKMDEITEAKQIRKILFRGDVLARVEVNNGLIEIISYNRQVYLNIIYDGKVYLYKDQDYQTYRYFIIKA

IAVAVICILVLLYIYIFKKLKPLKRLKKQIDKFAQGKLGDIEDVSTGVDEISQVSEAFYQAIVQIRKLNQ

SRQFFLRNIMHELKTPITKGLLTLEMIEDNKYKERLNGVFTRLEILINEFAAIEQITSGAAFINRKKYNI

LDVLDEAKEIAMRDDSNIRIFMEESFFVNVDFKLFTTAIKNMIDNGIKHSEDGFVQIDIIDDYICFKNRG

PELNNTLEYYTQAFTQGSKQKSSFGLGLYIVNTILETHGMKLDYLYEDGVNLFYFRNLKSVIVKE

>AHK54033.1 CopG family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKRNVKTYSFRMPLELKERLDNLSKNLSKPKSTIVKEAIEAYLNEVEDFSFAVNALEELKDGDYQKASKK

IDKIVKNLKQTK

>AHK54032.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLPKWDNSYSVHNAKIDEQHKKLFKLAAKVEVVSDRSVSKNEVKELLAEFFNYMKDHFNDEEKYMQLIGY

PNLEEHRKIHKEIIQTMINLIKDIKSTNDLKEKLYIVAKKWLLEHILYEDMKVEKWRSSSLSTDDGGDVS

FEAAEDEDNEHPQFYLYTCNCPGKIHDVPYSIHQKIELQGRKFTCKTCKQAIKFYKKYS

>AHK54031.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAAKILLLEDDLSLSEIIEEFLNDEGYEVFLCDNAQEALDMAYERYFDLWILDVKVPLGDGFSLLKELRK

SGKQTPAIFMTSLNTTNDLKQGFDAGCDDYIKKPFELAELSIRVKALLKRAFSHKNEDFEDLGDGFRFEF

TTQILYHNNKALTLPSKEIKLLSLLLKNKNNFLSTERIFEELWDYDEEPSELSLRAYVKNLRKILGKEKI

INQRGRGYCYG

>AHK54030.1 sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKKVIRQILLIYLTTTGIFLTIFFALWYQKLYEELVVLKGATLRENHRNIVISILNSRFTPIDISAKNI

AQSTALKFAIFDAKKIVFSNIDFDLRKAKIELKGRGICDNKVFFLASMSADHYFLRHASNEEVNTNDGLQ

ILIQGEDVGKDLFWIRTKVFSFAIMAFCILGLISYILVKIALKPLEDKISTLNRFIKDSTHELNTPLSVI

LMSIEQLEHQNLGDNTKFTRIKLAAKSLSQVYSDLVFYNFPNTLETEKQKFDLRILLEERLEYFKVFFEQ

KKITLKLDLNQANIFAPKSQISKLIDNLISNAIKYNKKGGVISIILKANFLSIADTGCGISKSNLNHIFD

RYTRFNTDQGGFGIGLSLVKKVCDDNDIKIICESVENQGSVFKLNW

>AHK54029.1 molecular chaperone GroEL [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKEIIFSDEARNKLYEGVKKLNDAVKVTMGPRGRNVLIQKSFGAPSITKDGVSVAKEVELKDSLENMGA

SLVREVASKTADQAGDGTTTATVLAHAIFKEGLRNITAGANPIEVKRGMDKACEAIVAELKKLSREVKDK

KEIAQVATISANSDEKIGNLIADAMEKVGKDGVITVEEAKSINDELNVVEGMQFDRGYLSPYFITNAEKM

TVELSSPYILLFDKKITNLKDLLPVLEQIQKTGKPLLIIAEDIEGEALATLVVNKLRGVLNISAVKAPGF

GDRRKAMLEDIAILTGGEVISEELGRTLESATIQDLGQASSVIIDKDNTTIVNGAGEKANIDARVNQIKA

QIAETTSDYDREKLQERLAKLSGGVAVIKVGAATETEMKEKKDRVDDALSATKAAVEEGIVIGGGAALIK

AKAKIKLDLQGDEAIGAAIVERALRAPLRQIAENAGFDAGVVVNSVENAKDENTGFDAAKGEYVNMLESG

IIDPVKVERVALLNAVSVASMLLTTEATISEIKEDKPTMPDMSGMGGMGGMGGMM

>AHK54028.1 molecular chaperone GroES [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFQPLGKRVLVKRVEETKTTASGIIIPDNAKEKPLMGEVVAVSKEITDIANGDKIVFAKYGGTEIKLDN

NEYLVLNLDDILGILK

>AHK54027.1 hypothetical protein N919\_06085 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIFYGIVAFVVVLLIALYTILFTSFGNNIVANIAQKKIKENAGLDVNITRFNLRFSSLELQANIANMA

DCNLQGALSPFKLGFDLDYLISLNQNYAKNLGLNLNQNLSFGGKIQGKASDFTLDGKGYLLGSNVLLNAR

MYNYSPIALNLDAQNLKIEEILHLLSYPSYAKGFLNAQAKISAQNLKPDGNIIIKLDTSYINYEAIKKDF

SLDLPLNSNPKAEILANVKEDKIYAVSKIYNDYLNLQTQKTLYDMSKNILSTDFNLNIPSLAKLEKLTKT

RLNGSLGVIGETSVVNNALSSLNAQVIGLGGEVKASLKNNKIFADINEASLEKLLALAGYGALVSGNLNA

KLLNADLDFSNFDLEAKINNAKINTNELKKLAKIELPNTIFSFDAKANAKNSNIAYNALLASNLLNIKKL

QGTYNLKNSELNTDLNAFIDDLSQFSAIAGQKLQGKADLTAKAHIIGTQIQNLNANANLADGVIKADSNG

KKLDLNIDKLDLSKLFVIAGMPNYASGIVNAKVNLDNIDFSNLNGKANLEAKGILNAATLSKILNKNFPN

NTSYDLNTKINFKNNIAQFDSVLNSSLADLTKLQGSFDISKMLLNSDFNLKINDFSKLGFLLDRKLKGKA

EFNGKVGFDKNLNFVVNSPNLFEGKLQSTLKDNLLLADLNGVDLSSLAQGLDFMDVYQGKADVKANYNLL

SEEGEVNLDMKEGKLKPNLITNALKILTLKDITNDVYRTANAKALIKKENIKFDLNMQADRSYILVQSGA

LNSKSGALNLPFDIKFDRANFKGSITGTTENPKVNLNAGSVLNSIKNVVGGGMSDGAKSTGDKVDKAVNK

LLNKIF

>AHK54026.1 riboflavin synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFNGLIREIAKVQSYQNNTLSLKAKYCPNLGDSIAVNGACLSVTKLYEGGFEVELSRESRTHIVIENLKD

KVHIEPALRYGDRIDGHLMQGHIDFIGTLEKIQKDENGVDFYISLPKEAMKFMAEKGSIGVDGVSLTINE

ILKNGIRLTIIPITFKETLFKDYQVGRKINIESDLLARYIYAQLQGKNKGLSWEEVERISYLY

>AHK54025.1 laccase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGRSRKNFLSLLENDKVGIFCAFDKDYNVFRAKIHNENLFSHLGFKDIEKCVFMDQIHSHKVIIYDENLK

NLSCDGLISKEKNIALCVLSADCLPLILYHESGIIAALHSGRKGSFENILKECVDQITMQNSHLDKNKFH

LFILPGICAKNYEIDGEILEFAKKEFKEFVQDDKLDLKALVKFQAQNLGIENIKDCGICSFDDESFFSYR

RDKTTKRFVSVVYLKD

>AHK54024.1 hypothetical protein N919\_06070 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYERKDLRVLKIIQKAREFGDGDLLNEALVKQLIDADFCEINEKEKEELATLLHSLINAKDKALLSN

>AHK54023.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKLLLLFIFVVQSFAALSVEELTWDNGDTLLKFLQRNSIPMSLYYGLDREDQELASDIAYKIKYQVLKD

ENNNIEQVLIPISDDLQIHIYKDKDGQYTLAFTPVSYQKEDRILHLTIKSSAYQDVYEESGSSTLARAMV

RAFRGSINFRNIQKGDEVTLYYEQKRRMGKLWGDINIKMAMVEINKSAREVFSYNDIFYDRDGKELESFL

LTKPVNYTRISSPFTTARYHPILKRYRAHLGIDYAAPTGTPVKSAGKGVVTFIGTKGGYGNVIQIKHDSG

YMTLYAHLSRFAKIKNGQKVNQGQVIAYVGSTGMSTGPHLHFGVYLNNKAINPASVVKIAKSELSGKAKE

NFKHIIAGYEQVVKEALASNQPNPPKEEDFENYIEF

>AHK54022.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFKTIVCFLALNLSLFAVGFDLKPIKSELVKVDDIYGYIKDSDDIKLYSSGVVVQHFSNSQSIIARASVI

DKKNGLAKLEFSVFSALKQDALPLPNVLPKVGDEVVLNFLYDRGLVIAPDEQTYNELVREFPQIYFTHID

IFGAQLIRTATLSPKRSDFRQFCDDNAVGILVVALENHAEVVDCQDFNKLYEVPISKPTSVQVPFYSRIG

GYKSNFFDFNSQEIGNYYRYYDALINLPKVQ

>AHK54021.1 FAD-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKEFEQYFKRFLGEENAYFDEIHKRAYSYDATKKHYLPDGVLFPRNEEDIARILKFCNENNIIVIPRGS

GSGFTGGALAVNGGVVLAFEKHMNKILEIDLENLVAVVQPGVINIHLQKEVAKYGLFYPPDPASMEYSSL

GGNVSENAGGMRAAKYGITKDYVMALRAVLPSGEIIRAGKRTIKDVAGYNLAGILIASEGSLAVLSELTL

KLIPLPKFKKTAFAIFPSVKSAMNAVYKSLASGVSPVSMEFLDNLSIRAVESKFNKGLPIEAGAILIADV

DGNVKEAIDEDLRNLEHYFLEAGASEFKIAKDEQETADIWFARRNCSQSIAMYGTLKLNEDITVPRSKLP

TLLEGIDEISKKYGFKIPCFGHTGDGNVHTNVMVPDKNDKEQVKKGYEAVEEIFKLTVKLGGTLSGEHGI

GLSKAPFMNLAFSEAEMNLMRNIKKAFDPNNILNPFKMGL

>AHK54020.1 ribonuclease BN [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNFFTILLNLRDKEILNYAAALSFYTVLSLIPILFVCFSVFTQISSFKAYYEKAKQVIFAFLIPTQQDV

VATYIDTFLKNSVNLGIVGLIAMAFTSLAFFSGYDFVINRITKNEPKGLWQSISSYWTLLTLVPLGLGLS

FYISGFIQQTLDDYKIGFNFFEILPFVIIWGLFFISYSSSVHKGTLKSLALVSFGAGTIWYIGKNLFVYY

VVYNKTYASVYGSFSTILFFFIWIYISWIIYLFGLKLYYFLNHNHNEGNKIRKNTKKS

>AHK54019.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQDMIDTLIKYGYIVLFFYSLGGGMVGILAAGVLSSQGKMDLSFCIALAFIANTIGSTLLFILGKYYKKD

IMPYFKKHRRKIALAMIKTKQHGIILLVTQKFIYGLKTFIPIAAGMAKYNFIKFFIINTLASLAWAIVLG

FTAYTFGYVIEAIFDKLSLYPYAAPLFLLFLAGIIWLYLSKFSKK

>AHK54018.1 ribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIESLIALIAAIVGLGIGYLVAKKINDAKYEIFVEQAKAKAKAIEYEAELILKDAKNSILNAELEVKKKY

EEKTHKFQKDFNQKFDDLSKKEQKLQQEEEKLKEDKEYLCKSQKHIQNLQSDVDKLKNKYQEKLDDVLKI

LEHSTGLTQNEAKEIILKKVEENSREQIAHIVRKYEEEAKNEAKRKANFIIAQATSRFAGEFAAERLINV

INIKNDELKGRIIGKEGRNVKTLEMVLGVDIIIDDTPGAIIVSCFNLYRRAIATKVIELLVEDGRIQPAR

IEEIHEKVCKEFDSAILEEGETIVMDLGLNKIHPEIVKLIGKLKYRASYGQNALAHSLEVAHLAGIIAAE

CGGDENLARRAGILHDIGKALTHDFEGSHVDLGAELCKRYKEHPVVINAIYAHHGHEEATSIESAAVCAA

DTLSAARPGARREVLEAFLKRVSELEDIAKSKEGIKNAYAINAGREIRVIANAQLVNDDESVLLAKEIAA

EIQEKMQYPGEIKVNVIRELRAVEYAK

>AHK54017.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIKKILLLVAISCLFVACSNDKEKQQNDVNLSTEASINQSDDMNFKLNLIDGGSISVKKENAVLNFNDE

DKVTLFVFFTTWCTPCIAEIPHLNKLQEKYNNDFNIVGVLLEDKSNDEIQKFIEQHKISYKVANGENNYL

LAKALGGVNGIPTMFLYNKHSKLINQYLGLIPEEMLEIDIQKAIL

>AHK54016.1 cell division protein FtsY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFNFFKKGLAKTLENIVGVKGENKKITKDLLEEILLEADVSYEIVEEIIYYLPPQNEVKKEDLKRVMGSY

FLYEKKETNQEKPFVELILGVNGAGKTTSIAKLAYLYKNQNQKVILGACDTFRAGAIEQLKLWAQKVDVD

IVLTAQGHDPSAVTFDTISKAKAKDFDRVIIDTAGRLQNQKNLAHELEKIVRISNKALEGAPHRKILVLD

GTQGNAGILQAKAFNELVKLDGVIITKLDGTAKGGALFSIARELELPIFYVGVGEQMTDLQEFNASAYLD

TLLDPIFE

>AHK54015.1 DNA repair protein RadA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKNKALFECQACGNQQSKWLGKCPDCGAWDSFVELKAEQIKVLKELAQVSMKTSEAVCIEDVELEHFTR

YSTDDNELDLVLGGGLVEGSLVLIGGSPGVGKSTLLLKIASNLAKQGKKVLYVSGEESKAQIKLRADRLE

ANTPNLFLLTELCLENILEELHKKDYSILIVDSIQTLYSNKITSAAGSITQVREITFELMRVSKAYNIST

FIIGHITKEGAIAGPRVLEHMVDVVLYFEGDATKEIRLLRGFKNRFGGTNEVGIFEMTAKGLISAKDLAN

RFFTRGKAISGSALGVVMEGSRALVLEVQALVCESSYPKRSATGYEKNRLDMLLALLERKLEIPLGHYDV

FVNISGGVKVSETAADLAVVAAIISSFKNRPLSKDSIFIGELSLNGEIREVFSLDTRLKEAKMQKFKNAI

VPSKPLEDIGLKCFVAKELSQVLEWM

>AHK54014.1 F0F1 ATP synthase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKDLFLFSSLLDASHTFSYFFHIGLVALIAVIVAMMATRSMQLVPRGMQNLGEAFLEGVLSMGRDTMGSE

KGARKYLPLVATLGIIVFFSNIIGIIPGFHAPTASLNLTLSLAIIVFVYYHFEGIRAQGFVKYFAHFMGP

IKLLAPLMFPIEIVSHLSRVVSLSFRLFGNIKGDDLFLMVILALVPYIAPLPAYVLLTFMAFLQAFIFMI

LTYVYLAGATVVEEGH

>AHK54013.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIYILEFFKGASLALMLFGALFFFFKYNSFFYLCLGIIPGLLLSLIFVLLIENHKLKNENKLR

>AHK54012.1 5,10-methylenetetrahydrofolate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MCSFSFEVFPPRKDENIKNLHAILDDLGQLSPNFISVTFGAGGSINSQNTLEVASLIQEEYQIPSIVHLP

CIHSSKEKITQILQKCKEKNLNQILALRGDICENLKKSKDFSYASDLISFIKKQEYFEIYAACYPEKHNE

SKNFIEDIHHLKTKVNAGTDKLITQLFYDNEDFYTFKQNCALADIDIPIYAGIMPITNKRQVLKISQLCG

AKIPPKFVKILEKYENNTLALEDAGIAYACDQIVDLITSGVDGIHLYTMNKSKAAIKIYEAVKHLLKEEL

HA

>AHK54011.1 5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNSIISYPRIGANRELKFAIEKYFKNQSSKEELLKSAKDLRIRHWQEIQKAGIDFIPSNDFSLYDNVLD

AAVLFNIVHTKYKNLNLDALDEYFAQSRGYQGENGDVTALAMKKWFNTNYHYLVPECDNADIIALTGDKI

FKEYLEAKELGIESKPVLIGIFTLFKLIAFKDEKTQKLAKEKLLNAYIELFDKLNELKVTWLELDEPYLV

YDLSKEDIALFEEFYQELLNHKKDLKILLQSYFGDLRDIYPKLLESKFDALGLDFIEGKQSLALVQQYGF

AKDKILFGGLINGKNIYANDYAKSLKLIKELQKYTQNIILNTSCSLLHVPYSTEFESKLDSSYLKLFAFA

KEKLQELKDLKEILNSSEENPLFRANQELFKNIPERLDEKVKARLKALKKEDFTRTPSFKERALIQKEFL

KLPLLPTTTIGSFPQSADVRSNRLAFKQEKISAQNYTEFNQQKIKECIQIQEEIGLDVLVHGEFERNDMV

EYFGENLKGFLFTQNGWVQSYGTRCVKPPVIWGDVSRTKPITLAWSKFAQSLSQKIVKGMLTGPVTILNW

SFPREDISLKESTEQIALAIRDEVLDLENAGIKIIQIDEAALREKLPLRKSDWHSEYLDWAIPAFNLVHS

GVKAKTQIHTHMCYSEFSDILKEIDAMDADVISFEASRSNLSLLDTLKAIRFKTEVGPGVYDIHSPRVPS

VEELSLTIEKILNKLPKEQIWINPDCGLKTRAYEEVITSLKNLVTATQKIREQL

>AHK54010.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTLFTKAFCVATLFTGFAWANEELKVGSSITPHADILRFIKSALQKQGYDLKIYEFNDGVIPNVMVENGE

LDANYFQHEPYLKEFNQRQGTHLVKVASIHIEPMAVYSKKHKEFHPKEGQSISIPNNPTNESRALRIVVS

KGLIEVKDNELITPLDITKNPKKLKFVELKDAQLTRSLDDVDYSLINSNFAILAGLNPVKDGLYTESKYS

EYGNIIAVKEGNENLPKIKALVKALQSNEVKKFIEEKYQGALIPTF

>AHK54009.1 2-oxobutyrate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLPILDLQAYEKDKSTFLKNLREIASKIGFFYLINTSIDKNLNEKLFKLGKEFFNLSRSSKELISMVHS

PQFRGYTSEGFEYTAGSKDYREQLDIGTERDALNWNLNSPLWQRLEGPNLWPSEIPELKKTFLTWHKQTK

KACLKLLKAFAQALDLPNNAFDKLYGENSYEHCKIIHYPKSSKNITQGVGSHKDGGLITFVFQEKQSGFE

AFIDGKWLSIPPLENSVVVNIGEFLELATNGYLKATIHRVNLSPKERFSIAYFLGVQLDKDIPIFKLNPE

LAKESKGVDTDPKNPLLRNVASNYFKRMIRSHPDVASIYHSDLIEKFSFA

>AHK54008.1 S-ribosylhomocysteinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPLLDSFKVDHTKMPAPAVRLAKVMKTPKGDDISVFDLRFCIPNKDIMSEKGTHTLEHLFAGFMRDHLNS

NSVEIIDISPMGCRTGFYMSLIGTPDEKSIAKAWEAAMKDVLSVSDQSKIPELNIYQCGTCAMHSLDEAK

QIAQKVLNLGISIINNKELKLENA

>AHK54007.1 glutamyl-tRNA amidotransferase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFEVVIGLEVHAQLNTKTKIFCSCATSFGEAPNTNVCPTCLALPGALPVLNEEAVKKAIAFGKAVNATIN

KKSVFNRKNYFYPDLPKAYQISQFDIPIVEKGELFINVKGENKRIGITRAHLEEDAGKNIHESNFSKVDL

NRAGTPLLEIVSEPELRSSDEAVAYLKKLHSIIRFLDISDANMQEGSFRCDANVSIRPKGDTKLYTRVEI

KNLNSFRFIQKAIEYEVKRQSEAWEDGTYEQEVVQETRLFDTTNLVTRSMRGKEEAAEYRYFPDPDLLPV

LLKDEFLDIKIPELPDEKKVRFIDKLGIKESDAEVLISSLEMSRFFESLISQNLNPKLCVNWLNTELMGL

LKGELTIENSPVDAQKLGVLIKRIEDGTISAKAAKDVLAFVFENTSVEIDEAIEKLGLKQVSDDSAIEAV

IEQILNANADKVAEYKSGKDKLFGFFVGQTMKEGKGAFNPAKVNEILKTKLG

>AHK54006.1 glycerol-3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRIAVIGAGKWGSALHLALKENHNCFISSLHQRDLEDFVSIKEALECEYLVFALSSQGMRAWLKENFINK

GQKILIASKGIEDQSCQFLDEIFLDFVPKENFCVLSGPSFAAEVMQKLPTALMISGINQELCKKFASFFP

DFIKTYIDNDVRGAEICGAYKNVLAIASGISDGLKLGNNARAALISRGLIEMHRFGKFFGTKEETFLGLS

GAGDLFLTATSVLSRNYRVGLKLAQNQKLDSILAELNEVAEGVKTAYAIEKLAKMKGIYTPIVNEVVAIF

KGKSVQEATQNLLKQND

>AHK54005.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIIKNAKIYGDSLQDIEIKEGKITNIDSNLQGEEILDAKGMTLLPSFVDLCVSLKNDKFSLANLELLENE

CLKGGISSIVLRDCMDFDEESFALFLQNLAQRKMQIFSSVRVKDANGKLKNLATLLNKGACALELDSSLD

ANTLKVSSQYAFMKDSPIFVRCYDKDFDDNGVMNDCEMSFELGLIGMSKIAETSQIAKMKELAKFYKNKV

IFDLLSLKDSLVLLDEKDLKLVSIHHLIKDDSACEDFNTAAKLMPPLRSKEDVLALREVLKEGKISFLTS

LHSAKSISLKDLAFDEAAFGIHSVCEFISLCYTFLIKEGFLNWQELCRFTSKNPSEFLGLNSGVIEVGKE

ANLVLFDENEEIFAPKSSLYSEDKLFGKIKMHIIKGKNILEK

>AHK54004.1 phosphate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKDNLIAFVIFIISTIAFVIWGFGYISQHQLILFILASIFGIFMAFNIGGNDVANSFGTSVGAKTVTIK

QALIIAAVFELSGAIFAGAEVTKTIRSGIVIFPNSLDPMLFVIIMLAALLSSGVWIFIATKKGLPVSTTH

SIVGGIVGASIMMGLLKFDGIQTLSMVKWSEILRIAISWIASPLLGGIVAYIIYSYIDKKILKPSEKLND

DLKNIKKERKKFKEEYFLNLKTKSQEEQIKELSAIALDEEEQENNFYRNKMKEFKDQEKDIDIYSILKTH

MPIIACIAAAIISAMFLFKGLNNVSTLDILQNFWIIGIIGTISYVVTFAIVKIVKKTELNKTTDRIFSWF

QIFTASSFAFSHGANDIANAIGPFAAILDVLKNGTINATSPVPFAALAMFGVALVVGLWFLGKEVITTVG

SKLATIRPTTGFSAELGASIVILLATQFGIPVSSTHILIGAILGIGVYNKNANWIMMKPIGLAWIITLPA

AGIMAALVFLGFKLSLGI

>AHK54003.1 hypothetical protein N919\_05955 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRGIFYIIALFSLLNGDELTEALAKNNNQNSWEHFDYKNTKEAPKIQEENVDFKSTFDSLLSKTLENNNG

IDKTDGNLDFQNENAQVKNLSSLYEGENNSLLFQKELFVAQDNYNYSGGLINRYEKDDFLFGVNGFIDKQ

KEQKDTKSFGTEFGYSKFIKAYSNYYIPNEAEKKLQLGMSFVIPTYTAFAFDISKDNDKTNYQVSYSPYS

VFSLNLLRRDYSARETVDDTVVQVGFSFNFNESFLKQFRKKDNTLEEVNRYDFLQRTH

>AHK54002.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

METLSQTLAERKPPLYKRIIKSLGFWVIIGIITGIVLGYTDKELAIASKPGVDYFIGALKVLIGPIIFVT

LVLGIISLESLKKVGSIGAKAVIYFEVVSTLALAIGIFMANVMQPGHGMNLDPSQLDTKSVQKYISQTTE

VSASSEIMHILKDAMPTDIITPFTEGKTIQVLVIAIITALIISLMRIEDKQAIQRVFEVVQNFVFKILQI

IMYFSPIAAFSAMAVLIAQYGIGSLINLAYLLLVMLISCLVFIFGILGLICYFAKVNIFKFMRFISREVL

IVFATSSSESALAPLMRKLEKAGLSKATVGLVLPTGYSFNLDCTNIYLAMSLIFLAQAFNVNLSLAHEIS

ILIVLMIASKGAVGVTGSGFIVLGSTLAALGNMEISEANATLAQVLPVAAIGVLLGVDKFMSEMRAVGNL

CGNSVAALIVAIWDKQIDWEKFRYAMDNPEKFHNAGMN

>AHK54001.1 PAS sensor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEIVLSENALITSKTDLKGNIIYANNDFLKYAGYKVDELLYKSHNIVRHEDMPRTVFKCLWDYIQKGDE

IFAFVKNKAKDGNFYWVFANVSASFDTNGNIINYYSVRRAPNRKSLSIIEEVYKILLEKEQKSGINAGVS

ALMDIVSSYKMTYNELIFNLQENN

>AHK54000.1 PAS sensor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSREIFLQEDSLITSKTDLKGKIVYANDDFLKYAGYTMGEVLNKPHNIVRHEEMPKTVFKYLWDYMKEGK

EIFAYVKNKTKDNNYYWVFANVTPSIDVNNNIIGYYSVRRMPNKSAISTIESLYSDLLRAEQQQGLNKGV

EMLKNFCKDADKTYNELIFSLQEAK

>AHK53999.1 tRNA uridine 5-carboxymethylaminomethyl modification protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFDVIVIGGGHAGVEASAAAARMGKKTLLLTTLIEQIGAASCNPAIGGLAKGHLVKELDAMGGLMGEITD

EAGIQFRILNESKGVAVQGSRAQIDMDKYRIIARNKLLKLPNLEISQEQASVLIVENDEVKGVKTNLENI

YFAKKVILTTGTFLNGLIHVGENKLQAGRVGELASVNLGNYLQTLGLKMGRLKTGTCPRVDAKSIDFSVL

EIQDGDVNPKAFSFRSRNFNPTQLPCYIARTNTTTHEIIKNNFYRAPLFTGQIEGVGPRYCPSIEDKINR

FSDKESHHLFIEPQTIDATEYYINGFSTSLPYEVQTQMLRSVEGFENAKITRFGYAIEYDYIEPTELKHT

LELKKIKNLYCAGQINGTTGYEEAAAQGFMAGINASLSIDMKEPLILRRDEAYIGVLIDDLVVKGTKEPY

RMFTSRAEFRLLLREENAILRLGKYGYDLGLLSEQDFTYIQNIANNLQKGLEFLLSKEFTPNNQNNAFLE

SLGEDKISSIVNLQKIVARASFDIEKLKKLDPIFETMDHYSLREILNEAKYYHYISMQKAQVEKMKNLSE

LKIPENFDFKSVSGLSNEVVEKLNHHKPPTIFAASQISGITPAALDILQIYIKMQKKKA

>AHK53998.1 arsenic transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLAFFIFLSTLVLLFWRPWNLPIWVFSSLGAFFVFIFQLVDFKDACFVFSLVWDSSLTLVGLIILSFSLE

ALGFFDFIASKILYFSREKNQEKIYISTKKMMLFLLIFVFFLSAFFANDGAILIITPIIIALFSTLKDCK

NHAFILSSFLLSLSFLCDASSNALVISNLTNIITANYFKIEFLEFAKNMFLPNFFVLLSTIVTVFVLYVR

VLPKRLEFKLIKKEQISLKLFFLCIVFLFLFVISFFIGEIFDIKISFFALLWAGIFWLIVLKIQGKKSIK

ILFEAPYGVLLFSFGLYMVVFALHKIGVSEILVKSYAFLMQDKSGIFGVALISAFGSSVFNNLPMVLIGD

LALKEYFENFSFDSLMIYAHLLGVNIGPKLTPIGSLATLLWLGVLARKGINISFWQYCKFGFLITLPVLV

FSLFALIV

>AHK53997.1 ubiquinol cytochrome C oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MATSESRRSFMGFAFGSVAAVGGVFSLVAMKKTWDPLPSVKAAGFTTVDLSGMQDGELRTIEWRKKPIFI

LKKDASMPKDEKRDVVVDNAAYTVVIGLCTHLGCIPAYQPSEQLFKCACHGGEFDTSGKNVFGPPPKPLE

IPPFKIDGTKLVLGEEGPEYKKMIAEA

>AHK53996.1 ubiquinol cytochrome C oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAQIRKANGLVDWLDQRLAVHKLLDVLMVKYWIPKQINFLWAMGVILTTLFAVLFVTGLLLVMYYKPDTA

LAFDSVNKTIMQEVDYGWLWRHMHGVAASVVFLIIYIHMLTGIYYGSYKKGREMIWVSGMLLFVVFSAEA

FSGYMLPWGQMSYWAAQVITNLFGGIPFIGPELVIWIRGDYAVSDPTLTRFFMLHVCLLPIVIIAIIAFH

FYSLRIPHVNNEISEELDFDLEAEKYMAGDTKGSKVIPFWPGFLSKDFMYISFFMIFFFYLVCFKFEFAM

DPINFDPANALKTPAHIYPEWYFLWSYEVLRGFFFDIAGIKAFDIGLAAFGIAQVIFFLLPWLDRSDVVK

PAHERPLFFIWFWILLIDLIVLTVYGKLPPTGVNAWVGFYASIVFLLLLIVVLPVITIMERKGAKQ

>AHK53995.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MREIKIFLVVVVFTALVYWGVEPYAHSVMKPHVAPANFDFAVEDTTFAKGIVEAKELALKDAQASGDAKR

IESANKELEKAKEELSKVETLWVDVAKIDFAKGDAKKGKEFFENNCFACHGVKEDGIAANITDSSMGVIP

PDLSAAGAIFDEKFLAALIMHPALALKVDHKFGDAFIMTAYNKDTSGESEEATNANIANVIAYLKDVSVK

FEANEDATIKKDVEAKYAKMENSAQKAALMEKDIKFAKDKATFIEACGRCHDMKYDSFFTPSNQNDLKTY

LGSVPPDLSMMIRSRGEQYLHDFINNTQKLLPGTAMPRVGLTEAAQAKVVSYIDQVGDSKKEERKTTGIY

VMIFFVILSIFAIGWKRSVWSKLH

>AHK53994.1 SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLEKTLIKSILKKWDYGDFRVVFWDKEEFFIGNKPAKFSLIFKEKIPFLELFGDTSLVFARHYMQAKLDI

EGDYDEMAKVLYYFSNQQFFKTKKDVLSKITQKQESKNIKSHYDIGNDFYKLWLDDTMSYSCAYFKEPNN

TLYEAQINKIEHTLKKLDLKEGEKLLDIGCGWGWLSIMAAQKYGVKVVGITISEEQCKKAKERVKELGLE

DKIEIRLQNYQDLEFENYFDKVVSVGMFEHVGKENLGLYFMKVKQVLKPGGSMLLHSILAMFEGKTNAWI

DKYIFPGGYLPSLREVVSAMSEWDFHLLLAESLRMHYAKTLDLWDENFNKVLDKVREKYDEEFIRMWDLY

LRSCASAFRVGSVDLFQFLITKEINNNLSLTKDYIYK

>AHK53993.1 30S ribosomal protein S2 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVSMRDLLECGVHFGHQTRRWNPKMKKFIFGERKGIYVIDLQKTLRYFRYTYNIVRDAAAEGKTILFVGT

KKQAGGAIKEYAEKCGMPYVNHRWLGGMMTNFGTIRQSIRKLEVIEKMEEDGSIKLLTKKEALMLTRKKE

KLLAYLGGIRYMKTQPDMIFVIDTVKEKIAVQEANRLRIPVVAPLDTNCDPDLVTYPIPGNDDAIRSVQL

FCQEMAEAINEGKALREQDGEALVNEEKEITDEEKKEVLDEAMSEEDFGEEQE

>AHK53992.1 elongation factor Ts [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTEITAAMVKELRESTGAGMMDCKNALSETNGDFDKAVQLLREKGLGKAAKKADRLAAEGLVSVKVSDDF

TSATVSEINSETDFVAKNDQFIALTKDTTAHIQSNSLQSVEELHSSTINGVKFEEYLKSQIATIGENLVV

RRFATLKAGANGVVNGYIHTNGRVGVVIAAACDSAEVASKSRDLLRQICMHIAAMRPSYLSYEDLDMTFV

ENEYKALVAELEKENEERRRLKDPNKPEHKIPQFASRKQLSDAILKEAEEKIKEELKAQGKPEKIWDNII

PGKMNSFIADNSQLDSKLTLMGQFYVMDDKKTVEQVIAEKEKEFGGKIKIVEFICFEVGEGLEKKTEDFA

AEVAAQL

>AHK53991.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MELLRAENLSHSFDYPLFEGLNLTLNTKDCIAIQGSSGCGKSTLLHILSSLLIPKKGEVFFKGSNLYQMD

ENERLKIRRYDFGIIFQTHYLFKGFSALENIELASVLSGQDLDEKILKRLGINTLLHQKIGKLSGGQQQR

VSIARVLCKKPKIIFADEATGNLDFDNAKNVIELLISYVKENDAALFFVTHDSKLASFCDKTYTINANGI

C

>AHK53990.1 guanylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQGFVLLISGPSGAGKSTLLKKLFDEFEDELYFSISSTTRKPREGEKNGIHYHFISHEEFQKGIDSDHFL

EWARVHENFYGTSLKHTQNALDNGKIVVFDIDVQGFKIARKKMADKIVSVFITTKNKDELKKRLIKRNTD

TIIQLEKRLQNASDEMKELSEYDYLIINDELKQSYEALRAILIAHKFRTKGQNLGQIQNIWNEGE

>AHK53989.1 preprotein translocase subunit TatA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGGWSSPSHWLIILLIVVLLFGAKKIPELAKGLGKGIKTFKDEMNNDDEVAKNTQKIEENKNTTNNTNAD

ASIDETKKA

>AHK53988.1 arginyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKSIIFNEIKKILECDFALENPKDKNLAHFATPLAFSLAKELKKSPMLIASDLASKFQNHDCFESVEAVN

GYLNFRISKTFLNELANQALTNPNDFTKGEKKQESFLLEYVSANPTGPLHIGHARGAVFGDTLTRLARHL

GYKFNTEYYVNDAGNQIYLLGLSILLSVKESILHENVEYPEQYYKGEYIVDLAKEAFEKFGKEFFSEENI

PSLADWAKDKMLVLIKQNLEQAKIKIDSYVSERSYYDALNATLESLKEHKGIYEQEGKIWLASSQKGDEK

DRVIIREDGRGTYLAADIVYHKDKMSRGYGKCINIWGADHHGYIPRMKAAMEFLGFDSNNLEIILAQMVS

LLKDGEPYKMSKRAGNFILMSDVVDEIGSDALRYIFLSKKCDTHLEFDISDLQKEDSSNPVYYINYAHAR

IHQVFAKAGKKIDDVMKADLQSLNQDGVNLLFEALNLKAVLNDAFEARALQKIPDYLKNLAANFHKFYNE

NKVVGSANENDLLKLFSLVALSIKTAFSLMGIEAKNKMEH

>AHK53987.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYIFIIVLSALLDIVANLLLKKSDGFKHKIWGLAAIVNAILAFFLLSFSLKYVPLSIAYSTWGAIGIIGT

CLGGWILYKEKLNKIGILGIIIVIIAVFLLNY

>AHK53986.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNIAKKELFVAWFFLIAAIVFEVLGTSFLKMENQILGYIFMALFIAFSYFFMGKAIKKIQVGIAYAVWEL

LGIILILLVSFIVFKESLTLTQILGIVLSIVGIIMINIGEVKE

>AHK53985.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGRAFEYRRASKEARWDKMSKLFPKLAKAIQVAAKEGGTDPDMNPKLRSAIATAKANNMPKDNIDAAIKR

ASGKDSADIKNIHYEGKAAHGALVIVECMSDNPTRTVANVKAIFSKNGGEVLQNGSLGFMFTRKAVFHLE

KFAGDLEELELDLIDAGLEELEQNEEELVISGDYTAFGELSSAIEAKGLVLKKAGLEYIPNNPVSFSEEQ

LSDIEKLLDKLEDDDDVQAVYTNID

>AHK53984.1 peptidylprolyl isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKTIDTSKVNEYKFALIETEKGTMKLKLFGDEAPQTVCNFATLANEGFYKDLNFHRVIPNFVIQGGCPH

GNGIGGPGYEIICECDDQEHKHERGTLSMAHAGRDTGGSQFFICHSPQAHLDGVHTVFGQIDPKDEESLE

VLDSIRQGDKILDIKICDKI

>AHK53983.1 hypothetical protein N919\_05840 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTRFSLILSACLLSSSLFAKNTDDEITKLQKQLAQIQAELAQIRKEREAQVKQNEAVKAELADLNDRAD

ETEFQAALSKVKFGLEFSTAVSNTNYKVSGQDYSANNKWMNELHLNMNADINDKTKFYGRLSMAKNWSQM

GWSGTPYDLDAGRNTRSSGPVLYVDRAYLDYYITPEWIATVGRQPGTDGPGSNLRNNALRQSTYPALAIN

ALGDAAVITYKPESLQDHKVAIRAAYGKTYQWDEESGKVRDWMSDQKDADANLYYAAVEGELPIEGMGDN

LIIFNVAHMTDFALPIPGSMLLGDDDEVVNLGNLTLANIHFENYKAFGTNFNWFASLGYSNGSNNEINPL

LSTALQSKGYGNGKFNEKDGYAVHVGGRYDFTKALKVGYEFFWGSRYWYTMSRPSINDPLNIRMTRGTAH

DFYVIYQLDRYQFLRLSYTNIQNIWGNRGLPFGGAKKDKARADNIMLMYNVKF

>AHK53982.1 hypothetical protein N919\_05835 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRKILFASLLPIIALADCASLMAKYEAPEPESKTMKQVERWINKKVSDPADAAVLKECMIARAADNPNQV

SVAGK

>AHK53981.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQEIISFIVETASAWGYLGIIILMTLESCFIPFPSEVVMIPAGYLAHKGELDITLCILSGTLGSVLGALI

NYYICFFWGKNFVLKWGKYFGINEAKFAKFEEFFNKHGEFSTFTCRLLPGIRQYISMPAGLVKMKLINFI

LFTALGSAIWVAILVFLGYYIGQNEELIKTYLTQILIIIIVFVILASLIYIKIKKPFKKA

>AHK53980.1 lactate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKIGIVGLGYVGAASAYSIVIQGICSELYLYDIKQDLALAHARDLEDMSAIHFSYTKIFHVPNLENLAS

CDIIILAFRKESLKELPSRLVELKNNILELKDIVLTLKNANFKGKYIVATNPNDTITYYTQVLSQLPKNH

VFGSGTNLDSSRLKKLLAKDLNINSKDIFACMIGEHGDSQFAALSNASVLGQNLLDFYKQKLGKDLDIQE

LEKAVISEGYFIYERKGRTEFGIGTSCANLAKAILEDRKSLYPVSVVFDDIAFSMPAIIGKDGIEKVFEL

KFNEKEKIKLENSKQQIKNAIQSVKDKI

>AHK53979.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKPDIQRLTNFLIIYTKTLLGAGTYTARVAKCVGRIAEVYGYEININFFFHHITLNVVDMDDNSIQRTY

VIPNHHAHVNFKLIFDLSALSWAIYDHKYDLEKAKVVFGQISQQKKHSYLLNLLFVSMANSAFCRLFGGD

FGAGNLVFFATFVGLLLRYILTKAKIDLRIQYILCSFISSWFVFFGLDMGYTNTSDVALGSSILYLIPGV

FFINSVIDILKDHILMGLSRIISVAILICCIALGIYMTLSISDFGILR

>AHK53978.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIEFILRDMFFAAVAGFGFAYACNPPLKTLILSALLAAIAHGLRFTLVEYFHFQTLAIATFVASFCIGCL

GIVLAKIIKTPAEIIAFPALIPMIPGIYAYKAILYLISFIRSDDLKAKSEFLVQFFDYFFTTVSVTLALA

IGVSVTLLIFFEQSFMMTRHAKKH

>AHK53977.1 hypothetical protein N919\_05810 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLCPVCNVDLVMSDRSGVEIDYCPKCRGVWLDRGELDKIIERSVPNTANFNQAPRQESRYNDSAYHQHND

YYKKKKKESWLGELFDF

>AHK53976.1 cation transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYKFLSHEPLANKSCHHNHEEHSHEHHHSHADARSVDKKILKISLLMTFSMMLVQFIYSILSNSLALLSD

TLHMFSDVFALALSFLAIIAVEKWQDHQKTFGYFRLEVLVAFINALTIILSALFIIYEAIEKFINPKEID

AKTMIIVAILGFLVNGINALMMFKGANLENVNMKSAFLHMMSDLLGSLAVIIGGIVVYFSDIVYIDTILA

IVLSILLLRWAIILLKQSANVLLESSPVDIEKVRQVLLLNPSVDEVVDLHITQITNKMLVASMHLKVRVC

NLKEFEKLSQDLSHKLLHEFEIGHITIQPIRSENEI

>AHK53975.1 heavy-metal-associated domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFKVKNVNCMNCVNLIKNSLEDEFGNIEVDLEQKILSLNLEENQVSNFTKEFQDLGFEIVERL

>AHK53974.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEELRIKIGKMTCVNCSNAIERACKKIDGVKDASVSYVNSSGVFLLEDQKKRKDIIAKIKNLGFEILEDE

QSLNAYKAKKHLELRKNLLLSIVLSVIIMYFEMFVKSSFSQNIQMALSFFGIFYCGRDFFSHAFLGFKSK

NLDMNTLVALGTLSAFVYSFLVYLQIFKEEDLYFSGAMMIISFVLLGKYLESKAKFKAQDYQRILENIDT

KKTKILLEDESIKEISSSFVKSGDVLLVKEGESIVADGVVLLGSAELDMSFLNGEFLPVLKKEGDEVQAG

AVVLNGALRIKANKKAMDSTLEQIKNLVFEAGSIKSPLANLADQISKYFVGGIIFFAFLVFVFWVLKADL

NTAFLHSCAVLLISCPCALGLATPIALVVASANAAKNFILIKNPAALEKLALVKYAFFDKTGTLTKENLS

IFKHNLSKDDFDKLCQIESLSSHPIAKALHKDHFFDLKGEGRVIVGSGIKYKEDNDNYLVGNAQFLHENE

IDTKESDIFFDTFKEYVRVYFAKNKKCLGGVLLSNALKDGAKELVLNLKKQNLKTFILSGDHVKNVEKIA

KELQIDEFHAQLKSEEKLQIIQKFKKTLFVGDGINDAAALSAASVSMSFSKANELAKKTGDFILIKDDLS

AIFKCFKLAKKTRGIIKLNLFWAFIYNVLCIPIAAGFIPFISLSPHIAALAMCFSSITVVLNSLRLKRI

>AHK53973.1 DNA polymerase III subunit gamma/tau [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLQALAIKYRPKTFDELIGQKTVSVSLKYALNHNRLAHAYLFSGLRGSGKTSSARIFSRALVCEQGPSDT

PCGTCKHCLAALEGKHIDIIEMDAASNRGLEDIQALIEQTKYTPSMARFKIFIIDEVHMLTPQAANALLK

TLEEPPSYVKFILATTDPLKLPATVLSRTQHFRFKQIPQSEILNHLKEILLKENVKFEEEALKFIARSGN

GSLRDTLTLLDQAIIFCQNEISISKITDMLGFLDPQKIKAFYQAILTKDKEKVFVYLEELQDYEASSVID

EMLFYLKESFFAKSTEFSTLIYERFFRILSKAKNMLCDDDGFTLCVMAFMMMEASHLKEIDAQIQEIKQE

NTTNIISRITPSPIIPHLEKKTEKNAYEILLDSIYDRDFDLAECFKQSTNFISFENNTLNINSNAQGQNR

DTLNKGFKLIQELFKAKFGENAKINVQKALTIDENKLQSLTQELPNNENKNIDIQSSINMLKEGAKKFDP

QEDLKEALKDCFGEPSIEN

>AHK53972.1 transcription termination factor Rho [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKEKKQHQRTHVPVEGYKIEELKLLDLENLVKIANECEIENPREFRRQELIFEILKAQTKKGGFILFTG

ILEISSEGYGFLRGMDSNLSDSVNDAYVSNSQIKKFALRVGDIVTGQVREPKDQEKYYALLKIEAINYLP

LQEAKERPLFDNLTPIFPTEKIKLEYDAMKLTGRVLDLFTPIGKGQRGLIVAPPRTGKTELMKELATAIA

KNHPEMHLIVLLVDERPEEVTDMQRCVKGEVFSSTFDLPAYNHVRVAELVIEKAKRMVETGKDVIILLDS

ITRLARAYNTATPSSGKVLSGGVDANALHKPKRFFGAARNIENGGSLTIVATALIDTGSRMDDVIFEEFK

GTGNSEIVLDRNIADRRIYPAINIIKSGTRKEELLQGVANLQKIWAIRSAISQMDDVEALKFLYSKMLKT

KDNVELLSIMNE

>AHK53971.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKCEHCKLDYKQAQMIEYKGKFFCCKGCESVWEILHESGLDEFYEKLGNQTLSPVNFQNEMKNYDEFITK

TKEGFSEIYLMIHGIECAACVWLNEKILTKQEGILELDINHLNHKARIVFDEQSISLVQILRLIESIGYK

ASAYDASKASKKADLLKREFYSKLVVAIACVMNIMWIAVAKYAGFFSGMDKDTKDILNFAEFILCSPVLF

YTGSHFYKSAFKTLKMHSLNMDVLVISGASLAYVYSLWAMFFRVGEVYFDSVAMIICFVFIGKYLEMFSK

KRALDTIDGLNDFLQNEVLVFNGKEFVSKEVQKVCLGDRILLKTGDKILIDGICKSGEMSVDTSSLNGEN

TPKLIQKEDEIFSACIVLDGSVEYEATKFYKDSKLSQIIQLLELASSKKAKLESLVNSLLAYFSRTVLLI

AFICFAFWFFYKEESFEISLVNAIAVLIIACPCALALATPVSNLVALGRALKKHILFKSSSVIEDLSKCD

CVVFDKTGILTKIELELKEVFLDKALDLNELYNFVKLSKHPISQNIVLYLKQKGAKDLNLDFKKHSSIQA

KGLSAELNEGLLLGGSSKFLQEKGIVAKEFDNTHFIFAKEGKILAFFEFDSVLREGAKELIAYLKKEKKE

LMILSGDHQKAVEKIAKKLEIQNYQASCLPEDKMKTIENLSKNYKVLFVGDGVNDALALKYASVSMTLRE

GSDLAIESSDVLLLKNDLLSLKKAIKLSKNTFKIIKQNLAFSLFYNACTIPLAFLGMINPLFAAISMSFS

SIIVVLNALRIKE

>AHK53970.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNSIIMMMIGVSILAFFIILATLLWGIKNKQFDDDYKFTTLNDDEDSLRDAIELERRKKEALDKKRLS

>AHK53969.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKLLVVSALACLGVSAFAADGATLFKKCAVCHGANADKVYLNKVPALKTLSSAERLQYMKEYSEGKRNA

YGQGAIMKLNLKGLTEEDFKAIEAHIETLK

>AHK53968.1 D,D-heptose 1,7-bisphosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFIFFLKKLYYNVFMKTKALFLDRDGVINIDKKYVYKIEDFEFCDGIFELCRYFLARNYLLFIATNQSGI

ARGYYKESDFFKLCDYMLKEFAKQDIKIDKIYHCPHLEGCECRKPKAGMLLKAKDEFDLDMKNSIFIGDN

LSDMQAGLNADIGTLILVNEEKKEGDFFRQFKNLKEILNFFKEKDI

>AHK53967.1 ADP-L-glycero-D-manno-heptose-6-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIAITGGAGFIGSQLALNLQEKHEILIIDKMRSSATFENGNLQSFGHFKNLLEFDGELFAGDINDEKVL

KKIEDFKPEIIFHQAAISDTTVFDQTKVLQTNLNTFKDFIELSIDLNAKLIYASSASVYGDAKSPQTVGK

DEEPKNPYAFSKLMMDKLAKKYYDKAHLVGLRYFNVYGKGEFYKNKTASMVLQFGHQILAGKNPRLFEGS

DQIYRDFTYIKDVISANLIALDSKCGVYNVGSGKARTFQDIVDILQKELKTDLPCEYIPNPYVKSYQFHT

EAKLDQTWNYQPKFSLEEGIKDYLGEIKRLFEKEVNA

>AHK53966.1 cytochrome C biogenesis protein CcdA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLEFLSQQKPKILIIGDFMVDNYTWCDCSRISPEAPVLIAKTLKEDKRLGGAANVYANLKSLGADVFALG

VVGDDESGKFLQENLKGEFLIQKGRKTPFKNRIMAHNQQVLRLDEEDISEILLENELIALFDEKIKDFKA

VVLSDYAKGVLTPKVCKAVIEKAKVLNIPVLVDPKGSDFNKYSGATLLTPNKKEALEALKFENLEGENLE

KGIKKLKEDFSLRYSIITLSEAGIALFDEGLKIAPAKALEVYDVTGAGDSVIAVLAFCLANEIEIFKACE

LANEAAAVVVSKIGSVSVSFDEIKSFKRVDFEKKIKSKEELLVLLKQNNKKIVFTNGCFDIVHFGHIKYL

DKAKRLGDVLIVGLNSDASVKRLKGESRPVNSEFQRACMLAAFYFVDFVVIFDEDTPLELISFLKPDILV

KGADYKDKLVVGADIVSRVELIDFEEGFSTSKIIEKIKDKK

>AHK53965.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINLVEKEWQEHQKIVQASEILKGQIAKVGELLCECLKKGGKILICGNGGSAADAQHFAAELSGRYKKER

KALAGIALTTDTSALSAIGNDYGFEFVFSRQVEALGNEKDVLIGISTSGKSPNVLEALKKAKELNMLCLG

LSGKGGGMMNKLCDHNLVVPSDDTARIQEMHILIIHTLCQIIDESF

>AHK53964.1 ADP-heptose--LPS heptosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIFIHLPTWLGDTVMASPALYTIKEHFKDAQFILYGSFVSTALFKEFPNSKIIIENKLSRYKQALSLRK

ELGKIDLSFAFRSAFSSKIILHILKTKQRYFFDKNKYKEEHQVLKYLYFIENSLSIKAHFKDLKLPFKLK

FQNPLILRNGKKILGLNPGASFGSAKRWDASYFAKVALNFSQSHDILIFGAGKAEQELCNEIYQILKEQN

IKVKNLCNKTTIKTLCQNIAFCDLFITNDSGPMHLSAVYKVKTVAIFGPTKFTQTSPWQNENAKLVHLDL

ACMPCMQKTCPLKHHKCMKDLKPEKVIEQAKNLLKNSHL

>AHK53963.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPQLSIIIPLFNSCNFISRALQSCINQTLKDIEILIIDDKSKDNSLNMVLEFAKKDPRIKIFQNEENLGT

FASRNLGVLHSSSDFIMFLDSDDFLTLDACKIALKEMKKGFDLLCFDAFVHRVKTKQFYRFKQDEFFNQK

EFLEFLSKQRHFCWSVWAKCFRKDIILKSFEKIKIDERLSYGEDVLFCYVYFMFCEKIAVFKTCIYHYEF

NPNGRYENKNKEILWQNYQDKKKSNELVKKLCLNFKNNDFHKKLFEVLEKEEFDLQRRVDEARN

>AHK53962.1 lauroyl acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNSDRIYLSLYYILKFFVTFMPECILHFLALIVARIAFYLNKKHRKIINTNLQICFPQYTQKERDKLSL

KIYENFAQFGIDCLQNQNTTKEKILNKVNFINENFLIDALALNRPIIFTTAHYGNWEILSLAYAAKYGAI

SIVGKKLKSEIMYEILSQSRTQFDIELIDKKGGIRQMLSALKKGRTLGILTDQDCVENESVRLKFFNKEV

NYQMGASLIAQRSNALIIPVYAYKEDGKFCIEFFKVKDSQNASLEELTLYQAQSCEEMIKKRPWEYFFFH

RRFASYNKEIYKDAK

>AHK53961.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIAIVRLSALGDIIQSAVVLQFIKNFKKDIEIHWFVDEKFEGILKNHPLINKLYALPLKDKKILKSLKI

LLKARKNNYNAVIDLQGLIKSAIVSRILSRNNFGFDKNSLKESFAHNFYNQKLELDYNENVFVRYLSLTS

FMLNTDFNVKNLAFKQDIFSVDENLKQLLNNKLKLDKNEKNILIHVGSSVENKIYPKTKLAILCKLLINE

FQQTKIWLAWGNVKEYEFAKEVLNLSGIDETHIELAPKFNLEELMAFTKMMNLIIGNDSGPTHLAFALNK

ASITIFGATPSYRNAFQTHINKIIDAGKKIQNAKHIDKSDFCITRIEEEDIFKLAKGLLNEK

>AHK53960.1 polysaccharide biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKNEGYICVFDCESVPDVELIRKTLGFEGSDLEVSLKALQWQKEQSGSEFLPLPYHKIISICAVLSDNF

GKFIKVNKIDGQNEKEMIENFFNFIENYEPKLVSFNGKNFDMPVLVLRALKYNLKAATYLDTQSDKWNNY

KTRFSELKHCDLLESLGSNGRGIKLDTLCSMVGLPGKYDVHGDEVMKLFYENKLEKIHEYCESDVLNTYM

LFLKYELIKANVDEEDYVGFLSYMRDFLCAKKSDRSYTEVFAKACESEISKVRS

>AHK53959.1 UDP-galactose-4-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKILISGGAGYIGSHTLRQFLKTDHEICVLDNLSKGSKIAIEDLQKTRAFKFFEQDLSDFQGVKALFERE

KFDAIVHFAASIEVFESMQNPLKYYMNNTVNTTNLIETCLQTGVNKFIFSSTAATYGEPQTPVVSETSPL

APINPYGRSKLMSEEVLRDASMANPEFKHCILRYFNVAGACMDYTLGQRYPKATLLIKVAAECAAGKRDK

LFIFGDDYDTKDGTCIRDFIHVDDISSAHLAALDYLKENESNVFNVGYGHGFSVKEVIEAMKKVSGVDFK

VELAPRRAGDPSVLISDASKIRNLTSWQPKYDDLELICKSAFDWEKQC

>AHK53958.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKISFIIATLNSGGAERALVTLANALCKEHEVSIIKFHAGESFYKLENEVKVTSLEQFRFDTLYHKIASR

FKKFFALRKALKESKSDVFISFLDTTNIACIAAKIGLKTPLIISEHSNEAYLKPKIWRFLRRVSYPFCDA

LSVLGSSDKVYYERFVKRVKLLLNPCHFSDEISFDSSFEKENLVLFIGRLDHNKNPVMFLKAIAHLDKNL

QENYKFVIAGDGQLRQELEYKVKSLGIKVDFLGRVENVKALYEKAKVLCLCSFVEGLPTVLIESLYFEVC

RISSSYYNGAKDLIKDNHDGLLVGCDDEIALAKKLELVLNDENFRKELVNNAKQRCKDFEISHIKEEWLK

LIAEVKNA

>AHK53957.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPKLSVIVPTFNRQVLLEKAIKSIQNQDFKDLEIIVSDDNSSDDTKSVVQNLQKDDDRIKYFLNQNYKQG

PNGNKNNGLDQASGEFVTFLDDDDELLSGALSTLMQKANEGYAHVFGNCLIEKEGNLSKEFSGKGLEKDS

EISKKDFLMAKFSGEFFSVFKKSLLENKRFNEEFYGNEATLWVNLYKEKSFYIHKAFRIYRIFRQDSVTL

GASKNAYRVYLGYLELAKILENELRMSKDKDYKKTCASYYKMAAYYAKLAKNYKALYKCLFKSLSIKINA

PALILLILSIIPNNMIEKLSKIRVALCKN

>AHK53956.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKLGIFIYSLGSGGAERVVATLLPILSLKFEVHLILMNDKISYEIPECQIHFLECSKPSENPILKFLKL

PFLALKYKKLCRNLGIDTEFVFLNRPNYIALMARMFGNKTRLVINECTTPSVMYMKNNFNSLVNKFLISL

LYPKADLILPNSKGNLEDLVQNFSISPKKCEILYNAIDLENIGQKALEDIALKDKFILSVGRLDKGKNHA

LLIRAYARLKTDLKLVILGEGVLKDELLALIKELNLEEKVLLLGFDNNPYKYMAKCEFFAFASVFEGFSN

VLIESLACSCAVVCTDHKSGARELFGDDEFGLLVEVDNENSMFQGLKTMLEDDKLRKAYKNKAKTRAKAF

DKVKIARDALKYLLG

>AHK53955.1 peptide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKKEYLKNPYLVLFAMIVLAYVFSVFCRFYWVWWASEFNEYFFNNQLMIISNDGYAFAEGARDMIAGFH

QPNDLSYYGSSLSTLTYWLYKITPFSFESIILYMSTFLSSLVVIPIILLANEYKRPLMGFVAALLASVAN

SYYNRTMSGYYDTDMLVIVLPMFILFFMVRMILKKDFFSLIALPLFIGIYLWWYPSSYTLNVALIGLFLI

YTLIFHRKEKIFYIAVILSSLTLSNIAWFYQSAIIVILFALFALEQKRLNFMIIGILGSATLIFLILSGG

VDPILYQLKFYIFRSDESANLTQGFMYFNVNQTIQEVENVDFSEFMRRISGSEIVFLFSLFGFVWLLRKH

KSMIMALPILVLGFLALKGGLRFTIYSVPVMALGFGFLLSEFKAILVKKYSQLTSNVCIVFATILTLAPV

FIHIYNYKAPTVFSQNEASLLNQLKNIANREDYVVTWWDYGYPVRYYSDVKTLVDGGKHLGKDNFFPSFS

LSKDEQAAANMARLSVEYTEKSFYAPQNDILKSDILQAMMKDYNQSNVDLFLASLSKPDFKIDTPKTRDI

YLYMPARMSLIFSTVASFSFINLDTGVLDKPFTFSTAYPLDVKNGEIYLSNGVVLSDDFRSFKIGDNVVS

VNSIVEINSIKQGEYKITPIDDKAQFYIFYLKDSAIPYAQFILMDKTMFNSAYVQMFFLGNYDKNLFDLV

INSRDAKVFKLKI

>AHK53954.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRIGFLSHAGASIYHFRMPIIKALKDRKDEVFVIVPQDEYTQKLRDLGLKVIVYEFSRASLNPFVVLKNF

FYLAKVLKNLNLDFIQSAAHKSNTFGILAAKWAKIPYRFALVEGLGSFYIDQGFKANLVRFVINSLYKLS

FKFAHQFIFVNESNAEFMRNLGLKENKICVIKSVGINLKKFFPIYVESEKKELFWKNLNIDKKPIVLMIA

RALWHKGVKEFYESATMLKDKANFVLVGGRDENPSCASLEFLNSGAVHYLGARSDIVELLQNCDIFVLPS

YKEGFPVSVLEAKACGKAIVVSDCEGCVEAISNAYDGLWAKTKNAKDLSEKISLLLEDEKLRLNLAKNAA

QDALQYDENIIAQRYLKLYDRVIKNV

>AHK53953.1 UDP-galactose phosphate transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYEKVFKRIFDFILALVLLVLFSPVILITALLLKITQGSVIFTQNRPGLDEKIFKIYKFKTMSDERDEKG

ELLSDELRLKAFGKIVRSLSLDELLQLFNVLKGDMSFVGPRPLLVEYLPLYNKEQKLRHKVRPGITGWAQ

VNGRNAISWQKKFELDVYYVKNISFLLDLKIMFLTALKVLKRSGVSKEGHVTTEKFNGKN

>AHK53952.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLQQRNLMARTEKIYIYGASGHGLVCEDVAKNMGYKECIFLDDFKGMKFESTLPKYDFFIAIGNNEIRKK

IYQKISENGFKIVNLIHKSALISPSAIVEENAGILIMPYVVINAKAKIEKGVILNTSSVIEHECVIGEFS

HVSVGAKCAGNVKIGKNCFLGINSCVLPNLSLADDSILGGGATLVKNQDEKGVFVGVPAKRM

>AHK53951.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>AHK53950.1 UDP-GlcNAc C4,6 dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIFYKSKRLAFFLTSDIVLILLSVYLAFSLRFSGDIPSIFYHGMMVSAIILLVLKLSFLFVFRIYKVAWR

FFSLNEARKIFIALLLAEFCFFLIFYFFSDFFNPFPRSAIVIDFVLSYMFIGTLRISKRMLVDFKPSRMK

EEETPCIVVGATSKALHLLKGAKEGSLGLFPVGVVDARKELIGTYCDKFIVEEKEKIKSYVEQGVKTAII

ALRLEQEELKKLFEELVAYGICDVKIFSFTRNEARDISIEDLLARKPKDLDDSAVAAFLKDKVVLVSGAG

GTIGSELCKQCIKFGAKHLIMVDHSEYNLYKINDDLNLYKEKITPILLSILDKQSLDEVLKTYKPELILH

AAAYKHVPLCEQNPHSAVINNILGTKILCDSAKENKVAKFVMISTDKAVRPTNIMGCTKRVCELYTLSMS

DENFEVACVRFGNVLGSSGSVIPKFKAQIANNEPLTLTHPDIVRYFMLVAEAVQLVLQAGAIAKGGELFV

LDMGKPVKIIDLAKKMLLLSNRNDLEIKITGLRKGEKLYEELLIDENDAKTQYESIFVAKNEKVDLDWLN

KEIENLQICEDISEALLKIVPEFKHNKEGV

>AHK53949.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYIKDIQRFEDNRYRARAYMSYILTRNLPNKLPDIHLETIKTALDKIAHEVVVFDALYILDISGMQIENA

ISLNKAHEIGQGEDRSTRSYFYRAVKLRRCVLSDPYPSVLNNELCVTASMPIYDDKNNLLFVVCIDIKLE

DILKIIQAGKFEFVFTQFSRLVYFCFALVLFVITCFLFQKGFFSLFDNQAIGIEHMFESTIAITLALAIF

DLAKTLIEQEVLGRTKKEEGGIQKTMVRFLGSIIIALAIEALMLVFKLAIGDLSQMIYAIYLIGGVSLLL

LGLSVYLFTVKYKNNNI

>AHK53948.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLLVVDDSSTMRRIIKNTLTRLGHDDVLEAEHGVEAWDLLTKNEDVKVLITDWNMPEMNGLELVKKVRA

EKKYEDMPIIMVTTEGGKAEVITALKAGVNNYIVKPFTPQVLKEKLEDVLGTGSGEGAAE

>AHK53947.1 ribosomal protein L11 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKKYYELFFIVEEQYKNLFLDFAFDLGIEAIEEKDNGVYIRSHESLEEFSWALEIFAQKLTTTFNLNHK

IISNLSLVEKENKDWIQEYKKGIKPILVDNVYIHTTWQEEKKNCINIKINPALAFGSGHHESTYSCVKFL

QKFSKSKLRALDLGCGSGILGIIMAKFGCNVEICDTDELAIDSSLENARLNGVDFHKAWCGSIDKANGLY

NLIVANIIADVILILEKDIKNHLEDNAILILSGILDKYSTRIKEKFQDLELIDEMQINEWCSFVYKNNKK

G

>AHK53946.1 cell division protein FtsH [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNNNTQNNKGNPQGNNFFNKNPIFIFAIFAIIMIIIFKGFFDGNGSFGGALNGNEVNKNVPYSELKKLIE

SGQINQVSIGQTTIKAISSSHNTVYTAKKVNDPELVSLLDSKNIAYGAYSETNWFTDILFSWVLPVFIFF

GIWMFLASRMQKNMGSSILGIGSSKKLVNSEKPKVKFSDVAGVEEAKEEVKEIVDFLKYPERYIKLGAKI

PKGLLLVGPPGTGKTLLAKAVAGEADVPFFSVSGSSFIEMFVGVGASRVRDLFENAKKEAPAIVFIDEID

AIGKSRAASGMMGGNDEREQTLNQLLAEMDGFGTESSPVIVLAATNRPEVLDAALLRPGRFDRQVLVDKP

DFKGRCDILKVHMKDVKISPKVKVEDIARLTAGLAGADLANIINEAALLAGRDSKKYVEQNDLVEAVERA

IAGLEKKSRRINEKEKKIVTYHECGHALIAETTKGAKRVSKVSVIPRGLAALGYTLNTPEENKFLMQKHE

LIAEVDVLLGGRAAEEVFIGEISTGASNDLERATDIIKAMISMYGMSEIAGLMVLEKQRNTFLSGGQTIK

DYSEKMAESLDDYVKKTLDERYKDVKDTLNTYKGAIETMVAALYEEETIEGNKVREIIKEFEDQNSLPTR

LQELEEVKTEVKVEE

>AHK53945.1 phosphatidylserine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKDFIAKDGYLSLIILSLVFIFMWIFYSFSILLLALIVICIFLFRTPKRELVCSDEKAIFAPIDGRVTKI

ENIHHKDLGECVEITIKNALYDAGNFNTPFAMSIIDIRLRHGLFLCSELKSAKMMNERAFILAKVKENKT

IALRIYAGSFDRKLKLDNISHDLKAGDRMGFLINGSISLLLPKDTRIHIGLNDEIKAGSLLGYFA

>AHK53944.1 CDP-diacylglycerol--serine O-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNNRPQLIYILPNLFTAASAFLGVISIIASIHGNYYTALIYIILSLICDGLDGRVARLTNSTSKFGVEFD

SLADLVAFGVAPAVLFYMAIGYDFGKLGSLITAFFVVFGAIRLARFNVTTGTYEPSVFIGLPIPTAAVVS

AIWTYAFISYDFLKPYGVVFLVLQAILGLLMVSNIRYPSFKKLDFNRSSVLKVLIILIIIFSFLYLYPLE

SLVILASLYVLYGIIRVLYTIIVSKFKTRNQE

>AHK53943.1 hypothetical protein N919\_05560 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKEFFQELQDILYEKNITIKFHSFQNFYEDFKSHKFIFNHEHQSIFKKNTSQQITLFHPTRIRRPKFLN

STHALAKIIHSVAHIEFNAINLALDASYRFKNLPLQFYYDWLEVADEEIKHFKLLNSALEELGYKYGDFP

VHDNLESALEATKDSLSFRMGIVHRGLEAKGLDANPFVVQKLQSSNHSIKNLLMEYLEIILNDEIKHVKK

GDTWWKFANQNKYNFIELCKTFKQFSLAGKKLNIQARIKAGFTQEECEVIEKFYS

>AHK53942.1 methionine sulfoxide reductase B [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKELNEEEKKVILNKGTEAPFSGKYNDFYEKGIYQCKQCGASLYKSEDKFKSGCGWPSFDDEIKGAIKRI

PDKDGIRTEIVCANCNGHLGHVFEGEGFSAKNVRHCVNSISLEFVKTKD

>AHK53941.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFSSMGSELYLMFFAAITLLAILNPFGNLTQFLAMSDGLPLMLRKKLFRTILYTAFTIVLVFLLSGPLFM

NYIFRVSLDDLRVSGGLVLIIMAIKNLLFSTKIATKDFSSYQDMDDKEILRQSLIPMAFPMLVGPGTLAS

VIVIAEDGGLDVALGGVMIAFIFMFILFHFAATIEKIVGKLILHVFSRIAQVFIVAMGFKMIIVGLKDIF

NL

>AHK53940.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFGAKKNNTKIIEQLEKKCNGLGDILRSIGNTMAVIEFTTDGVILEANQNFLTTMKYSLSEIKGKHHSMF

CLPEVVNSSAYSDFWKDLRDGKARSGLFRRIAKGGIDVYLEANYLPISDNNGYVYKIIKFANDITQRHYE

MLDLRNTIAAANRSMAIIEFKPDGTIITANENFLRAMDFNIDEIKGKHHSMFCDSNYRHSKDYVQFWEDL

REGKFQSGKYIRYGRNNKKVYLEASYNPVKNDDGKIYKVIKFATDISEQVKKDQEKLRLISELAEKNDNL

TQDGDRVIENTVSNVQNIADMMSQSSNLVSSLNQQSDEIKSIIQTISDIADQTNLLALNAAIEAARAGEH

GRGFAVVADEVRNLAERTGHSVNEITTTINSIRNVTSQVVESIKSGLEDVNQSVELAKEARECMEKIRES

SAEVAKAMS

>AHK53939.1 leucyl/phenylalanyl-tRNA--protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKSSNLYSKLLNAPKNAPVFLSQNLEADFIVKAYTFGLFPWTSKPVTWWCPDPRCILIPNQIHIQKNMKK

FINLYQIKLDYDFLKLITLCRDTRSQSWIDDEFITTYYKLFTQGYAHSLELYENNELIGGIYGLILGKVF

FGESMVSIKKNASKVAMIKLCDLLKPYDFIIDCQVYNQHLEFMGAHNISRKEFLNILKEKCNQESGFKNF

KDLIT

>AHK53938.1 ATP-dependent Clp protease ClpS [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPKTQTLEQTKLSEPKMYKVILLNDDVTTMDFVIEILMNIFHQNLEKASQTMLEIHHNGSGICGIYTQEI

ALSKQKKVMDAAKLANFPLQAKVEEE

>AHK53937.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKISALFLISLAFFLNACSKEEEIQNDFMFEEYHKGDKIVLNSVNGGSKTLIRTDKGFVVEGEEGKVLM

FDFFGTFCTPCKEEALDLSKLWKNNSSKFIIIGLTHFEDVSDETVKKFAGDYGAYYFLSNGSSNDRIIAQ

ILKDIDYQNMEQLPFKVVLKNGIYQKISDYWNNNTPTNFYLGKIPTELMQEDLNKIYKGK

>AHK53936.1 single-stranded DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIIARNKKALFDYSIIERFEAGIVLKGSEVVALRAGRANLKDSFVRIIKNEIFLLNSHISLLHTTHSFY

KHEERGARKLLMHRKQIDKLLGKVSIEGYTIVALDLYFNTKNKVKATLALAKGKNLHDKRETLKKKQADL

EARAAMKNYK

>AHK53935.1 4-diphosphocytidyl-2C-methyl-D-erythritol kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKAYAKANIFLKLTGFDSRKYHLLESRFILLKDVFDELELVDKESDSKKEFEIISNFKCENNIIQKAYLL

LSRRYNNELKELFSKKSLKLTKNIPVCAGLGGGSSDCASFLLLINETLNLKLNLQELINLSIQLGSDIAF

FLSGFHSANVSSCGEIIEEFEDDIPNLKWTFPQISCQTKAVYDEFDRGIFDFQKNNNQAQIYKKLSTKEL

LQNFKNKELNDLFTPCATLYPKMKSYLQEDFFLSGSGSSVFKVDR

>AHK53934.1 carbon storage regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLILSRKENESIIIGEGIEIKVVQTGKGYAKIGIEAPKSLMILRKELVQQVKDENLHSVVQNDIKLDDLS

KKLIK

>AHK53933.1 tRNA pseudouridine synthase B [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKIFAAFKPRGLSSNAFLSTLKKKYKNKKAGYSGTLDPFAKGVLIVAFGQYTKLFRFLKKTPKTYKATL

WLGVYSLSLDDQNIKEIKNIKEFDLPNLQQIIDQMQGIISYTPPQFSAKRINGTRAYELAKKGIEVNLKP

CQMEVFDCKILSYNHPFLNIEITVSEGAYIRSYCELFARKLGINATLSSLERIKEGKFVYNNEKSLNVLK

YINLKPNFIKDLNKLENGAKIFVEELEFHDKGDYYIETEKYFSIINIKENTVKYLLNKVEKC

>AHK53932.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLFEDLNDSQKQAVSHIDGAMLILAGAGSGKTKTITTRLAYLIGEVGIPSHNTLTLTFTNKAASVMRHR

ALNFLQGNHNPLLCTFHKFGLLFLKLHFERLERKNSFIVIDTDDTKKIIKDLIHDKNKDNVYDIIQYISY

CKNEGKRVSNVFEDLNLLKEHNFEKYQNEYKFANYYRAYEEYLLKQNFVDFDDLLLLSNLILENDINFAK

EQSLLYNYITVDEYQDTNTLQYKILKNLCCMHENITVVGDDDQSIYSWRGAKIENILNFQNDFKNVKLVK

LEQNYRSVGTILQAANNLISHNEQRLGKTLICTKDTGENIKILKNENEKDEGLYIAQEVKKLLNSGVEAK

EIAILFRVNALSRAIEEAFMKKQISYKLLSGMRFYERLEIKDLISYLRLILNPSDDLSFKRIINRPKRSI

GEKALKNLEEYAKKRQISLFDALCESDGGVGILTTKKAQNEANIFIQNIHTLKSYDNAKKVFDNIEELFK

IKDYFSEQDDGDERIRNLDEFYANLREKLKEDPEASLEDLLSEISLLSDQDNLDEECVCLMSIHASKGLE

FDYVFIIGFDEGFFPLNSEENLEEERRLAYVAITRAKKFLTISVANSRFYHGSRANINPSRFLEESKLIN

EKSKNQNIQKTSFCKGDLVKHKIFGIGRVVEANKSGKEEKLNINFGGIMRVIMASFVEKAV

>AHK53931.1 hypothetical protein N919\_05495 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLETILKNENFIHTMQKHCYEVISHLIEENIEFSIVANTNFIDFNPELPKELDIKQNPYALFALGGYTFE

SIQLNKDFIQFHAGFGNDDFDSFVKVDLGAITQIQVENSILFVNFSLYKREDSKNLQKSKNIFLNNPKNK

DIFKK

>AHK53930.1 oligoendopeptidase F [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLEWDLSALFHDKEALQNFTQDQIQQSLNFKKNYENKLYTLNANEFLQALKDYENLNQALGKIMTYAYLL

FAKNTQNGSFYAQYEEECKKIEENLLFFELEFCELAPEKSREFTTFCKDYDFYLSNLLQNKRYNLSKNEE

RIMLYLSNTGANAFSRLFDESMSALKIPFEGKKLSEEEILSKMYDENRKIRKKAAKKFSKVLQKNSRLLS

FIINMIKTERKNISLLRGYENAEISRHISNQISQKSVDSLIASAQKHFNLVSQFYKRKKQILGYDELKDY

DRYAPIGKEASFDFKTSKNIVLEAFQAFSPQFYDIAKNAFDQGWIDVYPQENKQGGAFSHSATSDAHPFV

LLNHTNKRRDLFTLAHELGHTIHQKLSYNVSYLNQNTPLTTAETASVFAEMLVFDFIKDKLKKEELLSLY

ANKIEDIFATFYRQINFTCFERRLHAQENELSTEEINKIWMEESQKMFQDSVKLTKNYASWWSYIPHFIH

SPFYCYAYAYAQLLVLALYGLYKSKKCENFKELYIKMLSLGGSVSPKELVGMFGFDIEDENFWEIGIKEI

QKLINEFMELQSC

>AHK53929.1 aspartate carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRHLITTKDFNKVEIMELFKEASDFLDEKPRTFLEGKSITTIFFENSTRTLSSFESAARRLGARVLRLDV

SRSSSSKGETLYDTAANLDAMSPNAIVVRHANSGVPLILAKHMHCPVVNGGDGKHAHPTQALLDLFTIYN

HFQGNVEGKKICIVGDIKNSRVAASNIELLSRFNLDITLVAPPHFMPNTHLKKHYKLDENIIANSDIIMS

LRTQTERHNKTVYASLKDYANDFCIQKSLVKDKKLILLHPGPVNRNIDISDEMMSNERTLVLKQVKNGVA

IRMAVLKKLILENEG

>AHK53928.1 serine/threonine transporter SstT [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFSKIIQSYAKGNLIVQICIGIALGILIGISSKEISEIANLLGILFTSALKAIAPMLVFILILTSICTKD

FSQSGAKIKNIIILYIVGTFFASACAVLANFFFPVKLVLDGVQTATNSSPTHMSDIFKDLLFKIVDNPIN

ALSSGNYLGILTWAIAGGIALKHCSNEAKQVFIDINEGVLKIVKFVVKLAPFGIFGLVANSVAQTGAQGL

LSYVKLLILLVATMLFVTFVINALIVFFYTRKNPFPLIFICLRHSAFFAFFTRSSAANIPVNMALCAKLG

IDKEFYGISIPLGATINMAGAAVTIAILSLTAANTVGIEISLLQAFLLSIIATFAACGASGVAGGSLLLI

PLACSLFNIDYDIAMKVVAIGFIIGVIQDSVETALNSSTDVLFTAICSKNELNYNIK

>AHK53927.1 S-adenosylmethionine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYLFTSEVVSAGHPDKCADIIADTIVDILLKNDKNSRVASEVFVAGNKVVIGGEVKSNHKLSKADYDNLV

KDVLKNIGYDGAGHFSKEQCLHPDEVDVMVFLNEQSPDINQGVDQEDGETGAGDQGIMFGFASCEAEEYM

PAAISYARMLCDRVYAYAKANPHELGVDIKTQVTIDYGTKANFENCKPQSIHTIVVSAPCVESMKIEDLR

SLVMKLILDSNLPKELFDPNKTRILINPTGKYVNHSSLHDSGLTGRKLIVDSFGGYSPIGGGAQSSKDYT

KVDRSGLYAGRWLAKNIVAAGLAKKCIVQLSYAIGVAKPTSVSVDCMGTNTSVNDDVLSDFVMQNFSLTP

NWIRDKFHLDKPSKETFLYADVAARGQVGQKDYPWEKLDALEQFKKLL

>AHK53926.1 apolipoprotein N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLKLNFLPYFSFIPKKLNTNSIIFKIIKVFFIAILLSNSIYLSFFENIFTQTISPFLAIWGLVLLLKSK

TSKQYFWIGFFVGILWFWWIGLSSIYFNLNYLVPIIPIIIGFIYGLLFRLCYLLKFDFLRLCGIFCISFI

HPLGFDWFNWGIFTVYGFFDPSYRGIICIFLIAYFIYEGYISRYYKIAIVLILFFSGFQYNEKQAQTLNL

NYKLINTNISQDQKFLQENLKSNSDILIQDILQAINEKKELVILPETAFAFDLKNTKYELMLKELSYKIT

IITGAFHVEKEHTYNSTYIFKKGNVYILNKHFLVPFGEEIPFFKDLTKKYFLKNIEEFSKGPIQSKYKLD

NQIITNAICYEATKEQNYQNSQIIIALSNNAWFNNSSEYKLQQLLMKFYASKYGVSVYHATNGKENIVIL

PKKLLSKDWKNLSKEIFNDKK

>AHK53925.1 preprotein translocase subunit YajC [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAENSILTSLLPLVVLFAIFYFLVIRPQQKQAKAHKQMLESLQKGDKIITNGGLICEVVKPEEDFIKVKL

NEDNVTAKISREFIAKKIDA

>AHK53924.1 preprotein translocase subunit SecD [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRNSKINYRLIIFIAVFIFGVAFSLPSFLQSERGAKINLGLDLQGGLYMLLGVDNEEAVKSKIKSIASSL

SYSFNKENILNDGLNTHDDILEFTLLDNADIAKVENLLKEIKGINIQSENMHYKISFTSKEVKNIENFAL

LQAVETIRNRLDQFGLAEPTVAKQGDDKILVELAGIKTKEDELRAKERITKAAHLQLMEVDDSKMGQAST

MSDAEAASYGLILVPDSRNPNLKYTLKSIPILDGSMLTDARVGLSDKSNYPVINFTLNAEGSKKFADYTG

ANVGKRLAIVLDNKVYSAPSINERIGGGSGQISGAFTQEEARDVAVALRSGALLAPVKLLEQRSIGPSLG

ADSIKMSMIALIGASVFIVVFMMMYYGVAGIFANIAMLVNVLVVVAVMAMFGATLTLPGMAGLVLTVGMA

VDANVIINERIRELLRDGVNIRVSIEQGYKNAMSAIIDSNITSLVTSVALYAYGTGAVKGFAVTLGIGIV

VSMITAILGTHGMFDYFMQRIEKNNNTRFWFGYRRR

>AHK53923.1 preprotein translocase subunit SecF [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQFFSEKKIYDFMRMRFAAISLSFILFFGSIYLLWDRGLQYGIDFSGGTLVQLKYENAAPITQIREILEN

QGTFQNLSVTEFGSNEEVTIRFLGSNDNVSNDIGEHISTLLKDTGKFEVRRADVVGPKVGDELRNKGLMA

IAVSLIAILIYIALRFEWRFALAAIISEIHDVVITLGAISLFKIDVNLDTLAAVLTVLGYSLNDTIIIFD

RIREGIKTSKKTELAPIINESVSATLSRTVLTSGLTLATVVILYFFGGEMIQGFSLALIVGIIAGTLSSI

FVASPTLLWFKFSVLEFRNKEIEKAKRKQDKERNRAMYEKGTV

>AHK53922.1 leucyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAYEASLIEKKWQKIWDENEYFEPKDDLNLPKKYILSMFPYPSGRIHMGHVRNYTIGDALARYYRKIGFN

VLHPIGFDSFGMPAENAAIKHKIHPKSWTYENIAYMKKELFSLGFSFSKKRMLATSDPLYTKFEQEFFIK

MFEKGLIYTKEANVNWCEQDQTVLANEQVEDGKCWRCGHEVVQKKMPGYYVKITAYAEELLKDLEELKDK

WPNQVLTMQENWIGKSEGLEFSLNLDEESKQKTKESSLEVFTTRADTIYGVSYIALAPEHKIVQNLLSQN

LLNQDVLNKIKVIQNQSPRERQSSEKEGYFLGIYAIHPLSGEKIPLWVANFVLADYGSGAVMAVPAHDER

DFEFATKYNLAIKQVIQTQENLPYMQKLGKLINSQEFDNLDCNEARLKIISQFEAKNIGKRVVNFKIRDW

GVSRQRYWGAPIPMIKCQSCGIVPQKLENLPITLPEDVQITGEGNPLDKHPTWKNCICPKCGKEAQKESD

TLDTFFESSWYFARFASDEKTWQEKALDEKSVKYWMSVDQYIGGIEHAILHLLYARFFQKALRDLGYLTQ

NEPFDRLLTQGMVLKDGAKMSKSKGNVVDPDEIIEKYGADTARLFILFAAPPAKELEWNDDAVEGAYRFI

CKLYDRAQNVKKGELVELKQENLNKEEKYARLKVYEALKKSFEVYHQSFAFNTLIAACMEALNALALCKN

EALEQEAFYIILNILEPIIPHVCFELSEELFKCKNFKKLELKEEVFVKDTLNLAVSINGKKRAEFEISSS

ASKEEILAFAKENTAKWLEGKSIVKEIYVEGKLVNLVIK

>AHK53921.1 hypothetical protein N919\_05445 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILIFCIGLFLGACGYIPTSKIANNIFDEKVYVNVELSQQDPKNSIYVADTLKEMVISKLGRKLALKH

EADDVINVKMNNLEFIPLAYDKNGYVISYKAKLNLDFNVVFKDGSSQAFSTSGSYNFEISPNSIISDSAR

YEAIRAASSEAFDEFISVIAIKGQKRDSKY

>AHK53920.1 hypothetical protein N919\_05440 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIPNTNEIAKQTLIALKERKLKPTPENYTEIFEELSLKYGITSSNKAKLDKYKTLLLPIYQQELNSKTIR

SLEELISFLISVLNRQSGKQFSEFFDFLYTISKTLQISKDKKIRDLAKVTSIRISKTMDSESIYLLTKKW

KELERNYDENDLEEQARKYGISKYDDYDSVIKKLLVKLEERSYEHFSELLCLGLNPSLVEDLKIQGFIQN

LTQKPFVIGEENFKNELMEFINHRIMVDNMYVQKNLNFFNDNLKKIYELLVLLNKSNEKNMDFINTLKPD

ENGEVKLSFEDLKLKFKQLGEKITSLNNQIEFTQSLEEREAWSVLKELDKMDENFNKYKVNYSLALFSIV

NYRFIMEKYGMGSLNEIFVRFKKILKDSCSEFDELWMIDEKSYLIVSPGKSKDEITQLVNTNLKTIENFR

FIYKQDIITPKIHVAYLDKQSKPSINILDELIKQIAAVNEQHNES

>AHK53919.1 folylpolyglutamate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVENFLAQKSINYDKIDRFLMFRMYEKYKKYFKNIPIIQLIGTNGKGSTGRYLTQLLENLNYKIGHYTS

PHIFSFNERFYLDGKIANDEELEQAHIRLEEIFKQDLQKLSYFEYATFLAMILFQKCDFIVLEAGVGGEY

DATSIFERRMSIFTRIGFDHIQILGNSLEDIARTKLKVMAPIALISDEQEQNVLNLAKKIAFLKKANLQV

SSLNPFLKEKFEIYCKKFVLPYFLKHNLKLALKACEILTSQEKTLEALKKLQELNLQGRCQEISPNFFVD

VGHNPMAAKAMLDKFQGEKINLIYNAYLDKDIFQILNTLKPIIDTIQIYKYKSAERKLADDEIYSIASKL

GMQCKEFVKLEENKKNLVFGSFMLVENFLKEWCGKK

>AHK53918.1 peptidase M24 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVKNKFTITITDINGSRHFYLNQIIKKIVFYIIAFIVLFLVFSGFYIKYLDSKLSDISEKREELLKKSKE

LELSNSQMQKSIEEKTQQYAAIEDKIASFEEALGLEAENNLTISARLDNLQLTNEQQLGILGQIPNGWPI

ENKGITGNFGWREHPLLKRREFHPGIDLRAEIGTPIYAPASGVVEFSGYSDNGYGYNVILLHNFGFKTVF

AHMMRKEVVKAGQFVNKGQLIGYSGNTGLSTGPHLHYEVRFINKTLEPLYFLNLQRKNMNDFFNQERRVP

WQSLIKAVSAQHPALAQKQQ

>AHK53917.1 transcription-repair coupling factor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQASFYEYLQNPKICELFLCKDEKQADLLAQVSRFKGLKTFVLPDFRAQFGDDLRAFSKELFDLCKILNA

YHKEEEKKILISPLNTVLKKLPSKKHLQNYHIDKKQNFDLKCFEDEISRLGYEFVDIVQDKGEISIRADI

IDIFCINEENPIRILLFGEEIESIRYFDLQSQKSIPNELEHFEICPFLKYFDKENYEIFKDKLEDFQSDA

LIHDINSLGFWCIDDFFDYLELDFLACEKFDINEYEKDISFVNAKILPQAKKFKELQSSYNKDFFEFHKN

KKITLLAKNEALFKALELEDTQNIHFVKSDLRLNLISPEELIISLNQKEKQKTRKKASLIIDELKNGDYI

VHEDYGVGKFLGLEMIVISGAKKEFVAIEYQNSDKLLLPVENLYLIDKYLGVSGSIPSLDKLGKTSFIKL

KEKLKTKLLAIASEIVIMAAKRSLVQAKKITVDLNRQTDFIASAGFIYTSDQDKACHEILQDFQSGKVMD

RLLSGDVGFGKTEVAMNAIYPVVKSGFCAFLFAPTTLLSHQHYKTLKKRFDPFDIKVFKLDRFTSSAEKK

QVLQNLKENKACVVVGTHALLSVECENLALVIIDEEHKFGVKQKEKLKEITQNSHILSMSATPIPRSLNQ

ALSSIKSYSVLQTPPEDRMDVRTFVKENDDALLKEAIARELRRGGQIFYIHNHIASIEQCKKHLLELFST

LRILILHSKIDAKMQEEEMLKFENKEYDLLLSTSIVESGIDLPNANTIIVEKSDRFGMADLHQLRGRVGR

SDKQGYCYFLIEDKNAITKDALKRLVSLESNSFLGAGSILAYHDLEIRGGGNLLGVDQSGHIEQIGYSLY

LKMLEDELNALSKNEVDQKENKLDLKLNVNAFLNSELISEDRLRLELYRRLSKCEQVHEVYEIESEIEDR

FGKLDIYTKQFLSLITIKILALNKFKSISNYEQNIQFTALNDEKELIKAKSKDDDDILEAILTHLRKA

>AHK53916.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDWNKTYAAIYRARKDYLKPIFEIDPIALKDLVGMESQKKALYENTLNFIQDKGANHALLWGSKGTGKSS

LIKAIFNEFKEQGLRLVELNKEDLFALADIIDEIRLENFKFILFCDDFSFEKGDDSYKFLKPLLEGSIEK

APNNVIIYASSNRRHLLSESITDNLDTQITHTELHLSDAAEERLSLSDRFGLWLSFYQGNLEEYLKMIDF

YFKDYSCDKELLHAKAKEFATLRASRSGRTAKQFYLAFKENFK

>AHK53915.1 nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTGAQIFTKLLNLDLNYHDFDWLENQGLSEFELLISVVLTQNTNWKNVLKALENLKKENIASLEQINTLS

NLELATLIKPSGFYNTKAKRLKGLVESIINTYENLENFKTNVSRKWLLNIKGLGFESVDGILNYLCKREI

LVVDSYSLRLAFHLGYEFENYEELREFFQSGIESEQENLCKILGRKCELYELYQIFHALIVAFAKQSFKG

QKLSPKGEEWIKILKEDL

>AHK53914.1 phosphomethylpyrimidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKAKGSELIPVLTIAGSDCSGGAGIQADLKTFSAHNLFGMSVVLSVVAENTARVISVHDIPTQSVDEQML

AVFEDIVPKATKIGMIGSCELMSCVAKNLSEFKPQNIVIDPVMFAKNGYALMPQENCDFFKQTIVKFADI

LTPNIPEAEFLCGFKIANEEQMIKAAKHLCSLGAKAVLLKGGHSEINANDVFYDGKEIYILKGERIETKN

THGTGCTLSSAIASNLAKGKDLFHAVSEAKEYVRNAIYYSLNLGKGCGPTNHFFKFLDEK

>AHK53913.1 thiamine-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNKLDLSLYLVATKGSKSEECFLNTLENAIKGGVSIIQLREKELNAREFYKLGLKVQKLCKSYKIPFLI

NDRVDIALALDADGVHLGQEDLEAKLARKLLGDEKIIGLSLKKLEQLEFIQGVNYLGCGAIKATPTKESS

LLSLELLSQICDKSPIGVVAIGGIDKEALVELKGINLSGVAVVRAIMDAKDAFLAAKELKRKIYENLSLK

>AHK53912.1 uroporphyrinogen-III synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIYLLNETPFEGVENLILNEIVFYDFSVDLSLYDALICTSKNALKALQHAKITLNFKLNLYAVGQSTAQ

YAKNLGFKKIKIPSKAYGKDLFLEFKEELKMQKCLYLRAKNIVSTLNLDLKNVGVDLDEMIVYENVFKKG

DKKLIHPAIFIFTSPLSVENFLKFYSLKEEDKVVVIGQSTAKKLLNFKNLYICENQSLLNCVKLAKTLV

>AHK53911.1 hypothetical protein N919\_05390 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKAYVLIWTIFLILLISLWMSLTLNISSYTPKIIQDSYYYLQAQILSHNATQFSKYFLYQAKQENKECL

DNIYFNYTKALIKIKYFYPIAQCVNFKFSNFNPDANLSKDGVIIAHISIALNRDKNVNDEILLTKSIIIY

PKENFWNLKN

>AHK53910.1 hypothetical protein N919\_05385 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKAFTLFELIISLILFTFITSLLSKPLMDFYHLNFTALHTNNLITQAHLNLLKIEKLIQNCINITFSQN

TLKCLLKDELISLKDNKLYLINSALILENNHTLYSPHSDFKTQLQNRKDLYNDNEHISYAYKINKIEKIS

ILENGISANFTGSFIPLQAQLVIKLQNEELIYEIKPKFNEQLNQQGLISKNISSFNLQNNKLKICLKRQT

KHCLEKRILL

>AHK53909.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKAFILIESISAITIISLIFIGIFYYYIQLYKNYENLNIFERLYKLQEELYEKPIFKTIILQTSALKPI

VLQEQFVNDGIFQFQKLYFQDQNYSVYFKE

>AHK53908.1 pyrroline-5-carboxylate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLYILANGSMATALAYGLKDDYEICIVGRSIEKLQALAKEGFKTLLYKDFNIEGKDVILAFKPYALENIA

QMLKGQARILISVLANVDFEKLQTIKAQNYVRIIPNTAAKYKASTTPYILKNSHFENEILDILKTFGSAY

KLDNEIQMNAAMAISGCAPAFLALIAESIANAGVYEGLSKELSLNLTRSLFKSSNALLEHEHPAIIKENI

CSPGGVTIKGIKILEQKGIRGSFFEAINASSAK

>AHK53907.1 flagellar assembly protein FliW [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTLAVKCPILGFEETKNMEFSTIDEVFVRLKSLDGKDFSFVLINPYLIRPDYEFDIPTYYQELLSLTPES

NMKIFNIVAIAKSIEESTVNFLAPVVINLDNNTMVQVILDTVNYPDFFQADQIANYIKK

>AHK53906.1 hypothetical protein N919\_05365 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKGIFLLVFLSVFFSACSTKNDEGLYNLSASEWYKQIIKDLQDKDLEKADDHYNGMASEHVADPLLETT

LIILAQAHMDEEEYKLAEFYLDEYNKKFGNSRNADYIRYLKIKAKFDAFAVPNRNQALMLESQKEIDTFL

KDYPYTEYEPLVQTMLTKFNLAVFYLNSTIENLYQRIGHDESAQIYKQRLQESEFYQQSIIKPELPWYRS

IFERF

>AHK53905.1 Lon protease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIEEIQNYPANLPVLVEDELFLYPFMITPIFINDSSNMKALDLAIKNDSMLFVAPSKLENGRNFDEIYN

CGVIGTIMRKVPLPDGRVKILFQGYAKGKIIEQISNKPLEAKIELIKEDFLEGTKKEALLEVLKEKVKNL

ANISHYFSPDLLRTIEEGFDASRICDLILNTVRIKKQVAYEFFVLTDLEQKLVKLIDLIAQEIEANKIQK

EIKNKVHSRIDKVNKEYFLKEQLRQIQKELGSDTQKEDEVREYQKRLELKKKFMHEDAYKEIKKQIEKFE

RIHQDNSEASMIQTYIETALDIPFEKISKKKLDIKEVSKQLNHDHYALNKPKERIEEYFAVRELLEKRKI

AEKDGAKVILCLYGPPGVGKTSLANSVSKALKRELIRIALGGLEDVNELRGHRRTYIGAMPGRITQGLIE

AKQINPVIVLDEIDKLNRSFRGDPSAVLLEILDPEQNSKFRDYYLNFNIDLSKVIFIATANDISNIPAPL

RDRMEFIELSSYTPSEKFHIMKKYLIPDELKKHGLKSNELSIDDETIELIISDYTRESGVRNLRRKVAEL

CRKSAKKLLLENIKKVIINTKNLNEFLDKKVFEIEKNNGENQVGQVNGLAWTSVGGDVLKVEAVKIKGKG

ELTLTGSLGDVMKESARIAFSMIKVLIDEGKIKIPKKIIIDPKVNVYDSYNIHIHVPDGATPKDGPSAGI

TISTAIASIFSDKKVKADVAMTGEIDLKGKVLPIGGLKEKLIAAYKADIKTALIPRKNYERDLKDIPSEV

RDNMEIIAVDTFSDVLEYTLV

>AHK53904.1 30S ribosomal protein S18 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAEKRKYSRKYCKYTEAKVEFIDYKDTAMLKHALSERFKIMPRRLTGTSKKYQEMVEVAIKRARHVALIP

YIVDRKEVINNPFEGL

>AHK53903.1 single-stranded DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFNKVVLVGNLTRDIEMRYAQSGSAIGASAIAVTRRFTANGEKREETCFIDISFYGRTAEVANQYLTKGS

KVLIEGRLRFEQWSDQNGQNRSKHSIQVENMEMLGNSNAPQQGGNFGNNSFSNNNYSGNYENQSYDPYMS

ENQNFNKAKANPAPQRNQSPQHEEKLKEIDIDAYDSDDTNLPF

>AHK53902.1 30S ribosomal protein S6 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKHYEVLFILKPTLTEEEVNTKLEFVKEVLTKNSAEIETVVPMGTRKLAYKIKKYERGTYFVIYFKAPTN

LIAELERVLRITEEVIRFLIVKYENKKEIAAWEKLSHGIKQSKKEIKPLDAPEIQ

>AHK53901.1 hypothetical protein N919\_05340 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKKFSYPIPNFTDRRKSIIFWRYLRFQARKILYFPQVRLLEKTLNKEKNKHLKDFFSQRPYACYNATRR

FCDKSFKANERVKTLIYDVDKGLACFKFLPEEQIIFSFDEDFELFLGYNYNVCEEGFWAFSLKFKKYTIL

QCNFCFTLENNLLLSCIQGHKYKDFNILEINKILTKKCHGLRPVALLIECSKMLCEILKLQATLGVHEKN

QIRSQKGKEKGYFVDYQKIWLENGGELIKINKHKYYKLHHSQKNLEEIPSQKRSMYKKRFAMLEEIKTNL

DKTLSIQD

>AHK53900.1 zinc metalloprotease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRSLLLLIVILILGIKFYSIEFLATVLVISFLIFFHELGHFLAARSLGVKVEVFSIGFGKSLIEREFKGT

NYRLSTLPLGGYVKLKGQDDMRPGFENLDKDSYSILSPLKKIYILFAGPFFNLILAFFLYIIIGNLGLNK

LAPQIGNIAPNSAAQEIGLQKNDTILEINGIRIQTFDEISKHLSLDPLKILINREGKNLEFILTPKIGQG

YNDFGQIVEKPQLGVSPNGTSTLVKHQGLESFKYAAQESFQASTLIIKGIVKLISGEVEAKNLGGIITMT

EITSKAAQNSFTLLLFITALISINLGILNLLPIPMLDGGHILFNLYEMIFRRKVPQRTFEYLSYTGMAIL

LSLMLFATYNDISRIIGE

>AHK53899.1 CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLPNILAIFRMVLAPLLFFLLIHKFENIHQSWINYFAALTFSLAALSDFFDGYIARTWKQTTKLGGILD

PLADKMLVLAAFLGLLLTGKANEWVIYIILVREFFITGFRVVMISENLNVNASFAGKLKTAFQMTAIGFL

IMEWIGGEILLYIALILTLYSGFEYIYTYIKAQKKGEK

>AHK53898.1 nitroreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKELEIFSTRYSCRNFKNEKLKKEDLNSILEIARLSPSSLGLEPWKFIVVQDEKRKEELSKICNQQKHV

KDCAALIIIISRLDFLDYFEEKLRKRDMSETEMQKRLDTYMPFLKSLNQEQKISYAREQAHIALASILYS

ANALNIASCTIGGFDKEKLDSYLSLDIQKERSSLVVALGYCNDKKNPQKNRFSFDEVVKFI

>AHK53897.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEIKLKEDLEKIYPLIKQLRNNLSLKDFLDKIQLATQTQHYKLFAYENEGSYKAACGVMPFNVLYHNHC

LYICDFVVDEALRGKGIGQAFLKKIQIWAKDQGYEELELSSSFFRTQAHEFYIQKMGFEKSGFVFKKNIK

L

>AHK53896.1 competence damage-inducible protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKHLLYLIGDELTINEKFKNYIYRTYEEKFKEINEIRIQNKTDKDLPFLLENLLNQYDFITLFTSPLHYA

TVAKILATLNDDNLILKDDTLVPDKAEFSKNSFVCNFSNSKINVVKINPSEKLPDLLGHIKLNFAYFCIF

GMDDESAILLLQTLTKSYEISIKSTKFLDNLVLIKATCANFGKLDGFLNSVKNLFGQKVFLGKDPIHFIS

SKLLEKKLKISFAESCTGGLCASTLTKISGVSEIFEGSIVSYSNRIKHEWLGISESVLENNGEYSERCVY

FMLKGIFKTANPDFALAISGVVGEKDEGKIKSGTIYIGAMFRDGTFIQETLYLDGDREFMQEQAVLATFC

LLLKLKPEIFEI

>AHK53895.1 isoleucyl-tRNA synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDYKETLLLPSTTFAMRANLAELEPQRFKKWFEQNYAYEKMKENRKNAKKSFTLHDGPPYANGHIHIGHA

LNKILKETIIKTHYFKGESVRFTPGWDCHGLPIEQQVEVKLGEKKKSLSKKEIREFCRQHASEFVDIQRE

EFKDLGIIADWDKPYLTMKFEFEAAIYRTLCEIAKKGLLCERSKPVFWSWAAKSALAEAEVEYQDKEDYS

IFVAFDLDVKACEKLGVSKASAVIWTTTPWTLVANQAIALNPNENYVITKEGLIFASALLKSMVEKGLTS

GEIQKELNAKEFEKLEAINPLNGRKSVLIMGEHVLMDGGSGLVHTAPGHGEDDYYACLKYGIEVLMPVDD

SGCYDETLRAKGLLPSHLLEEFIGLHIFKANEKILELLGEKLLHSSKFIHSYPFCWRTHKPVIYRATKQW

FILMDEPKLQGKTLRECAKEQLLKTTFYPQSGVKRIGSMVENRPDWCISRQRDWGTPIAFFRDKNTKEVI

FDDELFDFVAAIFEKHGADAWWEFEIKDLIPTNSKYKAENLEKVYDILDVWFDSGSTFNAVLNSGLYDAG

EKRASMYLEGSDQHRGWFQSSLLVGTAINESAPYESILTHGFTTDEKGQKMSKSKGNVIASEYVAKTYGV

EILRLWILLSDYSSDLKISDNILKQVGEQYRKIRNTIRFLLANTNDLKDLEVKEFSFIDKWILSRATKVF

KASKEAFFAYEFAKGFSLLLNFLSADLSGIYLDISKDRLYCDSENAQRRKSAQVAMALMAKELLNLLAPN

LSYSVDEALEHANVLIKGDAKDVFDLSLTQDFDYDFGIDDTFLMSAREKFFEQIDILKKDKIIKSTLELN

LNISFNKFPNEELADWFMVSQISNENEEILAEFEVENEKFKITKASLCKCPRCWKLQSKNEETPCLRCEE

VLKGVQC

>AHK53894.1 aspartyl/glutamyl-tRNA amidotransferase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MITLKEALKYSKEELENLKKELNEKAKKEKKLGAYIEQFLDKDLSVSGEGVPVAIKDNISVKGWELTSAS

KILQGYIAPYDASAIVNLKANGFSPFGRCNMDEFAMGSSTASSCYGKTLNPLNFERVPGGSSGGSAAAVA

GGLALASLGSDTGGSVRQPAAFCGCVGFKPSYGRVSRYGLASYSSSLDQIGVLTQNVEDAAILYDAIAGY

DKMDSTSANIEFIKTVPNLNANKKLKIAVIENYVNDADSEVKNALLKTIDMLKANGHEIVYKNLLDSKFD

IAAYYIIATAEASANLSRYDGVRYGKRSENIQNLKEMYVNTRSEGFGEEVKRRILLGTFVLSSGYYDAYY

IKAQKARAFIKAKYEEILQDCDLIFMPVTPTTAFKFDTQKSPMQTYLEDVYTISVNLAGLGGISVPVAKD

KEGLNISAQLICKAYDEQTLLDGALSLEQMIKN

>AHK53893.1 inosine 5'-monophosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISAAMDTVTEHRAAIMMARLGGLGVIH

KNMDIASQVREVKRVKKSESGVIIDPIFVSPKASVAEALEIMAEYRISGVPVVDEDKKLIGILTNRDLRF

ESDFSNLVENVMTKMPLITAPKGCTLDDAEKIFSTNKVEKLPIVDEQGRLEGLITIKDLKKRKEYPDANK

DNFGRLRVGAAIGVGQMDRVDALVEAGVDVVVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAA

KALCEAGVDAVKVGIGPGSICTTRIVSGVGVPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVG

ASSVMIGSLLAGTDESPGELFTYQGRQYKSYRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYV

GSIRSVVHQLLGGLRSSMGYVGAKDIEDFQKRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>AHK53892.1 coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSFEENLKHANESLEKLNNQELALDESVKIYKEGLESIKKARLELEKAKLEVEQIDE

>AHK53891.1 carbon-nitrogen hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKIAALQFPTLALSESRLDYYLKASKDNGANLVVLGEYVINSFFTELLHMPKNMIKEQSEAKKESLIKL

AKKYELEIIAPYVSVEAKSYKKLCLKVTPNGVKSYEQQILMPYEHWNEEKFFSNKTPSELKIFTFNYEKL

KCALLFGFETHFDIFWQQIMAKKIDLVIVPSACTFESKQRWEELLKTRAFLNSTSILRVNRIGKTKDEWN

FYGDTLFINAFGEIESKLGSEEEMLIIEPKKSDEARKLWGFDKILKNF

>AHK53890.1 UDP-N-acetylmuramate--alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNIHFIGIGGIGISALARFLREKGFKISGSDLKESKITKELEKEGVKVSIPHHKDNILNKDLVIYSAAI

KEENPEFKYAKELGIKCLSRKEALPLILEDKRVFAVAGAHGKSTTSSILASLLDDASVIIGAILKEFGSN

MIYKESQNLVFEADESDSSFLNSNPYLAIVTNAEAEHLDHYGNEVSKLHHAYTQFLDVAKIRVINAEDEF

LKNYKNESIKLYPSKDIKNCTMCIENFKPFTSFELKDLGEFKVFGMGYHLALDASLAILAALNFLDIETI

RTRLKNYQGIKKRFDILHADENLVLIDDYGHHPTEIKATLSAAQEYVKLGGYKKITAIFEPHRYTRLATN

LKEFAKAFEGVDELVILPVYAAGEEPIELDLKAVFPKALFVEDIKREGKFLVASKGQVFEEGLIIGFGAG

DISNKLRQKNE

>AHK53889.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSRVFLYFLIILILALITFALREKLGKKTKPFFGILLVIFIVLAVFFEFENTQKSHLRTDIIVAFNQNKN

ILCKDINVSKAYFNYEFGTGSFISKDNNQSFNSLIIDIKDCRLNDE

>AHK53888.1 DNA strand exchange inhibitor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNDTKEELISKLDLNSYLEEFKALFARDKEIFLQGDSNLHFKRIHELCEVEFPTMPELSNLDKALVHLSK

QGILHLDEIFEFVKIFRYFEKLKKIKLGTNLGSWLQKIEFVSGALELCLNFDEKGELKESLDERLVNLNA

ALRLKNESIIAEFKKFCYTKALMPYLIDTQIHLINNLEALLVRGGFNHAIKAKIIGRSSGGGFYIVPLSV

ENLQNDIEKIKNQKEEIYYEYAKNFSAFLAKNLPFLKFINTAFDLFDHYSARVLLAKKRDFEFVLCDQST

DLVLKNFAHPALKNPKSVSLEFKKQVLIITGVNAGGKSMLLKSMLSAAFLAKHLLPMHIKASESKIGTFK

EFDAIIEDPQNVKNDISTFAGRMLHFSRLFSKKNLLLGIDEIELGTDFEEAACLYSVLISKLIANNLKII

ITTHHKRLAMLLAKNEQVELIAALYDEELSRPKYEFLKGTIGKSYAFETALRYQIPPNLVSEAKKLYGED

KENLEELVGKNINLELELKAKLENVEKKEQKVDEILLSLKEQKEKNEQEFRTSLRNLEFKFHKAIEEAKK

TIQLKDIKDKQRSLNKTNELKKEIILPSMEQNEELRVGDFVKYEKIKGKIISISKNDAMVESDGIKLRVP

LKLLKKSTPTPKISPKTSISVAKPTNLSVSLDLHGLRSDEAISRLDKFISDALLAGFDEVLVYHGIGTGK

LAFAVREFLKTHKSVKGFNDAPINQGGFGAKVVRL

>AHK53887.1 NAD-dependent deacetylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNIMILSGAGLSAPSGLKTFRDNDGLWEEYDVMEVCSATGFRKNPKKVLDFYDARRAQLQNVKPNHAHE

KIAQLKEKWGKNLFVITQNVDDLLERAGCKDVVHLHGFLPELRCLKCEGIFNIGYEKFTDKQCPKCKSKD

LRHNIVMFEEQAPAYATLYSLLHQTSLFISIGTSGAVLPVGQYASMCEKSILNIYEKDVNLERYFDKIYI

EDIISAIDKIALDIENFMKDGNV

>AHK53886.1 lysine transporter LysE [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFDSFLSGVFLGFGVSVPFGPVNILILTYALKAFKNSIAVGLGAFSMDMLYLFLLQFGLLNFLDNVIFMR

FLAIFGFCFLTYMAYLMLRKKKESLNLEHKEFKESLLKSYIKGAFLNGSNPFVIGFWLSAASVVLSSDHA

YLMTLGLVVAILFWVSALAFVVARYSHVFSAKVVFIINIISAIIIEYFALNLLYKTFLG

>AHK53885.1 succinyl-diaminopimelate desuccinylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNAKEFLIELLKFKSVTPNDDGALNFIAMELSDFEAFFIEKEGIKNLLLTKKFKDEGEHLAFGGHVDVVP

AGEGWSNNAFAPVEKEGFIYARGAQDMKSGVAAFVDAAKNADFKGARLSLILTSDEEGEAIYGTKAVLEW

MQERDMLPDYAVVAEPTCVKKIGDSIKIGRRGSINGKLLIRGKQGHVAYPEKCINPVHDFAPVLKLLAGF

DLDPGSAEFSPSKIVITDIRGGMGVCNVTPNDLKLMFNVRNSPDTSLEDVKSYVEKICHGLNYELELKQS

SEAFLTNIDNKIVQKMNESVQKITHEVPELNTKGGTSDARYFAKYGVKVVEFGVCNDRIHAIDERVSIEE

FEKLCLVFKDLIENF

>AHK53884.1 thiamine biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIINGQKLELKELKFMDFIKEKGFKIELIALELNGEIVPKSEFENLILKENDKAEIVSFVGGG

>AHK53883.1 thiamine biosynthesis protein ThiF [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMRVKFNGKELDTDFKTSLEFFENISKNENDVWIINGFATKENIALNENDELFCIEKNTLPPKDALDAMM

RARHTPKLHDKLKNGRVAVCGLGGLGSHIAINLARSGVGYLKLIDFDVIEPSNLNRQAYRVSDLGKFKTE

ALKEQISEINPYISVEICTLKIDEDNLESLFKDIDIVCEAFDSAIAKAMIAQNFHRFYKDGILICASGLA

GYGDSNSIQTRKIAKNFYVCGDLVNGAKLGNGLMAPRVNICAGHQSNLVLELLANKE

>AHK53882.1 thiazole synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQENLKNDKLKIGKYEFDSRFILGSGKYSLELIKSAIEEAKAQIITLALRRANTGEIANILDYIPKNITL

LPNTSGARNADEALRIARLSRELGCGELIKIEVISDSRYLLPDNYETIKACELLAKEGFTPLPYMHADLY

AARAMRDAGAAAIMPLAAPIGSNKGLCAKEFIQILLNEIDLPIIVDAGIGSPSQACEAMQMGVSAVMVNT

AIAEAKDIALMARAFSLAVNAGRVAFLAGVASVSEAKASSPLTGFLRD

>AHK53881.1 thiamine biosynthesis protein ThiH [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQDYMQHLPHMQEIKSEILNKVLTQVQSYDESQFSAKDVKNALNQTHLSIEHLKALLSSAAEDFIEELAF

KSAKVKQKYFGNSISLFTPLYLSNYCNSKCVYCGFQKGNKIARAKLNEAEIHEEMQAIAKSGLEEILMLT

GEGREFASVEYIANACKIAREYFKVVGVEIYPMNEDEYKILHEKGCDYVTVFQETYNPLKYSKIHLAGEK

RIFPYRFNAQERALKAGMRGVAFAALLGIDDFRKDALATALHAHFLQQAYSHAEISISVPRLRPIINNAK

IHPKDVSEKRLLQVLCAYRLFLPFAGITISSRERIGFRDEVIKLGATKMSAGVSVGIGEHKGEKKGDEQF

EISDDRSVDEILAMLKRSNLQAVMSDSIYVG

>AHK53880.1 thiamine-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MWDKKIIAISDRKCVEIDFLKQIEKLAKAKVDAIVLREKDLSEFEYYDLAKEVLSICAKQKVTCFLHFFD

RECLKLGHRYFHAPLSLLRKEPKLTKYFHILGTSVHSKEELLEAMSYKVNYAFVGHIFESSCKMGLEPKG

IDFLKSLLEFSQIPLYAIGGINAQNIENFKDINVVGVCMREILMKEKDLKKYLLECRQNLR

>AHK53879.1 AraC family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKILSLPEDLKQLKGVNYKKIKSCTFAKYTQTDTSHSTFVNVGSHLLTFVRKGYKILHTASKDYKINSY

ETLFLKAGSYTLSNVGLSKGVYEAYLFFFDNAFLIELIYKYKDFFKLDQKFQNYEIFWVKNDKILQGILE

SFSPHFEENTQILDPIVSLKFEEIFLHLLLNKNIYFISFLSGILKEFRLDLSQLFEYCGREFLSVNEMSN

FAKLDLATFSKEFKKCFGQSPKKWLDEKRLQKAKILLKFSKKNINEIANECAFSSVAWFIERFKEKYEQT

PKQYQKTKNLYFLSKN

>AHK53878.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKYVLSLALLGSLLGASELKYQEFDGFKSPESIFVDKNYVYVSNVGEKLEPLAKDNDGFISKLDKNGKV

LEYKFLTHLNAPKGMMEIGKTLYVVDIDVLRGFDLKTKKEIFNLPIKGAIFLNDIEKLDDNTLLVSDTGT

GLILKVDLKTKQYDELLKLDLAKFGGPNGLYLDRKKHKLFIAGYHPDGVSGGVVMAYDLNTKELSIIKNE

KESYDGIVPYKDGLLVSSWGNNLNGYIYNLDNVKSVKLELPLMKGPADIFIEGNILWIPKMVEGKIFKVE

LNK

>AHK53877.1 UDP-diphospho-muramoylpentapeptide beta-N- acetylglucosaminyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTIALTGGGTGGHLAIVRCLLESAIKKNIECVYIGSQNGQDKAWFENEVRFKEKFFLSSKGVVNQSKFDK

ISSLLHTLKLSKDCREIFKKYHIQAVFSVGGYSAAPASFAALFSHLPLFIHEQNSKSGSLNMLLKPFATK

FFSAFEKEISPYPVADKFFDNARIRKELKNIIFLGGSQGAQFINELALNLAPKLQEQNIKIIHQCGKNDF

EKCKKHYQSLNIQADIFDFSLNLEEKMKNADLAISRAGASTLFELCANTLPTIFIPYPYAAKNHQYFNAK

FLQDQALCQIFMQNSINLDEFFKSILKLNLENISTRLQNITQKNGADMLIQKALFDNLTFIR

>AHK53876.1 cell division protein FtsW [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVADKRLFYLSCILITIGIVFSYSLTAFTVLFLDYSEFHFFIRQLFFGISGILIMFFISRLDPDKALSKK

IILAILIVSFIFIIILPFLPSVLATASGGAKRWIRLGPLSISPVEFFKIGLIYFLAWSYTRRIDDSKKAI

RHEALILLPYCILASIVIGYIYITQNDLGQSVISFFLILALAFFAGASKRLFAFGTLIIMMIGIMVIFSN

QRRIQRIASWWGNIQDAFLPMLPDWLANALRVSSNSEPYQISHSLNAIAHGGMFGEGLGLGTFKLGFLSE

VHTDFVLSGITEEIGLLGLGVICYIYLWMILRIFRIAGRCEAKQDFIFCSGIALLLLFSFFMNAFGIISL

TPLKGVAVPLLSYGGSSMWAICIGIGYVLMISKKVKL

>AHK53875.1 acetyl-CoA carboxylase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNQIHKILIANRAEIAVRVIRACRDLHIKSVAVFTEPDRECLHVKIADEAYRIGTDAIRGYLDVARIVEI

AKACGADAIHPGYGFLSENYEFAKACEDAGIIFIGPKSEVIHKMGNKNIARKLMAKNGIPIVPGTEKLNS

YSMEEIKIFAEKIGYPVILKASGGGGGRGIRVVHKEQDLENAFESCKREALTYFNNDEVFMEKYVVNPRH

IEFQILGDNYGNIIHLCERDCSIQRRHQKVIEIAPCPGISDNLRKTMGVTAVAAAKAVGYTNAGTIEFLL

DDYNRFYFMEMNTRIQVEHPITEEITGIDLIVRQIRIAAGEILDLEQSDIKPRGFAIEARITAENVWKNF

IPSPGKIGEYYPALGPSVRVDSHIYKDYTVPPYYDSMLAKLIIKATSYDLAVNKLERALKEFVIDDIRTT

IPFLIAITKTREFRRGYLDTSFIETHMQELLEKTEDRHQENKEEVIAAIAATLKKIRESRE

>AHK53874.1 hypothetical protein N919\_05185 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDFLDSLKSIKKEMQANTNTSKLAKKSSKSGASVKNLEKLAKDIREKNQETNIDKEMQEIFLKQEKLQDE

FSEFIKNADIKKI

>AHK53873.1 arginyl-tRNA-protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLEIGFCTLEDQCPYLKDKRSRIEYKYIENCPKEINNELIKRGWRRFGRYFSRPICKDCDECLSLRILVN

EYNFSRSERRVVNKNINTKVILRTPNLSNEHLFLYDKYHRFMEEKKNWKRYDLSFKQYYNLYVDGFMNFG

YELAFYIEDKLVCVDLIDILEDGISSIYCFYDPDFSYFSLGKFSLLNEIQIAKKMNLDYIYLGYFVKKCQ

SLSYKADYTPNEILKGTKELFENEVLWEK

>AHK53872.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIVQTLETINVNTDDISVFQYFKDLITKNFTKVIGRKNKIFSFFEENEIPQRRYFLKVLDQKYRKSTNE

GIENLQDAHFKTFRLIFEQNNMLKPMLFIKIDFVAGRILMKLSSNEKLFITYIRNYFQDHNIEYNEMTNI

LILEYKNENTLELFEAFADESEHLKYCVNFEVDREEYKKFRQNIHNKENMKWKFNALAKLFSNYFNTLEC

TPQNDLSEIRQKYLILVKLYHPDFHQGKSAIEKAYAREQFEKIQIAYDNLKALYKNNT

>AHK53871.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFKLAINRPITVLMFFLALMIFGLISAFSMSVNLFPNVSIPLIKITSKINGDLNFVESKVTKEIENALSE

IDGVKTITSAAYDNFSVSVVEFKLGKNLEVAANDVRDKIGTLSLPSKPEIEKISSDSGSAISLFLYSKDK

LQLMREINDKIKPFLQRVEGVGKIEAKGFLEPQIRIELKPNQLRKYNLNALDVANIIKSQNFKQALGELN

NNQDNYIIKGYFEATNLEELSNLRIKTGVFLSDIANISSLYEDEKQSALYEGKEGVLLELGKITNYNTLE

MIKNVKNALPILEKQIPKDISINMLYDKSLNIHKHLSQVIFDMVLGIFLTLVIVFLFLRNLSTTLIACIA

IPTSIISTFFIIDLLGYDLNRLTFIALTLSIGIFIDDAIVVIENIAKKLKTYPPLQAAFLGINEIGFSVL

SISIVLLCVFIPISYMNSISGLFFNALGISVASGIVISFLVSVFLIPSIGARFLNPKENKFYEKTEAFFE

KIEQKYENLLYKILQNKVKFILATLVFIGLSFALATRIGLDFLPMEDDSEIQVLLESKKDLSLEAMKEKS

LNLLEKIKNDSNVKYAFLLVGYDDAKDATKAKIYVKLKNLDERNLRQSAIVSLYRQKFQDESLKIKILEL

PKIEGAGIDDPVQFLILGDDLNTLKEAASQAKEILGTNARIVDISDNANATKDEVALHINKEKAKLLDVN

PQYIAGVLGYSFSQLSVGSMDRGNSKDDIILSFAPEFKKDIEALKRISIKNNQGINLELSSVVDFIYSKD

LKTINRYNKNRSVKITAGVNDLSLGAVQKLLLDNMDKILNNNPSLSYAFSGFINLLGETVQGFAMAVALA

FVLIYLVLAALYESFILPLIIMITMPLAFGGASIGLFITGHNFSLFVLIAIILLFGMVGKNAILLVDVAN

KKCHEGLDPDKALLIAGKSRLRAILMTTFAMIFAMLPLALSRGAGYEANSPMAIAIIFGLISSTLLTLLV

VPALFKFCFKLDSKLRKIYEREKLN

>AHK53870.1 hemolysin D [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILFLLLVFNCAFGEEIYASFNVEASKQSKLALESIGLVQKIPVEIGQKVSKGELLLALDQESEKIAL

QNAQNSYQLALVEYENTKSRMQKIKAVENVIDKQSYEDMKAKFDAANLNLNKAKINIAYYKNIMAKKELR

APYDAIIANKFIQVGEGVGGVAQPLIEIFSYPQSKLILSFDEKYKDKVRLGDDFFYKIDQNGTELKGKIN

LIYPSIEVKTRKIYAEVQTTNLTPGLFGEGRIITKD

>AHK53869.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFEKYLKSAIFLALYPLAMLASNLHEFIALSQNNESYLIKQMQSEQANLDKEQAFRNYLPSLSLNSAYVA

NNKDRFIIDPQESLFAKVSLNFLLFDGGAREANLRALESREKLSLLDKEQNKNYLALNAITLYFNTLSLE

KILLANQQKVSFLKSTFERLQKFYDAGLSPKDELESIKAKYHLSLLELSQNELKLANIQKEIKILSDTDF

KVQGNAFLENPQQEKSQNYEVMIAKEQINLAKESVNLAKAEYFPKFYIQDNFNFYKNNYNPKVPAPFANL

ADQFLEKYSQGNQFILGMEWKIFDFNARAKEVEKERLNVQIANANARFSERKNKEELNYLDKSLKVLQEQ

ILALNLSLNAANLAFESVDKKYQAGLVSYVEYLQALEVKFKAQSDLELAKNEFEITKANYYFNAGIDLNS

KVKE

>AHK53868.1 elongation factor 4 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSVKNIRNFSIIAHIDHGKSTLADRIISECGAISDRQMSSQVMDTMDIEKERGITIKAQSVRLNYKFNNE

NFVLNLIDTPGHVDFSYEVSRSLASCEGALLVVDASQGVEAQTIANVYIALENNLEIIPVINKIDLPNAD

VEKVKHEIEHIIGIDCKDAICVSAKTGVGIKELIETIITKIPAPKTDDEAPTKALIYDSWFDNYLGALAL

VRIYEGSIAKNDEVLVMSTDKKHIVQDLFYPHPLSPIKTQSLQSGEVGVVVLGLKTVGDVQVGDTITLVK

NKAKEAIGGFEKAKAFVFAGLYPIETDKFEDLRDALDKLKLNDSSITYEPETSLALGFGFRVGFLGLLHM

EVIKERLEREFNLDLIATAPTVTYEIYQTDGELIKIQNPSELPPVNKIDHIKEPYVKATIITPSEFLGNL

ITLLNRKRGVQVKMDYITPERVLLEYDVPLNEIVMDFYDKLKSLTKGYASFDYEPIEFRVGDLVKLDIKV

AGENVDALSIIVPNEKAQSKGRELVSAMKEIVPRQLFEVAIQASIGNKIIARETVKSMGKNVTAKCYGGD

ITRKRKLLEKQKEGKKRMKAIGKVNLPQEAFLSVLKID

>AHK53867.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFKKFLIFIVPILFLSACATKQDTFAQVNQISKNSQCSSCESPGGFEAKIKGLLYISDVGIQCCANKRTL

DTGIALKKVYLHRFYDLKEGQKVLNAKGKKLFVDVNFNAVFYTYLKQELEARGIVVLDNNDQNSPYVSKI

DLEFISYGATQDAIGLHSKLVGVLQVSDINKNKKFTIRTKQDVQGFDDLKETTFYTHLLIKQMANKAASL

ISEL

>AHK53866.1 phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRCINCGAFALLCFCELCELELSEFSLNVRKLDNNFKVYSFYKYHEIQHLLHSKHYFYGYFVYKMLAKLS

FAKFKDFFDPRMTINVIALDDKVEDMLYSHSAILARYLKTKFVKPVFNVLKAQNSVKYSGKSLEFRQKHK

RNYKLLKTIHEPVILVDDIVTTGSSLLEAKKVLEENKISVLFALVLADAKV

>AHK53865.1 DNA gyrase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENIFSKDSDIELVDIENSIKSSYLDYSMSVIIGRALPDARDGLKPVHRRILYAMQNDEAKSRTDFVKSA

RIVGAVIGRYHPHGDTAVYDALVRMAQDFSMRYPSITGQGNFGSIDGDSAAAMRYTEAKMSKLSHELLKD

IDKDTVDFVPNYDGSESEPDVLPSRVPNLLLNGSSGIAVGMATNIPPHSLNELIDGLLYLLDNKDASLEE

IMQFIKGPDFPTGGIIYGKKGIIEAYRTGRGRVKVRAKTHIEKKTNKDVIVIDELPYQTNKARLIEQIAE

LVKERQIEGISEVRDESNKEGIRVVIELKREAMSEIVLNNLFKSTTMESTFGVIMLAIHNKEPKIFSLLE

LLNLFLTHRKTVIIRRTIFELQKARARAHILEGLKIALDNIDEVIALIKNSSDNNTARDSLVAKFGLSEL

QANAILDMKLGRLTGLEREKIENELAELMKEIARLEEILKSETLLENLIRDELKEIRSKFDVPRITQIED

DYDDIDIEDLIPNENMVVTITHRGYIKRVPSKQYEKQKRGGKGKLAVTTYDDDFIESFFTANTHDTLMFV

TDRGQLYWLKVYKIPEGSRTAKGKAVVNLINLQAEEKIMAIIPTTDFDESKSLCFFTKNGIVKRTNLSEY

QNIRSVGVRAINLDENDELVTAIIVQRDEDEIFATGGEENLENQEIENLDDENLENEESVSTQGKMLFAV

TKKGMCIKFPLAKVREIGRVSRGVTAIKFKEKNDELVGAVVIENDEQEILSISAKGIGKRTNAGEYRLQS

RGGKGVICMKLTEKTKDLISVVIVDETMDLMALTSSGKMIRVDMQSIRKAGRNTSGVIVVNVENDEVVSI

AKCPKEENDEDELSDENFGLDLQ

>AHK53864.1 hypothetical protein N919\_05135 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIYFMLAIAGIFAGCVPSANSATKNSSANSTAPSQDVIVQKVDKDDVRDIIREEKMLAPDASETELSF

TAVGEGIAPMNTVSTAQALALAKRAAITDAYRQLASKLYGVKVNGKDTVKDAMLRSSTITAQVNGLIKNA

SIIDENFNQGLYRVNLELKIDADKWKELFAY

>AHK53863.1 hypothetical protein N919\_05130 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MERIVCLLIFLSFKLFAQDEFIFWAELSSKNFILFHQNQNLSLAMTQSENVEEQWVCEISYSDQDLKVLP

RTSLGLIDDNMPKTIKFNFLNSHKDELSDCFIGARISVKDIVNTDLLRAQSETYVKILPLRFTVEFGEQN

AIIYYLKKK

>AHK53862.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLVIVEDDINMRKSLEIALAEYEEFNIKSYKSATEALKKIDDNTDLIITDINMPGIDGIEFVKACENKY

DFIIMTGNATLSRAIEAVRLGVKDFLTKPFDVDTLVEAIKRAKIIREKTADKKSKKNEKKEENKDFFSTS

PNLEKTLNLSQKAAKTDASVMFFGESGVGKEVFSRYIHTHSKRSNKPFIAINMAAIPANLIESELFGFEK

GAFTDANATKIGLFEMANEGTLFLDEIGEMPYEIQAKLLRALQEKEITRLGSTKSIKIDVRIISATNANL

DEKIKNGEFRSDLYYRLNTVPINIPPLRERKEEILGIAQKVLEDTCKEYDFKEKQLSQEAKNALLEYDFP

GNIRELISVVQRACILSENDEISSEDLFLEARSIKKDVKNLEKELICEVLLSVDYDKDQASQILGMDIKI

LNEKIKKYQIKDK

>AHK53861.1 aspartate-semialdehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKKQKIAIVGATGAVGEELLNVLDELDFPVESILPLASAKSVGSEVEFKGKAYKVKELTENVFKENPID

IAFFSAGGSVSEKYAKFAVESGAVVIDNTSHFRMEKDVPLVVPECNPEDIKDWKKTGIIANPNCSTIQMV

QVLKPLNDAFNLKRVDVSTYQAASGAGKEGMQELVEAMQSFFAFKLDEFEPQTFPYTLALNLIPQIDVFM

DNDYTKEELKMVNETQKILHKNLEVSATCVRVPVLRSHSEAITMHFEKEIDVKKAKEILKKAPSVIVIDD

PKNKKYPMPLMTSDTNETYVGRIRADVYDKKILHLWCVADQIRVGAATNAVRIAQKWLELKNK

>AHK53860.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLEKIFESLLVRSRIVTILPVIFGLIGAFVLFFIASYDVLKVIFYTYNYFFDAGSNVDLHEDVVALIIGA

VDLYLMALVLFIFSFGVYELFISEIEEFKQTKQSKVLEVHSLDQLKDKLAKVIIMVLVVNFFQRVLQMKF

ATPVDMAFLAGSILALCVGLYFLHKGGH

>AHK53859.1 hypothetical protein N919\_05105 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIFLIGMILNHFVFAAPLDEVFKDIEVSGTVRYRYDIKKEKKYNKKTHRYQNKTQTEITIK

>AHK53858.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIARWLFISSIFVVALFGINLKSFFTYTFDANKQYDMEKAKALYFQNKCNTCHGDNAEKSVIGSRILKDM

SPEDIKGALIGYTLDSSSSTTASQMAFYARNLSHEDIDNIIAYIKGGNFALDLQVKDLLEEEPAQKTKHN

IFLK

>AHK53857.1 branched-chain amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDSTLFLQQLVNGLSLGSMYALIAVGYTMVYGVLRLINFAHGDIMMVGAYAALFCMTNLNVPFLGALSLA

MIFAACVGIATDRIAYKPLRQAPRISLLITAIGISFFLQNLFNMLFTSTPRTFTPPSYFEESVNFGGVIT

TYGSLMVPALTFVILIAVLWILYKSKYGIAIRALAFDIQTVNLMGIDANRIIAIVFALGSALAAVGGVFW

AANYYSVEPTMGTLIGLKAFAAAVLGGIGSVVGAVLGGLIIGFTEVVVVAFFPDLSGFKDAFAFIFLVFI

LLFRPTGILGINFEKSRF

>AHK53856.1 branched-chain amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMVRIKVSHLIFLIASIIFIFISPYIFGDYGLNIVNQIAIFIILAVSYNLINGVTGQFSLEPNGFVAIGA

YAAALVLLSADAKNDQFFLDGPSSFILAIHSNSFILALIVAGICSSLLALILAFAVFRVRGDYLAIVTLG

FGIIIKIAAINFPSITNGSRGLVDIPQFSTIYWTGGIAIVAVILILNIVYSKYGRAMKAIRDDEDAASAM

GINTFWIKTLAFSTSAFLEGVGGGLLACLLTTVSPTQFDFLLTFQLLIIIVLGGLGSTTGAIIGAILVIG

GSEWLRFLDELNIKIDSLNLDIQSTPGLRMVVFSIVLILVMLFARKGIMGYYELSDVIRGIKKRFKRSKK

>AHK53855.1 branched-chain amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MILELKQISKSFGSVKAINETSFKINEGEIFALIGPNGAGKTTLFNIITGNYKPSSGSVEFLGERIDHLK

PHKIVHLGIARTFQNIRLFSSMNVLENVLIGFNKQMKYNIFEAFLHLGRFGKIEQVFKEKAYAILEELGI

AEFAYEKATSLSYGQQRKVEIARAMATQPRLLLLDEPAAGMNSSESDELAGLIFKLRKDYKISVLLIEHD

MKFVNKLCDRVLVLDYGKTIFEGKLCDAVNHKEVIAAYLGDFDANS

>AHK53854.1 amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLIVKDLHVYYGLIEAVKGIDFKVETGHIVSLIGSNGAGKTSTLNALLNSVKRTGEVNFLGYDTKRHLTH

TLVQKGIALVPEGRRVFINLSVEENLKIGAFNNAENYEHLREQMYKLFPRLASKKHALAGTLSGGEAQML

AISRALMSEPKLLMLDEPSLGLAPKIVGEVFDIIVRLKEEGITILLVEQNAYSALKISDYAYVLENGRIV

MENEAKNLIGDDEIRKKYLGL

>AHK53853.1 cytochrome C biogenesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNIIKSIGDLRVSVVLFLLFALFCALATFIESAYGTPTAWAMVYDTFWFEYIQLLLGINLLCGMFRYKM

FGLKKLPLMIFHISFLFILVGSAMTRYAGFEGILPIREHTQNSLIESSKTSLRISAIKDGERYSAVNDRY

IGNLPFANSFKLKLNLGDDQAVLKYKDLILNAHYTYKENNNSDPLLVLMLSQKGSQGVDVKFEKGEVKNI

EGVNFAFMNDNVKAPFVKIDENLTLSSSENLHFLSMLDGQNLDLKIGEKANAKERRLYEINDISFVVKAA

SLHAQEALEGSNRPQDESFWLWFKSAWLEVGRTMLISTFGEPQNWKNSLLLHFKDFALSNENKNLELTGS

NALKLELSYKNESKEFYIFEYNKPIMIELADQKFFISWALSYEQLPFDIYLRDFVLDRYPGSMSPASYAS

EITVKNNNENFDYRIFMNNVLDYDGYRFYQSSYDQDEKGTVLSVNKDPGKIPTYIGYFLLCLGMFMNFLN

PHSRFRTLARLINKDTLKHTSVIIFILLLSFGSEKTFAQDLNSTLPVVNTNHAKALATLIVQKSADGRMV

PFDTLSREILEKIHQSDSYKGQNSNAVMLSMLVDVDKWQLEPFILMPQNQAVRDAIANILEIPSAKYIAY

KDFFDENNRYKLQKYVENANRKNPNARGVFDKEIIKLDERANVVNLVFSGELFKFIPVQNNPNNVWLAPF

SAVTTLKGDEGHIVLALIQNYFSAVENAFKDGNWIRADEGLKFIKEYQEKIGYKVMPSKTKVEMEIFSNK

AEIFVKLAPVYLIAGFLLLILVFSKMVVPNLKISFIFKVVYVLNVLAFVIHTVGLGLRAYLSGHAPWSNG

YESMVYIAWALSLSGIFFSRKSPIALSLTSILSGVVLMVAHLSEMNPQITNLVPVLNSYWLSIHVSVITA

SYGFLGLCALLGIFTLFLMCFLKKDGKYNLNILRNITEATRINEMAMIFGLCLLTVGNFLGAIWANESWG

RYWSWDSKETWALVSILVYAAILHLRMIPKYCNQFVFALWSMFAYWVIIMTYFGVNYFLTGLHSYAAGEA

AQIPNYVYWGFALMVVLAFFARRKRNFVGKL

>AHK53852.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVIFCAALALLLFLGVIAYLITSDGKKTIKKQKTSQKQHVAEKTKKFDTDLDKMIIAASDVKLTDIELKE

LAKLYVQTHKLGSKTSKELDEAAKKKLEFVSALAANINASAQTVSYLNKELKKIYGSYKKEIDAYEHMGL

AKRKIKEDK

>AHK53851.1 magnesium transporter CorA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLELHENLKKILQAKNLETFYSEIYGQKIFVYVGLNLETWLFNDEKIYKLQDGEFKLSSIEEFSNFIKSI

LEDFKVQNTHFQNLLEHKEGIILKGGFVKNFYKKSFVLRQKINKNLKQINLLSEAFNLLLSEQAQYKKHL

KILNLSISILSKNTKEHLARIDTLYTLTNAIKNEKMNKSIYLLSILSSIFLPLNLIVGFFGMNTNNLFFK

DSPYGTLYIFSLICCILIVGFIFYYSKKTKEFDLDEGKKAKKQTK

>AHK53850.1 queuine tRNA-ribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEFKLKHKDGMARVCEITTAHSTFLTPVFMPVGTVGAVKSLDANDMKNELDAKIILANTYHMYLRPTSKV

VKDFGGLHGFTKFDRSFLTDSGGFQAFSLSKNSKHFNEGIEFKSHIDGSRHLFTPKSVLDTQYDFNSDIM

MILDDLVALPATKERVKISVDRTILWAKEAITYHKNMQNKGIGIGQNIFGIIQGGTDYEERKRCALSLNE

MPFDGLAIGGLSVGEENALMYETVQNLNPYLDENRPRYLMGVGTPEDLVENVERGVDMFDCVMPTRNARN

GTFFTSFGKFNIKKAEFINDHEVIDSTCSCYTCRNFSRGYLNHLFKAKELTFFRLASLHNLHYYLELARK

MREAILNNSFTQFKRNFYHLRGK

>AHK53849.1 potassium transporter TrkA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNNILIIIDGILAKHFLERLCFEKGLGYFFTVVCQNSEKNNLNISSEYIDLHYFDPTSTARLENIMSKDF

KQAFIYMQDEFETKKSYEALRSLNPNLEIEIMDFWGLSVNDTHANLADARMTLSRRFMDFLPDIALTAQY

IGLGVGEIMEVKIPAGSIFAYRHISSIQQKRWRIVLIYRNSKIYFVKPSFVLEPNDSILIVGDPVVLQSI

FHNIRGKAGQFPMPFGSNVFALIDMKNMNQNMQERVLDTTLKLTQKSNAKRFFIHVINPKLGVMYEKLKK

LSEDKEGVFFDYFNTDFKQISMWLQNNDIGLVVTDIKNFEKEKQAFFDLKIPIMKVGEASFDELKEAIIL

SADESELENNANVITDLSKQLDFGVILYYYNPNSQNTTDMEEYFRSLSKLYDKNIQIINKNDENPLLNLQ

YREDLLQFVSFQKELLNRDFARNLSTNLNRHYYKMRQNYQLFIPVE

>AHK53848.1 3-dehydroquinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQVEVKLKENAYKVYIDELEELEFDSKVFILSNPKISGLHLKTLLSKIKAKEIFIATVKDGEEYKNLSTM

EEILNQMFNSKLDRKSVLISFGGGVISDMGGFAASIYQRGIDFINIPTTLLACVDAAVGGKTGVNNNFGK

NLIGTFYQPKAVYCESFFLKTLSSRELAAGMAEFIKMAAMFDYSILDFIEKIDEKSFLNATCENEIFTQI

IAKSIELKSRVVEQDEKESRLRMLLNYGHTFAHVIENFTDYKLYLHGEAVAIGMVMANQLALNLGLLDKM

QSQRIKDILLKFGLPISYKINNVDEFYEAFFMDKKSSNKKINFVLASPLGKGLIKGDISKEDIIATLREF

Q

>AHK53847.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIIILTFFVVFAFGDVNRTIINNINEKINTLNTVISASIWNIRYENFIKYQDINDELIILNLNLKKTS

DIHQQEELKRKIANLEEQLNLLKEYKDLNFAQSLSAPDNIETLSKLTNPLAIIGAFSHIKKLKGEKEEYI

FKFNDFKNLVDKIREKNSELKELVELKPSVENIEALKASDKKLEEFEQALNFASVSYSVYEKKIDEELSR

VSAEIKVQSLRAVNILVAIVIVIAIAFMLKFIAKKYIKDSERYYTATKIINFININIIFLILLFAYIENI

TYLVTILGFASAGLAIAMKDMFMSMLGWCVIIFGGSFRVGDRVKVFQNDTTYIGDIIDISFLRITLYEEL

TLETYNKNRRSGRIIFIPNNYVFTNLLANYTHHGMKTVLDGIDISVTFDSNLDKAQEIVENIVTRHAKGY

TELARKNIARLQHEYSIKNPKVEPRFFMFFEHWGMRISAWYMTNAYAALVLRSTISKEIIKEFNKHKDIK

IAYPSQNLYLGNLNQNHFEQHHENMYFHARNKD

>AHK53846.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEKVFFKTFGCRTNIYDTELLKSYVKDYEIINDENKAQIIVVNSCTVTNGADSGIKSYVNTMQKKGIKV

ILTGCGAVSKGKELLDKKQVFGVLGASNKDKINEFLGAKTSFYELGNLNFIDKDIVCEYENHTKAFVKIQ

EGCDFACSYCIIPSVRGKSRSVDEKALLKQVEILGANGYSEIVLTGTNIGSYGLKNGTTLGKLLQKMGQI

LGIKRIRLGSLEPAQLDESFLEILDEAWLERHLHIALQHTSEKMLRIMRRRSHTDNDLKLFNTIASKGYA

LGTDFIVAHPGESEELWQEALRNFKEFPLTHIHAFIFSPRNNTHSATMKDVINGTLAKERLNTLKSIVEK

NNYEFRKKNQVSLEVLVENQKDGFFEGYDQFFNKIKIKSDKDIAKEWIVISEYEVQEKSNFTNLKG

>AHK53845.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNKKIILASFMVLCMLLGILYFKNEPKYIDENLYQSLLSQNLIQKAVIDKDEIWLKAEGENYVIIKDGI

DIKTLLSKVPVEVKKDNTLWVFFVLLIFIIALFISLGYFARKKELAKYPISNKNQNHTQAQNSNINLESS

HIKPVISNITFNDVAGVDEVKMELSELVDFLQNPKKYKEFGVKMPKGVLMVGPPGVGKTLIAKAVAGEAG

VPFFYQSGSSFVEIYVGMGAKRVRELFSKAKMMAPSIVFIDEIDAVGKARGEMSNVERDSTLNQLLTQMD

GFEDNSGVIVIAATNKIELMDPALLRSGRFDRRIFLSLPDFKDRLKILEIYMKDKNNNINLNKIAKASVG

FSGAGLETLVNEAAINALRRNSALVEESDFYAVLNKVLLGKKKILSFNNEEKKIQATYQAAKALSAYYFD

IGFEKITLIEDRFKEYEHNIRSKSELINRIKVYLAGSRAMRLIYNESYTNSQDDFLKIKELLDYMLSFDM

LKESNLSEQKKEMDEFLNSMKDKILKLSELLLEKEKIEYDDVKDIMQV

>AHK53844.1 hypothetical protein N919\_05015 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIKFLNIITILSLSLNADIIISADNLPNVSKEFLQHNFKAPIGIVQKDKNSYEVYLSDGTELEFDIDGA

WKEIENKAFPFDLDFLPQNLANIIKNEFPNTKAREIERKINHYKIKLDNDIKILIDFNGTILYKEFDD

>AHK53843.1 phosphoglycerate mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIYIIRHAKASKSEDIDDFERKLTKSGKEDLKKLFKNLASHEIHPDLVLSSPAVRTAKTAKKIAKFYN

FDKNRICFDERLYLCNVENLLKILQDIDDEFNEVFLVGHNPSLMELGELLSSLCLASFPTSSILCLEFDI

KEFKNLKKHSGKLVFFEHVRKLKEEKDLGF

>AHK53842.1 RNA polymerase sigma factor RpoD [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNAKTQEAELEELFQENAKDYITYEKLVKYLTKQPSASTTKKVQALMKKHKVQLFSAAEIAQMKNIEDAK

RLQEEKQKLQDTSLENEFDLANENDLLEWSRSDSPVRMYLREMGQIALLNKDEEIEISKKIELGEDIIID

AFCSVPYLIDFILDYKEPLINRERRVKELFKSFDDEEKSDDKLDELDIDEDEENETELESDEENTKKNSK

KEDERTLKVIEKFKALEKAKKDWLKTSKDKESGDELLDKLSIAFKKNILKEKLMDLGPTSKLISEIVKSM

ETALKSDEEFDKELKRLEYRLPMFSDELKKRHADILKDITKLSKEEITERALETTMVSTYMEIKKLFQTK

EASEKSFDLEKSRLKEILEQIKRGKKISDEAKGRMAKSNLRLVVSIAKRYTNRGLPFLDLIQEGNIGLMK

AVDKFEYKRGYKFSTYATWWIRQAISRAIADQARTIRIPIHMIETINQINKIIREHLQKDGKEPDVSVIA

KEVGLSVDKVKQVIKITKEPISLEAPIGNEDDGKFGDFVEDRNSLSPMDHILKDDLKEQIDEVLDQLNDR

EKAVIRMRFGLMDDESDRTLEEIGKELNVTRERVRQIESSAIKKLKHPKVGRKLKNYIEGWK

>AHK53841.1 LysR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIKDIEIFLDLLNTQSPTHTANNFSITQPNVSIVIKNLENKFDGILFERLGKKLLPTPKALELGKNWLK

IIQAYYQSLEKLNDESMLLGEIKIASTQSISEHFLAPILFDFKAEFKNIEIRSQTQNSKECLNLLKNGNI

EFAIIEAELDPALVEYENLEINFWQDDELIVATSDKKLNEKEFYIDELLEQKWILREVGSGLRDKFLNEI

GASSKKLNIFLELDRMAAIKELVLQKKAISIFSKKSIEKELKNSTLYEIKLKNIDLKRKFYTLKRKNYNF

NRALEKFEKIFKS

>AHK53840.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTSFLAHSVAIVRSNFKGLLFTACIVIFAMYLSSVQSIKDTTHLAATAFAIIIGVLLSPWFFKYQHHFQ

AGVHFSAKKLLRLGIVLYGFNITLTELLSVGLKGFLLSAIVIFFVFIIALFVGTKIFKLDKETSMLVGAG

SAICGAAAVLALESSLKSDPFKGILAVGTVVIFGLVFMFLYPIAFSLNLFPFFDQNAMGVFMGATLHEVA

NVAGAAEMAKDMAGFEQGASNVAVIIKMMRVILLVPFLLIVTYFFAKNQHSSSGKTAKSITIPYFAFAFL

GMIVLNTYLASKESILGIATSDIISLGKTLCTLCIVFAMAALGLQIDFKKFLKSGSRVFGLAFVLGLVLI

FGGYFLTLAFKGILW

>AHK53839.1 hypothetical protein N919\_04985 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILVSVLSSCLLASALSAVSFKEDSLKISFEGYKTKDMIGTKGEFKNVEYKFSKNIKDLASYLKGAKA

TIKPSNAFMGEGNDIITNNITKVFFPALLGDTDIKVVFQDVIAGENKGVISAKITMDKKSTIVPLTYTIK

DNKFEAKGQLDLHTFKNGSKALKALSDVAAGHGGISWPLVDISFNADLAE

>AHK53838.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIFKDYDFLQNYDLKNFEEKVKIYKELLSKFNRIHNLTHLKNIDENIFDSIKILDFYDFSKAKNIADIGS

GAGFPVVFLAFLLQSNFHLFEPNPKKAAFLRTLKIECELPNLHIYKEKVQEYKNTFKADIITSRALMDVK

PLLEICKNLKDENTVFILWKGSEIYQELENIKDYEIFENNLRRYCILK

>AHK53837.1 GTP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEIKISEIANLPSKWGNFQMQSFKENDKEHLCIFKNTPKDTLNLRIHSECLTGDALGSLKCDCGEQLEFS

LKYIEKNGGMVIYLRQEGRGIGLFNKVNAYALQDKGFDTIKANHQLGFKADERTYEIVEFILKHYEISKV

NLLTNNPEKLDSIKEKIITRIPILIEPNRFNVEYLNIKQTQMGHLK

>AHK53836.1 delta-aminolevulinic acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFKRFRRLRLNENLRSMVRENSLSVNDLIYPLFVVNGTGIKKEISSMPDVFQMSLDEILKECQNVVNLGI

KAIILFGVLENEKKDSCGSDALDDEGLVARSIREIKKNFPDLFIISDLCFCEYTDHGHCGIIDPKIKSVD

NDATLEISAKQALVHARAGVDMIAPSGMMDGVITTLRKALDKEGFENLPIMAYSTKFASSYYGPFRDVAE

SAPSYGDRKSYQMDFANGKEALEESLEDEAQGADILMVKPALAYLDVVKEISLHSNLPLCIYNVSGEYAM

LKAAKNAGVIDYEKVLYETIIAFKRAGAKLIITYHAKELAKMLKGEK

>AHK53835.1 ornithine carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAMIFEKNSTRTRMAFELAITELGGKALFLSSN

DLQLSRGEPVKDTARVIGAMVDFVMMRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWNK

MQNGIAKVAFIGDSNNMCNSWLITAAILGFEISIAMPKNYKISPEIWEFAMKQALISGAKISLGYDKFEA

LKDKDVVITDTWVSMGEENEKERKIKEFEGFMIDEKAMSVANKDAILLHCLPAYRGYEVSEEIFEKHADV

IFEEARNRLYVVKALLCFLDNQRGRE

>AHK53834.1 hypothetical protein N919\_04960 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKELEKYSTCLKRIDEFSQNLGIKKKDRTIFKMKQSENENEKCLVLENGSFDSPEPWFVIDENDEIHTLL

SLQSLKNILESLKQSQKENFELRLEKAIYQQIPVDFNDVWTVAMDEIKQKAQNGTMEVSIDLEKLISKIK

QEHPNLFVDMQAMIERVNQNERL

>AHK53833.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRDYKAFVKYSKAGPRYTSYPTAVEFNANFKYEEYIEILKKQDRSLSLYFHLPFCRSACYFCGCNVIYTA

KEESKERYLTYIFKELDILSTILDTKREVVQMHFGGGTPTFFSAKQLQSLILKIRSVFGNFSKDAEISCE

IDPRFLNEEQAIVLTQNGFNRISFGVQDFDEKVQKEIHRIQSFELTQNALNLVRNKGIKSVNMDLIYGLP

YQNLQSFTQTLEKVMLLNPDRLAIFNYAHVPWLKKNMRKFDENTLPSPDVKLEILEFCEKFLSKNGYKMI

GMDHFAKENDELFKALENGTLHRNFQGYTTKGGADLVGVGLTSIGEGQRHYAQNFKDMSSYEAALDRGVL

PFERGVILSDDDELRKAVIMELMANFKLDIKSIEKEFSIDFKEYFKEDLKALEEYKDFVNFDENFIKVNE

TGVLLIRNIAMCFDAYMKNISEDKKVFSKTV

>AHK53832.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFSQISDACVKCGKCIPVCTIHEENRDEITSPRGFLDLLTAYKEGSLELDKEAKKVFESCFLCTNCVEV

CPSKLRVDNAIEEVRYDIAKKFGIAWYKKLIFFFLRRRKILDLVAKLGYVFQSCAFKIQNENENTGMKAR

FSMPFVKKGRLLTSFNKKSFLNSNPKFINNDGEKTIGFFVGCLANYFYIDTANAVLKITKELKINVDLMK

EQVCCGAPQFFTGDFKSVEVLAKKNIEYFEKKLEKLDAIIVPEATCSAMLKIDYEHFFIMQNDLDWAKRA

KCVSSKIYMASEYFYKFTSLEEILKTKNKFNYSITYHDPCHARKMQGVFKEPRELLKTNYHFVEMSNSNT

CCGFGGVSMQTDYYDRALSVGLKKAQMIDESKASVVSAECSACRMQISNALEQNSSKVVFASPLELIAKA

L

>AHK53831.1 hypothetical protein N919\_04945 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMKIVFKGKSSEYEIQRSCFCVDAFVIKDKIEERDGVDFITSNVDLLEFSDDSFTFEEIVKHFNICDTED

MIIVEDFDMKSNKDNQNQEDDIEHNILKSEKIIHENTKQTSMQFKNLKFFSRIFKNENFLSDFKESKQEV

VTIKKHEKLEIFKNLSQEDQEISFVKIEILNYDSNEDSLSFNLDIFPSGMSYKYGILKGSMHIILQGKTS

STMLFPFLKSMIYKNKSENSSEKIFTLMINQKKHYKLIANLS

>AHK53830.1 hypothetical protein N919\_04940 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEFLAFIFLIIIFLFVVFIIVTRYEKKIKLLNQNIQNMKEDIADLKETTQKNRSLIEKNRSNIENIIK

>AHK53829.1 peptidase M20 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLIPEILDLQGEFEKIRHQIHENPELGFDELCTAKLVAQKLKEFGYEVYEEIGKTGVVGVLKKGNSDKK

IGLRADMDALPLQECTNLPYKSKKENVMHACGHDGHTTSLLLAAKYLASQNFNGALNLYFQPAEEGLGGA

KAMIEDGLFEKFDSDYVFGWHNMPFGSDKKFYLKKGAMMASSDSYSIEVIGRGGHGSAPEKAKDPIYAAS

LLIVALQSIVSRNVDPQNSAVVSIGAFNAGHAFNIIPDIATIKMSVRALDNETRKLTEEKIYKICKGIAQ

ANDIEIKINKNVVAPVTMNNDEAVDFASEVAKELFGEKNCEFNHRPLMASEDFGFFCEMKKCAYAFLENE

NDIYLHNSSYVFNDKLLARAASYYAKLALKYLK

>AHK53828.1 hypothetical protein N919\_04915 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKILFSPSESKNENCVKNPINENSFIFKELFPYRMEALKHYEEFIKNASLQNLQELFGIKNENEIDKFKH

DLKQAPTQEAILLYTGVSYEYLNFKALDKKSQAYILENTLIFSNLFGIVRANDTLPFYKFKQGAKIGNFA

IEKFYKEHFSKALDEYLENEEILDLRAGFYDKFYTPKKKFYTYKFVKNGKVISHFAKAYRGILLSISAKN

QVKNNKELLANLPSNLKLKEIQIKGLKEEIVLEILD

>AHK53827.1 hypothetical protein N919\_04910 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKGIFLSIGIAVLFSACGNSIDEKTVKKYENQLNQTVKQEIASLSQDSGIKIEFSDFKCNADGDFIACL

SPNFKTLTKDNNDEYQELFQAKNIKIRSNEIYKGKANASISIKEYYNDLFKNQKSIQSNLVFEDFKLGEK

VVSDINASLFQQDPKISSFINKLSSDSYTLSFDNSINKQENNYLDNLDIKFYNAKLNFNTNLNINLKEDL

LNYLDSKGIKFNTQTLVMDKQAINELLNIANYEQASDFSNTIQKYIILNNFKIDSTLKTEGVFSSYIATA

KENLQTLKAQSQNEEQALIFDKALAILNNITQNDDYKLNLDLKFKNIPVSDYSTQGIDSIEKLSINNQDA

TEALKIILPFIMFSMLMGGASF

>AHK53826.1 glutamine ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILLSVLTAFVAVVLAACGGNSDSKTLNSLDKIKQNGVVRIGVFGDKPPFGYVDEKGNNQGYDIALAK

RIAKELFGDENKVQFVLVEAANRVEFLKSNKVDIILANFTQTPQRAEQVDFCSPYMKVALGVAVPKDSNI

TSVEDLKDKTLLLNKGTTADAYFTQNYPNIKTLKYDQNTETFAALMDKRGDALSHDNTLLFAWVKDHPDF

KMGIKELGNKDVIAPAVKKGDKELKEFIDNLIIKLGQEQFFHKAYDETLKAHFGDDVKADDVVIEGGKI

>AHK53825.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKKYKNIIYASLGGILEFYDFVLFAFFLDIFAKVFFPQNDAFWMQINAYIAFGAAYLARPFGSIVMAHF

ADRYGRKNIFYISMLLMVLPSFALAFLPSYESIGIFATLILFTIRILQGLAVGTEVSGAWIYVSEFVKGR

QIPLALGFISATLTIGLLLGNIATLGIRSYFTPEEVQSYAWRIPFIIGGFFGILALFLRNKLSETPEFIK

VQNEKKILSFPLFEALKTHKMSMLVCFLMTMVLTSGVATLMILPKYFESLLAMSKTSALWVQNFAILAVI

FGALFQGFLASKWGSYKICSIFSIAFIIFGMLFGFYDENFLFYFLLACFAQGIITFAPVFMTQIFKSELK

FSGLSFAYNISYAILGFLTPFIVNAFYKEYLGIYLAIVGSCSLLCVFLLKRVFARSKIKELSIVF

>AHK53824.1 aminoacyl-histidine dipeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNVIENFKQLCKIPHCSYETEQMKEFLSSYAKDKGFKVSVDKAGNIHAIKGKPKICLQSHYDMVCMGDA

PNLEVYEENGFLRAKNSSLGADNGIGIAIMMSAMAEFENLECLFTNDEEVGLMGVNLLEHTLESKMLLNL

DHESDDEIMIGCAGGVDIEASLSFNTLRKKGKIYELCAQNFKGGHSGINIIRNEKSSIKEMAKFIQENEG

EIISFEGGERINSIPKHAKALVHFKDEVKSNNWIKCEFKEENEFEICDQSKKLLSLINSFTHGVRAYDEN

LDIVQTSINLATLRMQDNQIKFALFARSNILDGLKQVEFETLEFFKAFDFKIRSFNFYPPWEGKPNALSD

MVFKALKKVSPNAKVSAIHAGLECGIIEKKQELLCASIGPNIHNPHSTDEHCEIASVEKISKVVFEVLKD

NA

>AHK53823.1 nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRINYKKIFNLRKLLSDPKKLFSVLIFTLVVVFIQNYIAQNSSFEGKVVRIIDGDTIEVNHENKLARIRF

FGIDAPELKQSFGKQSKEALSRILSGKQVEIIYKNKDTYGRIVAIVKLNDVDINRFLVSKGYAWADTYYS

NAYTKEQENAKKNHLGLWKESNPIEPYKWRKHNKF

>AHK53822.1 hypothetical protein N919\_04885 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKYTLMVLLVLGISGCFVNERGISNRFYDDCKEYYDGSGTYHKDCPKNWVDIKMTP

>AHK53821.1 Hot dog fold protein HP0420 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKKDNFEEYAQLEEYASAEDISRVRAELLTCPELNTSLAGTIIEIDKNYAKSILITTSEMVADDQGLIF

DAFIFAAANYVAQASINKEFSVIIGSKCFFYAPLKLGDVLELEAHALFDETSKKRDVKVVGHVKEVKMFE

GTIQVVSTDEHIFKLKRPPLNTVKPTENQEQGAKINNPEAVAAALMASVGGK

>AHK53820.1 tRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQENLLEKQFLNHPLYAKIQELKALNLACNFSLGDSVNLSTNSQAKDEILAIAKELKPWRKGPFKIDDLF

IDTEWQSFIKFNILKPFMNEISQKCVADIGCNNGYYMFKMLEFNPAKLIGFDPSIKYRLQFELINALAKT

PIKYELLGVEDLPSYSLKFDVIFCLGVIYHRSDPIKMLKDLKAGLNKNGVVFLDTMYIEDEREIALVPNK

TYSKIPNIYFVPSISALKNWCERAGFKEFEVLATKKTDENEQRKTEWIDSFSLENFLDPKDKNLTIEGYE

APKRVYIRIKI

>AHK53819.1 acyl-CoA thioester hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKMRVYYEDTDAGGVVYHSNYLKFCERARSEIFFNKKVDIFDASKGHFLLAKANCNFLKPAKLGDMIEIK

TKILEVKNASVEILQEIYKDEILLFKMELTLAFIKNEKPARMDMQLKKLFEELF

>AHK53818.1 hypothetical protein N919\_04825 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIFLIFFLSCFLLNAKEQKLVDVKPVENFYPKLSVQECNTNCLFDLLESRLYLSFLSEFADQNDQFLS

NVYAKLLNSITDFEKNVQKITSVKLAIIIPEKTIKSYSNTIINSSIAYLLRQRAEIKVKVFLTGTEDNDK

IRAALDAAQAQGYQYAIAGFTLKGANELKNYSGNMKIFIPTIHKNNIQISNQNIIFGSIDYDAQIATLLS

KSNANIAIFSDGSALSSNLNSRILAQNNNARIYTIEGEKLDFSRLLRSQGGVNNASIFFNTPLIKTALAS

SQLRIYNIHPYVLLSTQINYNPTFLSLTQQGDRENFIIANSINNHDDNLVYLNEIFNQSIDYNWIAYATS

IGVDYFYTEFLNKKSESLFDEKIKNSQVDYKVRLMQGKQASFEELK

>AHK53817.1 family 4 uracil-DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIRSLYYLKAMGFNFVDTHTNHFEQVQNFQELKQLVSSCTLCQFSKTRKFSLMEPKIKNAKLLILDVFGQ

KSENESGILLNSKKGEKLKHYIYQILGLCDEDFYFSYLFKCFCNGKFDDFSLQSCLPFFWNELKLIQPAF

LLCLGEYTFKSLGFKDYHILKGEVFAYKNFFIMPSYDLDFIEKNPSYEKNFIQDLKKIKGFL

>AHK53816.1 diadenosine tetraphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSEFKIIDLRQEDLDILQEMIIEFAKYEDMLDFLQCTKEKLEHSLLKNKFARAFLLKENEKTIGYMIYFY

TFSSFWGSGGIYLEDIYIREDFRKKGYGKAVFKFLGEICKKENLKRLDWVCLNDNILGINFYESLNAKHL

KQWRNYRLSGENLEKLCDL

>AHK53815.1 50S ribosomal protein L34 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKRTYQPHGTPRKRTHGFRVRMKTKNGRKVINARRAKGRKRLAV

>AHK53814.1 ribonuclease P [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNFDKFSTNEEFSSVYKVGKKWHCEGVIIFYLNSYEKKIAVVASKKVGKAVVRNRSKRILRALFAKFER

YLQDGKYIFVAKNEITELSFSRLEKNLKWGLKKLECFK

>AHK53813.1 membrane protein insertion efficiency factor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGIEKTRMFQMICLKILRFYQKFLSPLKPAACRYYPSCSEYALWQFQKKNFFLAFFSTFFRILRCNPFFK

GGFDYPRVSKNFYPINLCFKPIFLAEKQLCFLYIPYKNKSFYLIKIIFKRTNQ

>AHK53812.1 insertase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNNSNNIFQQKRILLAVVISFLFFVIYDYFFIPKQPLKIEQNITQKNQQNTSINNTPNIQNATTNTPSAA

LVSQDSVISKVQSKHFEAQIDSFGRISAFYLKDRKYQNEKGEFINLVSKENSPYPLEMRFSDPSINSEAF

KIPYVANASNLFVDENGSQVLKLTQNLSGLKIEKDITFYPKGNYEIEVKLSKNANYFISPGYRPNIAVDS

YTVHGALVMDNKETIETYKDGDVEKDESANNVVMTSAFDRYYATFFYNFDKPLNVAISKDANQNPIVFAY

SDNEFKAGGYIGSKEHVILRSIDPRLEAVVEYGWFTFIAKPMFEFLNFLHQYIGNWGWAIVVMTLIVRII

LFPLTYKSMISMNKLKDLAPKMKDIRERYKGDPQKMNMHMMELYKKHGANPMSGCLPILLQIPIFFAIYR

VLLNAIELKAAPWAFWIHDLSVMDPYFILPILMGATMFLQQLITPMTIQDPMQAKIMKFLPVIFTFFFIT

FPAGLTLYWFVNNLCSLVQQWVINKIFAKEHHKKTSGA

>AHK53811.1 hypothetical protein N919\_04790 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIEAIDLQSALTEASRSLECSVMDLEYEIIQHPRKGFFGFGRKKAIIEAKAKKRILKKNPKKEFTSSKN

HKPETHEPKQENKIEIKNEKNKSQKEKYTVKSDEIFDSFHRESKGVRNTQDILDEIRIQLVKLLESSQFK

IELSELRMYDEDCVLIRLDGEDAALMIGKEAHRYKAISYLLHNWINLKYNLLVRLEIAQFLENQIQGMQL

YLQSVIEKIKIHGRGQTKPLDGVLIKIALEQLRAEFPDKYVGIKQNNDQRFVVINDFFKKDE

>AHK53810.1 tRNA modification GTPase TrmE [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSDTIAAIATAHGVGSISIVRLSGERALEFALKLSHKTKLTPRHATFTKLFNQNNEIIDEAIMIYFKAPY

SFTGEDIVEFQTHGGFSVSEVLLEELVSLGARLALAGEFSKRACLNGKMTPLKALNIQDLILSKSALAAK

IIARNMQGNLGELLEKIRTDLVKTLAFVETSIDYADDDLPSDLLEQISTMCEENSKILKEIYTLSQSKKG

LIEGFKIAIVGKPNVGKSSLLNALLSYERAIVSDIAGTTRDTIEENFKLGTHLLRIIDTAGIRESKDVIE

QIGVALSKKSLEDADIILAVFDASRVQDKEDEKIFDLLANTDKKIFWILNKSDLENVFKNTQNKNFIKLS

AQKDITLLKEELQNYLNSFDSEGIMVSSLDLINACKISSEAIFRAKGLLEESSLEFFAFELNLAINELAR

FTKDFQRDEILDEMFGNFCLGK

>AHK53809.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDKETIKAHKISDEEYAQILEILGREPNLLELGVISAMWSEHCSYKSSKKYLNGFPTKAPWVIQGPGENA

GVIDIGQGMAAVFKVESHNHPSFIEPFAGAATGVGGILRDVFTMGARVVAGLNSLKFGDIHDEKCGKHQK

YLVKGVVNGISHYGNCMGVPTIGGECAFDECFNGNILVNAFALGVCKSEDIFYAKAEGVGNPVIYVGSKT

GRDGLGGAVMASDSFNEESKSLRPTVQIGDPFSEKLLMEACLELFKTDYIVGIQDMGAAGLTSSSFEMAG

RSGSGMKLYLDKTPMRESGMTPYELMLSESQERMLICAKKGYEDKVIEIFKKWDLDAVVMGEVTNTGKME

LFWHDELVGLIPIEPLSEKAPILSRPTSEPKYLSEIKNYKFELKSSVQELFIQMLQNENINNKAFIYDQF

DSSVQTNTIKADGRLGASVIRIKENGASVAMAIECNSRLNYVNSKIGAALAVASAGRKVACTGAKPLAIS

DCLNYGNPQNPEVMWQFAQGCEGIKEACKELNTPVVSGNVSLYNETEGVSIYPSPTIVSVGVLEDANKTL

KASFEKENLSVYLLGESLGEFSGSMVMKIQDKKVSGSLKELDYKAELALWDLLYKANQNSLLECANSVGI

GGIAMTLAKMFAISSVGANLTSDFDDEKMIFDESASRAIIGLSKENEEAFLNLAKEFGVKAYKLGVSTSQ

KHFKLDSIELSKAELDKLYFESFKEQIQ

>AHK53808.1 molecular chaperone DnaJ [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTLVLIILVVLVFYWYYKTWGKQDFLNSATRGAKGFAKGFARGVMEERMDEFKRRMNYYVIALLAKIAKS

DGRVSENEAEMIKDLLDANAKDEKERAFLKASFNEHKENLSDAFYVAKDFLKEVPLPKNERFNVLRVLVF

MALIDADFNAKKREILEQIAKAFDIAKSELDAFIASLSNLKSTKKELSLDEAFAILELPNNADLNAVKKQ

YRNLAKKYHPDILNANNVSEEELKIGVEKFQKINEAYEKVKKHLER

>AHK53807.1 phosphoribosylaminoimidazolecarboxamide formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRALLSVSDKEGIVEFGKELENLGFEILSTGGTFKLLKENGIKVIEVSDFTKSPELFEGRVKTLHPKIHG

GILHKRSDENHIKQAKENEILGIDLVCVNLYPFKKTTIMSDDFDEIIENIDIGGPAMIRSAAKNYKDVMV

LCDPLDYEKVIETLKKGQNDENFRLNLMIKAYEHTANYDAYIANYMNERFNGGFGASKFIVGQKVFDTKY

GENPHQKGALYEFDAFFSANFKALKGEASFNNLTDINAALNLASSFDKAPAIAIVKHGNPCGFAIKENLV

QSYIHALKCDSVSAYGGVVAINGTLDEALANKINEIYVEVIIAANVDEKALAVFEGKKRIKIFTQESPFL

IRSFDKYDFKHIDGGFVYQNSDEVGEDELKNAKLMSQREASKEELKDLEIAMKIAAFTKSNNVVYVKNGA

MVAIGMGMTSRIDAAKAAIAKAKEMGLDLQGCVLASEAFFPFRDSIDEASKVGVKAIVEPGGSIRDDEVV

KAADEYGMALYFTGVRHFLH

>AHK53806.1 hypothetical protein N919\_04755 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKMLQIALAATFFAGCASTSLTSSTSKGNNELVQNQLFKIEKIIVNGKTFDPKNAEESPNISFENNKFY

GYSGCNRFFGSYQTKADTLQIEGDRVASTQMLCHPMDVMDFENSFLSNFKGTFKISNENGKLVLSNDEMK

IFFK

>AHK53805.1 agmatine deiminase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKSIPEWSEQEYLMLSLPHEKSDWNPYLEEILQSYKEFVKVVSEFQKVLLIAPKQSDFENFKDIKNVEF

FKCDTNDTWIRDFGAIDIVENGRLKALDFTFNAWGNKFQSELDNAVNSKLFKEKFKEELKKVDFILEGGS

IDFNGEGVMLTSSHCLLNENRNSHLNKTQIDTKLKEIFGLKQIIWLENGFIKGDDTDHHIDTLARFIDKN

TIAHCICEDEEDEHYLPLQKMKEELKKTGFDLLELPIPKPLYYEERRLGATYANFVFINNALIVPFYKDK

NDEIIAKRLSKALPNHKIIGVDARVFLRQNGSLHCSCQNRFKGLR

>AHK53804.1 cation transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSLQKKATLVASLCAIVLALVKFIVGLTSGSVAVLSSAIDSLMDFAISAFNFLALKKSSQKANENYNFGF

SKIEALMGLLEGVFIVGVGIFIFYESILKIYYKEEIKDLNSSIYVMIFALIMTFFLVLFLNYVAKKTKSL

IIESDALHYKTDCLTNACTLGALVLIYFTNLHIIDAIFGIVISLYTAFSAFKIIKKALAFLMDEALPKEQ

VDKICTLISNNPEIISYHELKTRKTPSCNYLSVHLVFCPIISLLNAHKISDEIEEGVRKMFENEKWDIQI

HLDPYDDAEQERQRQ

>AHK53803.1 apolipoprotein acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIALIQQKFHLNKEQTIKKTCEFIEEASKQGAELVCLGELHQSEYFCQSENVDFFDYANDYEKDVKFWA

NIARKNQIVLIASLFEKRSAGLYHNTAVVFEKDGSIAGKYRKMHIPDDPCFYEKFYFTPGDLGFEPINTS

LGKLGVLICWDQWYPEAARIMALKGAEILIYPTAIGWFDKDKDEEKQRQLNAWLGVQKGHAIANGLYVVA

INRVGFEKDVSGVEEGIRFWGNSFVFGPQGEELCLLDSQNECVKIIEIDKKRSENVRRWWPFLRDRRIEY

FTDLTKRFID

>AHK53802.1 hypothetical protein N919\_04735 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKSCLYFTFIVLFLTACSTKNLTSLHRENLEQKNENQHYVKLEYEQNVNILPQFAYDINFDAKRYKKYFF

NPWHDSFKNYKGQNIFWSFPLYLNSKNTYYFFNKQIIPLSWFKNAINNANIQEFGKLNQKALIIQNTIIK

NLPTQRAILKNPFFENEGIPFDYASDGILNTGAPVLISHFSKDKRYAFVLGEAGFGFVESKNLEFFSNDR

AKIYENLNFITPLKEKFAIYSEDGKFLFESRIGAIYPYYKEDKNYFYGKIGSKKYKISKKDVSKFPLQFN

DKNLKNQLSQVLNLPYGWGGYNFERDCSLLTRDIFSAFGLYLPRNSAAQKNSFNHFDISTLSNSQKKDFL

NRFGKAYLSLLYLPGHIMLYAGQITDNNIAIHNIWGLRKDATQRLLISSSVITSLEIGKNEILEDNLLLS

RLKEISFINLNEQEKEQIKSYLENIQNK

>AHK53801.1 helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFDKLEKILAYDNVFLSGGAGVGKSFLTNELIKSYRKQKKLAIALGSSALSAFNIGGVTLHSFFCLGYCD

DMMKLSVLDRNQKQKEKLTKLKELLKTIELIIIDEISMVSANVFEMIGFRLKNSQFNGKILVVGDFFQLP

PVIKEKKETLFNHSYYAFSSFFWQDLNFKNIKLSQPKRTQNMEFYNHLSLIRQGFLDEKILSFFESLRID

YKELENLEDDYTLLCGINKKVNNINQEKLSKLETPLVCFKAQVKKEDKRIKDEELDSWIRSLNILEELNI

KIGARIIFCVNNWDKNYYNGEQGIIEDILYEEEKIYISIIKNNGMKILLEPYTFFMEELEQSGKDFVVNI

LASVTQFPIKLAYAITIHKSQGMSIEKLVCDIDHIFENGQLYVALSRATNPNTLKIYSTKKINFGFYFAN

ILKIDSNVIEFYKKHNFLDLEIQEQII

>AHK53800.1 hypothetical protein N919\_04725 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIFLSVFLVLSLNAQNLEIDKIRTDLYSKSGANVLKKVEISLEFDGNNLKENENKLIDAVNTVISGFF

YEDIFTEIGKNNFKKTLEKFLDKKYKIKLDDIYIISLSGVEKFDLEEFKRFLESTEAKEKGMGSEVKKAL

ENLEVPKTQVPSVEKIPTPSVPNLEVKQVEQLFKDPDEENKNDNGEINIDNLNTPKMTPDIEEKIKRDLI

ANPPQIFKENNASKPYHLPQTGYDIKLDENSTQN

>AHK53799.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKTFLIFFIFIGQLFALDLNFNTFSSNFTQIVKSKNSTLSYSGHFILSKDQAYWSYDTPSKKEIYINKN

QVTIVEHDLEQVIFSHLDNIPNLNEIFKKASLIDKDKLVAKYDNINYTIKLNQEQIQSISYKDEFENDVI

INLNNQIKNPKINSDVFKAKIPQNYDIVR

>AHK53798.1 preprotein translocase subunit SecA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFLNALKAVFGTKNDREVKKYFKRVAQINALEGNYQNLSDDELKAEFAKFKEQILSGEKNENDVLNDVFA

IVRETGKRTLNMRHFDVQLIGGMVLHDGKIAEMKTGEGKTLVATLPVVLNAMSGKGVHVVTVNDYLAKRD

AEQMSAIYNFLGFSVGVVLSSQNSDIEHKQAYDCDITYGTNNEFGFDYLRDNMKFSKAEKVQREHNFVIV

DEVDSILIDEARTPLIISGPTNRTLDGYIKANEVAKQMQKGEAVLPPAKPEGDFVVDEKNRNILITEAGI

AKAEKLFGVENLYSLDNAILAHQLDQALKAHNLFEKDVHYVLRNNEVIIVDEFTGRLSEGRRFSEGLHQA

LEAKENVKIQEESQTLADITFQNYFRMYNKLAGMTGTAQTEATEFSQIYSLDVISIPTNIPIKRQDKDDL

IYKTQNEKFKAVIEEIKKANAKGQPVLVGTASIERSEVFHNMLVKEKIPHHVLNAKNHEQEALIIQDAGK

KGAVTIATNMAGRGVDIKIDDEIRALGGLYIIGTERHESRRIDNQLRGRAGRQGDPGISRFYLSLEDNLL

RIFGGDRIKSIMDRLGIEEGESIESRIVTRAVENAQKKVESLHFESRKHLLEYDDVANEQRKTIYRYRNE

LLDENYDIRAKISQNIAEYSANVMNDYMLDESGSNVNFENLKAKILYECSTQISEKDFENLSVIEMQDKL

SQILENSYNEKMLRLEIKELRNIERILYLQVLDNAWREHLYQMDILKTGIGLRGYNQKDPLVEYKKESYN

LFLELVNRIKFDSIKLLFSVQFNQEEAQNLENKANEENEKLLQSSVEMGASEDNLGEAEFKKVPRNAPCP

CGSGKKFKECHGKSGPKQGILA

>AHK53797.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKSVLKYLLFKYLRFDKEQPFINLSMLLAFLGVCVGLCVLLVAMAIMNGFDKEFEKRFFVMNYPITILP

KFYAPVNDEFIDELRKTFPNLLFSPYLSTQVVVKGDNRFEGGVLFGVNFNDEKKINEVVAKALKDENLSG

FDILVGSALTDEFGLHKNDKLSLIFSNLNPSGFSLVPQTKRFDVKARFTSGLAFYDKAYMYTDVDALKKV

LGIPKNPNYDGIHVYSDNAFKDVEKIKSYLKDDYAVVGWWEQNKNFFSALELEKRALFIVLMLIILVASL

NIVSSLLMIVMNRRSEIALLLALGASKNEVKKSFFALGMLIGGGGMIVGVVLAFFALWLLGNFDIVTLPV

DVYGTSKLPLDLSLMDFSLTIVGALIIIALSSFYPAKKATQINILDTLRNE

>AHK53796.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSLFTQKNKNFKPLKPLSKSKIITNLILLILFLILFCYCSFSISAYHFDFSAIATYKEKFLQGFLNTLII

SFFSLLLSIILGGVFCAFSLSSIVFLRFLSTFYIELVRGTPLLVQVLLIYYIIANNLGLDNRYVAGVIIL

SCFSAAYLAEIFRAGILSISISQLESARALGLKEMQVFAYVIFPQALKNILAPLSGQFANLIKDSSLLSV

IAVNELTQSAQEINSYTFATLEAYVILAITYLVLTLPISIFSRYLERKCQK

>AHK53795.1 hypothetical protein N919\_04665 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLIIGHKLLKNLDFSFIESVEEVKDNKVYCIVYDEKLISYLSQNDFEFAILVQNKDEIFLANALGAKFLL

CNDKKLAKFASKVAEFYVFDSRVLMIVDKLENFKKFYKLKIDGIILKDNIDNFPKN

>AHK53794.1 2-acyl-glycerophospho-ethanolamine acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKKSFLKIYGLIPFLLIAFINAFVDLGHKIIIQNTIYKAYEGSEQLFLNAIVNALILLPFILMLSPSGF

LADKYPKNIVMKISAIFNVILTLIICICYYSGAFWMAFIFTFIMGAQAAIYSPSKYGFIKELVGKDFLAM

GNGVINAVSIVAILAGMALFSLSFESLYSSMYNQTDEILKEVAPLGIVLILFSCIEVFFAWRLPKLKQTN

KDLVFNKKDYIRGKLLINNLKLVFKNKTIWLCIIGISFFWAISQLYLVSFPVFAKNELFIENTFYVQISL

AFSGIGVILGSLVAGKFSKNYIELGFIPLGALGMFLMAFLMPYFISLLSYSFLFFFFGFCGALFIIPLNT

LIQFHAKENELGQILAGNNFFQNIAMLGFLLLATLFVKFEINVIYLFYFIALVTFIGSFYILLKLPFSLV

RILLSIAFLQRYRLLVEGFENIPEKGGALLLGNHISFIDWAVVQMAIPRKIYFVMERSIYSKWYIKIFLD

KFGIIPVSSTGSKTSLELIAKHIKEGNLVCLFPEGTLSRHGQLNEFKAGFELACECLSEDDGKIIPFYIR

GLWGSAFSRSDEEFSARNRTLNKRKIAIAFGKAMPLHSKKDEVKAKVFELSFMAWKSQCEAMHTIARAWI

DTAKKNLNQIAIIDTLAGDISYRKMLTLSLFLNFFIKRKSKELNINLQRGSYAPKEEAIGILLPASFASS

LTNLSVLIAEKIAVNLNFTAGEKALKAAIKNAQISQIYTSKTFLEKLANKGINLNFDTNIHLIYFEDIVE

DFKMQKTKIFSMMLAVSIIPSFILKSIFTPSKNNLAIAAILFSSGSEGSPKGVMLNNRNILSNIAQISDV

LCTRNNDVILSSLPPFHAFGLTVTTFLPLLEGIKSITFSDPTDALGVAKAVAKNNVTIMCGTSTFLGIYA

RNKKLDALMFESLRIVVSGAEKLKNEVRTTFEMKFKKSIFEGYGATETTPVASVNLPNHFDVDYWLIHRA

NKEGSVGMPLPGTAVRIVDPNNYENLKTNEDGLILIGGHQVMVGYLNDKEKTDEVVKEIDGIRWYNTGDK

GHLDEDGFLYIVDRYSRFAKIGGEMISLGAIEEEIAKFIDTEVVKFCATSLEDEKKEEQIVLLIECNNEI

FEGVCEAIKNSNIPTLFKPRYYFQIEKIPLLGSGKVDLKKVKELAKNLAI

>AHK53793.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFVFIPLFTIFILLAGGYFAKRIGVLKQKQARTFLDFAIIFALPCLIFDKAYHLNFDFSLIIFIFIGLFS

CILAAFFAILIGKVFHFSKVTLVSMFLLSCFGNTIFVGMPIVAGIFNDPQFSAEVIFYDALATTLPISLF

GPFILSLGNGEKVSLLANVKKILSFPPFLALLFGFLCKLITLPEFIFSPIRLFGASATPVALFAIGLGLG

FMAIKTSYKPTIVVIFAKMILAPLFFVFCLKIFNLELKDSTIVAIIESAAPTMTLAGAMVMKAKLDSNLA

VSAVAFGVLFAFVSMPILIWTLL

>AHK53792.1 F0F1 ATP synthase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKVLFLLLACTAVAFAAETNAPVEQEAINVWIKAFSVLAAGLGLGVAALGGAIGMGNTAAATIAGTARN

PGLGPKLMTTMFIALAMIEAQVIYALVIALIALYANPFIVLQ

>AHK53791.1 biotin attachment protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKKFIDVMDTSFRDGFQSVYGARVLMDDFFPAVEAAKEAGITHFEFGGGARFQSLYFYLNEDAFTMMDR

FRAIVGKDANLQTLARGVNTVTLDTGSSELIDLHAKLFAKHGTTTIRNFDALNDINNLKFSGECIAKHGL

KHEIAITLMDLPPNCKGAHDVPFYEKILKEILAAEIPFHSICFKDASGTSNPNKIYETIKMARKILPQDM

HIRLHTHETAGVSIACYLAALEAGVDGIDLAAAPVSGGTSQPDILTMMHALKGKDYDLGGLEEEKILKYE

EVLKDCLKEYFLPPEATMVNPLIPFSPMPGGALTANTQMMRDNNILDKFPQVIHAMREVVEKGGFGTSVT

PVSQFYFQQAFNNVMFGSWKKIAEGYGKMVLGYFGKTPVAPDANIIELASKQLNLEPTTELAINIADKDE

SKSIAYTKTLLEKEGIETSEENIFVAAACKEKGIAFLKGEAKVNIRKLASMPKPMSADENKFTVAVNGNK

YHVEVSYGFDKDVNVKSVKKVEENKNIISSNSTSSVDAENEVLAGISGNVFKIYVNEGEEVKSGQAIMVL

EAMKMEIEVNAPKDGIILELCIKIGDTVNEGEVLAIYKN

>AHK53790.1 phosphoenolpyruvate carboxykinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKFDKLGLDNIKEIFHNLSYDELNAHEKANNEGLSTDNDTFCVDTGIFTGRSPKDKYFVKQDPSSKYIA

WGKVNQPITKELFDKLLTKAKQELSGKKIYVQDVFCGASLQSRKAVRFVTEIAWQAHFVKNMFIRPSQEE

LENFKADFIVYNACKCINEDYKQDGLNSEVFVIFNVEENIAVIGGTWYGGEMKKGIFSMMNYWLPLENKL

SMHCSANVGEKDDVALFFGLSGTGKTTLSTDPKRRLIGDDEHGWDDEGVFNFEGGCYAKTINLDPEHEPE

IYGAIKRNALLENVVLRADKSVDYADASKTENTRVSYPIEHIENHEPSLKAGHPKNIIFLSADAFGILPP

VSKLSKEQAMYYFLSGYTAKVAGTERGITEPQATFSACFGEPFMPLHPTVYARLLGEKIEKHEVNVYLVN

TGWSGGSYGVGKRMSIKATRACINAILDGSITKCEFENFEVFDLAIPKALEGVESVLLNPINTWLDKNAY

IATRDKLAHMFIQNFKRYEDVKEGIEFSKFGPKI

>AHK53789.1 argininosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNEMWSGRFSGASDELLKEFNASLNVDKTLFNEDIQGSIAHATMLESCGILKKEELDAIIKGLEQVRSE

IEQGKFIFDIKDEDIHMAVEKRLSEIIGSEIGGRLHTARSRNDQVATDFKLFVKKSHIELIKLLKELIQT

MLEHAKVHKKTIMPSFTHLQHAQPVSFSFYILAYAFMLMRDIKRLQNSLELADFSPLGSCACAGTSYAIN

RELSAKILGFKDIMPNAMDGVSDRDFALDLLYDIAVIFTHTSRLCEEMILFSSSEFSFITISDSFSTGSS

IMPQKKNPDVCELIRGKTGRVYGNLISLLTIMKALPLAYNKDMQEDKEGIFDSVKTAKDSLIILNAMLKE

IQINKENMLNACKKGHLLATDLADYLVREKNIPFRKAHFIVGNVVAQAEAQGIDISEIKDLSKIDPVFDE

KAMELLNFEFSLNSKQSEGSSSIASVEKQIQILEGFIQNL

>AHK53788.1 GTP-binding protein YchF [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSLSVGIVGLPNVGKSTTFNALTKAQNAQSANYPFCTIEPNKAMVEVPDLRLNELAKIVKPERIMHSLIE

FVDIAGLVKGASKGEGLGNKFLSNIRETEVILHIVRCFDEENITHVEGGVDPLRDVEIINTELILADIEQ

LSKKIEKLTKEAKANQKGAKESLELANSLLDHLNKGLAASSYPEKESEIYQALIKELRLLSAKEVIYGAN

VDENGISEDNDYVKALKEYAKKNDHEVIKLCAKIEEELVGLSDEESHEFLSSLGVNESGLDQIIRTAFAK

LGLISYFTAGVVEVRSWTIKKGWKAPKAASVIHNDFEKGFIKAEVISYEDYIQYKGENGAKEAGKLRLEG

KDYIVLDGDVMHFKFNV

>AHK53787.1 aminopeptidase A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFELNDKKLDAIKADFELVFIQDKNLKIFNKEKDFFKLNNYKGEGALLDLNNKKLYLELKSLAYEDIRL

SLCTAYKTLEKLNIKSVKLPSIIGDCVVRSFASLVEGVLFGAYKFDKYKSEKKTSTLEKFIISNEELNGK

KFNKDEAKIGLERGEILANATNFTKNIVNEIPEIYTPLKMAEDAQNLAKENKNIICKIYDEKFLAKEKMN

AFLAVNHASVHPPRLIHLSYKAKNAKKRVVFVGKGLTYDSGGLSLKPADFMLTMKADKSGAAAAMGIIKA

VAELALDLEVHCILGATENMIGGNAYKPDDVLISREGVSIEVRNTDAEGRLVLADCLSFAQDLKPDLLID

MATLTGACVVGLGEFTSAIMGNNEELQNDFYLSSKKSGEYTTILHFNPHLRELIKSNIADVSNTASSRYG

GAITAGLFLDKFIRKEYKDKWLHLDIAGPAYTEKSWGYSSFGAGGAGVRMCVNYLIQILRKAK

>AHK53786.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEEFLKNLLYQYKDLAYIIIFLWCILEGELALILAGIFAHQGHVNLGFVIFIAGLGGFVGDQIYFYIGRY

NKCYIQKKLKTQRRKFAVAHLLLQRFGWPIIFIQRYMYGFRTIIPMSIGITRYSAKKFAIINLFSAWVWA

SITILLAWYFGEQIWKMVTWAEEHWYYAAIIIIAFLSLLLFGFKQMEKAILKDKRKKS

>AHK53785.1 adenine phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKLTQEEQKYLLDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFI

FASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKVELHKDAFKNIQNARVLLVDDLIATGGTAIA

SYELIQKAGAKCVEACFLINLKDLNGANKLEKLTSVYSVLEI

>AHK53784.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFTNWLVLTILICATIYLIVMLFYYKTLLNKEKTSKDFIKNNLDDTEIVIRKLQIQLQRSLGNIDILTEE

LNKIKADLTSLRTRNSQYRLENDKLRQRIKELEAKIEALL

>AHK53783.1 ribose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLREKIYIASDHAGFELKEKICVFLKEKNIIFNDLGTNTCASCDYPDYAHLLAEKINKRSFGILICGSGI

GISIAANRHKNIRCALCHESLSAELARRHNDANVLALGGRLIGVELAIDIIEKFIQTPFEEGRHMQRIQK

IEVKI

>AHK53782.1 chemotaxis protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLILIGSSTGGPNQLKFLLKDIDVKNTCVVIAQHMSASFIPSFVGQFNKEAFSEVCLLNDKEILSNKIY

ICPKNTILSGNLNIVAAWQDVASSFKPSVDLLFHSAVSLAKTNKILAIILTGMGDDGAKGLFELYKTGVR

CLCENEADSVVYGMPKRAKDMNPHLKPMSLKEIKKEIVNFIDQD

>AHK53781.1 chemotaxis protein CheR [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKKITPSELELNEFIKIINEMSGIDLTDKKNILALKLNKFLEGTNTKNFSEFLGKLKSNRQLKQETLDF

VTIGETYFLRELAQLKEIIYYAKSLEKRVNILSAPCSSGEEVYSLALLAAQNFIKDMYILGVDINSSVIE

KAKLGKYQGRTLQRLSESEKRRFFLESEDKFYTINKNELCTCKFELCNVFEEKFSRLGKFDIIASRNMII

YFDHESKLKLMERFHRILNDKGRLYVGNADLIPETIYFKKIFSPRGVYYEKV

>AHK53780.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIELKNVNKYYGTHHVLKNINLSVKEGEKLVIIGPSGSGKSTTIRCMNGLEEVSSGEVVVNNLVLNHKNK

IEICRKYCAMVFQHFNLYPHMTVLQNLTLAPMKLQKKSKKEAEETAFKYLKVVGLLDKANVYPATLSGGQ

QQRVAIARSLCTKKPYILFDEPTSALDPETIQEVLDVMKEISHQSNTTMVVVTHEMGFAKEVADRIIFME

DGAIVEENIPSEFFSNPKTERARLFLGKILKN

>AHK53779.1 amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVFRKSLLKLAVFALGACVAFSNANAAEGKLESIKSKGQLIVGVKNDVPHYALLDQATGEIKGFEVDVAK

LLAKSILGDDKKIKLVAVNAKTRGPLLDNGSVDAVIATFTITPERKRIYNFSEPYYQDAIGLLVLKEKKY

KSLADMKGANIGVAQAATTKKAIGEAAKKIGIDVKFSEFPDYPSIKAALDAKRVDAFSVDKSILLGYVDD

KSEILPDSFEPQSYGIVTKKDDPAFAKYVDDFVKEHKNEIDALAKKWGL

>AHK53778.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNESVGFVEHLRQILTSWGLYDENSISPFAVWKFLDALDNKDAFINGFIYTLEVSILALLIATIFGTIGG

VMATSRFKIIRAYTRIYVELFQNVPLVIQIFFLFYALPVLGIRLDIFTIGVLGVGAYHGAYVSEVVRSGI

LAVPRGQFEASASQGFTYIQQMRYIIVPQTIRIILPPMTNQMVNLIKNTSVLLIVGGAELMHSADSYAAD

YGNYAPAYIFAAVLYFIICYPLAYFAKAYENKLKKAHLTR

>AHK53777.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENVFNAQNIEFLMQGLFLTLKIALATCIISIVFGTFLAITKNYGDRLSKFLAACYIDIFRNTPLLLWML

AACFVLPVFFGQFPQAFWGTIGFSLYTSSVMAEIIRGGLNSIPKGQFEAAYSQGFGKFFTLFYIILPQTF

RKIIPALLSQIVTTVKDTAYLAGLGIAELTYNSKTILAKLTSFEEILAMIGVVAGIYFIICFSLSMLVRY

YAKKTAYIS

>AHK53776.1 ribose-phosphate pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRGYKIFSGSANVEFARQVSKYLSLPLSDAGVKRFSDGEISVQIDESVRGKDVFIIQSTCAPTNDNLMEL

LILTDALRRSSANSITAIIPYFGYARQDRKANPRVPITAKLVANLIQAAGIDRVATIDLHAGQIQGFFDI

PVDNLYGSIVFNDYIKAKHFKNAIIGSPDIGGVARARSVAKHLGLDIVIVDKRREKANESEVMNIIGDVK

DKEVILVDDIIDTAGTIVKAAEALKEKGAKSVMACCTHAVLSGKAYERIASGVLDELVVTDTIPLKEQLP

NIKVLSVTPVFAEVIRRVYHNESVNSLFI

>AHK53775.1 carbon starvation protein CstA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTQLSTKILWLFVAALGAICFGYLALQNGESVSAIYLVVAAVCIYMIGYRFYGSFVAYKVLELDKNRATP

ALVENDGRDFVPTNKAVLFGHHFAAIAGAGPLVGPILAAQMGYLPSMLWILVGGVLAGAVHDFVVLFIST

RRKGRSLGEMIKDEMGKFTGGVAMVAIFGIMLIIIAILAMVVVKALAESPWGLFTIAMTIPIAIFMGIYM

RFIRPGRVGEASIIGFVLLILAIHYGSVIAADPYWAKIFTLEAPTLAIVMMAYGFIASVLPVWFLLAPRD

YLSTFLKIGVIVVMAVAIVLVAPDLQMPKANTQYFDGTGPVFAGGVFPFLFITIACGAISGFHALISSGT

TPKMLENETHTLAVGYGSMLAESAVAIMALICACILHPGLYFAINSSSALIGTDVVNVAQTISSWGFSIT

PEEITTLTTNIGEYTILSRTGGAPTFAIGVALILHELFGGVDLMAFWYHFAILFEALFILTAVDAGTRAC

RFMVQDILGNVYKPLGDIHNYPAGLLATALSVAGWGYFLYQGAIDPKGGIYTLWPLFGVSNQMLAGMALL

LATTILVKMGKARYTWVTLVPAVFVLVATLYGGIQKIMPYEEGNKIANAVSHVAAVSIQSQKIKDLEFKL

NNTKDEKEISTIRKEISIATQNKVGNLLNAILCVFFMIATLLVIISCIGICLGKIKIPLKETKYIKIDEF

QKI

>AHK53774.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRDMGEPKLKIVAMPSDTNPAGNIFGGWILSQIDLAGAIAARELSPERVVTISMDKVVFKEPVFIGDIIS

CYSKVVNVGNTSISVEVEVTAQRVDSQGCTSCINVTSALVTYVSVTRDGKKNPISEELKRIHGFLNA

>AHK53773.1 CiaB protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNNFKEIAKLVRKYKERNNALYEFLDKEDVGEYFRSLISLSELKQDKTTMLAILRRLIDLKEENLVQEWK

KNNFKEDKIIELKHKFYEEVRKFYEKEHQNLINEIKEKKLLNNFYQSLIQGVHNIGLIMNIFEISWTKEI

IEKNNKILSTQFPNLDDAMEFLRKNHLYQKTPEGEICERSYGVLVRIGNLWKFVPYARFFENEILKLEFA

FENMIDQLKIFASSEEEKAYIEYFEKLKLAFCEKDEDRVIKAWQEAEFAWMKVKSPLQVGHPLEYYEDNY

THAVALEWDIRIEDENDFDVLKFGNEIKESFEHVYKNIGLEDCELEKEVLSNIEKTQLYICTPMIFYGAE

LKGLFSAQVVPNDEFVSSKAGKKIFAFINFVYENAKTKPFMKISSEVFDKEFLDFGRNILFYQEKIWKRV

YEVSTIGHEFGHIFFIANDTEKTMNQSGFFKNIEEYKATTGGLINFFYHEQDDLIMPVFHELIKRAIGLI

SWQRVDEVRPYYTEGLIHLSLLFESEVLIFENNNLKINFDLGYYEKFKELTLKNYHELAKHYALRLDAKE

FLSRFCEIEDNIFLPIMPKCKEFVKFYYDLYEKIGNEIDNSGEFERYKKK

>AHK53772.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKADFISLVAQTAGLTKKDATTATDAVISTITDVLAKGDSISFIGFGTFSTQERAAREARVPSTGKTIK

VPATRVAKFKVGKNLKEAVAKASGKKKK

>AHK53771.1 cysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVHEKVSELIGNTPIIHLKKFGINVFAKCEFLNPSHSIKDRAAFEMIKDALDSKKINQDTTIVEATSGN

TGISLAMICADLGLKFIAVMPESMSLERRKMITLFGARLELTPANLGMKGAVDKANEILLNTPNSFMVSQ

FENISNKNAHRKNTALEILRDLDNELDIFVAGFGTGGTISGVGEILKEKLEKVHIVGVEPLNSPLLSKGE

AGSHKIQGIGANFIPAILNKEVIDEVITVSNEDAINTAKELAKSGLMVGISSGANVFAASMLAKKFPDKR

ILTMLNDTAERYLSTDLFA

>AHK53770.1 hypothetical protein N919\_04520 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKNIILFIVIVAIILGVIFFIKNHQNSYDFILKSDLKEETTLKDFKGDKLIIYFGYTYCPDVCPATLSL

VGKALKQINNPKAHLLFISLDPNRDNNLSNTNEWLRYFYPKADALIAKDEKTLQKITKQYNVQYQKIDLN

DSFMGYSIAHSNMLYLIDEKGHFYKEINDLNPQEILRELRIFLNSQ

>AHK53769.1 hypothetical protein N919\_04515 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRKIIFILAFAFVIAILYIIFDFYVIKDSQKITKTDFSTPLTCDLNVKDCTYSFNNKKVLISLNPKPLQS

LDVTNLKIVNLGNYNNLGIKIYGLNMYMGEIKPKIHRLNSTDYESKIVLAACVLDTMRFRVEFMDNNKPI

GFYFDFELKK

>AHK53768.1 hypothetical protein N919\_04505 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIRNFFIGMSFLGILFLAFYTLYDKKKESIFSLNTCQPLTCDLNLQDCVFSFNKKNIEVSAYPKPIKIFN

KTTIKIKNFPHYSNLKIKIYSLNSYIGDIIPKFNIVNGDILINFIGRSITDDSRFRVEFLNNNAPTGFFF

DFDVTMQKNFQTGNTH

>AHK53767.1 hypothetical protein N919\_04500 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKRLALLIALSSLMLHASDLVKIYLNQGLDAVGVAIEKELTQKDFWLSEIGDKNISLGYYDDNVAIVLT

NKTDKILRVYSYEDGKIRKDFEQKEIITGLMGDKKIEGDLKTPVGFYELGRKFNPGDPYYGPFAFATTYP

NLLDKVQGKTGGGIWIHGYPLDGSRLDEFKTRGCIALFNNNLEKFAKVVQDKKVFVMTEEKEKIRAKKDQ

IASLLADLFTWKLAWTNSDTNAYLSFYDEQEFKRFDKMKFEQFASMKKSIFSRKEDKKIKFSDINISPYP

NLENETMYRISFYEDYYTKNYRFRGDKILYVKIDSKGKMKILAEQ

>AHK53766.1 alanine racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSLIKIDQKAYEYNLRHIAKKIGSFQRLICVFKDNAYGHGAKLLAPLAKNLGVSFVAVKSEEEAREIEEF

FENILILSHRPHGNENSRFIYALNDISQVKNYKQDIKIHLKIDTGMHRNGICVENLEHAINLIQGSDLKL

TGMFTHFASADEMDGSFFVQKENFQKAKKIVKKYFSNLLFHSYNSAALFRGKIPEDEYCRVGLVQFGYGD

SNLKRVLSLYAHRLSQRILQKGQSIGYGGIFTAAKDMEVATYDLGYADGLFRYNGRGELVLGNGKAMLGK

MSMDSFSCENSGEEICVFKDADIWADFFHTINYEILVKLNPNIQRVLV

>AHK53765.1 RNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFNIVLVHPRIPQNTGSIGRMCFNAGFKLHIVKPIVFDISQKAVRRAGLDYWDKLEPIIWENLEEFLNEN

MIYKNRFFFATTKSQKAYFDAEFQKNDFLFFGSESYGLPMELMQLNWENAITIPMKSYGRSLNLATSVGI

ISYEALRQNFRNFAS

>AHK53764.1 amino acid carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLDIMLDFANKASDIIANKIVPNTDIIMVVLLIVCGLYYSFLTRFVQFRMLSSVFKILTEKNEGHAKEH

ISPFQALMISTASRVGIGNIAGISLALATGGAGALFWMWVMAFFGGASAFAESTLAQVYKSKDDTGGFKG

GPAYYIKKALGSHFFGAFFAFILIITYAYGFNGLQSQTMTSSFKVYYDMFNPNAAVDFASSSWPMIIGIV

LTIFGAWMFFSHHTKIGKISSLIVPFMALAYVLLAVIAVLMNFDKIPSVIHMILQSAFDFKAIFGGFAGS

ALVIGIKRGLFSNEAGMGSAPNAAAAALTSHPAKQGVIQAFSVLIDVVVCTSSGFLVLFSMAYLGLGENK

IDGGMPLVQEAMREYYGSFGIHFITIAIVLFAITSLIGNYYYAQANVKYLTNSKFVMNLFRITAVAMIFI

GSQMNLKLAWNLADLTMAFMATTNIISLLLLGGIVNKVLKDFNTQQKSGIDPKFNASKLGIKNAECWD

>AHK53763.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIEVKNLQKKYGELEVLKNINTTISKGDVIAIIGPSGGGKSTFLRCINRLELADSGEILINKQNILDKEI

DINKIRQKVSMVFQHFNLFANKNVMENLCLTPIKTGILSQEEAIKKAKLLLAKVGLADKENIMPHKLSGG

QKQRIAIARSLMMNPDVILFDEPTSALDPEMIGEVLSIMKDVAKEGLTMLVVTHEMGFARNVANRIFFMD

KGKIAVDASPKEVFENPSNERLREFLNKVLNH

>AHK53762.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNQKNIRIFVFFVIIILWGYFSFPIEILKIQDPSGVASYGYTENAKAYLKSYLITLLLTACAVIIGVIIG

FSLAILRFSKFKTLNFIIDEYIDIIRGTPVILQLMIFAFVIFTFIDNLYAAILALGLNSSAYIAEIVRSG

INSVDKGQMEAARAMGLDYKTSMKEIILPQATKNILPALANEFISLFKETSVVGFISVIDITMQSQSLQA

VLYNPKPIIFTGLVYYVSVKIFSYFAKKLELRMNKND

>AHK53761.1 4-methyl-5(B-hydroxyethyl)-thiazole monophosphate biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKKVLIPLAQGFEEAEFIGIADVLKRAKELNPDLEVVIASLNSELLVKGANSISIKADCSIEDVDIENL

DAIALAGGFEGMMNLKNSNVILNIIKQLHSKNKIVAAICASPIVLNEAGVLEGEFACYPSCEVGLNGNRV

NKAVVVNKNVITSAGPATAILFGLELAKKLCGDEIYQKLYEGMLLPLTK

>AHK53760.1 hypothetical protein N919\_04460 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQEKTIFELIVEGKLPCNKVLESDDFLAFHDIAPKAPIHILIIPKKYFKDFQEFDPELMAKMTSFIQELA

VLLGVDKSGYRLVTNCGKNSGQEVFHLHFHMLGGFELPKEKTKKENPQALF

>AHK53759.1 phenylalanyl-tRNA synthetase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNFIEQIQKCENLNDLEAIRISVLGKKGILTEGFTKLKELEDEAKKEFAAKLNAQKEIFNEAYLAKFKD

LENLALEERMKQDALNFNYFDESITTGALHPVMSTMDKIIEYFIALNFSIEKGPLIEDDFHNFEALNLPK

SHPARDMQDTFYFDDKRLLRTQTSPVQIRTMLAQKPPIRMIAPGAVFRRDFDITHTPMFHQVEGLVVEEG

QKVSFANLKSVLEDFLRYMFGDVKVRFRPSFFPFTEPSAEVDISCVFCKGKGCRVCKHTGWLEVLGCGIV

DPNVYNFVGYENVSGYAFGLGVERFAMLLHQIPDLRSLFEGDLRLLEQFR

>AHK53758.1 phenylalanyl-tRNA synthetase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIITKSWLNDWLELEEISSDKIAKTLNSIGIEVDRVGALKAPDKVVVGYVKEKIKHENSDKLSICQVDIG

SETLQIVCGAANVDAGQFVAVATKGAIMSNGMEIKEAKLRGVDSCGMLCSSLELGFEKINEGIMLLDESI

GKLELGRPLNTYEIFNDELIEVELTPNRGDCLSIYGIARDLAAALNLNLKEPKPFKESENVLGIGRILRL

AAEKELNGLYNYRAIGLKEEIQTNLLLSLRLAQIEGLGKNSIENLLNYATHSTGVLFNAYDLSSFSEKDE

EFTINLSKQVHGETKVSYKDKLLSFSGIFQNNESRCKDDSKIIIIEANYTDPLVIADAKIYHKDQDEKML

YRSFRGSEPKLNLGMDFLLGIFEQIPNLVIYSSSQQILTDKELPIIPISIEGISDIIGQNVDKDEVLKIL

KKLGFELILSGEGLINVKAPLHRPDIKNLSDICEEVVRIIGIDNIASKGLEFIEKNRLNSAYKNYIEFLN

LRKRAVASGYFESLHYVLDNGEELKRLGFDSVKLKLINPITAELNTLRTTLLNHLLNAASLNAKNSKKII

KLFELGAVFNVNNQELNRIAFIHSGLKEEAKISNKAKPESVQFYDFLLDIKNIIGDFKLKSSKYNILSPY

EQADIYLSDIKVGFIGRLHLKIENERDLPKTYICELDLDLIRQDFKIAKPYSKFPAITRDLSVLIPKGFE

YNQIKNCIEELNLEILENFRLVDIYSDENLKEFYSITISFSFRDINKTLEDNQVNECMDKILNTLKNLGL

DLR

>AHK53757.1 3-phosphoshikimate 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIYKLQTPVNAILENIAADKSISHRFAIFSLLTQEENKAQNYLLAQDTLNTLEIIKNLGAKIEQKDSCV

KIIPPKEILSPNCILDCGNSGTAMRLMIGFLAGISGFFVLSGDKYLNNRPMRRISKPLTQIGARIYGRNE

ANLAPLCIEGQKLKAFNFKSEISSAQVKTAMILSAFRADNVCTFSEISLSRNHSENMLKAMKAPIRVSND

GLSLEINPLKKPLKAQNIIIPNDPSSAFYFVLAAIILPKSQIILKNILLNPTRIEAYKILQKMGAKLEMT

ITQNDFETIGEIRVESSKLNGIEVKDNIAWLIDEAPALAIAFALAKGKSSLINAKELRVKESDRIAVMVE

NLKLCGVEARELDDGFEIEGGCELKSSKIKSYGDHRIAMSFAILGLLCGIEIDDSDCIKTSFPNFIEILS

NLGARIDY

>AHK53756.1 4-hydroxy-3-methylbut-2-enyl diphosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIIELAKNYGFCFGVKRAIKKAEQIKDAATIGPLIHNNEEISRLQKNFNVKTLENIQALSNEKKAIIRTH

GITKQDLEELRKKDIEIFDATCPFVTKPQQICEQMSKEGYEVVIFGDENHPEVKGVKSYVSTKAYVVLDK

KELQNIKLPNKIAVVSQTTKKPEHFMEIVNFLILKTKEVRVFNTICDATFKNQDAIKELSLKSDVMVVVG

GKNSANTKQLFLIAKTNCEDSYLIETEEELKKEWFLDKKHCGISAGASTPDWIIQKVIAKIENFRIN

>AHK53755.1 30S ribosomal protein S1 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSEVNKKVQDGVDDYLEEEDFGQLLEAFDKSREEATTEGVIVEIKNDEVYVDIGKKSEGILALSEIQGDN

SKLLFNVGDSIKVAVMGSRGGRSLLSHKKALRKEKVIEFIKNYQENQDDIFTVKVVGKNKGGLIVVDEND

VEFFLPKSQYGFKETNNIIGKTFKVKIIKIDKDEQSIIVSRKKTLDDERRKRKELINNVAQQEDLIEGIV

KKITTYGMFVDVGGVDGLVHYSEISYKGPVNPGTLYKEGDKVPVKVIKYDKERKHLSLSIKAALPDPWSE

IKDTLDIGDTIKVIVSNIEPYGAFVDLGNDIEGFLHISEISWDKNIKNPKDYINKGQEIDVEVIEINPNE

RRLRVSLRNLLSRPFDEFMKSYKIADVVEGEITSVTSFGAFVKLGGIEGLLHNEDASWDRNDKCKDKFSQ

GDKIKVKIIKIDEENQKISLSTKELSSSPVQEYAKIHKVGDIVKGAIRDIKDFGVFVELSKNVDALIHKE

DISTSMLENLKIGDDIEAAIVFIDEKKNRIRLSVKNLVRIKEREVLNEINNDDKVTLGDIIKDQLA

>AHK53754.1 hypothetical protein N919\_04430 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKYITISILSILLLILLAVVFTLLWQFKANVNFIPQFAKDTNTQPSIQTQNQDLSWQEELAKWPTRDFT

PAAEKFTLYFDADTSELKEKNKYYQLIVGKYDIYSMFCLRQTLNSFNVKYFLLKSGHSPEIFLDTGNEKL

IDDIIKELKKYKINTEVKEIWL

>AHK53753.1 3-phosphoglycerate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKKIIVCDAILDKGVDILRKAEDIELIEAAKFPKDELMQMLSDIEVAITRSSTDVDVNFLNHAKKLKAL

VRAGVGVDNVDIPECSKRGVIVMNVPTANTIAAVELTMAHLLTSARSFVNAHNFLKIERKWEREKWYGIE

LMNKTLGVIGFGNIGSRVAIRAKAFGMKILAYDPYISASKITDLDMEQAKNLDEILEKSDFITIHTPKTK

ETNGMIGKQEIAKMKDGIRLINCARGGLYTEEALYEGLKSGKIAWLGIDVFDKEPATNHPLLDFENISVT

SHLGANTLESQDNIAREACEQALSAARGVAYPNALNLPIKTEDLPPFVAPYIELVSKMAFLAVQIDKNPI

KSIKLEAEGIIGEYANSMLTFAAVGALGGILGEKINYVNAEFVAKEKGVELSCETLPNSGYNNKLSVKII

TENSNISVSGTVFNENEQRIVGLNGFKTDFKPKGKMIIFKNKDIPGVIAKISSVLAAKNINIADFRLGRD

GFGYALAVVLIDEKVQKEVLDELKQLEACVFVQYVEI

>AHK53752.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKFKILIIEDDIDLNELLVLKLKSSGYEVISLADFFGVEDLLDNEQIDLLIVDRNLPSGDSLEKIQDLR

EQGYKEAVIFLTAKALHQDLLEGFESGCDDYVCKPFDFNELLLRIKAILKRHKKEEEKLSFGDFILDLVS

YEFFYKNQKLEISNLDYELLKCFFENPNTLLTRQFLSESVWKDDTTSDKTINIALTRLRNKFPKLKDHII

SVRGIGYKLC

>AHK53751.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKTKNIFIVFFVVLALIFGFIFYTFTNSYLNFLLIKQYEQKIKSLDDVLKFSLLEHLNDANIKDFAKDT

RADFIILNNDMKISSVKNPDFFSNLKEGEILNFNSKKILTKSFIYKGYKYIIIVYPRFLDLELFWTKMAI

GFGVCLLFVFILMLLLGRRIEKNFNKILDFLDSIGDHKVVILEKGIFKEFNLLNEKLLKTKDKILKNTQK

NKKQSDKITLKNTQLASVISAISHELKNPLSVIDLSLEMLKDEKLEDKKLKKELLEKISRQSVKLNALTH

KLNFVFNLNSEALQMQEFDLFSLCEKITKNPGFERVALQGKSTKVKADEFLIEQVIINLLSNALKYSQKK

VILTARDQKIIVQDFGKGIEEDKIKLITKKFYKIDVKSDNSFGLGLFLVKKILNIHKSYLEISSTLGYGS

SFSFKLSQG

>AHK53750.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MALIDLIEASKKFGDKIVLNEVNFSANEGEKIAIIGKNGEGKSTFLKTLLGALPLDSGRIIRQNGKSIAM

LSQTVDFNANLSVKEAIKQELVEIYNTLEEYEILHKKLEEDPSNKDYLQKIDTLMTLIDSKDAWSIESKI

IRVLKEFSLLEYENRIISTLSGGEIRRVGLCILLLKNPDILLLDEPTNHLDVYMTSFLEELLKNSKMCVI

FISHDRYFIDAIAHKCVEVEQGKLSIFKGGYANYLEKKTQILQSLAKSHETLLKQLKSEEEWLRRGVKAR

LKRNEGRKERIFKMREEAKKNPGAIKRLKLEISRAALNFNGEKTINRKKMLFELKNISKNINNKNLFKDF

STRILQGERIAIVGRNGCGKSTLLKILLGQIKQDSGEIKRGELKIGYFDQARSLVNSDKSLLEIFCPNGG

DRVEVRGKNMHVYGYLKNFLFPKEFLDKSVALLSGGEKNRVALALLFAKEYDVLILDEPTNDLDIATINI

LEEYLLSFEGAILLVSHDRYFVDKIATKLYAFEGNGYINILHTLYTEYLENEKEIEELDNFALELQTQEQ

NNNQKEKSSKKLSYKENEILKNHPEKIDFLEQKIAKLNQDLSDPNVYQEIGINKLYQELEVMQKELEILE

NEYFLVLEKSENL

>AHK53749.1 lagellar hook-associated protein FlgL [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRITNKLNFTNSVNNSMGGQSALYQISQQLASGLKIQNSYEDASTYIDNTRLEYEIKTLEQVKESTSRAQ

EMTQNSMKALQDMVKLLEDFKVKVTQAASDSNSQTSREAIAKELERIKESIVQLANTSVNGQYLFAGSQV

ANKPFDSNGNYYGDKNNINVVTGAGTESPYNIPGWDLFFKADGDYKKQISTNVSFTDNRWDLNKDPDKTK

YLTGDSKWQQLIGQSYVKDNSLDADKDFEYDDSKLDFPPTTLYVQGTRPDGTSFKSAVLVKPEDTLEDVM

ENIGALYGNTPNNKVVEVSMNDSGQIQITDLKQGNNKLDFHAVAFTPQADDKTELNNIIQAAQDEGITME

DVTNRVMTAALGNPNNGDITNLNNPVTIQINGQNFEIDLKQTDFIKSKMTDTDGNAANGADYDNVYFEKN

GNTVYGNVSQVIKGSNAYATDSTKLSEVMAGDSLNGTTLNLKVNSKGGNSYDVTINLQTSTVSYPDPNNP

GQTISFPIMHTNPATGNSGVVTGSNDITYGQINDIIGMFAADKIPTTTIQANNGQINNADYTQIQQLMKD

SQATVDVSMDYKGRISVTDKLSSGTNIEISLSDSQSGQFPAPPFTTTSTVQNGPNFSFSANNSLTIDEPN

VDIIKDLDSMIDAVLKGNMRADSESENPRNTGMQGALERLDHLADHVSKLNTTMGAYHNTIEGVNTRTSF

LSVNVQSIKSNVIDVDYGEAMMNLMQVQLAYQASLKASTTISQLSLLNYM

>AHK53748.1 cell division protein FtsK [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGEWVYKANLFLFGEFAYYYPFFLFILNYVYYKRNYKLANFTRRELFGIGFAFFSSLLLFAVFYPNSGYI

LELAYAIFSTILGHTGSGIFALLLLLFSLVLLFPKFAKEILKIELDFTYLLKVEQAFKSLLMRVFGGENE

KEDVGKSEPIVPKLNILQDSIYGNLQINKKGETNNLEQIIKDSNINASKNSITTAKENFEKLKNQILDET

IEIDKQSLKESRSFVHEHSQQVRNFAQKASKMSISLDEDFNFISEEEVDMIPERFLKPKKLEDIKQIDTN

KNLDEPSYKRKNIEIPVSNQEVKPKIFTKELELRENLIKKEKLEQEYKAYQNEILENKVKQEIKKLEEYD

AINSSDIIEGNKYSFNSPKTIKTETEESDKINENKNLDKADNIFEFAPIVEELNHPYIEPTPIKNINEIV

IEEKNTLDFIQNTETKIDNEKTNDQEIKLQKAVLAKEIAINQALLREIEQGEIEKPKDFTLPPLDFLANP

KEHKQEINESEIDKKIYNLLEKLRRFKIGGDVISTYVGPVVTTFEFRPSADVKVSRILNLQDDLTMALMA

KSIRIQAPIPGKDVVGIEVPNDEIQTIYLREILQSEVFKNAKSPLTIALGKDIVGNAFVTDLKKLPHLLI

AGTTGSGKSVGINSMLLSLLYRNSPKTLRLMMIDPKMLEFSIYNDIPHLLTPVITDPKKAVNALSNMVAE

MERRYRLMADAKTKNIENYNEKMKELGGEKLPFIVVIIDELADLMMTAGKDVEFYIGRLAQMARASGIHL

IVATQRPSVDVVTGLIKANLPSRISYKVGQKIDSKVILDAMGAESLLGRGDCLFTPPGTSSIVRLHAPFA

SEFEIEKIVDFLKDQQSVEYDESFLKDQQSVGVTTNESFDGEADELYEEAKRVILEDGKTSISYLQRRLK

IGYNRSANIIEQLTQNGILSEPDAKGQREIL

>AHK53747.1 30S ribosomal protein S15 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MALDSAKKAEIVAKFAKKPGDTGSTEVQVALLTARIAELTEHLKIYKKDFSSRLGLLKLVGQRKRLLSYL

KRKDYNSYSKLITELNLRDK

>AHK53746.1 Rrf2 family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLFTKASEYALLSLIYISQKETPQDVDSLALELDIPKSFLAKILQTLAKDGLLKSFKGAKGGFVLIKEPS

QYTIKEIVNSAEKKDISVFECSGGTCPNNKEENCTLMPMLVNLQNKVDEFLDSITLEDIMKNNGKK

>AHK53745.1 flagellar biosynthesis protein FlhA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKNKIVDLVFPFLGPLIAPVLKAKSLTIVGFLVCILAIIIVPLPSPILDFFLALSIALSVLIILISIYI

PKPTDLTTFPTLILIITLFRLSLNIATTRMILSEGQNGPEAVSEIIAAFGEFVVGGNMVIGVIVFCILVL

INFMVVTKGSTRVSEVQARFTLDAMPGKQMAIDADLNAGLIDEQTARARRQEVIAEANFYGAMDGSSKFI

KGDAVAGIIITIINIIGGFLIGSFQHDMALSDAASTYTILTIGDGLVSQIPGLITSTATAIIITRASKDE

ENFAEGTLTQLLSEYRTLLIVGFVLFIFALVPGLPTLSLGFMALVFLSLGYLTKQVKEGKIDITTVKKSK

PSAAAASQSGAGGTTAAPAKKSEEEILKEEEHKINDILKVEILELELGYGLIKLAENELTERIRSMRRSI

AESLGFLMPKIRIRDNLRLKPNEYSFKLKGVSIASAEIYPDKYLAMDSGFITEEIEGIATKEPAFNSDAL

WIDANLKDEATLNGYIVIDPASVISTHMSELIKAHASELLTRQEVQNLLDKVKNDYPIIVEGALGVAPVS

LIQKILKDLLKHHIPIKDMLTILESVSDIAEVSKSFDMIIEHVRASLARMITNMYLDDKGNLDIFILDSA

SSAVLMENVQFRDGSYHLPLSVAQTGTLVDTLRAEVAAVANGRIKPFILCVEPQLRKFIADICYNFSINI

VVLSFAEIAENTNFNTEGIIRIEL

>AHK53744.1 hypothetical protein N919\_04370 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIYHLSHTDLDGYACQFIVNFYFKSVKFYNSNYGKEINENFNSIIGDIEKDENFGKAIILITDLNLNLN

QCEEFEKICKEKNTKIFLLDHHQSGEECAQKYSWYLLDSKRCATKIVYDFFSKICTPVLELSKFVDVVNA

VDIWLSEDENFELGKVFLGLIANAKEINRVMFKESQIDYMFFLLDKAWKFIGKENANILLDNATHFIKKD

YFARKNDDTLSNLISYFVVEKLSELKENFSIEYEGHKGILTSNIGNTSVIGNDFLVKNPDYDFFIDVSSR

KTLSFRANGKIDVSLMAKNLVGGGGHKNASGGLFATFKDGANYNYIKAQIIDLIKSKELKKENNESKQ

>AHK53743.1 cell division protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNQNNNKTLKNELEDLQYELSIVLEAMLLYAGVKREKLENAIEAYIDNIDNVLENSNKEGVDEILEVVEF

LKNKYKDFFQ

>AHK53742.1 hypothetical protein N919\_04360 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKCILIFFSLYSLSFANIYEKLNDFAYEKKPNKDFKIQEVKLVQFSQENKDCLELLIEASQVRILNSYN

SCQKLSKDESFQKFLNEDFLKLYKNNGYLINENLQNLKNTMQDIMIYYKLRYSFSKDVKDMSKNKNLDIL

NIDEKDGGTLLYKINNQACVGIELTRHDSRMAMKIYGIENLDKECKLFIQSPSFKDLSYTKKDFKWYYLE

>AHK53741.1 hypothetical protein N919\_04355 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNLSIQEKKDLDNCVFQNLGRQDTFTLSVVFKNFYLKIKAFILNNTT

>AHK53740.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSCIKMKDKCRNFSLSKWQDTRKPWLILIIVTIGLTCIAHFLFQEYLFMKPCEQCVYIRFDMLVMAIGGM

IALINPANNIIKIFSYSLAFYGIWLGLEHCLTLNHIHEVVHSENPFAGVDGCREIPIYPFNLPLYKWASS

WFLPTGECGMDTPVVPENAYNHLNAFQKFFIGTPPDFENGLYSNGWYLIPSLKFMNMAICCLIAFLCCFV

VLFAMFIAYVLDKNKPNAKIFALVIVALVLVLKFIGESKNPNQNIASLNQVVLRYS

>AHK53739.1 integrase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKYPLDCEENFEKSFLFWLAKYVKFKLNSLSNKELKNPQALAEVNFALTKGVKNIDELDALAKKARNAGL

SGVNTYFNPLKKVFEYLNFYKLYSLKQIDEELIVEVLASITGALSDASKKNYRIAVINFFDFLDKQNEED

EKAHIFDINLKNWAGIAGSKGVKLPEFMSKEELKKFLDAIENADFKNNTIRNKLIIKIIIFTGIRVSEAI

NIKMGDISEENDLYIIRIRAKGNKYRVVMIKKELIYDLLKNVSINYISKDALLFVNKKGTPLTQSYVSRI

VEQLLFRAGIRKQKNGAHMLRHTFATLLYKKQKDLVLVQEALGHASLNTSRIYTHFDNDKLKLAAQVAKE

LSDS

>AHK53738.1 para-aminobenzoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTLENYAVFGKYFYHDLKHTLKAFNHKESKKCFKFIEKYKNDFYILMLTDYELYRYFQDKNFTSKKAYLS

VFAFKKRKKFQKEDIDEEKFIPEFINFLDQDNYKENFIKVKEAISKGRVYQINLTQNFKFHSKMDSFELF

KLLLSRQDTEFKAFIKDETREILSFSPELFFKTKKRKIFTKPMKGTIKRDKDPIKDEENKIFLQNDTKNL

SENVMICDLLRNDLSKIITKKSLKTKLFEIQSHPTLHQMTSRAQGKLKKNISLHQIFKALFPCGSITGAP

KLESIKFIEELEQRDRGIYCGTIGLIHKNKNKFSVAIRTLEKQDEIYTYSTGSGLVWDSKFKDEFEELKL

KSAILNPCDFHLFETMYFKNSQILFLKEHLLRLINSALKFNFNTHKLFKDFYNILNQKSSYKKYQNFTLF

KLDEKIFHKKHSLFYNFPLPFKNPHKEGILKLILYKDGRYEFQQSALKQNSNDILLLSDDKINSKSDNLY

HKSSLRTFYNQHSYKWQQNLCYDIAFFNEKDELCEGSRTNLILEKNSQFYTPQIQSGMLNGVYRNFLINL

GLIKEKALFKQDLFEAENIYCINSVRGLKKVKLQ

>AHK53737.1 para-aminobenzoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILFIDNYDSFSYTIIYYLKELSFECKVIKNDGFKKAKELEKFDFTHLIISPGPHSPKESKLSLKAIK

YFKKNKKILGICLGHQCIAEIFGGRVSKMQNPMHGKISKLYFKKDPIFKGIKKEIEICLYHSLHISSMPE

KCKILAHNSENIIMAIKHKKYPIYGLQFHPEAVLTQKGKKILKNFMKL

>AHK53736.1 UDP-N-acetylglucosamine 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTYLEIEGTNHLSGNVTISGAKNAALPLIVSSILAKNEVKINNVPNVADIKTLISLLENLGAKVNFQNNS

ALLNTNTLNQTIAKYDIVRKMRASILTLGPLLARFGHCEVSLPGGCAIGQRPIDLHLLALEKMGANIQIK

QGYVVASGNLKGNEILFDKITVTGSENIIMAAALAKGKTKLLNVAKEPEVVQLCEVLKDAGLEIKGIGTD

ELEIYGSDGELLEFKEFSVIPDRIEAGTYLCAGAITNSKITLDKVNATHLSAVLAKLHQMGFETLITEDS

ITLLPAKEIKPVEIMTSEYPGFPTDMQAQFMALALKANGTSIIDERLFENRFMHVSELLRMGADIKLNGH

IATIVGGKELNAADVMATDLRASSALILAALAAKGTSKVHRIYHLDRGYENLEEKFKDLGAKITRLEE

>AHK53735.1 molybdopterin biosynthesis protein MoeA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNIFETLKDLENQISCLDESELISLEKAKDRILAKDLYARKNLPSFDNAALDGYAFNYTDINEALEIKG

TIFAGDKNFYTVAKNECYKIMTGAKMPKNADTILMLEDECIEENKLIIKKVPKQYNAYRYKGEELKKGEI

LLQKGTKLNDKHIALLASQGLYKIEVIRKIRIGIFSSGNELKEPWQECDEESIYNANALPLLTMLQNASY

LGIIKDDFKSTKEALENTNFDLLITSGGASVGEADFMEKALDELGFTPLFKGLKARPARPTKLYRKGENF

VLILPGNPMAAYLSCFIFAKKIINLLSGNLDNPLTFYGKMGMDLKLKSGRNNLILGNLEKGIFTPFNENK

FGSGMILPLIKSEFLLISEENTGELKKGDEITLLKI

>AHK53734.1 signal peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEILKKLYKFSQSWTGTVVIVLLVIFFFIQAFVIPSGSMKNTLLVGDFLFVKKFSYGIPTPHIPWLEIPV

LPDFNKDGHLIKAQGPQRGDIVVFRNPRNEKEHFVKRCVGTGGDRIVYANKTLYVRMHEGDEFMKEHYPN

DLVTLGGQIYVKEPYKQKGIHYDPKKDIESDILRFLSIGDFAMSPAYIKELGNHIGFSGGNAYVFDVPEN

EYFMMGDNRDYSYDSRFWGSVPYRLIVGKPWFVYFSWDKDKNVRWERIGRFVDTLENDEQYIHDHDDEDK

LS

>AHK53733.1 bifunctional 5,10-methylene-tetrahydrofolate dehydrogenase/ 5,10-methylene-tetrahydrofolate cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTLLDGKALSAKIKEELKEKNQFLKSKGIESCLAVILVGDNPASQTYVKSKAKACEECGIKSLVYHLNEN

ITQNELLALINTLNHDDSVHGILVQLPLPDHICKDLILESIISSKDVDGFHPINVGYLNLGLESGFLPCT

PLGVMKLLKAYEIDLEGKDAVIIGASNIVGRPMATMLLNAGATVSVCHIKTKDLSLYTRQADLIIVAAGC

VNLLRSDMVKEGVIVVDVGINRLESGKIVGDVDFEEVSKKSSYITPVPGGVGPMTIAMLLENTVKSAKNR

LN

>AHK53732.1 hypothetical protein N919\_04250 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIVLMFFLFSISLFGADFITLKEYSKMLYENPRGISCKECHGADGSEQILGYYMKNGIKTAYKVPSIQN

LSFENFKNSLNQSKDAKSIMPNYSLTNDEIVTLYNYIKQFSKEEK

>AHK53731.1 glutamate-1-semialdehyde aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTNKKAFKETCKFIAGGVNSPVRAFANVQSEPKFISHGKGAYIFDIDGNSYIDYVQSWGPLLFGHCDKDI

QKACQKALHKGSSFGAPTLLETELAKLVLSDFPHLEKIRFVSSGTEATMSAIRLARGFTKKDKILKFEGC

YHGHSDSLLVSAGSGAATFNSPSSLGVLEDVAKHTLVAKYNDINSVKELFEKNKDIACVIIEPIAGNMGL

VPAKQDFLEELAKICKNNQTLLIFDEVMSGYRASYLGSYGINHIQADIITFGKVIGGGLPAAAFASRAEI

MDILSPLGGVYQAGTLSGNPLAMAAGIASLTKAKKKTKLYDKLGKLAKKLTQGMKKLADEKGLPLQACHV

GSMFGYFFTKDPVSNYQDALKSDLALFSKFHKNMLENGIYLAPSQFETGFICSKMDDKIIDTTLEAVRES

FKRI

>AHK53730.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSNILKEEKNHLENSNSKRQKIIRKTLEAADGLSLGISMVVAVFIGVGIGYLLKKFTPYPWLFWLGVFWG

ISAAILNVYKAYKVQVKSYEEFKERDELIKEKIQKEKNK

>AHK53729.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEHKKALFCIFAIIHLFFWIIFSSLNHFKLDTFLSYEIAFFSVLLIIFASYLNYKKVIIKKSKNYEKDFN

FISSLFIKKKQNLSKIIHFKVLKDDLKPNVKEKIHFFAMFFTLFKLMAYVILVAGFLFLHRQDKLDIFAY

ICGISSLLVCVFIFILYIKKYESKKNY

>AHK53728.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSPKKIIKSMTALFAGMAFLFAGNALIVSSIGVILKENGESSLAVGVVSSCFFVGALIGTISTHKIISRI

GHIRSFGLFGAIFGISAMLHTVSENLIFWAVLRFFIGICYYGLLMVIESWLNEKSKNAIRSRILGFYEIV

FYLAFGIGVLIIALNLSKHSVFILSATLILLSSLPLNLIKIKEPVLPASSPISIPKIFDIAPLAIVTSFI

AGMLINGFFSMASLFILLQGFDTKAVSYFIFCGVLGGFIAQTIIGTISDKLGRKFAIITCASIGFITMLI

FIFFKLHLYMQYFLGITLGIGIFCLYALALARANDVLVSKNKGVELGRGVLFCYSLGSLFGPLILGFLMQ

YFEIKGFIWFYIVSLAFLILFAINKPNILNKKFKKKPGNMVIFDD

>AHK53727.1 hypothetical protein N919\_04225 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINTQLASQIANTQKNDLKVDNSASKDKTNLKDNPKEALAQALKQNLGLSKDASSEEILAKFVQNETGTK

LKELVNKLLDQINAQKNPDSPVLKQGKNLNLAPNFANELKILSTELAKSDTFTQVLDRLNQILKPASEIK

NNNLAPLFKNSGVFLEAKLKDALNEELLPKSFHSLLSTIKGLSSEKLSVQIAQLANTNLSPKDTLKELKN

IINSSKNENKQILNQSSFKALLNLSSKLENFKNYISKNPSHAQEKITPIANKILKELNSIKNDFFKALNK

PENLMIKDPNILKQTATAFEKLENTLKNILGNQASKIQDKENILENLLSNKENMKEEKLNHNTKNQDEEK

HIKASKEDENLDSGIKTHEEDTQDTKNDIQNNETENKPDNDIKNSTPNQEKIKDEKQEKSKENIKENPKF

YETKTENKTSINTNTNTSNPNTNNTQNLNNTQNIQSNNNQTMQNIFKNQEFIKQNIVKNLAFNVENLDLE

QVQDLSKNLSNLSRRLNESLKELEPYTQNAKLNQAELKNLEHKLNLSIKDLAQIKPKTEQDIAESLHHDV

KSTLLQISNLAKNEGNEAVYNQANRLLAQIEINQLMSLANDSINTYLPFSWDDLNDSKIMFRRGKKDKFF

AQIKLEFAKLGDLEILISLNNEKYIDINIMAENIEFRKTIYENAHELKRNINKAGLLSANFFVGDIIRSK

FDTRNMKNLDLEMGMDKKV

>AHK53726.1 hypothetical protein N919\_04220 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKIKRSIKKAVALGYQKEKNSAPKVLASGKGESAAKIISLAKEHGVPIKEDEDLIEILSKLDLGDEIPP

NMYKAVAEVFAFIYQMANKTPKN

>AHK53725.1 phosphatidylserine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSFSKESSRLFGFVAGIKFPKMIQKVINENYVKYFNINMSEFKAPCEYESLNALFTRTLQIPRKFEEGFI

SPSDGKILECGSTFLANEEHFAFSIKGHAYSVEELLKDSFEKDELKNGLDYVNIYLSPKDYHRYHSPCDM

QILSATYTSGVLYSVNEKHLERISNLYVKNERVSLKCQNEKGIFWLVFVGAQNVGKMRFNFDASIQTNAK

ISHNFTRKYENLNFKKGEELGNFELGSTIVLISQKGLLTFNLKVGQGIKFGEKIAD

>AHK53724.1 metallophosphoesterase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIFLIFSFIVLLIFGLANVYIYKRLIKKITLFKYFYKIFSFIFIVLFLAQAVFLIFRRDEYLSDTWYEIL

AMFYAPTYCLFFMTLAWDFVKLILALMGKRDKTYNLILRLIFELSLIVLSVFLIYASINNALKTPEVKSV

DVEIPNLKKDLKIVMLTDIHLGKNLHENFLDKLITKVNLQSPDMVVIVGDLIDTNPKDLKNYISKLNDFN

STYGTFYALGNHEYYHGINEVLDLLRKHTNMKILVNQNLDLGFIDIAGLGDLAGLDRGLYAPDLARIKVD

LNTSKASILLTHQPKTALLYDLSDFDLVLSGHTHGGQIFPFMFLVKLQQGFVHGLYDLGEKTKLYVSSGA

GFWGPSLRVFAPSEIVILNLKGKK

>AHK53723.1 glutamyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYRFAPSPTGDMHIGNLRAAIFNYICARQKNMDFILRIEDTDKARNIAGKEEEIKEILNLFSISWQHYYI

QSENLKFHRQMALKLVSEKKAFACFCTEEELEAKKELAKKQGKAYRYDGTCEKLADIDVLECEKPFVIRL

KKPTHTMKFTDFIKGELSFEPENIDSFVIMRTDKTPTYNFACAVDDMLENVTCIIRGEDHVSNTPKQEHI

RASLGYNKAMTYAHLPIILNEEGVKMSKREAHSSVKWLLESGILPSAIANYLIMLGNKTPCEIFTLEEAI

KWFDISKVSKAPARFDLKKLLQINREHIKMIKDDELNKILDLNKDLAQLAKFYTQETSTIKELKEKMQAI

FNAKDFGEFETEYKILKELLKDIELFENYEDFKNELLNKSNLKGKKFFMPLRIILTGNIHGPELSDLYPY

IKNFIHELARI

>AHK53722.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVIDSFIISIFQVLQIVINIYTWIIIITALLSWVNPDPYNPIVQILYKLSYPAYALVRKIPTRIGNIDLA

PLIIVLALQFLGIFLGNILRSIL

>AHK53721.1 lytic transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKKILVFLFIFSSLNATQYSIEKLKKEENSLAKDYYIYRLLEKNKISKKDAQDLNSHIFRYIGKIKSEL

EKIIPLKPYINPKYAKCYTYTANTILDANLTCQSVRLNSLVFIASLNSKDRTTLAQTFKNQRPDLTNLLL

AFNTSDPMSYIVQKEDINGFFKLYNYSKKYDLDLNTGLVNKLPNHIGFKDFAQNIIIKKENPKFRYSMLE

INPENVSEDSAFYLGVNALTYDKTELAYDFFKKAAQSFKSQSNKDNAIFWMWLIKNNEEDLKTLSQSSSL

NIYSLYAKELTNTPFPKIESLNPSKKKNNFNMQDPFAWQKINKQIRDANASQLDVLAKEFDTQETLPIYA

YILERKNNFKKHYFIMPYYDNIKDYNKTRQALILAIARQESRFIPTAISVSYALGMMQFMPFLANHIGEK

ELKIPNFDQDFMFKPEIAYYFGNYHLNYLESRLKSPLFVAYAYNGGIGFTNRMLARNDMFKTGKFEPFLS

MELVPYQESRIYGKKVLANYIVYRHLLNDSIKISDIFENLIQNKANDLNKS

>AHK53720.1 molybdopterin-guanine dinucleotide biosynthesis protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKQLIIAFSGPSNSGKTTLITKIADNFLQQNLKVLIIKHDPADKAQFDFNGKDSFKFFQSGAEVMVLSPT

RTTFFSHENRDILKALKLSPDFDICLVEGLKTLDLPRISVFCKEIDESYFIFSNAIASYEKISHPYLTWL

DLNDIQAICQYILKNAKNLQGEL

>AHK53719.1 fructose-1 6-bisphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>AHK53718.1 hypothetical protein N919\_04175 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNEVRDEFEQDMDKKKEILLSCQNSKNLNSCYNCDEIFNCQTRKNYVDAVYNSMSKGKTEGGFDF

>AHK53717.1 methionyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRYITTPIYYVNDVPHLGHAYTTIIADTLARFYRLQGHETRFLTGTDEHGQKIEEAAKLRNSTPQEYADK

ISFEFKKLWDEFEITYDIYARTTDTRHIEFIKAMFLKMWQKGDIYKDEYEGHYCISCESFFTQSQLINDC

SCPDCGKQTRILKEESYFFKLSKYQDKILQWYEEKDPILPKNKKNELINFVQNGLKDLSITRTSFDWGIK

LPQEINDDKHIIYVWLDALFIYVSSLDFQNKGENAKFWPAHVHLVGKDILRFHAIYWPAFLMSVDLPLPK

FIGAHGWWTKEGEKMSKSKGNVVKPKEVVDAYGSEAFRYFLLREVPFGNDGDFSENMLINRINAELSNEF

GNLLNRIIGMSTKYSQGNISKEGVLKFYNAELNQAKEHLNLAVEFLENLQCNRYLEELFKALSVANLAIS

KYEPWSLIKENKHEQANALVALCANILAKTSLLLSPTLPKSSQKVALALNFEISSANYTKMILDNELLDF

KANPCEALFPKVEKALLKQEIKEEPKKEESPKIKIDDFAKIEIKVAKVLDCQNIEGSEKLLKFQLELDDK

EIRQVLSGIAKYYKASDLIGKQVCVISNLKKAKIFGHESDGMILSAKSGDKLVLIAPEQLVQNGSLVG

>AHK53716.1 hypothetical protein N919\_04165 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQISNLGELLNATLIHEGSVLSVEGFAINLNELKTGFAFFNNDKKEIAQAVKKGAYAIITENDITIEDKE

IFYFRVENLERALVRFLRFFCEDKECEFLLFKSYELSLCKAFYFNILKGNIFADFEKLIKAKKGEIFCYC

EENYLNKLCTYSHSLKDANFTLLSRSSFFFTTLICENLYFKNLNLPFFYANSFAKIISFLKEKSQKIIFD

FNKIDDFKIYFIDDKFEITPFGSSSQAFIVSNNQNTFEFWKEKFKNIKDFKIASKNSLFCDFSYNQLSDL

RKLKNFKYCLILENYDIFEQEFENKENQTPSLF

>AHK53715.1 methylated-DNA--protein-cysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFKVYYKMPLCYLSLHSDGKFLTRVDFCDNKRSEKNCSLLDLAKYELDLYFTHKLRKFSIPVLIQGTDFE

SKVYKALMEIPYGKIATYKDIAEKINHPKAFRAVGNANSKNQIPIFIPCHRVIASNGIGGYNGGLEIKRF

LLENEGVNLK

>AHK53714.1 bifunctional aconitate hydratase 2/2-methylisocitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSFMQEYNKLVEERAALGIPPLPLNANQTRELCKLLENENNEELANLLENRVNPGVDDAALVKCEFLDSI

LKGKISAPNIDKKRALRMLGTMLGGYNVKVLIDALKDENIAKDAAEVLKNIIFVHDNFHTIAELSKNNPH

AKEVLQSWANADWFNKKEKLPQVIKCIVFKVAGETNTDDLSPAGDAFTRSDIPLHANAMLKVRQTGSLEK

IKELKKSGREVVYVGDVVGTGSSRKSAINSIQWHLGKEIEGVPNKHSGGIIMGSTIAPIFFNTAQDSGAL

PIICDVTNLEMGDEFEIHPYEGKIIKNGSTIAEFTLSPNTLLDEVRAGGRIPLIIGRGLCTKAREFLGME

SENIFTKPEQPKSSSGGYTLAQKMLGRACGVEGVRPGMYIEPITLTVGSQDTTGPMTRDEIKELASLGFN

ADFVMQSFCHTAAYPKVSDSNLHKTLPNFMTSRGGVSLKPGDGVIHSWLNRFVLPDTVGTGGDSHTRFPI

GISFPAGSGLVAFAAVTGSMPLNVPESVLVRFSGELQAGVTLRDLVNAIPYYAIKQGQLTVEKKNKKNIF

AGKILEIEGLPNLKVEQAFELSDASAERSAAACSVDLSIESVSEYIKSNISLIEAMIEVGYENKATLARR

AEKMREWLKNPTLLRADKDAKYAYIIDINLNNIKEPILACPNDPDDVATLSEILADDKRPKNIDEVFVGS

CMTNIGHYRALGEILKDKGILKTRLWVVPPTKMDKAQLINEGYYSIFGAAGARIEVPGCSLCMGNQARVN

DGAVVFSTSTRNFDNRMGMGAKVYLGSAELAAVCAILGKIPSKEEYLQIVSEKLSNEHKANIYRYLNFNE

IENFKLEN

>AHK53713.1 ankyrin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRLKISNLKINSNLILNNKIKIFKGKILKLLFTSFCCFASLMASDAINCDNIKNNKTLLNESSNLDYLNI

ASSCKESLKNQDFTKKLYAISNEIRGSNSSCNGVAYLPKLQQFDFLLLKIAIDPIAYQKTLDTPENLEKK

YDILKSYFRYWAYQSIGNFRLYKAFWQEYNNAIEPLEKYFESNFNFDKGSNIYYTSNALNEFLNWAVGET

KIYKDISPLAKIMSNKNYSVSYIQDFIFSNNPSQDDLTIALQAALLNQREKEILELLIRFGARIDEGYES

AIFYALESYENTNFLIQNGANVNQANAFGKTPLFYAIEFNRLDIIKLLLDNGANVNQKYINNNEKLALSA

NIGSNTPYFITFCALEHTSKNVLMHAAAYGNVEILKLLISKGANFNAVDDLGFNALDFALSAGKKENADY

LKSLGLKANENLFYGGSLE

>AHK53712.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTAFITGASSGFGRACVEAFIQEGYKAIALARRKERLEELKNAYKDKIYTLCIDVRNQKEIFEAIENLP

KEFQEIDVLFNNAGLALGVDEFDKLNLEDINTMVDTNIKGFLYVAKAIIPILRKQKNAYIFNLGSVAGRN

PYFGGNVYCGTKAFVGQFSLALRNDLRGSNIKVTNIAPGLCKTEFSEVRFKGDIQKADAVYENTQFISAN

DIAKVVMSIINLPSHINVNEIELMPVTQTWNGFYIERDE

>AHK53711.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKFLVSLFLPLVAFANSSEAAANANLFGAFTLIPPLVAIALAFITKDVILSLFTGVLSGTFLLSLSTNI

FKAQHLTFVNYYNTTVESFSKIISYILGSTSDPVNAGIILQILCIGGLVALITKMGGAKAVALKFAKRAK

SAVSAQVNTWFLGLLIFFDDYANLLIVGPIMRPLADKFKISREKFAFIIDSTAAPVAGIAVISTWIGLEV

SLIKTAYEHIGISNISAFGIFVETIPYRFYNIFMLFFVVMTAIMGREFGSMYKAEVRARTTGQIAPLPKS

GTLDTTELEDQFLAPKEGIKIRAFDAIVPIFTLIILAILGFYFNGLSTLEGEELAKASTNPLSFETFRAA

FGNADSSVVLFQAALFAAIVAIFIGVRRKIFNLKEAVETWIYGWKTMIFTIVLLLFAWSLSSIVKDLGTS

LFITSLLADKLPEFILPATIFAFASAISFAIGTSYGTMGILMPLAVPLAHEIAKINGMDANAMHHYMVIN

ISCVLTGAIFGNHCSPISDNVILSSMSAKCDHMEHVRTQIPYALFICGISLIAGYIPVSLGLSVWFVLPL

NFILIALLLRLIGKKVP

>AHK53710.1 tRNA (uracil-5-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSLENFGNFLTLDEKHSFIKKYFKEFYTKDFKLFASKDKHYRTRAELSFYHENDTLFYAMFDPKSKKKYI

IEYLDFADEKICAFMPRLLEYLRQDNKLKEKLFGVEFLTTKQELSITLLYHKNIEDIKSNLENLSNILHI

NLIARSKGKKLIFKTENLRQTLNIQDRKIFYEFNNDCFIQPNTAINEKMITWVCEILNTQKRMDLLELYC

GYGNFTLALAPFFFKILATEISKSNINFALKNCELNNTTNIHFARLSSEELSLAIKKEREFFRLKDIRLD

DFNFSHVLVDPPRAGLDKSVIDLIKKYGNIIYISCNPMTLKENLKELSLTHRVEEFALFDQFVNTPHLEC

GVFLSKV

>AHK53709.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEEFYPYTLTIHLLCAILFIGYLFVDVFVLGVVKKKNPNFDKSLFSATGVKIMPFVVLLLFLSGGALAGF

HFKPLNLLFAVKIILAFGILSLVVFSLFCHFILKKKNPLGVFIHPFVFVLCIAIVILAKLMNYFFIPC

>AHK53708.1 CoA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNEKETISYIINTSKNIVIFALSPDKTKASYRVAEFLQRKNYKIFPIYPKEEFILNEKVYRNLDQIEEKI

DTLILFRKGEVALEILPKLVEKNIKNLWLQLDISNETAKEECKKLDINFIQNRCIMLEYPHFKTKEK

>AHK53707.1 threonine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLELNKIYKAKQQISGFVNKTPFIYSSFLSDICQSEIYLKNENLQITGAYKIRGAYNKIANLSTEQKQHG

VIAASAGNHAQGVAISAKKFSIKAVIVMPESTPLLKVSATKALGAEVILRGDNFDEAYAFATSYAKENNL

SFIHPFEDEFVMAGQGTLMLEMLDEISDLDMIIAPVGGGGLISGISSTAKQINPNIKIIGVGAKGAPAMY

ESFHAKKIKNAKSVRTIADGIAVRDANPINFNIILECVDDFIQVDDEEIANAVLFLLEKHKIIVEGAGAA

SVAALLHQKINTQNHKKIGVVLSGGNIDAQMLNIIIEKGLFKSYRKMQIYVTLVDKPGALLHLTDSLKIA

NANIVKIDYDRFSTKLDYGDAMISITLETKGKEHQEEIRKILTQKAFNFYESF

>AHK53706.1 tRNA pseudouridine synthase A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIKIIFSYDGSAFLGSATQPHKKGVQDALSGALSHLGIFSPLLMASRTDKGVHASYAVASVECGDYFTN

LEYLQKQLNKFSHPFIHIKKIEKVKDDFEVRFDVKSREYRYIFSHASYSPFMASYVHFYPKFDLGKANEL

LGFFVGKKDLKFFCKSGGDNKTTLREIFIARAYAYKDFSIFHFKANGFLRGQIRLSVASVLKVLEGKMSE

KELKEQIEAKKQYNHFLAPPNGLYLSRICY

>AHK53705.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLSLRYVLNQFLSTNLSIFFVLFAIVSMVFFIQLAKLTSSIEISFLDLLKLYGFMLPRILIFTLPISFF

ISLTLALFRLSKENESIVLFTLGFSPMILAKFFLKIASLISAFMLVVALVMIPIVFELQDNFVNYKSTQV

KFNYKTGEFGQKFLDWMIFIEKQDSDKYENIIMYRPKHKADDKEQLIIAKEAHVQRKDDSFAFSLNQGKM

YNFEQGQSIFSGEFDTLVVNTQFNTDNLQTKKFYEYWNDLNENLQRAREFVIYTTIALFPLASTLFALCF

GLVTYRYEKGYVYLGMFGVIAIYFGLLSSFSQPPILACLGIFSLSLFVSAYCFKKMILSRY

>AHK53704.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIFFIIILGACLGSFCTSLASRIIEKKLFFISRSFCFSCDTKLKYYEIIPIFSYIFLKAKCQTCKCHLSI

SLLINEILGAILLILVYSLSQNFYDFLFLSLFLFNLFLLSLIDIKLKAVPQILLWSAFLFAFFYAFRESE

ILHFLIFKEFSGGFLLNAFSFGGFVFLLKSLVFFLMNFQKKDEILENLGDADIIIMSCIGGILGFEYGFL

VLFIASILTLPFFIFFRIKAIKEQELAMIPFLNIAFVAVLFYKNLGLF

>AHK53703.1 UDP pyrophosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNELKHLAVVMDGNRRWARAKGFLAKLGYSQGVKTMQKLMEVCMEENISNLSLFAFSTENWKRPKDEIDF

IFELLDRCLDEALEKFEKNNVRLRAIGDLSRLEDKVREKITLVEEKTKHCDALCVNLAISYGARDEIIRA

AKRVIEKKLELNEENLTQNLDLPLDVDLMLRVGNAKRLSNFLLWQCSYAEIYFSETLFPSLTKREFKRII

KEFRNRERTFGK

>AHK53702.1 hypothetical protein N919\_04095 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSMINSTLPIQMKVLAKSGYGHYTLLLNHKKIQTKSMIELEIGAEYLAELYMQNGGVIQFKHLSKRPNFK

PFEEGLALIIAILEDKISYKKFIIQNLLDCKDIERYQILKEMLFASFENIYHIPFNFENKSCLFQMRKRA

KYLEIYLYFSVFGALKILIDSQGISVFTPFAKVQKFLNEHLDFNVSQENKIEPLFVFKRLFDFKG

>AHK53701.1 phosphopantothenate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTILLAISGSIAFYKSYELISLFKKEGFRVKVLLSNGLLKFASKMSFEALVDEVLCEENESWQNSNNHI

AFSKDVDLVLFTPASVNSINKLAFGIADNLFIQTLIAANKPLIIAPAANTNMFHHFSTQNSLKILKENKA

LIIEPICKVLACKDEGVGALAEVKDIFNITKRELLKEKFWCNKSVVITGGGTRERIDDVRCVSNFSSGKM

AKAIADAFYFLGARVKLLSSVEFDTPYELCKFESSKDLKELLDKNLSHDFLIMTAAVSDFIPQSVKGKIK

KNEHLQGLNLHLSLNEDLLKTCKFQGKKIGFKMEFDSQNALENAKKSLKDKQLDMVCLNIIDQKNYFGSD

QNELYFITLNNENKSTLQSKEKLAFELVKWCEKL

>AHK53700.1 N-acetylglucosamine-1-phosphate uridyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTSILILAAGLGTRIKSQKPKVLQELCQKSMILHILKKAFALSDDVSVVLSHQKERVEKEILEYFPKTQ

ILEQDLQNYPGTAGALSGFEPKNERVLILCGDMPLVEQTSLEALLGNNAKLNLAVFKARDPKSYGRVVIK

NDSVEKIVEFKDANTQEKEINTCNAGVYVIDSRLLKELLPLIDNNNAAKEYYLTDIVKLAKEKDVMIKAV

FVDEDEFMGINDKFELSIAENFMQKKIKKYWMQQGVIFHLPQSTFIGADVEFVGECEVYENVRIEGKSKI

INSIIKSSSVIENSIVENSDVGPLAHLRPNCELKNTHIGNFVECKNAKLNTVKAGHLSYLGDCEIDSGTN

IGCGTITCNYDGVKKHKTIIGKNVFVGSDTQFIAPVKIEDEVIIAAGSTVSINVEKGALFINRAGHKMIK

DYYYKKFQK

>AHK53699.1 flagellar biosynthesis protein FliP [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILLFLLLSMSLFAAEATIPTVNLSLSAPNTPNQLVTTLNIVIVLTILALAPSIVFVMTSFLRLIVVF

SFLRQAMGTQSMPPNTILVTLALILTFFIMEPVATKSYNEGIKPYLAEKIGYEEAFIKGAKPFKDFMLKN

TREKDLALFYRIRNLPNPKTIDDVPLTVLVPAFMISELKTAFEIGFLIYLPFLVIDMVVSSVLMAMGMMM

LPPTMISLPFKLLIFVLVDGWNLLVQRLVESFVT

>AHK53698.1 amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIILIFISFFALNLSAKDLVVGMELGYPPFEMSDKTGKASGISVDFLEAFAKKNGYKLVVKNIAWDGL

IPALKTAKIDLIMSSMTITDKRKKVVDFSIPYAKANLAILTPLNSDITNIKDLDKKGKVLALKRGSTGHL

YAVKNLKNATINLFDKENAAILEVIQGKADGFFYDQLTIYRTWQKHQDTTRAILAPFQENPEFWGIAVRK

GDEALKDKLDNFIDESRKNGFLDFLGNKYLKDIKEVFKQNNITFFL

>AHK53697.1 3-deoxy-manno-octulosonate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDAKMIIIPARLKSSRFHEKILCDIGGVPMFVATARRVSSVDEVCIALDDEKVLSIAKEYGLNAVLTSKD

HESGTDRINEACKKLALKDDEIIINVQADEPFIECENLLKFKEFASFCLDKKAFMASCYKKITQEEAMDP

NLVKVLCDKEGYALYFSRAKIPYERENYEESFKGHLGIYAYSVKALREFCSLSSSALERAEKLEQLRAIE

NGKKIKMLEISTTSMGIDTKEDYERALKIYLEK

>AHK53696.1 threonine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLVESRNVNNVSSFKEALINPNAPEGGLYSPLNLPIFEGEKYANLSYKDFALKLIESFGFGEEELFKKA

LKSYESFDDKNTPISLQKISEKTYINELWHGPTRAFKDMALQPFGVLLSEFSKDKNILIICATSGDTGPA

TLKSFENAKNVKVACMYPKGGTSGVQELQMRALDKDNLKVFAIDEDFDAAQRTLKELLFSKDFQNEIKAL

NYELCAANSVNFGRILFQIIYHYYASLKLFNEFLEEVQIIVPSGNFGNALGAFYAKKMGAKISKIKIASN

ANNILSEFFNQGVYDLREKSLKKTISPAMDILISSNIERLLFAKFKDKRTKELMNLLKNERYFKLEKEEL

QSLQEDFEADFCTDEECMQFIKQSKILIDPHTATCFKMLDPLKPSIITSTAEWTKFTPSMIKALYDRDSK

NEKEDLKFIAKEFNVQVKDEILALFDLKNSDEKVFEARNIKKEILDWMQK

>AHK53695.1 tetraacyldisaccharide 4'-kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNEEKNYELWLDNYFFKPNFWQKCLAFILLPLSVLYAFFAILNTFFRKKIVFKKPVISVGNLSFGGNGKT

PLCKAIAREFDGVFIVLRGYKRKSKGLFVVKNQNEILCTLTQSGDEAMEYAFEENIKGVIVSEDRVKGIE

KAFELGAKIVVLDDAFSKFHIKKFDILLESKIKPYFNFTLPSGAYRLPKFYEKRADFIALEGRDFVRYSF

VKENPKAVLVTAIAKPFRLYEHFIKARACYFFKDHYEFKKEELENLLKKHNCDTLMLTFKDFVKVKDFGF

KCQIIELNIELKDSLREKIKTYIKEFEQ

>AHK53694.1 NAD synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDWQKITEKMCDFIQEKVKNSQSQGVVLGLSGGIDSALVATLCKRALKENVFALLMPTQISNKANLEDAL

RLCADLNLEYKIIEIQSILDAFIKQSENTTLVSLGNFAARIRMSLLYDYSALKNSLVIGTSNKSELLLGY

GTIYGDLACAFNPIGSLYKSEIYALAKYLNLHENFIKKAPSADLWENQSDEADLGFSYTKIDEGLKALET

NDEKLLRTLDPSLIAMLKNRMQKNAFKGKMPEILEI

>AHK53693.1 beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIIKQACGVYETNCYILFTPKGEFIIDPGTDALLFIKKHVKNPLAILNTHGHYDHIWDNAKVKKEYNIP

IYIHKNDAFMLHDDFNQGYDSSDADFLVDNEDILNICGVDFKFHFLPGHTPGCTMIEIVGKNIMFSGDFL

FYRSIGRWDFPYSDANLMKQSLEKVMTYKEDFKLLPGHGQETTLKEEQVHLPSWLRYF

>AHK53692.1 hypothetical protein N919\_04030 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MELDQILLYAFIFLNLFALFGLFLGNKKKNQFNDKKFYKICPCKKMAENGSLSTICIYSAVGGFFYSVLS

IGFVGFGNWTLNFIFLLALLSVFLGWKLKLD

>AHK53691.1 7-alpha-hydroxysteroid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNTEFQGKTLVISGGTRGIGKAIVYEFAKVGANIAFTYNSNAQIADEMVQDLEKNYKIKARAYEFNILEP

ETYKELFEKIDVDFDRVDYFISNAIISGRAVVGGYTKFMKLKPKGINNIFTATVNAFVVGAQEAAKRMEK

VGGGSIISISSTGNLVYIENYSGHGTAKAAVEAMARYAATELGEKNIRVNVVSGGPIETDALRAFTNYEE

VKQATINLSPLNRMGQPEDLAGACLFLCSSKASWVTGHTFIVDGGTTFK

>AHK53690.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAVETC

KGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLYNVP

GRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNGGKGVISVT

SNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFRLPLCSPSK

ENFAKIEEVMKKYKIKGF

>AHK53689.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIAYEKIQLKNKLEVYALPVNKNSDVISVDIFYKVGSRNEIMGKSGIAHMLEHLNFKSTKNLKAGEFDEI

VKGFGGVDNASTGFDYTHYYIKCAKKNLDKALELFAELMANLNLKDEEFQPERAVVLEERRWRTDNNPLG

YLYFRLFNHAFMYHPYHWTPIGFFKDIENWSIEDIKEFHSIYYQPKNAILLVSGDIESKEVFELSKKHFE

KIKNTKTIPKIHTKEPKQDGVKRIYLHKNSDTELLALAYKIPNFKHKDIPALNALSELLGSGKSSLMSEI

LIDKLNLINDYYAYVNDCIDENLFIFICNCNPNVNAEKVEKELLKIIDKLKMGKISQKDLQRVKNNVKSD

FIFSLNNASAVANIYGSYLARGDINPLLNYEKDIQNLELKDLISCAKKYFIQENSTTVILRKDSNG

>AHK53688.1 diguanylate cyclase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAYEMIKLLLFKLNPEHAHALVEYSLRALSASFPGALSFLAHKYIVDDESLRQNLLGLDFNNPVGLAGGF

DKNATMIRPLSALGFGFLEVGTFTPKPQEGNEKPRLFRLVKQESIQNAMGFNNEGAEKIALRLAKTYPFV

LPLGVNIGKNKITPNDKALEDYFTLFRDFKDLCDYFIVNISSPNTKNLRELQNDDFLNTLLEEAKKITSK

PILIKIAPDMKIDDALNLCENAIKKGADGFILANTSVDYSLLDNNRTFGGISGRLITEKSGIFFKEVTKI

LFGKTLLIASGGIDSADIAYERIKNGANLVQVYTALIFKGPSLVKNINQNLIELLRKDGFLHISEAVGVN

LK

>AHK53687.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHNEMNLKEVLIRFKPFYKRYWKQFAIAIFGMILASGGTAGSFYALEPILNYIFVEKNEALLYTVPFLLV

LMYFFKNLGTYLQSFYVSFIGTDMLRVLRARVLKNVLRLDMDFFKRYRSGELVSRCTNDINALQSIVSNI

IPDFFRELLTAIGLLAVVLYQSPTLAFFALVILPLAIFPLVWFAKKLKKYARNIQETNSDLLSYLGEIFS

NIELIKANDNEKKESDKFAKHNDTLCKLNLKSARIDALTSPLMDMMGSVGVAVVIIVGGREVINGSMSVG

SFISFVSALFAIYTPLKRLSSLYGKLQGAVAASERTFYLLDLEPQIKGGSKELKNIEKISFENVEFAYEN

PHKSVLKGVNFDFVKGQMLALVGTSGGGKSSIINLLMYFYEKQKGKILLNQEDISTFTIESLHAKIGLVT

QNIYLFNDSFAANIAYSEELEEEKVIQALKLANAYEFVKEMGGIWAEVKEHGKNLSGGQKQRIAIARALY

KNPDVLIFDEATSALDNESEKAIVKTIENLKQDRLILVVAHRLSTIENADKIVVLDKGKVLAIGKDEELL

QTCSLYQKFKSKEKTKPSFS

>AHK53686.1 cysteinyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRLLDSVTKEKIKLDKKDISIYLCGPTVYDDAHLGHARSSVCFDLLRRVLLAQGNRVKFARNYTDIDDKI

LKKMAQSGQTLEEITEFYIKSYEEDMRVLNVLDPDFKPRATHYITAMLDLIKKLAKDGFVYTLEDGIYFD

TSKDEKYLSLSNRNLEENISRLSNEVQKRNESDFVLWKFDENFYESEFGKGRPGWHTECVAMIDSIFENT

LDIHAGGIDLLFPHHENEAAQCRCGCKRKLANIWLHNGFVKIDGEKMSKSLNNSFFIKDALKEFMGEALR

FYLLSSHYRSHFNYSLSDLENAKKRLDKFYRLKKRLDLGEISDFDVLNDIGIKSEIAKQILEILNDDLNV

SKALALLDDFISSANLELDKESKNKILKQNIKEALSELAKIFGFGFMDATLYFQWGVSKEEREEIEKLIL

ERTEAKKNKDFNTADAIREQLNSKKITLLDTPNGTIWEKINA

>AHK53685.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MALDEKIIAYTENPARELLSVASRTNLSLNELDFSLLAFSTQYRFGDLEWEKISEKELTLFDKDEIFLKN

DLQIKQEYKIEIFHGINQSKASQAVKLVANKNLTKIVAQIDFTNLDFHEKLALELLQNIYKKMLKLKFLI

GIRIFDFKKKLMSFCNQYKNTPLNKTIQITVAQGIDPIESQDESLILTYKEKTKNYTIDEKRSGIIVVDE

NEVVLKHVKFKQGKEGKDLNLHTLKVLAANENKVKFSCSSAFKQVEQDGYTEYIALKKGYVVQDGEKFDI

ANELDFNGVDFKNIGIIRAGLDKNVKINIKFLSEVKDAVNSGVGIECEELNVVGSVGSNTQLNATKMKIE

GTTHSKAKIQAKQAYIKTHRGFAEAEILNIDLLEGGTIKAKEVRIKKSLGGNIQADKIYIENLESNNSCV

FFENTTIERINGDNNKFHAKIKTLDKNYDEEFAILGEQISKLNHKINKIRQYILSSKNGILSVEKKITEL

KNQGQNVPVQYEKALKDFSLQNLELNKLQNEEKELLERKKSLQLELINLQKMLFEATFINKSGKWTDMNE

IKFSLLEPKEDIFCSSFVNESAKFIGIKKVIQNNQESIEIHKKLDYEEKDIAWLSASKE

>AHK53684.1 Holliday junction DNA helicase RuvA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVVGIEGIITKKEPTFIIVKCASGLSYGIFISLFCSAKIQTQEKHEFFITQIIKEDSNKFYGFLDKDEQK

MFEMLLKVNGVGANTAMAVCSSLDVNSFYKALSLGDESVLKKVPGIGPKSAKRIIVELSDTKTKLENVSD

DKSEALAALLTLGFKQEKIISVLVSAQATGTSELIKEALKKLG

>AHK53683.1 D-alanine--D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFAILFGGNSYEHEISIVSAVVLKKVINQNLEFIFCDEERRFYHIPSEKMNSKTFSTKAYKKEKELFIK

QGGFFSKGFLKENKLECECVINLIHGRDGEDGKIAALFEFYSIKFIGPRLEASVLSFNKELTKLYAKSVG

VKTLDYTILRKNQNSKEKLSFPCIIKPARLGSSIGISIVKDEKDLEYAKDVGFEFDNDLVVEEFKNNIKE

YNLAGCMINDEFVFSIIEEPKKKEFLDFEQKYLSFSGHNELIEADLSEELKEKLKDSFKKIYNPLFKGAL

IRCDFFILDNEIYLNEINPNPGSLANYLFKDFNTTLNALADQISLEKMIKINYNFLHSINGQKGKL

>AHK53682.1 prevent-host-death protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLSFKQDEIYTATEVVRNFSPIMEKLKKSESGKIVILKNNKFEAVMLSMKEFERLQNAMQLLENIYKNQK

A

>AHK53681.1 2-hydroxy-6-oxohepta-2,4-dienoate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAQTQLSYKNKTYQISYEILGDLSLPQILILHGWGADKKLMKQSFCPFLKDFCQIYMDLAGFGNSSVEEI

LNTQDYANITELFLKQKKLNVCFFMGHSFGGKVSTLLAKEKDTLILLSSAGILAKKSLKVRFKIRIFKIL

KLFGLGKFYRYFASKDGANLSPIMYETFKKVVDEDFSEIFAKQKAKSLIFWGKSDEATPLYCGEKMHQFL

KNSTFYPLEGDHFFFLKHSAFIAQKIKEI

>AHK53680.1 UDP-N-acetylmuramoyl-tripeptide--D-alanyl-D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLINTLYFINSLFFNFCIAFYLMSALQWYSYKFKRVFFHYHKPLWHLYFLFIPYFLFLAFPLYSLVYFAL

IHTPILYFWNKGIDKKLVFTSKVKWFFVFVFVYNAIFTILALRFSFLFNLFSLPFALLSLKIYEFFTNLY

YKKQAKAKLRANENLKIILITASFGKTSIKNFLYELLKDDFKSYKTPRSVNTLLGIVADINANLSQDTQI

YIAEAGARLKGDIDEITHFLQPQISIVGEIGNAHLEYFKSVENIRSTKLEALNSERLEKAFLHSSTQKEE

DKLISLYDDKLSLIHSSLEGLEFKVDIENKSYDFKSQILGDFNAQNLCVCILCAHYLGIKLEKIQKQVLN

INSVEHRLQVLSREPKFIIDDGFNGNFKGMSTSYKLCKSYKGRKVLVSPGIVEVSEEENIKLAKIINECF

DLAIISAQINAEIFKKELKIKTIILKEKSQLVQTLAKETKHGDLILFSNDAPSFM

>AHK53679.1 signal transduction histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNESILKSLDSNEKETLQKGLESLIEQTYVIENEYKTLNENYNSLRAMVDEIIEVLPSALWILDKEKNII

LQNQEALKNPKLLSIISLDKIRDELEFEGRFYAVKIIAHNEKTIVSATDISDEKRNERLASMGSVAAHLA

HEIRNPIGSISLLASTLFARSELKNKHIVLEIQKAIARVERIVNSTLLFTKGVHINALNFNLLELKEECE

SAINSYNFTSQIDFEISFLDKQICADKALLGLVLQNLIYNAIDAIEESECEKPMIKILASYDNEKICIRV

YDNGCEIKDEKLVFEAFKTTKLKGNGLGLSLSKEIINAHKGELSFQSDPKNFYFTLPLV

>AHK53678.1 hypothetical protein N919\_03955 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHKNLSLSKLFDFYSVFEGFEKLNILNFEDDVFTNIERILLDDYLKIKSYFALDETSSYALTLLAKNNRK

RFSINRKIQHFKALSTLKYLLETGIIKLEYSKEAKKIKDKRQKIKKELRSYVVQDKIIFSNHFTRFFFYF

LKPNEKLILQNRYKEVLECIKEKFELYQSFCFEQLSRELLEKKFNINGVQSYWDKNLELDLYYQDENLCF

VGEVKFKNKKICKNILNLLKSKAKSLNLAPNYYIIISKNGFSKEIDKICEQNLLLLDLNDFKILLEE

>AHK53677.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQISDLKKELILKKGILHFDFTASALALKCVEKEILKILPTYANTHSDSSLNSFKTQQTYEQARKDIKKS

LSLDENFALIACGTGSSSAIKKFQELIGIYIPPLVKERYFTQIDKNTLPLVIVGPYEHHSNELSFREGLC

ECIRIPLDKNGEIDFDFLEKTLQKNKKRKIIASFSLASNVTGILSDYKRISEMVRKFKGIVAFDASSFIP

YKNISCQYYDALFISSHKLIGGIGGSGLLAIKKDLCGNKPSFAAGGTVGYVSRTSQCYLCNEEALEEGGT

PGILQLIRASLAFKIKDSIGVKNIEKKEEILKDYFFEKLKTIPNLILYAKNLKTRLPIFAFNIKGISPFD

IAYELSKKYHIETRAGCACAGPYGHDLLGLKDNQKLKTKPGWLRISLHYTHEKEDIDYFFNALNKTIVKL

SH

>AHK53676.1 formyltetrahydrofolate deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MISVLKICTKDQKGLIYRISDVIFKYHINIVKNDEFVGEGMFFFRALLEGEFDKEAFIGTLEAMLGQEAL

IELCEKRKKDIVVFATKESHCLGDLLIKHYSNELEANIKAVISNHNSLKDLVEKFEIPYHFISAENLDRK

EQENQILKCLEQYKFDYLVLAKYMRILSPDFVRHFEGKIINIHHSFLPAFIGANPYKQAFERGVKIIGAT

AHFVNNNLDEGPIITQAVSPVNHEFTWQDMQQAGRNIEKDVLSKALDLAFEDRIFIHNNKTIIF

>AHK53675.1 multifunctional Cca protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVGGSVRDLFLGLKICDYDIELYDIKPKDFEKIMQKLGAQGFGKSFFVYKFKNYDLALARTENKISYGHK

GFEVQICNDEKLGAKRRDFTINSMMINLFNDEFLDFYGGLKDLGVGFLRHIDKQSFQEDSLRVLRAVVFA

SRFNFKITSESLKLMQSMDITDLSKDRINAELCKFFKSPRLDVGYRYLQELGLEKQVFGFESVFKSSEFQ

NLLRQSREFVKSDALFLYLYLNFFNLEKDIFFKRTKLKKEYLKYANQAFYLDDISDFELAKIAFEMPLKE

WLGLWSKKRIEQAKRLGLYENKFESKILAKDFINAGFCGKILGLKLQEARENELKEYIKGLAK

>AHK53674.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLEDLAKKTISEVSSIMEEQRRQNEILKEQELNRKTEIKDELPPMEFVCEELDTPQDLEDKISMAKFEE

EQKIQNNIEISTQENKEFKKEEPFLQNEILNPSVMTEVQTLNEDIFLKHLRERILVLFEGLNSIKKDDLE

NRLNLTINFLEFLLANIEDKLKK

>AHK53673.1 hypothetical protein N919\_03930 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNTVTEASIYEAQGLKDEALEIYKNILKEDPNNQNAIDAVRRLSGFRSKHKDLNTQMLDFFINMKSDEE

INEFKRWLIKI

>AHK53672.1 hypothetical protein N919\_03925 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVFLIPLLIIIGVIFGIDYVYFKNQDLKVQVKKEQKELNSSLEKEKKEYIEKLFKTK

>AHK53671.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNNLSSVLILAKEEYINDLKKAISEIPFCSVELCENEKIIVVIESENLEDELNSYKMLEKLPNIISINMV

FSYQDLNDDIQKAINSGAIETIEKNENAENVRYYGSVFNQFS

>AHK53670.1 hypothetical protein N919\_03915 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKFLFILSLFCVLSYAYELKLNANITALKLDKQNLYIGTDKGEILQYNIKDKSLKELLSLPKIKNYYGD

DFAKIYNIDIFKHTLLILSEGDFGAKNLSFYKENLQIKKLEENSIIKAFFINENTYLLISIGSEIELIDK

SLKNIKKFNFSHSSLNDAVLNEDKSRLIAGFESGEVELFDLKNWKMLKNYDKMHKDNIYQVDFKNNVILS

CGTDRRIGVVKNEEQNFLQKDFLIYTCALSPSGEFAVYSDNEAGVSEVFSTSDFKPVKTFNNENLMSEFI

IFLNNKDFIVSGFGDSIMFRSIDE

>AHK53669.1 nitrate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKKLVLLGSAAVVFFAACAMNSGVSSEQIGLRKASLENENKVNLVEANFTTLQPGESTRFERSYENAPP

LIPHAIEDLLPITKDNNMCLSCHDKAIAADAGATPLPASHYYDFRHNKTTGDMISDSRFNCTQCHVPQSD

AKPLVGNSFKPEFKNEQLKSRSNLIDVINEGVK

>AHK53668.1 quinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKYLIARRIVQLGILALFSFKATDFILQGNLSSSRLFNTIPLSDPFAVLQIILASWSIDLMALIGALIIF

FIYGLLLGRVFCSWVCPVNLITDFAAFVRNKLTLNNKFLILPKNLRYFVLVLVLVLSFVFSLPVFESFSY

IGMIHRGIIFATSSWIFVAFILFCIDTFLSPRAICSHFCPLGAFYAFISRFALLKIKHDSDKCTKCYECI

RICPEKQVLWMVGKESTSVKSGECIRCARCIEVCNDDALNFNIFDLRNK

>AHK53667.1 quinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKGRREFFVSAFKAACLCTGGGFLANLALKADDNYALRPPGAENEARFLSKCIRCGLCVKACPYDTLKLA

SLLDSPKNGTPFFKAREIPCYLCKDIPCIRECPTDALDKKHLEQGIESLKMGIAIVDSASCVAHWGIQCD

ACYRACPLIDRALKLELKRNERTAKHAFLLPSVDHEVCVGCGLCELACITEKPAIRVLPREYVLGKAGSH

YVKGWDEKDEGRIKNADTSKHFNVKKATNYLNDGEL

>AHK53666.1 nitrate reductase catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNRRDFIKNTAIASAASVAGLSVPSSMLGAQEEDWKWDKAVCRFCGTGCGIMIARKDGKIVATKGDPAAP

VNRGLNCIKGYFNAKIMYGEDRLVMPLLRMNEKGEFDKKGKFQQVSWQRAFDEMEKQFKKAYNELGVTGI

GIFGSGQYTIQEGYAALKLAKAGFRTNNIDPNARHCMASAVVGFMQTFGVDEPSGCYDDIELTDTIITWG

ANMAEMHPILWSRVSDRKLSNLDKVKVVNLSTFSNRTSNIADIEIIFKPNTDLAIWNYIAREIVYNHPEA

MDMKFIKDHCVFATGYADIGYGMRNNPNHPKFKESEKDTVEKENVITLDDEEATSLSYLGVKAGDKFEMK

HQGVADKNWEISFDEFKKGLAPYTLEYTARVAKGDDNESLEDFKKKLQELANLYIEKNRKVVSFWTMGFN

QHTRGSWVNEQAYMVHFLLGKQAKPGSGAFSLTGQPSACGTAREVGTFSHRLPADMVVANPKHREISEKI

WKVPAKTINPKPGSPYLNIMRDLEDGKIKFAWVQVNNPWQNTANANHWIAAAREMDNFIVVSDCYPGISA

KVADLILPSAMIYEKWGAYGNAERRTQHWKQQVLPVGAAMSDTWQILEFAKRFKLKEVWKEQKVDNKLTL

PSVLEEAKAMGYSEDDTLFDVLFANKEAKSFNPNDAIAKGFDNTDVKGDERKIQGSDGKEFTGYGFFVQK

YLWEEYRKFGLGHGHDLADFDTYHKVRGLRWPVVNGKETQWRFNTKFDYYAKKAAPNSDFAFYGDFNKML

TNGDLIAPKDEKEHSIKNKAKIFFRPFMKAPERPSKEYPFWLATGRVLEHWHSGTMTMRVPELYRAVPEA

LCYMSEKDGEKLGLNQGDLVWVESRRGKVKARVDMRGRNKPPVGLVYVPWFDENVYINKVTLDATCPLSK

QTDFKKCAVKIYKA

>AHK53665.1 thiol peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSIVNFKGNPVKLKGNSVEVGADAPKVNLKAKDLSVIEIGAAGKTQIILSVPSLDTPVCATEAREFNKKV

ASYNGAEVIVVSMDLPFAMGRFCSTEGIENLSVASDFVAKEFGEKYGVLINEGALEGLLARAVFVIKEGK

VAYKELVNEITEMPDIAKLDAFFGGSSCCGGCGCH

>AHK53664.1 hypothetical protein N919\_03885 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILILSLAASFLNAEILVYGPGGPAPVLKELALKFEEKTKEKVIVTAGPTPAWVDKAKENADLIFSGN

TSMMDDFAKKIPSLSLENLSVLNVRPSGIIVRPNNPKNIKNFEDILKDGINVMVVDGAGQVGLYEDMALK

SAKRENLVKLRKNIKIYAKNSKAAVDEWNNNPNIDALIIWSHWAKALGDDKALFIKDKNAVIYRAAEIAP

TKKGLENKKALEFVDFIKSQEAQKVWKKYTWKEVK

>AHK53663.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPLSKLNNEQYLAATADFGHNLVIASAGTGKTSTIVARISYLLSKGVAPQKIMLLTFTNKASKEMIGRLG

KFFDKNITSKILAGTFHSTAYTLLRNADKNIALKQASELKTLLKSVYEKRTFRHLSDIKPYQSSYLYDLY

SLFQNKAHNQDFYTWFCQNYEDQSIYAEIYEDILKEYDNEKKRFNYVDFNDLLINLKDLLKEEKYEFDEI

LVDEYQDTNTLQSSLIEAFHSKSLFCVGDYDQSIYAFNGADINIIGGFKDRFKDAKIFSLNKNYRSSRSI

LALANKVILNNERLYPKELIVTRNDEFKAPSLLTFEELFDQYQNIAKMILTSGVSLEEIAVIFRNNSSAD

GVEVALREQGIASVRKGSGSFFESLEVKAFSSMLALVVNPKDIMAFIHLVQYTKGVGGVLAKEIFDALLK

LGHGNLIKGFLDPDKNVNLQNHQKRNYQLGLFADLEELASETRFKFESEFDAHPILRLSKINDLCARNLE

KIYLFLKKAMEIKHSLTLVNLICENSFYREICEELATKRATNKAGQVDLLRKSENLEKIETKFNVLKELT

KNYSDIYKYYNFLTLGASEMSSGKGVNLLSVHASKGLEFDLVFVIDLAQGRFPNQKLMGMGGSLEEERRL

FYVAVTRAKNILYLSYAKYDKNKKTSFAPSRFLIEAGLCKGELTID

>AHK53662.1 hypothetical protein N919\_03875 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLKIFSIIVGILIAVIVILGGTYYYLFEYSKPKNYTLNTNTYTEQKSYTNNYDNPYSPSIQTNNSSSNV

NTNNNTIQKQETNPLLDENQSLNNDTFNISISENNQSLNNDTNTSNNINTNENKQILDTDKEKLKQENKQ

AKIEALKKEISKQQKILERERAIKKELQSNKSNKNKYLNTAREYLSIGKNSRLEPELSTENMKVYILDGK

FLSQYRINLLKDMLSIIQDNAKDYYLSIFVKMLPKGEMKLTIYNKEIIFSDMKKAYKYISLDRLSPYLNN

PKELNEHVAREEILERLKLQIKKDGKGSDFSKHIKSLKTGLNTAQYFFPFCEIIEISSIK

>AHK53661.1 valyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYDKNLEKEYYQICEERGYFEIDGNKTIQEKDKNFCIMMPPPNVTGVLHIGHALTFTLQDIMTRYKRMDG

YKVLYQPGLDHAGIATQNVVEKQLLTQGIKKEELGREEFIEKVWEWKEQSGGKILDQMRTLGITPAWSRL

RFTMDEGLVNAVKKAFVELYDKRLIVRGNYMINWCTHDGALSDIEVEYKENKGKLYHIKYFLKDSDEFLV

VATTRPETFFGDTAVMVHPDDERYAKFVDKEVILPISKKAIKIIADKHVEKEFGTGVVKVTPAHDMNDYE

VGLRHNLDFISVFDEKGILNEHCLEFQGLERLEAREKIVAKLESLGFIEKIEEYNNQIGYCYRCNNIVEP

YISKQWFVKKEIAQESIEKVALGESKFYPNHWINSFNAWMKDLRDWCISRQLWWGHQIPVYYCECSHEWA

SQHTPKTCPKCQSQNFKQDEDVLDTWFSSGLWAMSTLGWGNENWGKDKIWSEKDLKDFYPNSLLITGFDI

LFFWVARMMFQSTNVLHQLPFKDIYLHALVKDEQGRKMSKSLGNVIDPNESIKEYSADILRFTLALLAIQ

GRDIKLSNDKLLQVRNFTNKIYNAKNYLLLNESKFEDLENITLHSELAKYIYAKFQTCVKDVRENLDNYR

FNDAANTLYKFFWDDFCDWGIELSKAEKSSVKELGSIFKEALKLLNPFMPFISEYLYHKLSDTELKTSPS

IMISKYPKFKEQDKNIEKIFSLLIESIVSIRRAKSLIDLGNSKIEKAYIKFNDKKIKDEIKAYMNFIIML

AKCEQIEFSEEKLPKAICDVSENLEIFITLENVDLSGILTRLENQKNKLEKESFKLNSMLSNEKFIANAP

KEVVEQNKEALENLKIQLEKISVELQNLRG

>AHK53660.1 methionine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKIKNLKKYYGKELVINDVSLEIKKGEIYAIVGHSGAGKSTLLRCINGLENYQEGSLKVFDQEIKDLSQ

KKSKELRMLRKDIGMIFQNFALMERKNVFENVAMPLRTHYTQCKFHAKLFNKEYMSEKEIAQKVNSLLEI

VGLDHKNKSYPRELSGGQKQRVAIARALALNPKILLSDEATSALDPNTTKNILELISKINAEFGITVVLV

THEMDVVKDIAQKALLLEHGQIIGSGAIDELFLRPNAKMKEFLGESDFLPEHGLNIKLYFPKEVAQNSVI

THMARTLNIDFNIVWGKIEKLNGKALGNLVININEKDKDKVLDYIEKSGVLWEVAS

>AHK53659.1 methionine ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNEENISIVSAFFSRISQFFNEFSWQDIKEVSLSSITSFNENYENILKPALNETIYMSLMAVLFGFLLAI

IPGILLAIWDKNGIKENKIAYSILDFITNILRAFPFLILIVVLLPLSKIIVGTSIGTNAAIVPLAIGIAP

YLAKMLESAFKEIDKGIIEAAKSYGASNIQIIFKVIFSEALPAIISGITLTLIFTIGFSALAGTVGGGGL

GDVAIRYGYERFNKEVMIQTVVILLILVQLVQILGNLFYTWAKNSKTTYIIATLLILLGVSIVININNDE

NFFWQVIVFILFLGSLLYKGFKK

>AHK53658.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIKSLFIASILTLSLNANALETITVAATPVPHAEILEQVKPDLEKQGYKLEIKEFTDYVLPNLAVDNGE

ADANFFQHTPYLEEFNKNKGTKLIKVAAIHIEPMAVYSKKYKSLDDIKEGVKIAIPNDPTNESRALDIIA

KKGLVKFKDKALKTPLDIIDNPKKIKFVELKPAQLPRALNDVDFAVINSNYALSANLNPAKDSVFIEDKE

SPYANILVVRVGHENDPKIKALIQALQSDKIKQFIIEKYNGSVLPAF

>AHK53657.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLFKIIILACILNLSSLFAQNITIGATPNPFGSLLELMKDDFKNKGYELKIVEFSDYILPNRALEEKEL

DANLYQHKPFLEEYNLKKGSNLIATTPVLIAPVGVYSKKIKNLENLKEGARVAIPNDATNESRALELLEK

AKLIELNKNTLKTPLDINKNPKKLKFIELKAAQLPRALDDVDIAIINSNFALGAGLNPSKDTIFREDKNS

PYVNYVVVRSEGKNSEKTKVIDEILRSDKFKAIINEHYKDILIPAF

>AHK53656.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNIKKIFLSVLFTISLSFGADKTIIIGATPTPYAEILNFSKPLFQEKGWKLIVKEFNDYNIPNIALNEKD

LDANLYQHKPFLDDFNTHKGTKLSSLGAIVLVPMAIYSNSIKDIKDIPNGAKIAIPNDATNESRALDLLA

KANLIEFKSQSTLKTPIDISKNPKKLKFIELKAAQLPRALNDTDLAIITTNYALGAGLNPLKDGIFMEDK

DSLYAIVLATRKGEETSQKSLVIKEILTSDKIKNFIIEKYKGSVIPTF

>AHK53655.1 flagellar basal body P-ring biosynthesis protein FlgA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIIFLTFFIVINYIQAASLEEIKTALAKEFRNNFPKIIISQIDLKITSLPKDFDQYEFLRIANGRFNQA

QGFLRAEFKTPQNIQKNVFFRYFIQANLEVLKSERAIKRGDKLGAFDYKSVLIDFDKVPLNALTLDDVDN

LVAKSNINKNAILRANMFKTTALIRRNDPIIGVLSEANVDVLIELVALQSANMGERIRAKNKEGKVMQGI

VVGKNRMIIQ

>AHK53654.1 3-octaprenyl-4-hydroxybenzoate carboxy-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVLLGISGSSSVNLGLKLLKNLENQCELYCILTQGAKLNFKTENQANLEEICQENFKYTHFLDDKNLSL

SVASGSFGIEKTIIAPCSISSLAKIHAGFADTLLMRAAAVALKERKKLILGVREMPFSTLNLEHMLKLSQ

MGVIIAPPIIASYSKANNLEQMENFIAGKWLDLLEIKHNLYEKWQNF

>AHK53653.1 phosphopantetheine adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTCLYPGTFDPITNGHLDVIKRALKIFDEVIVAIAKSEHKKPCYDLEKRKELALLATQNLKNVKIIAFDN

LLVDLAKELKVNTIIRGLRAVSDFEYELQIGYANHALWEDMETIYLMPSLKHAFISSSIVRSIVAHGGDV

SSLVPKEILPFLKDQSCM

>AHK53652.1 thymidylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYVVFEGIDCVGKSTQISLLKEIYKDAIFTLEPGGTELGKHLREILLNKTHPINKRAELLLFLADRAQHF

EEILKTNQNKLIISDRSFISGMAYAKDFENDLLFALNSFALENFFPQKIIFLKGDANLIQERLSQKELDS

IEKRGIEYFLSVQDKLEKVLHFLKEKISVEILTLDAKESKEKLHQQIKEFLQ

>AHK53651.1 histidyl-tRNA synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINALKGMKDLLDKDAYYYEKVIKICEEVAKNYGFTFINTPHLELCTLFKRSVGESSDIVGKEMYEFIDK

GENHVCMRPEGTAGVVRAYIEKKLDKNTSVKRWFYYGSMFRYERPQKGRLREFHQFGVESLGIPNVYEDA

SIILMLVEIFSRLGIDFKLQLNSLGCSQCLPKYRDRLVEFLDSKEGFCEDCLRRKNLNPIRVLDCKNEHC

QNLLENAPLLINNLCTSCQKDFETLQQILKDNGVKFELDSKLVRGLDYYSKTAFEFISDEIGAKAAIAGG

GRYDRLIEYLGGKSGYGIGFAMGIERIITILEQKEEKIQREGIYLCAMDEIYIQKLLHIATNLRKEYKVL

LSYEARKLAKHLENADKNNTEIFLCMGENEAQNESLFYKNLAKKEEKMIKISDLKKVL

>AHK53650.1 arginine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDYGIDIWGNENFIIKNGKVCINYEKKPAIIDIVKELRDDGYKGPLLLRFPHLIQKQIENIYGNFNKARK

EFGYKGGFNAVYPLKVNQYPGFVKNLVKLGKDYNYGLEAGSKAELLLAMAYNNEGAPITVNGFKDRELIN

IGFIAAEMGHNITLTIEGLNELEAIIDIAKERFKPKPNIGLRVRLHSAGVGIWAKSGGINSKFGLTSTEL

IEAVNLLKENKLLEQFTMIHFHLGSQITEIHPLKKALNEAGNIYTELRKMGAKNLKAINLGGGLAVEYSQ

FKNEKSRNYTLREYANDVVFILKNIAEQKKDLEPDIFIESGRFVAANHAVLIAPVLELFSQEYAENKLIL

KKQNPKLIDELYDLYKSIKPSNALEYLHDSIDHLESILTLFDLGYVDLQDRSNAEILTHLITKKAILLLG

DKQNPADLLAIQDEVQERYLVNFSLFQSMPDFWGLEQNFPIMPLDRLDEEPTRSASIWDITCDSDGEISY

SKDKPLFLHDVDVEKENYFLGFFLVGAYQEVLGMKHNLFTHPTEAIISINEKGYEVEGIIEAQSILDTLE

DLDYDIHAIMDILNERISNSKLVNDKQKKHILGELYLFLNDNGYLKSIGV

>AHK53649.1 serine acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFWGIIKEDFSQPKAQDPAFNSCIELFFNYPGVWAVVNYRFAHFFYIRNFKRIARMISGISQFLTGVDL

HPGAELGRRIFIDHANGVVIGQTAIIEDDVLIYQGVTLGGTSLEKGTKRHPTIKKGVIIGSGAKVLGNIT

IGENAKIGSNAVVVKDIGANLTAVGIPAYIIEERKNKNIRAIDANCDDKLEKLEKKILELENLILKQPES

QK

>AHK53648.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLTKRSQVLEESITLAITALANELKAKGEDIISFSAGEPDFDTPQTIKNAAISAIEKGCGKYTAVAGIPE

VLKAIQTKFKKDNNLDYETNEIITNVGAKHSLFECIECLVEKDDEVIIPSPYWVSYPEMVKFAGGKPVFI

EGLEENGFKITAEQLKKAITAKTKVLMLNSPSNPVGSIYSKEELTQIAKVLEGTQITVLSDEMYEKLRYD

GFDFVAFASVSKDALKRTVTINGLSKCGAMPGWRFGYMASKNKALISAVKRLQGQSTSNICSITQHAAIP

ALNGECDKDIEKMRQAFEKRRNLALDILKQIPNISVYKPEGAFYLFVNIQKIEKDSMKFCQKLLEQEKVA

VVPGVGFGMDGYFRLSYATSDELIKKGLERIANFIKNYK

>AHK53647.1 cupin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIIQWNGAEFSPKEVKINVLIDNEKGKEIQILLAKDSVMKEHKAPFAIHVQVLSGKIWFEVEKEKFELN

ALDMISLEANVAHSLGGLENSIIRLSLNKSDSVQRVNAVLKKP

>AHK53646.1 zn-dependent hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLSFKIFDISNTQRSKAKKVQGKKYEIFLNENEHSLITPKVSFKEILRYYYLYPKNAIPSFKLPFFKPD

LSGFSTPHITWLGHSSLFISFKEYKILIDPIFNTHASPISFINKAFKNAPVYNINDFNEIFAVIITHSHF

DHLDAKSVKALKDKAKFFITPLKVGNYLKSYGVSEKKIIELDWWSGIEFGDLKIMATPAQHSSSRGDGKN

KTLWASFVMEFLSVDKRVFFSADGGYFTHFKKIGEYFGSFDLACLESGQFNIAWPYSHSFPEQILKEAKD

LNAKAVMPIHWGRFLAGTHAWNEVVKFLYENLDLPLITPKMGEAYEVGAKFKQDFWWKEE

>AHK53645.1 molecular chaperone DnaK [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKVIGIDLGTTNSCVAVYERGESKVIPNKEGKNTTPSVVAFTDKGEVLVGDSAKRQAVTNPEKTIYSIK

RIMGLMINEDAAKEAKNRLPYHITERNGACAIEIAGKIYTPQEISAKVLMKLKEDAEAFLGESVTDAVIT

VPAYFNDAQRKATKEAGTIAGLNVLRIINEPTSAALAYGLDKKDSEKIVVYDLGGGTFDVTVLETGDNVV

EVLATGGNAFLGGDDFDNKLIDFLANEFKDETGIDLKNDVMALQRLKEAAENAKKELSSANETEINLPFI

TADASGPKHLVKKLTRAKFEGMIDSLVAETITKINEVVSDAGLKKDEIKEIVMVGGSTRVPLVQEEVKKA

FNKDLNKSVNPDEVVAIGAAIQGAVIKGDVKDVLLLDVTPLSLGIETLGGVMTKIIEKGTTIPTKKEQVF

STAEDNQSAVTINVLQGEREFSRDNKSLGNFNLEGIPPAPRGMPQIEVTFDIDANGILTVSAKDKATGKA

QEIKITGSSGLSEEEINNMVKDAELHKEEDKKRKEAVDARNAADSLAHQVEKSLSELGEKVAAADKENIQ

KALDDLRETLKNQNASKEEIESKMKALSEVSHKLAENMYKKDEPNTANDKKKKDDDVIDAEVE

>AHK53644.1 heat shock protein GrpE [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSEQKQEFENENAENSEHLQDENLQNIEDVEQNKLQKDYDELKDKYMRANAEFENIKKRMEKEKLSAMAY

ANESFAKDLLDVLDALEAAVNVECQDEISLKIKEGVQNTLDLFLKKLEKHGVALIKDEKEFDPNLHEAMF

HVDSENHQSGEVVQVLQKGYKIADRVIRPTKVSVAK

>AHK53643.1 HrcA family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKSRDKKDLILESIIQTYLLDNAPIGSNELNSNLCIPASTIRVYLKRLSDEGLITQLHISSGRIPTILTM

QNYWQNFWEKEQDKNIHIKNESFLKELSKEFEIYCLVYGGRSLVLKEVLDLNTKFIVLDFEDEELVLKYE

KEAWNFLQSLIGLDLSSIEKIALRVHFIDLVEKIASLRQNLICYRSNEERAYQIYQNDEFVKLLDCQIHR

HFKESLEFEPLFKEGFMGLKVDAQFLGEDVNIILAGSVYTDYKKILQYIKEAA

>AHK53642.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILSIALVALVGLFLGACSDSKNKESNASVELKVGTAPNYKPFNYKENSKLTGFDTDLVEEIAKKNGI

KIVWVETNFDGLIPALKAGKIDMIASAMSATDERRQSVDFTKPYYMSKNLYLKLKNNDSLQTKNDLEGKK

IGVQLGTLQENTAKAIKNAQVQSNKDLNIAVLALKNNKIDAIVADQDTAKGFLAENPELVSFYQETDGGE

GFSFAFDKNKQKNIIEIFNKGIDEAKTDGFYDTLIKKYELE

>AHK53641.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLVLFDLDDTLIQGDSAKLWLKFCVEKGFLPQEYLEKIVFYQKQYQEKKFDMDEFMTFFLQSVKGKNED

RISSLVDEFIKIYIKPYEKAKELIIKYQDQRCIIISATAEFLVRKIASFLGVRESIAIKCERVGDKFSGK

AYGIYSFKEGKVLRLKEYLGKDYEKWMKDSYFFSDSINDLPLLESVSKAFVCNGDEKILKIAKERKYEIL

TF

>AHK53640.1 spermidine/putrescine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAYLKIKNFKKAYGDKIIFEDINFSAKKGEFITLLGPSGCGKSTLLRCIAGLSQINGGKISLNDKDLTKL

SPQKRNIGMVFQNYALFPNLNVFENVAFGLKIKKMDKKDIEKRVKKMLKLVELEEYAKTYPHKLSGGQMQ

RVALARSLVIKPDLLLLDEPLSALDAKIRKYLRVQIKEIQKELELTTIFVTHDQEEALELSDTIILMNEG

KIIQNSNANNLYLLPESHFVASFIGNYNILSPKELDSLGLKHDFKKDIALRPETIEISNEGLEAKIKEKS

LLGNIIRYRVRVQEIEFKVDTLNFSTHSTYEAGDKIALKFNLSLAKELK

>AHK53639.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNENLSLKAKIYHYAVLFLVFLFLALPLMATFLYSISTSWGVSVLPDDLTLKWYQELFHDERFLLALWHS

LLVCVGSILLSVILVFPLVFVLNYYFLKLKAFVNILIIMPFAVPPIVSCVGLLQLYADNIGGTAWILIFT

YFTIALPFIYRALDNAISNVNLNELITSNAMLGGSLMGAIFKLILPNLRNGILVAVFLSFSFLIGEFLYA

NILVGSAYETLQVYLYNIKNQSGHYSSALVIVYFVLIFITTFIASLIKE

>AHK53638.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEKFLAFLSILPFFIVFTFFMIAPLIWIVFNAFYVEEDEIYSLANFIHIFESKFYLQSIINSLQISFIS

SIFGLLIGLLASYSLFVLAPSKICKFLFSLNTMISNFSGVPLAFAFIIVLGSNGVVNVFLKNLGIEPFVS

VYANFGVNIVYVYFQIPLAILLLLPAFKSLENSHLNACKMLGGGNFLYWLKIALPLLAPALFGVFVILFA

NAFGAYATIYALSSGNFNVAPVRIAALIAGDINLDPYMASALSIIITIIMLVVTFIANFLSKKYNFKVL

>AHK53637.1 hypothetical protein N919\_03645 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKAILVVLDGLNCKSASINMGYLNALCKENLGKFYSLECELPSMSRPLYECLLTGVKPVLSGIINNKLS

FSKQTSIFDLCKEQGLKAGGAAYHWVFELYNKKEFIPSLHRHIEDENLTLPYGHFYYEDDYLDSHLFADG

EHLRNKYNLDFTLIHSMNIDDAGHKFGSHSIEYANKTKKVDILISEYLPTWLEQGINVIITSDHGMTEGK

SHGGLSEDEILVPFFTFGSAFSYENAKIKQDEICGSICEILGLKHDKRYNDEILKAKK

>AHK53636.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKKFFLSLGLVALLFSNSQAIDENLIKAAQAEGRVNSLAMPDTWANWKDTWADLKNLYDIEHSDTDMSS

AQEIAKFKTEKKNASGDIGDVGASFGEIAVKQGVAQPFKTSYWDQIPTWAKDKDGNWLLAYTGTIAFIVN

KDVVKDIPKTWQDLLKGNYKITVGDVSVAAQAVSAVLAANYALGGDEKDLSPALAFFNTLAKQGRLVNND

VSIANLEKGEVEVGLVWDFNGLGYRDKVGKDRYEVLIPADGSVISGYTTIINKYAKHPNAAKLAREFILS

DKGQINLAKGYARPIRIDHITLPDDIKAKLLPSEQYKNARAIKDQKAWEKSAKELPQLWQEKVIVDMK

>AHK53635.1 magnesium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLYIYIKTQNALVQRINFNLDSQELPQNILWIDLLHPSAAEIAFISSEFNLEFPTKEEREEIELSAKYWE

DNATITINAHFLVRDLKSDEEDRNLIKLRTEIVTFATAKNILFTIRYNEFSTFEEIQARILASPKNFEDG

FDIIDKMFEVRVEKDADLLEWIDKEARRLRTSVLEKKDEYSYDEMLKDISSLQELNMRVRDSLFDKRRAM

TSLLKSDKIDKDIKQNLTIVLKDLNSLVEFSVSQLNILDNIQTILASQINIEQNKVIKIFTVATVAMMPP

TLIGTVYGMNFKFMPELELHYAYPIVLGVMVISIILPLVVFKKKGWL

>AHK53634.1 molybdopterin adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDTINIGILTLSDRASSGIYEDKATAEIERVLNSYIKNDIIYHKELIPDDYDLIIKKLLYLADEKKCDLI

VTSGGTGPALRDVTPEATEAVCDKMMPGFGELMRLESLKYVPTAILSRQSAGIRNKSFIINLPGNPKAIK

ECLEPVFPAIPYCIDLIEGAYIEANDEVIKVFRPKKKCQN

>AHK53633.1 molybdenum cofactor biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFFKKKISQKQKEKPKIPINDVILDDRLCKFKNKVQKISKDEASASLLARQLSRLIRANKF

>AHK53632.1 peptidase M48 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTLIAILCLYTALLSWISYAQIRFLEREKDKQAQILSEKDYQNAADIAIENEKFKLFSNFYNLIISIAWI

GFGFLYLKELLILNNTRFENTLFLLSFLIITSILNLPLSIYESFIKDKAHGFSNMTVKLFIKDTMKSLIL

TLIFGFLILYTLLFCYDFFGTFWWIAAFIFAFCIIVIINLIYPTLIAPIFNKMKKLDDENLLKKISSLMK

QCGFSANGVYVIDASKRDKRLNAYFGGLFKSKRVVLFDTLLKALNERELLAVLGHELGHFVHKDIIKALF

NGAITMFLLFFVFANLPEFVYLESHLEGVNGGVFALLFILANIFSFLISPMLNALSRKNEFAADQHGAKV

TSKEDMKNALIALARENKAFIKTSKIYTFFYLSHPSISDRIKALS

>AHK53631.1 N5-glutamine S-adenosyl-L-methionine-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTIKNALMEAKSSLKGYENEAVFILCEYLKKDKAWLFLNQDIKIDHEPYFELIKRFKSGEPFEYIFEKVD

FWGLEFKIKKGILIPRYDSEILLFQILNLCKKNTFNGILEIGFGSGILSIVLAKELGLKITACDINPKAL

ELALENAQLHKVDHLIDFKLCNFKQIKENYDFIFSNPPYIKNSYPIDIWVQKEPKEALFGGEKGYEILEE

IIHFSLDKKVKFLACEFGYDQKEILEKILYQNNFIVDFFKDEQGYNRAFIAKFTNMRYDKK

>AHK53630.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKAVNLFLLASIIGVELILGIVVAPTIFFPQNLIGEGVLSHFQSGLMMTQIFIKMGYLLIFVSVVNFLYE

IYSLIKDEMKFQIKFSKFMLSLLILILSLIFVFYFTNTIIELQNLGENATKTQEFISIHNASEVVIKIIL

IMQVFLYFLSFKIAKK

>AHK53629.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMISDATMMQQNYYLNNAQKASDKALENIAAVRAISGVDSANLAIADSLRSQSSTIDQGVANAYDAIGVL

QIADASLTNISQSADRLNELSVKMNNAALNDSQKGMLRTEATRIQESINDSFNNATYNGKNVFQTMNFVV

GSGTETTNLNPLATDGLSIDSQDSITNFMDQLGSLRSEIGSGINAITSNINASVQNSINSKAAENNLLNN

DMAKNVNDFNANYLKENAAAFVAAQSNMQLQSKIANLLQ

>AHK53628.1 YggS family pyridoxal phosphate enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTLEQILEKTKNVRLVAASKYVDASIIEKLFDQGIVEFGENQVQALAQKKENLDEKKLDIKWHFIGTLQS

NKINLLIKQKPILWHSCNGIKIAKAMDKRLDYKLNTLLEINSANENSKSGLDPNQAVEEYLQIQEECSNL

NLCGVMSIGSHSQDKENIIKSFETTFKIYEILQKHGAKICSMGMSNDFEIAIKCGSNLVRLGSILFKNLK

>AHK53627.1 DNA polymerase III subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSQFTHLHLHTEYSLLDGANKLKELALTLKEQGATSVAMTDHGNMFGAIDFYQTMKAQGLKPIIGIEAYL

HNHDELDDKSSRQRFHLCLYAKNEIGYQNLMYLSSQSYIKGLYYYPRINKKLLEDYSEGLICSSACLQGE

VNWHLNTYSERNVRFGAKGYEAAKEAALWYKKVFKDDFYFEIMRHGIGDQRMIDDDIIRLSKELNIKIIA

TNDTHYTFKERAAAHEVFMCIAMGKKLNDPDRMRHSVHEFYVKSPEQMSELFADIPEAIENTQEIAQKCN

LELNLGNPTPPNFKFTREYAKDHNIILPEETKEFSFDNDDMVFEELCKKGLEERLKFIDESKHEEYKQRL

EVEINIIKNMKFSGYMLIVHDFIKVAKDKGIPVGPGRGSAAGSLVSYCLRITDLDPIPYSLLFERFLNPE

RVSMPDIDVDFCQDRRAEVIDYVIDKYGADKVAQVITFGKLLAKGVIRDVARVCDMSIQDADELAKLVPE

ELKITLDAAYEKEPKIKEFIDRHPKGLEVWEYARALEGLNRNAGMHAAGVVISNESLWKKTPLFRQSKND

ERHLVTQYSKDHLEDVDLIKFDFLGLKTLTVINNAIKLIKKRYNKDIIWETIDVNDSKVYKTIQSGNTLG

IFQIESGGMQSLNARLKPERFEDIIAVLALYRPGPMESGMLDDFIDRKHGLKSIEYPFDSLEKVLEPTYG

VIVYQEQVMQIVQIIGGFSLGGADVVRRAMGKKDPEKMKKLKTDFADGAEKQGYDRAKAEDLWELIVKFA

GYGFNKSHSAAYALITFQTAYLKTYYPSEFMAALLTSEENNVDKIAVYIDEMKKMNIKLLPPSINKAIRE

FSALEQDGKDAIIYGLGAIKSVGIPAVENLLEARQDGEFKDINDFLGKIDPTKINRRTLESLIKAGAFDE

FGFTRKALFDNMENLSEASRKMAEVRKNAASSLFGEEELTSGVQVNFTPKNEEFEVMEKLGYEKEILGIY

VSGHPLDRFYEQINAIDYVKSLDFESLKNNGEILSIGKIEDFKSMMSKNNKRYGRIEILDYYSSFDATVF

ESNVEEIENIIKDENLKNNAYGFVLGFKAEGGEKPSFFLKAIKDLQSLEDGEIKAIKKFGAKKDFKNKEE

NHFTAEPKEFEKNIIELDLTRLNRELIYEIHEIARNAHNPNEKNNKKLVLKVISAGSCLLYHTDFIISDS

IVEEISNKYA

>AHK53626.1 ArsC family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLYGIKNCNSVKKAMDALTQKGIVFDFMDIKKINQDILYTWLKQKSFEELINTAGLTSKKLGLNKEKVK

NLNEKELEKIVLENPSCIKRPIIEYEQNIYIGKEYEKML

>AHK53625.1 phospho-2-dehydro-3-deoxyheptonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MWAKNSWKNYPIKQQPIYPDQEEMNRVLARLEKLPPLVFAGEVRNLQKSLARVCKKEAFLLQGGDCAESF

ENFGAVNIRDMFKILLQMAIVLTFAGGCPVIKIGRIAGQFAKPRSSDFEELDGISLPSYRGDIINGFEFS

EQARIPDPHRMLEAYYQSAITLNLLRGFAKGGLADLHEVHRWNLGFLKKSELHKQYTDISEKISQALAFM

EACGINTSNTPSLREVSVYTSHEALLLPYEEALTRVDSLSGEIYDCSAHMLWIGERTRALDEAHVHFLSG

VKNPLGVKIGPSASADDIIALANVLNPNNEEGRLNIIIRMGADKIINNLPKIFSKLKSEGLNLVYSIDPM

HGNTVKAGNFKTREFDKIMQEVRSFFEIAISEGVYPGGVHLEMTGKDVTECTGGASNVTAQSLEDRYETQ

CDPRLNADQALELAFLIADLVKKTRK

>AHK53624.1 hydroxyisourate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFSIKKTLLILASVPMFLSATEYQLSTHVLDITSGQPAPKVKVELYKLEANQQWKKVSEEFTEENGRIGD

LLPYEKAENRAFGIYKLKFFTKDYYTSHKINTFYPFVEVSFELSKDQKHYHVPITLSPFGYSTYRGS

>AHK53623.1 50S ribosomal protein L19 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNKYIEQFEAKQIEGKNVPDFRAGDTLKLAIRIKEGDKTRIQNFEGICIARRGNGVSETFIVRKIGANN

VGVERIFPIYSESLESITVLRRGRVRRARLFYLRDRRGKAARIKELKK

>AHK53622.1 tRNA (guanine-N1)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFSFVSLFPNLMEFYFQDSILARAKEKKLFKLNFYNPRDFSKNSYHKVDDYKIGGGAGLLMQAEPMYEV

LRSIQEKKENPYFIFLNPSGKTFNQKDAKRLSKKEHIVFVCGRYEGIDERVLEIFANEVFSIGDFILTGG

ELPALVMCDAILRNVNGVLGNMESLEEESFENNLLEAPAFSKPFIFEKKNKKFYTPSEFLKGNHARIASL

KTTLASCKTKFFRPDLFLEHERKK

>AHK53621.1 ribosome maturation protein RimM [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSEKDFVQVAKLGKTVGLKGYVKLHNLSDFSSQFKKDATFFIKNTKEMLKIKHYNANNSTVLFENYEDIE

KAKELTNLILFQSIEKSRQTCKLKKDEFFYFDILECEVFEEDKRLGKVVDILETGASYLFEIQSDEKWVE

KKYPKIFFIPYLDKFVKNIDIEKRQIFCTQDAFLILENS

>AHK53620.1 RNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVENFLREYAKLIADYPEQIDTQKIELSENFFEIVLFAHKVDTGKLIGKNGKMINAIKTVISAYKSKDAS

SYRVTVKALE

>AHK53619.1 30S ribosomal protein S16 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTVIRLTRMGRTKRPFYRIVVTDSRKRRDGGWIESIGYYNPMVEPEVIKVDAERLAYWKSVGAKLSDKVA

SITSK

>AHK53618.1 signal recognition particle [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFELVSESFKSAINKLRFVDDEKALKNALETLKKALLKADVHHKVTKELLTLIEEDAKQNGIGQKQFLNA

IKINLENILSVNGKNQGFVFASKPPTVVLMAGLQGGGKTTSTIKLANYLKLRNKKVLVAACDLQRLAAVE

QLRQLCEANEIELFFIENEKDPIRVAKEALKKAESSMVDVLLVDTAGRLAIDEALMDELRAVKDVLNPDE

IFYVADAMSGQDGVKTAASFNEVLGISGVILSKFDADTKGGVALGIAKQIGIPLRFIGVGEKVADLEVFI

PDRIVSRIMGEGDLATLAEKTAAIIDEKEAKKLNQKIKKGEFNFNDFLNQMESIKKLGSMKSLIGMIPGL

GGMANAVKDIDLDNSKEIIRIKAMISSMTPKERENPDLLNNARKRRIAEGAGLSQVEVNRFLKQFSNAAK

LAKRFSGKKGMESLTQMMSQARRQF

>AHK53617.1 ribosomal large subunit pseudouridine synthase C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQEKAYKLLALQEKISNREAKDLIDKGCVFSYGKKVVVARALMSDKARFNVIKAKNPQIIFEDDKIIAIN

KPYAYVSEDLEKKFNAKLLNRLDKETSGVILLCKDEDFRKLCIEEFKKHRVYKSYIAVLDGVLAEEVEVN

EPIFTIKVKGGALSKVSKDGLSALSIITPIMMQSKKTLAKIVIQTGRTHQIRVHAKFIKHGVVGDEKYAK

ISSDRMYLHSYEIKIFNYHFRANLDSGFAKFGFDIKNLDF

>AHK53616.1 3-deoxy-D-manno-octulosonic acid transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIFFYYFLTWTAFLFCAVFILLLSFLKSKYKISLKSRFFLYKNLHQEKADVHFHACSYGEVRSIKALVLK

FDSRITTITQTGFECAKEFCKKVNYLAFENFLPFWLKPCKVLVIFEAEYWLMLVFMARIYKAKIILLNAR

ISDKSYHSYQRFSFFYKKIFSYIDEVFAQSDLDKARLESLGAKNVKIFKNIKANLEIKNNKIYTKPKEKL

IIFASTHKDEEELLLDHFKLEENEKLIIAPRHPERFKEVENLLLNKGLEFEKFSSLKDENKKFSKKILLL

DALGELVNFYAISDVVVLGGSFIEGIGGHNPIEAAYFDNVLISGKFIHNQKVLFEEVENVYFCEKLKDLN

DKVHYLNLKAKISKKENLDLIIQTIQKGIDARKSL

>AHK53615.1 zinc ribbon domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKYLEQLVLLSKIDQEIDSYEPKIDSINKTLKDAELKIEKINADLEKIDEEIKDIENQKIQNNAHISEF

SAKIKDLSKKSGVVKTEKEANALKIEEDIAKEQLDAANDEIVRLDKILENKETYKKELEEEKIKQEQNIN

EIRVSIKSEMEVLEKDRMSVYDKKTKLVSEMNQKVLSFYEKIRKWAKNTAVVPVKKQACYGCFMKIYDKT

YLSVVKGEEIVTCPHCGRILYKEQEEQN

>AHK53614.1 hypothetical protein N919\_03525 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLSEIYNFLDQLSPFNIQESWDNSGILLGDRDSEISTVYLSLDIDENIIKEASENSLIITHHPLIFKGL

KDLYDKTYPRAFIKEMIYKNISLISMHTNYDLSHLNTYFTEEILGFKISFKDKFLIYVENSMSFEALCDW

VKKKLNLQILRVSDCGKKDIKRIAICTGSGGDLISKVDADCFLSGDFKYHQALEALSNQISLIDLGHFES

ERYFSQCLAKDLKNLPLQVIITVSKNPFQYF

>AHK53613.1 glycyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTFSQMILNLQNYWQEQGCAIMQPYDMPAGAGTFHPATFLRSLGKKPWAAAYVAPSRRPTDGRYGENPNR

LGAYYQFQVLIKPSPDNIQELYLKSLENLGFDLKSHDIRFVEDNWESPSLGAWGLGWEVWLDGMEVTQFT

YFQQVGGIAVDLVSAEITYGLERIAMYLQNVDNVYDIVWSEFNGEKIKYADVHKQSEYEFSKYNFEVSDV

KILNEQFENSYKECKNILEQGLALPAYDYCMLAAHTFNLLDARGAISVAQRQDYMLKIRELSKNCAEIYK

KNLNEAE

>AHK53612.1 hypothetical protein N919\_03515 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQTYLELEEFCKLVHLNEDVVKGMMANGALNFKEEEGKIYIEAHQGTFSVVPSSAKSQTAMVNSMTLAGE

SFVEKTIGTILNLHEKVLDAKDETLEALKNENKFLKDALYSMQELYDEDRKTIETLNNELKHAREEIEFL

KRKYKLMWSKTAEIFGAKTEPDLEMNKNLEKPIENMEQ

>AHK53611.1 N5-carboxyaminoimidazole ribonucleotide mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFVSILMGSKSDYETMKEAAKTLESFGVKYELIISSAHRSPKRTKEYIANAEEKGVKVFIAAAGMAAHL

AGAVAAYTTKPVLGVPMSGSNLASMDSLFSTVQMPSGIPVGTLAIGKAGAINAAYLAMQILAIYDVDLAQ

KLKEDRLEKEKKLVSDSKEVEVLL

>AHK53610.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIIPEIVAPAGNFTKLKIALAYGADAVYAGVNNFSLRSRTAREFNYESFEEAIKYTHERGKKIYVTLNGF

HLSSQIEGLKRHILKLREMKPDAFIVASVGAMRLVKELAPEISLHVSTQANILNYLDAQVYKDMGAKRVV

IARELGLKDAKALKENCDIELEAFVHGSMCFAYSGRCLISSVQSGRMSNRGSCANDCRFNYELYAKNPEN

GTLFRLEEDENGTHIFNSKDLNLCSYIEKIMQENCISAFKIEGRTKSEYYVALTTRTYKMAIQDALEGKF

ESSKYEKEIATLKNRGFTDGYLVSRPLEKTDTQNHNTSIEEGSHQVHAISEDGRFFKCKGKIVLNTPYEI

LTPLGDVIQTCDNELGKIYQKEGKYFIEFKKLIAKNNKEFSEIHSGNEHEIQLPNKISALSFLRKEI

>AHK53609.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTQEELDALMNGDVDLDSETEAEVKTEESNTEEDALMLEDVKIADYKPNPSVVWPPPPPNQEHKVVHQLD

DVTKDSELKATEMMDKLESINNFFADSESLLKEINKAIEKNIDIFSKLNEKFPNVESFSEALELNNQAKK

SSKEIVGNLQSGQDEVMMAMDAMQYQDIHRQKIERVINVMRALSRYMSSLFEGKIDDKKRVSSAVHIEGD

STADVVSNDDIEALIASLGQK

>AHK53608.1 glutamine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGKFVNNIDDFFKFCKQNEVLFVDFRFTDMIGTWHHITYNLHAINEETFQTGIPFDGSSIHGWQPIEKSD

MILKPDAQSAFLDPFTADPTIIVFCDVYDIYKGQMYEKCPRSIAKKAIEHLKNSGIADTAYFGPENEFFV

FDSVKIVDTTHCSKYEVDTEEGEWNDDREFTDSYNTGHRPRNKGGYFPVQPIDSLVDIRSEMVQTLEKVG

LKTFVHHHEVAQGQAEIGVNFGTLVEAADNVQIYKYVVKMVAHLNGKTATFMPKPLYGDNGNGMHVHMSL

WKNGVNLFYDKDGYSGLSQTAINYIGGILKNARSVAAFTNPSSNSYKRIVPGFEAPCILTYSCQNRSASC

RVPYGIGKNSARIEIRFPDSTANPYLAFVSLLMAGLDGIKNKTIPVGPMDENLFDLTLDEIREKGIEQLP

HTLRGSLEALIRHNSYLKPVMSDIFIDDYQHLKFETQVWPVEARPTAYEFKTCYSC

>AHK53607.1 flagellar basal body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMRSLHTAATGMVAQQTQIDVTSNNIANVNTAGFKKSRAEFADLMYQVMKYAGTSTSATTLSPSGIEVGV

GVRPTAVTKVFTEGNLKSTSTDGLDMAIAGNGFFQIQLPDGTIGYTRNGQFTKDNEGNIVNSDGYRLLPE

MTIPEGATAINVATDGTVSVMLPGEQQETQIGQVELVQFINPAGLHSMGDNLYLETGASGAPVAGIAGQD

GLGTIRHGFIELSNVQLVEEMTDLITGQRAYEAGSKAITTSDDMLGIVNQLKR

>AHK53606.1 flagellar basal body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNGYYQATGGMVTQFNKLDVITNNLANINTSGYKRDDVVIADFKRIFKETQDELPIENHTRDASRFVNT

TIDGIPQVSQEYTDFSLGSLKATNNPLDLAMTREDAFYLVQTKDGEVRLTKDGNFQLDDEGYLVNKQGYK

VLSSDYFNNPQNAGIRIPNGAVQISVDKNGSIEVDGAQNARLFVAQVDDIRALQKDGDNVYKIDDLTRIR

DLKNSNAIRQGFSQGSNVNPVTEMVGLIEANRMVEMYQKVMTAHMDDLNQEAINKLAAVK

>AHK53605.1 cell division protein FtsZ [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSEFLVEEMQHNKGAKIKVIGCGGGGGNMINHMVKMGLNDLDLIAANTDAQAISISLAKTKIQLGEKKTK

GLGAGMLPEVGAESARESFEEIKASLSQSDIVFIASGFGGGTGTGATPVIAQAAKEIGALTVSVVTMPFA

FEGKQRKKLAESGLLELKKESDSILVIQNEKLLSIIDKKAGIKDAFRLVDDILARAVKGMVSILLDNGDI

NVDFADVRTIMSHRGLALMGVGSASGENAIEEALSNAIESPLLDGMDIKGAKGVILHFKTSSNCSLFEIS

AAANSIQEIVDENAKIIFGSTTDDSMEDRVEVTIIATGFEDKDTVAKKSTEEAQASKKNPYLSLKKVSGG

YDEEIMAQIETPTFLRRQMD

>AHK53604.1 cell division protein FtsA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNILGIDLGSTQTCAIIAQKDEDGLKIIGFSKSKTNGVKKGAITNIELASKSIEEAVRSAEMMSGVHYDR

VVVSISGAYTKSVDSIGVVNIPNHEIGIKEIHRAVSTAKHTANLPSGYEIIHVLPYNFKVNDLEHVDDPL

GMSGNRLEVSTHIVISQESHIKNLKKAVELADLRVDNIVLSGYASAIACLDDSEKELGAVLIDMGGAICD

MVVHTGNSIRYNDCLQIGSINITQDLSMALHTPLKEAEKIKLNYAALSQQPNTLIQIPSMGDERKVNEVS

LDIISNVIYARAEETLMILAKILSDNRYANAIGGGVVLTGGMTKLAGIDELAPATFDNRSVRLATARKDL

ITGFSEIFNDPENTCAIGLCLYGAGYFTPYELDSNEKLRYKGEIENFNRQIKQDIVLQKDAESEIKSDFF

DENLQENDTIAIQEQLDFKEPKEKKPSVFSNIWHKIMNQF

>AHK53603.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLTWMQHHKKYLVVTIWVSTIAFVGAGFLGWGAYDFNLNRSSSVATVGNEKIGFSEFDTRYRQILSYYNQ

ISNGALTPENAEQLGIKNIALSSLVEDKLLLNFAKDLGIGVNENQILQKLANTREFQDPTGDFNKTIYYE

LLNANNLAPKDYETQLANEVITDKLNQIFNIPSKDEELKMLASSYFMQDALSIAKIDYDKKNIKINEEDL

KKLWNEHKEDYKTKKIYEISTYFLPVSNEKIDDKELEKFYNQDENKLKYKDFAGKVMDFQSAKNEVAKDY

ALMQLKNVANAKFLDLKNGKDNFQKDQNISESDVYYPIDLLNKAKNGDVLRPAPYNNGYIIVKLNKVDPI

RNKTFEEAREEVLPMYLSEQARKNLEEKAKNSLVNFKGDDIGFVSRDSSRESVKVSDKILNDSEFAYFLM

NVFNTDQNSSYVVINDNKAILYKINKQKLDMNSDKFEQYKTMLEQNLQNLKANELKQELVDELKKIYPIK

IYYKGN

>AHK53602.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEIPHIPVLLNEVQEIFKNLKTGYFLDCTLGFGGHSEALLKNHPDLKFIACDQDQQALKFSKKRLKDFRN

RITFMQSNFSEVLEKISHKEELRGILADIGVSSFQLDNNERGFSVNSDFLDMRMNQNSKISAYEIINTYT

KEQLTSIFKDYGELHDAHFIAEKICLERSKNLIKSAKELYQIIGKGKQNHRKISKATLAFQAIRIEVNQE

LKVLKDFLEHLENLKPKNCILAIISFHSLEDRIVKQFFKKWSKNCICNEKIMRCECGNNHSLGQIITKKA

ISASKEELLKNSRSSCAKMRAFYFNNLDNK

>AHK53601.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLEDDFIKERQNIRQKMLKFSRAINQGKPLDDDLRDEISSDDILRRRFKKKTPNKFLEELDEEYESKHTK

KSNIYLKEDLINVKLEEKQSLAKKIFSKMKERRKEENKKTKKNFLFSRKKANEIKNIQTKTQIQTKSNQA

TTQTKQEKKELTNSIEKIQKTETKIQKPLIIEKKLDVKNQPNIKKSLENLQKKITPQENKQELPKPSNQA

QEKQQNDEDAQKAKNILLEGFSNATKEDRNLNFNHLLFAALLVSFALFLFAPQIYIRNQIYYLSREIATL

RTEESVLNEENKDLKRRLENMRFQNQILDYLE

>AHK53600.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKFKEFSLRFLFKVSEQPVLIRDLLEANALFNDGMLVDPSKLNFNFKILNSYIYFGVFCAVILLPLLLI

THYFLTKLDFHISIVSAVMVTACVFIGYDIFKVYTRKIISKKIIQKAWALHFPYFAYEKYSTMAGEFYKE

ALKEEIPKANLEQYVLDKIIHSK

>AHK53599.1 acetate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKILVLNSGSSSIKFKFFDNKVVKASGLVEKIGEQNSKVVLKNTLNNESFERELTINNHEEGLSIVNELF

KESGILADLNALDGCGHRIVHGGRNLSEHCLVDDYVLKEIDRVSIFAPLHNPAHLAGIKTMIKAAPSVAN

AAIFDTAFHRTMPDFAYMYALPYDFYDKHNIRRYGFHGTSHAYVSSRAAKFLQKDQNELNVISAHLGNGA

SVCAIEKGKSVDTSMGFTPLEGLVMGTRCGDLDPAILPFISHLKGLTIEEIDTLMNKKSGVYGICGYNDF

RDIEREIEQGNDKARLALDMFCYRLVKYIGSYFAVLPKTDAIIFTGGIGENDSLVRQKVCERLAHLGIEL

DFELNKQRISGERMINHANSKVKVLVIPTDEELEIARITEELIGKN

>AHK53598.1 phosphate acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MANLYLMRSRSDELNTIISTNLLKNYSKIYKNIAIYCPVIYIHRVPVLQGWLEEFNINQTVKSAYGFTFR

EAMEEFSKDPHNFFNVILEEYEELKRKYDFVLVNSFCEFGILDGFDLSIKLAKNLNTPIAAIINDEDKLI

AQKYFDHALDGRNYVLINENFNFEEVQKLKEYDFITPHRFKYELIKQSIKNKKTVVLPESNDERILKAAE

ILLKSKVVDLILLGDEEKIKQDATRLSLDLSAMQIMNPLNSEYNQKFTSILYEARKSKGMSLEEAKMLVQ

DKTYFGTLLIHTGKADAMVSGASTTTAETIRPALQLIKTKEGISSVSGIFFMGLEDQVLAFADCAVNPSP

TAEQLATSAYVSAMTAKSFGLEPRIALLSYSSGDSGKGESVDLVKEALKIAKEKYPELNIDGPMQFDCAY

DPKTAAKKMPNSKIAGHANVYIFPDLNAANICYKAVQRTANALAIGPILQGLKKPVNDLSRGCLVDDIVD

TVILSAIQAQ

>AHK53597.1 flagellar L-ring protein FlgH [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKVLFYVLPFAFFGCSATVDPQISMKPPAYVEELAPKQSNNVESAPGSLFGKGDNPLFSDKKAMNVNDL

VTVVIQESTTQSTQANKATSRTNTSNLGGGALTGSSGVVANALNKVNAYSNIGFQTNSSNNYTGTGSQSR

NESFNTTISTRVIKILSNGNYFIEGSRELLINGEKQIIQLSGVIRPYDIGQDNTIDSKYIADAKILYKTE

GEVDRSTRKPWGSKVIEAIWPF

>AHK53596.1 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEYKRFKTRQIKVGNVLIGGDAPISVQSMLFTKTRDIEGSLEQINRLYFAGANIVRLACLDMADARALKE

IKAKSPLPLIVDIHFNHNLAVYCAEFIDGVRINPGNIGSKENIKEVVKACKERGIPIRIGVNHGSIEKQF

SDKFGYGVDAMLESAMYNIKLLEDLDFFDIKISMKTSDAQKTIEAYERLRPLCDYPFHLGVTEAGTKFHS

TVKSSIALGNLLLKGIGDTMRVSMTGELEEEIRVARAILQDSGVQKSGVNIISCPTCGRIQSDLLSAIKI

VEEKTKHIKEPLNISVMGCVVNALGEAKGADVAIAFGKNQGLVIRHGEVVAKLKESELVDRFLAEVEDEV

KSRVVKE

>AHK53595.1 primosome assembly protein PriA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQRSDIRYYELAICGLYLDNLTFHSFDEIKPLTQVLVDLKTKKNLKAIVLKECQKPDFKTVEIKEITEYF

LTPLQFELANFIVYYYASKLGFVLGFFETSPKYECHKMFFKDTPKLSNQQQNALSFLQKENNSLLFADTG

SGKTEIYISLIKECLEQGKQALLLMPEIALTPQMQKRLEVYFKDNFFLWHSKISKKKKQEYLERFCKGEV

LLVAGARSALFLPFRNLGLIVVDEEHDNSYKASNQPFINARDLALFLGQKNNIQVILGSATPSLTSFYKQ

KSFRLKGTFFESKKHFLYDENELGITPMLLSELEKSLKHQKQAIVFLPTRANFRQIICKDCGETIKCPFC

SIAMSMHKKKNILKCHYCNYTSLIEQNCPSCKGEMLEARKIGTAELLELLQNALPLAKIAKFDSDEITSV

KKLNTILKNFNENKIDILIGTSMLAKGHDYHSVDLSVILGLDEYLLRPSFRASEETLALAMQVAGRAGRK

GEARVLLQTKNRAFFERYIENYDAFLKDELENRKDLYPPFKRLLRVLIEDKDQKSAQKLCEKFASQFRNI

KQVELVGYGICGVEMLYGKYRFYLLLRSENHKALVAIENYILQFKNASADIDPIDFV

>AHK53594.1 hypothetical protein N919\_03410 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKAFTLLELVFVILILGILSSLSLSFINTTKDEVKILKLKMDYEMLSSALALMRSQMRLKNLNFPEILD

NAQNNQAKEKLFYCLNDCDYSLLDTPIYSDFKSWIKIGKNHYRFALNAKEMVEFIYDSKEGLLKCIGSSR

CKDLI

>AHK53593.1 hypothetical protein N919\_03405 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MADNLKQVIVNVNAKDFIVKCSEEFANFLEDDIALISGGTKKIELKRFVDAFVKKSYENYILERELKKLI

KAINEELPTK

>AHK53592.1 ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFDEKIINTMTDKVNELIEKYNEVCEANEALRNELVSVKAQNEAKSNQIMRLEEELKSRNIESEDIYKKI

EAVLGR

>AHK53591.1 excinuclease ABC subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLELTSEFKPSPDQQEAIKGIVKSIKKGNKYQTLLGVTGSGKTFTMANVIKELNIPTLIMSHNKSLCAQL

YSEFKGFFSKNHVEYFISYYDYYQPEAYIPRTDVFIEKDSSTNEDLERLRLSATASLLSYEDVVCIASVS

ANYGLGNPNEYIGMVLIFELGMQISQKELLKKLVDMGYKRNDNFFDRADFRVQGDIIDIYPAYYEDEVVR

LEFFGDELDAMYHYNVLENKKGKDLKRFILYPTSQFSVGETRLKQAIKDIKAELNERLAYFEHENKLVEY

QRLKQRVEFDLEMLTSTGMCKGVENYARHLTGLKEGDTPYTLFDYFAIKDRKFLVIVDESHVSLPQFRGM

FAGDRSRKQTLVDYGFRLPSALDNRPLMFDEFIHKNCQFLFVSATPAPLELELSKENIFHQIMRPTGLLD

PLIELKDSDNQVEILFDEAKKVIQRNERVLVTVLTKKLAEELTRYYLELGIKVKYMHSDIDAIERNEIIR

GLRSGAFDMLIGINLLREGLDLPEVSLIAIMDADKEGFLRSTTSLIQTMGRAARNVNGKVLLFCKKITKS

MQEAMDTTNERRKLQMAYNKKYNITPTSVKRHIEESLKNEEDLGEIYRKGKKLEKMPASERAKLVKELRK

QMLEAAKALEFEKAAAIRDEINKLRDL

>AHK53590.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDFLTSLSEAGQFAIQIIIVLICLFYGAKKGGIALGLLGGIGILMLVFAFHIKPGKPAIDVMLTILAVVV

ASATLQASGGLDVMLQIAERILRRNPKFLTILAPFVTCFLTILCGTGHVVYTIMPIIYDIAIKNGIRPER

PMVAASISSQMGIIASPVSVAVVSLTALLLNANHKLAGFDGYINLLQITIPSTLFGVLCIGIFSWFRGKD

LDKDEVFQEKLKDPEFKKYVYGDSKTLLGVKLPKSNWVAMWIFLGAIALVALLGVFDFLRPNWGQVVKNG

IPQVDALGNPKMDVLSMVSVIQMFMLLAGSLIIIFTKTDAKKIGSNEIFKSGMIALVAVFGISWMADTMF

AVHTPMMKAALGDIVKEHPWTYAVMLLLISKFVNSQAAAISAFVPLALGIGVEPGVIVAFAAACYGYYIL

PTYPSDLATIQFDRSGTTHIGKFVINHSFILPGLIGVITSCIAGYFIAMAAGYL

>AHK53589.1 RNA polymerase sigma54 factor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKQKITQAPKTKISQTLRSWLPILQANIEDLKENLDKFAEDNPFLNVQDSIQTHDKGKNYFDSFYKHNV

NSAFVDSKGLAKKSVYELLNEQILPPLFPTSKSQELAKKIIECLNEEGYFEHDEEFLKEYSLEEIERVRA

RFKFLDPVGVGAKDYKEAFLFALENMELDEDIDEFCRMLIMDFENIQNYTKEPLYKEALAVLKRFSTPPF

LEYFEDSRIIVPDIFVYKENGEIKVKINDDYYPEISIQTDGLEHDFLSHYIKEAKNLVDALAMRKATLYK

IGLMIVEYQYDFFMGKEIKPMTFKDLALDLERNASTISRAVANKYLSCERGLIPLRDFFAFALDEEGETS

NVGVKEFVANLVKNEDRNKPLSDSKILELIKEEFKVDIGRRTITKYRKHLNIASSTDRKKLYELEG

>AHK53588.1 lipopolysaccharide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFMSKLEIVNLEKIIKKTKIIHGISLEVNSGEVVGLLGPNGAGKTTTFYMICGLISPSSGKVLLDGLDV

TKDPLNKRARSGIGYLPQESSIFKDLSVEDNLLLAAQIFYKDKKILHDKVEQMLELLSIEPIRLRKGLSL

SGGERRRCEIARSLMCEPKFLLLDEPFAGVDPIAVAEIQTLIKELKRLGIGVLITDHNVRETLAICDRAY

VIRSGSLLASGNADEIATNKDVKKYYLGAEFKLLD

>AHK53587.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEFILAKNEIKTMLQIMPKEGVVLLQGDLASGKTSLVQAWVKFLGLDVRVDSPTFSTMQKYENHDICIY

HYDIYQEGLEGLLANGLFENFFEKGLHLVEWGGENLKKTLMKFGISTIQIKISIKDDKRKYEIYE

>AHK53586.1 argininosuccinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNEVKKVVLAYSGGLDTSIILKWLQDEYNCEVVTFTADIGQGEELEPARKKALSLGIKEENIFIKDLRD

EFVKDYVFPMFRANAIYEGEYLLGTSIARPLIAKTQAQIALQTGADAVSHGATGKGNDQVRFELGYLAFS

PDLKIIAPWREWDLNSREKLLAYAQKHGIDISKKKGKSPYSMDANLLHISYEGLVLEDPAHAPEEDMWRW

SKSPKDAPNESEIIELDFQKGDLVAINGEKLSPAGLLTKLNELGCKHGIGRLDIVENRYVGMKSRGCYET

PGGTILLKAHRALESITLDREAAHLKDELMPKYASLIYNGYWFSPERMMLQALIDESQIHANGRVKLELY

KGNVMVIGRESANDSLFNAAYCTFEEDEVYNQKDAAGFIKLNALRFIIAGKNGRKF

>AHK53585.1 50S ribosomal protein L9 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVLLIKDVKALGKAGEIKEVKDGYGQNFLIAKGFAKAATNEVLRKYESDKKKEAENLRFEIANLEKLKE

ELSKITLEISKPVGANGSLFGGVTKDEIAHALKEQSHIEIDKKSLECDTLKSLGIHEVSVKLGHAIHAKF

NINIKAE

>AHK53584.1 peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFHATTILAYKGKNKSVIGGDGQVSFGNTVLKGNAVKIRKLNNGKVLAGFAGSTADAFNLFDMFENLLQS

SKGDLLKAAIDFSKEWRKDKYLRKLEAMMLVLDRNHIFLLSGTGDVVEPEDGQIAAIGSGGNYALSAARA

LAKHTDLDEEELVKSSLQIAGEICIYTNTNIKTYVIEDEK

>AHK53583.1 ATP-dependent protease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLTPKEIVKFLDDYVIGQKKAKKIIAIALRNRYRRMQLSPELQDDIVPKNILMIGSTGVGKTEIARRLA

KMMGFPFIKIEASKYTEVGFVGRDVESMVRDLANAALNLVKNEQREKNKDKIDEFIENKILEKLLPPLPK

GISDEKQEEYKNSLEKMRTKLRNGDLDESTIEIEISQNMFDTNPNLPPEMGAMQDIVKVIGVGSKKVKKE

MKIKDAKNALKNEAGEKILDQESIKSEALKRAENEGIIFIDEIDKIAVSSGNSNRQDPSKEGVQRDLLPI

VEGSNVQTKIGTLKTDHILFIAAGAFHLSKPSDLIPELQGRFPLRVELDSLDDKALYEILTRPKNSLLKQ

YSQLLKTENLELEFDDEAIKEIAKIASRANEEMQDIGARRLHTVIEKLLEDLSFEADEYAGKKFVVDKKM

VEEKLGDIIENKDLARYIL

>AHK53582.1 GTPase Era [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKSGFVSIIGRTNAGKSTLINSLLEEKIALVSHKQNATRRKIKAIVMHEKNQIIFIDTPGLHESGATLNQ

LLVQSAIKSMGDCDVILFVASVFDSTKDYENFLSLNPQVPHIITLNKVDLTDNATLLKKLSEYAKFSQHF

KAIIPYSSKKKSYKKGLLDEIVKYLDEHEYFYDPEFLSASSEKEIYRDFILESIYENLSDELPYSSEVLI

HRTKDTPNLLILEANIITDTNSHKGMLIGKEGATLKRIGKDARFKISKLAQKKVLLKLFVTVKKNWQKDE

EFLKKLLNDEN

>AHK53581.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKINSLNKINFIKSTDLLYAQRTGISKEDELFNNLTADFKLSKPFDYQIAFFKHNEIYHCFLAPVYKLKK

SRFCFPEPLIFQALFDERFIEESDYCVLNLYDQTLYLYFYQEGKFINLKKIENFNPGNMDLFFKQNRFTE

LLKHYESKLLLYQDLNTIKHYFSSQIKCLNLNDILDKNSLLKLSSYSIKNLDQNCNFIKHNKIKISISFK

IILIFIFSFSLSMMILLFKDFIEYKQNKEIQNKNFIIQEEISKLKQDKQKLLTNIQDLNFTLSNKISSTQ

QQFHILSTITKEINLDKNKAIILNQIISWLNSNDLKITNLEFEQTKIILSFIDENHFKRALENLNSAFKI

LDKNEETFNIILEVIHE

>AHK53580.1 hypothetical protein N919\_03285 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKIEVFLQNLNPREKFLFISFICLCALFLAFKIHDHFLEDIFQKTLVEHNYLALNEAKIENSHLKEIET

KLTKQIKIEEEKLKYYKEKLHLFSYDKDFFNKKINNLSKNLIINEIKFSQENKNFIHYNYVSLSLNGNFK

DLLNFIQNLENLPIALKIDKIKLYNTQGLKLKLDLMFKFVNL

>AHK53579.1 peptidase M24 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSIYKQRVLELRRLMKENNIDAYLILSADPHLSEYLPEYYKNRVFISGFKGSVGTVLITQEEGFLWVDGR

YWLQAQKELEGSGILLQKQDAKNTFTKWLEKNLSEDQILGIDFALLPLSLQKDLKINCKANLKHIDLISP

LWKDRPTLPQEKIYEHELEYCSYSRKEKLALVRQKMKNLNATSHLISSLDDIAWLTNLRGNDVNYNPVFL

SHLLILEDKALLFVDQKKVNSELEKKLNLDGFWLKNYDEIIMELEELANTNLLIEPSKMTALLINSLDKS

VKIIQEINPSTHLKAAKNTKEIAHIQDAMIEDGVALCKFFAWLEEAIKNKELISELDIDVKASEFRAQSK

YYISDSFATIAGFNENAAYPHYKATKESFAYLKKDGLLLIDSGGQYKNGTTDITRVVPIGKANAEQIHDY

TLVLKAHIAISSAIFPKDITMPLLDAITRAPLWKEQIDYIHGTGHGVGYFLNVHEGPQVLSYLSPVLEKT

KAKEGMLTSIEPGIYKVGKWGIRLENLVIHTKVENPKNKDFGEFLYFKPVTLCPFEISCIDTKMLDEKEK

EWLNNYHKEVFEKLSPKLGDYPKALVWLEKRTKAIF

>AHK53578.1 penicillin-binding protein 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRMRLVVGFILLFFIFLLSRVYYLSIKSNVYYEELAKQNAIKTEFLPPVRGQITDRNGTLLAINDLGFSI

SIKPYLSIKKSNKGILDKELSELTNLFPDLNASKLAEIYKRNDSYYNQDFIKVVDFIPYDEIISHYSELN

LNKTIKIDPVVKRKYPFGKLASHIIGYVGKANLQDVQENEIAKLSNYTGKSGIERYYNDILQGEKGTRVY

KVNALNQEVEQLSYTPAMSNDIELTIDIELQSYLTSLFEGNAGAAIIMNVNDGSILAAGSFPEYDLNPFV

TGISFKDWDELSNSLDHPFTNKLINGYYPPGSVVKMGVGLSFLNSKNISPSTHYVCNGSIELGGRFFRCW

NRSGHGPVDLKHAIKYSCDVYFYNGSLQVGIDQISETLSRIGFGVKTGVDLPSEFVGTLPSKEWKMQRYR

QSWFQGDTLNTAIGQGNFLATPMQIARYTAQIAKSGEVIPHFLKSIENNNTTIENQMDENKKEIFTLFEK

SQLPYIRDAMYAVANEQGGTSYRYLHNLDVKVAAKTGTAQVVGFSQTDKNRVDEKQFEYYTRSHAWLTSY

APYSKPKYVVTVLLEHGGRNITSGATVAKIYQKMIELGYFK

>AHK53577.1 GTP-binding protein YsxC [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIISAKFITSLVKFDENLSSNFSEVAFLGRSNVGKSSLINSLCKQKNLAKSSATPGKTQLINFFEVICRR

NEEKFNINFIDLPGFGYAKVSKNLKEIWNQNLDEFLKLRTSIKLFIHLIDSRHTHLEIDVNLNDYLKRFL

RPDQKILKVFTKCDKLNQSEKAKLKNEFKDSILVSNLNKFGLDSLEDIIINQTLGLDK

>AHK53576.1 organic solvent tolerance protein OstA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVARQIILLLVCVSVTWATQIEVKALNFYSDENKGESILSGNVEVIRGDDILNSEKLIIYTDKNRKPIRY

EAMQNARFKIVLKGKTYKGSGDKFIYNVIKDTYEINGHAYINELGSNQKLFGDKIIVDRKANIYRVESKD

QKPARFVFDLKDK

>AHK53575.1 hypothetical protein N919\_03230 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAIKIFGILIALFTITFTILSLQDPYSLNLQTNALNFKNIEAKNLKAYESNTSIIKAYYKANSWVRYADR

DEFNDFITLNLDFNLSANRLEFFNKDMSKVLFEGNVTYIGSNNVKIISQEVEYQPKDKILHTNTNFKALI

NGSIINGNTLNYDVKNKILNIQGVNAWLQDK

>AHK53574.1 3-deoxy-D-manno-octulosonate 8-phosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTELIFLDVDGCLTDGKIIYTSNGEFIKEFNVKDGAAIEAWLKLGKKIAIITGRNCPCVEKRAKDLKIKI

LYQGIKDKLACAKEILQKLNLDFSQCAAIGDYFNDKALLESVGLSFKPKDGHKDLNVDIVLSKKGGKAAV

AQMIEILVEKNHLEEEWNKLWL

>AHK53573.1 RlpA-like lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIKTITLKLSAVSLGALFFSGCLGTSFFSSLDNAQVYYPSNDFKSSPSSSGTKGTMKPYTINGKTYYPT

VVAVGETADGIASWYGPGFHGKKTSNGETYNQNALTAAHKTLPMNTILKVTNLNNNRQVTVRVNDRGPFV

NNRIIDLSKGAASQIDMIASGTAPVRLEVIGFGSSNSGNNIVHSNVNYGNSGEIANNGQIYEGGNFMVQI

GAFKNPAGAQTIAARYKTYRTYSSTIRTSSVDGLNRVFLTGFRSEDEARDFAASGAFAGAFVVRE

>AHK53572.1 lytic transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILLCFLICFNFLFAQINTPEFYERQMNVLRNLDINPSFISDLIFVQTQQDIKSKHAQTLIDSMQNFS

KVTPMIRKILAQQEVPDEILYLAMVESGLKTHSVSNAKAVGVWQFMQPTARNLGLRIDAYVDERRDPVKS

TYAATNYLKELKEEFGKWYLALLAYNCGNGKLRQAIKQAGSDDLSVLLNPDKKYLSLETRNFIRKILTLA

FLANDRDFLLDKDASLMNYALSNEFAKVDVPSSASLKEIAKNLNMDLATFKKYNPQFKHNFTPPGKGYYM

YIPLNKVAFFDKNFKAEKLAKVDTTIPMTRTYTVKSGDSLYKIAKNYNISVDEIREFNKIAKNHLSINQK

LIIPIKENKNANKNNYTKVVSR

>AHK53571.1 TatD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFLNLDFQDGLRIVDTHCHLDSEAFKDDLDETLNRAFKNGIEKIIIPGADIKDLPYAATIAHKYKNIFFA

AGVHPYEIDNYDEKILRQYLCDEKCVAVGECGLDYFRFKSDLAEEIQKEKENQKKIFIAQLELAIEFKKP

VIIHSREANHDTYEILHGYSKDLVGGVLHCFNASEHLLTLFEEGFYFGIGGVLTFKNAKKLVEILPKIPK

DKLLLETDAPYLTPEPYRGKRNEPLLTQFVVNKMCEVLNLSRKELLEICFNNSEKLFFKGY

>AHK53570.1 diguanylate cyclase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKKILIIDDNKMLGKLLAKKIQMTLDYEVDIAFGFAEAKELMNNDYFLAFVDLCLPDAPNGEVVDYVIE

KKIPAIVLTASGDKATKEKFMDKDILDYIFKESETCIDEIISSIVKLNQYAKTKVIVAMSKLPERNEIKK

ILTQRQFNVLAAAHGEEAMSYLNDNNDVKLIIADVNMPVISGFELLTQVRERFSDDELGVILLGDHNDSF

EANSFKNGVNEYLFKPLSKESFNCRLDRCLSYMDDKKFLSTYNVLDPVSGVKNYNALIDGIDDYFNEIAT

KDEEFAFAFLDIDNLQMINDEYGREVGDEVIKICANEIVNETKGRDLVGRYSAEKICILLKNISQERAIK

IFSRIRVNIKKAGVLVNLDEVFFTASIGVVFGKSGDKIDSLADKASKILSQAKDNGKDRVEVCS

>AHK53569.1 DNA repair protein RecN [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINRIFMKENLGFKKAELEISKGLTVFTGLSGAGKSVLFKGILSAFSLSESEAKIVEIEVDDKLDLESFG

IESEEENVFKLLKEKNTKYFINNQSIAKKSLQNLSKTFIKYLSAKENNEFGNEKFLNLLDALEMQENTNF

VSFLEDFKKDFNAYSQISNELNAILEEEKKVEELKELARAQIEKISSINPKIGEYEELLILKKKLSKKDK

LEEAWSKAERIFELEKVVIEALNLSEVDASFFSECLNELRVICENQKMEDLDFDVEALLDRIENLSYLIK

RYESIENALEVLKQKKYELEHYENLSFEKKELEKKFQELKQKLEEKAQILTQTRKKNLKKLEKCLNNYLK

DLYMKDASLTLKENEKISILGKDEIMLDINLAHLKNLSSGELNRLRLAFIATECNILNAGKGILFLDEID

ANLSGKEAMSIAKVLEELSKFYQIFAISHLPQLSSKAHNHFLVEKNGEESKVKKLDQEERIKELARMVSG

ELVSDEAIEFAKTLFKN

>AHK53568.1 inorganic polyphosphate/ATP-NAD kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNKIDYKNIKKIGLVTRPNVSLDKEILKLQSILSIYKVELVLLKESSEILDLPKYGLDDLFKISDFVIS

LGGDGTLISLCRKACEYDKAVLGIHAGHLGFLTDFKVDEAENFFQAFFQGEFRIEKPYLLSIFLEDRQGK

ILEKLAFNDVVISKNNQASMAHIEVFRKEKKFNEYFGDGLIVATPAGSTAYNLSANGPIVYTLAQAFILT

PVCSHSLTQRPIVLPKGFEIEIMAKDCMLCIDGQENYKMNDFKSIKVGLSDKNVALIHPKNRDYFQILKE

KLHWGN

>AHK53567.1 aspartyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRSHYNTDLGISHVGQSVKLCGWVNSYRDHGGVIFIDLRDRSGIIQLVCDPNDSKEAHEIASNARNEFVL

ITEGTIRPRGEGLVNPKLKTGEIEVVVSKLTIENESAVPPFAIADESVNEELRLKYRFLDLRNPKLYENF

ALRSKACIAARNSLANMGFLEVETPILTKATPEGARDYLVPSRVHQGEFYALPQSPQLFKQLLMCSGFDR

YFQIAKCFRDEDLRADRQPEFTQIDVEMSFCEQKDVIKVAETFLKDIFKACGKEIQTPFRQMQYKDAMEN

YGSDKPDLRFDLKFIDVIDIFTKSNNEIFANIAKDTKKNRIKAIRVPKGDTIFSKRQMQRFEEFVRKFGA

QGLAFIQVKKDGLKGPLCKFFSEEDLNELSKRCELEVGDVVFFGAGAKKTVLDYMGRFRIFLANELKLID

PNALEFLWVVDFPMFEQNDDGSYSAMHHPFTMPKNIDETDLEEISSIAYDVVLNGVELGGGSIRIHKNDI

QQKVFKLLNIDEEQQKEKFGFLLDALSFGAPPHGGIAIGLDRLIMLVTGANSIREVIAFPKTQRAQCLMT

DAPSPASNEAMRELGIKLRENIK

>AHK53566.1 adenylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKELFLIIGAPGSGKTTDASLIAQADATNITHYSTGDLLRAEVASGSELGKTIDSFISKGNLVPLDVVIN

TIVYALKAAPTKTIIIDGYPRSVEQMMEFDKVLSEQNEICLKGVIEVRVSEEVAKERVLGRNRGADDNEE

VFYNRMKVYTEPLNEILDFYQKKKLHFIIDGERTIEPIVADMKELIKKIQSI

>AHK53565.1 inorganic pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLSKIKIGDIPNKINAVIEIPYGSNIKYEIDKDSGAIMVDRVMASAIFYPANYGFIANTLADDGDPVDI

LVLNEYPIQAGAVIPCRLIGVLIMEDESGMDEKLLAVPNSKIDARYDNIKTYTDLPQATLNKIKNFFETY

KILEPNKWVKVQDFKDEKAAIEILEKAIKNYK

>AHK53564.1 methionine sulfoxide reductase A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNIVLGGGCFWCVEAVFERLKGVINTEVGYSGGKPNPSYESVCNGDGNIEVVKINYDEKQISLLEILTL

FFKIHDPTSIDKQGGDIGIQYRSIIFYENEEDKILAQNFIEEQQKIFSKKIVTKISRLQTYYKAENYHQH

YFINNPDQGYCQAVIAPKLQKIQSD

>AHK53563.1 hypothetical protein N919\_03170 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLSRIEKLYTKDEMQNILSSFAQEKNVCVFANTLKTSIEELEKEFLKQNLKFKKINVYCYLFDAKDKAIL

SSMKAFNEAHFYIQNYSSYLCALNLEVKAGQSVLDMCAAPGGKSINLANFMQNTGYLACNEMSRDRFFIL

QKNLKNYGVNAKVFMKDGKNIGNLCPLKFDKILLDAPCSTFAKIGFDLEKSYKEIKNIAKTQKKLLHSAL

KALKIGGELVYSTCTFTKEENEEVIENALKSEFKLELLDIDLENVEAKAGQSEEFAEISKCRRILPSLDY

DGFFIAKLRKLC

>AHK53562.1 Holliday junction resolvase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRALALDVGLKRIGVALCIDKKIALPLDAVLRKNRNQAANEIKNLLKIHEISLLIVGIPKGGSSEEEMTR

RIKHFVSLLEFDKEICFVDESGTSKEALGYGVANTRKKDGKLDSLSAFIMIKDYFAL

>AHK53561.1 DNA processing protein DprA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MASEILPDEFLELFKDLKKPPKKLHYKGNLSLLKQDKIAIIGSRRMSVYTKNCVFSLASMLKNAHLCVVS

GGALGVDITASMAAMPNTIGIFANGLDQIYPRTNEKIIKQIYENALALSEYEDDYLPKNYDFLLRNRLVI

ALSKAVVVAQADIKSGSMQSAKLALELNKPLYVLPQRLGESTATNLLLKENKAKLICDFKEFVSEFASID

MNQDEFLEFCKKGVSVDEALKIYGQKVYEYELEGKISIEGLFIRVLA

>AHK53560.1 hypothetical protein N919\_03155 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKKKLVQIQRYLIIAILFLLCIALALGILVKYQNSQDVSSVKPDYFIDKQEDLISLNKDHYEIGIFQEN

EFDNNKSVSILEQKIQEIDDLNTSLNEQNLSSVEQNLSLEQNQSLEQNFILKDTNLTQDQNLTFNEDIHL

NKISKKPKLAIIIDDMANASQVRGLKALNLKLNPSFFPPDKNHSETPKLALKFDFYMVHLPLAAINYNKP

ELDTLNPNDSKERIFKKIKQIKKDFKDLRYINNHTGSLFTSNEEAMKKLYEALKNQNIFFVDSKTIGNSK

ANKIAKELSIPYIQRDVFLDNEDDVNYVKKQLENAVKLAQKKGFVIAIGHPRKNTFKALEQSKDLLKGVD

LVYLSEIYGK

>AHK53559.1 ketol-acid reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAITVYYDKDCDLNLIKSKKVAIIGFGSQGHAHAMNLRDNGVNVTIGLREGSVSAVKAKNAGFEVVSVSE

ASKIADVIMILAPDEIQADIFNVEIKPNLSEGKAIAFAHGFNIHYGQIVVPKGVDVIMIAPKAPGHTVRN

EFTLGGGTPCLIAIHQDESKNAKNLALSYASAIGGGRTGIIETTFKAETETDLFGEQAVLCGGLSALIQA

GFETLVEAGYEPEMAYFECLHEMKLIVDLIYQGGIADMRYSISNTAEYGDYITGPKIITEETKKAMKGVL

KDIQNGVFAKDFILERRAGFARMHAERKNMNDSLIEKTGRNLRAMMPWISAKKLVDKDKN

>AHK53558.1 ribonuclease R [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEFLNSLSYGISSHEVNNEFKQIFRELLTNHIIKEHKNKYYLNNGFAFGVLDISSKGTGFLQCFDESFK

KDLLIENKNLKGANYKDIVAVKLLPLKKKRPSAKVILVLKRANETSLMITKRYGEAVLGMNIKTGLSTAL

KASQKSLKALPLGTILKIENENNNIIEVLGHIDDESVDEKISLALFNKNNEFSDACIKEALANGDSVDAS

MYENRMDLRALPFCTIDPIHAKDFDDAIYFDTQKREIYVAIADVSEYVYAYSAIDKEARNRGFSIYFPHI

AIPMLPRPLSENICSLKPHLDRLAYCFKITLNHENKVIKEELFEGIINSKRRFNYDEVDEILIQKPDLKE

LSWLYELFEITKNLRKMRLKNAFEFRTEELRMNLDENLSLKSTVFEKDTPSHNLIEDCMLLANKAAAKLI

DIGVFRNHLSADVRKIDKLLNELRELGIDVNFKPNLPELIRDIQALADELNLRAEVDKLIIKAQKKAEYS

SVNAGHFGLGFDKYSHFTSPIRRYSDLILHRLLKAKQKNDEKLFNYLLLNIESTCENLSTLEREADKVAF

DFMDRKFARWAAKNIGKKFKALVVQNDGVCIAKLDDEIKGADIILYDTRVNLLENVEVQIMEADIVMAKI

YAKITQRLIKEENV

>AHK53557.1 DNA polymerase III subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYRKELQILLSKDSIPNFFFLYGADNFQSELYAEFIKEKYKPDETLKLFFEEYNFTRASDFLSAGSLFSE

KKLLEIKTSKKIPTKDLKVLVELCKNNTDNFFLLELYDESSKQSDIEKIFSPHFVRFFKANGAKEGVELL

SIKAKQLGVEITQNALFTLFTSFDENLYLAASELNKFSGLRVDEKTIEQYCYSLNTGSFESFFDKILKKQ

DFKSELEKILDNFNEIALINSLYNSFYRLFKIALYAKINGKIDFKELLGYTPPPQVGQNLSSQAFSLKIE

QYKEIFTLLLKSEYELKTNPKLVKKEFLISNLLKLARILKN

>AHK53556.1 hydrogenase nickel incorporation protein HypA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHELSIVESLIELCEENALNNKAYNVQEIYVKIGRLSGIEVDLFKRCFETFKENSNICKNAKLFIELAPL

EILCLKCDQTSILEENVFKCPKCQSIEYKIIQGEDLHLMRLVMK

>AHK53555.1 hydrogenase assembly protein HupF [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNISLAHGGGGEEMNELLTKLFKIFDNEILNANNDAAILGNLALSTDSFVLSPIFLDEEVNIGKLCVCG

SINDVLMVGAKPKYLSLGLILEEGFELEKLERILKSIKEECEKCGVMLVCGDTKVVPKGKADEIYINTTA

LGEIISKKESKNIKAGLSILLSGDIGRHGASVLIKRNELEADIKSDCKALNKEVLELLEKDIKVVAMRDA

TRGGLSAVLNEWAKQSGNDLLIFEEKIIVQDEVLGLCELFGYEAYELANEGTFILCVEKEDELKALEILK

KYNVNASIIGEVLEEKKARVILQNAYGAKRFLESPKGELLPRIC

>AHK53554.1 hydrogenase formation protein HypD [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFIDEFRDKESILALKKLIEQELKNPINIMEICGGHTHSIMKYALPSILPKEINFIHGPGCPVCVMPRV

RIDTAIKLASMKDTIFCTLGDLLRVPGSEISLLDLRAKGADVRALYSPLEVLEIAKQNLNKNIIFFAIGF

ETTTPMSALLLQKVIEEKINNVFFHINHITVPAPVEAIMNDENVKINAFLGPSHVSVITGYGIYEPLAAK

FKTPIAVSGFEPVDILESVLNIIKQSNEGTFKVYNQYKRAVSKEGNVKAQNLVKKYFRVCDFEFRGLGLI

KDGGLELKEEFSAYDASKKFDCTVQSKNESKACICGQILRGLAKPYDCKVFGKACTPRSPIGSCMVSGEG

ACAAYYKYSKVNA

>AHK53553.1 hydrogenase formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MCLSIPSEILEIDELNNALVQTLGVKRKVNLDLIDEPLKQGDYVLIHVGVAMEKIDKEAALESIKTYQEI

VEKMNSGEIKSDEGDLGLNEFHR

>AHK53552.1 hydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MCKDCGCSINSSHTHGHHHDHHHENPSLKEGKTIEVISKILSKNDEEAKHNRAHFNEANTLCINLMSSPG

SGKTTLLESTIKALKNELKIAVIEGDLETNNDALRVKNAGALAYQITTGQSCHLDAFMVHEALHHLAIDD

VDLLFIENVGNLVCPASYDLGEHLNVVLLSITEGSDKPQKYPVMFKKADIVLITKADLAHHFDFDIKEAT

RLIKELNPRADIITLDAKNGTNMELWYKVLKLKKELF

>AHK53551.1 3-hydroxydecanoyl-ACP:CoA transacylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MCHLGYKIKISGLVQGVGFRPLVYELALKSKLFGEVRNDGFGVEIILACTQKECENFIENLKNHLPPLAR

IDQLIITQISISNYENFSITPSLENTKSTPMLSDFAFCKECKKEFFDEKNPRFLYPFITCTHCGPRFSII

KSLPYDRAHTSMQELLMCEFCKSEYEDPKNRRFHAQPISCPKCKINVFLKNPKGEILAKDQEAFMQSAKF

LKEGKILAIKGIGGFHLMCDAFNEEALKTLRLRKNRPKKPFALMCKDLQSAKELAFIDEKEEALLGGVLA

PIVILKAKKAFSLIAPDVDKIGIMLAYTPLHLLLFEYFKGSLVATSANLSGESIIKDEFNLCKKLDKVFD

FYLDYDREIINASDDSIAQVVNGETMFLRTSRGLNPFYLERNFNKKGTFLALGAELKNEFVIFYENKLLI

SPYIGDLKSLDVHERFFKLLEFFKQNYDLKFDAILCDKHPHFSYAKEFEERIKISHHYAHFCAAYFEYEE

NFAKDEKALAFICDGTGYGEDGKIWGGEVFVGNLKEYERIAHFENFTLINSDIKNIQNLALSLIFHYDLE

DKAKDFLAKIPKIKLKNLKKIYSHSNLQTSSLGRIIDAFGSIVFNLEKSSYEAQVGLMCEAFYDKNLDFS

YKLFVEKGQVNFKNLILGALQDEKTKAITGMFNALANFIIDFSKDYDLKVLLSGGVFQNKTLLEILKAKN

FDFFIPLKYPCNDSSIALGQMVHFLNLEK

>AHK53550.1 hypothetical protein N919\_03105 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTLDFDFIYNADNDIFEYLLRFYAKNYNYILSKEENTYHFSIDADEENLKTFCDSLNFMSHSVFLKKFDV

KAGQGFNPCIPEDKEFSRFSYITHLNSNAYQEKKLLNKNEWGVFCECEFSSNLSEFEKINEENFNTFLNL

AFDLLSQEKKIYLKDKNGIYEFSLFKNEFIGDFLLPCDIKAINSVFVCSNENLKLLASLEKPLMKLRLNA

MFRKNHNLDFSDFKIRLARDLFCFALGLKLFENEYKFLSVKKIEEYQKDFYISALDEQVVVLEGFEFINA

KARELIFSKEDKNMARISYLVSRYKEKAFILELSKDYEDILLINKELNLLKLCLPKHSKELYEEIKKDEI

GARLLENFNKEFPLLDENFELQNNFYSLLGLLGRVLNLGRNLQESASELLKIADESKMPRGVKIDYRLKE

DKSFDYTRTLRSAMSFMLAGVDSANIAYGAVESLAYFLRDTYDELREKKQSDLALISGSLFEHKSLLKNT

LKHLKNCQLSDVPLRI

>AHK53549.1 hypothetical protein N919\_03100 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MARQSSSLKSFIYKDECYFYSKKCIKTLRLRLNEKGEFVLSIPYFCTFKSVYEFLDKSSSWMNEAKKRFE

KKVLKDDELIFLAKKYKIIFDENTKKTYFDKDKIICQNKAKLDLFLRQNAKKIFTFYLKKWSQKTGLFYT

HLSIKNMKTRWGSCNHNKAYVNLNLKLIQKSLRAIEYVILHEISHLKFPNHSKEFYTFIEHFMSDFRQRE

KEFLS

>AHK53548.1 multidrug transporter MatE [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKKQLSLTRLSFPIFWDLLSKYLTVIINTAMVSHYSNFLVGAMGAGNQILDLFITIFSFLSVGCSVLIA

QAIGAKDHVLARKVIHQSLFLNALLGFVCGVLILWHGEYLLYLLKIPQELLKDSEIYLHMLAICLFFDAI

GIVLAAIVRVYNMAYWVMFIGFLMDIVVICGNYYVLHYTKSELFGVGLSNIFARIVAIVALFAILFYKLK

IHLKIKEMIKLEKEVLKKVLNIGGFSAGENLLWIVQYTIAFAFVASLGEASLSVQTIYFQISMLIMLIGQ

AISIANEIIVGKLIGARYENIAYKHAWRALYFSVIASALVAFLNYLCQDFTMQILGLKEELKNLMIPLFA

LSIFLEISRTFNIVMVNSLRASGDAKFPFFSGLVFMMGVSLPVGYVLCFHFNLGILGVWIGFCADEFLRG

MVNSYRWKSKKWQGKALV

>AHK53547.1 phosphate ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIAKTTNLNLFYGKKQALFDINMQIEQNKITALIGASGCGKSTFLRCFNRMNDKIAKIDGLVEIKGKDVK

NQDVVALRKNVGMVFQQPNVFVKSIYENISYAPKLHGMIKNKDEEEALVVDCLQKVGLFEEVKDKLKQNA

LALSGGQQQRLCIARALAIKPKLLLLDEPTSALDPISSGVIEELLKELSHNLSMIMVTHNMQQGKRVADY

TAFFHLGELIEFGESKEFFENPKQEKTKAYLSGAFG

>AHK53546.1 phosphate ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKLFKKRQKASKSFKRLCKMGLYINLIFLCIFLGSVAYLGFPAFKQTYIFVEANRNSPAYDLLSRAEQR

KIRTGQITEKSWLLANSEVDQYMKQKYNRLSEKQRTLVDDLMQKGEIELKFNSNFFLNGDSKSPENSGIL

SSVVGTLLVMLVCMVVSVPIGVAAAIYLEEFAPQNILTHFIEVCINNLASIPSILFGLLGLGVFINLFGM

PRSSALVGGLTLAIMSLPIIIVSTKAALKSVDINMKNAAYALGMTKVQMVKGIMLPLAMPMILTGSILTL

AGAIGETAPLMIIGMIAFIPDVASSIFDSTSVLPAQIYSWSAMPERAFLERTAAGIIVLLGLLVVLNLSA

ILLRKYFQGKLK

>AHK53545.1 phosphate ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKEKIIKFALFLCAFVSVIVSFAIMLTILIEALKFFQKESVVTFLFSSQWAADAAFMNADGTSKQGVFG

ALSLFWGTFYISLIAMLTALPLGVMCAIYLGVFAGKKSKNYLKPILEIIAGIPTVVFGFFAAIVVAPFIV

WFFSLFGIQASFQSALGAGFIMGIMIVPIVASLSQDCIEAVSEKRINGAYALGMTKKEVVFAVILPEAIP

GIVAACLLGLSRALGETMIVVMAASLRPNLTLNFLEDMTTVTVKIVEALSGDQAFDSSLALSAFSLGLVL

FVITLIINMFSVYLINRFHKRKNL

>AHK53544.1 phosphate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILSLSVTSLALCGALNAVDLKIAGSSTVYPFTSFVAEEYASIKNTKTPIVESLGTGGGFKVFCEGTT

DISNASRPMKLSEFETCKKAGVTDIVGMMIGYDGIVLAQNKTNAPLNITKKELFLALAKEIPQNGKLIPN

PYTNWNQINKNLPNRKISVYGPPSSSGTRDTIEELVMSDVSKKIPEYKGEYKTIRQDGAYIPSGENDNLI

VSKLTIDKDAFGIFGYSFLVSNSDKINAANIDGVTPSEESIADEKYELARSLFIYINAKKNPKEAFDFAK

IYMSDDLAKSGGELEKIGLVPLSDDKLKASQKHVEDRKILNDELVKAGKVF

>AHK53543.1 ferritin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLSKEVVKLLNEQINKEMYAANLYLSMSSWCYENSLDGAGAFLFAHASEESDHAKKLITYLNETDSHVEL

QEVKQPEQNFKSLLDVFEKTYEHEQFITKSINTLVEHMLTHKDYSTFNFLQWYVSEQHEEEALFRGIVDK

IKLIGEHGNGLYLADQYIKNIALSRKK

>AHK53542.1 acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTYFSLEFSILMIAFFAIYWTFKNDYKIQNILILIFSYIIYILINPYFALVLFIYTFFIHYFALLIFVRR

KRYIFATCMAFIILNLCFFKYFPSIKGSVDEILNFFGLEFLNIDLVLPIGISFYTFTSITYLVEVYQKRR

LESFLNLATFLSFFPTLLSGPIMRSSFFFEQAYQKREFKHANLIIILLVFGIVKKVLIANYLGIYAKSIL

DFPQSYNFIQLLSAIYAYAIQIYCDFSGYVDLVCAFALMLGFTLPPNFNMPYLAKNLKDFWARWHISLST

FIRDYIYIPLGGNRKGIPRTVANILIAFILSGMWHGNTLAFIVWGLLHGIGIVFIHLLTLSKFSLQKIPA

LGRFLTFQFVCFTWIFFYYSKNLEDAIEYFKACYYNFFQIPSYNDIYMLVAFGVLFMIYPLFINFKEYCI

KILNLTPFLLKPFIIAFILLLVFAFMPDGIPDFIYSSF

>AHK53541.1 hypothetical protein N919\_03055 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSVVRFFFILIIVLGLVVVVMNQSISSYIEQKYHFAFYPHNDLLKEANGFKIKLEQIRAILSNEPLPQTN

EETTNQENKSIDENLSKIDKVLNTLENDENTSHKETNPTLIQDANISFIDNTKLELQNGDEFLFIGDSLM

QGVAIALNRDLRNLNLKVTDLSKQNTGLSYKSYFDWSKATNEAFIKNSNIKYLVVLLGANDPWDIKKGGN

YHRFGSLSWIDIYTSRVDEIIKIAKKHKAKVFWFEIPPVKKEDLNKKIQVLNKIYSDEILKNKEIFINTK

LFFSVNDEYSAYIKDENNRSIKVRTDDGVHFTPSGAREMSKLLLEHIKLKEENASK

>AHK53540.1 hypothetical protein N919\_03050 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLVNKFKVILLFFIIFTSSYAQNLNTNDTIDSILNQNKNHSALTSYVSKKDLKNLEKKLEKNQNIGIRIY

GDSHMAADFFPRVIRGYLIRSNSIGFAYPLQPKYQQNLNLVYSYKNFEILNSRNPANAGHNFPLGGIIAK

AKTKGAKINLDTTLDKKNFKIGFLFKAKQNTNAFSIKDAKNQSYELRTTQINKWSYKELELDLPLQISAL

QKDAELGGYFITNKDNNVFLDTIAINGAKSDLWLSWNQEVVKKELELLHNDLIILAYGSNDALFKGFEKQ

KFKNNLKKWISILKTYNKNAVIMLISPPTVVQKQGKNYKLAPDFFTIRKALYEVAKEEKTLIFDMHQFMQ

DSGGKNKWIEQKLSLNDVHLTIKGYELMAKKLLEDLKNIIDY

>AHK53539.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIILSIFLAFFLSACGVKLSLPKEVDLTQEQMKDLNLTYDWYRSYDNAKLNEFLNFVLLNNSDINIARK

TLLSALARADLIDYDLYPTLSGNLGFGADKDLNSGKQSKNFNNSLNLSYELDIYGKLRDSASASEFSAKA

SAYDLENLKISMINTALNDVFELAYFNDVDKLLRAYLSNLEQMKELYNYKYKLGKIEELDLLNIEQSLLR

AKQNLLSNDQNRNLLIKNLQDLLARQEGFAYIEYFKTLSLNDFKTLSPDFNIPLKALAYRADVRSKLNSL

KSAFKDYSSMQKSILPSISLGGALSGSDKKIDDSFKFEILSGNVKISLPFLDYGRVKQNIKISQFAYEQL

LISYEQVLQSAMNEFALNYKDYQSDTLLLQNLQNINIKQELITKAYYEKYILGKSELKDYLDANNTLNST

QQEFLRARFNLLKTINSYYQITALSFNNENLEFPKY

>AHK53538.1 macrolide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIFLKNICKNIGENAILKNVSLSIEKGEFVAIIGQSGSGKTSLLNIIGTLDTPSSGTYVFDEYEVTKLNN

DEKARLRREKIGFIFQRYNLLSLLSAKENVSLPAVYAGKNLQERSQNAKKLLNDLELAHKLDSKPNELSG

GQQQRVSIARALINGGELILADEPTGALDSKSGIMVLEILQKLNEQGHTIVLVTHDPKIAAQAKRVIEIK

DGEILSDTKKEKAQEKLILKTMPKEKKTLTLLKNQAFECFKIAYSSILAHKLRSILTMLGIIIGIASVVC

VVALGLGSQAKVLESIARLGTNTIEIRPGKGFGDLRSGKTRLNFSDLETLRSLEYLEAVDAHSNTSGVAT

YTNISLSARAEGVGVNNFAIEGLRIDAGRILNNDDVKNSTNVAVLDFNAKKNLFPDEKSENILGRVVLFN

SQPFKIIGVLQKDTDKPIEDNVVRFYIPYTTLMNKLTGDRNLREIIVKVKDDVSSTLAENAIIRILEIKR

GQKDFFTFNSDTFKQAITANKRTTTILTACVAVIALIVGGIGVMNIMLVSVSERTREIGIRMAIGARRED

IMMQFLIEAVMICTIGAILGVILSIFVIFAFNTLSTDFPMILNAYSVLLGLLSSMFIGVVFGFFPARNAA

NLNPISALSKE

>AHK53537.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKKIVLIILIAILGSVGAYFIFFNNDEKISYLTQKIQKKDISQTIEAVGKVYAKDQVDVGAQVSGQIIK

LYVDVGTHVKQGDLIAQIDKDKQQNDLDITKAQLESAKANLESKKVALEIANKQYQREQKLYAAKASSLE

NLETQKNNYYTLKANVAELNAQVVQLEITLKNAQKDLGYTTITAPMDGVVINVAVDEGQTVNANQNTPTI

VRIANLDEMEVRMEIAEADVSKIKVGTELDFSLLNDPQKTYHAKIASIDPADTEVSDSSTSSSSSSSSSS

SSSSSNAIYYYAKFYVANKDDFLRIGMSIQNEIVVASAKAVLAVPTYAIKSDPKGYYVEILENQKAVKKY

VKLGIKDSINTQILEGVNEDEELIVSSSADGLAPKMKLRF

>AHK53536.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKLVENLALKYYDKVVDLRHQIHMHPELEFEEENTAHLVCKILDEFGIKYQKNIAKTGILAIIEGKKKS

QKKPKCVLLRADMDALPVQEKTNLSYASKIDGKMHACGHDGHTAGLLGAALILNELKDEFCGTIKFMFQP

AEEGSGGAKPMIESGVLENPYVDAVFGCHLWGPLLENTAQIVSGEMMAGTDIFDLEFIGRGGHGAHPHTC

IDPIIMTTQFVNNIQSVISRRLAPYEAGVITVGQICAGTTYNVIPTNAYLKGTVRFLNDKTQDILKSSLE

EVAAATAKSNGGDYKLKYTKEFPPLINDEKAVLIARKAFAKVLGEENIIVSSKPDMGAEDFAFLTRERMG

AYVFVGISKDLNHPALHHSSTFCWDDENLKVLMQGDVMMALEFLNL

>AHK53535.1 thiol:disulfide interchange protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRIFGIILLSFCLCFASILSLNEAFNVKSNSYNNSISIDIELGKDIYLYSNKLKLYINEKDISSLINLPQ

SSTRGNENVYYQKLNLALPNLLLERFAKNTTNLIKLEFQGCSEQGLCYNPQTWYFDLISKKDAFEISKPY

KAQKTDKKTKIESEESSIANFLATDNFFWILLSFFGYGLLLSLTPCILPMIPILSSLIVAKSNAKFSKKY

SFFLSFIYVFFMSLAYAIAGVIASFLGASIQGILQKPIILILFALIFIAFAFAMFGAFRFELPLRFQTFI

HKKSEKGKGVVGIAIMGFLSALIVGPCVAAPLAGALIYIANTGNALLGGSALFIMSFGMGIPLLFIGLGL

GFIKPGFWMEKVKIFFGFVMLAMAIWILSRIIEENYILIAYGILGVFFSVFMGIFEKSFTIISKIKKSIL

ILILAYSLSIFLGGLFGAKNFLNPLNFNTISASKHALSYDYINNFEQLKQEIQTNTKPIMLDFTASWCEN

CKLLDELTFSDERIIQKMQNYKLIKVDVSENNNEQIKTMKEFNVFGPPVLIFFENGKEKLKITGFISADD

LLKKIEP

>AHK53534.1 sulfurase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIQSLQIGKIKNYKNFQSAFIKDTYLEETQIDFLGVLDDQIADKIHHGGYHKAIFTNSCQNYPIWERFL

NKKLNFGSMGENLSIDGLCEQNVCIGDIHQFSNAILQVSEPRKPCVKISKIHNNPNFTHEIFKTGLSGWY

YKVLQVGQIRKHENIKILEKNSTSLSVFELNQLFYSPHQILKQNPNLLDKLEKLNSLISQNWHETIHKRL

KNTYDISYMDSL

>AHK53533.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQRQTWSSTLTYILTVAGATIGFGATWRFPYLVGENGGGAYVLVFCIAMIIIGIPVILVENVIGRKAMTN

SVDAFKQKWQSIGYMGLLGSFGIMAYYMVLGGWVLVYIWELTLGNFSLANVVSKEFTHQFFNDKIAFNPL

GVGIFTTVFVIINYIILKRGIIDGIEKSVKFLMPLLFICLIIVVGRNLTLDGAMAGVKFYLEPDFSKILS

PKLLIDVLGQVFFALSLGFGVMITLSSHLNKNENMAKTAIYTGVLNTIIAVLAGFMIFPALFSAGLAPDS

GPSLVFETLPIAFSHIHFGTIVCILFFVLLLIAALTTSLPIYQVIISVLEEKFKYSKNLSINLTLGFIFI

LGNLPCILTYGPWRDIVIIKGKNIFDSFDFISGNILFVLTAFFCCIYVGWILGKQESLKELSNNNTLKSS

WFGIWFYYVKYIVPLIILIIFIYGILN

>AHK53532.1 1-aminocyclopropane-1-carboxylate deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFIKTISPIQKINFNGFEFYIKRDDLLGEINGNKARKLAFYIHQRYPKNQSFVSYGGSQSNALAALSIF

AKQRSYKLVFACEKISTFLKNNPCGNYALALENGVDFVENIHSLSLKQFALSLCKKDDVFIEQGIANLEA

QYGYMELAQEIQMQSQSLKLDFDIFLPSGTGTSAAFLAKYSKFKVFTCACVGDIKYLKKQILTLDPSYDF

SNLEFLTSDKKYHFAKPYKEFYELYMDLKLKCNIEFDLLYDILGLSIALKQEWKKPLLYIHQGGILGNST

MLERYKFKKSV

>AHK53531.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNESKEDSNFWIAYADLMAGLLFVFILLIGAIVVKYVLTQSDLKEIKDNLNKQEARLEESKEELRNKEA

IVFKLSSDLNNASSALNLANSQKAELEANITNYKQLSKDLNSTLDNKDKQILILLGQLEKKDEELKNLQE

DFQKAKEKVQNLGLIRENLSKELQSKLDNNITIDEKIGSISLPAEVLFDKDSYVLKNEAKASLRKILSEY

FDAILEDPKIFSNIENIIIEGHTDSDGSYIYNLDLSQKRAYEVMNFIYTFYKSDKLQKLLMASGRSFSDP

VFVNGVEDKDKSRRIEIKFSIKNDNALKDVEKFFEFH

>AHK53530.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDIKSDEISELVLPEGKDARGSLVYFKIIFIPAFLYILILLGYFNVIDFKVELHTVIMTGVIFFTALIFA

RHSAEYAYSIFEQQKDEFKQALKRHIMRHFLAIGKDTKSNANFDDFAYTYIKGARNENFASIGSAIFPMM

GILGTFISIAFSMPNFSSSDTAALEQEIADLLSGVGTAFYVSIYGIFLALWWMFFEKYGKSKIDRLLNRQ

KNATSGFFWTKEELDQRYLTESLQHFEKIGAIFKQVSNDDFFAELDHAIDRKFGIFQDMLNVEEKAIRLS

SEHIKQTMGELSKAQRDQRDLGKLYSEMLNGIGLLNQNLKEINTRMSEQYNRLLDISSDKIHHLDKTLSA

FDEKIERFGKNFELYEKAMLESQEKVFEGFKASLFEGMHKFKEVYEEEKSIDAKIKMMDELKKEMKALDE

ETSQMMSKLSGDENQNKENETKQIEDFSESKTEENQDEIQAEISKQESNDELKNEDKENK

>AHK53529.1 fructose-bisphosphate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGVLDIVKAGVISGDELNKIYDYAKAEGFAIPAVNVVGTDSINAVLEAAKKVNSPVIIQFSNGGAKFYAG

KNCPNGEVLGAISGAKHVHLLAKAYGVPVILHTDHAARKLLPWIDGLIEANAQYKKTHGQALFSSHMLDL

SEESLEENLSTCEVYLQKLDALGVALEIELGCTGGEEDGVDNTGIDNSKLYTQPEDVALAYERLGKISDK

FSIAASFGNVHGVYKPGNVSLQPEILKNSQKFVKDKFALNSDKPINFVFHGGSGSELKDIKNAVSYGVIK

MNIDTDTQWAFWDGVREYELKNRAYLQGQIGNPEGDDKPNKKYYDPRVWLRSGEESMIKRLEIAFEDLNC

INKN

>AHK53528.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKFSLVAATLIAGVVLNVNAATVATVNGKSISDTEVSEFFAPMLRGQDFKTLPDNQKKALIQQYIMQDL

ILQDAKKQNLEKDPLYTKELDRAKDAILVNVYQEKILNTIKIDAAKVKAFYDQNKDKYVKPARVQAKHIL

VATEKEAKDIINELKGLKGKELDAKFSELAKEKSIDPGSKNQGGELGWFDQSTMVKPFTDAAFALKNGTI

TTTPVKTNFGYHVILKENSQAKGQIKFDEVKQGIENGLKFEEFKKVINQKGQDLLNSAKVEYK

>AHK53527.1 endonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKRNLEIKELFLKHFDKPVTELKFSNLYELLVCVMLSAQCTDKRVNLITPDLFKAYPDIKSLANANLSSL

KTYIQTCSFFNNKAQNLIKMAKAVCENFDGEIPLDEQNLKSLAGVGQKTAHVVLIEWCGANFMAVDTHVF

RVSHRLGLSKAKTPEATEEDLTRTFKDNLNYLHQAMVLFGRYTCKAKKPLCKECFLNHLCKSKDKELK

>AHK53526.1 endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIFIFLLTISLNIFALEPYKPSADFSSYFNNINCSQILDKFFYLNCYDYKLKGTKAVAYKVEASNLKDR

QIKKRPRFEDDTNIPKKYRTTWSNYKNSGYTRGHTAPNASFSFSKAAQNSVFLMSNITPQNAQINNKIWN

EIEQRERNLALEFQSIEVLNLVLYDKEPQYIKNRIAIPSFYVKIIKTPKFKECYQAPNHEVNDENIKQYQ

INCDKF

>AHK53525.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEINALTITTLYIIGISAEGMTGALAAGRHKMDLFGVIFIALVTAIGGGSIRDVLLGHYPLTWVKHPEYI

ILICFCALVATKIPRVVTKLETLFLTLDAIGLVVFSILGAQIAIDQNHGFIIAVAAAVITGVFGGILRDI

LCMRIPLVFQKEIYAGIAIIAGAIYYSLIIWLELNALVCTLLTLFIGVFARLLAIKYQWSLPIFSYNEEK

>AHK53524.1 hypothetical protein N919\_02965 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRRLSILLAILIVINITACDSKTENYYKNLPSEAKEKAKECKESGTLSEDCINALKVGVKPTNEEGKYSP

NTPKKSDNQILEALKQNDLKKEKTTKDINQSSENNESIIIPPIAETPSEIYPSKTTENNQSSIFSDDVNM

TQEK

>AHK53523.1 hypothetical protein N919\_02960 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKITLFLSLIGIFFAACEQTKSVEYYQNHPEEAKKRSLECRHKAIISQDCVNAYKIGFPKDEWEDENISN

P

>AHK53522.1 tRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKDELFKQSPKKQFEFDKSVASVFDDMINRSVPFYRENLELCGNLLAKILPTNASVCDLGCSSANFLIFL

ANLRKDFKLFGVDNSASMLEVAKSKAKAYGLDISFFEANLCEFDFFTCDVFVANYTMQFIRPPKRQELLD

QIYKNLNSKGILIMSEKILYEDAFLSKNIIELYADYKEKQGYSKFEIAAKREALENVLIPYSQKENLNML

EKAGFKKIESIFKWANFETFIAFKD

>AHK53521.1 riboflavin kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNIFTTISKINITSLAIGCFDGMHLGHLKLVKCLDENGALLVINKFKGQFLCSNRQKEEISGKKVIEVD

FESIKSLDGRDFLSFLKKEFVNLKFIVVGYDFSFGKNRAYNAKDIESLSGIKTIIVDEFSIDGIGVHASL

IKDFLSKANLQKAKEFLGRDYSIKGKMIKGQGLGSKELFATINLDCEGYFLPQNGVYVTLLKSQRKTYKS

VSFLGVRSSDENFAIESHILEELGENFTQGEFFELEFISFLRENQKFQDLKKLKNQIAKDIEQARELLRK

NDER

>AHK53520.1 hemolysin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRFDFFVSKRLNISRNKALELIENEEILLNGKSFKASFDVKNFLENLKKTQDLNPEDILLANELKLDLLS

EIYVSRAALKLKKFLEENDIEIKHKNCLDIGSSTGGFVQILLENQALKITALDVGSNQLHPSLRVNEKII

LHENTDLRAFKSEEKFELVTCDVSFISLINLLYYIDNLALKEIILLFKPQFEVGKNIKRDKKGVLKDDKA

ILKARMDFEKACAKLGWLLKNTQKSSIKGKEGNVEYFYYYIKN

>AHK53519.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVLLMSLLKNSSYILTLLSLFGFLLTWQRSAFSLFFLISIFLTLFWEFFLFLKLRKNIIKEATLIKGSL

FYRVSMGDFYLYIFSFFLAIFGLVSLFLNFLNLEKIDFVFIFIILPLLMIFLKKELHLQFVDNAYNDFRI

VVIASFFTALFYAFYGLFFTYNELLNLELFSRKIIAYKSASFVYFDFLSEFLHFVSNLKFFIFSYFGYLG

FRALNFIFDFFNFFMFCSLLAFVFNFVLKIKIKIIVLFLCFIMVLGNYFLKEQRNNALKSEQEQILLWMN

NFNFLKDNNLSLIQKEKDLFEKDLKDLREIFKKNAFEIGIWWFSKEKEDLEKRINESLK

>AHK53518.1 NAD-dependent DNA ligase LigA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKEEYLEKVALANLWMRAYYEKDEPLASDEEYDALIRELRVFEEQNKDEISKDSPTQKIAPTIQSEFKK

IAHLKRMWSMEDVFDESELRAWAKRAKCEKNFFIEPKFDGASLNLLYENGKLVSGATRGDGEVGEDITLN

VFEIENIPKNIAYKERIEIRGEVVILKDDFEKINEKRALLNQSLFANPRNAASGSLRQLDTSITKERNLK

FYPWGVGENTLNFTKHSEVMQFIRELGFLKDDFVRLCANLDEVLKAYDELLALREKKPMMMDGMVVRVDD

LALCEELGYTVKFPKFMAAFKFPALEKTTRLIGVNLQVGRSGVITPVAVLEPVNLDGVVVKSATLHNFDE

IARLDVKINDFVSVIRSGDVIPKITKVFKERREGLEMEISRPKLCPTCQSELLDEGTLIKCQNIDCEDRL

VNSIIHFVSKKCLNIDGLGENIVELLYKHKKITTLESIFHLKFNDFEGLEGFKEKKINNLLNAIEQAREC

ELFRFITALGIEHIGEVAAKKLSLSFGKEWYKQSFEAYANLEGFGEQMALSLCEFTRVNRTRIDEFYKLL

NLKIEKLEIKSDGVIFGKTFVITGTLSRPRDEFKALIEKLGGKVSGSVSKKTDYVLFGEEAGSKLSKAKE

LEVKCIDESAFNELVKE

>AHK53517.1 dihydropteroate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFFKINPNTDFNLLCSFINPHKMGQKIMSEKTKIHFIFIKDISTPAANILKQDALRVGAELITHKEVIT

AKITHSNALLMASKEQIQKLVVKEKLQDFGLKNLALFLQKDFLKPKKAELMAVINVNEDSFNAKSRVSEE

DFEKRLNDFLALKPEYIDIGAVSSRPGSEYCGKEEEFKRLKKVLDLIYEKNYYEQAIFSLDSFDEYCLEY

ALNKGFKLINDITSLRNLNLAKLASKYGAKYCLMHMQNNPNNMQDNPFYEDLLDEMTLFFKEKLELLESF

GVKESILDVGIGFGKSAGHNMILIKHLEHFLQFNKPLLIGASRKSVINAYFQSEIKDRLAGTLYLHLKAF

ENGASIIRVHDLYEHKQLFALAQAMDNIGV

>AHK53516.1 DNA polymerase III subunit delta' [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFISKIIISEDFLGIKEEMINNFGIKKLRFFIPQNEFLLDDARAVEKESYIAETEEKIIVLMADSYRIEA

QNFLLKLLEEPPKNIKFLIVIPSKNLLLPTIKSRLICEKRKVEKEVKKLDLDLKRMDLRMLFDFLQKNEN

LDKNELMDQIALLAKECVKYKDFNAEELEFFYESYELAKLNSKSGVLLATLLLNYYTKK

>AHK53515.1 hypothetical protein N919\_02920 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSDFLSFTLENIRNGGAFMAWLESRRLEWAPLMAARLKYLLEGRTFVLMCDEQRSWYEEYFLKNINSKAT

RPMLPFVSLNSLCKKKVQSSEDIALLNDLLDISFPNGYVYFYIGSASDNKSLIAKSRDDSLLWLFDEQLQ

DSFYLNSKDKDLDIKLISLYQLFDVSLDAILFSKVQLG

>AHK53514.1 aspartate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLIVQKYGGTSVGTLERIEAVANRVIQSAQQGNQLVVVVSAMSGVTNTLIEQAEYFSKTPNGKDMDMLLS

SGERVTSALLSIALNEKGCPAISFSGRKAGIITDSVFTKARIHHIDTKAIKSELQNGKIVVIAGFQGVDE

EGNVTTLGRGGSDLSAVAVAGALNADLCEIYTDVDGVYTTDPRIEPKAKKLDKISYEEMLELASLGAKVL

QNRSVELAKKLNVNLVTRSSFNNNEGTMITKEDGMEQALVSGIALDKNQARVTLRNIEDKPGIAAEIFSV

LANENINVDMIIQNVGVDGATNLGFTVPQNELELAKNAMQKILSSKTTIESDSAVLKVSIVGVGMKSHSG

VASKAFKALADEGINIGMISTSEIKISMIVHEKYGELAVRALHECYGLDK

>AHK53513.1 preprotein translocase subunit TatB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSFGEIIVILVVAILVLGPDKLPEAIVQIAKILKAVKRNIDDAKSSIEKEIRINDLKEEAKKYKDEFSST

NENIRKKLSFEEFDDLKRDILDKTKVDLTFDSRDDKVKNNLSGQNLNTEEKPNLSKLETQDKNGKINV

>AHK53512.1 preprotein translocase subunit TatC [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFEELRPHLIELRKRLFISVACIVVMFIVCFALRSYILDILKAPLIAVLPEVAKHVNVIEVQEALFTAMK

VSFFAAFIFSLPVIFWQFWKFVAPGLYDNEKRLVVPFVSFASIMFAFGACFCYFVVVPLAFKFLINFGLN

EDFNPVITIGTYVDFFTKVVVAFGLAFEMPVIAFFFAKIGLIDDSFLKRHFRIAVLVIFVFSAFMTPPDV

LSQFLMAGPLCGLYGLSILIVQKVNPAPKDKESDE

>AHK53511.1 S-adenosylmethionine tRNA ribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKDLLLSSYDYTLANELIANYPTNPKEDARLLVFDRKNKEIFHTTFKNLQDFLPNCAIFFNDTKVIKAR

IYGNKASGGKIELFLHQPFLNSHNPLFLAQIKGRIKKDEILYFKEDLKVRVVELLNDGLRKVQFFQNDKT

LDTSNLYNLLDKIGHIPLPPYIKREDEKSDLKDYQSIFAKNLGAVAAPTASLHFSETMLENLRKKHEIYH

LTLHVGAGTFKSVECENIQEHKMHSEFFNIPQQACEIIDSKQAILGVGTTVTRTIEYYTRTKTKNGFCDL

FLHPQNPPIRQNHLLTNFHLPKSTLIMLVSAFIGREQCLKLYELAIKEKYRFYSYGDAMLIL

>AHK53510.1 UDP-3-O-(3-hydroxymyristoyl) glucosamine N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLSEIAEFLSLEYKGEDIEISALNSLLKANFTELTYCDGEKNTKDIPHTGAAAILVSKEYENLVPKDTK

ALITQSPHLSFAFLSKLFAKPLISTAKEKVQNIAKSARIMPNVYIGDNVNIGENVIIMAGAYIGDNVSIG

DESIIHPNVVIYNDTKIGKKCHLLANCVIGSDGFGYAHNKNGEHYKIYHNGNVVLEDFVEVGACTTIDRA

VFDSTIIKAGTKVDNLVQIGHNCNIGQNCIIVAQTGISGSSELGRNVIMGGQSATSGHLKIGDFSTIAAR

GGVSKNLEGGRVYGGFPIMLQKDWLKLQAKIAINFKEKSQD

>AHK53509.1 acetolactate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRRVLSVIVLNEHGVLSRIVGLFSGRGYNIDSLTVAPLENKEFSRINIVTSGNERTFEQIVKQLHKLIPT

YKVIESEEFIDKEMALVKIPLNENLGGLDAVLKAYNGTIANSNENFLFLMVADDANRIDNFLKTIKKYNP

SDIVRSGSVLMEIK

>AHK53508.1 acetolactate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKELSGSAMICEALKEENVKIVFGYPGGAALNIYDEIYNQKYFKHILVRHEQAALHAADAYARMSGEVGV

AIVTSGPGFTNTITGLATAYSDSIPLVLISGQVANSLIGTDAFQEIDAVGISRPCVKHNYLVTCIEEFPR

ILKEAFYIARSGRPGPVHIDVPKDVSATLGLWEYSKEISMKTYKPVYKGNSKQIKKFAELLKEAKRPLFY

LGGGCISSNASEQIRELIKFTKIPAVETLMALGTLRSDDVFNLKMAGMHGSYAANMALSECDLLVSVGAR

FDDRITGKTSEFAKHATIVHVDIDPSSISKIINAHYPIVGDIKEVLKELLEELKKENFNTTFKEWHETLK

RYNELYPLSYEDSNEILKPQWVIEECAKMAPDARIITDVGQHQMWVAQFYPFNYPRQLATSGGQGTMGYS

LPAALGAKLAVGEEVVINFVGDGSVLMNIQELMTAYEYGIKAINIILNNAFLGMVRQWQSMFYKEHFSQT

DLSTQPDFIKIAQGFGCEGYEISNKEEFIQAFSQALKSDKTSLLNVKIDRFEDVLPMVPAGGAIYNMILP

KAKDRQ

>AHK53507.1 aspartyl-tRNA amidotransferase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTLKEQILNDIKEAMKQKDDFKRDSLRTLNAAFKQIEVDERIELDNERIYKIIASEIKKRKDVIELYLKA

NREDLAQKEQNEISLFEIYLPKQLSDEELTLALKQLIEELGVSSLKEQGLVMKEAKIKLGASVDGKRLNL

ALKELLQ

>AHK53506.1 3,4-dihydroxy-2-butanone 4-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFVSVEQAIKDLQAGKMLVMVDAEDRENEGDLIFPAQFSTQEKVNFMIKEARGVVCVALDETLAKKFEL

PLMVPKNTSNHETAFTITVDAKDATTGVSAYERNMTIQIFADDNAKASDFVRPGHINPLIAKKGGVLERT

GHTEGTVDLCKLAGLKGACVICEIVKDNGDMARREDLEIFCQKHDLNMIAVSDLIEYRLKHESLIKLEEK

SQSVLAGFKAEKFIFSDHNQTQHIAFCFKDIKKCENVKFHISGSDFELLTSDKFSKLLEQIKFLSENGGV

IVFMQGEKSSTTQYKNYGIGAQILRYFGIEEIKLLSQSCDKDYIGLEGFGLNLKACNFN

>AHK53505.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEYDKLSIRLVQILSKFNNGESLSAQELAQEFNVDTRTIQRDLNERLTFMPIKKENGRYVLESFALGKL

SFKDIQNFATLSGIAELYPKLDQGFIVDLLSHRVNKVLMVKNEGFQKVDYELFKDLSVAILKHNVLNFFY

KEKERQIKPYKLVNYKGIWYLLGDENDKLKHFNLDKISKLRTKNENFIPNEKLEEQIQNDPNIWLGESKE

VILKLDKNAKEYFFRKEILSNYQIIDKDETSYTLSTQVSYEDEILHLVKQWIPYIKILAPIELKIRLEDI

LKSYLNNLSK

>AHK53504.1 hypothetical protein N919\_02810 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKQIAFGSIALTATGYGIKKLYEKLSKPERKFDTHAIVPSCKDVINTEEYKLKRELEIEQKKNQIQEFL

CECMECYSGFSKYFNSKEFLEFEQNFTSKNNHKTEFLLSSYKDQMIKVIDYAKKFKCLSAFLETQSEKND

LAVVKMISESMERKTQRFYLQTKFQTFPQYIFPSVWSSPMWDKQWE

>AHK53503.1 replicative DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQQEYYDLDLERAILSSCIMSEEAYASIAGDISPKDFSLKAHQDIFKAVIACSNNKEPISVSFLRKHKKI

DEQILAEILATPSMIDLPAYVNELHEKSVKRQLLSFAHLLPTRINEDRAVSEIADEIGKEIFSITNRVNS

RDIKDVDMVISELFEEFKKQKTLENKGIIGLDTGFEGLNKMTKGFKGGELIIIAARPGMGKTTLCLNFID

KVLRQKKGVALFSLEMPATQIMQRMLSSKTSIPLQKILTADLNDDEWERLGDACNDYSQKKLYIYDSGYA

TIADVRAILRRLKSQDESIGLCVIDYIGLMMSNSNFNDRHLQVSEISRGLKLLARELDMPIIALSQLNRG

LEQRANKRPLMSDLRESGAIEQDADAILFVYRDEVYREQEEKERENKAKAEGKAYQRLFIPNPMQENAEI

IVGKNRNGPVGTIEVVFLKEKSCFVDKPIGYETTEFTG

>AHK53502.1 hypothetical protein N919\_02800 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKYLFSCVLASILTQSATAVEFQEGFSGNLSIGVGARDIKSNISTLANSDYLSSHNADNSDSSFIPFIG

AELYYGNLIDNDRIFIKNYNGRDISGIALGYERAYLERFSTSFSVISSLREKAYANPYAIGNREETDVDR

YGFKISQLYESDFGKFTTSYLFSKNKYDKDTIAQSSLKREGYYHEIELNYNYSLLNLGLNYDYNDADGKA

QSYSRYGFSIGTNLAFANDYIFTPNLNLSKYEAVGTDPIFHKKQDGNIVKLNLKVVKNQFLGYNGLYGFA

NYGIEKRNSDIGFYDETYQIVLTGIGYKF

>AHK53501.1 pyridine nucleotide-disulfide oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIDLIVVGAGPTGIGCAVEAKLKNKEVLILEKSNNICQTLMQFYKDGKRVDKAYKGCEGTNHGHVPFE

DGTKESTIETFQNALKEHNIEVEFGSEVESVKNENGVFLVSTAKGVYECKNIIVAIGRMGKPNKPDYKLP

MTLTKIINFNANSVLGNEKILVVGGGNSAAEYAVDLANSNQVSLCYRKKEFTRLNDINLKDIHEAGNSGK

VELKLGIDINEVEDDNGKAKVNFTDGTSDIYDRIIYAIGGSTPLDFLQKCGINVDDKGVPLMDENKQSNV

KGIFVAGDIATKNGASIVTGLNDAVKILSVL

>AHK53500.1 gamma-glutamyl phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRNLLENIKKNSQKLLNLTPKDKEKIILKLAQILRENFKIILEANKKDMANFTKSGAMKDRLLLDEKRIL

ALCEGLEKIAYIEDPIGKISKGWKNYAGLSIQKMSIPLGLICVIYEARPSLSAEIAALMIKSSNACVFKG

GSEAKFTNEAIFTLVNKVLKEFDLQDCFAMFTQRDEILQILAFDDLIDVIIPRGSSNMIQEIANNTKIPL

IKQNKGLCHAFVDQSANLDMALKIILNAKCQRVSVCNALETLLIHEKIAKNFISLLIPEFEKFKVKIHAH

ENALAYFNNSNLKIFKANENTFDTEWLDFALSVKLVKDCDEAIEHINKHSSLHSETIISNDASNIAKFQR

LINSSCIYANASTRFSDGGEFGFGGEVGISTSKLHARGPMGIEDICTYKYIINGEGQIRE

>AHK53499.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKIEILKQHFKEIAKLNSSEQVWQMPFFAALGVGIVLGLSVFFGKLNYGLIAMIGALSFLYVPSTPLYH

RMAVVMCCSFGIVSSFFLGILTHFLPAIFAFIPIGIMAMGSSILIRYYNIGAPGYFFFVFSCVLGAYSPF

EAKDFIFLVGLVFLGAMVANLMALLYSIVVIYGFKNALPSEIPPREYIGFDAVFVDSLIMGSFVAFSIFI

GTFLELERSYWIAISCTAIMQGVTLNSIWIKQIQRIIGTALGVCFAWWLLSKQFHDIELILLMMSLFFIG

QFLVNRNYALAMIFFTPYATYLSEAANFMSENADKLILARLIDVVIGSILGLLGGFVIYKPYLRVHFERI

AKYIFRIKQKA

>AHK53498.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIDTHAHIFLKKLNTVANARYKPDYDASFKDYKANLDHYDFNKGVLVQPSFLGIDNEFLLQSIEKDENI

KAIVVVDENIKFDELKKLKERKACGVRLNLIGKELPNFKSMVWTQFFENLSKLKMQIEIQRDLDNNLVDI

VENLIPYGCNIVIDHLARANANLTNLEDLICLKNSRIFFKISGFYRAKIDYANNEQAVKFAKKIYEILKE

HFPLSNFVFGSDWPHTNFEANINFSSALVAFNEVVVSKKEQEQILGDNACALFGF

>AHK53497.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVFLIISSIIVAIILGYITRHNVGIFAMIFAYIIGAFFMDLAPKKIIAFWPISIFFVIFAVSLFYNFATV

NGTLEKLAGHLMYRFANHPYLLPFVIFVVSAIIAALGAGFYTVLAFMAPLTFLLCDKIGLSKIAGAMAIN

YGALGGANFITSQSGIIFRGLMENSGIEANEAFANSSIIFAFTIILPIVVLSFFVFNAFKNNIKISVISK

PDPFDYKQKTTLILMFMMIVVVLIFPVLNIIFPHNETISYFNKKIDIAMIAMIFVAIALFLKLADEKQVV

ALIPWGTLIMICGVGMLISIAVEAGAIKLFSDLVENEINVIFIPLIMCAIAAFMSLFSSTLGVVTPALFP

IVPSIAASSGLSEALLFSCIVVGAQASAISPFSSGGSLILGSCPDKYKEKLFKDLLIKAVPIGFIAAILA

TIIMSFIL

>AHK53496.1 hypothetical protein N919\_02765 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKFIKQFSFIALENIFRELPNKITHSFNDINDIKPPKLMYPIFYGSYDWHSSVHSHWLLVKILKDFSHF

APKDEIIKALDSQFSKEKAEGELKYLQNPAHKGFERPYGWGWFLKLTLEINLLAKENDKAEIWAKNLEGI

ADFFVKEFKEFLPKMDYPIRVGTHFNSSFALYFALEYARFKKDQELEYCIIQSAKKWFLNDKNMQALEPC

GDEFLSPVLMEAVLLSAVLHKNDFVKFFKAYLPNLEAKEPATLFTPVSVSDRSDGKIAHLDGLNLSRAWC

FKILSNFCDENLKILLRNNATEHFDKAIAHIEDDYLGSHWLGSFALLALDVDIL

>AHK53495.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MISLDLLYYIVGILFLVFGILSFSNQAKDIKSRISGGVFWISYSFTFLLAGVLPHFVMGCIVILLALIAG

FNLLKPAKIEVSKEEKEYEIKHANIYKNKLFIPALMVPLITLIGTFLFPYLSFFENKNATLMALIIGIII

SSVVACFMFKASPKRAVKDAAHTMDHISWAALLPQILATLGVVFVSTGMGDQVSKLLSSYISLDNAFIAV

AVYCIAMALFTIVMGNAFAAFPVITAAIALPILIIQMHANPAIIGAIGMLSGFCGTLMTPMAANFNIVPA

ALLNLDDKNGVIKAQFMSGLVLLVANIFLMYFLAFRF

>AHK53494.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEWLLLASIPLIVLGFALKINPFLVVTSVGIYAGLVSGFDFVKVVSDIGKSFVDNRYVAIIWLILPLLAV

LERKGLREQAKNLISKIKVASTGRILMCYFVFRQVTAALGLLSLGGHAQMIRPLIAPMAEAAAKLKFKNL

THKDSQKIKAFSAGTDNVAVFFGEDIFIAVHSILFIKAFYESNGIIVEPLHLSVWAIPTGILALIIHCSR

LYLFDKRLEKTYKGLSDDKS

>AHK53493.1 elongation factor P [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MASYSMGDLKKGLKIEIDGIPFKIVEYQHVKPGKGPAFVRIKIKSFIDGKVLEKTFHAGDKCEAPNLEDK

TMQYLYDDGENCQFMDTQTYEQVAISDDDVGEAKKWMLDGMMVDVLFHNGKAIGVEVPQVVELKIIETAP

NFKGDTQGSNKKPATLETGAVVQIPFHVLEGEVIRVDTVRGEYIERANK

>AHK53492.1 hypothetical protein N919\_02745 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKQWLSDFKLALIQEDVNKLENLLDELDMKAFIKNLAKESPSEDFLKENANDVFYQVQALLQEAVILIEQ

KKKTKAVEIQKFQKALTYFKS

>AHK53491.1 flagellar biosynthesis protein FliS [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNNLAYNAYSQNQVGIESPQKLIEMLYEGILRFCARAKVAIRNEDIEQRVYFVKRTTAIFIELINTLNY

EKGGEVAHYLSGLYTREIQLLSLANLENNEDRINEVINVTKGLLEAWREVHNNETVAQ

>AHK53490.1 flagellar cap protein FliD [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAFGSLSSLGFGSGVLTQDTIDKLKEAEQKARIDPYTKKIEENTTKQKDLTEIKTKLLSFQTAVSSLADA

TVFAKRKVVGSISDNPPASLTVNSGVALQSMNINVTQLAQKDVYQSKGLANDGGFVNAQLNGTADLTFFS

NGKEYTVTVDKNTTYRDLADKINEASGGEIVAKIVNTGEKGTPYRLTLTSKETGEDSAISFYAGKKDSNG

KYQKDINAEKIFDDLGWGLDVSASIDPDKDKKGYGIKDASLHIQTAQNAEFTLDGIKMFRSSNTVTDLGV

GMTLTLNKTGEINFDVQQDFEGVTKAMQDLVDAYNDLVTNLNAATDYNSETGTKGTLQGISEVNSIRSSI

LADLFDSQVVDGTTEDANGNKVNTKVMLSMQDFGLSLNDAGTLSFDSSKFEQKVKEDPDSTESFFSNITK

YEDINHTGEVIKTGSLSKYLNSNGGNTNGLEFKPGDFTIVFNNQTYDLSKNSDGTNFKLTGKTEEELLQN

LANHINSKGIEGLKVKVESYNQNNVTGFRLNFSGDGSSDFSIKGDANILKELGLSDVNITSKPIEGKGIF

SKLKATLQEMTGKDGSITKYDESLTNDIKSLNTSKDSTQAMIDTRYDTMANQWLQYESILNKLNQQLNTV

TNMINAANNSNN

>AHK53489.1 flagellar protein FlaG [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEISKANGQMDTALANISQRTSETQASLNIQTDRSQGQEGDDGQQRGVSEKLADITKKLNEQMDSLDTNV

RFGYSDKIGSMYISVTEKSTGREIRQIPSEEAMRLAEYFRDVIGMIFDKES

>AHK53488.1 3-octaprenyl-4-hydroxybenzoate carboxy-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEFIQILKENDLLRVIEEPVDVDLEIAHLAYIEAKKGEKGKALLFKNPIDKKLNKQYKFPVLMNTFCNK

KALNLAFGRDYKEVAEEISKLIKLHIPTSFKAKMDFFMNLLSFKNIPPKRLKKNKALYDYEILNSLEELP

ILKTWEDDAGKFITMGQVYTQNLDKTQNNLGMYRLQMSDKNELLIHWQIHKDGANFYHEYKNAGFKKMPV

SIAIGGDPLYIWCSQAPLPKGIFELLLYGFIKKTPAKITPCENGIFVPYDSDVVIEGYVDLEEFKIEGPF

GDHTGFYTPAELFPVMKVEKIYAKKDAIYQATVVGKPPLEDKIMGLGTERIFLPLLQTSVPDLIDYNMPE

NGVFHNLILAKIDAKYPAHAQQIMHAFWGVGQMSFVKHAIFVDKNAPSLKDYDALIPYMLDRFNTKKILI

SEGICDQLDHASPNSCFGGKAGLDACEEIQVEELEILEDEKLLELFKTKVELLNLKQFYKESKSPIVCIL

LDKKEKIEQSFDKLLEFKKYFRILVFLDAENKLENSYMLVWRVVNNIDAKRDIFIKEERLGVDASAKGEA

EGYLRAWPKQTDCTKSVIEDLILRNILENNPDLFNKFEIF

>AHK53487.1 porphobilinogen deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLIIATRKSQLALWQSEHVAQILKNTHQIEVLLEGFKTKGDVLLDSPLAKIGGKGLFTKELEESMLRKE

AHLAVHSLKDVPSFFPQGLVLAAVSKREQSNDAMLSQNYKDFLSLPKGAKIGTTSLRRKMQLLLLRPDLE

IISLRGNVNSRIEKLKNNDFDAIILAMAGIKRLNLDKQVNFVYEFSKDELIPAASQGALGIESINDEKIL

ELLKCLNDENALIETSIEREFIATLEGGCQVPIGINAELLGDEICVRAVLGLPDGSEILKDKRMIKKNDF

KGFGESLAKEFIAKGAKELLKKAESMI

>AHK53486.1 integral memnbrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNYKLSLSPLFVLEIIASVLFIVFFGFGNFLFFILLSMIFGAVLLGIFWKNMLEFQMGGLKDMLTQFSFV

IAGFLLIFPGIITSVFGIFVFFFGIALKLITKSKYQYTKQEYQNSNEEIIDVEIIEDRK

>AHK53485.1 prolyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMRFTKFYAPSLKEAPKDASLPSHIFLTRAGFVEQIGSGLYNFLPLGKRVLDKIKNIVKEEMDKAGAQEV

NLSFITPASLWQESGRYNVFGKELLRFKDRKENEFVLGPTHEEAMLSLVKNKITSYKQLPLHLYQIGLKF

RDEARPRFGLLRCREFLMKDGYSFHANEEDLGREFELMYKTYSQILQRMGLDFRAVEADSGAIGGSGSKE

FMVLAKNGEDDILICENCDYAANVEAAKRAKKTCQDERPEANYASKFHTPNIKTIDSLAQFFKINAFYTI

KAVVKKAIYENESKLVVFFIRGSDDLQEVKAQNTCSALELVDASEEELKKAGLVAGFIGFVGLKDIDFYI

DFELENEKQMIMGANEKDYHLIGIDVVNLNKDRFKDLIEVKEGDCCVKCGAKLKQSKGIEVGHIFKLGQK

YSKAMNANFLDENGKSQPFYMGCYGIGVSRLLAVAIEANHDEKGCIWNKTLAPFVLEIIVSNLKDEKALE

FANKLYRDLTNLGLEVLLDDRNERFGVKMNDFELMGFPYALVIGKGLENNEIELIQREGLVKELIKTDEL

MEILKKKVL

>AHK53484.1 glutamyl-tRNA reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYYCISFTHKNTDIALREKLSFSNEAKKGEFLKIISTHENIEECLVISTCNRVEIVAFVKMACAEFIVKS

LALLCDVDKDILLEKADIFEDSGAIHHLFSVASSLDSLVVGETQIAGQLKDAFAFAVKNNFCGVHLSRAV

HSAFKCAAKVRNETQISKNSISVASVAVAKAKELADLTQKKAVVIGAGEMGELAAKHLIAAGAKVIILNR

DLQKAKDLCERLGVLSEYDSLENLKKYLNQYEFFFSATNAPNAIITNSLIEELSYKRYFFDIAVPRDIDI

NENENISVFAVDDLEIVVQKNLALREQEARMAYGIIGRETSEFFRYLNDLALMPIIKAIRLQAKEYADKQ

LEIALKKGYLKKSDKEEARKLIHQVFKAFLHTPTVNLKHLQGKMQSDTVINAMRYVFDLQNNLEGLNQYK

CEFDMENNDEIY

>AHK53483.1 octaprenyl-diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKIDELIKQFLQELGYEPILNMLSNVKSGKKLRSKLLLAIADESEIAFKICAAIELIHLASLLHDDIID

ESELRRGARSVNAEFGTKNALMLGDILYSKAFYELSKMDARFASIISDAVVKLAIGELMDVDLGEKFNIN

KEAYLKMIYNKTAVLIEASARCGAILAGLYEKDFAEYGKNLGLAFQMIDDILDIKSDEKILGKPAMNDFK

EGKTTLPYIYLYENLQEQDRIYLQTLFKKDLNENEKEWLKTKFEEQKALEKAILEAKTYAKKARKAIEKY

DNNKLNDIIKAMIDREF

>AHK53482.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFKISPYLICIFFIFSNVLASEPTFDYTYKFILKKDERASVQIKEIGYEDKVQNFDFYWTLFDNTNIIVH

SKFRKYPRQFVMSLRRNLDWVTQTLIPDYTNPHIDRARLILEFSGYNKGLATFTVYIEDKESRLMVEFLD

PRKKALQNPPQNNQVVPMINFNEPQVKPLTSKENNNSN

>AHK53481.1 hypothetical protein N919\_02690 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDFFDEMFNKTPKEKFIEIIQNGNLGALEKVFEEFFADHIAMVELLEKQGLTEMDVKNFILENGDFIEER

QNDIYIELGAKILGHEG

>AHK53480.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKYQLRFGGEGGQGVITAGEILAEAAIKEGRQAFKASTYTSQVRGGPTKVDIIIDDKEILFPYAVEGEVD

FMLSTADKGYKGFRGGVKEGGIIVVEPNLVHPESEDYKKWQIFEIPIITIAKDEVGNVATQSVVALAIAA

YMSKCIDLDVLKETMLHMVPAKTRDANAKAFDLGVKYATQAKPHS

>AHK53479.1 2-oxoglutarate ferredoxin oxidoreductase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAFNYDEYLRVDKMPTQWCWGCGDGVVLKCIIRAIEKLGWNMDDVCLVSGIGCSGRMSSYVNCNTVHTTH

GRAIAYATGIKLANPSKHVIVVSGDGDTLAIGGNHTIHGCRRNIDLTHIVINNFIYGLTNSQTSPTTPKG

FYTVTAQFGNIDPNFDACELTKAAGASFVARGNVIEANKLENLIYKALAHKGYSFVDVFSNCHINLGRKN

KMGEAVAMLDWIKNRVVDKAKFESMDFEERKDKFPTGILHEDNSQPEYCHAYEEVRRAAKEKRMVDLGAL

K

>AHK53478.1 2-oxoglutarate ferredoxin oxidoreductase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MREVIATGNVLIAKAAIDCGCKFFGGYPITPSSEIAHELSHMLPANDGTFIQMEDEISGISVAIGAAMSG

VKSMTASSGPGISLKAEQIGLAFIAEIPLVIVNVMRGGPSTGLPTRVAQGDLFQAKAPTHGDFASIAIAP

ASLEEAYTETIRAFNLAEKYMTPVFLLMDETVGHMNGKAVLPDLKDIKVYNRKKFEGDKKDYKPYAAGEN

EPATLNPFFTGYRYHVTGLHHGDIGFPTEDGVIVKKNMERLIGKIKNNQEDICTYEEYMLDDAEFLIIAY

GSVSRSAKEAIQRLREQGIKVGLFRPITLYPVAEKKIAEVVSKFKKVMVSELNMGQYLEEIERVTSRRDF

ISLHRANGRPITPSEIIAKVKENI

>AHK53477.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSMTAPKDTPVWVDEHRCKACNICVSYCPAGVLAMRDDVHAVLGQMIEVVHPESCIGCTECEIHCPDFAI

MVAKRDEFKFAKLTAEAKDRAVAVKNNKYKKLA

>AHK53476.1 succinyl-CoA synthetase subsunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSILVNKNTKVIVQGFTGKEATFHAEQCMAYGTNIVGGITPHKGGQTHLGKPVFDTVADAVKATKADVSL

IFVPAFAVGDSVIEAADAGIKLAVVITEHTPVKDMMFAKQYANKKGMKIIGPNCPGIITSEECKLGIMPG

FIFKKGCVGLISKSGTLTYEAANQVVQGGYGISTAVGIGGDPIIGLAYKELLSEFQKDDETKAIVMIGEI

GGSLEVEAAKFIKENISKPVVAFIAGATAPKGKRMGHAGAIVGSADESAAAKKEALKSYGIHVVDSPALI

GEEIQKILG

>AHK53475.1 malate--CoA ligase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNIHEYQAKAIFVDNGIPTLKGKVAFSVDEAVANAKELGGSVWAVKAQIHAGGRGLGGGVKIAKNLDEVK

DYASKILGMNLVTHQTGPEGKLVQKLYIESGANIVKEYYLAILFNRMAEQITIIASSEGGMDIEKVAKES

PEKIAKVGIDPQIGFKMFHGLEVARVLGLDKDEGKKLISMIAKLYKLYMDKDMNMLEINPLIKTAEGDFY

ALDAKCSFDDSALYRHPEIAELRDTTEENPAEREAAEFGLSYVKLDGDVACMVNGAGLAMATMDIINYSG

AKPANFLDVGGGASPETVAKAFEIILRDKNVKVIFINIFGGIVRCDRIANGILEATKNVEVNIPIVVRLD

GTNAAEAKTILDNSNLKNIKAATNLKNGAELVKSLVG

>AHK53474.1 malate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKITVIGAGNVGSSVAYALILREIANEIVLVDINEDLLYAKELELTQSIAALNLNIDLLCTKDYTHTKNS

DIVLFSAGFARKDGQSREELLQLNTSIMLDCAKKIKDFTEDPLFIILTNPVDFLLNTLYESGIFSSKKII

AMAGVLDNARFKYELAKKLNVKMSRVDTRLIGFHNDDMVLVKSYASVKNKNISEFLNEEEFEDLENEVKT

GGAKVIKHLKTSAYLAPASACIRMLESIRSGEFLPMSVILHGEFGVQNKALGVMARLGLEGVIEIMKMDL

SLQEKDKLEKSLIKYQYKGE

>AHK53473.1 isocitrate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTKTNFKLTLAFFFICNILKNENKNKYFKGLKMQITYTLTDESPALATYSFLPIVKAFLSRAHIGVKTS

DISLSGRILATFSEYLKEEQRCEDALELLGELVKRSDANLIKTPNISASIPQLKAAIKELQDKGYMLPNY

PDEPKNDEELQIKTKYQKVLGSAVNPVLRQGNSDRRSTKAVKDYAKNNPYRVVEFNPNSKTRVSYMKEGD

FFSNEKAVLIDQDCVANIEFTSVDGKKEILKEGLKLEKNEILDATFMDVQKLQEFYAKEIKASKDDDVLF

SLHLKATMMKVSDPILFGYAVKVFFKELFIEFQDEFEKLGINPNNGLSELLSKIENSSKKDEILKKYSEI

LAKSADISMVNSDKGITNLHVPSDVIVDASMPAMLKNGARLWDKEGKEKDTNAVIPDQTYATIYEAVIED

LHKNGTLNPSKLGSVSNVGLMAKKAQEYGSHDKTFVAKEEGTFKIVSNGKVLLEHKVRKGDIYRANQAKF

DAVLNWIDLGIERSELSGAEAIFWLDSKRASNKIMITLVQNRLKEKGKNVAILTPKEACLRSLELIREGK

DVISITGNVLRDYLTDLFPILELGTSAKMLSVVPMLNGGAMFETGAGGSAPKQVEQLVEENHLRWDSLGE

FLALQASLEFYANKCGNHKAKVLAECLDEAIGEWLENNKAPSRKVKEDDNRTSHFYLAMYFANHLARQAS

DMELQSFFKDIALELSSNEEKIRAEFNDAQGVKVDLGGYYKFDDEKANKIMRPSATFNAILEKIGQR

>AHK53472.1 hypothetical protein N919\_02645 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKKILYIVVFFVVLILALFIVLKNGIVISSIQFDFLKLEQLYIKLDKKLIVRAKNITINETQNSEISSQ

THSSDNASTEILKITKNLKYLYTFVKEIDIQNLNIKDNHVRILFKDNEFFIDNDLLFLKLTLQRQNKELI

ADIKKLLLKDYDLSIDGNLSINTKSEFYYFQGRASGELLDFNASISYKDKNLAYKIEDLNIRNITEIFKR

VNKRIELPQSLNLWVAYRAKGEFYHLDYLQGFIDFTKDNYYLDNISASGYVNNVKVRLDDKMNAIEIPKL

DLNLNKQKLDFVFNKAFYNGADLSSSKVYLYDLFDEKKVGIYLRIKSDNLKFDEKLAKALEDYHFSLPFY

QKSGKIKSDLELKIDFHDKGEISYSGILALENASISLADFNITKAFVKLNQNDLNIENASVKNGFLEADF

NAKFDLQKQQGNFNTQISRLYFDNAELLDLKNQNVEVKLDYSQNVNISIPQWNLILNFKDGLEANLNNPK

ILFSFSPLLKKLGFINAKNVYYKTLNFEDFNASVNDAYFKNNLLINGQTPYENDSFDIVKNKGIMEIHTQ

SDTASAKISSDNKEIHLKNLSYIYRKHSNSSNSTFDIATNTQNISFGGANVALILADSNKTLAFDRVEAD

LKGNALDLKGSRGNAKFDLYYSSNDLNLNVSNIDDNYLNEFLQKQAVQDGVFNLSIKGSGLEYFDGQIDF

KNTYVKDLKGINQLISFIDTVPSLLMFKSPTFNQKGLSLHDGKIIFNRKKDLLSVSAINLNGDSVDIYGL

GSANLRLNTVDFSLELKTLKSASEAISKVPILNYVILGKNQEISTNLKIDGSIDDPKFHTEILTDTLKTP

FNLIKNIIQLPANLLN

>AHK53471.1 flagellar basal body rod protein FlgB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINPFKSKELVTGALAGRNLRNQLINANLANVDTPFYKARDIEFETALVNRANEIFKKNDNKELQLAVTE

EEHQKPWKFPDPSKSTIYLRDGHLARNDANTVDLDVETTEMSKNTVMITALDGVLRRQSNIFSSILDASS

KLS

>AHK53470.1 flagellar basal body rod protein FlgC [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAYLSDFDISGYGLSAQRFRMNVISSNIANANTTRTAEGGPYRRREVIFKATDFDKLLNEQINKDNNFLK

YENPLNDPSSPEEAKPAIQSVVVDKVVRDDKDFRMKYDPSHPDANAEGYVAYPNVNPVIEMADLIEATRA

YQANVSAFTSAKTISQSAIDLLRG

>AHK53469.1 flagellar hook-basal body protein FliE [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNNINDLRLNNNISNTNKSQNSTGIGDEFAKMLKNEINDLNKAQESGEAAMTDIATGQVKDLHQAAIAIT

KAESSMKFMLEVRNKAISAYKEITRTQI

>AHK53468.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQEYKKNRVSKVAFAYCMALLFMIIFISSTFFLTSKRHIPNTEKDQYALALRGSIITKDNFTITSSKQIY

RAEIDLRSINKDKFDLFLKLFQIYSGISNDQVADIKKRMQNQKKRSYNFVLLQNLDSKQASYLKDLAKKL

YIQGFFKAFTNNSGRVETRGLNIIEHEEDRIYMSKDSFTPIIGYTKMILDPESGILKNIGVKGLEKYYDA

CLSPVQNEKIQGLKDIGGNIILNLNSLQQKKINGCDLYLNLSLKLQKSIEKAIDQRNEDLKANEIIVGVM

ESKTGRILALASSRRYDPQNRGKDLSVLNASAIEYGYEAGSVIKPFIFTTALRLGKIKMDEVINTYGGSY

KLGRFTIKDDHKMDKMTMEEVIRYSSNIGMIQIAKRLNNIEIVSGLKIFKFGEKSGIDLPYEQKGEIPNP

KRLRDIEKSVLSYGYGLKTTFIQLLAAYNVFNNDGFYITPRLAEKFYQNGRFTNLDDDVKKEKILSSEAA

KTMQNVLINVIEKGTGKKAITQGIIAGGKTGTARIAERQGYTSNRYNASFFGFANDLNHAYTIGVLVRHP

TKPYSYYAAQSALPMFKDVVDILINEEFLTPIQDNNQTSTNN

>AHK53467.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLGIYLLIAALSFLALYFAVKKLTLNIDERTLLEPIKMDIYPKFCDLIDEKIREFKENIQNANLTLKNSN

QKDEFLEKLGDLSRELTFIQTMNLSNKNDSIWQNELFSFLKELENLLLEYLEKGEEEAENLREFLMDEFE

KLKG

>AHK53466.1 rhodanese [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIENISASLWTKQDLNAYQIFDVRTPLEWEEGILPNAQCVALYDNQGLLNAKFLDEFQSKRDESKKLAFI

CRSGHRSMVAAEFIAEKLGLESINLDGGMLALKGC

>AHK53465.1 heat shock protein Hsp90 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQFQTEVNQLLQLMIHSLYSNKEIFLRELISNASDALDKLNFLSVSDDKYKSLKFEPKIEIKIDKDKKTL

SISDNGIGMDKDDLINNLGTIAKSGTKSFLENLSGDAKKDSQLIGQFGVGFYSAFMVASKIEVLSKKALD

DKAYLWSSDANGYEIDDANKEEQGTSITLYLKDDEFANAYKIESIIEKYSNHIQFPIFMEKEEFTPAKEG

EEEGKTELKISQINKANALWRMQKSSLKAEDYERFYEQNFHDSNKPLLYLHTKSEGKLEYNSLFFIPQNA

PFDLFRVDYQSGLKLYVKRVFISDDDKELLPTYLRFVRGIIDVEDLPLNVSREILQENQILKGIKEASVK

KILGELEKLKNNDKEKYLSFFKTFGKVLKEGLYGFGGEKDSLLKLMLYKSTKGENLRSLEEYKNDLQGEQ

KEIFYIAGNNESLLRTSPLLEEYKQKNIEVLLMDDEIDSLVTPMLEFEGLKFVSINQVEDKNELSDEEKN

TFAPLVAKFKELLKDQVEDVRLTSRLKDSPSCIVYDKNKPDFAMQQLLKQMGQEQNFKPILEINPKHAIF

TGLKNNESFSADIATLVLNMAKLSEGMGVDNPAEFNASLTKIINKAFS

>AHK53464.1 chromosome condensation protein CrcB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNTLLVVGFGGFIGAILRMLSINLVNKFFPYSISFGTLFVNVLGSFIIGLLFSYAQNKGLSPLLKSFIS

TGFLGAFTTFSTFSYQNLLLLQSGNYLHFALNIILNVFLCLFAAWLGFLIFK

>AHK53463.1 1-acyl-sn-glycerol-3-phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIYKKIKALYFWIFFVLSVALVIFCFCFTKSQNTLWKIRKIWAKFQRYTISYKQEIIGTFNPQAQMILMN

HQSALDIIALEELYPKNLCWIAKKELGEIPIFKVAMKKPKLLCIDRKNPRDLVRVLKEAKERISEDRVLA

IFPEGTRSKNEKMLKFQSGAKILSEKLNLKVQPILIVDSAKILDTKSFSASSGVLKIICMDLVDTNDEKW

LENTRKKMQELLDQERAKLC

>AHK53462.1 hypothetical protein N919\_02575 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKILLTLIFSIVVLFGRGEISVFSGQDENMQKELQKLPQEEQKIYQNIPPSDENNDFESNVDDPFVAKGS

LVLTNDEYPSRVYVGEVFPITIYARTTENIKFDFNISVEKTNLSFLNPDAKWEFINNEYKTTLWFEAKNS

NASLSKISIKLLRNNEAFQEADINLNPIKFENTLFNKDFSHLVASSLEIKKVKASYFDDANIIMMIELNA

TNTNLKSFFIEGIQKQGIENLKGDFNASSAFYYAILPLSKTNFEFSYFNKDSKKLENINLKLKISDDEIS

TQSDLNPVNKDLNIYKQYALWFLAVLFGVLFVWRKNYIILALAVVCFALSFLVDTNTQNAIIKAGSRAKI

LPTEPSTYFYTANADEKVEVLGKRQNYIKVLFSDGKIGWVNKDDLQKN

>AHK53461.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVAIIRFPGTNCEFDTTYAFEKLGVKTQIVWHEEKEFDADLVVLPGGFSYGDYLRCAAIAKLAPAMQGV

FNHAKKGGYILGICNGFQILLESGLLKGAMKHNNNLSFISKNQSLRVVSNDNAFLKNFKKDEIINLPIAH

GEGNYYADETTLKELQDKDLIILKYEPNPNGSVFDIAGICDENKKIFGLMPHPERACEKVLGNDVGLKML

KGFLLENFINFNF

>AHK53460.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEVIVNISLKNGVLDPQGKAVEKALHSLNFNSVKEVKIAKQIKISLDEKDEKLAKEQVKKMCEELLVNSV

IEDYELIIEKE

>AHK53459.1 phosphoribosylaminoimidazole-succinocarboxamide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKKEMLYEGKGKKLFKTDDENLLISEFKDDLTAFNAEKRGNESGKGALNCKISTEIFHLLEKNGIKTHL

VEIISDTEQVVKKCKIVPIEVIVRNVATGSLTKRLGIKDGTVLPFALVEFCLKDDALGDPFINDEHCLIL

NLVQNEAQISEIKNMARKINSILTPFFDNKNLRLIDFKIELGLTKDNELVLADEISPDSCRFWDKFSNEK

LDKDRFRQDLGNVKMAYEEVLKRILN

>AHK53458.1 peptidase S41 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMELILKTKRFFAGLAGFATTFILCLFLTSHLQAKVDQKEEQVQKRLEALDKLTKTLAIVEQYYVDDQNI

SDLVDKSLSGLLSNLDAHSSFLNEKDFNDMKIQTNGEFGGLGITVGMKDGALTVVSPIEGTPADKAGIKS

GDIILKINDEATLGINLNDAVDKMRGKPKTQITLTIFRKGATKPFDVTLTREIIKIESVYAKMIENENIL

YLRVTNFDKNVVDVASKELKKYPNVKGVILDLRNNPGGLLNQAIGLVNLFVDKGVIVSQKGRIASENQEY

KADPKNKISNASLVVLVNGGSASASEIVSGALQDLKRGVIVGENTFGKGSVQQIIPINKTEALRLTIARY

YLPSGRTIQAVGVKPDIEVFPGKVNTQEDGFSIKESDLKQHLESELEKIDKNKKEDKQENKDNKNLISQK

QINDDAQLKSAIDTIKILNIKQGQ

>AHK53457.1 hypothetical protein N919\_02550 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MCQEKHTHTHSQKHLKAVCNRLSRTIGHLSAIKRMVENDKDCSEILIQLAAVKAEVNNTAKVVLKEHLAH

CMVHAVEENDIQSIEELNKAIDMFMK

>AHK53456.1 septum formation protein Maf [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLILASSSISRANLLKTAKIDFRQVSFDYDENLNKNISPFLYVQKIVLEKERQFLSTLGKDFQNQNLLFA

DSIVCIDEKILTKAKDKKEAYEMLALQNGKYASILSAFLLVKPEKRVFSLSKTTLYFKNFDENALRDYVE

NDLYKGKAGCIMCEGFHQNFITQQVGNLSTALGLDIQTLKAYL

>AHK53455.1 alanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDIRKAYLDFFASKGHEITPSSPLVPDDATLLFTNAGMVPFKSIFTGEIPRPNPPRKTSCQTCIRAGGKH

NDLDNVGYTARHHTFFEMLGNFSFGDYFKEQAIAYAWEFVTEVLKLPKDRLYVTVHENDDEAFNLWQKHI

QKERIYKFGDKDNFWQMGDTGPCGPCSEIFYDQGQEHFNSSEDYMGGDGDRFLEIWNLVFMQYERSADGV

LSPLPKPSIDTGMGLERVTAIKEGKFSNFDSSLFMPIINEISKLCNKTYVYESGASFRVIADHIRSSVFL

LAQGVSFDKEGRGYVLRRILRRALRHGYLLGFKQAFMYKLVDVVCDLMGGHYTYLNEKKDFIKEQIRLEE

ERFLSTIENGIEIFNEELKNTKEIFSGEVAFKLYDTYGFPLDLTADMLREKNLKVDEEKFELFMNEQKAR

AKASWKGSGDKTASGDFKNLLEKFGENHFVGYEKAECESKILALLDEDFKEVSTLKDAGWVMLENTPFYA

TSGGQSADSGFIAKREVLDTQKFFNLNLSFIKAGEELKVNDIVHARIDTEKREQIARHHSATHLLHHALR

EILGSHVSQAGSLVESNKLRFDFTHHKALNKEELESIEKRVNKMIINSSEAILENMPLEEAKKSGAIALF

NEKYQGNVRVLTLGESKELCGGTHVKNTAQIGSFYIVKESGVSAGVRRIEAVVSKAALEFVKNQLEELSK

VKDELKNNDILSGIKKLKNEILSLKNELKNSSKTELDSKNIQGVEICVKRIDNGDIKAMIDDFKNKFAKA

VILLIQVKDEKITLAAGVKDVPLKAGALVKEAAQILGGNGGGRDDFATAGGKDLSKINEALKQSLETIEK

AL

>AHK53454.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFINLQAQYLAYKDEINAEIESVLSSSSFIGGAKLNEFEQNLAHFLGVKHAIGCSSGTSALYLALRVLD

IGKDDEVIVPSFTFIATAEVVALVGAKPVFADINLSNYNLDFKAVQKAITSKTKAVIAVSMFGQMSDLRA

LEEILKDKNITLIEDGAQSFGASFKGEKSCSIAKISCTSFFPSKPLGAYGDGGAIFCHDDEIAKKIRILL

NHGQTQRYKHEFIGINGRLDTLQAAILNVKLKYLEKELDKRQKLAQIYNANLKNCQIPQINPNAFSAYAQ

YSVLVEDRASVLRKFEKANIPYAIHYPTPLHKQPCFSEFSNLELKNSEYASEHILSLPFSPFLSEEEQEQ

VICIFKD

>AHK53453.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIGIIGLGKMGQNHLNELSKNSHFKLNALFDLCKNPNLNIFDDIFYDDLDKFLNQNNDIIIIATPTNSH

LTIAKKVFKQCKCVLIEKPLALNLKEIDEISNLAKEYSIKVGVGFCERFNPAVLALKKELENEEIISINI

QRFSPYPQRISDVGILQDLAVHDLDLLCFLSKQEITKTNLLKKYTQDQTRESESIILCGLEKCIASIHQS

WNSTQKLRKIHLITKNHFYEANLNDFSLLKDGNFIELTQQSPLFSEHEALLKLIDNQPNHLASTSDAYKV

QEILERFA

>AHK53452.1 ferrochelatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLVLFLNMGGATNLQDCEVFLKNMFNDPYILGIKNRFLRKFVAWIITKARVKAMQENYKKMGGKSPLNE

LTQSLCDKLNLKQDEFKFDFVNLYVPPFATEILQKYTLNASDEIILFPLYPHHSCTTVTSSLEVLQNEIS

KQKIQAKVKTIDIFYKNELYNEMIVSHILAKKSKFDAKILIFSAHSLPQSIIDKGDLYEKHVNDHVEILK

EKLKDHFDEFILAYQSKLGPVKWLEPNTSDVLANLNDKALIYPISFCIDCSETIFELGMEYKHLSKYNYD

LISCPNDSDEFMEFILKYLSDLN

>AHK53451.1 tRNA 2-selenouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFWLLKMLSEVEFVEFQKENFSLLIDARSPREFLHSHLIGALNFYALNDEEYQEIGTIYKKNQALAKAMG

ASYICQNTTKHILEITQNFRIGEKVGIYCSRGGLRSKSIAVILSELGFRVVRLKGGFKAYRTFVTHYFEN

EINFDFFALCGNTGCGKTELLEQLPQAINLEKMANHLGSSFGDILGKQPTQKAFEAELFHNIQNLENFAF

IESESRKIGDIILPLKFYEKMQKAFKIYCFCSLENRVRRIQKIYQEKMTPLKFQQCVQKISPYISLNLRQ

DLLQSYERKEWQKLIVMLLEYYDKTYKKPDKIDLELNTDDILKAKEELLDHFKVQLLF

>AHK53450.1 HIT family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQYLYAPWRSEYFEKVKSICPFCDCANKIKSDEELGVIFRAKHCFGVMNRYPYSAGHFMVIPYIHEEHIE

NLSDEIWQEMSYFVRLGVKILKEQIHANGVNIGMNLSKDAGAGIAFHCHYHLVPRWSGDTNFITTIGETR

VCGTNIEQVYQKLVLAFKNAQ

>AHK53449.1 indole-3-glycerol-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MILDKIFEKTKEDLKERKLKLPYDMLGRSLASNPFFPKDVIKALKRVEKEVKIIAEVKKASPSKGVIRED

FDPLSIALNYEKNKAAAISVLTEPHFFKGSLEYLSLIRRYTQIPLLRKDFIFDEYQILEALVYGADFVLL

IAKMLSMKELKKLLEFARHLGLEALVEIHDKEDLSKAIFAGADIIGINHRNLEDFTMDMSLCEKLIPQIP

NSKIIIAESGLENKEFLEHLQNLGVDAFLIGEYFMREKDEGKALKALL

>AHK53448.1 hypothetical protein N919\_02485 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYRYLLFVLAAFFLAACGSSKINVVYPDYTKYKSNDFDLRVMKAYNYEYYKQYKEARDEFLSLYQDYNNT

NFLENAFLLTLANNLDKQAELDNLAKPYLNQNDNLKRLSALYALNSNDINNAQKLMKELLTKKDSDPRNL

ELYGDILVKKNDLKNATKYYRSAYNQVQNEEILFKLIGIYAILNDTLNIKNVLEFSRKTNGCTLKTCVLL

AKIYFDEKNIEALKSIYKELYQLTKNKSFVLALVELLNSQGKTEEALKISLQYDLDDDIKLALYQNLKRF

DDAKKMSLALYHKTKNKEYLLRAAVFEFEAANEAKKITPKVIDSVKEKFEQAIDKDSNALYLNYYGYLLI

DYDLDVKKGIELVKLALEKDPQNLYYLDSLAWGYYKLGDCKQAWEILKQTLDDKEFANSDESKAHIKAIK

ACIKP

>AHK53447.1 hypothetical protein N919\_02480 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIFDKNFSYAFDENACEKCGGKCCTGESGNIFASKEELEVLRKHLNLESKEFAEKYLRKVGFKMSFKEVE

CEDGFACIFFDTQKRNCSIYDFRPKQCRTFPFWEYFKTHQKELEKECIGICYLS

>AHK53446.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSDLITLAQLSQGYRYNSDSLILADFILKQGIKGAVFDVGAGCGIIGILLKKNIANLSLSLIDIQKENIE

LIEKNLKSNKIQGDIFHDDFNQFQIIKKFDFIVCNPPFYRQGAYKSEDQHKAISKFQEFLPLHSFLAKTN

SMLKPNGTLYFCYEALALDEICFILKDMKMKITKLCFVHTHQSKKARLVLIQVKKGSKSPCEILPPFFVY

ENEILSKQMQEIHLRFRLKSYDI

>AHK53445.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKIAFFITFVISFLAAQSPVNFKEDNNITKERNIFKEQLPKRIKIPTH

>AHK53444.1 elongation factor P [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSRSTPLKKVRNIGIAAHIDAGKTTTSERILFFTGMSHKIGEVHDGAATMDWMEQEKERGITITSAATTC

FWKDHQINLIDTPGHVDFTIEVERSMRVLDGAVAVFCSVGGVQPQSETVWRQANKYGVPRIVFVNKMDRI

GANFYNVEDQIRNRLKANPVPLQIPIGAEDNFKGVIDLVTMKALVWEDDTKPTDYVEKEIPAELKEKAEE

YRTKMIEAVSETSDELMEKYLGGEELSLEEIKTGIKAGCLSLSIVPMLCGTAFKNKGVQPLLDAVVAYLP

APDEVANIKGEYEDGTEVSVKSTDDGEFAGLAFKIMTDPFVGQLTFVRVYRGCLESGSYAYNSTKDKKER

IGRLLKMHSNKREEIKVLYAGEIGAVVGLKDTLTGDTLASEKDKVILERMDFPDPVISVAVEPKTKADQE

KMSIALNKLAQEDPSFRVSTDEESGQTIISGMGELHLEIIVDRMLREFKVEAEVGQPQVAYRETIRKTVE

QEYKYAKQSGGRGQYGHVFLRLEPLEPGSGYEFVNDIKGGVIPKEYIPAVDKGVQEALQNGVLAGYPVED

VKVTVYDGSYHEVDSSEMAFKLAASMGFKEGARKAGAVILEPMMKVEVETPEDYMGDVIGDLNKRRGQVN

SMDERGGNKIITAFCPLAEMFGYSTDLRSQTQGRATYSMEFDHYDEVPKNVADEIIKKRNG

>AHK53443.1 30S ribosomal protein S7 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRRRKAPVREVLPDPIYGNKVITKFINSLMYDGKKSTATTIMYGALEAIDKKGGEKKGIDIFNDAIENIK

PLLEVKSRRVGGATYQVPVEVRPARQQALAIRWIISFARKRSERTMIDKLAAELLDAANSKGASFKKKED

TYKMAEANKAFAHYRW

>AHK53442.1 30S ribosomal protein S12 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPTINQLVRKERKKVLEKSKSPALKNCPQRRGVCTRVYTTTPKKPNSALRKVAKVRLTSGFEVISYIGGE

GHNLQEHSIVLVRGGRVKDLPGVKYHIVRGALDTAGVAKRTVSRSKYGAKRPKAGAAK

>AHK53441.1 DNA-directed RNA polymerase subunit beta' [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKFKVIEIKEDARPRDFEAFQLRLASPEKIKSWSYGEVKKPETINYRTLKPERDGLFCAKIFGPIRDYE

CLCGKYKKMRFKGVKCEKCGVEVANSKVRRSRMGHIELVTPVAHIWYVNSLPSRIGTLLGVKMKDLERVL

YYEAYIVENPGDAFYDNESTKKVEYCDVLNEEQYQNLMQRYENSGFKARMGGEVVRDLLANLDLVALLNQ

LKEEMGATNSEAKKKTIIKRLKVVENFLNSNLNANTDSDEAVPNRPEWMMITNLPVLPPDLRPLVALDGG

KFAVSDVNDLYRRVINRNTRLKKLMELDAPEIIIRNEKRMLQEAVDALFDNGRRANAVKGANKRPLKSLS

EIIKGKQGRFRQNLLGKRVDFSGRSVIVVGPKLRMDQCGLPKKMALELFKPHLLAKLEEKGYATTVKQAK

KMIENKTNEVWECLEEVVKGHPVMLNRAPTLHKLSIQAFHPVLVEGKAIQLHPLVCAAFNADFDGDQMAV

HVPLSQEAIAECKVLMLSSMNILLPASGKSVTVPSQDMVLGIYYLSLEKAGAKGSHKICTGIDEVMMALE

SKCLDIHASIQTMVDGRKITTTAGRLIVKSILPDFVPENSWNKVLKKKDIAALVDYVYKQGGLEITASFL

DRLKNLGFEYATKAGISISIADIIVPNDKQKAIDEAKKQVREIQNSYNLGLITSGERYNKIIDIWKSTNN

VLSKEMMKLVEKDKEGFNSIYMMADSGARGSAAQISQLAAMRGLMTKPDGSIIETPIISNFREGLNVLEY

FISTHGARKGLADTALKTANAGYLTRKLIDVAQNVKITIEDCGTHEGVEINEITADSSIIETLEERILGR

VLAEDVIDPITNSVLFAEGTLMDEEKAKILGESGIKSVNIRTPITCKAKKGICAKCYGINLGEGKLVKPG

EAVGIISAQSIGEPGTQLTLRTFHSGGTASTDLQDRQVSAQKEGFIRFYNLKTYKNKEGKNIVANRRNAA

VLLVEPKIKTPFKGVINIENIHEDVIVSIKDKKQEVKYILRKYDLAKPNELAGVSGSIDGKLYLPYQSGM

QVEENESIVEVIKEGWNVPNRIPFASEILVEDGEPVVQNIKAGEKGTLKFYILKGDGLDRVKNVKKGDIV

KEKGFFVVIADENDREAKRHYIPRESKIEFNDSEKIDDANTIIASAPKKERKVIAEWDAYNNTIIAEIDG

VVSFEDIEAGYSADEQIDEATGKRSLVINEYLPSGVRPTLVIAGKGDKAVRYHLEPKTVIFVHDGDKIAQ

ADILAKTPKAAAKSKDITGGLPRVSELFEARKPKNAAVIAEIDGVVRFDKPLRSKERIIIQAEDGTSAEY

LIDKSKHIQVRDGEFIHAGEKLTDGVVSSHDVLKILGEKALHYYLISEIQQVYRGQGVVISDKHIEVIVS

QMLRQVKVVDSGHTKFIEGDLVSRRKFREENERIIRMGGEPAIAEPVLLGVTRAAIGSDSVISAASFQET

TKVLTEASIAGKFDYLEDLKENVILGRMIPVGTGLYGEQNLKLKEQE

>AHK53440.1 DNA-directed RNA polymerase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLDNKLGNRLRVDFSNISKQIEIPNLLQLQKKSFDYFLNLDNGESGIEKVFKSIFPIHDPQNRLSLEYVS

SEIGKPKYTIRECMERGLTYSVNLKMKIRLTLHEKDEKTGEKVGVKDIKEQEIYIREIPLMTDRVSFIIN

GVERVVVNQLHRSPGVIFKEEESSTVANKLVYTAQIIPDRGSWLYFEYDAKDVLYVRINKRRKVPVTMLF

RALGYKKQDIIKLFYPIQTIHVKKDKFLTEFNPNDFMDRIEYDIKDEKGKIVHQAGKRLTKKKAEQLIKD

GLKWIEYPVEILLNRYLANPIIDKESGEVLFDSLTLLDESKLAKIKEQKSFDIANDLANGVDAAIINSFA

QDGETLKLLKQSENIDDENDLAAIRIYKVMRPGEPVVKDAAKAFVNDLFFNPERYDLTKVGRMKMNHKLG

LEVPEYVTVLTNEDIIKTAKYLIKVKNGKGHIDDRDHLGNRRIRSIGELLANELHLGLAKMQKAIRDKFT

SLNADLDKVMPYDLINPKMITTTIIEFFTGGQLSQFMDQTNPLSEVTHKRRLSALGEGGLVKERAGFEVR

DVHATHYGRICPVETPEGQNIGLINTLSTYAKVNELGFVEAPYRKVVNGKVTNEVVYLTATQEEGLFIAP

ASTKVDAKGNIVEEFVEARQDGETILARREEVQLIDLCSGMVVGVAASLIPFLEHDDANRALMGSNMQRQ

AVPLLTASAPIVGTGMEQIIARDAWEAVKAKRGGVVEKVDNKSIFILGEDDKGPFIDHYTMEKNLRTNQN

TNYIQHPIVKKGDIVKAGQIIADGPSMDQGELAIGKNALIAFMPWNGYNYEDAIVVSERIIREDTFTSVH

IYEKEIEARELKDGIEEITKDIPNVKEEDVAHLDESGIAKIGTHIKPGMILVGKVSPKGEVKPTPEERLL

RAIFGEKAGHVVNKSLYATASLEGVVVDVKIFTKKGYEKDDRAIKSYDKEKMALEKEHHDRLLMMDREEM

LRVCALLSKASLNSDQKIGDKNYKKGQTADISELEKINRFTLTTLIKAYSKEIQKEYDDLKNHFQNEKKK

LKAEHDEKLEILEKDDILPSGVIKLVKVYIATKRKLKVGDKMAGRHGNKGIVSTIVPEVDMPYLPNGKSV

DIALNPLGVPSRMNIGQILESHLGLVGLRLGDQIQEIFDRKQKDFLKELRAKILEICSIPRLANEKEFIK

SLSDEELLNYARDWSKGVKFSTPVFEGVNIEEFSKLFKMAKIDMDGKTELYDGRTGEKIAERVHVGCMYM

LKLHHLVDEKVHARSTGPYSLVTQQPVGGKALFGGQRFGEMEVWALEAYGAAHTLREMLTIKSDDVEGRF

SAYKALTKGENVPATGIPETFFVLTNELKSLALDVEIFDKDEDNE

>AHK53439.1 50S ribosomal protein L7/L12 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAISKEDVLEYISNLSVLELSELVKEFEEKFGVSAAPVMVAGGAVAGGAVAAAEEKTEFDIVLTDGGAKK

IEVIKIVRALTGLGLKEAKDAVEQTPSTLKEGVAKAEAEEAKKQLEEAGAKVELK

>AHK53438.1 50S ribosomal protein L10 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTRSEKVEIIAKLEEGFKASEAIVVCNYRGLSTKKLEELRNNARENNVKVQIVKNTLANIALNNSGKTGL

VLKDTNIYLWGEDQLSVSKVAAKFEENNDKFEIKTAHIEGEVADVAKVKALAKMPSRNELLAMLLQVWNA

PITNFTIGLNALKNKKESE

>AHK53437.1 50S ribosomal protein L1 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKIAKRLKELSQKIDSNKEYALSDAIDTIKTLKSAKFDETVEIALKLNVDPRHADQMVRGSVVLPAGTG

KKVRVAVIAKDAKADEAKNAGADIVGSDDLVEEIQKGNMNFDVLIATPNLMGLVGKVGRILGPKGLMPNP

KTGTVTMDVAQAVNNAKSGQVNFRVDKQGNIHAGLGKVSFSKEQLWDNVSTFVKAINKHKPAAAKGRYIK

NAALSLTMSPSVKLETQELLDMK

>AHK53436.1 50S ribosomal protein L11 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKKVVGEIKLQIAATKANPSPPVGPALGQQGVNIMEFCKAFNERTKDMAGFNIPVVITVYADKSFTFIT

KQPPATDLIKKAAGISKGTDNPLKNKVGKLTRAQVLEIVDKKIADLNTKDRDQAAKIIAGSARSMGVEIV

D

>AHK53435.1 transcription antitermination protein NusG [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSTHKWYAIQTYAGSEMAVKRAIENLVKDNGIEEQLKEIVVPTEDVIEFKNGKEKISERSLYSGYVFALL

DLNTELWHRIQSLPKVGRFIGESKKPTPLTEKDINLILEKVHNRAAPKPKISFEEGENVRITEGPFANFT

AIVEEYDMVRGLLKLNVSIFGRSTPVEILYSQVEKII

>AHK53434.1 preprotein translocase subunit SecE [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKLITYFKLSKAELRKVIFPLKEQVRNAYITVFVVVAVISLFLALVDWLMSSIVSAIV

>AHK53433.1 50S ribosomal protein L33 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRIKVGLKCEECGDINYSTYKNSKNTTEKLELKKYCPRLKKHTLHKEVKLKS

>AHK53432.1 elongation factor Tu [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKEKFSRNKPHVNIGTIGHVDHGKTTLTAAISAVLSRRGLAELKDYDNIDNAPEEKERGITIATSHIEY

ETDNRHYAHVDCPGHADYVKNMITGAAQMDGAILVVSAADGPMPQTREHILLSRQVGVPYIVVFMNKADM

VDDAELLELVEMEIRELLSSYDFPGDDTPIISGSALKALEEAKAGQDGEWSAKIMDLMAAVDSYIPTPTR

DTEKDFLMPIEDVFSISGRGTVVTGRIEKGVVKVGDTIEIVGIKDTQTTTVTGVEMFRKEMDQGEAGDNV

GVLLRGTKKEEVIRGMVLAKPKSITPHTDFEAEVYILNKDEGGRHTPFFNNYRPQFYVRTTDVTGSIKLA

DGVEMVMPGENVRITVSLIAPVALEEGTRFAIREGGKTVGSGVVSKIIK

>AHK53431.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSILKIENLQKYYGSHHALKDINLEVKAKEVVVILGPSGCGKSTLLRCINGLEEIASGNIYIDNEKIDKD

FKEWPRMRQKVGMVFQSYELFEHLSVEENILLGPMKVQKRKKDEVLKEAKIWLEKVGLLHKIHAYPRELS

GGQKQRIAIVRSLCMNPELMLFDEVTAALDPEIVREVLEVMLNLAKEGMTMLIVTHEMGFAKAVADKIIF

MDEGKIIEENDPKSFFKNPKSERAKKFLNLFDYHNIDKNNIGL

>AHK53430.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLELLNTDTLLRLWQGLFVTLEISFISIIITSIGGLFLGILMSFKNTYIYAFCRLGLEFVRVMPLLVWLF

VVYFGFPRWFGWDLSSVSAAIIVFSIWGCFEMMDLVRVSLQSIPKHQYESASSLGLNTVQSFAYVIIPQA

MRRLTPMSMNLLTRMIKSTTFAYLIGAVELVKVGQQIIEFHNRNDFAPFIIYGLIFFIFFILCYPITLYS

RKLEKKWS

>AHK53429.1 polar amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDFDFILAQAPAFLTAAWLTIKLSFFGIIFSLIIGLFCILMSYFKIKILENICKLYIEFSRNTPLLIQLF

FLYYALPKFNIHLEQIPPLDLICLSVEETLRPSFACAIVGLSFLGGSYMAESLRAGFEAIRKQQFEAGLS

LGFSKFGNLRYVILPQALAISMPSISANIIFLIKETSVVSIIALPDLVNLMKSLNSLTYKTDELLFLLFM

GYLCIILPLSFILLKFEKRLLHA

>AHK53428.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKDYLELLSSVGKLKKFQKNSILFYEGEEAKNFFILLKGKIRIYKSTASDKEITLHYFNPPNFIAEMPAF

KKLNYPANAVFEEDGEILEIDFINFQNLCSENKEFNFLLISSLFDKIKILEKKLSQNALDLRTRLLKYLL

ENEKNLDTISQKQIAIDLNVRAQSLSRVLKELKISELIDTKKGRIEILNKDMIMKELW

>AHK53427.1 ATP-dependent DNA helicase RecG [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIKESDFEFFKKLKIRSAIDLALLLPKKIENLNPSKNPKENEICTQKITIKSVSSRKNQLFGLGFCEEW

QENISFVFFHPRAWHFGICKVGKELIFNAKLSHFNHTWQFNNPKILTSFEGFSPKYQILGLKDTKIAAFI

HKYLNYENLKESGIEDKYIHFLLNLHAYDEKSFFMFENLQNFSKDLKYIEIYNFLKRLKAKKTHFKAHQI

NVFNIANWLKDLPFSLTKDQLNALKDIEKDLHSKEAKRRVIMGDVGCGKTLVLLGAALMVYPKQAILMAP

TSILAYQLYEEAKKFLPDFMNILFIKGGKKEKDLEQNIQKANLVIGTHALIHLESHNAVLVMIDEQHRFG

SAQREKIHSLNKQEFAPHFIQFSATPIPRTLSMIQSELLNFSFIKQMPFKKDITTYCIQNEGFSKLSEKI

KEEIAKNHQIIIIYPLLSASDKIPYLSLEQAKEYWQSHYEKVFVTHGKDKQKDEILERFRDEGNILLSTT

VVEVGISLPRLSMIVIVGAERLGLATLHQLRGRVGRVGLKSACYLYTKLKEIPSRLKEFASTLDGFKIAE

LDLKNRLSGDLLDGFMQHGNEFKFFDFSKDEEILEKVKKDLAKKLPN

>AHK53426.1 peptidase M16 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQYLESRGIKIPFIFEKNSDFPIVVLKLVFRNCARSYDEIAGLAKMFSRILNEGVDDKFFKDLEFRAINL

EASSGFESLEINLSCLKENFDFALKSLEKLLLKPRIEEKTLQKLKINALGELASKNSDFDYLAKNLLNAQ

IFKCKEFQSPNDGDEKSIETLSLKDLQNFYKNFIHLSDLVVILGGDLEEKQAKEDLLKLLSKLQIGKKNT

PKKYELGKNIKDEILVRPESEQAYIYFATPFFADFKDKDLYLAKIALFVLGQGGFGSRIMEEIRVKRGLA

YSAYAMLDMNMSFSRVFGYLQTKNESAKEAKKIVKELFEDFIKNGMTQNELDQAKNFLIGSTPLRYESLS

KRLSMSFNEFYQGLNLGYYKEELKLMEKVKLETINAYIKKHQELLNISFASIQNEN

>AHK53425.1 hypothetical protein N919\_02280 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKRLDKKEALDLLHHASLTELGEMAYKRKLELHPEKITTFVVDRNINYTNVCCIDCSFCAFYRHHKEDDA

YILSFEEIGKKIEELEAIGGTQILFQGGVHPKLKIEWYEELVSWIKEHYPNITVHGFSAVEIAYIAKASK

ISITEVLKRLQAKGLFSIPGAGAEVLSDRVRDIIAPNKCDTATWLEVHRQAHKIGMKSTATMMFGTVEND

EEIIDHFEHLRKLQDETGGFRAFILWSFQSDNTALIQKHPEIMKQSSNKYLRLLALVRLYLDNFKNLQSS

WVTQGSLIGQLALKFGANDLGSTMMEENVVSAAGASYRMNQDEMIRLIRSLGENPAKRNTAYEILERF

>AHK53424.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNYIELLKNNKNIRILASVQFIVYFGAWFSQTGVFTLLVELNAPTWATATSAMLAFLPGVLLAPINGVIV

EKNKPKKLLLSMISIELISIFCLIFVTSLSMLWLLFILIFIRLCVASIYFQAEMSLLAKILTPQELKLAN

EMHSVIWAISYTAGMASAGIFIYFLGVKTAFLFDCILILIGISFLVRLSIPDFHQKTQSRFFTMIKEGFF

YVLNNKIIFHLILLHAFIGLTAYETLVTLLAQHQYKEVLSAALVIGFLNAVRACSLAIGPMVLSKFINDK

NLFYMYLGQGLGIILWALTQFNFYISFLGLIGAGFFTSALWAYTYTMIQKNADKEYHGRVIAYTDMIYLS

FSAIISMLMGFLFEIGLSLELITGLLGMIFIFAAFYWKWFYKKYL

>AHK53423.1 transcription elongation factor NusA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKIADIIESIANEKNLNLENVREKVATALINTAKRIYGQEYEFFVDPKNLNLYQKITIVADNDERLQNK

SESFIALSKAKSEAPDVEIGDELTYECSLENLGRTAVNTLHKELEYHIQKLLEQTIFEKYKNKVGQMVFG

TVVRVDNEENTFIEIDELRAFLPRKNRIKGEKFKIGDVVKAVIRRVYTDKGIKIELSRTSPKFLECLLEA

EVPEIKDGYVNIIGCARIPGERAKIILQANGTNIDPVGATVGVKGVRINAVSKELHNENIDCIEFTNESE

ILISRALAPAIVNSVKIEDKKAIVSLNSEQKSKAIGKNGINIRLASMLSGYEIELNELSSSQLNNAISNE

EAMKNLQDLFKI

>AHK53422.1 hypothetical protein N919\_02265 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MELKLARTLINEKPKNISLEKIEEAIEKEGQKFFYFDKDNTHKQLIALVNHFEKKGVSIYHRTVKYGLDD

NDFMYEVHIL

>AHK53421.1 (dimethylallyl)adenosine tRNA methylthiotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSAKKLFIQTLGCAMNVRDSEHMIAELTQKENYALTEDIKEADLILINTCSVREKPVHKLFSEVGGFEKV

KKEGAKIGVCGCTASHLGNEIFKRAPYVDFVLGARNISKITQAIKTPKFMGVDIDYDESEFAFADFRNSI

YKSYINISIGCDKHCTYCIVPHTRGDEISIPFNIIYKEAQKAIEKGAKEIFLLGQNVNNYGKRFRNEHKK

MDFSDLLEELSTIEGLERIRFTSPHPLHMDDKFLEVFANNPKVCKSMHMPLQSGSSEILKAMKRGYTKEW

YLNRALKLRELCPNVSISTDIIVAFPGESEKDFEETVDVLEKVRFEQIFSFKYSKRPLTKAATMPNQIDE

EIASRRLSTLQNRHSEILDKIVKKQENKTFKVLFEELRAGNSIAGRTDNNFLVQVEGSEELLGQFKEVKI

TNAKRMVLYGEIV

>AHK53420.1 hypothetical protein N919\_02255 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGKSFKIHCLTYIIFILQWLIFLSCKKHYKGEKVDRKAGVILFWHGKLALMPFAFRHYRQKNKKAYVMIS

HHKDGEQIAKIIKLFGLDTVRGSTSRGASSALRAAFKVLEQNDDIVITPDGPRGPYHSISDGSIILAQKK

ELKIRILNYEANRFWKFKSWDKMILPKPFSKITYSLSEPLDILSLDKEKAKEFLMKQFDKISLADQFKE

>AHK53419.1 clan AA aspartic protease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLFLLKKIFPQLFISIILEDKKNIVKASIYRGNKLISSNEKTFDKSENLLEYIKNLSKHFLFYHTALFLD

AKEQGLIPSTNIQDCEHFNIGKISLQHILLNNALVYTATEHVEYYSELFEEYRGLDFLYSPFALLYYNMQ

KEKQPDDQILLYGFKQGYLLAIIVAKGNTILYGDFKIFEQELGLELELPSEDNQEIENNNDDTEVTLDNF

NEALNNKFDLLDQENNLETLDNNDNFNLDELNQFSNDMELCRYIITSIEKFYNDDKYAGVFINGILLYSE

SDININAIDFLESETFLEIKTKQINTLDLMIELMRKEVK

>AHK53418.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTYSFIQPRKKPIFTLFDKIWLGLFGFSILFILLVYFTYTIKIALINSSIDDEKQQVIVLQNQTKQNEML

YEILFDQSQIAKNFNTQNQIVKESLRNLFDIIVKTDNITLESVEQDEYSLKLIGVTPTREMFTLLLETPL

KSIFDQSYTTYYRLDNGWYRFVSISKQIPGVADER

>AHK53417.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKDKSLEEIDLLKLIICALSFISVCTALILFLLLPTLKNYKQANLRENSQLAILKAAKSKFDFSEDKIST

LRSENNKSLEQFEQNFNIGNFNIFLQKYFQNVKIQETKPEKQEKYLKNRLAIKATMNNPRRLYDFIDALK

NYNNLIKLDYPLNLKAGEQGISIDLTLKVYSS

>AHK53416.1 phosphomethylpyrimidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTQMNYAKEGIFTKEMQIVAQKENLSKDFLLENIACGKIIIPANINHKSLDPNGIGFGLRTKVNVNLGV

SNDCVDYSEEMKKVELAHKFGIEAIMDLSNYGKTSRFRDELVNVSKAMIGTVPVYDAVGFLEKDLKQINA

KDFLDVVYHHAKSGVDFMTIHAGINSRAAHIFKQSKRLTNIVSRGGSVLYAWMMMKDAENPFFEYYDDLL

DICLKYDVTLSLGDALRPGSTHDASDGAQISELIELSLLTQRAWDVGIQVMIEGPGHMAINEIEANMQLE

KRLCKGAPFYVLGPLVTDIGAGYDHISGAIGGAVAAASGADMLCYVTPAEHLRLPNLEDVREGIVATKIA

AHAGDIAKLPKERARDDEMSKARQEIDWEKMFKLAIDGEKAKKMFNERRPDDLNSCSMCGKMCAMNTMNQ

ILKGEDVSLA

>AHK53415.1 DNA polymerase III subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSLQQIDQIISILNKQSKPYDWVMQEFAKVEELKNFDLDLETFELLGLGLTLNKDNIFTLKTRTTKIKDE

IFCIVDIESTGGVSKGEILEIGAVKIQNSKEIGRFQSFVKVKEIPKNITELTGITYEMVENASSLAKVLS

DFRLFLKDSIFVAHNVRFDYSFISKALNECGFGILLNRRICTIEFAQCCIESPKYKLEVLKEFLGVENMH

HRALDDALAAAEIFKYCLGKLPYHIKTTEELINFTKTARIKQK

>AHK53414.1 ribulose-phosphate 3-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYVAPSLLSANFLKLEEEVKAIEAAGADLLHIDVMDGHFVPNLTFGPCVIEKISTISKLPLDVHLMVKDV

SKFVDLFISLKPKFISFHMESEVHPIRLCEYIRSQGIHPAIVLNPHTPIDSIKHMLEFVDMVLLMSVNPG

FGGQKFLPLIHEKIKELRQMIDKKNAKVFIEVDGGVNGLNASDLEESGADILVAGSYIFSSNDYKTAISS

LKLEF

>AHK53413.1 50S ribosomal protein L28 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MARVCQITGKGPMVGNNVSHANNKTKRRFLPNLRTVRVTLEDGTTRKMRIAASTLRTLKKQNSK

>AHK53412.1 hypothetical protein N919\_02215 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLHEYRELMSELKGKDAHFDKLFDRHNELDDMIKDAEEGRTSLSSMEISTLKKEKLHVKDELSQYLANYK

K

>AHK53411.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFGSKINHSDLQKLEEENKNLTHKIEKFQSENLELKNKITSLEQAALESKLKTDLLNVLLTGVLKNITII

QGDMLENVNKAEVISSYSKTSLAEMDELNHIANSINASLGNITESANKTRDVAGTLHRSVDEITNVINLI

KDVSDQTNLLALNAAIEAARAGEHGRGFAVVADEVRKLAEKTQKATTEVEMNINLLKQNANEMYTQSEQV

EKISIDSNAHIMSFSEKFTHLVNEAHSTNSNAVGIASEAFVSLAKLDHIAFKLNGYKEIFSKSGKQLADH

TSCRLGKWLASTGKERFGQNKSFLKINEPHEKVHENMNNAITIANTEDISKDITQHSIINKCEVAENASL

DLFNVFKEMLDESDH

>AHK53410.1 NUDIX hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAFKNLKELSFEKSNYIKPKRFAYESNGRLCTWDFIESKDSVSVLLYHKELESFIFVRQFRIPLWYHQMH

DKDYVKDDDMGYTIELCSGLVDKKLSLEEIAKEECIEELGYAPKNLEKIGDFYTGFGSGVSKQSFYFVEV

DEKDKISSGGGVDDEEIEAVYVKVQDFEKKCKNMIRTPLLDFAYMWFLKEKWGKLKII

>AHK53409.1 acetyl-CoA carboxylase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MASYLDFEKNIQQIDEDIINAQIKGDTEAVSILKKNLEKEISKTYKNLSDFQRLQLARHPDRPYALDYIE

LILNDAHEIHGDRAFRDDPAIVCFMGYLGEKKIIVIGEQKGRGTKDKIARNFGMPHPEGYRKALRVAGLA

EKFQIPILFLIDTPGAYPGIGAEERGQSEAIARNLYELSDLKIPTIAIVIGEGGSGGALAIGVADKLAMM

KNSVFSVISPEGCAAILWNDPAKSEAATKAMKVTADDLKSQGLIDDVIDEPTNGAHRNKEAAAVAIADYV

KKSLNELENIDVRELSANRMQKILKLGAYQEA

>AHK53408.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKRVVVTGIGMINALGLDKESSFKAICNGESGVNKITLFDATDFPVQIAAEVKNFDPLEVVDGKEVKKID

RFIQLGIKAAREAMQDAGFSEELDKEEFGIVSASGIGGLPNIEKNSIICSERGPRKISPFFIPSALVNML

GGLISIEHGLKGPNISCVTACAAGTHAIGEAYKSIALGNAKKMLVIGAEAAICPVGIGGFASMKALSTRN

EDPQHASRPFDKERDGFVMGEGAGALVFEEYEEAKKRGATIYAELIGFGESADAHHITSPTLDGPLRAMK

KALNMAGNPKVDYINAHGTSTPVNDKNETAAIKELFGNNIPLISSTKGQTGHCLGAAGAIEAVVSVMVLR

DGVVPPTINQLVKDDECDLDYIPNISRKVDLKVVMSNSFGFGGTNGCVVFKKVD

>AHK53407.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MATFDDVKAVVVEQLSIDADAVKMESKIIEDLGADSLDVVELIMALEEKFEVEIPDSDAEKLIKIEDVVN

YIDNLKK

>AHK53406.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLFSNLIKENQKIWNAYLHHDFVKKLEDKSLKQENFLFYLKQDYIYLLNYAKCYARLALNSNTAKELRFA

MKFQNYIVEGEMELHRAILSLGINADELDIKDESLVNIAYSRYMLSVGENGDFLDMLVALSACAIGYAKI

GAEIINRLKNENLKDHPYKEWILTYGSENFQNEAKEFEDFVNSYTSSVGAQKFQKLSEIFHTVTRLEVAF

WEHSLRMELNL

>AHK53405.1 heterodisulfide reductase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKEYAFFPGCVLSQAAKESKISLEAIAPILGWKLNEIKGWSCCGASQAQCVDPIATLVANARNIALAEE

MKMPMLTTCSTCMLTLTKAKNTLDKGAKERINIFLAQGGMKYQGSTPITSLLWELYEDLDNLKSKVKKPL

SNLKVALFYGCHSLRPEDAFGKKESSTNPKSFESVVEVLGAKIVPFEKRLDCCGFHASYPAEKSVKKMSS

QIVNNASENQADCVVTPCPLCQMQLDIYQERFQDYTNSKARLPIIHLSQLVGLALGLSKEMVGLDYNIID

ASKIA

>AHK53404.1 (2Fe-2S)-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>AHK53403.1 succinate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGEFSRRDFIKTACISVGALAASSSGVYALDDSSKMDKDINLPSCDVLVIGSGGAGLCAAAAVRKENPKL

SVVVATKMMPSRNATCMAEGGINGVTDFSNGDSYKLHAYDTIKGGAYLVDQDAALKFCELAGKAIFNMDF

IGTLFSRNEQGGVAQRLMGGASKKRCNYSADKTGHILMHSCLDDAISSGVKFLMNHELLDIGVVDGKCEG

VVLRDIQSGGIYPVLCKALVIATGGYTRIFYNRTSTPFIATGDGVAAALRAGLGFEDPEMIQFHPTGVAN

GGTLITEAARGEGGYLLNNRGERFMKNYHEKMELAPRDVVARAIETEIREGRGYGEGLGAYVLCDVRHLG

KEKILKDLPKIRHTAMLFENIDLVDTPVPIRPTAHYSMGGIEVAKFEDMGTKIAGIYVGGEASCISIHGA

NRLGGNSLADAVVTGHLAGIGATNYAKDASFGKGAKTHELAQKWQVRFKEITNNGGNGQEMYELREELGS

QNWDNMGIFRTQEKLDLLAKKLEDIQARYEKIRIPNPNEVMNTAFTDYVELGNLILLSRCACLAARNRLE

SRGAHTREDYPKRDDKNFLKHSIVNLENDELKLSYKDVVVTEFSLDGRRVQ

>AHK53402.1 pyridoxamine 5'-phosphate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDLKEIAQFLDDNAPAFLATLGTCGNPRVRPIQSPLLVGDKIYFCTANTKGLFKHIKNYNDIEFCSCAKD

GTFLRLRANAVFEPNLEVKKMMFKKYPYLVNLYETPQNPKFEVFYLDHLSARMQFMNGEFKLFKA

>AHK53401.1 3-ketoacyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFSGKNVLITGASKGIGASIAKTLAGFGLKVWINYRSKPELADALKDEIIASGGVAAVIKFDASKEDEF

ENGVKTIVESDGELSYLVNNAGVTNDKLALRMKLEDFSGVVDTNLSSAFLGCREALKTMSKKRFGAVVNI

ASIVGEMGNAGQVNYSASKGGMIAMTKSFAKEGASRNLRFNCVTPGFIKSDMTEVLSNEIKQTYQDNIPL

KRFAEPEEVANCVAFLLSDYASYVTGDVLKINGGLYM

>AHK53400.1 phosphoglyceromutase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKQKCVLIITDGIGYNKNSKFNAFEAAKKPSYEKLFKEVPNSLLKTSGLAVGLPEGQMGNSEVGHMCIGS

GRIIYQNLVRINKAIENKELEKNENLKKLLAKCKRVHIIGLYSDGGVHSMDTHFKAMLEICAKNGNEVFA

HAITDGRDVSPKSGLNFIKDLKEFCENLGVHFATLCGRFYAMDRDKRWDRVKEYYECLLGKAYKVPNLLE

YLQKSYDENVTDEFIKAAQNENYKGMREEDGIIFINFRNDRMKQLVEVLNSKDFKEFEREKIFENLLTMS

VYDDKFKLPVLFEKEKIENTLAQVISKAGLSQLHTAETEKYAHVTFFFNGGKEELLENETRVLIPSPKVK

TYDEKPQMSAFEVCDAVKKGIEKGEDFIVVNFANGDMVGHTGDFNATIKAVEAVDTCLGEILECAKKHDY

AFIITSDHGNCEAMQDEKGNLLTNHTTFDVFVFVQARGVSKIKDNMGLSNIAASVLKILDLEIPKEMNEA

LF

>AHK53399.1 phospho-N-acetylmuramoyl-pentapeptide-transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYYLSDLSHYAFFTYISVRAGFAFFIALCLSLFLMPKFITWAKAKNASQPIYEYAPETHKTKCHTPTMGG

LIFISSAVIASLFCIKFDNIFAISALLCLILFCLIGLIDDLGKVLKKDNHSGLSPRMKLLAQIIAGLICI

LPLYFSSELSTELFIPFYKHPLFDMEIFAIAFWILVLISSSNAVNLTDGLDGLATVPGIFSLSTLGIFLY

LSGNLNYSEYLLLPKIQGLGEVVIICAALIGALMGFLWYNCYPAQVFMGDSGSLALGGFIGFLAVISKNE

ILLLLIGFVFVLETVSVILQVGSFKIFNKRVFKMAPIHHHFEKVGWVENKIIVRFWMIALLSNLLALASI

KLR

>AHK53398.1 UDP-N-acetylmuramoyl-L-alanyl-D-glutamate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKISLFGYGKTTRAIAENLVDKFGPFDIYDDHFTETKKDTLGNLLLNPNDFDDNLSDIEIPSPGFPPKHK

LIQKAKNLQSEYDFFYDIMPKSVWISGTNGKTTTTQMATHLLSHIGAVMGGNVGTPLAELNPYAKLWILE

TSSFTLHYTHKAKPEIYALLPISPDHLSWHGSFDNYVQDKLSVLKRMNECDVVILPKIYANTPTKAHKIS

YEDEKDLAVKFGIDTEKISFKSPFLLDAIMALAIEKILLDTLSYKLLNSFVMEKNKLEELKDSQNRLWVN

DTKATNESAVMAALSRYKDKKIHLIIGGDDKGVDLSNLFDFMKGFDIELYAIGISTEKMLDYAKKANLKA

YKCEVLSKAVNEISNHLRVNEVALLSPACASLDQFNSYAERGKVFKECVNKI

>AHK53397.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKAFSLLEFVFIILILGIVFNLGSLYLKKDNLLEGAIQILNDIQYTQSLAMMQEGIRVDELTIAKREWF

KSKWQIYFIKSAATGYDQTYTIFLDKNGDGNANLGKTEINIDREIAVDVINHNKLMNSGQSGVISKDDEK

TTQRFNLTKRFGIEKVEFKGSCSGFTRLVFDEMGRVYSPLKNANYAYEKTLAKNNSDCIIRLLSKKHALC

IVIDTLSGYVYIPDFKTLKSQFVNIKNKNYECSKI

>AHK53396.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKIKNYKLIIILLSLDLLALLYGTSTLSISADEADIYFGEQGKSLIFSHSLLYYISHFGTFIFGQNDFG

LRLPFLFFHFLSCLLLYLLALKYTKTKIDAFFSLLLFVLLPGTVASALLVNAASLVIFLTLAILCAYEYE

KKWLFYILLIIVLFVDKSFNILFLTFFFFGIYKRNAILFTLSLVLFGASISFYGFDTGGRPRGYFLDTLG

IFAACFSPLVFVYFFYTIYRLTFQKYKNLLWFLMSVTFVFCLLLSLRQKLFLDDFLPFCVICTPLLIKTL

MQSYRVRLLVFRLRYKIFIECSIIFLIFCYFLIVANQLLYYFINNPNRHFANNYHFAKELALELKKQDVL

ELATAPSLQKRLRFYGIKNSNKFYLKALKQADKHDMDKKIVKVKLGKYEKVYQILNYD

>AHK53395.1 phosphoenolpyruvate carboxykinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQTIDQIFQTQIDIKKSTFLSFLCPFKDFKFLIETLKKEHPKAVHFVYAYRVLNDFNQIVEDKSDDGEPK

GTSGMPTLNVLRGYDLINAALITVRYFGGIKLGTGGLVRAYSDAANAVINNSSLLSFELKKNTTIAIDLK

NLNRFEHFLKTYSFNFTKDFKDCKAILHIKLNEKEEQEFEIFCKNFAPFEIEKL

>AHK53394.1 hypothetical protein N919\_02095 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQVNYRTISSYEYDAISGQYKQVDKQIEDYSSSGDSDFMDMLNKADEKSSGDALNSSSSFQSNAQNSNSN

LSNYAQMSNVYAYRFRQNEGELSMRAQSASVHNDLTQQGANEQSKNNTLLNDLLNAI

>AHK53393.1 hypothetical protein N919\_02090 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKFRIQYSAGFGHYTQNHKGFGPTIYIEEVVEFDNGKDYFDYIDFYKTYSKSDDTYFHISFLEDRPLSD

KEITIRNEYRKMRDENCKKAKEEFIANNELDVEHLPTHHD

>AHK53392.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVEVKNLTMRFANQLLFENVNLKLVRGQRYGLIGANGAGKSTFLKILSGEIESSSGEIVFDEGLKIAVLG

QDQFAFENYTIKDAVMCANKRLYEALKEKEKLYMSEEFTDEINERLGELEIITAEEDPNYDCETRCEKIL

SSLKIKDFDALMSTLQSADKFKVLLAQVLFLGADALFLDEPTNNLDLEAISWLENELLRHEGTLVVISHD

RHFLNKICTRILDVDFKQIRDFAGNYDDWYMASTLLAKQAELKRDKTLKEREELENFIRRFSANASKAKQ

ATSRAKALEKLELEEIKISSRRDPSIVFRTNREIGNEVLEIKGIGKAYDKQLFSNLELKIEKNDKIALIG

ANGVGKSTLAKIIAHAISPDSGSIHLGATIELGYFPQDTSNLICENLKLYEWLMSEKFKDLDEIRKCLGR

MLFSGSDQEKMAASLSGGEKHRLMLSRLMLERPNFLLLDEPDNHLDLESIIALGEALYNFKGVVLCISHD

RELVSAFANRIWHLENGKLTDFRGTYQEFLGENDG

>AHK53391.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEGASGGSIFVTILLFILYMLPAIIGLSRKHSNWLIISLLNLFFGWTIIVWLVCLIWSFTGSFKQTIIIK

EKNEK

>AHK53390.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTKKSKRDMAYELDIDVSTLYNWRKYKPNLYRIVMLGFKFDELLDNSKKTHEELLHIEQTIQDEIAKFK

>AHK53389.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFLLDFLISLSFIFEISALVLSFYFKNSKIFFLTLVLLGAKLPYFYTSFFQANLFVALFLPMIFTLFCVG

KHHVLILNKKNIASITTLIFIGILSIILPRNTTFNSAGLEFHFIALDFFKPVSELGFLFFLVGLILIFIK

TFKTKEYYLLIAFFTAYFQFLFQEGAGIRYFEFASLVFCFYLLNHAYRLAFFDTLTKLPNEKSLTRFTKG

KNNYIIALLHFNELKDTKESYTKLILKQIAKILKRFRAKIFIVENDFILIFNDKNQALNHLAFLESTLKN

TEFNLENENFKPDFKLIWQESEENLDKNLQSLRARLLD

>AHK53388.1 hypothetical protein N919\_02055 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKVLLSSLVAVSLLSTGLFAKEYTLDKAHTDVGFKIKHLQISNVKGNFKDYSAVIDFDPASAEFKKLDV

TIKIASVNTENQTRDNHLQQDDFFKAKKYPDMTFTMKKYEKIDNEKGKMTGTLTIAGVSKDIVLDAEIGG

VAKGKDGKEKIGFSLNGKIKRSDFKFATSTSTITLSDDINLNIEVEANEK

>AHK53387.1 histidine triad (HIT) protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIYENDLIYIEKEEAQVPWLKIFTKEIYKEFSDCPLELQKELFEKILFCEKAMIEFYKPEKINIASFANY

VPRVHFHVMARFKEDAFFPECMWGKQQRETIKLDLPKFEEFVKFLNSKIF

>AHK53386.1 hypothetical protein N919\_02045 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQISSSYNSYDYYSSKPSFDKTNQSDSTQKDEKNLSENKDDKEKNGEQTQMVNGVELSQKEVAQVRELQS

IDRNVKAHEAAHQAAGGGLAGAASFTYTRGPDNQMYATAGEVPISMQKGNTPEETIANARQIAAAAMAPA

DPSPQDYKVAANATKMEFEARAEAMKLKAEEAKEKEEENKEKDDKNSENSLEKTDKDSKNNDKNSNFDKD

FKNLVTRTYQQNSQNNDIKFSIAS

>AHK53385.1 GMC family oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAEVLKKVDVVTVGAGWTGGIVAAELTKAGLNVLSLERGHMQSTENFNYIHDEWRYGINYGLMQDCSKDT

VTFRHDPSGLALPYRKMGSFLLGNNVGGAGVHWNGWTFRFMPYDFEIQTLSKQRYGNKLGNDYTLQDWGV

TYKDMEPYYDRFEKTCGVSGEPNPLAEKMGAFRSSPYPQEPLENTKMLKRFESAAKSSNLHTYRLPASNS

KGGYTNPDGQDLAPCQYCAYCERFGCEYGAKASPLNTVIPKAMSTGKYTIRTYSNVTQILKKDGKVTGVK

FVDTRTMKEYIQPADIVVLTSYMFNNAKLLMVSNIGEQYDPKTGKGTLGRNYCYQMNMGTTAFFDEQFNT

FMGSGALGTTSDDFNGDNFDHSKEKFLHGAMIYSVQLGTRPIQSAPLPAGAPTWGAEFKKALNYNFTRAI

TVGGQGASLPHKNNYLSLDPTYKDAFGMPLLRLTYNFTDQDRALHKFITDKTAEVAKRMQGVKSIKKGAY

LKDYSVVPYQSTHNTGGTTMGADRETSVVNTYLQHWDADNLFVVGAGNFQHNSGYNPTDTVGALAYRCAE

GILKYHKSGKSLA

>AHK53384.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQDNIIDRRSFFKLGLLGGSVVAASTIGGGAVLKAAELTHSHQASQGKSNKIRGRMFFQTQTEFDTLSAA

CERIYPKDEQGEGAIGLGVPYFIDNQLASAYGYNDREYMQGPFMEGKAEQGYQTPMQRKDIFLEGVHALE

ENAQKRYKKSFSLLKGGDQDKILSDFEKGKIQTTGFKSSYFFTLLRDMTVAGVLADPIYGGNDNKNGWRM

MQYPGAQMSYVDKIASDEFFNIEPMGLADMES

>AHK53383.1 hypothetical protein N919\_02020 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRIFLTLFLFFNSLFALSELEEGLKLYEANKFDKAYEIFKSLCEKDISKACFSLAFMHESARGVSKDLNQ

AYKFYDKACKLGLANACSNMALLLQNQGYENEALLAFNKACTLGESLSCNNIALFYEKEKDGQMASSFYK

RSCDLKNARACYQLGSLYDKGELVKASVKSALAFYSKSCTLGFGEACYLLGRYNQLEKQDLTKAKRYFGM

ACDQKHQEACAAYKELNSKDIELY

>AHK53382.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQINLLNDFIKAYENTYSVSFDDSFKGRIQELCKELNEPFMHASYALENELKELVFSLDKNVNIAIIGQF

SSGKSSLLNLILGRDCLPTGVVPVTFKPTFLRYAKEYFLRVEFEDGSDIITNIEKLAFYTDQRNEVKQAK

SLHIFAPIPLLEKITLVDTPGLNANENDTLTTLDELKNIHGAIWLSLIDNAGKKSEEDAIKANLELLGEN

SICVLNQKDKLSAEELDNVLNYAKSVFLKYFNELIAISCKEAKDEQSYEKSNFQSLLDFLTQLDTTVLKE

KFVKRKILNLCEILEDENQLFVGIFDRLLNQFQSYEKHLLLAYENFLKEIEILNHQILEQLKSISERISS

EIFASVKEKDAYFYKESKGFLKKDLYTRYDYKAPYISSDDAFLAMFYNSDVMSKEFKKIKNELYKSFEEI

KMKLKDFINILEREILLFKAEFSNIQKDHIFQSDKNFSELRAFCNASDEYFLKDFKELLFKSILELDLFF

EKLNLKAFTNYENATKLSLAFFSRKINESRVLYELDSSEFVLFYPKKSEIYERVLNELNVYEFETLLINK

PILTKIAKNFLEQSQNLIQEKNKFLDLKKAELQKRRAQILNVRESIKED

>AHK53381.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKELFQKIWQNELQFLNFDAKFQDKSKLDTAECAIILSVNKDNYERYFLLKEFQELCKKIDLRVDIFSMQ

NAQICILNLFKSGFISKQDLLKALKILEKISKNTEIFDFILQEKVQSIDQKALFQNDFKELNTINLELQK

LSFDENLKSRLQKTLEKFQNLEFNIAITGVMNAGKSSLLNALLKEDFLGVSNIPETANLTVLSYGKSEEA

KIYFWDKKEWQNILESSHFNADLKEFIDKLDKSVNIEDFIKDKPLIQNIALCELKNFSSAKNKISALIKK

IEIKSHLEFLKNNISIVDTPGLDDVVVQREIVTNEYLRESDFLIHLMNASQSLTQKDADFLVHCLLNSRL

SKFLIVLTKADLLSKKDLEEVIVYTKESLKSRLVDLDENLVEKIDFLCVSAKMASDFYKGLASKESLQKS

GMQEFENYLFNELYAGEKSKIALRAYKKELHLELKNILSEYEMQNRLIKENKQGVSEENQKLLLELQKQN

TLLKEAQDEISNSIAKLKNIDSGIDNLVLLLAKKLKERLIDEFKYLKNNAQKLNLSRILNIVDITTKDGI

NDILREIKFENIKKIEELKTNLSLKYDFLKDDFDNGFEGFKDGISKNIDSIFQSEKFALLRLKIEKLSNL

KSDLYELETNLDTVIFDTFKEFKMSEILNSLNINGAFFEFLNDKLKHYEKNQKSKLESLEKVLQSLKNQD

ANILNSFEENLEKIEKLKQLEMGLLNAD

>AHK53380.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>AHK53379.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNIQYSDALVIGGGLAGLRAAIEVAKSGQSVTLLSICPVKRSHSAAVQGGMQASLANGAKGEGDNEDLHF

ADTVKGSDWGCDQEVARMFAQTAPKAVRELAAWGVPWTRVTKGPRTVVINAQKTVIEEKEEAHGLINARD

FGGTKKWRTCYIADATGHCMLYGVANEAIKHQVKIIDRMEAVRIIHDGKKCLGVIARDLTNGQLIAYIAR

GTMIATGGYGRIYKQTTNAVICEGTGAAIALETGLCRLSNMEAVQFHPTPIVPSGILLTEGCRGDGGILR

DVDGYRFMPDYEPEKKELASRDVVSRRMMEHIRKGKGVKSPYGDHLWLDISILGRAHVEKNLRDVQDICK

TFNGIDPADEGPKGWAPVLPMQHYSMGGIRTKPTGESQWLNGLFACGEAACWDMHGFNRLGGNSCAETVV

AGMIVGDYFADYCKNNGEVIDTNVVKDFLTKEYQYLKSLVDKEGKHNVFEIKNRMKEIMWDKVAIFRTGE

GLKEAVDELEKLYKDSQDVKVHCKELDCANPELEEAYRVPRMLKIALCVAYGALLRTESRGAHYREDYPK

RDDLNWMKRTNTFWVEGETLPRIEYEELDIMKMEIPPAFRGYGAKGNIIENPLSEKRQAEVDAIREKMEA

EGKGRYEIQNALMPYELQAKYKAPNQRIGVDYE

>AHK53378.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRELIEGYLGKSIEGKKSKMPAKLDFIQSASGLFLGLFMWVHMLFVSTILVSEDFFNSVVHFLELKFVYD

NPVMSYLTSFLAACVLVVFFVHALLAMRKFPINYRQYQILRTHSKKMNHSDTSLWWVQAFTGFIMFFLGS

AHLIFIVTNADKISGDMSGDRVVSHFMWLFYAVLLVCVELHGSIGLYRLCVKWGWFEGKNVKESRKKLKT

AKWIISIFFLVLGVLSLAAFIKIGYENYQNQTQTTAMIKNYNGANYEYTI

>AHK53377.1 prolipoprotein diacylglyceryl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEFWQHIYSNFNVIAFSIFGLKVHWYGIMYVIALLLALLLAKFFVRKFQLDINEKHLDSYFIWVEIGVIL

GARLGYILIYDANTMYYITHPWQIFNPYINGEFVGIRGMSYHGAIIGFLIATLLFCKKYKTNPWIFLDLV

ALSVPLAYVFGRIGNFLNQELFGRITNVPWGIYVDGVLRHPSQLYEAFLEGIVVFIIVYLARFKQSFQGE

LILVYAGAYSLARFICEFYREPDFGIGFVLWGMSMGQILSFIMFITALLVYICIKFKKVNI

>AHK53376.1 hypothetical protein N919\_01985 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKYILLASSMLILAACGGTSSNFVNVSMPNFKPQVPTKVEPIDSGVSIALVPINIEQNNNYSDYFENSV

LKIRIEKEIDLLKQNLEEQIKTIAQLKGYKIVTTNPDYTLKSSISIYTEEKNVQKTSNFMSGDYVKSNLG

INFKGKIDFIDAHNPQNSTNLSSSTKLDSLVALNYPIKNDDGVNMFKTTISTVPTQLNKGLEQPAFEIDK

SFLAFYKNTLNTLYNNLPKATDIGKTIPNTNSGFNSFDGDATFEESLPQTNSNQNNTIENAPTQNIPTNP

SSTNQNNQSKNQDGVEIFE

>AHK53375.1 shikimate 5-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFLAVIGDPISHSKSPRMHNNAIKALGLDSIYTRYHLRNANCLREDFFKLGLSGANITLPFKEKALDIA

DVKDDFARNIGSANTLCLKEDKIYAYNTDALGFLEAIKDFDNIKKALILGAGGTALALAYVLKQKGVEVY

IANRSKERFKDFLAYPTYLYKNLQDFDFDLVINSTSAGLKDENLPCDRELLDRILPKAKFAFEVIYGRET

PFYRLCKEYHLKIKDGLDMLLWQGVFAFELFFEIQDKREMIKNAMQQALILK

>AHK53374.1 ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MISPMDMSLIKIIGDHYYIRRDKIVNKITHRGRLFFDKFERVDAPLNLNVMREHAAKKIVVAHDLITKDN

KVENIVFDYNGFNAERFYHRAQLILREEGFINFTAYKTKTPGHLHLYIHKGHTALNEGYSLASKLSMMFA

SKMPVEWKVFPSMDVPREFNILILPYEVYQKERGSSWSKHM

>AHK53373.1 serine hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSLEMFDKEIFDLTNKELERQCEGLEMIASENFTLPEVMEVMGSILTNKYAEGYPGKRYYGGCEFVDEIE

TLAIERCKKLFNCKFANVQPNSGSQANQGVYAALINPGDKILGMDLSHGGHLTHGAKVSSSGKMYESCFY

GVELDGRIDYEKVREIAKKEKPKLIVCGASAYARVIDFAKFREIADEIGAYLFADIAHIAGLVVAGEHPS

PFPYAHVVSSTTHKTLRGPRGGIIMTNDEELAKKINSAIFPGIQGGPLMHVIAAKAVGFKFNLSDEWKVY

AKQVRTNAQVLANVLMDRKFKLVSDGTDNHLVLMSFLDREFSGKDADLALGNAGITANKNTVPGEIRSPF

ITSGLRLGTPALTARGFKEKEMEIVSNYIADILDDVNNEKLQENIKQELKKLASNFIIYERAMF

>AHK53372.1 lysyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFDNILEQQRIEKAKELKNLGINPYPHFLEKEMSLKTFKDKFSYILEQVEKRDESVNAVVAGRLKLLRIA

GKSIFANIEDEDTNLQIYFSKDSVGEELYTILKKNLEVGDIVLVKGFPFVTKTGEFSLHASEVKLATKAI

VPLPEKYHGLTDIEQRYRKRYVDMIMNVEVRKDFLVRSKVVSLIRHFFENKGFLEVETPMMHPIAGGANA

KPFVTFHNSLGVERFLRIAPELYLKRLIVGGFEAVFEINRCFRNEGMDLTHNPEFTTIEFYWAYHNYKDL

MDLTEELFALLLDKLNLGKTIEFDGKMINFSKPFERITYKDALCKYGGLDRDLIEDKEKILTKLKADGFE

ANEKLELGHLQAELFDNYVEEKLINPTFVIDFPISISPLSRRSDEDSQIAERFELFICGRELANGFNELN

DPLDQYERFLKQIEAKNAGDEEACEMDEDFVNALGYGMPPTAGQGIGIDRLVMLLTNKKSIRDVILFPAM

RPLKSELKEKE

>AHK53371.1 Fur family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLIENVEYDVLLERFKKILRQGGLKYTKQREVLLKTLYHSDTHYTPESLYMEIKQAEPDLNVGIATVYRT

LNLLEEAEMVTSISFGSAGKKYELANKPHHDHMICKNCGKIIEFENPIIERQQALIAKEHGFKLTGHLMQ

LYGVCGDCNNQKAKVKI

>AHK53370.1 colicin V synthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFYWFDAFILGFTLLLGLKGIINGLIKEIFGLLGIIGGVFIASKYATQAAEFIQSTFYKIENQSLAGFA

GFLAILIIFWIACLLAGNFLSKLIKLSGLGFLDRIGGFIFGGAKIFLIFAILVFCVARIDFLNDKLDNFA

KNSYTLNLLKETGSFIMNQPLTENSLDHASEKLQDIVSDLNNTQKGE

>AHK53369.1 glutamyl-tRNA amidotransferase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIDEKLLSKLEKLSALQITKNRNETIAQLSEIVNFVEKLNELDLDSQEITVSTIKGGAPLRIDEIRNSN

VIDEVLDCAPKKQEHFFVVPKIIE

>AHK53368.1 hypothetical protein N919\_01940 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGLKDNLKAVKNELNTEEQFIENFIKGERFIRKYKFYISAVVIILVAWFAGNFIISKINDYKTKEANEIY

ANLIQDPSNKNLLEQLKNKNTNLYAIFLLKENINDFNNTTLQNELKQIYNNAQTNTLLKNIIALSLGDKS

IFLKNYDKLLEAYKLLEQNKIEEANVLLSQIKENSSLNQIAKNLKHYQGITQ

>AHK53367.1 hypothetical protein N919\_01935 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIFLTLFCLIFLCACGTKRQYFEPKQTDGDLSHNSNLKSKIVDWNLVSAKLSNNTTILKNNISIDKFK

LPKNYMLLAYQDGEYFTADNNGNLKIFDNSYNEIYNFQFDASVVGVASNGDDLALVLANNTIVLANRSLG

IKFSQTLTSAPAQDSRTANPIFLDNIIVYPTLDGKILILSRNNLQIIKDVVISAENFFNNVIHLSVIGDK

LIAATAKKIIVVSPARTLYLDADIKDVALSDDGIFILEKDGTIIKTDYNLRKIAEKKFEFAIFVKSNIYN

NYLYIFEKTGYLIKMNLNLDNAQVFKLSEAVDKISFMGNGKFYYGDKILDLL

>AHK53366.1 tram-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKILEQTIKALKLNLKPYDLSMLTRKKSYICAKDQNNILFMYTGKTKFLMKDALFLENLAQQININNKY

FFSMASLCSKAKNHLEMKGFNIYVAL

>AHK53365.1 pantothenate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLLCDIGNSNANFLDDNKYFTLNIDQFLEFKNEQKIFYINVNEHLKEHLKNQKNFINLEPYFLFDTIYQG

LGIDRIAACYTIEDGVVVDAGSAITIDIISNSIHLGGFILPGIANYKKIYSHISPRLKSEFNTQVSLDAF

PQKTMDALSYGVFKGIYLLIKDAAQNKKLYFTGGDGQFLANYFDHAIYDKLLIFRGMKKIIKENPNLLY

>AHK53364.1 malate:quinone oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSQQEFDVLVIGAGISGAALFYELARYTNIKNIALIEKYNTAATLNSKGTSNSQTIHCGDIETNYTLEKA

RKVKRTADMIVKYGLMQNAQNNFMFSHQKMALAVGDIECDYMKKRYEEFKELYPYIKFFDKAKIKQIEPK

VVLGEDCNQDRPENICAMGVESGEVFTTVDFGKMSINLIEQAQKQNKNTFVAFNQEIIHIEKKDDIFILK

TSNHQEYHAKSVVVNAGAHSLYLAHKMNLGMDKSCWPVAGSFYLTKQKLLNGKVYMVQNPKLPFAALHGD

PDLLADMNTRFGPTALVIPKLERYHGLKSVPEFFEALKLDKTVLKVTFNMFKDATIRNYIFYNYLFELPF

VDKSLFVKDAKKIVPSLKASDIYYAKGFGGVRPQVIDKTKGELMLGEASITETPGIIFNMTPSPGATSCL

GNAERDAKLVCNYLGMEFNEDKFSSELL

>AHK53363.1 pyruvate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKKTKIVATVGPASEKEEILRQMIINGVNVFRLNFSHGTHEYHKKNLDTIRRVAKELHTRIGILQDISG

PKIRTGELKEPFELKKGDRLDFYRETILGEKIAQNHYKISINQKSILDMLKIDEYIYLYDGSIRAKVVNI

DNQKIETIIENDGFLNSNKGINFPNTKINIDVITQKDKNDLLWGIKNEVDFLAISFVQNAHDIDEVREIL

AQNNAKISIFAKIEKFDAVENIDEIIKSSDGIMVARGDLGIEVPYYKVPNIQKEIIQKANNASKPVITAT

QMLFSLAKSKTATRAEISDVANAVLDGTDAVMLSEESAVGIDPANAVDIMCQTIIETEKRYPYNKFNDFN

DLDNTDKIMRSSAHLATDLNADAIFSLTSSGKSAIKIARYRPNIEIIAVGHSEKTLNSLSIVWGVNPAIL

VNKSNELTELLKDSVRSSVEKGFMDEDKCYLLTAGFPTGVEGTSNLIRILNKEQIAYYLQ

>AHK53362.1 hydrogenase-4 component G [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQVNTFSNIASMARTQVSNKKADDAKENTKDKNVQSANSSKDVDKNTLEKLNALGGKGITQIYLVQFQQQ

TMNAVIGSSNAQTGLDSLLNGANLDTAKSILTNIDFASLGYSSKNPLDMNTDELQQLVSEDGFFGVENTA

NRIADFVIKGGGDDVEKLKKGLEGMKKGFEQAEKMWGGELPQISQNTIDAALKKVSDRIDELGGKTLDLQ

A

>AHK53361.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAEQEDIILEKPEDGLNQPRLDESLEGFKGQEGQAPEDEEFASLPEELPQENSESGFKFTRESAPEDVST

FEEVESQEPTPWYKDRKFMSLVGLSLGIICILVFTLFYLTFSEGKIKPDIIASKPLEQPVIMPDESYKYN

DMQRIDGMIQKANALYLKGEVEQALKVYEQVAVYNESLSNYNLGVSQMNENKFQEAFESFKKAIANGENQ

SVAAINAAVCALKLNDKEKFRYYIDLAQVYLPKEGKSKLYDYYLSLINYYKGYYPEALQMLQRTDVEPYS

DVAKYLSAKIYAKMDFDSKAIQQLNSQGNFESSLSLGLLYARIGEYAKAKVALSTAMKIERDFNQSLAAL

TLVDIKTGNYQDMLARLQNSYDNDKDRYKILDTYKIQVRLNKDLFNIAVAQNSFSKDLLKKQKDQFDLLF

YFAPYQVFDSKQAALYIKKANVTDFVDDSTDAGIYLNISKALSSTNVKIANIINYALNQKLRLANQEFQK

LIKDYPEHSILHYNLALTYAQMQNYELAYKHFSSSYHLNPKNYLAGAFAMFCAKLIDIDTTKLYNEILDN

IAADSNFKANMQKSMLFLVNNNYISMLPYLDETKKDTPLSLIFEAIVAKNNNLNNQVDVKIAKLRSELPE

DILANILYFNSLNSNLNIKEYAQNAQIHFKNLKLDYRSVFGGPNIAREFYVNLMHIAGLLNLERQKFKEL

INVSGAKDEGILQTLAYLDIFAQQYEEAYALYNSLIDDYGAKDTKTLFLAAVAAVGANNPNSAIALLQLS

KLTDKNNKESKAALGMLYQEVKNYEAAISQYKTLPNNFKSEFFTFDINNN

>AHK53360.1 seryl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLDLKNLQNNFDEVAKKLKNKKVDENILKKLAELFASLKKEKIALEEFQAFQNKFSKELATAEDKESLKA

KLSENKSKINEQSAKVNALENELEEIAHAIPNIPDECVPVGEDENENVELKKVLNPPSFDFTPKEHFELG

ESLNWLDFMRGVKISQSRFCVLKNEGALLSRALVNYMIDFNRSRGFEFVNVPFLVNGATMFGTGQLPKFK

EDMYKVDDEDLYLISTSEIPVTNLYSGEILASETLPIKMTCYSACFRKEAGSAGRDTRGIIRQHQFEKVE

LVSITKPEQSDSVFNEMLECASDLLSSLGLAHRHLMLCTGDLGFSAAKTVDLEVWLPGQNKYREISSVSN

CRDFQARRAKIRYKNEQGKNELVHTLNGSSLAVGRTLVAIMENYQDKEGKIHIPDVLKKYF

>AHK53359.1 tryptophanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRVLTGLQPSGDLHIGNYFGAIKQMVDAQEKSQMFMFIANYHAMTSSQDGEKLKQNSLKAAAAFLSLGID

PQKSVFWLQSDVKEVMELYWILSQFTPMGLLERAHSYKDKVAKGLSASHGLFSYPVLMAADILLFDTRIV

PVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKMSKSYQNTIDIFSSEKTLKKQ

ISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEAREK

YNELLEKPSHLKEILDFGATKARKIAQEKMQKIYEKIGL

>AHK53358.1 shikimate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKAKNIVFIGFMGSGKSTLARALAKDLDLVFLDSDFLIEQKFNQKVSEIFEQKRENFFREQEQKMADFFS

SCEKACIATGGGFVNVSNLEKAGFCIYLKADFEYLKKRLDKDEISKRPLFYDEIKAKKLYNERLSKYEQK

ANFILNIENKNIDELLSEIKKVIK

>AHK53357.1 GTP-binding protein Der [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQSIILIGKPNVGKSSLFNRMARQRIAITSDISGTTRDTNKTQIHIHSKKAMLIDSGGLDESDELFKNVK

KNTLKVAKESDIILYLVDGKLAPDDEDRQFFYSLKKLGKPIALVINKVDNKKDEERAWEFANFGVKEIFN

LSVTHNVGLDELYEWLEKFLHEEFLIPDEEENLEDFLEYYEEGKEFQFKEVDQNHIRVGIVGRVNVGKSS

LLNALVKQERSVVSSIAGTTIDPVNESVVHKDKVIEFVDTAGIRKRGKIQGLERFALNRTEKILSHSQIA

LLVLDAHEGFNELDERIAGLVAKHYLGVIIVLNKWDKSEMDFDKTVKELRLDRFKFLAYAPVISVSALSG

KRVHVLLDKILQIFENFTQKIQTSKLNTLIENATRAHPLPHDYGKLVKIYYAVQYDLAPPKIALIMNRPK

ALHFSYKRYLQNQIRKEFNFEGVPLVIASRKKGSKENDES

>AHK53356.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKVIKHNLGIYFMILACLDFALMGACAKILSKEMSSIEIMFFRNIIGIFFIVYLLKRSKAHKEGGYFWL

LVFRGVVGTLSLYMFFYNVSNITLGGAFAFQKTAPIFITLIAFVVFKENIGIKGWIGILIAFGGVLLIAQ

PWVHNLNHSGFDLKNSVIGITSGFLAALALTSVRELRKSYTTEQIAFSFILLGTLMPLISMISAEFFEPQ

HLDSLHLDFILAPFVMPSLTAWLIIAIMGTLGTIYQIHVTKAYGIAKQAGVVAGVSYLDVVFSMIVGIIL

GDNLPSTMVFLGIIGIIFGGLILVKNKGKK

>AHK53355.1 2-dehydro-3-deoxyphosphooctonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKMILIAGPCVIESKDLIFKVAEQLKNFNENPNIEFYFKSSFDKANRTSINSFRGPGLEEGLKILQSVK

DEFGMKILTDIHESNQANPVSEVADVLQIPAFLCRQTDLLVAAAKTKAKINIKKGQFLNPSDIKYSVKKV

LQTRGIEDEGYEAAQRNGVFVAERGASFGYGNLVVDMRSLVIMREFAPVIFDATHSVQMPGAAGGSSGGK

SEFVEPLARAAAAVGIDGFFFETHINPCEALCDGPNMLNLTRLKNCVNTLLEIQNIIKENK

>AHK53354.1 6,7-dimethyl-8-ribityllumazine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNIIEGKLNLDSNTKIAIINARFNHIITDRLVEGAKDAFLRHGGKEENLSLILVPGAFELPYALKKAIES

KKFDAICCVGAVIRGSTPHFDYVSAETTKGIANVSLNHNIPVSFGVLTTDTIEQAIERAGSKAGNKGFEA

MTTVIEMLNLSKEL

>AHK53353.1 transcription antitermination protein NusB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MATRHQVRQSVISLLYAFELNSQNNVFVDEILDEKKIRNEQKNFTLNLYNGILDNLNNIDETLNSFLNDN

QITALGHVERAILRLGAYELLFTDTPSAIVINEAIELAKELANDNSPKFINGVLDALIKAKK

>AHK53352.1 orotidine 5'-phosphate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEELKKVDDFKIFLDLKFHDIPNTMAD

ACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSALTSFDEENFFSIYRQKIEEAVINFS

KISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQKRVANLAMARENLSDYIVVGRPIY

KNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEEWIKTRPDKEHALKEFYAKCGIKY

>AHK53351.1 sulfoxide reductase catalytic subunit YedY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLITPEKLYKQRRNFLKLGAGALISSSVLASKLSALNFTSDTNPNKLEISDEELATNYVNFYEFSTDKRK

AVSLAQNFNTQNWKIDISGEIEKPLTLSMEDILKFPLEERIYRFRCVETWSMVVPWVGFELRRLIEMAKP

TSEAKFVKFTTLLDKSQFPDQDALFPTIDYPYVEGLRMDEAMHPLTLLAVGMYKKALKPQNGAPIRLVVP

WKYGFKSIKSIVKIEFTKEQPKSTWESYAPSEYGFYANVNPNVSHPRWSQANERALGDFFTKPTLMFNGY

EKEVASLYKNMDLKVNF

>AHK53350.1 ferric reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQTKYFKFLAYFSFIISLIYGFYHIIKAFDFVKEAYIYTGIFALIFLNLSLLFSLLKFKKTKNYPKILGI

FAAFWAILHFLNYFIFDRNAQILRLFDDISHRLLEAIGFIAFLIIFLMLLSSFKIFKKLSKIRKLGYLCL

ILASYHYFLTPKIPMFWEWSALIIALFYFIVRYTKTLKS

>AHK53349.1 hypothetical protein N919\_01835 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFFLLVFCFVNLALAKVYKGELHFYHLQDKEIFAIVYDNAPMTPLFDRDKNQTSSSFLIVDDINGNLEI

PLVKINDFWQDERKKYKINSSKMLTYDNKNFQGENLGTTTLELVETQDGIRIKRSLDFIGFNDDFKEFHP

VHKGVFSFEQIRQKPIFLQDGKISFEEWYYFYEDGMSRAILELNNFVYDINAHAFVKLNDLYNTENQKFQ

NLLHEKLKNTCDECFEDLQNLQFNNNFLLNNGKLKICYLPFEGHFLDENICVEFNEDELKEFKK

>AHK53348.1 hypothetical protein N919\_01830 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKHCLALCFVFFLCACSVKNQNFSSQSLMVLIASPMIKINDTAFLKKENNALNLEVYKLGQAFFELKIKD

KICINAVCYDKQVFNQKFFKNVYYDDILSDILKANPLWQGKNLEKTDCGFEQNLKAKNYEIFYQVCDNKV

SFFDKISHTKIILTHIQN

>AHK53347.1 hypothetical protein N919\_01825 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MASEHSFDISAALDKQELKNAFEQAKKELDSRYDLKGIKCEIDLSEKESIFKLSSSSEGKLDVLKDIVIS

KLIKRGINPKAIKELSRESGAMFRLNLKANDAIDSENAKKINKVIKDSKLKVNSSIRGEEIRVAAKQIDD

LQAVMKLVKELDLELNISFKNLK

>AHK53346.1 2-hydroxyacid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIVCLDAATLGDYDLSVFEKFGSLQIYTTTNKEQTIERLKDANVAMTNKVVIDKDVIDACKNLKLILET

ATGVNNIDIEYAKEKGIIVKNAAGYSTMSVVQHTFAFMFAFLNQVLYYDKWSKEGKWCESPIFTDYSRIL

NTLSGKKHGIIGLGTIGKEVAKISKAFGAEIYYYSTSGANKNADFVHLELKDLLKTCDIISIHAPLNEKT

KNLLAFEELKLLKDNAILINVGRGGIVNENDLAKIIDEKNIRVGLDVLEIEPMMKNHPLLSIKNKENLII

TPHVAWASKEALNALMDIVYNNLKEWIENGK

>AHK53345.1 glutathionylspermidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQLLQVDKLQKDYLENIGFSWHTDEDGSDYISNKLVCVKESEANAYYEAVNELYDMFIAAAQEVINNDRF

DELGIPFNLIDAIKMSWENEVHWHLYGRFDLAGGLDGKPIKLIEFNADTPTALFESAILQWALLKQNGMD

ESAQFNSIYESLMDNFKRLITLDESVEGFEEHYQGWKILFSSVAGSKEEEITTKLLAHIANEAGFQTNFS

FVDEVEFSEEGIFKEGENYEYWFKLIPWEDIAIEEGELAMLLTQIMRNQRAIILNPAYTLLFQSKGILKI

LWELYPNHPLLLETKDTPLEGKNYVKKPVFGREGANISIIKDGKTLHENVGPYGNNKAIYQEYVEFNSCE

NEYYQAGVFFAYEGCGLGFRKGGLVLDNYSKFVGHIIKD

>AHK53344.1 hypothetical protein N919\_01810 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIKKIIQIGMIGGLAAVAGGALAGCGSNNDNADTLNQAANAQGAFVIIEETAPGQYKIKDQYPSDETR

VVLKDLNGTERILSKEEMDALIKEEAAKIDNGTSNLTKDNGQISSGGLSLGETLLASAAGAILGSWIGSK

LFNNQNFANQQRGAFSNQSAYQRSVNSFNKAGTTSSASSAKKSGFFGGGSKATSSSSSFGS

>AHK53343.1 30S ribosomal protein S21 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPGIKVHPNESFDEAYRKFKKQVDRNLVVTEVRARRFFEPMTEIRKKQKISARKKMLKRLYMLRRYESRL

>AHK53342.1 4Fe-4S ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQGHITNYTKKRYFVYLIASIIIFSLPFIRINENHFFLLSFDHSKLNLFFISFSTQEFYLMPFVLIFLFL

FIFFITTLGGRIWCAWSCPQTIFRVIYRDIIQTKFLKIRKNINNKQKEYERQYFKKFLGVIIFYFISLVA

VSNLLWYFIPPEDFFNYIQNPGEHLLLLGILFCASLLFTLDITYLQEKFCVYVCPYARIQSVMFDHDTMQ

VIYDEKRGGLIYDGHTKLHKKPPEGECIGCEACVSICPTHIDIRKGMQLECINCLECADACSKVQSKFNR

PSLINWTSAKAIETRSKVHYLRFRTIAYFIVLLIALLALIIMGSKKESMLLNINRSSELYNISNVKGELV

ISNAYTFLFQNTDSKPHEYYFTANLEGINDGIEIIRPNKPFKLKAGEQVKKIVVIRATKNLANNDKKDVI

FPLHIKAYAKDNEKISVFRKSIFVYPKSTLIKDKNELK

>AHK53341.1 TetR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNSNRTPSQKVLARQEKIKAVALELFLTKGYQETSLSDIIKLSGGSYSNIYDGFKSKEGLFFEILDDICK

KHFHLIYSKTQEIENGTLKEILTSFGLAFIEIFNQPEAVAFGKIIYSQVYDKDRHLANWIENNQQNFSYN

ILMGFFKQQNNSYMKKNAEKLAVLFCTMLKEPYHHLNVLINAPLKNKKEQKEHVEFVVNVFLNGINSSKA

>AHK53340.1 hemolysin D [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLFQKNTILALGVVLLLTACSKEEAPKIQMPPQPVTTMSAKSEDLPLSFTYPAKLVSDYDVIIKPQVSG

VIENKLFKAGDKVKKGQTLFIIEQDKFKASVDSAYGQALMAKATFENASKDFNRSKALFSKSAISQKEYD

SSLATFNNSKASLASARAQLANARIDLDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYAD

FFISDTDKLNLVRNTQNGKWDLDSIHANLNLNGETVQGKLYFIDSVIDANSGTVKAKAIFDNNNSTLLPG

AFATITSEGFIQKNGFKVPQIAVKQNQNDVYVLLVKNGKVEKSSVHISYQNNEYAIIDKGLQNGDKIILD

NFKKIQVGSEVKEIGAQ

>AHK53339.1 RND transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFSKFFIERPVFASVVAIIISLAGAIGLTNLPIEQYPSLTPPTVKVSATYTGADAQTIASTVASPIEDAI

NGADNMIYMDSTSSSSGTMSLTVYFDIGTDPDQATIDVNNRISAATAKMPDAVKKLGVTVRKTSSTTLAA

ISMYSSDGSMSAVDVYNYITLNVLDELKRVPGVGDANAIGNRNYSLRIWLKPDLLNKFGITATDVISAVN

DQNAQYATGKIGEEPVTQKSPYVYSITMQGRLQNPSEFENIILRTNNDGSFLRLKDVADVEIGSQQYSSQ

GRLNGNDAVPIMINLQSGANALHTAELVQAKMQELSKNFPKGLTYKIPYDTTKFVIESIKEVVKTFVEAL

ILVIIVMYMFLKNFRATLIPMIAVPVSLLGTFAGLYVLGFSINLLTLFALILAIGIVVDDAIIVVENIDR

ILHENEQISVKDAAIQAMQEVSSPVISIVLVLCAVFVPVSFISGFVGEIQRQFALTLAISVTISGFVALT

LTPSLCALFLRRNEGEPFKFVKKFNDFFDWSTSVFSAGVAYILKRTIRFVLIFCIMLGAIFYLYKAVPSS

LVPEEDQGLMIGIINLPSASALHRTISEVDHISQEVLKTNGVKDAMAMIGFDLFTSSLKENAAAMFIGLK

DWKDRNVSADEIAMELNKKFAFDRNASSIFIGLPPIPGLSITGGFEMYVQNKSGKSYDEIQKDVNKLVAV

ANQRKELSRVRTTLDTTFPQYKLIIDRDKLKHYNLNMQDVFNTMNATIGTYYVNDFSMLGKNFQVNIRAK

GDFRNTQDALKNIFVRSNDGKMIPLDSFLTLQRSSGPDDVKRFNLFPAAQVQGQPAPGYTSGQAIEAIAQ

VAKETLGDDYSIAWSGSAYQEVSSKGTASYAFALGMIFVFLILAAQYERWLIPLAVVTAVPFAVFGSFLL

VYLRGFSNDIYFQTGLLLLIGLSAKNAILIVEFAMEERFKKGKGVFEAAVAAAKLRFRPIIMTSLAFTFG

VLPMIFATGAGSASRHSLGTGLIGGMIAASTLAIFFVPLFFYLLENFNEWLDKKRGKVHE

>AHK53338.1 outer membrane channel protein CmeC [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNKIISISAIASFTLLISACSLSPNLNIPEANYSIDNKLGALSWEKENNSSITKNWWKDFDDENLNKVVD

LALKNNNDLKLAFIHMEQAAAQLGIDFSSLLPKFDGSASGSRAKTAINAPSNRTGEVSYGNDFKMGLNLS

YEIDLWGKYRDTYRASKSGFKASEYDYEAARLSVISNTVQTYFNLVNAYENENALKEAYKSAKEIYRIND

EKFQVGAVGEYELAQARANLESMALQYNEAKLNKENYLKALKILTSNDLNDILYKNQSYQVFNLKEFDIP

TGISSTILLQRPDIGSSLEKLTQQNYLVGVARTAFLPSLSLTGLLGFESGDLDTLVKGGSKTWNIGGNFT

LPIFHWGEIYQNVNLAKLNKDEAFVNYQNTLITAFGEIRYALVARKTIRLQYDNAQASEQSYKRIYEIAK

ERYDIGEMSLQDYLEARQNWLNAAVAFNNIKYSYANSIVDVIKAFGGGFEQSEDTSKNIKEESKNLDMSF

RE

>AHK53337.1 chain-length determining protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDKAKIVQNLNALFKQRAEFYSYFDENIAKINNTEVFDFKNAKNLNPEEVYKQFYHFDYAIRKLLPAIYK

AYEITDADLDKDF

>AHK53336.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLFQNLALKYSHTMMEKSLQKGFNVELLKQPEEKIPKQDKSYMLYAHVPFCHTFCPYCSFHKYYYDENL

AKVYFQNLREEIKIMKNKGFDFTSMYVGGGTTLIDEEELLKTLELCKKLFNIKEISCESDPNHIDPNKLS

MFKGIIDRLSCGIQSFDDETLKKVARYNKFGSSKELQEKISKALGILPIFSIDLIFNLPGQNEKQLLNDL

EIAKNLAPQQITTYPLMKSNLTKDNIAKSLGVSIKDNEFTYYQIIREFFKDYTQNNGWSFSLEKNKLNDE

YVSSHHEYLGVGSGAFSFLDGELLINAFNLNDYAKFIQEKQNANIAKACFDKKEIIKYVFLTGIFSGKIE

IDKFNKTLNCNLEKELFIELLGLKTSGAIIKDQNALIATEFGQYLFVVLMKDFYTGMDLVRAVFRDDKRL

KNKDYIDIMKENIDPLNSASMEFKAETN

>AHK53335.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTEWINDYYFWIKWVHYLAFVSWMAGLFYLPRLFVYHAEHKDNKGFVEVVKIQERKLYYYIQTPAMIVTL

ITGSLMLHAHKEVLMVGAGFMHVKLTCVTLLIIFHIHNYYCLKALANDTSTKSGKYFRIYNEFPTIMFII

IALMMVVRPF

>AHK53334.1 peptidase A8 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKTFKFIFYFWGAFVLVFALDQWVKSLTLAGFRWQSEYLDLTYALNTGVAFSMLSFLEHNLKYLHLALI

GVLFIYLFWQRTLLKTHSIAFGMMLGAGVSNLLDRFIHGGVVDMFFWHKWFNFAIFNVADVMINISVALI

LIQEIFKKRKKDDRMD

>AHK53333.1 phosphoglucosamine mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLFGTDGVRGKAGEFLDSFLAMRLAMAAGIYFKDKSITNNILVGKDTRRSGYMIENAIVSGLTSIGYNV

IQIGPMPTPAIAFLTEDMRCDAGIMISASHNPYYDNGIKFFDAHGNKLSEDIEKKIEEIYFDDKLIQASK

VDMEKIGQAKRIDDVIGRYIVSIKNSFPKDLTLKSLRVVLDVAHGAAYKVAPTVFKELGAEVIVMSDKPN

GLNINENCGALHPANLAAEVKRLRADVGFAFDGDADRLVVVDEKGEVANGDSLLGVLALYLKEQGKLQSS

VVATIMSNGALKEFLNKHGIELDTCNVGDKYVLEKLKANGGNFGGEQSGHIIFSDYAKTGDGLIAALQFS

ALMLSKKKSASSILGQVKPYPQLLTNLKIAEKKDLDKIKGLKELKKDLENKNINTLFRYSGTENLIRLLL

EARDIKLLEKEMKNVVEFFKKALNG

>AHK53332.1 cytochrome C biogenesis protein CcsA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVKSLLIASLVAFSSLNAASLIDEAKNSGLVALPKDQKGVDEILKQNGVKASEFTLEKAELGKKLYFEP

RLSKSGIISCNTCHNVGLGGTDGISTAIGHKWTANPHHLNSPTVYNAVLNNTQFWDGRAGTLADQAKGPI

QADPEMATPAKLAVEKISSLPEYVSEFKKIYGKSGVNFDNIADAIANFERTLITPSRFDKFLEGDEKALT

KEEQKGLKLFIDKGCVACHNGVNLGGNMQAFEVAGKYKFANLGDFKGDANGMVKTPTLRNVAETAPYFHN

GAIWNLKDAIKEMGSVQLGIKISDKEAKSIETFLKSLTGTKPAIVYPQLPISTEKTPKPEL

>AHK53331.1 glycerol-3-phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENLIIYAFIYLLGSIPFGLILAKFFAKTDIKKEGSKSIGATNVLRVVKEKNPKLAKKLAIATIILDFAK

AAIPLLTLKFLHYDQALLWSVAVLAILGHCFSIYLLFEGGKGIATGAGAMIVLLPLEVLTAFIVWVVIGK

IFKISSLASLAALLAFVVSSFIFNYDLEIHTHAPVFIIAFIIVYKHLPNIKRLIFKEECKVI

>AHK53330.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRILVIEDEISLNKTIIDNLNEFGYQTDSSENFKDGEYFIGIRHYDLVLANWTLPDGDGAELVNTIKHKS

PRTSVMIMSSKTDKETEIKALKAGADDFVKKPLDFDILLARIEARLRLGGTNVIKIEDLVIDPDEEKITY

KGQDIELKGKPFEVLTHLARHSDQIVSKEQLLDAIWEEPELVTPNVIEVAINQIRQKMDKPLNISTIETV

RRRGYRFCFPKKS

>AHK53329.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSLLITKDCVCCDACREECPDEAIYENSPIYVIDPDLCSECVNDFSEPACIVACPYECIIPDPDNVETIE

ELKLKHRDREF

>AHK53328.1 guanosine polyphosphate pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKKTAVVDLGSNSIRMVIFEKTSRYGFYTTCEYKRKVRLGENAYNNGKILQEEAMQRAEDALAFFKQCA

LKHKCKKIFIVGTSALRDAPNSKNFIKRIKDNLSLNIRCIDGKSESYLGGLAALNLLSPFKDGTTLDIGG

GSSELCLIKNNRIISCISLDIGTVRLKELFYDTGKMDSLEEFIKPILEQIPKEFCNQNLIAIGGSLRAIS

NSIMQKNSYPLKNLHDFRYMLDEEKGHILKIFNSNLDSLINFGIKKDRFDTIKEGIFIFLKIAEKIKAKQ

VITSGVGIREGVYLQDLLRPKITFPPNFNPSLKCLQDKFLQSKQKNKTPHFALQIFTTLKNLHKLNDNYK

HTLLNAAKLCHIGEYLNFYFANEHSAHFVLGGLNYGFSHKEKALIASIIKLNGKKVNPYNLEPYKQLLPN

IHTISWLNFILCLAKTLSANEDKIDFAFANNTLYIYQENKILNLPKDELKKIAKPATIALAINQKI

>AHK53327.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRLLVLFFLILPLYSVELISYNIYDRNDRVDLMLSFDNAYNGKISQKKEKNLTLLTFSDLTYSKDELKEL

NSQLVDKISISSKNNNTYIMLQNKQNINLELSSINDKFGVRIRAIEQGKANIESAPTTTANNSQELMPKP

KSTSLEGYDYTNYILVMLILVILLIVLWWFKKTMVYKNNNVSRDFTMIFQRFLDKNNQLVVFDHANKRYT

MIIGNSNVLLESIEIPEEQTIKHTEKTEKNFDSFFEENKKRIQNLIEQRQKGKKS

>AHK53326.1 flagellar motor switch protein FliN [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSDDIEFNIHHGLLQSYEDILDITVDFVSELGTTNMSVAELLKLEVGSVIDLEKPAGESVELYINKRIFG

KGEVMVYEKNLAIRINEILDSKTVLQYFKKEI

>AHK53325.1 hypothetical protein N919\_01705 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKILEYSITHFCEHILRLRIEAAQDISGELYGASIPIMGKSEGECNFYLFFPKEFLKKIAEILINDEKF

KEDDWCDLTKECANQIIGYAKNLLNDAKGDDEYKLGIPEYLGKVDFSEIVLDEALTYKFENCYFRIGYCK

>AHK53324.1 tryptophan synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVDFRKFYKENANVAYTVLGYPNLQTSEAFLQRLDQSPIDILELGVAYSDPIADGEIIADAAKIALDQGV

DIHSVFELLARIKTKKALVFMVYYNLIFSYGLEKFVKKAKSLGICALIVPELSFEESDDLIKECERYNIA

LITLVSVTTPKERVKKLVKHAKGFIYLLASIGITGTKSVEEAILQDKVKEIRSFTNLPIFVGFGIQNNQD

VKRMRKVADGVIVGTSIVKCFKQGNLDIIMKDIEEIFKK

>AHK53323.1 tryptophan synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKAYYGDFGGQFLPESAMFALNELEGAFLKFSKDKLFKKELNELLKTYVGRPTPLYFARNLSKKYQHEI

YLKREDLNHTGAHKINNAIAQALLAKKMGKKKIIAETGAGQHGLATATAAALLGLECEIYMGATDVQRQA

LNVYKMELLGAKIHAVQSGLKTLKEATTAAIQAWVGDIKNIFYVVGSAVGPYPYPKMVMHFQSIIGKECK

MQLQKLNKKVDYIIAAVGGGSNAAGIFYDFIKDENVKLIGIEAGGLGIDTPYHAATLNKGKTGIIHGMKT

KVLQDDLGNILPVHSVSAGLDYPGIGPLHAFLFESKRAQYHAISDEECMQALKLLCKEEGIIAAIESSHA

LAFLEKLCPTLKKKSVIVVNLSGRGDKDMQMIRDYKKGVIYG

>AHK53322.1 N-(5'-phosphoribosyl)anthranilate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKLKICGIKDEKNAKDLAFLNIDFFGLIFAKSPRRVSLEQARNLSAIFHEKDKKVVGVFVDENLEQILR

CIKEAKLDGIQIYRTITKEEFEILKVQNVFVWQVISVENSLDLKSEIFANLVLFDAKGILKGGNGISFDW

TLLGSYTKDFILAGGIGLDNVHKAVKTGAKILDLNSKLEDEKGLKDINKIKQILKELKK

>AHK53321.1 anthranilate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MILLIDNYDSFVFNVKSMLEQLSNDEILVRRNDAISLSEIKNLNPTHIILSPGPKHPSQSGICLEIFKAR

LNIPVLGICLGHQALALAFDSLVVKMQEPMHAKNSLIKQCRENELFSNLPSNFSVMRYHSLEVKQLSDEL

EILALDEKGVIMALGHKNLPYYGVQFHPESYFSEYGLQLFSNFLKQDIKKPQKQENPLSFYLQKMSENHF

LQSDDFEQICKIIMSKDYEILQVVALLILITEKSLNEKSLSAFVRQILRYSQTFSDESEMIDICGTGGDG

FKSINVSTTSAFILAALGVKVAKHGNRAISSSSGSTDVLEALNITTPNTLESVLKQLNNQGLSFLHAPFF

HPLVGELKEIRSRLGVRTVFNVLGPLLHPNLKLKYQLMGNYHAPVHRLLIEVLKNLGRKKALVVRGNDGM

DELSICDESKIYELCEGEILEYSICPEQFGFKRAFHSEIIGSSAYDNAKDLKDILSGRMQGAKFDLVVLN

AMFALYTANKASSPLVAKDMILEAIYSGKVIEYFKEYQAYAKA

>AHK53320.1 anthranilate synthase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFVKNVNFYYRQILEKFENSYFAEDLTKVIIGIDCDYLDANELSFSEFKAKYYEALSKNKICDFAGFFGV

FSANFVSLFEKIPLSSKKNYDFPLFLFANAKAYLIYEKNSKMFFKFGASKYFEYLKDDIEPMKKKQKNDF

EILNSLEDEKNDFLKMCEKAKEYLLSGDIFQVVLSKQLCIKHQVNAFDYYESLSALNPSAYMFYFPSKYG

VVLGSSPEFLLKIKKREIYLAPIAGTRNLENNCDLLALEKDLLSDEKELSEHKMLVDLARNDASKFGTQT

RVENLFSIIKNKFVMHIVSEVYANMKEDASIFDVIEAVFPAGTLSGAPKIRALEITSELEDCDRGIYGGA

VGFLNFNEDITLAILIRCAFFTQDKAYLASGAGIVLQSESQKEYAEICAKRKALLVAFENLKKENQ

>AHK53319.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEITDLPYLIIGIISGIASGLFGIGGGMIIVPSMFALGASAHHAIGISVLQMIFAAVFGSYINYKKKNLN

LKDGIMIGFGGLIGASFSGMLLKALSDVALTSVFLAVSCIFFIKYAFGIKENIVQNQRSVWVKNVILFIA

GAFTGIFAISLGIGGGLLIAPILAYFLGYDSKKVVSLSLFFVIFASVSGIISFSNSGVIDSEVIHKGILV

GIASMVGVFIGIKIIEKMHISAHRKILLCVYALSILGTTHSLLNKLNFINF

>AHK53318.1 UvrABC system subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNDTIKIIGARENNLKNIHLEIPKNKLIVFTGLSGSGKSTLAFGTLYAEGQRRYIESLSAYARQFLDKVG

KPDVDKIEGLTPAIAIDQKTTSKNPRSTVGTITEIYDYLRLLYARVGIQHCHRCGQKISSMSVSDIVSEI

LKFPKGAKIIIYSPLIREKKGTYADLLENLRNKGYVRAQIDGVLVRLDEEIELAKTKKHTIKLVIDRLEI

QEDLLSRLASDIEKGLQESFGEIEIEVLNHEEINLNKHYHFSEHSACFDCKISFVPLEPLSFSFNSPKGA

CEACDGLGIRYTLDMKKIIDENLSLENGAVKIMYGFNKSYYYKFLIAFCEQNEIPIKIPFMQLNEVQKRL

VLYGNAKTIEFLWKRNRLKRTFEGVVKMAYEMLKDEKDLAEYMSEKICKDCGGHRLKPESLAVKVAKKSL

GEILDMSIEDSTAFFADEKNFSYLSEQQKLISKPILKEINERLFFLYDVGLGYLSLGRDARTISGGEAQR

IRIASQIGSGLSGVMYVLDEPSIGLHERDTAKLIKTLRNLQQKGNTLIVVEHDKMTIEEADFIVDIGPKA

GKFGGEVVFSGTYKELLKSKSETALYMNGKKQISQLQNRTQKEWLELKNVNINNIQDLSVKFPLQNLVAI

TGVSGSGKSSLILQTLLPFAQEELNRAKKVKKLGGVQIEGLEKLDKVIYLDQSPIGRTPRSNPATYTGAM

DEIRNLFAATKEAKMRGYKAGRFSFNVKGGRCEKCSGDGEIKIEMHFLPDVMVVCDTCGGKRYNDATLEI

KYKGKNISEILNMSVLEASEFFTAVPKIKQKLDTLVKVGLDYLTLGQNATTLSGGEAQRIKLAKELSRSD

TGKTLYILDEPTTGLHFEDVNKLILVLQHLVDLKNSVFVIEHNLDVIKNADYIIDMGPEGGVKGGKVIST

GSVEKVAKEHKKTRSYTGYYLDLELKNTQKS

>AHK53317.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFDFLYNDISYLGLFMVCFLSSTLLPLASEAFVLGFIKLDFNPNLVLIVATLGNTLGSLSTYALAYFGKE

KILEKYFSKSLKKLENFNANFAKFGSIFAFFTFLPLVGDLFALGLGFAKYSFLKTIFFILLGKLSRYTFI

IFIANSF

>AHK53316.1 nucleoside hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRLILDTDIGNAIAGANTDDGLALALILSSKEIKLEMLSTVCGNVPSLVAYSVAKDLFQRLNLNIPVYLG

ANEALKEPSKAWRQRLDESVKNFKLEYLWENIKSPEILENINPDAIFKMGELVSKNPKEISICAIGPLTN

IAMTMKIFKDFDINLKELFIMGGSFDMPYYTKDTNFGFDPEAASIVLNSRAKITLIPYNATMQTLLTHED

LKELQGKNILCDFIVETLGVWIDYASKTRGTKGTWIHDALTIACALDSSIADFDECYADVICDSSLARGM

SWRCFREPKMSMGVDLSTKNCVKILKNVDNARLLKLIKERLLKGVCYENYESITT

>AHK53315.1 DNA polymerase I [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTLTIVDTFGFFFRLYYALKGFKNSQGQASGMISGFANFIYSLKNEYKSDYIVFALDSKGKTFRSEIDP

NYKQNRTPPPPELLEQIPICIKMIEKMGFISVSQEGYEADDIIASFVKTCENRDIFVRIITQDKDLYQLI

KDGKTSIYSPISKNDYDEAACLEKYGVKPNQIRDFLALCGDSSDNIPGVKGIGAKGAKTLLDEFGSIEGI

YENLTLVRNERSRNLLLEGKENAFLSKKLASLYDNLEVQNLIEKATYPDEEPLLKILEILEHYELNTLLK

KLRQNPDNKDKNLGFKATLVQDENKLFEILNTLDKESIIAFDTETTGLDTKEAKIVGFSFCMNENEAFYV

PLTHNYLGVGEQISLQSAKKAIEVIFNHFVIGHNLKYDFKIIQNNFDLNLPQKYADTMILAWLKNPSLRV

NMDDLALRLFNYETLHFESLVKKGENFASVELEKACKYAAEDAYITLRFYLYFLKNLETPLLELAKNCEF

DFIKIIMMMEENGIKLDTNALEILMKKFENEIKNLSEEIYTLCEDRFNLNSPKQMGDILFEKLKLPSGKK

GKTGYSTDEKVLNILLDKHPVIAKILDYRELAKLYSTYCEPLLKLALKDKNSRIYSSFLQTGTATGRLSS

KDPNLQNIPAHGQYAKDYKSCFVAKDGFSFISLDYSQIELRILAHFSEDEKLLNAFANDEDIHARTAIMI

FGESNYETRSVAKSINFGLIYGMGYKTLSQNLKIEANLAKSYIEKYFENFTSIKKYFEKVKNEAKQNGFI

VTLSGRKRYFDFENAKPMQIAMYERESINSILQGSAADVIKLAMLEINKELNEDKKLILQIHDELIFEVK

DDLCENFVKKTRDIMENIVKLKVKLKTSSSIAKNWGDLK

>AHK53314.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDLSTILGMVLAVTSISVGDILEGGNPLHVVHLSSFLIVMPTAAFCAMTSTHKKIVKAAYKELKVVFKGS

GVNLPERIAQLIEFAIIARRDGLLALESRTSEIENEFLKNAMMMLVDGKSFEEIHESMEIQTEQLEEHYK

ECAEYWIVFGETCPTMGLVGAVFGLILALKLLDNPQAMAAGISGAFTATVTGIFGAYALFAPWGKKLKAN

GMDLVKEQIVITEAIKGIAEGANPRDLEAKLFNFLSHDDPRISQFDKG

>AHK53313.1 flagellar motor protein MotB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKKHKCPECPAGEKWAVPYADFLSLLLALFIALWAISKTNPAKVEALKTEFVKIFDYTSTQTVKEESKT

QEKYKGAAKEESDELKSLKQMTMTQQETIKRLQAALDQSDNQVALNLPSKVEFERGSAQIVSADIQDYLK

RMAELTTYLPPQAKIEIRGYTDNSDSIIRSYELAYQRAENVLKYFIEGGANLKNISIKSYGLNNPINGNP

QTLENNRVEIYFKVDTADTSTQKSVLELINKIGTKAP

>AHK53312.1 flagellar biosynthesis protein FlhB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAGEDQEKTEEPTSKKIEDARKEGNVPKSQDAAAIVTLIIGVTITLFMMSFMGERIVNLYRYYQSFIGVE

FDLRIIQAIMIKSIFEVLIILAPIVLSIMIAGVLGNIMQFGFIFTTKPIMPNLGKINPLKGLKNLFSLKK

IVESIKIILKVGIVFTIAFIVLLKFMQELPRVELYTMVAQLTWLRDRAIVLAAIVIVAFLIIAVLDVFLV

RFQYFKGLRMSKQEIKDEYKQMEGDPQVKGRIRRLQMEAARRRMVQDVAGADVVITNPTHYAVAIRYDTG

KEQAPRVVAKGVDFLALRIKQVAYENNVVVYENPPLARELYKACDVNDLIPREMFKAVAEVLGFVYNTNN

KSRLAGQVKKGN

>AHK53311.1 peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIVTKKALDFTAPAVLGNNEIVQDFNLYKNIGPKGAVVFFYPKDFTFVCPSEIIAFDKRYQEFKNRGIEV

IGISGDNEFSHFAWKNTPVNQGGIGQVKFPLVADLTKQIARNFDVLYAEAVALRGSFLLDADGTVRHAVV

NDLPLGRNIDEMLRMVDTMLFTNEHGEVCPAGWNKGDEGMKANPKGVAEYLGKNEAKL

>AHK53310.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAVKITDICIACGSCIDECPVNAIVDDTNNPEGEDRYYVYANKCVECVGHNDQPACASACPTDGCIVWSA

VESGQPSRDNIGADMRSGDTPVFA

>AHK53309.1 nucleoside diphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMISGPV

VVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>AHK53308.1 hypothetical protein N919\_01610 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIPFSKINTKEYPFKLNLENIIFEGNLVKINPKLVKINAIMQGFIYRPCDSCGTELELEIKENLELFAS

DGIFKDEANELSNTIEFFDGHIDLIEVAISELEAYLSDYFYCINCNN

>AHK53307.1 50S ribosomal protein L32 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAVPKRRVSKTRAAKRRTHYKVSLPMPIKDKDGSYKMPHRANPTTKEY

>AHK53306.1 phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINIAIDAMGGDFGEKPIIEGVLKALETKPFNAILVGNSKILKPLIPKKLEQYIQYEEASEIFSMNGNAT

DALKNKETTIYKAINLLKEKKVDAVVSAGHSGASMSLATLKLGRLKGISRPAIATLMPNIVNKTLLLDVG

ANTDCKAENLFQFAIMGEVYAREIMQIQKPRLALLSNGEEECKGNELTKESHQLMKKIPNFIGNAEGRDI

FNGEIDVLVCDGFDGNVILKACEGVATAIFQLLKNEVKQSFISKIGALLMKPSFKKLKKHTDWQEYGGAP

LLGVNGCVIISHGKSDSRAIKNAIFQAINFSQSHINKFIENELGKYNA

>AHK53305.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKASLKSIASYIPEKILSNADLEKMVDTTDEWITRRTGIKERRIASENENTSDLGTKAALKAIERANLK

PEDIDAILVATLSPDYFTMPSTACKIASNLGLVNISAFDISAACSGFIYLLEQAKALVESGLKKNVLIIG

AEKTSSIMDYNDRSICILFGDGAGAGVVSLDNENHILDVHTASNGNYGDLLMTQRSQKSSLCQTLSMQMK

GNEVFKIAVNTLSNDVVEILAKNNILAQEIDLFIPHQANLRIIKAVQEKLNLSDEKCVITVQKYGNTSAA

SIPMAMNDAYEEGRLKKGNLILLDAFGGGFTWGSALLKFGGENF

>AHK53304.1 endoribonuclease L-PSP [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKRFDECDRMSQIIVFDKYFKTAGQVAFEPSGDIKKQTKEALAELDALFEKIGANKGDLIQIQIWLANM

QDFDAMNEIYDAWIKNYPKPVRACVGSALAEGYLVEIQAFGKLREN

>AHK53303.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRKINFSAGPSTLPLEILEQAQKELCDYQGRGYSIMEISHRTKVFEEVHFGAQEKAKKLYELNDDYEVLF

LQGGASLQFAMIPMNLALNGVCEYANTGVWTKKAIKEAQILGVNVKTVASSEESNFDHIPRVEFSDNADY

AYICSNNTIYGTQYQNYPKTKTPLIVDASSDFFSRKVDFSNIALFYGGVQKNAGISGLSCIFIRKDMLER

SKNKQIPSMLNYLTHAENQSLFNTPPTFAIYMFNLEMDWLLNQGGLDKVHEKNSQKATMLYECIDLSNGF

YKGHADKKDRSLMNVSFNIAKNKDLEPLFVKEAEEAGMIGLKGHRILGGIRASIYNALNLDQVKTLCEFM

KEFQGKYA

>AHK53302.1 exodeoxyribonuclease VII large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTPTELNLKAKALLETHFDDIVLSGEISKITLHGSGHWYFDLKDERSSIACAMFKGANLKVGFKPAVGDF

LELCGSVSLYPESGRYQFIATSMKKAGFGDLEAQFLALKERLQKEGLFDPRFKKSLPKFPKKVGIITSKT

SAALQDMLKLIHQKEYFLAKIYIFDALTQGNNAPFSLIQALKKADDMDLDVLIIARGGGSREDLFCFNDE

NLAREIFKAKTPIISAIGHEIDYVISDFVADFRAPTPSAAIDTLFYSKLDIEQSLDLMEEKLMQLWNYKI

QNYENLLLNLSKFFKFNSLPKIIDEKIKQSHNIEKQLNHLLANQMRYNELKLDKLQNAYLQHENFFNKSK

KFICIRKNGKIANLEDLKSDDIVILSSQTSQKEAKIL

>AHK53301.1 ubiquinone/menaquinone biosynthesis methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKQEKIIEMFNQIAPTYDKANRILSFGADVAWRKKACQRVMSLYLKKDLKIADIACGTGDMIEIWQESA

LKMEKNILNIKGIDPSSGMLNVAKEKFPNVEFIKAGAQNLPLESQSLDILSISYGIRNVVERQKALSEFA

RVLQKDGILVVLEFTKREKGGFIAACRDFYLKNILPSIGGIISKNKSAYEYLPNSIEGFLSKKEFILELK

NAGFEMLDYKSFSFGVSSMFIAKKL

>AHK53300.1 hypothetical protein N919\_01570 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVYEIQKNFLLSDCTLLENLKKDNIPFRNSKFETFYTQITSNHSVKFQSFCNEFYKITKFNNSILEQNQE

EKISKKKFEKARKKIIGKSIKKERFEFKFCSLKSYIDIYEEPKICILKIFFPTLDSSNEFKIPKDFKIQK

ELHHDLNSKHIVLYGFEYQNFDIEKYFKIIEKNQNFSLDFPNYINAYDGFRIFLFYLFKKLKFYWTLSLE

RKDKQSLCEFLFYSRSLYIVLSSMNTILDKNLSNILALKFKDITKKTQDILASENSNQDLLLFLSDEKIQ

DLFNDFDFFIKENSFYEGDCKDRFFKQLVALELRKKIILFRKNILKNFDLELFENSFFELAIFLEYFYHF

LEIKNLNKLYEKYSKDRDKNIFSKIINNKNKFCKLLKKSSKNLKIYKG

>AHK53299.1 peroxide stress regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MELLQMLKKHELKATPQRLCVLKILKRHEHPNIDELYIEIKKEYPSISLATVYKNLNTLQEQGLVVEINV

LNQKTCYDIYEEEHIHVVCTKCGGIEDLSFKDAKLYEYQEHLEKKIGNLVNHLSVCAYVDNCKKCH

>AHK53298.1 1-deoxy-D-xylulose-5-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKKFAHTQEELEKLSLKELENLAASMREKIIQVVSKNGGHLSSNLGAVELSIAMHLVFDAKKDPFIFDV

SHQSYTHKLLSGKEEIFDTLRQINGLSGYTKPSEGDYFVAGHSSTSISLAVGACKAIALKGEKRIPVALI

GDGALSAGMAYEALNELGDSKFPCVILLNDNEMSISKPIGAISKYLSQAMATQFYQSFKKRIAKMLDILP

DSATYMAKRFEESFKLITPGLLFEELGLEYIGPIDGHNLGEIISALKQAKAMQKPCVIHAQTIKGKGYAL

AEGKHAKWHGVGAFDIDSGESVKKSDTKKSATEIFSKNLLDLASKYENIVGVTAAMPSGTGLDKLIEKYP

NRFWDVAIAEQHAVTSMAAMAKEGFKPFIAIYSTFLQRAYDQVIHDCAIMNLNVVFAMDRAGIVGEDGET

HQGVFDLSFLAPLPNFTLLAPRDEQMMQNIMEYAYLHQGPIALRYPRGSFILDKEFNPCEIKLGKAQWLV

KNNSEIAFLGYGQGVAKAWQVLRALQEMNNNANLIDLIFAKPLDEELLCELAKKSKIWFIFSENVKIGGI

ESLINNFLQKYDLHVKVVSFEYEDKFIEHGKTSEVEKNLEKDVNSLLTKVLKFYH

>AHK53297.1 flagellar assembly protein FliH [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVNRSNVISGGASDQHVVEGYRFKVISEFDNHTGEKKHTQTPDEENTNISLNDEKPVEENQVIASTQAVM

ETQIPTFQPSFVEDLLKKTDEMSSNIIKLQMQIESQENEFNNRLNSELENAKEKFTKEGYEKAKEEFQKE

LSDFKDKYLKSIAKLDNACENLENFIEKNEKELADTAIDIAKEVILKELELNSSKIAYALAKDLIGELKG

ASAIELKVNAEDYEYLKEQFDQNAHIKISLDDAISKGSVVIISDAGNIESNLNSRLTKIKKMVNNE

>AHK53296.1 flagellar motor switch protein FliG [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKLSEEQKMVYDDLSMPEKVAIFLIQLGEDATTSVFSHMEIDVITEISRYIAMAKNVDRSVATAVLEEF

YTLLQSNQYIKSGGLEYAKEILFRTFGPEIANKILEKLTKSMENNQNFAYLAQIKPQQLADFITKEHPQT

IALILAHMDSIHAAETLEYFSDELRAEVVIRMANLGDISPSIIKRVSAVLESKLESLTSYKVEVGGPRAV

AEVLNRLGQKASKSTITYIEQSDERLAETIKELMFTFDDIQKLSTQAIREILKVADKRDLMIGLKGASEE

LKQKFLANMSTRASEAFLEEMGFLGAVRVKDVEDAQRKVVEVVQKLAEQGLVQTGDADEMIE

>AHK53295.1 flagellar M-ring protein FliF [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDFKNMLHQIGQLYQNLTRKQRIVIAASIIVVVGFLVFLALFRGSGSNANNGYAVLVENVSPSSSAAIVA

KLEQNNIPYKLESENKILVPQDQVYRQRMFIASEGLIKDSRVGFEAFDTQAFGATNEEQKVKYQRAIEGE

LARTIETLEPIRSAVVHIAFPKDSVFTERQIPPTASVVVNVREGLKLTRKQIDGIKNIVSAAVPKLTKEN

VKISDQSGVPLDEQEAYEDDLVRAQIKFKSDQEKALEDKIIENLAPFAGGMDKVKVSVNIDFDFSKQESQ

SEIYDPNPIVRSEQTLNEERTGRKDPEIQGVPGAVSNIGPVEGLDNKGQIDTYKKNQVTTNNELSKTITN

TKKQFATVLRTSAAVTIDGKYQDVVDENGDVKSEYVPLTKEELASVESIVKNTINFSATRGDSVVVQNLP

FHRESIRVESKVKTFYNRFVEPFIPPVKYFIAAILLFIFYKKVIAPFTQKMLEDVAAQEEMQQGPNAVLD

DAEDALEKFNAARKKVEEQLGFGDNFNEDSIQYEVLLEKLRGLVSDKGEEIAALLQNLIQNDSEFGEKDM

>AHK53294.1 histidinol-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFNEFLNNLSNYEPGKDIEVIAKEYGVKEVIKLASNENPFGTPPKAIECLRQNANKAHLYPDDSMIELK

STLAQKYKVQNENIIIGAGSDQVIEFAIHSKLNSKNAFLQAGVTFAMYEIYAKQCGAKCYKTQSITHNLD

EFKKLYETHKDEIKLIFLCLPNNPLGECLDASEATEFIKGVNEDCLVVIDAAYNEFASFKDSKKHLEPCE

LIKEFDNVLYLGTFSKLYGLGGLRIGYGIANANIISAFYKLRAPFNVSNLALKAAVAAMDDDEFTEKTLE

NNFSQMELYKEFAKKHNIKIIDSYTNFITYFFDEKNSTDLSEKLLKKGIIIRNLKSYGLNAIRITIGTSY

ENEKFFTEFDKILR

>AHK53293.1 chloride transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPNLEEFRNKIDAVDDKILDLLNERMTYVKSIGELKQSSGGSIYRPERERAIINRLKNANLGLLDQNAIE

AIYQEIFAVSRNLEMPQTIAYLGPEGTYTHQAARSRFGAMSRYIALANIEDVFKELSNKEAKYGVVPIEN

NTEGAVGITLDCLGKYNELKIFGEIYMDIHHSFVGINENLKEIKRIYSHPQGYNQCRKFLESHELSAIEF

VPSKSTANAAYLASQDKYAAAICSRIAAKLYNVPVLFDKIEDNAANKTRFLILSDIKNPKMPNCKTSILA

HTAHKPGGLSFLLEQFKKENINLTKLESRPVKSKEFLHSFYIDFEGHIDDENVKKALKDIQEIVWLGSYL

SGEKDEI

>AHK53292.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFFLDVQGTLISDHDKSLIHGAKELIDFLNAKNLPYLIITNNTKKLDFLEKLQQKGLVIKENAYIDPFSV

LKHLLRPCKVAAFGADEFVKSLENLGFELDFVNPSAVLVASYDDFKFKDFATMIELARREVRFIAMHETS

IYKKDGRPYPGVGSIMAMLKNAIDFEYEVVGKPSIAFYKEALNLIRRQNSKIDFEDIKIISDDFRGDLLK

AKELGMKTLLVLSGKISDTKGLDTDLLDGVYPSVFEFLKDLKCQI

>AHK53291.1 diaminopimelate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDYKQLKQEFNTPFYIYNFDFIKERFLNLKEAFKARKSQIFYAVKANSNLSLLQMLANLDSGFDCVSIGE

VKRALKAGAKAYKIIFSGVGKTKEELRQALEYDILYINLESEAEMMLLESVAKELNLKARISIRVNPNVD

AKTHPYISTGLNENKFGVEIDIARKMYLYAKNSSFLEPVGVHFHIGSQLLDISPIHEAAAIVAKLVRELK

ALQIDLKFFDIGGGLGVAYEKNECEPDLYDYAQGILAQLHGLDLTIGMEPGRYLVAKSGEFVCSVLYEKQ

NKTKRFVVVDGAMNDLIRPSLYEAYHEIILPYNQGEESLCDVVGGICESGDFFAKARSLPSTQSDDIMVI

KNTGAYGFSMSSNYNTRNKVCELALEEGQVRLIRQRENFEDQIALEEKFLKA

>AHK53290.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MWIFFRFISGIYLKNFFIIFFSLLGFYCGIDLLLNFKDLPKAANLDLLYVMFLSFSAVPYVLPISLIFAL

VVSLISMIRANEFVSLYALGLSRNYVILFPFLWALFFCCIYIGLNFTSFAYANDYKRNILKNGTIMNQSG

EVFLKFNNNFVYISKINNGQNSAQNIKIFNINDLNLSSFASAKNAHFEGESWILRDGNITLLPKNYELAN

DGLKIQDFSELKSLEGFKPKIIEGVASNSDYSISDALESFELFKAQNVNTDTLKINLYKFVFTPFFAPFL

MLIMYYFFPVIARFFNLAFVTFIAFVVTLMIWGVLFLLTRLSENSVIASEIGIVVPIIILGCLSAYMYYK

HR

>AHK53289.1 peptidyl-tRNA hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MILVVGLGNIGVEYENTRHNVGFMLIDLLLKESNFTNLTNSKFKGELFKIGSSLLLLKPSTYMNNSGLSV

KAVNDFYKCERMIVIHDDIDINLGALRFKKGGSSGGHNGLKSIDTLCGNDYERVRIGVGKGENVISHVLG

KFKSEEEITLSKVLEHAKKALLELIENDDLSAISSKYSLKA

>AHK53288.1 50S ribosomal protein L25 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLEGIVRESIGRKAAKALKRDGYLIANIYGKGLENINAAFKVNEFIKEVRKKTTLIFDVKVGSQTLSVVV

VDYQKDPVTAELKHVDLKVAQKGVISKYMVPVKITGTAIGLKNKGVLIQSKRRLKVKCAAENLPNFFELD

VSKLDVGDALLVRDIVVPAGVTMIDADRVAVVGVEKAR

>AHK53287.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNEKFNINIAWFLIILGGIIECFWVSGLKYSTEIWQYILTAIGVCISFTCFLKACERLEVSITYSVFVGI

GTIGVVLNEMFIFNEAVSIIKLVLIAILLLSIIALKWVSKEA

>AHK53286.1 quaternary ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEWFYLFLATACEIFGVVIMKELVSTKNKLYLLALIVCFGFSFTFLSLSMQNIAMSVAYAIWTGAGTAGG

VMIGVLFYKESKSFLKLFLIAVIITCTAGLKFLS

>AHK53285.1 ATP-dependent dethiobiotin synthetase BioD [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQIYVSGIHTDVGKTHFSAAFCANFNYDYFKLIQAGTPTDSEFIAKFSPKTKIFKEGIFLQTPASPHLGK

IKEKLDYKALDIILPKSKNLLIELAGGLFSPMDENYTMIDFVNIFKHPTILVAKYYLGSINHILLSIEAL

KQRNINLLALVMMGKKDILQDDFIKNYAKIPIINLDFFDENSILNKDFKEQMQEILQLKIP

>AHK53284.1 adenosylmethionine-8-amino-7-oxononanoate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNQILKNLDLKHIWHPCTQMKDHETLPLIPIKKAKGVWLYDFDDKAYMDCVSSWWVNLFGHCNEKIANA

IKKQVDELEHVILAGFTHEPIIKLSARLCEKVGRNFNKCFYADNGSSAIEVALKMSFHYHLNKGVKKSKF

LSLSNSYHGETLGALSVGDVALYKDTYKALLLECLSTPVPQGKDYTKELEILKDILEKNASEICAFILEP

LVQCAGNMHMYEARFIDEAIKLCHKFGVQVIFDEIAVGFGRTGTLFALHQCKQSPDFICLSKGITGGFMP

LSVVLTRDEIYNAFYDTYESQKAFLHSHSYTGNTLACAAANAVLDIFEDENILVKNQILSEFIKKEFSRL

EKFDFLGNFRTCGMISAFDILSTKYKRVGLFVFQKALEKGLLLRPLANTIYFMPPYIITKEQIVYVLESL

EQIFKEF

>AHK53283.1 8-amino-7-oxononanoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLEKILQDLEQNHNLRTLTPLKHENKFVYKQDHKLLNLVGNDYLYLASSKELKAEFLNTLKEQDLFFSS

SSSRSLSGNFEIYEKLESFLKTKFKDKEILHFNSGYHLNISCIAALSSVSKTLFLTDKFIHASMIDGLRL

GRADFFRFHHKDMNHLESLIQKHYENYENIIVLSEALFSMDGDFSDFKTLCELKRRYDKIKLYIDEAHSV

GCFDEEGLGLVKKLALENEVDFLVFTFGKALASMGACIICDEKYKKFFINKARAFIYSTALPPINVAWTQ

FIFKKMPYFKKEREKLELLSTFFKSKLQEKNHIVLGDAYIICLLLGENKKALEISQKLQKAGFFAPAIKE

PTVPKNTARIRFSLHAGLNTEELERIIELL

>AHK53282.1 hypothetical protein N919\_01480 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKYEFLCKNPDSKKLIVVFGGFASHSSHFSHLKSDKNVILFYDYENFDLNFDFKAFDELFLIAFSMGVCV

ANRLLKELNFKQKIAINGTNLGIDKSKGIHPAIFRKTLQNFKLENFKEALFKERKNLTKDFIFKDEKALK

IELEKLFDFALVKQEENLLWDKVYSSKKDEIFPPNALKNAFSKLIFLNEPHFAFFHFKTWDEL

>AHK53281.1 biotin biosynthesis protein BioC [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFLKAKDYEKHAKVQDFMGLKLCEILKNLRISHFEKVFEFGCGRGELSKKLQNFITFDEYLKNDILDFK

ENSSILIFDMNEIAKQDLSKEKFDLIVSNATLQWLDLKRIIPSLRDMLNQNGILLLSTFAEQNLKEIKQS

TGFGLNYFSLNELEQIFKVYFNEVKITQELIKLSFDNALDVFRHLKLSGVNSLGFYPLNKGFLKEFEEKF

QNKLTYHPVFILCKNDIK

>AHK53280.1 molybdate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKFVVFFGILLFVSCLNAQNLSIFVASSASKAMSEVKDEFLKTHPEDKIELVFGASGKYYELLKQGREF

DLFFSADTKYAKAIYDDKNALIKPKVYVLGVLALYSLDENLLQGGVENLKEKANKITHLSIANPKVAPYG

VAAKEVLENLGLNELLKDKIVLGENISVPVLHVDSKNSDIAIVAYSLVSSINHPKGKAVIIDAKYFSPLE

QSYVITKYAKDKKLAFEFNEFIGSSKAKEIFKKYGFSTP

>AHK53279.1 molybdenum-pterin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLIKGQICELLNQEDIVIVKILSKEVIFSVLMLELKSLENLKIGVSVELLFKEHELCFSASKTLLSVEN

SFLAKITKIKKGKLLYQVFFDFKGNELSSIITKEKALELEICENQEWLCFVKANDIVLRSHSA

>AHK53278.1 molybdenum ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLDPAFLQTLYLTFKLAFITTFILFFIGVFLAYLLSFVRFPFKTILQSFISLPLILPPSVLGFYLLVTFS

ANSFLGQVLKEYFNLSLVFSFEGLVFASLIFSLPFMVNPLQSAFSSINPNLLDASYSLGKSKIYTLFRVI

LPNSKAGIFSACAMSFAHTVGEFGVVMMIGGHKQGETLVASIAIYDELEILNYSLAHQYAFILFIFSFLV

LFSLYFINKKMSFQ

>AHK53277.1 GTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIRIDINHPMNTAKGRLDLNFKKDIESGKITALFGESGAGKTTLLKIIAGLIKPKLGRIEVDNELWFDSS

KNFSLALQKRKIGFVFQDYALFPNMNIKENIAYAASSKAKVSELLALMKLENLAKIYPKHLSGGQAQRVA

LARALAREPKILLLDEPLSALDFKMRANLQDELTKILEYFKISTLLVSHDLAEIYKLSHRILELKNGKII

KDFPKNEFFTHSNISAKLRLSATLLEIKKSDILVVLTLLLNQDIIKITLSEEEFLKAYQDVKIGDTLLLS

IKAFNPIIVGKLDK

>AHK53276.1 aspartate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNITLLKSKIHRASVTEARLDYIGSISIDEKLLQASGILEYEKVQVVNVNNGARFETYTIATQEEGVVCL

NGAAARLAEVGDKVIIMSYADFNEEEAKTFKPKVVFVDENNTATKITNYEKHGAIF

>AHK53275.1 MoeB/ThiF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNDRFTRIKWLVGEEKFQKISQTKVLVCGLGGVGGICVDALYRSGFKNLTLIDADKFEITNQNRQIHSEN

IGEEKAKVFERIYKVKGIVSKIDENFLKNFDLSEFDLIIDAIDDIPAKVALAHLIDFKKQIFISSTGGAR

KLDPTRIKTTSIFKTHGDALAKKFRYELRKSGFKGNFDVVFSDEEAHCKDLGSFMGVTASFGLALASLAL

RKVLAKKS

>AHK53274.1 stationary phase survival protein SurE [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEILITNDDGYESEGLKKLIKMLTKEFKAKITIVAPASEKSACSHSITLTKPLRFVKVGKRFYKLDDGT

PADCVYLALHALYKKRLPDLVISGINKGANVGEDITYSGTCAGAMEAVLQGIPAIALSQFYKKSEKELDY

KNALQITKKIIQNIFDKGFPLEKKEFLNINFPAKSKIKGIKICKAGKRVYNFEAHSNVNPRGVEYYWLAA

ANLDFEDEKNSDIALLKKGYATITPIMLDLTAYERMKKVKKWLKANDE

>AHK53273.1 ABC transporter ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIITLFGACALAFSMANADVNLYGPGGPHTALKDIANKYSEKTGVKVNVNFGPQATWFEKAKKDADIL

FGASDQSALAIASDFGKDFNVSKIKPLYFREAIILTQKGNPLKIKGLKDLANKKVRIVVPEGAGKSNTSG

TGVWEDMIGRTQDIKTIQNFRNNIVAFVPNSGSARKLFAQDQADAWITWIDWSKSNPDIGTAVAIEKDLV

VYRTFNVIAKEGASKETQDFIAYLSSKEAKEIFKKYGWRE

>AHK53272.1 transcription elongation factor GreA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKEPMSQFGYDKLAAELKDLKDNQRPAVVIEIDTARSHGDLKENAEYHAAREKQALIESRIAELSDLLA

RAQVIDPSSYEHDSVKFGSSVVIMDLDTEKESKYTLVGICEGNLDKGYISIASPIAKAMLGKKEGDDFKV

RLPKGESEFEILSINYEPLKF

>AHK53271.1 UDP-2,3-diacylglucosamine hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLIGEISATHEFAKPYIELLEELALKIEIIYLEGNHDFNLSCFFKRVKIFNLQEQPIKLNLHTSKGNNLV

LNSAFIKLAHGDIFLPPLLQFTLKTLRNHYLLVFLNFLNIITRNFISNKILQNQNKKNLFYQIKDFENLA

KKRYEKYENLGFWVCEGHYHQNHQINKENIKYLNLASFAYERSFFVVEYQQEIKFREQKLRGQNV

>AHK53270.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFDENIVKTGSNEMELVDFRIFKQGHDKVYEGIYGVNVSKVREIIKIPSLTELPGVPDYIEGIFDLRGVV

IPVVNLAKWMQITEPESTMLKPRVIITEFSNILIGFIVHEAKRIRRINWKDIEPATFSTGSGALDKGKIT

GVTRIENDEVLLILDLESVVEDLGIYAPKTDIDFGKIEKFTGTALILDDSMTARKRVKEMMQQMGFQVVE

AKDGVEGINKLEELSQIYGESLNDTLKIIVSDVEMPQMDGFHFAARIKEDPRFKDIPIVFNSSLSNEFMN

EKGVQEAGGEGYLVKFNASDFFNEIAKVIKKHQSQEQG

>AHK53269.1 chemotaxis protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEDMQEILEDFLVEAFELVEQIDHDLVELESNPEDLELLNRIFRVAHTVKGSSSFLNFDVLTKLTHHMED

VLNKARHGELKITPDIMDVVLESIDRMKTLLNSIRDNGNDTAIGMDIEPICARLTAISEGESPVVATDSN

EKSIPQAELEAPKQEIATPEPEVDVNQLSDSEVEAEIERLLKVRKAEDQARRAQKKQTTNAAPKPTNNTA

NKPTESGEKKVPASGSNASSMDQTIRVEVKRLDHLMNLIGELVLGKNRLLKIYDDVEERYEGEKFLEELN

QVVSQLSIITTDVQLAVMKTRMQPIAKVFNKFPRVVRDLSRELGKQIELEITGEETELDKSIVEEIGDPI

MHMIRNSCDHGVEDPATRAANGKPEKGIVQLKAYNEGNHIVVEITDDGKGLDPNGLKAKAIEKNLITERE

ADQMTDKEAFALIFKPGFSTAAKVTNVSGRGVGMDVVKTNIEKLNGVIEIDSELGKGSSFKLKIPLTLAI

IQSLLVGTQEEFYAIPLASVLETVRVPIDDIYTIEGKNVLRLRDEVLSLVRLSDVFGVKQVLESGDQTYV

VVIGVAESKLGIIVDTLVGQEEIVIKSMGDYLQNIQGIAGATIRGDGRVTLIIDVGAMMDMAKEIKVDIK

AQLESSAKKPKEQPSDYKVLIVDDSKMDRTLMQKALEPLGVSLIEATNGVEALNIIKSGEHDIDAMLIDI

EMPRMDGYTLAGEIRKYSKYRNLPLIAVTSRTSKTDRLRGVEVGMTEYITKPYSPEYLENVVRKNLKLG

>AHK53268.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSNEKLEQILQKQQTQMAGPDVDQREDDIIQLVGFVVGDEEYAIPILNIQEIIKPIEYTRVPSVPDYVLG

VFNMRGNVMPLIDLAQRFHLGSSKMTPQTRYIVLRGETNGTGVGGNAGFVIDRLTEAIKIHRNRIDPPPE

TLVKDKGMIYGIGKRDENILTILKVEALLKREF

>AHK53267.1 phosphoserine phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKLCVFDFDATLMDGETIDILATAHGKGNQTSEITRHAMTGELDFFESLQKRVSFLKGMSYKKVLELSS

TLPLMRGAHELIQYLKSKNIQIVIFSGGFHEGINPAMQKLGINLGFANYLHHKNDILTGLVGGEMMFSNS

KGLMLQRLKSFLNLKTDEVMCVGDGANDLAMFNESGLKIAFCAKEILRSQADICIDIKDLKEIIKVI

>AHK53266.1 transaldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNFSLWCDFIENSFLDNEFLNLLSHGINGATSNPAIFKNAILNSPIYKDKILKLKEKKTKDIYEELAIS

DIQKAADKLAPLFYQKNDGFISIEIDPRLHDNTTLSLGEAKRLYSAIGKENIMIKIPATKASYEVMYELM

KNGISVNATLIFSLEQSQKCFEALNAGLVEFRKNNIALKEQNTRTPQAVISIFVSRFDRLLNPKAKEQNR

IGILNANLAYNNIYSKNEPNIRALFASTGVKGDDLPKDYYIKELLFENSVNTAPLDAIEAFKGKMHFKKP

LMNFEIYTELNQIISQSEREKACNDLLSDGLEQFCIAFEDILKAL

>AHK53265.1 Sua5 YciO YrdC YwlC family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIYLAQTDTTVGFLSKNLEEINALKGRDKNQPCLITSAKFCELKSLARIPKSFKNLVRRSKKTTFIYPNN

QAIRIVKECKHANFLSKNGYFYSSSANKHGKEFDEEWARSVADIILDEKFFENIPSKILKLSKNKMIKIR

>AHK53264.1 carbamoyl phosphate synthase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPKRTDIKSILLIGSGPIVIGQACEFDYSGTQAAKTLKELGYRVVLINSNPATIMTDPEFADATYIEPIT

KESILSIIKKEKIDAILPTMGGQVALNVAMEVYESGLLGDVKFLGANPEAIKKGEDRQVFKECMKKIGMD

LPKSMYAYNYDEALKAVDEIDFPLMIRASYTLGGAGSGVVYNMDEFKELTNTALALSPIHEILIEESLLG

WKEYEMEVIRDRADNCIIVCSIENIDPMGVHTGDSITIAPALTLTDKEYQVMRNASFAILREIGVDTGGS

NVQFAINPKNGRMIVIEMNPRVSRSSALASKATGYPIAKVATLLAVGFSLDEIKNDITGTPASFEPVIDY

IVTKIPRFTFEKFPGANTTLGTAMKSVGEVMAIGRTFKESIQKALCSLERSLSGFDRVKFEDRNDLVFKI

RNANEKRLLYVAQAFREGFSVEELYELCKIDPWFLTQIKEIVDFEEQIDMDILNNKALLRKAKTMGFSDK

MIALLVNLKDNLELSQNDIYYVRMKQKIIAEFSEVDTCAGEFEALTPYLYSSINVSELTQSKNDAKDKKE

KKVMIIGGGPNRIGQGIEFDYACVHASFALKDMGIKTIMYNCNPETVSTDYDTSDILYFEPIDFEHLRAV

IEREKPDGVIVHFGGQTPLKFAKRLSAFGAKIIGTSARVIDMAEDRKKFAEFITKLGINQPKNSTATSVE

EAVLKASDIGYPVLVRPSYVLGGRAMRVVNDEAELRLYMQEAVDVSDKSPVLIDQFLDNATEIDVDAICD

GKDVYVAGIMEHIEEAGIHSGDSACSLPPCNIDEKMQEFIAQKTADIALNLGVVGLLNIQFALHNNELYM

IEVNPRASRTIPFVSKATGIPLAKVATRVMWQGNLKEALKFYDTFKVVNFDTKILRPKTPKYMSVKEAVF

PFAKLSGSDLELGPEMRSTGEVMGISKDFANSYAKSQIASFNHLPEQGVVFISLKDKDKKYTKKIAAEYV

KLGFKLMATGGTCKEILESGFECELVHKISEGRPNVEDKLKNGEIHLVINTSDSHSFKGDTKKIRENIIR

FKIPYFTNLRSALAGAKSIKAIQSKSCLDVKSLQEWLKS

>AHK53263.1 rod shape-determining protein MreC [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNKIFYVLVLAFLVFISFYYGGLIKQNVLRVNDFVIGNFYNIKDYLGEKISEHFNQANQIQQLKARNKE

LEDIAVKVTSFANQLNRILEDQNSTKYLPQVSLTRVISYVQLNDYKKLWLDWSKIPVGKNRGLIYQGYTA

GIAINKNGRAMALLQGDDQCVFSVYIGKSKAPGLIQGEDGRIVVKFIPKWAKINTGDEILTSGLDNIFFS

DIPVGIVNRVNDEDMYQSVEVKPYVKISIPAYLYVVDNL

>AHK53262.1 rod shape-determining protein Mbl [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MILDQLIGFFSSDMGIDLGTANTLVLVKDKGIVINEPSVVAVERERYGSKAKILAVGKEAKDMVGKTPGN

IEAIRPMKDGVIADFDMTEKMIRYFIEKTHRRKSFLRPRIIISVPYGLTQVERKAVRESALSAGAREVFL

IEEPMAAAIGASLPIQEPKGNLVVDIGGGTTEIGVISLGGLVISKSIRTAGDKLDMSIVNYVKEKYNLII

GERTGEEIKITIGSAIQLPKELSMVVKGRDQVSGLLSRIELTSEDVREAMREYLKEIADALKMVLEMMPP

DLASDIVENGVVLTGGGALIRGLDKYLSEIVRLPVYIADEPLLAVAKGTGKALEEISLLQQLTNEE

>AHK53261.1 ATP-dependent protease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPRKCSFCNEVENPQRRILANENDDAFICEYCVEGAYSIIYGEEKEFKEPKQSHNTEFKDITPKELKAYL

DRYVIGQDRAKKVFSVGVYNHYKRLFKAELQDDDTELFKSNILLVGPTGSGKTLLAQTLAKFLDVPIAIC

DATSLTEAGYVGEDVENILTRLLQAADGDVQRAQKGIVFIDEIDKIARMSENRSITRDVSGEGVQQALLK

IIEGSLVNIPPRGGRKHPNQEFIQIDTSNILFVCGGAFDGLETILKRKLGDKVVGFFDDAKEENKALLEK

IEPDDLVHFGLIPELIGRLHVIASLNELNEEDMVRILTEPKNAIIKQYQKLFAIDGVNLKFEEDALRAIA

QLALERKTGARGLRSIIEEMMVDLMFELPEYKDYDIVITKEVVKDNAKALLIKRKIS

>AHK53260.1 UDP-N-acetylglucosamine acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIHPSAVIEEGAQLGDDVVIEAYAYVSKDAKIGNNVVIKQGARILSDTTIGDHSRVFSYAIVGDIPQD

ISYKEEQKSGVVIGKNATIREFATINSGTAKGDGFTRIGDNAFIMAYCHIAHDCLLGNNIILANNATLAG

HVELGDFTVVGGLTPIHQFVKVGEGCMIAGASALSQDIVPFCLAEGNRASIRSLNLVGIRRRFDKDEVDR

LSRAFKTLFRQGDLKENAKNLLENQESENVKKMCHFILETKRGIPVYRGKNNA

>AHK53259.1 3-hydroxyacyl-ACP dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIDVMQIQEILPHRYPFLLVDKITELKVKEVVLGYKNISISDHVFMGHFPGHPIYPGVLILEGMAQTGGV

LAFESMEDKVDPKSKVVYFTGIDGAKFRNPVRPGDRLDYEMSVVKNRGNMWIFKGQAFVDGNLVAEAELK

AMIVDK

>AHK53258.1 hypothetical protein N919\_01320 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLVHICCSVDSHYFIEELRKTYPDEKIIGYFYDPNIHPLSEYELRFLDVKRSCDKLGIKLYKGEYEYEKW

LNAVRGYEDEPEKGARCEICFDVRMGSSVKFAAKIGEKKLTTTLLTSPKKDLEQLKNALQKECEPYGVEF

LAPDFRKNGGTQRQFALAKKEMLYHQNYCGCIYGLKKQKQDKNFIDELMSSVNKQILPVSIEARIALYKK

VVLWEKKGIKFEILREKFLNYRLLSALIKLDKKPVKSHILFYSHFKNAYTRFSLDEENLKQNLKEGFYRS

TKDEIVLVEFWRFNAFFKNKWKNFEDFLKKPLSVQAEIKWRNKLFGTYNLSPIIILENILPSRYEVIAKS

EIYHDNQEVLVKI

>AHK53257.1 bacterioferritin comigratory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSLNIGDKAPQFELLNQDGVKIALKDFIGKKVILYFYPKDNTPGCTTEACDFSANYDKFGGKNAVIIGIS

PDSVASHEKFISKFDLKHILLSDSEKEVAKAYGALGLKKNYGKEYEGLIRSTFVIDETGKIAQIYSNVRV

KDHALKVLESL

>AHK53256.1 tautomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPLVNIKLAKPSLSKEQKAELIADITELLSTKYNKSKERVVVVLEDVENYDIGFGGESVEAIKAKASK

>AHK53255.1 branched-chain amino acid aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MISADKIWMDGKLVDFKDATLHFLTHSLHYGNAVFEGTRAYKTDKGLAIFRLEDHTKRLLESAKITLLNC

PFSQKELENAQIELLKANNFKSNVYIRPLIFLGDGVMGLYHIKAPVRVGIAAWEWGAYLGEEGLEKGIKV

KISSFARNSVKSCMGKAKASANYLNSQIAKFEAIEAGYEEALMLDEEGFIAEGTGECFFIVKDGVLITPP

NDFSLKSITQDTVLKIAHDLGITVLRQRISRDEVYTADEAFFTGTAAEITPINNIDARIIGNGLRGSVTK

KLQDAYFDVVYGRNEKYASMLTYI

>AHK53254.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPADLNDYFNKKNGNSNNNGNNNRQNFNFKAPEFNFKGFGKFSPFVYGVIIIILFLIVAKPFMVINSGEM

GIKSTTGKYDPNPLEPGLHFFLPFVQKITIIDTRVRQINYASIEGSNENLSSGSGVINKNSISVLDSRGL

PVSIDVTVQYRLNPLQVPQTIATWSLNWENKIIDPVVRDVVRSVVGKYTAEELPTNRNTIATQIEEGIRK

TIEAQPNEPVELRAVQLREIILPSKVKEQIERVQIAKQEAERTKYEVERANQEALKKAALAEGEANATII

SAKGKAMAVKIEADAQAYSNKEIANSLNTPLLNLKQIETQKEFNEALKVNQDAKIFLTPGGAVPNIWVDT

KDAKKQSAANMN

>AHK53253.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKLREIVLFYTTHLYLVDYMLILLVFFLFTCVLLLCVFLRHRPIAALFIIAFDIIICFLVYIYGYKLID

NEVRTRKIAITDQKMIQSSNDLIVDFNITNNSKNNFKECKITAKIFADKIPNDNIIEEYKKKFIPFRQKS

REIKDLKKNATQVQRIAFENFNYENNYTIRLVSECF

>AHK53252.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MHFTIFHIIAFIILLICFALICILIFLKVKQKEMALISYTIATIFTALLIYSIFLTINQFTTQADLSKLT

YTRDLRHESVIVSGKVQNLTKFEIKKCYLILSILNQQQVGGEIFNDKNIRNAKMQNTSVSYTIEIIDTLP

GNTYKEFRASVPFPPTFNNPEFYHTLKCI

>AHK53251.1 hypothetical protein N919\_01275 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQFTFEQIFIAMLLTLFAGFSTAIGSIIAFFSRKDDLRVLSLGLGFSAGVMIYISFMEILPTALKDFKNH

YDSHWAELLGLACFFGGILISLLIDKLIPEDVNPHEPKEDLSELKICPLPQKGQNPPKFHPGEKLHQINT

KALKRTGIFTALAIAIHNFPEGFATFISSLDNLTLGIAIAIAVAIHNIPEGLAVSLPIYHATGDKKKAFI

YSALSGFAEPLGAFVGALILLPFIGDLTLAISFAVIAGIMVFISLDELLPAAKTYDKAHDSLYGLIAGMA

IMALSLNLLGQ

>AHK53250.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQSINSGKSVGISAKLTLWVGILVVLILAITSAISYFDSRNNTYELLKDTQLKTMQDVDAFFKSYAMSKR

NGIQILANELTNRPDMSDEELINLIKVIKKVNDYDLVYVGFDNTGKNYQSDDQILDLSKGYDTKNRPWYK

AAKEAKKLIVTEPYKSAASGEVGLTYAAPFYDRNGNFRGVVGGDYDLANFSTNVLTVGKSDNTFTEVLDS

EGTILFNDEVAKILTKTELSINIANAIKANPALIDPRNQDTLFTAKDHQGVDYAIMCNSAFNPLFRICTI

TENKVYTEAVNSILMKQVIVGIIAIIIALILIRFLISRSLSPLAAIQTGLTSFFDFINYKTKNVSTIEVK

SNDEFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLD

VLQARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQT

AVQSLTTSSNSQAQSLEETAAALEKITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAI

EAARAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQ

TTKDNVEIANESAIISSTVSDIANNILEDVKKKRF

>AHK53249.1 SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLWDKKAKTYARYQNTLNTIQKQTFEYLQNLKISFQDKSIIDIGCGTGVWTLHLAKEAKEILALDSANA

MLEILQEDAKKLNLNNIKCKNLSFETWMQNNPNVKFDLAFLSMSPALQNEKDYTNFLNLAKIKIYLGWAD

YRKSDFLDPIFKYFNTEFKGFYKKDLENYLLEKNIFFHKIVFDETRKVQRTKEEAIENALWHLSMNKITA

SKETVSSFVENNITETIESKIKLLIINNL

>AHK53248.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLKNPLDMHLHLRDNQMLELIAPLSARDFCAAVIMPNLIPPLCNLEDLKAYKMRILKACKDENFTPLMT

LFFKNYDEKFLYSAKDEIFGIKLYPAGITTNSNGGVSSFDIEYLKPTLEAMSDLNIPLLVHGETNDFVMD

RESNFAKIYEKLAKHFPRLKIVMEHITTKTLCELLKDYENLYATITLHHLIITLDDVIGGKMNPHLFCKP

IAKRYEDKEALCELAFSGYEKVMFGSDSAPHPKDTKECCGCAAGVFSAPVILPVLAELFKQNSSEENLQK

FLSDNTCKIYDLKFKEDKILTLEEKEWQVPNVYEDKYNQVVPYMAGEILKFQLKH

>AHK53247.1 ArsR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFENLIREILGKKRFELLKFLCENADENGFIMIKISDLEEKLHQSKPTIIATFKFLEEKKLFKRLKNGF

YQLNIGDKNET

>AHK53246.1 DeoR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKPKYHFLNNARYALEGLFALFKNEMAFRIELCIIIPAIVFSFFLKISFLEHLLLISVLILILIVEALNS

AIEACVDLITNEWHEKAKIAKDCASAAVFFSVLLALFVWGFILYNIYL

>AHK53245.1 sulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLRLTWFQFTFFNSLMIVLLNFNLFYFVYEKNTQNWLITFVFIVAYFALVHVICSLLFIKFFTKFFSILF

IISSFLSVYFISFYGVLIDSDMMQNVVQTDIKEVKDLLNLKLILFVVLALLLVFYVVKVKIDYYGSFKSH

IKIKIINIISGLIVVCAVLIPLSKTFLPFFRNYNEIRMYNTPFYQIYAVYRYYVRFVKAKPEFKTIANDA

YRENNHTKKLLVLVVGETARAANYSLGGYTKNDTNFYTKKDNVVFFDNFSSCGTATAVSLPCMFSISKRE

NYSSSEFQENAMDVLYKTGVDAVWFDNNSGGCKGVCDRLAYKQKLSSDLDENLLAPFKEKLNHLSDQNII

VLHLQGSHGPTYYKRYPSEFKKFTPTCDTNELSKCDSEALINTYDNTLLYTDYLLSEIIKLLKEQKSYES

SLFYLSDHGESLGENGIYLHGMPYAIAPSYQTHIPAIFWSNDKNLMNLAKEYKGLKLSQDNLFSTLLGYF

DVKTSVYEPEYDLLNPKLKANP

>AHK53244.1 exodeoxyribonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLLSWNVNGLRAICDKNALDWIAQEQIDFIGFQEIKAHEDKFPKKIYEYPFKHMYFNSAKRAGYSGVMS

LCNFNSEVKKCEFFDDEEGRVLEHRFKNIALFNIYFPNGQKDEERLNFKMQFYADFLVYLDKLLKDGFEI

IICGDVNTAHKEIDLTHPKANANTSGFLPIERAWIDDLLKLGFIDTFREINGEIKEKYSWWSYRMKARER

NVGWRIDYFFISKGLKDKLKNAFIRDDIFGSDHAPVGIEIDI

>AHK53243.1 hypothetical protein N919\_01230 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNTLIIFENSLSNLGKDEASDLLEDLSFNLAYKQISHNPHETKKVLNSLLVEFLTILKKLDFFDDENVT

KVIKALVKASIVDAQNSLYEYISEAELLNKQIENQKNLIKNQISDNFFEFENILQECSFCDEFSGGLNDA

ILFDIEMLGILKETAESAFLTTLEKAEDIELTSSEIAKNLVYNAICEAHFEKERILKISSIILNTAFEIA

NESMAYAKDLCLGVIKGTRDGIVLAMEKFKASLTYANFEEDVSLKSKELIGIEDDFIALLKKEIQLQNDP

CKSIVENLLEHELDNLFAKFRRLAGESREQLILVLNDIKKNPKINDFNKLTQRKLNRFKQEIFELEKIAS

EKYKDLNSKKAKKLGVRLWEKAKKFVKK

>AHK53242.1 hypothetical protein N919\_01225 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVNLCDLKKEPQINYPTFWDYKVIFEVHVKASEIFEEILGQREYKFKHSNSSASGKYQSYLLNVYVDSKK

DRLDIFDKLKAKAKFVL

>AHK53241.1 molybdenum cofactor biosynthesis protein C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLSHLDEKNHPKMVDVSDKNITLRIATASGIIYMSQEAFDVIKNNTAKKGPVLQTAIVAAIMGVKKTSE

IIPMCHPLMLSKVETNIVEFVKECAFKLIVTVKCEGKTGVEMEALSGVSIGLLTIYDMIKAIDKSMRITD

IVLESKEGGKSGKFVRS

>AHK53240.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKTLNQKDIKVLGLSSLGGTLEFYDFIIFVFFANYISTNFFPKDLSSFWQMFNTYGIFAAGYLARPLGG

VILAHFGDKFGRKRMFMISILLMVIPTFTLAFIPNYESIGFLCIVLLVFIRICQGIAIGGELPGAWVFVY

EHAPQGQKRTYLGILTASVVGGILLGSLVFLIMNKIYTQEELHEWAWRIPFFLGGIFGIISAYLRKFLRE

TPVFEQMKKDKALEKFPLKEVFKKAKMGIVLSMMITWVLTGCIVVMILLMPSYMAKILQINTSIQTYLQI

GGILLICLGCIISGILADKIGVIKSCVFFSVFFGIASLLYFNTLYRQNADFNLVACLYLLVCFFSGVMNF

CPLIMSEVFDAKIKFSGLSFSYNIAYAIAGGLTPQLAFFLHSFALNNLSNFWRFSLGLYVFFLAIIALLC

AFIFSYLNNTQRTYSQ

>AHK53239.1 cysteine permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKSLILPPNEFLDHYILNAEFHRFAGISKNAYKFWKNAEIGRYQGTRIIFLHRNCILEKHQQALRQCSGL

NGFVLASAFCSFTGLAPSHLVEKNNSSIYKLLELKEICGIKFVNLKKFYDFLGLNYHQHIYIEKCHFFSP

APFEKRIKITESMCVGYY

>AHK53238.1 hypothetical protein N919\_01200 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIGDMNELLLKSVEVLPPLPDTVSKLRKYVSEANSNIETMKVAEIISSDPLMTAKLLQLANSPYYGFTRE

ITTINQVITLLGVGNIINIVMADSIRDNFKIDVSPYGLNTQNFLKTCNEEATFIANWLNDEDKKLSHLLV

PCAMLLRLGIVIFSNFLIQNHKDKDFLAFLNKNENLALAENEFLGVDHISFLGFLLHRWNFDDVLIESIC

FVRTPHAAREKVKKSAYALAITDHLFAPHDGSSPFNAKAAVALLKEAKTQGINFDLNNLLSKLPNKAKEN

LNKED

>AHK53237.1 50S ribosomal protein L20 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MARVKTGVVRRRRHKKVLKLARGFYSGRRKHFRKAKEQLERSLVYAYRDRRRKKRDFRRLWIVRINAACR

LNDLSYSRFINGLKKAGIELDRKILADLAMNDAAAFAKIAEAAKKAL

>AHK53236.1 50S ribosomal protein L35 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPKMKSVKSAVKRFKVGKNKIKRGSAFRSHILTKKPAKRMRGLRTAKYVHSTNVKAVEKMLGI

>AHK53235.1 hypothetical protein N919\_01175 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTINSANPYQNLTLSNPLQNSSALNLIKDSKALDQEGNENSLEQLSYIFNNTTYASEFGFRINEEGFFDK

DLNKIANIPESYDINIKSVRSIAKELAKQDENLNYNKIDLPYLLNSYHSSLKSINSEFLQDDNAYLSRDL

ISKLSSGFSTDNGEFLGQISRIYNNQEEIDLALSNITNLNTLMLDNKITNFHFDKAIENTSSNEILKPYL

TKNAEVSKSGLLMNFIYHDIKTQNEKEFNFFMKPATLELSSHQNLQKILKGETDIEDYIKKENEKKMSFD

LYLYINGVDKKTSTQDKLSVFFQQYINYQKDMDLREFANSSSIFQIYIDQNRNDFDALKKQYQNQSQDTQ

RLEEANQLRSSSIENFLDRRQKQANINKILNSYMSVMV

>AHK53234.1 bacteriohemerythrin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTYNEKIISMNNDLLDHQHKELFEISKKLSLMNQRHVGTKELKIVLRELLIMINRHFSDEEAFMREIEYP

YINHHTRIHRKIILEIEEIIISEAKFVNIMTEKLNLVVQDFIFKHTAKEDSKIVKYYEEKFKK

>AHK53233.1 cysteine desulfarase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVYLDNNATTMLDPNAYELMLPFLKDMYGNPNSLHQYGSATHPALREALDKLYAGLGANDLDDIVVTSC

ATESINWVLKGVYFDHILDKERNEVIISSVEHPAVTAAAYFLKSLGVKVIELPVNEEGVSTVEDLRKVIS

DKTALVSVMWANNETGMIFDIKAMAELAHEFGALFHTDATQAVGKIKVNLTQVGVDFASFSAHKFHGPKG

VGGLFIKKGLKLTPLLHGGEHMGGRRSGTLNVPYIVAMGEALRIANTMLDFEDSHIRRLRDKLEDQILAL

PDTTVVGKREHRVPNTILASIKGVEGEAMLWDLNKNGIAASTGSACASEALESNPIMEAIGAEHDLAHTA

LRLSLSRFNTEEEIDYAAKQIKNATQRLRAISCTYAYNPNNYK

>AHK53232.1 nitrogen-fixing protein NifU [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGKNSLIGGSIWDEYSQKVQDRMNNPQHMGEFSEEDAKARNAKLIVADFGAESCGDAVRLFWLVDEKTDK

IIDAKFKSFGCGTAIASSDTMVDLCIGKTVDEAVKITNLDVEFAMRDNPETPAVPPQKMHCSVMAYDVIK

QAAAHYKGISPEDFEDQIIVCECARVSLGTIKEVIKLNDLHSVEEITQYTKAGAFCKSCIKPGGHEKRDY

YLVDILAETRAEIDREKLKNTMKSDVAFDEMTVVGQLKAVESVLDAEIRPMLHNDGGDLEVIDIQKAEGA

AIDVYIRYLGACSGCSSGSGATLYAIETILQEELSPNIRVMPV

>AHK53231.1 mechanosensitive ion channel protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIIFSLCFFILHLGAQEFKFIDANISKEDEGIYALVEKYVDLNNQIKEFKKNNDENSSTFNGILSEFE

KDKKTILAKIPDMIVGQKINEEAVARFLKAKEKLLDVQKKNINKPYIYTDATLNLVYFNIVESFYSSLFE

VEKLFKNTASSEDLIATVDKAMENLQNSSNVNLDSFKSKITNPEELEKITLKERYISNAVDSYSEILKYL

RSNADLLESNYIFSLLELQVWIDRINEAIGVSFVNIGKIVISALVLVFFISLRRFFANIVYFFLVQLFYR

NKNDVDDIKVIFIENIKKPVGFLLIVYAISLCLTIATYPAPLSVNLSNFFHIVYAVLIAWLILRMLDGYG

VVLVSKLAQKSGKKEVVNLIIKILYFVIIIIALLYILAQLGFNISAIIASLGIGGLAVALAAKDIIANFF

ASILLLFDNSFNQGDWVEVSGIEGTVVETGLRKTTIRTFDNCLVFLPNSTIMGANIKNWSKRRMGRHVRM

YLGVGYDATPEKLEQCVKDLREFLHTSDLVAHDEDSALKYGDHTTKYRQNLVSINDLEGYKNACYVALSE

FADSSINIELYFYIKEIGGKDFREARQSLMLEFMRIIEKNGLTFAFPSRSIYIENLPPLDLQAKAIK

>AHK53230.1 carbonic anhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENLISGAIKFMQEDFKEHEELFESLKNKQNPHTLFIGCSDSRVIPNLITNTGPGELFVIRNIANIVPPY

RVGEDYLATTSAIEYALNSLHIKNIVVCGHSNCGGCNALYYSDEELNKIPNVKKWLTMLDPIKKDVMIFA

RDDLAMRSWLTEKLNLVNSLQNILTYPGVQEALDEGKIEVHAWYYIIETGEIYEYDFKAKIFTLIQDRKV

Q

>AHK53229.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSLYDRDYSRSKEFENTRSSELSIFIKQTYQLFAASLLAATVGAYVGIFALASFFIQSQVTFWILFAVEI

GLLFALQWKKREAPLNLVLLFGFTFCSGLTLTPLLISVLALPAGGIIIAQAFALTTVAFAGLSVFAMNTK

KDFTVMGKALFIVLIVIVAASLLNLFFQSSIVNLAISAVAAILFSFYILYDTQNIIRGNYETPIEGAVAL

YLDFVNLFVSLLNILRSFNSR

>AHK53228.1 preprotein translocase subunit SecG [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MITLLIILQFIIVVVICIAVLLQKSSSIGLGAYSGSNESLFGAKGPAGFLAKFTFVMGILLIANTIGLGY

LYNKASKDSLAEKIKVENNNTTIPSAPIVPTTPNTNSIAPSAPQLPSDVNSSK

>AHK53227.1 ribosome-recycling factor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNEIFNKQKTQSEKSLEALKKDFTTLRTGKVNIHILDHITVDYYGTQTPLNQVATVLASDASTISITPW

EKPLLKTIESAIAAANIGVNPNNDGESVKLFFPPMTREQREENVKQAKAMGEKAKVSIRNIRKDANDAVK

KLEKDKAISEDEAKKAYDEVQKLTDTYTTKIDEGVKSKESELLKV

>AHK53226.1 orotate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLEQIYKDCGAYLEGHFLLSSGKHSQFYLQSAKVLEDPKLAAKLCDELAKIIASYKIEFDSICSPALGG

ILAGYELARACSKRFIFTERVNKEMTLRRGFEVKKGEKFIICEDIITTGGSALESAKIIESLGGIVVGFA

ALANRGFCAVENLKSPRKDNAKLPENLPLFTLGNFEFEIYDETNCPLCKKGNKAIKPGSRGN

>AHK53225.1 ribonucleotide-diphosphate reductase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQRKRIYNPSSNETLGDRKVFDGNPHGILNFTKAKYTWALKLWDLMEANTWFPKEVDTTKDALDYRCNLT

AGEKRMYDLVWSQLISMDSFQTNNLADNINPYITAPEINAVLARQAYEEANHSKSYAVMVEAICDNTDLI

YEMEKHDETLREKNDFISSIYEELAGDVDDNKLLLAMVANQILEGVYFYSGFTAIYALARAGKMLGSAQM

IRFIQRDEITHLLLFQNMINSVRKERPDLFHDENINKIYDMFKKAGDLEIKWGKYITQNQIMGFTDDIIE

EYIHYLVDQRLSAINLDKLYNAKHPIKWVDDFSKFNDQKSNFFESKVTNYSKGSISFDDF

>AHK53224.1 nicotinate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTSKTSLALLCDFYEFTMSQGYFKNNKKDQICYFDIFFRKIPDSGSFAIFAGLEDILDFVENLSFDAEDI

EFLRKQGIFDTEFLDFLANFKFKGEIYAMREGEVIFPNEPLLCIKATTIEAQLLETFLLLSLNHQSLIAT

KTNRIVRAAKDSKILEFGSRRAQGSEAALKGARAAFIGGCIGSACTLAGKIYNIPINGTMAHSWVQMFEN

ELEAFKAYVKIYPKNPVFLIDTYDCLNSGLKNAIKVFKEFGIQEGGVRIDSGNLLELSLKIRQELDQAGL

QKCKIIVSNALDEWSIKKLKEQNAPIDIFGVGERLITASSDPIFSCVYKLAALEDQGIKPKIKISENNEK

STLPHFKKLFRVYDKNTQKILFDELYVFDENPNQDENLERKELLELVYKEKRLLKKSSLNTIQDYTKEQI

SKLDESFLDLDRFVKFEVKLSPKLQNITEDLLKTRF

>AHK53223.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLIKFKNHSPKLGQNVFVAEGAKIIGEIEIGDESSIWFNCVLRADVNFIKIGKRTNIQDLSTVHVWHREF

DEKGKLKDAGFPTIIGDDVTIGHNCVIHACVIKNRVLIGMNAVIMDNALIEEDSIVGAGSVVTKGKKFPP

RSLILGNPAKFVRELNDEEVSFLKQSALNYVDFKNEFLKDLQ

>AHK53222.1 protein-L-isoaspartate O-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNAFEQKRCQNMAEEIAQKVFINEELFNAFCQIPREIFSPLKAHAYRLDALPLANSQWISSPLTVAKMTM

ALDFKNADSILEIGCGSGYQAAILSKVIRRVFTIERIENLAKKAAQTFRELELFNINVKFDDGQNGWKNY

APYDRILFSAYATQIPEILLDQLSDDGILVAPILHNGKQFITRLRKNGTNLQKEILEECLFVPIVDGKE

>AHK53221.1 acetylornithine aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDYKEQSHIIPTYKRFDIVLEKGQGVYLFDDKAKKYLDFSSGIGVCALGYNHAKFNAKIKAQVDKLLHTS

NLYYNENIAAAAKNLAKASALERVFFTNSGTESIEGAMKTARKYAFNKGVKGGQFIAFKHSFHGRTLGAL

SLTANEKYQKPFKPLISGVKFAKYNDISSVEKLVNEKTCAIILESVQGEGGINPANKDFYKALRKLCDEK

DILLIADEIQCGMGRSGKFFAYEHAQILPDIMTSAKALGCGLSVGAFVINQKVASNSLEAGDHGSTYGGN

PLVCAGVNAVFEIFKEEKILENVNKLTPYLEQSLDELINEFDFCKKRKGLGFMQGLSLDKSVKVAKVIQK

CQENALLLISCGENDLRFLPPLILQKEHIDEMSEKLRKALKSF

>AHK53220.1 acetylglutamate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKYLEKANVLIEALPYIRKFNSKIILIKYGGSAMENEELKHCVMQDIALLKLVGLKPIIVHGGGKDISA

MCEKLGVKSEFKNGLRVSDKATIEVASMVLNHINKNLVHSLQNLGVKAIGLCGKDGALLECVKKDENLAF

VGTIQKVNSKILEELLEKDFLPIIAPIGMDENFNTYNINADDAACAIAKALRAEKLAFLTDTAGLYEDFN

DKNSLISKISLEQAKILAPKIEGGMHVKLKSCIDACENGVKKVHILDGRVKHSLLLEFFTDEGIGTLVG

>AHK53219.1 N-acetyltransferase GCN5 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLIRAMQKSDYEAVYKLWCEIKGFGIRSIDDSKENIENFLDRNPNLSVVAVIDEEIVGSILCGHDGRTGG

FYHVCVHKDHRKKGIAHEMAKFCLEALKAQKINKIALIAFKNNDLGNEFWKHYGFTLREDANYYDLSLNE

YNQTSFNA

>AHK53218.1 N-acetyl-gamma-glutamyl-phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIKVGILGASGYAGNELVRILLNHPKVEISYLGSSSSVGQNYQDLYPNTPLNLCFENKNLDELELDLLF

LATPHKFSAKLLNENLLKKMKIIDLSADFRLKNPKDYELWYKFTHPNQELLQNAVYGLCELYKEEIKKAS

LVANPGCYTTCSILSLYPLFKEKIIDFSSVIIDAKSGVSGAGRSAKVENLFCEVNENIKAYNLALHRHTP

EIEEHLSYAAKEKITLQFTPHLVPMQRGILISAYANLKEDLQEQDIRDIYTKYYQNNKFIRLLPPQSLPQ

TRWVKSSNFADINFSVDQRTKRVIVLGAIDNLIKGAAGQAVQNMNLMFDFDEDEGLKFFANL

>AHK53217.1 DNA modification methylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKENPSFLKEQIITYLGNKRALLSFLNNGFKVAKKELGKDKFSFCDIFSGSGVVSRFAKAHSNYILANDL

EDYSKLINECYLANKDKDLLQNIKKYYKNLIQNLDFQKGFISELYAPKDDDDIKKNERVFYTFKNALYLD

TIRQKIENEIPKELRHFFIAPLIYEASVHSNTSGVFKGFYKGKDGIGKFGGEGQNALKRIKGEIELKMPI

FSNFSCEFEVMQKDANMLAKELDFFDVVYLDPPYNQHPYSSNYFMLNLIANYKKPEEISKISGIPKDWNR

STFNKSKFAQDALFELINDLKARVILLSYNCEGFVKKEIFLKRLSTLGKCRILEQKYNTFRASRNLKNRN

IHLHEQLYILVKN

>AHK53216.1 translation initiation factor IF-3 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKEKEVLLNEEIRADEIRCVGDDGKVYGIISSDEALEIANRLGLDLVMIAADAKPPVCKIMDYGKFRYQ

QEKKQKEAKKKQKVIDIKEIKLSVKIAQNDINYKVKHALEFLEQGKHVRFRVFLKGREMATPEAGVALLE

KIWTMIENEANRDKEPNFEGRYVNMLVTPKKA

>AHK53215.1 threonyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKEVIAYLDNETIIDSQSVKNTNLKEIYFDNSKESLEVIRHSCAHLMAQAIKSLYPEAKFFVGPVIEDG

FYYDFRVESKIGEEDLVKIEKKMKELAEAKIEISKYEITKSEALAKFQNDDLKQEVLLRIPDRAVSIYKQ

GEFEDLCRGPHVPNTKFLRFFKLTRVAGAYLGGDEKREMLTRIYGTAFADKESLKEYLTIIEEAKKRDHR

KLGTELKLFTFDDEIGGGLPIWLSNGARLRSKLEHMLYKIHRLRGYEPVRGPELLKADAWKISGHYANYK

ENMYFTQIDEQEYGIKPMNCVGHIKIYQSDVRSYRDLPLKFFEYGVVHRHEKSGVLHGLFRVREFTQDDA

HIFCMPSQIKEQVLEILAFVDNLMKLFDFSYEMEISTKPEKAIGDDEIWEIATKALKEALDEQGLKYGID

EGGGAFYGPKIDIKITDALKRKWQCGTIQVDFNLPSRFKLEYTDSDNEKKQPVMLHRAILGSFERFIGIL

TEHCAGEFPFFIAPTAVGIVPIGEAHIAYAKEIQKELLELNIDSEVYEKNESLSKKIRIAEKQKLPMILV

LGDDEVAKRSVALRDRRAKEQKNLSLDEFIKLVKEKMSEVHF

>AHK53214.1 UDP pyrophosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENLYALILGIIEGLTEFLPISSTGHMILGTTILGIDIDEFWKSFLIIIQLGSILAVIFVFWRKLFQGLD

IWLKLAVGFFPTGVIGLFVAKYLNALFNGWVVVGMLIFGGVVFILIELAHKNKQYRINSLEEISFKQAFC

IGIFQSLAMIPGTSRSGASIIGGLLLEFNRKVAAEFSFLLAIPTMIIATAYSIYKEPELLGNANSLIPLG

IGFITAFIVAVLVIKFFLKFISKFDFIPFGIYRIILGFVFFYLYYSGILNAGSEFKL

>AHK53213.1 peptide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYKKQNLPELTLRGLILGSILTIIFTASNVYLGLKVGLTFSSSIPAVVISMAVLSLFKTSNILENNMVQT

QASAAGTLSSVIFVIPGLFMCGYWSEFPLWQTFMICLCGGGLGVLFTIPLRRTMVVESKLAYPEGRAAAE

ILKVANKDQSSKKGKQGIKEIALGSFIAAIFSLLSNGFKLAASESNFAFIWNKMAFGFSMGYSLALLGAG

YLVGLAGAIALFVGMFLAWGIFTPYLSNFEFDSTKNAVDLASSVWSSKVRLIGTGAIAIAALWTLIELLK

PVIEGIKEIVKNVKITNQEKNERTNIDLSLKSIFILFVLMVVGLFITFYSFVEDANLSIYYQMLFSFVGT

LVSVLIGFFVAAACGYMAGLVGSSSSPISGIGLIGVIISSIVFLVLGVELFQDPMLSKFAVALAIFTTSV

ILATAAISNDNLQDLKTGHLVGATPWKQQVALLVGCVFGALAIVPVLNLLYQAYGFVGAMPREGMDASSA

LAAPQANLMSTIAQGIFHHNIEWGYMAFGVFVGILMIIIDKILKGTQKMSLPPLAVGIGIYLPPAVNIPL

VIGGILKYIVMQHLTKKYAKNSHKEEKLASCEQRGTLFASGLIVGESIFGVIIAGITVFSVSMGGSENPL

ALNLANFHDSELFALIFFVGVVLYFIKRIVKKDA

>AHK53212.1 hypothetical protein N919\_00995 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKSILFASALLASSMLFADSLKLEGTIAQIYDNNKTLLIDSIYGGQMAIKVLPNTEIEMDDCGIFGTDK

DGTFKDLQVGNFLESKISYGTPATPNTQAIPVARKIEIQCYKKAY

>AHK53211.1 hypothetical protein N919\_00990 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKWIFIVFCFILGFIIHIFYIGYTNELLFNKFIKNSNPDYTITDIYFKKGFLTSKGSFTLNHSHTQLST

KINLKFNNYFFLNKIIKGNFTNPFDFLDEVLKNNKLGTFTLKLHDNNSKIFLNIKDINLSNEGGDTIING

GYIEVLMNKNLEIKNMKIHFDMINFSQFYTKFVLQNLNYEQFFNNPVQFYELNLFSDSQQEINFDYLVLD

NNKINSFYSKNQVNFNEENSAVNLNIQGKSNEIDLKSLLGQNLNFDKTKFNITINKFFNSNFNISHFIQK

NLDLKIQNLILEKNKQNISLQGNLNINNSYQAKLQVISSDEPDEIFPWTKDYGGLNQYFLKENNNFFLNL

SYDSLANPQLKINGSEFSNMDLN

>AHK53210.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSLALTFRPENFDDILGQYELIEIFKKFTALQKLPHSIFFGTAGSGKTTFARVVAKEFGLDFYEFDGGNF

KLEELRKILDNYKNSLYKPLIFIDEIHRLSKTQQEMLLIPMENYRLILIGASTENPYFVLSSGIRSRSML

FEFKSLGAKELETLLLRVQEKMKFSIDKEAKDFLLKSADARAMLNLLEFVLVLDEKHISLENLKKLRNTI

NSEGVSSKDTHYILASAMIKSLRGSDVDAAIYYLARLIDAGESADFIARRLVIFSSEDVGNADPNALNLA

VSTLDAVKNIGYPEARIILAQCVVYLASTIKSNASYKAINEALNYVKNNEALEIPNYLNNNHQEKQNYLY

PHDFGGWVEQKYLGKNLKFYHSKGLGEEAKLLDNLYKLKNHKA

>AHK53209.1 dihydrodipicolinate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIKIGIYGAKGRMGKQIEECLKSETQARISILYDKGGNLGELFEKSDVIIDFSSPSGTHELLNYARTMPK

PLVIGTTGLDEKILHLMQSASEVMPIFYATNMSLGVAVLNYLASKASQMLRNFDIEILEMHHRHKKDAPS

GTAMTLAQSVAKARNLELEKVRVSGRDGIIGERSKDEIAVMSLRGGDIVGRHTVGFYEDGEFLELNHTAT

SRATFAKGAIKIAIWLSKQEAKMYSINDFLGI

>AHK53208.1 amidophosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MCAVVGVINSKNASTYAYYALFAMQHRGQEASGISVSNGKNIKTIKAKGEVSQIFNPDNLKTLEGEIAIG

HNRYSTAGNSSLNDAQPIAATSVLGDIALAHNGNLVNKEEVRSRLIQDGAIFQTNMDTENVVHLIARSKQ

ESLKDRFIESLKECIGAYCFVLASKDKLYVVRDPHGVRPLSLGRLKDGGYIVASETCAFDLIEAEFIRDV

KPGEMLIFTQGNDKFESIELFSQTPRICAFEYIYFARPDSIVEGKSVYEVRKKMGEALAKKFAYKADFVV

PVPDSGVSAAIGFAQYLQIPLEMAIVRNHYVGRTFIEPTQELRNLKVKLKLNPMRKVLEGKEIVVIDDSL

VRGTTSKKIISLLRAAGASKIHLAIACPEIKFPDTYGIDTPTFEELISANKNAEEVREYVEADTLSFLSI

EELTQSIGDERKYSLISFDGDYFIK

>AHK53207.1 ATP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLEKLRSKLGKENLSAIFGEITKISATSIEIRGLKTGVGDIVKLVSNENENLNTLAMVVEIKEQFSYLS

PFSFIEGFKIGDRAFISDAGMQIGVSDELLGRVVDPFMRPKDGKGAIEATKYMPIMRAPIDAMKRGLIEE

VFPVGVKTIDALLTCGVGQKLGIFAGSGVGKSTLMGMIVKNSKAPIKVVALIGERGREIPEFIQKNLGGK

LDDTVIIVATSDDSALMRKYGAFCAMSVAEYFKEQGKDVLFIMDSVTRFAMAQREIGLALGEPPTTKGYP

PSVLSLLPQLMERTGKEEGKGTITAFFTVLVDGDDMSDPIADQSRSILDGHIVLSRELTDFGIYPPINIQ

NSASRVMSDIISPEHKLWARKFKRLNSLLKENEVLLRIGAYQKGSDKELDEAISKKEFMQKFLGQNPEES

FEFNQTLELLSQIDTPNTPLPPTQNINVGSASATLPNPNLK

>AHK53206.1 GTP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKKFEDCVKTMLEIIGENPNREGLIKTPNRVFKAYEFLTSGYTQNVKEILNDALFESSNNEMVLVRDIE

FYSLCEHHLLPFFGRAHVAYIPNKKVVGLSKIPRLVEVFARRLQIQEQLTEQIAQALMENVDAKGVGVVI

EARHMCVEMRGVQKANSTTTTSALRGIFLKNEKTREEFFSLINSAKQVRF

>AHK53205.1 trigger factor [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEVKAKQLDSVNATASVKIPSGMIKSEVENLAKKASKSVKMDGFRPGKVPVSAVLKRYERELTQDAEQNL

FKSAVNSALQELKKENKELVGEPYFEKFDRKDGEIIAELILSFKPEIKLEGYEKLIPEYQTPKVSKKEID

EKKDELLKRFATPEAIKTKRALKEGDFAKFDFEGFVDDKAFEGGKAENYVLEIGSKQFIPGFEDGMVGMK

IGEEKDIKVTFPKEYGAAHLAGKDAVFKVKLHEIQELKIPELDDEMLKKLLPGEEKASVEVLDEKLKEQI

KNEKLFKLVNDELKGKFADALIEKYNFDLPKGIVEQETDMQMRAAFNTFSEKEIEELKASKEKYQEKRDS

FKEEAQKSVKLTFIIDELAKLRKIEVNDQELIQAIYFEAYRYGMNPKEHLENYKKQGALPAVKMALIEEK

LFNDIFIPKTEKSEKVSKKEKEDK

>AHK53204.1 ATP-dependent Clp protease proteolytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFIPYVIEKSSRGERSYDIYSRLLKDRIIMLSGEIHDELAASIVAQLLFLEAEDPTKDIYLYINSPGGVI

TSGFSIYDTMNYIKPDVCTICIGQAASMGAFLLSCGAEGKRFALPNSRIMIHQPLGGARGQATDIEIQAK

EILRLKTILNDILAKNTKQKVAKIAKDTERDFFMSAQEAKEYGLIDKVLEKSFK

>AHK53203.1 peptide deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVRKIITYPNPRLFLNSEIVNKFDTELHTLLDDMYETMIASNGVGLAAIQVDIPLRVLLVNIFDENDEQK

KEDLLEIINPEIIPLDEEMITCTEGCLSVPDFFEEVKRYNHILLKYQDRFGEFKELEAKGFLAVAIQHEN

DHLNGHLFIEKISFAKRQKFDKEFKKKKKNHKKEK

>AHK53202.1 Fis family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKLKCISFHEGLDIIEVESTFTRGLPNLSIVGLASTAIKESVERIKATLLSCDFAFPAKKITINLSPSG

IPKKGSHFDLAIALLILLQNEELDDFFVVGELGLDGSIKSTNELFSLLLFLSAKIKKAKIVVPKSIAQKA

SMIPNLEVYGLENLNEAIEFFKEKNYENFRFSHNHPLFANPLQIENEIFLQNMDFKLDFKDIKGQEKAKR

ACMIAALGMHNILFEGSPGSGKSMCAKRLVYIMPPQSLSEILMQNAYMSLDSKDCEFTKIRAFRHPHHTS

TRASIFGGGTKNARIGEVALANGGVLFFDEFPHFNKQIIESLREPLEDHKIHISRVNSKITYETKFSFIA

AQNPCPCGNLFSKNLSCVCSENEIKKYKNHISAPIMDRIDLYVAMDEISKDDKTSISSKEMSEKILQAFI

FSKKRGQKEFNGKLKDEDLSRFCVLEKDAKDTLDLAISRYNLSLRSLNKILKVSRSIADLEQSLNISKTH

ILEALSFRARN

>AHK53201.1 hypothetical protein N919\_00940 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENKSIAIFIDAENIPAKYAKSIFDIASDYGEVIIKRIYGDWTQKNIQGWREQIAEYSLIAMQQFNFAAN

KNSSDMYLITEIMSIFYEKNIDIFVIVSSDSDYTSLIQKLRENKKQVIGMGLEKSIKSYVNAFSEFFYLD

KDESKKEDILSKDYLRALINITEQLIDEKGRAEYAQIRTNMNRKYSDFHPQNYGFKNFRALIQKFLPKMK

KFEEEREKNIYFLVKKDYESYY

>AHK53200.1 kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKAIIDNIKILEQNAINKGLDELILMENAGLNLAKLIKKEAKKIRIQRKIRKVKILFLLGGGNNASDGLV

ALRNLKHAKAYKIGFKENTLFKKQEQILQNYAFKFCKKEPNFKKFHIIIDCILGTGSNRCLDEKTSLIIQ

KVNQSKALKIACDIPTNLGFYPCFKADITFCMGALKEILLEDFAKEFVGRIKIANLGIRSKKFYPNSQAF

LLEKKDLKTIDRKINANKGNFGHIYIVANASAGTLAGLGALNFGAGLVSLVAQKSFSPLLMLKEKIENNA

SAIALGMGLENLDFLKDEILQNTPLILDANCFLSEALLWYLNRKDVVITPHPKEFIKLYKMCFDENLDIE

TLQKNRFFYARKFSQNYDCVLVLKGANPIIVQKEKLFVVNLGNQALAKGGSGDVLSGMIAAHLGFGFSAL

EAAKNATLAHGLVAKKYKFNKNSFDALKLIKGLKCL

>AHK53199.1 phosphoribosylglycinamide formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLVKLAVLFSGNGSNLENILEKLHKKTIGENTYEIVLCLCNKKDAFGIQRAKKFGLNTVIIDHKAYNTRE

EFDTILVQKIKESGANLTVLAGFMRILSPVFTKNIKAINLHPSLLPLFKGAHAIKESYESDMKVAGVSVH

WVSEELDGGMIIAQKAFEKRNLSFEEFEEKIHSLEHEILPLSVIEIFS

>AHK53198.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFEWIFSIDAWITLATLSALEIVLGIDNIIFLAILVSKLPPEHRDKGRILGLAFAMITRILLLLSLFWVM

KLVTPLFSVLGNEISGRDLVLLLGGLFLIVKSIKEIKEQISHQEESQSHFKASNKLWIVVAEIAVIDIVF

SLDSVITAVGIAQDVTIMIIAVIIAVAVMLFASKPIADFVEKYPSIKILALAFLVLIGVVLVAESFDIHI

DKAYIYTAMAFALVVQILNILDQKKEKNG

>AHK53197.1 serine/threonine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRILLVLRGNYYAGQEEFIKNNKLQNYTLDLNALRLLSGSVKNIVSEYKILNVKNDEDLSKILLKLLEMR

MQKGEFSIINAYNETLKIYKDLAKQYRYKIYVIVFDSSLKQCQEKNLLEAKKNGYIIPYALLEKTQDLLK

KNPKKYPILDSRDWKKCLYQMPNLSKYKKIHHIGDLQGCYSVLKEYIKTIKEDEFYIFLGDYINRGIENG

KVIKFLLKICEKENVCLLEGNHERHLIKWANGELSNSKEFNENTLKDFRKEKLTPRDARKLYPHLKECLY

YKFQNKFIFCSHGGVNFIPSKPEKISFIPSHDFIYGVGGYEDSQKVANQFCNFTSDNLYQIFGHRNKEKL

PMKIAKRVFLCEGKIDDGGYLRVVTLDEKGFECIEIKNQIYKKK

>AHK53196.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFSSFFKSKKWALWAYLGLFLLLFFLYIQTSLNVAINSWYSDFYNVLQKPKIELLDSNSTQKIEENLENN

ATLIQEANQRAEQNFQKANFINKGALYYYQNLLEYFFNSRAMIEKPNYSASDFYALILVFLAIAIPYVLI

ATINIYFASVYAFKWREAMTFSYLKFWKNKDDNIEGSSQRIQEDTYNFSKIVESLGLSFIKALMTLVAFI

PILWSLSDVVSKALFANLSENSFFYFLKNIDGLLVYIALLISLGGLVVSWFVGIKLPGLEYNNQKAEAAF

RKELVYAEDNRKEYAKNETMIELFTGLKFNYKRLFLHYGYFNIWLILFEQMIVIVPFLIMAPGLFAGAIG

LGIVMQINNAFDQVRSSFSIFITNWTTITQLRSIYKRLKEFEKNISYKS

>AHK53195.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKKCFYFVFLLLNLNAEANATDTNLSFDSSKIETEAPKIELSLSSLYQNADEVVKGVIYILVLFSILAW

AVFISKLMQFYFMKKNLDLSIQKIKELKNLNELDQTKDFAGVLSLEIQDELEKSEYKNDHIKERIELRLQ

NTISKQITASKNGLSLLASIGASAPFIGLFGTVWGIMNAFIGIANLGNASLAVVAPGIAEALFATAFGLI

AAIPAVLFYNYLTRKNLKLMHHLDELANFVYILFHRSYFNDKN

>AHK53194.1 hypothetical protein N919\_00875 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSMKKIILFLLCVGFAFACSEHSHTDFKDLNKTEYNSQLKDKI

>AHK53193.1 iron deficiency-induced protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIFFMFLTAVSFLGASELNIYSARHYNADFEIIKKFEEKTGIKVNHTQAKASELIKRLSLEGSNSPAD

IFITADISNLTEAKNLGLLSPVSSKYLEEFIPAHLRDKDKEWFAITKRARIIAYNKNTNIDISKMKNYED

LAKAEFKGEIVMRSATAPYSKTLLASIIANDGNKEAKAWAKGVLENLATNPKGGDRDQARQVFAGEAKFA

VMNTYYIGLLKNSKNPKDVEVGNSLGIIFPNQDNRGTHINISGIAMTKSSKNQDAAKKFMEFMLSPEIQK

ILTDSNYEFPIRNDVELSQTVKDFGTFKEDQIPVSKIAENIKEAVKIYDEVGFR

>AHK53192.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYKTLKYYKLGAILLALFLALPIFGIFAELFYILFQNFNTSDLTQFSSIKENLSHFFDYLFLKFIKDTFI

ISMGVLCLSLILGVSSAYLIANYDFYFCKILEKLLILPLAIPAYILAFVYVGIMDFQGFFHENFGFRIDF

FNHYGVIFVLAISLYPYIYLFAKTAFKSEAKEAYEVAKIMKYSEFRIFTRVALLSARPAIFSGALLVLME

TLSDYGASAYLGVDTFSAGIFKLWYDLNDSYSSSVLSGILMLFVFLIMYVDYYYKNKHHYSFNQNLALFI

KKRKLNPIKQILSCIYCFMIAFVGFILPFIWLVYWGLKDHKLFESQFYIISFQTIILALITALITTFLAY

FLMFSSRIVKNHFFNLFILKISSLGYSIPAAALGISIIVLFVFLDKFFHMSLLGNSLLVLVFAYIIRFLA

SAIYSLEGGYNKIHLNIDEASLNLRTSYFILFFKIHTPLMKHFLFLAFIIVFIDTIKELPLSRILAPFGF

ETLSVKAFWFASDERIYDAALPSLFIVFLSLMVVVWMDKITRKDDVRN

>AHK53191.1 spermidine/putrescine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLEIKNLSKNFGKIQALENINLHVKEGEFLSILGGSGSGKSTLLRIIAKLEQASSYDLFSCKGEVALMFQ

NYALFPHLNVEKNILFALYDKKDKNQILNHLLKTFEIEDLRYKKIDEISGGQAQRVAFARAMARGCKLLL

LDEPFSNLDQNLKQDLRRELKKMIENQGITAIMVTHDIEDAYCMSDQIAFLEKGKILAHANPKELYFKPD

FKSAQILPDLNIIEEKLDLEDEFFAWIASKNYIFGYAELKIGNRFEAKILQKEFLGAFCRLKLLYKNIIF

FILVSSSYDLEEKISFDIINF

>AHK53190.1 saccharopine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNLLIIGAGGVSRVATVKCAMNSDTFSKITLASRTKSKCDEIAAFIKERLGVQIETAQIDADDSNAVVE

LIKKTEAQILLNVALPYQDLSLMDACIKAGIDYIDTANYEHPDLAKFEYKEQWARNDEFKQAGILGLLGS

GFDPGVTNVFCAYAQQNLFDEISYIDILDCNAGDHGYAFATNFNPEINLREVSAKGRYWENGKWIETQPM

EIKMEWDYPEVGVKDSYLLYHEELESLVKNIKGLKRIRFFMTFGQSYLTHMKCLENVGMLGIKPVIHQGK

EIIPIEFLKTLLPDPASLGPRTKGYTNIGCVIRGKKDGKDKQVYIYNVCNHEECYKETGAQAVSYTTGVP

AMIGTKLIAKGIWQGKGVFNMEEFDAKPFMEELNSQGLPWKIIEMTPSLGE

>AHK53189.1 superoxide dismutase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFELRKLPYDTNAFGDFLSAETFSYHHGKHHNTYVTNLNNLIKDTEFAGKDLVSIIKTSNGGVFNNAAQV

YNHDFYFDCIKPSTGCGCGGSCQSIDANLQAALEKEFGSLENFKAEFIKGATGVFGSGWFWLVYNTKNQK

LEFVGTSNAATPITEDKVPLLVVDVWEHAYYVDHRNARPAYLEKFYAHINWEFVAKAYEWALKEGMGSVS

FYANELHPVK

>AHK53188.1 hypothetical protein N919\_00840 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKVVLISALLGAFAANVFAANTPSDVNQTHTKAKADKKHEAKTHKKTKEQTPAQ

>AHK53187.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDFYSLIFLSCALGMDAFAVSLCKGFSVKKLHLKHYLIVGIYFGGFQALMPTIGYFIGITFASFIASIDH

WIAFILLSLIGLKMIKESLENENCDSNANQFGFKTMLALAIATSIDALAVGVSFAFLNVNLLLAIFLIGI

ITFILCIIALKIGNKFGIYLKNKAELLGGLVLIILGVKILIEHLFFD

>AHK53186.1 tRNA delta(2)-isopentenylpyrophosphate transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFFEIALIGTTASGKTYIANTLAREFNAVVLSLDSLCVYKEINIASAKPSQDDLASIKYFGVNLLSVNEH

FNVELFIREYQKAKEFALARNLPLIIVGGTGFYLKTMIDGLSEKTLESKSSLNNDEIYALLLNIDPNYKI

EKNDTYRLKKWLGIYEQTREIPSEFLKRTQKTGVLKDIEIYELAWDKEILKKRIKTRTKEMLDNGLLDEA

KILFSKFDHKLKALNSIGLKECKEYLDGEISFKELENLITIHTTQLAKRQRTFNKKFQSKALEFDKALAT

LRMKFSIEK

>AHK53185.1 prenyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNTFWIKFKDILELVVFKHSIFALPFLFSSMIVASKLANDTAWFGFKALILGIICAVSARNFAMATNRLM

DEDIDKDNPRCANRPNVSGKIGRKSVWIFIIINALIFISCSYFINTLAFYLSFPVLLVLAIYSAFKRFSS

LAHLVLGFCLGLAPIAGSVIIMGEIHIYSVILCLGVTFWTAGFDLLYSLQDMEYDKKIGLHSIPAKFGSK

ATLFISSFCHILAVLFWLLFVWEVWGVALGKIALIGVIISGIILALEHKIVHKNFAHIDRAFFTLNGYLS

IIFFIFIWIDLLWN

>AHK53184.1 hypothetical protein N919\_00815 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MELALFKAGFEAHLECCEIENNRFLGEYLKLGAISQILKWKKLALRIDFDEGEKIIFDLLLSLKEDILRL

ENSLDKNKELIPLKQKGVIESLNFEYLNFLDTILEEDKEYYLRFDLNNQKIAIFIKAQSQTLAKIIKIKP

EDKMAFDAFVVEIQRNMIRNKKGQE

>AHK53183.1 hypothetical protein N919\_00810 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSDDVLYLVFIIVLLIAMLAYMNIKERENNAKIAKLQNVIEDITKELHYFRKELGVKDDSEEDEDYKTSL

LKEEIMIELDKQISSKITPVLRTLKTMEHIIEDFQNEQQNRLLNLEQKAQSMAKLTPNYDTEEQKIENLF

KEGKSIEQIAKDLRIGTGNVELVLKFKKLIK

>AHK53182.1 molybdenum cofactor biosynthesis protein MoeA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLIDQFGRKINYLRISVTQRCNFRCLYCMPKIPFDYQPKENLLSFEELFLFVKAAIDEGIEKIRITGGEP

LLRKDLSIFIKMISDYKSDIDLAITTNGFLLKDFAKDLKNAGLKRLNISLDTLDHKKAKTLAQKDVLDSV

LSGIDEALNLDLKVKLNTVALKNLNDDELISLLEFAKSKKAQIRFIEFMENTHAYGKLQGLKRDEIIQIL

SQKYQIQLIKKDEKAPVSIYKADDYEFGIIDPHSHEFCDSCNRIRLSAEGLLIPCLYFDEALSIKEAVRK

GDIKAAVEILQEVLRNKPEKNKWSVVDNETSSRAFYQTGG

>AHK53181.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQLVESFLSIQGEGKYNGKLAIFMRFAGCNFNCLGFNVKISKNDKTLIGCDTIRAVFTKDFKESYETLNA

NELLKRVIKLKKDFDPIVVITGGEPLIHYENPEFIEFIQMLLKNKFEIHFESNGSIEIDFDRYPFYKECI

FALSVKLQNSGIKKDKRLNFKALKAFKNYAKDSFYKFVLDANTLDNSFLEINEILKEAPNQIFCMPMGEN

EQNLKKNAQKIAEFCIKNGYNYSDRIHIRLWNDKEGV

>AHK53180.1 6-carboxy-5,6,7,8-tetrahydropterin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIIRKLFEFENAHIVRFCSSKRCKSSIHGHSYKVEVLLESKYLDNAGMVYDFGLLKTYIRQIIDSFDHAI

TLFKYDDAKYLEEMKKYSSRWICLPVNVSAENFCRVFFILIDALLKQTKMVNGEQGVTLQSIIVHETRTG

YAQGFREDAYSELMPKISLQDIEFSNGIKAEWNDIDFYNKLKNEEIFINPKEI

>AHK53179.1 cytochrome CBB3 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKAKILIALSFFLLVLSACSNDEKNISKTQNTDQEVVQIEQNDEKTELSDSNLPLPVDDEAQSSNDEHE

VNPSIINSLYKQKCATCHGEKGELKPKNSTAIKTLSNKIFIQKIKTIKDKNHSFLSDEQIQNLADFINKG

K

>AHK53178.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDQSYEFFLALHLYSLYASGFLMLFYLILTQGNFKTEFIFIRRIRLFLPIYYLFLALIIFTGCLLSAMKQ

FQMNVNIWVMIFSWILIFALAIFHFVCFKKARRFRKYATFRWISCLILPFEIFLLFLPFLIERYL

>AHK53177.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQFLYNKQAGEEFIQLQGENFNHLKVRRVKENSELNLRNLQDNFLYNYTITNLTRNSCTLKFLNKKSQNI

KQSELNLALAIIDIKILEKTLPFLNELGVKKLHLVFTNFSQRNFKIDLERFEKIIISSCEQCGRNTKMDL

IIHQSTQEFVQKFPNAIMVDFQGEQQSHFDEKELYFIGPEGGFNNDERLLFNRKISLKSSNILKSQTAII

AIASKILL

>AHK53176.1 50S ribosomal protein L31 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKEIHPEYVECKVSCACGNTFTTKSNKAELRVDICSNCHPFFTGSEKIVDAAGRVEKFKKKYAMQ

>AHK53175.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLYFIPTPIGNLSDISFRALELLKTCDLVFCEDTRVSKSLISLLNTKFHTDIHISKFIALHSHNEKEVLA

SIDLKIFEKNVAYLSDAGMPGISDPGKALVEFAQENNITYEILPGANAALVALVSSAFCQKEFIFIGFLA

NKGKERQKDIEKILNFPYPSIIYESPKRILSLVEQIMILDNQREIFLIKEISKKFEKKFKGNAKELSEIL

KKSNLNGEWVVVLQSKEQNFLQNTLCEKDIMDLELSLKAKAKLLSKINGKNAKEIYQKLLLSQD

>AHK53174.1 RNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIVYGKQIFFYILEYHKDCINELYLAKECDKITFSKIAKSGFKIKKLDFKTAQAYAKGGNHQGFLLDIKE

SSFANLNEIKKNDFIVMLYGISDVGNIGAITRTAYALGVGALIFIGEKLAMEGVIRTSSGAALDLPIVIS

NDALSVINELKQVGFYFYASDGSGKEIHSVKISNGKKVLVLGSEGFGLSSKIVKKCDECVGIAMKNNFDS

LNVSAAFAILCDRMLNA

>AHK53173.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLNWKKIQELNLKEVAAKTQIELDFLEALVEKNFAVLSRFNVKGFVKILSREYELDFSDFNEEYEAYLNE

NNPTPQTKSKMITPKLDAYSQKSFNTWPFLIVLIVLVIIGSGIYYFDTLKTFFKDEQNNTSATVIDIIGQ

AQENLKSLGGNNVVVIDNNKAQETNRTESVLPSQNISLQENDKNISIENNISENNTTLLDEEKNTQIQED

TNTPKTDSLKEAHFKTSTKIWIGLIDLKSLKKTSFVKEKDFNISLDKDQLILTGAAALTMFDQENKEQKF

PAGISKRFLIKDGKITSISAAEFVKLNKGKEW

>AHK53172.1 hypothetical protein N919\_00755 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVKKIIILTFWVNISFAISSLELAKNLVNNPSKNSQLELLFSNNSYIDNNGNCDIAKISQILKTNSLIAL

TLSNPQSLRLNFKAKADEVMFFKILSDVLTDAGYIYFIPTDLILREGNIDYTIQVESQYVLDPGTLYNLL

KENSVYINNIKRIGVYDYEYDLNFSNAVLKTNTNVNLNTPKSLEKPLKDYVLDLKNATNLIIDANDLDNW

FPKIFFLDKNLNLIKAVKSENKNNHFSELIPNGAIYAIVSDMYSLDNIRRGLKITLKK

>AHK53171.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFDEIRFNTIERLPNYVFAEVNAIKMAARRAGEDIIDFSMGNPNGKTPQHIIDKLCESANKDKTSGYSTS

MGIYKLRLAICNWYKRKYNVNLDPENEVVATMGSKEGFVNLARAIINPGDVAIVPTPAYPIHTQAFIIAG

GNVAKMPLAYNEKFELDENQFFENLHKTLNESIPCPKYVVVNFPHNPTTVTCEKSFYERLIATAKKERFY

IISDIAYADLTYDDYKTPSILEIEGAKDVAVETYTLSKSYNMAGWRVGFVVGNKRLVSALKKIKSWFDYG

MYTPIQVAATIALDGDQTCVDEIRATYDKRMHILLEAFENAGWKLQKPRASMFVWAKLPESKRHLKSLEF

SKQLLQRASVAVSPGVGFGEAGDEYVRIALIENENRIRQAARNIKKYLKE

>AHK53170.1 homoserine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVAILGYGTVGSAVVKFLLENDKLIRARCGQSITPVIALARSPKKNALIPITHSVAEILNADVDVFVEL

MGGVDEAFKIVSEILKKKKAVVTANKAMLAYHRYELENLAKNLAFGYEASVAGGIPIIKVLKEGLSANNI

LAIKGILNGTSNYILSSMSQKNMSFKQALQIAQNLGYAEADPTFDIEGQDAAHKLLVLSSIAYNLKAKPE

DILIEGISEIAPEDMYFANEFEFTIKLLGIAKVRENKVELRVHPTMIDKEKMLAKVDGVMNAISINGDLL

GESLYYGAGAGGEATASAVISDLMDIARDQVKAPMLGFVNTLEYKLLSKDEIYTKYYLRVKVEDKIGILS

KITQLMSENNISIDSFLQKPKKNDENYSTLFFTTHLTYEKSIQNLLEILRKQDFIKTKPFMMRIE

>AHK53169.1 hypothetical protein N919\_00740 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGVKAYLDGILGEDKACKFLKKQGFEILKRNFHSKFGEIDIIAKKDEILHFIEVKFTQNDYEVSERLDRK

KLEKILKTIEFYHLKNGISSDFQIDLICIKNDVIQFCENISF

>AHK53168.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGKYIELTSDNFAQAKEGVALVDFWAPWCGPCRMLAPVIDELSNDFDGKAKICKVNTDEQGDLAAEFGVR

SIPTLIFFKNGEVVDQLVGAQSKQAISDKLNSLL

>AHK53167.1 thioredoxin reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLDVAIIGGGPAGLSAGLYATRGGLKNVVMFEKGMPGGQITSSSEIENYPGVAQVMDGISFMAPWSEQCM

RFGLKHEMVGVEQILKNSDGSFTIKLEGGKTELAKAVIVCTGSAPKKAGFKGEDEFFGKGVSTCATCDGF

FYKNKEVAVLGGGDTALEEALYLANICSKIYLIHRRDEFRAAPSTVEKVKKNEKIELITSASVDEVYGDK

MGVAGVKVKLKDGSIRDLNVPGIFTFVGLNVRNEILKQDDSKFLCNMEEGGQVSVDLKMQTSVAGLFAAG

DLRKDAPKQVICAAGDGAVAALSAMAYIESLH

>AHK53166.1 transcriptional initiation protein Tat [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MERRLFLKGSALGSMVAFFASSNLSAAMLKDKDLLGFKAVSASTQDKVIVPQGYEAKVLISWGDPLFSKA

KPYDENKIIDMNAVKNAHLVFGDDNDGMSFFPLSKNRGILAVNNEYINPEIMFNHHGKNLSKEDILYEQA

SVGVSILEIEKKGDDWTVVLDSKYNRRIDANTKMQVSGAAKKEVLKNEKFVHGTFANCANGQTPWGTYIT

CEENFDDFFGSLDENLEFNDSLKRYGFNKTSLYGWEKFDERFDLAKNMDEANRFGWIVEINPFDAQSTPV

KRTSLGRFKHENAEIIVEKDGSVIVYMGDDEMNEFIYKFVSKHKYKKGADTSKILDEGILYVGQFNGNVG

DFKGQGKWIALEYGKNSLNEKNGFKSQAQVLINTRLAASIVGATPMDRCEWIASHKQSGSKEVFATLTNN

KNRQEPNAANPRTKNVYGQILKWMPKNSHKDDDFTWEIFALAGNPDNQQGLYKGSNNITSENKFNSPDGL

KFDRDGRLWIQTDGSYSNKDEYESMGNNCMLAANPKTGEIRRFLTGPIACELTGIAFSEDYTTMFVGIQH

PGEGLKGSTFPYGKTPRSSVMMIRKLDGGVIGS

>AHK53165.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIILFILSLGIFYTFTQAKNLEQEQNTSSNLVSVSIAPQAFFVKKIAANTLDVNVILPPNSNEHNFEF

KPSTMKKLEKSDIYFTIGLEFEKVFTDKFKQNFPKLQVINMQKNIALIQTHDTHEHSHEHEHHEHGHFDP

HTWLDPILVQTMALNIYDTLIQKYPQNENLYKENLDKFLAELDSLNLQIASKLEKLKNREFVVYHPSWTY

FAKRYNLTQIPVEILGKEPKSKDLQKLITLMKDKNLKVIFVQNGFPENAAKTLAKECDAKIYKIDHLSYD

WENELLKTADAFSHNL

>AHK53164.1 cation ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLFFEISNLNYAYDNEIILKNINLSYDNKDFLSIIGPNGAGKSTLVKLILGLLKSKNEIHFKALQRKEIG

YVPQHTLANPNFCPRVLEIVLMGLVSKKIFGFYGKKDKEKAMQALKSVGMEKFWNKTIDSLSGGQRQRVF

IARALASECKMLILDEPTASVDNKSAIQIFELLISLHQKGMGILLICHDINLVLAYSDKIAHLNKELFLH

TNTKEKEKSSFLKHLYENHSHFCDVEMSLNTCFCNEENCDSKKLCEQEFTRRNLKKTEFKKENFCLKFSK

ENNA

>AHK53163.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLEILNFTFFQNALLGAILVSIACGIIGTLVMINRLFSMAGGITHGAFGGIGIAFYFSLPILLSTGIFTL

FLAFLVAFLAKRYEHRSDSIIAVIWAFGMAVGIILIDLSPSYNTDLMAYLFGSILAVGTQDLWLMALVDS

VMVLLIFLFYRQFEALSFDVEFTKVRGINTSFFHYLLIALMAFCIVISIRLVGLILVMALLSIPSFIAEN

FTKRLGFIMILASFLSMIFCILGLILSYYLNLSSGACIIAIACFGFLVHLIGKFLKR

>AHK53162.1 ribosome maturation protein RimP [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNLEALCKEAGLSFYDDELVSENGRKIYRIYVQKEGGVNLDDCARLSEILSPIFDVESPVNGEYFLEVSS

PGLERKLSKIEHFAKSIGELVKITTNEKEKFEAKIIAVDDENITLENLENKEKTTINFNDIKKARTFVEW

>AHK53161.1 ribosome-binding factor A [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNPSEIKKLRTESILKELIPEALANLDDENLKNLCVVDVECKKGRYDAFVYLDKMFFNVHEQEKILSSLK

KASRALQNYCMSEQGWYRCPNFHFKFDDRLEYQNHMDALFEKIKKDKNES

>AHK53160.1 translation initiation factor IF-2 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKIRIHEIAKELGYDSKEIIEKANELGLGIKTASNAVEPEIAAAIYEYIQTREIPEAFKKNIKTPTAKK

PKKENIKEQEKLNESEKKEPKKEEKLKQEVKKEELKIEKENAKEEEKQEIIDAHKPQSLASATLAKRRGL

VIVKKKKDEEEIQVKKEEVKNSNDISINNEERLSLKTMFSNADESLKKKKKEKKSFVASKKESTEKMNFL

DEHDFGDISLDDEDEVVLPDFSVKEQEKPQNINKKQPNFIRQAVGNSAGFGFEGGIQRRSRKKPSKKIEK

KEVEEVGSVAISKEIRVYEFADKIGKSTSEVISKLFMLGMMTTKNDFLDEDAIEILAAEFGIEINIINEA

DEFDYVKDYEEETDEKDLVTRAPVITIMGHVDHGKTSLLDYIRKSRVASGEAGGITQHVGAYMVEKNGRK

ITFIDTPGHEAFTAMRARGASITDIVIIVVAADDGVKPQTKEAINHAKAAGVPIIIAINKMDKEAANPDM

VKTQLAEMEIMPVEWGGSYEFVGVSAKTGMGIEDLLEIVLLQADILELKANPKSFAKASIIESSVQKGRG

AVATVIVQNGTLTVGSTVVAGEAYGKVRAMSDDQGKALKEIKPGECGVIVGLSEVADAGEILIAVKTDKE

AREYANKRHEYNRQKELSKSTKVSIDELGAKIKEGNLKALPVILKADVQGSLEALKASLEKLRNDEIKVN

IIHSGVGGITQSDIELASASENSIVLGFNIRPTGEVKERAKDKGVEIKTYNVIYNLLDDVKALLGGMMSP

IISEEQLGQAEIRQVINVPKIGQIAGCMVTEGVINRGAKIRLIRDGVVVYEGNVSSLKRFKDDAKEVAKG

YECGVGIEGCDDMRVGDYIESYKEVEEQASL

>AHK53159.1 hypothetical protein N919\_00675 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKHIPIRMCIVCKNRFEQNMLFRFKVVLGDIVPKAEHGRSGYLCQNCIEREDKVLQKAFSKICKNLNTK

ITQQGLKEIFLNGKD

>AHK53158.1 homoserine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKILVPATSANLGPGFDCLGLSLKLFNETQIQKSGVFSISIGGEGSDNIFLKKNNIFVNIFYEIYEKLSG

KKDNFRFIFQNNIPLSRGLGSSSAVIVGAIASAYYMSGFKVEKECILDEALIYENHPDNIAPATLGGFVC

SLVEKNKVYSIKKEIDKDLAAVVVIPNLAMSTEQSRQALAKNLSFNDAVFNLSHASFLTACFLEKKYEFL

KFASQDKLHEINRMKNLPELFEVQKFALENKALMSTLSGSGSSFFSLAFKDDALALAKKIQTKFKDFRVQ

YLEFDDNGFEIC

>AHK53157.1 glycoprotease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIGIYQDDKLIKTYKSEEKASEFLPKILDELLKEYDFTSLIYANGPGSYMGIKISYVSLSTLSIVKNIPL

FAVSAFELNGYKPISANKNFCFVYKEGEICLEQNIPAEFFLPKNLQELKLNNDNLPFYFLDAI

>AHK53156.1 UDP-3-O-(3-hydroxymyristoyl) glucosamine N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKQLTLAKTVKGVGIGLHKGEPIEITLEPLEANSGIVFFRSDLNASYKASPENVINTQMATVLGDDRGFI

STIEHLMSAINAYGIDNVRIVLNANEAPVMDGSSISFCMMLDEAGVKELDAPKKIMVIKKPIEVRDGNKF

VRLTPTKEPRINYTIKFDNAVIGEQSYNFEFSKKNYIENIARARTFGFLKDVQALRSMNLALGGSLENTI

VVDENRILNPEGLRFKDEFVRHKILDAIGDLTLLGYRVFGDYTSYAGSHHLNHLLTKEVLKDKDAYEIVS

LEKTTQKAYEKVFA

>AHK53155.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAKRKGKTYLSVLILVLIAILIFFISRLSIFEKNPPQILMPDVVYTDLKKPILVHIKDDESSIKNVQIIL

HKDDNTSAMVIADEKISNLKDITLQVALPKFGYKENVKSFVLEVIAKDSSFWNFFSGNEARKQIAVLVDN

TAPKINIISNSYQIEQGGAGAVVFKADDANLDKVYIETNKGKIFKATPYVKEGYYAALIAWDARDEEFRA

FVIATDKAGNISKERIRYYFVNRKYRVSNINLTDKFLDGKIENLANQYAPKDNNLNRYEKFKFVNETLRN

SNEKLIHEITSKVPEEKIDNFDLNLFLPLKNGMKVADFADHRYYSYNGQFVSDSYHMGLDLASVAQAPII

SNNAGKVVFAAENGIYGLNLIVYHGFGVYSLYGHCSSKNVDLDEMINKQSIIGKTGTSGLALGDHLHFGV

LVQGVETRPEQWQDKKWIENNIYNVLNDGKKIILGKN

>AHK53154.1 prephenate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIAIIGLGLMGGSLGLCLKENKLISCVYGMDLSKENEKDALQLGLIHELIEFKDLALCDMIFVATPVNA

IIEILQKLVDLPSNVTIIELGSTKRKIIESLPKNLIKQTLFAHPMTGTENSGPKAAFKELYKDAVCVLCD

SEIADDLHQKRAVEIFSHLGMKIVFMDSKAHDHHAAIISHLPHVISFSLANFVMKEEDKRNIVHLAGGSF

KGMSRIAKSSPQMWESIFLQNKDNLLSSIDFFQQELERCKQMIQLDKNDELREWMKQANTLREIL

>AHK53153.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKHLISICALVAMANAATIKDIKFIGLNHLSNTSAINIAGLKIGEEINPAKINTAILNLYKQNYFENIA

VENNNGILEIIVTEKPTIAKVTITGIASNDRKQVESILGIKRGTLLDEGNIKEAIERIKAYYEAKSYFDT

IVEYKKKTLENTDGLELEFIVNRGENIIIDNVHLSGAKKFSYSDIEPAVVNKEKEFMGWMWGRNDGKLKV

FELSNDSSRIADEYMKKGYLDVQVSSPYLKTYTDTYQANLTYFIKEGKPYKIKSISIENPLFDDKQNAQT

VKDLRSSAGKTINIEDIRKDVKTIETQSADLGYAFVEVYPDIQKNDQTQEATVVFKVIPHDKVYIRNVII

SGNSRTVDRVIRRELYITEGNLYNRTDLSESKNALKRTSYFDDVNIKEEKVDDTHIDLIVDVKEASTGAI

SGGIGYGSSDGILLNASLSDTNIFGSGIKSSVSVDKSDDTLSGRISLVNPRVLDSQYSLGGTLYSNDYEW

DNYSEKNYGFDITIGRQFARYYNVSLTYNLEQSDIYHLSPTLLRTGYELGKSIKSSITPAITFNDTDDYY

LPRSGIIASTSLEYAGLGGDQEFISSSSKFNFYQGLQDYIGYDLIYRYKASFYKVWDEGYLPINQRIYLG

GIRSIRGFESRTVSPKNQWGDEIGGTIAFANSVELSFPLIDRIKLRGSVFFDYGMIGRKNLDEIKRMSTG

IGIEWITPIGPLQLVFAKPLNDKKGDDTNSFEFNLGTRF

>AHK53152.1 inositol monophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKEFLDACLNANLQIRKYLNNIPQNDLKLCSKLGYDKNQGYELDLKCEQIFIKYLSCFGQIFSEESGLIG

KASPKQMILDPLDGSSNFVSKIPFYGTSIALMEKDQAKSAFVCNLVSQEIFAFNNKQAFKSNLSDPKYSP

LTPNLFSKIGIVEKISLYPELLDFLTKNQLKFRSLGATALSLAYASYFSFVLILGKTRIFDTAAALAIHQ

NLYIEKNENFLLLSQDKKIFDIILEFLKNN

>AHK53151.1 acetyl-CoA carboxylase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFADIFSKIRRQQPSVKEAPNHWVKCQSCHALMYYKEIESCFNVCPKCNYHMRISADERIKLLSDEGSF

IEYDANLEAIDPLKFVDSKSYKKRLSEGESKTGRKSSVISGECEINGLKTQLVVFDFSFMGGSLGSVEGE

KIVRAIQRAITSKTSLVIVSASGGARMQESTYSLMQMSKTSAALKLLSKEKLPYISILTDPTMGGVSASF

AWLGDLIIAEPEALVGFAGARVIKQTIGADLPEGFQKAEFLLEHGLIDAIVERGEQKQYLSDVLKFFSGK

>AHK53150.1 50S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQVNIFCIQKSDEFKTCSEKYSKLISKYATLKEINVFNKKIALAQNLNAIEAKKSYEEAFMPYKKGYCIA

LDEKGKDLTSIEFAKLIQDKNELSFFIGGAYGLREEFNQSLDFRLSLSKLTLAHQFVKTLLLEQIYRAFC

INNNHPYHK

>AHK53149.1 molecular chaperone DnaK [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKNEIQNFKNILEERKKAILENLQSNSNEIEALHNSVPSDSVDFSVIETGSQIDFAISTNLKEELIEIE

DSLDKIKNGTYGICESCDDEIDSQRLKVKPHARYCITCRQIAEQGKKHEN

>AHK53148.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIKLFLLASFIYIALIFAFAWHLELGSYTLNISTYTFELPIMIWLVIPLFIYMILAVLHIAFYGFLRYL

KFKHFFKDAAKFEAYTQDLLLEKDLKTTFQTKEFRSVAQLFKTIKTHEKIPHSNKINEILDLIDGLNKNE

FFNLSKFKLENNNVLYLQNEKNHLKNDANYAYNKLKNLNEIKDEFEEIAFNTLIEKASYEQIKNVKIPKK

PSEVLTLIKRFKEGNLELSVAEYEVLLSHNILSEKDYLNAAKLSTKLLNPDAILGIFNKIKNEKSEALRA

YLYLLAEFGLLDELREQIHNDDKKFNDFKAFLALREKNIKIDLNQLIQ

>AHK53147.1 tRNA-dihydrouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MIDFSKKPLFLAPMAGFSDLPFRNVVKKFGADITISEMISSNALVYESSKTLHMLERAELENPYIVQIAG

GDKEVLKKAVQMLNEMDFVDGIDFNCGCPVNKVVKQCAGSALLENLELFKNLVGVIKENNKKSLTSVKFR

LGFNEKYPEKMAKICESLGVDFISIHGRTRKQLYSGKADYGSIASAKASVKIPVIANGDINAQNAKEVYK

ITKCDGLMIGRASVGNPWIFYEIKSGKSVDEKLKKEIILTHFDEMIKHYKDQGVSIFRKHLHEYSKGHKD

ASTFRDTVNRIDNVEEMRKKIEEFFSLT

>AHK53146.1 heat-shock protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MILSDEKCDFLESIASFLSPKDVELVFVDSKEMQEINLEQRKQDKTTDVLSFPLENIDESLPLGSVVINV

DLAKEKAKELGHSYEEEISLLFIHAMLHLLGFDHENDNGEMREKEKELIEHFNLPKSLIVRTLED

>AHK53145.1 recombinase RecO [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQGFILHTQKVKDEDLIVYILSPKMLIKAYRFYGLRHSSILSGYKIDFALEENPSFLPRLKDVLHLGFLW

IMQRDKMLIWQEFIRLLYRHLKDVEELDSFYFDLLDECVKRFEKQNPKRVIVDAYLKILEFEGRLHKDFF

CFACDEKIQNSITLLRAFLPSHSQCALGFEFEEKKLKQFYSSKNCAIFDDEEIENLYHLIKEGL

>AHK53144.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKAFVLVDYQNDFIDGSLGFDKALKIKENILKALNQIDFNNTHLLLTYDTHDEHYLQSKEGLNLPVKHC

IKESLGWQMPKEFEPFLQKAHKIFYKNTFGSLELANFIQKSDYEELHFAGLVSHICVFCNIILAFGAKPN

ARIILHQNLSASFDENLEKSAFDILRAYGIEIV

>AHK53143.1 PP-loop family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINLSKKLIRQVAQANAKFGLIKDGDRVLLGLSGGKDSLALAHLLNRMQAHAPFKFELEAVTLSYGMGED

YSHLHAHCEEHGIKHSVLDSNIYEVSGDTIRENSSFCSYFSRMRRGALYTYALEKGFNKLAIAHHLDDAA

ESFFMNFIHNGALRTLAPIYQSKRGITVIRPLIFVRERQLRDNATQNELSVIGNEFCPGMKLSEKNVKFP

HAREEAKQLLANLEKDHPKLFTSLKTAFANLHTESFWLQKA

>AHK53142.1 S-adenosylhomocysteine nucleosidase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIAILGAMSEEITPLLETLKDYTKIEHANNTYYFAKYKNHELVLAYSKIGKVNSTLSASVMIEKFGAQA

LLFTGVAGAFNPELEIGDLLYATKLAQYDLDITAFGHPLGFVPGNEIFIKTDEKLNNLALEVAKELNIKL

RAGIIATGDEFICDEAKKAKIREIFNADACEMEGASVALVCDALKVPCFILRAMSDKAGEKAEFDFDEFV

INSAKISANFVLKMCEKL

>AHK53141.1 malonyl CoA-ACP transacylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNAAFIFPGQGSQSLGMGKDFYENSIKAKELLQNASDFCKIDFKHLLFEENEKLNQSEFTQPAIVLNSLM

AYSVLLEKKPDLSSKFALGHSLGEFSALAVNGAFDFLEALSLVNKRGLFMQEDCAKVEAGMMVVLGLDDE

KVEELCQKAQKENKQIFAANYNCDGQIVVAGLKPDLASYESVFKEAGAKRAMLLNMSVASHCPLLENASA

KLCVELEKVLKPNFKAVISNANAKIYTSKEEALELLKAQLISPVLYKQSIKACENEVDYFIEFGASVLKG

LNKKITSKETYALTNMNDIDEFLKVV

>AHK53140.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAIEKNSVVSMFYELKDANTNEVLESNLYSQPISFILGKGQILESLEEEVMKLDCPSNADVVIKKEKGLG

EYDENAVQTLPKEQFAGIDLKVGMELFGEGENGETVRVTVKEIGENDVTIDYNHPYAGRDLLFSLNIVDA

RAASEDEILTGIIAGSHSCGCGSGHGHDHHHGHGHGGGGCCGGGGCGCH

>AHK53139.1 hypothetical protein N919\_00570 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIFTVALLGATLLYAESSAFGAGDITSNSSYGLTSNEKLFKEKLDNLNNENIQTNARINEINERIEGL

QSTLEGINSQYAKSNSRLSQVEENNQNIENNFTSEIQKLKAYVEESRKIQEANNKQVKKVLAELSSLVDA

INANYVSKNELNDANLSVKTITPSVVVSTTDSNSTIENNNTQNTQDDKAKQIDESWKKKKNNEILELAIK

DVDKNAFEDSKAKLNFLITKQYKPARANFWLGEIEYKQKNYNNAIVYYKKSSSLSTKGDYFPKLLYHTAI

SLDKTGDTKTANGFYKALKTNYPNSPEAKASPNRK

>AHK53138.1 peptidoglycan associated lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKILFTSIAALAVVISGCSTKSTSVSGDSSVDSNRGSGGSDGWDIDSKISQLNDTLNKVYFDFDKFNIR

PDMQNVVSTNANIFNTEVSGVSITVEGNCDEWGTDEYNQALGLKRAKAVKEALIAKGVNADRIAVKSYGE

TNPVCTEKTKACDAQNRRAEFKLSR

>AHK53137.1 translocation protein TolB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIVAIFLVFLGSLWAEDPVIDVVNSGVVLPKIIVKDNSNLSDENLKKSFYNIIVNDLKVSSNFEVVAN

ATETSNYIFEYTLNKNGNTLSLNVKIKAGGSDKSEQTYTLNGLEQYPFLAHKSVKASVNALGLAPVDWMD

HKILIARNSSSKKSQIIMADYTLTYQKVIVDGGLNLFPKWGNKEQTLFYYTAYDHDKPTLYRYDLNTNKA

SKILSSGGMVVASDVNVDGSKLLVTMAPKDQPDVYLYDLNTKNLTQLTNYSGIDVNGNFIGSDDSKVVFV

SDRLGYPNIFMQDLNSNSAEQVVFHGRNNSAVSTYKDFLVYSSREPNQAGVFNIYLMSINSDYIRQLTAN

GKNLFPRFSSDGGSIVFIKYLGAQSALGVIRVNANKTFYFPLRVGKIQSIDW

>AHK53136.1 energry transducer TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKNYGLSNLNSFLLALAIYISIVILVFFRLVSEVEPAIQYTDIKDSFVDIELAEPSKQVITQSNTPKEIQ

KPTEQIDIEKLFAQTTNKTVKTEDIDQKASNFNELFGNIKEIQEEKTTKIQSSAKSGISSAPKPQASELV

KQLNDSLLQEESSTQGESTKAQKIGIYDEFLGKVVRIITQRWTQYYPNSEKISVKVKIFIDENGKFGYTS

VEKSGNPLYDAKVAEFLESQKGKFITYPPQNKNISITMNLRDEVKVKND

>AHK53135.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MPFDDEKPELNITPLVDIMLVLLAILMVTAPSITYEEKINLPQGSQKNTSTPTVKSLIISINAKKEIFLN

QEKYDFISFADNLAQRKAQFNTEDPVFIRADKSLKYDDVISVLRSVKNLGFNKVALQTE

>AHK53134.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFEAIFHFFNSSSIITYIVLLWLSLYFILAFSILFARLTYLATWRNKEKESLETLLLGEKDLSRTDSIL

RKCNDTTSNHLEIYKNLASRRASAGLTWLSIIASTSPFIGLFGTVISILETFGGLGTQNSLSIIAPKISE

ALVATGCGILVAIPAYTFHLIIKRKAFELLSIIDSEIKVISSSK

>AHK53133.1 F0F1 ATP synthase subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNDLINFEIVTPLGVIYQGEVKSVTLPGSEGEFGVLKGHAALVSSLKSGVIDIEKADLNHELIAIDAGHA

KVDEDKICVLAKGAVWVCGSDESEIEKNLAQAKDLIKSMSSDNAALAATFSKLDNARMH

>AHK53132.1 F0F1 ATP synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQGFISQVLGPVVDVDFNDYLPQINEAIVVNFESEGKKHKLVLEVAAHLGDNRVRTIAMDMTDGLVRGLK

AEALGAPISVPVGEKVLGRIFNVTGDLIDEGEEISFDKKWAIHRDPPAFEDQSTKSEIFETGIKVVDLLA

PYAKGGKVGLFGGAGVGKTVIIMELIHNVAFKHSGYSVFAGVGERTREGNDLYNEMKESNVLDKVALCYG

QMNEPPGARNRIALTGLTMAEYFRDEMGLDVLMFIDNIFRFSQSGSEMSALLGRIPSAVGYQPTLASEMG

KFQERITSTKKGSITSVQAVYVPADDLTDPAPATVFAHLDATTVLNRAIAEKGIYPAVDPLDSTSRMLDP

NIIGEEHYKVARGVQSVLQKYKDLQDIIAILGMDELSEEDKLVVERARKIEKFLSQPFFVAEVFTGSPGK

YISLEDTIAGFKGILEGKYDHLPENAFYMVGNIDEAIAKADKLKG

>AHK53131.1 F0F1 ATP synthase subunit gamma [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSNLKEIKRKIKSVHNTQKTTNAMKLVSTAKLKKAEEAAKRSKIYAQKIDEILSEISFQINKIVHNEDDV

RLSLFHKKEQIKTVDLIFITADKGLCGGFNIKTLKTVSEMLKEYEAKNINIRLRAIGKTGIEYFNFQKIE

LLEKYFHLSSSPDYEKACEVIHAAVDDFLNGNTDEVILVHNGYKNMITQELKINHLIPVEPKSIEQTHNS

LLELEPEGTELLKDLMKTYFEYNMYYALIDSLAAEHSARMQAMDNATNNAKARVKQLNLAYNKARQESIT

TELIEIISGVESMK

>AHK53130.1 F0F1 ATP synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFKADEISSIIKERIENFDLNLEIEETGKIISVADGVAKVYGLKNIMAGEMVEFENGDKGMALNLEESS

VGIVILGKGEGLKEGASVKRLKKLLKVPVGEALIGRVVNALGEPIDAKGVINANEYRFVEEKAKGIMARK

SVHEPLHTGIKAIDALVPIGRGQRELIIGDRQTGKTTVAVDTIISQRGQGVICIYVAIGQKQSTVAQVVK

RLEEHGAMEYTIVVNAGASDPAALQYLAPYTGVTMGEFFRDNAKHALIVYDDLSKHAVAYREMSLILRRP

PGREAYPGDVFYLHSRLLERASKLNDELGAGSLTALPIIETQAGDVSAYIPTNVISITDGQIFLETDLFN

SGIRPAINVGLSVSRVGGAAQIKATKQVSGTLRLDLAQYRELQAFAQFASDLDEASRKQLERGQRMVELL

KQPPYSPLSVEKQVVLIFAGTKGFLDDIAVSRIKEFEDGIYPFIEAKHPDIFEQIRSKKALDSDLEEKLA

KAINEFKANHL

>AHK53129.1 F0F1 ATP synthase subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENIIARRYAKAIASRADINDFYQNLCILNSAFVLPKFKNIIESNEIKKERKMEFLDSFFDIKNSSFQNF

LRLLIENSRLECIPQIVKELERQKAFKENIFVGIVYSKEKLSQENLKDLEVKLNKKFDANIKLNNKISQD

DSVKIELEELGYELSFSMKALQNKLNEYILKII

>AHK53128.1 F0F1 ATP synthase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKLFFIIFLLPLYAFGASNGSGEYDIIPRTINFLIFVAILYYFVATPFKNFYKNRIVKISSKLDEIQKK

LLESKAKKLDTMKKLEEAKASAAAALITAKKEAEILVQNIKKETQDELDLLQKHFEEQKDYEFRKMEKEL

VSNTLNEIFSDPNMTLKQSEIIELMMKKVS

>AHK53127.1 F0F1 ATP synthase subunit B' [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFEDMHPSIMLATMAIFLAMIVILNSMLYKPLLKFMDERNDSIKNDENKVKENSQEVLGVNDELEAIHIN

TREEIQKIKQSAIAAAKEEAEQILRSKKEELERKMASFYADLAVQKKELQEHLNIHLSELKQALQNNIKK

I

>AHK53126.1 chromosome partitioning protein ParB [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGLNKDRGLSSLISDMDTVYSKELGFDKNQSTMIEIDQISPNPFQPRKNFDQEALDELANSIKEFGLIQP

IIVFKKNNKFILIAGERRLRAVKALGKKEILAFIADIDENKLRELALIENIQRENLNPIELANSYKDLMQ

VHKITQENLAELIHKSRTQITNTLRLLNLDIRTQELIASGKISQGHAKVLVGLDQKDEKMLVDSIIGQKL

NVRDTEKIVKKIKNNESLPNQEFEDEIKKLKQILNRFGFDCKNKNNDFVIHLENIDKIKKLIKMLEKL

>AHK53125.1 sporulation initiation inhibitor Soj [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSEIITIANQKGGVGKTTTAVNLAASLAVAEKKVLLIDVDPQANATTGLGFNRNNYEYNIYHVFIGRKKL

SDIILKTELPQLHLAPSNIGLVGIEQELAKGENNEKKMLLKNQIQEVIDEYDFIIIDSPPALGSITINAF

AASDSVIIPIQCEFYALEGVAMVLNTIKIIKKTINSKLRVRGFLPTMYSSQNNLSKDVVDDLKQNFKKQL

FTINGNEDDFIVIPRNVKLAESPSFGKPIILYDIKSPGSVAYQNLAYSILG

>AHK53124.1 biotin--protein ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEKGLKVKIVCVESIDSTHLFLCKQIRNGKIDENFAIYALEQINGVGSRENSWQSSKGNLHLSFCIKEED

LPKDLPLASVSIYFAYLLKEVLQEKGSKIWLKWPNDLYLDDKKAGGVISAKISNFIIGGMGLNLKFAPQN

TALCDIEISLKDLVSEFLQKVEKKILWKNIFSKYMLEFEKSRKFSVHHEGKVFSLENSFLYEDGSILLGD

KRVYSLR

>AHK53123.1 methionyl-tRNA formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIIFMGTPSYATCILKALVENENFKLVALFTQPDKAVGRKQILTPSDTKAFLSQNYPSIPIFTPSSLK

DKNIIREIKDLNPDFIVVAAYGKILPKAILDLAPCVNLHASLLPKYRGASPIQSAILNKDEKSGVCTMLM

EEGLDTGAILESLECDIKDKNSSEVFELLANLAAKIILSTLLNFDKITPKKQEESLATLCRKIKKEDGLI

NLQNARELYQKYLAFTPWPGVFLENGLKFLELELVDELKQNAKMGEILELEKESFLLACKQGVLRIKKLQ

ESGKKALDGRTYLNGKRLKSEDSLC

>AHK53122.1 gamma-glutamyl kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKRIVVKVGSHVISEENTLSFERLKNLVAFLAKLMEKYEVILVTSAAISAGHTKLDIDRKNLINKQVLAA

IGQPFLISVYNELLAKFNKLGGQILLTGKDFDSRKATKHAKNAIDMMINLGILPIINENDATAIEEIVFG

DNDSLSAYATHFFDADLLVILSDIDGFYDKNPSEFSDAKRLEKITHIKEEWLQATIKTGSEHGTGGIVTK

LKAAKFLLEHNKKMFLASGFDLSVAKTFLLEDKQIGGTLFE

>AHK53121.1 GTPase CgtA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFIDSVKITLASGDGGKGAVSFRREKHVPLGGPDGGDGGNGGDIIFVCDNNTHTLVNFKGKRELRAQNGA

GGMGRNKNGKKGENLELIVPEGTQVIDAQTNEILLDLTKEGQRELFLKGGKGGLGNTHFKHATNQRPDYA

QPGIKGESRLVRLELKLIADVGLVGFPNVGKSTLISVVSNAKPEIANYEFTTLTPKLGLVDVNEYNSFVM

ADIPGIIEGASGGKGLGLAFLKHIERTSFLLFVLDPMRQMPLKEQFIVLRKELEKFSNELFGRKFGIMIS

KSDSVRLGEEFAEQIALNINELDNYLKEINNPQSFLIKVSSLEKTGLKELKFMLLEEIKTLRNNKKNLTI

>AHK53120.1 50S ribosomal protein L27 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAHKKGQGSTQNNRDSIGRRLGVKKFGGEFVRAGNIIIRQRGTATHAGNNVGMGKDHTIFALIDGFVKFE

RKDKDRKKVSVYPA

>AHK53119.1 50S ribosomal protein L21 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYAIIKHSGKQYKVSVGDELKLDHFEAESKASIEVSEVLAINDKELKVGAPFVAGAKVVLEVINHGKDKK

VVIYKKRRRKDSKLKRGFRRQFTRVVVKDIKA

>AHK53118.1 hypothetical protein N919\_00465 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIIKILFLGLFLSLSLNAKVITTTSTKSSTGEGTGLTREDAINNAIIEAIGKMSGVSINSLKKSNTSVS

TDNSGSNIQDNYSEQISKATKGRADTYEINSVEQDANGKYTANVTIFKTTTTKKYQAPGLSADNRRSITV

FDSTPDAAKRGIGSALQQKIISDLLQSRKFNVLDRDSSGYYEMEKALIKSGDAASDEVYKLKNMLATDYI

LLFSISGLEGKQKTSNLTGKSKTEIEVIVDYRVLLFATRQIKFSNTLSMKVNLKDNSLSANETALKQIAN

RIAGDILNAIYPLKVASVENNEVIFSQSLNQGDVYECFALGKVIKDTYTKENTGRVESKTGSIEITRTSP

KFSYAKITEGSVKVGDICRPLSNTGSGNGYTIGRDANYQTQEGGGVNLGF

>AHK53117.1 hypothetical protein N919\_00455 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKTKILGTALIGALLFSGCAQTAYTDGKASQVKKGDALTLGLDRQDFESAAETMINSMLSDPAFANIKP

GTRKVIAIGRVVNDTPQRIDTEKLTAKITSALRKSGKFVLTSAVAAGGALDSMSEDVRELRDNDEFNQKT

IAKKGTLVSPDFSLAGKIRQDNVKLSNGKTQVEYFFLLRLTDLTSGLVYWEDEQTIDKTGSSKSVTW

>AHK53116.1 hypothetical protein N919\_00450 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKNILFILMFLLSACAPSYQINSNQNTVILGSNLPKSLVKQFQKRINSNGYLEFEVILRSTFAKDVIYK

VDWLDKDGFVLRDVLNEDYQALRIPAGQEVILRKLASDTRANDFRLEIKAKN

>AHK53115.1 hypothetical protein N919\_00445 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIKVGLIFSGIACLFLTACVNQVKQNTTFENTLTQKYCGDDFFNQNLEKIKKNDDVIYTGLNAGLIARN

CGDFNKSNVFFDAVEESYKYDVDLENVSPKAAKFIGTTLLNDNIVDYDGSLYERIMVNIYKALNYMEEDD

YENARVEFNRVLMRQDKAKEYFAKEIEKNRADLDKAKEDKNYDKNMNENSKVIEAQYDNLFKEFDTTKNF

INPYATYLASIFFFMDKDYRKAADLFREVAIIYPKNKTIKKEAKIFKEYATKIKVKKAKKYVFVVYENGF

GVVKDEFALTLPFIVDKKIISTNIALQTLKKREASFANLNINGQNTNDFVDLDNIVATEFKINMPAMIAK

ALAQTIIKTTLNVAVANNDSTGGWLSLATAVATAATNKADVRSWRGLPKSIAIATIENDGNLEIKDPQGN

ILFQKSLDKNKNALVIVRSFAPYLPASVAIMEK

>AHK53114.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDIMIILQVIVLLGAIFIGIRLGGIAIGYAGGLGVVILGLVLGMKPGNIPWDVILIIAAAIAAISAMQQA

GGLDYMVRVTEKILRSSPKFINYLAPACGWLLTILAGTGNAVFSLMPVVVDVAKSQNIKPSVPLSLMVVS

SQIGITASPVSAAVVYMSGVLEPLGWNYPTLIGIWISTTFVACMLAAFIVSLITPMDLSKDSVYQERLKA

GLVKDAGAVLHGEDKPGAKLSVVIFLITVLAVVLYATAISSNIKWIDPVVVSRDAAIMSFLLTAATLITW

LCKVEPGKILDTSVFKSGMTACVCVFGVAWLGNTFVAGHEASIKEVAGDWVKQTPAMLAVAFFFASMLLY

SQAATAKAIVPVIITALGISAANPHDSYMLVACFAAVSALFVLPTYPTLLGAVQMDDTGTTRIGKFIFNH

SFFIPGVLAIAIAVALGFVLAPMLI

>AHK53113.1 aspartate ammonia-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGTRKEHDFIGELEISDEVYYGVQTFRAVENFDISHDRLKDFPRFVRALARVKKAAAMANHELGLLDKNI

QDAIIKACDKILEGGYYDQFVVDMIQGGAGTSTNMNANEVIANIGLELMGHKKGEYQYLHPNDHVNLSQS

TNDAYPTALHLALHDYLSDLAKAMEHLKKAYERKAEEFKDVLKMGRTQLQDAVPMTLGREFKTFAVMIGE

DIQRVLEARKLILEINLGGTAIGTGINSHPDYPKVVERKIREVTGFEYTVAEDLIEATQDTGAYVQISGV

LKRVATKLSKVCNDLRLLSSGPKCGLNEINLPKMQPGSSIMPGKVNPVIPEVVNQVCYFVIGADVTVTFA

CEGGQLQLNVFEPVVAYSLFNSVVMLEKAMYTLADKCIDGITANEKICSDFVYNSVGIVTALNPYIGYEN

SASIAKEAMNTGKRVADIALERGLLSKEQIDEILTPSNMLNPHMEAKK

>AHK53112.1 uracil-DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEEITINIDKIKINDDWKEFLRDEFQKKYFLEIKKQYLNAINQNIIIYPPANLIFNAFNLCPLKEIKIII

LGQDPYHQPNQAMGLSFSVPKNVKIPPSLNNIFKELQNDLNITPAKSGDLSSWAKQGVLLLNSILSVEAN

KAASHSSWGWQEFSDAIIHKLSNEKSGLVFMLWGNYAKNKEILIDNTKHLILKAAHPSPLARTGFLGCKH

FSKANEFLKKVGKIPIDWKIV

>AHK53111.1 aspartate racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTIGIIGGMSFESTITYYKTINQAINDKLKSLNSAKILLYSVNFEEIENLQSQDKWQEAAQILTQCAKK

LELAGANFIIIATNTMHKVFDEIQQNINIPILHIAKSSAKALKQENIQKIGLLGTKYTMTQDFYKKMLIE

ENISVITPSDEDIKIVNDIIFNELCKGEIKQDSKEKYLNIIKKLQEKGAKGVLLACTEIGLLISKNDTNI

KIFDTSLIHALDAANEALKDL

>AHK53110.1 cytochrome C oxidase assembly protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFFGLELEGLQIYWWLILSLLGGLLVFMFFVQGGQTLIDELSKDELEKTMLVNSLGRKWELGFTTLVLFG

GAAFAAFPLFYSTSFGGAYWAWLCILFCFILQAVAYEYRKKENNVYGSKTYEIFLKINGYLGVFLIGVAV

SSFFSGSEFILNEHNFVSWQNPLHGLELLLNPFNYLLGLALVFLARLLGAAYFMNNINDENIKIRAMKKL

MINSILFLPFFLGFLAWIFLKDGFSVDTNGVVSMSANLYLYNFLNQMIFAVLLVIGVILVLLGMVQGTKG

CSKAIFTLGLGTVLTVFALLSSIGLGQSAFYPSLSDLQSSLTLKNASSSYYTLSVMAYVSLLVPFVLAYI

IYVWNAMDKVKITREEIANDDHAY

>AHK53109.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNELSSVDWSRAQFALTALYHFLFVPLTLGLSFMIAIMETIYVKTKNERWKKITKFWLSLFAINFAIGVA

TGIIMEFEFGTNWANYSWFVGDIFGAPLAVEGIMAFFLEATFFAVMFFGWDKVSKGFHLLSTWCVAIGSN

LSAFWILVANGWMQYPVGMSFNPDTARNEMQSFFEVALSPVAISKFLHTIGSGYVISALFVMGISAWFML

KGRHIIEAKKSLVVGASFGLVCSIFLFFSGDESAYRVTQTQPMKLAAMEGVYQGEHRAGLVPFGILNPKK

TIDNNESVFLFDITIPYALSILGNRDPNSFVPGIEDLIYGNESKGIEPMQNRIDRGKIAIQTLKDYKLAK

ENNDTIAMANHKSILETHFKDFGYGYLEKPSDTIPPVALTFYSFHIMVALGSFFFLLFIVTLYLTMANDI

EKFRKVLWVCLLSIPLGYIAAEAGWIVAEVGRQPWAIQDLLPVHIAATQLGKVNVQISFWIFAVLFTALL

IAEVKIMLTQIKKGFDAHAGHTPLMGKGEK

>AHK53108.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MYLKHLYFSISQIFNFYKEGFKNLTLGKTLWKIIFIKLFVMFVILKLFVFDVNFNSIFKSDKEKSTFVLK

NLTLEGK

>AHK53107.1 cytochrome C oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKIIVFILCCFMTFFLYACSSKFENVNPLGRSFGEFEDTDPLKLGLEPTFPTNQEIPSLISGADLVPIT

PITPPLTRTSNSANNNAANGINPRFKDEAFNDVLIFENRPAVSDFLTILGPSGAALTVWALAQGNWIWGY

TLIDSKGFGDARVWQLLLYPNDFAMIKNAKTNTCLNAYGNGIVHYPCDASNHAQMWKLIPMSNTAVQIKN

LGNGKCIQAPITNLYGDFHKVFKIFTVECAKKDNFDQQWFLTTPPFTAKPLYRQGEVR

>AHK53106.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIICLFLSFNLAFANLENFNVGTWNLQGSSAATESKWSVSVRQLVSGANPLDILMIQEAGTLPRTATP

TGRHVQQGGTPIDEYEWNLGTLSRPDRVFIYYSRVDVGANRVNLAIVSRMQAEEVIVLPPPTTVSRPIIG

IRNGNDAFFNIHALANGGTDVGAIITAVDAHFANMPQVNWMIAGDFNRDPSTITSTVDRELANRIRVVFP

TSATQASGGTLDYAITGNSNRQQTYTPPLLAAILMLASLRSHIVSDHFPVNFRKF

>AHK53105.1 cytochrome C oxidase subunit IV [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIITLFFMFITLAFATPTGDLKDFTEMVSIRSLETGIFLSAFRDTSKDPIDQNWNIKEIVLSDELKQK

DKLADELPFGYVQFTNPKESDLCLAILEDGTFGAKSCQDDLKDGKLETVFSIMPTTTSAVQIRSLVLESD

ECIVTFFNPNIPIQKRFGIAPCTLDPIFFAEVNELMIITPPLTAATPLE

>AHK53104.1 lactate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEQILTWQQIYDPFSNIWLSALVAFLPILCFLVCLVVLKLKGYQAGFLTVILATLVALFAYKMPWNLVGA

SFIQGFTNGMWPIAWIIIAAIFLYKLSIKSGSFEIIKKSVMSITPDHRIQVILIGFCFGSFLEGAIGFGG

PVAITAALLVGLGLRPLQAAGLCLIANTAPVAFGAVGIPIIAMANLVGIEQHSVSAMVGRMLVPLSLTIP

FFIVFLMDGFKGIKETFPAILVAALSFTTTQFLSSNHLGAELPDIISAVVSLAVTTVFLKFWKPKNIFRF

DNESNFTQDNTLSFNQILKAWSPFILLIVCIIIWTQPWFKALFDKDGILSYTSITLQFSNITTGILSPSI

TGIGEAKPLSLALGVDLINGKTVAQAGTAILLAAFLTIAILKIKAEDAAECFWVTLKEMAIPCITIGLVV

AFAFISKNSGMSTTLGLAFAHTGDAFSFFSPIIGWIGVFLTGSDTSANLLFGTLQQVSAQKLGISEALFL

AANSVGGVVGKMISPQSIAIACAAVGLVGKESDLFKFTLKYSVAFIILIGIWTCIIAFFLQGIIPEVIVK

>AHK53103.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMKKVYFYATCLGSTAMQQSVLNAIKLLRREGIEVIFKKNQTCCAQPSFNSGYFDESREIALYNVDLFDK

DYPIVVPSGSCAGMMSHDYKELFKNRPEFSKIKTFSSRVIELSQYLDEVLKVDYEDKGVPIKVTWHSNCH

ALRVQKSIQASKNLIKKLKNVELVELQYEEECCGFGGTFSVKEPEISNAMVRSKIKDIQNSGAKYLISGD

GGCLLNIDGTMKRMGLDIKGIHLYDFLLKRLEGGRL

>AHK53102.1 iron-sulfur protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSQKIPHEQIVQIKLNDKQMQENLMTAMHTLQKNRLNVIDARFKDWQGLRAKAKQAKNNALMSLEERLLE

FEKNATKNGIKVHWASSDEDACEIVYEIMKEKNITKLLKGKSMASEEIGLNHYLEKKGLKAIETDLGELI

LQLNEEPPLHIVVPAIHRNRHEIGEIFKEKLGANLENDEPESLNAVAREHLRKDFEGLKLGLSGVNFAMS

REGAFWLIENEGNGRMCTTAPDIHIALCGIEKIMESFEDAATMVSLLTPSATGQFIPTYNNIITGPRKNG

DLDGPKEVHVILFDHNRSKMLAHEDYYEALRCIRCGACMNFCPVYDQIGGHAYQTTYPGPIGEVISPNIF

GIDHTGDILNFCSLCGRCSEVCPVQIPLADLIRKLRCDKIGQGKNPPLGANNVHHNALEAFAFKQFKNIA

TNGDKWRFSLSKAHYFNWTVQNFASILPVIKKWYAFKELPQIKMDLYKEVQKLEGVSYE

>AHK53101.1 hypothetical protein N919\_00370 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKIDEISSKSKANILEHLKKAYKETTFTRIESIDPVEHIQTTQDMLTEMKQKMSDNKYIVENATKDTLE

EKINEIVAKYSFKSMIYGADLNLNLEQIKAEKKICFDKEIENLRSEVFHSDFSIIHARAGVSSHGVALIP

SSKTQPRMLSLAPKLCIVLLKKENVVKSLSEALNLVKKENEILPTNILFIAGPSRTADIELITVFGVHGP

QIAHIIIY

>AHK53100.1 hypothetical protein N919\_00360 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKNIVFFEVKGGSDKGEDGYRKDTMPMVNALKAKGWNAEVIFFEVGKKDEIYKYVKENFDGYVSRINPG

NLKEENEYFDMLRKLCADKLVGMPHPDAMIGYGAKDALTKLADTDLVPSDTYAYYDIKTFKENFPKSLAK

GERVLKQNRGSTGEGIWRVSVEGNVSGDSLPLNTKIKCTEAKDNHVEHRELGEFMDFCEQYIIGDNGMLV

DMTFLPRIKEGEIRLLMLYNTPVNVVHKKPAEDADAFSATLFSGAKYRYDKPEDWKTLVDMFLGELPKVR

EKLGNYDLPLIWTADFILDTDEKGNDKYVLGEINCSCVGFTSHLELADEVASNIINIVSKTKA

>AHK53099.1 endopeptidase IV [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQILKSFFKALGCGIKFINTYFKTFVLLLIVIWILIPSANSSSNLANLERIDLKGEIFDSSAVLEKIINA

KNDSNIKGVLFVIDSPGGAFAPSMELALAIKDLKIKKPVLVYASGTMASGSYLAGVGANKILANPASFIG

SIGVIMQGADLSGLANKLGIKEQTIQAGEFKSAGTFARAWNENERNFLQGLIDQSYDLFTGFVAKERALD

LNKKDQWANARVFLAAKAKELGLIDELSNYENAKKELEKLANVSNPVWKEEDKIDKFLNRLEGQTSSLIS

KSLIEIAYKTNSSFINAR

>AHK53098.1 chlorohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MFIVAARYLFLCDEDFTILENQAFVFEDKILELGELDNLKKKYPKAKIIKTPKNSVILPAFINPHTHLEF

SANSTTLHFGEFLIWLKSVINSRSILNAQAKEELILQSIKKMQKSGIGTIGEISSFGSDLDPCLKASHKG

MRIVFFNEILGTNENQVEDKKQEFLKRFENSLKFKNDFFIPAISIHSPYSTHPSLAHFALDLAKKQNLLA

STHFLESKAENIWLRESKGGFKKWLENFTLHPKPLYTPKDFVKLFKGVRTLFTHCVYLKEYEWLDKNLHS

ITHCAFSNRLLSQKSLDLKTALKSGLNIHLGTDGLSSNISLSLLDEMRANLLIHKNFDLLELASKLLQMV

TLYPARALNLNLGELKKGKIADFNVFELGECDKKQAPLQFILNAKEVDKLFIKGKECKF

>AHK53097.1 3-dehydroquinate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIMIIQGPNVNMLGVREVGIYGAMKMEEIHEQMKLAASQNNVELDFFQSNFEGEIVDKIQECLGTVDGI

IINAAGYTHTSVAIRDAIAAVALPTIEVHISNVYRREEFRQKSLIAPVCSGTIVGFGPFGYHLALMGIIQ

ICEQIKNLRAMQQAQQTNK

>AHK53096.1 flagellar biosynthesis regulator FlhF [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGQLIHTFTVEDTEQIIPKVKEDYGDKALIITNKQIRPKTLNRSALYEVMVAIEESDYEEHLKKQGKSLP

AKKSSPKPSSTSLAEEKIRSQIPQEDEDVVLDFSNTRLNTNLNTVKNNDLAKKTYQDFPQNKINPHQNKT

LGFDDFKEKLSEVSNEISKVTNTPLENYTPNPNYNKKIENFEKQFEKQINKLNDKIDLLADMMWDDKAEA

RKNLMIPPEFASIYKQAKESGMLENHLEAIMKATIENMPAAMKTNKDAVQRYFHSLLRNILPCRVESDIK

KQKIMMLVGPTGVGKTTTLAKLAFRYAYGDKRYKTGIITLDTYRIGAVEQLFQYAKMMKLPIIDSIEPKD

LDEAIKSLNNCEVILVDTIGNSQYDQSKLAKTKEFLMHSNAEIDVNLVVSANTKHEDLMEIYKNFSFLNI

DTLIITKFDETKVFGNIFSLVYETNIPLSFFSIGQEVPDDLEVANSDFLVHCILEGFNKGKNNE

>AHK53095.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNNQANKLRNLMSQNGTKKSQNTHFIAITSGKGGVGKSTISANLANVLANNGYKVGLFDADIGLANLDVI

LNVRIQKNLLHVLRGECSLEDILIEVKPNLWLIPGESGDEILKYNDKNIYERFLNQASILDELDFLIIDT

GAGIGGNILNFLEMADEVIVVTVPDPAAITDAYATIKTTSKTKENLLMLFNVVKNENEALKVFENIKKVA

DANIKNPLNLEFLGHLSASKDVSGSIKKRTLFSDENTASSDEIKALASKLLYRLERKVLDNVSNRSFSSF

FRKIIERF

>AHK53094.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRPENYVAFFTVCGFFIGLAFSIISIDEAFDILIFTCFITFMFYVFVHIAIMNFIDVKKISGRIFNKHDY

EKTSNNIINDLVIREKKMDIILEKLNEEREELKKNEFKERRRNAKRAA

>AHK53093.1 RNA polymerase sigma 70 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MLKEPPKAYAQMLKKEQDELVLSYMPALRAMAFRLKERLPSSIDVNDLISIGVEEMIKLSRRYDKEQNDN

FWGFARKRVNGSMLDYLRSLDVMSRNNRKIIKDIDAIMDEYFLEHECEPDDEYLAKKLDLDVEKIKEVRT

AHAISYTLPIDEQIELYNEDNTLEKIEKEELLEKIHEVLDDLKERDQLIIQLYYYEELSLKEISEILQIS

ESRISQIHKKLLKKLRERLV

>AHK53092.1 flagellar motor switch protein FliM [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAEILSQEEIDALLEVVDDNTDTPIASNSKDEKDERNIVVYDFKRPNRVSKEQLRTIKGIHDKLARNLAS

QISSMMRSIVETKLHSVDQMTYGEFLMSLPSPTSFNVFSIKPLDGNCVLEINPSIAFPMIDRLLGGQGDS

YEASRELTDIELNLLDSILRIIMQRLKESWATVTEIYPSIEAKESSPNVVQIVSQNEIVIMVVMEIIIGN

SSGMVNICYPVVHLESILSRLANRDIMMGETSAKKSRNKELKTLIGRAEVVYEAILGKTLINVHEFLELK

QGDILRLDREADDKAIVSIDKKDVFLAQIGLHRFRKSIKILELIRTDKDEIKEILEKYEEERKAKASVYD

EPEEEDEEI

>AHK53091.1 flagellar motor switch protein FliY [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINDFLKMFTNECISTIEGLTGKSAEFSEYKEFDVNTSDTLKAPLVYAIFNIANGGKIGILAGAILMSAI

GEWMMGEEEITKNDKLGPDEMDAAKEAIQNIISAFSTTLGAQKDIPKMDFSIESCEFVPESVDFKDFKKL

FLYDVKIGDLEEQVSLAMDQTLHNILSGKPAETGNTSTDSNHNTEEKAIMLSEELKNINLIMDVRLPVRV

RIGNKKMLLKDVLTMDIGSVVELNQLANDPLEILIGDKRIAYGEVVIVDGNFGVQITEIGSKKERLEQLR

>AHK53090.1 lysine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNEKISQDLEKFANIPNLKNAVTFFGSARLKEDNFYYQQAKILAQKCVQNGFCVISGGGGGIMRAANEGA

FSQNNNTNSMSSVGFNIFLPHEQKLNDFVEYNITFESLAIRKMALIEKSLAFVIFPGGFGTLDELCEILT

LKQLEFKKDVPIILFGSEFWRGFDEFVRNSLLKLEVISKGDELKYKITDDLDFIINTLKEI

>AHK53089.1 thiouridylase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKILVAMSGGVDSTVTAYKLKNLGHEVIGCYMKLHGKPNYHEENIKKVEKVANFLQIPYHILDLQEDFKN

KVYMPFVDTYKEGKTPNPCALCNRFIKLGKLLEFAKSLGCEKLATGHYARLENNLIKTAVDESKDQSYFL

ASADKEALKYLIFPLGEMKKEDVKKFASTIEVLKSFATQKESSEICFVEDTYVQVLDQFMDTKIPGEVLD

SSGKVVGKHEGYMHYTIGKRRGFEVRGAHEPHFVLKINPKQNQIIVGTKEELKISEFNLKNINLFIDAKE

LDCEVKIRYRSKSTPCKVEIYEDKSAKIILKDPVYGLASGQMAVFYDHDKVIASGFIE

>AHK53088.1 hypothetical protein N919\_00240 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNFQVKTLETFNPFESLNHEQANTEQILDFRVIDFKLLCSSVKPAKTKTYERKDFDLFYADDFFVKNYNT

IVQKFLIEIYPKTQSFPFTVKLRSNSNLTHLKASINLTENFKYYPNLKFDILQNIYKIMIKQKFLILRLD

KNLFDKIDDFILSIQKSPSIKEIELEIAKGVDKIEHKSDEIIYHRDVNEECFDENINYDEGNYCKPIEKN

ELLFEYIYRILGKEGRNLRGEILHLNPIAFLDNPFIIKDESIYTEELEDRIKYFSANYGFLNKDHTGYCI

ANNLKLSQIGLKTTGSIKTNTDENINLEITNFDISDDAIKSGIVNVQASNIKVNGNVGATKLYGKNISIK

GLTHAKSEIFAQDIFITTHKGTLQADTVYIKNLENGTIIAKNVFVENCMGGKIEAENIYICNLLTDNTLY

PRKNLIITNNIKFKNNIVVSPLVSIENNSDTECENLKNLSLKIKSKLDDTISKMQNYYDYLIKNQIKIIK

LQKTKNPSAIEMKFSNLYHDIIKKYNHLSISYKKLVKLKYQIDAKLNFLNEMVYNVKIYIKAENIGEDNF

LKFYPNTNTNLELKHHINLKDYEKVLYLEKGQQVSYIKSSHNYSESDIEEIKIIFKKLEKDNS

>AHK53087.1 flagellar hook protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MMNSFYNGISGVKSNSFGIDITANNIANVNTTGFKYSDAQFKDIFYTTITTQSTNPAQGGYGSGAASSQV

VFEQGSPVASDGEFDVALQGKGFFGVLGADGNAYYTRNGSFRRDANGYLVDSYGNFVLGTMNPAFTGINY

SDRVAGLMGDYLNTGTPVNNGFTVNSNNSFSIGTTASQGAIKVPVNMYLPPQVTQNVKWSGSLNTNTTTE

VVKVDLDPSKFNITKTEDGKYVVSGSVSKEDVFSAKAGDRIILNFTDDNGVKTSFEATLDENLNFKSNEL

DLKGLDENSIKLDTAQISTEQQKANKDILESPIYNADGSKSTLRVTLERVLPQEGDNIQYKAIAQIYDSN

GNAVGNPTEGNMVFDKNGALLQNNITSIANPNGGTINIDLGSPYDANKPGSGYSGIYIKQGVEKNVVTQQ

DGVAEGFFEQYNISDDGSIVAQFSNGKNAIVGKLALYNFINEQGLVAMGDNIFAATANSGDASFIMKDGQ

VVNTAKFKGGFLEQSNVDLSAELSNLIVTQKAFDASSKSITTSDQMIQKAINMKR

>AHK53086.1 flagellar basal body rod modification protein FlgD [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MISSSDWNLNTTATTSGTTSSGSTSGTTRTDSSSSSGIVSNPNATLDKDAFLKLLLIELQHQDPTDPMDS

DKMLTQTSQLSALEMQQNTNTTMQKMVETMQKLSDSFSTSMSTSALGAIGKMATVSDNKIKLTGADELIA

LKMYLPEDSDENGVTLEIYDSNNKLVFSEKSDAKSISQGLFTMEWPGRNNDGVYAGDGEYTVKMVYNNKN

GEKITANYGTYPIEGVVFKDGVAYAKMAGQEVPFDAIQEITDYKLGSSSSTGGSGSSGDSSGGSSDGDSS

GSGSTEDGDKEEKA

>AHK53085.1 flagellar hook-length control protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSNLAPQNDVLNLTPSKTSTTSSSFSKTSKNKEHESSDSKNSTQDDTESFLNSLLNSINETNEFLPDHMK

ISQKEVVNEAMSRLQKGAFDESDKISIFESASFMQILSLLDKLKTDTADVKLANLSTQLSSLIKTEANFN

ALKGASNLSELLDIAKDLGLNVKNIKVDRLLDLKATFPNLDKADFFKGAVDNVFKEIINNKISNVSKNLN

HNLENTTHTTSTHSMQKTNSKDSGSLLSQTLKNLDSILSSKESKHEKNDKVKSKIEEDTTDAKNTLKNIK

NDEFAKNLTEELNIKDKKNQDNLNKESKDLNKDFNKELNKNQEKNNLNQENIQDQNKNLKNNDQNLNLDK

NLNKEIVKDTQKLVSNLTQKDFNLNKEPKNNNKENKDIKQNFFDQKLNFENLNKTQVVQNKENNANFNNN

NTNNKETFTQEQTKTHSENVDKNSLDELNSLVKDLNKVTQNNARNITPKETLQYFSQDLKEAVDQYKAPI

TKLSITLNPNNLGEVEVTLIQRGNNLHINFNSNANAMNLFIQNQAEFKNSLVNMGFTGLEMNFSDQGKRE

QNQNQGKNRSGYGFKDALDGKNESEKVNLELVLAKYF

>AHK53084.1 hypothetical protein N919\_00220 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKPLNEEIFVEFKSDLAERKNEVLLQVLELLETFRSDENEKMARISSELTEILENEENLEKILNAKNLE

ELLNILTALNEDKMIKVYEDSYLKEKFPNVMVDKFLK

>AHK53083.1 GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MENIRNIAVIAHVDHGKTTMVDELLKQSGTFSEREQISERVMDSNDIEKERGITILSKNTAINYKGTKIN

IIDTPGHADFGGEVERVLKMIDGVLLLVDAQEGVMPQTKFVVKKALSLGLKPIVVINKIDKPAADPERVI

NEIFDLFVALDANDEQLDFAIVYAAAKNGYAKLDLNDESDNMEPLFKTILERVPAPSGSDENPLQLQVFT

LGYDNFVGKIGIARIFNGVVKKNQSVMLAKADGTKVNGRISKLIGFMGLEKMDIEEAGSGDIVAIAGFEA

LDVGDSVVDPNNPMPLDPLHIEEPTLSIVFSVNDGPLAGTEGKHVTSNKIAERLEAEMKTNIAMKYESTG

EGKFKVSGRGELQITILAENMRREGFEFCMGRPEVIVKVEDGVKTEPFEHLVIDVPEEFSGAVIEKLGKR

KAEMKTMAPTGDGQTRLEFEIPARGLIGFRSQFLTDTKGEGVMNHSFLEFRPFSGAVEKRNNGALISMEN

GVALGYSLFNLQERGVLFIEPQTKVYTGMIIGEHSRPNDLDVNPIKGKNLTNVRASGSDDAIKLVPPRKL

SLERALEWIEEDELVEVTPVNVRVRKRYLDPTQRKRMEKAKS

>AHK53082.1 poly(A) polymerase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDLKSLENNRLYILKRLGILKFLSIIEALLVGFLAFVFIRDALIAVILAVFVGVFFFRFTAKKLKLAQKE

LQINALNLFLRRFGAKFKKQSLSQKDFLKLGLTKDLKEFKSQNCFEFKDFKIYDIQFLDENKRFFCGILL

EISKANKNPSFENEEQIYIKLTDKNFTLNHIFSKENHYLITTLSNPFFIDIKKDLESNFKDLEENLNSIK

NKLFK

>AHK53081.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKHILLLGLCLSLSLSAKSVSDYKVGEELSDKEGVEYFKELSKRPVQEWPNKNLSINDVPKGKQGDLIR

YGIELLSKTESTLGPYSKLKKTSNEVNCISCHMDNDGNGLPGTKKYVIPFLNILNNYPRLDIETMKIISV

EDRIRGMGGTDSHRFPNDSKEMKAILAYFKWLKEAYGIKDGVKLEGDFFAKMNFPNRPADPVRGKKLFEE

NCVACHGERGLGVKNDNYEQGSGHLYPSLLIYPDGGHMAMIPFLARFLKSAMPFGASADNPILSDEDALD

IAAYVNTGFVRMPITTTENRAGLDTAYSKSPSLKPEYFASPQQNLDPKEYIKVKYGPWKNPNHFPGE

>AHK53080.1 hypothetical protein N919\_00200 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQNLNQNEQIKCPSCGSFIDISTALYAQILDKAKQEMLKQKKEFDDEVNAKRAEYTKALNDLKTQKIEQE

KLINEQVSQKLLLEKQKFEQELLIQKQNFQKEFSEKFNKEHENEMKIMQEELEKKSKELSEFLSIKAENE

RLKREQKENEERLKFQAKEEAFKEFKEQESKNLEFEREKMRLEFQKSTQEQDLKYKELETNFKSVAQKLE

DAQRRIEQGSQQLQGEAAELLIEEYIQSEYLSDEVKEVPKGVNGADCLHIVKDNFGNICGSILYESKRTK

EFNKEWLDKLKLDSIAAKSDIAVLITKTMPKDKEKTHFKEGILICTFNEFKGVLAVLRESIINAYKLKNA

LQNKDEKNHILYEYLNSKEFNTQITFILKTYQNMKEELEVEKRALQNIWKKRERAIENLSFNSTAIVSSL

NAIFSDLQGGNLIGEEGIKSLENLAKDED

>AHK53079.1 multidrug DMT transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQKHTKIHGFAKFKLIVILALMSSIAPLSTDMYLPALSHVEQSFQTNSFLTQLSIASFFIAFALGQLIYG

PLSDIFGRKIPALVGIFFFIVSSLFCVIIDDIYAFIALRFFEALGGCAGVVIARAIVNDLFEIKEAAGIF

ALMMVFSSLAPMLSPTFGGILLEYFSWHSIFATLFALGILLFLMILFGLKESAPHLKNKKFSHHEAMKSY

KFVLSDKRFLVYILCASFALAAMFAYITGSSFVFTQFFSLSEQKFALLFGANALGFVICANINARLVLKY

ESEKILAKALMIMFISTVILLVNAFFHPNFLLFELSIFTSIAMLGFIAPNTTTLAMARFKEHSGTASAVL

GTVQFGFAGLISFVVGAINANTPIILAFVMCACVLVANMIYFLIKIKEKK

>AHK53078.1 hypothetical protein N919\_00190 [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTNNIFMALAIVLASLILAFGFNKALSDFKTLERSVSVKGLSQKEVEADTLILPIKFTRSNNNLTNLYE

ELEQDKENIIKFLEKQGIKEDEISYNSPNIIDRLSDPYSNDTQAAYRYIGTANLLIYTQNVKLGKSILEN

ISSLAKFGIVTKIDDYDIEYLYTKLNDIKPQMIEEATLNARNAAIKFAQDSNSHLGKIKKASQGQFSISN

RDKNTPYIKTIRVVSTIEYYLKD

>AHK53077.1 L-asparaginase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNMCDEI

WLRLAKKIAKLFAEGIDGVVITHGTDTMEETAYFLNLTIKSDKPVVLVGAMRPSTAISADGPKNLYNAVA

LVVNKEAKNKGVMVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNAPFD

VSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVSSRV

VAGCVAVSDSDEKLGFISAEDLNPQKARVLLMLALTKTSDPKKIQEYFLKY

>AHK53076.1 recombination protein RecJ [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKIINKNEIKKILASRFEKDLHTKLCDLPLPCCLKDAYKAANRIKEAVEKNEKVAIVGDYDVDGIISCVI

MAEFFDDIGFDYIIRIPNRFKDGYGLNAEIINELDVNLIITVDNGIAALEAAKLCKEKNIDLIITDHHMP

QDILPDAFAIINPKQKDCDFPEIEICGAQVAWYLIAALKEVCKLKYDMCKFLELLAIAIVADMMELRDLN

RALVRRGIDHINKSKRAAFRAIKHYYQKDKFALDNIGFLIAPLINSAGRMDDASISYEFLHTKDFNKALE

YLEQIVSFNESRKDEEKQLFEDSLNQIDENDSCIVVSGLNWHEGVLGIVASRLAKHFNKPAFVFSQNEEH

LKGSARSVGKIDILALISKTNSILSNYGGHKGAAGISLNSENFEQFKNKIKKECSQISESEFLDTDEILG

ILEPSEIDFEMLEILESFEPFGHKNPRPFFVLENLCVKNKKLLGKDEKHLKLVLTKENKTIEALFFNFDK

EPELNQNISLLGSISKNEFRGMVTPQFVVKEIL

>AHK53075.1 CTP synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKQTKYIFVTGGVLSSLGKGIAAASIATLLKNSGLKVSILKADPYINVDPGTMSPFEHGEVFVTDDGAET

DLDLGHYERFLDESLSQDNNFTTGRVYQSVIEKERRGEYLGKTIQVIPHIVGEIKDRIKKAGEGKDILIV

EIGGTVGDIEGLPFLEAIRALRLEVGKNNAMNIHLTLVPFIKAAGELKTKPTQHSVGELRRIGISPDMII

CRSEKALDRDLKDKIAISCGVEKNCVIESVDAASIYQIPLNFLKQDILSPIAEILDLKNLKPNMENWDSL

VKRVIAPSNEVKIAFVGKYVDLKESYKSLTEAIIHAGAALDTKVELKWVDSEKLENMESSEVFKDVSGIL

VAGGFGYRGVEGKIKAIQYARENKIPFLGICLGMQLALVEFARNVLKLKDVNSSEFNEKCQNPVVYLIDE

FMDTNGEKQIRTAKTPLGGTMRLGAYKCDIKEKSLLAKVYNEVKSVKERHRHRYEANPKYRADFEKYGLI

VSGESKGLIEAVELNCHPFFLAVQFHPEFTSRLEHVNPVICSFIKAAINYEDN

>AHK53074.1 FAD-dependent thymidylate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQITLLFHTPLSVCSHATRTCWQSFEKGDCGGEKDKELIDRVGNKFKHASTLEHLNYTFYIQGISRACLQ

EVARHRHTSPSVKSTRYTLKELRNEAEFKIGDFENASRYLVLCGNEEVDNASIKALENLRTILQKSISLD

IAKYCLPESYKTELTLTINARSLQNFISLRSSKSALWEIRNLANALFEALPQEHKFIFEHCLHKDIE

>AHK53073.1 sodium:dicarboxylate symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDKQFFQDFLMLSQAHTIATLAILCVVFYALKKMRDIKINFSLRMLFALLMGLGFGFALQYLANFPDAEE

ASNILWYSETKHWFAFVSSVFVAFIKMLVVPLVSICIIKVIIEIDKNIKISSLLGISLFWILFSTAIAAT

LGIFLGYSFDLGSNFAIYEGDKQIREIQTFSNIILGLIPSNIITAINKENIIAIVIFSFFIGISAKKISK

KEEYEQAFKSFHNFILTFYNIMMNMTATVIRFMPYAVVCMMANVLLSNGFEAIKTAGLFIMLIYIAMFIM

FGVHFLLLASQGLNPIKYAKKAFPVWLFAFSSRSSLGTLPMTTSTLQNKFGVNSAIANFVASIGTTTGLN

GCAGYFPALAAVFVAFATHTHIDFTFALMIVLVAVIGSLGIAGVPGSATMAASIMLAGIGFGNNFVMLSL

ILAIDPIIDMARTASNVSGAMTSALCTAKNLKALDKEIYNS

>AHK53072.1 ribonucleotide-diphosphate reductase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKVIKRNGRTEELDVSKIKKCTSDAVKDLEGVNLSELELDAKIQFRDGISTEEIQKTLIKTAVDKIDIDC

PNWTFVAARLFLFDLYKKVNGMNRYNHLREYFQKGEKEGRILLGLKEKYDLDDLNAYIKPERDMQFTYLG

IKTLYDRYLIKDSKGMPIELPQQMFMAIAMFLAQNEFNPQEWAKKFYDLISKFELMLATPTLSNARTTRH

QLSSCYIGSTPDNIEGIFDSYQEMALLSKFGGGIGWDWSKVRAMGGSIDGHKNAAGGIIPFLKITNDIAV

AVDQLGTRKGAIAVYIEPWHMDISDFIDLRKNSGEERRRAHELFPALWINDLFMKRVRANDKWTLFDPAD

TADLCDLYGEAFEKRYEEYEKDESITKEIVEAKELWKKILLNYFETGLPFLCFKDSANRANPNAHVGIIR

SSNLCTEIFQNTEPNYYQIKVVFENGDELHFDEEQKVVIDGGYEKPAKKISTLDSIEGNKVYIVEKYKND

GKTAVCNLASINLSKVYTKEDIERVVPTAIRMLDNVIDLNFYPHRKVKDTNLKSRAIGLGVMGEAQMLAE

AKIHWGSDEHLNKIDEIMEQISFEAINASSNLALEKGSYEDFEGSNWSKGIFPIDVASPKAKALTLREGL

FDQSECDWVKLREKVKKDGMRNGYLMAIAPTSSISILVGTTQTIEPVYKRKWFEQNLSGMIPVVVPNLSL

DTWQYYTPAYELDQKILVKAAAVRGKWIDQGQSLNIFLSLDKASGGYLNEIYQLAWELGVKSTYYLRSES

PDSEKVNVADRSIECEGCQ

>AHK53071.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MVERYSREIMAKKWDMQAKYDAWLKVELAAVKAWNKLGLIDDTDCEKILKNAKFDIARIDEIEKTTKHDV

IAFLTSVSESLGEESRFVHYAMTSSDCIDTAVALQIKESLELILEDVSLLLEAIKKRALEHKNTLMVGRS

HGIHGEPITFGLVLAIWYDEISHAKELLEHAKEVISYGKISGAMGNFAHAPLEFEEEVCKNLGLKAAPVS

NQVIQRDRYAQVISAIAILASSCEQIAVAIRHFQRTEVYEAEEYFSVGQKGSSAMPHKRNPVLSENITGL

CRVLRSFVTPALENVALWHERDISHSSVERFILPDAFITADFMLMRLTNLIDKLLVYPENMMKNLNLTGG

LVFSGRVLLELPFKGISREEAYKIVQRNAMKVWADLQNGKAAINEKNESLFLLALLSDEDLRKSLSEEDV

RKCFDYNYYTKNVDAIFKRTFK

>AHK53070.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MAYIKIKLSNNGKKAFQVLMENLKISINEAQKLIDKKRLFCDGILVEEKNKILNGLVELIVYENNPKGVE

IVFENEDFAILEKESGILSHPNGRHCKYSLSDEIWHLWGKEACVAHRLDKETSGLILIAKNKKAQIDLKS

LFEKKLVQKEYLALAHGKIEENFIVDKAINLTKNYDDVKTRMQICKEGKQAITEFEILEYFPKINATLLL

CKPLTGRQHQIRVHLHYKNHTILGDPLYGLSKQQIESILDEKLNPKERLKLTGALRLCLHSYRLKFQYKN

QNFDINSKINIKEIFNNSIK

>AHK53069.1 fumarylacetoacetase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKFVNFIQGQKPNLGVLNSSGKIVSFDDLGIETNDMNEFIIHFDKFKHKLTDLDSKIAYEIPQENYLAPI

IEPRQDIICLGINFLDHAKESAKFKGEKFEEREYPVYFGKRCNQATAPFGDIPLHADVTSQLDYECELAF

ILSKDAYKIKAKDAKDYIFGYTIINEISARELQKRHKQFYRAKSLEGSTIMGPYITSVDEISYPPKLQLQ

SYVNDELRQNSNTQLFIFDIAYVLEELSAGMLLKAGSIISMGTPSGVGMGLNPPTFLKSGDKVRCVIENL

GELCNKIKNINY

>AHK53068.1 cytochrome C biogenesis protein CcsA [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIIMILCLSYANIVFAVDMITPIPNSISYDKEKAKLGKSLYMDKSLSKDGKVSCNTCHRLDQHGVDGL

EFSIGVDNQLDKPFNTPTTFNSVFNFVQFWNGRAKDLAEQATVPFFNPKEMGLSPELLLQKVNSNENYVK

TFKKLYGEVTVENIALAVAEFEKTLITPNSPFDRYLSGDQNAISTQAKKGYEDFKANGCISCHQGQNIGG

NMFQKIGIFEEYPNQEDLGRYEITKREADKMVFKVPSLRNIAKTAPYFHDGSIPTLDACVQFMAYYQLGK

FLDQETVDNIVAFLESLTGEYHDK

>AHK53067.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTNKKSSFLIKFIILSTLVLAFILVLLGIIFNNYSSSKDNKELINIVQQLEISDEKINSVFQNSFNFINY

DPSVQAIKKMQENFTKLKTFGIDINKAEEIFNAKLIQLNYFKSANSIAVNSKLYLFELAKNYFEELEQNH

ETNKNNYKTMSSMLSVLSTENILQKTTLNQLNNLMKEIKNDTKSENLQLFLKHYNMIVKQISIMQDNSSI

YENNSLMKELKQLNTFTQNTIEQSNLFKFYIALAVFGITLVLFVFFILLTLKKVIMPIHTLEKLSANLAS

KEANLHSRLNIDPKSELGQSAQYINSFISTVQNSIIEAIENAKSSHQNSQKLKNNSMMLENSSNSQHEQI

QGVKEITHVLDDHINLAGNLAQESIENMQDMHILMDKVELTLSELVNLINENNEKEQNIVANMDNLTQSA

DNIIEITNSIKDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVGQLADKTSKSLLNINATVNTIVQQI

NDNKALMDLIHDSMKETSSKTNDLQQELVNSMHKLESSIESTQTMKDKSMEVKDKMLILGTNIDKVNELA

NSVKDLSCEINNISQNVLNGASKLSEKLSSFQ

>AHK53066.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MEFLELLLVLIALILIIKKPEKENLAFGLVMVAWLLMVFFYVGHKTGALLTIMNL

>AHK53065.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNEINKTKNFYTLMCLAGFLIILLPVGIANLIFGYMLGDSPCTLCWGQREAMIFIGVMALFIVRYGMKGK

YLAALLIMTAVGLYQSFAHYGNHAHRDLDQGFGLAVFGIHTYFWAEVVFWAVVLLLGVIFAFAPKFNAFE

AELNGEKFRKYTKFSFAAVLISAIIVASNVFQAFVSTGIPPYVGQGDPVRFSLNPKYIIWSKEGWNGLWQ

NISFLGKRDVKAPDYAFAPASEKLGIKFDNDINNAPFAKINDELKITNEQTINFDKAINTLDYINNEFVA

SSKWDVAFLDNNFSVKEGFELDPYFSASIDPIIGIIPYMNDKFILMGSNKSFLRFAKNPNASEEDIAKQY

ADFVKGNDKFKGQGESLGRGRLDTVRAKFNHVASMTTDGNYLYLATVPNNKDAKTFVISKVSLKDRVLSG

EFTPKANLKEGKTLGDLYVTSMTFKDGEIYALSKNHNVIAVIDPVKEEVVKTIAFPSSITNARSIFFKDG

KINILSYQDGANKLYTLN

>AHK53064.1 7-cyano-7-deazaguanine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MSKKALCIISGGMDSTLCAYLAKKEGYEIIALHFDYEQRTQEKEKECFKQICKALKVEKSYILDVSFIKD

IGGNALTDKSIDIPKNELCTSDTPPITYVPFRNGIFLSIAGSLAEKENCESIFIGVVEEDGSGYPDCTDE

FIQKAQEFINEGTSKNFKVCIKTPLVRLNKAKIVELALKENVPLELTWSCYESEDEACGECDSCLLRLRG

FEKAGFKDKIKYKS

>AHK53063.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MINIKLIEHIFKAASISRWNDYPRMANLVELDKQAHKFIIAYFIAKMEKDVDMRVIIEGGIFEFLSRVVV

TDIRPDVYHEIVRQKKAEVNAWVLSKIEPMIEDIEDGEFLKRFEAYLNGNAYAKERLILKAASYFATRWE

FNIVYQTSAFLNDIDEIKNKVEEELEDYYELIGARKIALNQKIAKIIDLSGRLRFQKRWAQTPRIPETAV

LGHMLVVAILGYFYSLKIKACDKRLENNFYCALFHDLPESLTRDIISPVKYGIDGLHDIINDYEMKLINE

RILPFVPEGLRAEFSYILGIREGRNGESNFVKNEFENRTYKNAKIELCSGSLSSFNENEFGAIDGKALKY

CDKIAAYIEAGLSISYGVKSKELESGFLGMHEFFKENPTIDGVNFFEICESLREYFKI

>AHK53062.1 dihydroxy-acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRSDAIKKGHLRAPNRSLLRACGLKDEDFDKPFIGVANSYIDIIPGHYFLNDYAKIIKDEIRKNGCVPFE

FNTIGVDDGIAMGHEGMLYSLPSRELIANSIETVMNAHQLDALICIPNCDKITPGMLMGALRVNVPTIFV

SGGPMASGVTKKGEKISLSSVFEAVGAYESKKISEEEFKDIECSACPSGGSCSGMFTANSMNTLCEAMGI

ALEGNGTILALSKEREELLRKAARRICEIALDERFKIRNIITQKAVRNAMVVDMAMGGSSNTVLHMLAIS

REAGVALDIKDLNFISSKVAHIAKIAPSLNSVYMDDIHKAGGVSAVMAEISSRQGHILELDALTITGESL

KERLKNAKIKDENIIRKVDNAYSKVGGLAILFGNLAKQGCVIKTAGIIGERKFKGKAVCFNSQDEAIKGI

IKGKVQKGNVCVIRYEGPKGGPGMQEMLSPTSLLMGMGLGADVALITDGRFSGATRGLSVGHISPEAAEG

GLIGLLKDGDEIEIDVDAYTIHANVSEEEIAKRKKEFALPQKEVSSRWLRMYQKLVSNASKGAVLDME

>AHK53061.1 non-heme iron protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MRQYETYKCQKCGNEVEVQNVGGGKLSCCGEEMKCITTDLTAVNLMKAFAGESMARNKYDLFADVAEEEG

WHAVARHFREAAENEKWHARAEFKAYHEIVDGKPLEVTTKNLVTAAEGENYEHTTMYPNFAKIAEDEGKK

AIARLFTAIGKVEIEHEREYLALKKMLEEEEFFNSEVEELWVCEVCGHIHRGKKAPAACPLCKAPKEYFK

REFLG

>AHK53060.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKLLFLFFALTAFLFGAVNINTATLKELKSLNGIGEAKAKAILEYRKEANFTSIDDLKKVKGIGDKLFE

KIKNDITIE

>AHK53059.1 ribonuclease HII [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKTLFDTKELLNEFDINLIGIDEAGRGALAGPMMMAACKLNKQLDGLCDSKKLSEKKREELYEIIIKNSN

YLILAFSSEQIDALGLSTCLKKGLKLIKKHFKTENNFLYDGNTNLGINGIKTQIKADTSILQVSAASILA

KVSKDRVMNFLAKDFPCYEFEKNKAYGTKAHKEFIAKFGICKLHRKSFKLL

>AHK53058.1 glutamate synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MGNARGFLDFKRMDFKKIAPKERILNYKEFTIPLDKKEQEVQGGRCMDCGVAFCHTGVMSEGKDVGCPLN

NLIPEWNDLVYRSLWKEAYERLDLTNPFPEFTGRVCPAPCEDSCVCAINGVSVSIKNNELSIIENAFKEN

LVRVNKPKQYNGKKIAVIGSGPAGLACANTLNSLGYKVSVFERSDKIGGLLMYGIPDMKLDKSIVQRRVD

LLKKSGIEFKVNENIDSKDKVSKLLKEFDALVLCTGASKPIDLDIEGRKLKGVEFALDFLTQNTKTLLKT

GKGADMAKGKNVLVIGSGDTSVDCIAVATRQGAKSIVRFERSPKRPLQRSQNNPWPLKADIFTTDYGLEE

AIAVYGKDPREYQKMTKKFLGKTHVEGVEANDLKREFKEGKAINVEISNSKKTYKADLVLLAMGFSGCEE

AISKNFGVKLDEKNNISTENFQTTHKKIFACGDARKGQSLVVWAIKDGIECALSLHQNLAK

>AHK53057.1 glutamate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MDLENILENNQSIGLYHPKNEHDACGIAAVANIRGIASYKVICDALEILMNLEHRGGTGAEENSGDGAGI

LIQIPHDFFKTQELGFELPKKGDYAVAQMFLSPNTDAKEEAKEIFLQGLKDKKLEFLGFREVPFNPSDIG

ASALKAMPYFLQAFVKKPSKISAGLEFERVLYSTRRLIEKRAINVPKFYFSSFSSRTIVYKGMLLSTQLS

DFYLDFKDVNMKSAIALVHSRFSTNTFPSWERAHPNRYMVHNGEINTIRGNVDSIRAREGLMQSEYFENL

DEIFPIIAKLSSDSAMFDNTLEFLALNGRTLEEAFMMMVPEPWHKNENMESKKRAFYEYHSLLMEPWDGP

AAIVFTDGVIMGASLDRNGFRPSRYYLTKDDMLILSSETGALKLDEKNIKAKKRLEPGKLLLVDTARGRV

IADNEIKEHYANAKPYKKWLKNLVELEKQKSGVYKHQFLKEDEVLKLQKAFGWSYDELKMSVAAMAQNGK

EAIAAMGVDTPLAILSKTYQPLYNYFKQLFAQVTNPPLDAIREEIVTSTRIYLGSEGNLLKPDENNAKRV

KIALPVISNEELFEVKALNKFQVKEFSILYDYSKKTLEKALDELCVKIEDEVKKGVSIIILSDKGVDEKN

AYIPALLAVSGVHNHLVRKNLRTHTSLIIESGEPREIHHFACLLGYGATVINPYLVYESIQKLIANKDLN

LSYEKAVENFIKASSSGIVKIASKMGVSTLQSYNGSALFECLGLSSKVIDKYFTSTTSRIEGMDLEDFEK

ELIALHKHAFNDTHKALDSKGIHGFRSAKEEHLIDPLVIFNLQQACRNKDYKSFKKYSALVDEKQVNLRS

LMEFDFSEAISIDKVESVESIVKRFRTGAMSYGSISKEAHECLAQAMNKIGAKSNSGEGGEDEERYEIKE

GVDKNSAIKQVASGRFGVDLNYLSHAKEIQIKVAQGAKPGEGGQLMGFKVYPWIAKARHSTAGVTLISPP

PHHDIYSIEDLAQLIYDLKHANKDAKISVKLVSENGIGTVAAGVAKAGANLILVSGYDGGTGASPRTSIP

HAGIPWELGLAETHQTLILNKLRDRVRLETDGKLMNGRDLAIAALLGAEEFGFATAPLIVLGCTMMRVCH

LNTCPFGIATQDTELRDRFKGKVDDVINFMYFIAEELREYMARLGFERLDDMIGRVDKLRQKSVQGKAGK

LNLDKILKSLPTYNRTAVHFKDYKDNKLEKTIDYRILLPLCKNAVEKKEPIKLSLEVGNQSRTFATMLSS

EILKTYGKDALDEDSIHIKAIGNAGNSFGAFLLKGIKLEIIGDSNDYLGKGLSGGKIIAKISNEATFSPE

ENIIAGNACLYGATKGEVYLDGIAGERFCVRNSGALAVVLGTGVHGCEYMTGGQVVVLGDVGANFAAGMS

GGVVYIFGRHNEAHVNTELVDIKDLNAKDEKELKAVIEKHITYTDSKKAKDILEKFDKKDFFKVMPRDYE

KMLKMLDLCKNEKDPNLAAFLKITQK

>AHK53056.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MTLLTNPIIISVVLMTLLCLFRFNVLLSLLISALVAGVFSHLELVDTMNILISGMKENLKTALSYILLGA

IAAAISKTNLTAYLIKIVSHFISHKKYLLLLSIALISCFSQNLIPIHVAFIPLLIPPLLSLFNKLKIDRR

AVACALTFGLTTPYMVLPVGFGLTFQDLLKDNLNANNVSASLNDVTNTMYFAAICMIAGLFLALFVFYRK

PREYQEVEIAKVDLENLEMTRKEWGVLAGLVLTLILQILTMNLPLSGLLGFVLMVILGGVEFSKVNEVFD

DGLKMMGFIAFVILVAAGYGEVLKESGSVVDLVNSVVPWMEQSKFLAVFFMLLIGLIITMGIGTSFGTIP

IIATLFCPICLELGFSTALIIFILGVAGALGDAGSPASETTMGTTVGLNADKQHDHIKDTCIPTFIFYNG

PLLILGSIIAMFL

>AHK53055.1 molybdopterin containing oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKQNDQKENRRDFLKNIGLGLFGISVLSNFSFENFLGSKALAKELPDFKIEGKKDLIYHGEKPLTAETEI

YALDSDFTKPENFFVRNNGLPPSLETIKERLHKGWTLEIDGESIINKKSYTIEDLKKKFKTYTYALTVEC

GGNGRSEVIPSTKGTQWGYGAVACGRWTGVRLKDILKDCGIKNDAVYIGYYGIDTKLNGEETSPISRGVP

ISKALQDETLIAWAYEGKDIPLVNGYPLRLVCGGYPASTSGKWLYKISVRNKIHDGEKMEGSYKVPVNPV

KPGDFNYKGEMKIIESMPIRSVITNIKNGSEIKANKKFEVRGKAWAGELEVSEVYVSNDYGVTWTKAKVE

KPLNRLAWQKWSAQISIPTKGYYEIWARAIDSQGNSQPMVLAQWNPGGYINNACHRVNVYGV

>AHK53054.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKKIILILALFLSASWAQNLEINPDTGLIIDPDSPLVEANCLACHGSNLITNMHASRKAWLAAIRWMQDS

EGLWEIEPEDEEKILNYLEKYYGEKYDTRRRIPLAILLQNKTH

>AHK53053.1 DNA gyrase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MQENYGASNIKVLKGLEAVRKRPGMYIGDTNIGGLHHMIYEVVDNSIDEAMAGHCDTIDVEITTEGSCIV

SDNGRGIPVDMHPTENMPTLTVVLTVLHAGGKFDKDTYKVSGGLHGVGVSVVNALSKKLVATVERNGEIY

RQEFSEGKVISEFGVIGKSKKTGTTIEFWPDDQIFEVTEFDYEILAKRFRELAYLNPKITINFKDNRVGK

HESFHFEGGISQFVTDLNKKEALTKAIFFSVDEEDVNVEVALLYNDTYSENLLSFVNNIKTPDGGTHEAG

FRMGLTRVISNYIEANASAREKDNKITGDDVREGLIAIVSVKVPEPQFEGQTKGKLGSTYVRPIVSKASF

EYLTKYFEENPIEAKAIMNKALMAARGREAAKKARELTRKKESLSVGTLPGKLADCQSKDPSESEIYLVE

GDSAGGSAKQGRERSFQAILPLRGKILNVEKARLDKILKSEQIQNMITAFGCGIGEDFDLSKLRYHKIII

MTDADVDGSHIQTLLLTFFFRFMNELVANGHIYLAQPPLYLYKKAKKQIYLKDEKALSEYLIETGIEGLN

YEGIGMNDLKDYLKIVAAYRAILKDLEKRFNVISVIRYMIENSNLVKGNNEELFSVIKQFLETQGHNILN

HYINENEIRAFVQTQNGLEELVINEELFTHPLYEEASYIFDKIKDRSLEFDKDILEVLEDVETNAKKGAT

IQRYKGLGEMNPEQLWETTMDPSVRRLLKITIEDAQSANDTFNLFMGDEVEPRRDYIQAHAKDVKHLDV

>AHK53052.1 DNA polymerase III subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MKLSINKNTLESAVILCNAYVEKKDSSTITSHLFFHADEDKLLIKASDYEIGINYKIKKIRVESSGFATA

NAKSIADVIKSLNNEEVVLETIDNFLFVRQKSTKYKLPMFNHEDFPNFPNTEGKNQFDIDSSDLSRSLKK

ILPSIDTNNPKYSLNGAFLDIKTDKINFVGTDTKRLAIYTLEKANNQEFSFSIPKKAIMEMQKLFYEKIE

IFYDQNMLIAKNENFEFFTKLINDKFPDYEKVIPKTFKQELSFSTEDFIDSLKKISVVTEKMRLHFNKDK

IIFEGISLDNMEAKTELEIQTGVSEEFNLTIKIKHLLDFLTSIEEEKFTLSVNEPNSAFIVKSQGLSMII

MPMIL

>AHK53051.1 chromosomal replication initiation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-Kf1]

MNPSQILENLKKELSENEYENYLSNLKFNEKQSKADLLVFNAPNELMAKFIQTKYGKKIAHFYEVQSGNK

AIINIQAQSAKQSNKSTKIDIAHIKAQSTILNPSFTFESFVVGDSNKYAYGACKAIAHKDKLGKLYNPIF

VYGPTGLGKTHLLQAVGNASLEMGKKVIYATSENFINDFTSNLKNGSLDKFHEKYRNCDVLLIDDVQFLG

KTDKIQEEFFFIFNEIKNNDGQIIMTSDNPPNMLKGITERLKSRFAHGIIADITPPQLDTKIAIIRKKCE

FNDINLSNDIINYIATSLGDNIREIEGIIISLNAYATILGQEITLELAKSVMKDHIKEKKENITIDDILS

LVCKEFNIKPSDVKSNKKTQNIVTARRIVIYLARALTALTMPQLANYFEMKDHTAISHNVKKITEMIEND

ASLKAKIEELKNKILVKSQS

>AHK53050.1 O-acetylhomoserine aminocarboxypropyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFNKETLALHGAYNFDTQRSISVPIYQNTAYNFENLDQAAARFNLQELGNIYSRLSNPTSDVLGQRLAN

VEGGAFGIPVASGMAACFYALINLASSGDNVAYSNKIYGGTQTLISHTLKNFGIEAREFDIDDLDSLEKV

IDQNTKAIFFESLSNPQIAIADIEKINQIAKKHKIVSICDNTVATPFLLQPFKHGVDVIVHSLSKYVSGQ

GTALGGALIERKDLNDLLKNNDRYKAFNTPDPSYHGLNLNTLDLPIFSIRVIITWLRDLGASLAPQNAWL

LLQGLETLAVRIEKHSQNAEKVANFLNSHPDIKGVNYPTLASNAYHNLFKKYFDKNFASGLLSFEAKDYE

HARRICDKTQLFLLAANLGDSKSLIIHPASTTHSQLSEEELQKAGITKATIRLSIGLENSDDLIADLKQA

IES

>AHK53049.1 homoserine O-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPLIIPENIPAYELLKEHAFIMGLRRAKHQDIRPQEILIVNLMPKKIETENQILSLLANSPLQVNITLLA

TTSYVGKNTPFTHLEKFYKGLEEVKKHKFDGAIVTGAPVEQMDFEKVAYWEELLEIFDFLKQNVTSSMYI

CWGAMAALKYFYGVDKISLDKKIFGVYKHDKVSPDLLLTNLDEKVLMPHSRHSSMDEEQILALQKQGKLK

ILLRNKKIGSALLRDEKNIFILGHLEYFKETLHQEYVRDNFIQKAKNYYDKKGNIKYNWRSNANTIFANW

LNYDVYQSTPFVL

>AHK53048.1 hypothetical protein N916\_08630 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKSIAIIGGSIAGLSAALFFASAKNEELDFDITVFDEGKADLKAAAIYNVPFFPKGAKADEIYTHIKAQ

IASMLEVKYIDSKVVSISGEKGDFTVNDEQGLGIKADYIIVATGANKSDIKELEDFVIPHELMPKPNKFC

FKHHGRQIIKEGIYAAGLASGVTTMVACAMGSANEAACAILSDIKGAVSVYHDTPTTRV

>AHK53047.1 hypothetical protein N916\_08620 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVKFIPVILACSAILASANTISNVSAQTSAVAPAPATSYPVYPQYAVPPQDHFNGLPKILPVKFKISIQ

VLLS

>AHK53046.1 hypothetical protein N916\_08615 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDWEAYGYEIKLNNYMELYFDRNGNFLGQEFDN

>AHK53045.1 hypothetical protein N916\_08600 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKQIFEISNSVQQKSKDNTFNLLLQLSL

>AHK53044.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNTIIQKAVNKDLNSILEITKDALNAMKTMNFHQWDENYPNEIVFQEDIQAQELYVFKENDEILGFICI

NEKFKPEFYKQVIFNKNYDDKAFYLHRLAVKQNAKGKGVAQKLLNFCENFALENHKASLRADTHSKNFPM

NSLFKKLDFNFCGNFDIPNYQDPFLAYEKILNQKAF

>AHK53043.1 hypothetical protein N916\_08550 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLDIFEIIFITTVVIIGFGGIVFVVTKEKK

>AHK53042.1 50S ribosomal protein L29 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKYTEIKDKTAAELATMLKEKKVLLFTLKQKLKTMQLTNPKEISQVKKDIARINTAINALR

>AHK53041.1 hypothetical protein N916\_08380 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFDKIHYYYFNANYEKCLNLSEQFLKESPKFALEFATLSSYKLSLFQKALYYAQELFSLNPTSFNGLMLA

KSYIENLRLDEALNLLQTLLTRKDDLEDELKLELAFIYKLSNKLEESEQIFKELLSKDMYNLNLWKNYAE

IYFKHDFTKALNAHEHLCHFMQDLIDKLQKGIIAEQTNLNLVKLEDRLHSKTKENLTISKIEDFLTHQIL

PQKAYLLFKLFRISDSLELFQSLQEANQHHAQFWQNYAKVLEFNSNYQEAYHAYKKCLSLDSHATYQFDL

AYLLMRMGVDDNFEEGKKYYESRLFYAHNETFSTYHYNESLKAFNKFGVDAFKNKEVLVFCEQGFGDTIM

YARCLEKLCKIASKVLFAPQSAMYEMFKNQIKFLNQNDDIFKNVKVLKNLPTNFDYAIPICSLPFFIDIK

LDEILRLKTPILPQKKPHNQRKKLGIFYATPNAENSDLLRNVKFEFLFDVLKDLDYEIISFQMQLKEELP

KVIEDRSKLIKNWNDTLNYLYDIDCMLSIDSAIAHLSLAMDIPTIVLLHPRFDWRWGKFENPKSYFWPKA

KCFIIKEQEETKRNLQKLIKDILN

>AHK53040.1 hypothetical protein N916\_08375 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGVAINTKIDTFTNNGFINSPGSGQWNNGIWISSNATIEKLVNNGTIKGGHSAIMVTSQHIKTVENTGII

HAEGEWGSSILLEYGGFIEHIINTGTISNNNVGIGSAYGVFGTLTIKDGGMVYGKYSAIGVGRSQTLGDL

YIDGRSNNGTVSGIYSEEHGILLENNSRTQKIELKNGGIIKGNIDGIRLINSASLSGEMILSGEGSRVEG

GRGVGILNRSGKIEGSIKVEDGATVTATSNRAIANSGSGSITGGITVSGKNTKLEGNIINTGNASIGSDI

KIEGGAKVEGGLVNQGNGSISGSVQVSGGSSIDSITNEGNGAISGSITVYKDSKLDSITNTSTSSTGISG

SITNNSDNKLEISNSGNIGGKIESTGSADMVISNSNGGTISGGISSSGSGSTSISNSQGSTINNGITVSG

SAQVEISNQGSVGKDENGNTVTNNGSGSVGIKDWLVSTDKNTGKLNTVVIGGSRAFNVKVENITVDQSNV

DLEELNDINNIISGVNQNNIGNIGTNGSGEISLSFDPITGKLTTDFNLNASISGATFRSLISTTSRRSTF

IDNVMGNSMQSFALASSSKSQSIAMSEKGNLYADASDYIKSDLNNGSYGSNKEHSLFILPYTSSQNVELS

LNEESKGHTKGTIIGYSTLKDSGIYGVYAGYEDTKMGSTYFDINNRTYYAGLKYFNTLFTTEKGQEVYIK

AQGKAALIKNDLTEKIGNNEAKAEPNSYAYGVNTALGMNFISNKDIFSPEIGLAYEGGYTEAFSMKDTIG

QATVKGGERTYANYLNLFSTKTSLTWFRDWLPNLKTSVELGAKFNINPKVEAEARFGNIKVSDEFDLPRV

QKFVSTSFIVPVNEAFYFSLNYNGMFDKDGNTHTGFAQFNYLW

>AHK53039.1 autotransporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNITLTKIPIGEGKEPCLNSKKIVLSLATISFLASCANAKLNSEIKTYDEVNKNVKTRSASVYSPQAKI

NTTINSLHNQQVTITGNGTSNSLTIGSSGTLGSIGNTGKIIYAHANGSNTLTLANLTNNRTINGKIGIEN

NGNFTGTIAVNTFENTGQINGQIYMGIWGNNSGTLNIDKFDNSGTIIDNNKGVFLKERIPTYKPLITVVL

LVQIRV

>AHK53038.1 hypothetical protein N916\_08300 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKLGLVLAVLVALNVSAFADLIVINKKDLVPVSASEMQNKYFQESIKSTLTEPLFKKATFYEADIVAKV

DPRTYNSTQAIIQKEYSDKSNYVYYKQVLILTSDGKRARLSTLSCEIASFDKKGYLCGGTADHNYSIK

>AHK53037.1 hypothetical protein N916\_08250 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLLNTPCRGIIDTNFESKRISITSTLKFQEKKKK

>AHK53036.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKKMVLSETFPGILLIFFTFLALLCKNSSLSVIYTDFFHANFTVGFDHFQISKSLDLWINDGLIAIFFL

CIGLELKYEILRGQLKNIRAVSLPIFGALGGMITPALIFIAINYSHDFAMKGWAIPTATDIAFAVGILML

LGNKIPTSLKLFLLSLAIFDDLGAIVIIALFYTDQLSALAIIICLFCIFALLLLNYYHITHLSLYVLVGV

VLWIAMLKSGVHATLAGVIISLFIPLDTKNKKPYLHEVLKDLNPWVVYFILPLFAFANAGIDIRDMHLGS

VFSPVSLGIILGLFLGKQLGVFTFCFIAIKLKLAKLPENIKYGKFYGICILTGIGFTMSLFIDGLAYKNS

DIFEYADKLAILVASFLSAIVGFIYLKIVK

>AHK53035.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNNIVHKLKTLVLNEAFGGVLLIVCTLLALLVQNGSFSEHYREFLNLKVGFSVGEFELNKPFLLWINDGL

ISIFFFAIGLELKKEFLHGDFKNPKNIVLPFMAALGGILIPAMLFALVNIGDAYTLKGWAIPTATDTAFA

LAILMMCGKHIPSSLKIFLLSLAIFDDVGAILIIAIFYTTKLSIAAFVIAGLAILVMLILNLLGITRKSF

YFICSVILWISVLKSGVHATLAGIVTAFFIPMQTKNGEAFLEEIYESLKFWIAFIILPLFAFANAGVNLS

NIDIGAIFSGVSIGIFLGLFVGKQVGVFLFSYLAIRFKFAALPQGSNLKQLYGVCILTGIGFTMSLFIDG

LAYEVSDIFNYADNLAILIASFCSGIWGFIYLKFFTTRS

>AHK53034.1 cell envelope biogenesis protein TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTLFLNHKYQASYITFIVFIPLLFVIFHSNDFFKMEIKNEDSFSLAIKQFTQTNPTNETKPTESIIEPI

KPKPQPKVIKKTPEKMQKKIKKTPPHPIPNKTPIAPTQEVKTFAKTTDTNVKPKITQLTQGKDNHPVLKE

IQKAIQQAQFYPRQAKKMRMQGTVKVEFLWKENKTLADLKIIEISGYDLLDKSALESIRKASLNFPHYNG

DLRITLPIIYDFKTLRG

>AHK53033.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFSGFFYARNDLRLFKIEKKNELKSFFYKDYTLSSYKDDLNLNNEIFFYQSLKEGLFKENDEILVSNLG

KKIILFRNFTQNCDNFNETKLKQILLLFFLLLASVFFASLAMINEFGAIDLLFLTICLLLLVMGVINLGL

LFKQIRILKSFSKEEMKEFLSQRMKKYTKV

>AHK53032.1 alpha-ketoglutarate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQELTRTKKIRSIIAASSGNLVEWFDFYIYAFTATYFAHTFSTSDNPVIQQINAFGVFAAGFFMRPIGSW

LFGSLADKVGRKKSMVISVVLMALGSFMIAALPSKDTVGDLAIILLLIARLIQGLSVGGEYGIAATYLSE

LATEGKRGFYSSFQYVTLIGGQLLAVASISIMFLFFSIDDMKDYAWRILFVIGGILALGSLFVRKMMNES

ATKLHQHEDRGTLKALCKSWKPFLMVLGVTSGGSLAFYTITTYTKTFMENTGMDKMLVNNLFLGALFILM

IIQPLFGYIGDKIGHKRSLIVFCILALVGIYPIFSLIANNAQNNPSLTFMLVVLLFVILSFYTSVAGIFK

AKLFPEHVRALGTGLGYAISNAVFGGSAPWVALQFKNAGIENGFFIYIAIFTIIMLIATLCLPKKSELN

>AHK53031.1 metallo-beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFNFITTLLKTNLYFLEEKTTSKNSNQTHIISLKQSDDEFLNLLFSFLVPQSDEDKNFIEKTRTKIKRNE

HNIVLIKNPNFNALIDTGFLDTIDTLKEKLHIHKTDFKDITHIILTHAHPDHIGALMSEENLFPKAQILI

DKKKYDFWIKSDRQEIKNTLLKLKNIEFIDHSKDLIFQNSGIKAIPAYGHTPGQNAIIIDDKIVFWGDLL

HLYDIQIPKPKIAIKFDIDQNEAIQTREKLLKEFKERKLKVIGTHVPFIKPKFLD

>AHK53030.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MANFKAFYKEAKYIFKDRIFNDYARCYAYGIDASCYFYIPKIVIIAKNEDEIKQIIQLANTYKTPITFRA

AGTSLSGQSSCDGVLVVIKFAFKKIKINKDANEITLGCGVVGIHANESLAFLKKKIGPDPATINSALIGG

IINNNSSGMCCGTKDNSYKTLRSIRVILANGSMLDTSDALSVARFKDENKKLINELREIKEEINANKELK

DLIIKKFKIKNTTGYSLNAFVDYDDEIDILAHLLIGSEGTLGFVSEVKLAVLDDLEFKACALLFFDNINN

AANTIKEFAKVDFVSSAEIMDYASLKAASTYDELRDILADIKEGNTCVLIQSEHSNELKLDENINKIKEI

SKLAYKSYFSKNKAEYDLWWKIRKALLPIAASLRKAGSTVITEDVCFNIEDLADGIKSIQELFYKYGFGD

NGIIFGHALAGNIHFIITPDLNNKLEFDNFSNLVKEMSNIVASYGGSIKAEHGTGRMVAPFVEVEWGKQA

YLINKKIKSIFDKDSLFNPDVIISDDKDIYKKNIKQVSWIDEKLNTCMECGFCERFCPSNEYTITPRQRI

AILREIKRLESLNDDESKAKLKDIKKYYNHLVDSSCAACGVCSFSCPLGINFADFSLKYRKNNIGFISKI

LGNLAYKNHEKTLKIAKFSLSIANKFDNLSLDNKLEKASNFLSIIPRTRAYLPKVNDYELKSHKRVCNVV

YFTSCLNKSFKPNEKMHDKRSLQEVFESLCKKANIGIIYAPNDLCCGKAYENFQDIQDKNIQKINDFLSN

IDSPIVLDHSACSAKLISDHSKYEIYDLSEYLLKFIAPKLRIDKINENVGLYIMCAARKLGLNENIIKLT

KLCTNGKVLIDNDTYCCGFAGYKGFFKPQLNISATKGFKKFYAKTNIKRGFSTSSTCEIGLSDATGISWQ

HIAYLLDECSEAI

>AHK53029.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAYTIKKVEKETKISAHTLRFWAKKGLFPFVQKDENSVKYFSKSDIEWVKWIEWLRISGMPIEQVKHYIK

LCSLGIKTAKERQEMLKQTKKKLQNQIKTLKESEKVLSKKIKIYEEMLANEVDGFNPESKDYQPCDKLHK

FKG

>AHK53028.1 permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIYVVFLIFLIFIISFVFSKFKEDSFLKHIPKNTKSSIFTQSAHNPSNFIFKQKSCCANTQDKSKNITIN

YKELFKESLKNYKKLLPYIVVAVFIGAFIHGFIPQEILQKYLNGNEILSIALAAFLGIFLYLRVETIIPI

GLALLQMGISQGVIMSFLIAGAGCSLPELVLLKQMFKMKFLFLFVMIILGVAISFGIFINLI

>AHK53027.1 hypothetical protein N916\_07750 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLSFTFASKKALKSGMVEQEQNGVKAPKNIALK

>AHK53026.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQSFLNTFKEFLYLFTELSVLFIAISFLVSIINQKYEGIFKNNLLVTKFQVILKLYF

>AHK53025.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKYHSLCPIETTLNLIGNKWKILIIRDLLQGTKRFGELRKSISFTKNQNISQNVLTQNLRELEEAKLIK

RKVYAEVPPKVEYSLTSLGNSLESILKSLENWGNSYKNIV

>AHK53024.1 dihydrodipicolinate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIAILCASGKVGKEISKEALKRNLEPVCFVRNSSKMNEFLPQAKIVQRDLFELDSKDLIDFDIIIDAFG

EWENLSLHKKHIECLSVILQGSKAKLFVVGGAGSLYMDENHTTRLMDMPDFPKEYLDIAKASAEVLEFLR

NEKGFKWVYVSPSAIFSPDLPKSNHYKIIGEKFEVNANNESKISYSDYASAMIDIVLNSCYENTRIGVIS

L

>AHK53023.1 type I restriction endonuclease subunit M [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKKKEIKLEDALWKSADKLRKNIDAAEYKHIVLGLIFLRYISDSFMQKYEELLKEQDDGADPEDADEYL

ADNIFFVPEKSRYNYIRDNAKNPKIGKMLDEAMDEIEKHNDTLKGVLPKVYAKDNLDSKCLGELIDLIGN

IAFDTGKSTDVLGHVFEYFLGEFALAEGKQGGQFYTPKCVVELLVTMLEPYKGRVFDPCCGSGGMFVQSE

EFVKSHQGRLDDISIYGQESNQTTYKLAKMNLAIRKIESSQVIWNNEGSFLNDAHKDLKADFIIANPPFN

DSDWSGELLENDGRWKYGVPPASNANYAWIQHFLYHLSPNGGVAGFVLAKGALTSNTTNEAAIRKALIED

DLIDCIVNLPAKLFLNTGIPASLWFIRRQKLPKTVKKTLFIDARDLGTRINRRNKTLNKDDINQIANIYK

AWKNGTDYEDIKGFCKSVSIDEIRELSYVLTPGRYVGLADSDDEFDFDTRFNELLAKLKSQIKTEQELSE

IILKNLEKIK

>AHK53022.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDFKFVLRLLEANQFENEVVEYKKNNKDFIVLGKNISALSNTAALLGIDKAYIIFGIEDGTLNIVGTNFK

PKQEKKGNEELESWLHKVLKPNIEFKIHEITEKEIRLVVFEIEATKISPIKFEEKAYIRIGSNRKELDKY

PEKEKKLWQVLSGFSFENEIAKSNLNIQDIYDLLDYSKCFDMLDISYDNYSSDEYIIEKLIEHGLVKNLN

DSFAITNLGAILFAKDLTKFKGLNRKRIRFIRYQGKNKIHTLEELEGRKGYAIGFQGLISYIMQYVPKNE

VIENAIRKDTTLYPEIAIRELVANAIIHQDFTINGRNPMIEMYSDRIEITNNGKSLIDIKRLIDMPSKSR

NDKLANLMRIMGICEERGSGVDKVIDSVEAYQLPAPDFINNEDYFQAILFSHMPLEDMTKQDRIRATYQH

CCLKWASREAMTNASLRARFKIGDKQHSKASKIISDTLEAGLIKQQDPENKSTKHVKYVPFFV

>AHK53021.1 type I restriction endonuclease subunit S [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNNWKKCKLGDIAEITMGQSPKSEFYNFDNIGMPFLQGNRTFGRKYPYFDTYCTEYKKIAKKGEILFSVR

APVGDINFANNDICIGRGLCSMNAKNGENEFLYYLLHNLRSVIINNESGSVFGSVNKNDLQTIEILLPLL

EEQRQIATILSSIDDKIELLHEQNKTLEELAQTLFLNWFKDREFNSTISDFISMQNGFAFKSKDFIDYGN

NGVIKIKNISNGIVDIVNTDKISQNTINEVNNKFNINSGDILFAMTGAEIGKMGIVPSTNKKLWLNQRVG

MVKERFLGARFLAYIHLTSEFGYDYVINSATGSAQENISATDIENCPFVKLTSEEIVSYSKQLNDFFEKI

IFNLGEIQTLENMRDILIPKLLNGEIKITN

>AHK53020.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKYKFVKFQVKNFRSLLDITLNIDNNNINTICGENNIGKTNFLRALNLFFNHNNGVEYNQNEDRPYHIQ

KGSTGGRKTELIGYFTKNNVTHILKVEFHKDKIVYILNGKMVEWKVARDIVESFKLLFIEASNVNMPSVI

SAILENDALLALDNKRKKQSEPLRTLKLFIEQSKKAIEDIEKDINIYLKQMLDFDNTLKDKEIKIRFAEF

EKLRDVVKTMTSVTLDDGNDHLMDHKGSGAQRIVLLSLMQYITDKITTDIIWAIDEPEAFLQPKLQKKIM

EIFKNIVREKKQPIIMTTHSQYFVDFNNLVNTHLFKLTKEEKIYARKKGRVFQEINTKPIYIGTAFEKLS

VIKKHLGIETNDNWDIMPYNILVEGEEDKKYLQMLIEILNLSMPNIIHSGGATKIAGFLEYFNNQCSYTS

FKPYFICIFDNDEEGRKQYNKISKDNLYPNIKLDAKKLKRYGESIQENNRDIWEIEDFMPIKIIVDAVNI

ILKYKQYNTITNSQISDRKKLAFKNMSILDYLEKCIADRNEEKERFILNTESRKKEICQNAFRAREKYTK

NDLEDYHVDFMNELIDSFNKVDLIKKDN

>AHK53019.1 restriction endonuclease subunit R [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKAKTSEFDLEQFVISSLLEHGWCYEKPVRATDEVLLETSLVNALCRLNPQLDLSKANEIYKELKSKNH

LSLLDSNENFHYKLVNGVNINTTKDGESRADIINLIDFNNASNNEFIATNQLSITEAKENKIPDVVLYIN

GIPLVLMELKSPSDENATINSAYNQINTYKQTIPSIFTYNAFCVISDGYFARAGSISADFSRFMAWKSSD

GINYAPNKSLEIKTLIDGMLNPKTLLDIICNFIVFEKEQIRDLNGILSIKTTKKIACYHQYYAVNKAISR

TITASSKDGDKKGGVVWHTQGSGKSLSMVFYSAKAIKALNNPTILLITDRNDLDDQLFGTFASCANLLRQ

EPKQANDKEHLKELLRVASGGVVFTTIQKFSPENDNVFECLSLRDNIIVIADEAHRTQYGFDAKVVEEKS

KSGDVLGQKIVYGFAKYLRDALPNATYIGFTGTPIESHDINTPAVFGNYIDIYDISRAVEDGATVSIYYE

SRLAKIELSEEGKRLVNELDEKLENQDSQKAKATKLEALVGSTSRLKQIAKDIVKHFETRSSKLGGKGMI

VSISRSVAIKLYDEIIKIRPSWHSDELSSGAIKVVMTSSSSDGVEFSKHHTSKIQKQFLANRMRNIDDEL

KLVIVVDMWLTGFDVPSLHTLYIDKPMKGHNLMQAIARVNRVYKDKPSGLVVDYLGIASDLKKALSFYSE

SGGKGDIITTQEDAVKVMIEKLEIVEQMLPNDYEKYFELDTGAKLEYILDVEEHILSNEDGKNRFIKEFA

ALDKAYTIAMPHEKALSIKNKIAFMYAIKARFLKFAKENENENLLNQALIKQVVDKAIVSSKVVDIFDAS

GIKKPDISILSDEFLLEVKNMKRKNLAFEMLKKILNDEIKAREKLSLTKAKKLAQMLSDAIKKYNNKLIS

SSEALDELINMSKSIVSMEDEAKKLGLKDYEYAFYSALACNDEYEKILGNEKLLALVSEILQIIKNNVSI

DWMIKENVRARLRVAVKRVLNKYGYPPDMQQLAIDGVLAQAEILAKELANE

>AHK53018.1 biotin transporter BioY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLELIGELSLQNYMGEWLEIARKPAFFQKSCLNSKAKYELKYKNGIPYVEIENFCSKKNEISSIKGKAKI

VSNRQLAVRFNIFMNLFNKVNYEIIFVDSEYKVAIVGSPDKKYLWILARNIIDEKNIKELLNIAKQRGFD

ISDVVFDKY

>AHK53017.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMKLKFRKSLILNALLFYILFPWLPVVFLFIAYFFTIKLDVVTANFVSISLVFLVEFARHRNARKLGEDM

MVILKAMAEIFISVVSIIIAAGVFAEGIKALGGVNILANAVSNLGTGNFAWFGILLSIAILSFLVYFATV

IMGSGIAAFNTFGKLALDIATKLGVAPITLVLPIEIASCLGRAASPIAGGIIALAGFAKVAPMDIIKRTT

PLLLIAMLVNVLVAFYLAQTNPLPKEQNTTKIELKIQK

>AHK53016.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MALKIVISSYAGLLLLACIYPVLISLKIRPITAVCVLSLIALDYGPKDGNSINMADMVGQSDNVVGLSLN

YQIYSVITYVVVNCHLDSFLFYLD

>AHK53015.1 hypothetical protein N916\_07590 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSVAGFTAYMKHINASAKLAFLANKPSGKIKK

>AHK53014.1 hypothetical protein N916\_07585 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPIFMICSTLLAVIVVAYYILKYNLIFVFFFQILSCLFLLFTSQEHLYQKPQAESIQAF

>AHK53013.1 CRISPR-associated protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MARILAFDIGISSIGWAFSENDELKDCGVRIFTKVENPKTGESLALPRRLARSARKRLARRKARLNHLKH

LIANEFKLNYEDYQSFDESLAKAYKGSLISPYELRFRALNELLSKQDFARVILHIAKRRGYDDIKNSDDK

EKGAILKAIKQNEEKLANYQSVGEYLYKEYFQKFKENSKEFTNVRNKKESYERCIAQSFLKDELKLIFKK

QREFGFSFSKKFEEEVLSVAFYKRALKDFSHLVGNCSFFTDEKRAPKNSPLAFMFVALTRIINLLNNLKN

TEGILYTKDDLNALLNEVLKNGTLTYKQTKKLLGLSDDYEFKGEKGTYFIEFKKYKEFIKALGEHNLSQD

DLNEIAKDITLIKDEIKLKKALAKYDLNQNQIDSLSKLEFKDHLNISFKALKLVTPLMLEGKKYDEACNE

LNLKVAINEDKKDFLPAFNETYYKDEVTNPVVLRAIKEYRKVLNALLKKYGKVHKINIELAREVGKNHSQ

RAKIEKEQNENYKAKKDAELECEKLGLKINSKNILKLRLFKEQKEFCAYSGEKIKISDLQDEKMLEIDHI

YPYSRSFDDSYMNKVLVFTKQNQEKLNQTPFEAFGNDSAKWQKIEVLAKNLPTKKQKRILDKNYKDKEQK

NFKDRNLNDTRYIARLVLNYTKDYLDFLPLSDDENTKLNDTQKGSKVHVEAKSGMLTSALRHTWGFSAKD

RNNHLHHAIDAVIIAYANNSIVKAFSDFKKEQESNSAELYAKKISELDYKNKRKFFEPFSGFRQKVLDKI

DEIFVSKPERKKPSGALHEETFRKEEEFYQSYGGKEGVLKALELGKIRKVNGKIVKNGDMFRVDIFKHKK

TNKFYAVPIYTMDFALKVLPNKAVARSKKGEIKDWILMDENYEFCFSLYKDSLILIQTKDMQEPEFVYYN

AFTSSTVSLIVSKHDNKFETLSKNQKILFKNANEKEVIAKSIGIQNLKVFEKYIVSALGEVTKAEFRQRE

DFKK

>AHK53012.1 hypothetical protein N916\_07490 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFKIVLRPPGLNFAAQPAALTKCVKF

>AHK53011.1 hypothetical protein N916\_07390 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKALEYLIVIGLVAAAAITAWSVLTVNHLHIG

>AHK53010.1 hypothetical protein N916\_07250 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILTSALALGAMTLIVDCGDGDLVELKNNGNDQAMFDLGNQEIMKKYPNYKLYDYTSVRTISDINNPE

GKIKEMKRDLEIDKTPYSNYVFLLNPNDKKTIKL

>AHK53009.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDILKLAIKDFLSLKFLKFALIPLIFSLILMLFLGVLGFSALLDYFNSLFSVGEDSFWAWFYALHFVQIL

ITIISFLFSGFIVVFASVFLALFITSFLTPFIAKEINQKYYHYDNTNEVSTLKTIFEIFKIFIKFIGILL

LCTLALFLPFINIFVYYLAFYYLFHKLLMIDVTSTILDKESFKNFHSDFSPLEFKFSTLCFYLLSSVPLL

GLFLQVFFVIFLTHLSYQRILKLKAKA

>AHK53008.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPLLSVIIPFGLSKERPYIEERVLQKAKFFQSDENIEFIFVEGYSSKDHELKNFIQANHHIYLKDMDQKA

FSQGRCRNLGASYAHSNVLLFLDVDCYISLDNFEKILKLIQIKNISQNINALIVLPVVYLNKEANEKLKQ

YDDKFWDILIQEDLFTAKNTWVKFFAPSSTSSIVINKHQFLRLGGNDENFIGHGYEDFDLFARILKACVS

FEKMPTNLSYDARNWNFFNFKGFRSWFSLLGYEACFYGIYIYHFYHIEPNQNAYMQNKDKNHQLFYKHLK

NIKKHDLKPLQVFKAKGEKVLMLFKDQNYDFKDISVYVGEIIYKNISDFFIAKELKYELLLDFLQQEKIT

KIFLDASIKLQFNGIDYCDIFYFQKGILPHSWFFAKKLDLGYKQDLNLSEQKLYQVKEYFLTLKEDEKKV

ILDFLSQNNDDKYDLYKMLYYLINELYSFEHDGIFYQIIIDKEKMLIAQKHDKSFYPLRSFVYKPYLHEL

KSIRPFSFLMKILGLEYLGAMISHTKFYRLARKLFFNPKGFFEDFNYKIMKGKI

>AHK53007.1 UDP-glucose 6-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIVIVGIGYVGLANAILFSKNNENEVVLLDIDENKIQSINNHKSPIKDKLIEKFFVQNISKLHATSNIK

EAYFNADFAVIATPTDYDEQLNFFDTRSIENVLKDIKNINSKINVIIKSTVPIGYTKTIKQKFNMSNIVF

SPEFLREGSALYDSLYPSRIIIGDKSVLGKTIGDLFLKNIEKKNVDIFYMDSDEAESVKLFSNTYLAMRV

GFFNEVDSYARKHNLNSADIIKGISADDRIGKYYNNPSFGYGGYCLPKDTKQLLANFYNIPNSLIKAIVE

TNEIRKKFITQLILEKKPNILGIYRLIMKQNSDNFRNSVIIDIIKYLQEYNSNIELIIYEPLVKEKKFLN

IKVENDFNVFGAKVDLIIANRFDDKLKEIKDKVFSADVFYTDI

>AHK53006.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTVGVVIPIYNVEKYLRECLDSVVNQTYKNLQVVLVNDGSTDENSLNIAKEYTLKDERFILFDKENGGQ

STARNVGIEFFSKEYDFKNITQELKENSLVEFKLDNEDNPYNIYKIYKSSNFFKNKDELLNFKAPDIDYI

IFLDSDDYWELNCIEECVPKMDGVEVVWFDSCSIFEEGFKKQWSSLLKLYDLHEGVIKSKVWLEYSINKK

IYNFYFTWSGMIDFIYLKNIKLKFIDYIIHQDHHFGMLLFAKCKYIYIFPSSMHTYRIRSNSTINLSDSE

LQIHIPRYMQSIYDSFNINIKEAKEYYSSMSMFYVLKNCFNDKILMENRYNAYLLEKAFFKFICERCLRI

FLLKRDPCCIKIQIKKILKQYKNYRYVHLTNFYGAFIYFKIFKINIIKKYIRYLFFR

>AHK53005.1 UDP-galactopuranose mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYDYLIVGSGLFGSIFAYEATEKGYTCLVVEQREHIGGNCYTENIKNINVHKYGAHIFRTSDQNIWDYMN

QFCEFNHFINSPIAIYKDEIYNLPFNMNTFSKLWGIKTPNEARKIIEMQKQIIQHPPKNLEEQAISLVGT

DVYEKLIKGYTEKQWGRSCKDLPASIIRRLPVRYIYDNNYFNDPYQGIPKGGYTAIFDKMLKKSKVILNT

DFLKYKDKFKNKAKKIVFTGCIDAYYDYRYGALEYRSLKFEHKILNLDNFQGVAVVNYTDKEIPYTRIIE

HKHFEFGNTDTTVISEEYPLEWIKGIEPYYPINDEKNQALYEKYKQLAKHESNVYFGGRLGEYRYYDMQD

VVRSALLFCKNELKNKQG

>AHK53004.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISDK

KSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYILESNKGKYSKITPIDF

LYNQIISFKTHPNIFNFQSINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINEAFY

MLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLDFLK

RFSQDFRKILKDKELDENLFGDGDMKIIYSIVENPENYYFLYMGYCNDMFGKLYFGASERIKWQLSYRIG

KLLIDLKNPVQILKFPFKLFLEIKQFKFEQKIYKTTIKFYPNLQLPPLEEYSDYEQALKTKKHLSYILGK

SFINNPILFIFKIKKIYKQYKKDISSSKKNIKELSDYDFLLNRHKQIFDYTPDFKCPVTFNEKLIYRILY

DRSCIYSFLADKIKMRFYVASALSDNHEYSWDKIDILNEKSILFNNIDDLQDKIFETNKCKYLPKIYGIY

KNIYDINFNELPNSFVLKTNHDCGGYVIVENKQEFLRDTVVFSNAMKKLKKHLEWNYYSVFREWHYKDIE

PRVFAEELLLGENKKPADTYKFHIFDKENLSNNFIQVTTDRFDNYQRAMFDLSWNLAPFNFMYDNKNVTM

IPKKPNLLDSMINISLILAKPFDYVRVDLYQFDKKIYIGELTFTHGAAGEKVIPKEWDKKLGDLWRLKRL

DNASK

>AHK53003.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQANKNIQKLTPYLSIPHKIWNSSQSNILKLDWNEATIPPSPYVIESIKKFLVNGNLNWYPNTKNLYLLD

KIAEYTKQINSSFVELFEGSDSAHECIIDVFLDKCDKIGIVSPTYDNFRSRANGVGIETISFTLDDNFNL

DFDSLEYFIHEKRIKLLYLCNPNNPTGKSYNIQKIKSLIINNPNVMFIIDEAYYEFTSQSVCDLVEQCNN

LIITRTFSKAFALASFRIGYIISHPENIESINKLRNPKSVPMLSQIAANAALEDLQYMRDYVDEVSCARM

EFVKFLNTLTTGGGGIFNDSVANFVLIQNENISLFVGFLEKEGIFIRNYSHLISKNCRISIGTRNQMSYV

AEKIQEFAKKQGGFHLV

>AHK53002.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFDAIIVRIIFTFVFFKDLMLIKLNDYEKNITQKIKDLKNASGSHSPSIFTMAEQIPELNIKIDSCFLSN

PYATALFLRYLKEELIDGQKLRSVLEFYPSQNSIIAKTVADFIGIDPKNVFIGNGAIEIIQAVMHNFVGK

KIIVNIPTFSSYYEFAKSETNVVYYQLSKEDNYNLNIEHYLNFVKNENPDSVVLINPNNPDGGYINYEKL

RYILSELKYVKNIIIDESFIHFAYENKDYNGINIEYLFKEFHNTIIIKSMSKDFGVAGIRIGYAIMSEDK

IRGLLKNGYLWNSSGLSEYFLRLYVRKNFFDEYDKVRREYIQETQTFFRKLSGIKQFKVYPSMANFALVE

LLDGSSSTDFVAKMLIKYGIYMRTCNDKIGLEGEFIRIASRTLEENDMVLKSICDVFKE

>AHK53001.1 phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKEILALFDFCETLTNFQTLDRYLPLAGSKNINYTQSKNLARRERFQRENLPYPRYEWLIDLDVDLAEE

IAQEFVYTDVMANLNQNVMDRLFWHQDEGHTIVIVSGGLTIYIKEFARIYNIENIVAVDLEIYKNKLTGN

IDGIHTMQERKLYKLAQKFNLKQFDLKNSYAYSDCVSDIPLLSLVGNPNVIECGKDLQWARILGFNILLK

Y

>AHK53000.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNYNTPKVSIVVPSLNSISYIRECIDSILNQTLKDIEILCIDANSTDGTLEVLKNYEKKDKRLRVIISDK

KSYGYQMNLGIKEAKGEYLGIVESDDYIKTNMYERLYEIAKKNDCEVVKGDFYIFAYGKTEYVNVLRNSC

EDIYNYKVNWNKDIRIFLGSDGINPIGIYRLDLLRTNQIKLNETPGASYQDNGLWFQIFALAKSIYFINE

AFYMLRRDNPNSSVKSKEKVYCACEEYDFIRDFLKKHPDLEKTLAPICALHRFGNYMFTLERIDERYKLD

FLKRFSQDFRKILKDKELDENLFGNINMQRINKIIENPVIYYYFSRGARARLQNQLVYRLGKVVVEAKSF

NKIIKLPFLMLKICLEHNFEHKVYRSIVQFRPDLKLLPLECYLDYHEALVIKEHLSYKFGKLILLSFKGW

YKGKIFILPFMLKKRYKEYKNKMI

>AHK52999.1 UDP pyrophosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQRFKKWFLSIIKNFKQHEKIKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNTKIDLNNT

KIDLNNTKIDLNNTKIELSQLKKEHYKVLDFHLRKITPQAFLEIVEIHLAESCNLNCFGCNHFSQIAEKE

FPDIEIFKKDMQRLSEISKGIVGTFRLMGGEPLLNPNCIQFFDITRYFFPKSAIWLVTNGILLDKQNEDF

WNSCQRNKMQIRPTKYPIKINWDLIKDKCDQYDIPLIFFNNGELEKTSWKFSLDPSGNCDNYHSFTNCSM

ANHCVQFKDGKLFTCTFPAHVQHFNKKYGNHFEVCEFDFIDIYKAKDYQEILFFLSKPIPFCRYCKVSQW

AEIGKWRSSNKTKHEYLI

>AHK52998.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKKILLITPELEYTGALNSFKRICEVLLNNKYAVDIWTYNEGPYISEFDKLGVYVEVISEDDIDSKWVH

ERISKYSLVIANTIVVYKCVELIQNLTPVVWYIREAENLPDFFWKPERKLALEKAKKLYVVSEYAKDFII

HNYNKNVEVLHNYVDDVFYEKHDDFLKQIKSDKLKFLALGTIEKRKGYDVLLQAFIDLPVDIRDQCELHF

AGRFWEGAKDFFPKILSLAKKFPNIFYHGELRDRKKIHSLIFQCNVMVVPSRDESCSLVALEGAMMSKPL

ILTENIGAKYILDENSGWLVKTGSVDSLKNAFIQAYKNKNKLDAMGANSRNNYLQTSTYEIYEKNILKMV

RDEICKNQYLYRINQENYVLFSFDIFDTLISRNIAKPSAVFLIMKQKMRNMDFPLNLVKNFDRIRVEVEQ

YYYRNVCKNKYEDTNFDEIYNLLQQNFSLSFQQKEELMKLEINTEKETLYPIKKNIELVEELIKNEKRVV

LISDMYFSSSIIRTFLNKFSPIFNNIPIYMSSEFRLKKNSGNLFKAILNLEKVDPKKWIHCGDNWVGDYL

KPSNLEISTNFYINQLLPYEEFALNRNSLDMDLQKIIGISKKIRLENTLTNLQEIGVSFGAPMLLPYVQW

ILNIALKNSIRCLYFIARDGYVLQKMTDMLIQAKKINIKTKYLYGSRESWREPFRNKDKLKIQLIDEYLD

QEIDKQEIFAFVECCGTGETLDYIVKRIESNQQFKNMFFGSLYLYRSKLNKTKTQSLFMLPLNENYTYGI

ELFVRSLQGQVLGYDKKDGRVIPVFDFLEGEALQKFRYDEYIDGVMLFMEYIVKTDNYEKIFDNMNVTIL

YLNYLSNNYIDKKFIEIMGNVPFILNGVKDRVGIFAPRLNNKITLDQKNSFFNWSVLRSCKDIRVKYNMD

NDCYFGLIGAVDIIKSHLSYKLGKVILLNIKNPLKWIKLIVLIPILIFSHHEQKKIYLTEKKINIDLSFY

KDYNEAIMVRNFFSYQLGELILKTSRKWNVLAIVILPYKIAQLYRKKFKKG

>AHK52997.1 capsule biosynthesis protein CapA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDNSKPLIIAGRDDGFGERMRALLNALYISKKFGFKFGFVWRDINNIQNLLDGKVLIPWANLPTREYLFD

QDFIKSYYRQDIEFAYETPVLWSLYRQSIKNILKKPYEKEWGWYSTQGDLSEYFTDVDEGEYRTELVSCW

KQIDFSSHVKKIFEKAHSKFLDIGKFVAIHIRTGEVIHDEFYRNILYHCRYKIFPYPFALEIALKEIKKG

HRVIFFGDDLNLIQNLKEYCSFNKQAQENIFSIDDIIAFEQLDNGYDRLLFELVLMSKSEYIFGSGTTGF

SRCASWIENKIFINIFDHLSLIEQYEIILKYIDIENIDDLYRSCNYFFLFLLSEQLNLNFDIKLRYLSKS

LRYDSGSLNSEVFYINLLLQNEKFKEADDRLEQVICKNKKKFFDLLLGYGQNPTFPYDIYMNYYFKDFDQ

YSNIFYVACRIFSEFNIPESRVNTYYPNFHPIIFDQFKMFIFKDLPKSDQEIGAVKKIRNHLAYKLGVAA

IKNSKSLWGYIRMPYVLSYIRDMHKESQNKMDKKSISLEYYSDYESALKEKEGFVYKLGQIIIKAHKNWH

KGGYIMLWFEVKKLKKEFKKGK

>AHK52996.1 dTDP-4-dehydrorhamnose 3,5-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAIEFDIQESKILKGVYIITPNKFRDLRGEIWTAFTDEYLSKLVPDGIKFKHDKFINSHFNVLRGIHGDV

KTYKLVTCVYGEVHQVVVDCRKDSPTYLKWEKFIISYKNQQLILLPPNMGNSHYVSSKEAVYYYKLAYEG

EYMDAPDQFTYAWNDERIGIDWPTNTPILSDRDILATKNKG

>AHK52995.1 hypothetical protein N916\_07120 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKLLKELNNNIKLSNQLSYQILMSNIISNLDIDKKDKEILLLLLQARDRNYIRINNNEQCYQNIINYLN

LIRPLELPLCDLLRIGGNGDGGYVMYNGGGDMSDINAKALSLGVSDSSPWDLEMAQRGFKVIEYDASIEK

CPYDHENIVFHKKFIGNVNNENTITLVQALKDNNLDENKPNILQCDIENCEWDMLENIDISILNKYFSQV

IFEFHGCNPEEQDGVEKRISLLKKLNEYFVPMHTHFHNHGKIFYSQGLFFSTTLEVSYLRKNLINLDIMK

YRDVAGGFKNLDFPWISNPEIPIRFRGY

>AHK52994.1 GDP-4-keto-6-deoxy-D-mannose-3, 5-epimerase-4-reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQTNSKIYIAGHKGTAGTALVENLQKRGFNNLVLKTRQELDLVNQQAVAKFFKEEKPEYVFLTAVLPCGA

ANVAQRADFIYENLMIQNNVIHNSFLNNVKKLVFFGSGYMYPENAKNPLKEEYLFQGDLEYGAYSFGAAK

IAGAIMCESYNIQYGTNFITLVLNNLYGTKANFDFGKSRVLPALLRKFHLAKLLSEGNITQILQDLKMNN

FEEAKEYLHNFGISKKSVEIWGTGKVRREFIHSDDLADVAIYTMQNIDFKDLIKDRKSKNTHINIGTGID

YSIKEVALMVKNIVGFSGELVFNTSRPDSTMDRLMDCSKIHSLGWKHKIELKDGIKMMYEWYKTQN

>AHK52993.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKKVLITGGAGYIGSVLTPILLEKGYEVCVIDNLMFDQISLLSCFHNKNFTFINGDAMDENLIRQEVAK

ADIIIPLAALVGAPLCKRNPKLAKMINYEAVKMISDFASPSQIFIYPNTNSGYGIGEKDAMCTEESPLRP

ISEYGIDKVHAEQYLLDKGNCVTFRLATVFGISPRMRLDLLVNDFTYRAYRDKFIVLFEEHFRRNYIHVR

DVVKGFIHGIENYDKMKGQAYNMGLSSANLTKRQLAETIKKYIPDFYIHSANIGEDPDKRDYLVSNTKLE

ATGWKPDNTLEDGIKELLRAFKMMKVNRFANFN

>AHK52992.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKEQLEVLKEALNGLIYQIDNHQQARKPIADVERIISELQVLNHWNKQENVYNALHLIQGAIADPQGLG

RLNLLLDNARIPKQYYDIFYKMLYVDKYGGGDGYRPVCIDCGGHAGLITDIILHCGGQSYIFEPNIYLNY

FLRKKYENNINVKLFQKAVSDRNYETDFIMFGNRILSQGNRIVESVQDSQTEKTYKVQVIDLCEFIENEI

LTQHKRIYFLKLDIEGMEFEIMKKIIEKKIYKKIDYIACETHEYMFDDSEKKIGELKQLINKCNIQNILL

DWI

>AHK52991.1 dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTIRTQTPLRLGLAGGGTDINLYCDKYTGYVLNATISLYIHCTLIKREDGKIIFDSPDTNSYCEYESKE

FLGNDGKLDIFKSIYNRIVKDFTKKPLSFSLHTYSDVPSGSGLGGSSTLVVGVIKAFAEWLNLPLGEYEI

AKLAYEIEREDLGIVGGAQDQYAATFGGFNFMEFYNNKRVIVNPLRIKNWIASELEARTVLYFTNITREA

KDIEEHKKGKLGDEKSLEAMHAIKQDAIKMKEALFRADFGTLAQILGKSWRSKKIISEIVSNDELERIYK

LAIDNGAYSGKTSGAGAGGFMFFFVDPTKKYNLIKALRKEQGYVQDFSFTKEGVKSWRI

>AHK52990.1 D-glycero-D-manno-heptose 1-phosphate guanosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQAIILCGGLGTRLKSIIKDIPKPMAPINDKPFLEFIFEYLKKQGIKEVILAVSYKYEVIKEYFKDEFLG

IKIKYSIEKEPLGTGGAIKETLKFVKNEAYVLNGDTFFDIDLSKLKLNESKICLALKQMNDFDRYGTVNV

DEQDLVISFEEKVFKKQGLINGGIYLLTKDIFNDFALQEKFSFEEFLQENYKKLKARACIFDDYFIDIGV

PEDYYHFLINN

>AHK52989.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFVGFFLHTSGEKAMERFLKEVGVVLIGAFGYEDGKRY

ISIFNFLISEACACNDLKFAIGILDVNCQKYDKFCFLLQNKPVLILLRDPIDSLKSFINVRHQKNGFNEI

LKIDINNTDFDKINDRIVYVHESNGCFNPDTNQKFPSLESIKALSDTNHWMLMYNIRRNKTIEFFRFNKI

IYIDMMDIVGDKTLFTLEKLSKILNFSSPDKNNKIFYQQLYSPLTVLLPCIIKVNNKVKIFVSNRFSVKN

IQIMENCIDITDKFKEIFHENLIIFCSKDHFDSLINNQTLYNVVLEYINKFLISLKKRINVEKNKEVKVD

DVLDYFKKNISVAKSYKDILDEELVYIKQHRPDIVASWKYYQEFERMCKELDENNQNPSLSFSNQ

>AHK52988.1 sugar transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNPNSAIERVKNHLAYKLGQTVIEHRHNGGGYIALFKKLYKIKKQHKKEQKIYQQIIQVFPQLKYPSLE

TCSDYNEALRCKFHLSYMIGEVLIKAYQNWYKGGGFKLKNNIKKANKEFQIFREILKEFKELNGETLKAI

QDNKQLFLKEFPRIKNILKTHQDYQPILDNIFHNFNYFIKNFDLIEEWLLSDDFKEKYKKENHPYPSLLD

PKKLNDENEKINYHNIPAELAWKMNLPLPPNYEFMWFFSHGAGAFTLGQFFYHLFKINILDYFCGGDGDI

RYYKFYNKLLELKDKRNIITINDIDPSWYGNQHKRDKLFSSFQKITPILFQIRDPIELIKHAYGRKWGNN

LAKTKEFDLSYQFNDIITEVEVYNYNLPNTLEGQRPQSFLWKSLIECFDKFNDCFYLDISKIRGEETIHT

LNYLSNKFNLKQIKINDKEFVTKSYFKGNLYFLLPLTLYLNKEDLNTNIPNKKINKNNSLIININFFQND

NNLFNLYSELSILDMDSSVGFYIDKQDYNKLKNDSIFYKQVIDYLRNFAYELKNRIQIEEDLMLKVEDVL

RHLYNNKNARVSAKNILDEELVYIKQHRPDIVASWKYYQEFEKMCKELDGDI

>AHK52987.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKQGDFTKVAKHYHNRPAYSPFLLEKLVACINDKNKNLKDLNIVEVGAGTGKLTKMLGEMFGCQISAVEP

NDNMREEGQKFTQNLSNISWHKGSGEETCMSNNQADWVIMASSFHWTDPKKSLPEFNRILTGGGYFTAIW

NPRHIVEGSVFDEIEKEIKHIVPDLARVSSGTQNVKKWEEILVSTGDFIDCFFMECDYKEFWDKERYLGA

WHSVNDIQAQAGEKRWKEILEMIEAKISHMQSIEIPYKIRAWTARKA

>AHK52986.1 iron transporter FeoB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIKIALVGQPNVGKSLLINALCKANMKVGNFSGVTIEKASAKTFYKNYEFEVIDLPGTYSLDGYSEEE

KITRHFLNQNDYDVIVNVLDATNLERNLILSAELLSLNKKMLLALNMCDEAKKEGIELDTSILSQEFQSQ

VVEISAKTKENLELLLQKIIILFESKFIPRSQFYTPLCEKSPEKEDLLYFINELSKKIITHKKEERNLTK

KIDALLIHKFFGLPIFLFLMWLLFQLTFSLGQIPMDYIESGFNTLGEFVKNNISNTFIASALADGIIAGV

GAVILFLPNIMILFLGIALLETTGYMSRVAFLLDGILHKFGLHGKSFIPLITGFGCSVPAFMATRTLKNK

RDRLLTLFVINFMSCGARLPVYVLFIGAFFPSEKAGNYLFGIYILGAILGLCAAKFLRMTAFRGLDEPFV

MEMPKYRMPNWHLVWFMVYNKAKMYLKKAGTFILLASLLIWFASNFPKSEENLNDFNAQERAIEQSYLGQ

FGKGIEPIFQPLELDWKLSVSLISGLAAKEVMISTMGVLYSLGKDVDETNNDLKGIIAKNIPIPSAVAFI

LFVMIYNPCFAATIVFSKESGKLKYTLFLFLFTCTSAYIVAFIGLHIAKILLN

>AHK52985.1 2-methylcitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQVSIKPYPSCHFAHGLIDCAIALKNDGLKADEIKSIRCFVDEVPISFICDPLEAKYTPNSAYEAKFSMP

FLMALGFFDGKITLESYENLKREEVLEFAKKISYKKRKSQGFPKYFPGHLEASLQDGRIIQKDVFINKGN

FDNPLSFEELKAKFLANAQIYLDNTKANKILDQIINLENLNHFSF

>AHK52984.1 2-methylcitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFYSEILADFIFNLQYENIPNTVVQRAKELMLDSLGTAIAASKEECVLNAFKAFENLSTEKNTPVWVHDK

KLDPIYAAMLNGIASHALDFDDTHTEAILHASAILTPLCLSYGFHVSKDAKKIIKAFIIGWEIAARVGIA

SKGTFHKRGFHTTAIAGIFGSVSASAILLDLNKEQIINALGLAGSFASGINEFLSNGSNSKVLHIANAIK

NGILIANFAKNNMSEPLSIFKGRDNIFKCFGIEQECDKTELDKGLGEI

>AHK52983.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTGISVFDHRLLADSWSTQEMRAIFCEQNRIQKWLDVEAALAKAQAKLKIIPKKAADEIAKKAHYKFMDM

DFIFAEFKKTKHPLVPTVRGLEKACDNNLGEYVHFRVTTQDIIDTGLVLQFKEAMTLVKSELKAIAKALA

KLAKTHKNTAMMGRTLALQALPITFGHKVAIWLSELDRHFERILELEKRLYVGSIVGAVGTKASLSDECN

EVEKLTLENLGLEVPNISWQSTRDRFIELGFVLGNINATFNKIAHQLLILSHNEIDEVAEPFGKGQVGSS

TMPHKRNPAVSENAVTVSNAFKANLAILSDIERHEHERDGQVWKMEWKLLPEMFLMLSVVLANMKFALSD

LEVKKDKMLKNLDTLKGFVLAERVMFALSDHYGKQHAHEIVYENAMLGIEQQKTFKEVLLADTRVSQVLK

EKDIDALLDATSYVGYAPKLVDEFLAKIKNSAILK

>AHK52982.1 hypothetical protein N916\_06880 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILFLFCSFFLAFAKPSLEIPKLSKQAKQNFILENVKFNYNGTIYKIFIAKNKNENSNYKYKIIYLLD

GNAFFPLFLNLFNTPVKENLLIIGIGYDNNLAFDTQKRTKDYTPTTNLNKQGGGSKEFRNFLITQLIPYI

NKMYPIDFSHQILFGHSFGGLFAIDTLLYDSKIFSHYFIISPSLWWDNSEFLPNIIKLQTCPKIYIGLGS

LETNSSIIKGVAKLNAQKLSEKISKETNCKTHFKLFKNETHGSVISKAMLWMKKLLDLN

>AHK52981.1 peptidase S8 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKFFCLTLVCKLFALSEFELHHIDKVHKLGYSGDTIIIGVADDAFNQDHISLKDKILKSTYPTDTAGKQ

LIPDLKKSTHGSHVAGIAVGAKIGDSKPYGVAYGAKFYGAGVFPNGSYTQIPDIYNFFKDVSIINNSWGI

NFYPYFNLKASNSGLVDCTQTNQGTSYNICNTPLEYVMKADKVANDMMRLSKDKGVLNVFAAGNEGILSP

ALHAILPSYDESLRAWLAVGALDANEITLESDGTLIIKSQGLADFSNGFKGATNFSLVAAGVNINNVDSS

TNDKFTKKSGTSMAAPMVSGTAALVKQNFPFLDGKQIADILLSTANKNYKAPKFTVKQVTDGTNQPKFLI

VYISQDPPGIEDEIKRDLKQLYNGIQVQVNGQWIDYSDYIWDNRDSAQSQKLNTSTISSINGVVRVEKEE

LFGQGILDAQKALKGLSILDANRLSDQDVLKYEQEPNTAYYTINTAGYDAEFSNDISQRKWDESTHLSSA

INKPTHLANLNIGLSKEGEGILIISGQNTYEGATLIKQGELKLKGKVKNNAYVEQKAILSGNGIVGQNLN

NKGIVRPGNEDLNDLTVQGTYTQEGVDSKLQLDFGNYKNSKLIAKTYDIKSGNLEYIPLPKYYILNKPVK

INLGDLEKSLSSFNHVLIQNTYALNFDFVLSDDLVSINKTLIKPNLKPNAYEIPNTSLGNALRQLRSRAD

LSQTYQEFFASLDNGIDVKTKLNRIEGSGYLSTFSNHNQSNLMQNNMLFTLHPLNINNFAQNNNILLAST

YLPRIFSNEEYFWHLTPSYKYYKDKDFSGQKTGANISLGENFSSGFLAYALSLSSAKFNFNNGSDLKSYN

MDLLLNYNHDLDFIKILSGLGIGVGFNTLNRFVVEQPIEGKYKTLQTSAQLGVTKDIILGQDFIFNPLMY

FTHSFFYQEDFKENKSPFAKNYESLKHHSINANLGFNLAKNIEQDDYQASFSTFVIFEKRIYGRTLENKA

SFVDFPIAFIQKYKLKDNILSQGFNSEFLYKNNVFWQFMLMNRFSHNAYELHLMSSVGKRF

>AHK52980.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFFKHILSLKVLIALLLFFGMISLFIGVISINVKDILNLNSTQLEIITLTRIPRLIAILLTGMSLSICGL

IMQQLTQNKFVSPTTAGTMDCAKFGILISLIFFTGASFFTQAIIASIFALLGSFIFIQILRKIKLKDVIF

VPLIGLMFGGIISAITTFFAYALNYIQNIQGWLQGSMANVMQGNYELLYISLPLFILAYFLAHKITIVGM

GEDIALNLGISYNGILFLGLMIVSIITSLVIVSVGIIPFLGLIIPNLVALYLGDNLRKNLIYIALCGALF

LLVCDIISRLVIFPFEMPLSITTGVLGSLIFIFLLLKRKVYA

>AHK52979.1 hypothetical protein N916\_06720 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQTQYSLDMAGKIYRAEFYELRGANLQQLLEANINSKLIKNAKNLDLNTLKMARSKDKFLGSILVEFE

>AHK52978.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIVSKAYEIDSCDDVELGIKRESKLEFKLWYDDEKTPEALVFVVQGMGDDISSIQYVGDYMVRQFNTAVV

GVNYHCIGNRPQTGSSFFMDDIDKLILKASCEAADIKLPYDVDKIQDYKAMSEIFHFVNNQIVEGKQKGN

FTPNYFLNLHVSLQPTKNEYQNFGIMQAQDLLNVALYLKKHAPFDTMGGGIPIIMIGGSHGGYLAHLAAK

IAPWLVDGVLDNSAYAKFLWRVVGFGKEIDFMQYSEFATFDFFHHIKTHCSTKTFWTSNSSSPRFFSPAR

RKIRNLLEEDHLLKQSKCLKTCFISYHSLYDEYVSLKEKTMFYEELEKLGFDVTLHSITKESQVDGKFIK

NLNHGMGIPVKLLIKKELPLMLEKIKQNSKKDYKEKCISYPCEDLLYQFSEKDDKMSLKIDKI

>AHK52977.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTILEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELCSGKIYLVDIEEERVDIQL

LILFDMKDMFEYLSLYEMFVNNVYYKKFYEDVWHKADELCEKNIKVVIRNLNSSLCIGFECYSHLLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENKTSLNMLSCATHPSLVHFLDNKSVVLRDDPLYQRFNLNDFGYIDTGTHVSHFSYT

LALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRIKLE

YLFACNEQKAKFYNATEGGARINFTEELSFKECCEKLLTKEKPQFELPKSLTKNRSDKLLVKFKEKIQKD

QDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDGILKAVMYERGLKIS

LVYKENIIDNASFISAYIKAYHEWLLYFMEKLEQRINIIIDSFKELP

>AHK52976.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLLEKNIQALLSGVNEPLGNKLLNFIQNKTCSRFNIDENLNIFDKTHNVFMYENLEEEINFFYQSILEK

TPRYPFICIYGIGNALLIKNLAKHYKHLFVFESEIELFILALSTIDLSEELKVYKVVLFDCVAKDLEIQI

AMIFDQQSILEYLSLYEMFISSHYYLKYYETSILSLNELCIKSASVAIRNADITCFLPLLTHGQFLQNIP

SMLESIPFQRILSERKNKFENAIVVSAGPSLAKQLPLLKAYQDKAVIFCADGALSMLEKEGIIPDYVTNL

DFTDLAMKFFQNKENLKQSIIALECATHPNIVRSLNAENCMIVLRNKALYQRFNLNDFGYIDTGTHVSHF

SYTLALALGFKNIIMIGQDLAFDEEGNSHSKGFDFGEKFSGEENIDKLKVTAYAGKGEVLTHITWNDYRI

KLEYLFACNEQKAKFYNATEGGARINFTEELSFKECCEKFLTKEKPQFELPKSLTKNRSDKLLVKFKEKI

QKDQDNAKRFLDDALALKQILENILSKDFILPLEFLEKVYQNIENFNHSLDEDEFIQDETLRGAFAYRGK

MIADVLKLHIQDKTHFITAYIKAYHEWLLYFIEKLEQKYKSLSKV

>AHK52975.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGFRINTNVAALNAKANADLNSKSLDASLSRLSSGLRINSAADDASGMAIADSLRSQANTLGQAISNGND

ALGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTVKATIGATQSSKIGLTRFETGGRISTSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALADEINKNADKTGVRATFTVETRGIAAVRAGATSDTFAINGVKIGKVDYKDGDANGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGQIDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TAITNLDQIRADIGSVQNQVTSTINNITVTQVNVKAAESQIRDVDFAAESANYSKANILAQSGSYAMAQA

NSVQQNVLRLLQ

>AHK52974.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGFRINTNIGALNAHANSVVNARELDKSLSRLSSGLRINSAADDASGMAIADSLRSQAATLGQAINNGND

AIGILQTADKAMDEQLKILDTIKTKATQAAQDGQSLKTRTMLQADINRLMEELDNIANTTSFNGKQLLSG

NFINQEFQIGASSNQTIKATIGATQSSKIGLTRFETGGRISSSGEVQFTLKNYNGIDDFQFQKVVISTSV

GTGLGALAEEINKSADKTGVRATFTVETRGIAAVRAGTTSDTFAINGVTIGQVAYEDGDGNGALVAAINS

VKDTTGVEASIDANGQLLLTSREGRGIKIDGNIGGGAFINADMKENYGRLSLVKNDGKDILISGSNLSSA

GFGATQFISQASVSLRESKGRFDANIADAMGFGSANKGVVLGGYSSVSAYMSSAGSGFSSGSGYSVGSGK

NYSTGFANAIAISAASQLSTVYNVSAGSGFSSGSTLSQFATMKTTAFGVKDETAGVTTLKGAMAVMDIAE

TATTNLDQIRADIGSVQNQLQVTINNITVTQVNVKAAESTIRDVDFAAESANFSKYNILAQSGSYAMSQA

NAVQQNVLKLLQ

>AHK52973.1 PseE protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MREENNFNKNLKALSGFEYNNLRKKLEDLKELREFTFTQGKDNLDINIIKKRNLKKMYQDPIKELEKNLE

YFKDFTRYPVLFFYGFGNGILYKILLQNQALKRIIIFEKELELIFLALNFIDFSKDLSLGRLIILHHDDI

NLPKMDKVFRLIGDLFYRSYNLHIANDFYEHYKEDILKLNKLNMQIIKNHNLMHGNDPKDALQGIEQFVY

NLPSMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGIKPDYV

CMLERDEIVAECFNNDFKDFDKDIIFLVASLVHKKTISYLKKNKRKYILIIKGQPFARCLGLDDYGYINA

GMSVSHMAYELAENLGHNNIILIGQDLAYAKDGQTHSQGFIHANLHNGDYERDLDRFSTTAYGGNGKVQS

SEIWTLFRQIFENFIAFSKSKTYNCTEGGARIESAIEKPFKELCEDLLKNKKDKKFKKLQVLNTKEQVKL

GLKIYQKIKKNMNLSLNFKKECKKVQKQIHNLTHGKNKLSLEQINQNIDKIKEKLSNKKYLFLQEILGPT

LHHEQSILTPLYLKDIKDESDKQNKLFAWVYAHEALIENIIELLEVQDKRLKIAILPLLDFLEKKKAL

>AHK52972.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGGGYNENLLYQDPIKELQTMLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWV

IFHILDFSNELQNARLMVLENDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAE

NFKNIILRNGNDPKDALQGIEQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYA

SKATIFCADSSYPILAKHGIKPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNL

VITQKVLAFPYYINLKDFSYAAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYE

SQMYEHILTEAYGGNGKVETHSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACEN

LLDKDLNKPFEKLEPLSLNKQNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLA

IRKIDEFKNKLENIKQMQDLYEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGH

IKAQENALIKNILPLEEKLKERKLDKWMERVRR

>AHK52971.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGL

>AHK52970.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MREELFLKNTQALFEVDEFLACTLRSLKYLTFALIQDENGINFKKDDIFLYENPNKELLENLTLFKTEYN

KYPVLFFYGFGNGMFYKTLCKNKQHKHIIIFEDNLEILTLAFHLFDFSEELKKEQLILFYTPNINTAQLT

TLFTYEIIQKSVKIFNLFIHNDFYQQFYSTQIQNINTQLIEMIRFIVLNKGNDPHDSLVGIKHTLDNLPK

MLNHGIFQEFLKERRAKVENAIIVSTGPSLIKQLPLLKKYANKATIFCADSSYPILAKHGIKPDYVCMLE

RDDIVSKCFDNDFGDFNKGILFILASVVHKEVLDFLEKDQRAYMLVHRPLNFAASLKLDEYGYLGVGHSV

SNMIYELAGALRFENIIFIGQDLAYGEDGSSHPKEHIHGSQGEEIRGEKYTLAYGGKGKVRTQLTWNLFR

QAFEKDIFWAKEKLNITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFDFPKFLDKKLAKEKLEKT

KKYLQKSILESKEFIKKTQTQLQKLRYTLEKNDKNFQTLEKIKNDLLNLFKEFKKLKLFNELCQAIYFHN

ECEILKFEVLNTNKQKENLIDFLKIQHNWFIQGLGYLDTQNKTIEKSLENWNFDDIIKK

>AHK52969.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMTFTPTQKELFNKNIEALSNLFLKESLKEIKSSKFELILGKDNLDINLKDTSDNTFLYENVIDELNSML

NTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQSARLMILQTS

SLDIELFSNFCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLVQDFKDSILSHGNDPLDALQGIEQ

FVYNLPQMITHPSYKELLSKRKGISDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHNIKP

DYVLSLERIPLTSEFFNNDFGEFDKDILFVLKSYVHPHTTKYLQKNNRNFMLVSTYASFINYLKLDDFGY

FNMGFSVANMNFLLAIHLKHKNIVLIGQDLAYAKDGLSHTKDYSNLDKHEGHFQRDKNKYTTQAYGDNGK

VESSFVWTLFRHNFEQDVANAKKNYYITTYNCTEGGARIEGTIEKPFLWACENLLHKDLNKPFEKLEPLS

LNKQNEFLLKAYYKVYQSIKHCRDFSNKFIKSYDKIKNSFMSLQNSQENETLIKEIIKDIDKIKTQIDEL

YNTQKDLMQILGPLLTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNIL

PLEEKLKERKLDKWMERVRR

>AHK52968.1 flagellin modification protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLENKIIFVAGACGRIGKALCEKILLSKGIPILADINKECLNKLQENLETNFKTKLLSLELDITKQESLQ

TALQKSQERYGKIDAFVNSSYPFGKDWGKTPYYELKYEQICESLNLHLAGFMLAAQEFVKFFKQQGYGNI

INLSSIMGVYAPKFENYEGTSMQSSLEYSVIKAGINHMSSWLAKELFNQNIRVNTLASGGILDNQNELFL

KAYRKCCASKGMLDADDICGTLVFLLSDESKFITGQTLVVDDGWGL

>AHK52967.1 Post-translational flagellin modification protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAEILCTICARGGSKGVKNKNIRKINKLEMIAYSIIQAQNSKLFKHIVISTDSDEIASVAQKYGAEVFFK

REAHLANDRTAKLPVMRDALLRSEEHFKTCFETLIDLDASAPLRSSLDIKKAYESFVENDNSNLITAVPA

RRNPYFNLVEIQNNKVVKSKEGNFTTRQSAPKCYDMNASIYIFKRDYLLENDSVFGKNTGLFVMDESTAF

DIDSELDFKIVEFLISLKNLSPKDF

>AHK52966.1 flagellin modification protein PtmF [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVLIIGFGSIGKKHFLALKNLNHEVSLLSLSAKKEEFKNTPIYRSLKECDLNEFDLFIIANITTEHFNT

LKTLDELVKDKTILVEKPLFEKSQNFTSSKNHIYVAYLQRFNPVIVALKRLLKGEKIYFASLVCNSYLPH

WRALDYRQNYSAKKELGGGVLLDLSHEIDLAFFLFKDLELIYSQNAKISELDITSDDFAFLALKNSQEAK

IHIELDYFAKFNKREIIIHTLEKSFKADLINNKIEIYHKNQSQKILNFENDTIKTLQNLHHAVFEKDKEL

CDLKQALKVLELCDEVRKKNG

>AHK52965.1 alcohol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDINKLKLTPDSSIKEALKIVGQERVRLGIIVDKKDKFLGVISDSNIRKALISGKTLKDSIKDIYTKNPI

TIKENTSKEQLLKISAKTDIYDFPVLDEKGQILSIKSISSLLKANPNSIIIMAGGLGSRLKELTKDTPKP

MLKVGKKPILESIIQRLKNQNFENFIFCVNYKKQIIEDYFQKGQKFGVKISYIKERKKLGTAGALSLIKQ

EFKESFIVMNADILTELDFNALLKAHKKSKALMSVCVREFEQQIPYGVITQKQGFIENIEEKPTQKFLVS

AGIYVLENEILNLIAKNEYLDMPELIKLVLQKGKVNTYIINDYWIDIGRPDEFLKANEDFK

>AHK52964.1 UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKRKICIVSATRAEWYLLRNLCHEIQNDKDLSLQIIATGAHLSPEFGLTYKEIEKEFKITKKIPILLAN

DDKISLCKSMSLAFSAFSDAFEDLKPDMVVILGDRYEMLSVASVCLLMHIPLVHLCGGELTLGAIDDSIR

HSISKMSHLHFVSHEIYKKRLLQLGEEEKRVFNIGSLASTIIKNMNFLNKKDLEKALEMKLDKELYLITY

HPLTLNVKNTQKEIKTLLKKLDTLKNASLIFTKANADENGLLINEILQNYCQKNSHKAKLFDNLGSQKYL

SLMKIAKAMIGNSSSGISESPFFKTPCINIGDRQKGRLRTQNIIDSEINDLDQAFEKLESKEFKQNLKNF

KNPYDNGKNPNKIIKTCLKNVNLDTILHKNFIDL

>AHK52963.1 hypothetical protein N916\_06630 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKTLIIAEAGVNHNGDLNLAKKLIEIAADSGADFVKFQSFKAKNCISTKAKKAPYQLKTTANDESQLQM

VQKLELDLKAHKELILHAKKCNIAFLSTPFDLESVDLLNELGLKIFKIPSGEITNLPYLKKIAKLNKKII

LSTGMANLGEIEEALNVLCKNGAKRQNITLLHCTTEYPAPFNEVNLKAMQSLKDAFKLDVGYSDHTRGIH

ISLAAVALGACVIEKHFTLDKNMSGPDHKASLEPQELKMLCTQIRQIQKAMGDGIKKASKSEQKNINIVR

KSLVAKKDIKKGEIFSEGNLTTKRPANGISAMRYEEFLGKIATKNYKEDELIRE

>AHK52962.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDIIFANQSLYYIPLKELKQNILEFYELLNTGGILFATMMSKKNYYFSHSQKEEKNGLSKVEINGRLNET

SFIHFIDKAEDLENLFQPFETLFLGDYDPINFYNFEGSAHHYIYIGIKK

>AHK52961.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNSLEAYTMKYNENGYGLLFPDGHVVRFYERILKYKLNKINGNLLDFGCGNGVHSAYFQSKGFKTFGID

IVPSLKEIWEQNISGGGVL

>AHK52960.1 N-acetyl sugar amidotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIYCDHCVMPNTRPGINFTKDKEGKNICSACINHKNKENIDYKARFKELEVLCDKYRRMNGKFEYDCAIA

VSGGKDSHFQVHIMKEKLGMNPILFSVEDNFTMTEAGKKNLKNLSETFGCHIISLKPDIKTQKKVMLKTF

EKYGKPTWFIDRLIYSYPFAMALKFNTPLLVYGENVSYEYGGSDTEETPSAKEIFLNGVASDLNINEFID

DEIKEENLQLFFNPNKDKLDKLNPIYLSYFVKWNSYSNYIFAKSRGFTDLEGEWDRTMCAENFDQVDSIG

YILHAWMKYPKFGHACASDYAARFVRYGLLSRKEAIELVQKRDHKLDNKCVEDFCNFIGISKTTFWKIVE

KHYNMDLFYKNDFGEFKLKNKLQ

>AHK52959.1 hypothetical protein N916\_06610 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDDLNCDFIHFFNTIYIKLIELCGSNLERFTPLKDLKKLGFHIICSKGNRGALANLLLFNEISSFFKIIE

KYDYNFKECQTVYDLLYEKRNLLNIIDTIGIELCNKICKNLKEDDENFYHPKIFKKAL

>AHK52958.1 3-hydroxyacyl-CoA dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEINIIDFGLMGKQISALFYLLGYEIGVYNKSKLNIYEFEKQIKLLQRKIDFSNFNAGKINIYQHIEDL

KNSLTIESLNEDLNLKKEIMQILRDNNIVFSRVWMI

>AHK52957.1 NAD-dependent dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRNILVTGADGFIGSHLCESLVKKGFKVRALSQYNSFNFWGHLEKSPFLKDMEVISGDLRDSFFCEKITK

NIDAIFHLGALIAIPYSYTAPQSYVDTNVNGTLNMLEAAKKNEISHFIHTSTSEVYGTAFYVPIDEKHPL

QPQSPYSASKIAADMMALSYYNSFNLNVNIARPFNTYGPRQSARAIIPTIITQILSGAKEIKLGDLSPKR

DLNFVLDTCEGFISLLNLKHFGEVYNIGSGVEYSMQEVLDLIQKILDSKVKIIQDEQRLRPKNSEVFRLC

CDANKLKKATNWQSKISLEEGLRQSIEYFKENLENYKSELYNV

>AHK52956.1 PseD protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNTYNDKYLLYPVLYFYGFGNGILFKALLQNKNHQHIVVFEKDIEIIWVIFHILDFSNELQNARLMVLE

NDKLQTQDYTELCSSKPFFQFSRIYFLELMSHYYERFHEDVLELNKKLAENFKNIILRNGNDPKDALQGI

EQFVYNLPQMITHPSYKELLSKRKNLSDTAIIVSTGPSLTKQLPLLKKYASKATIFCADSSYPILAKHGI

KPDYVCMLERTELTAEFFNHDFGEFDKDIVFICAGVVHPKAIEYLKGRNLVITQKVLAFPYYINLKDFSY

AAVGLSVAHTLSYLATYLSHKNIIFIGQDLAYAENGNSHPDDYQNSANYESQMYEHILTEAYGGNGKVET

HSIWLLFKNWFENEMIPNTRKMGITTYNCTEGGARIEGTIEKPFLWACENLLDKDLNKPFEKLEPLSLNK

QNEFLLKAYYKVYQSIKHCRDFSKILSNDFNNIQNIYLNLNKKENDLNLAIRKIDEFKNKLENIKQMQDL

YEILQPLRTQFELNLARIYVLNPKTKEDAFNKSILWIKEHLEFMELVYGHIKAQENALIKNILPLEEKLK

ERKLDKWMERVRR

>AHK52955.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTFTPTQKELFNKNIEALNNILLKESLKEIKSSKFELILGKDNLDINLKDTSIKNNGGGVIMKIYFIKIP

LKSCKLC

>AHK52954.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLINQTFEIDSCDDVELGIKRTSKLEYRISYDDEKDIKAIVFIVGGFGANANISFLDFDREYIAKNFDVV

VVHVFYHCFCARQSIDQKYNPKLIPNQDDLERVNGILKNINLGHLSVNKDNFEQIIPLIEQKVNKMKQAG

LVDESQKIELSCDFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGVCLPFLACILGREMNQGEFYFEGSGYRLYCFVYKYWNRNMNSSYYFGDENYLIRAVLN

SNHLQIQSNLNKNTIFVSYHSIQDMGAPVQNKIELYKCYQELGYDATLHLIKDENDIDGRFVKSLEHGLR

MTDRALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFVFKDLEDKFELEMIN

>AHK52953.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTAYLHIGTTNTGNQEKQGFLMQNEEKLLQKAYIYPKSLRVANRHWALVDMVLELVQKEDILKKESVLSH

ITNERLLRAIENFKSESALHKDKKFIFSAEGIVWDFSTKKHVEILEKIMRELGFTQIYIIVYFRDTLGYL

NSHCSQDHKNNMGYYSADFAPQDHPRKYIFDYEWICKTHAEVFGEENLIVRLLREDYVGGTLLKDFVYHL

GLEWDESFVLKQTKNESFNLLGMELMSRLNQKDLKQDNLNSLLFMARRKFEGSKEKRLKFAVQKDIAKAY

VDYFASSLEWVKNKYFPHKNSLFTPVNWEEYEQNYTLTHMLSKDWDDVADFIAQIIVSKNEIISSLKEQL

ELARKD

>AHK52952.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLINQSFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSTLADFTKDDLKLIEKVLRKYNIPCDQLANNTVVSHCEYLSEIMTELKMLN

RLPYDFEERLSATFIPSRGEYQNFGIMAAIDHINALKDLVKRFPKLADLPKIYGGGSYGGYLALLIAKIA

PWYVDGVIDNSGSAVPPLNYIIGRELEFKSKDTNGDMYMQGDHFFVSCFLKTHWTRKENSPYFFNNENYF

IRTLLNKDHLILQSQKNKNIIYVSYHSKEDPLTPANFKELTMQILKILGYDVSLNLIDENKIDGKFIKNL

DHGCGIPDKALFRKELPLMLEKLQGRKSFMQENSISYPCGNKVFTFKDVENQLKLIIN

>AHK52951.1 carbonic anyhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLINQTFEIDSCDDVELNIKRTSKLEYRISYDDEKEIKAIVFIIGGYGANANIYFLDSYRNYIAKNFDVV

AVHVFYHCFCQRRSDVEKYSAYKYFQEEDIENIKNLLNQFHFSYGEINNDNALFLANSLVKHVENLKMQN

KLDHNFKLNFTSTFIPPNGDYQNYGIMAAIDHINALKDLVKRFPKFADLPKIYGGGSYGGYLSLLIAKIA

PWYVDGVIDNSGSALPPLNYILGREMEHSYGDYYEDFPHNRIIFFLKTHWTRKENSPYFFNNENYFIRTL

LNKDHLILQSQKNKNIIYVSYHSDKDPLTPANFKQQTMQILKILGYDVSLNLIDENKIDGKFIKNLDHGC

GIPDKALFRKELPLMLEKLQKRKSFMQENSISYPCGNKVFIFKDVGDKFELVIKD

>AHK52950.1 hypothetical protein N916\_06495 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNTTLNLPLHHIGVACKNLEKERECFFKLGFYKESEFIDEKQGVRGEFIIPCNEAFPQYRFELLQNLND

KGPLDSYLKNNTKMYHLAYESKNIAQDLILLEQQGGICIVPIMQASYFAKLCFIMMPNRLLIELVELK

>AHK52949.1 hypothetical protein N916\_06480 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKYLLEFENKKYSTYDFIETFYKLGLQKGDTLCVHTELFNFGFPLLSRNEFLQTILDCFFEVIGKEGTLI

MPTFTYSFCKNEVYDKINSKTKMGALNEYFRKQTGVKRTNDPIFSFAIKGAKEELFLKDTTSCFGENCVY

EVLTKENGKYMTFGGQGHTLTHYAEEQFNVFYRYHKIFSGILIDENNISYNKTISYYVRKLDISSEPNLI

NIINIVNNTKNFKKNNFAGDHINIYNAKEYIEILWKKLDINQTILIENYDTIY

>AHK52948.1 hypothetical protein N916\_06475 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKGAKADIFLKENSSCFGKDSVYEILTREGGKFMLLGLNYGHALTHYAEERNTSFCRYFKEFKGFVIDEL

GQKREKRINYYVRDLEKAYVCSLDKINEIVRQTRYYKSIKFAGDFLESYDAKEYVKAIGNALKQDKFAIY

EKLLL

>AHK52947.1 aminoglycoside N3-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKYFLEHNGKKYSDKDLIDAFYQLGIKRGDILCVHTELMKFGKALLTKNDFLKTLLECFFKVLGKEGTLL

MPTFTYSFCKNEVYDKVHSKGKVGVLNEFFRTSGGGRLGELATLFFPLL

>AHK52946.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQTFLVDENSRLDVFLAKKLNQSRNQVALLIEKDCVQVNDKIQDKNSFKLKNGDIISIASLKLCNEIKPQ

FEVDFDIDVLYEDEDLLVLNKPSNLVVHGASSVKNATLVDWLIEKKYTLSNLGGEIRAGLVHRLDKDTSG

AILIAKNNFTHQKLSEQLADKSMGRIYLALIDLPLKEDKIIVEKFLMRSPSNAIKKIAIDKENKFSKNAK

SAFINVVKTENLTLMAAKLFTGRTHQIRAHLASLNRYILGDSLYGYKGKYDCRIMLHAYFLYFIHPKTKE

QIFVKAPLMEDFKNIMFEQINLGENDEKISLEFLLEFFNSFA

>AHK52945.1 competence protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSLWNSFSYSFKEFHYLFFSVVVIFIFNILLEYNNFLNFKNQKHYLIDNALLTHQYIKYNKKNKKYWVLK

LQTENFTFYTTSFKDLNLSKNQFLSLRIITHNINFKDYLSKSFYAPSYDFEKLKEKEYNPIISYFLNQHT

NEKIKEFYGALFFALPISLELRNDVNYYGIAHLIAISGYHIGLLFSLIFFILAPIYSFFQKRYFPYRNLR

LDLSILIFALLLAYACLIGFVPSFVRSLIMAFWVFYLLCKNIKIINFVTLFCSILLCISLYPRLLFSIGF

LFSILGVFYIFLYMHHFANKFNNLINIILLNIWTFFAMVLPVLYFFPLISYQQILGIILSGIFVIFYPLV

LFLHLINYGDLLNFILDEFFKFKIYGTNIHIPFWIFISYLIASLISVRFKYLAFLCIFANFIPFIMIVI

>AHK52944.1 5-formyltetrahydrofolate cyclo-ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKTDFRALQKIRLFKHSKLNFKQDYKIFKECLKIIKLFKAKNILIFIPLHYEPNLIKFRHILNKNYKLF

VPFMQDKSLKIVKLRLPFIKKRFGVLEPIDSFFKAKIDLAIVPVIGVDKNLKRIGHGQGFYDRFFENLNY

KPHIIFIQSIDALSQNNLTQKHDISGKLYINPYKKYYKKERKNDRITYRTYSRYSRTRYRIFSCKKNQ

>AHK52943.1 biotin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVKNGLLLTIFLSVIGVLGVIFIHIFVGAIIFVLIAVLMIYLLRQHKDEQIMIDKLLVLCRELKEGNFDN

RIIYVKTKSKKLAEIADNLNNTIDGLEAYLTEINTSISCSQKGEFYRKALPEGLKGIFAHNIEFINKALA

NIEVTARSTFKNALSRTLMDLSLGNQNKDMSQISSSLNQDISMMKNVYDTVDAISHTATENGSEVDSLQS

AMGSLMDVVNSSKETVQTFVANSQNITSVVEVIRDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVRK

LAERTQRSTSEISIAIQTMQQDFVNIQSGSEQVFNIVSESEERINKFSQAFKRLEENSSALGVNFGSFAK

RLILSVVKIDHILYKSNIYLNLNGAQNFNLESVDPISNLCQDERAQGVINELSSETELNLAKEFIKDNAK

KAIEESSQDYIDQKAYDAIVNDIKSLEQRSAEILAKLKI

>AHK52942.1 flagellar biosynthesis protein FliR [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEFVNYLGDKNVVTFMLLLARMGGLIVFFPFFSHNSIPMVIKSTIVLFLTMYLYPLARLESLHLDSFFVL

QLISEVIFGMIAGLMLQIIFAIIMMAGEQIAFTMGFTMASILDPSSGTSMPITSQILNLLALMFFLAFDG

HHLMLLFLSHSLGYISLGGFYPHENLMHYLNMGMFNIFIIGFTMSFPILGISLLADVIFGLLMKTMPQFN

LLVIGYPIKIALGFVVLIAILLVMMQYFKNLILELFTHMQTLFFF

>AHK52941.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKILLLNENPVVSRLVSLSAKKMSYDFEELNAYSENLGNYDVIVVDSDTPAPLKILKEKCDRLIFLAPRN

QNVEDIDAQILQKPFLPTDFLNLLNNKDANKHTSIDLPMLSNDENPYADISLDLDNLNLDDLPDENSLDI

NSEGMEDLSFDDDAQDDNANKTLETQNLEHETIKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEP

SLDELDDKNDEDLEIKEDDKNEEIEKQELLDDSKTNTLEMQEELSESQDDNSNKTLETQNLEHDNLEQET

IKEQTQEDTQIDLDLTLEDGESEKEDLSQEHTALDTEPSLDELDDKNDEDLEDNKELQANISDFDDLPEV

EEQEKEMDFDDLPEDAEFLGQAKYNEESEENLEEFAPVVEEDIQDEIDDFASNLSTQDQIKEELAQLDEL

DYGIDSDNSSKVLEDFKDEPILDDKELGTNEEEVVVPNLNISDFDTLKESDIQEALGEEILEKNEEPIVS

DVTKDDNSEEIVNELSQSIAGAITSSIKDDTLKAALKGMNMNININISFKED

>AHK52940.1 hypothetical protein N916\_05785 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQQKCFCISKMIRFSKIIILLTVVSLAGIVVFGNVTDYNSNFQFVSHVMSMDTKPDLFR

>AHK52939.1 hypothetical protein N916\_05780 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAITSPVIYHIGYIAIILFETFIALTALKKVLMICLKLEI

>AHK52938.1 hypothetical protein N916\_05775 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFKARNLDAQSFHNAKIFWDYFFNLCILWFFAFQVVVAEWFGMWMSKVWKGLPDTIRLVTYMFLALIFIS

LKNDD

>AHK52937.1 hypothetical protein N916\_05715 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKQEISSFWYTPRGYKGIGLMELLSIKSFIDNGYKFILYTYNLDDKIFKKLDELFDDFELKDANEIVSFK

NYFRDDRGSGVAAFSDYFRYNLLYLKKKGGGYG

>AHK52936.1 hypothetical protein N916\_05710 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MICLNYIDLNEEYIFTQEVDEDNKKSRITTSFLKFSRYSDFGKNLIQEAEKIINKRKKISWGVIGPWFLA

DHVKKCGLENFVWDYKRTCQIPWCNVKIFLDNTSIDISQPFLHLFSEMWRLNNMEKNTFHQMGVYGQLLK

KHEIEKLYNQINTCLKTSMLDNIASFLTKFFIKKL

>AHK52935.1 bifunctional beta-1,4-N-acetylgalactosaminyltransferase/CMP-Neu5Ac synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTLFYKIIAFLRLLKIDKKLKFDNEYFLNLNKKIYDEKHKGFFDFDPNSKDTKSPLNPWAFIRVKNEATT

LRVSLESMLPAIQRGVIGYNDCTDGSEEIILEFCKQYPSFIPVKYPHEVQIENPQSEENKLHSYYNYVAS

FIPQDEWLIKIDVDHYYDAKKLYKSFYMASKNTAVRFPRINFLILDKIVIQNIGECGFIDGGDQLLIQKC

NSVFIERMVSKQSQWIDPEKTVKELYSEQQIIPKHIKILQAELLQWHFPALKYHRNDYQKHLDALTLEDF

KKIHYRHRKIKKINYTMLDEKVIREILDKFKLSGKKMTLAIIPARAGSKGIKNKNLALLHDRPLLYYTIN

AAKNSKYVDKIVLSSDGDDILEYGQTQGVDVLKRPKELALDDTTSDKVVLHTLSFYKDYENIVLLQPTSP

LRTNVHIDEAFLKFKNENSNALISVVECDNKILKAFIDDNGNLKGICDNKYPFMPRQKLPKTYMSNGAIY

IVKSNLFLNNPTFLQEKTSCYIMDEKASLDIDTTEDLKRVNNISFL

>AHK52934.1 UDP-N-acetylglucosamine 2-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIVFVSGTRADFSKIKSLMMKVENSNEFELFIFVTGMHMSKKFGSTYMEIEKCGFKNIYKYINHDKYY

QMDKALSSTIDGFSKFIHEIEPDLIVVHGDRVEPLAAAIVGSLNNILVAHIEGGELSGTIDESLRHAISK

LAHIHLVNDEIAKKRLIQMGEDEKSIFIIGSPDLELLNNTISLDEAKKYYDIKFKNYAIAIFHPITTEIN

SLYKQSEEFVNALIKSEKNYIVIYPNNDLGFELILQNYERLKNNERFKIFPSLRFEYFISLLKNANFIIG

NSSCIIKEALYLNINGILVGSRQDGRTDINKTIRVNAEEKDILEAILNTSKCTNITNKRLEILNSSEQFY

RLLKNNILFTINKQKIFMDKK

>AHK52933.1 polyhydroxyalkanoate synthesis repressor PhaR [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIKIDKLTISQKNPLIIPEIGINHNGSLEIAKLMVDAAKRAGAKIIKHQTHIVEDEMSQEAKNVIPGNA

NISIYEIMEQCALNYKDELALKEYVEKQGLVYLSTPFSRAAANRLEDMGVSAYKIGSGECNNYPLIKHIA

QFKKPMIISTGMNSIESIKPTVKILRDYEIPFVLLHTTNLYPTPSHLVRLQAMLELYKEFNCLYGLSDHT

TNNLACIGAIALGASVLERHFTDTMDRKGPDIVCSMDESTLKDLINQTQEMVLLRGDNNKNPLKEEQVTI

DFAFASVVSIKDIKKGEILSMDNIWVKRPSKGGISAKDFEAILGKRAKKDIKNNIQLTWDDFE

>AHK52932.1 alpha-2,3 sialyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSMNINALVCGNGPSLKNIDYKRLPKQFDVFRCNQFYFEDRYFVGKDVKYVFFNPFVFFEQYYTSKKLIQ

NEEYNIENIVCSTINLEYIDGFQFVDNFELYFSDAFLGHEIIKKLKDFFAYIKYNEIYNRQRITSGVYMC

ATAVALGYKSIYISGIDFYQDTNNLYAFDNNKKNLLNKCTGFKNQKFKFINHSMACDLQALDYLMKRYDV

NIYSLNSDEYFKLAPDIGSDFVLSKKPKKYINDILIPDKYAQERYYGKKSRLKENLHYKLIKDLIRLPSD

IKHYLKEKYANKNR

>AHK52931.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYKLKNKTQTIKENSLIEFNIEGNNPYEIYTVYKSYKAFNNEQDLTNFTYPIIDYII

FLDSDDYWELNCIEECVPRMDGVDVVWFDSIEYHDIEKSYFKHHSRLKDINIKKECRINPIEWLKLLRQN

KIKDFAFAWSGIIDFDYIKDKKMKFKDAIFAEDHLFGILLFSQAKNIYVYPKVFYYYRIRANSLTNQDKK

ITKDNILPYFKDIFIAFEENATLAKEYFKYVSWVETSLELVRFVENYHDKKISSLLKDTILYFYIKNAFK

IKKFDKDPLCIKEKLQLLKPYKISKIRYKVMKFLISLRN

>AHK52930.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIQQNNSLIYNTLTKKLSSFIPIKSTRRKLRNHIQYKLEHPKVTNYLSNNYINPFLEGKIPHFDFEKKH

YFKNDKIIWQFWYQGKNQASPMIQQCFNSVQSQMKDDYTIIILDKDNIKDYLDFPPFVIEKLENNFFGEK

TITFFSDLLRVCLLATYGGIWCDASIFLSSKIPSELCDKDFFTFERSKIKPSKEKLKKFIKSGYFSYGYF

NWNDDFKVKMLSSFMIAKTNNTFIQTLKDILMNYWKNEQSSENHYYFILHIIFELLKEHGFVNDIYKNMS

DIECHLLQFSAKEKFNSTLWEEIQKQSFLHKLTHFKSIKKDSMIDKIILQS

>AHK52929.1 glycosyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKVGVVIPIYNVEKYLKECLDSVINQTYTNLEIILVNDGSTDENSLNIAKEYTLKDKRIILFDKKNGGL

SSARNVGIEYFSGEYETQYIEKENELNVFKIIGDNPQNIYKIYKYKNALASDKLEISKIDYIIFLDSDNY

WELNCIEECVVRMQNVDVLWFDHACIYDDGIEDKGQKTRMNVFNFTQECTITPRDYAKQAIKVGSRDISF

SWGGMIDFSFLKQLKLKFINKIINEDIHFGMVLFASADSIYILPKRLYLCRLRANSISNHDKKVTKANVS

EYFKDLYEFFGENAKEAKNYLKAASRMITALELIEFFKDQKNENSQAIKEAFLPFYVKKALMIKKFKKDP

LNLKEKLPIIKPFIQTKIPYDLWKIWQKIKGILDKINFAK

>AHK52928.1 glycosyl transferase family 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLKQISAIIIVKNAKQTLLECLNSLKDFDEIILLNNESSDNTLNIANEFKKDFANLHIYHSAFIGFGAL

KNLALSYAKNDWILSIDADEVLENECIKELKNLELQEDNIIALSRKNLYKGEWIKACGWWPDYVWRIFNK

NFTRFNDNLVHESLVLPSNAKKIYLKNGLRHYAFRDISHLIDKMQYYSSLWAKQNIHKKSGVLKANLRAF

WTFFRNYFLKNGFLYGYKGFIISVCNALGTFFKYMKLYELQKQKPKTCALIITTYNQKERLKLVLDSVKN

LAFLPNEVLIADDGSKEDTARLIEEYQKDFPCPLKHIWQEDEGFRAAKSRNNAIKASKSEYIILIDGDMI

LEKDFVKNHLEFAKRKVILQGSRVILNKNESEEILKNNNYSLAFNKKGFKNQRSIFLAKCVYKFSKLTKK

FFKKSQLVKGSKTCNMSFYKSDFEAIEGFNEKFIGWGREDSEFVARFLFNDGVFKRLKFNALAYHIYHEE

NSKNMLEINHQIYLETIKNEKTTWR

>AHK52927.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKKLFFILSKEDKNFLFFLLVFSVFISFIETFAISLVMPFITLASDFSYFDRNKYLISLKEYLNIPVFE

IIVYFGVGLIVFYVFRALLNAYYFHLLARFSKGRYHAIAYKVFSKFLNINYEKFTQKNQSEILKSITGEV

YNLSTMISSFLLLMSEIFVVLLLYALMLLINYKITLFLSIFMVLNAFILVKILSPIIKKAGVRREEAMKN

FFEILNTNLNNFKFIKLKTKEDGVLSLFKAQSEAFSKANITNESVAAVPRIYLEGIGFCVLVFIVVFLVL

KNESDISGILSTISIFVLALYRLMPSANRIITSYHDLLYYHSSLDIIYQNLRQEEENLGEEKLSFNQELK

ICNLSFGYEGKKYLFKNLNLNIKKGEKIAFIGESGCGKSTLVDLIIGLLKPKEGQILIDEQELNANNTKN

YRQKIGYIPQNIYLFNDSIAKNITFGDAVDEEKLNRVIKQANLEHFIKNLPQGVQTKVGDGGSNLSGGQK

QRIAIARALYLEPEMLVLDEATSALDTQSEAKIMDEIYKISKDKTMIIIAHRLSTITQCDKVYRLEHGKL

KEEK

>AHK52926.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHFNNNLVVHYIVNPSPLGWIVINLLTICLICYIFPLKNSLKHKKLFSLKANVNSKNSRIIKYTGIAAFL

GGLIGIWYNFEGFYQLLFFFELENENLKTLWSLQVSVSSVITGMLLLLIYVINLAMVCENGIYIVSKFNL

FYMYFIKREDLEIVKIEKMKFLNQVEVCFVIKTKNKILLKCFESIYKKEDLEKLKNWYENKL

>AHK52925.1 ATP-dependent Clp protease ClpA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKYQENLQKYLDNAKNLSLINHHEFVTCEHVLFALLKLSTDFKDIFEEFSDGDLELLETELKNYISQNNQ

VIKQEIEPTISVVLDEILLSSKNKNNEIKIIDFLEKLIQDSRSYSSYLLKKHNINLNKIQELQNHENIQN

LNNHTSDLTLLAQNGKIDPLIGRKFELERMMQILSRRKKNNPILVGEAGVGKTAIVEGLALAIAEKKVPK

NLQNAKIFSLDMASILAGTKYRGDFEKRIKEILSELEKIPNAILFIDEIHTIVGAGSTGESHTDFSNLLK

PALSNGTLKCIGATTFMEYKNTFDKNKPLSRRFAKINVDEPSQEESLQILKGLKNKYEEFHHIKLNDEIL

QYAVIWGKKFFNDKFLPDSAIDLIDELGASFALNPRAKKNANLKDLENVLAKMTHHHKMFEFDQNKALMN

LKTNLKAKIFGQDEVIDSLVSSLKQSFAGFKNSNTPRGVFLFTGSSGVGKTELCKALAEFLGLNLERFDM

SEYAEKHAISKLIGSPAGYIGFEEGGLLSNAIRKNPFSLVLFDEIEKAHPDLSNTFLQIFDNAELTDNSG

LKVDFKNTIIIMTSNLGLKESNELGFLSKNEEKSNRAIKDFFAPEFINRIDKILHFNDLNDAILVKIIEK

ELDEISKNLNNIKLSVDDKAKIYLAKKAYNKEFGVRLLKRIISEEIGEKISDEILFGKLKKGGIAKIKLG

KNEKLEFIF

>AHK52924.1 hypothetical protein N916\_05420 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAIFNKGGISPTSSSSSETTVISSGARIEGKFYFASMLHVDGELSGIIHSESIVVIGKNGNLKGELQADK

IVVNGCFEGQLEANSLEILAGGVVNGDISTQKISIENGGRFNGTSKIKEDTIKLIENNNEE

>AHK52923.1 hypothetical protein N916\_05300 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLENPIPNSIIITTIAVVLAFSALAVFLIKKTKENK

>AHK52922.1 sulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRKILLQIFIFSVLFIATFAINRILMQNSFIPTGLISDKNEIFLMYLLGVFHDIRFLSAAFLPFLLCGFL

SLIFSNIKINNKLVIYSKNFYFIFSSVYIIVLSCLCIGFSYVKYYYYEIYKTKFDIFMFTLKDDNTKTIL

SIIYHDYPILKILALMLIFGVFVFFLNLKILNLKLKPVNLRLFPLIALNLILIIVYVIALRGPFKHVAIN

VQNYSFSEYSVVNDTMLNPIMAFSWALKQYKEEAALKVITPLKAQELKEKLFDYLHQSPINLKAEKNHPS

VFVNLMESFGLNLADFTNTEHNFLGSLDKHFKQDFLFKRFLSSSNGTIPSFANLFFVSPFSNISTSKFQK

TYLDLTPIAVYKKAGYKVIFVSAGNGSWQNIKNYLSILGVDEIIDENILMKEYNGAKDSENGYGIADEFL

YKKVYDLLQKNPHKTLIIALTISNHPPYKIPQNDLPKLQNIPQTLLNMLPYEKDKQDNIIKAYTYANNEF

GKFLDKVKQSPFKNSVIIAATGDHRVREMSMDLNSQKAFAYSVPFYLYIPKDLQDNIYYDKDRVGSHKDI

FPTLYALSLNNVKYLSVGGRNMLARPSDEKLEFGINDAVWIDKKGIYSGGKGYYFESNDTLKDMNKAFNL

DGYTKDFDKFYRELNLYQLAERLGISK

>AHK52921.1 restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MITKDNLKQVLENLGFKNKNENYVKTINNYTLLIDYKNQSINYPKEIKIHDKTTSNFSHPENFVVFECVH

RLLEKGYKAEYLELEPKWNLGRDKKGGKADILVKDNENNPYLIIECKTTDSKNSEFIKEWNRMQEDGGQL

FSYFQQEKGVKYLCLYTSDFSDKLEYKNYIIQAYDNEEYLKEKELQNSYKKSNNNIELFKTWKESYELQY

FKQGIFEENVNAYKILEITPTFDNLKELKEEGKYHEFAKILRKHNISGKENAFDKLVNIFLCKIYDETFN

KNNLKFGYFGVMADTYANMQDRLMWLYKEAMKEFLGEKITFVSNEDIEKDFKQLKIKTLKEVMQNYIKEL

KFYSNNDFAFLEVHNKELFLKNALVLKEIVELFANYKLTQNSTNQFLGNLFELFLQKGMKQDEGQFFTPI

QICEFIMYSLPLQEMLSKSSKALRVIDYACGAGHFLNTYANELKRYLTEDELKEHYKNIYGIEKEYRLSK

VSKVSSAMYGQNEINILYADALASFELANTNNLEGEKAKPQIESNSFDLLIANPPYSVKGFLETLSDKSK

NTYKLFNDDINIETNNSIECFFCERANQILNDNAKAAIILPSSILNKDSIYKNTREILFQNFDFIAIVEL

GNQTFGATGTNTIILFLRKKETFKQENHLISQDYSLIKERIEAENLKDNENFYQNYLSAYCDFRKFDKEL

YSNFLNGNLDSKLAELEAFKDYRNAFRQTSDYKKLKESKIYKESKDKQDLEDKAFLAYTQAIEKDKLLYF

CLSLNQEVLIIKSPSDIKEQKKFLGYEWSNRKGDEGLKELHEPYLSPLFERGNPQNETKLNTLICKAFLK

TLSDIPKDLQGYASKARLIDMMDFEKVEFNKAISLNVKSRDELNPFKNSKYELVRLGEVCDLNKIRNQAS

ATEIEKMNLNSGNVKLLPSSKNYEWWTDEKTAGQFINEGEVITLGVARYANIKKHKGKFVSANNHILSVK

DKSKIIFDFLYILLEICGQKLYKQGQQYPQFDTNIFYSFKIPLPPLEIQKQIVAECEKIEEQHNTLSLSI

KEYQKLIKAMLQKSGIIEDNQEYELNSILENLQKLESKLDFNLLLSLIEEQISHSEVLVEETQSKERKQD

FNAFKNFSKTIQELLQTLSTPPKDGWKRISLKNEQYMELNPSKKEISKLDENMLVSFIEMASVSDKGYIQ

SKIDRSLNEVRKGYTYFIENDILIAKITPCMENGKCAIAKNLTNNIGFGSTEFHIFRAKTGLDSSFLFYN

LNQQNIREKAALAMTGASGHKRVPISFYENLTIPLPPLEIQEKIVQNIELVEQQIDLLNLKLEFLEKEKE

KILQKYLFS

>AHK52920.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MASFKKIFWINVTIVIIVAFNLRAPITAVGPIIDIIKDKYYLNSTVAGILTSLPLIAFGSISFIVGYFSP

IRAIVFGIFLIFLGEIIRSYFGVYGLFLGMLAMGCGIAIANVLLPSFIKEKFPKKMASIMGIYSLVLSIS

SIMGIALAIPLLSVFDLAGAMFFWAIFSFVALVVYYPQAKNGRFFRIKKKTHKKINLFTNLTTWKITLFM

GFQSFLAYSLFFWYVQIVVEKGFDKEFSTSMVLFAQLVAAPVSLFGPLLLGKLRQNLHTFYIAGLCSMYV

IAFGMLFIFDSKISIIISAFIMGFPWGGVFGIALLFIAQKSSNAQIAARLSALAQGFGYLIAAQGQWIIG

FLHDKFENFSFAILMLVFVGILVNIFGYLSYKSQIIK

>AHK52919.1 branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKLTLTLSVLTMVNCLYAKDINIGVVLPLTGTVAAYGQDVFNGIELANKLQPKLSNGDVIKLITIDTKG

DKLETSNGVNRLIATDKVLGIIGEATTPNTIQAISIAEEKKIPLIAPVASGDKLLDKKKYASRVCFKDSF

QGDKFATYVSKDLGLKNAVIIIDQSNVYSLGLARAFENSFKNNGGKIIKKLVINSGDKDFRAVVSQLKSL

NPDFVYMPIYHPEAALIARQARQIGFDKLLVAGDGVNNQTFIDLGGSAVNGVIFTDSFDYNSPSTQLGKD

FVAAYEKVKGTKELPAFSAMGADAYFVMLNAMNACVDNLSSECINSKIHQTKDFQAVGGVISIDESGNAI

RSVVIKEIQNQKQNYKTIINP

>AHK52918.1 branched-chain amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKSLILASILSLSLSAAEVKIGVVLPLSGATAAYGQSALEGIKLANSMQSALSNGDKVSLAIIDTKGDK

LESSSGANRLVSQDKVIGLIGEMVTANTLQVMRVAEDNKIPLIAPAATGDRLLDKKIYSSRVCFMDSFQG

SSLAKYVFSKLNYKSAVIVVDQSTDYSLGLAKAFEKQYKSNGGQILRILRVNSGDKDFRAIVAQVKSLNP

EFIFLPLYYSEASLFARQSKLAGLNIPMGSADGVADQTFISLAGDASEGYIFTDSFDANNPTTKLSKEFI

SVYEKAKGTKEVPNFSAMGADAYFVMLNAMNACVENLTSKCVNEKIHQTKNYQGVSGVISIDQTGNATRS

VVVKEIKNQKQNYKDIINP

>AHK52917.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLTIFLIFLNILCYFLISYDYYNILGLNILFFNGAYWQLLSSMFLHGNLTHLILNMIVLFQFGRMLETYL

GALCFIFIYFIGGLLCSLLSVFYVYFDFKYFGENINVIGASGAICVLMGFYAVIDKNSTKGLIVAILLMS

FVPLLMGVNVAWYGHIFGFMCGYILAKIKEVK

>AHK52916.1 hypothetical protein N916\_04930 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKIPYFSFLKLDFEIYHLNTSKNFYGFFILYFSFFIFKLIYKFSKSNKKIYKKIIKLKKIIKDNKYLIF

LCYILINI

>AHK52915.1 hypothetical protein N916\_04925 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKSLLFHFRRIGVEFIIFSVYAVFSISWAATGSLMPLISNDLALNTQQATLITSMIVVAKIFGASFTAF

LVYKFGLKKGYFLGCILMSSGIFLSFVDSYSGILIIRFLTGLGSACALVCLVPIAQQWFEKKALHFVISF

NITSNLVGITLGLVLAESISNYFGNWRDSLSFYAWINLILLILWLFVGKDENKKEEKKNNAKDLIYALKS

RVTWGMIIFYIGPILFLNSLFTFLPTFYAQYAGFSKELADFAKKEIPALANFAIIFGPYLGLFFKRKNIS

FKIMLLSGGACIFICGFCMLFLQNLVLIQIFAVLSGIFYSM

>AHK52914.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSAFWSITFVILSFNLWVVSWSVDKTHSFTLGFVYIFALIFISAILAQFVLPRREKFIQGEK

>AHK52913.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLEQSPYKEDANSKNYNNTLKVKDGVIIIDHSNTSDDNNSKTINTKKNTQKNQPNLSNDNTLKTKTPNSN

TPSLKNTSKEESIHKVSFSFHITNKNINFKDLGLDEQVLQEALNDYKKESISVQDLQDIANIISYYVQVS

GYPAATAYIPQQELKDQIQINITLGVLGKYVVQNNSSVRDYAIESKLPNHKGEIITTKLVEDAVYKVNEM

YGIQTLASLKAGDNPGETDVVIETTPSDSFVSVLFYGDNYGIKESGRYRDGASMSFNNIAHQGDSLNAYL

QRSDEAQTNYSISYTTFLGNLKITPSYSKRNYALGGAYKNANFIGTSENLGIDLKYPLWITTYNSFYLTS

SYYHKKLSNSRLNIMTIDKSSDTISFSIEGVYNGISNDSFSYSANVSYGNVKDGGTTILGMSSKTDGDGF

GKFAKLNVNLNNAYFFNDTFTHLFSLNYQQVVNGATLDSSETISLGDPYGVRAYNNGDGEGDNAVVASFG

LRMATPLKDFYITPFYNIGYSWYENDSKLYRASETNYMDAYGLQLLYNKTGNFYVKLDLARALKKYKLDD

DYSSKAYVSFGKYF

>AHK52912.1 hypothetical protein N916\_04860 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKMIKIQKVKSLLDLVKKLKNKQSLKIKNQTNTKENLNKTHYLTI

>AHK52911.1 hypothetical protein N916\_04855 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLQLFIQTTDEDPNINEDDKQASIDEASTQESGNVV

>AHK52910.1 hypothetical protein N916\_04850 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKGQENAQKTYDTAVNAYNEAVKACNTALSGITGNNGDKVIAGLKQAIDKVSSDLQQATIALQIATAST

NSSLENSNKTLASASINGTSHLTVNENIVQTISQYPL

>AHK52909.1 hemagglutinin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSIRSNKGLTGPGGDPTDTIGYKETSDLIAKDNISNEVLNSIFNDLKFNSSVDISDLSKFYKDGKILTAD

ELTSINQSMDFITALYGQTQDSNNATFANALKEVLGNSYGDLGKANQVIIKTKEILSQNS

>AHK52908.1 hypothetical protein N916\_04840 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEFTKDGKLSAFKGNPKTISPVIKSNAGNVINLETITVGERVAMAGNQVSNMKYGGTDYGKFIFTNKKE

QSNTVYLNVYSNDTFVIRGPASNTIKKKTL

>AHK52907.1 hemeagglutination domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKLNKLSLSLVVGSLLFTQSYALPSGGKFTHGTSGSISVSGGFNIASNETVNFGQGKTNQNYLNIVYGS

KSSHYRWNTQ

>AHK52906.1 hypothetical protein N916\_04830 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MREDEVLSFKARHGVNTAGHSIKTVRVLPFLITAKTDHADASYNKLILEQGELSSVFYLKPKDTHIKNPS

NSKSNQRMNFLMSSTFTHYGNASYNQTILQKDAHISMGVENTYDLALNGAPYLIGAIATYGDSTNNSLNI

EAGSSVEFFTSLPKKDKNGNNTFDERITHLVGGLAYQGNVKNNKIFIKDANMIIHGPSKAYASLAAAHIS

AGYIDSGTDKNFQASKNLLDIDGFNLDMYMNHDKQPLAYNSVLFADFWGGKTEQGQALDNTINLKDIKNL

KKDKNNENIFAQALFNFYAGASNNGEANYNTLNIELKHPLEIANNFLGYNQHSFYGGFATKGANHNTINI

KNDLTTTDLSQSYKDALNIVAARTLEGSADYNKVYINNSMSTLPVYIYTAKKNILNNQDFYPSSANNNEV

VIKDFASFRNLTVLTEAKEASYNTINYNNVQSITDVSNIDKGSKIIIRALDKANHNTIDIKNYSSNAADN

AYLIMAYNEAAYNKIIINDTLFGVASDKREGILSIIAGLSNNAHDNTLIINNLNLDEYKNNNSIFIAPSA

ITGLSEAKSYNNTLYIGGNLNIFKNTFIDILAGALVHYEDNYSASNAAAPSDISLSKNNRLILNTKVEAR

IINNFEHYYLIVSNKINTTPLLKSYDAPINISS

>AHK52905.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFKTIGFKVSAAIFVVLLISFIVMQVILNLDFKNTANKMSRANLDTVSTSVFQTMRMAMNLGDPEKIKEA

IEDAKSIEGISDIKIYPSKDTIDLFEMKAPQISNDKRIIEQFSNPKIQALEENVNLRLIRPLIADESCVA

CHANANVGSVIGVMDISHSLEGVQKDISKTSQSYIVIFTIALIFTLCVVLLMLKVVVGKPVLELLNHAKE

LAQGSGNLKARISVKGQDEIALACGYIN

>AHK52904.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSNKANSANEKSFLLLEQMLKSLFNVANKVSTVSQNENELAKKVENMVNQAGNIQKATQMMDEIADKTNL

LSLNAGIEAARAGAFGRGFSVIAEDVRQLAQNSEEFLGNVAQITKELLQSINEVSAELKKNAQSVQALND

DTALLVDDANEVKLCNEDARALVTQCTEKIKISQENIQNLLSRMQENVEVSEKNEEISKILLQVADELKI

VCHNLESELNQFQI

>AHK52903.1 hypothetical protein N916\_04635 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSSKFSKIGFILAVAGSAVGLGNAWKFPTLVGQSGGSAFILLYIILTLGVGFVIFLAELSIGKISEKDPV

NAYEKLAPSNKKAWSYVGFTMVGAILIVSFYTLVIGWIVKYVFLSITGNLPMDLEVSKAQFGFFISEDFL

SQFICFTLVFLCVFYIVSKGVKNGIEKLNVWMMPSLFILLILMLVYAISKDGFIMAVKFLFVPDFSKINT

SNVLEALGLAFFSLSLGVGTIITYSASLPDKTNFITSTLNIIFINLLVGLLMGLVVFTFIFEFGYNPNQQ

GPGLVFISLATLFEKIGVIGCIFGAAFFISLIFAGITSAVSMIEPFTFYLINTFGMSRKKALILIGIVVY

ILGMLCILSSLKSTQFGFFGMSFFDLLDSVSSKVIMPLGGILAAIFVGFVMKKEALKILFKPYMRGIFFE

LWYVFLRFISPLAVVIVMIAAFLK

>AHK52902.1 sodium:alanine symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRTYFSKIGFVLTVAGGAVGLGNAWKFPTLSAENGGFVFVLLYLFFTLTIGFSIFLAEVAMGRLSKSDLA

NAYSNLAIKYGNRWRYGGVFMLGGIFVLSFYLVIMGWVLKYTVVSLYYLPKTLDEAASNFQNLITTNLTS

SVFFFTLSFFLTLLIVSKGLIKGIEKLNVVIMPSLFLMLVFMLFYCMGFKQGFANAFSYLFYPDFLHFKF

SSIAEALGLAFFTLCLGIGCIVTYSSALDKKTNFIKSSVYIVLINLLISFIMGLIVFTFIFEFGADPHTQ

GVGIVFISLMSLFNQLGALGYIFAFCFFLALFFAGITSAVSMIEPLTFYMINNYQISRVKALFLIGLFVF

VFGICCILSLNLNFFSMFSFFGKDFFTLLDKLTSNFLLPLGAIVCSIFVGFFMNKKQIYKIFSKFISRKI

FLIWLFFIRFISPIAIILVMCYQIFV

>AHK52901.1 hypothetical protein N916\_04540 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFKKFKYYYEKAERFFHPLVGLSSYDKYLEHMKQKHPGKIPKTRGEFFKECLDKKYNSGGLNKC

>AHK52900.1 hypothetical protein N916\_04465 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEILDFILIVIFVFLMIVLVIGFNHQMMQKNKEREERFKKYKKGEQNE

>AHK52899.1 hypothetical protein N916\_04345 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKFSIVLTLLLCGSCALALDPNLEKTKSATGIDLPTAKWNLPKELNEDGTIDETKMPKNSEYSKMVILG

NKILNETSKYVGPQAKDPKKKICGK

>AHK52898.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNQSGFVGIWARFPQYNARGDKVITLADRINGCFERSTNGKRMPSDTPEMKAMLTYMQWLSQGVPVGAK

IEGQGLKKIDFILKAADPKKGKAIYMDKCAVCHQENGLGLKNEDSTGAYYLYPPLWGDDSYNTGAGMYRL

SKLLLILKKICLKVRLT

>AHK52897.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPQGAPDLSLEDAYDVAAYMNSQARPIKANRNKDFPDRKIKPLDMDVGPYDDSFSTTQHRYGPYTNMIKK

>AHK52896.1 protein-disulfide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRNFFCKFVLALVFYSSFALANNSFITLNPSLPSSENSVIEAFSYKCIHCYNHHKFGTLEKLREAFPNLH

FKLYPVSLMNGEFSKEMNELFTFAQYKDEQNGKDASYSDSLSHKLADVYFVSYFLNKQRNFSNLDEFYDI

GLKAMNVNKNEVLNFLNTPKAKEILSEFQRANDIAKTYGTPAFVVNGKYQINPSAINSMQDLEDLVKKLS

NMK

>AHK52895.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAFNLSKGVSLGEPKPKIDEFNWGAKEPSVQIQFSGSGTDYQAMPFSVDQAFNPKK

>AHK52894.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MCDTIIEVDENGNVVDDWRLYKILDPYRSTIIKTLDQSAVCLNIDASKVGKTLSDEELAKMDESDKFGDI

AGIGRNWAHIKGGIKNFKNIYCNL

>AHK52893.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNWGNIYNRGIMISFRQNKDGALTWGFGQRYVKYDVWEEKFSIANYLLSI

>AHK52892.1 arylsulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVEFLFLDFILLIVKVSYTKTANGKSQKVIDEIYKITTPWASIEPSGRH

>AHK52891.1 arylsulfate sulfotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRLSKTLCMAILAGSTLLAPNALMAMGGPSRVKIDWQIQGQMGMIKMNPYGLSPLTAIIMNNGYVLSDIK

KSNGQTIS

>AHK52890.1 thiol:disulfide interchange protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFPVKLARSIVVCAFLAGISASALSEGKEYVILKNPIANADNYSVGLKAMNVSKADFENFLKTPEAAEL

LKSYEIANPISQNYGTPAFVVNGKYQIVPSAINSPEALIEITKELSKQK

>AHK52889.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGVFLVLLGGIFWAISGVLAEYLFKNNYSVDWVCFYRLLSTGLILIFLSFKAQKILVFTNLKESLSICMF

GFFGLLLTQFGYFKAIYYTDAGTATMIQYCAPLIIMLYLCFKNKKFPKLIEIFALILIIFALFLLATKGD

IEAVVLNYWGIFWAVIGAFGVAFYSLSAREVILKYGLFWIMGWASLFASFVFLLILQFDKGLIHYAFNLK

AFFSMGGIVFIGTIGAFCLYLKGVEYIGALRASMIASIEPVAAALMSFLFLKTRYSLLDIFAFVLIILSV

ILNAKKTKVS

>AHK52888.1 hypothetical protein N916\_04270 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQINNSLNSLSQYVKVNSNEENQNSKNQEQNALAQDPAVEVNISKEAKEKSNTSNQNNSQAPAQALNAQN

NTQQDSSSNSEDKLTELTQKLAEIQAKIVELTAKMSKANEDQIKSIESQIATLNAQASTIQAQIQELQSQ

QA

>AHK52887.1 hypothetical protein N916\_04185 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIYSVILGAFLLGACSLKDQAIVDTNLKSQTLMFTQKYKITQDKINAIITMSYLNPILDKTSKDDVLAL

SFTPNTLKIQNLEVFINNKKANIEKLDDEYLKYIIQNNYTDYFKASLPSVKEETRLVAKICLDHLPCFEL

NFQKYPKSLYYRSEDVDTQYN

>AHK52886.1 hypothetical protein N916\_04070 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLEFIFTLILDFTFYSIKTLEKVFLGRTALVILFVVFIALFCVKGLFLYILLALELFLLLYLFLGILFLR

FYKS

>AHK52885.1 hypothetical protein N916\_04065 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKVAFFLLFLFLSCTVLNAAREYCKYAYQEDRAIPLILNYGIRLGVVGAGVANAPAPGGSTYNSKIDMM

AARCH

>AHK52884.1 flagellar basal-body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MITQTMQSKESKESKENSKISFANAFLKQNASKLNEIQNANSQTLARSEALNSTNTTNTSNNTNFSISSK

TSSPNYDISSEFKNSIYTLKYKQVDISNTSTNTAYGYSVDKDGYMGSDFNKAAGLPEDFKIHKSTLDEIK

KAAENDPVVSSTKEYLGVSSYYSNIDIANTIKQYYNLFSNALGQSFSNDKTSFSEADINSMPSGYGVSGT

QWMDFNEPSNRMNITGLKDFSNSLISNVYKTPEQAKEADEI

>AHK52883.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKSLVFKNFIINALGILFSRILGLARDVLIALFLGAGLYSDIFFVALKMPAFFRRIFAEGAFGQSFLPNF

VKAKKKGAFCVSVMMQFSLIVFLFCLLVSFFSSFFTKLFAFGFNADTIALAAPLVAINFWYLFFIFLVTF

LGAILNYRQKFFITSFSAALFNLSIVIAAFFVDKNAPQNTLYYFSYATVLSGVAQLILHLLVLKNNPVIR

AMTLSIKFKKTKAKLQGFYGNFFHGVLGSSATQFSSLLDTTIASFLMSGSISYLYYANRVFQLPLALFAI

ALTQVSFPKILKHLKSDQENLALKFMQRALALLSILLIASSIVGSVFALEISKLLFERGNFTHEDSVITA

YVLIAYLIGLLPFGLQKLFSLWLYAKFKQKTAAWIAVKSLIISALCSMAFIFLIKDESLKVIAVALSSSI

SAFYLLGANIKEFGFKKFFALISIKICLLVIVALIVFTILLILIKPYILSFFIGIFTSFKGVF

>AHK52882.1 ferric enterobactin uptake receptor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKICLSVCAIGLLSSNAISQNVELDSSIVSASGFTQDIKEAPATINVITKKELQSKPYRDVAEAIADIP

GVDLYASKGKTGSYNITMRGITGYTLVLIDGRRQGIGGEVGPNGFNEISNSFLPPISSIERIEVIKGPMS

TLYGSEALGGVVNIITKKVSDKWETSVSLDALLNENKDWGNTYGTSIYSSGPLMNDKLGLTLRFREFYRQ

QSNVEFTNGSGQRVQGDQAQSPTKANNFNIGTRISYLANDYNTFIFDIDFSRNHYDNKQGQLGTITSPGR

TPGSLTGGYADIMEVDKFVTYLSHEGVYENFSITSGLQYNRVSNDGREVVGQSTQPFLGENRDIVAEDII

LDTKSVIPLGQSHILSVGGEYRLEKMQDKIASPTNFDQYLLAIFAEDEYSIKDDLRLTFGARYNHHEIFG

NNVSPRAYVVYNPTNELTLKGGVSTGFRTPYANRLINGTYSYSGQGRFPTYGNPDLKEETSLNYEIAAIY

NNDLFYVSATGFLTNFKDKISSQSYNNSEPIPGIGTCDADRCSRAINHGKVEYKGVELGAGISPLDNLNV

NFAYTYLDTEVKEAQDRSVIGKPEQDSLKHNIMLKTEYSFYNKITPWIKGEWQIDRYMGDTNINREYYKD

IFLASMGVRYDINKQWSINAAIYNLFDKSFTNGWESYASGSGSTWVNTYNRIEEGRRMYISINGNF

>AHK52881.1 cell envelope protein TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTFISNHKNQSSFITLFVFTPLFFVFLYSKDFLHIQPNETIKENKFNMAIKHFVQNSSDMKPTQPTQTI

QEPSNVQPKEPVQEIKKIKPRKEKPIAKPKKIIPPANAKAISQPKKDTNMQQQTPQASSYQSVSLTSNSE

LLKEIKSAIDEALIYPRQARKMRMSGEVLVEFTWTKEKKLENLKILKPSKYDFLNKSALETIRIASKKFP

QYEKTFHIKIPLVYKLS

>AHK52880.1 transposase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLAVEDLQIKNMCKRAKLKNIKAKSGLNKSILNISFYQFSQYLEYKAKHNGKFFIKVNPQYTSKTCSVCG

NIKKNLMFKDRVYLCEKCGNTLHRDINAANNILKRGLKSFGLGISLEDYKLKAFRIS

>AHK52879.1 transposase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNTFFKMRYHRDLPNTYKFNQITIIKNHNKYYLAFSIIYDESNVSLMSSKDFDIKKAVDIDLNINEITLS

SGELIATNSKLLSRAEY

>AHK52878.1 hypothetical protein N916\_03750 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGVVYDEINIAVNTCKGLVLSKKRLLALNLSFFIQ

>AHK52877.1 hypothetical protein N916\_03720 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGIRFQTPLEGLYSTPFYDIGYSWYENKEYQSENHYLMDAMGI

>AHK52876.1 hypothetical protein N916\_03715 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNVGVNFSYPVFLYTEYSLYLVSGFTHKKIKDYYLDGLVSNEKARNSVNLGIERTYRGLENNVLSYTLNF

IYGNVENDGDFSGFNGVNLGNFGKMNLNLSNKYQF

>AHK52875.1 hypothetical protein N916\_03710 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKNLKGKVITTKNVENEIYKINEIYGIQTNANLQSGDGCGESDVIIEVNKGEIV

>AHK52874.1 hypothetical protein N916\_03705 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRKILVVLVLLQVFSHAEELNNNKIRELIESSPEANEPQNKNLKNTLKNQKSPVNFKEQNTTNITNSQTD

QNEAKVFVREYVLHIDNKDLTFKKLRISEK

>AHK52873.1 hypothetical protein N916\_03700 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEIGEADARSSGLRCIVSDNFKTMNICVNAK

>AHK52872.1 hypothetical protein N916\_03695 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQYNNEVTGKKDFDSAVRKKFNDIKYLDNNSYAFADSFTKATDAVKLSKDDFDPKLLQRILDDLMNGKYT

YDFDTKTWTYTDSKGVVGKDEASEITQSLNFLNAFKDTGVEQEFLKLWQGSQEQNYKNYTNLYEKWTQKK

TAMDKIKTGEGYFASFKEELQKYQEALAQLDKENKNYEKIKESGLVSDETLRAIYEKLLEQKEALEKQFA

DLSGNEGFRYKLENEILNSQGFSIEGKDVDGKVYTGNFNFKGKLASLPEKPNISIYEPDKQGGEDPDKPS

VLPPEIPEKVVEAPIKIQTEVDAKKRRR

>AHK52871.1 hypothetical protein N916\_03690 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSAGNYKTQAGKVIGDPGISVNNNFSNIYVYHNLENGYIDEGQNFLSLCNIIMK

>AHK52870.1 hypothetical protein N916\_03685 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGGIGRQIDGGNFNNVVVNDIEKLITSGNDSKTGGFTGKVGNLKINNAYLFYKMEQF

>AHK52869.1 hypothetical protein N916\_03680 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTVNDLVINTAVNTKVGGIIGWGNGSGGNNTINFTNVAINNISIVAKKVLMWVA

>AHK52868.1 hemagglutinin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKMSKHIVLSFAVSSLLFSQAYALLSGGKFTHGTSGTIHTSGNTVTITGKGQNHVIQWGGGFNIGQNES

VNFNGKNQNYLNIAYQKDASKIDGALNRGNNNIFLVNPMGVLIGKTGTITAGKFVASTTALSDDNVKTFL

EKGASFSPAFDVSKQGNIINLGKINADNIVLIGNKVEINKGKITLDVLKLEGNKVYVDAGVVKDTKNIVA

KAEQEAIIQQSITSFEEDGALLGNSSSKFSFDDSSKVKNWTKYGSIADATEWNKFADFWNVNKEKFRTAF

DHFRLIDDIDFSGVKTYIVGDNTSNAFAKSFDGSGYALKNVNINSSNQYVGIFGVVQNSYIRNFNIQGLK

IASTGYDA

>AHK52867.1 hypothetical protein N916\_03670 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGVENIYTLPLNGVPYISGSVAFDGEAKDNKLILESNTKIDLHNSQYFSDEEGKDIYDERITRLMGAFGI

NSNLQNNKVLIDSANIVLHGPDGEYTARSTFEILGALADVNNLKKYNVSKNSVIIKNLNLDLMVNSQNKI

TFYDAVLFGEIYGGRTLQGNAEKNSIEVYHFNSLDHLNKNIKTHASLNLYGGYSNDGEANGNKIVFRLKK

PLKISDNFYGKNYYNLYGCFATEGANFNVFDIQNDLTYEKVPQNYSDKFTVYAARTLSGKANNNTLSIKD

SVISLPLYAFITSETTLDGIDYIADESNNNEVNFENIKSSKNLSLMINAKNVSNNKINYNLIQSLTEASS

LGKGSKIILKATQNANNNLIKLKDCSSAAVESSCIIKADKESAFNKIINNNTAFSTASDKRQGYVGLIAG

VSANSHDNIMELVNLNIDEYKNQDAIFLAPSGTSDISNFKSYNNTLYLGGELNFFKDVNIDLLSGSVFHE

VNKKGKIITQILPHQEDFSKNNRLIIDTQDVKSEVVNNFENFTFILPNKIKNPILTIEKLINLPANGSME

ILTKNKPTKGKYILIQSDVGIYDGDNGLLNQQELENLLEKMKNNKNKFNYNKIEKLAKSTLKNVNFSFEV

SDDAKIIYINIL

>AHK52866.1 glycerophosphoryl diester phosphodiesterase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKVILTSAMLCSVLFGVQEYEANLAGHIIIDSKSTVKPPKDAPDFFKTYGKFANIAREEKIGTFKSKGN

RETDFYLPFKNQPIQGHSGIKYIPKKDVFWVISDNGLGKKYNSYDAMLYAHEFKFDFKNSKYELLKTVFF

KDSDKKYPYPITTETTKERYLSGVDFDTESIQVINDEFYIGDEFGPYLLHFDKNGNLKEVFDVYVEGKKL

ISPDNPSLKFSDKPDGENEKFNIKRSKGFEAMASSKDGSKLYLLLEGSIYNNNAYENEKGKEYLRIIEFN

VKNKKFTGKTYKYFLEDKSHSIGDFNMIDDKYGIIIERDQKEGTKDKACKEGEDTKHCFNNVAQFKRIYK

VKLDDKTHEAQKISYIDLLNIKDRNKISKKPLVNDKFVFPFETIEGVDIVDDSHIVVENDNNFPYSSSRE

PNKTDDNEFILLEVKDFLKSK

>AHK52865.1 restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNYYQELKKYLNNNLFTSYSLEIDFPKIYNFNANQKAFRDILTKITKIYDKNKFIKQNEHQFEDEFISKV

LEILGWCFVRQDEKIIQGKLEKPDFLLFSNDKLKSKYENLDKETKKSSNDFTIILESKAYNIEIDNKKVK

DNPHFQILRYLGNLKKNYGFLTNGRFWRFYDNSILNSNKVFYEINLEKIIEDQNIEAFAYFYSVFSAFNF

TEKEDHLEITLQNNKLSKIKIEDDLKSIIYGTNGNESLFEFIGSRIYNKTKADLKLIYENSLYFIFRLLF

IAYFEDKFEIILEKHKYFKSKISLRTLLENLQEDESSSGGFGELENIFNIYNKGKGNFDMPVFNGGLFDE

SKTALLSTPKIFNDKDLKFILNQLLNFKDKNLSFKRDYKTLSVEHLGTIYEGLLSYFFEIANEDIYYVSY

KEKSKEIECYFDNYDFKILEKSKKVEKYTFYKKGQIYLKNTSNSRKASASFYTPQSIANFLIQSALKDKL

NNENILKFKILDNACGSGHFLVGVLNAITHIVLSDFDHFTNLKELYEEEKENILNHIKDFVQDYEVDESD

ILKRLLLKRIIYGVDLNPFSIELTKLSLWIDSFIFTTPLSFIEHHIKCGNALINSNLSDFKDLIKQNSSN

LFTNSITQEFEILQEVFEKLDNLKDTNEEQIKQSKQIYQNEITPKLNKLNLYLNYINTLHFVNKEELQIL

KALSQDDIQNLSQNEQAKAIISKYQKEFNFFNYELEFPEIVENQVFKGFDIIIGNPPWDKTKFSDSDFFP

QYKSDYRSLIASKKKEIQDNLLAKDYIKQNYEKQKAYINDLSEYYKKAYPLNKGSGDGNLFRLFVEKNLS

LLKQDGNLAYVLPSALMFEDGSLILRKEILENKTLEYFYSFENNKAIFIDVHRSYKFALMLIKNTQANHT

HKIKMMFYKTDINSLKNKDEILTLNLKDIKKLSPTHLALMELKDKQALEILRKSYNAFQNLSFDYIDFRR

ELDMTNDKDLFIEEFREGLLPLYEGKMIHQFDANFSQATYFLEKAKFDERLKSKELYRAKKATGKELNPK

LIKYDREFFRLGYRKIASDTNERTLIASLLPKNCGGADSTYSNIPKQYVLKDDVICMDIVPYERILFVLA

LFNSLVVDFIIRNMVQINVSKSYLERIPLPQPSDEEIQNNEIYKTLAKNALLLQLYNDQNRHFDELKQEF

NIKNEEIPKTKKAYDILRAKNDLLVKELYGLSDDEFSYMISTFKVLNEKQSEYITLLKTI

>AHK52864.1 invasion protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNLLFYIKNNLTPTLAQILLQALKNSNNEKFFTFVLENIETICTWLNSNKFRDRYLSTKHPYPPLINPN

FIEIDSSRHCAELAWDLNLPLPKHYKFIYISPHGVGAAAFLRYLNQCCDVTCFASWVLPPDSKERYCINY

MCLNDNTIAQYAINISEINLPYFDKYLSLLDFNSKIICGVRDPIGLLKHSWGRDWSKVLRNYPPEFNLTY

DWRYYINYLTHQNHKIKIDINELQQGVFIISYLLKYFNKDNVYYLDMEEIRQSKAFDTMNLLAINFNFTP

PHKDKLDLFKIKEFRGYIRYLFPITLYANSKDINNTFYLNTPKNNKNFNIDRTSSIPIILDRKHINHEKI

DVIQEIIKNDLCNDMGVYIDKNDFKQLEQNNLLFSTIKHYLYDFLYQIKITIDETESKMMKEKDVIDYFI

KNKSLIYTFLIYLKMN

>AHK52863.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQRQSPEQILKKLEVKAKEEEKNKLVKLKIFLGYAAGSGKTYAMLSEARTLRDNGVDVVLGYIEPHDRPE

TMALAQGFESIANLEIPYKNIVLKEFDLDATLKRKPALVLVDELAHTNAKGLRNEKRFQDIEELLKAGID

VYTTLNIQHLESLNDLVANISKIEVKERIPDRIFDEADQVELVDIEPNKLLKRMQDGKIYKEKQAKLALE

NFFRQERLIALREIALRRLASRVNLRASEQRLINDDLAYHTGEHILVCINASNAKVIRAAARLALAFHAK

LSALYIKNPNIKEAKALEENIELAKSFDAKIISVYDDIARQIAEYSSLSNVSKIVLGKNKDKKSLKKRFL

KLSLKKHPILIYILSMKIKFLLLKYEVKKSFDFLGFLKITGVLLLATFIAFVFHKFNTQPSNIVMIFILA

VFASSFISDNKIFAFYSSLVSVLIYNFFFLEPIFSLKVHDSGNIITFTTMFIVGFLTAVFTRRLKLQSKE

LTKRAYRTAILLENSENLARVKSKQELWEQLGNQALKLLNLPIIIYPINKNNILSKPLLFFNDDKQMLKN

CFSADEIAIAQWVATNKERAGVCTNTLPNANAMYLPIEDGKKLKGL

>AHK52862.1 hypothetical protein N916\_03385 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHVYSFFMALAIAILTAKTLTFSSPKIPKI

>AHK52861.1 hypothetical protein N916\_03380 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIPRISQSSKITKEELEKIIQENTESKF

>AHK52860.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MICLETLLSFFVVMLILCTLVYPFALNTVAKFIFPYQSSGSLVDKEGRPTLDVSKAVGSKLLGQDFNKPY

FLHSRTSVSNYNTSDTNESSVSSGGFNYAMSNPALKERVQKYLQKFLDENPQITKEQIPLDFRIRS

>AHK52859.1 potassium transporter KtrB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVKNPVMFMVEVGSILTLILSIFPTLFNGNSDERIYNILITFILFIILFFANFAESIAEGRGKAQAATLR

QSKKDSKARHIKSDGSEEMLNSSELKIGDIVLVKAGELIPNDGEIIEGTASVDESAITGESAPVMREAGG

DFSSVTGGTTVLTDFLKIKILVGAGESFLDKMINLVEGAARQKTPNEIALNTLLIVLSLSFLMVVVSLYP

FMQFLGVSLPISWLVALLVCLIPTTIGGLLSAIGIAGMDRVTRFNVIALSGKAVESCGDVDTMILDKTGT

ITFGNRLANEFYEVQGISKEEMIKACVLSSLKDETPEGKSIVALAQKMGYELEGNDIKEFIEFSAQNRMS

GVDLQDNTKIRKGAFDAIRAYISEMNGKIPSDLETKVMEISNLGGTPLVVCKNEKILGVIYLKDTVKPGL

KERFDELRKMGIKTLMCTGDNPLTAATITKEAGLDGFIAECKPEDKIKAIKKEQAQGKIVAMTGDGTNDA

PVLTQADVGIAMNSGTQAAKEAANMIDLDSNPTKILEVVEIGKGLLITRGSLTTFSMTNDIAKYFAILPA

MFSVVLPQMQILNIMHLATPKSAILSALIFNAIIIPLLIPIAMRGVKFKPMKSEHLLLRNLSIYGLGGMI

APFIGIKIIDIPTAWILRILGV

>AHK52858.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLTLENKFQSIATGPVAALESIKHLGTNGGGFFGTNSSMPFENPTLLTNFLQILSMMLIPSACVVAFGLM

VYHRKEIQGFALMGKEEGGGVIFGAMGIIFIISLLLIYFSEKMSNPNLDSLGLNANLGNLEGKEIRFGTD

GSSLFSAVTTAFTTGSVNNMHDSLNPLSISATLLNMMLNVAFGGEGVGLMNMIIYVLLTVFICALMIGRT

PEFLGKKIESAQMKLIALVILIHPLLILVLSALAVVFAKDSISNPSFHGLAQILYEFSSSAANNGSGLEG

LKDDNLFWNLSTAFAMFCGRYLVLIAQLAIAGSLLAKNTQENTANSLKTDNLTFMFVLVCIIYIFAALTF

FQCLLYQALQNIYLYGIKESQCLKNKINSLQKKF

>AHK52857.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLNTVISFITNTNLQHYSGENALSLLSQNTGILLAMFVSSASGYSACMAFCRALCSMQMGNFMKILRVL

LRV

>AHK52856.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLEILITLIIAFILALIFGNYLYKIASCKKTIFDFIFNPIDNLIYKICAIDRKNMTWQKYSLHLIAFNAL

VAIFSFVIFYLQDKLF

>AHK52855.1 hypothetical protein N916\_03350 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRKGYPMDIIFALLLLLAFGSLCFFICFCEIQTKDTRMIFLLVLSLILALYLFYALLYPEKF

>AHK52854.1 hypothetical protein N916\_03325 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFQKLIFFAKIAFMRVDKFLNVVNITKRRAISEDMCKSGVVGINGVIVKASKEVKVDDIITLHFTEYTQK

YKVLALPSTKSIPKNAQNEYVVKL

>AHK52853.1 hypothetical protein N916\_03320 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEQNLLTPLLYFFKKIASKNFSLMKFGYNFIIFKSILTKDIL

>AHK52852.1 hypothetical protein N916\_03280 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKQEIQKLDTNFLGHRKPLFSLSMVELWERFAFMVFLQELVFSSTLPGGWITDNYSGQKRLYF

>AHK52851.1 hypothetical protein N916\_03275 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFFLGLTFIVIGTGFFKTNASVTVGILYKQNDTRCDTGYTIFYIGINIGAFIAPLICGFVQAKWNYHLGF

G

>AHK52850.1 di-/tripeptide transporter domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLISLLILYFKAALELEEFHKNCTLKQNWEQPFKKVKNLTLILSISLLSIIGFFLMFINLVNINPI

>AHK52849.1 amino acid transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVIYFIYLFVFKALNKREKQQLIILIVLFFAATFFGVLLNKNPTAYNLFAQDFTNRNIFDWKIPTNWFQS

FNPIFIIILAPIASYIWIFLEKKIYIFLPLENLL

>AHK52848.1 di-/tripeptide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDIFREKNIYFSSIGKFTLGILFAGIGFMMMTFASQNLINNNGLPISMAWIIISIFFLTLGELCVSPIGL

SIMTKVAPDLIKNQVMGLWFVASALGNALAGFIGGKASEENIAYLPNLFYQCMWILLGAVIILLILKKPI

NKILKINIKEKI

>AHK52847.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRRNLSAYKAKFNGAYVFLGFFFLIYQILGSTFVYTPLLYGIFFCYMFCLLEERERTFSKLDFRWYFSLF

FLFFTDITYNFFIFSSWLAFFIFYYLCADWIKTNLKIGKFIPVVFVLCAYGIILFLDMILSYIGDEKIKI

LGWAYIVSVFIECCLAYVFFKGKI

>AHK52846.1 motility accessory factor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIINQIYSIDSCDDVELNIKRGSKLEFRLTYDDSKEIEAIVCIIPGGAEDMNSYIYIDDYLTRNYKVAVI

NINYHCIGNRPHLGSSFYLDDIDKFILDTSLKAINLKCINVYGINSYENLNNAFIRIDQEIQKLKLNQQL

HQNYKLKTHVSFLPFKNEYQNFGIMQAMDILNAIFYIKENSPFKLMRGGGIRTILFGNSYGGYLANLCAK

IAPWSIDFILDNSSFVNLFGNIFRLIGFGKEIDFTRYHGTYDDTLFKNIFLYLSDKTYWNNNKFSKNYFS

NARKIIREPLNKEHLIIQSLYPNPKYILYHSIFDERSPFKNKENFVHILKELNFKVEFFAISQVDNKFIK

NLNHGMGLSTKLFFKKHLLQILKEPLQDKICKKEVSYKCDELVYTFKEENHQIILNITN

>AHK52845.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQENNSPKAQAVVKKNEIYVSVKRKKSTIEYEKDLKNLQIELLKFQNHVKAKGLKVLILIEGRDAAGKGG

AIKRLIEHLNPRGCRVVALEKPSDVEKTQWYFQRYIAHLPSAGEIVIFDRSWYNRAGVEPVMGFCTPQQH

KDFLREVPLFENMISNSDIIFFKFYFSVSKDEQKKRFEKRRSDPLKQYKLSPVDQKSQELWDKYTLAKYS

MLLASNTPTCPWTIISSDDKKKARLNLLRFILSKVEYPNKKTGDFSKIDAKLVRSGEEEIRKMEANLEKL

DSKKADEKIKDLD

>AHK52844.1 RNA pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENEKNYRPNVAAIVLSSSYPFECKIFIARRSDMDNIWQFPQGGIDKGESVKNALFRELKEEIGTDEVEI

IAEYPEWLSYDFPSKIVKKMYPYDGQIQKYFLVRLKHGATININTKHPEFDDYQFVSVKQIFEMINHFKK

NIYVRVIKYFEEKGYI

>AHK52843.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNHLLILYNPYYQEDVIKQHLSILQEKSQVAFGKIKSKLNDQEKQNSLEEIYQSTNEENFLQLFLSDYAN

LFVAKVVKISKNVDESLIPSYYKEKNLEVEDFFIISDLRELVREDFSRLRDKFLANFITPNDHTYAIYGN

HYTYPLPVRLKEECSYFLGDEKHYLSVYKSKEYLAMQENFIRFVFGKRIFYLLHSDSISNIIHAELELLQ

SENDLLNDFTSIIVKYSKTLEYEIYAFAKKVLLKACMKDPSLYDLAYNVQGKSFILKDFFTQKPNLGSIK

FLLRHENIQCHLGKSLTQFINYPFSKSLTIIQEIRNEAVHAKAPSLNEVKKLRNEILGIEGVSLLKRILT

HKEIS

>AHK52842.1 hypothetical protein N916\_02840 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENKFKINYDQTTTNGRNGTNGKVDNLSMKNHHLKSIGHSPDIFGLFVSIVNQFTNTSTFVSNGKIITID

TNTFELQGGNFIAKIFCGFFNWFGHLASDWCGSSGGKERGAGIPMPFYNLFLLCDFGNFGQHRQTLAQIA

TQVFEQGYDLRHGVTMSIPVMINKMLIRFMYIIKAKFYHKKEWKECIPKDNIPELNKMLLIGSGTFLLID

TGGAWIKSKNPITNPVVFLSEINLINVIRFSTLILKEIYILYNNGKIDNKKLEKYLDDTCKILLIEAHNK

SKPFKEILK

>AHK52841.1 hypothetical protein N916\_02835 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MITYSNLSDVKKRIEDEFTHRNAECDKYDYLIAITCGAIAGIMDIFLVGNPKDSYLGKKVDKTVEKMTQK

FAQLCGWDKQKALDKNKDLTKSV

>AHK52840.1 hypothetical protein N916\_02830 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDKIQENTKIEKAILAEKQQIFLIQNKLSEIEKNIKE

>AHK52839.1 hypothetical protein N916\_02825 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENICQFIIENIDKNSLNTKKIKLVFNMQEQEITTISKIFKVSSEHIIAFYDTSTSFNYFSKTTGICFTG

KEVIFKRKEDEVLMKINYEDFKEANKSLPEKTTTLQDIKFPISFHNLGTSYLSFDDFKKKNYIEENDELI

INFLHILTSKNNIESFKNESMFPQALEKTNESIKENYIKVIIKIILDQYGFLDEKRSIKIFALMNKINVA

SETRYKIQDFLHNKHSSFEDLLNIIKQESRFMQFKYILISLIKDLIDIDFEDNKIYNFLYENKDIFKIKD

LKEIYWVKEIIKKEYQIILDDNKEIQQIFNFISETATKNNISLNGLHLSGMTIGMSVSIMELLGFGELIK

LPLIDSSKKYHNKNKQQLRLFIIQEILKENQKTITQIIDIINNLIEQCNTNTQNLQELIKLLKLASKNNE

TFKEREKLLYCPETLSLITINNHLKEDDIQFIEQYYTYNQNTHKYERNDNLSSSDLEKLSNFFKLKNL

>AHK52838.1 hypothetical protein N916\_02820 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGLQSLIKIGGFKSYQIAVIVANQVMKVLLGRGLSLAANATLTRALSLFSGPVGWTIMTTWTALDLASPA

YRVTIPAVLQIIILRLKHNTKN

>AHK52837.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGIILGILSLIAGFVAIVLMCGLYFIAFMVFVGIAILIFLSMQPYPYNIIFCAIYLITILALVLWRKT

>AHK52836.1 multidrug transporter MatE [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSSIFSTLSPFRLFVKYAVPNVISMAFISFYYIVDGIFVGKYLGSDALAALALIIPFIMMSFALADMIAI

GSAVQISMHLGLGKKNLARKIFSSSMLIIFIISCFIGILEYFLGPVLIDCLNVSDEIKTMTKECMFVFAL

FAPFTMLSFALDNYLRICGKTAYSMVMNVIIALSNIVLDYIFIVELGWGLFSAALATCLGLVLGGIFGIF

PFLFQNLELKISSLYMNLKIFKNILYNGSSEFFGNISGSLYSIFANFVLLKISDTQAVAAFSIVLYIDSF

IIMLIIAIGDAMQPALSYNYAKKDFSRIKAIIKVVFFAGGFLSLFSIVLILIFGENLITLFTKENNQEFK

TFAYTALMLFAFNYFFAWFNVLSGSFLTAFNKASFSLVLSLAQNLFIPLFFLLFLSCFMGLNGVWLSPFF

AEFCVLILAWIFLKRIFKDLSL

>AHK52835.1 aminodeoxychorismate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTIPFLSTINKANISTTKNTTIYKIFFFIRNFFLIFILGIFYYLTQPLKSNSVVFIPQGSISQIITYLKQ

NKYQMSNIDKYILFFLGHPQSGWINIGTKDLNRAEFLHKLTIAKAALQTITLIPGETSVIFLEQAAKQLG

LDKDILLKEFQAQAPYDEGVFLPETYKIPKGITENLLIQMLLNHAEISNKKTSEKIFGDYNPKKWHQYII

IASVIQKEAANDNEMPIVASVIYNRLKKGMKLQMDGTLNYGIYSHVKVTPQRIRQDNSSYNTYKFTGLPK

EAVCNVSLAAIRAAIFPLKTDYLYFVRDKNTGVHIFSTNIDDHNKAINLQKGK

>AHK52834.1 Na/Pi-cotransporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MISLVKFSDTAIEALRKESEHLYNNTYAVVAHAIGFSRKDIQSDKSFKEILENKKWFSKNVDLDYLYQTR

IKVLFEAIIDFSTKAQVYINDETKNHKIFTFKMAAKNLAETTKNLKIIQANIKKYSSSSNEFLALEYNKI

RSNLGELLRSIEELRVVEDREKLYLIIKNLQKGKEILKEIDTLTLSNVEHLISVRKITTAEGISILNDTT

FAAKIAEELIGAVEVIFSKDISN

>AHK52833.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLTGVIQSSTVIMAIIVAALLAQQISLENSLAATLGTSVGGVVTAVLASLSTNIEGKKLAFANCIFNFGI

AFLIVLIFPYFIHFLIFYPLR

>AHK52832.1 sodium:phosphate symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTNLGIGFKVFSGDLLEKILVKSTDTKIKSILFGTLSTLIMQFSILVSIVTISFLSAGLISLGAGIGIIF

GVNLGNTASSWLIVGLTNIKILMLAIPLLIIGVLFFFQKDSILKGLGNIFIGIGFFFLGVDYIKSGFENF

KHIIDLSRFDFAGFKGVFVF

>AHK52831.1 molecular chaperone ClpB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MANIQDFLTDNMLSNLESAASLAIHSKNNEVVPLHLLWALSVDSTSILNQILNKLNISKEALELEIKSRI

SKLATSSNVNRENIRFSNELINSLENAKGLMSANGDSYLSVDTWLISESQKSPIKEILAQFLDLREFQKE

LESLRAGRKMDSKTSDETLDSLNKFGIDLTLKASEGKLDPVIGREEEIERLMQILIRKTKNNPILLGEPG

VGKTAIVEALAQRIIKKDVPKSLQNKKVIALDMSALIAGAKYRGEFEDRLKAVVNEVIKSENIILFIDEI

HTIVGAGASEGSMDAANILKPALARGELHTIGATTLKEYRKYFEKDAALQRRFQPVNVGEPSVNEALAML

RGIKEKLEIHHNVTINDSALVAAAKLSKRYIADRFLPDKAIDLIDEAAAELKMQIESEPSSLRKVRKDIE

TLEVENEALKMENDEKNQKRLDEIAKELANLKEKQNALNSQFENEKSVFDGISAKKKEIDLLKNEASLAK

ARGEFQKAAELEYGKIPSLEKEVEILEDKWKKMSENGVLLKNQVDEDLVAGILSKWTGISVQKMLTSEKQ

KFLEVEKHLKESVIGQDKALSALARAIKRNKAGLNADNKPIGSFLFLGPTGVGKTQSAKALAKFLFDDEK

AMIRFDMSEFMEKHSVSRLLGAPPGYIGHEEGGELTEAVRRKPYSVLLFDEVEKAHKDVFNVLLGILDDG

RATDSKGVTVDFKNTIIILTSNIASNAIMNLSGKEQEDAVKNELKNFFKPEFLNRLDDIITFNPLGKDEA

YEIVKLLFKDLQMSLENKGIKASLSENAALLIAKDGFDPDFGARPLRRAIYDLIEDKLSDMILADELHEN

DSIIIDAKDDEIIIKKA

>AHK52830.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKILKYIFSFFTLLFITGFIYVAYLFTSADTEGYTFKEYKPPLTTQIYDRNGKLVANIFEQHRFYAPYEE

LPPRLIEALVAIEDTSFFEHNGVNIDAIFRAAVKIIKSGGKTMEGASTLTQQFIKNTELTPERTIARKIR

EALLAYKMETILTKEQILERYLNFIFFGHGYYGVKTAALGYFHKNLNELSLKEIAMLVGMPKAPSSYDPT

KHLDLSISRANNVISRMYNLGWISKADYDTAIKEIPQVYDDTLTQNAAPYVVDEVIKQLSPNIKDLKTGG

YKIILNIDLDVQNMAQNALKFGYDEIVKRDKDANLSTLNGAMVVVNHQSGDVLALVGGVDYEKSNYNRAT

QSMRQPGSSFKPFVYQVAINLGYSPMSEIADISRIFEGGAGNNEDWKPKNEGGKFLGLITLKEALTRSRN

LATINLALDMGLDVLYSKLMEFGFKDIPPNLSIVLGSFGISPLEYSKFYTMFGNYGTIKDPQIIRQVQDK

TGKTIMEFNSNERKVSDEAQSFLVLDMMRNVVEKGTGRNARVKDIEIAGKTGTTNKSVDAWFCGLTPEIE

AIIWYGNDNNKPMRYTEGGARTAAPVFREFLTQYIEKFPDTTRKFSIPNGVYRGNYKGESAYYTTKSPLP

KANMKFNESEIIF

>AHK52829.1 ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHGIGGVCEGIATGLFASVKANPNVITKNALGGGIFYQWKFRAFKRANSYYYDLYDFFSSHKLYYFLRSF

LVLQT

>AHK52828.1 ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNCFIAFGVITLQWVVLGFSFSFGKDEGLGLVGNFENFLLEGISGYNASGVSNILFMIFQMMFALIASAI

ITGSLVGRIKLGVLVIFLLFWSTLVYDVLAHMIWSSEGFLLKRGSLDFAGGGVVYISSGVAGLVGALIVG

ARKSDDEDKNAHSISYAFLGVILLFIGWLGFNAGSAGEMNDIAINAFIVSIISAACGFLSWVVLEGSSIK

TDYFRWA

>AHK52827.1 aldehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQEQGKTRVLASIEINFTADYMDYTAEWARRYEGEIIQSDRANEHIYLYKSAIGVIGGILPWNFPFFLIA

RKMAPALLTGNTIVIKPSSETPNNAFEFAKLVSQSSLPKGVFNLVAGKGSVVGYELSSNENIGMVSLTGS

VEAGTRVMEAAAKNIIKVSLELGGKAPAIVCKDADIDLAVEAIKASRICNNGQVCNCAERAYVHTSVYDE

FVDKFVKAMSKVSVGNTLKGDFDMGPLVNQAGVDNALAMLQRATAKGAIVECGGKITDTSGYYFPASVLT

NVKHEDEIMQKEIFAPILPIAKFDTLDEVIDMANDCEYGLTSSIYTQNLDIAMRASREIKFGETYINREN

FEAMQGFHAGFRKSGIGGADGKHGLEEYLATHVVYLQYNTNKQ

>AHK52826.1 aldehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTTYLNYIDGKFIPHNGEFIEVLNPATKEVISRVASASLEDTKRAIEAAKKAQKVWEAKPAIERANHLKE

IAS

>AHK52825.1 hypothetical protein N916\_02435 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQRYGQIIKIKKEKIEEYKELHTKPYEGVCEMIKECNIQNYSIYLFGEYLFAYFEYIGADFEADMAKMAR

DESTQKWWKVTDPCQISLGYAGQKWLNMEEVFHLD

>AHK52824.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKIFDAHLHLWDLEKIPISWIKDDEKLEQNYDFFRMKQEYKEFEFIGAMYVEVNSDDLEKEALFALEQK

KLHNLLFCLADFKHKEELSSFREVMHTSKKGAKRLFEADFEEKIEILKTFNIPFEACIKNEELGFLEKFL

SKNPNLKVVLNHLGSPKINRLNEYKKDLSFLKKFQNLYIKLSIPDGFSQETPKEFIFELFAFLKENFSEN

KFIFGSNYPVAKITPAKWAKLIIESKIFDDLDKIFYKNALLIYKGG

>AHK52823.1 major facilitator transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTDSKNIKIAIVLVTSLFFLWGVSYGLIDVMNKNFQNHLHISQHESGFLQFAYFGAYFIIALPAGYIANR

FSYKMGIIFGLALYAIGALLIIPATNLASFHLFLFAFFILACGIGSLETSANPYMTKLGDEKNASFRINA

AQSFNGLGQFVGPIIGGALFLSITKQEEGASKEQIQAALVANMGNVQLVYIGIAVIVILILIAFVANKLP

EGSAVSDDYKQKDDSKPIYVFKHRHFNLGLLAQFLYIANQVAAGAFFINYVVEHNEGLKDAQGAYYFSIA

LVAFMLGRIVSTPLMKIIKGEKILGFYSLINVLICFSLYFASGFFSIVLLIALFFFMSISFPTIFAVATK

NLPLNQVKLGGSLLVMSIVGGAIMPIIIGFINDHYGTGAGYLAMAPLFLYVAWYGFIGSKVRKNAKDF

>AHK52822.1 short-chain dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDLKIKNKVCIITGGAKGIGYGIAKLWASEGGIPVIFSRSMPKEHDKELKKLSSEYEFYEIDLKNYEQIE

KLVKKVAIKHGGIYALVNNAGTNDNLHIENTSTQDLIKSYENNLFHYYTMTKECLPYIKKEQGSILNIVS

KTGITGQGRTSAYASAKAAQMGFTREWACAFAKDNVRVNAIAPAEVMTPLYEKWLQNFPNPKEQYEKIAK

AIPLGHRFTTIEEIANTAVFTLSPLASHTTGQILMPDGGYVHLDRALNWDEN

>AHK52821.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKHANSIKLELVCKKISWRILPLIVLMFCLSMLDRTNISFVKSHIEIDAGIGEAAYALGAGIFFIGYAIF

EVPSNLFLHKLGAKIWLSRIMITWGLVTMAMIFIQGEISFYVLRFLLGLTEAGFSPGIILYLSYFFPAIY

RSKAYGIYQMGVPIAFVFGSLISGFILDYTPNIYFKNWQWMFLIEGGITVLVGIFCLFYLDSHPKDAKWL

DIKEKDILLKHIEISNTKAKDYSIKDIFKSILVWKFVFVYFCIQLSVYGVLFYLPSKIAQILQINVGFEV

GLLNAIPWIFVFIALPIFTSLADKKHSWNLHAILFLLLASLSMIASTFVTNLAAFLFFISLAAIGFIVIQ

PIFWNLPTQVLKGKGAAAAIALIGSLGNLGGFVAPTLKTYIENHFGVEFGLIVLALIAIL

>AHK52820.1 altronate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIMGYRREDGKFGLRNKVIIIPSVHCANKVCENIARKCNGAVYINHQHGCSQLEFDALQTRDVLIGHG

SNANVFGVLIIGLGCEVIQAKAVAEKIKEAMPYKKVEYLVIQECGGSKNTIENGIKIVNEMLESAAKLQK

SEGDFSDLILGTECGGSDSYSGLSANPTLGSLSDFVIDEGGAVILAETTELIGCEAILAKRAKNDEIAKK

VYDKILAYENLVKSFHADIRGANPSPGNMAGGLSTIEEKSLGCVYKAGTRTLMDVIDYAKPVVSKGLTFM

NTPGNDIEQLSAMVAGGANICVFTTGRGTPTGSAIVPTIKMSSNTFCYENMNDAIDINAGSIIDGVKTKE

EVRDELIELIVRISDGELVKAELNEQNDFSAWRLATTC

>AHK52819.1 altronate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKGYIIVNEKDNVATALRDFKKGEKVANIELLNDIASGHKFALKDIKKDEIIIKYAEAIASASCDISTGE

WVHIHNTAGIRGRGDKE

>AHK52818.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGILKGTLPALLTPYKDDGSINEKEFIRYCEFGISKGLNGLFCNGSAGDSQALSVEEQVKLMKLTKKATK

NNIPIITGITSTIYENTFILAQKAYELGLDALLLAMPYYYKLSEDALFEYVKYLASEVKLPLYVYNIPLF

APALSLKFIEKVSKLDNVVGIKDSSGDALLLNHILDVVPSNFDVFVGREEFYVGALLAGVKGSMTSIGGV

FPELMSEIYKSINEKNIGRALLIQKSLLKAIRFGMSIAFPMGFALLLKARGFEFVNASIHPLSPATKEEL

NTRFDEAKELIKTIEKETGIKL

>AHK52817.1 ArsR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHQPTLRVLNILELLAKEKLTLSAIAKKLNIPAGTLWPILQTLQEKKYIKCDLKNKSYYLDFKIIELGCN

IKNENNIFEIIKKHMKNIRNLTNQTCQMGILKDGNVLYLEKIDANNTVQLKSFIGTSYPAYATSLGKALL

SNKNKKELEKLYPKNFDKITENTLNNINELYQQIKQIKKEKIAIEIGEMNPQIECMAIGIEHKNKIIAAI

SISYLIYCSNKAFREKNKKILLEEKNKIEKVLKIYFNDLDTLY

>AHK52816.1 group III hemoglobin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFETINQESIAKLMEIFYEKVRKDKDLGPIFNNAIGTSDEEWKEHKAKIGNFWAGMLLGEGDYNGQPLK

KHLDLPPFPQEFFEIWLKLFEESLNIVYNEEMKNVILQRAQMIASHFQNMLYKYGGH

>AHK52815.1 3-ketoacyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRLYFSLFAFFIRNLLRLQFLKLNLLRIDNEI

>AHK52814.1 hypothetical protein N916\_02080 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFKKVILFFLMGFALLQANSLDKCDNTAVVSNLKEKIPSEIFKNLYELSGLKAQGIDYEDYAKGLKEIAK

HDGMVNYTDMIEVNSISNFDLNFDSCMATINAALKGEQRKGLWSVVYKVSNINQVKITDITYINGDFQ

>AHK52813.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKFLSICSLIAMLLSGCGSDFPGQPSDVARVQQNKYPNGNLKKEIPYNKDSRIHGLKRAFYDNGQLRAE

ENYKNGKKDGISREYSRNGQLLEEVHFKDNRGYGDFASYYENGNMRAKGKLLGYNEDGMPEFEGNYKEYY

ENGTLMCDYNFDNKGKFDGVQKRYDENGALEDEENYKNGLKNGVFREYKKGEIVREEEYKNGILVAKPKN

>AHK52812.1 hypothetical protein N916\_02040 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNILHANSSHRFHKCMPKEVHQIYDTLKLMEQQEGTKKSRSQKRRAK

>AHK52811.1 hypothetical protein N916\_02035 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MITLSSFNRYFGNNPLQTLTKIRDESIENAKI

>AHK52810.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENQKNEFDDIILEKSNKSEKVKKILLRVIALVILFLAIMIVMKLINGSGDENTQNQSVLPSEPIATQDN

NNDTSFESMPITDNTSAEDQFEALRKQFQDEQNTTQNTTTSSSNNNDTTNFAMPDQEVPAEPTATTSANT

TPQASTPKQEVTQTAKSKEEAKKQTAVKKEKESAKQTPKKEQNANDLFKNVDAKPVHPSGLASGIYVQIF

SVSNLDQKSKELASVKQKGYDYKLYKTTVGSKEITKVLIGPFEKADIAAELAKIRKDIAKDAFSFTLK

>AHK52809.1 hypothetical protein N916\_01855 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNYQQLECDYFNLYNQFLSVDFQISLFEKDHKGLIKDFIFFYYQILKQKDLSYLLEVRNKISLKVYNYMQ

EHSTSPKDLSLICLRENKHIEFFQIFYKALAYFVAFRKKLDGEQKIKNLISNINDCFGYHFLNSDFNNLQ

NFQKSDLFTLPEKHLKYFHFAMIHLCFMVLNPLNFKDSNRHLDKAINYLVDGTFEIYELIFKEYFLLFSK

DKELKDELRKLKKLEFKILMQETSKIKLLNHYKEFCEEIFYNIELEKITQN

>AHK52808.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKLKNFLILKNIEDTQIYKELKCAKNEALILRELCRNYVVSISSINAFTLLSTIFGNDKYLYLDALEDL

KKLIERGFVNQNSSFFKSLENNKTQTLTLALLQSELSLSEYFLEFLEAKPRLNFEKQEAYADYLEYLKDE

FARIQLYERLSFIQKSAYNSEIKNQIKLYERHIKERLKKSKFYNVLADIFKEYNLEHKEQIIFLALLKEE

YALSNESSISREMNSLLSLISENDLERHKNKKLLQENAPLLNLIECDEYLNAFGDISKSFFIIDEILQRI

INFEPKQSKKIKIESVLKDQDIFELIEPSTDINDIIMPENTKELLENILKQQDKKVLERLHSWGIKSNKN

IEAKIIFYGPAGTGKTMSALAMAKSMKKSVLSFDCSKILSKWVGESEQNVRKIFDTYKNIVQTCKQSPIL

LLNEADQFLSTRVDGSSGSDKMHNQMQNIFLEQIERFSGVIIATTNFLESLDSAFSRRFDYKIEFKKPDF

KDRLKIWEKFLPKKALFEKDFDINILSNYELSGAQILMVVKNTALKVAVSKDGVFKIQDFIESIQKELNS

SFDKSKIVGF

>AHK52807.1 hypothetical protein N916\_01750 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQTFLAKFKDNYNKAKIKKFKQALKLELVWNLIVQV

>AHK52806.1 hypothetical protein N916\_01675 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFQNIIKYKDFIIFILNLKQNLYLLIKINLDFKNFHKSLNF

>AHK52805.1 hypothetical protein N916\_01650 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTNQQIDGIADKNFNTPEGRKVFKKAVFSCWLGTAMEYADFALYGLAAATIFSEVFFPEQTPVIALLLSF

VTYGIGFIARPIGALFFGHLGDKHGRKNVMMATIALMGISTTLIGFIPSYAVIGVWAPICLVALRFMQGF

GAGAELSGGTVMLAEYAPSKRRGLVSSVIALGSNSGTLLASFVWLLMVQMDEASFKEWGWRVPFMGSILI

ALFAVYIRFHVKETPVFEKQKNEMMKLRLNNEKHMKKDERSFWQRSRAFWTMVGLRIGENGPSYLAQGFI

VGYVTKILLLDKSVATTAVMIASLVGFLVIPLAGYLSDKFGRCITYRMFCLLLMIYAFPAFMLLDSKNEI

IVILTIIVGMSLASLGIFGVQAAWGVELFGVKNRYTKMAFAKELGSILSGGTAPMVASALLAYYGSWWPI

ATYFVLTAGIGFVTTFFAPETRGRDLNKIEDAI

>AHK52804.1 beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKITLFLLFLNLVFGQDKILNNWFKEYNTSGTFVFYDGKTWASNDFSRAMETFSPASTFKIFNALIALD

SGVIKTKKEIFYHYRGEKVFLSSWAQDMNLSSAIKYSNVLAFKEVARRIGIKTMQEYLNKLHYGNAKISK

IDTFWLDNSLKISAKEQAILLFRLSQNSLPFSQEAMNSVKEMIYLKNMENLELFGKTGFNDEQKIAWIVG

FVYLKDENKYKAFALNLDIDKFEDLYKREKILEKYLDELVKKVKNDG

>AHK52803.1 3-methyl-2-oxobutanoate hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRKSMISFLEKKAKNEKITMVSAYDYHSARILDNSDIDIILVGDSLAMTVLGMQDTLSVTMDEMLIFTKA

VSRGAKKSFVLADMPFMSYQSSDRDAILNASRFIKESHANGVKVEGGIEIASKIKLISQSGIPVVAHLGL

TPQAVNMLGGYRVQGKDLQSAQKIIDDAKAVQDAGACMLVLECVPVKLAQKISSILEIPTIGIGSGKYCD

GQVLVYHDLLGLNKDFKAKFVKHFDKIDPQVGVEKYRDEVKSGIFPSQEHSFDYLDDELLDKLY

>AHK52802.1 pantoate--beta-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQVITSVKEAKQIVKDWKSHQLSIGYVPTMGFLHDGHLSLVKHAKTQDKVIVSIFVNPMQFGPNEDFSSY

PRDLERDIKMCQDNGVDMVFIPDATQMYLKNFSTYVDMNTITDKLCGAKRPGHFRGVCTVLTKFFNILNP

DIVYMGQKDAQQCVVVRHMVDDLNFDLKIQICPIIREEDGLAKSSRNVYLSKEERKASLAISQSIFLAEK

LVREGEKNTSKIIQAMKDILEKEKLIKIDYIELVDFNTMENIENITDNVLGAVAAFVGKTRLIDNFLVQG

LK

>AHK52801.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLRKADIKDLNACLSLFEQSVKTLCAKDYTKDQICAWIKIDRQQWEEKFKYDEIFVYEKRGKIASFISVK

QEQKLLDLLFTHPDFVRQGLAQNLLDFILKTYLHNEIYTFASLSAKDFFLKNGFELIRENKVIKEGQNLK

KILMKKDVIYKN

>AHK52800.1 glycerol-3-phosphate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRTWSLSGVFIGYMGYYLVRNNITLSTPFIQNQLNLSKSDIGTITGSMLIAYGISKGAMSVISDKADPKK

SWL

>AHK52799.1 hypothetical protein N916\_01410 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MALGLILCALVNVLLGFSNSFYAYVGFVIALGVFQGMGVGPSFITLANWYPKKERGIYTAVWNISHNIGG

GIVAPIVSLSGFALAALLGVSMANFNETYWHMNHFYTPAACAVIISLYALYAVKGNPKNEGLVDITEINE

MRGIKTEEIKAIETPNLSSFEIFYHYVLKNKNAWYVAWMDTFVYMVRFGLISWLPIYLLETKGFNKEQIG

IAFWLFEWAAIPSTLLAGYISDKIFKGYRMPPAIGAMVIIFFMIIGYFTSNNLYMVIFFAAMAGCLVYIP

QFLASMQTMEVVPAFAVGSCVGLHGFMSYVVGASLGTKA

>AHK52798.1 hypothetical protein N916\_01405 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLINSYNVTKILLKSNFCLVFLQAKVKIVIDASF

>AHK52797.1 ipid-A-disaccharide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTFLVCALEPSANLHLKEVLKAYKKDFGEFELHGIYDESLCKEFDLNSKPLYSSHEFSAMGFIEVLPLI

FKAKKAIKELANLSFTQKINGILCIDSPAFNIPFAKALKKAGSKIPRIYYILPQVWAWKKGRIPIIESHF

DILASILPFDNQFFNKSTYIGHPLLDEIKEFKNQEDINHTFSKKDDEKTIAFLPGSRRSEIRRLMPIFKE

LSQKFKGKKILCVPSFNLEKLEVYGDISEFKIESNTPKVLKKADFAFICSGTATLEAALVGTPFVLAYKA

KAIDIFIAKLFVKLKHIGLANIFCDFAGKEALNPEFLQDKVNVLNLYEAYNKYDYKAFFAKVDFLKEYLQ

FGSAKNLAKILNEI

>AHK52796.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIFISFVVLATCLWAKNTAYTDEVVSLYLNKDDTKVIGRLLPTNPFEVLKSENNRVLLKIDGYVNPKA

PSVIYFNDSQRIIVAAFSKNTKLNFSQRITGKNGKWDKVSLEIWADKKEFVKDNKEMLNRAKELFVNNCG

ICHAIHKEKEFTANAWPAIFRSMADRTGIDKKDRWLVIEYLQKNAKDFKTK

>AHK52795.1 trimethylamine N-oxide reductase I catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLDRRKFLKIGASLSALPLIPSLSAGKTVEASKVSLGLVKNGEVITAAHWGILKLTIKDGKIVKSEPWEK

VTKMDNPLQHYTADMVYKSRVKYPYVRKSYLENPDNPKPELRGKDEFVRVSYDEAIKLIAKELKKTRDSK

GASAIFGGSYGWKSSGNMQNSRILLHRFLNVTGGFVGATGDYSTGASQVIMPYVVGSIEVYEQQTSWENI

LSDSKYVVIWGADPLSTLRIAWTSNEQRGLAYFEKLKDSKIKVICIDPVKTTTAKFLNAKWIAPRPNTDV

ALMMGMASHLIAKKKVNYEFLDTYTTGFDKFKDYLEGKEDGVKKDTKWASKICGIDEKTIKNLAETFYDN

STMIMSGWGMQRAHHGEQPHWMLVTLCAMLGQIGTKGGGFGLSYHYSNGGVPTCKGGVIGGMTAGSLGIW

KNGKFKGLSKAEASSEGAEWLQNAASYSFPVARIADALLHPGKTIDHNGAKITYPDIDFIYWVGGNPLVH

HQNTNTNVKAWRKPRTVVVNEIYWTPTAKMADIVMPVTSSYERDDITMTGDYSNMHIAPMKQAVEPVGES

KDDYVIFSDICKIYGKDVFNAYTENGKKAKDFIKEYYNSALKQTQSFGEAFATPMPSFEEFWAKNEPITF

EPTAESLEWTRFSEFIEDPILNALGTDSGLIEIYSETIKNYNYDDCKAHPTWFEPIEWLGNASKEAPFHL

LTNHPRDRLHSQLCHTSLRDTYAIKDREPILINSKDAKKLGIKNGDVVRVFNKRGEVLAGAVVSDEIMQG

VVRLCEGAWYDPNENGLCKCGNANVLTMDIPTSKLANGNISHTGLVNIEKFKGELPKLTAFSAPKGAN

>AHK52794.1 hypothetical protein N916\_01260 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVKNLIIKFGRLILDAIAVISFVVALLYSLFMMFSIGFLAGLLSLIVSFIALFLSFFCNLSCYRYQRCSC

K

>AHK52793.1 highly acidic protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAYEDEEDLNYDDYENEDEEYPQNHHKNYNYDDDDYEYDDDNNDDDFYEMD

>AHK52792.1 chemotaxis sensory transducer [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MILFSEDMIENLCTNKIKLFSDIKDYTERKKLIEKEVLFINIPFEAHCINTLYYLIYDGLSQSESSLLEL

LYKHNPYPCALVGGGSSGNMDFSGAFIFYNGEILKNQALSIHVQFKPKYRFNLMKSQNFNPQSNITFTIL

DVSLYDKTVRELINKKPFRLKLYVIILTALLKNLKIKCKNILLL

>AHK52791.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQEYTFALKIGEDYLISPMEINPNKTLFSYCDIESAQELSLLKKTNFIEAIKKDYEKFSLNKPKPLGAIF

NDCILRRLHNKEHLNQIHFNDFPIVGFSSFGEIYGVGIAKSLVAIFFYEVENFNDFKPRYLKTFIQKYSD

FKYYYLNIRAQKLEMTNEINKIILNQLKQNTSEIDKNTSIFKEIFEELENIRRSLTTISESFTNFTNYLE

YNLYQSEEKMNLEKEVQSSLKNIDQLNSILDLISGIAEQTILLSLNAGIEAARAGKLGRGFAVVADEVRK

LSENTQMGLGEMEGAIKLVIQTIQSIAKSSNSSTQEMNFIRDKTNEFSKIISNLINSGKEISDKLEQRSN

VSEDFEKNVNQLKCYEDVLAKLNQY

>AHK52790.1 serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFINLGNDYKLNDKTRFNFEFEKTFFGDLNVDWSANANLRYSF

>AHK52789.1 hypothetical protein N916\_01075 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYADPIKAGDQILEDQASQRRYEGKKIKECL

>AHK52788.1 pathogenicity protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHKRMGELRNNPYESGVWLRTFGWGTSDEYNSGKYFEIQSGHDKLNEYSNFELYSGVRFL

>AHK52787.1 hypothetical protein N916\_01065 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSNLQVEKSAIYRKVDAKKLSANNTIFKINADFENSKSDYINSKESTQGVNNTLVLIFLNNPSKKRV

>AHK52786.1 boa domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSANTDKALIFDGNIYNKEGVFRTENAKLNFQGHARIHAYVSKEQAKKLQEHGLSALTKPVSFTQEDWED

RVFVLKELNLEKKRVLFRA

>AHK52785.1 hypothetical protein N916\_01055 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKPKKMIFFNKMGEGELVVKSQSVDTGLRMGEDQGKS

>AHK52784.1 hypothetical protein N916\_01050 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYFSQNGSINLNSDVDLGASVLNLIKIQIGK

>AHK52783.1 hypothetical protein N916\_01045 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKDGKKIENVSLISKTNVGYVSYKNSFDDKIIVIRELKKCKIARICIFLKMEV

>AHK52782.1 hypothetical protein N916\_01040 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKFKSQFDLLEICLYYWQNQDILENNFGSIAEAKR

>AHK52781.1 citrate transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEIFLALLGFFSLGLIVWLLLKDYTTPALAFISVSISVACILLILERLGFGVGVALGVKGGVFDIKTLVV

FIKDGVKSVTDTAALFVFSILFFSVLNASGFFTKILNAFLSKMKANVYQVCILTVFIAAAVHLDGSGAST

FLIVIPALLPIYERLGIRKTSMLLIITSAMGVMNVIPWGGPTLRAATNIGMDANLLWHHIIPIQIVGLVL

SLLLAIWIAKIEIKRGAGAGNLSGINLNIEKSEHHNEKWFWLNLLVAIGVIGLLISGIIPSYICFMIGLA

IILPLNYPNLKTAKKVLDRASAGAMLMYITLIGAGILIGVFDKSGIMEKMGVLILNFVPDYLGAYIPLMV

GILAVPMAIIFCTDSYFYGVMPIVLSVTKAFGAEPLTIAIIMVIARNCATFISPVVPATLLGCGLAEVNI

KDHIKRSFFYIWGISIICLIFAEVAGII

>AHK52780.1 hypothetical protein N916\_01005 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAYGSSNPEDLAKNFTKDLYSGDTKSVMSYIDLSEAKSDEEKTFVSDKITQVVAENAAKAKRMGGVKDIQ

IEEKTINKDSAKIRVLVLFNNDNNQSSNVFLAKKDRKWLVLLK

>AHK52779.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFFLLKKIENGLFYLNKILYFFLILFLLIGILGFFINSNPSNQIIKKPYLPFLEIGDLVFRAGIGSESFL

IENLSQSPYSHIAMVVKTSPTILIHATTDDDKNAKNQVILSSMDDFLKLSHKIAIKRLKFDEKTKQKIVA

KDLEHLGRKFIISTDKDAFYCTTFLEQSINSITPFHLQYTLIKAPFNEGLYLFPQTFFENNQSVLIYESQ

NF

>AHK52778.1 PhnA domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKDANGIELNAGDSVSIIKDLKVKGASTTLKRGTTIKNIKLTSKEGEIEARVDKFGVIVLKTEFLKKI

>AHK52777.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDPSQVLDLNQTSTASFDAGYSILMVVVALALVFLNGFFVLSEFSIVKVRRSKLEEMVKEKKAGAKKALE

VTSRLDTYLSACQLGITLSSLALGWIGEPAIAKMLEIPLINLGFSTVIIHTMAFIIAFSIITLLHVVLGE

LVPKSIAIAVADKAVLFIARPLHWFWMLFLPCIKIFDFLAAISLKLFGIKPAKESELTHSEEEIKIIASE

SQKGGVLDEFETEIIRNAVDFSDTVAKEIMTPRKDMICLNKQKSYEENMQIICEHKHTRFPYIDGSKDTI

LGMIHIRDIIQNELNHKSQNLDTFVKPLILVPENISISKVLVMMNKERSHTALVVDEYGGTAGILTMEDI

MEEIIGEIKSEHEEDSYKKLAENIYEFQGRCDIETVEEMLVINYDEDLEQVTIGGYVFNLLGRLPMVGDR

IEDELCYYEVKKMDGNSIERVKVVKKTNKDEE

>AHK52776.1 biopolymer transporter TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKSSVIFGFVLSLILHTLVLMFFLFSFYTQEKSSGVDFKQGAEFTSIMMVSEFPIGELKEVSIDQKKSNS

QDKNKKQDERISFNSQDKNAVLKVQKKIEKQDENQAQKEIANASENSKFKNESLSAPLQSNKDKTQTIVS

GNAKEQVKSYQALLMAHLTKFKKYPQEAIMQKQEGVVRIRVSIDESGNVLSKELKKSCPYAALNDEALSL

FKRASPLPKPPKEMLKNGDKISFVMPIDYNIKDYLGKK

>AHK52775.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKTEMAHKEEELSEINITPFIDIMLVLLIVFMAVTPLITSSIKIELPKSSQQAEDKLKNPIILYLNTDN

TLAINDDKLSLENLSSALDIKTKGNKEEIIYFHIDKSVKYEDIMQVMQKLKENGYGKIALSSKKMD

>AHK52774.1 TonB-denpendent receptor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKLSLFCAVGLCFASFAFSEELEFDSLEISGSKIKNDEKPFVTPGATSTREGIGSDTQSIDSIVRSIPG

TYTNTDQAQGTVQVNIRGMSGFGRVNTMIDGVTQTFYGSASDDPARFHSQTGTSAFGAVIDTNFLIGVDV

TRGTFEGVGGANALMGSANFKTIGINDIVHDGNIFGFLGRFSYGSNGIGPSYMSAVAGKTELENNGYVGA

LFGYSAKRITQNYTVGGGGKIGSSMVDTDGDGIADTNIAPFDPDFLTQKPNSQLFKLEYVPNSFTNTIFS

YRRYQNELAGRKIHNDNYQLDFWHNPNEWLNVNTLIAYNQGIQTYGSKSTFAANDAIANTKAKNTATTFD

ISDTLEGEWHRFNLNIRFGANILLNDYKNTLNTSIQGVNSIPFQPRGKQNLFTYYLDNSLNYGIFTLDTN

VNLLDWNIKGHRPACDEVNFMCFPKAATDIDKNGLRLNASVMLSAAIHELITPFVSFARTNRAPNVQEMF

FSNNEGNGINSFLKPEQANTWQIGFNSFKHGLLKDDDRFGFKAVYYHTKIKDYIYNEQFYLEDPSKDPPS

SQFYMHLNSADDTIFKGVELELSYDLGFAYAKAMYSRQDTSSTISQTSGPLLGSFSASKIMELPKDYANV

ELGFRLNDKISFGGIAKYTGKAKRVNPNTDDWNKDPNNPYYPKPTTQDLPKIPIIVDLYWNIEWFKNLTM

RAEVQNLFDKNYMDALNAYNSLDNQLQYNGAGDPIYLFSNSARGRTFIVSFEYKY

>AHK52773.1 iron transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFYTILSILFISFMLSACAVLQKSSPLQENKDFYILDTHTQKKISFEDMILELLKADVILLGEKHDEVK

HKISQVMIFNALEGNLSSQNINFDVALEMLASTEQNHLDKAFKNKKTIKANELTNALNWDKVWKWKDYEQ

FVNVVFYSKSKILGANLSRSEITSIYNGAQPLKGYVSTTNEVKKQLFDIISLSHKLNPEENKELLDKLVE

IQQFKDRRMADVLVHHVNKVLLLAGSYHTSKKIGIPLHIQDFKSSKKIVVVNLSYGEIDLKDSDYVLIYK

GEE

>AHK52772.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDNSLSAYTQKYDKEGYGLQYPDGHVIRFYERILKYKLSKTSGKLLDFGCGNGVHSKYFKNITGGGIEPY

GIDIVPSLKKVWEKDPCLDSKNFHIISPNSSFKKLFNTKMDFIFANQSLYYLTKQAFKEAVQEFYELCNE

GAIIFATMMSDKGYSMYERGELMDNSLREVKGCPSGRLSGSSYIRFTKDIEELKEDFKPFKPLFWGDYEL

INLYNFEGSVEHFIYIGQK

>AHK52771.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKSVKLKVSLIANLIAVVCLIILGVVTFIFVKQAIFHEVVNAEINYVKTAKNSIESFKARNSLALESLAK

SILKHPIEQLDSQDALMHYVGKDLKNFRDAGRFLAVYIAQPNGELVVSDPDSDAKNLDFGTYGKADNYDA

RTREYYIEAVKTNKLYITPSYIDVTTNLPCFTYSIPLYKDGKFIGVLAVDILAADLQAEFENLPGRTFVF

DEENKVFVSTDKALLQKGYDISAIANLAKTKEDLEPFEYTRPKDGNERFAVCTKVSGIYTACVGEPIEQI

EAPVYKIAFIQTAIVIFTSIISVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFG

QISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARV

GSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLT

TSSNSQAQSLEETAAALEKITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAG

EHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNV

EIANESAIISSTVSDIANNILEDVKKKRF

>AHK52770.1 mcrBC 5-methylcytosine restriction system component [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNSIFSIIEHQAFSKEDLKEIFKEKAEGFYKELEDFAKNNENLLGFKNKNSLKAKNYVGIIQTKSGVLEI

LPKCTNLDSYKKEDSSSNHDKEKLRRCYELDNISKNNDFYEKDFKFNPKNLLINMLKTLKNSPFKKSQIS

SLQSSKIPLFEVFITMFLDEFDSVYKKGLMRSYLSCEENRAFLKGKLLFNEHIKQNLIHKERFFTSNDEF

VLDIAPNRLIKSTLNFLKSKTSLNKFRLIKAMQMLDEVEFSKNYEKDFSYKISRHFDYYENLLLWCKIFL

KNESFMPYHGKNEAFALLFPMEKIFEDYVAYMLKKVNSTQDIKVQNNGKYLISKNDENCFMLKPDLYIKN

KMILDTKWKIPNDSEDEKKQGIAQSDLYQMFAYACKFKIYDIKLVYPLCEKTQDLQRKIAEKFFVFKASE

HLYFKEQGQKDIKVQVFFAPLPF

>AHK52769.1 endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MWNLDEKKLQEMLDGFLNFQEVWTLEKVKNMTLEEYTNIKKDNPNRDDFTFWIESKLDNLGSIWGGSAFK

FGIYRRNDESQKESSSGRLYSQNYAWIAKYGNNENEAFNNIKEKIIQIIQASQDNNLKTIEKIDFGDAIK

WKIAFHYQDVKNIKIVNIFSKNVLDLISLNEFKEKLKIYQIHKKLLENKNLSLVKMIENIAIPLWNKYGM

DSQNYIDKMKNLFSEYLNKKKLDKNTINKYIQVIENISKEFLKENLYSCDLFSFDQNINKLNKNEEFKLK

NSNGHNMYSSALNYYRAFLIDYYEQDIFITERVQSEESNMKIIPLNQILYGPPGTGKTYHTIDKALEILG

ENLESRDEKKAKFDEYVRKGQIVFTTFHQSYGYEEFVEGIKPIIDNDENSQEVKYDVKDGIFKELCDKSL

KNYILSMQNENEIDLDKLIFEFANYINQDFLNKGNEFPLENKVSIKKILLNFKDEYRSFSLGGSIKSPQS

LTIDIIKRDYLNFKNKKILSFKDIKPKYDSQSDYHGNAIYYFMFYNKLKEFENIQNEKFKIKKEILKSYI

IIIDEINRGNVSKIFGELITLIEPSKRIGEKEELKVTLPYSGEKFGVPKNVYIIGTMNTADRSITSLDTA

LRRRFEFVEMMPDVSKLSMDCEGINLQELLKAINTRIEYLLDREKTIGHAFFVSVENLEDLKKVFQNKII

PLLQEYFYNDYALINAVLNDNDMIFEDKKDDKYLQKIKNLDSVNSERSIYNIASFDDKIWDKIEIYQAIY

NDEIANKLKNENE

>AHK52768.1 hypothetical protein N916\_00610 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIVFPLSSFNRYFGNNPLQTLTKIRDESIENGNPELTKKQREELGNDLIDLYKISKKFSDKIELVEGSIE

DKLRNNELPESEVKNLFQWMDENAKHPRWMHIDGVSYDEAYVKIFHTSKSIDEFKEKYLELQKKYFVDFN

NIDSSQKKLQETSEEDKKAFKPIQVESKSETYKDDNKMNELLRKLLETKFGTSDELEILFGMNFSNDNAG

EFNKILSQNTSAKIIDIKA

>AHK52767.1 hypothetical protein N916\_00460 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILFIGSLVMASLLYAQGSQPVEITQQDINTQNEMSDASTKDITPKSIEDFFEEFADNFGIEYGITKD

GKTFYTGKSTVAVNDTDPQFAQALQNAYQKAMLNLQSEFIRDAFGRIATSKIQNYEADNSTNAKEFDELP

KGDKVDQILNKLTQLAGAQLDKALKDLGIDTNSLSEDRKKTLLKQEFLNKTMTNAIGSMSGLVPVQTIVT

QRRGEYDVGVVAVISNKTRQLAKDMALARQSAIKGKGKAISEYLPKDTKGFLNEYGIRLVYDENGAPIIL

SYGNWGYVADPSNAKKTNILEDRAKETALTMADAAIIEFINTNLSLKDERTTGDTYEEIIKQSINVNDSS

TQEQTQNITNIIDKVNSKIKASASGKIRGIRTLKKWSYTSENGIEHVGAVRFYSYENLANTNEALNSKSN

ATKNEAKKSSSIQRSSNVVNSMDDF

>AHK52766.1 hypothetical protein N916\_00420 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLHALFLLAWPLVIYLSYKFIMLNINQLEKDSKL

>AHK52765.1 2-amino-4-hydroxy-6-hydroxymethyldihydropteridine pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKIQGVKHFEKSRFFPFFSQNIRSFKYLALIGLGSNIEPEKKRFDMLFRVMMDDKRFKILSTSPMLINE

AFGFKEQKDFTNAVMLIQTNLHARALLKVLLYYEVKFKRKRTFKNAPRTLDLDLLYFSQKVKRDKWCEVP

HKGAKERVSVILPLGMI

>AHK52764.1 hypothetical protein N916\_00305 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKILKILLFLPILALSTKAEWVVKSYQEIKNERVIRQTYEQSCGASSLATLLNILDDQKKFDELELLKI

MSGQELYTDMVSFADLNDAVKKLGFQSNSYQINRENLDKLVNIPMLVKIEDDPRFPHFVIIINHKGNYLQ

VLDPSHGEYISSKSQFFSIWDRYNKGGYALIVAPKKELKPFKLNTPKSLHFDFSPFSLF

>AHK52763.1 hypothetical protein N916\_00300 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIFLTFMVLVNCVFASDELNIDSLFKKQIGLRSITSFSLLSTGNANSYSLYPNITIGGDPTIWNDTKQ

VFLTQTFIYTLTPKFDILISGGGSYARQEYTNFFTNAYSHKDRIGFDNLWLGFIYTGDSIADLIPQITFQ

TAVVQREKAINQTKNFYLKSQSLQASLRGYSDPVVYSIYTGFGYNQSRKFKTLKIEYGNSIYVGGDLSII

LSPKITLDLGAEQRFQMKQKINGYQNSEVRSIPTLSLGSTYSINSDTAVSVNASFGGSSASPDSIFGISL

WKKF

>AHK52762.1 hypothetical protein N916\_00295 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEVKGGYITYLKRLSDNEVIAFAKPDWNLELTLFQDSNGDQYYWNREGLVRFGGMCGIETTNCLVNSKH

SYINQKRLWETMSIVGDDPYRNFLGYTVKRNIGISNLGKRFVYFSYGVAVINEQSGSWYRVKSSPVFE

>AHK52761.1 hypothetical protein N916\_00290 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINSLNSNLNYDYNTSNFKQDKNIDFKINKHGVAVITGEGALPYRGKKFEYNPKIFGLDESISKKDMQEF

NNFMKSNALKDPNKIEKSPLKDFNPAYTKWDPTTEKMMLGFFVSYSKMFHLGYDIIKKADEFYKEFDALI

SKDLSLNEFKTKYIDFKQRYDEFVKEYEMAMGDKMLLSSDDEIITQQSEKPFKAIQGESKNKETYKDDST

RNELVKKLLEGKFSTSKELELLFGMKFSDDDAGEFNKILSLNSTPKSIDIKA

>AHK52760.1 2-oxoglutarate translocator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFFIVQLALGAPPLFYAFIMIASGNVMMALTHYAIGTAPVIFGTGCVTLKKWWSTGFVISIVDIVVMIAV

GLFWWKILGFY

>AHK52759.1 2-oxoglutarate translocator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MALLGLSLVLISGVLTFGEVLAEKAAWNTLVWFSALVMMATLLGKLGVTQFLAEA

>AHK52758.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFLPGIAVMLLMPLMLYFLSPLEIKSTPNASTFAKDKLKELVKMKNSEKIILSVFVSLLLLWAGALGLFF

WNFS

>AHK52757.1 anion transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFITATAPNPLVVDLIAQATNLEVHLTWGGGNRL

>AHK52756.1 anion transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MISIIVARGVIKTGLGEHLAYHFISILGKKT

>AHK52755.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVKWSRDFSIKNMQLDKQHELIFEITNLANDLALNIQDNNTQHKNDLKQILVKLFQYIKIHFKDEEKFM

ESIDFPLIEEHKKSHQILVEKTKELLEHSNDIVKMSQELSILTKDWILDHFANEDLWIANFTKKTLHLQE

IHYTLEQYIKLKSIKQDLRAEKTYDYICNCSLRIHAVPQTIHQELVSKENTLKCEKCGQILVHLDYFDLN

QNFEKFNAIFEDALQNHHFTTQENDMRGGG

>AHK52754.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEELTKEQRQIIEEEIKKEIKKANTFLKPELINKIIQDIIGDIKGKINNKFKCPKNLEEILSSIPQKVYV

SLGKEEIKQILKLDFCCFVDNVFYIDSAPKIEPYEHNQNKTAIEEQRIIQCSYDDLLYLFKTYPLIFNHC

IFDYKIDKKTPIEQIKKLSFLNCNFKKEVYLNFQECLDSFQMDNCVFEDRVTIKGKFNDNVYFNNSIFKN

YADFHECEFEKTANFYGVRFNKTPNFSQAIFRGNLNAVNANLNFTFDDLQERIKQEYEDFNKNIENKKSL

DKFANDFRDSFRTFKNALIKDNNLLDASNFHKYELYCKEIELKQNWDKRGENVKNTTDLEKNVSRIRDFM

DFLLLGFYRKLCDHHTDFLKVFNNLILLIALYALFVFGFTWLHDDKLEDTRAILTLFGFFDKFRLYFDII

STIFVVFGCGFFVCKLDSYEKKNNVSKKQNINFIYIIGDFLNLIKSLLFASFIPCVFYVLFSLFGFFLNL

GKDFGYSLLINTLFVSLYICLVYTKSLFFGRYVVLIFSYIVFIIMLIKQPNVIHPLIGKIANESDKFFNY

PSLIVLNILYTILLALVLFSLQKTARKNSIVPS

>AHK52753.1 type II restriction endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHFTLLNEKDFFNPYYRKKQIMQNEFDIFSKALMQYLERLESSQSENEDYLVANALSPFLTMLNFKTHIK

TKQKGKSEIDLSISKDEFSKDLEVLIEAKKPNSKEFITHTKVNSKALHETILYYFRNREYSFSLKFIIIT

DFYKFYIFKISEFEELFYKNPSFKKLFEEFCNPNSLFKGNTEEFYKEVAKLIENSKENLKGFLIDLTFLK

DKQKSNFKNLASIYKTFHRDFLLSEFNPNDANSLNNAFYKELLYILGLYESKQNSKLIIAKSEESKEEQG

TFYTAINSKLKEENFETILKLLILWLNRILFLKLIESNLVRFNDDKNLKFLNFKKIPDFDKLSELFFEVL

AKEKSTRKKSEFTYLPYLNSSLFEKQSIENTLEISSLSNDLKLFYYKNTVLKDDKCKAKKGQVGLLEYLF

EFLDSFDFGSDDEQSEILSQKELISSSVLGNVFEKLNGYKEGSFYTPSFITSYMCKESITKVVLDKFNAQ

FDLDAKDISELRKSLRKEDKKAQKELLNSIKICDPAVGSGHFLVSALNVMLSIYDELNLFDEEFYLEVQN

DEILITGRKGEFIEYKRPSTPKDKTHLIQQELFHTKKDIIENNLFGVDINPNSCEITKLRLWIELLKHSF

YQSFDDGNYHDLKTLPNIDINIKCGNSLVSYFETGKSLNHYPNIKERMGKYKRIVKDYKEGFYTDKSHIN

QEIKNLKISFKNFCFADKFKKEMKSFNDKCEKYSKKYGNFLAVDDENLKFFVSANLTLFDFDEKEAIKEF

ANLKKEYDNIFNLESNHPFEWRFEFPEILDDDGNFKGFDLIIGNPPYIRQEELKELKPHLAKNYKVYKGT

SDIYTYFYELGFNVLKDRGGVLSYITSNKYTRAGYGEALREFLLKNVKFLEYTDLNGIKVFDSATVDTSI

LCFEKSKSKDNKFKYLALSNEILKTCAYDIGLYKDFAEFSQNSLSKESFTFSDENTSALKAKIERIGTPL

KEWYGLNINYGIKTGLNEAFIITTEKRNEILANCKDEAEKERTAKLIRKMLRGRDIKRYSYEWAGLWVIG

TFPSLKIDIEQYPALKQYLSQFLPHIEQSGEKGCRKKTSNKWFETQDNIAYYEEFEKEKIVWAEMTKEAC

FVYDNSNFFTNQTCYFFTHCDYKYLLAILNSRLIVYYMQYISSHLGQGAFRWIRQYIEKLPIPKINSKNE

KLADELINLVDEILKAKEQDKNANTQELENKINSLVYKLYNLTEEEIKIIEGK

>AHK52752.1 hypothetical protein N916\_00175 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKFIERLLEEDIKFEKDVNNGLSDINIFDALNIETKENYHSKFIAYLIDINKDHYQKNFAKVFLEKLGK

SLVNTKFENLNIEDIKSVETEACIKDNRRIDILITLSDKRYIIIENKIYAKDQKNQLKDYINFVRKNIKN

IKDCYKNILTIYLHQDECASPSDYSLGNFTIKTNLIKDKNENNVSYYLKMDYMWIKEWIDECIKIYEEKS

TKDQKFILDIQNIIFTLNQYKSILQWYIADEYTQRDDVLEFIFQDIIKMQNLKNAMILYRYNKNKSELKN

LNEEKYKKAKDIIQHKWSNICEYIIEEFFDSFEHKEIKIGDITFIGNKIEENRVNHGVFIFYPVDYKNES

IYPCIYIYFKKKYYDIIGLTFEISNDDEEDIENEKYKECLKLFKDVKEENVRKYQNHYYCDKLINNEKLE

GEYAFIYWLIENQNSKKDFIQILNDFFIKKPIQEAYKGINDILNS

>AHK52751.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKYFQKRYTLAFFIGILAGIFGAIVKWGWEVPFPPRNPNVFWPADALERVTPPKIFLEQLGLPTDWTYM

FSGMQMPLSIFIVHVGFSIIFGVAYCMIAEKWHRITMWQGAVFGFFVYLFAHVIIMPLIAEVPPLSEIPF

DEHLSEIFGHIVWLWGMEIVRRDIRNRITKEIEE

>AHK52750.1 hypothetical protein N916\_00040 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAGFQSPITINEAMQRIKNNEYLLPAFQREYVWEPWQIEELFDSLIRGYPISSMLFWKVKDESKTAWKFY

RFLEYYRESYHTHNDYFNTSNHKDFYAILDGQQRLTSLYFALFGNYDIHRSYNKWENNDRYFKICHFYFN

LTQSKKPENENIEYEFLWLDKLETKEQNIYIDKYQQKWFKCQYLYQYDSGRVRKIAKEFNLNENEEDRLD

LLHQKIFDKNLINFYLEEEQDPDKAVNIFIRINSNGEPLDYSDILFSIAIANWNKIDARTEINNLVDKIN

ENFDISKDLILKGFLYLFHNNIKFQINSFDKNFIESIEAKWEGIKNAFIETFRLLRSFGFEAKTLSSNNA

ILPILYFIYHKNLTNNIVDSVKCNENRAIIKKWLLRAIILKPFGGSSDTVLSNMRKAFIKDFKQNSGFFD

REIELFPLEEIEKEAKYIQTIDEEYLENNVIECRKNSPEAFAVLSLLYPNLDYKNNNFHKDHLHPESAYK

EYEKLYKATDNCISFNIYDSLPNLQMLDANENESKNNKPLKQWVNEKCNGNRKEFLGKHLIPDVDLSLEN

FNNFIEERKKIIIDKLKSILNKE

>AHK52749.1 Holliday junction resolvase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYKFYLKFYKKRLKSAFVFYFSKGMNLKILGIDPGSRNCGYAIIEADKGKNILIEAGLIKIKPSTLQYQI

TELCEGLDLIFKNHSFDEVAIEDIFFAYNPKTVLKLAQFRGALSLKILQIHGDFAEYTPLQVKKAVTGKA

KATKEQVAFMVKRLLGLSKDIKPLDITDAIAVALTHAANLRVRV

>AHK52748.1 flagellar hook protein FlgE [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMRSLWSGVSGLQAHQVAMDVEGNNISNVNTTGFKYSRADFGTMFSQTVKIATAPTDGRGGSNPLQIGLG

VSVSSTTRIHSQGSVQTTDKNTDVAINGDGFFMVSDDGGLTNYLTRSGDFKLDAYGNFVNNAGFVVQGWN

INWDDQTIDSSRTPQNIFIDPGMHIPAAKSTEVAIKANLNSGLNIGTSSRNLYALDSVHGWNTKTQRAED

ENDTGTTQFYTTSKNSVEVTEKGVDAGSLFNAKGQGLNLRDGQGIWVSYADATYSTNKVGVNAFDPNLQQ

NQTAAFWGTANQKVNLDITLNGVRIQNADIQSIDDAIAYINTFTAPTDTRDGTGVKAVKNKDGSGIDFVN

DNADGTTDNMKNINLVVANTNTAGELWNAVWNNNNQTFTFNNNGNGQAGTPTINKNGSSLWTATNITFTP

QPPQAATNVQLTGGLNAQIITAHKYIYSSNPVDIGPMYNPDGGPAFQPGANATTRPTEPGSAAYWDAVNG

GLLNTNVRTFRTTEDLRELLQRDARYGVDYDGSGTFAAADINQNIKVVVTADGHFAISNANEQSTVPPNA

INGVGNATTTDPKNMSFNITAYSNKQGTVSTNDAFTAIFKAFDGPLVIGNQIKESEQLKLSAFSAGLEIY

DSLGSKHTLEVQFVKQSTTQDGGNEWQMIIRVPEPAEINTTGEGPNNIIVGTARFNNDGSLASYTPRTIN

FSPNNGAAPNQQIKLSFGTSGSNDGLVSSNSASTLTGQATDGYTSGNLKPDAIRVDDKGNILGEFTNGKT

FAVAKIAMASVANNSGLEEIGGNLFKVTANSGNIVVGEAGTGGRGEMKTSALEMSNVDLSRSLTELIIIQ

RGYQANSKTISTSDQMLQTLIQLKQ

>AHK52747.1 7-cyano-7-deazaguanine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRYGEKEIKEFDVENMEIWPNDAKNDYIIKITLPEFMCCCPRSGYPDFATIYLEYMPDKFVVELKAIKLY

INTFMYRNVSHEASINEIYNTLKDKLKPKWIKVVGDFNPRGNVHTVIECRSDMVVPK

>AHK52746.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKKFLSIIAGIALFSSSAFAEEKSGFFIGADAAYVQTKVQGNLKHNQTGAVFNGDLSSSIPILGLKAGY

RFNDLHRLYLAYNYSDEFSDIIRTPKLKIESDFSTHKFLMGYDFTPKIFERVRAVAGGYLGYAKTNLDLK

TSLLSLSQKFDGFVYGVKIGAIFELGASNEIEAGFKVEKIEYNTRDFYQKAIGSNLYDPRQTNYGLYLGY

TYKF

>AHK52745.1 hypothetical protein N916\_08605 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKELLEIKKEMEPVIHEANVKLNVLAREVIVRKKEYEIYGPMVDRVYLDNAIYVKVMSSGRDVKTDNVT

IKNGFYMVFVAPEKESTKDIKNKLKVAYEGLDNKFIATLIRSCQRFKEIINKTQATLAKASKMNVVVKTN

LGEASAALKFNITIEYTKENQKLTRENSKSAGSFRDTKTYINLVVEKNTDSQICEKLLDDVEKYFIGGG

>AHK52744.1 2-isopropylmalate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKDNKIIIFDTTLRDGEQALGSSLGINQKLQIALALENLGVDVIEAGFPVSSQGDFKAVQKIASKVKNST

ICALSRALDKDIDMAYEALKVAKHFRIHTFIATSTLHMQDKLKKDFDEILSMAKRAIIRARSYTDDVEFS

CEDAGRTPIDNLCFMVENAIKAGAKTINIPDTVGYTLPSEFANIIKILFNKVPNIDKAIISVHCHNDLGM

ATGNSLSAILQGARQIECTINGLGERAGNCALEEVVMAIKTRKDYLKGFYTDIKCENIFKTSKLVSAITN

ESIPSHKAIVGSNAFSHSSGIHQDGVLKNRQTYEIISPSAIGIHENRMLMTARSGRAMIKTCLENLGYDE

NTYNLDDVYERFLRLADKKGQVYDYDLEALMFLSYESEEENEFVLEKLSVISGNIPTACVCMRIKEELKT

EACTGNGPVEAVFNCIARITNLKPALKAYSINAKSSGVDAQGQVDVDLEFKGRKFHGKGLSTDVIEASAQ

AFVSAYNAIYRSLKVEERKMA

>AHK52743.1 3-isopropylmalate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTYKVAVLAGDGIGPLVMKEALKILTFIAQKYNFSFEFNEAKIGGASIDAYGVALSDETLKLCEQSDAI

LFGSVGGPKWDNLPIDQRPERASLLPLRKHFNLFANLRPCKIYESLTHASPLKNEIIQKGVDILCVRELT

GGIYFGKQDLGKESAYDTEIYTKKEIERIARIAFESARIRKKKVHLIDKANVLASSILWREVVANVAKDY

QDINLEYMYVDNAAMQIVKNPSIFDVMLCSNLFGDILSDELAAINGSLGLLSSASLNDKGFGLYEPAGGS

APDIAHLNIANPIAQILSAALMLKYSFKEEQAAQDIENAISLALAQGKMTKDLNAKSYLNTDEMGDCILE

ILKENDNG

>AHK52742.1 3-isopropylmalate dehydratase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKTLYEKVFDAHVVYEGKNELPILYIDRHLIHEVTSPQAFSGLKMAKRRMARADLTLATIDHDVSTKSM

DLNACSDMAKEQITTLMQNTKEFGVRLLGLGDKNQGIVHIVGPELGFTLPGVTLVCGDSHTATHGAFGAL

AFGIGTSEVEHVMATQTLKQAKLKTMKIECKGQFQKGVYTKDLILYLIAQYGTAKGTGYAIEFCGELIRN

LSMEARMTLCNMAIEFGAKVGMIAPDEITFEYIKGKEFAPKGEEFQKYCEYWKSLRSDEGAKYDASITLD

VSKIKPQISYGTNPSQVIGIDEKIPKISDFKNQSEQKSLLDALYYVNLEQDQVIEGVKIDIVFIGSCTNG

RLEDLKIAADILKGRKIHKNVKALIVPGSMQVRKEAENLGLDKIFIEAGCEWRYAGCSMCLGMNDDKANS

GQRVASTSNRNFVGRQGKGSITHLMSPASAAACAIEGVICDNRKYLGV

>AHK52741.1 isopropylmalate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKFIIHKGIACPLEYANIDTDQIIPKQFLLAVSKQGFGKHLFHDLRYLDDKESVLNMDFNLNKKEYQNS

SILVSFENFGSGSSREHAPWALVDYGIRAIIAPSFADIFKNNALGNGLLTIELAKDEVLEIVDELKKSQD

KNIEISLLEKRVFFKDKIFSFDLDDFHRICLLEGLDNIALTLKHEAQIKAYEKNSKSFLV

>AHK52740.1 50S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKELVNILDFLPEELGEKIKPMFRVKQIYQWIYQKYANNFSDMSSLPKDLRLELARNFHFSPVKCVKNEQ

SKDGSIKYLFELIDGLRVESVLLPMKEEKIDAEGKRISHARYTICVSSQVGCKSGCSFCLTAKGGLKRNL

SAGEIVGQILWIKKQNNIPYERRVNIVYMGMGEPLDNLKNVSKAVKILAQNEGLAISPRRQTISTSGLAK

QIKELGQMNLGVLLAISLHAVNDELRTELMPINKAYNIAAIMDAVREFPIDQRKRVMFEYLLIDGINDKL

EHAKELVKLLNGIKAKVNLILFNPHEGSLYKRPSLENAIKFQDLLSNKGVTCTIRESKGLDISAACGQLK

ERAKEQ

>AHK52739.1 purine nucleoside phosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIICAGGNENFSFAKAIGIGLVESAFHLSQLCFKEKPSKLIFIGTCGLYDKGEILEIYRSSHAFNVEFSK

ISHAFYTPAKYEICLEKENVSRETIKINSSNYICQNSKAAKEFSKLGFFAENMEAFSVLSVAKNLNIDAE

CILCATNFCNENAHEDFIKNHQKAKENLEEYLKKYHYI

>AHK52738.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVKAKKQYGQNFLIDKSVLAKIIQAIPKEMNNIIEIGPGLGDLTQELLKISQVKAYEIDNDLIPILKKKF

QKELECGKFNLIHQDASEAFNPSLDEKPYFLVANLPYYVASHIILKALEDKNCLGLIVMAQREMAEKFCA

KEGNSEFSSLGVLSAMICERKILFDVDPQCFNPPPKVMSAVMSLIKTKDFDELCEIENFKNFLKDCFKAP

RKQLLGNLKTYKAKVLEVLSTLGLKENIRPHEICVDLYLKIYDKLKDEYGRKQRDK

>AHK52737.1 ribonuclease J [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDENKEINKNEQNPNSNSKNNKRYKYKNRRKKLADSLQNENDTPKIDQNSNKENSENSENKTEKKKKKNR

NLPSKLTGNEDWQIALAECIEANRISHENRLHPLKYNNSSEHKIRITPLGGLGEIGGNISVFETNKDAII

VDIGMSFPDGTMHGVDIIIPDFDYVRKIKDKIRGIVITHAHEDHIGAVPYFFKEFQFPIYATPLALGMIS

NKFEEHGLKAERKWFRPVEKRRVYEIGEFDIEWIHITHSIIDASALAIKTKAGTIIHTGDFKIDQTPIDG

YPTDLGRLAHYGEEGVLCLLSDSTNSYKEGYTKSESSVGPTFDQIFARTKGRVIMSTFSSNIHRVYQAIT

YGLKYGRKVCVIGRSMERNLYTTMELGYIKLDRKIFIDADEVSKYKDNEVLIVTTGSQGETMSALYRMAT

DEHKFIKIKPTDQVIISAKAIPGNEASVSAVLDYLLKAGAKVAYQEFSEIHVSGHASIEEQKLMLTLTKP

KFFLPVHGEYNHITKHKETAMKCGIPERNIYLMSDGDQVELCQKYVKRIKTVKTGKVFVDNQINKQIADD

VVIDRQKLADSGIVVIIAQIDKATKTLINKPRVFSYGLVADKHDHAFSKDMAEVLGQFFINVKDEVLNDP

RFLENQIRQVLRKHIFRKIKKYPTIVPTIFVM

>AHK52736.1 ribosomal large subunit pseudouridine synthase B [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRINKFISHNTRYSRREADELIKQGLVKINNKIALLSDEVKFDDKVFVKGKRVQKRTQFSVIIYHKQKGE

IVSKKDDRGRKTIYDTLPRQFSTWLSVGRLDYASEGLLLLTDSPVIADALMHSDLEREYYLKVKGTVSKQ

VIEAMQNGLEIKNEKKGAHAKTKITSMSFAPFIDFEIFGSSGGYTKLRVVINEGKNRELRRFFGHFDLEV

MDLKRVAFGALDLGMLKAGKHRYLENGEYEKLRDFLKFNEIRY

>AHK52735.1 30S ribosomal protein S10 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MERIRLKLKAYDHRVLDRTVAAIVEAVKRTGADIRGPIPMPTKIKRYTVLKSPHINKDSREQFEIRIHAR

MLDIVAATPDTVDSLTKLDLAPEVSVEVRAMGK

>AHK52734.1 50S ribosomal protein L3 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEYIVEKIGMSRTITNPSIAVTLLRVVNAKVCEVEGGKALVAYPKGKASNKCVAGQQKKYNLSAEYNRFA

TLEVANTEAGDLDETPLNEAKILKVSFNTKGRGYSGVMKRHNFAGGPASHGSRFHRRHGSIGNREWPGRV

QPGMKMAGHYGNTKVTIKNEVVSYDAENKILVVKGAVPGYNGAMGKIRIAK

>AHK52733.1 50S ribosomal protein L4 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKVVVLNDKLEKAGELDLPSKYAEVNPHNLYLYVKSYLASLRANTAHTKGRSDVSGGGKKPWRQKGRGG

ARAGSTRTNVWVGGAVAFGPTNERNYFQKVNKKQKRLALERALADKAAKGVLFTADSLAIESGKTKDANA

VIKKLGVKDALIVKDLLDEKTLLAYRNLANCYVVDVTEVNAYLVSVFNAVIMEKSVLESITKEG

>AHK52732.1 50S ribosomal protein L23 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MADITDIKTILYTEKSLNLQEQGVVVIQTSPKMTKTGLKAVLKEYFGVTPKSINSLRMDGKIKRFRGRLG

QRNNYKKFYVKLPEGVSLENTEA

>AHK52731.1 50S ribosomal protein L2 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAIKTYKPYTPSRRYITGLSSEDITAKPSVRSLLVKLPAHAGRNSYGRITSRHKEAGAKKLYRIIDFKRR

KFGIEGKVEAIEYDPYRNCRIALIAYKDGEKRYILQPRGLSVGDIVAAAESGLDIKPGNAMKLKNIPVGT

IVHNVELKPGKGGQMIRSAGAYAQLMGKEEKYVILRLASGEMRQVLAECMASIGEVGNEEWANVTIGKAG

RNRHRGIRPQTRGSAMNPVDHPHGGGEGKKNSGRHPVTPWGKPTKGAKTRRKKASDKLIISRRKGK

>AHK52730.1 30S ribosomal protein S19 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MARSLKKGPFVDDHVMKKVIAAKKANDNKPIKTWSRRSTITPDMIGLTFNVHNGKSFIPVYITENHIGYK

LGEFAPTRTFKGHKGSVQKKIGK

>AHK52729.1 50S ribosomal protein L22 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKALIKFIRLSPTKARLIAREVQGMNAELAMASLKFMPNKGAKYIANAISSAVANGGFEANEVIVKSCR

VDAAAVLKRFRPRARGSASRIRKPTSHILVEVAKAEVKSEEKKTVAKKTTTTKAPAKKTTSTKKATVKKE

S

>AHK52728.1 30S ribosomal protein S3 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGQKVNPIGLRLGINRNWESRWFPTKANLVENIGEDYKIRAFLKRKLYYAGISQILVERTAKKLRVTVVA

ARPGIIIGKKGSDVDNLRKELQDLIGKDVNINIKEERKAGASAQLAAESVATQLEKRIAFRRAMKKVIQG

AQKAGAKGIKVSVSGRLGGAEMARTEWYLEGRVPLHTLRAKIDYGFAEARTTYGNIGVKVWIFKGEVLHK

GMQPEKTEESAPAKKPRRTRRGK

>AHK52727.1 50S ribosomal protein L16 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLMPKRTKYRKMMKGRNRGYANRGTEFTFGEFALKATEAGRINSRQIEAARIALTRFVKRQGKTWIRVFP

DKPLTKKPLETRMGKGKGAVEEWVMNIKPGRIIYEMAGVSEEMAREALTLAMHKLPFKTKFVTRESQNEI

Y

>AHK52726.1 30S ribosomal protein S17 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAFKREIQGVVVKIAGEKTASVLVERKVVHPRYRKIVKRFKKYLIHDERNEVKVGDTVVAVECRPLSKRK

SFRLKSVLATGVE

>AHK52725.1 50S ribosomal protein L14 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIQSFTRLAVADNSGAKELMCIKVLGGSKRRYATVGDVIVASVKKALPNGKVKKGQVVKAVIVRTKKEIH

RDNGSLIRFDENAAVILDNKREPIGTRIFGPVGREVRYGGFMKIVSLAPEVL

>AHK52724.1 50S ribosomal protein L24 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAVKLKIKKGDSVKVITGDDKGKTGKVLAVYPKTLKVVVEGCKIAKKAIKPSEKNPNGGFINKEMPMDIS

NVAKVQE

>AHK52723.1 50S ribosomal protein L5 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMRLKEKYNQSIKPALVKEFDIKNPMLIPVIEKVVISVGAGELAKDQKVLQNVADTISLIAGQKAVITKA

KKSVAGFKVREGFPVGVMVTLRKENMYAFLDKLISIALPRVKDFRGLSRDGFDGRGNYNFGLDEQLMFPE

VEYDKILRTHGMNISIVTTAQNDKQAQKLLELIGVPFTKGK

>AHK52722.1 30S ribosomal protein S14 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKKSMIAKAARKPKFKVRAYTRCQICGRPHSVYRDFGICRVCLRKMGNEGLIPGLKKASW

>AHK52721.1 30S ribosomal protein S8 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINDIISDSLTRIRNAGMRKLETTKLLHSKVVEALVGIFQAKGYIESFNVIEEDKKKFINVVLKYDEKGK

SVINELKRISKPGRRVYKGKDEIKRFKNGYGTIVVSTSHGVLANDEAYKAGVGGEILCTIW

>AHK52720.1 50S ribosomal protein L6 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSRIGKQPIAIPAGVEVKLEGNLLKFKKGNLAKELDTKANVNVEIKDNNILFSPKGEDRQSRAYWGTYRA

LAYNIVVGLTQGFSKTLEINGVGYKAALKGKVLELSLGFSHPINYDIPEGIEIVVDKNTIAVKGSDKQVV

GQVAAQIREFRPPEPYKGKGVKYSDERIIRKAGKTSKK

>AHK52719.1 50S ribosomal protein L18 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRANVLKRKLTLRIKRKKRIRAKISGCENFPRISVFKSNRTLYIQAIDDVKAVTLAAVDGRKLGVKANKE

GAKKIAAEFAKTLKVKKIEQAVFDRNGYVYHGVIAALAESLRENGIRL

>AHK52718.1 30S ribosomal protein S5 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKYNREEFEEVIVDIGRVTKVVKGGRRFRFTALVIVGNRKGLVGVGYGKAKEVPDAIRKAVDDAFKNIV

EVKTKGSTIAHDVEVKYNASRILLKPASEGTGVIAGGSTRPIVELAGIKDILTKSLGSNNSANVVRATIK

ALTMLKG

>AHK52717.1 50S ribosomal protein L15 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLTKAAGSTHKTKRIGRGQGSGMGKTATKGGKGQTARKGYNEKRGFEGGQQPLQRRLPKVGFTSKIQKP

YVINVEKITAVKELSEITFESIKSVHKISKSVNKIKLIGASAKDLVSKIKDENISVTGSK

>AHK52716.1 preprotein translocase subunit SecY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNRALTNKILITLAFLFAYRVLAYVPVPGVNADVIAEFFNNNQNNALGLFNVFSGGAAERFSIISLGIMP

YITASIIMELLAATFPNIGKMKKERDSMQKYMQIIRYATIVITLVQSIGVAIGLQSLHGRGGAGAIMVED

LNMFIALCAISMLAGTMLLMWLGEQITQRGIGNGISLIIFAGIVSGIPRAISGTVGQINSGEMNFLTAFA

IFALILITIGVIIYIELGERRIPISYSRKVVMQNQNKRIMNYIPIKLNLSGVIPPIFASAILMFPTTILQ

TSTNPYLQAINDFLNPNGYLFHVLTFLFVIFFAYFYASIVFNAKDIAENLKKQGGFIPGIRPGEGTSSYL

NEVASRLTLSGSIYLGLVATLPWVLVKFMGVPFHFGGTSVLIVVQVALDTMRKIEAQIYMSKYQTLSAVG

L

>AHK52715.1 multidrug DMT transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNDKTYKFHPNDTKMDKKIIQITEKSGFKAAVFSMAAMTMLGSVVISSALPAINRHFEELLTQSGATLAS

SFTLAHLDILVRLVLTIPAIFVVILSPFAGILMDKFGKLKFILPAMVVWTLSGISGFFLNDIYAILTSRA

IFGMATAFIMTGASALLGDYYSRGGFNRRENALSLQGFFCAVGGAVFISIAGFVSSYSWRYPFLVYGLGI

LITLMAIIYLFEPRKFKFYNHTKIETKTNYWQFFPIYFIGFFIMVVYYISPTQLPYYIEEHLGLDPKYIG

ISMSVSALCYGFFSLSYRYIIKFLSIKTIYVLTLFIVSCSFLLLFLVDSFFTVLIALALLGMGGGIMLVN

NTAYLFSICPENARSRAYGILASCIFLGQFLSPIISQPIVRQMGLVDAFLIWSIVIFIVCIVFLFLKQKP

RIN

>AHK52714.1 DNA topoisomerase I [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKNLIIVESPAKAKTIGNFLGKDYEVIASKGHIRDLPKSSFGIKIEDDEFIPEYRITSDHSALVKELKS

KAKDAKEVYLATDEDREGEAIAYHIAKAIGKDENTLPRIVFHEITKSAIENALKNPRKLNMHSVNAQQTR

RLLDRIVGYKLSPLLGQKIQRGLSAGRVQSAALKIIVDREKEIRAFVPLEYFSIDMIFQKDLDAELVEFD

KAKIEKLTITNKDRAKLILEACKNEVYSISDIESKERKIAPPPPFMTSTLQQSASNRLGFNPKKTMMIAQ

KLYEGVNTHEGVMGVITYMRTDSLNLAKEAVENARKFIQANFGKDYLPSKANVYTTKTKGAQEAHEAIRP

TNLSFTPEIAAKFLDKDELKLYTLIYNRFLACQMSPAISQTQNVFVKNDRVVFKISGRKILFDGYYKVYG

DMDKDKILPNFKIGQNLKVQNLEMNSHFTEPPSRYSEAGLVKKLESLGIGRPSTYAPTISILTSRDYVTI

DKKQLIPSDVAFNVTEVLEKNFSDIVDSKFTSNLENTLDEIAEDKADWQETLKEFYYPFMRKIEEGKTKI

ASQKTVTKLGESCPDCGGELAIRKGRFGEFVACLNFPKCKYSRNLKSESKNESENTAAKAKANGTGITCP

SCQKGEIVERFSKRGKFYGCSAYPKCNFISKYKPSEEKCEECGETLVIKELKKGTFLECLKCKIKKEMKD

>AHK52713.1 biotin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIMLCAISNIASGNCSEDCKYCTQSAHVKTDIQKYRRKELSQIVLEAKMAKKNEALGFCLVTAGLGLDD

EKLEYVCEAAKAVQKEVPNLLLIACNGMASVEQLKELKKAGIFSYNHNLESSKEFFPQICTTHTWESRFQ

TNLNAKEAGLMLCCGGIYGMGESEEDRLSFRKSLQELQPFSTPINFFIANENLKLQVPRLSADEALKIVR

DTKEALPQSVVMVAGGREVVLRERQYEIFQAGAGAIVIGDYLTTKGEEPSQDIIKLKEMGFTFASECH

>AHK52712.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHQSVIDTQALIDLKILIVIALCLLFSPHIAKILRLPLSATEIILGAIIAHFGFIGKSENFALLANVGFY

YLMFIAGMEVNLRAFFNMDKEIAKKSFFYIFLLYALSSFIVWIFGLSLVFVIIIPVMSVGLLSLLFKDFG

KECYWLNIAMIVATLAEVISIVLLTIAGAFLREGTGIIDVAQSILYLNIFLGLCLLGFKMLGVLFWWYPQ

LKVVLMPWEDKNEKDIRFCMAIFILIIVAMVITKLEIVLGSFIAGSFIATFFDHKKDLEHKLSTFGHGFL

IPIFFIHIGSTFDLKMILDYKIVLQAFLLMFVMVGLRILCASVFLKRIGFKNMILFGLSHSMPLTLLIAT

ATLGYSGKVIDEKLYSALILTALFEAIIVMSMIKFLSNSKK

>AHK52711.1 type II citrate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSNSVTITDNRNGKSYEFPIYDGTTGPSVVDMSSFYKQTGMFSYDEGLTSTATCKSKITYIDGENGILMH

RGYPIEWLAENKLYLDVVHLLLYKELPDATRLEAFRYEMKKRSFIHEGMHRLFDSFPDNAHPMAVLQGAV

SSLSAFYPDHLNMNVKEEYMEMAARIVAKIPTIVATAYRYKHGFPMAYPNLDRGFTENFLYMLRTYPYDH

VELKPIEVKALDTVFMLHADHEQNASTSTVRAVGSTHAHPYACIAAGIGALWGHAHGGANEGVIRMLEQI

GSVDRVDEFIKRAKDKNDPFRLMGFGHRVYKNFDPRAKVLKKLRDQLIDELGIDTNLIKVATRIEEIALS

DDYFVQRGLYPNVDFHSGLILKALGIPNEMFATLFVIGRTPGWIAQWIEQKEQESLKIVRPRQLYLGETS

KI

>AHK52710.1 CysQ protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNLDKFLEIAINASNQASKAILEERKNFKTWEKEDKSPLTSADLASNKILNDILGSTDIKILSEEKLLS

KEECEELKTFWLIDPLDGTSGFLKGSDEFCVMISLVHDNRPVLSLIQNPSKGDIFYAHAKTKVYKNDKPL

QIDQQEYEKNKYKALLSVNHLSKEDEDFAKEHQLEAINIGSGLKFCAILEARAGVYKRFEKLNIWDIVAG

DFLINQNGGFMGDFSKKYILYNPLSYKSNPFICVSSRNFLQDFL

>AHK52709.1 hypothetical protein N916\_08385 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRYCFILFLSLVLSSNLLANNFSQKKVIKIEKSADSFEVIDLNQNVANPNLNQQKALFDSSTLIEKKSQI

TKDKDIDFAIVLTSRKNFGYFLDGFRVSDKEFSTLFAKNLIQSLKLNWVNSAANGIYQSPKTLSYFSPKD

AKLINVSPFLTQEKDKAKMYAKFTDYVVVVNLQDFYVNITNYFITTSKEGVANVNFKIISTSNGKILVAK

NAELNLTLKDQDAKQNYQDIINQMPKMLADVIKNQIFHLKLLN

>AHK52708.1 UDP-N-acetylenolpyruvoylglucosamine reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIIDFKKYSSVRIGNEFEVLVLDQICDFDGFLIGGANNLLVSPKPKNIGILGDGFNFIQILDRNKDFIHL

RIGCKTKSSKMYRFAKENNLKGFEYLSKIPGTLGGLLKMNAGLKGECISQNLIKIATSQGEILRANINFD

YRFCPLNTHFFWAEFKLNFGFDTLKDEALKNARSNQPSGASFGSIFKNPKNDFAGRLIEAVGLKGFSKGD

AMLSDKHANFLINKKNASFEDAFFLIELARKKVFEEFGTNLENEVIII

>AHK52707.1 flagellar biosynthesis protein FliQ [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDESTLVALGVQTFKITLLLSLPMLLAGLIAGLVISIFQATTQINEMTLSFVPKIILVVVILIFLMPWMT

TTMIDFTENILNQIPTFIK

>AHK52706.1 succinyl-CoA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKITIAHSPDADDIFMYMAIKFGWIGNDFAYENTALDIQTLNEFALKNEFDATAISFGLYPLIASEYAL

LRTAVSFGEGYGPKLIKKKDTHLKRNFKVALSGANTTNALIFRMKYPEARIIYKNFLDIENAVLSGEVDA

GVLIHESILNFDQSLYVEAELWDIWLEFAKENLPLPLGGMALRRSLPLSDAIKIERDLTNAVKIADANRK

ILAPMLMERKLIRVDEEKLDTYLNLYANKNSISMNQTQLLAVDTLFKLGYDYKFYDKIIHVNDFLIPSEY

EEARNS

>AHK52705.1 recombinase RecA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDDNKRKSLDAALKSLDKTFGKGTILRLGDKEVEQIDSIGTGSVGLDLALGIGGVPKGRIIEIYGPESSG

KTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDLI

VVDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTT

GGNALKFYASVRLDVRKVATLKQNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVK

LDIVDKSGAWFSYKDKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMISGSEDDEGEE

>AHK52704.1 enolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLVIEDVRAYEVLDSRGNPTVKAEVTLSDGSVGAAIVPSGASTGSKEALELRDNDERFGGKGVLKAVANV

NETIADEILGLDAFNQTQLDDTLRELDGTNNYSNLGANATLGVSMATARAAAAALGMPLYRYLGGANASI

LPVPMCNIINGGAHANNNVDFQEFMIMPFGFTSFKEALRSVCEIYAILKKELANSGHSTALGDEGGFAPN

LANNTEPIDLLMTCIKKAGYENRVKIALDVASTEFFKDGKYHMEGKAFSSEALIERYVELCAKYPICSIE

DGLAENDFEGWIKLTEKLGNKIQLVGDDLFVTNEDILREGIIKKMANAVLIKPNQIGTITQTMRTVRLAQ

RNNYKCVMSHRSGESEDAFIADFAVALNTGQIKTGALARGERTAKYNRLLEIEFESDEYLGEKL

>AHK52703.1 hypothetical protein N916\_08340 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIFWAFLVVIGAIYFGNMFFGQYSLDTLLSLENTKEELNKKIILLKEQNAKAQKDYFELKGLYPNEN

>AHK52702.1 hypothetical protein N916\_08335 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTRILAIFFIFTSLLYADENPFKTDQNITLVAPPEFQKEEVKFNSSARILKSITFNYINLDGSEDKIDL

DVNKSIDWHDTYTISRFKSPDPSKVLDVSVTIPEKNSSKQESNSTANVEIPLQVAKIYDFISYAVYKNKI

KLNTSDEMITDFSVGNPSKIVIDFRSKMISPTKNIRLSNSIFKRIDFGSHKGYYRLVIYLDGTYNYNIQK

DATGYMINLL

>AHK52701.1 DNA ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRFVFLICCACLVFANEILLLSKFDKQDFNSKDFNAYLMSEKLDGVRGIWDGKYLKTRQNYKIKTPDFFT

KNFPPFAIDGELWIARNKFDEISALIRSGDSNLTLWKEVTYNIFDVPNACEEFQISTCTLKNRLAVLEEY

LQKYPSAYIKIISQIPVENQNNLNQFYESIIKNQGEGIVIRKNLSPYEKGRSKNATKLKPYDDAECELVG

FRKGKGKFENQVGALLCKMPNGQIIKIGSGLKDEDRKNPPKIGSIVTYKFNGLTKNSLPRFPVFLRIRDE

NP

>AHK52700.1 hypothetical protein N916\_08295 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKTILTILFLLTLTQAKEIQIYESPTCGCCDLWADYMKAKGYEVSVHKTNDFLKIKEKMGIKDEYQSCH

TGVIEGYAIEGHVPESAIAWLLENKPKDVIGISAPGMPQGSPGMEQGYSEKYPVILMKKDGSYELYGYFI

GDKKL

>AHK52699.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGIFRIQAYFFALIIALFFVACDSGENFKALNSDKTYNFAYNGFEKSLKLNDKAQNFALVFFTKDCGVCK

EQIPILQNLAKNYDFNIFVVLGDANDANDAKAWADEKGLSNLAMFYEKRAAKYLSSAIGEIYGVPVLSFF

KEGKMDEKFIGLTPYSILEKEIKKVKS

>AHK52698.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKSLLILSILFLLNACSFENSKDTGKVGEKSAEISAKDTLGKAVKLADDNTSLKVLVFFQNGCPSCLKE

LPSLDEFIQNHPNKISVYAINSIDNANVVKVLAEQFDFKNVKVLKDDLKITNDRYAVFATPTTIIIKDGM

IKDRILGEKPWEFFESKLISLL

>AHK52697.1 GTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKELIKINNLNKEFGKVKALNNINLSVYEGEWLAIMGPSGSGKSTLLNILSLMDTPSSGEYILDNENLE

QMDEEQKITLRREKIGLVFQQFHLIPYLNALENVMLSQYYHSSVDEEDAKMVLEKVGLSHRLTHLPSQLS

GGEQQRVCIARALINNPELLLADEPTGNLDEANEQIVLQTLQKLKNEGKTIVLITHNPDLAKFADRTLIL

QHGVLK

>AHK52696.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVDKFFLNELFKSISFSYQRLFIIVLSVFIGALTCSAFLNIYFDIDIKLSKELKAYGANVMISPKQDENF

ISNTEYEKIKENLKARALTPFLYDFLNLGSTSGVVLGTDFRALKITKPFLEVKEGSFSLNDFDENSAFLG

VNLAKQLGLKAGNELQIYNPNNGKSIKLTIKGILSSNDEFDSIVLAPLSVVQNLSDRAGINYANAVVYGN

FDEVKAKTQAISNEFIDAKPISSVSLSEGLVLGKIKALMFLIILVVLIIVTTSVNTTLSSIIFSRKKEIA

LRLALGAKKSEIFKLFASECFIVSFFASLIGAFCGIFLANVFGYLIFNSSIDFRFIAVFIALIISLIFAF

LAAFFPIKRALKINVCENLKGE

>AHK52695.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLAKMIFNSIFKNKIQKFLAFLTCFLATLLLSTMLNITLSIGDEVTKQLKSYGSNILVLPKGSSLSIEIG

NELYEPLKNKNYLEEKNLYMIKDIYWRNNITALAPFLEGKITIENSQQKALIYGAYFQKAIKIKDDDDFI

TGIKSLYPYLAVQGEWAKDDSNEIMLGEDFAKNNKLKLGDTIKFIGENNQSKEAKIVGILLHANPKMSNK

IIAPLNLAQDLLNKQGLYSSTEVRAFTIPESALSEKVRRMGEEKLDQLEYDKWYCSAYVGSIASQISDGL

PGADAKALNAISDAQSLVVKKIQSLMGITCIICLIVASIAISSLMSSEIHRRKKEIGLLKVLGANTFQIY

LIFASENLIVALFAALLGFIFGTALSQIISLSIFGYFIDIAFVALPLSFIFAGLIALLGCLLPIKNITQL

SAAGVLYGR

>AHK52694.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSIYFVHFLISVLPLSILMAFITPNKKYIFKSFFVVFLGFLFGYFAFFIAAQFLKTENLIFNFDFVFIGL

LLVSFIFYFWKKIEILNFILLGILSFCTALHYYFLSQDFPIFTSSLIDSEGISSLGFIALALLVCILIFF

FLKWQKNFNQKTSFMLFLLLILIESDKALANILLTLMRNSIIETHAFLVSFVGKSNYFGVFGIYVYLIFI

TFLAFLSLKIRKKNISKKQILDINYRKNEAKTSLINRYFSSVFISCVVSFCIVLYFFMVSSKPLTIDEPK

EILPDKNGKFIFDIALLRDNKLHRFAYISAEGKVIRFFLINKREDKDSPVAVFDACMICGDMGYIKKDGQ

LICISCNVRIFLPSVGKSGGCNPIPLKYEYDGNKITIDVKDVIAGSNYFSQIKEIEVQDPVSKTKVINTQ

APFSYSYKGVTYYFSNQNNYEEFKKDPTKYVEENEAQFLIQRRNDVG

>AHK52693.1 iron transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKKVLSVVAAAAVISTNLFAGEVPIGDPKELNGMEIAAVYLQPIEMEPRGIDLAASLADIHLEADIHAL

KNNPNGFPEGFWMPYLTIAYELKNTDTGAIKRGTLMPMVADDGPHYGANIAMEKDKKGGFGVGNYELTFY

ISNPEKQGFGRHVDEETGVGKWFEPFKVDYKFKYTGTPK

>AHK52692.1 iron permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIFKIIFLIISIFLSSSAFARVDDYINEANLIKDMLKQSIETYKKGDNLGAKKLSEDAYFQHFENMEGS

IGRNIGRKAITMERKFVNLRRMYKDEAPLTQINALIDSLYYDLDEVAPILQNGYRLKAEASDINYDKAKA

EKSSLEANAKREADAEALIAQMMGVDKKDLAQSSLTTQAPIPINNDTSKLTDDNASTDLQAAAAMDVRLQ

FILDNISTKFSQAANAFKEKNYQTSKDFLNDALFSDYRNTKVEILVNKFTKAGNDQKIQQAIRTLIRQIN

DAKIDEKGLRDGLDNIEEQIFDVFLQIPNSELSSLQISGFNDETKGKDYAKVSNDIKLALDEILKNYDGF

SASIVDDLQGIYLDIFEASGMENKIGAVDSGLKLKIESLFSKSVALIKASTDKKELEATFNDLEQLIASS

VDKIQDSTPYSLFIWALGIILREGLEALIIVVAIVSYLVQSGNKNRLNIAYSALFTGVILSFVTAFGVSW

LFKENAGQSRELIEGITMLIAVLLLFYVGFWLLSNAQNKKWTSFIKQGAIDAISNNSAKTLWITVFLAVY

REGAETVLFYQALLFDAKTSTDFGAVFGGLGLGILILIVLYFLLKAGAIRIPVKQFFYITSYIIFYMVFV

FTGKGIAELIEGKVIIPSLIPMNFEPILWLGIYPYYETLIPQFIVLIMLIIGILITKQISKKGVKS

>AHK52691.1 hypothetical protein N916\_08245 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVSDVSMGNVNLMTAVNTSVLKKSMDTNEALMNELIEGMEGVSQASAPQASSSSGLDIYA

>AHK52690.1 hypothetical protein N916\_08230 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRHIFFIITIIFFISGCSFYQNLNYRPSYNTNKEARLKVIANEWKKTPYVLGGTSKKGADCSGFTQSALA

QLNIRIPRTTKTQLGSGRKVSKSKLQTGDLVFFKTGRGPNGMHVGIYMSKGKFIHLSTKDGVKEVELNSS

YWKARYIGARRY

>AHK52689.1 glutamate racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIGVFDSGVGGLSVLKSLYEARLFDEIIYYGDTARVPYGVKDKDTIIKFCLEALDFFEQFQIDMLIIAC

NTASAYALDALRAKAHFPVYGVIDAGVEATIKALHDKNKEILVIATKATIKSEEYQKRLLSQGYTNINAL

ATGLFVPMVEEGIFEGDFLQSAMEYYFKNITTPDALILACTHFPLLGRSLSKYFGDKTKLIHSGDAIVEF

LKERENIDLKNHKAKLHFYASSDVESLKNTAKIWLNLLRK

>AHK52688.1 methionine aminopeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIELKKPDEIEKLRIANQIVAKTLNFLENEIKIGMSLKQIDKMAEDYILSLGAKPSFKGLYGFPGAICTS

LNQVCIHGIPDDKIIKEGDILGLDVGSLIDGYYGDAARTIAIGEVSPADKALISCAKDALYHAIDIIRDG

MRFKELSAALGEFIHVRGFVPLRGYCGHGIGRKPHGEPEILNYLEKGASAKSGPKIKNGMVFCIEPMICQ

KDGTPKHYNGKWDAGSIDGLNAAHYEHCVAVINGRAEILSMI

>AHK52687.1 hypothetical protein N916\_08215 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKSDLDIFKKHLGEIQGVNEFKANQICSQINDANDFIGALQVLDMSLKKIEKSILERIDENSDDMQKRTL

DATASQLIQNCSFMGTALFGNIFNVYVGKKLFEFEIANPLLILQTSNYEGVLAYIQDKRDEIKIILSELS

TAITMGETMDNAGIYNSTMDFKNLFK

>AHK52686.1 hypothetical protein N916\_08210 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKQLFCILTFIFMLCGCSLRHETINKNENIILKDEGIDSNIFFKKTGKILKIRNANAPLYLNSRAIVYI

DNGFSNKYAHYFWGDLPSNLYSFLILSKFEQSNIFTTLLSSTSSLSADYSLESRINSFEQILNNNENYAQ

ISISVNFINLENNQIIAHKIFNTKEKIEKKDIRSTYNAFQKALNKIGNEIVFWVNSNLS

>AHK52685.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENRANYFFVGLFVFGVFFASLGFILWLGGYSKEESFKYYEIHTQESVAGLGIKAPVRLLGVEVGSVEEI

SIYNQDELGVNIRIKVKNNTPIKEDTFATLQLQGITGLKFIQLQGGSKNSKDLVSMQGKLPVIPFKESFL

ATIDRQSEHIFSLVKTADDKSKELLSEKNLKNLEILLQNLAELSANLNANSKNLSLNLSNASLKIGKMAD

NISLSAQNFNSSLKNIKESTMILKNFIKKADEKLNTYDDIKASLMQNLELFKRVLIESNILIENLQNSPA

DLIFKETKPKLGPGEK

>AHK52684.1 phosphate ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVIKAQNIITKFGEKIVHDGVSFEIKKNEIFGILGGSGSGKSVLLKQMLMLEHFDDGEYEILGYKLKNIN

EEDALALRKKWGVVFQFAALFSFFNVYENIAIPLKEYTHLDENSIQELVLMKLKMVGLNESVLKQFPSEL

SGGMQKRVAIARALALDSKLLFLDEPTSGLDPHSSREFDDLVLELKKSFDLNIILVTHDKESMKNLLDRF

IILENKKVGFCGTYEELRLQNERLFKRFME

>AHK52683.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNTNFKFQNNTLFIFGIWDKTSIYKLKIKDFLALIQSKEVIFDFKDLKAIDTAGVRFFLALENDLKNKNI

KITKEGLNSRFQTLFELCEKNYQRLGKTKKSHQNFSEYFIDLGKLSLELLKILRKFINFTGAFFTSLFLC

LKNPKNFRFIAFLYHIENSAFKALPIVILTALLVGVVLAYQAAYQLAQFGANIFIVDLMGISATRELAPL

IAAIVIAGRSASSYTAQIGVMKITDEIAAMNTMGFRSFEFIVIPRVMALVVAMPLIVAISDAISIIGGMM

VAKLNLDISFAEFLRRFREAVDIKHIFIGLAKAPIFGFLIGLIACFRGFEVKNTTQSIGIYTTKSVVNAI

FWVIAFDALFSVILTSTGI

>AHK52682.1 transketolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNIQILQEQANTLRFLSADMVQKANSGHPGAPLGLADILSVLSYHLKHNPKNPTWLNRDRLVFSGGHASA

LLYSFLHLSGYDLSLEDLKNFRQLHSKTPGHPEISTLGVEIATGPLGQGVANAVGFAMAAKKAQNLLGSD

LIDHKIYCLCGDGDLQEGISYEACSLAGLHKLDNFILIYDSNNISIEGDVGLAFNENVKMRFEAQGFEVL

SINGHDYEEINKALEQAKKSTKPCLIIAKTTIAKGAGELEGSHKSHGAPLGEEVIKKAKEQAGFDPNISF

HIPQASKIRFESAVELGDLEEAKWKDKLEKSAKKELLERLLNPDFNKIAYPDFKGKDLATRDSNGEILNV

LAKNLEGFLGGSADLGPSNKTELHSMGDFVEGKNIHFGIREHAMAAINNAFARYGIFLPFSATFFIFSEY

LKPAARIAALMKIKHFFIFTHDSIGVGEDGPTHQPIEQLSTFRAMPNFLTFRPADGVENVKAWQIALNAD

IPSAFVLSRQKLKALNEPVFGDVKNGAYLLKESKEAKFTLLASGSEVWLCLESANELEKQGFACNVVSMP

CFELFEKQDKAYQERLLKGEVIGVEAAHSNELYKFCHKVYGIESFGESGKDKDVFERFGFSVSKLVNFIL

SK

>AHK52681.1 geranyltranstransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLKELFIHHLEKNLPKVESFHPFFNEALALMLKAGGKHFRAQLLLSVVQSNKPELLNQALDVALALEFI

HTYSLIHDDLPAMDNADFRRGIPTLHKSYDETTAILVGDALNTEAFLVLSHAHLKDEIKIKLIKTLAFNA

GLNGMVIGQAIDCFFEDKRLSLNELEFLHTHKTARLIAAALKMGCEICELNNEESNQIYKLGLKLGLIFQ

INDDIIDVTTSQEQSGKPTNNDIHKNSFVNLLGLEQAIKTKENLLSECEQDLEKLNEKLAQMIQNLIIQY

L

>AHK52680.1 peptide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILIICMLFTLSFGIERPKFEDFLAGYERNKASMLNYEGMPAFALSENLLAVLKQPNAKLNKYVKYDP

FLNLYLVRTDFSLIPTPMGDEEKLTRNDWVGIWDPNKPYIGHIKYLAQNIDEKDQLDFNSKIGLLGTPCC

EMMGIALNNSSFIGNRYLKHFMKYNDVYWGDIGVDFVVRENKIYVNNVRKNPQFLINDQVISVDGLPAND

LRKLNEKILFADRGSTLYFQVLRDNMDLNISTEVFAKDLSKFNLPDSKPKPKITNFTSNLGLTVNASLVV

TKIDPKSKVSNAGFMVGDKILRVNNIILNNFKELQNILSAGNDFSILIERKSTKLPLSNFNNELGGNANS

GGDGKFQFFIRLTK

>AHK52679.1 hypothetical protein N916\_08175 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFENMDFSKMGELLNQVQEKAKNIELELANREFSAKSGAGLVKVSANGKGEIIDVSIDDSLLEDKESLQI

LLISAINDVLAMVAQNRSSMANDVLGGFGGMKL

>AHK52678.1 UDP-N-acetylmuramoylalanyl-D-glutamate--2,6-diaminopimelate ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLKLENSFITDNTLECEKECFFLQTTQNAKFHAQALEKGAKIIDVNECKKLLKIDEKIQIIGITGTNGK

TTTAAAIYSILLDLGYKCGLCGTRGAFINDEQIDEKSLTTSPILKTLEYLQIATQKKCDFFIMEVSSHAL

VQNRIEGLNFAAKIFTNITQDHLDFHGTFENYKEAKELFFTDESLKFINKDALAIKFNVRNAFTYGIENP

ALYQIKAYSLEEGISTIVTNKNQTFHIDSPLLGLFNLYNLLVASACVNELVKPDLKDLEKAISGFGGVCG

RVEQVAKGVIVDFAHTPDGIEKVLDTLKNKKLIVVFGAGGDRDKTKRPLMGKIVEHFAKIAIITSDNPRS

EEPKTIMEEILSGFTKKEKVLMIEDRKEAIKKALELKENDDLVVILGKGDETTQEIKGIKYPFSDKVVVN

EILKNQG

>AHK52677.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNYKKLGIEHFYKKDFKTAKMYFSMAYEKRKNKRLLNFICLCDLALKSPKEASLLFDFYIEHYKISSID

KDLEEILSTIEFKKQENKQENEFEDGHALNYQDFLKSEEELGFQKSFENIINSTKLVIDNRDDFLDFLEK

LLDNGYKDMTLNYIENVMPHFWANDRFIKLQEKLMGFKSEIKT

>AHK52676.1 nitrogen-fixing protein NifU [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMPFSDEELINPVKASLEKSLPMLERDGGGLEFLGIKNGIVYVHLIGACKGCASSGTTLKYGLERQLKID

IHPEITIINLNGGADEFAKL

>AHK52675.1 DNA primase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MITKESIENLSQRLNIVDIIENYIEVKKQGSSFVCICPFHADKNPSMHINPIKGFYHCFACKAGGDAFKF

VMDYEKLSFADAVEKVASLSNFTLSYTKEKQENKKELKSILPSLNAYFKDNLKHHKEVLTYLYQRALNDK

DIAKFELGFAGASEDSIRLLQNQKIPLEDAMSVGALKKDENNEFYASFIWRITFPIYDHKDLLVGFGGRT

LNPNVPAKYVNSPQNILFDKSRIFYAFNIAKENIAKKKEIIVCEGYMDAIAFHKAGFNNAVAVLGTALTE

HHLPLIRRYDAKVILCFDNDEAGLKAATRSAFLLSTNKIDGKVAILQGGKDPAELVAKNESTKLHNILDE

GIELGEFYIRRLISTHSIISALDKQKALETIQKFTFNLEPLVANSYTSLVSNLLKVDEKFIVLSQNSKKT

IQTPLISQNKYNFPKEKIHIAELELIAFLKQHPDICNDFKQISDSVCFKHKILLDKILEKKGYEDSDIRE

FESKNIRKNLNYSEFLLGICKVNLAFLNNVKIKNSTLALKKQLFTLIDKNLNLLIKNLNTAELNNFLKEY

LSFLKYEKNEEILQQSFRNLNGIFGNKNFTAYDLGFSIQNNDEPF

>AHK52674.1 hypothetical protein N916\_08150 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDFFFVEYRDPLVGLIILTILVFVVAVANYIWKIFANKDEEQKLEKFIKKFEMDNAHKELLRNSSLSFGN

LSFLAEIFTKSGEFEKATQIYLIALEKCKDKQEREFIFLSLAKVYFKAGFLERAKEVLLQALKLRPRNIQ

ALKLLKIVYLKLRSYKENLELLECLFELNEDVQKERDFIKALELCTFNITDEEKKKKLLEFKIEDNPMLG

RLVFEKYHMFLGQNFFDICDLLYRENEAFNLENQDFLEFFYALGKISKHDDTHQFVFKNSNFKMLKILKD

NSFNAGLEFSYRCSECKNVMPLFFYHCPVCYEFNTCKIIYEVKNNETH

>AHK52673.1 ribonuclease H [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKHIEIYTDGSCLNNPGFGGWAYILRYKEYQKEGFGAEANTTNNRMELMAIIESLKALKEPCEISLFTDS

NLMVQSINEWLEGWIKKDFKGKKNIDLWKEYIKVAKSHKIKAFWVKAHNGHLENERCDTLAREAALKIAR

ENDEKH

>AHK52672.1 ribonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNIEKLEQSLTYEFKDKNLLIHALTHKSFKKSYNNERLEFLGDAVLDLVVGEYLFHKFAKDAEGDLSKL

RAALVNEKSFAKIANSLNLGDFILMSVAEENNGGKEKPSILSDALEAIIGAIHLEAGFEFAKTIALRLIE

KNFPQIDAKILIKDYKTKLQEITQGKIGQTPQYETVRAFGPDHLKQFEIALMLDGKELARAIAGSKKEAQ

QMAAKIALEKLGAL

>AHK52671.1 chorismate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNTFGTRLKFTSFGESHGVAVGCIIDGMPAGVKFDEEFLQNELDKRKGGSKFATPRKESDKAQVLSGVFE

GYTTGHPIAIVVFNENAHSKDYDNLKDLFRPAHADFTYFYKYGIRDHRGGGRSSARESVARVAGGAVAAM

LLREFDICVQSGVFGVGTFVSNLKEEEFDFEFAKKSEIFCLDPKLESDFKNEILNARNSKDSVGAAVFTK

VSGMLIGLGEVLYDKLDSKLAHALMGINAVKAVEIGEGINASKMRGSCNNDALKDGKFLSNHSGGILGGI

SNGENLILKTYFKPTPSIFAKQESIDKFGNNLKFELKGRHDPCVGVRGSVVASAMVRLVLADCLLLNASA

NLNNLKNAYGLK

>AHK52670.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKALALFSGGLDSMLAMKLITAQGIEVKALNINIGFGSTSDKSEIMKKRAAMVGADFEMIDVRNSYLQEV

LFNPQYGYGKHFNPCIDCHAFMFKTALAMLKEENASFIITGEVLGQRPMSQRSDAMAKVKKLALDEEDLI

LRPMCAKNLPLTKPEREGWVDREKLEGIIGRSRKRQLELAAKFGLEDFESPGGGCLLTLDSFAKKIRDFI

EFDKDMQVNDAQLLKYGRHLRLPNGAKMIIGRNELENTLLKGLKTPKYEAIEIGDLIGAYSLVDEKISEK

DLELALKIALTYTKHEVGKSYELKFKNQAYTSIAFENKADINQFFIS

>AHK52669.1 hypothetical protein N916\_08125 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKIILVLSILSSFAFANSCANYEQELKKCNSLKNSHERKMCRLGLFAKCKKG

>AHK52668.1 hypothetical protein N916\_08120 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIDTSASLTHSLTNNVDKKELSVLKKEDQDKIPVQDLSSLNSDGVKVVFENKQGELIALNLSDENYSSL

QKNFGSYMNYVARNDGSIRLNGEVNQFVSNWFESVKDNFGSLNSNLNNKQQSVKLNFNTSTLQQSMQNLG

FKTSDEKISDDANIEEKLNFFIDKDVNKDGKVDDSDVKEPSMREILSDIKEASGGGANAMKTIDPQKINK

KDDKENNIKEKEDEDLLQKAQEKGLSALSADEQAKLEASNPEEFEKLKQKSLQELSQNLSKDFQNKIENQ

EAQIVDKRV

>AHK52667.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKLPKNEGLNIVPFIDIMLVLLAIVLSISTFIAHGKIQISLPSSENATNISNNEKKLLITIDEKNTFYL

NDKLADLNEVQNAIFSLDKKTIVELKSDKNAKFESFVKIIDFLKAKEHENFQILTEKNK

>AHK52666.1 biopolymer transporter ExbB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEFLKDYIDLIIFLILGIMAFIAFWCVVERMLFFRKINFKNYENQEQFDDAISENLTTIYIIYSNAPYIG

LLGTVIGIMVTFYEMGLAGNIDVKSIVVGLSLALKATALGLLVAIPALMAYNALLRKVSLLSNAYKANKN

A

>AHK52665.1 hypothetical protein N916\_08100 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTIDLNHNFTSFVLLDEVDFNFSELKSILEDKFNIKIADENFTKEGVIFSYENMLVTLNLINNPIPNHEV

EYYANFNFMWKDALEQTKKHKAHLLIAVLSQDQSKLEQAKMFTKIAALCLDNKHALGFYTGAVVLEPSFY

IENAKMLDDNRLPVYNWIYVSVYPSENGVNAYTYGLRNFDKLELEVCDLNIEEKELFFCIYDIVLHILTY

DINLKDKDILKFEDGKEIKFIKSQGISVENESLKIIF

>AHK52664.1 hypothetical protein N916\_08095 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKAKLTLLALLGTTVLLAKDMVVPASELPNNAKEFISKNFKTAQIGLVKKDIDSYDVILNDGTEIDFMIN

GEWKEVDGKYKALPHTILPNVMKKVSATQPNAQILEVDKEINGYKFKFNNNMEVYTDMQGNILGQKLD

>AHK52663.1 serine/threonine transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNTPKWTSHDTRWVLSLFGTAIGAGVLLLPISAGLGGLIPLLVILVLAFPMTYLAHRNLCRFVLSSSNPK

DDITFVAESYFGKGGGFLITLLYFFAILPILLVYSANLTTTLLEFLINQFNFNADLTHAARWWVSFLIVG

VLVLISILGENVVTKAMSFLVFPFIIFLFIFSLLLIPQWNLSLFANVDFSVISTSNFWVTLWLVIPVMVF

SFNHSPIISSLACYCKKEYGGYAEPRARKIISLAIILMVFVVMFFVFSCALTFTPEDFASAKDQNINILT

FIANKFPEVSLLAYVGPIVALVAISKSFLGHYLGSQEGLNGILYKASNGRIQGKFAQTLTAIITFAIAWL

VAYKNPSVIGIIEAIGGPVLAILLFLMPLYCIYRFDILARFRNKFLDLFVLVMGIVAISAAIHDLL

>AHK52662.1 serine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSNLSIFKIGVGPSSSHTLGPMLAGNLFCKKVAKKLDEIDRVEVTLYGSLSLTGKGHLSDKAVIWGLNGL

EAKNLSAAIQDEVNKNAIENAQIDFCGEKKLSFNYEKDLIFSKDFLPLHENGMKIKAYDCKGGLVDEETY

YSVGGGFVLTAAELEKKGKNSNQNKKKKLDIELNNAKEALELCDKRDWDLAELSYRYELQFHTKEEICAY

CLEIWEVMQEVYYNGTHPNEDYLPGKLHLKRRAKGLKERVAMTADPMGIIDFISLYAIAIAEENASGAKV

VTAPTNGACAVIPAVMLYLKNHTIGFSDEKVIEFLLTAMLIGSFYKKNASISGAEAGCQAEIGSASSMAA

AAMATVLGANAFKACNAAEMAMEHHLGLTCDPVAGLVQIPCIERNAFGAIKAISAARMAMTRKSTPMVSL

DEVIETMYETGKDMNYKYKETSLGGLATNLKTVC

>AHK52661.1 riboflavin deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEFYMNLALNEAWKYQFLTYPNPAVGCVILDKNEKILAIKAHEKAGLAHAELNAIAHAFKSLRPEISLP

KEANALHEFICKNHQGVFKDSIAFVTLEPCSHQGKTPPCAKLFSELGFKKIFISVKDENKIASGGAEFLK

KQGIEVEFDILKEEGKKLLKPFLKWQKGQFKLFKLALSMNGSPFGKIVSNELSRTYAHEIRAVIDLLVVG

GETIRKDCPILDARLCKAKAPNLCILSRQNIDNFDKNIPLFKVPNRQIYTQIPSEAKFLMYEGGENFLKI

FKDEIDMFLIFQSSSLNDEKNVTIPLNFKPLYRNFLGSDTYGIYEL

>AHK52660.1 hypothetical protein N916\_08050 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLAFFKGLGVGFLCLLLFVAGVVFNVEFLGKKDSNHDLYFSRNIEVSNTLKPDILYANINFWANENLSSK

ITLDNSEKAEITNTFNQILERSKKENFCSGGSFSLEPNFSYKDGIQTPKGQRFDANLECEFKENQLADFN

KLLNDINSIIAKNNFISVSTPAIQTKFSKDTLNNNKENLYKELLKTSYEYEKTYSLDLNKTCVLKNLQVN

ANTNIAPRMLNAKSDNIELSSPIISKKEQILNAKALFICK

>AHK52659.1 adenine glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKKELEKLQENLLLWYEKNGRKTLPWRNLQSQNCDESLKHIDRAYGVYISEIMLQQTQVKSVLERFYFP

FLQKFPTLESLANANEDELLKAWQGLGYYTRARNLKKAALECVDKFGAKLPKDVEDLKKLSGIGAYTAGA

IACFGYDQKVSFVDGNIRRVLSRLFALENPSMKELEKRAKELLNLNHAFDHNQALLDIGALVCVGKNAKC

RICPLYDFCQGKFHTELYPRAKKILYESLNLNLFLFEFNKKFAIQKSQDKLYKGMYNFPFFKEGEYKLSK

DMGFVGEFKHSYTKYKLNIKVYHQILNNENKNYEFKTLKELESTALSALSLKALKLIKL

>AHK52658.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFKKIYIELSDICGLKCDFCPSQKGIRGVMSEEKFQNLAYEISNKAELFTFHLLGDPLLLPNLENYLKI

AKDEAMKLEITTSGFYLNSKNQALLLGYENIHQINISLMSFLSQSKISLEQYFKPILELCKKHLEQKSLS

FINLRLWNLDANFKAPKSNLKIYEFLAKEFEAKIDANLSKNRLQRHILLHQNKLFKWPNLKDEPLYKKGK

CHALKEQIGILSDGSLVPCCLDTKADINLGNVFENNFDKLFRSPRIKMMKKAFEEDKRIEKLCQTCEFFK

ARLGD

>AHK52657.1 hemin transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILIIMSLFLIALNAKERLVVLDPASIETLFMLKAEDQIVGIATLQHSNIYPKDQTSKLTSVGTFSNP

SLEKIVALKPSLVILSSYSLNLEEGLKNFGIKSINLKAERLEDITKNITTLGQITKKEKEAELLKQEFNQ

KFKKLSDKPLNKSAIYLYSSNPLMAFNDNSLIADILRLIGIKNLSPQSQISRPVISAEYILKQNPDILIL

GINAKNNLLDTNALLKNTKAVKTGSIYFNKDTPILLRLSPKIIDRIQEFKTKLENNNF

>AHK52656.1 heme ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKIHNLSFAYHQKDLLKNIHLELKNQAFIGILGPNGSGKSTLLKLILKNLSPNKGVISLFNTNIKDFSL

KEFAKICGFVPQKSELNTPLKVIDVLLMSKYPNLKHAFSSYSKEDILEIKEFAKDLRLENFLERSILSLS

GGEFQRMLLARALLKKPKILFLDEPTSALDLNYAIELLNLCEKLVKEKNIAVVAILHDLNLASIFCDKIL

FLKEGEIKYFGTSKELFTQEILKEIYDLNCEIIYKNSKPYILALKEKK

>AHK52655.1 iron ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNLNTHSKILVIIGLLVAYIIASFTALCLGDENLNPKELFSYIFSQDEILRQIIIDGRLPRIIMAILIG

MLLASSGAITQNVFSNPIADPYIIGIASAATFGAVLAYLLKLNDYYYGILGFVCSAFFALGVFKISSKAS

IATLLIIGIAASSFLGAFTSFFTYLIGEDSFKIVAWLMGNIGNASWFRVGILILPLIFCLFYFYAHKNEL

NILLSGDDEARNLGVNAQKLKINLLIVSSLAVSFAVAFSGLIGFVGLIIPHTIRLLLKNYNNALVIPLCT

AFGGLFLLICDTLARTLLAPVQIPIGILTAFFGAPIFLYLALSARRFL

>AHK52654.1 ligand-gated channel [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHPNKKAFKLSLFALLLITNLNAQESNKAINLQKVVVSTTGFEQDADSNLRNVISIEGKDLQNKGYVSLE

QALERISSISFVNFGLGRNIDMRGQGNKSNIAVKVMIDGHAINVLDNSHGVTPLDSINLDNVERIEIIPG

GGSVLYGSGTRGGVINIITKKQKSDAFAINLKSSAYDHGGLGGNLGINGAKQINENLAFSFDIQSFNLDG

YQEGYNEKGYFINTKTYIDINDNSDLTLGYNYFKSKNTSSGYLTKAQAQSDPTQKGKSDNITQINRPEIS

LDYHYYFDDIWEFNLEAFWQNQKINYLKDVSTMSYMNMSLPVYQNGSGFEDTLTGISLKNKLNYANNSYF

IFGYEFANHDAKRKSLVYYSVPSVINYHRMTTLIDMTKQSHSIFALDSHNFNEFFTLSGGARYEFSSYNT

DRSYRNEMSMNGRPPSPTIIDSTTLFDTNKNANNFAFEITPNFKYSDTGKLYIKYERGFVSPSPAQFVNK

DKNSQKYYSANLNPEIFDTFELGIDDFWWDFYGFNLTLFYTLSKDEISYLGNPHSTSGSWWKYYNIDQTR

RLGVELSLSQNFLDDDLIFRESLTYLDAKISKGVNDGMRIPYVSKIKATAGLEYAWNKNFSNFIDLTYFS

RAKDGGTIDENTGKMSKNSWIRDYFLTDIGMKYNYKKLQILAGIRNLFDKRYYTYQDSINDQYLVGNGRN

YYVEFKYAF

>AHK52653.1 hypothetical protein N916\_08010 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFESIISHMNDHHKSNLVDLCKKFGGIEQVQDVFLKSVDFNGLDLVYNDKENLRVEFPKKADENTIKDA

IISLCMSAKSEQNFSGVEKELNEFMLSFNSVALATLNANGEVVCSYAPFVSTQWGNYIYISEVSEHFNNI

KVNPNNIEIMFLEDESKAVSVILRKRLRYRVNASFLERGERFDQIYDEFEKQTGGEGGIKTIRKMLDFHL

VKLEFKKGRFVKGFGQAYDIENGNVAHVGASGNPHKFLHKH

>AHK52652.1 peptide chain release factor 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLASKLDPFFKRFEELNSLLSSSDILNDISKMTTLSKEQKNLEPIVLKAKEYLKTLDNIEENKALLNDPE

LGELAKEELKTLEELKPKLEEEIKILLLPKDPNDERNIFLEIRAGTGGDEASLFVGDLVKAYARYAENRG

YKLEIVSSSEGSVGGFKEIIMLVKGTGAYSRLKYEGGTHRVQRVPQTESQGRVHTSAITVAVMPEVDDIE

IEINPNDLKVDVMRSSGHGGQSVNTTDSAVRITHIPTGIVVVNQDGKSQHKNKESAMKVLKARLYEMQES

ERLAKESEARKSQVGSGDRSERIRTYNFPQNRISDHRINLTLYRLDAIMQDGLFDEIIEPLITHHQAQAL

QEQNL

>AHK52651.1 30S ribosomal protein S20 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MANHKSAEKRARQTIKKTERNRFYRTRLKNITKAVREAAANGNKNAANEALKVANKSIHAMVSRGFIKKQ

TASRRVSRLALLVNKIA

>AHK52650.1 phosphatidylglycerophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKLFLTFFYSGSVKKASGTFGTIAALIPAFFILKYLGINTLFLLSILIFVASIRVIDDYEKKTGIHDDK

HIVIDEVAGVFLACAIAASVENSIVNFILAFVLFRLFDITKPSIIGKIDKKVKGGLGVMLDDMLAGLFAG

LLSAVIYGFLLKFNLVFWDINLKDLF

>AHK52649.1 sulfate adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKSARKNKNIIIDQNEFGILSLIKEGLLGTCTHLMNEKEVNEIIKSGKFKGESFPYPLSFAPKNAEEALN

DIKSGDRIDLMLDEKVVGHIDFKSQFKNNKNFSDIFSPNTCSLEDMGTTCISGKIEIYNSQIEKIKENFQ

QIKNNLNAQKITAIVSSFDPLHRAHERMFRWTIDKADLVVIFLVESFDVNGFEFELKEAYLKKFIQNYLP

PDRIFIFPLKNINIFHAHLNPGLESIIAKSLGCTKLVVGQNHTGLGMFYDDNQPKTILDDFSKDYGIEVI

VLPEFVFCDQCRMIVSTRSCPHGCHHHLHYNSQSLKDLLRAGIIPPAIFIRKEVSSVILTSLFPNRLKNM

QKIYNELFPTDGILEYKNDEEFYQKLLEIHQMSYMV

>AHK52648.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVLIIENEIYLAQSISIKLSDAGYSCEIINSFDEYNGEKYYDIILLSTNTNNFLKAVGQFKHSIIILLI

SYISTDTVSNPLKLGASDYIQKPFMIEELIRKIKHYQDFRKLSILNKAYQSYIKSRLETIKIPEYNYKKL

KLPLILKSNKQSSADAFVFNYANECDITLSFIDLTSTNSVEKVMKLPTENNLLFLSNFQALKAAEKEKLL

DFIQNKNVILHTNSNTDDLKINCINLNDNEKNINSNEILTIDEYVKYVIINYQNIFPDTDLSKKLGISRK

SLWEKRKKYEISKKK

>AHK52647.1 2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSEMSLIMLAAGNSTRFNTKVKKQFLRLGNDPLWLYATKNLSSFYPFKKIVVTSSNITYMKKFTKNYEFI

EGGDTRAESLKKALELIDSEFVMVSDVARVLVSKNLFDRLIENLDKADCITPALKVADTTLFDNEALQRE

KIKLIQTPQISKTKLLKKALDQNLEFTDDSTAIAAMGGKIWFVEGEENARKLTFKEDLKKLDLPTPSFEI

FTGNGFDVHEFGENRPLLLAGVQIHPTMGLKAHSDGDVLAHSLTDAILGAAGLGDIGELYPDTDMKFKNA

NSMELLKQAYDKVREIGFELINIDICVMAQSPKLKDFKQAMQSNIAHTLDLDEFRINVKATTTEKLGFIG

RKEGMAVLSSVNLKYFDWTRL

>AHK52646.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEQILEKLKTVKYPGFEKDIVSFNFVKDIKIQDDGVFIDIEIVSANPEVANEIRKNTIEALSSLALKNI

ELNIITPKIPEEKSNSRSGKNIAPQVKNFIMVSSGKGGVGKSTTTVNLAISMAKMGKRVGILDADIYGPN

IPRMLGETKTQPEVVGQRLKPILTHGVYMMSMGVLIEEGQGLMWRGAMIMKAIEQLLADVIWPELDVLFL

DMPPGTGDAQITSAQSIPIAAGVCVSTPQTVSLDDSKRALDMFNKLHIPIAGVIENMSGFLCPDNGKEYD

IFGKGTAEDMAKAYKSEVLAQIPIEMIVREGGDEGKPVSFYHPESVSSKRYLMAAEKIWSFIEKINNEGG

ADNSAIQPVMNGKSACSH

>AHK52645.1 2,3,4,5-tetrahydropyridine-2,6-carboxylate N-succinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINTKEDFLLLIKQIEQKSGYKKPKAFGIARLDRGQLNKNKILQASFALINYEQNFGSAAIMLEAFMQRG

VEIDFNASEFVQTLKLEDIDFALSCFKPFLEEDGHQNIDLLKIIKDKFKDDEFSFVCLFEDKEPLSVESI

YLKLYLLSTKKVPLRSINLNGAFGLLSNVAWSDDKPIELEYLRANEMRLKMSNQYPKIDFVDKFPRFLAH

IIPEDNTRILESSKVRMGASLAAGTTIMPGASYVNFNAGTTGACMVEGRISSSAIVGEGSDVGGGASILG

VLSGTSGNAISVGKACLLGANSVTGIPLGDNCIVDAGIAVLEGTKFLLKDAEELAKLNPYFNFDKEIYKG

LELKGLNGLHFRQDSISGAMIVALNKKAVKLNEALH

>AHK52644.1 phosphoribosyl-AMP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNFKELNEKIAWQKVDNLLPVIIQDAKTCEVLMLGFMNNEALEKSLESGKVVFFSRTKQRLWMKGEESG

NFLNIIDLSLDCDNDTLLILANPVGPTCHTGDISCFEKISKNADFVFLARLEKLINARKNADENTSYTAK

LFKSGTKRIAQKVGEEGVETALAATVKDKEELICEAADLMYHLSVLLADANLSFSDVISKLKERHKA

>AHK52643.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLTKRIIACLDVKDGRVVKGTQFKNHKDMGDIIELARYYSQNGIDELVFYDIAASARKERISREWVSEVA

KNINISFCVAGGIKSEEDAAELLANGADKISINSPALNDPSLITRLAKSFGVQCVVVGIDSFKDENGNLK

VFQYTGDEKTSKHSGKSTLEWVKKVQDLGAGEIVLNMMNQDGVKNGYDLEQLEAVYKICKVPLIASGGAG

KMEHFLEAFKLGIDGALAASVFHQKLIDIKELKIYLKNQGLSIRI

>AHK52642.1 HrgA protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSSKLSYKELTLEILKQSDRPLSVNEIWQKALEQGLDKKLSSIGQTPIATLGARIYVDIKELQHNSLFIK

ASQKPTTFWLKERENELLKLDNKNEITNEKQEKNKFHERDLHPLLVKFLYENLDFNLNCKTIYHEQSKKG

KGGEDKWNYPDIVGVYFPYDDYEKETITLLENIKQNSYKLFSFELKIALNFSNLKECYFQAVSNSSWANE

GYLVVLQEIDSEVLSELRRLNQSFGIGVIKLEKDISNSQILISAKEKELDIQTLNMLINKNPNFKEFIDD

INKQIKVGKEAKIQANFDEIKSDEEMEKYLKEKCILEK

>AHK52641.1 1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)methylideneamino] imidazole-4-carboxamide isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTQIIPALDLIDGEVVRLVKGDYEQKKVYKYNPLKKFKEYEKAGAKELHLVDLTGAKDPSKRQFALIEKL

AKEVSVNLQVGGGIRSKEEVKALLDCGVKRVVIGSMAIKDATLCLEILKEFGSEAIVLALDTILKEDYVV

AVNAWQEASDKKLMEVLDFYSNKGLKHILCTDISKDGTMQGVNVRLYKLIHEIFPNICIQASGGVASLKD

LENLKGICSGVIVGKALLDGVFSVEEGIRCLAN

>AHK52640.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIIIIDTACANLASLKFCLDRLGFNATISRDLKELESADKLFLPGVGTAKEAMKNLEQFNLIDFIQNTK

KPLLGICLGMQILGNFSEELNQETLKLIDFTTQKFKAKEGFTFPHMGWNEVYSSHALFKGLEGAYFYFVH

SYCVGLGKYTIADCEYSQKFSASVMKDNFYGVQFHPERSSEAGEILISNFIKDIG

>AHK52639.1 imidazoleglycerol-phosphate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSQKILFIDRDGTLIEEPKSDFQIDTLEKLRFEKDAIPTLLKLKKFGFKFVMVSNQDGLGTPSFPKENFE

IAHEKMLDILKSCGIEFQDIFICPHFENENCACRKPKTAMLEEYIKHELYDKEQSFVIGDRESDMILASN

LGVRGLKYGELSWKEIENEILSSFRSASYQRTTKETDIKVKVCLNGGKVSIKTGIDFFDHMLEQIAVHGG

IGLEISCKGDLEIDEHHSVEDVALALGACIKKALGDKIGIARYGFALPMDECLASCAMDFCNRPHLVYKA

KFKKSHLGALSTEMIEHFFYSLSYAMGVSLHLKVKGKNDHHKAEGLFKAFAKALKMAVKIESENLASSKG

VI

>AHK52638.1 bifunctional histidinal dehydrogenase/ histidinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQILVYDNLDEKQKEEALKRPAISAKDEISKIVSSIIKEVQEKGDKALIEQALKFDKAEISKIKITQEEI

TQASNRLDKDLQEAILVAYENIKKFHEAQIPHEIALETTKGVKCEVLTRPIEKVGLYIPGGLAPLFSTVL

MLAIPAKIAGCEKIVLASPAKINDAVLFCAKLCGVDEIYQMGGAGAIAALTYGTQSVLKVDKIFGPGNAF

VTEAKRQVSSDINGAAIDMQAGPSEVLVIADDLANEKFVASDLLSQAEHGADSQVILVCLSQDFAKKASD

EVQSQLELLPRKELASKSIANSRIIIAKDLNQALEISNLYAPEHLIIQTQNPRELLKGVKHAGSVFLGAY

SPESMGDYASGTNHVLPTYGLTKTHSSLGLADFSKRMTVQELSKEGFLALGKSVEILAQNEHLDAHKNAV

TFRLESLK

>AHK52637.1 ATP phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQENTRLRIAIQKSGRLSKESIELLSECGVKMHIHEQSLIAFSTNLPIDILRVRDDDIPGLIFDGVVDLG

IIGENVLEENELERQSLGENPSYKLLKKLDFGYCRLSLALPQENKFQNLKDFEGLRIATSYPQLLKRFMK

ENGINYKNCTLTGSVEVAPRANLADAICDLVSSGATLQANNLKEVKVIYESRACLIQKENALSKEKQALV

DKIMLRVAGVMQARESKYIMLHAPKEKLDKIQALLPGVERPTILPLAHDEKNVALHMVSKENLFWETMEA

LKEEGASSILVLPIEKMLK

>AHK52636.1 50S ribosomal protein L17 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRHKHGYRKLGRTSSHRAALLKNLTIALVNSGKIETTLPKAKELRGYVERLITRARLGDFNAHRAVFASL

QDKNATNKLVTEIAPKFKDRNGGYTRIIKTRIRRGDAAEMAFIEFVA

>AHK52635.1 DNA-directed RNA polymerase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRNITTSAYTPTEFTIENISDTVAKISAWPFEIGYGITLAHPLRRLLYTSTIGYAPTAIHIDGVAHEFDS

MRGMLEDVALFIINLKKLRFKIKGDSNKEIVEFSFKGSKEIYGKDLNNDQVEVVNKDAYLATINEDAELK

FTLIVEKGIGYVPSEEIKELINDPKFIALDAFFTPVREATYDIEKVLFEDNPDYEKVVLTVTTDGQITPN

EAFQNALEAMYKQLSVFDKITNVRSVIKNQATSNELENTKLLQNITDLNLSARSYNCLEKAGVVYIGELA

LMSVSELAGLKNLGKKSLDEIKNIMESIGFPVGTSKLSDNKEILKNKIAELKAQNEG

>AHK52634.1 30S ribosomal protein S4 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MARYRGPVEKLERRFGVSLALKGERRLAGKSALDKRPYAPGQHGARKGKISEYGLQLREKQKAKFMYGVS

EKQFRRLFAEAARREGNTGVLLIQLLEQRLDNIVYRMGFATTRRFARQLVTHGHVLVNGKRVDIPSFRVE

AGAKIEIIEKSKNNPQITRAIELTAQTGIVAWVDVEKDKRFGIFTRKPEREEVVIPVEERFIVELYSK

>AHK52633.1 30S ribosomal protein S11 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKRKIVKKKVVKKNIAKGIVYISATFNNTMVTVTDEMGNAIAWSSAGGLGFKGSKKSTPYAAQQAVEDA

LNKAKEHGIKEVGIKVQGPGSGRETAVKSVGAMEGIKVTFLKDITPLAHNGCRPPKRRRV

>AHK52632.1 30S ribosomal protein S13 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MARIAGVDLPKKKRIEYGLTYIYGIGLFTSRKILDKVGISYDKRVHELSEDEAAAIRKEIQENYMVEGDL

RKQVAMDIKALMDLGSFRGLRHRKGLPVRGQKTKTNARTRKGKRKTVGAKS

>AHK52631.1 50S ribosomal protein L36 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVRPSVKKMCDKCKVVRRKGVVRIICENPKHKQRQG

>AHK52630.1 translation initiation factor IF-1 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKDDVIEIDGTVLEALPNANFKVELDNKHVILCHIAGKMRMHYIRIMPGDKVKVELTPYSLDKGRITFR

YK

>AHK52629.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRKSKFGTKEIKILGLSSLGGTLEFYDFIIFVFFAEYIANVFFPKDMSEFWALLNTYGAFAAGYLARPLG

GIVMAHFGDKFGRKNMFMLSILLMVLPTFVLAFIPGYETLGFLAPVLLILIRIFQGIAIGGELPGAWVFV

REYCQEKQKAFFLSCLNSAMALGILLGSIVFLIINAFFSIEEIAAYAWRIAFFVGGIFGIISIYLRRFLQ

ETPVFKQMKKESSLSSFPLKDLFKEKDIVKNLFSSMMMTWVLTGCVIVLVLLMPKFMPSILNLSGVEGSY

LQILGILGIALGGAFMGYLVDKFGLFKICIFFSLTFVFFSFLYFYALYELKNLVLVCILYSIICFLGGIN

VFAPILMSEVFRAKIRFSGISFSYNISYAISGGITPQLVFWLNTLASKNENPFLYGMSIYMIFLALLAIC

AVFIVKDKIKF

>AHK52628.1 multidrug ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPFIMELLKQNKLKLISFLLFSFITSAVGVLTLVFINDYLLKNAQNIPIFYFIVLLLIFFISSTIVELGL

SIFGQNFIFKMQRRVVKQILDTPLLRVAKVGKARILASLGSDVRNISFGLLRLPDFLQSSILILCTSVYL

CYLSPQIFALCVVWIMVIFITNNFLMMKVYQYFRKARENDDALQNNYQNILDGHKELLINRDRAKLYYED

EFENNARLKKKNSTLGNLFNNLSNNWTNVTLLALVGVEFYLALKFEWASVADATTIALSILFLRTPLVSM

IGSFPTLLLAKIALDKIAKLELDDYIEGFKKTHYISEWKKISFRNTQFAYEENFHLNPVNIELKKGELVF

LIGKNGSGKSTFCMLLTGLFKPSKGGIYVDDTLIDDKNLDEYRSLISAVFSDFHLFTKTLNKENFASEEK

IAFWLEFLELKNKTSVKDNELTLTKLSTGQKKRLAMLIALLEERDILVLDEWAADQDPVFRRFFYKKLLP

LLKEQGKTIFAITHDDAYFDSADRIFLAQNGEISELKGENIKELAKNLVEKFD

>AHK52627.1 globin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKEQIQIIKDCVPILQKNGEDLTNEFYKIMFNDYPEVKPMFNMEKQISGEQPKALAMAILMAAKNIENL

ENMRSFVDKVAITHVNLGVKEEHYPIVGACLLKAIKNLLNPDEATLKAWEVAYGKIAKFYIDIEKKLYDK

>AHK52626.1 peptide ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLRWFVLLFLLFLNLEAKIPKDTLIIAVENEIARINPAYSEDHDAVINLVFSGLTRFDENMSLKPDLAKS

WDISKDGLVYDIFLRDDVLWHDGVKFSADDVKFSIEAFKNPKNNSSIYVNFEDIKSVEILNPSHVKITLF

KPYPAFLDALSIGMLPKHLLENENLNTSSFNQNPIGTGPYKFVKWKKGEYVEFKANEHFYLDKVKTPRLI

IKHIFDPSIASAELKNGKIDAALIDVSLLNIFKNDENFGILREKSADYRALMFNLDNEFLKDLKVRQALN

YAVDKESIVKNLLHDYAFVANHPLERSWANSKNFKIYKYDPKKAEDLLVSAGFKKNKDGNFEKDGKILEF

EIWAMSNDPLRVSLAGILQSEFRKIGVVSKVVAKPAGSFDYSKVDSFLIGWGSPLDPDFHTFRVFESSQD

SALNDEGWNFGHYHDKKVDIALQKARNTSNLEERKKYYKDFIDALYENPPFIFLAYLDFALVYNKDLKGI

KTRTLGHHGVGFTWNVYEWSK

>AHK52625.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKRLVFSIFIAFFSTFLCFVLLHFSKGSIAYANGVNSQSKEFVQRIEQNLGLDKPLLEQYKIWLFKALK

GDLGVSFLSGESVLKLIKERIFNTFILGFSALMLLFLLSVFLALLGYYYKESFIDKIITFLAFNFFALPP

FVLALLFVLIFGIFWKILPVMGSSDIGFEDDFLNRLEHLILPVLVLVLSHLALFLRIARNFINESFSQIF

IQNLYARALREKDIYFLVLKYSLSPIVAYFGGSALSFMMGTYVVESVFAYKGLGSLLFKSIIFKDYPIVL

ALIFFSVLLAAFFTFLSDIVARILNPRLRRLDFV

>AHK52624.1 peptide ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFKFLIILAPLIFLFLCALFAPFLALFDILSTHLENLHQAPNFTYILGTDFLGRDLFSRLLFALRNSLII

GVGGSLLSIIFALCYLFLARCFFYVFCMRILEFFLALPAFLLMMFFQSMITSDVFLMIFLIALIHWCFIA

RIIESELKRLENLDFYKANIVLGRTKFRAFFKDLIPALKTLIFTLFIFNIVHAIATEATLSFFGLGLGFE

IPTLGTLLSESSKAVFIGAWWMILFPLLSLLLLFLPLLWLGNFLQKIWGIRS

>AHK52623.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVRNLNISSKNNLLLKDINLDIKTGKTLMILGQSGVGKSLLGKALVRLLDSNFTISFDELSFHNSCIFN

FNKEELRNFRSKVALVLQDAELSLYPYLDIGNLCHLVLKTHTKLKQKERKDYAFSYFQKLGFENLDRLWH

SYANELSLGMARRVSLALALLNQPQILICDEITASLDKENASKIISILKELKNTTALVCITHDLNLVNSL

ADEILMLEKNSSNLYSLNEFLRYYNA

>AHK52622.1 peptide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKVCNLSKFYELKKHWYLKKERHIIFDNVNFSLNENDNLIILGKSGAGKSTLARILCFLEDPSEGEVWY

ENLNLHKLDKNKQRLLRKQIQYCFQDQKMALNPYKKIKNLIQDGLENFNLQKNDDLILEFFDFFSLKKQI

LEQKSYELSGGEATRVGLIRALVLNPKLLILDEITSAFDIKTSKEILTFLYDYQQKNNISYIFITHQSDL

FYKFNHKKLKL

>AHK52621.1 NADH dehydrogenase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSHIDASHPYFGIFLMLVLASVIFFGLVFLASKIGNNFAAKNRKKLGLGIYECGPIPVKQANKINSQFFI

IALIFILLDIEVVFLFPWALIFKDLGWFGFLEVFVFIVLLGVGFLYAYKKGAFAWQSIK

>AHK52620.1 NADH dehydrogenase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAEHQVNYASGLPVVLTSVDKLVQWGRSNSLWALSYGLACCAIEMMAAGGSRYDFDRFGTIFRASPRHSE

VMIIAGTLCKKHAEFTRRLYDQMPDPKWVISMGSCANTGGMFNTYSTVQGVDRIIPVDIYVPGCAPRPES

FQFALMILQKKIRKEKASRKIAPKRLI

>AHK52619.1 NADH dehydrogenase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRKYSDKKNAQTQNYYKDRFYHAPHTVKSDVNESVFKEDFEVLKTQVEILNSFVELDFWVIEIKKEDNVK

TLQMLKTLGYLSFTEASAIDFIADKNGFEVFYQLLNLEKKLRVRIKTFVGVKERLQSVAHVFKGANWSER

EIYDMFGIFIINHPNLKRILMPDDWFGHPLLKTYPLKGDEFARWYEIDKIFGKEYREVVGEEQRDSGFAD

DKDTLNFARLYHEVPKGGQKKEISFKQEYQEDEGVAFVKKVKRDEAKILEKRR

>AHK52618.1 NADH dehydrogenase subunit D [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIPSKLKPYYENIAFEQEDSKMIINLGPQHPSAHGNLRLILELDGEQVVKARPCIGYMHRGMEKMAENM

IYQEFIPTTDRMDYIAASANNYAYCAAVEKLCGLEIPRRAAVIRMILLELNRITSHLLWLATHALDIGAM

SVFLYCFREREYVLDLIEKYCGARLTHSSMRIGGVMLDLPENYLEEMLAFCDKFPNDLKDYEDLLDDNRI

WRLRTENVGVVTKEQALNWGCTGVMLRGSGIKYDIRKEEPYLLYNEVEFGVPYATQGDSYARYKVYMQEF

RESLKILRQCAMLYKDTSPEILATHPEYVSASKEQILTQNYSLMQHFVLITQGLKPPKGEVYVPTESPKG

ELGFFIHSDGTGRPYRLKARTPSYWHCAFFEEMLVGTYLADVVAIMGNVNIVLGEIDR

>AHK52617.1 NADH-ubiquinone oxidoreductase chain E [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRRVDLRKSKELFEDLAQIIKEAKQGEVLVVLFEIGDFSPVEKSFSFVKEQGCELLNSLKFNQVDWTIVI

KKERV

>AHK52616.1 NADH dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIYDNALCFLDMPSLKNKNLCEKIGVNSINISCLEDKNLKAKFYKCEIASLSFVLALLCKLSDEGQFCDL

DEGYLSAESCFGEEEAGEVLAFLKEVKYLIIDKNIHSYKDSENIKYFLNFLSVKYGLKILDSDEEECDFK

KAKLNTLKELDNYDGLVLFRANLQDKNLHCSKQFLQIAKCKDQSEVEILAKDFSFKTKLCLDENLQGTIA

FLNYENNGFDFTPIRIKEAK

>AHK52615.1 NADH dehydrogenase subunit G [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTVKINGIDCAFEEGEYILNIARRNDIFIPAICYLSGCSPTLACRMCMVEADGKKVYSCNTKAKEGMVVE

SDLQNLWDERNEIMQAYCINHPLECGVCDKSGECELQNFTHKSRVNVQKHWIKDTHKPHKHWGMINYDPA

LCIVCERCITVCKDKIGESALKTVPRGGDSVDNSFKESMGKDAYAIWTKFQKSLIGPANGDTLDCSFCGE

CTSVCPTGALIGSKFQYTSNIWELKRIPASNPHSSDCELMYYDIKQSGISNQKEKIYRVSNDFAFASLNK

AARFAFDTQNEADKDEKAFKELVELFEKNEIKNIKFNSFITNEEALILQNLKKKFNLSLINEEALKFKEF

LQEFIANSGEFYSANTQDITKSDFLVVAGMLLRYDAPTLSYKINNALVMNKGSGLYFHPMEDMGIAKYSK

NFIPHIHKNGDEEQILYFLLQKFSQDEGIKTHLAEFFVSENKEIEESINEEVVEQVIEKDEEGNEIQKEV

KKVVPKKVKKIIEVQRSVFAKNLGIDEDKLEDLLLKKANFTLVAGSDFYFHKNAKKLAKLLALIQNTTPF

KVFLNPTHTNTLGVAMICDLDNNTQEGKTLGYNEKGDFSFSYEEHANLASASLNQQEGTFLNYDKRVVPT

NAALEFKGYFLNDLANALGFDEEYTINYTKRLPINKGFSPIDFDHLDNFYTNAGDCKRGYELNLECFKQV

AKKEFISPNFENLSLKEDEILLYSANPSYQFGRFSNRASAINEVIFLGVSENLAKEKNLKDKDLVKLKIK

DKELSLSVRVDKDIKNGAFLPYFDEKLDTLSFFDERFVVANLEKLGANHE

>AHK52614.1 NADH:ubiquinone oxidoreductase subunit H [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSDFAFFALETLIKCIIIIAIFASLAGLATYAERKVLAYFQRRIGPDMVGPFGLIQLVADMIKLFTKEDI

IPSNSQKFIFAIAPLISAICAFVSLAAIPMLPEFTLFGRVIQPIVADINVALLFVIGTSGLCFYAVFLGG

LASNNKWSILGAARGLVSIISYESVGALALIAIIMLVGSFSLVDINNYQSDGFFSWLIFKQPLAFVLFII

ALFIETNRTPLCLTENDAEIVAGYGTEYSGLRWGMFFIGEYTSMIAGAILVTLLFLGGFNSFWIIPGWIM

MIVKSSFIFFWYFWARAAFPQLRPDQVMKMCYLILIPLAVLNLLITALTVLL

>AHK52613.1 NADH dehydrogenase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNYYLVDEKRKTPVSTWEKISQALRRSVKLELFVGLFVMMRELLKRNNSATIKYPFEKVKLDNRYRAVH

RLMRFIESENERCIGCGLCEKICISNCIRMETSLDENGRKKVENYSINLGRCIYCGFCAEVCPELAIVHG

TEYENAAEQRSYFGYKQDFLTPIDKLKNQVEFEGAGSLRKDANLWVKKTPNYYDVMIERALENQNTQEQG

ENK

>AHK52612.1 NADH:ubiquinone oxidoreductase subunit J [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIENLAFVFFSVVVLGFFGIAVLSKNMLYSLSALAGGMVFLSGFYFLLDAEFLGVIQIIVYSGAVLGLYS

FAMMFFDASKEFKEQLKAKKSFFTLVVLSTILLLAMLIGFKYQNISTDLPLNDPALFDFNKQLALAIFSK

YLLAFEFIAILLLIALVCAIVLTHKELTKEKQ

>AHK52611.1 NADH-quinone oxidoreductase subunit K [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIEKYFFVAILMFVIGLVGILKRQNLIMLFISSEILLNSANLALVAASKMHNDLNGQVFALFIMGVAACE

VAVGVALCVLWYRRKGTLELKSLKEVEA

>AHK52610.1 NADH:ubiquinone oxidoreductase subunit L [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNLALISLFSPFVAFLFASCFALSEKKQFVGIICSLLVALSAFCSLYLLFCNEAFNVSLFEWFAGVNFG

FDIDAISLTMMSVVGIVATCVHFYSIFYMAHDEGFNKFFAYLGLFVFSMLFLVMSDNFLGLFVGWEGVGL

CSWLLIGFWYKNDTYSFAANEAFIMNRIADLGMLLGIFWLYLQAGTLKYDEVFSMAQSLDHNALILIATC

LFIGAMGKSAQFPFHTWLADAMAGPTPVSALIHAATMVTAGVYLVIRASTLYDLVPEVSYIIALLGAFVA

IFAASMALVVRDLKRIIAYSTLSQLGYMFVAAGLGAYGIALFHLATHAFFKSLLFLGAGNVMHAMNDKLD

IKKMGGLFKPLKITAILMCIGSLALAGIYPFAGFFSKDLILGYSFISFHHGIFLVLLIAAFLTAFYSFRL

LMLVFFTPARHDEHPHEASKIALLAMSPLMVLAIIAGFFEHSFFEYLSTKLVFIDAQNQIVMICASVAAI

LGAILAIFAYKNSWFKESIEENKIHKLLSNDYFIPQFYHQFIVSKYESLCAILKHCDLYIFDRIVEKIAL

YSQNISQKMIMPNSLNLMLRFLVAAFVILLILVWMV

>AHK52609.1 NADH-quinone oxidoreductase subunit M [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNYLIFFPLISAFVVLLLNRGGVKVFSVVVSFMILALNLDIFADFLQGVSFDYNLSFKILKFFSFHVGV

DSIALVLILLSSLMIFLSFLFLKLEQKALISCIFFLEFAIMGLFSAKDGLLFYVFWEFSLLPLLYIMGVY

GKDFRAGVKFFIYAFAGSILMLVALIYQAYLNYQLLNIFTFDLEIWKNNASAVNFTEQLLLFGAFFIAFA

IKAPLFPLHTWAPKVYANSPILVSVMLVVFKMAPFGFLLFCLPLFPDASVYFMPLIVALCIVSIVYNALI

AYRAENIKELIAYSSISHLGVMILGIFSLNALGISGAVFYMFAHGIVTGALFLMVELLYQRYHTYDISFY

HSLAKKAPLFSIFFMLILLASVSLPLTVSFVGEFLILLGIAKINLFYALLAGLVIILGAIYMFAVFRKIF

FMQKQSFIEGFSLLFREIVALVCIVVMIFGLGLMPNILLKPIQKDVDNLIKTMNIRAVEQNTLDFLSKIG

EANVK

>AHK52608.1 NADH-quinone oxidoreductase subunit N [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNNFLNLELLNISLSYPFLFLITTAIVLLLCSGFWKFHRSFYIGISSLSLIVSAFLILNNANAQGLEAK

AFLATLNNDIVSFYASLVILCFSFLYLLMQKEENQGEFYALFLFMIASLLLMVSSSNLVLIFIGLESSSL

ALYTLIAMRGSDNAISSAIKYFSVAAVGAGFFVMAVAFIYLKTGTLDLSANLALKNEFQKDPMLLGAGVM

IFVLCAIKLSLAPFHFWLKDVYYAAHTNLVAFISVVPKVAMLVVVIRLFDFLNNTGFEYIIIVLAIFSML

IGAFAALSQNNIKKMFAYSSVVHSSLVLVACIPLLKEQNFDGILLAIFGYWTLFAFANYAVFMILSNYEN

NSYESLNGLLVKKPLIAFCLSISVLSLAGIPPFGVFWGKFMILNTAILNGYWYLALFVALSSVIMLYAYL

KILIHALFMKNDRVHNIKFSFIQNFILAFCVCVSTFVILLML

>AHK52607.1 paralysed flagellum protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRILFLILLSFLNAFAFELVLNTGRENNQAFAVLHASNDLEFTCQKFITEAKVHFECDIVGMVDNKLKDQ

SFSAFDLKFIQEAQKIKMIILPKIQARMFDTSQNIYIDKELSSSSSHKSKAFTFIFTPELAPIKDYDGLD

FNINFPHESLPYVGALDLNSDPVVIPQSADINTYLRIKKEYDKANYNQVVIDAQNAINRYRGSIFTSEFI

LYKLRAQNKLYTQDPSMRDQQILEKMIDDAKNWTRTFTSDKNFSEVLHIMLRTYIALAQRADVEYTMSIL

DNEQPNNYFTQLSKLDYADYIYNLNEKEKAVNIYENTYFNTKNLDLAARAAMSLAKNLLSNEQVNKAIEY

INTILKANPEYFGKDIPRSLELAKLFNQKGQFDISASIYEDAFAKMSKLDPSYEETLKDLALVLSHANRS

SDAKKYLDLYMDDYLDGKYLDEIKKASDEVFFALGDNNASFLHQRYTDLMKQYANKDENIANKALDEDVA

LYYKEGNFSAILAYKDLIESKKIPNATQFLEKAAINDLKNAIKADNCINAANIFMRFSAYDIGQKIENKK

QMLACLIRTSNVEQALDYIDKNYNEDSIFYGLQKASILFDNKQYPQVIKISKDIANSRILKSDDENFKAY

YLQFLSLLRLNDYNQAIKILQILESFPMNFSMVEAYDALLSYANDHNMQTTILTYAPKAIDYQNFKGINL

FSPNLEFIYLDALTKINKNEESLAVLTDLLKLKLSDEDRARALYIQALTYERMQNIQAEKESLKQCLEIK

SASNWQNLCKSKNQILNQ

>AHK52606.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNSIKIKLSLIANLIAIFALIVLGIVSFYFTKTSLYESTLKNQTDLLKVTQSTVEDFRSTNQSFTRALEK

DIANLPYQSLITEENIINNVGPILKYYRHSINALNVYLGLNNGKVLLSQKSNDAKMPELRDDLDIKTKDW

YQEALKTNDIFVTPAYLDTVLKQYVITYSKAIYKDGKIIGVLGVDIPSEDLQNLVAKTPGNTFLFDQKNK

IFAATNKELLNPSIDHSPVLNAYKLNGDNNFFSYKLNNEERLGACTKVFAYTACITESADIINKPIYKAA

FIQAIVVIIVVVFSVILLYFIVSKYLSPLAAIQTGLTSFFDFINYKTKNVSTIEVKSNDEFGQISNAINE

NILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLDVLQARVGSDMNAIH

KIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQTAVQSLTTSSNSQAQ

SLEETAAALEKITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAIEAARAGEHGRGFAV

VADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQTTKDNVEIANESAI

ISSTVSDIANNILEDVKKKRF

>AHK52605.1 NADP-dependent alcohol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQYKILENNRIASKGYAMLSKDAKFTPFEFSRHAIGDNDILIKILYAGICHSDIHTARSEWGEATYPCVP

GHEIAGEVIAVGKNVSKFKVGDYAGVGCMVNSCGECDACKRSQEQFCENGKTIFTYNSCDVFHGNENTYG

GYSNNIVVSEKFAVCVPKDAPMEKVAPLLCAGITTYSPLKFSNIKEGSSVAVAGFGGLGMMAVKYAVKMG

AKVSVFARNENKKADALAMGVSSFYTSCDKNAVKERFDLIISTIPTPYNPAIYLDLLKFGGEMAIVGLPP

HEVAPSISVITFVHKAGKKVYGSLIGGIAETQEMLDFSLKHGIYPETELITPQEIDKAYENLTSGKAKFR

YVIDMTKE

>AHK52604.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKENSPCNFEECGFNYTLALINGKYKMSILYCLFRYEIVRYNELKRFLSSISFKTLTNTLRELENDGLI

IRKEYAQIPPKVEYSLSKRGQSLIPILQAMSKWGKKDKKGKKCLN

>AHK52603.1 NADPH quinone reductase MdaB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNILLLNGAKEFGNSKGQLNLTLHNHALEILKTLGYEVDQTHIDQGYDPKEEIQKFIKADAVIYQMPAW

WMGEPWIVKKYIDEVFGLGAGVLFKNDGRTHENPSKNYGKGGLDHGKKYMFSLTWNAPLEAFNDKNEFFE

GKGVDMVYWHLHKAHEFIGMKALPTFMCNDVVKNPQVEKYLNEYELHLKKIF

>AHK52602.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTRTKYLYILLVIAMFLWGSSWPTSKILANYTDTSIITFWRFFFVVLGSFFVLNFLKIPLKIEKTALKWV

LIAGVLNGLYAFVFFIAIKHGLAGKGGVLVTTMIPIFSYLIFMIAIFFQKNKKSTHKITKSEILGLFLGL

LSGFCLLNLGSLEDLFGKFNILFLTCSFIWALMAVFNHKAKGAHPLAINFYINLISILMFSWILFDVKSY

EIFHFEFKFWISMFVVAFLSTIIGTSIYYYGIHILGSVKANSFVLITPASALICSYFILDEVPNALTLLG

CALAIGAIYFINIYGKKA

>AHK52601.1 allophanate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSIKIIEASINSSLQDFGRKKFAKFGIARSGAMDEDALRMANILLGNKQDEAGIELCLKGGKYEFLDENY

FVLSGAEFEAKLDNQKIKTCKVYQANKGDILELDLAKIGFRGYLCVAGGFEVKSFLNSKSSDAKMGAGVF

EGRALQKDDILNTHNTFIPFNLEARECENPLFKSPKEPIIRVILGTNEDAFTQKGIETFLNTTYKVGLKS

DRMAIYAESSESIEHKNSADIISDPAVFGSIQVPKSGIPIILMAGRQSTGGYTKIATVIENDLSLLAQAK

LGSSFKFQSISMQEALELYKQREMKFKAMDQKINLDFENLI

>AHK52600.1 allophanate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFSVHFSGSKALLLRFEQEISPQINAYVLSTEQRIQKALKEGEIYGIDELVSAYASLLIYFNPCVLSLNS

LLDFLEKIKKDIKLAEQNSSLCIEVPLCYDEEFGLDLEFVCKHNQISKEELISLHTKPYYLVFMLGFMAG

FPYLGGLDERLFTPRLSSPRAKIEAGSVGIADKQTGVYPISSPGGWQIIARTPLEFFDKEDEKNPTLLKA

GMFLKFKAISKDEFFDIQEQVAKKVYQKEIYEYKNH

>AHK52599.1 LamB/YcsF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFKVDLNSDLGESFGAYKMGMDEEILKFVSSVNVACGFHAGDPCVMDETLNLAKQNGVCIGAHPSYPDLL

GFGRRNMQISFEEAKNYALYQLGALFGFAKAKGMKIQHFKAHGALYNMAAIDENLALALCEAVASFDENI

IFLGLSNSAMNEAAKKKGLRYANEVFADRAYNDDGTLVSRKLEGALIHDENLAIKRVIKMIKESKVTSIN

GKEIDLKADSICVHGDNAKALEFVKKIKENLKKEQIQICALENFI

>AHK52598.1 tungsten ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIISLALALALSASAAELKMATTTSTDNTGLLDALKPLYEKESGNTLKWVAVGTGAALKMGEDCNADV

LFVHSPKAEKEFMKKGFGVDRTPVMYNDFIIIADKSLASKFKGKNLKESLELIKNEKLTFISRGDKSGTD

NKEKSLWKNLGGVPEKQSWYQQSGQGMLASIKIAEEKKGVILTDRGTYIKYEANEKGKPNLVIVNEGDDS

LKNFYSVIATNPKHCKNVNYTEASKFIKWVTSDKTLNFIADFKLLNKPLFVIDAKTRKD

>AHK52597.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDYIFDGFKQALFLLFNADESVISAIKTTLLSSSISIVLALLIGFPLGFILGFFEFKLKRFIKLIVDTSL

SFPTVAVGLILYALISSRGPLGEFGLLFTIKALILGQFILALPIVIALFSNLIENMNKKHFLLIKSFHLS

PLKLVLTMIYELRFALISVVALAYGRIVAEVGVAMIVGGNIKYDTRTITTAISLETNKGEFASGIALALV

LILIAFCLNFITHKLKRT

>AHK52596.1 metal ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIEISNLFFNYQNKEVLKIKNLKLDTSKISILMGANGSGKSTFLRILKFLEGDFSKNISYFGNFKPNNKQ

KREIYLLFPEPILLNRSVRANFLFTLKTYGIKEDIEERIKESLMFLNLDESLLSKHPNELSSGQSQKIAF

AIALSVRAKYYLLDEPSAFLDKNTTLLFKKTILKMHENFNTGFLIASHDKHFLDSLAQKKLYLHSGEILE

FENTNVFELENQGVKFCNFIDFSNCKKYKDFKKPPSKIAIDPYKISFFNSKNIPKNNYDFILEKCYIIAL

RSRKSDVFIRVSCMDKILEFALEKQEFLRFDLKLYEELSLYFYEDAICFLN

>AHK52595.1 acetyl-CoA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNQNNQELFKPSKEFSRNARIKNLCEYYDLCDEAKEDFEGFWKRQAFEKIEWFSPFSRVLNEDKAPFYK

WFEGGTLNVSYQCLDRHMKTRRNKAALIFEGEMGDYEVYTYRRLLHETCKAANLLKKFGVKKGDRVVIYM

PMIPETAIVMLACARIGAIHSVVFGGFSPEALRDRIIDAGAKLVVTADGAFRRGKPYMLKPAVDKALSEG

CESVEKVLIVIRNNEPIEYIKGRDYVYNELVKNESYKCEPEIMDSEDLLFLLYTSGSTGKPKGVMHASAG

YILWAQMTMEWVFDIKDYDNYWCSADVGWITGHTYVVYGPLACGATTIMHEGTPTYPNSGRWWRMIEEYQ

ISKFYTSPTAIRMLHADAPNEPRKYDLSTLEVLGTVGEPINPSAWKWFYDEIGGTKSPIVDTWWQTETGG

HMITPLPGATPLKPGCATLPLPGIFAEVIDEEGNKKDEGEDGLLCITKPWPSMIRGIWGNDERYIESYFS

QAKKDGKAVYFSGDGAFYDKNGYITITGRTDDVVNVAGHRIGTAEIESAIAKHPSVAESAVVSILDTIKG

ESLFAFVVLSPASSCDLGGAIETLKELNDILRVEIGPIAKIEKILYTPGLPKTRSGKIMRRILRTIARGE

EIKQDISTLEDSKVVETIVKLAKAEFE

>AHK52594.1 UTP--glucose-1-phosphate uridylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLQTCIFPAAGYGTRFLPATKTLPKEMLPILTKPLIHYGVDEALEAGMENMGFVTGRGKRALEDYFDISY

ELEHQISGTKKEYLLDEIRSLINRCTFTFTRQNQMKGLGDAVLKGRPLVGDEAFGVILADDLCVNEEGLN

VMAQMVKIYEKYRCTIIAVMEVPKEQVSNYGVISGNFVEENLIMVNSMIEKPSPDEAPSNLAIIGRYILT

PDIFGILENTKAGKNGEIQLTDALLTQATNGMVLAYKFQGKRFDCGSVEGFVEATNYFYEKSKC

>AHK52593.1 glucose-6-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNNTLFFKQSEIHTISSYANRINDEVKSGDIGYYHLIDTSLNLIDESLQFIQDKEYVKNIVLVGMGGSS

CGVKALRDMLFNEKSNQRELFILDNTSSHSFNKTLEKIKLEESLFLIISKTGSTIEVVSLFKLLIEHFKL

DMQELKKYFVFITDKDSKLHQEGENLGIKCFFIPANVGGRFSILSAVGIVPLCFCGYNAKALLEGAKACF

EDFFTHKKDEILQKAYHYCTHKNANINVLFSYSDAFKGFNEWYIQLIAESLGKKQGYKRIGLTPIALIGA

RDQHSFLQLIMDGPKNKTVTFLKIKDAQKAPIIPDIHFKFLDSLSNKVNLHELLNAQCDATMHALIAENL

SVDVIELEKLDAWHAGYLMYYYELFTSTCGVMLGINTYDQPGVEVGKLILKNILNS

>AHK52592.1 DNA polymerase sliding clamp subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSVTKQLLQMQADAHHLWVKFHNYHWNVKGLQFFSIHEYTEKAYEEMAELFDSCAERVLQLGEKAITCQK

VLMENAKSPKVAKDCFTPLEVIELIKQDYEYLLAEFKKLNEAAEKESDTTTAAFAQENIAKYEKSLWMIG

ATLQGACKM

>AHK52591.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVLNFFYENHPKFEVSYERKNQISKPNIIIKGPRFCGKKTLIFNFLSQFKASEILFLDLYDTRFEKQSL

ERLADFLNENLQIKILCLYNLDFIPNLEKINIPIILSTNIKDLNVNGFEELELDYFDFEEFISVSKKNLP

INNLVGLFLQSGRSKFGEKNILLRQSFTLLELEILKYLALNLGQQISISKIFIELKKRLKTSKDSVYQAI

KKLENTYVIYTLKHDEKKLQKIYFKDFGLRNNLCISKDFSHLFENLVLSELFKFKEEFFYNKYFNFYSQI

SKIAYISSPTLDIDLIKLRAKKILPKALELGIFHVIFITLSSEDNFFEQGVKFEVISFDKFSLGF

>AHK52590.1 mannosyl-glycoprotein endo-beta-N-acetylglucosamidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKPIIIFFSLFLIPLFADDLKSGFGEEYYKLDIDQKRQIFFIKMNEMFDQSFKKIEQERAFIEAFFKDAY

KTGFRTSNQINLEKLITIKNKYRIENLYDFAEYKKRIQKIPKSMGIAQALVESATGTSRFAREANNLFGE

WTWGEKGLIPDLRHPDKKHKIKIFDSLQDSVDSYVLNLNRHFAYEKFRDARAKFESEGKEITGLEAIKTL

DSYSERKGYYINLITKIIKRYNLEKYDTNSNNT

>AHK52589.1 diaminopimelate epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFYKYCASGNDFVITNADRKEDRSALAKELCNRYEGIGADGFIVILPHEKYDFEWEFYNNDGSRAAMCG

NGSRAAAHFAHHINKINPNMSFLTGAGIIKAKVNQDKVEVSLGKIKSVQNTFEELGKTWQLCNTGVPHLV

HFCQNLDEFDTMLCQKMRQKYNANVNFVKILDENHLKVRTYERGVEDETLACGTGMGACFYLAFLNKKVQ

NKVKITPKSGEEVGFAYKNEELFFEGKVKYCFEANYNFF

>AHK52588.1 dephospho-CoA kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNAFFVTASIACGKSTFIEIANSLGFKSISADKIAHKILDENALELEKIFSPFSLKNLLKKEKKIDRKI

LGEIVFNNKEAKKILENFTHPKIRAKILEQMQILDKENKAFFVEIPLFFESGAYENLGKVIVIYTPKELS

LKRIMQRDKLSLEAAKARLDSQIDIEEKLKKADFIIKNTNSYADFRQECVKVIQEISKGNM

>AHK52587.1 phosphoribosylaminoimidazole synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKISYEDAGVSIDNGNTFVEAIKPLVKETFNDNVVGGIGSFAGAFRMPSGFKKPVILGATDGVGTKLRLA

IDAKKYDTIGQDLVAMCVNDLICNFATPLFFLDYYATAKLEVEVAKAVVSGIAKGCKMANCALIGGETAE

MPGMYAKDDFDLAGFAVGMAEEDEIDRSKFVKNGDILLALSSSGLHSNGYSLARKVLFESLKLKFDDKIE

GKNLIDILLEPTRIYVRDFLTLKPYISALAHITGGGLVENLPRVLPRGMGATIRKHHLKTPEIFYTIGQA

VEESEMYRSFNMGVGLVMVVDPSNVSKILENSDAFIIGEICINEGIVLE

>AHK52586.1 CRISPR-associated protein Cas1 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSYDEAFKTLLISSNAKLNLELNHLVIKQDENIAKLFLKDINIIVLESLQISISSALFNAFAKYKIILLT

CDETHSINGVFTPFLGHFQSAKIAKEQMNVSAQKKAILWQKIIKNKILNQAFILKKHNKIEQSNELINLA

KKVSLNDSKNIEAVAAALYFKTLFGTSFSRDELCFENSALNYGYAIIRACIIRAVCISGLLPWLGIKHDN

IYNSFALCDDLIEVFRASVDDCVLKLKGESEFLSKDDKRALIGNLQSKINFDGQNYPLNRAINHYVANFK

NALLYEDELKIVKFDD

>AHK52585.1 CRISPR-associated protein Cas2 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIEDKFMRVLLMFDVPTKSKKEQKLASKFRNNLIKLGYFMLQFSVYMRICKGLSSAKSSIENVKKILPPY

GNVRALIITEKQFDKMELLLGGIVFNEKVNNETNLTLFDIDSHGEFKYKNSNNEEIQINKKQEKYHQQNL

FEF

>AHK52584.1 molybdenum cofactor biosynthesis protein MoaA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLMSYEESLKILHSHIKTYEKIEKIALTECLGRILAQDIKAPKNQPEFPTSAMDGYAIKFEDQDKPLKIL

GLTPAGTMPQFSVQNGTCVKTFTGSLMSEGSDTLVPVENIRIENNTLFIEKKVPQAFAVRAVGENYKKDE

ILLKKGTRLNYSEIALLAELGFFHISVFIKPIVGVLSSGSEIKDLGEALENPAQIRSSNHIAIANLAKNL

NCDTRVFPLLKDDEKATFSTLESALQSCDILVTTGGVSMGDFDFLKKAIKEYEIIIDKADIKPGRHIKIA

KANEKFIIALPGFPYSAMVMFNLYTREILNSWLLQPKDYICKAFLQGSYKKKTPYLEFVACNIEFKNGRI

LANLEGKKEGSSAIINNLNNKAALMVVPKECEMLENESLVDIIFMP

>AHK52583.1 molybdenum cofactor biosynthesis protein MoaE [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKHFTLYQGSLDIPKIYSQWYEFSKDKNCGALLTFCGIVREEGGIEALSFDIYESLLKKWFDEWQKRVDF

DGISLLFAHSIGDVAIHESSYFAGILSKQRKLGLKLLNEFVEDFKASAPIWKYDVINKERIYAKERSTKL

CGAGLLKG

>AHK52582.1 molybdenum cofactor biosynthesis protein MoaD [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVKVEFLGPINKENLELEVKNLKELKEILQKDESLKEWLELCAVSLNDEIIFNENTKLKDGDKIALLPPV

CGG

>AHK52581.1 bilirubin oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNRRNFLKFNALTLASMGVAYANPMHDMHSMHKNHSINHDLDTSFINFAPKNLKLLDPKQFPQGEILKAL

PLLKNESKEKNIFRATLEIKENHIELIKGKKTLFYTYNGLVPAPKIEVFEGDKLEILVKNKLKEATTIHW

HGVPVPPDQDGSPHDPILAGEERIYRFEIPQDSAGTYWYHPHPHYTASKQVFMGLAGAFVIKAKKDALSH

LKEKDLMISDLRLDENAQIPNNNLNDWLNGREGEFVLINGQFKPKIKLATNERIRIYNATAARYLNLRIQ

GAKFILVGTDGGLIEKAIYKEELFLSPASRVEVLIDAPKDGNFKLESAYYDRDKMMVKEESNTLFLANIN

LKKEKLELPKNLKIFKPLEEPKEFKEIIMSEDHMQMHGMMGKSENELKIALASMFLINGKSYDLKRIDLS

SKLGVVEDWIVINKSHMDHPFHIHGTQFELISSKLNGKVQKAEFRAFRDTINVRPNEELRLKMKQDFKGL

RMYHCHILEHEDLGMMGNLEVKE

>AHK52580.1 carboxynorspermidine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFYEKIQTPAYILEEDKLRKNCELLASVGEKSGAKVLLALKGFAFSGAMKIVGEYLKGCTCSGLWEAKFA

KEYMDKEIHTYSPAFKEDEIGEIASLSHHIVFNSLAQFHKFQAKTQKNSLGLRCNVEFSLAPKELYNPCG

RYSRLGIRAKDFENVDLSTIEGLHFHALCEESAGALEAVLKVFEEKFGKWIGQMKWVNFGGGHHITKKGY

DVEKLIALCKNFSDKYGVQVYLEPGEAVGWQTGNLVASVVDIIENEKQIAILDTSSEAHMPDTIIMPYTS

EVLNARILATRENEKISDLKESEFSYLLTGNTCLAGDVMGEYAFDKKLKIGDKIVFLDQIHYTIVKNTTF

NGIRLPNLMLLNAKNELQMIREFSYKDYSLRN

>AHK52579.1 hypothetical protein N916\_07540 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGALMDLEKLRLARSLYYQCLGELFVFSFSEERLSKLQEYLKTMQECLFDENLKSNFDILLKHLDDENSI

QAFFKEYDLLFLSLKNSIPTTFSYIEEGFENSNPLLCVRQILVKSKIRRNEKFFKESEDSVGFCLLLMSE

FLRQNEDDLAKELFEKVINKSIDEFLGDVFMNKNANLYKEIASIASAFMEFERLCFEVEKPAKINSKKVQ

NDLSRSEFLRREANKQRRTREKSQGIS

>AHK52578.1 Tat pathway signal protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNRREFLKKSAFALGAAGVLGSTTLALAKDEERKDLVKGKSKKKEVLFQRSANWENYYIKAE

>AHK52577.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSSVGENIKLTRRSFLKMAALSSLATPLLARSETLREASADELKEAYEGSKKVKTVCTACSVGCGIIAEV

QNGVWVRQEIAQDHPVSSGGHCCKGSDMIDMVRSHVRLKYPMKKENGEWKRISYEQALSEIGEKLAAYRK

ENPESVMFLGSAKLNNEQAYYIRKFAAFFGTNNVDHQARI

>AHK52576.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTNHLGDIQRSKCIIIIGANPAVNHPVGFRHFLKAKEKGAKLIVVDPRFTKSAAKADIYARIRPGTDIAF

MYGMLKIIFDEGLEDTKYLDERVFGIDKIREEAAKWTVEEVENVTGISKELLVQITHEVAKNKPTTLIWA

MGLTQHTVGTSNTRLAPIVQMVLGNIGKFGGGVNILRGHDNVQGASDMACLSENLPGYYPLNEATWRYYA

KIWGVDYEWLLGNFVSKDWMHKTGLSLARWWAAALNGKDGNDAIDNAGTPLKALVVMGNGITSTAQQVKV

KEGLEALELLVLADPFVNEAGIIAERKDGIYLLPAATQFETSGSVTATNRSGQWRFKVVDPLYESMEDQE

ILFELAKKLGFYEDFTKTLRDEKGEIVWPENATREIAKAVRSIGLNGWSPERLKKHTLYWDKFDEVTLEG

KDEVAGEYYGLPWPCWSDKHPGSPVLYNTDIEVAKGGMGFRNNFGLEYEGESLLAKNAPLNSPIDTGYPQ

ITKDNIEKVLGITLSAQEKEKMGSTWSYDDSNIIATKCIEKGIVPYGNAKARAVVWTFKDKIPLHREPLH

SPRNDLVQKYPSFEDQKALYRVDTKFVSVQQAKDYSKEFPLNLVTARLVNLNGAGMENRASMYLTRLTPE

MFCEINPELAKEQDIKAGDMIWVHSPEGTKIHVRVKVNPGVAKDMIFLPFHFTGVMQGVDLTHNFPEGTK

PYASGESANTVTNYGYDIMCQIPETKGGLCRISKDGK

>AHK52575.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKVNFANLEKERLKFFCDNERCIDCNGCAVACDEAHELPIHIRRRRVITLNEGIQGKEVSTSISCMHCD

DAPCSIVCPVDCFYIRADGIVLHDKEICIGCGYCLYACPFGAPQFPKDSVFGNKGIMDKCTMCAGGPEAT

NSEKERELYGQNRIAEGKVPVCAAMCSTKALLVGESSKIEEIYHNRLMNRNYGIPNPSESLEWKIAYTGK

ERL

>AHK52574.1 formate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRKVFVTLLLSVVSLFAYGSERMGQDTQIWDFHRITNIPNYDTFGKLWTTLQGEYIATIALIAVIAVLSA

FALHYMVIGPKQFSHDGKKIYAFTLFERLFHFIAAISWVILVPTGFVMMFGEVFGGGVFVRVCKNLHAFA

TILFIISIIPMFLCWIKRMLPASYDIRWMMIVGGYLSKIKRPVPAGKFNFGQKSWYYIAVFGGFLMIITG

GFMYFLDFNSTAIQGLFGLTQIELLRISAIVHNFLGIVCAVFFGVHIYMAVFAIKGSIHSMISGYKEEEE

VYILHSYWYKELSNKKQIEPSFSYDPNVKI

>AHK52573.1 formate dehydrogenase accessory protein FdhD [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDPLFTTQILKYKGDESFTCNDTLVREIKLEIFINDEKVGALMATPVDEQALAIGYLMSENIIAKVSDIE

SIETKDDGMSVHIKAKIDKENLAKLNAEGVVISGCGRAHTANIDPEAIEASKISSDAKFSKDEILKQMST

FYTQCELYEKTGCVHTAKLFVDEKTFFIGEDIAQHNTIDKALGKACLAGVDLSQCFLMVSGRLSSEMVAK

AVMHKIPVLVSRTAPTCLGVMIARKFDLTLCGFARENKINIYSGEFRIHG

>AHK52572.1 regulatory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDKNQEKEIISYMRELLNSNEKLDCGTAFKIAKKFNINIEKIGQLADENHMRIDNCELGQFGHLDFEKAK

IEVLKKIEPSLDEKRRIFCKDARDIAKEGCGLKSMRSALKTYKVDVKYCQLGCFKEKKGKQFIVRTKTWI

ENADGDLLFGRGKTELLELIGQTGSLLHASKLMGINYKKAWMHLQTLQKNSQEILVSTRQGRSKESGTKL

TPRAMELMENYSILQKDIEEYANKRFKELFLKGKK

>AHK52571.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFKSLNIGLKLIFSVAAVVVIGLVILISLITKQVSQNITKNTEDILASITKEYATQTQGIFGEMIALNKS

ISGTLTEMFRSTSKEDLDIDNITNIITNTFDNSAYSNFTYLYLIDPPEYFKEESKFFNTQSGKFVMLYAD

EEKDNKGGIKAIQASDEIANLQVVQDILKKAKYGENKVYIGRPIKMNLEGQDFDAVNVAIPIFDRKNQVV

GVIGMTLDFSDIATYLLDPKGQKYDGELRVLLNSDGFMAIHPNKNLVLKNLKDINPNKGAQETYKAISEG

KNGVFNYIASDGDDSYAAINSFKVQDSSWAVLVTAPKYSVFKPLKKLQLIILGASFIFIFVVLGVVYYCV

RKIVASRLPVILSSLESFFRFLNHEKIEPKAIEIRANDELGAMGRIINENIEKIQISLEQDQNAVDESVQ

TAREIEKGNLTARITKNPINPQLVELKDVLNRMLDVLQSKIGSNMNEINRVFDSYKALDFSTEVFNAKGE

VEITTNILGKEIKKMLLASSNFAKDLANQSEELKNSMQKLADGSNAQASSLEQSAAAVEEINSSMQNVSG

KTVEVASQADDIKNIVNVIKDIAEQTNLLALNAAIEAARAGEHGRGFAVVADEVRQLAERTGKSLSEIEA

NINILVQSVNEVAESVKEQTAGITQINDAIAQLETVTKENVEVANVTNNITNEVNQIAAAILEDVNKKRF

>AHK52570.1 regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIDCRNLSCPQPIVETKNALEKLQENEILEIVLNSIISKNNVVKFLNSLNLNPVVDENAQEFCIKVQKK

NFDSSEVNIHDYNVLFLKTDKVGEGELGQNLLVGFLSTLKNLDHAPSKILCVNESVLINVDENHKAHLAM

KELENLGIEIISCGACLEFFNKSKELKIGNIGNAYEILNELFGKAKIITL

>AHK52569.1 segregation protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKTPALLSDIGNNEDASVYQISPDLALVQTLDFITPIVDSAYHFGAIAAANALSDVFAMGAEVINALNI

VGFDTCNHDLNILKELLEGANDKVKECNALVVGGHTIESTELFFGLSVTGKVHPSKFIANNTSKIGDCII

LTKPLGTGILSTALKAQMLNQKHLDIMLKNMIELNYKASQIALKFHPSAMSDVTGFGLLGHLKEMLNKNI

SFEIFESELPFLDGVKEYFNMGLIPAGAYKNLEFIKELTPDLNEEKLLLCDPQTSGGLLISISEKDSLEC

LKKLEDENIQAKIIAKVVNKQENDIIIS

>AHK52568.1 1-pyrroline-5-carboxylate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIQKALALAEELQGQIEANISNSEKEFHAKMQKLLNNPKNKVMLIELLDRSFRCKDKNASFELIEYTLSK

YGIADFFSTFEKFLLFSFLNFGKFAPNLSVPFFVKHLREDTKAMVLDANPSVLEPHIKKRKEQDKITLNV

NLIGEEVLGEAESKYRMQKYEEALKSSYITYISIKITTIFSQINIIDFNYSKEEVVKRLDYLYALALEEE

KKQGVSKFINLDMEEFRDLELTVAAFMESVAKFDIKAGIVLQAYIPDSYKYLKKLFAFSKERVLKGMKSI

KIRFVKGANMESEETIASQRGWELPTFYKKIDTDSNYNKMLDFILEGDNYKYINIGIASHNIFEIAYAYT

RISEVGALDSFTFEMLEGMSLQCSYELSKMHDLILYTPVCDEAHFNNAIAYLVRRLDENTSEDNFMRYFF

NLKVGDKNWNIQKELFLKSLEGIKTLDNTTHRKQDRNKESNIISSYEGKKFSNESDTDFILAQNRVWAKE

IKTKYENLKDYDVYPVIGELDFKAENLNVLEVKDKIEDRVIGKAYLAGEKEIKQALEVAKNSKFTQKSHD

EIYQILAKSAKLMRERRGDLIGLAALEVGKTFLEIDPEVSEAIDFIEFYPHSLEELKKQNPKVTFTPKGI

GVTIAPWNFPIGISVGTIAAPLAAGNVVIYKPSSLSTLTGYMLCKCFWDSGIPKDALIFLPSKGSDISKY

LLIDEAIKFSILTGGEDTAYAMLKANPTLLLSAETGGKNATIVSKFADRDSAIKNIIHSAFSNSGQKCSA

TSLLVLEEEVYHDEEFKKTLVDAASSMAVGNPFEFKNKLGTLADKPSSKVQKALDELQPYEEWALKPKFL

EDNPYLMTPGIKYGTKKGDFTHMNELFVPILSVMKAKDLKEAIDIVNSTGYGLTAGFESLDEREWEYFHT

HIEAGNIYINKPTTGAIVLRQPFGGIKKSAIGLGRKVGIYNYITQFLEIKQEDFDDHLIEDKFSKKLAQI

DLKEAQDFINNLIKMSQSYAYHYKNEFSVSKDYVNIRGEDNLFSYTKIKNMVLRLCGNESLKDVLGVVLG

ANIANIDLSISYDEQDVSMIERIVQSIGAKVLFLKENKENFIKSIKEYERVRYLAKPDVNDEIYKEAAKL

AKIIIREKPLLNGRFELLNYFNEKALSISFHRYGNLGIRAIS

>AHK52567.1 sodium:proline symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEVVQINTPIAVMFVVYALLMLYIGFYFYKQNKNSEDYFLGGRTMGPVISALSAGASDMSGWLLMGLPGA

LYVSGFIDSYIAIGLTIGASLNWIFVAKRLRIYTSVIANSLTIPDYFETRFDDDKHILRIVCAVVILIFF

TFYVSSGLVSGAKLFESTFGIRYDYALTTGTIIIVAYTFLGGYKAVCWTDMIQGLLMMMALIIVPLVMLY

HLGGFGEAMNIVREIKPQALSMGEGVGIVSIISALAWGLGYFGQPHILVRFMSIRSTKDIPMATFIGIAW

MAVCLLSACMIGILGIAYVHKFELSLQDPEKIFIVMSQLLFNPWIAGILLSAILAAIMSTASSQLLVSSS

TIAEDFYKKIFREDAPSHIVLNLGKLGVLLVAVIAFLISTDKNSSVLSIVSYAWAGFGASFGSVMLFSLF

WSRMTRVGAILGMITGAATVVLWKNFANSGLYEIVPGFLVASVVIIIASLFTNVRSGTKAAYEKMLKEF

>AHK52566.1 hypothetical protein N916\_07470 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKITYSLNLQGEACPYPAIATLDVLPKLKSGEILEVLCDCPQSINSIPQDAKNRGFKVLEIDQSGPTLRF

LIQKP

>AHK52565.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNSFKQKYLINFWDNSRSMIALGILSAVYFGIFGGVWAVTGEMTRWGGEFLELLGMNLDGYSYYQKQNLN

GTPLTRTDGIMLIGMFIGCLVAALLANKVKFRLPASNIRIFQAIVGGILSGYGARLAFGCNLANFFTGLP

YFSLHTWLFTVFMVLGIYLGVKICNTSFFKPKAKLERVNKENLPLNKQSLRTKLYFNLGILLFIAFLVWV

FYLVFTNGNISTQNKQSLLALALIFGFVFGFVISRGQICFTSCFRDLFLFGRDNAIKGALIGMIIASLIA

FAFILQGHTSKLIELSPAVAVGAFLFGFGIVFAGGCECGWTYRAFEGQSHFIIVGIANIIGTMILALSYN

FLPKAFKEGIKINLLTEFGNLNGFFINLILFILMFVFVVFYKKHFFKNQLKG

>AHK52564.1 adenylosuccinate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKADIIVGIQWGDEGKGKVVDKLCENYDFVCRSAGGHNAGHTIWVNGVRYALHLMPSGVLHPRCINIIG

NGVVVSPEVLIAEMAQFENLKGRLYISDRAHLNLKHHSLIDIAKEKLKGKNAIGTTGKGIGPSYADKINR

TGHRVGELLEPQRLCEALIKDFEANKTFFEMLEIEIPSAEELLADLKRFNEILTPYITDTTRMLWKALDE

DKRVLLEGAQGSMLDIDHGTYPYVTSSSTISAGTLTGLGLNPKEAGNIIGIVKAYATRVGNGAFPTEDKG

EDGEKIAQIGKEIGVSTGRKRRCGWFDAVAVRYTARLNGLDALSLMKLDVLDGFEKIKICRAYEYKGMEI

DYIPSDLENVQPIYEEMDGWDKVFGIKDYDLLPENAKKYIARLEELAGVKVKYISTSPERDDTIIL

>AHK52563.1 hypothetical protein N916\_07450 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKSKYNSVVKVRKQQLDKAESNLNQAKQRQLEHEKAYELSRQECESLGVLPKSGSIAELRSNLSMAQVGR

EALARAKEKVELSKKEMNHYQFLYQKAHLDYEKMKVLEAEEIKQKQKELAKAEEKFLDEIAISRFFKGEK

DD

>AHK52562.1 hypothetical protein N916\_07445 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKKFILLVFISSVVFGAEQDCEQYFEARKAQIELQTREFDEARQSLEAYKASFEALQKERLENLEKKEA

EVNATLAKIEELKLENARLVEEQQKILNSINDKTQGRVKEIYSQMKDAAIADVLSQMDAEDASKIMLSLE

SRKISGVLSKMDPKKASELTLLLKNLDNNASN

>AHK52561.1 competence/damage-inducible domain protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRIKLPHIPYIANKMMLDIANSSFVEIKDQLEKLKVCIIEVLEKDILNERKLDERVKELLEQQEDEMELM

QVDRKNMFWLVKKKLAPEFNVILDSEDRHNHLAHQILEELVENDYINFIVSENRVKNLIFSSIESYLKIY

EKLEDEVYEKISNYKTKPIPGSEEYDLIFEKLYQEELRKKGMF

>AHK52560.1 carbamoyl phosphate synthase small subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKAYIYLENDIFLSAKAFGKSGTFFGELVFNTSLTGYQEIISDPSYAGQFIVFSMPEIGIVGTNENDNES

KEIFASGVLMRELSSSFSNFRAKESLQDYLEKHGKIGIYELDTRYLVKMIRNNGNLRAVISTEISNKEDL

KIALEKSAKIDEVNFVKEVSTKKNYSHKQGVWNASFQKFNDAKRSEKKVAVIDYGVKTNILNELVEVGFE

VEVYPYNVKADELITLYKKGEIQGVFLSNGPGEPRILKQEIAEIKKLAEAKIPMLGICLGHQLLSNAFGY

ETYKMKFGQHGANHPVINLDTKTVEITAQNHNYNVPEELAQVAHITHRNLFGDNVEGVRYKDYPIISVQH

HPESSSGPHESKYIFKEFMNLM

>AHK52559.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSIDFLAIISVAFLSSFGHCYSMCGGFNLLFINLNSKSNNLFLLTFIYNLFRIFAYIVLGIIFGTFGNIL

AINAKVQSLSFFILGIFMMILGFALIFRGNMLSFIENNVFFDSFVKKIIKKSKNFKGLKSAIFLGFSNGF

VPCGLVYFFIANAMSKQNIFEGILVMMIFGISTLPAMLFFSKISQFFSDFLKNLFNYLSYGVIVCYGINL

AYIGFKAFQ

>AHK52558.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKDFFKDQFFKALEKNTIFSRADVQGNLIFVSDKLCQISGYSKKELIGKKHSIFKHPDVEECYIEELLKK

LSYKKPYQVIFKNIDKLGKTFYLETLLIPILDKNNELIEIVAFSHDVSNSFKLNEELALNHAKLRELSIN

LENTVKNHQQEFIQLGKKFEKKMQIALEKNEKDIKIAYEEILKSSLEQMISDIAHQWRQPLNELGIAMFQ

MKQNLKDEKGFAEIYSQSKDMIKNMSETIDVFRTLFNKGVEQCVFIKETLNKALEIAFETIEKNHVNINI

VSKSDYEVLAYENGLIRVFLNLILNSIEAFKNKKRKIITINFSKFGKNYLKITIKDNAGGIDKENLDKIF

QPYFTTKHPSQGIGVGLYISRQIIESFQGKIKVKNGKDGACFEIFLKLKERVE

>AHK52557.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSQECKELIILVVEDEVKARESMINILSERFSKVIGAQNGDEGLKKFKKFKPDLVITDIAMPIMDGLDMA

REIKEISDDVPIVVLSAYSEKERLLRSIDIGIDKYLIKPVDIEELFKVLDYLIGEKIEANMLVKISEEYQ

FNKTKRTLIYSGGEIVLTKKELAFISLLLKQPGALVLHEDIKKNVWIGEHVSDTAVRTFIKRVRDKVGED

FIKNVPSLGYKININK

>AHK52556.1 cytochrome oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHPGNVLNYDYTVARYFMFATILFGIVGMAIGTLIAFQMAYPNLNYLAGEYATFSRLRPLHTSGVIFGFM

LSGIWATWYYIGQRVLKVSMAESRFLMAVGKLHFWLYMLTMVLAVISLFMGVTTSKEYAELEWPLDILVV

LVWVLWGVSIFGLIGIRREKTLYISLWYYIATFLGIAMLYLFNNMEVPTYFVTGMGKWWHSVSMYAGTND

ALVQWWYGHNAVAFVFTVGIIAQIYYFLPKESGQPIFSYKLSLFAFWGLMFVYLWAGGHHLIYSTVPDWM

QTMGSVFSVVLILPSWGSAINILLTMKGEWSQLRESPLIKFMILASTFYMFSTLEGPILSIKSVNALAHF

TDWIPGHVHDGTLGWVGFMTMAALYHMTPRVFKRELYSKSLMEAQFWIQTTGIVLYFASMWIAGITQGMM

WRATDEYGNLLYSFIDTVVAIVPYYWIRAIGGLLYLIGFFMFTYNIYKTIACGRVLDKEPKSASPMAA

>AHK52555.1 peptidase S13 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFSWLEKNPFFFAVAVFVVIAYAGIVEVLPNFAENARPIEGKKPYTVLQLAGRAVYIKDSCNACHSQLIR

PFKSETDRYGMYSVSGEFAYDRPFLWGSKRTGPDLARVGNYRTADWHENHMWDPTSVVPDSIMPSYKHMF

KNNADIETAYAEALTVKKVFNVPYDAENGTKLGSWEDAQAEVKAEAQAIVDQMKNQEVKDAFAKGEIKEI

VALIAYLNSLK

>AHK52554.1 cytochrome B561 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEHLSIVFDVIKNLITFDLATVQKHEWEIFQGYGFFALVMFLSIVLYAYWYHLYRTEKKGERNYENYANL

ALKDDIDDSVLESKRSA

>AHK52553.1 cytochrome CBB3 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQWLNLEDNVNLLSLIGAILIILITLVIVGRMFKQMKEKKGESELSEHSWDGIGEYKNAVPTGWAVVFFL

TIVWAIWYFLWGYPLNSFSSIGQYNEEVATHNTKFEEKFKNLSPEDKIAMGQNIFLVQCSACHGITGDGI

NGKAQNLNIWGSEEGIINVIKHGSKGMNFPGGEMLGAADLGVAEEDIPAIAAYVAKDLSAIKKTANENLV

AKGKEAYATCAACHGEDGKGQDGMFPDLTKYGSAAFVVDVLHSGKAGFIGTMPSFPTLNDIQKEAVGEYV

ISLSRGE

>AHK52552.1 hypothetical protein N916\_07395 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENNNRCVFSLSGVTGMLIATVLLLVILAVLTIWGLKAQQEVMQKPYSLKDVQSVKMFGSKEQDHRSIKE

AQ

>AHK52551.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILQDGFFLAIFFFVLLPSRVFALDAVLFNENILSQKVSNEINLIGKELYQKSNIFIGVMVGDKTEIE

TLLNKQKELPQSYILLLLSKNSHKVDIVGSKGALALIDKEAVLSPYPGTGSILPILATNKGDIYNAAILN

GYADIVDRVAKSLGLQLEHSIGNANRDTINILRILIYGFICFALLYYAQRRIKRKKNVRN

>AHK52550.1 hypothetical protein N916\_07380 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLETKKSFWPYGILLSLLAIIIACIVTIFIASHHPVYEDDFYFDSYQNVENNYNQIQKQQVNFDKFFKVN

FQNDKITFIGKRKIPSYEVDQNSYVANFKISALQNINSNDLKVQVLLTRPFTKNFDQKLEGQVKNGILSI

ALPKLDKGRWELKLKFYANQETVGFFSYELNAQ

>AHK52549.1 hypothetical protein N916\_07375 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLRIFSSSRQIREYYNQKKQQNALLDSAIHIGEFLDKVCLSNFHKASSYESLLLMQEACLKSKDLEKKL

GISVEFFAFLKNNEYLFSFFKELSLEKKSIEDLKNNDYYATYNEHLEILDEVYKNYLALLEKNSFYDDLS

LPKNYTLNKDFLDEYEAIVYDLQGFLSKFEENLLSEISQIKEVVLSFKTSKFNLEYLLKLDFLKIFDLKI

NTHYEINLSKQEILKEEIFKTKNSKMKLKSFELRALQCAFVMDEISHFVRKGLKPENIAVITPDESFCEF

LRLFDKDNMLNFASGISIKESLFYQKFQALYESASSASFVYKNQEDYFEDTQMIFDYHNTLLHSLKLDFI

EFKKYFDEKCDFEYFEKLLALFLENEKQELMYLIRKELYFIKDLLKNQSLTLKELIHLFFMQISQLSLSD

VGGGKVTVMGLLESRGLCFDGVILVDFNEEFIPKRSVNELFLNNEVRKKAGLISYDRRENLQRFYYESLM

KNALEVSICFVENEEKSKSRFLDELDFDFFYETHIHQKAYLNALKLDYEGIKPNLTPIKAPILKHNPFEF

PLSFSRFNLLENQKRTYYYRYILNLAEPRVLSEESKAKNQGNFIHKMLEIYYKNYANNDFDIKVFANLLD

KEYQKYNISELDLEVFKLKFMQFAKNEKEHFSKGFYVVHTELELNNILKLGTDSIKLKGTIDRIDSSKEG

NLIIDYKSGKVPSNSYQLAFYQALYDENASVGFYDLNSMQILHQKAKSLDELRERLKDLVLMSKEEIEFE

NEQDEYCPYKLIYKKELK

>AHK52548.1 recombinase RecB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSQFEPFLALEASAGSGKTFALSVRFVALILKGARINEILALTFTKKAANEMQKRIIETFLNLEKENKTS

ECNELCKLLGKDKEELISLRDAKKEEFLRTELKISTFDAFFGKILRVFALNLGLSSDFTMSEERLDVREI

FLKLLKKDELKDLAYYINLVDEKENFFNELEKFYENAYFQNRPKILNPTKAYINKAYSELRSYCLGLTHV

KNYKNLCDNFKSEVLDLSVFMQSSFMTKFESTKYLQDLESTNLHFSAKRMEFINALNTYAIELENYKIAN

LMNLLNHYSEAKNIFHKDKNTLNFQDVSKKVYELITSEFKDMIYFRLDGFISHLLIDEFQDTSVIQYQIL

RPLIAELVSGEGVKKNRTFFYVGDKKQSIYRFRKGKKELFDLLKQEFSQIKSDNLNTNYRSKELLVDFVN

ETFKEKIKDYKEQFALESKKGGFVRIVESKEQKVKNQAQEIKEKTLETLFEQINFLRSKNISYDDICILC

WKNSDADMVLDFLREQNIPAFTQSNVLLENKASVRLVLEYAKYCIFGDEFYLVFLKELLGFEPRKITLDF

SKNAMENVLFLIKELKLDLNDIALIQFIEYAKTKENFLKLLFEPCALKIVSEQNMGISIMSVHKSKGLEF

DHVILLDSLSKNNSNNEDIMLEYDINQGWQLHIKDKIRELTKEPIYTLFKENITRANYEDDINKLYVAFT

RAKESLIIIKRNEESVNGNYPSYFKGGFLNIHSQERGFLESKEQILSVKKESIQTLQKFEKITLQEIQSE

ERLDSKELYFGNAFHFFMQNLKLPKGENFQILTQRCKSKFRHFLDESDFEKLFKRIEILLKNIQFQNLIG

DGKLLKEQALSFNGEIKQLDLLALKDEEAFIIDYKTGLAMQDKHKEQVGTYKIAISEILQKDKVRAFIVY

CLENEIQILEI

>AHK52547.1 50S ribosomal protein L13 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKITKPNEVKREWIVLDAEGKRFGRLLTEVATILRGKNKPCFTPNVDCGDYVIIINASKAVFTGANKAE

DKLYHRHSGYFGSVKSEKFGDLLEKNPAKLYKLAVRGMLPKTNLGRAMLKKLKIYAGSEHPHTAQIAKEG

K

>AHK52546.1 30S ribosomal protein S9 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MATTYATGKRKTAIAKVWVKPGSGKISVNGVDLNTWLGGHEAIKLKVVQPLLVTKQETSMDIKATTLGGG

YSAQAEALRHGISRALAAMDADFRALLKPKGLLTRDSRTVERKKYGRRKARRSPQFSKR

>AHK52545.1 outer membrane fibronectin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIFLCLGLASVLFGADNNVKFEITPTLNYNYFEGNLDMDNRYAPGIRLGYHFDDFWLDQLEFGLEHYS

DVKYTNTNKTTDITRTYLSAIKGIDVGEKFYFYGLAGGGYEDFSNAAYDNKSGGFGHYGAGVKFRLSDSL

ALRLETRDQINFNHANHNWVSTLGISFGFGGKKEKAVEEVADTRATPQAKCPVEPREGALLDENGCEKTI

SLEGHFGFDKTTINPTFQEKIKEIAKVLDENERYDTILEGHTDNIGSRAYNQKLSERRAKSVANELEKYG

VEKSRIKTVGYGQDNPRSSNDTKEGRADNRRVDAKFILR

>AHK52544.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKTILFDLDGTLIDSTDAILNSFQGAFKALGLTSKNNEEIKNLIGYPLEQMFRMLYPDKVNLSKEFVLA

YREIYAQIYLEQTTLLPKAKEALELGSEIADLGIVTTKGGKFTPILLDYLGVKKFFKTLITLEDVTNPKP

SSEPIILALKGLNKTQENAYMIGDTILDIQAAISANITPLALTCGYGNENELKAHSMVFLNAYEAVNYIA

RLN

>AHK52543.1 Pyruvate-flavodoxin oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGKIMKTMDGNEAAAYAAYAFTEVAGIYPITPSSPMADYTDMWAAAGKKNLFGVPVKIVEMQSEAGAAGS

VHGSLQAGALTTTYTASQGLLLKIPNMYKIAGQLLPCVIHVAARSLAAQALSIFGDHQDIYAARQIGFAM

LCSHSVQETMDLAGVAHLAAIKGRVPFLHFFDGFRTSHEIQKVEVMDYAHFDRLLDREALLEFRNNALNP

ENPKTRGTAQNDDIYFQTREVSNRFYDALPDVVNEYMQEISKITGREYKPFTYYGHKEPECVIVAMGSVT

QALEEVVDYLNAKGEKVGILKVYLYRPFSLKYFFDVMPKSVKKIAVLDRTKEPGSLGEPLYLDVKSAFYG

RENAPVIVGGRYGLSSKDVDPAQMIAVFENLKLDNPKDGFTVGIIDDVTHTSLSTGEKISLGDESTIECL

FYGLGADGTVGANKNSIKIIGDKTDFYAQAYFAYDSKKSGGYTRSHLRFSKKPIRSTYLVSTPHFIACSV

AAYLEIYDVLAGIRKGGTFLLNSIWNAEETIRQLPDAVKKTLAEKEVNFYIINATKLARDIGLGNRTNTI

MQSAFFKLAKIIPYEDAQKYMKELAYKSYSKKGDAIVEMNYKAIDVGADGLVKVEVDPNWKNLELKEKEQ

TNAYKGTEFVEKIVKPMNAAKGDDLPVSAFLGYEDGSFEHGTTEYEKRGVGVMVPRWIEANCIQCNQCAS

VCPHAVIRPFLINDEEMANAPRGVKDHALEAKGTKGEKLSFKIQVSPLDCTGCELCVHECPTKEKSLVMV

PLQEEMDFGEQENADYLFKEITYKDDILNKETTKGAQFAQPLFEFHGACPGCGETPYITLITRLFGERMI

VANATGCSSIYGGSAPSTPYRKSVKNGHGPAWGNSLFEDNAEFGLGMKIATENTRHRIEHIMNESMQEVP

NALSALFKDWIANKDNGAMSVEIKDKMIPILEQNKNIKAVQDILELKQYLSKKSHWIFGGDGWAYDIGYG

GLDHVLASGENVNILVLDTEVYSNTGGQSSKSSRTGAVAQFAAAGKPIQKKDLGQIAMTYGYIFVAQVNS

TANYTHLIKAITAAEAYDGPSLVICYSPCIAHGIKGGLGYSGEQGELATKCGYWPLYTFDPRLEEQGKNP

LTLTGKEPDWDLYEQFLMNEVRYNSLKKANPEHAAELFERNKKDAQRRYRQLKRIAMADYSNEVES

>AHK52542.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MCFSTLFAQDNFEEYFKLIDKENRINFNTLQNPFVNPTFEKLRHIKITAIMLDKVKIYDRWYKKGDMIDD

AIIYEINTKEIKFQYDNLEIAIQINKNDKINININ

>AHK52541.1 type II protein secretion system D protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIRLILILINILFCHYLYALDCQKRLFDISINEKLSIQESLDELAKYCSFSIIVKDKIAKEKLETLQNSV

NIHQMSLDEIFNFFIKEHDLSYDFDGKILRISGINTKIFKISYITSIREGQSITKASVDAKPRQSEYSGS

FDDAEDNMIKSMEKFDFWQNIEKEIIVLLKNSHEDYEAKTPIINPNAGLIIVTGTNSQLKSVKNYLQKLE

NRLKKQVIIDVSILAVSLNESHSSGINWQNFNIGLNSQVNNENSFIQFQNGQGFVKNLGLRANLNFDSII

NFLSQNGKTSVLSNPKLMALNNQQAIISVGDTINYQVKESSKGTENGTTVSESYNNYSIFVGILLNILPE

ISDDGKIMLRINPSLSDFKYPEDNKRQKEPRTIAPDTIQKKLSSVVQVENNQTLILGGLISHDKSNEKNS

INFLSKIPILGSLFKGEVLNSKATEIVFIITPSIVDSVNAPSLKDLGFKHYE

>AHK52540.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKIIPFREEIFHQINQILESQKAFIFLWGKSGSGKSVLLQRLAKKYNVDFINENFKDQSFLKEKIEFLI

SQGQSLIILDEVGMYDYAMLESIRIYSDSISFVLSSHKKLNILKKEHFKSRLSACFKLKNISLLELDDYI

KLKFGMNFSNKCLKFLQKISQGNLRYIDKTLKSFYEINSFFDKNKSQEYILKLSALENGLLR

>AHK52539.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQERIKELELRYKYFLLKKYLKYLLLIILISVIAFCFFVLMQKYNKQKNIYLQAIEHKKHLEQKILQAQI

LQEKNKISREKLYKELEEVKAVQENTHISKIEIDSKILNISDLKKSFYQNPSYEKALNLAKKYFDIKAYQ

KTIFWALKANELDKQKQDSWLIFAQAKRALGEEKEAQSALDAYINYYGLMELDGK

>AHK52538.1 type II protein secretion system E protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MESRMDKIFQAYIDNEISLDEICTKFNITSWDFFNKLANFCNLHFVDLDEDNDFIYEGIPFSLLLKFKFL

LIKNNDGFMIIRSKPCSLELLEQVKTFMICEKIDTAIADELKIAKILNQIRIQEEIKRLSIKLRLEWQEN

HKRDDQSCISQIFDFLLHEILSFHASDIHIEARNNDALIRFRVDGILREFAIFEKDIYEALVFHVKFLAC

LNLAESRKTQDGSFELDFENERYDFRVSCLPLIYGESVVIRILKHDKEILDLYKLNLGNKNLEILKKILH

RPNGMILLTGPTGSGKSTTLYACLNELKSIEKKIISAEDPIEYKIPLVQQILLNSKVGVEFNSVLRAILR

QDPDIIMIGEIRDEESLDIALKASLTGHLLLSTLHTNDALSTIDRLLDMQAKSYLIASALSLVIAQRLVR

KLCPWCKQKSKKHYIEFEGEFFEPKGCERCHHSGFFGRELIAECLEINEDLACAIRENQDKTILMELAKK

YGFQTMFEQGLKKAKEGLTSIDELLRVVR

>AHK52537.1 general secretion pathway protein F [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFYEVEFLKNNQNYTKTIKAENLNTAQAKALSKNWKIIDIKEIQKSNFQRLKDENFILFFKELALLCEV

GLSVQEAIRELYFMHSCKIMKKILDNLILAQNLNQAFENANFGLNRAELALIKTAEKTGKISEVFSQISK

LREKSLESQKQLKKAFRYPTLVFLSIIGAFLFLMLFVVPNFKDLFENLGASLPFITHVMLEIYNFLDDYG

IFCIFLFVIFIVMLILAYKNFHSFAFSCDFLFLKVPLISRLIIYNQNYYFFMVFSLLLKNGISISKAFDL

AIIGLENKFLIFQYKKLFSFIDSGLELSQAFKKIDIFDSLVFSMLSVAMKSGRLEVLSEEIAKYYQQKSE

NLMDRFLIFLEPMMTLFVALLVLFLALGIFLPMWELSSGVNFN

>AHK52536.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGFEHLNTIYYFILFFVALFAGFIDSIVGGGGLITLPALIACGIPAHLSLATNKLQSVFGSFTATLTYFK

STTLPRLAWGVFFTALGAAIGSYSVLFVKDEQLKLIILIFLTLTFLYTALRPNLGKHESEPKIKNIKIFH

LICGLTLGFYDGFLGPGTGSFWIFACVMLLGFNMRKASINTKILNFTSNIIALAIFLWQYELLWAVGLLM

GVGQVLGAYLGSKLVLKTNGKFIKTLFLIVVGATIIKVAWDYFS

>AHK52535.1 hypothetical protein N916\_07305 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNFIHLKAKLDFLANQKNTNHSLFETPDPLQIAKIHNDEFIALICALFAYGNAKNIVNFLKKLDFSLLN

LQEKQIKKELKNLKYRFQNEKDIQEIFITLSRLKNEISLYELFYQAYQERENTTDAILAFMQKIKTLNSY

SSYGYDFFFGKIWQNTPTSPLKRYNMYLRWMVRKDELDLGLFTKIHTKDLLIPLDTHAHKISLTLGLLKR

KIYDYKSVLELTQNLKKLDANDPIKYDFALYRLGQSKEIDKFKE

>AHK52534.1 flagellar hook-associated protein FlgK [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGIFGTLYTGVTGLKASEVQIATTGNNISNANATFYTRQRVVQTTNGYITTGGVQVGTGTAVESIVRLHD

EYSYYKLKGASTQLEYTKYMASTLQEIAQRFPDLQNTGILQDLENYNKAWNDFASNPNENATKIALVKAS

QTLTESVNNTFATLDKIQKKVNDDIKNTVDEINRIGEEIATINKQIYGQEALPTEHANELRDRRDELELT

LSKLVSAVASKNEINQDNRLDTTITDPGHQYNLSIEGFSIVDGINFHPLKLDYDDKNKSYSIYYETPDEK

VRDLTAKISGGQLGAQLDLRGRNYSKSEGKYEDGIIQGYMDSLDTFAKTMINETNNLYASSAKSSVTSDY

LSGLKGDIPLVNYDRTIQPGSFDIVIYDDKGDKKLTKTITIDVNTTMNDIMRQINANTDDNDNKNSNDDV

DDHINASFSYDAKTGDGLFQINAKSGFKVAIEDKGTNFAGAFSIGGFFSGTDASDMKVKDSILNDPSTVR

ASSNGVDSGNDMANKIIQLQYKKVNFYNEDGTIDNLTMEEYYRKLTGKIASDGENNNVVNSSNETLYNSV

YSEYQSKSGVNTNEELAALIQYQSSYGAAAKIVSTVDQMLDTLLGLKS

>AHK52533.1 hypothetical protein N916\_07295 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKQRLDEVNAILAKLIALTEEDIENIKVAKHESVTPSVEEKNKLIAEFITAKKQLDVALVELNNSSTKG

LSELLDDEDKQKLDLLKKNLQNLHSKNKEYAKFVLIVKDFLDGLVNKMFDINDGTNNAYGDKKTNPESIF

KINV

>AHK52532.1 hypothetical protein N916\_07290 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINPIQQSYVANTALNTNRIDKETKTNDTQKTENDKASKIAEQIKNGTYKIDTKATAAAIADSLI

>AHK52531.1 hypothetical protein N916\_07285 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVDNFLNTYSMNSALLDRAAKARSLESSIKINDNDIVTKSKEDKALKEQTNAFEAFFLKQVLDVSLKSQ

NSLFGKDASDEIYSSMYNDTMSKALSGGMGFSKLLYDFLKERG

>AHK52530.1 flagellar P-ring protein FlgI [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRVLTIFLLFMTSIFAVQIKDVANTVGVRDNQLIGYGLVVGLNGSGDGTSSKFTLQSISNLLQGMNIKVD

PNDIKSKNTAAVMVTAKLPAFAKSGDKLDITVSSMGDAKSLQGGTLLLTALRGIDGEIYAIAQGSISTGG

LTPRPGGTGSHSTAATVMGGANVEREIPQNFSQNNDLTLSLKVADFKTANNIERVLNTVFGEEVAKAIDS

RTVKLKKPEDLSNVDFMARVLEQDIAYKPQSKVIIDERTGTVIAGVDVEVEPVLITHKDITIKIDPNNNT

VANQNEIDMKDGGFVDPSSNTLRINNAKSTVANIARMLNKLGATPNDIIAIMENLKRAGAINADLEII

>AHK52529.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMNDEFISVKDFFNHNEKRKKFLQKQEIKPPKEKTKKTKETKLYTNIESGKYKGKKLLLPSLTTTRSTKS

IVKSCVFNVIREDLRSKIFIEAFGGSALIAAEALSNYALKAYAIELDIKAYKIALENAKNIDPNLEVIHA

NTFEILPKLIENSKNEIILYLDPPFDIREGFSDIYEKIYHFLENLDLKTLNLIIFEYHSTIKTPEKIQNF

QKVKEKKFGSTSLSFYSS

>AHK52528.1 Ornithine carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKISLECKDLIIEKTLELFLKDHLVMKKNCDFIISDEKIHTAKPLFIISKNSPFLSIPFSKETLFESLNE

FDNALKAAALQLALEQKRLLEEKIDAIALEFKKDYENKIDLAIKDLKNKLVKALNDE

>AHK52527.1 hypothetical protein N916\_07265 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKLELRIFRFDKTKDYEAYYKPYIYDNYENFASFYDLLLQVQNDDIYFDFDKDEDTYIVVNKQIIPLFT

PLEKIAKEFDFNLCIEPLSTKRAIKDLIIDKNDFLDKYKYLEKFGDEEDKKLYAKYDYLYYATEILDYLP

EYMGDGVFYLASKMIEKYPEKKIEILKTLADKEKGIFYHLESKNEILETTIKNLQNEILNLGLFDKNILH

FDLPKTNAFDNEIKELKEIKHNFKDFNIAFYGFNACDTLKSKLKAKFISYENSIKNNGFSLLNLNPTLSY

KIAADIVLDAYDSGADFMVVKEEKDFYLFDTCAKKLMQTSKRDFEDFYILSRFEFLALIEGIQAPSLKNH

TLKVSLI

>AHK52526.1 thiamine monophosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKEDFIIKAFLNKKNGDDGAIIDDWCFSKDLFFENVHFKREWFSLEQIATKAMLVNISDAISMNAVPKY

ALLGLALPKNLSENEIKALQKGFLKTARKFNIKIIGGDTISNDKIDISLTIISKINDKAVFRKGLKKGHL

LAYTGKLGRSLKGLEILQNGGTLKPNHVFIKPKLRASFFYEIAPLISCAMDISDGLSKDLSRLLALNKCG

ISWFKKLDDYALYSGEEYEILFAFDEKERQNIEIIAKKHGVKLNIFGKAVKGKYEFRGREHHF

>AHK52525.1 tRNA pseudouridine synthase D [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLEEENTIFKPLYSLKHSPINAYFSKNSDDFVVRERPLYEFSGKGEHLILHINKKDLTTNEALKILSEA

SGVKIRDFGYAGLKDKQGSTFQYLSMPKKFESFLSNFSHPKLKILEIFTHENKLRIGHLKGNSFFIRLKK

VLPSDALKLEQALMNLDKQGFANYFGYQRFGKFGDNYKEGLEILRGKKMKNVKMKEFLISAFQSELFNRY

LSKRVELSHFANDFSEKELIQIYKISKEEAKELKKQEQFFKLLKGEVLGHYPFGKCFLCEDLSAELGRFK

ARDISAMGLLIGAKAYETGEGLALNLENEIFKDTLEFKAKMQGSRRFMWGYLEELKWRYDEEKAHFCIEF

FLQKGSYATVVLEEILHKNLFE

>AHK52524.1 peptide chain release factor 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDNYEFSELLKTLKNKVGNIASIIKPENIQTRLKEIEELENSPSFWSDVKQAGIIGKEKTKITNLLKNYE

NAFNALNDASELFDLANSENDTETLEALFNDAPKLEDTITSLEISMLLSGENDGKNAIVSIHPGAGGTES

NDWASILYRMYLRFCEREGFKVETLDFQEGEEAGLKDVSFLVKGENAYGYLKAENGIHRLVRTSPFDSAG

RRHTSFSSVMVSPELDDDIEIEIEEKDIRIDYYRASGAGGQHVNKTESAVRITHFPTGIVVQCQNDRSQH

KNKATAFKMLKSRLYELELMKQQDSANTGEKSEIGWGHQIRSYVLFPYQQVKDNRSGEAFSQVDNILDGD

IKKMIEGVLIALKAE

>AHK52523.1 ribosomal protein S12 methylthiotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKLYLMSLGCNKNLVDSEIMLGHLSAYELCDEPSKADVLIVNTCGFIDSAKKESINAILDLHEQRKKDS

LLVVTGCLMQRYREELMKELPEVDLFTGVGDYERIDEMILKKTNLFSNSTYLQSENSKRIITGSNSHAFI

KIAEGCNQKCSFCAIPSFKGKLKSREISSIIAELKDLVARGYKDFSFIAQDTSSYLFDKGEKDGLIRLID

EVEKIKGIRAARILYLYPTSASEALIKRIIASEIFINYFDMPLQHISDNMLKIMKRGANSTRLKEMLNLM

KSAPNSFLRTGFIVGHPGESEADFEELCEFVKDFGFDRISVFAYSKEEDTAAFDMEQVPFKVINKRLKII

EKIVDEVIEKSFEKEVGQKRLVVCTGKSSEGEFFIAAKDLRWDREIDGEILINESECGNLEMGQIYECEI

LQNLDKKLLAKALRKVDAN

>AHK52522.1 tRNA(Ile)-lysidine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIKDEILSLLKRGKNLLAFSYGSDSSVLFYLLMQEKIDFDLVMINYKTRKNSDLEELKAKELALKFHKK

IFIKHAPKFQSNFEKKARDFRYDFFEKICLEQGYDHLILAHHLNDQFEWFLMQLSRGAGLAEILGMQECE

KRSNYTLLRPLLFISKDEISSFLKEKDIFYFHDESNENEKYFRNYIRKNFSNAFVSEFHQGLKRSFSYLD

EDRKKLYDFENIKEIQGLLICPKNESLIARAVKMKGLLLSTAQRKELLKGDCVLGGKIALAYKNEQAIVF

EYETCQKLPKNFKEECRIAKIPRLLRAYLYNHKIDISSLSF

>AHK52521.1 dUTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTNIEILENMLKLQQKLNDETNGLNWENGYTKEGKLISWRRCIYMECAELIDSFTWKHWKNISSLTNWEN

VRIEIVDIWHFILSLLLEEYRDKNNKDFKAIATEVNAVSVFQDFCKEEEYPNEGDIYGILNDIELIIHKC

SGFGFNLGELLSTYFTLAIKCGLNLEILYKTYIGKNVLNIFRQNNGYKDGSYKKTWNGKEDNEVLAQILE

QELDFDTIYKKLEECYKKA

>AHK52520.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIDASKNQSFSMDYTTKSGKHLALSMYDNQSVSYANNEEGKTLNLKRQYGFSFTFEGSKLTQNDLDEIK

NAMKEVEPMIKDFLANSKVGELKPKEIIESAMQMANVLPTPNDENHQNAIMNNFTNKLSDLLKQNQTDDK

DINASMLEDSKKLLDEVLEQMKKQLEKQQEKAKENQDKTDDSLNLYA

>AHK52519.1 hypothetical protein N916\_07215 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDERILEFIKNEQLLSWAMIDEKGVYTASAFYAFDEKNLAFIIASHEDTKHIRLASENSSIALNIAKESK

IAFLKGVQAKAEFKMASKEQMKIYFSKFPFAKFDKSAKIYALELFWLKFTNNALGLSKKLEFYKK

>AHK52518.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNVIYALFFRELKTRFGKNRYLGYIWVVGEPMSIVLLVTIIGTIVREYHHQVMPEGISIFMFLISGIMP

FFMFRSIVTQLMNGTQANLALFAYKPVKPIHVFIARTLLEFCIYFVIFIIILFFAGWFFRLDVFPVHLLG

VLFCIFLLICSAFALGICFAIIWHFVEPLRTLLAYFSIVFYWTSGIIFPTWLTPRPLLDIFYYNPLLHIF

ELLRFNFFENYPLQDEYSYFYAIFWILLVLFIGLFIYYYNRQALTAVKKE

>AHK52517.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKLINLTKSYPLFSGGRHYVFKNFTFEFPENCSIGLMGYNGAGKSTLMRLLSGAELPDSGKIITNKKLS

WPLGLNGAFQGSLTARDNAKFVARVYGYKGKELQEKVKFVEDFAELGKFFDEPMKTYSSGMSARIAFGLS

MAFDFDYYLIDEAGAVGDPAFREKSVKLYRERLSKSKVIMVSHNVAEIKEWCDKIIYMKNGQITVYDDVD

EGIAVYQGKV

>AHK52516.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEENKTLLEKIKDLSIFDSFKIVWFIMIFVVIYYTLIAAPRYVSTMILDVRSTSGESAQTSGILSLLSST

STASEDLNYLKGYIESSDMLKILDEKIKLKNLYQEQHIDLPFKIWDSSSIESYLKYYQARVKVHTDETTK

LLKVEVEGFTPKSAHLIAQAIMQESEKFINEISHKAAREQMAFAENEVQKYKERYQKAQNDLIAFQNKYG

VFDPLKQAETKASLVAQIEANLAQKEAKLLTLQSYMNDAAPEVVALKAEIEAIKKQLLREKSKISANNSS

QKLNDLAAKFQDLTIEATFAQKAYEAALKAYESARIEALRKIKQLVIIQSPDIPESAKYPERIYDILTAF

IVLSLIFGIVKFIKMIIEEHKY

>AHK52515.1 sugar ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILILLFSCILCFGAVDVSQIISAEDQGSATTSIDQNLSSNYDIANKENNLTKIHQILVFGAHLFNGN

FKNYNQRVYNPDYKIAVGDQISLKIWGAVEFSQVLVVDSQGNIFIPKVGAVNLLGVKNSALVSVIKARVN

KIYKSNVFVYADMNAYQNVSVFVTGNVNAPGLYQGLSSDSVIQYLDKAGGINLEYGSFRDIQILRNNSVI

KNIDLYDFLLKGQMDLFPFRSGDVILVGNVQNYAFVNGDVQRPFRFELSNDIKTLADLARVSGAKPIVTN

AIVKSYGEDHKLDVSAYNKMQFSKVLLRTGDEVEFHPEYVSENITISVNGEHNGLKTLVVGKGTTLEDIS

KLIKANPQSNMQALQVFRKSVARTQKELINAQLKELETLALTSGSVTAQGAAIRAQQAKTILEFIQRAKQ

VEPKGQIVIDNPKSYNSVILEDGDTINVPSKNNLIIVQGEVSLPGAFVYDKGKDLRYYINLAGGYGERAD

TSKVLVIRSNGKAEKYHSGIDMKRGDSVLVLPKVDSENLQIFSMLTQILYQIAIATNVVLNL

>AHK52514.1 arabinose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNTLEIAKEVFEKEAQAILDLATNLDENFNQAVNLMLNTKGRCIVSGMGKSGHIGAKIAATLASTGTPSF

FIHPGEALHGDLGMLTSEDVLIAISNSGETEEILKIIPAIKKREIPLIVMCGKKNSTLVKQGDIFLNIAV

EKEACPLQLAPMSSTTATLVMGDALAAALMKVRNFKPDDFALFHPGGSLGRKLLTKVKDLMVSSNLPIVH

PDTEFNDLVDVMTSGKLGLCVVLENEKLVGIITDGDLRRALKASDKPRFDFKAKEIMSINPKVVDADAMA

SEAEGIMLKHKIKEIIVGKEEKVVGIIQLYAIGNV

>AHK52513.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENLNSYIKGHFADSILVKEQILKDENLITLIKNASLEVIKAYKNGNKTLLAGNGGSAADAQHIAGEFVS

RFYFDRPGIASIALTTDTSILTAIGNDYGYENLFARQVQAQGVKGDVFIGISTSGNSKNILKALEFCKQK

EIISIGLSGASGGAMNELCDYCIKVPSTCTPRIQEAHILIGHIICAIVEEELFGKGFSCKQ

>AHK52512.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKLVEQVWDYTKHAKFYSYRPNYAPKTIDMLISLVGKKDIKVADIGAGTGNLSIMLLERGCKVVSVEPN

DAMREIGIERTKDQKIDWVRATGLNSTLQNSEFDWVTFGSSFNVMDRNEALEEAHRLLKSEGYFSCMWNH

RDLNDPVQKIAEDTIVEFVPNYTRGTRREDQRPIIESRKDLFDNIVYIEEDFYFHQSIENYINAWKSVKN

PYWDLETDEGNELFNKISNKISQRLPKEFSIKYTTRCWSAKKI

>AHK52511.1 hypothetical protein N916\_07065 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAELKFKTKAQNLKNLQTKLKKAKVLPLVLTSLEELISNEDKVLQDIQTLKANRLIIRSSSLSEDSMKNS

NAGAFLSLANIKADSKDELLKALYEVANSMPSKSDEILVQPMLENITLCGVGFSVDKDNFSPYFCLQYDE

NGSNSSITDGSSKSAKTYYHYRNYLEFKDIRLQKIIELIKELEVLYDCHFLDVEFAFAIQDDKEELFCLQ

VRPLVMHEKNNLFHSLPKEALYRFYKRFESLKESRSRVLGDKAIFGVMPDWNPAEIIGLRPKRLAFSLYK

EIITDNIWAYQRDNYGYRDLRSHPLIHSFLGIPYVDVRLSFNSFIPKKLDENIAQKLVNFYLDKLNKNHE

LHDKIEFNIVYSCYDFNSSKKLEELLNHGFNENEIKRLEFSLLELTNKIINPRSGFYLKDIQKAYKLKER

YDGIINSNFSLIDKIYWLIEECKRYGTLPFAGVARAAFVAMQLLNSLVEIDFITKEEKDDFLNSLNTVSK

NLSKQTNHLNFHNKDQFLKDFGHLRAGTYNILSPRYDEDFELYFDADQKDSKVYLQDKAFVFSKEKTRAL

NALLKEHGLEINACEFFDFLKQAIEGRELVKFEFTRLLSKAIVYIEELGKYYDIEKEDLAHLDIKSILNL

YSSLYSINPKEQFIEEINRNKKEYELTQAIKLPSLLCNADEIFSFYNHSIIPNFITQKSITAFTAKENDK

DLEGKIVLIYAADPGYDYLFTKNIAGLITCYGGANSHMAIRASELGMPAVIGVGEENFEKYLKAKKINIE

CESEQIFCL

>AHK52510.1 glutamine amidotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFIGITQRLICNDSYHEKRECLALDWGKLFNKDLFKNFTPLPLSYEIDFSYYKHLIKAVILSGGNDLSFY

SPNVLSKKRDLYEKQVIEICLEEKIPLLGICRGAQMIAHYFNSHISPCENHIGKHEVFFSKEKFISNSFH

NFAIEKLGEDLVELCLAKDNTIEAFKHKYENIFGIMWHIERENGLNNIQILKEWFSLIKE

>AHK52509.1 sugar nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNAIILAAGFGSRLMPLTKDQPKCMVEYKNKKIIDYEIEALKSAGINEIAVVGGYLNDVLKNYLNKYDIE

HFFINSKYDKTNMVHTFFCAKDFMLKCIEEKQDLIISYADIVYFQDCVQKLINAKEELAIVVDKSWCKLW

SKRFANPLEDAETLKMTNGYIIELGKKANAYDEIEAQYIGLFKFSYQFLSEVIAFYEMLDRDILYDNKNF

ENMYMTSFLQALIEKYNNAKAVEIDGNWCEIDFMSDLEVQIEK

>AHK52508.1 adenylylsulfate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNNPYIIWLTGLAGSGKTTIGQALYEKLKLKYKNLIYLDGDELREILGHYAYDRQGRIDMALKRAKFAK

FLNDQGMMVIVTTISMFNEIYDYNRKQLKNYYEIYIECDMHELIQRDQKGLYTKALNKEIDNVVGVDIEF

DKPEADLVINNSCRNNLEEKVELIIKKLAL

>AHK52507.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKYYSISKKLIANVRNFYTISLYKKNLKIKKDDLFFGWGRKKSGLKAMNLAKKYKAKFILLEDGFIRSLN

LGVENSPSFSMVKDDIGIYYDATMPSKLENLLNTCEFKDEEIKQAKKAIELIKKYKISKYNNNLDIPDNY

FQKDEKRVLIITQTANDASLEFGLAKDFKTLDMIKDAIKENPKSTIYIKIHPDVLSGKKQSDLDLNSLPK

ECILITENFNPIALLEFFDKVYTKTSGMGFEALMQECECICYGMPFYAGWGLTKDKLECKRRMQKRSLEE

VFYAAYILYAEYFNPYLNQKSNIFDTIQTLAKYKDIEKVNSNKLFMLGFTLWKRHFIKPFFKAKDNEIIF

LNSLKSLARYKLKENDKFFIWGKRIDYNALKTTLIKKAQDENLLHFTPKISLVEDGFIRSISLGSDLTRP

FSLIVDDKGLYIDPNKASKLEELLQNEIFDENMLNRAKNIIKILLENRFSKYNGLKHEDLKINAKIGQKI

ILIPAQVEDDASMILGGFGLSTLDLLKEVRAKNQDAYIIFKPHPDVLSGNRVGLKDETLILEFCDEIVKD

CSIDSAIKIADEIHTITSTSGFDALLRAKKVFTYGMPFYAGWGLTKDKYRCERRIRKLSLEELVAGALII

YPRYINPKTKTLCEIEVCLDIMLNLQKAYFSKKYIKLAIDFKTFMLRKIRRFYEFLAKK

>AHK52506.1 capsule polysaccharide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRFSTKIKKEFSGKNVLLLQGPVGNFFHHLAVKMRKNQTKVFKLNFNGGDFFFYPSGTRCKCDEKDLENF

YRDFFQNKKIDAILMYNDCRIIHAKAIKVAKELGIEIWIFEEGYLRPYCITLEKDGVNANSSLPRDKNFY

LSQNIFTKESIKEIPGGFKFMAFDAFLYWLFAFILAPFFNNKLHHRTLYPFEFLFWFRSLYRKYLYKITE

KKLNEKIYNLEKKYFLAILQVYSDTQIKYHYKKSIEHFIEETILSFANHARAKSYLVFKHHPMDRGYKNY

FKLINDLSRKYHVEGRVLYVHDTHLPVLLRKALGCITINSTVGLSAILEGCPTKVCGNAFYNFEGLSYPK

KLQFFWREAHAYKPNPVLVCNFKKYLLQTNQFNGNFYKNFFLDK

>AHK52505.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDREVFYIAGYDPKSYRFYYDLFKKNLKDYSHAFNIKADLSKIEKNEQFPFFQISCEGVQTKYHFLTWND

IVKKNWSENYKDALADCYSFFRIYTITGLFIKFGKESIYQLITGYYPFFYVLFSLLFSLVLAFGSFAFLQ

NYMHFSLAIIIGCFLGFLLNHFLFKLGKKLAVFWIARICAFCATWQDKKTGTMQERIKLFANTIVDKLKQ

NENKQDYELVLVAHSVGTIVCIEVLECILRQNLDLSLLHKLKILTLGECIPLVSYQKKADEFRKKLEFVS

RFDLKWYDYTSIIDGACFPQVDFFRTSGVNAKFTPPFLSAKFHTLYEKHEYKKIKRDKNKAHFLYLYSIS

VKGDYDFFSFIIMPKFLEEKVKI

>AHK52504.1 cytochrome P450 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSECPFFPKPYKNKASTLLTFLLKRRSWLDGLYERSYKMQTGYVKMPNFDLYVINDTKEVKRMMVDEVRE

FPKSAFLHELLSPLLGESIFTTNGEVWKKQRELLRPSFEMTRINKVFNLMSEAVADMMDRFSKYPNHAVI

EVDEAMTFITADVIFRTIMSSKLDEEKGKKILNAFVTFQEQSVHTAMRRMFRFPKWLSYVLGDCKRAKAG

DVIRQVLSDIIKPRYDMADNAEFEDILGSLLLVVDADTNKRFSFEEILDQVAMLFLAGHETTASSLTWTL

YLLSLYPKEQEKAYEEITQVLQGGVIEISHLRQFKYLTNIFKESLRLYPPVGFFAREAKKDTQVRDKLIK

KGSGVVIAPWLIHRHEEFWTNPHGFNPSRFEGEYKKDAYLPFGVGERICIGQGFAMQEAILILANILKTY

KLELEEGFVPDVVGRLTVRSANGMRIKFSKRKL

>AHK52503.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKRVRTKIRANFRRRVKRTLKGSLKEKLAGTILLCAIVPLAVLGYLFIVIIGIFFNTARARQGVRALDHF

VNASLFNGYAWESVSSHAWRERNRKKWARIVIKITDFFQKDHCKRANKREQPVVDFILSRNLDKQTIGK

>AHK52502.1 4'-phosphopantetheinyl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRVGCDIIAISRIEKIHSRHGKNFLDKFLNPKEQILIKNPATLAGLWAAKEAASKALGVGICELCSFFDI

EISKDEKNAPKLKYSQKITKDFNITQTSLSISHDNGFAIAIVAVV

>AHK52501.1 flagellar basal body protein FliL [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDEELENEETKKKKGGSLVIIIVILLFVLLLSIMGVIAWLISSSSSDESEVKEAPKEEAKADKPKVSAPA

QRGSDFANIGPMYPLDPFTLNLLSDSGSRYVKCTIELEQNSELLKPELDKKVPVIRDIIIRTLTAKTFEE

VSTQKGKERLKDELVGKINEILTDGFIKNVYFTDFVVS

>AHK52500.1 phospho-sugar mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLDVIFREYDIRGLYDKELNEKSVKAIGFCLGQTMLNRGCKNVSVGYDARYSANELFNYLVSGLNKAGIK

IYDIGLVPTPLGYFSLYEGLKFDANVMITGSHNPKDYNGFKITINKESFFGVELKEFSKEVYKHLDDDIE

ENLEVEKYDILNLYVKFMCEQFSFLKDFNYKFGVDCTNGAAGVVIKPLIKALNLKAHVMFAEPDGQFPNH

APDPTEEENLSAIREFLNQNQDYSLAFAFDGDADRMVALSKTHVFCGDELCYLFAKDIPNPRILGEVKCS

KNLFDEVAKFGTIFMGKTGHSNIKKMMKEKDIDLAAEVSGHIFFKHRYFGYDDGIYAFLRALELVYKGFD

LESMIKALPKLYTTPEIKIPVNEEEKFKLVEEFQKEIEKGALKGVKSLCEIDGARIDFGDGWALLRASNT

SPYLITRFEATSLERAKELESMVFTLFNDIKARFKN

>AHK52499.1 hypothetical protein N916\_07000 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQERIDLIVKILDEKKAENIKTIDMSEQEYFVKYVIIAATLGERHALSLIDELKTRLKAKGEEFLNIDSS

EEWSVIDLGDILIHLLTPEHRGIYNIEELLENLKKGRV

>AHK52498.1 nicotinate-nucleotide adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIALFGGSFDPPHNGHNSVVLEALEKLDIDKLIIMPTYINPFKQSFSADEKQRFLWVKKLWGHLPKVEI

CDFEIRQKRPVPSIESVKYLYKLYNPSKFYLLIGADHLEKLHLWHDFEKLNSLVEFVIANRNDIGIPKNF

KDLKTNKKIASSFIRDTLNTNEVCEEIKDEVKKYYEKLQKN

>AHK52497.1 glyceraldehyde-3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAVKVAINGFGRIGRCVARIILERNDIELVAINDTTDIELTKYLFKYDTVHGEFKGSVDSEGDDLVVNGK

KIKVFKSRNVKDLDFAKHGAQIVLECTGAHLTMAKCQEFIDMGVQKVIMSAPAKDDTPTYVLGVNSELYK

GESIISNASCTTNCLGPVCRVLQDNFGIEKGLMTTIHAYTNGQSIIDAKAKDKRRSRAAAQNIIPTSTGA

AKAMKLVMPELNGKLHGQSMRVPVIDVSSVDLTAQLSRKVSKDEINEAFRKAAATNLKGILMVDDDERVS

SDFITCSYGAIVASDLTQVIADDFIKVIAWYDNEWGYSSRLVDMAVYIANKA

>AHK52496.1 phosphoglycerate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSDIISIKDIDLAKKKVFIRCDFNVPQDDFLNITDDRRIRSAIPTIRYCLDNGCSVILASHLGRPKEISS

KYSLEPVAKRLARLLDKEIVMAKDVIGEDAKTKAMNLKAGEILLLENLRFEKGETKNDENLAKELASMVQ

VYINDAFGVCHRAHSSVEAITKFFDEKHKGAGFLLQKEIDFASNLIKHPARPFVAVVGGSKVSGKLQALT

NLLPKVDKLIIGGGMAFTFLKALGYDIGNSLLEEELLEEANKILTKGKNLGVKIYLPVDVVAAPACSQDV

PMKFVPAQEIPNGWMGLDIGPASVRLFKEVISDAQTIWWNGPMGVFEIDKFSKGSIKMSHYISEGHATSV

VGGGDTADVVARAGDADEMTFISTGGGASLELIEGKELPGVKALRSKENE

>AHK52495.1 triosephosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIFAANLKCNHTRASFKIYAKILNKTMGVKCDDIIVFPPSIAFLENENNFIQGAQNFYPCVNGAFTGELG

KEHLDEFGIKCVLIGHSERRALGDEEFIKAKFDFAKEHGYKIVFCIGENLDTKNSGKTLEFLKKQLEIID

LNYEKLIIAYEPIYSIGTGVSAQSTDIAKVLEFLASLTKVPLLYGGSVNENNIKEILSVNHCGGVLIGSA

ALKVENFIKLIKG

>AHK52494.1 enoyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIMKGKKGLIVGVANNKSIAYGIAKACFDQGAELAFTFLNDALKKRVEPIAQEFNSNFVYELDVNNNEHL

DSIAEKIKKDLGEIDFVVHAVAFAPKEALENSFLETSKEAFDIAMQTSVYSLLSLTRAVLPILKDKGSIL

TLSYLGGVKYVPHYNVMGVAKAALESSVRYLARDLGVKGIRVNAISAGPIKTLAASGIGDFRMILKYNEI

NSPLKRNVSIEDVGNSAMYLLSDLANGVTGEIHYVDAGYNIMGMGDVEKNEEGQTVLCWDNQKG

>AHK52493.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKLSNEELKNILEDRIKKLENSTLKEDKVINEESVKILARHLSLGNEIPALAQRFFQIAPKTKLVWLHL

CECTGCSESLLRSELPSFDELIFDFFSLEYHETLMAANGTKAEELLEYVLEEDFILAVEGGVAAIDTFFL

TIGAQGESGYEILEKLAAKAKAIFAVGTCSSYGGIQAAYPNPSKTCGISEVLSQKVVNIPGCPPSDINII

ATLSFFALFGVLPELDEQNRPVWAYGKCLHDMCERKAKFESGIFAEHFDDEAAKNGACLFKIGCKGPYTY

NNCPKVKFNAKTSWPVAAGHGCIACSEKNFWDEFGNYEKPMANIFSYAKLCNEELKQEFFLEEQIKILEQ

IDFEFESNIKLILQNIAKNKLGALLVENYKKSFEKNYAFIEQNFDENPMPSKDFWKYLEISFILVKGAFL

KDKNDFLIVAKNYAFKHASPYDFKLNMNAEKPKLDVSKSFRMTLIYLCGGLDFEGVAYSILKAFEDNIAK

ISSLKAS

>AHK52492.1 hypothetical protein N916\_06960 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTLNELKDGQKAIIVNLNAHKELKNRLLSFGFIKNKNLKKIHSSLKNATIMVELDTSCVILRSDEAKTIE

VNLI

>AHK52491.1 endoribonuclease L-PSP [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSNYPKAIGPYSAYREVNGLLFISGQLPINPASGEIESSDIKEQTKQSLKNIGAILEENGISYDKVIKTT

CFLADINDFVAFNEIYAEFFKAPYPARSAFAVKDLPKKAKVEIEIIAQKG

>AHK52490.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDEGQKQQFIKLTYFLGEVLGEQYEIVFHVITEDGAYIAAIANSHISGRSLDSPLTAFASELMQNKKYLE

KDFLCDYKALVGKSKLIRGSTFFIKNHDKLVGILCINHDTSIMRDLICKMIDLEKIGDMGDILGNISFSQ

NDSSIETLSHSIEDILVQSVDSSYLNSDYQLSITQKEEIAEKLYEKGIFNIKGAVPIVAKFLKISEPSVY

RYLKKFKK

>AHK52489.1 ankyrin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTTLSLEEEKRFEELCKMAFNFARNNECENLKIMIEAGLNVNLKTHKGDSLLMLAAYNNSYESAKMLLEK

GAKVDEKNDRGQTPLAGVCFKGYLPMCELLVKYGANIDENNGLGMTPYTFAIMFGRKDVAEFLLKKSKNN

FLKKISLKILKFIKKF

>AHK52488.1 catalase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKLTNDFGNIIADNQNSLSAGAKGPLLMQDYLLLEKLAHQNRERIPERTVHAKGSGAYGEIKITADLSA

YTKAKIFQKGEVTPLFLRFSTVAGEAGAADAERDVRGFAIKFYTKEGNWDLVGNNTPTFFIRDAYKFPDF

IHTQKRDPRTHLRSNNAAWDFWSLCPESLHQVTILMSDRGIPASYRHMHGFGSHTYSFINDKNERFWVKF

HFKTQQGIKNLTNQEAAELIAKDRESHQRDLYNAIENKDFPKWKVQVQILAEKDIEKLGFNPFDLTKIWP

HSFVPLMDIGEMILNKNPQNYFNEVEQAAFSPSNIVPGIGFSPDKMLQARIFSYPDAQRYRIGTNYHLLP

VNRAKSEVNTYNVAGAMNFDSYKNDAAYYEPNSYDNSPKEDKSYLEPDLVLEGVAQRYAPLDNDFYTQPR

ALFNLMNDDQKTQLFHNIAASMEGVDEKIITRALKHFEKISPDYAKGIKKALEK

>AHK52487.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSVLVIGADEITPIRAVLHDLGAKKIEHWDARNENRVNRKPIPCDTECIVMLTSFLNHNTMKKIKNEAKK

RKIPLVCAKRSVSCVYCEYCKIFNLNKEFSCYKG

>AHK52486.1 hypothetical protein N916\_06915 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLFGFDDKQEFIPQIYRYLNNQELMLTFLTQYNASVDSALKIPLLYAKNTKSLKMIFGNFLHNIMHVSFG

KIQNINIKLNTYAFYFQKRKSLIFNTKISKNVDLLRLLRIYLYGICFDAQILFSSYVYDKVSFQNNGKNI

DQDGDLIIIDKKFAILPLCKEINTHNLEIENEIYELLNLIKENNFEKFYIVCPRNKNFTHFIEIKHFLCD

LNKTMLKLVPYKISNQIIRRK

>AHK52485.1 flavodoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSVAVIYGSAMGNTEGAANTIASKLGISDVFNISDIDAAKMNSYDKLICGTSTWGSGDLQDDWDGFDFSG

LSLGGKTVAVFGMGDSESYSDTFCGGMGKLAQNLKDAGANLVGEVSTDGYTFEASDAVVDGKFVGLALDN

DNQEDQTESRIDAWVEQIKPYFA

>AHK52484.1 hypothetical protein N916\_06905 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKFALILSFFIALFMSACTNATFTQSFIQTSNEGIFIRSQKQQSFKISFQNPSQLQTTLDRDLALKLKN

LGLKEVKENADYEILINLVDMKKHSYAQKITTSARFFYDFDPLESDGEWMVENYYTMQVNLQINSKNHNS

QKTSLLARTAYLGNKERCQLSLENKIINQIVSFFYF

>AHK52483.1 hypothetical protein N916\_06900 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKLSLILVCSASLFAASNSEISDFYSKSIKAQFPNATVSVSNRQKVGNTGFESVIVSVELNGQKQENIL

FTKDSLITPDLIDLKTGISYAQEYEMKKFQEARENFTKNAKAVAQKETMVIALGDKNKPAIYVFSDPECP

YCREHLAQIDDELKNYQVNYILTPVHGKSAFEKSALIYKEAKKAKNDKEKIAILNKYYDANIKNYPKVSD

AELKEVFSLYEKYRSLGLSATPTIIK

>AHK52482.1 translation elongation factor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKSVIIGTAGHIDHGKTSLIKALNGFEGDSLKEEQERQITINLSFSNLKLKDKNISFIDVPGHKDLVKTM

VSGAFGFSVCLFVVDINEGLKEQSLEHLEILKILDIKNIILVLSKCDLCENIEQKSVEILEELKNLDYPI

LKVFHTSIKNNQGIEELKNYLYTIENKENDEELIFHYYIDRVFSLKGIGTVVTGSLNEGSITLNEKIICL

DTQKELIVKNIQNHDTNLEQIKACNRVALSLNCDYKELKKGYLLSKKGYFKAFKECDALVKAKNLQNSKM

IFCVGSRQIECKINILKKLENDEFFVHFSFDKNVFLSFDEAFILLQNNRVIGGGKVLNPLSEPLKKEQKN

KFLMFLKNKDFKAAFSFLKDAHKYGFGLLSSYQRFKLSHQKALKLAKELNQVFVDEKNLNVYHLQSLEEI

KNFIKFILEKNPYAMLSAHSLALRITWASENFCELGLKEMSNLLDFQNGIYFKKGIDFEKLQEKNNNQMY

EILKKQGIKPEAPYNLYDFLELDRKSGDNILKKLTQKGLVVRLSHNLFIEKQALEKLMQECLNLLKNQSL

DVQSMKEYFNLSRKYAIAYLEYLDKFPQVSKEAEKRFLTNI

>AHK52481.1 selenocysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKFRTFPQINTLIEDESLKSYPFYIKAFFCKKVVAKLKENFFQDEISKDKLLLEIKKEIKTFYRKDLQS

VINASGVVIHTNLGRSVIHEELYEACKDIICNYSNVEFDLENGKRGSRYALVLEKLKMLFECEDALVVNN

NAAAVFLVLNSLCYDKEVISSRGELVEIGGSFRVPEVIKAAGVKLCEVGTSNKTHLKDYEQAINENTALI

LKTHKSNFALMGFHSEVNIKDLHELAKEKELLSYYDLGSGWCENLNEKLIKNEPKIRKLVQECDILSFSG

DKLFGSVQAGIILGKKELIEKLKQNQLLRMLRVDKLTLSFLNESLKAYLQKDYEKIITLKLLNDDLSFIE

KKALRVQKELKFQTQLKKSKSLVGGGSMPDKSLDTYILTFQGDALKLQTRFRKENIIGRIENDEFVLDFR

TIRENELQKLILTINQMENL

>AHK52480.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQDFVYIKNDVLIPLPDAIEILDQANDKEALICNDKNQKAQIYAPEINFYLKNSQDEILEQSKNVLTLYE

ARASVYDLGLDLEQSKEVQNRLIVADGDAQTVEFLKEHEFKVIALSSAEILAVFGSVGELCAVVKNQGEE

VEIDFDFLLFKAEDLSVVRKDFTRQSGCYNLLNFENLEVLFEFLQSKSPKYHYKTYISYNASVCQYHERR

SEHCAKCAEICPTVAILKDDENKHLEFSQVDCLGCGGCISVCPSGSLDYAPMPRESFFTLCEFYKDKKIL

IIPKKMSLENLNLALPKDVLPFMIEGEKWLSSMHFLTLLQNSGANLVFYTDFVSRGSNEAIVLLNTFFER

KFQKKAIFVAKDEKELQNVLKEQEFIQDLKYDFHNNTLTTRENFAKRMQEMIKNEDFGSMESGEWLRYGK

VEINPNTCTLCLSCVGACNVGALIADKQENALKFNASLCTTCGYCELSCAEKDTLKLFRSGMEFRASYFE

YQTMAKDELFACIECGKEFATKKAVEKIANLMKPKFGNDENKIKTLYCCADCKAKVMIKAMIN

>AHK52479.1 major facilitator transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNNVLPLSFIVGTRFFGLFIVLPVLSLYALKLEGANEFLVGLLVGVYALTQMILQMPFGILSDKIGRKK

TMLIGLIIFIIGSLICSFAENIYTMLLGRMLQGAGAIGAVATAMISDFITEENRGKAMAVMGSFIGLSFA

ASMVISPLMSAKWGLSSLFDLSAALSLLCIILLYTVVPKENKITHENEKTPFFHLIKQKNLALMNLTNFM

QKMLMSIAFLSIPIILVKHLGFASDKLWIVYSASMVAGFIAMGFAGSLGEKKGLAKQILLLGIVFFILSY

LFFAFSNSIDFFIIAVVIFFIGFNLHEPIMQSCASKFCKVHEKGAALGLFNAFGYGGSFIGGIIGGIFLH

LDTLNLLAIILVILALIWLVALFFLKNPADFKNLYLPLETPLNFSTFGENLGVVDIYKNSKNLVVKFDSK

LTSKEELEGKL

>AHK52478.1 nucleoside-triphosphate diphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIILATSNKHKVLELKEILKDFEIYAFDEVLMPFEIEENGKTFKENALIKARAVFNALDEKQKKDFIAL

SDDSGICVDVLEGNPGIYSARFSGKGDDKSNRDKLVNEMIKKGFKQSKAYYVAAIAMVGLMGEFSTHGTM

HGKVIDTEKGENGFGYDSLFIPKGFDKTLAQLSVDEKNNISHRFKALELAKIILKILNKG

>AHK52477.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFAKLLKFFISRPKSTFFGTLFICLFLSFFAFKLSVDASAESLLLEDDADLKTFREISKHYKSDNFLLLA

FKPYDEKPFSNENLAKLKKLHEELEKAPLVERVFSIINAPLLQSSQNTDLKELLKNIPNIESQDINRTKA

QNEILNSPFYKNNIISKDGKVTGLIIYLKPDTVYNNLIEKRDLATDEKEKDQIRLAIKEHQDKQKVITKQ

SLDTIKSIVRNYEKNKDTLYLGGVSMIADDMIAYIKSDLVLYGVSLVFLLGLALYYFFRSWRFVFLPLFI

CFISLSAASGVFALLNFQITVISSNYVALVLIITLSVVVHLITHFIESTQNHPKAKVERIVLETLLAKAN

PSLYAIVTTMIGFFSLILSNIEPIIKLGIMMSIGIGLALIFSYLFLASILVLLKPKNYHKKEFKFNLLAF

CAKTALDPKKRRMIYEISVLAIILALIGISKLRVENSFVNYFKDGSEIKKGLLVIDKNLGGTLPLEVIIR

FPNNKNDQNASDTLDSFESEFENLATQETYWFDSKKTRIAKKVHEFLENKEFVGSVLSLNSLLTLGKNIN

DGKELDDFALAFLNENLPAKFKQDLLSPFVSIENNELRFSMRIVDSDPNLRRNEFLIDLKKQLNELVKND

GVEVQITGIMVLYNNMLQSLFSSQFDTLIFVILAIFILFIIVFRDLKFSVAAILVNVIPLSVVFALMGLL

GIPLDMMSITIAAIAIGIGVDDAIHYIYRFREEIKNKSLEEAIMISHLSIGSALYYTTISIVLGFSVMMS

SNFIPTIYFGILTVFVMILLLSGSLFLLPSFLITIYSKKTKFPNQHKEHILKQ

>AHK52476.1 toluene tolerance protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIFLILTLFFNAFALQLDEISSTMQKNIDASLKLLQDNKEDKKQAANGIFKLFDSIIDYKLMAKLSLS

KNYSKLTPKEQEKFTTAFETSLKKSFTDKLSLYKDQVLKVKNGELKNEKRYFLTTSMVVDGEEKNIIFKF

YNDNNNWLIYDVDVLGVSIVQTYRSQFGDILANQGFDALLQKLESIVIE

>AHK52475.1 hypothetical protein N916\_06855 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRIKFISFILIFFTIFAFAKEQNLDDFEQEYQNYQVNDPLSGYNKAMTSFNVALYDYGLRPVLKGYNAIT

PEFIRLGARNFFDNLLAPLRFVSNVLQFKFEEAGEEFKRFTANTIMGFGGLMDVASKMGLKKHPADLGTV

LAHWGVGSGFHIVLPILGPSNLRDTLTLPATWYASFTAYIDPTWASIAISAYGFGNELSFRLDEIDEIYH

NTPNLYPFLRDAYEQRRNELSK

>AHK52474.1 nicotinate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIFYSYEEFKEDVKILAKEIKEDFNPDALLAIARGGMSLGHSLAVALKTRQLFALNSIHYDNTKKLDTIE

IFNIPDLSKHKKILLIDDIVDSGESLAEIKKVLLEKFPHIELKITTIFYKKTALLEPDFKVKEATEWVDF

YWDINLD

>AHK52473.1 guanine permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSFFKLKENNTSFKTEVIAGLTTFLAMVYIIPVNSSIVGNTGMPIEALITATALITIVASAFNAFFANTP

VAMSVGMGLNAYFTFAVCLGQNIAWQSALGAVFISSIIFLILSFTHFRLWVIRNIPKDLRLAICAGIGCF

IAFLGLSQMGVIMHNKDTLVSIGNFKSPHVLFGIFTLALIIFFWAIKLRGAFILGVLASSIIAWIFHLDN

ASFPVQIFSWPNFSMENGLGAIFLQLDIKSALNITMIPIILTFFITQLFDSIGTITGVGERGKIFDDPKN

GEKKLSKTLMADATGSALGAMTGTSTVTAFVESTTGVESGGRTGLTALVVAICFAFTLFLLPLFKAIPAN

AIYPVLVMVGILMFMEVKNIDFKDSAIAVASFFTIIMMPFTYSITTGFAFGFLSYLLVRIFKREWDKINL

GIIVLSLLSLGNFLLMALQ

>AHK52472.1 hypothetical protein N916\_06840 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNLITKLENEERLNQEEANALWDLDLFTLGKYAHKKRTKLHGKKVYFNINRHINPTNICADTCKFCAFS

AHRKNPNPYLMTHEEIMKIVDETVKRETKEVHIVSAHNKDTTWQWYLEIFKMIKEKYPNLHVKAMTAAEI

DFLHRRFKMSYEEVIEKMLEYGVDSMPGGGAEIFDEEVRKKICHGKVSSENWLKIHKLWHEKSKQSNATM

LFGHIEERHHRIDHMLRLRDLQDQTGGFNAFIPLVWQRDKSFIQTDKIMDSEEILKTIAISRLVLDNIKN

IKAYWATMTLNLAMVAQEFGANDLDGTIEKESIQSAGGAKSAKGTSLKTFIDMIKTSNLIPVERDSLYNE

LKTY

>AHK52471.1 nucleotidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNKELEIFKKNLSSYTQSCRKFFLKQGAFSLYHSKNMDNFIKKAYDIVLKDYFDDFSPPSDNIPFCVLA

SKAYANNSLCFNESISLIFVYKDIKAFHLKPMIKAFIEILNDAHLQIDSVILEFNGLYNASNELKTSIIQ

TRFICGSRILFKGIKIKFESIIKENKNDFAKLLLENFKEFDIPFIKQEFNILKDFGGLNHLRSLESLLVL

FKTSPKNYALNFIDEKKLSELRLAGDFLLSLKSAMNLLSAKDEDEFLLINVHDLSELMYKKAKKHFGANE

LLVQKALQSMHTIGFYTHFLAKQIQDGLNHTLKQEYKFKTLVEVLEYLLKLEDKHVIFDLNLVFALGRLK

YGKKDIEKALILFEKIFYKRHSFCVLKLLLDSGILKDLCKPFWTVRFLSDEEGNYSFDEQVFLMLSEFEK

YEDELEILQKLKTDEKMILKLVILLSAIESENEISLAGIYRAYCSKFDLKNEILEWGLKIFKNNNALKDL

VEKEDIYNPIVVSSLVSKLENLENLELLYTLTWLKAKALNYNAFYFRVLDKLLENAKQGFEDENLLEESA

RRVKKELTLKRSKIFLEQDEILQDKIIHIKSNLFIIKNTFEDIVMISKLAKENDFKFWFSNETNLSLQIV

APLHFNIAIILSSLTNLNLIFMNFFELFDDKIYLRFEYDNIISDEQKLKLCELLNSNLSGFNLKKIKKPI

IKKDELKLDLNYSKMYAKLGLNTKDQQGLMAYLMNVFNELELVLCAAKIQTIRQRTRNIFIFQKNEKLEH

SEQKLVNLLISE

>AHK52470.1 glucosamine--fructose-6-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MCGIVGYIGNNEKKQIILNGLKELEYRGYDSAGMAVMQEGELSFFKAVGKLENLANKCTDFESQGYGFAI

GHTRWATHGKPTEINAHPHLGQYSCVIHNGIIENYKEIKDKLEKEGVSFLSQTDTEVIVQLFEFYARNLG

VFEAWQKTIKELRGAFATLLVTKKDPNHVYFAKNAAPLIIGKNANKEWYFSSGDAPLIGSCDEVMYLEDL

SLGYASKDELVVYENDILKSLCFSKLSGDKAYAKKDGFRFFMEKEIYEQSRVMSEVLMGRIQGDEVVFDE

LNNEDLSQVDEITLCACGTSYHAAMASAYLFERIAKVKAKVEIASEFRYREAIIKKDSLFIVISQSGETA

DTLEALKIAKEQGAKTFAICNVDNSNIVRLAHLSLLTRAGIEKGVASTKAFATQVLTLWMLAIFMAQKRN

LNVSAEIKALLHTPNCVSVKQALHEKIHRLSKRYLDGHGFFFIGRDVFYPLALEGALKLKELSYLHAEGY

PAGEMKHGPIALADSKLYTIALMPKHMLYEKTKSNVEELIARDSTVLSISPLEFDLSDDFIKTNEQDHYM

CEFFEMMVITQLLAMEISIRLGNDVDMPRNLAKSVTVE

>AHK52469.1 fumarate hydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEYRVEHDTMGEVKVPNDKYWGAQTERSFENFKIGCEKMPKVLIYAFANLKKSLALVNNKLGKLDDAKKN

AIVQACDEIIAGKFDDNFPLAIWQTGSGTQSNMNMNEVIANRATEIMGGDFRKEKLVHPNDHVNMSQSSN

DTFPTAMSIVAVEQVEKKLIPALDELIATFEKKVKEFDGIIKIGRTHLQDATPLTLAQEFSGYLSMLLHS

KEQIIASLPTLRELAIGGTAVGTGLNAHPELSQKVSEELTQLIGTKFISSPNKFHALTSHDAINFTHGAM

KGLAANLMKIANDIRWLASGPRCGLGELIIPENEPGSSIMPGKVNPTQCEAVTMVAVQVMGNDVAIGFAA

SQGNFELNVFKPVIIYNFLQSLDLLADSMHSFNIHCAVGIEPNRAKIDHNLHNSLMLVTALNPHIGYENA

AKVAKNAHKKGISLKESTMELGLVSEEDFNKFVDPTKMIGPKA

>AHK52468.1 hypothetical protein N916\_06815 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNGKFFLISFILVILFLLLYLFKGFLLVIIIASLMAVATSNINAKFLNLTKGHKFLASILTTTCMVLLF

FAPFVYAMIELAKALKNFDINLVTQTLDYVKNYQFTLPESFNFLEPKIKEFLASIDLNSISKQILSYASS

FTKSGAKFLIDMVLICVFYFFANLYGTELVIYLKSIIPIDKKELDDVLSEVGNVMAVVLYSMVIVAIFQG

ALFGLITIFYGYDGILMGVIFAVSSLIPAIGGALIYMPVSLYEFASNNLNSALVIFIYSVIVISFIADTL

IKPLIIKWINKKLVKTPTKINELLIFLAMIAGISTFGFWGIILGPAILTFFVSTLRMYVILKDKNLI

>AHK52467.1 Holliday junction DNA helicase RuvB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDRIVEIEKYSFDETYETSLRPSNFDGYIGQESIKKNLNVFIAAAKKRNECLDHILFSGPAGLGKTTLAN

IISYEMSANIKTTAAPMIEKSGDLAAILTNLSEGDILFIDEIHRLSPAIEEVLYPAMEDYRLDIIIGSGP

AAQTIKIDLPKFTLIGATTRAGMLSNPLRDRFGMQFRLEFYKDSELALILQKAALKLNKTCEEKAALEIA

KRSRSTPRIALRLLKRVRDFADVNDEEIITEKRANEALNSLGVNELGFDAMDLRYLELLTAAKQKPIGLA

SIAAALSEDENTIEDVIEPYLLANGYIERTAKGRIASAKSYSALKLNYEKTLFEE

>AHK52466.1 histidine phosphotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGILTKLELDYEIDDIEKFLQFFRTMCDRFEPLIIKLGSDSVRYKEAIKELETLAHNTAWAARRLNLEEV

TDFCVFCEEMMAQANRFNGPASDEFTDWMLLMSDQFEKYCRSYENDDSVLAVFNPLIVNVPNIISK

>AHK52465.1 polyphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQTSPDMFINRELSWLRFNSRVLDQCSKNLPLLEKLKFIAIYCTNLDEFYMIRVAGLKQLFSAGVNASSS

DEMTPLQQLKAIRKYLHQEKELLERYFNEITSELEKENLFIKHYENLDENLKQKCDEYFFSNIFPVIVPI

AVDATHPFPHLNNLSFSLAVKICDKAHPELVKFGMIRIPRVLPRFYEVSANIYVPIESIVHQHAEEIFPG

YKLLASAAFRVTRNADMVIEEEEADDFMMILEQGLKLRRKGAFVRLQIQKDADEQIVEFLNTHMKIFHKD

VYEYSILLNLPSLWQIAGNKTFTHLLSPLYTPKTLPPFDENLSIFDAVEKEDILIIQPFESFDPVYKFIK

EASKDPEVISIRMTLYRVEKNSNIVQALIDAASDGKQVTVMVELKARFDEENNLHWAKALENAGAHVIYG

ITGFKVHAKVSQVIRKQGDKLKFYMHLSTGNYNASSAKIYTDVSYFTSKAEFARDTTSFFHILSGFSKNR

RLQTLSMSPNQIKEKVLEMIRIETSKKNEGVIVAKMNSLVDSDIIQALYEASMEGVQIDLIIRGICCLKP

DEEYSKNIRVRSIIGKYLEHARVFYFKHSEPNYFISSADWMPRNLERRLELMTPIYDERSKAKLAQFLRL

QLSDNVLAYELKNNGEYEKIPSSEKIIDSQQTLEEYVSKIYKTLKKDTDQSRATHLASKLFKEN

>AHK52464.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKTSNLFTIFLVLLFVFFAVGFYTFYNAKGTSYLSNASESCNNCHIMNEVYNEYMAGPHSQKVKGEPRA

TCVDCHLPHNFVAKWIAKAQSGLGHAYAFTFKLDELPTNLSATEKSRKMVQENCIRCHADFAQTAINATT

NPHADKSLNCASCHKDVGHKHGI

>AHK52463.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKNILRLGIVVLVLLIAGVLWLNNDINQKKEDEANKNAIAANADFSLLSDDDPNFEKWGKVFPEQLKMY

LTVEKEEPKATEFGGNLAYSKLIRFPQLTILWAGYPFSLDFNEERGHFWVQVDQMKTARNNKDFLNAHGL

AAFKGQPAACMNCHSGWTPWLIKNVAKGDFTAFNSTNYWTMIKNIPAVDGIVENSPEHAGPHGGKRMGVT

CADCHNPNDMSLRLTRPAAINALVSRGYEKDPVQGVKATREEMRTLVCSQCHVEYYFKPTGEKVKVMGET

IVDDSSKKWWNGTQKNYDEYEFWRDGNKVKEIETDGIVLTFPWSEWKKGQPFRIEMLDDYYDKVRGVFGA

DFTHKLTGAQIIKIQHPESELYSGGVHAANGVSCVDCHMPYVREGAKKVTQHNITSPLRDINSACKSCHK

QSEDYLKAQVLDIQNSVAHDQRTAEYAIVSLIMDTKKLRDELGNMEKFQSDGKADAKKISEELKEVLELH

RKAQMRADFVNAENSTGFHNPREASRMLLQAVDMARMGQTKLVEIAAANGIKDFKTSNLGFEDIQKFNPG

ELYYKVDVNNHKAGERYYADEKDVNGNPPKELLEHDKELAPYNYQVIDKK

>AHK52462.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINKNKLFRQVHIYLSLFFLPCALLFALTGIAYIFGINQDVGLKVEQYQLSKVIESGKEREALIEYLKTN

GLKVPSNTNIIKSKDKGITIGGTHYSANITQNSTNEYNITLKTRSLLGDMIMLHKDKGAWYFSVLSVGFG

ITLFMLYISGLMITLFANKKDRSKQFAVLGVGVVVTLLLAYLSL

>AHK52461.1 enterochelin ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKSLVFAFFAFFLSLILTACNSNSNENNASSTTKTNTATVKVLPISMSDEGDSFLVKDSLGENKIPKNP

SKVVILDLGILDTFDALKLNDKVVGVPAKNLPKYLQQFKNKPSVGGVQQVDFEAINALKPDLIIISGRQS

KFYDKLKEIAPTLFVGLDNANFLSSFENNVLSVAKLYGLEKEALEKISDIKNEIEKAKSIVDEDKKALII

LTNSNKISAFGPQSRFGIIHDVLGINAVDENIKVGTHGKSINSEFILEKNPDYIFVVDRNVILGNKERAQ

GILDNALVAKTKAAQNKKIIYLDPEYWYLASGNGLESLKTMILEIKNAVK

>AHK52460.1 iron ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKLKNITKFYDNKVIISDLSLDFHKGKITSIIGANGAGKSTLLALASRLIKPSSGEIYIDGMNLKNYKE

QILAQKISILKQQNNINLRLKVEELVAFGRFPHSQGRLNTNDKIKINEALEYMELSNLRNEFLDTLSGGQ

KQRAFIAMIIAQDTEFIMFDEPLNNLDMKHSVQIMQLMKNLVKDFNKSIAVVLHDINFASIYSDEIIALK

DGKLLKQGSKDEIINQENLKQIYDMDIPVSQINGKKICIYF

>AHK52459.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRKKMLILSFLTLNMIGIFIFVGLNGFDEYALKSRFLQIAAIIIVAICIAVSTVIFQTLCNNKILTPAII

GLDSLYMLLQSALIFSFGAANLSVYKNDINFLITLVCMVVFSLGLYKILFSSDRSIYLIMLLGLVFGTLF

STLSSFFEVLIDPDEFMVIQGRMFASFDNIAFDVLILAYIISFLSFIWIFRYMKFLDPLNLGKDLAINLG

INYQKISKQLMIIIAILTSISTALVGPITFLGLLVVNITYELFKTAKHSILLSACILISILALLGGVFFV

SRVFDYNATISVVINFLGGIYFIYLVLKGNKL

>AHK52458.1 phospholipase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRKIALFLSLCVFIWASDLQQALEYEKQGDYKKAMEIYKKLALKNSSVLISQEQNNSSQATQTQNSITIK

KEEKQDFSRLALANYLGENESFNPLGISSYKMNYFLPFAYSFNSLGVNNNKSEAKFQLSVKKRLFENLLG

LDEKYYIAYTQTSWWQIYEHSSPFRETNYQPEFFIDLPLYLKDYEFFNNLRVGILHESNGKGDENLQSRS

WNRIYVSTAILYNKFLFVPRLWYRIPENKKDDDNPAILHYMGNFDVNLAYLGDDYFINLMLRNNLKFHNN

KGAIQVDLGYDIFNNGIYWYLQYFNGYGESLIDYNKHLQRLSTGFLISY

>AHK52457.1 molybdopterin-guanine dinucleotide biosynthesis protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQLNELNCVILCGGKSSRMGQDKSKLILKNQNLTQFQVDKFSKIFKNVYVSAKEDKFENHFSLIKDSLEF

EVYSPMLALYSILSNFKNEFVFVLSVDSPKVGENELLKMLPFLEQNYKIIIAKTPLHKHPLCGFYHSSLA

QTCKNFLEKNEQKIGLLFSEIKTKFVEFEDEDAFLNLNFYEEYEKFKSKLK

>AHK52456.1 ferrous iron transporter A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKYTELLQLQTFFSRFKKIDFIKRINDNILELSFDRERFIFDLTRAMSAIYTAKFNAKNYNAPFDFMLKK

YFSNAFIKEVKVLEGNRILCFSVKANKAYKSYESKIYFEFTGKNTNVILTDEKDLIIEALRHIDKSYRVV

KPNVILESLKPYKMDENFEEIKDFADYFSRKFTSIYESKIKQIKNLKLAQVDKKIQNLQELFSSLDEENS

LLLKALEYRKRADVLFANLSVLKDYEREFKLDDFEGKELEFKLEFNPKQSANLYYKNAKKLEQKAKNLNI

QRQNLKEKLDFTLSLKELLLQAKSEIELEILLPKKNSKKNQDHKQEDLVANFYFNEFKICVGKNEKGNEF

LLKNAKKDDLWLHVRDIPSAHTLIVSNKQKISLDVIEFAARLCVSFSKLKKGSYWVDYTLKNFVKVQQKA

FVNYTNFKSINITKD

>AHK52455.1 coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPVSPLGNINYINQNMAYPATQASNELAKEGFAATLNMAEFNEKEKTLNKLEKVNETHEIKEEIKEKAEQ

EEKKKKHNQEAKTSDDEKNEEDESKDPNFKDAQSIHRLDISI

>AHK52454.1 phosphatidate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFNTTRIISALVMIGAIIIIALIDQFFINFIVFAVLLYLSFSEAKKLFALENISIIPLAIAFILGSLSHK

ALLFGILVLLLVVGYLVYKKASLKPALIYIYPSLPILALWQVYLDQGMFALFWLIIIVAACDSGAYFIGK

LMGKTPFSPTSPNKTLEGVIGGLICASVIGTILGVFVYSFWLSLLCSFFVAIFAVIGDLLESYFKREAGV

KDSGDLIPGHGGVLDRIDAVIIAAFVMVALL

>AHK52453.1 1-deoxy-D-xylulose 5-phosphate reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MILFGSTGSIGVNALKLAALKNIPISALACGDNIALLNEQIARFKPKFVSIKDSKNKHLVKHDRVFIGQE

GLEQILTECQDKLLLNAIVGFAGLKSTLKAKELGKNIALANKESLVVAGSFLKGAKFLPVDSEHAALKFL

LEGKKNIAKLYITASGGAFYRYKIKDLNQVSVKDALKHPNWNMGAKITIDSATMANKLFEIIEAYHLYDF

KEIDALIEPRSLVHAMCEFKNGASTAYFSKADMKLAISDAIFEKQDTPILEAVDFSKMPALKFHPISTKK

YPIFKLKNTFLKEPNLGVIINAANEVGVYNFLENKSGFLDIAKCIFKALDHFGVPKISSIEEVFEYDFKT

REYLRS

>AHK52452.1 protein kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNLILAIESSCDDSSIAIIDKNTLECKFHKKISQELDHSIYGGVVPELAARLHSEALPKMLKQCKEHFK

NLCAIAVTNEPGLSVSLLSGISMAKTLASALNLPLIPINHLKGHIYSLFLEEKISLDMGILLVSGGHTMV

LYLKDDASLELLASTNDDSFGESFDKVAKMMNLGYPGGVIIENLAKNAKLKNISFNTPLKHSKELAFSFS

GLKNAVRLEILKHENLNEDTKAEIAYAFENTACDHIMDKLEKIFNLYKFKNFGVVGGASANLNLRSRLQN

LCQKYNANLKLAPLKFCSDNALMIARAAVDAYEKKEFVSVEEDILSPKNKNFSRI

>AHK52451.1 hypothetical protein N916\_06710 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKAFTILELVFVIVILGILAAIALPKMSSSKDEAEVSKSLNNLKTLINDISIYTLKNDHLSSIKTMSNV

SGVENVDLSNFNGIKEVNFRVGDDKECLKLVFINKADFILMGISSNEASKNAIINAANQSHEDLENIDFT

SSSSNKACVILSKNENFKNLASKTYLLIGGM

>AHK52450.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFKKEISFIKSLFNKENIALHEPCFIGNEKKYLLECIDSGFVSSVGEFVTRFEEALKEKTKARFVIATNT

GTAALHIALLANGIDENCEVITQSISFVATANAIAYTGAKPVFLDIDENTLSLSPKALEHFLENQTYQKD

NLSYNKTTHKLIKACVIMHTFGLSAHIKAIKELCEKYHILLIEDAAEALGSTYENKALGTFGKCGILSFN

GNKIITGGCGGAILSDDENLAKLARHLSTTAKIPHPYEYDHDRIAYNYRLCNINAAILFAGLENLELFLE

NKRELAKIYKDFFKNHDKCKFIDEKSNEKSNFWLNTLLFKNENLRNIFLEECLKNNIFVRPVWKSLPSLK

AFQNCQSNELMNTKKLEKRLINLPSSVRIANKKE

>AHK52449.1 N-acetylneuraminate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIGNFNTDKKVFIIAELSANHAGSLEMALKSIKAAKKAGADAIKIQTYTPDSLTLNSDKEDFIIKGGLW

DKRKLYELYESAKTPYEWHSQIFETAQNEGILCFSSPFAKEDVEFLKRFDPIAYKIASFEANDENFVRLI

AKEKKPTIVSTGIATEEELFKICEIFKEEKNPDLVFLKCTSTYPTAIEDMNLKGIVSLKEKFNVEVGLSD

HSFGFLAPVMAVALGARVIEKHFMLDKSIESEDSKFSLDFDEFKAMVDAVRQAESALGDGKLDLDEKVLK

NRVFARSLYASKDIKKGEMFSEENVKSVRPSFGLHPKFYQELLGKKASKDIKFGDALKQGDFQ

>AHK52448.1 pseudaminic acid biosynthesis PseA protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFCKKCVMPDTKPDLHFDEEGVCDACRSQEAKNQNINWQEREKEFFELIKKYKKHPVYDCVIGVSGGKD

STFQVVKMLELGLNPLCVCFEPSVPTKIGRKNLDNLNHLGVDLIHIKRDPKVYQKLAREAFIRTGDNEWQ

NHLGIFTSVPRIAVNFGVPLIIWGESPQIEYGGPASSKNKNILGREWLEEFGGLLGNRASDMLGVNGITE

KDLFLYTYPSDEELQRVGVTGLFLGYYFKWDYKKILEISKKYGFLTLDHPVETTYENFENLDCYSNHVHD

YLKYCKYGFGRATDNACLDIRLGYISREEGVRLAQKYDGKPPKKAIKKYLEFSGFSEEEFQKIVDSFTNK

KIFKRDENGKFIRDYDGSLVRKDECVLK

>AHK52447.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MCFKMIALIDYKAGNLNSVAKAFEKIGAINFIAKNPKDLQKADKLLLPGVGSFKEAMKNLKELGFIEALK

EQVLVQKKPILGICLGMQLFLERGYEGGVCEGLGFIEGEVVKFEEDLNLKIPHMGWNELEILKQVPLYQG

IDNKSDFYFVHSFYVKCKDEFVSAKAQYGHKFVASLQKDHIFATQFHPEKSQNLGLKLLENFARL

>AHK52446.1 imidazole glycerol phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKTRIIPCVLLKNSQLVKSIEFKDFRTIGHLTSTMRIYNARNVDELIILDIDASKSGEIDFESIEDLAK

ECFMPLTIGGGIKTLEDIQKILNLGADKISINSKALEDMDFISKAGNRFGSQCIVCSIDVKRKGDQFCVY

DRGNLLEKSPLELALEYEKKGAGELLLTSVDFEGKAKGYDLELLKIFQNKLKIPLIINGGLSKPSDGVEA

LNLGADALAGAYIFHFSKYTPKDVKEELARQGFAVRLL

>AHK52445.1 N-acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKLKNFAELNSQEIKLIFKWRNHPDISQFMKTKHIDFEEHLRFIRNLHQDSNKKYFLVFQDEQIIGVID

FVNITTKSCEFGLYAIPDLKGVGQVLMNEIKKYAFEILKVDTLKAYVFKDNHKALKLYQQNHFTIYDEDK

DFYYVCLKQSHCKALPS

>AHK52444.1 nucleotidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVLFRSDSSSQIGFGHIKRDLVLAKQYSDVSFACLPLEGSLIDEIPYPVYELSSESIYELINLIKEEKF

ELLIIDHYGISVDDEKLIKLETGVKILSFDDEIKPHHCDILLNVNAYAKASDYEGLVPFKCEVRCGFSYA

LIREEFYQEAKENREKKYDFFICMGGTDIKNLSLQIASELPKTKIISIATSSSNPNLKKLQKFAKLHNNI

RLFIDHENIAKLMNESNKLIISASSLVNEALLLKANFKAICYVKNQESTATWLAKKGYEVEYKY

>AHK52443.1 CMP-N-acetylneuraminic acid synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNLCIIPARGGSKRIPRKNIIDFLGKPLISYSIENALNSGIFDEVVLSSDDEEIIEVALKYGAKAPFVR

DKNLSDDYASSTAVVQNAIEILQSQNQIYDHVCCLYATAPLLNKDILKQAYEKFIQNQSKFLFAATEFEY

PIQRAFYLNENNQVYMFDEKHYKSRSQDLTKAYHDAGAFYFGTSKAWLEEDFIFKPHSSVFVLPRNLVCD

IDTIQDLEFAKILYKVNHESAF

>AHK52442.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQEIKQFFINIERTDINESMENLVSEDFIDSIDIMALVAEIEKFYKKPLKAEFITPENFESFENIKKMLE

TAMKD

>AHK52441.1 amino acid adenylation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTTHIYDFLEKSLIKFSEKTAFVEPFVKERKEITYKDFDLFSKKLASEILKTLGNDNPTQAPVLIILPKG

IDCLISFFGVALSGNFYTLLDEKSPKERVEKVIEVLKPKLFITSKDLNFNLDLPTLYTQDFESFNIDESL

IKHAKEKHIDTNLLYVFFTSGSTGIPKGVSIAHKSVIDYTFWVCETFKFDENEILANQAPFYFDNSILDI

FSSVKSGATLHLLPNHLFAFPNKILECLEKEKVSTIFWVPSVLIYFANTEALNNFSLNALKKMLFCGEIM

PNKQLNIWRKHLPNALFANLYGPTEITDVCSFYIINRTFKDEELLPIGKACKNTELLVFDENMNFISPKQ

IGVKGELFVRGTSLSLGYYNDKEKTKQAFIQNPLHDNYLDLLYKTGDIVSYNEFGELLCYGRADNQIKYM

GHRIELGEIESVINSHVNIKNSACIFKEDIICFYESEEEINFKDFLKDKLPSYMIPKNFIKLDKFKLNQN

GKIDRKVLKELV

>AHK52440.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKTEFLEELKEAMHRDEDLNEDMLLDDIDEWDSLAFVSVMVLYKNLFTLKITAEDLKNCQKVSDLINLA

KLD

>AHK52439.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTRFDKAKISGICVSVPEHKICIDDELESVFSNDIKTLKRMKKVIGLNTRYICDENTCVSDLGKHAANT

LLQGLNIDKNSLDALIVVTQSPDFFMPSTACYLHQLLNLSSKTVAFDLGQACAGYLYGLFVAHSLIQSGL

GKILLICGDTLSKFIHPKNMNLAPIFGDGVSATLIEKTDFNEAFFELGSDGKYFDKLIIPKGAMRIPKAD

IFNDDSLMQTEEFRQLENLYMDGANIFNMALECEPKSFKEILEFSKVDEKDIAFHLFHQSNAYLVDCIKE

ELKLNDDKVPNFIMEKYANLSACSLPTLLCELDTPKEFKASLSAFGAGLSWGSAVLNFKDLYTKNILIYT

KEK

>AHK52438.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLFSPHLKRNELIKFAKELDFSKSQDLLINVHRNHAFEGVQSIIAPFLHFANLRAEFNFSSYDDSLSFD

NFKEASLELLWLDLTRYKNNVQNFIEERLLELRKISQNPILVLSLGEFKTDKKILNCEIFNIEKLIKEYF

DEEDILDLAKEELTGSKLNNKALIFLAQILGLSLIPALVKPALKALVLDLDNTLYQGILGEEGIDNLNLS

PLHKTLQEKIKTFKKQGFLLALASKNEEKDAKKLFEIRKDFILQWDDFDARMINWEPKGENILKIAKKFN

INTNAMLFIDDNIAELENTKITGVKTLLCDENILYKIKLFPNLLKLSNTKEDQIRAKDIAANALREELKS

LSDEEYFQNLEISLNFSKNDLQNIPRISELLGKTNQFIANYTRLNQEKVAQHMQKELIVSVSMSDKLSDS

GIIAIFVFSCKEGNLFIDDLCISCRALGRKLETRMFFKAFELALHFFDLKNNNARLYYQKGERNMPFLSF

LEQISKEFEKNSALIPFQNLNFKGLIIHEN

>AHK52437.1 SAM-dependent methlyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKENIEKLFQAIAQKNPIHSKYLKKIEFSQEDEEEFDKLISYYIQDGISIKEQCDCYLLILNDTLEETKF

FIENGAYRYSSFDEVKDKVYFNESYMKQYMIGLALSSFVWIAHIKVRKYFSQYLQNFTPKTTYFEIGPGH

GEYFARAVKSGKFSAFYGLDISPTSCELTQKMVKQQVGGLITKCDFLCQDFFTYDFDKKADLIVIGEVLE

HVEKPLEFLKRSKELLSDGGEIFATIPINAPAIDHIYLFSHPDEVKDLIEKSGLKFKAYECFMANDYSLE

KALKFKNAITMAVVLNA

>AHK52436.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKQFYEILENILETKVDENTNLSMENCKNWTSLAHIDIIMSLEEEFEIKFNKEDLSLLKSQSALLEKIQ

TLKAEK

>AHK52435.1 C4 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLTYSHQNIDQSDIDTLTKALKDEILTGGKKVNEFEEALCEYMGVKHACVLNSATSALHLAYTALGVQEK

IVLTTPLTFAATANAALMAGAKVEFIDIKNDGNIDEKKLEARLLKESENIGAISVVDFAGNSVEMDEISN

LTKKYNIPLIDDASHALGALYKSEKVGKKADLSIFSFHPVKPITTFEGGAVVSDNEELIDKIKLLRSHGI

VKKRLWDSDMVELGYNYRLSDVACALGINQLKKLDHNLEKREEIANFYDKEFEKNPYFSTIKIKDYKKSS

RHLYPILLFPEFYCQKEELFESLLHAGIGVQVHYKPTYEFSFYKKLLGEIKLQNADNFYKAELSIPCHQE

MNLKDAKFVKDTLFSILEKVKKGYCG

>AHK52434.1 N-acetyl glucosamine/N-acetyl galactosamine epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFNKKNILITGGTGSFGKTYTKVLLENYKPNKIIIYSRDELKQFEMASVFNAPCMRYFIGDVRDKERLSA

AMRDVDFVIHAAAMKHVPIAEYNPMECIKTNIHGAQNVIDACFENGVKKCIALSTDKACNPVNLYGATKL

ASDKLFVAANNIAGNKQTRFGVTRYGNVVGSRGSVVPFFKKLISEGAKELPITDTRMTRFWISLEDGVKF

VLSNFERMHGGEIFIPKIPSMKITDLAHALAPNLSHKIIGIRAGEKLHEIMISSDDSHLTYEFENYYAIS

PSIKFVDKDNDFSINALGEKGQKVKDGFSYSSDNNPLWASEKELLEIINHTEGF

>AHK52433.1 deoxycytidine triphosphate deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGLKADNWIRKMALEHKMIEPFCEANIGKGVVSYGLSSYGYDIRVGREFKIFTNVNSTVVDPKNFVEENV

VDFEGDVCIVPANSFALARTIEYFKMPDNVLAICLGKSTYARCGIIVNVTPFEPGFEGHITIEISNTTPL

PAKIYANEGIAQVLFLQGDEKCDTTYKDKKGKYQAQTGITLPRILK

>AHK52432.1 acetyl-CoA carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKEEIKELVNLFAEANISKIKIKEQDGFEIELERDMCCDVPAPVCPPVPAPQPINVSVVNEAQPSQSVK

SNKPSINSPMVGTFYQAPSPGAAPFVKVGSTVKKGDTIAIIEAMKIMNEIEAEFDCRIAEILVADGQPVE

FGMPLFAVEKL

>AHK52431.1 biotin carboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEIKSILIANRGEIALRALRTIKEMGKKAICVYSEADKDALYLKYADASICIGKARSSESYLNIPAIIAA

AEIAEADAIFPGYGFLSENQNFVEICAKHNIKFIGPSVEAMNLMSDKSKAKQVMQRAGVPVIPGSDGALA

GAEAAKKLAKEIGYPVILKAAAGGGGRGMRVVENEKDLEKAYWSAESEAMTAFGDGTMYMEKYIQNPRHI

EVQVIGDSFGNVIHVGERDCSMQRRHQKLIEESPAILLDEKTRTRLHETAIKAAKAIGYEGAGTFEFLVD

KNLDFYFIEMNTRLQVEHCVSEMVSGIDIIEQMIKVAEGYALPSQESIKLNGHSIECRITAEDSKTFLPS

PGKITKYIPPAGRNVRMESHCYQDYSVPAYYDSMIGKLVVWAEDRNKAIAKMKVALDELLISGIKTTKDF

HLSMMENPDFINNNYDTNYLARH

>AHK52430.1 hypothetical protein N916\_06440 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILLSFAFFASLASANTINAIAVVVDKEPITTYDIDQTMKALKIDRNKALGVLINEKMEISQMKQLGI

VVNDLELDDAINKMLAQNKTTLNAFKANLKSKNQSYEQFRTNFKKDLEKRKLYEKIASMAKTDFSDDGAK

KFFEQNKDKFTFYTQINANIYLSNNPQTLENIKNTKKTILKPQNASLNTSNADPRLLGLLSQIPVGSFSP

VLNGKNGYELYEVKSKDGTQTPEYEQVKNEVLNAYVSEQRQNFIQDYFDKLRSKINIEYLR

>AHK52429.1 glutamyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHEKLTTRFAPSPTGYLHIGGLRTALYNYLYARKNGGNFLLRIEDTDLKRNSKEATKAIIEAFKWCGLEH

DGEVTYQSERFDLYKEYVKKLLDEGKAYYCYMSKEELEELRAKQEAAKERPRYDGRYREFTGTPPQGIEP

VVRIKAPQSGEIVFEDGVKGEVRFKAEDIMDDFIIARSDGTPTYNFTVVIDDALMGVSDVIRGDDHLSNT

PKQIVLYEALGFKIPKFFHVAMIHGEDGKKLSKRHGATDVMEYKEMGILPQALLNFLVRLGWSHGDDEVF

SLEDLKKLFDPYHINKSASCYNAKKLEWLNAHYIKTLPFEEINRQLKDLGFDLSVYEKAGFLLDLLRERA

KTLHDIINGAKSIVNAPQNYDENAVQKFVNKNNLELLQAFANTLKDQKTGKDFEDFTNDFLEKKEAKLKD

LAQPIRIALTGSAVSPSIFEVLEFLGVDECKKRIDNFLKVRGK

>AHK52428.1 malate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLKEEALKYHLGGKIDIVPSKPMATSYDLSLAYSPGVAEPCLEIAKDNELAYTYTNKANLVAIVSDGSA

VLGLGNIGAQASKPVMEGKACLFKKFANVNAYDIEINVHSIEEIVNFCKALAPTVGGINLEDIAAPKCFE

IEAALQDLGIPVMHDDQHGTAIISTAGLMNAMEISGKKFKDIKVVVSGAGAAGIASAKMYRNLGVENIIL

VDSKGVISKDRNDLTPQKLEFAVDSKEKTLKEVLKGADVFLGLSAPKILDDEMVLSMAKDPVIFALANPI

PEVMPEDVARLRKDAIVGTGRSDYPNQINNVLGFPFIFRGALDVRASKITENMKVAAAKALADLAKLPVS

DAVKKAYNLSTLEFGRDYVIPKPFDERVKAAVSTAVAAAAVKDGVAKVKNFDEKAYFESLK

>AHK52427.1 uracil phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNIHCINHPLIEHKLGILRAKETKPFQFRMLIDEISSFLLFEASKDFSLKEIEISTPIQKTTVKKLDEK

IMICPILRAALGMLESVFKMIPDASVGFLGFVRNEETLKADFYFQKLPKDAKKRTAIVIDPMFATGGTAI

DACNFLKSQGVKKIKFISILAAPQGLKKFSQMHDDVEVFVACIDEGLNEKGYIIPGLGDAGDRVFNTL

>AHK52426.1 hypothetical protein N916\_06420 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIFGKIDYINLLPLHIYLKKYPLPNGYKASMEYKKGVPSKLNKDLFYRRIDAAIISSIESARKKYKNLDL

GICANKRVLSVLVEKNTSNAKDPSSATSNALAKVLKQDGKVIIGDKALKLYLKDPSKYIDLCAKWHEKTG

LPFVFARFSCVQKKALYKQILKKFPKTKIKIPYYILQNYAKTRDLDIKDVRYYLDEVIYHKISTKEKTAL

KRFVKACKALNLA

>AHK52425.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNLNYGIIGLGKFGSVVADELIAGGHTVIVADKDEEALKSIQNPPSYAYILDSTNISALKEAGFHDVEV

VIVSIGENVEKSILTLMALKDIGVKNIIAKATSNIHGQILSKLGATKVIYPEKESAKRLVKEFLTKDADY

EVFDLSANTIRAIKINIDEKLAGNSLKHVAQNMKVISYKKLNSDWEILPDLETTTVYSGDVVILLGTVKE

LREFEH

>AHK52424.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKQFGLDRRTFKILLAGYIIIALFGALLLHSSWAHTTPIDFLDAFFTSTSAVSMTGLVVKNTAVDFTLAG

QIIILALVQIGGLGYMGIGLFVYILIRKKVGFSARNLLKESLFYPSMDGLFKFFKKVLLFIFTIELIGAI

LLTMRFALEMNFKKALWFGIFHSISAFNNSGFTIFEHGFIAYKHDIAINLIITSLIIIGGLGYFVLVELY

FFQRKKLQNLSLHTKMVVVASIFLIFSSTLIIFAFEYSNPQTIGHFSFFDKILSSYFIAINYRTAGFNTL

DMGHLHDASLFFGSLFMVIGGAPGGTAGGMKVTTVMVLLLYAYWSIRDGRVRIFGHEIPRETISKAFIIA

VGSAVYIVIAVILLSLLESKFDFIALLFETSSAFATVGISVGNGGTLSLCALFSDPSKVIIIIMMLSGRI

GVFAFLLSVFKQDKAIHLKFPEGKVNL

>AHK52423.1 rod shape-determining protein RodA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFRLDRRILTHFDYIQPILFLPIILISFFLIFEANPFLAEKQFVYACVGLFAFMVFFFFPIRKFIWIIPV

AYWINIFLLLSVDIFGVEKLGAKRWLEIPFTHFTIQPSEIFKPSFILMLAYLIYQNPPPKNGYKLKQFIK

LSFYIILPFLLIAKEPDLGSAMVLLLVGFGVLFIMGVHYKIWLSIVIAISVSSPIIYTHLLKPYQKQRIH

DFISEKPSYQVAQSMIAIGNGGLTGKSQDEATQTHFKFLPISTSDFIFAYMIERFGFIGGLTLIIFYILL

IFHLLSLNYKLKDDYFARVAINCVALFIFIYAAVNISMTIGFAPVVGIPLPFFSYGGSSFTIFMIFFGIL

QHLITFRYFWTDIKAK

>AHK52422.1 ferrous iron transporter A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKRFRLSFYLSFLTLLLSACSVSQMNSLASSKEPAVNESLPKVESLKSLSDMSNIAFEWEPLYNENIKGF

YLYRSSDENPDFKLVGTIKDKFQTHYVDTKLEPGTKYRYMMKSFNEQGQISEDGKVIEVSTAPRLEAVPF

VQAVTNLPNRIKLIWRPHPDFRVDSYIIERTKGDDKEFKKIAEVKNRLNAEYIDSDLKPNENSSYRIIAV

SFNGIKSGSSQVVSSTSKALPPQVEHLSASTDGSSKIILTWDAPTYEDFSYYKVYSTSSSFLPFSVLAKT

DKNSYEDIVEGAGKSKYYKVTMVDKDGLESPMPKDGVEGKTLGNPLAPSIILAQSTSEGINLEWSDNDTR

AVEYEVRRYGGEQNAVFKGIKEKRLKDVKALPGVEYSYEVIAIDSAGLRSEPSSKVKAAQ

>AHK52421.1 tRNA (guanine-N(7)-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPNFKSKKIKEINLPYSKDDVEFLWLAKNDNVSLIYTKVQEESFFLQIKKAQNGFVIKGDKHTKPSKIGY

LQKALKIFKEGFCEDIINEAFGLKNNALIEKTPFIVDNFDELLSRLQGKIYIEIGFGSGRHLLYQAKENP

NVLILGVEIYNPALTQVAKLAKAQNVNNILLIQSDARLLLSVLKSKSVEKIFLHFPVPWDKKPHRRVIGK

DFCKECARVLVQNGRFELRTDSFEYFNFTLEQFLTFPAPKFSLRKNENLEISSKYEDRWKKQEKNIYDLW

VWNFNQECKNYELNEFNLSSVEFSKEDLKKIEQNFKNITIKKDDFFLHFESIYKQDENLLLKVAFGAFNK

PEHCYLHLDKTIDFAFKEPFKIQENIKAINELKEILKVQFKI

>AHK52420.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPNLIQANKLTLGYDELVIKEASFAFKDDDFVFITGKSGSGKSTLLKSFYGDLEPISGKLEVCGSLMNKI

GNLELLKLRQRIGIIFQDYKLVQEYSVEKNVMLPLMIKGYSKKVCHDQATKLLKHVNLTFKADKLPNQLS

GGEQQRVAMARALAHNPKLLLCDEPTGNLDEYSSDIIWTLLKSARELLGTCVIVVTHRIPSNLRVDYRRF

NIENGKMNEIF

>AHK52419.1 cell division protein FtsX [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFFKTHLSLILPLLFMMFAFEFILITNATLKHYEELVNKDYNIIVVSKTELDQNVVKTKVPFFAGLESL

DPKDLIDRLKNDVSEKNLKVLKDSLPKFYTLKLNSLPDQNELNSIKNQLLNIVGVSKVETFSKTHDKIYS

LLILMKFVFWLFLFIIILLAFVLFLKQMRIWLYEHTDRIEIMCLFGAPFWFRSFMLYKVVVVDCFIAFVI

LLAFFTQIFDLSIIQESLKAVDIIFPPINFILHLTLIFLATLFICLLCVNTVMFKVKR

>AHK52418.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRKNILIFFCFFLFVDISLANAINEKTKSLEENKRIQEQLNKKLEDLASDILNGEKSLKDLSLQIESLNS

QTSKLEASAKAQNQELNTLTSQNEDLLKSKSNMEGKLISLMAKDFAYDLPIPQGYIESEESFMAFEILGS

LNKVLNEEIFKISKDYEGVSRLIDDKQAQIKKINESLKDYNAQLAKLQSLKQKQISEINKQKTDRAIYAK

KLDDLQAQQEELRKTLNQLKIINDKEDANSNKNDTKIVKNNQKIRQLGSSYQGSSVKRYTGKKTIAPLDS

FTVKQKFGNYVDPVYNLKIFNENVVLRSNKSDAVVKNVLDGKIVFAKDTSMLARVVIVEHDNGIHTIYAH

LDKIAPNIKVGKNIKKGAVVGRIKNDLTFEVTQKNFHINPLELISLN

>AHK52417.1 uridylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQERKRVLVKFSGEALAGENGFGIENSILKFIASEIKELIKNQIEVGIVIGGGNIIRGVSAAKGGLIKRT

SGDHMGMLATVINAIAIQEALESSGLEVRVQSAIQMEAFCETYIMRRAQRHLEKGRVVVFAAGTGNPYFT

TDTTAILRAVEIDADMVIKATKVNGVYDKDPKQFDDAVFLNTLSYDEAMQDNIKVMDDTAIALAKDNKLP

IVVCNMFEEGNLLKIIQGDTSLCSTVKNN

>AHK52416.1 DNA-directed RNA polymerase subunit omega [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDKRIEEVAAKALEKMGNDRYRLSLVVAKRAEQLANGATPLVDFDKNKNKLADIALYEIAENKITLEGLV

ETNR

>AHK52415.1 potassium-transporting ATPase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKPIDEELLLEQLIDNVKNCKDLEAAKALLFEICGHDAILEKAVDYCIFCHEGQFRKSGEPYAVHPILVA

TLVGFLSENKSNILAALLHDVIEDTNCTEEELREQFGSEVLKLVLGLTKIIEIREDNLISSKSKKSLTKS

ALTFRNMLLASIEDVGVLIVKLCDRLHNMLTLDILREDKQKRISEETLVVYAPIAHRLGISSIKNYLEDL

SFKYLMPDEYKLIDNYINSNNQEMQLGLNEFISKIELLFLSNGFRQGSFEIQKRIKHSYSIYLKMQRKGI

GIEEVLDLLGVRILVEKVSDCYLALGILHTHFNPLVSRFKDYIALPKQNGYQTIHTTLFDAKSIIEAQIR

TFDMHKIAEFGIAAHWKYKEDGSVVAPRLDWLTDISMQSINNLENAEDYNAIELYEYAKDSLYVEDVAVY

SPKGEIFTLPRGATVLDFAYEVHTKVGLHAKSAYVNRIKVPLLTELKNGDIVRVVTSNDKFYRCSWIDSV

KTGKAKASIREFCKQKIREINLASSINMLSFIFGVDKNRIETWIEKENLVRRIRQVATDSAYLKDIVNGL

KKYAKKSYWFDKYEIKEQKIGNFTLYCNHKIANVDFDFCCHPKRGDAVLAFVKGGNAIVHHKLCDRADKM

IDNNQDMVFIKWDSNIPKSYKLIFSLENKKGVLAEFLAFLAKMQINLLTINLSSDLNSAVDYFEITMEIP

DNINPDSVKDRLKSRCKILDFTSLNDAYKES

>AHK52414.1 tyrosyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDIKKILAEVKRGCAELIDEERIENLIKNYYEKGENFFIKAGFDPTAPDLHLGHSVVLTKMAFLQKHGAI

VQFLIGDFTGQIGDPSGKSATRKKLDKEQVLINAKTYKTQVFKVLDKEKTQIKFNSTWLNELGAAGIVEL

TSTFSVARMLERDDFTKRFKEQSPISICEFLYPLLQGYDSVALKSDIEMGGTDQKFNLLMGRQLQRVYNI

GKEQAVIMMPLLEGLDGVNKMSKSLNNYIGVTEKANDMYAKILSISDELMFRYYELLSQKSLEEIAQIKK

DIEQGNLHPKKAKENLALEITERFHSKEEANNAKSEFDRIHSQNALPSDMAEFEIQGKIWLAKALVECGL

ESSTSAARRSISANAVSVNSQKVSDEQMYLEQGEYILQIGKRKFAKLKVKE

>AHK52413.1 2-nitropropane dioxygenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLQPLQIGKHTIKYPIFQGGMGLGISWDRLASAVSLNGGLGIISSVGTGYYEERKYASKELNAKPYGSE

NFYSRKGLQALINNARKVCGDAPLGCNILCASNDYARIARDACEVGFNVIVSGAGLPTNLPEFTADFPDV

ALVPIISSAKALKIICKRWQSRYNRLPDAVVLEGPKSGGHQGFTYEQCLDPNYQLEKLIAPVVEEAKNWG

SFPVIAAGGIWDKKDIENAISLGASGVQMGTRFIGTFECDASEEFKSVLLASKEEDIELIKSPVGYPARG

VRTNLLNLVDKRMGPKINCISNCVAPCGRGKEATKVGYCIADRLFDAWSGKKETGLFFTGANGYRLDKLI

SVKELMEKLVNGE

>AHK52412.1 N-acetylmuramoyl-L-alanine amidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKIFVFLVFVFTTLFGVYENELANFDKNFIGSKSEVQVKFHHQLKSLYIQSVINEDEKTKIEILKRLII

SSNTLNLDDKSYANELKESGISETSINALRKAVIKDIKVQNISQDTEKSTFEPIKTVQKNEKKSSNEQIK

NTEKTNSKTSQAPKSSIVSKAKSDDKIYVLKSSKTNQGVEFELNADLDKDQLKSFALDEKGNYRFISDFD

GVLEGGKKEFKFDDYRLVISQFNPKTIRIVVYAKEKIPIDISFKEEKIIFSKETTSQKKTEQVSKISEKK

QDQKTEIKTKVLETKKQDKKTNNEKENQEPLYVLDVDKISNAVVLNLSDDLDEKEIAVFDTKDQKFRYVV

SFKGVLEGNRKSFTFGQNVITVTQYNPKTVRVVLSAPKEFKLLKELDNNNLTLGFYIQTTNQNANKKATQ

SSSKTLNTNYKSGKLVVIDAGHGGKDSGALSDKKGSLKEKDIVLSTALKLGNELKKRGYKVLYTRSSDKF

INLRDRTKYANDKRADLFISIHANAAPNATKAKSSEGVETFFLSPARSERSKKAAEKENQGDFEEINYFS

KQSILNFLNREKIVASNKLAIDVQKNILTQTRKKYKIVDGGVREAPFWVLVGAQMPAILIEIGYITHPNE

GKRIANKAFQDLLVKGIADGVESYFYNNR

>AHK52411.1 FAD-dependent cmnm(5)s(2)U34 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKAKLIFKDNTPFSLDFDDFYFNFKDGLNESKFVYTHSFEWKNQENFIIAESGFGIGLNFFLTLKRFLE

TTPSKRPKKLFYISVEAFYIEKEQLREIYQKLEFYEEFKELLEQFLKFYPKAKEGIYRFYFEDCFLDLVF

EDIAVLKELDFKADVWYLDGFSPNKNSQMFDENLIFEVARLSKKNTQICTFSSASFLQKNLKKYGFRVEK

TKGFRKREMIKAYLENELEFKDKEAYFSRTFSSLKNKKVAIIGAGISSAVLAYELSLRGFEIDIFEKHLE

LGKGASGNESGILSSLILKPKVNLGEFSELSFIEASRFYRQILDLEFKGVVEFAHNDLMQERFDTQRENV

LFKISKNQAFLEEGGVIFPKKLVKNLFEKSKACIYFNHEFQAYKFENGCFSLKFKNDVVKSDYAVLIYAM

GADAKDFVFYDEMKLSKVRGQVTHLKPFLDTPFPLSSKAYICPVKDDLQVIGASYDRLNASLESKEEDDK

QNIENIADFMDKNTKLEIIGSKVGFRSYSSDRFMIVGNAYDEAFYKEEYKALLWTKNKEQKPAKMSCNLY

FNFAHGSRGFSTSVLAARYLCALINNEPLCLEKKYIHAIHPARFLIRKLKKGL

>AHK52410.1 quinone-reactive Ni/Fe-hydrogenase small chain [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIDYHQIESRLSALEKLPSLKDNDSITKALEKSGFSRRDFMKWAGAMTAFLALPASFTPMVAKAAELADR

LPVVWLHMAECTGCSESLLRSDTPTIDSLIFDYISLEYHETVMAAAGWQAEENLESAIQKHKNKYILMVE

GGIPMGDTEHFLTIGAHGKTGYELSKMASENALAIFAIGTCSSFGGIQAARPNPSNAQPLSKVTSKTVIN

VPGCPPSEKNIVGNVLHYLLFGELPALDVYNRPKWAYGLRIHDLCERRGHFDAGEFVHAFGDEGAKQGFC

LYKVGCKGPYTFNNCSRERFNQHTSWPIQAGHGCIGCSEPNFWDTMGPFEEPMASRKFDTVFGLGADSVS

DKIGIGVLTLTGVAIAAHAVISSMQKDKE

>AHK52409.1 hydrogenase 2 large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSQKIIVDPITRIEGHLRVEVVVDDNNVVKEAYAGSTLWRGIETIVKGRDPRDAGFMTQRICGVCTFSHY

KAGIVAVENALGITPPLNALLTRTLMNAALFLHDHIVHFYQLHGLDWADVVSALSADVKKASDEAFKYTS

NPYATGADKLLEVQQRLKTFVDKGNLGPFANAYYGHPTYRLSPEQNLIVLSHYLECLRIQRIIAQCMAIF

GAKNPHPQSLTVGGVTCVMDLLDPARMGEYMVKFQEVQDFVNRAYYPDLVMAGKAYAHEASVLNDIGVNN

LYTFKEFQIGRDEWLFESGIIKNGDLSKVYEVEEDKITEEATHSWYADNEPLHPYDGKTNPNYTGLVDGE

SVDHHGNNVHSKVFDTKGKYSWIKAPRYEGNPMQVGPLANVVVNYAKGNQNVVPVVDEFLKETGLPLNAV

FSTLGRTAARCIEAKIVANNALKAFNNLVENLKVDQSTCAPYVIDNSKEYKGRYMGHVPRGTLSHWCRIK

NGVIENWQAVVPSTWNASPKDANGVGGSYEQCLIGLKIADVKQPLEIIRKIHSYDPCIACAVHVMDTKGN

NLSEYKVNVNL

>AHK52408.1 quinone-reactive Ni/Fe-hydrogenase B-type cytochrome subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNKEEKLQRKAEYEFSIGLRLTHWVRAIAIVILIGTGYYLSYVFQSPISNGEPVNFMQAKYRLVHQAVG

FVLIACIIFKVYLFFCDKVSAKERRSVWDIFNIKLWIEQVKFYIFLGKHPHLKGVYNPLQFVTYFFFYLV

ILGIILTGLILYTHTYHEGLGGLLYHILRPLEAAMGGLADVRTYHRILMWVIMIFVPVHIYMAIFNAVKG

KDGAMDAIISGYKFVKEEQH

>AHK52407.1 hydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFLVLGIGNIMFADEGLGVHLCKQLEKNYKFTHSEFTLDFVDGGTLALQLSYIIARYDRLIVLDCIEAQ

GASIGDVFFFPYDAMPNKISWSGSAHEIEMLQTLQYMELAGDLPKTHILACVPKRIEAMSFKLSDELIQG

AKIMEKTLLDFLSKEGFAYEKIADFSLQELADISYKNY

>AHK52406.1 recombinase RecR [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVKGLEKFNELVESFANLPTIGKKTAIRLAYHLCINNQIDGMKLAHNIENAIRFIKPCEQCGALSENELC

EICSDKERNKNILCIVESPKDILTLEESQSYNGLYFVLDELNEEKLEKLKQIILKLNISELIFALTHSIN

SDATIFFIEDKFKGLNLTFSKIAQGIPSGVNLENVDLISLNKAMNFRTKI

>AHK52405.1 sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKNYSIHTKLIILFVVTFFLVCVLFIVLLKIEGNTYNEEESLKQENLIKNLLISYENTSGVEIGAYLGN

SGFNAIQNPNLVKAIRNNGQSLFKAGGELCTLSSLKYHSNLYFDVQCKDFDGLYEENTSDRVYNLLLIGF

FSFSLLVVFMYFSVLKSLEPLKKLRRQVAEVANGEQPDFLDYQEDEVGKIAFEFQKAFKKNQELIQSRQL

FLRTIMHELKTPIGKGRIISEMIKEDRQKERLIAIFLRMDSLINEFAKIENLFSKNYNLHFKPSRFSTIL

EEAKEHLMIDDFNKVVKVDIRYDALINVDMEIFSVILKNLIDNALKYSNNGTCELFCCKECFTIKNPGKP

LAEPIEHYLEAFTREKHNQVKGMGLGLYIVSEVCKLHNFDLIYFYDDGKHCFKIFFGDKEK

>AHK52404.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINVLMIEDDPDFAQLLSEYLAQFNIKITNFENPKSALNVGIQGYDCLILDLTLPGIDGLEVCREIRQKS

NIPIIISSARGDLSDKVVGLQIGADDYLPKPYDPKEMYARIMSLIRRTKRVEHTNNENINSAFKIDERRH

EITYEDKVLTLTPAEFEILEYLIQQHGYSVSREQLVSRCKNLKDKDSKSLDVIIGRLRVKIGDSSKSPKH

IFSVRGIGYKLIG

>AHK52403.1 molecular chaperone DnaJ [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEISYYEILEITQNADKETIKKAYRKMALKYHPDRNQGDKEAEDKFKLVNEAYEVLSNDEKRAIYDRYGK

DALKGGGFGSSSSGFGGFEDLGDIFSSFFGEGFGSSRRRKSSNDEKIPSDFIVNLKLSFKEAVFGCKKNI

DFTYKCSCKTCNGTGAKDGKLQTCPKCQGRGQVGVSQGFITFAQTCPDCQGIGEKASEKCSDCKGLGYNE

SKDSVELNIPEGVDTGMKLRVNAKGNILKNGTRGDMYVKIIAAEDDTFIRDDDDIYIEFPVFFTQAILGE

SIKVPTIRGEATLNLPKGAKDGQRFVLEKEGVKDVHSSRMGNQIVQISIKFPTSLNDEQKELLEKLSESF

GIKDGMHQEQKGLFEKITNWFKS

>AHK52402.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLVKLSLVAALAAGAFSAANATPLEEAIKDVDVSGVLRYRYDTGNFDKNFVNNSNLNNSKQDHKYRAQV

NFSAAIADNFKAFVQFDYNAADGGYGANGIKNDQKGLFVRQLYLTYTNEDVATSVIAGKQQLNLIWTDNA

IDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGADLLGHSNISTTSNQAPFKVDSVGNLYGAAAVGSY

DLAGGQFNPQLWLAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKTHANGNLFALKGS

IEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNET

VRVGADFVYGGTKTEAANHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQA

LYKF

>AHK52401.1 phosphotyrosine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILFICLGNICRSPMAEFIMKDLVKKANLEKEFFINSAGTSGEHDGEGMHYGTKNKLAQLNIEHKNFT

SKKLTQKLCDESDFLITMDNSNFKNVLKNFTNTQNKVLKITDFSPSLNYDEVPDPWYSGNFDETYKILSL

ACKNLLVFLSK

>AHK52400.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENFNRTLLVCWFGVFTTSMGLSQIAPILPFYIKELGHVDTSEIAFYSGLAFGITPLFMAVFSPLWAFLG

AKYGYKNMLLRASFGMSVLTLWLSFAHSALEVVFVRGLTGIISGFTSAAVVFIAVIAPKEKVAYALGTLS

TASISGSLLGPLFGGFVAEFFSISAVFDVVAFLIACSFVTIYFFIHGRKIQKEAKKNTQKVKENKTLIIV

LFITTFVIQFGTFGVMPILSIYVEQIHQGGNLALWAGIVVAASGISNLFFAPKLGKIADKIGPSKIIFGA

LIFCGICFYLQAVASNVYTLIFVRLLIGVGLGGLLPCVNALLKKSVSAKNLSVIFGFNQTCQFLGNFCGA

FGGGLMASHFSVEFVFTFVCLIFIINAFIFLAFEKKYIFSNQGL

>AHK52399.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEMILFVLVMILLVLLFVVLFRQYKSPKIEEKSTQSFSDIMQLKSIGELSVFQVFSKEIVTKKDSAFNGI

WKNLLGWSLSERQIALIFEFEITFLYDLRDKNFDILPLGDDAYKIIMPECRYKHSIIDMKFYDEKNAKFL

PFLLPDSINSTGISFSESDKNKLIKEAKDEVKDLSLNLIQNLESKIHKSAKDTLEAIAKGFGAKRVEFEF

KDNTQKLDVS

>AHK52398.1 tautomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPFVNIRITKENGEPTTEQKQELIAGVTDLLAKVLNKNKSSTVVIIDEIDTDNYGLGGKSITQARKEKS

>AHK52397.1 DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSEFLTHPFEPFFDKDSKILILGSFPSIKSRQDGFYYQHPRNRFWPILETLFNAKLENITEQQAFLRKKH

IALWDVLQSCKIKNSDDKTISYAKANDLNLILSQTKIQAIFTTGQSAYRFFVKFHPRLEAIALPSTSPAN

LNFSFEQLLQNYEIIKKFTK

>AHK52396.1 polynucleotide phosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNILKNFTNLLSGKKGKIMQYSIEINKNTEIFDIDKVAKQAAGAVLMRQGKSVVLATVAREEKQVEEDF

LPLTVQYIEKAYAAGKIPGGYVKRETKPSDAETLTARIIDRSLRPLFPKGYAYPTQIVVMVLSADPKVDL

QVMSLNAASVALYLSDIPMKAPVCGVRIGKIDGNFILNPNNEELQNSTLDLYVAGVKDELLMIEMRALPD

QKENEIFIEAPYADVLTQTTSQNMNELSEDEILEALNLAQKAILNGSNAYEEAFSKHKKNSQIELKNEIE

HPEILAFIENNFQKQIKEAINQMAKSERASELNKIAKEILNLEITKDWSEESVLNTLAKVKRKLIREQIL

NEGKRADGRSLNEVRPISIETNILPNAHGSCLFTRGQTQALVVATLGGENDSQMIDLLTEKNPISERFMV

NYNFPGFSVGEASPIKAPGRRELGHGNLAKRALYPSVDENYPYVIRLVSEILESNGSSSMATVCGGSLAL

KAAGVPSLKLVAGVAMGLIFEDNKYAVLTDIMGLEDHDGDMDFKVAGSKDGVTALQMDIKLGGIDQEILK

QALYQAKEGRIHILNIMEEAAKEIIVNEEVLPKLELFSVDPSKIVDIIGQAGKTIKEIVEKFGVSIDLDR

EKGEVKIAGSQNEQIKAAKDYIINITSSQKGTKKGPKDKDISGFELGQEFQGIVKKIAPFGAFVELKNGV

DGLLHSSKIKHLNLSENQSLKVKISEIKNGKISVDLCE

>AHK52395.1 hypothetical protein N916\_06250 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MWRKFSLLLGTSIALNAAQVDIYALDAKKEGDILTANNDVIIFSDFYFITANKAIYNEKTGDVELFGDVN

ILRGQNERSHSDYAKINLNSNQADFSNFFFSNNNLEVWFQSKTSHLNDKVFESKVSAVSSCNVEDPDWEI

RFSKGWLNRETNFVHLYNARLYVKNTPVFYLPYFGFSADTHRQSGLLIPKIVLKSSEGLYYEQPIYIATQ

ENWDLELDPQIRTNRGFGLYSTLRFLDSPYSTGELNFGAFRENSSYFHDENLKNQTHYGIELKYSRDDLI

KSLLSDNFQEGLWIDATYLNDVDYLNLGSRDYRDLNSLVTSKINYFLADENNFYGAYARYYIDTSKLSNN

TTLQEYPSFQYHRFLNNLFDERLRYSFDASFHNFYRPAGSYANELNLDLPISYHNAFFGDFLHFTFTERF

YASFVNYSNDPERNHEHYFRNTHDFNLYTDLSKAYENFFHTLNLGVNYILPGAKSGKITQDYLEEYDKEN

EHTSLYTVQYFYNNEGQKKLKHRISLDYLNKQNEFYELENLLTYYFNENINLNSEVLYSYEQSRFTNVIS

QIEVNTNSKFNWMFSHAYQNDEYGKYSFIGTRANYIATPNYNLFGGIWFDTQRAHANMWELGYTYQRKCW

NYSLMYRERIDPQLTSGGITAKNQSGVYFIFNFYPLGGVKYDFSLAESENKI

>AHK52394.1 RDD family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKENLQDRLERENLKIASFGKRVLAFLIDDMVISLIVFIIFYDRLIQAKDLFETTQIVGNFYLGFILLHF

SYQAIFTYLYGASLGKILCKIIILDENLLDKPNLIQSCIRSAVRQVSAMAFMLGFAWALSNDLRKAWEDY

LARTIVVDVA

>AHK52393.1 phosphoribosylamine--glycine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIMILGSGAREYSIALALRRVDKNLEFYFAPGNGATESLGTNLNLKDPVVLATYAKEKGFDLCIVGSES

FLAEGVVDIFKQQGLAIFGPSKAAAMLETSKSFMKSFLKKYRIKTAKFLNTNDIEKAKNFIYSLTPPIVV

KADGLCAGKGVIIAKTHEEAIEETAKMLSGESFGDAGKLVVIEEFLDGYELSIFAVCDGNDFVLLPAAQD

HKKLLDNDQGPNTGGMGAYAPSSLANESLLRKVQKDIILPTLAGMKKEGAEFCGVLFIGAMIVGNKPYVL

EFNVRFGDPECEVLMPLIEDPLELILAATQRRLRHSKIKIKKEFAVGVVCASENYPYKSSPKSEITVNNI

PENSHISYAGVSLEDGKLMADGGRVLVCVGTGKSIEEAQKNAYKLCDNVNFKGKQYRKDIAHQVLK

>AHK52392.1 hypothetical protein N916\_06235 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHGKIAIYMDSTGRGTVTNSANTFFDFNRQIWNDKKSMPSVGMLVEFRTLSSEKKAEDGKLVQTSKTITG

IKPSKFQEFKEGDFITEHDFWKTDNDDELEDLQNSRRSAYITELYRTTDFDTIEKIPLSFTIPQAIQKYF

AHEILSVETLQANLQDEKEIPCILDYLILKRFLFKAYDTLIFMDNSIDQTQFSALKSIMMHLENSYKQMM

ADQKPNITKIFNETFLSLQCHYQALVATIDTRKNRLASLEAQMKTLQSEINLKSNATDADPEKLKARQER

LAKLQKEAEYYRTTLKRLDAIREDFYKKNYNIFENAFKLSREKLFKKIVTGLNLCATIMDVKIWHLSLKS

SGVKNSYFTMSNIENSFCSLSFAEHYLSRLNKSALNPFDQKLLVYIQKITKEQRKKFLVVTSDLDLLCKL

KIENFSQNPYYLVKYAPKKVNYQSLMRDNTFDIVYIDEKHVWENVADIILQGKHFDKSGKTKFKLI

>AHK52391.1 GMP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKADILVLDFGSQYTQLIARRLREQGVYAEILPFNVSLADIKAKEPKGIILSGGPASVYATDAYFCDKG

IFDLNLPVLGICYGMQLMAHHYKATVAPAGHKEYGKANIEIKKDNALFKNLPKKQTVWMSHSDKVENLPQ

GFEVLATSENSPFCVFGNEDKKFFALQFHPEVQHSEFGKNILKNFAKYACNCESIWNMGSFAKTQAEKIR

EEVGNDKVLCAVSGGVDSSVVAALLASAIKEQIIVVFVDNGLLRSGEKEQVEFMFKNTLGIDLISIDASE

IFLSRLVNVTDPEQKRKIIGNTFIEVFEEEAKKHKDVKYLAQGTLYTDIIESSVVGASKTIKSHHNVGGL

PEKMNLKLIEPLKEIFKDEVRALGLELGLSKEVVYRHPFPGPGLAIRIMGEVNRASLELLRKADVILLEE

LKSTGWYDKTWQAFCVLLNVKSVGVMGDNRTYDNAVCIRVVDASDGMTATFSHLPYEILENISRRIINEV

EGINRVVYDISSKPPATIEWE

>AHK52390.1 hypothetical protein N916\_06225 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGKRNNIKMTKNASAVINELMDKPHYKPLKTLFFCKDFLSSFPLAKQRLIAKIYVKNHILNIITLHPAAY

QELNHDDSKIYIKFLIKAYGQKYPLSGFVDIKDIKIFSQKYTYAANKNKNDEKLSKNSYLELSKGEFKNC

FKDKKLFKKFEDLRELIKKGSNLD

>AHK52389.1 excinuclease ABC subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKENLENELKTLPNSTGVYQYFNQEGKLLYVGKAKNLKNRVRSYFAFTPNLHANPRNSLRIQKMIEETV

HLEFIATNSEADALILENSFIKQLHPKYNILLRDDKTYPYIYVDFEEEFPRFEITRKLVKKSKIKYFGPF

FKGARELLDALYLYYPLKQKASCKSPCIFYQISRCLAPCDKLISREKYLEILDEAIHALLNPSVLLKNLE

KQMLVLAQNENYEEAAKVRDQIAMIKDLEVKVEIDIAKLEDFEVFALAFKNSVLSTLRFVVQNGKIISAN

SKITPIKNDIQWDQNEIYKQLILENFSMDIPLLANVIYVYEEFEDRVLLEEILSQRFDKKISIKIPKIGE

KRRICDLAFQNALLNIEKEQKNHDFTIQKELKSYFELENLPNDIEIFDNSHLQGVANVGAMVTYRINSWD

KSKYRKFHLKHKNDYDQMREVLTRRALDFDKIPPPDLWLIDGGKALLDLAKEIIVSSGVNVDILAISKEK

IDAKAHRAKGGAKDKIHSLKGEFSLSINDKKLQFLQKLRDEAHRFAISFHQNTKKKQDLKSSKLANLGLS

SGVMQKLLAYYGNFESIYKADFKDLTMLVGRKAAQKIKEN

>AHK52388.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MILAGIIFIFNLILAYLSIDISKLDSVTEQLKIGMFSSIFVLSLTLFIFAFRQNRNINKIYQKIFCMQND

FLNFQKKIDVDSALDLLKEKFETTSQNLTKISHEKDRYLHLLEENLYQLINISNAMRCLNEGYNKEINSL

ILNALNSQKDQIRLELNEALEHHKSIIGTSHGKVLQFEASVAIVNNDELENFLLANLLSYFGIESTCFKN

LSFDVNDFHLIFIKDKIFNKNVKKNYDFIVMGRHKNTHYEYFLTLPFEKKDLENILQNKLDKVCTLKFKT

PYQNNVLLFKQNDFDATLFFNIIEKQCDKNICINSFSQLKQELSKETYRLILLDYELIKFDLEQMRNLLS

AYKKQHPQSHIIFFSKEKVRDFDCVSEVLSDVSRNDLITLLRKYLPKA

>AHK52387.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKILFGPVSSRRFGRSLGIDLSPSKKQCNFDCVYCELDPKKAQEKQDEIISIDKIISEVKAMLEKNVEFD

FLTLTANGEPSLYPYLNELILSLRSIAKDKKLLILSNGTAVLDEDKFNALLKLDVVKFSLDSAVAKTFYR

IDRALKNIDLEKMIEKMADFRARFNGDLIMEILVVKDLNDNEEEFEALNQALKKIMPLRVDLSTIDRPPA

YAVKKVSEEKLLELSKLIDSTPVLLAKRHYEGEKLSFNEEELLKMLHLRSQSEIDIEVKFDEQSKTLLNQ

LIKEKKVKILDLAGVKFYKV

>AHK52386.1 uroporphyrinogen decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIFIDACFKKPTPYTPIWMMRQAGRYLPEYMEVRKQAGDFLSLCKDYKKASEVSLQPIDILDVDAAIIFS

DILVVPLEMGMNLRFEKGEGPVFGNPISTLEDLEKLDDQNAHKKLNYVYDALKLTREKLSQNKALIGFCG

SPWTIATYMIEGSGSKNYAKCKKMLYQNPELLHKILNKLTQVLKLYLEEQIKAGANAIQIFDSWASALEY

DKFFEFSFNYMLEISNFIKSKYPNIPVILFPKGISGYLDRIDGNFDVFGVDWSTPLDLARDKLSHKYTLQ

GNMEPCRLYDKNAIKEGVEKILKTMQNKAHIFNLGHGILPDIPVENAKYFIKLVQESSAK

>AHK52385.1 hypothetical protein N916\_06200 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVVDNTQKTSNAIFSTTTKVKEKNTSADEFQATLNEVKNKEEKEDKKTNSSKFTNEDIDLGAVREDFRSY

AWQKMREDQYKKNEETLLNKLFTTIDAGNATNNTKA

>AHK52384.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNYKKALFALALSAFCMGVTEFVMAGVLVDVEAYFSVDAKTAGYLTTLYAIGVVIGAPLITIPLSRFHR

HTQLLINLGIFALANFIIFFSQNFYLTAFARFIAGTQHGVFFVIATLAVSAITPDDKKSSALAIMVTGLT

VALVTGVPLGTFIGHYFGFKFIFLLIFIITSLAFFGVWHMMPKNLHPSPTNLKNLIPAFSHQNLLKTYTI

TICSCGAQFVLYTYLQKILVEISGFKVQDTAYILLLYGICAICGNLWGGKIVDKKGAIFSLRLILSIQVL

VFLSVFLTMHSKILIIFSVALIGFFAFSTIPALKMLSITKAKRHTYKVIDSTVSVNEAAFNVGIALASFL

GGIVLARLGIEFNALFSALFVSPALIFALLFAKDKLNYKKFQRKSFTKV

>AHK52383.1 hypothetical protein N916\_06190 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIILLLGLSLASLGALSFDELIYKDEVKPSFDCSKIKYDGKSDDELMICNKIGVRNEFDNKKLALVDN

IYSSLYQNISKKADKKMKKDFKAISKKMLKERKICIKNMQNTKAGENPLLSLLNASDCMQEAYIKVLLEL

MQRAKKDTKTKEVLEQIFKNKVDKYENLLTQSLNTNKDLQDFIDSLAKEDLIDSRAKFKL

>AHK52382.1 4-hydroxythreonine-4-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKLAISIGDINSIGLEILVRSHEELSKICTPFYFIHESLLNKALKLLNLKLFNAKIVAFKDDKDYEFNF

IKKENSLEIYSFCLPLGFKVDENFEIQAGEIDAKSGLYGFLSFKAASYFVYEKHAHALLTLPIHKKAWED

AGLKYKGHTDALRDFFKKNAIMMLGCKELFVGLFSEHIPLAKVSKKITFKNLSIFLKDFYKETHFKKMGL

LGFNPHAGDYGVIGGEEEKIMEKAIAFVNAFLHSKKDEKFFKKALKDENLQKELLLNFKGKGVYLPYPLV

ADTAFTKTGLKNCNRLVAMYHDLALAPLKALYFDKSINVSLNLPIIRVSVDHGTAFDKAYKNAKINTKSY

FEAAKFAINLHSKA

>AHK52381.1 pyridoxine 5'-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLLGVNIDHIAVLRQARMVNDPDLLEAAFIVARHGDQITLHVREDRRHAQDFDLENIIKFCKSPVNLECA

LNDEILNLALKLKPHRVTLVPEKREELTTEGGLCLNHAKLKQSIEKLQNANIEVSLFINPSLEDIEKSKI

LKAQFIELHTGHYANLHNALFSNISHTAFALKELDQDKKTLQAQFEKELQNLELCAKKGLELGLKVAAGH

GLNYKNVKPVVKIKEICELNIGQSIVARSVFTGLQNAILEMKELIKR

>AHK52380.1 exopolyphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLGIDLGSNTLRAVQMDEKLNKLKEYEFVIGAAKNLNQSGEISKEAIQRLKNTLSILAKEQDLSKARAVA

TAAFRKASNTNEIFAHLKKEFGIDFKLIDAKSEAKISVLGMQSGLRRLKIWGEFAYCDLGGASCELSFGK

SFKSFDFGIISFYEKNYHSYYKSCISYKKLIKKYPKFIINIKDKKLKIHFLIANPYLKHLAFRAFDEVAM

IKKELRSLGAKTVVLNSGVPTTLSALKQNISYEKYEATKVNGKKLCHKDFLNYAIKLFHMEEKKAIKEVG

TMRKNYLSAGCLLFYALFDKHKLLVIDEGLREGVCLASMKNIKF

>AHK52379.1 hypothetical protein N916\_06170 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFSDFFHAWLHESYYKNAVSIGKNGDFFTAVSVGNLFGTLLAKHFLNLIDEKILKPPLELVEIGANEGY

LSRDFLAALLELRPEIFSQISFFIIEPHEKLRTLQKKTLEGVEFTHKNSLKECHFKNAFFFCNELFDSFT

CELIDHDKMAFVENFKLIFKNMDENLITKCKALNLTKGELSLELENFFKDLNQTCERFIFAGFDYGTLNP

QSFSLRIYQKHEVFSPFEVSLKDFFGKSDLTYNVNFTHLQKLIKEYDFKPLAFKKQSLAFMDFGFEDLLE

YAKNKNIKTYESFLSQAKILFFNFDEKFHFFEFQKN

>AHK52378.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKALWILLSLTLWLFGAQNLELIKGQALFLELDKKDFLSLKNNDKNIPTFAHPKNQEKILAIFSLPYKNP

PQNTKLIAFYKDKKEEIFIKTLEGNYKSEKLQIENKKIFPPKTIQERITKELKEANAIYSSYTPKALFNG

AFNIPLNSFITSDFGKARTFNEKVASYHSGTDFRATTGTPIYAANSGVVKIAKDRYFAGNSVVIDHGFGI

YSQYYHLSKIDVKIGQKIKKGELIGLSGATGRVSGPHLHFGILAGGKQVDPLDFVSKFNAIFQ

>AHK52377.1 glycyl-tRNA synthetase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSELLIEIGTEELPAIPLLKELANIEKKWNNVLEEYRLVSDFKFYYTPRRLVFFHENFADKQEDSFAEFI

GAPKNVAYKDGVLTPAGQSFLQKARISENELSFKEIKGKEVLYHQKAIKGLQSQEILGEMVEKFLKSLSF

GKSMRWGANSFEFIRAIRSIACILNDELVNFQSYGVKSTKKTFIHRSVSYDLQDFNNAKEYFELLEKNYI

ILDPIKRKEKILEQFKLIESQKNIQIGEDEELLAEVVAITEYPNALLGSFEEEFLEIPSEVIITSMRENQ

RYFAVFNDKGLSNHFIVVSNAVCKDYSKIIHGNERVLRARLSDAMFFYQNDLQNGLKPEKLAKMTYLEGL

GTMQDKSLREIKIAEILCQMLHNDKIENISTALKYAKADLATQMVYEFTDLQGIMGSYYAQKMGLDYQIC

LAIKEQYLPNSEQAPLPSTEFSSIVALANKLDTLIGLFSIGKIPSGTKDPYALRRAANGIIKIALNLNKE

FDIQILLEKLSNHYKSFDMQILKDFIFERLYTFYTVNASFVKAVLSSQNTDLIHINQSVNALIKLSKKDN

FNENFATFKRLANIATKNPHKVDESLFVQEAESKLYKAFQEKTKANSLQEKLENLFALKPFIDEFFNQVM

INAEDEKLKNNRQALVYEIYAEFLKIADLKELSL

>AHK52376.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINVFFDMDGTLIDSANAISCAVNEIRQDLNLAPLSREIIMQTINTPNIDWAKELYNIENFHHSSFKEGY

EKYFVKHYEQSVVLFEGVKELLEFLKSKNCFLAIATNAPQSSLSNILKKHDIIPYFDKILGVSLGIEPKP

HPMMLELLKSEAPYKTSVFIGDSQKDKECAKNANLPYFHAKWYQKNLKENEFSNASELKGFLQKYL

>AHK52375.1 hypothetical protein N916\_06150 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKNEEKALRVKYLRNLEKFFNGAISALKKEDFDKTKFEERMLKNAKFFEKNPAVNLNSTYAKNLEFFVN

ACLDFSKEKSELLNLANALDKQKKQGEKKEKHKNYLKDYE

>AHK52374.1 potassium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDNFLEIFLITVAIAIVLNVIFKKFEIPTIIGYIAAGEIISEIYHLSGKGEITHIAEFGIVFLMFTIGLE

FSFKHLMAMKQEVFLNGSLQMLTCGFVFMLLAIGILGLGDKSATIVGFALALSSTAVVLKILNDNGDINE

QYGRKALGILLFQDIAVIPLLLLVDIFSSNNQNIEKLLFTSLISALILITLLFFIGKYLVDRIFRLIIHT

SSQEIFISTVLFMVIGASFLANYFGFSYSLGAFIAGALIAETKYKHKIEADLIPFRDLLLGLFFITVGMQ

IQLDVVAQNWFLIIVLTLLVMALKFGIVFGFLFLYTKKRVALKTAFAIAQIGEFALAIFSLLQAKNMLDI

KTSQILIVVSILTMIITPFILNNIRKITNVVEDIALNTNAVQNIDSNIKLKNHLVVFGYGRLGQEVVQKI

KNTGVPYLVLESDLNLVELGVSRGENVVFANAAQEETLKIANIEECAVAIITVTNEAKLEILCQVLANYP

KPIDTIIHVNGTLKKMLFSSIDENIRIIRSEKVIARNLVQEALECRIHKNT

>AHK52373.1 MerR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEQHYDEPVYLISVVAKVLSIHPQTLRQYEREGLIEPSRTDGKIRLYSQRDIDRIKLILRLTRDMGINLA

GVDVILKLKNQLHEFENLIDELRLELSKQQDKEAASKAVVKHKNSFDLIFYEKK

>AHK52372.1 cobalamin ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNSLYETLGVSKNASADEIKKAYRRLARKYHPDINKEKGAEEKFKEINAAYEILSDEKKRAQYDQYGDSM

FGGQSFHDFSRNTGGVNLDDILKDLFGGGFGGRSRGGFNGFSSKGFSSGFGGFGGFEEEILDSNLELHIP

FEKAVKGGEHSFNFQGETIKFKIPHGIKEGEKLRIRSKGKQSRNGARGDLIIIVKIEESPIYTREDDDLY

QKVDISLKTALFGGKINIKTLKEGKEEAIINITPNSKNNQKIRLKGYGVQNRKSDIYGDMYLILNVVLPN

LDTLDEKFIELLKEKLP

>AHK52371.1 serine protease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIFLSLSLASALFAASINFNESTATANRVNPAAGNAVLSYHDSIKDAKKSVVNISTSKTITRANRPSP

LDDFFNDPYFKQFFDFDFSQRKGKNDKEVVSSLGSGVIISKDGYIVTNNHVVDDADTITVNLPGSDIEYK

AKLIGKDPKTDLAVIKIEANNLSAITFTNSDDLMEGDVVFALGNPFGVGFSVTSGIISALNKDNIGLNQY

ENFIQTDASINPGNSGGALVDSRGYLVGINSAILSRGGGNNGIGFAIPSNMVKDIAKKLIEKGKIDRGFL

GVTILALQGDTKKAYKNQEGALITDVQKGSSADEAGLKRGDLVTKVNDKVIKSPIDLKNYIGTLEIGQKI

SLSYERDGENKQASFILKGEKENPKGVQSDLIDGLSLRNLDPRLKDRLQIPKDVNGVLVDSVKEKSKGKN

SGFQEGDIIIGVGQSEIKNLKDLEQALKQVNKKEFTKVWVYRNGFATLLVLK

>AHK52370.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTNILMIEDDLELAEITAEYLEKFDMKVDIAHEPYIGLSKLALKEYQLIILDLSLPGLDGLEVCEEIRKK

YDTPIIVSSARHDITDKVNALELGADDYLPKPYNPKELQARIKSHLRRISNTKSAIAKSVKDLVYDQYKH

IITMKGQELTLTNAEFDILSYLIKKEGGVVSREELVYNCSSISEDSSNKSIDVIISRIRQKMGDDPKTPK

YIHSIRGIGYKLTQ

>AHK52369.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKSSIFYTITFIFIFAGVSVILGFLWLIEYDQQNYTRELNTKYSLIANARLLNFAGVISEKEFEEQTKN

YNKMDEITEAKQIRKILFRGDVLARVEVNNGLIEIISYNRQVYLNIIYDGKVYLYKDQDYQTYRYFIIKA

IAVAVICILVLLYIYIFKKLKPLKRLKKQIDKFAQGKLGDIEDVSTGVDEISQVSEAFYQAIVQIRKLNQ

SRQFFLRNIMHELKTPITKGLLTLEMIEDNKYKERLNGVFTRLEILINEFAAIEQITSGAAFINRKKYNI

LDVLDEAKEIAMRDDSNIRIFMEESFFVNVDFKLFTTAIKNMIDNGIKHSEDGFVQIDIIDDYICFKNRG

PELNNTLEYYTQAFTQGSKQKSSFGLGLYIVNTILETHGMKLDYLYEDGVNLFYFRNLKSVIVKE

>AHK52368.1 CopG family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKRNVKTYSFRMPLELKERLDNLSKNLSKPKSTIVKEAIEAYLNEVEDFSFAVNALEELKDGDYQKASKK

IDKIVKNLKQTK

>AHK52367.1 iron-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLPKWDNSYSVHNAKIDEQHKKLFKLAAKVEVVSDRSVSKNEVKELLAEFFNYMKDHFNDEEKYMQLIGY

PNLEEHRKIHKEIIQTMINLIKDIKSTNDLKEKLYIVAKKWLLEHILYEDMKVEKWRSSSLSTDDGGDVS

FEAAEDEDNEHPQFYLYTCNCPGKIHDVPYSIHQKIELQGRKFTCKTCKQAIKFYKKYS

>AHK52366.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAAKILLLEDDLSLSEIIEEFLNDEGYEVFLCDNAQEALDMAYERYFDLWILDVKVPLGDGFSLLKELRK

SGKQTPAIFMTSLNTTNDLKQGFDAGCDDYIKKPFELAELSIRVKALLKRAFSHKNEDFEDLGDGFRFEF

TTQILYHNNKALTLPSKEIKLLSLLLKNKNNFLSTERIFEELWDYDEEPSELSLRAYVKNLRKILGKEKI

INQRGRGYCYG

>AHK52365.1 sensor histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKKVIRQILLIYLTTTGIFLTIFFALWYQKLYEELVVLKGATLRENHRNIVISILNSRFTPIDISAKNI

AQSTALKFAIFDAKKIVFSNIDFDLRKAKIELKGRGICDNKVFFLASMSADHYFLRHASNEEVNTNDGLQ

ILIQGEDVGKDLFWIRTKVFSFAIMAFCILGLISYILVKIALKPLEDKISTLNRFIKDSTHELNTPLSVI

LMSIEQLEHQNLGDNTKFTRIKLAAKSLSQVYSDLVFYNFPNTLETEKQKFDLRILLEERLEYFKVFFEQ

KKITLKLDLNQANIFAPKSQISKLIDNLISNAIKYNKKGGVISIILKANFLSIADTGCGISKSNLNHIFD

RYTRFNTDQGGFGIGLSLVKKVCDDNDIKIICESVENQGSVFKLNW

>AHK52364.1 molecular chaperone GroEL [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKEIIFSDEARNKLYEGVKKLNDAVKVTMGPRGRNVLIQKSFGAPSITKDGVSVAKEVELKDSLENMGA

SLVREVASKTADQAGDGTTTATVLAHAIFKEGLRNITAGANPIEVKRGMDKACEAIVAELKKLSREVKDK

KEIAQVATISANSDEKIGNLIADAMEKVGKDGVITVEEAKSINDELNVVEGMQFDRGYLSPYFITNAEKM

TVELSSPYILLFDKKITNLKDLLPVLEQIQKTGKPLLIIAEDIEGEALATLVVNKLRGVLNISAVKAPGF

GDRRKAMLEDIAILTGGEVISEELGRTLESATIQDLGQASSVIIDKDNTTIVNGAGEKANIDARVNQIKA

QIAETTSDYDREKLQERLAKLSGGVAVIKVGAATETEMKEKKDRVDDALSATKAAVEEGIVIGGGAALIK

AKAKIKLDLQGDEAIGAAIVERALRAPLRQIAENAGFDAGVVVNSVENAKDENTGFDAAKGEYVNMLESG

IIDPVKVERVALLNAVSVASMLLTTEATISEIKEDKPTMPDMSGMGGMGGMGGMM

>AHK52363.1 molecular chaperone GroES [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFQPLGKRVLVKRVEETKTTASGIIIPDNAKEKPLMGEVVAVSKEITDIANGDKIVFAKYGGTEIKLDN

NEYLVLNLDDILGILK

>AHK52362.1 hypothetical protein N916\_06080 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIFYGIVAFVVVLLIALYTILFTSFGNNIVANIAQKKIKENAGLDVNITRFNLRFSSLELQANIANMA

DCNLQGALSPFKLGFDLDYLISLNQNYAKNLGLNLNQNLSFGGKIQGKASDFTLDGKGYLLGSNVLLNAR

MYNYSPIALNLDAQNLKIEEILHLLSYPSYAKGFLNAQAKISAQNLKPDGNIIIKLDTSYINYEAIKKDF

SLDLPLNSNPKAEILANVKEDKIYAVSKIYNDYLNLQTQKTLYDMSKNILSTDFNLNIPSLAKLEKLTKT

RLNGSLGVIGETSVVNNALSSLNAQVIGLGGEVKASLKNNKIFADINEASLEKLLALAGYGALVSGNLNA

KLLNADLDFSNFDLEAKINNAKINTNELKKLAKIELPNTIFSFDAKANAKNSNIAYNALLASNLLNIKKL

QGTYNLKNSELNTDLNAFIDDLSQFSAIAGQKLQGKADLTAKAHIIGTQIQNLNANANLADGVIKADSNG

KKLDLNIDKLDLSKLFVIAGMPNYASGIVNAKVNLDNIDFSNLNGKANLEAKGILNAATLSKILNKNFPN

NTSYDLNTKINFKNNIAQFDSVLNSSLADLTKLQGSFDISKMLLNSDFNLKINDFSKLGFLLDRKLKGKA

EFNGKVGFDKNLNFVVNSPNLFEGKLQSTLKDNLLLADLNGVDLSSLAQGLDFMDVYQGKADVKANYNLL

SEEGEVNLDMKEGKLKPNLITNALKILTLKDITNDVYRTANAKALIKKENIKFDLNMQADRSYILVQSGA

LNSKSGALNLPFDIKFDRANFKGSITGTTENPKVNLNAGSVLNSIKNVVGGGMSDGAKSTGDKVDKAVNK

LLNKIF

>AHK52361.1 riboflavin synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFNGLIREIAKVQSYQNNTLSLKAKYCPNLGDSIAVNGACLSVTKLYEGGFEVELSRESRTHIVIENLKD

KVHIEPALRYGDRIDGHLMQGHIDFIGTLEKIQKDENGVDFYISLPKEAMKFMAEKGSIGVDGVSLTINE

ILKNGIRLTIIPITFKETLFKDYQVGRKINIESDLLARYIYAQLQGKNKGLSWEEVERISYLY

>AHK52360.1 laccase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGRSRKNFLSLLENDKVGIFCAFDKDYNVFRAKIHNENLFSHLGFKDIEKCVFMDQIHSHKVIIYDENLK

NLSCDGLISKEKNIALCVLSADCLPLILYHESGIIAALHSGRKGSFENILKECVDQITMQNSHLDKNKFH

LFILPGICAKNYEIDGEILEFAKKEFKEFVQDDKLDLKALVKFQAQNLGIENIKDCGICSFDDESFFSYR

RDKTTKRFVSVVYLKD

>AHK52359.1 hypothetical protein N916\_06065 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYERKDLRVLKIIQKAREFGDGDLLNEALVKQLIDADFCEINEKEKEELATLLHSLINAKDKALLSN

>AHK52358.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKLLLLFIFVVQSFAALSVEELTWDNGDTLLKFLQRNSIPMSLYYGLDREDQELASDIAYKIKYQVLKD

ENNNIEQVLIPISDDLQIHIYKDKDGQYTLAFTPVSYQKEDRILHLTIKSSAYQDVYEESGSSTLARAMV

RAFRGSINFRNIQKGDEVTLYYEQKRRMGKLWGDINIKMAMVEINKSAREVFSYNDIFYDRDGKELESFL

LTKPVNYTRISSPFTTARYHPILKRYRAHLGIDYAAPTGTPVKSAGKGVVTFIGTKGGYGNVIQIKHDSG

YMTLYAHLSRFAKIKNGQKVNQGQVIAYVGSTGMSTGPHLHFGVYLNNKAINPASVVKIAKSELSGKAKE

NFKHIIAGYEQVVKEALASNQPNPPKEEDFENYIEF

>AHK52357.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFKTIVCFLALNLSLFAVGFDLKPIKSELVKVDDIYGYIKDSDDIKLYSSGVVVQHFSNSQSIIARASVI

DKKNGLAKLEFSVFSALKQDALPLPNVLPKVGDEVVLNFLYDRGLVIAPDEQTYNELVREFPQIYFTHID

IFGAQLIRTATLSPKRSDFRQFCDDNAVGILVVALENHAEVVDCQDFNKLYEVPISKPTSVQVPFYSRIG

GYKSNFFDFNSQEIGNYYRYYDALINLPKVQ

>AHK52356.1 FAD-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKEFEQYFKRFLGEENAYFDEIHKRAYSYDATKKHYLPDGVLFPRNEEDIARILKFCNENNIIVIPRGS

GSGFTGGALAVNGGVVLAFEKHMNKILEIDLENLVAVVQPGVINIHLQKEVAKYGLFYPPDPASMEYSSL

GGNVSENAGGMRAAKYGITKDYVMALRAVLPSGEIIRAGKRTIKDVAGYNLAGILIASEGSLAVLSELTL

KLIPLPKFKKTAFAIFPSVKSAMNAVYKSLASGVSPVSMEFLDNLSIRAVESKFNKGLPIEAGAILIADV

DGNVKEAIDEDLRNLEHYFLEAGASEFKIAKDEQETADIWFARRNCSQSIAMYGTLKLNEDITVPRSKLP

TLLEGIDEISKKYGFKIPCFGHTGDGNVHTNVMVPDKNDKEQVKKGYEAVEEIFKLTVKLGGTLSGEHGI

GLSKAPFMNLAFSEAEMNLMRNIKKAFDPNNILNPFKMGL

>AHK52355.1 ribonuclease BN [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNFFTILLNLRDKEILNYAAALSFYTVLSLIPILFVCFSVFTQISSFKAYYEKAKQVIFAFLIPTQQDV

VATYIDTFLKNSVNLGIVGLIAMAFTSLAFFSGYDFVINRITKNEPKGLWQSISSYWTLLTLVPLGLGLS

FYISGFIQQTLDDYKIGFNFFEILPFVIIWGLFFISYSSSVHKGTLKSLALVSFGAGTIWYIGKNLFVYY

VVYNKTYASVYGSFSTILFFFIWIYISWIIYLFGLKLYYFLNHNHNEGNKIRKNTKKS

>AHK52354.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQDMIDTLIKYGYIVLFFYSLGGGMVGILAAGVLSSQGKMDLSFCIALAFIANTIGSTLLFILGKYYKKD

IMPYFKKHRRKIALAMIKTKQHGIILLVTQKFIYGLKTFIPIAAGMAKYNFIKFFIINTLASLAWAIVLG

FTAYTFGYVIEAIFDKLSLYPYAAPLFLLFLAGIIWLYLSKFSKK

>AHK52353.1 ribonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIESLIALIAAIVGLGIGYLVAKKINDAKYEIFVEQAKAKAKAIEYEAELILKDAKNSILNAELEVKKKY

EEKTHKFQKDFNQKFDDLSKKEQKLQQEEEKLKEDKEYLCKSQKHIQNLQSDVDKLKNKYQEKLDDVLKI

LEHSTGLTQNEAKEIILKKVEENSREQIAHIVRKYEEEAKNEAKRKANFIIAQATSRFAGEFAAERLINV

INIKNDELKGRIIGKEGRNVKTLEMVLGVDIIIDDTPGAIIVSCFNLYRRAIATKVIELLVEDGRIQPAR

IEEIHEKVCKEFDSAILEEGETIVMDLGLNKIHPEIVKLIGKLKYRASYGQNALAHSLEVAHLAGIIAAE

CGGDENLARRAGILHDIGKALTHDFEGSHVDLGAELCKRYKEHPVVINAIYAHHGHEEATSIESAAVCAA

DTLSAARPGARREVLEAFLKRVSELEDIAKSKEGIKNAYAINAGREIRVIANAQLVNDDESVLLAKEIAA

EIQEKMQYPGEIKVNVIRELRAVEYAK

>AHK52352.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIKKILLLVAISCLFVACSNDKEKQQNDVNLSTEASINQSDDMNFKLNLIDGGSISVKKENAVLNFNDE

DKVTLFVFFTTWCTPCIAEIPHLNKLQEKYNNDFNIVGVLLEDKSNDEIQKFIEQHKISYKVANGENNYL

LAKALGGVNGIPTMFLYNKHSKLINQYLGLIPEEMLEIDIQKAIL

>AHK52351.1 cell division protein FtsY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFNFFKKGLAKTLENIVGVKGENKKITKDLLEEILLEADVSYEIVEEIIYYLPPQNEVKKEDLKRVMGSY

FLYEKKETNQEKPFVELILGVNGAGKTTSIAKLAYLYKNQNQKVILGACDTFRAGAIEQLKLWAQKVDVD

IVLTAQGHDPSAVTFDTISKAKAKDFDRVIIDTAGRLQNQKNLAHELEKIVRISNKALEGAPHRKILVLD

GTQGNAGILQAKAFNELVKLDGVIITKLDGTAKGGALFSIARELELPIFYVGVGEQMTDLQEFNASAYLD

TLLDPIFE

>AHK52350.1 DNA repair protein RadA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKNKALFECQACGNQQSKWLGKCPDCGAWDSFVELKAEQIKVLKELAQVSMKTSEAVCIEDVELEHFTR

YSTDDNELDLVLGGGLVEGSLVLIGGSPGVGKSTLLLKIASNLAKQGKKVLYVSGEESKAQIKLRADRLE

ANTPNLFLLTELCLENILEELHKKDYSILIVDSIQTLYSNKITSAAGSITQVREITFELMRVSKAYNIST

FIIGHITKEGAIAGPRVLEHMVDVVLYFEGDATKEIRLLRGFKNRFGGTNEVGIFEMTAKGLISAKDLAN

RFFTRGKAISGSALGVVMEGSRALVLEVQALVCESSYPKRSATGYEKNRLDMLLALLERKLEIPLGHYDV

FVNISGGVKVSETAADLAVVAAIISSFKNRPLSKDSIFIGELSLNGEIREVFSLDTRLKEAKMQKFKNAI

VPSKPLEDIGLKCFVAKELSQVLEWM

>AHK52349.1 F0F1 ATP synthase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKDLFLFSSLLDASHTFSYFFHIGLVALIAVIVAMMATRSMQLVPRGMQNLGEAFLEGVLSMGRDTMGSE

KGARKYLPLVATLGIIVFFSNIIGIIPGFHAPTASLNLTLSLAIIVFVYYHFEGIRAQGFVKYFAHFMGP

IKLLAPLMFPIEIVSHLSRVVSLSFRLFGNIKGDDLFLMVILALVPYIAPLPAYVLLTFMAFLQAFIFMI

LTYVYLAGATVVEEGH

>AHK52348.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIYILEFFKGASLALMLFGALFFFFKYNSFFYLCLGIIPGLLLSLIFVLLIENHKLKNENKLR

>AHK52347.1 5,10-methylenetetrahydrofolate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MCSFSFEVFPPRKDENIKNLHAILDDLGQLSPNFISVTFGAGGSINSQNTLEVASLIQEEYQIPSIVHLP

CIHSSKEKITQILQKCKEKNLNQILALRGDICENLKKSKDFSYASDLISFIKKQEYFEIYAACYPEKHNE

SKNFIEDIHHLKTKVNAGTDKLITQLFYDNEDFYTFKQNCALADIDIPIYAGIMPITNKRQVLKISQLCG

AKIPPKFVKILEKYENNTLALEDAGIAYACDQIVDLITSGVDGIHLYTMNKSKAAIKIYEAVKHLLKEEL

HA

>AHK52346.1 5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNSIISYPRIGANRELKFAIEKYFKNQSSKEELLKSAKDLRIRHWQEIQKAGIDFIPSNDFSLYDNVLD

AAVLFNIVHTKYKNLNLDALDEYFAQSRGYQGENGDVTALAMKKWFNTNYHYLVPECDNADIIALTGDKI

FKEYLEAKELGIESKPVLIGIFTLFKLIAFKDEKTQKLAKEKLLNAYIELFDKLNELKVTWLELDEPYLV

YDLSKEDIALFEEFYQELLNHKKDLKILLQSYFGDLRDIYPKLLESKFDALGLDFIEGKQSLALVQQYGF

AKDKILFGGLINGKNIYANDYAKSLKLIKELQKYTQNIILNTSCSLLHVPYSTEFESKLDSSYLKLFAFA

KEKLQELKDLKEILNSSEENPLFRANQELFKNIPERLDEKVKARLKALKKEDFTRTPSFKERALIQKEFL

KLPLLPTTTIGSFPQSADVRSNRLAFKQEKISAQNYTEFNQQKIKECIQIQEEIGLDVLVHGEFERNDMV

EYFGENLKGFLFTQNGWVQSYGTRCVKPPVIWGDVSRTKPITLAWSKFAQSLSQKIVKGMLTGPVTILNW

SFPREDISLKESTEQIALAIRDEVLDLENAGIKIIQIDEAALREKLPLRKSDWHSEYLDWAIPAFNLVHS

GVKAKTQIHTHMCYSEFSDILKEIDAMDADVISFEASRSNLSLLDTLKAIRFKTEVGPGVYDIHSPRVPS

VEELSLTIEKILNKLPKEQIWINPDCGLKTRAYEEVITSLKNLVTATQKIREQL

>AHK52345.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTLFTKAFCVATLFTGFAWANEELKVGSSITPHADILRFIKSALQKQGYDLKIYEFNDGVIPNVMVENGE

LDANYFQHEPYLKEFNQRQGTHLVKVASIHIEPMAVYSKKHKEFHPKEGQSISIPNNPTNESRALRIVVS

KGLIEVKDNELITPLDITKNPKKLKFVELKDAQLTRSLDDVDYSLINSNFAILAGLNPVKDGLYTESKYS

EYGNIIAVKEGNENLPKIKALVKALQSNEVKKFIEEKYQGALIPTF

>AHK52344.1 2-oxobutyrate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLPILDLQAYEKDKSTFLKNLREIASKIGFFYLINTSIDKNLNEKLFKLGKEFFNLSRSSKELISMVHS

PQFRGYTSEGFEYTAGSKDYREQLDIGTERDALNWNLNSPLWQRLEGPNLWPSEIPELKKTFLTWHKQTK

KACLKLLKAFAQALDLPNNAFDKLYGENSYEHCKIIHYPKSSKNITQGVGSHKDGGLITFVFQEKQSGFE

AFIDGKWLSIPPLENSVVVNIGEFLELATNGYLKATIHRVNLSPKERFSIAYFLGVQLDKDIPIFKLNPE

LAKESKGVDTDPKNPLLRNVASNYFKRMIRSHPDVASIYHSDLIEKFSFA

>AHK52343.1 S-ribosylhomocysteinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPLLDSFKVDHTKMPAPAVRLAKVMKTPKGDDISVFDLRFCIPNKDIMSEKGTHTLEHLFAGFMRDHLNS

NSVEIIDISPMGCRTGFYMSLIGTPDEKSIAKAWEAAMKDVLSVSDQSKIPELNIYQCGTCAMHSLDEAK

QIAQKVLNLGISIINNKELKLENA

>AHK52342.1 glutamyl-tRNA amidotransferase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFEVVIGLEVHAQLNTKTKIFCSCATSFGEAPNTNVCPTCLALPGALPVLNEEAVKKAIAFGKAVNATIN

KKSVFNRKNYFYPDLPKAYQISQFDIPIVEKGELFINVKGENKRIGITRAHLEEDAGKNIHESNFSKVDL

NRAGTPLLEIVSEPELRSSDEAVAYLKKLHSIIRFLDISDANMQEGSFRCDANVSIRPKGDTKLYTRVEI

KNLNSFRFIQKAIEYEVKRQSEAWEDGTYEQEVVQETRLFDTTNLVTRSMRGKEEAAEYRYFPDPDLLPV

LLKDEFLDIKIPELPDEKKVRFIDKLGIKESDAEVLISSLEMSRFFESLISQNLNPKLCVNWLNTELMGL

LKGELTIENSPVDAQKLGVLIKRIEDGTISAKAAKDVLAFVFENTSVEIDEAIEKLGLKQVSDDSAIEAV

IEQILNANADKVAEYKSGKDKLFGFFVGQTMKEGKGAFNPAKVNEILKTKLG

>AHK52341.1 glycerol-3-phosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRIAVIGAGKWGSALHLALKENHNCFISSLHQRDLEDFVSIKEALECEYLVFALSSQGMRAWLKENFINK

GQKILIASKGIEDQSCQFLDEIFLDFVPKENFCVLSGPSFAAEVMQKLPTALMISGINQELCKKFASFFP

DFIKTYIDNDVRGAEICGAYKNVLAIASGISDGLKLGNNARAALISRGLIEMHRFGKFFGTKEETFLGLS

GAGDLFLTATSVLSRNYRVGLKLAQNQKLDSILAELNEVAEGVKTAYAIEKLAKMKGIYTPIVNEVVAIF

KGKSVQEATQNLLKQND

>AHK52340.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIIKNAKIYGDSLQDIEIKEGKITNIDSNLQGEEILDAKGMTLLPSFVDLCVSLKNDKFSLANLELLENE

CLKGGISSIVLRDCMDFDEESFALFLQNLAQRKMQIFSSVRVKDANGKLKNLATLLNKGACALELDSSLD

ANTLKVSSQYAFMKDSPIFVRCYDKDFDDNGVMNDCEMSFELGLIGMSKIAETSQIAKMKELAKFYKNKV

IFDLLSLKDSLVLLDEKDLKLVSIHHLIKDDSACEDFNTAAKLMPPLRSKEDVLALREVLKEGKISFLTS

LHSAKSISLKDLAFDEAAFGIHSVCEFISLCYTFLIKEGFLNWQELCRFTSKNPSEFLGLNSGVIEVGKE

ANLVLFDENEEIFAPKSSLYSEDKLFGKIKMHIIKGKNILEK

>AHK52339.1 phosphate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKDNLIAFVIFIISTIAFVIWGFGYISQHQLILFILASIFGIFMAFNIGGNDVANSFGTSVGAKTVTIK

QALIIAAVFELSGAIFAGAEVTKTIRSGIVIFPNSLDPMLFVIIMLAALLSSGVWIFIATKKGLPVSTTH

SIVGGIVGASIMMGLLKFDGIQTLSMVKWSEILRIAISWIASPLLGGIVAYIIYSYIDKKILKPSEKLND

DLKNIKKERKKFKEEYFLNLKTKSQEEQIKELSAIALDEEEQENNFYRNKMKEFKDQEKDIDIYSILKTH

MPIIACIAAAIISAMFLFKGLNNVSTLDILQNFWIIGIIGTISYVVTFAIVKIVKKTELNKTTDRIFSWF

QIFTASSFAFSHGANDIANAIGPFAAILDVLKNGTINATSPVPFAALAMFGVALVVGLWFLGKEVITTVG

SKLATIRPTTGFSAELGASIVILLATQFGIPVSSTHILIGAILGIGVYNKNANWIMMKPIGLAWIITLPA

AGIMAALVFLGFKLSLGI

>AHK52338.1 hypothetical protein N916\_05950 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRGIFYIIALFSLLNGDELTEALAKNNNQNSWEHFDYKNTKEAPKIQEENVDFKSTFDSLLSKTLENNNG

IDKTDGNLDFQNENAQVKNLSSLYEGENNSLLFQKELFVAQDNYNYSGGLINRYEKDDFLFGVNGFIDKQ

KEQKDTKSFGTEFGYSKFIKAYSNYYIPNEAEKKLQLGMSFVIPTYTAFAFDISKDNDKTNYQVSYSPYS

VFSLNLLRRDYSARETVDDTVVQVGFSFNFNESFLKQFRKKDNTLEEVNRYDFLQRTH

>AHK52337.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

METLSQTLAERKPPLYKRIIKSLGFWVIIGIITGIVLGYTDKELAIASKPGVDYFIGALKVLIGPIIFVT

LVLGIISLESLKKVGSIGAKAVIYFEVVSTLALAIGIFMANVMQPGHGMNLDPSQLDTKSVQKYISQTTE

VSASSEIMHILKDAMPTDIITPFTEGKTIQVLVIAIITALIISLMRIEDKQAIQRVFEVVQNFVFKILQI

IMYFSPIAAFSAMAVLIAQYGIGSLINLAYLLLVMLISCLVFIFGILGLICYFAKVNIFKFMRFISREVL

IVFATSSSESALAPLMRKLEKAGLSKATVGLVLPTGYSFNLDCTNIYLAMSLIFLAQAFNVNLSLAHEIS

ILIVLMIASKGAVGVTGSGFIVLGSTLAALGNMEISEANATLAQVLPVAAIGVLLGVDKFMSEMRAVGNL

CGNSVAALIVAIWDKQIDWEKFRYAMDNPEKFHNAGMN

>AHK52336.1 PAS sensor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEIVLSENALITSKTDLKGNIIYANNDFLKYAGYKVDELLYKSHNIVRHEDMPRTVFKCLWDYIQKGDE

IFAFVKNKAKDGNFYWVFANVSASFDTNGNIINYYSVRRAPNRKSLSIIEEVYKILLEKEQKSGINAGVS

ALMDIVSSYKMTYNELIFNLQENN

>AHK52335.1 PAS sensor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSREIFLQEDSLITSKTDLKGKIVYANDDFLKYAGYTMGEVLNKPHNIVRHEEMPKTVFKYLWDYMKEGK

EIFAYVKNKTKDNNYYWVFANVTPSIDVNNNIIGYYSVRRMPNKSAISTIESLYSDLLRAEQQQGLNKGV

EMLKNFCKDADKTYNELIFSLQEAK

>AHK52334.1 tRNA uridine 5-carboxymethylaminomethyl modification protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFDVIVIGGGHAGVEASAAAARMGKKTLLLTTLIEQIGAASCNPAIGGLAKGHLVKELDAMGGLMGEITD

EAGIQFRILNESKGVAVQGSRAQIDMDKYRIIARNKLLKLPNLEISQEQASVLIVENDEVKGVKTNLENI

YFAKKVILTTGTFLNGLIHVGENKLQAGRVGELASVNLGNYLQTLGLKMGRLKTGTCPRVDAKSIDFSVL

EIQDGDVNPKAFSFRSRNFNPTQLPCYIARTNTTTHEIIKNNFYRAPLFTGQIEGVGPRYCPSIEDKINR

FSDKESHHLFIEPQTIDATEYYINGFSTSLPYEVQTQMLRSVEGFENAKITRFGYAIEYDYIEPTELKHT

LELKKIKNLYCAGQINGTTGYEEAAAQGFMAGINASLSIDMKEPLILRRDEAYIGVLIDDLVVKGTKEPY

RMFTSRAEFRLLLREENAILRLGKYGYDLGLLSEQDFTYIQNIANNLQKGLEFLLSKEFTPNNQNNAFLE

SLGEDKISSIVNLQKIVARASFDIEKLKKLDPIFETMDHYSLREILNEAKYYHYISMQKAQVEKMKNLSE

LKIPENFDFKSVSGLSNEVVEKLNHHKPPTIFAASQISGITPAALDILQIYIKMQKKKA

>AHK52333.1 arsenic transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLAFFIFLSTLVLLFWRPWNLPIWVFSSLGAFFVFIFQLVDFKDACFVFSLVWDSSLTLVGLIILSFSLE

ALGFFDFIASKILYFSREKNQEKIYISTKKMMLFLLIFVFFLSAFFANDGAILIITPIIIALFSTLKDCK

NHAFILSSFLLSLSFLCDASSNALVISNLTNIITANYFKIEFLEFAKNMFLPNFFVLLSTIVTVFVLYVR

VLPKRLEFKLIKKEQISLKLFFLCIVFLFLFVISFFIGEIFDIKISFFALLWAGIFWLIVLKIQGKKSIK

ILFEAPYGVLLFSFGLYMVVFALHKIGVSEILVKSYAFLMQDKSGIFGVALISAFGSSVFNNLPMVLIGD

LALKEYFENFSFDSLMIYAHLLGVNIGPKLTPIGSLATLLWLGVLARKGINISFWQYCKFGFLITLPVLV

FSLFALIV

>AHK52332.1 ubiquinol cytochrome C oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MATSESRRSFMGFAFGSVAAVGGVFSLVAMKKTWDPLPSVKAAGFTTVDLSGMQDGELRTIEWRKKPIFI

LKKDASMPKDEKRDVVVDNAAYTVVIGLCTHLGCIPAYQPSEQLFKCACHGGEFDTSGKNVFGPPPKPLE

IPPFKIDGTKLVLGEEGPEYKKMIAEA

>AHK52331.1 ubiquinol cytochrome C oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAQIRKANGLVDWLDQRLAVHKLLDVLMVKYWIPKQINFLWAMGVILTTLFAVLFVTGLLLVMYYKPDTA

LAFDSVNKTIMQEVDYGWLWRHMHGVAASVVFLIIYIHMLTGIYYGSYKKGREMIWVSGMLLFVVFSAEA

FSGYMLPWGQMSYWAAQVITNLFGGIPFIGPELVIWIRGDYAVSDPTLTRFFMLHVCLLPIVIIAIIAFH

FYSLRIPHVNNEISEELDFDLEAEKYMAGDTKGSKVIPFWPGFLSKDFMYISFFMIFFFYLVCFKFEFAM

DPINFDPANALKTPAHIYPEWYFLWSYEVLRGFFFDIAGIKAFDIGLAAFGIAQVIFFLLPWLDRSDVVK

PAHERPLFFIWFWILLIDLIVLTVYGKLPPTGVNAWVGFYASIVFLLLLIVVLPVITIMERKGAKQ

>AHK52330.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MREIKIFLVVVVFTALVYWGVEPYAHSVMKPHVAPANFDFAVEDTTFAKGIVEAKELALKDAQASGDAKR

IESANKELEKAKEELSKVETLWVDVAKIDFAKGDAKKGKEFFENNCFACHGVKEDGIAANITDSSMGVIP

PDLSAAGAIFDEKFLAALIMHPALALKVDHKFGDAFIMTAYNKDTSGESEEATNANIANVIAYLKDVSVK

FEANEDATIKKDVEAKYAKMENSAQKAALMEKDIKFAKDKATFIEACGRCHDMKYDSFFTPSNQNDLKTY

LGSVPPDLSMMIRSRGEQYLHDFINNTQKLLPGTAMPRVGLTEAAQAKVVSYIDQVGDSKKEERKTTGIY

VMIFFVILSIFAIGWKRSVWSKLH

>AHK52329.1 SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLEKTLIKSILKKWDYGDFRVVFWDKEEFFIGNKPAKFSLIFKEKIPFLELFGDTSLVFARHYMQAKLDI

EGDYDEMAKVLYYFSNQQFFKTKKDVLSKITQKQESKNIKSHYDIGNDFYKLWLDDTMSYSCAYFKEPNN

TLYEAQINKIEHTLKKLDLKEGEKLLDIGCGWGWLSIMAAQKYGVKVVGITISEEQCKKAKERVKELGLE

DKIEIRLQNYQDLEFENYFDKVVSVGMFEHVGKENLGLYFMKVKQVLKPGGSMLLHSILAMFEGKTNAWI

DKYIFPGGYLPSLREVVSAMSEWDFHLLLAESLRMHYAKTLDLWDENFNKVLDKVREKYDEEFIRMWDLY

LRSCASAFRVGSVDLFQFLITKEINNNLSLTKDYIYK

>AHK52328.1 30S ribosomal protein S2 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVSMRDLLECGVHFGHQTRRWNPKMKKFIFGERKGIYVIDLQKTLRYFRYTYNIVRDAAAEGKTILFVGT

KKQAGGAIKEYAEKCGMPYVNHRWLGGMMTNFGTIRQSIRKLEVIEKMEEDGSIKLLTKKEALMLTRKKE

KLLAYLGGIRYMKTQPDMIFVIDTVKEKIAVQEANRLRIPVVAPLDTNCDPDLVTYPIPGNDDAIRSVQL

FCQEMAEAINEGKALREQDGEALVNEEKEITDEEKKEVLDEAMSEEDFGEEQE

>AHK52327.1 elongation factor Ts [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTEITAAMVKELRESTGAGMMDCKNALSETNGDFDKAVQLLREKGLGKAAKKADRLAAEGLVSVKVSDDF

TSATVSEINSETDFVAKNDQFIALTKDTTAHIQSNSLQSVEELHSSTINGVKFEEYLKSQIATIGENLVV

RRFATLKAGANGVVNGYIHTNGRVGVVIAAACDSAEVASKSRDLLRQICMHIAAMRPSYLSYEDLDMTFV

ENEYKALVAELEKENEERRRLKDPNKPEHKIPQFASRKQLSDAILKEAEEKIKEELKAQGKPEKIWDNII

PGKMNSFIADNSQLDSKLTLMGQFYVMDDKKTVEQVIAEKEKEFGGKIKIVEFICFEVGEGLEKKTEDFA

AEVAAQL

>AHK52326.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MELLRAENLSHSFDYPLFEGLNLTLNTKDCIAIQGSSGCGKSTLLHILSSLLIPKKGEVFFKGSNLYQMD

ENERLKIRRYDFGIIFQTHYLFKGFSALENIELASVLSGQDLDEKILKRLGINTLLHQKIGKLSGGQQQR

VSIARVLCKKPKIIFADEATGNLDFDNAKNVIELLISYVKENDAALFFVTHDSKLASFCDKTYTINANGI

C

>AHK52325.1 guanylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQGFVLLISGPSGAGKSTLLKKLFDEFEDELYFSISSTTRKPREGEKNGIHYHFISHEEFQKGIDSDHFL

EWARVHENFYGTSLKHTQNALDNGKIVVFDIDVQGFKIARKKMADKIVSVFITTKNKDELKKRLIKRNTD

TIIQLEKRLQNASDEMKELSEYDYLIINDELKQSYEALRAILIAHKFRTKGQNLGQIQNIWNEGE

>AHK52324.1 preprotein translocase subunit TatA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGGWSSPSHWLIILLIVVLLFGAKKIPELAKGLGKGIKTFKDEMNNDDEVAKNTQKIEENKNTTNNTNAD

ASIDETKKA

>AHK52323.1 arginyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKSIIFNEIKKILECDFALENPKDKNLAHFATPLAFSLAKELKKSPMLIASDLASKFQNHDCFESVEAVN

GYLNFRISKTFLNELANQALTNPNDFTKGEKKQESFLLEYVSANPTGPLHIGHARGAVFGDTLTRLARHL

GYKFNTEYYVNDAGNQIYLLGLSILLSVKESILHENVEYPEQYYKGEYIVDLAKEAFEKFGKEFFSEENI

PSLADWAKDKMLVLIKQNLEQAKIKIDSYVSERSYYDALNATLESLKEHKGIYEQEGKIWLASSQKGDEK

DRVIIREDGRGTYLAADIVYHKDKMSRGYGKCINIWGADHHGYIPRMKAAMEFLGFDSNNLEIILAQMVS

LLKDGEPYKMSKRAGNFILMSDVVDEIGSDALRYIFLSKKCDTHLEFDISDLQKEDSSNPVYYINYAHAR

IHQVFAKAGKKIDDVMKADLQSLNQDGVNLLFEALNLKAVLNDAFEARALQKIPDYLKNLAANFHKFYNE

NKVVGSANENDLLKLFSLVALSIKTAFSLMGIEAKNKMEH

>AHK52322.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYIFIIVLSALLDIVANLLLKKSDGFKHKIWGLAAIVNAILAFFLLSFSLKYVPLSIAYSTWGAIGIIGT

CLGGWILYKEKLNKIGILGIIIVIIAVFLLNY

>AHK52321.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNIAKKELFVAWFFLIAAIVFEVLGTSFLKMENQILGYIFMALFIAFSYFFMGKAIKKIQVGIAYAVWEL

LGIILILLVSFIVFKESLTLTQILGIVLSIVGIIMINIGEVKE

>AHK52320.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGRAFEYRRASKEARWDKMSKLFPKLAKAIQVAAKEGGTDPDMNPKLRSAIATAKANNMPKDNIDAAIKR

ASGKDSADIKNIHYEGKAAHGALVIVECMSDNPTRTVANVKAIFSKNGGEVLQNGSLGFMFTRKAVFHLE

KFAGDLEELELDLIDAGLEELEQNEEELVISGDYTAFGELSSAIEAKGLVLKKAGLEYIPNNPVSFSEEQ

LSDIEKLLDKLEDDDDVQAVYTNID

>AHK52319.1 peptidylprolyl isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKTIDTSKVNEYKFALIETEKGTMKLKLFGDEAPQTVCNFATLANEGFYKDLNFHRVIPNFVIQGGCPH

GNGIGGPGYEIICECDDQEHKHERGTLSMAHAGRDTGGSQFFICHSPQAHLDGVHTVFGQIDPKDEESLE

VLDSIRQGDKILDIKICDKI

>AHK52318.1 hypothetical protein N916\_05835 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTRFSLILSACLLSSSLFAKNTDDEITKLQKQLAQIQAELAQIRKEREAQVKQNEAVKAELADLNDRAD

ETEFQAALSKVKFGLEFSTAVSNTNYKVSGQDYSANNKWMNELHLNMNADINDKTKFYGRLSMAKNWSQM

GWSGTPYDLDAGRNTRSSGPVLYVDRAYLDYYITPEWIATVGRQPGTDGPGSNLRNNALRQSTYPALAIN

ALGDAAVITYKPESLQDHKVAIRAAYGKTYQWDEESGKVRDWMSDQKDADANLYYAAVEGELPIEGMGDN

LIIFNVAHMTDFALPIPGSMLLGDDDEVVNLGNLTLANIHFENYKAFGTNFNWFASLGYSNGSNNEINPL

LSTALQSKGYGNGKFNEKDGYAVHVGGRYDFTKALKVGYEFFWGSRYWYTMSRPSINDPLNIRMTRGTAH

DFYVIYQLDRYQFLRLSYTNIQNIWGNRGLPFGGAKKDKARADNIMLMYNVKF

>AHK52317.1 hypothetical protein N916\_05830 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRKILFASLLPIIALADCASLMAKYEAPEPESKTMKQVERWINKKVSDPADAAVLKECMIARAADNPNQV

SVAGK

>AHK52316.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQEIISFIVETASAWGYLGIIILMTLESCFIPFPSEVVMIPAGYLAHKGELDITLCILSGTLGSVLGALI

NYYICFFWGKNFVLKWGKYFGINEAKFAKFEEFFNKHGEFSTFTCRLLPGIRQYISMPAGLVKMKLINFI

LFTALGSAIWVAILVFLGYYIGQNEELIKTYLTQILIIIIVFVILASLIYIKIKKPFKKA

>AHK52315.1 lactate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKIGIVGLGYVGAASAYSIVIQGICSELYLYDIKQDLALAHARDLEDMSAIHFSYTKIFHVPNLENLAS

CDIIILAFRKESLKELPSRLVELKNNILELKDIVLTLKNANFKGKYIVATNPNDTITYYTQVLSQLPKNH

VFGSGTNLDSSRLKKLLAKDLNINSKDIFACMIGEHGDSQFAALSNASVLGQNLLDFYKQKLGKDLDIQE

LEKAVISEGYFIYERKGRTEFGIGTSCANLAKAILEDRKSLYPVSVVFDDIAFSMPAIIGKDGIEKVFEL

KFNEKEKIKLENSKQQIKNAIQSVKDKI

>AHK52314.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKPDIQRLTNFLIIYTKTLLGAGTYTARVAKCVGRIAEVYGYEININFFFHHITLNVVDMDDNSIQRTY

VIPNHHAHVNFKLIFDLSALSWAIYDHKYDLEKAKVVFGQISQQKKHSYLLNLLFVSMANSAFCRLFGGD

FGAGNLVFFATFVGLLLRYILTKAKIDLRIQYILCSFISSWFVFFGLDMGYTNTSDVALGSSILYLIPGV

FFINSVIDILKDHILMGLSRIISVAILICCIALGIYMTLSISDFGILR

>AHK52313.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIEFILRDMFFAAVAGFGFAYACNPPLKTLILSALLAAIAHGLRFTLVEYFHFQTLAIATFVASFCIGCL

GIVLAKIIKTPAEIIAFPALIPMIPGIYAYKAILYLISFIRSDDLKAKSEFLVQFFDYFFTTVSVTLALA

IGVSVTLLIFFEQSFMMTRHAKKH

>AHK52312.1 hypothetical protein N916\_05805 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLCPVCNVDLVMSDRSGVEIDYCPKCRGVWLDRGELDKIIERSVPNTANFNQAPRQESRYNDSAYHQHND

YYKKKKKESWLGELFDF

>AHK52311.1 cation transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYKFLSHEPLANKSCHHNHEEHSHEHHHSHADARSVDKKILKISLLMTFSMMLVQFIYSILSNSLALLSD

TLHMFSDVFALALSFLAIIAVEKWQDHQKTFGYFRLEVLVAFINALTIILSALFIIYEAIEKFINPKEID

AKTMIIVAILGFLVNGINALMMFKGANLENVNMKSAFLHMMSDLLGSLAVIIGGIVVYFSDIVYIDTILA

IVLSILLLRWAIILLKQSANVLLESSPVDIEKVRQVLLLNPSVDEVVDLHITQITNKMLVASMHLKVRVC

NLKEFEKLSQDLSHKLLHEFEIGHITIQPIRSENEI

>AHK52310.1 heavy-metal-associated domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFKVKNVNCMNCVNLIKNSLEDEFGNIEVDLEQKILSLNLEENQVSNFTKEFQDLGFEIVERL

>AHK52309.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEELRIKIGKMTCVNCSNAIERACKKIDGVKDASVSYVNSSGVFLLEDQKKRKDIIAKIKNLGFEILEDE

QSLNAYKAKKHLELRKNLLLSIVLSVIIMYFEMFVKSSFSQNIQMALSFFGIFYCGRDFFSHAFLGFKSK

NLDMNTLVALGTLSAFVYSFLVYLQIFKEEDLYFSGAMMIISFVLLGKYLESKAKFKAQDYQRILENIDT

KKTKILLEDESIKEISSSFVKSGDVLLVKEGESIVADGVVLLGSAELDMSFLNGEFLPVLKKEGDEVQAG

AVVLNGALRIKANKKAMDSTLEQIKNLVFEAGSIKSPLANLADQISKYFVGGIIFFAFLVFVFWVLKADL

NTAFLHSCAVLLISCPCALGLATPIALVVASANAAKNFILIKNPAALEKLALVKYAFFDKTGTLTKENLS

IFKHNLSKDDFDKLCQIESLSSHPIAKALHKDHFFDLKGEGRVIVGSGIKYKEDNDNYLVGNAQFLHENE

IDTKESDIFFDTFKEYVRVYFAKNKKCLGGVLLSNALKDGAKELVLNLKKQNLKTFILSGDHVKNVEKIA

KELQIDEFHAQLKSEEKLQIIQKFKKTLFVGDGINDAAALSAASVSMSFSKANELAKKTGDFILIKDDLS

AIFKCFKLAKKTRGIIKLNLFWAFIYNVLCIPIAAGFIPFISLSPHIAALAMCFSSITVVLNSLRLKRI

>AHK52308.1 DNA polymerase III subunit gamma/tau [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLQALAIKYRPKTFDELIGQKTVSVSLKYALNHNRLAHAYLFSGLRGSGKTSSARIFSRALVCEQGPSDT

PCGTCKHCLAALEGKHIDIIEMDAASNRGLEDIQALIEQTKYTPSMARFKIFIIDEVHMLTPQAANALLK

TLEEPPSYVKFILATTDPLKLPATVLSRTQHFRFKQIPQSEILNHLKEILLKENVKFEEEALKFIARSGN

GSLRDTLTLLDQAIIFCQNEISISKITDMLGFLDPQKIKAFYQAILTKDKEKVFVYLEELQDYEASSVID

EMLFYLKESFFAKSTEFSTLIYERFFRILSKAKNMLCDDDGFTLCVMAFMMMEASHLKEIDAQIQEIKQE

NTTNIISRITPSPIIPHLEKKTEKNAYEILLDSIYDRDFDLAECFKQSTNFISFENNTLNINSNAQGQNR

DTLNKGFKLIQELFKAKFGENAKINVQKALTIDENKLQSLTQELPNNENKNIDIQSSINMLKEGAKKFDP

QEDLKEALKDCFGEPSIEN

>AHK52307.1 transcription termination factor Rho [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKEKKQHQRTHVPVEGYKIEELKLLDLENLVKIANECEIENPREFRRQELIFEILKAQTKKGGFILFTG

ILEISSEGYGFLRGMDSNLSDSVNDAYVSNSQIKKFALRVGDIVTGQVREPKDQEKYYALLKIEAINYLP

LQEAKERPLFDNLTPIFPTEKIKLEYDAMKLTGRVLDLFTPIGKGQRGLIVAPPRTGKTELMKELATAIA

KNHPEMHLIVLLVDERPEEVTDMQRCVKGEVFSSTFDLPAYNHVRVAELVIEKAKRMVETGKDVIILLDS

ITRLARAYNTATPSSGKVLSGGVDANALHKPKRFFGAARNIENGGSLTIVATALIDTGSRMDDVIFEEFK

GTGNSEIVLDRNIADRRIYPAINIIKSGTRKEELLQGVANLQKIWAIRSAISQMDDVEALKFLYSKMLKT

KDNVELLSIMNE

>AHK52306.1 cation-transporting ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKCEHCKLDYKQAQMIEYKGKFFCCKGCESVWEILHESGLDEFYEKLGNQTLSPVNFQNEMKNYDEFITK

TKEGFSEIYLMIHGIECAACVWLNEKILTKQEGILELDINHLNHKARIVFDEQSISLVQILRLIESIGYK

ASAYDASKASKKADLLKREFYSKLVVAIACVMNIMWIAVAKYAGFFSGMDKDTKDILNFAEFILCSPVLF

YTGSHFYKSAFKTLKMHSLNMDVLVISGASLAYVYSLWAMFFRVGEVYFDSVAMIICFVFIGKYLEMFSK

KRALDTIDGLNDFLQNEVLVFNGKEFVSKEVQKVCLGDRILLKTGDKILIDGICKSGEMSVDTSSLNGEN

TPKLIQKEDEIFSACIVLDGSVEYEATKFYKDSKLSQIIQLLELASSKKAKLESLVNSLLAYFSRTVLLI

AFICFAFWFFYKEESFEISLVNAIAVLIIACPCALALATPVSNLVALGRALKKHILFKSSSVIEDLSKCD

CVVFDKTGILTKIELELKEVFLDKALDLNELYNFVKLSKHPISQNIVLYLKQKGAKDLNLDFKKHSSIQA

KGLSAELNEGLLLGGSSKFLQEKGIVAKEFDNTHFIFAKEGKILAFFEFDSVLREGAKELIAYLKKEKKE

LMILSGDHQKAVEKIAKKLEIQNYQASCLPEDKMKTIENLSKNYKVLFVGDGVNDALALKYASVSMTLRE

GSDLAIESSDVLLLKNDLLSLKKAIKLSKNTFKIIKQNLAFSLFYNACTIPLAFLGMINPLFAAISMSFS

SIIVVLNALRIKE

>AHK52305.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNSIIMMMIGVSILAFFIILATLLWGIKNKQFDDDYKFTTLNDDEDSLRDAIELERRKKEALDKKRLS

>AHK52304.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKLLVVSALACLGVSAFAADGATLFKKCAVCHGANADKVYLNKVPALKTLSSAERLQYMKEYSEGKRNA

YGQGAIMKLNLKGLTEEDFKAIEAHIETLK

>AHK52303.1 D,D-heptose 1,7-bisphosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFIFFLKKLYYNVFMKTKALFLDRDGVINIDKKYVYKIEDFEFCDGIFELCRYFLARNYLLFIATNQSGI

ARGYYKESDFFKLCDYMLKEFAKQDIKIDKIYHCPHLEGCECRKPKAGMLLKAKDEFDLDMKNSIFIGDN

LSDMQAGLNADIGTLILVNEEKKEGDFFRQFKNLKEILNFFKEKDI

>AHK52302.1 ADP-L-glycero-D-manno-heptose-6-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIAITGGAGFIGSQLALNLQEKHEILIIDKMRSSATFENGNLQSFGHFKNLLEFDGELFAGDINDEKVL

KKIEDFKPEIIFHQAAISDTTVFDQTKVLQTNLNTFKDFIELSIDLNAKLIYASSASVYGDAKSPQTVGK

DEEPKNPYAFSKLMMDKLAKKYYDKAHLVGLRYFNVYGKGEFYKNKTASMVLQFGHQILAGKNPRLFEGS

DQIYRDFTYIKDVISANLIALDSKCGVYNVGSGKARTFQDIVDILQKELKTDLPCEYIPNPYVKSYQFHT

EAKLDQTWNYQPKFSLEEGIKDYLGEIKRLFEKEVNA

>AHK52301.1 cytochrome C biogenesis protein CcdA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLEFLSQQKPKILIIGDFMVDNYTWCDCSRISPEAPVLIAKTLKEDKRLGGAANVYANLKSLGADVFALG

VVGDDESGKFLQENLKGEFLIQKGRKTPFKNRIMAHNQQVLRLDEEDISEILLENELIALFDEKIKDFKA

VVLSDYAKGVLTPKVCKAVIEKAKVLNIPVLVDPKGSDFNKYSGATLLTPNKKEALEALKFENLEGENLE

KGIKKLKEDFSLRYSIITLSEAGIALFDEGLKIAPAKALEVYDVTGAGDSVIAVLAFCLANEIEIFKACE

LANEAAAVVVSKIGSVSVSFDEIKSFKRVDFEKKIKSKEELLVLLKQNNKKIVFTNGCFDIVHFGHIKYL

DKAKRLGDVLIVGLNSDASVKRLKGESRPVNSEFQRACMLAAFYFVDFVVIFDEDTPLELISFLKPDILV

KGADYKDKLVVGADIVSRVELIDFEEGFSTSKIIEKIKDKK

>AHK52300.1 phosphoheptose isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINLVEKEWQEHQKIVQASEILKGQIAKVGELLCECLKKGGKILICGNGGSAADAQHFAAELSGRYKKER

KALAGIALTTDTSALSAIGNDYGFEFVFSRQVEALGNEKDVLIGISTSGKSPNVLEALKKAKELNMLCLG

LSGKGGGMMNKLCDHNLVVPSDDTARIQEMHILIIHTLCQIIDESF

>AHK52299.1 ADP-heptose--LPS heptosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIFIHLPTWLGDTVMASPALYTIKEHFKDAQFILYGSFVSTALFKEFPNSKIIIENKLSRYKQALSLRK

ELGKIDLSFAFRSAFSSKIILHILKTKQRYFFDKNKYKEEHQVLKYLYFIENSLSIKAHFKDLKLPFKLK

FQNPLILRNGKKILGLNPGASFGSAKRWDASYFAKVALNFSQSHDILIFGAGKAEQELCNEIYQILKEQN

IKVKNLCNKTTIKTLCQNIAFCDLFITNDSGPMHLSAVYKVKTVAIFGPTKFTQTSPWQNENAKLVHLDL

ACMPCMQKTCPLKHHKCMKDLKPEKVIEQAKNLLKNSHL

>AHK52298.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPQLSIIIPLFNSCNFISRALQSCINQTLKDIEILIIDDKSKDNSLNMVLEFAKKDPRIKIFQNEENLGT

FASRNLGVLHSSSDFIMFLDSDDFLTLDACKIALKEMKKGFDLLCFDAFVHRVKTKQFYRFKQDEFFNQK

EFLEFLSKQRHFCWSVWAKCFRKDIILKSFEKIKIDERLSYGEDVLFCYVYFMFCEKIAVFKTCIYHYEF

NPNGRYENKNKEILWQNYQDKKKSNELVKKLCLNFKNNDFHKKLFEVLEKEEFDLQRRVDEARN

>AHK52297.1 lauroyl acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNSDRIYLSLYYILKFFVTFMPECILHFLALIVARIAFYLNKKHRKIINTNLQICFPQYTQKERDKLSL

KIYENFAQFGIDCLQNQNTTKEKILNKVNFINENFLIDALALNRPIIFTTAHYGNWEILSLAYAAKYGAI

SIVGKKLKSEIMYEILSQSRTQFDIELIDKKGGIRQMLSALKKGRTLGILTDQDCVENESVRLKFFNKEV

NYQMGASLIAQRSNALIIPVYAYKEDGKFCIEFFKVKDSQNASLEELTLYQAQSCEEMIKKRPWEYFFFH

RRFASYNKEIYKDAK

>AHK52296.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIAIVRLSALGDIIQSAVVLQFIKNFKKDIEIHWFVDEKFEGILKNHPLINKLYALPLKDKKILKSLKI

LLKARKNNYNAVIDLQGLIKSAIVSRILSRNNFGFDKNSLKESFAHNFYNQKLELDYNENVFVRYLSLTS

FMLNTDFNVKNLAFKQDIFSVDENLKQLLNNKLKLDKNEKNILIHVGSSVENKIYPKTKLAILCKLLINE

FQQTKIWLAWGNVKEYEFAKEVLNLSGIDETHIELAPKFNLEELMAFTKMMNLIIGNDSGPTHLAFALNK

ASITIFGATPSYRNAFQTHINKIIDAGKKIQNAKHIDKSDFCITRIEEEDIFKLAKGLLNEK

>AHK52295.1 polysaccharide biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKNEGYICVFDCESVPDVELIRKTLGFEGSDLEVSLKALQWQKEQSGSEFLPLPYHKIISICAVLSDNF

GKFIKVNKIDGQNEKEMIENFFNFIENYEPKLVSFNGKNFDMPVLVLRALKYNLKAATYLDTQSDKWNNY

KTRFSELKHCDLLESLGSNGRGIKLDTLCSMVGLPGKYDVHGDEVMKLFYENKLEKIHEYCESDVLNTYM

LFLKYELIKANVDEEDYVGFLSYMRDFLCAKKSDRSYTEVFAKACESEISKVRS

>AHK52294.1 UDP-galactose-4-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKILISGGAGYIGSHTLRQFLKTDHEICVLDNLSKGSKIAIEDLQKTRAFKFFEQDLSDFQGVKALFERE

KFDAIVHFAASIEVFESMQNPLKYYMNNTVNTTNLIETCLQTGVNKFIFSSTAATYGEPQTPVVSETSPL

APINPYGRSKLMSEEVLRDASMANPEFKHCILRYFNVAGACMDYTLGQRYPKATLLIKVAAECAAGKRDK

LFIFGDDYDTKDGTCIRDFIHVDDISSAHLAALDYLKENESNVFNVGYGHGFSVKEVIEAMKKVSGVDFK

VELAPRRAGDPSVLISDASKIRNLTSWQPKYDDLELICKSAFDWEKQC

>AHK52293.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKISFIIATLNSGGAERALVTLANALCKEHEVSIIKFHAGESFYKLENEVKVTSLEQFRFDTLYHKIASR

FKKFFALRKALKESKSDVFISFLDTTNIACIAAKIGLKTPLIISEHSNEAYLKPKIWRFLRRVSYPFCDA

LSVLGSSDKVYYERFVKRVKLLLNPCHFSDEISFDSSFEKENLVLFIGRLDHNKNPVMFLKAIAHLDKNL

QENYKFVIAGDGQLRQELEYKVKSLGIKVDFLGRVENVKALYEKAKVLCLCSFVEGLPTVLIESLYFEVC

RISSSYYNGAKDLIKDNHDGLLVGCDDEIALAKKLELVLNDENFRKELVNNAKQRCKDFEISHIKEEWLK

LIAEVKNA

>AHK52292.1 glucosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPKLSVIVPTFNRQVLLEKAIKSIQNQDFKDLEIIVSDDNSSDDTKSVVQNLQKDDDRIKYFLNQNYKQG

PNGNKNNGLDQASGEFVTFLDDDDELLSGALSTLMQKANEGYAHVFGNCLIEKEGNLSKEFSGKGLEKDS

EISKKDFLMAKFSGEFFSVFKKSLLENKRFNEEFYGNEATLWVNLYKEKSFYIHKAFRIYRIFRQDSVTL

GASKNAYRVYLGYLELAKILENELRMSKDKDYKKTCASYYKMAAYYAKLAKNYKALYKCLFKSLSIKINA

PALILLILSIIPNNMIEKLSKIRVALCKN

>AHK52291.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKLGIFIYSLGSGGAERVVATLLPILSLKFEVHLILMNDKISYEIPECQIHFLECSKPSENPILKFLKL

PFLALKYKKLCRNLGIDTEFVFLNRPNYIALMARMFGNKTRLVINECTTPSVMYMKNNFNSLVNKFLISL

LYPKADLILPNSKGNLEDLVQNFSISPKKCEILYNAIDLENIGQKALEDIALKDKFILSVGRLDKGKNHA

LLIRAYARLKTDLKLVILGEGVLKDELLALIKELNLEEKVLLLGFDNNPYKYMAKCEFFAFASVFEGFSN

VLIESLACSCAVVCTDHKSGARELFGDDEFGLLVEVDNENSMFQGLKTMLEDDKLRKAYKNKAKTRAKAF

DKVKIARDALKYLLG

>AHK52290.1 peptide-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKKEYLKNPYLVLFAMIVLAYVFSVFCRFYWVWWASEFNEYFFNNQLMIISNDGYAFAEGARDMIAGFH

QPNDLSYYGSSLSTLTYWLYKITPFSFESIILYMSTFLSSLVVIPIILLANEYKRPLMGFVAALLASVAN

SYYNRTMSGYYDTDMLVIVLPMFILFFMVRMILKKDFFSLIALPLFIGIYLWWYPSSYTLNVALIGLFLI

YTLIFHRKEKIFYIAVILSSLTLSNIAWFYQSAIIVILFALFALEQKRLNFMIIGILGSATLIFLILSGG

VDPILYQLKFYIFRSDESANLTQGFMYFNVNQTIQEVENVDFSEFMRRISGSEIVFLFSLFGFVWLLRKH

KSMIMALPILVLGFLALKGGLRFTIYSVPVMALGFGFLLSEFKAILVKKYSQLTSNVCIVFATILTLAPV

FIHIYNYKAPTVFSQNEASLLNQLKNIANREDYVVTWWDYGYPVRYYSDVKTLVDGGKHLGKDNFFPSFS

LSKDEQAAANMARLSVEYTEKSFYAPQNDILKSDILQAMMKDYNQSNVDLFLASLSKPDFKIDTPKTRDI

YLYMPARMSLIFSTVASFSFINLDTGVLDKPFTFSTAYPLDVKNGEIYLSNGVVLSDDFRSFKIGDNVVS

VNSIVEINSIKQGEYKITPIDDKAQFYIFYLKDSAIPYAQFILMDKTMFNSAYVQMFFLGNYDKNLFDLV

INSRDAKVFKLKI

>AHK52289.1 glycosyl transferase family 1 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRIGFLSHAGASIYHFRMPIIKALKDRKDEVFVIVPQDEYTQKLRDLGLKVIVYEFSRASLNPFVVLKNF

FYLAKVLKNLNLDFIQSAAHKSNTFGILAAKWAKIPYRFALVEGLGSFYIDQGFKANLVRFVINSLYKLS

FKFAHQFIFVNESNAEFMRNLGLKENKICVIKSVGINLKKFFPIYVESEKKELFWKNLNIDKKPIVLMIA

RALWHKGVKEFYESATMLKDKANFVLVGGRDENPSCASLEFLNSGAVHYLGARSDIVELLQNCDIFVLPS

YKEGFPVSVLEAKACGKAIVVSDCEGCVEAISNAYDGLWAKTKNAKDLSEKISLLLEDEKLRLNLAKNAA

QDALQYDENIIAQRYLKLYDRVIKNV

>AHK52288.1 UDP-galactose phosphate transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYEKVFKRIFDFILALVLLVLFSPVILITALLLKITQGSVIFTQNRPGLDEKIFKIYKFKTMSDERDEKG

ELLSDELRLKAFGKIVRSLSLDELLQLFNVLKGDMSFVGPRPLLVEYLPLYNKEQKLRHKVRPGITGWAQ

VNGRNAISWQKKFELDVYYVKNISFLLDLKIMFLTALKVLKRSGVSKEGHVTTEKFNGKN

>AHK52287.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLQQRNLMARTEKIYIYGASGHGLVCEDVAKNMGYKECIFLDDFKGMKFESTLPKYDFFIAIGNNEIRKK

IYQKISENGFKIVNLIHKSALISPSAIVEENAGILIMPYVVINAKAKIEKGVILNTSSVIEHECVIGEFS

HVSVGAKCAGNVKIGKNCFLGINSCVLPNLSLADDSILGGGATLVKNQDEKGVFVGVPAKRM

>AHK52286.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRFFLSPPHMGGNELKYIEEVFKSNYIAPLGEFVNRFEQSVKAYSKSENALALNSATAALHLALRVAGVK

QDDIVLASSFTFIASVAPICYLKAKPVFIDCDETYNIDVDLLKLAIKECEKKPKALILTHLYGNAAKMDE

IVEICKENEIVLIEDAAEALGSFYKNKALGTFGEFGAYSYNGNKIITTSGGGMLIGKNKEKIEKARFYST

QARENCLHYEHLDYGYNYRLSNVLGAIGVAQMEVLEQRVLKKREIYEWYKEFLGECFSFLDELENSRSNR

WLSTALIDFDKNELNSCQKDINISQKNITLHPKISKLIEDLKNEQIETRPLWKAMHAQEVFKGAKAYLNG

NSELFFQKGICLPSGTAMSKDDVYEISKLILKSIKA

>AHK52285.1 UDP-GlcNAc C4,6 dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIFYKSKRLAFFLTSDIVLILLSVYLAFSLRFSGDIPSIFYHGMMVSAIILLVLKLSFLFVFRIYKVAWR

FFSLNEARKIFIALLLAEFCFFLIFYFFSDFFNPFPRSAIVIDFVLSYMFIGTLRISKRMLVDFKPSRMK

EEETPCIVVGATSKALHLLKGAKEGSLGLFPVGVVDARKELIGTYCDKFIVEEKEKIKSYVEQGVKTAII

ALRLEQEELKKLFEELVAYGICDVKIFSFTRNEARDISIEDLLARKPKDLDDSAVAAFLKDKVVLVSGAG

GTIGSELCKQCIKFGAKHLIMVDHSEYNLYKINDDLNLYKEKITPILLSILDKQSLDEVLKTYKPELILH

AAAYKHVPLCEQNPHSAVINNILGTKILCDSAKENKVAKFVMISTDKAVRPTNIMGCTKRVCELYTLSMS

DENFEVACVRFGNVLGSSGSVIPKFKAQIANNEPLTLTHPDIVRYFMLVAEAVQLVLQAGAIAKGGELFV

LDMGKPVKIIDLAKKMLLLSNRNDLEIKITGLRKGEKLYEELLIDENDAKTQYESIFVAKNEKVDLDWLN

KEIENLQICEDISEALLKIVPEFKHNKEGV

>AHK52284.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYIKDIQRFEDNRYRARAYMSYILTRNLPNKLPDIHLETIKTALDKIAHEVVVFDALYILDISGMQIENA

ISLNKAHEIGQGEDRSTRSYFYRAVKLRRCVLSDPYPSVLNNELCVTASMPIYDDKNNLLFVVCIDIKLE

DILKIIQAGKFEFVFTQFSRLVYFCFALVLFVITCFLFQKGFFSLFDNQAIGIEHMFESTIAITLALAIF

DLAKTLIEQEVLGRTKKEEGGIQKTMVRFLGSIIIALAIEALMLVFKLAIGDLSQMIYAIYLIGGVSLLL

LGLSVYLFTVKYKNNNI

>AHK52283.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLLVVDDSSTMRRIIKNTLTRLGHDDVLEAEHGVEAWDLLTKNEDVKVLITDWNMPEMNGLELVKKVRA

EKKYEDMPIIMVTTEGGKAEVITALKAGVNNYIVKPFTPQVLKEKLEDVLGTGSGEGAAE

>AHK52282.1 ribosomal protein L11 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKKYYELFFIVEEQYKNLFLDFAFDLGIEAIEEKDNGVYIRSHESLEEFSWALEIFAQKLTTTFNLNHK

IISNLSLVEKENKDWIQEYKKGIKPILVDNVYIHTTWQEEKKNCINIKINPALAFGSGHHESTYSCVKFL

QKFSKSKLRALDLGCGSGILGIIMAKFGCNVEICDTDELAIDSSLENARLNGVDFHKAWCGSIDKANGLY

NLIVANIIADVILILEKDIKNHLEDNAILILSGILDKYSTRIKEKFQDLELIDEMQINEWCSFVYKNNKK

G

>AHK52281.1 cell division protein FtsH [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNNNTQNNKGNPQGNNFFNKNPIFIFAIFAIIMIIIFKGFFDGNGSFGGALNGNEVNKNVPYSELKKLIE

SGQINQVSIGQTTIKAISSSHNTVYTAKKVNDPELVSLLDSKNIAYGAYSETNWFTDILFSWVLPVFIFF

GIWMFLASRMQKNMGSSILGIGSSKKLVNSEKPKVKFSDVAGVEEAKEEVKEIVDFLKYPERYIKLGAKI

PKGLLLVGPPGTGKTLLAKAVAGEADVPFFSVSGSSFIEMFVGVGASRVRDLFENAKKEAPAIVFIDEID

AIGKSRAASGMMGGNDEREQTLNQLLAEMDGFGTESSPVIVLAATNRPEVLDAALLRPGRFDRQVLVDKP

DFKGRCDILKVHMKDVKISPKVKVEDIARLTAGLAGADLANIINEAALLAGRDSKKYVEQNDLVEAVERA

IAGLEKKSRRINEKEKKIVTYHECGHALIAETTKGAKRVSKVSVIPRGLAALGYTLNTPEENKFLMQKHE

LIAEVDVLLGGRAAEEVFIGEISTGASNDLERATDIIKAMISMYGMSEIAGLMVLEKQRNTFLSGGQTIK

DYSEKMAESLDDYVKKTLDERYKDVKDTLNTYKGAIETMVAALYEEETIEGNKVREIIKEFEDQNSLPTR

LQELEEVKTEVKVEE

>AHK52280.1 phosphatidylserine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKDFIAKDGYLSLIILSLVFIFMWIFYSFSILLLALIVICIFLFRTPKRELVCSDEKAIFAPIDGRVTKI

ENIHHKDLGECVEITIKNALYDAGNFNTPFAMSIIDIRLRHGLFLCSELKSAKMMNERAFILAKVKENKT

IALRIYAGSFDRKLKLDNISHDLKAGDRMGFLINGSISLLLPKDTRIHIGLNDEIKAGSLLGYFA

>AHK52279.1 CDP-diacylglycerol--serine O-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNNRPQLIYILPNLFTAASAFLGVISIIASIHGNYYTALIYIILSLICDGLDGRVARLTNSTSKFGVEFD

SLADLVAFGVAPAVLFYMAIGYDFGKLGSLITAFFVVFGAIRLARFNVTTGTYEPSVFIGLPIPTAAVVS

AIWTYAFISYDFLKPYGVVFLVLQAILGLLMVSNIRYPSFKKLDFNRSSVLKVLIILIIIFSFLYLYPLE

SLVILASLYVLYGIIRVLYTIIVSKFKTRNQE

>AHK52278.1 hypothetical protein N916\_05555 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKEFFQELQDILYEKNITIKFHSFQNFYEDFKSHKFIFNHEHQSIFKKNTSQQITLFHPTRIRRPKFLN

STHALAKIIHSVAHIEFNAINLALDASYRFKNLPLQFYYDWLEVADEEIKHFKLLNSALEELGYKYGDFP

VHDNLESALEATKDSLSFRMGIVHRGLEAKGLDANPFVVQKLQSSNHSIKNLLMEYLEIILNDEIKHVKK

GDTWWKFANQNKYNFIELCKTFKQFSLAGKKLNIQARIKAGFTQEECEVIEKFYS

>AHK52277.1 methionine sulfoxide reductase B [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKELNEEEKKVILNKGTEAPFSGKYNDFYEKGIYQCKQCGASLYKSEDKFKSGCGWPSFDDEIKGAIKRI

PDKDGIRTEIVCANCNGHLGHVFEGEGFSAKNVRHCVNSISLEFVKTKD

>AHK52276.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFSSMGSELYLMFFAAITLLAILNPFGNLTQFLAMSDGLPLMLRKKLFRTILYTAFTIVLVFLLSGPLFM

NYIFRVSLDDLRVSGGLVLIIMAIKNLLFSTKIATKDFSSYQDMDDKEILRQSLIPMAFPMLVGPGTLAS

VIVIAEDGGLDVALGGVMIAFIFMFILFHFAATIEKIVGKLILHVFSRIAQVFIVAMGFKMIIVGLKDIF

NL

>AHK52275.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFGAKKNNTKIIEQLEKKCNGLGDILRSIGNTMAVIEFTTDGVILEANQNFLTTMKYSLSEIKGKHHSMF

CLPEVVNSSAYSDFWKDLRDGKARSGLFRRIAKGGIDVYLEANYLPISDNNGYVYKIIKFANDITQRHYE

MLDLRNTIAAANRSMAIIEFKPDGTIITANENFLRAMDFNIDEIKGKHHSMFCDSNYRHSKDYVQFWEDL

REGKFQSGKYIRYGRNNKKVYLEASYNPVKNDDGKIYKVIKFATDISEQVKKDQEKLRLISELAEKNDNL

TQDGDRVIENTVSNVQNIADMMSQSSNLVSSLNQQSDEIKSIIQTISDIADQTNLLALNAAIEAARAGEH

GRGFAVVADEVRNLAERTGHSVNEITTTINSIRNVTSQVVESIKSGLEDVNQSVELAKEARECMEKIRES

SAEVAKAMS

>AHK52274.1 leucyl/phenylalanyl-tRNA--protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKSSNLYSKLLNAPKNAPVFLSQNLEADFIVKAYTFGLFPWTSKPVTWWCPDPRCILIPNQIHIQKNMKK

FINLYQIKLDYDFLKLITLCRDTRSQSWIDDEFITTYYKLFTQGYAHSLELYENNELIGGIYGLILGKVF

FGESMVSIKKNASKVAMIKLCDLLKPYDFIIDCQVYNQHLEFMGAHNISRKEFLNILKEKCNQESGFKNF

KDLIT

>AHK52273.1 ATP-dependent Clp protease ClpS [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPKTQTLEQTKLSEPKMYKVILLNDDVTTMDFVIEILMNIFHQNLEKASQTMLEIHHNGSGICGIYTQEI

ALSKQKKVMDAAKLANFPLQAKVEEE

>AHK52272.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKISALFLISLAFFLNACSKEEEIQNDFMFEEYHKGDKIVLNSVNGGSKTLIRTDKGFVVEGEEGKVLM

FDFFGTFCTPCKEEALDLSKLWKNNSSKFIIIGLTHFEDVSDETVKKFAGDYGAYYFLSNGSSNDRIIAQ

ILKDIDYQNMEQLPFKVVLKNGIYQKISDYWNNNTPTNFYLGKIPTELMQEDLNKIYKGK

>AHK52271.1 single-stranded DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIIARNKKALFDYSIIERFEAGIVLKGSEVVALRAGRANLKDSFVRIIKNEIFLLNSHISLLHTTHSFY

KHEERGARKLLMHRKQIDKLLGKVSIEGYTIVALDLYFNTKNKVKATLALAKGKNLHDKRETLKKKQADL

EARAAMKNYK

>AHK52270.1 4-diphosphocytidyl-2C-methyl-D-erythritol kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKAYAKANIFLKLTGFDSRKYHLLESRFILLKDVFDELELVDKESDSKKEFEIISNFKCENNIIQKAYLL

LSRRYNNELKELFSKKSLKLTKNIPVCAGLGGGSSDCASFLLLINETLNLKLNLQELINLSIQLGSDIAF

FLSGFHSANVSSCGEIIEEFEDDIPNLKWTFPQISCQTKAVYDEFDRGIFDFQKNNNQAQIYKKLSTKEL

LQNFKNKELNDLFTPCATLYPKMKSYLQEDFFLSGSGSSVFKVDR

>AHK52269.1 carbon storage regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLILSRKENESIIIGEGIEIKVVQTGKGYAKIGIEAPKSLMILRKELVQQVKDENLHSVVQNDIKLDDLS

KKLIK

>AHK52268.1 tRNA pseudouridine synthase B [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKIFAAFKPRGLSSNAFLSTLKKKYKNKKAGYSGTLDPFAKGVLIVAFGQYTKLFRFLKKTPKTYKATL

WLGVYSLSLDDQNIKEIKNIKEFDLPNLQQIIDQMQGIISYTPPQFSAKRINGTRAYELAKKGIEVNLKP

CQMEVFDCKILSYNHPFLNIEITVSEGAYIRSYCELFARKLGINATLSSLERIKEGKFVYNNEKSLNVLK

YINLKPNFIKDLNKLENGAKIFVEELEFHDKGDYYIETEKYFSIINIKENTVKYLLNKVEKC

>AHK52267.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLFEDLNDSQKQAVSHIDGAMLILAGAGSGKTKTITTRLAYLIGEVGIPSHNTLTLTFTNKAASVMRHR

ALNFLQGNHNPLLCTFHKFGLLFLKLHFERLERKNSFIVIDTDDTKKIIKDLIHDKNKDNVYDIIQYISY

CKNEGKRVSNVFEDLNLLKEHNFEKYQNEYKFANYYRAYEEYLLKQNFVDFDDLLLLSNLILENDINFAK

EQSLLYNYITVDEYQDTNTLQYKILKNLCCMHENITVVGDDDQSIYSWRGAKIENILNFQNDFKNVKLVK

LEQNYRSVGTILQAANNLISHNEQRLGKTLICTKDTGENIKILKNENEKDEGLYIAQEVKKLLNSGVEAK

EIAILFRVNALSRAIEEAFMKKQISYKLLSGMRFYERLEIKDLISYLRLILNPSDDLSFKRIINRPKRSI

GEKALKNLEEYAKKRQISLFDALCESDGGVGILTTKKAQNEANIFIQNIHTLKSYDNAKKVFDNIEELFK

IKDYFSEQDDGDERIRNLDEFYANLREKLKEDPEASLEDLLSEISLLSDQDNLDEECVCLMSIHASKGLE

FDYVFIIGFDEGFFPLNSEENLEEERRLAYVAITRAKKFLTISVANSRFYHGSRANINPSRFLEESKLIN

EKSKNQNIQKTSFCKGDLVKHKIFGIGRVVEANKSGKEEKLNINFGGIMRVIMASFVEKAV

>AHK52266.1 hypothetical protein N916\_05490 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLETILKNENFIHTMQKHCYEVISHLIEENIEFSIVANTNFIDFNPELPKELDIKQNPYALFALGGYTFE

SIQLNKDFIQFHAGFGNDDFDSFVKVDLGAITQIQVENSILFVNFSLYKREDSKNLQKSKNIFLNNPKNK

DIFKK

>AHK52265.1 oligoendopeptidase F [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLEWDLSALFHDKEALQNFTQDQIQQSLNFKKNYENKLYTLNANEFLQALKDYENLNQALGKIMTYAYLL

FAKNTQNGSFYAQYEEECKKIEENLLFFELEFCELAPEKSREFTTFCKDYDFYLSNLLQNKRYNLSKNEE

RIMLYLSNTGANAFSRLFDESMSALKIPFEGKKLSEEEILSKMYDENRKIRKKAAKKFSKVLQKNSRLLS

FIINMIKTERKNISLLRGYENAEISRHISNQISQKSVDSLIASAQKHFNLVSQFYKRKKQILGYDELKDY

DRYAPIGKEASFDFKTSKNIVLEAFQAFSPQFYDIAKNAFDQGWIDVYPQENKQGGAFSHSATSDAHPFV

LLNHTNKRRDLFTLAHELGHTIHQKLSYNVSYLNQNTPLTTAETASVFAEMLVFDFIKDKLKKEELLSLY

ANKIEDIFATFYRQINFTCFERRLHAQENELSTEEINKIWMEESQKMFQDSVKLTKNYASWWSYIPHFIH

SPFYCYAYAYAQLLVLALYGLYKSKKCENFKELYIKMLSLGGSVSPKELVGMFGFDIEDENFWEIGIKEI

QKLINEFMELQSC

>AHK52264.1 aspartate carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRHLITTKDFNKVEIMELFKEASDFLDEKPRTFLEGKSITTIFFENSTRTLSSFESAARRLGARVLRLDV

SRSSSSKGETLYDTAANLDAMSPNAIVVRHANSGVPLILAKHMHCPVVNGGDGKHAHPTQALLDLFTIYN

HFQGNVEGKKICIVGDIKNSRVAASNIELLSRFNLDITLVAPPHFMPNTHLKKHYKLDENIIANSDIIMS

LRTQTERHNKTVYASLKDYANDFCIQKSLVKDKKLILLHPGPVNRNIDISDEMMSNERTLVLKQVKNGVA

IRMAVLKKLILENEG

>AHK52263.1 serine/threonine transporter SstT [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFSKIIQSYAKGNLIVQICIGIALGILIGISSKEISEIANLLGILFTSALKAIAPMLVFILILTSICTKD

FSQSGAKIKNIIILYIVGTFFASACAVLANFFFPVKLVLDGVQTATNSSPTHMSDIFKDLLFKIVDNPIN

ALSSGNYLGILTWAIAGGIALKHCSNEAKQVFIDINEGVLKIVKFVVKLAPFGIFGLVANSVAQTGAQGL

LSYVKLLILLVATMLFVTFVINALIVFFYTRKNPFPLIFICLRHSAFFAFFTRSSAANIPVNMALCAKLG

IDKEFYGISIPLGATINMAGAAVTIAILSLTAANTVGIEISLLQAFLLSIIATFAACGASGVAGGSLLLI

PLACSLFNIDYDIAMKVVAIGFIIGVIQDSVETALNSSTDVLFTAICSKNELNYNIK

>AHK52262.1 S-adenosylmethionine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYLFTSEVVSAGHPDKCADIIADTIVDILLKNDKNSRVASEVFVAGNKVVIGGEVKSNHKLSKADYDNLV

KDVLKNIGYDGAGHFSKEQCLHPDEVDVMVFLNEQSPDINQGVDQEDGETGAGDQGIMFGFASCEAEEYM

PAAISYARMLCDRVYAYAKANPHELGVDIKTQVTIDYGTKANFENCKPQSIHTIVVSAPCVESMKIEDLR

SLVMKLILDSNLPKELFDPNKTRILINPTGKYVNHSSLHDSGLTGRKLIVDSFGGYSPIGGGAQSSKDYT

KVDRSGLYAGRWLAKNIVAAGLAKKCIVQLSYAIGVAKPTSVSVDCMGTNTSVNDDVLSDFVMQNFSLTP

NWIRDKFHLDKPSKETFLYADVAARGQVGQKDYPWEKLDALEQFKKLL

>AHK52261.1 apolipoprotein N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLKLNFLPYFSFIPKKLNTNSIIFKIIKVFFIAILLSNSIYLSFFENIFTQTISPFLAIWGLVLLLKSK

TSKQYFWIGFFVGILWFWWIGLSSIYFNLNYLVPIIPIIIGFIYGLLFRLCYLLKFDFLRLCGIFCISFI

HPLGFDWFNWGIFTVYGFFDPSYRGIICIFLIAYFIYEGYISRYYKIAIVLILFFSGFQYNEKQAQTLNL

NYKLINTNISQDQKFLQENLKSNSDILIQDILQAINEKKELVILPETAFAFDLKNTKYELMLKELSYKIT

IITGAFHVEKEHTYNSTYIFKKGNVYILNKHFLVPFGEEIPFFKDLTKKYFLKNIEEFSKGPIQSKYKLD

NQIITNAICYEATKEQNYQNSQIIIALSNNAWFNNSSEYKLQQLLMKFYASKYGVSVYHATNGKENIVIL

PKKLLSKDWKNLSKEIFNDKK

>AHK52260.1 preprotein translocase subunit YajC [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAENSILTSLLPLVVLFAIFYFLVIRPQQKQAKAHKQMLESLQKGDKIITNGGLICEVVKPEEDFIKVKL

NEDNVTAKISREFIAKKIDA

>AHK52259.1 preprotein translocase subunit SecD [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRNSKINYRLIIFIAVFIFGVAFSLPSFLQSERGAKINLGLDLQGGLYMLLGVDNEEAVKSKIKSIASSL

SYSFNKENILNDGLNTHDDILEFTLLDNADIAKVENLLKEIKGINIQSENMHYKISFTSKEVKNIENFAL

LQAVETIRNRLDQFGLAEPTVAKQGDDKILVELAGIKTKEDELRAKERITKAAHLQLMEVDDSKMGQAST

MSDAEAASYGLILVPDSRNPNLKYTLKSIPILDGSMLTDARVGLSDKSNYPVINFTLNAEGSKKFADYTG

ANVGKRLAIVLDNKVYSAPSINERIGGGSGQISGAFTQEEARDVAVALRSGALLAPVKLLEQRSIGPSLG

ADSIKMSMIALIGASVFIVVFMMMYYGVAGIFANIAMLVNVLVVVAVMAMFGATLTLPGMAGLVLTVGMA

VDANVIINERIRELLRDGVNIRVSIEQGYKNAMSAIIDSNITSLVTSVALYAYGTGAVKGFAVTLGIGIV

VSMITAILGTHGMFDYFMQRIEKNNNTRFWFGYRRR

>AHK52258.1 preprotein translocase subunit SecF [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQFFSEKKIYDFMRMRFAAISLSFILFFGSIYLLWDRGLQYGIDFSGGTLVQLKYENAAPITQIREILEN

QGTFQNLSVTEFGSNEEVTIRFLGSNDNVSNDIGEHISTLLKDTGKFEVRRADVVGPKVGDELRNKGLMA

IAVSLIAILIYIALRFEWRFALAAIISEIHDVVITLGAISLFKIDVNLDTLAAVLTVLGYSLNDTIIIFD

RIREGIKTSKKTELAPIINESVSATLSRTVLTSGLTLATVVILYFFGGEMIQGFSLALIVGIIAGTLSSI

FVASPTLLWFKFSVLEFRNKEIEKAKRKQDKERNRAMYEKGTV

>AHK52257.1 leucyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAYEASLIEKKWQKIWDENEYFEPKDDLNLPKKYILSMFPYPSGRIHMGHVRNYTIGDALARYYRKIGFN

VLHPIGFDSFGMPAENAAIKHKIHPKSWTYENIAYMKKELFSLGFSFSKKRMLATSDPLYTKFEQEFFIK

MFEKGLIYTKEANVNWCEQDQTVLANEQVEDGKCWRCGHEVVQKKMPGYYVKITAYAEELLKDLEELKDK

WPNQVLTMQENWIGKSEGLEFSLNLDEESKQKTKESSLEVFTTRADTIYGVSYIALAPEHKIVQNLLSQN

LLNQDVLNKIKVIQNQSPRERQSSEKEGYFLGIYAIHPLSGEKIPLWVANFVLADYGSGAVMAVPAHDER

DFEFATKYNLAIKQVIQTQENLPYMQKLGKLINSQEFDNLDCNEARLKIISQFEAKNIGKRVVNFKIRDW

GVSRQRYWGAPIPMIKCQSCGIVPQKLENLPITLPEDVQITGEGNPLDKHPTWKNCICPKCGKEAQKESD

TLDTFFESSWYFARFASDEKTWQEKALDEKSVKYWMSVDQYIGGIEHAILHLLYARFFQKALRDLGYLTQ

NEPFDRLLTQGMVLKDGAKMSKSKGNVVDPDEIIEKYGADTARLFILFAAPPAKELEWNDDAVEGAYRFI

CKLYDRAQNVKKGELVELKQENLNKEEKYARLKVYEALKKSFEVYHQSFAFNTLIAACMEALNALALCKN

EALEQEAFYIILNILEPIIPHVCFELSEELFKCKNFKKLELKEEVFVKDTLNLAVSINGKKRAEFEISSS

ASKEEILAFAKENTAKWLEGKSIVKEIYVEGKLVNLVIK

>AHK52256.1 hypothetical protein N916\_05440 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILIFCIGLFLGACGYIPTSKIANNIFDEKVYVNVELSQQDPKNSIYVADTLKEMVISKLGRKLALKH

EADDVINVKMNNLEFIPLAYDKNGYVISYKAKLNLDFNVVFKDGSSQAFSTSGSYNFEISPNSIISDSAR

YEAIRAASSEAFDEFISVIAIKGQKRDSKY

>AHK52255.1 hypothetical protein N916\_05435 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIPNTNEIAKQTLIALKERKLKPTPENYTEIFEELSLKYGITSSNKAKLDKYKTLLLPIYQQELNSKTIR

SLEELISFLISVLNRQSGKQFSEFFDFLYTISKTLQISKDKKIRDLAKVTSIRISKTMDSESIYLLTKKW

KELERNYDENDLEEQARKYGISKYDDYDSVIKKLLVKLEERSYEHFSELLCLGLNPSLVEDLKIQGFIQN

LTQKPFVIGEENFKNELMEFINHRIMVDNMYVQKNLNFFNDNLKKIYELLVLLNKSNEKNMDFINTLKPD

ENGEVKLSFEDLKLKFKQLGEKITSLNNQIEFTQSLEEREAWSVLKELDKMDENFNKYKVNYSLALFSIV

NYRFIMEKYGMGSLNEIFVRFKKILKDSCSEFDELWMIDEKSYLIVSPGKSKDEITQLVNTNLKTIENFR

FIYKQDIITPKIHVAYLDKQSKPSINILDELIKQIAAVNEQHNES

>AHK52254.1 folylpolyglutamate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVENFLAQKSINYDKIDRFLMFRMYEKYKKYFKNIPIIQLIGTNGKGSTGRYLTQLLENLNYKIGHYTS

PHIFSFNERFYLDGKIANDEELEQAHIRLEEIFKQDLQKLSYFEYATFLAMILFQKCDFIVLEAGVGGEY

DATSIFERRMSIFTRIGFDHIQILGNSLEDIARTKLKVMAPIALISDEQEQNVLNLAKKIAFLKKANLQV

SSLNPFLKEKFEIYCKKFVLPYFLKHNLKLALKACEILTSQEKTLEALKKLQELNLQGRCQEISPNFFVD

VGHNPMAAKAMLDKFQGEKINLIYNAYLDKDIFQILNTLKPIIDTIQIYKYKSAERKLADDEIYSIASKL

GMQCKEFVKLEENKKNLVFGSFMLVENFLKEWCGKK

>AHK52253.1 peptidase M24 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVKNKFTITITDINGSRHFYLNQIIKKIVFYIIAFIVLFLVFSGFYIKYLDSKLSDISEKREELLKKSKE

LELSNSQMQKSIEEKTQQYAAIEDKIASFEEALGLEAENNLTISARLDNLQLTNEQQLGILGQIPNGWPI

ENKGITGNFGWREHPLLKRREFHPGIDLRAEIGTPIYAPASGVVEFSGYSDNGYGYNVILLHNFGFKTVF

AHMMRKEVVKAGQFVNKGQLIGYSGNTGLSTGPHLHYEVRFINKTLEPLYFLNLQRKNMNDFFNQERRVP

WQSLIKAVSAQHPALAQKQQ

>AHK52252.1 transcription-repair coupling factor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQASFYEYLQNPKICELFLCKDEKQADLLAQVSRFKGLKTFVLPDFRAQFGDDLRAFSKELFDLCKILNA

YHKEEEKKILISPLNTVLKKLPSKKHLQNYHIDKKQNFDLKCFEDEISRLGYEFVDIVQDKGEISIRADI

IDIFCINEENPIRILLFGEEIESIRYFDLQSQKSIPNELEHFEICPFLKYFDKENYEIFKDKLEDFQSDA

LIHDINSLGFWCIDDFFDYLELDFLACEKFDINEYEKDISFVNAKILPQAKKFKELQSSYNKDFFEFHKN

KKITLLAKNEALFKALELEDTQNIHFVKSDLRLNLISPEELIISLNQKEKQKTRKKASLIIDELKNGDYI

VHEDYGVGKFLGLEMIVISGAKKEFVAIEYQNSDKLLLPVENLYLIDKYLGVSGSIPSLDKLGKTSFIKL

KEKLKTKLLAIASEIVIMAAKRSLVQAKKITVDLNRQTDFIASAGFIYTSDQDKACHEILQDFQSGKVMD

RLLSGDVGFGKTEVAMNAIYPVVKSGFCAFLFAPTTLLSHQHYKTLKKRFDPFDIKVFKLDRFTSSAEKK

QVLQNLKENKACVVVGTHALLSVECENLALVIIDEEHKFGVKQKEKLKEITQNSHILSMSATPIPRSLNQ

ALSSIKSYSVLQTPPEDRMDVRTFVKENDDALLKEAIARELRRGGQIFYIHNHIASIEQCKKHLLELFST

LRILILHSKIDAKMQEEEMLKFENKEYDLLLSTSIVESGIDLPNANTIIVEKSDRFGMADLHQLRGRVGR

SDKQGYCYFLIEDKNAITKDALKRLVSLESNSFLGAGSILAYHDLEIRGGGNLLGVDQSGHIEQIGYSLY

LKMLEDELNALSKNEVDQKENKLDLKLNVNAFLNSELISEDRLRLELYRRLSKCEQVHEVYEIESEIEDR

FGKLDIYTKQFLSLITIKILALNKFKSISNYEQNIQFTALNDEKELIKAKSKDDDDILEAILTHLRKA

>AHK52251.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDWNKTYAAIYRARKDYLKPIFEIDPIALKDLVGMESQKKALYENTLNFIQDKGANHALLWGSKGTGKSS

LIKAIFNEFKEQGLRLVELNKEDLFALADIIDEIRLENFKFILFCDDFSFEKGDDSYKFLKPLLEGSIEK

APNNVIIYASSNRRHLLSESITDNLDTQITHTELHLSDAAEERLSLSDRFGLWLSFYQGNLEEYLKMIDF

YFKDYSCDKELLHAKAKEFATLRASRSGRTAKQFYLAFKENFK

>AHK52250.1 nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTGAQIFTKLLNLDLNYHDFDWLENQGLSEFELLISVVLTQNTNWKNVLKALENLKKENIASLEQINTLS

NLELATLIKPSGFYNTKAKRLKGLVESIINTYENLENFKTNVSRKWLLNIKGLGFESVDGILNYLCKREI

LVVDSYSLRLAFHLGYEFENYEELREFFQSGIESEQENLCKILGRKCELYELYQIFHALIVAFAKQSFKG

QKLSPKGEEWIKILKEDL

>AHK52249.1 phosphomethylpyrimidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKAKGSELIPVLTIAGSDCSGGAGIQADLKTFSAHNLFGMSVVLSVVAENTARVISVHDIPTQSVDEQML

AVFEDIVPKATKIGMIGSCELMSCVAKNLSEFKPQNIVIDPVMFAKNGYALMPQENCDFFKQTIVKFADI

LTPNIPEAEFLCGFKIANEEQMIKAAKHLCSLGAKAVLLKGGHSEINANDVFYDGKEIYILKGERIETKN

THGTGCTLSSAIASNLAKGKDLFHAVSEAKEYVRNAIYYSLNLGKGCGPTNHFFKFLDEK

>AHK52248.1 thiamine-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNKLDLSLYLVATKGSKSEECFLNTLENAIKGGVSIIQLREKELNAREFYKLGLKVQKLCKSYKIPFLI

NDRVDIALALDADGVHLGQEDLEAKLARKLLGDEKIIGLSLKKLEQLEFIQGVNYLGCGAIKATPTKESS

LLSLELLSQICDKSPIGVVAIGGIDKEALVELKGINLSGVAVVRAIMDAKDAFLAAKELKRKIYENLSLK

>AHK52247.1 uroporphyrinogen-III synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIYLLNETPFEGVENLILNEIVFYDFSVDLSLYDALICTSKNALKALQHAKITLNFKLNLYAVGQSTAQ

YAKNLGFKKIKIPSKAYGKDLFLEFKEELKMQKCLYLRAKNIVSTLNLDLKNVGVDLDEMIVYENVFKKG

DKKLIHPAIFIFTSPLSVENFLKFYSLKEEDKVVVIGQSTAKKLLNFKNLYICENQSLLNCVKLAKTLV

>AHK52246.1 hypothetical protein N916\_05385 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKAYVLIWTIFLILLISLWMSLTLNISSYTPKIIQDSYYYLQAQILSHNATQFSKYFLYQAKQENKECL

DNIYFNYTKALIKIKYFYPIAQCVNFKFSNFNPDANLSKDGVIIAHISIALNRDKNVNDEILLTKSIIIY

PKENFWNLKN

>AHK52245.1 hypothetical protein N916\_05380 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKAFTLFELIISLILFTFITSLLSKPLMDFYHLNFTALHTNNLITQAHLNLLKIEKLIQNCINITFSQN

TLKCLLKDELISLKDNKLYLINSALILENNHTLYSPHSDFKTQLQNRKDLYNDNEHISYAYKINKIEKIS

ILENGISANFTGSFIPLQAQLVIKLQNEELIYEIKPKFNEQLNQQGLISKNISSFNLQNNKLKICLKRQT

KHCLEKRILL

>AHK52244.1 transformation system protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKAFILIESISAITIISLIFIGIFYYYIQLYKNYENLNIFERLYKLQEELYEKPIFKTIILQTSALKPI

VLQEQFVNDGIFQFQKLYFQDQNYSVYFKE

>AHK52243.1 pyrroline-5-carboxylate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLYILANGSMATALAYGLKDDYEICIVGRSIEKLQALAKEGFKTLLYKDFNIEGKDVILAFKPYALENIA

QMLKGQARILISVLANVDFEKLQTIKAQNYVRIIPNTAAKYKASTTPYILKNSHFENEILDILKTFGSAY

KLDNEIQMNAAMAISGCAPAFLALIAESIANAGVYEGLSKELSLNLTRSLFKSSNALLEHEHPAIIKENI

CSPGGVTIKGIKILEQKGIRGSFFEAINASSAK

>AHK52242.1 flagellar assembly protein FliW [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTLAVKCPILGFEETKNMEFSTIDEVFVRLKSLDGKDFSFVLINPYLIRPDYEFDIPTYYQELLSLTPES

NMKIFNIVAIAKSIEESTVNFLAPVVINLDNNTMVQVILDTVNYPDFFQADQIANYIKK

>AHK52241.1 hypothetical protein N916\_05360 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKGIFLLVFLSVFFSACSTKNDEGLYNLSASEWYKQIIKDLQDKDLEKADDHYNGMASEHVADPLLETT

LIILAQAHMDEEEYKLAEFYLDEYNKKFGNSRNADYIRYLKIKAKFDAFAVPNRNQALMLESQKEIDTFL

KDYPYTEYEPLVQTMLTKFNLAVFYLNSTIENLYQRIGHDESAQIYKQRLQESEFYQQSIIKPELPWYRS

IFERF

>AHK52240.1 Lon protease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIEEIQNYPANLPVLVEDELFLYPFMITPIFINDSSNMKALDLAIKNDSMLFVAPSKLENGRNFDEIYN

CGVIGTIMRKVPLPDGRVKILFQGYAKGKIIEQISNKPLEAKIELIKEDFLEGTKKEALLEVLKEKVKNL

ANISHYFSPDLLRTIEEGFDASRICDLILNTVRIKKQVAYEFFVLTDLEQKLVKLIDLIAQEIEANKIQK

EIKNKVHSRIDKVNKEYFLKEQLRQIQKELGSDTQKEDEVREYQKRLELKKKFMHEDAYKEIKKQIEKFE

RIHQDNSEASMIQTYIETALDIPFEKISKKKLDIKEVSKQLNHDHYALNKPKERIEEYFAVRELLEKRKI

AEKDGAKVILCLYGPPGVGKTSLANSVSKALKRELIRIALGGLEDVNELRGHRRTYIGAMPGRITQGLIE

AKQINPVIVLDEIDKLNRSFRGDPSAVLLEILDPEQNSKFRDYYLNFNIDLSKVIFIATANDISNIPAPL

RDRMEFIELSSYTPSEKFHIMKKYLIPDELKKHGLKSNELSIDDETIELIISDYTRESGVRNLRRKVAEL

CRKSAKKLLLENIKKVIINTKNLNEFLDKKVFEIEKNNGENQVGQVNGLAWTSVGGDVLKVEAVKIKGKG

ELTLTGSLGDVMKESARIAFSMIKVLIDEGKIKIPKKIIIDPKVNVYDSYNIHIHVPDGATPKDGPSAGI

TISTAIASIFSDKKVKADVAMTGEIDLKGKVLPIGGLKEKLIAAYKADIKTALIPRKNYERDLKDIPSEV

RDNMEIIAVDTFSDVLEYTLV

>AHK52239.1 30S ribosomal protein S18 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAEKRKYSRKYCKYTEAKVEFIDYKDTAMLKHALSERFKIMPRRLTGTSKKYQEMVEVAIKRARHVALIP

YIVDRKEVINNPFEGL

>AHK52238.1 single-stranded DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFNKVVLVGNLTRDIEMRYAQSGSAIGASAIAVTRRFTANGEKREETCFIDISFYGRTAEVANQYLTKGS

KVLIEGRLRFEQWSDQNGQNRSKHSIQVENMEMLGNSNAPQQGGNFGNNSFSNNNYSGNYENQSYDPYMS

ENQNFNKAKANPAPQRNQSPQHEEKLKEIDIDAYDSDDTNLPF

>AHK52237.1 30S ribosomal protein S6 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKHYEVLFILKPTLTEEEVNTKLEFVKEVLTKNSAEIETVVPMGTRKLAYKIKKYERGTYFVIYFKAPTN

LIAELERVLRITEEVIRFLIVKYENKKEIAAWEKLSHGIKQSKKEIKPLDAPEIQ

>AHK52236.1 hypothetical protein N916\_05335 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKKFSYPIPNFTDRRKSIIFWRYLRFQARKILYFPQVRLLEKTLNKEKNKHLKDFFSQRPYACYNATRR

FCDKSFKANERVKTLIYDVDKGLACFKFLPEEQIIFSFDEDFELFLGYNYNVCEEGFWAFSLKFKKYTIL

QCNFCFTLENNLLLSCIQGHKYKDFNILEINKILTKKCHGLRPVALLIECSKMLCEILKLQATLGVHEKN

QIRSQKGKEKGYFVDYQKIWLENGGELIKINKHKYYKLHHSQKNLEEIPSQKRSMYKKRFAMLEEIKTNL

DKTLSIQD

>AHK52235.1 zinc metalloprotease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRSLLLLIVILILGIKFYSIEFLATVLVISFLIFFHELGHFLAARSLGVKVEVFSIGFGKSLIEREFKGT

NYRLSTLPLGGYVKLKGQDDMRPGFENLDKDSYSILSPLKKIYILFAGPFFNLILAFFLYIIIGNLGLNK

LAPQIGNIAPNSAAQEIGLQKNDTILEINGIRIQTFDEISKHLSLDPLKILINREGKNLEFILTPKIGQG

YNDFGQIVEKPQLGVSPNGTSTLVKHQGLESFKYAAQESFQASTLIIKGIVKLISGEVEAKNLGGIITMT

EITSKAAQNSFTLLLFITALISINLGILNLLPIPMLDGGHILFNLYEMIFRRKVPQRTFEYLSYTGMAIL

LSLMLFATYNDISRIIGE

>AHK52234.1 CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLPNILAIFRMVLAPLLFFLLIHKFENIHQSWINYFAALTFSLAALSDFFDGYIARTWKQTTKLGGILD

PLADKMLVLAAFLGLLLTGKANEWVIYIILVREFFITGFRVVMISENLNVNASFAGKLKTAFQMTAIGFL

IMEWIGGEILLYIALILTLYSGFEYIYTYIKAQKKGEK

>AHK52233.1 nitroreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKELEIFSTRYSCRNFKNEKLKKEDLNSILEIARLSPSSLGLEPWKFIVVQDEKRKEELSKICNQQKHV

KDCAALIIIISRLDFLDYFEEKLRKRDMSETEMQKRLDTYMPFLKSLNQEQKISYAREQAHIALASILYS

ANALNIASCTIGGFDKEKLDSYLSLDIQKERSSLVVALGYCNDKKNPQKNRFSFDEVVKFI

>AHK52232.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEIKLKEDLEKIYPLIKQLRNNLSLKDFLDKIQLATQTQHYKLFAYENEGSYKAACGVMPFNVLYHNHC

LYICDFVVDEALRGKGIGQAFLKKIQIWAKDQGYEELELSSSFFRTQAHEFYIQKMGFEKSGFVFKKNIK

L

>AHK52231.1 competence damage-inducible protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKHLLYLIGDELTINEKFKNYIYRTYEEKFKEINEIRIQNKTDKDLPFLLENLLNQYDFITLFTSPLHYA

TVAKILATLNDDNLILKDDTLVPDKAEFSKNSFVCNFSNSKINVVKINPSEKLPDLLGHIKLNFAYFCIF

GMDDESAILLLQTLTKSYEISIKSTKFLDNLVLIKATCANFGKLDGFLNSVKNLFGQKVFLGKDPIHFIS

SKLLEKKLKISFAESCTGGLCASTLTKISGVSEIFEGSIVSYSNRIKHEWLGISESVLENNGEYSERCVY

FMLKGIFKTANPDFALAISGVVGEKDEGKIKSGTIYIGAMFRDGTFIQETLYLDGDREFMQEQAVLATFC

LLLKLKPEIFEI

>AHK52230.1 isoleucyl-tRNA synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDYKETLLLPSTTFAMRANLAELEPQRFKKWFEQNYAYEKMKENRKNAKKSFTLHDGPPYANGHIHIGHA

LNKILKETIIKTHYFKGESVRFTPGWDCHGLPIEQQVEVKLGEKKKSLSKKEIREFCRQHASEFVDIQRE

EFKDLGIIADWDKPYLTMKFEFEAAIYRTLCEIAKKGLLCERSKPVFWSWAAKSALAEAEVEYQDKEDYS

IFVAFDLDVKACEKLGVSKASAVIWTTTPWTLVANQAIALNPNENYVITKEGLIFASALLKSMVEKGLTS

GEIQKELNAKEFEKLEAINPLNGRKSVLIMGEHVLMDGGSGLVHTAPGHGEDDYYACLKYGIEVLMPVDD

SGCYDETLRAKGLLPSHLLEEFIGLHIFKANEKILELLGEKLLHSSKFIHSYPFCWRTHKPVIYRATKQW

FILMDEPKLQGKTLRECAKEQLLKTTFYPQSGVKRIGSMVENRPDWCISRQRDWGTPIAFFRDKNTKEVI

FDDELFDFVAAIFEKHGADAWWEFEIKDLIPTNSKYKAENLEKVYDILDVWFDSGSTFNAVLNSGLYDAG

EKRASMYLEGSDQHRGWFQSSLLVGTAINESAPYESILTHGFTTDEKGQKMSKSKGNVIASEYVAKTYGV

EILRLWILLSDYSSDLKISDNILKQVGEQYRKIRNTIRFLLANTNDLKDLEVKEFSFIDKWILSRATKVF

KASKEAFFAYEFAKGFSLLLNFLSADLSGIYLDISKDRLYCDSENAQRRKSAQVAMALMAKELLNLLAPN

LSYSVDEALEHANVLIKGDAKDVFDLSLTQDFDYDFGIDDTFLMSAREKFFEQIDILKKDKIIKSTLELN

LNISFNKFPNEELADWFMVSQISNENEEILAEFEVENEKFKITKASLCKCPRCWKLQSKNEETPCLRCEE

VLKGVQC

>AHK52229.1 aspartyl/glutamyl-tRNA amidotransferase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MITLKEALKYSKEELENLKKELNEKAKKEKKLGAYIEQFLDKDLSVSGEGVPVAIKDNISVKGWELTSAS

KILQGYIAPYDASAIVNLKANGFSPFGRCNMDEFAMGSSTASSCYGKTLNPLNFERVPGGSSGGSAAAVA

GGLALASLGSDTGGSVRQPAAFCGCVGFKPSYGRVSRYGLASYSSSLDQIGVLTQNVEDAAILYDAIAGY

DKMDSTSANIEFIKTVPNLNANKKLKIAVIENYVNDADSEVKNALLKTIDMLKANGHEIVYKNLLDSKFD

IAAYYIIATAEASANLSRYDGVRYGKRSENIQNLKEMYVNTRSEGFGEEVKRRILLGTFVLSSGYYDAYY

IKAQKARAFIKAKYEEILQDCDLIFMPVTPTTAFKFDTQKSPMQTYLEDVYTISVNLAGLGGISVPVAKD

KEGLNISAQLICKAYDEQTLLDGALSLEQMIKN

>AHK52228.1 inosine 5'-monophosphate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIVKRALTFEDVLLRPGYSEVLPKEVKIHTKLTKNITLNMPLISAAMDTVTEHRAAIMMARLGGLGVIH

KNMDIASQVREVKRVKKSESGVIIDPIFVSPKASVAEALEIMAEYRISGVPVVDEDKKLIGILTNRDLRF

ESDFSNLVENVMTKMPLITAPKGCTLDDAEKIFSTNKVEKLPIVDEQGRLEGLITIKDLKKRKEYPDANK

DNFGRLRVGAAIGVGQMDRVDALVEAGVDVVVLDSAHGHSKGIIDTVKAIKAKYPNLDLIAGNIATAAAA

KALCEAGVDAVKVGIGPGSICTTRIVSGVGVPQISAIDECVEEANKFGVPVIADGGIKYSGDIAKALAVG

ASSVMIGSLLAGTDESPGELFTYQGRQYKSYRGMGSLGAMQKGSSDRYFQQGTAQDKLVPEGIEGRVPYV

GSIRSVVHQLLGGLRSSMGYVGAKDIEDFQKRAEFVEITTAGLKESHVHDVTITHEAPNYKVNHQ

>AHK52227.1 coiled-coil protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSFEENLKHANESLEKLNNQELALDESVKIYKEGLESIKKARLELEKAKLEVEQIDE

>AHK52226.1 carbon-nitrogen hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKIAALQFPTLALSESRLDYYLKASKDNGANLVVLGEYVINSFFTELLHMPKNMIKEQSEAKKESLIKL

AKKYELEIIAPYVSVEAKSYKKLCLKVTPNGVKSYEQQILMPYEHWNEEKFFSNKTPSELKIFTFNYEKL

KCALLFGFETHFDIFWQQIMAKKIDLVIVPSACTFESKQRWEELLKTRAFLNSTSILRVNRIGKTKDEWN

FYGDTLFINAFGEIESKLGSEEEMLIIEPKKSDEARKLWGFDKILKNF

>AHK52225.1 UDP-N-acetylmuramate--alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNIHFIGIGGIGISALARFLREKGFKISGSDLKESKITKELEKEGVKVSIPHHKDNILNKDLVIYSAAI

KEENPEFKYAKELGIKCLSRKEALPLILEDKRVFAVAGAHGKSTTSSILASLLDDASVIIGAILKEFGSN

MIYKESQNLVFEADESDSSFLNSNPYLAIVTNAEAEHLDHYGNEVSKLHHAYTQFLDVAKIRVINAEDEF

LKNYKNESIKLYPSKDIKNCTMCIENFKPFTSFELKDLGEFKVFGMGYHLALDASLAILAALNFLDIETI

RTRLKNYQGIKKRFDILHADENLVLIDDYGHHPTEIKATLSAAQEYVKLGGYKKITAIFEPHRYTRLATN

LKEFAKAFEGVDELVILPVYAAGEEPIELDLKAVFPKALFVEDIKREGKFLVASKGQVFEEGLIIGFGAG

DISNKLRQKNE

>AHK52224.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSRVFLYFLIILILALITFALREKLGKKTKPFFGILLVIFIVLAVFFEFENTQKSHLRTDIIVAFNQNKN

ILCKDINVSKAYFNYEFGTGSFISKDNNQSFNSLIIDIKDCRLNDE

>AHK52223.1 DNA strand exchange inhibitor protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNDTKEELISKLDLNSYLEEFKALFARDKEIFLQGDSNLHFKRIHELCEVEFPTMPELSNLDKALVHLSK

QGILHLDEIFEFVKIFRYFEKLKKIKLGTNLGSWLQKIEFVSGALELCLNFDEKGELKESLDERLVNLNA

ALRLKNESIIAEFKKFCYTKALMPYLIDTQIHLINNLEALLVRGGFNHAIKAKIIGRSSGGGFYIVPLSV

ENLQNDIEKIKNQKEEIYYEYAKNFSAFLAKNLPFLKFINTAFDLFDHYSARVLLAKKRDFEFVLCDQST

DLVLKNFAHPALKNPKSVSLEFKKQVLIITGVNAGGKSMLLKSMLSAAFLAKHLLPMHIKASESKIGTFK

EFDAIIEDPQNVKNDISTFAGRMLHFSRLFSKKNLLLGIDEIELGTDFEEAACLYSVLISKLIANNLKII

ITTHHKRLAMLLAKNEQVELIAALYDEELSRPKYEFLKGTIGKSYAFETALRYQIPPNLVSEAKKLYGED

KENLEELVGKNINLELELKAKLENVEKKEQKVDEILLSLKEQKEKNEQEFRTSLRNLEFKFHKAIEEAKK

TIQLKDIKDKQRSLNKTNELKKEIILPSMEQNEELRVGDFVKYEKIKGKIISISKNDAMVESDGIKLRVP

LKLLKKSTPTPKISPKTSISVAKPTNLSVSLDLHGLRSDEAISRLDKFISDALLAGFDEVLVYHGIGTGK

LAFAVREFLKTHKSVKGFNDAPINQGGFGAKVVRL

>AHK52222.1 NAD-dependent deacetylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNIMILSGAGLSAPSGLKTFRDNDGLWEEYDVMEVCSATGFRKNPKKVLDFYDARRAQLQNVKPNHAHE

KIAQLKEKWGKNLFVITQNVDDLLERAGCKDVVHLHGFLPELRCLKCEGIFNIGYEKFTDKQCPKCKSKD

LRHNIVMFEEQAPAYATLYSLLHQTSLFISIGTSGAVLPVGQYASMCEKSILNIYEKDVNLERYFDKIYI

EDIISAIDKIALDIENFMKDGNV

>AHK52221.1 lysine transporter LysE [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFDSFLSGVFLGFGVSVPFGPVNILILTYALKAFKNSIAVGLGAFSMDMLYLFLLQFGLLNFLDNVIFMR

FLAIFGFCFLTYMAYLMLRKKKESLNLEHKEFKESLLKSYIKGAFLNGSNPFVIGFWLSAASVVLSSDHA

YLMTLGLVVAILFWVSALAFVVARYSHVFSAKVVFIINIISAIIIEYFALNLLYKTFLG

>AHK52220.1 succinyl-diaminopimelate desuccinylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNAKEFLIELLKFKSVTPNDDGALNFIAMELSDFEAFFIEKEGIKNLLLTKKFKDEGEHLAFGGHVDVVP

AGEGWSNNAFAPVEKEGFIYARGAQDMKSGVAAFVDAAKNADFKGARLSLILTSDEEGEAIYGTKAVLEW

MQERDMLPDYAVVAEPTCVKKIGDSIKIGRRGSINGKLLIRGKQGHVAYPEKCINPVHDFAPVLKLLAGF

DLDPGSAEFSPSKIVITDIRGGMGVCNVTPNDLKLMFNVRNSPDTSLEDVKSYVEKICHGLNYELELKQS

SEAFLTNIDNKIVQKMNESVQKITHEVPELNTKGGTSDARYFAKYGVKVVEFGVCNDRIHAIDERVSIEE

FEKLCLVFKDLIENF

>AHK52219.1 thiamine biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIINGQKLELKELKFMDFIKEKGFKIELIALELNGEIVPKSEFENLILKENDKAEIVSFVGGG

>AHK52218.1 thiamine biosynthesis protein ThiF [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMRVKFNGKELDTDFKTSLEFFENISKNENDVWIINGFATKENIALNENDELFCIEKNTLPPKDALDAMM

RARHTPKLHDKLKNGRVAVCGLGGLGSHIAINLARSGVGYLKLIDFDVIEPSNLNRQAYRVSDLGKFKTE

ALKEQISEINPYISVEICTLKIDEDNLESLFKDIDIVCEAFDSAIAKAMIAQNFHRFYKDGILICASGLA

GYGDSNSIQTRKIAKNFYVCGDLVNGAKLGNGLMAPRVNICAGHQSNLVLELLANKE

>AHK52217.1 thiazole synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQENLKNDKLKIGKYEFDSRFILGSGKYSLELIKSAIEEAKAQIITLALRRANTGEIANILDYIPKNITL

LPNTSGARNADEALRIARLSRELGCGELIKIEVISDSRYLLPDNYETIKACELLAKEGFTPLPYMHADLY

AARAMRDAGAAAIMPLAAPIGSNKGLCAKEFIQILLNEIDLPIIVDAGIGSPSQACEAMQMGVSAVMVNT

AIAEAKDIALMARAFSLAVNAGRVAFLAGVASVSEAKASSPLTGFLRD

>AHK52216.1 thiamine biosynthesis protein ThiH [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQDYMQHLPHMQEIKSEILNKVLTQVQSYDESQFSAKDVKNALNQTHLSIEHLKALLSSAAEDFIEELAF

KSAKVKQKYFGNSISLFTPLYLSNYCNSKCVYCGFQKGNKIARAKLNEAEIHEEMQAIAKSGLEEILMLT

GEGREFASVEYIANACKIAREYFKVVGVEIYPMNEDEYKILHEKGCDYVTVFQETYNPLKYSKIHLAGEK

RIFPYRFNAQERALKAGMRGVAFAALLGIDDFRKDALATALHAHFLQQAYSHAEISISVPRLRPIINNAK

IHPKDVSEKRLLQVLCAYRLFLPFAGITISSRERIGFRDEVIKLGATKMSAGVSVGIGEHKGEKKGDEQF

EISDDRSVDEILAMLKRSNLQAVMSDSIYVG

>AHK52215.1 thiamine-phosphate pyrophosphorylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MWDKKIIAISDRKCVEIDFLKQIEKLAKAKVDAIVLREKDLSEFEYYDLAKEVLSICAKQKVTCFLHFFD

RECLKLGHRYFHAPLSLLRKEPKLTKYFHILGTSVHSKEELLEAMSYKVNYAFVGHIFESSCKMGLEPKG

IDFLKSLLEFSQIPLYAIGGINAQNIENFKDINVVGVCMREILMKEKDLKKYLLECRQNLR

>AHK52214.1 AraC family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKILSLPEDLKQLKGVNYKKIKSCTFAKYTQTDTSHSTFVNVGSHLLTFVRKGYKILHTASKDYKINSY

ETLFLKAGSYTLSNVGLSKGVYEAYLFFFDNAFLIELIYKYKDFFKLDQKFQNYEIFWVKNDKILQGILE

SFSPHFEENTQILDPIVSLKFEEIFLHLLLNKNIYFISFLSGILKEFRLDLSQLFEYCGREFLSVNEMSN

FAKLDLATFSKEFKKCFGQSPKKWLDEKRLQKAKILLKFSKKNINEIANECAFSSVAWFIERFKEKYEQT

PKQYQKTKNLYFLSKN

>AHK52213.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKYVLSLALLGSLLGASELKYQEFDGFKSPESIFVDKNYVYVSNVGEKLEPLAKDNDGFISKLDKNGKV

LEYKFLTHLNAPKGMMEIGKTLYVVDIDVLRGFDLKTKKEIFNLPIKGAIFLNDIEKLDDNTLLVSDTGT

GLILKVDLKTKQYDELLKLDLAKFGGPNGLYLDRKKHKLFIAGYHPDGVSGGVVMAYDLNTKELSIIKNE

KESYDGIVPYKDGLLVSSWGNNLNGYIYNLDNVKSVKLELPLMKGPADIFIEGNILWIPKMVEGKIFKVE

LNK

>AHK52212.1 UDP-diphospho-muramoylpentapeptide beta-N- acetylglucosaminyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTIALTGGGTGGHLAIVRCLLESAIKKNIECVYIGSQNGQDKAWFENEVRFKEKFFLSSKGVVNQSKFDK

ISSLLHTLKLSKDCREIFKKYHIQAVFSVGGYSAAPASFAALFSHLPLFIHEQNSKSGSLNMLLKPFATK

FFSAFEKEISPYPVADKFFDNARIRKELKNIIFLGGSQGAQFINELALNLAPKLQEQNIKIIHQCGKNDF

EKCKKHYQSLNIQADIFDFSLNLEEKMKNADLAISRAGASTLFELCANTLPTIFIPYPYAAKNHQYFNAK

FLQDQALCQIFMQNSINLDEFFKSILKLNLENISTRLQNITQKNGADMLIQKALFDNLTFIR

>AHK52211.1 cell division protein FtsW [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVADKRLFYLSCILITIGIVFSYSLTAFTVLFLDYSEFHFFIRQLFFGISGILIMFFISRLDPDKALSKK

IILAILIVSFIFIIILPFLPSVLATASGGAKRWIRLGPLSISPVEFFKIGLIYFLAWSYTRRIDDSKKAI

RHEALILLPYCILASIVIGYIYITQNDLGQSVISFFLILALAFFAGASKRLFAFGTLIIMMIGIMVIFSN

QRRIQRIASWWGNIQDAFLPMLPDWLANALRVSSNSEPYQISHSLNAIAHGGMFGEGLGLGTFKLGFLSE

VHTDFVLSGITEEIGLLGLGVICYIYLWMILRIFRIAGRCEAKQDFIFCSGIALLLLFSFFMNAFGIISL

TPLKGVAVPLLSYGGSSMWAICIGIGYVLMISKKVKL

>AHK52210.1 acetyl-CoA carboxylase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNQIHKILIANRAEIAVRVIRACRDLHIKSVAVFTEPDRECLHVKIADEAYRIGTDAIRGYLDVARIVEI

AKACGADAIHPGYGFLSENYEFAKACEDAGIIFIGPKSEVIHKMGNKNIARKLMAKNGIPIVPGTEKLNS

YSMEEIKIFAEKIGYPVILKASGGGGGRGIRVVHKEQDLENAFESCKREALTYFNNDEVFMEKYVVNPRH

IEFQILGDNYGNIIHLCERDCSIQRRHQKVIEIAPCPGISDNLRKTMGVTAVAAAKAVGYTNAGTIEFLL

DDYNRFYFMEMNTRIQVEHPITEEITGIDLIVRQIRIAAGEILDLEQSDIKPRGFAIEARITAENVWKNF

IPSPGKIGEYYPALGPSVRVDSHIYKDYTVPPYYDSMLAKLIIKATSYDLAVNKLERALKEFVIDDIRTT

IPFLIAITKTREFRRGYLDTSFIETHMQELLEKTEDRHQENKEEVIAAIAATLKKIRESRE

>AHK52209.1 hypothetical protein N916\_05180 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDFLDSLKSIKKEMQANTNTSKLAKKSSKSGASVKNLEKLAKDIREKNQETNIDKEMQEIFLKQEKLQDE

FSEFIKNADIKKI

>AHK52208.1 arginyl-tRNA-protein transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLEIGFCTLEDQCPYLKDKRSRIEYKYIENCPKEINNELIKRGWRRFGRYFSRPICKDCDECLSLRILVN

EYNFSRSERRVVNKNINTKVILRTPNLSNEHLFLYDKYHRFMEEKKNWKRYDLSFKQYYNLYVDGFMNFG

YELAFYIEDKLVCVDLIDILEDGISSIYCFYDPDFSYFSLGKFSLLNEIQIAKKMNLDYIYLGYFVKKCQ

SLSYKADYTPNEILKGTKELFENEVLWEK

>AHK52207.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIVQTLETINVNTDDISVFQYFKDLITKNFTKVIGRKNKIFSFFEENEIPQRRYFLKVLDQKYRKSTNE

GIENLQDAHFKTFRLIFEQNNMLKPMLFIKIDFVAGRILMKLSSNEKLFITYIRNYFQDHNIEYNEMTNI

LILEYKNENTLELFEAFADESEHLKYCVNFEVDREEYKKFRQNIHNKENMKWKFNALAKLFSNYFNTLEC

TPQNDLSEIRQKYLILVKLYHPDFHQGKSAIEKAYAREQFEKIQIAYDNLKALYKNNT

>AHK52206.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFKLAINRPITVLMFFLALMIFGLISAFSMSVNLFPNVSIPLIKITSKINGDLNFVESKVTKEIENALSE

IDGVKTITSAAYDNFSVSVVEFKLGKNLEVAANDVRDKIGTLSLPSKPEIEKISSDSGSAISLFLYSKDK

LQLMREINDKIKPFLQRVEGVGKIEAKGFLEPQIRIELKPNQLRKYNLNALDVANIIKSQNFKQALGELN

NNQDNYIIKGYFEATNLEELSNLRIKTGVFLSDIANISSLYEDEKQSALYEGKEGVLLELGKITNYNTLE

MIKNVKNALPILEKQIPKDISINMLYDKSLNIHKHLSQVIFDMVLGIFLTLVIVFLFLRNLSTTLIACIA

IPTSIISTFFIIDLLGYDLNRLTFIALTLSIGIFIDDAIVVIENIAKKLKTYPPLQAAFLGINEIGFSVL

SISIVLLCVFIPISYMNSISGLFFNALGISVASGIVISFLVSVFLIPSIGARFLNPKENKFYEKTEAFFE

KIEQKYENLLYKILQNKVKFILATLVFIGLSFALATRIGLDFLPMEDDSEIQVLLESKKDLSLEAMKEKS

LNLLEKIKNDSNVKYAFLLVGYDDAKDATKAKIYVKLKNLDERNLRQSAIVSLYRQKFQDESLKIKILEL

PKIEGAGIDDPVQFLILGDDLNTLKEAASQAKEILGTNARIVDISDNANATKDEVALHINKEKAKLLDVN

PQYIAGVLGYSFSQLSVGSMDRGNSKDDIILSFAPEFKKDIEALKRISIKNNQGINLELSSVVDFIYSKD

LKTINRYNKNRSVKITAGVNDLSLGAVQKLLLDNMDKILNNNPSLSYAFSGFINLLGETVQGFAMAVALA

FVLIYLVLAALYESFILPLIIMITMPLAFGGASIGLFITGHNFSLFVLIAIILLFGMVGKNAILLVDVAN

KKCHEGLDPDKALLIAGKSRLRAILMTTFAMIFAMLPLALSRGAGYEANSPMAIAIIFGLISSTLLTLLV

VPALFKFCFKLDSKLRKIYEREKLN

>AHK52205.1 hemolysin D [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILFLLLVFNCAFGEEIYASFNVEASKQSKLALESIGLVQKIPVEIGQKVSKGELLLALDQESEKIAL

QNAQNSYQLALVEYENTKSRMQKIKAVENVIDKQSYEDMKAKFDAANLNLNKAKINIAYYKNIMAKKELR

APYDAIIANKFIQVGEGVGGVAQPLIEIFSYPQSKLILSFDEKYKDKVRLGDDFFYKIDQNGTELKGKIN

LIYPSIEVKTRKIYAEVQTTNLTPGLFGEGRIITKD

>AHK52204.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFEKYLKSAIFLALYPLAMLASNLHEFIALSQNNESYLIKQMQSEQANLDKEQAFRNYLPSLSLNSAYVA

NNKDRFIIDPQESLFAKVSLNFLLFDGGAREANLRALESREKLSLLDKEQNKNYLALNAITLYFNTLSLE

KILLANQQKVSFLKSTFERLQKFYDAGLSPKDELESIKAKYHLSLLELSQNELKLANIQKEIKILSDTDF

KVQGNAFLENPQQEKSQNYEVMIAKEQINLAKESVNLAKAEYFPKFYIQDNFNFYKNNYNPKVPAPFANL

ADQFLEKYSQGNQFILGMEWKIFDFNARAKEVEKERLNVQIANANARFSERKNKEELNYLDKSLKVLQEQ

ILALNLSLNAANLAFESVDKKYQAGLVSYVEYLQALEVKFKAQSDLELAKNEFEITKANYYFNAGIDLNS

KVKE

>AHK52203.1 elongation factor 4 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSVKNIRNFSIIAHIDHGKSTLADRIISECGAISDRQMSSQVMDTMDIEKERGITIKAQSVRLNYKFNNE

NFVLNLIDTPGHVDFSYEVSRSLASCEGALLVVDASQGVEAQTIANVYIALENNLEIIPVINKIDLPNAD

VEKVKHEIEHIIGIDCKDAICVSAKTGVGIKELIETIITKIPAPKTDDEAPTKALIYDSWFDNYLGALAL

VRIYEGSIAKNDEVLVMSTDKKHIVQDLFYPHPLSPIKTQSLQSGEVGVVVLGLKTVGDVQVGDTITLVK

NKAKEAIGGFEKAKAFVFAGLYPIETDKFEDLRDALDKLKLNDSSITYEPETSLALGFGFRVGFLGLLHM

EVIKERLEREFNLDLIATAPTVTYEIYQTDGELIKIQNPSELPPVNKIDHIKEPYVKATIITPSEFLGNL

ITLLNRKRGVQVKMDYITPERVLLEYDVPLNEIVMDFYDKLKSLTKGYASFDYEPIEFRVGDLVKLDIKV

AGENVDALSIIVPNEKAQSKGRELVSAMKEIVPRQLFEVAIQASIGNKIIARETVKSMGKNVTAKCYGGD

ITRKRKLLEKQKEGKKRMKAIGKVNLPQEAFLSVLKID

>AHK52202.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFKKFLIFIVPILFLSACATKQDTFAQVNQISKNSQCSSCESPGGFEAKIKGLLYISDVGIQCCANKRTL

DTGIALKKVYLHRFYDLKEGQKVLNAKGKKLFVDVNFNAVFYTYLKQELEARGIVVLDNNDQNSPYVSKI

DLEFISYGATQDAIGLHSKLVGVLQVSDINKNKKFTIRTKQDVQGFDDLKETTFYTHLLIKQMANKAASL

ISEL

>AHK52201.1 phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRCINCGAFALLCFCELCELELSEFSLNVRKLDNNFKVYSFYKYHEIQHLLHSKHYFYGYFVYKMLAKLS

FAKFKDFFDPRMTINVIALDDKVEDMLYSHSAILARYLKTKFVKPVFNVLKAQNSVKYSGKSLEFRQKHK

RNYKLLKTIHEPVILVDDIVTTGSSLLEAKKVLEENKISVLFALVLADAKV

>AHK52200.1 DNA gyrase subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENIFSKDSDIELVDIENSIKSSYLDYSMSVIIGRALPDARDGLKPVHRRILYAMQNDEAKSRTDFVKSA

RIVGAVIGRYHPHGDTAVYDALVRMAQDFSMRYPSITGQGNFGSIDGDSAAAMRYTEAKMSKLSHELLKD

IDKDTVDFVPNYDGSESEPDVLPSRVPNLLLNGSSGIAVGMATNIPPHSLNELIDGLLYLLDNKDASLEE

IMQFIKGPDFPTGGIIYGKKGIIEAYRTGRGRVKVRAKTHIEKKTNKDVIVIDELPYQTNKARLIEQIAE

LVKERQIEGISEVRDESNKEGIRVVIELKREAMSEIVLNNLFKSTTMESTFGVIMLAIHNKEPKIFSLLE

LLNLFLTHRKTVIIRRTIFELQKARARAHILEGLKIALDNIDEVIALIKNSSDNNTARDSLVAKFGLSEL

QANAILDMKLGRLTGLEREKIENELAELMKEIARLEEILKSETLLENLIRDELKEIRSKFDVPRITQIED

DYDDIDIEDLIPNENMVVTITHRGYIKRVPSKQYEKQKRGGKGKLAVTTYDDDFIESFFTANTHDTLMFV

TDRGQLYWLKVYKIPEGSRTAKGKAVVNLINLQAEEKIMAIIPTTDFDESKSLCFFTKNGIVKRTNLSEY

QNIRSVGVRAINLDENDELVTAIIVQRDEDEIFATGGEENLENQEIENLDDENLENEESVSTQGKMLFAV

TKKGMCIKFPLAKVREIGRVSRGVTAIKFKEKNDELVGAVVIENDEQEILSISAKGIGKRTNAGEYRLQS

RGGKGVICMKLTEKTKDLISVVIVDETMDLMALTSSGKMIRVDMQSIRKAGRNTSGVIVVNVENDEVVSI

AKCPKEENDEDELSDENFGLDLQ

>AHK52199.1 hypothetical protein N916\_05130 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIYFMLAIAGIFAGCVPSANSATKNSSANSTAPSQDVIVQKVDKDDVRDIIREEKMLAPDASETELSF

TAVGEGIAPMNTVSTAQALALAKRAAITDAYRQLASKLYGVKVNGKDTVKDAMLRSSTITAQVNGLIKNA

SIIDENFNQGLYRVNLELKIDADKWKELFAY

>AHK52198.1 hypothetical protein N916\_05125 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MERIVCLLIFLSFKLFAQDEFIFWAELSSKNFILFHQNQNLSLAMTQSENVEEQWVCEISYSDQDLKVLP

RTSLGLIDDNMPKTIKFNFLNSHKDELSDCFIGARISVKDIVNTDLLRAQSETYVKILPLRFTVEFGEQN

AIIYYLKKK

>AHK52197.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLVIVEDDINMRKSLEIALAEYEEFNIKSYKSATEALKKIDDNTDLIITDINMPGIDGIEFVKACENKY

DFIIMTGNATLSRAIEAVRLGVKDFLTKPFDVDTLVEAIKRAKIIREKTADKKSKKNEKKEENKDFFSTS

PNLEKTLNLSQKAAKTDASVMFFGESGVGKEVFSRYIHTHSKRSNKPFIAINMAAIPANLIESELFGFEK

GAFTDANATKIGLFEMANEGTLFLDEIGEMPYEIQAKLLRALQEKEITRLGSTKSIKIDVRIISATNANL

DEKIKNGEFRSDLYYRLNTVPINIPPLRERKEEILGIAQKVLEDTCKEYDFKEKQLSQEAKNALLEYDFP

GNIRELISVVQRACILSENDEISSEDLFLEARSIKKDVKNLEKELICEVLLSVDYDKDQASQILGMDIKI

LNEKIKKYQIKDK

>AHK52196.1 aspartate-semialdehyde dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKKQKIAIVGATGAVGEELLNVLDELDFPVESILPLASAKSVGSEVEFKGKAYKVKELTENVFKENPID

IAFFSAGGSVSEKYAKFAVESGAVVIDNTSHFRMEKDVPLVVPECNPEDIKDWKKTGIIANPNCSTIQMV

QVLKPLNDAFNLKRVDVSTYQAASGAGKEGMQELVEAMQSFFAFKLDEFEPQTFPYTLALNLIPQIDVFM

DNDYTKEELKMVNETQKILHKNLEVSATCVRVPVLRSHSEAITMHFEKEIDVKKAKEILKKAPSVIVIDD

PKNKKYPMPLMTSDTNETYVGRIRADVYDKKILHLWCVADQIRVGAATNAVRIAQKWLELKNK

>AHK52195.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLEKIFESLLVRSRIVTILPVIFGLIGAFVLFFIASYDVLKVIFYTYNYFFDAGSNVDLHEDVVALIIGA

VDLYLMALVLFIFSFGVYELFISEIEEFKQTKQSKVLEVHSLDQLKDKLAKVIIMVLVVNFFQRVLQMKF

ATPVDMAFLAGSILALCVGLYFLHKGGH

>AHK52194.1 hypothetical protein N916\_05100 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIFLIGMILNHFVFAAPLDEVFKDIEVSGTVRYRYDIKKEKKYNKKTHRYQNKTQTEITIK

>AHK52193.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIARWLFISSIFVVALFGINLKSFFTYTFDANKQYDMEKAKALYFQNKCNTCHGDNAEKSVIGSRILKDM

SPEDIKGALIGYTLDSSSSTTASQMAFYARNLSHEDIDNIIAYIKGGNFALDLQVKDLLEEEPAQKTKHN

IFLK

>AHK52192.1 branched-chain amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDSTLFLQQLVNGLSLGSMYALIAVGYTMVYGVLRLINFAHGDIMMVGAYAALFCMTNLNVPFLGALSLA

MIFAACVGIATDRIAYKPLRQAPRISLLITAIGISFFLQNLFNMLFTSTPRTFTPPSYFEESVNFGGVIT

TYGSLMVPALTFVILIAVLWILYKSKYGIAIRALAFDIQTVNLMGIDANRIIAIVFALGSALAAVGGVFW

AANYYSVEPTMGTLIGLKAFAAAVLGGIGSVVGAVLGGLIIGFTEVVVVAFFPDLSGFKDAFAFIFLVFI

LLFRPTGILGINFEKSRF

>AHK52191.1 branched-chain amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMVRIKVSHLIFLIASIIFIFISPYIFGDYGLNIVNQIAIFIILAVSYNLINGVTGQFSLEPNGFVAIGA

YAAALVLLSADAKNDQFFLDGPSSFILAIHSNSFILALIVAGICSSLLALILAFAVFRVRGDYLAIVTLG

FGIIIKIAAINFPSITNGSRGLVDIPQFSTIYWTGGIAIVAVILILNIVYSKYGRAMKAIRDDEDAASAM

GINTFWIKTLAFSTSAFLEGVGGGLLACLLTTVSPTQFDFLLTFQLLIIIVLGGLGSTTGAIIGAILVIG

GSEWLRFLDELNIKIDSLNLDIQSTPGLRMVVFSIVLILVMLFARKGIMGYYELSDVIRGIKKRFKRSKK

>AHK52190.1 branched-chain amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MILELKQISKSFGSVKAINETSFKINEGEIFALIGPNGAGKTTLFNIITGNYKPSSGSVEFLGERIDHLK

PHKIVHLGIARTFQNIRLFSSMNVLENVLIGFNKQMKYNIFEAFLHLGRFGKIEQVFKEKAYAILEELGI

AEFAYEKATSLSYGQQRKVEIARAMATQPRLLLLDEPAAGMNSSESDELAGLIFKLRKDYKISVLLIEHD

MKFVNKLCDRVLVLDYGKTIFEGKLCDAVNHKEVIAAYLGDFDANS

>AHK52189.1 amino acid ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLIVKDLHVYYGLIEAVKGIDFKVETGHIVSLIGSNGAGKTSTLNALLNSVKRTGEVNFLGYDTKRHLTH

TLVQKGIALVPEGRRVFINLSVEENLKIGAFNNAENYEHLREQMYKLFPRLASKKHALAGTLSGGEAQML

AISRALMSEPKLLMLDEPSLGLAPKIVGEVFDIIVRLKEEGITILLVEQNAYSALKISDYAYVLENGRIV

MENEAKNLIGDDEIRKKYLGL

>AHK52188.1 cytochrome C biogenesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNIIKSIGDLRVSVVLFLLFALFCALATFIESAYGTPTAWAMVYDTFWFEYIQLLLGINLLCGMFRYKM

FGLKKLPLMIFHISFLFILVGSAMTRYAGFEGILPIREHTQNSLIESSKTSLRISAIKDGERYSAVNDRY

IGNLPFANSFKLKLNLGDDQAVLKYKDLILNAHYTYKENNNSDPLLVLMLSQKGSQGVDVKFEKGEVKNI

EGVNFAFMNDNVKAPFVKIDENLTLSSSENLHFLSMLDGQNLDLKIGEKANAKERRLYEINDISFVVKAA

SLHAQEALEGSNRPQDESFWLWFKSAWLEVGRTMLISTFGEPQNWKNSLLLHFKDFALSNENKNLELTGS

NALKLELSYKNESKEFYIFEYNKPIMIELADQKFFISWALSYEQLPFDIYLRDFVLDRYPGSMSPASYAS

EITVKNNNENFDYRIFMNNVLDYDGYRFYQSSYDQDEKGTVLSVNKDPGKIPTYIGYFLLCLGMFMNFLN

PHSRFRTLARLINKDTLKHTSVIIFILLLSFGSEKTFAQDLNSTLPVVNTNHAKALATLIVQKSADGRMV

PFDTLSREILEKIHQSDSYKGQNSNAVMLSMLVDVDKWQLEPFILMPQNQAVRDAIANILEIPSAKYIAY

KDFFDENNRYKLQKYVENANRKNPNARGVFDKEIIKLDERANVVNLVFSGELFKFIPVQNNPNNVWLAPF

SAVTTLKGDEGHIVLALIQNYFSAVENAFKDGNWIRADEGLKFIKEYQEKIGYKVMPSKTKVEMEIFSNK

AEIFVKLAPVYLIAGFLLLILVFSKMVVPNLKISFIFKVVYVLNVLAFVIHTVGLGLRAYLSGHAPWSNG

YESMVYIAWALSLSGIFFSRKSPIALSLTSILSGVVLMVAHLSEMNPQITNLVPVLNSYWLSIHVSVITA

SYGFLGLCALLGIFTLFLMCFLKKDGKYNLNILRNITEATRINEMAMIFGLCLLTVGNFLGAIWANESWG

RYWSWDSKETWALVSILVYAAILHLRMIPKYCNQFVFALWSMFAYWVIIMTYFGVNYFLTGLHSYAAGEA

AQIPNYVYWGFALMVVLAFFARRKRNFVGKL

>AHK52187.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVIFCAALALLLFLGVIAYLITSDGKKTIKKQKTSQKQHVAEKTKKFDTDLDKMIIAASDVKLTDIELKE

LAKLYVQTHKLGSKTSKELDEAAKKKLEFVSALAANINASAQTVSYLNKELKKIYGSYKKEIDAYEHMGL

AKRKIKEDK

>AHK52186.1 magnesium transporter CorA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLELHENLKKILQAKNLETFYSEIYGQKIFVYVGLNLETWLFNDEKIYKLQDGEFKLSSIEEFSNFIKSI

LEDFKVQNTHFQNLLEHKEGIILKGGFVKNFYKKSFVLRQKINKNLKQINLLSEAFNLLLSEQAQYKKHL

KILNLSISILSKNTKEHLARIDTLYTLTNAIKNEKMNKSIYLLSILSSIFLPLNLIVGFFGMNTNNLFFK

DSPYGTLYIFSLICCILIVGFIFYYSKKTKEFDLDEGKKAKKQTK

>AHK52185.1 queuine tRNA-ribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEFKLKHKDGMARVCEITTAHSTFLTPVFMPVGTVGAVKSLDANDMKNELDAKIILANTYHMYLRPTSKV

VKDFGGLHGFTKFDRSFLTDSGGFQAFSLSKNSKHFNEGIEFKSHIDGSRHLFTPKSVLDTQYDFNSDIM

MILDDLVALPATKERVKISVDRTILWAKEAITYHKNMQNKGIGIGQNIFGIIQGGTDYEERKRCALSLNE

MPFDGLAIGGLSVGEENALMYETVQNLNPYLDENRPRYLMGVGTPEDLVENVERGVDMFDCVMPTRNARN

GTFFTSFGKFNIKKAEFINDHEVIDSTCSCYTCRNFSRGYLNHLFKAKELTFFRLASLHNLHYYLELARK

MREAILNNSFTQFKRNFYHLRGK

>AHK52184.1 potassium transporter TrkA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNNILIIIDGILAKHFLERLCFEKGLGYFFTVVCQNSEKNNLNISSEYIDLHYFDPTSTARLENIMSKDF

KQAFIYMQDEFETKKSYEALRSLNPNLEIEIMDFWGLSVNDTHANLADARMTLSRRFMDFLPDIALTAQY

IGLGVGEIMEVKIPAGSIFAYRHISSIQQKRWRIVLIYRNSKIYFVKPSFVLEPNDSILIVGDPVVLQSI

FHNIRGKAGQFPMPFGSNVFALIDMKNMNQNMQERVLDTTLKLTQKSNAKRFFIHVINPKLGVMYEKLKK

LSEDKEGVFFDYFNTDFKQISMWLQNNDIGLVVTDIKNFEKEKQAFFDLKIPIMKVGEASFDELKEAIIL

SADESELENNANVITDLSKQLDFGVILYYYNPNSQNTTDMEEYFRSLSKLYDKNIQIINKNDENPLLNLQ

YREDLLQFVSFQKELLNRDFARNLSTNLNRHYYKMRQNYQLFIPVE

>AHK52183.1 3-dehydroquinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQVEVKLKENAYKVYIDELEELEFDSKVFILSNPKISGLHLKTLLSKIKAKEIFIATVKDGEEYKNLSTM

EEILNQMFNSKLDRKSVLISFGGGVISDMGGFAASIYQRGIDFINIPTTLLACVDAAVGGKTGVNNNFGK

NLIGTFYQPKAVYCESFFLKTLSSRELAAGMAEFIKMAAMFDYSILDFIEKIDEKSFLNATCENEIFTQI

IAKSIELKSRVVEQDEKESRLRMLLNYGHTFAHVIENFTDYKLYLHGEAVAIGMVMANQLALNLGLLDKM

QSQRIKDILLKFGLPISYKINNVDEFYEAFFMDKKSSNKKINFVLASPLGKGLIKGDISKEDIIATLREF

Q

>AHK52182.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIIILTFFVVFAFGDVNRTIINNINEKINTLNTVISASIWNIRYENFIKYQDINDELIILNLNLKKTS

DIHQQEELKRKIANLEEQLNLLKEYKDLNFAQSLSAPDNIETLSKLTNPLAIIGAFSHIKKLKGEKEEYI

FKFNDFKNLVDKIREKNSELKELVELKPSVENIEALKASDKKLEEFEQALNFASVSYSVYEKKIDEELSR

VSAEIKVQSLRAVNILVAIVIVIAIAFMLKFIAKKYIKDSERYYTATKIINFININIIFLILLFAYIENI

TYLVTILGFASAGLAIAMKDMFMSMLGWCVIIFGGSFRVGDRVKVFQNDTTYIGDIIDISFLRITLYEEL

TLETYNKNRRSGRIIFIPNNYVFTNLLANYTHHGMKTVLDGIDISVTFDSNLDKAQEIVENIVTRHAKGY

TELARKNIARLQHEYSIKNPKVEPRFFMFFEHWGMRISAWYMTNAYAALVLRSTISKEIIKEFNKHKDIK

IAYPSQNLYLGNLNQNHFEQHHENMYFHARNKD

>AHK52181.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEKVFFKTFGCRTNIYDTELLKSYVKDYEIINDENKAQIIVVNSCTVTNGADSGIKSYVNTMQKKGIKV

ILTGCGAVSKGKELLDKKQVFGVLGASNKDKINEFLGAKTSFYELGNLNFIDKDIVCEYENHTKAFVKIQ

EGCDFACSYCIIPSVRGKSRSVDEKALLKQVEILGANGYSEIVLTGTNIGSYGLKNGTTLGKLLQKMGQI

LGIKRIRLGSLEPAQLDESFLEILDEAWLERHLHIALQHTSEKMLRIMRRRSHTDNDLKLFNTIASKGYA

LGTDFIVAHPGESEELWQEALRNFKEFPLTHIHAFIFSPRNNTHSATMKDVINGTLAKERLNTLKSIVEK

NNYEFRKKNQVSLEVLVENQKDGFFEGYDQFFNKIKIKSDKDIAKEWIVISEYEVQEKSNFTNLKG

>AHK52180.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNKKIILASFMVLCMLLGILYFKNEPKYIDENLYQSLLSQNLIQKAVIDKDEIWLKAEGENYVIIKDGI

DIKTLLSKVPVEVKKDNTLWVFFVLLIFIIALFISLGYFARKKELAKYPISNKNQNHTQAQNSNINLESS

HIKPVISNITFNDVAGVDEVKMELSELVDFLQNPKKYKEFGVKMPKGVLMVGPPGVGKTLIAKAVAGEAG

VPFFYQSGSSFVEIYVGMGAKRVRELFSKAKMMAPSIVFIDEIDAVGKARGEMSNVERDSTLNQLLTQMD

GFEDNSGVIVIAATNKIELMDPALLRSGRFDRRIFLSLPDFKDRLKILEIYMKDKNNNINLNKIAKASVG

FSGAGLETLVNEAAINALRRNSALVEESDFYAVLNKVLLGKKKILSFNNEEKKIQATYQAAKALSAYYFD

IGFEKITLIEDRFKEYEHNIRSKSELINRIKVYLAGSRAMRLIYNESYTNSQDDFLKIKELLDYMLSFDM

LKESNLSEQKKEMDEFLNSMKDKILKLSELLLEKEKIEYDDVKDIMQV

>AHK52179.1 hypothetical protein N916\_05010 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIKFLNIITILSLSLNADIIISADNLPNVSKEFLQHNFKAPIGIVQKDKNSYEVYLSDGTELEFDIDGA

WKEIENKAFPFDLDFLPQNLANIIKNEFPNTKAREIERKINHYKIKLDNDIKILIDFNGTILYKEFDD

>AHK52178.1 phosphoglycerate mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIYIIRHAKASKSEDIDDFERKLTKSGKEDLKKLFKNLASHEIHPDLVLSSPAVRTAKTAKKIAKFYN

FDKNRICFDERLYLCNVENLLKILQDIDDEFNEVFLVGHNPSLMELGELLSSLCLASFPTSSILCLEFDI

KEFKNLKKHSGKLVFFEHVRKLKEEKDLGF

>AHK52177.1 RNA polymerase sigma factor RpoD [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNAKTQEAELEELFQENAKDYITYEKLVKYLTKQPSASTTKKVQALMKKHKVQLFSAAEIAQMKNIEDAK

RLQEEKQKLQDTSLENEFDLANENDLLEWSRSDSPVRMYLREMGQIALLNKDEEIEISKKIELGEDIIID

AFCSVPYLIDFILDYKEPLINRERRVKELFKSFDDEEKSDDKLDELDIDEDEENETELESDEENTKKNSK

KEDERTLKVIEKFKALEKAKKDWLKTSKDKESGDELLDKLSIAFKKNILKEKLMDLGPTSKLISEIVKSM

ETALKSDEEFDKELKRLEYRLPMFSDELKKRHADILKDITKLSKEEITERALETTMVSTYMEIKKLFQTK

EASEKSFDLEKSRLKEILEQIKRGKKISDEAKGRMAKSNLRLVVSIAKRYTNRGLPFLDLIQEGNIGLMK

AVDKFEYKRGYKFSTYATWWIRQAISRAIADQARTIRIPIHMIETINQINKIIREHLQKDGKEPDVSVIA

KEVGLSVDKVKQVIKITKEPISLEAPIGNEDDGKFGDFVEDRNSLSPMDHILKDDLKEQIDEVLDQLNDR

EKAVIRMRFGLMDDESDRTLEEIGKELNVTRERVRQIESSAIKKLKHPKVGRKLKNYIEGWK

>AHK52176.1 LysR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIKDIEIFLDLLNTQSPTHTANNFSITQPNVSIVIKNLENKFDGILFERLGKKLLPTPKALELGKNWLK

IIQAYYQSLEKLNDESMLLGEIKIASTQSISEHFLAPILFDFKAEFKNIEIRSQTQNSKECLNLLKNGNI

EFAIIEAELDPALVEYENLEINFWQDDELIVATSDKKLNEKEFYIDELLEQKWILREVGSGLRDKFLNEI

GASSKKLNIFLELDRMAAIKELVLQKKAISIFSKKSIEKELKNSTLYEIKLKNIDLKRKFYTLKRKNYNF

NRALEKFEKIFKS

>AHK52175.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTSFLAHSVAIVRSNFKGLLFTACIVIFAMYLSSVQSIKDTTHLAATAFAIIIGVLLSPWFFKYQHHFQ

AGVHFSAKKLLRLGIVLYGFNITLTELLSVGLKGFLLSAIVIFFVFIIALFVGTKIFKLDKETSMLVGAG

SAICGAAAVLALESSLKSDPFKGILAVGTVVIFGLVFMFLYPIAFSLNLFPFFDQNAMGVFMGATLHEVA

NVAGAAEMAKDMAGFEQGASNVAVIIKMMRVILLVPFLLIVTYFFAKNQHSSSGKTAKSITIPYFAFAFL

GMIVLNTYLASKESILGIATSDIISLGKTLCTLCIVFAMAALGLQIDFKKFLKSGSRVFGLAFVLGLVLI

FGGYFLTLAFKGILW

>AHK52174.1 hypothetical protein N916\_04980 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILVSVLSSCLLASALSAVSFKEDSLKISFEGYKTKDMIGTKGEFKNVEYKFSKNIKDLASYLKGAKA

TIKPSNAFMGEGNDIITNNITKVFFPALLGDTDIKVVFQDVIAGENKGVISAKITMDKKSTIVPLTYTIK

DNKFEAKGQLDLHTFKNGSKALKALSDVAAGHGGISWPLVDISFNADLAE

>AHK52173.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIFKDYDFLQNYDLKNFEEKVKIYKELLSKFNRIHNLTHLKNIDENIFDSIKILDFYDFSKAKNIADIGS

GAGFPVVFLAFLLQSNFHLFEPNPKKAAFLRTLKIECELPNLHIYKEKVQEYKNTFKADIITSRALMDVK

PLLEICKNLKDENTVFILWKGSEIYQELENIKDYEIFENNLRRYCILK

>AHK52172.1 GTP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEIKISEIANLPSKWGNFQMQSFKENDKEHLCIFKNTPKDTLNLRIHSECLTGDALGSLKCDCGEQLEFS

LKYIEKNGGMVIYLRQEGRGIGLFNKVNAYALQDKGFDTIKANHQLGFKADERTYEIVEFILKHYEISKV

NLLTNNPEKLDSIKEKIITRIPILIEPNRFNVEYLNIKQTQMGHLK

>AHK52171.1 delta-aminolevulinic acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFKRFRRLRLNENLRSMVRENSLSVNDLIYPLFVVNGTGIKKEISSMPDVFQMSLDEILKECQNVVNLGI

KAIILFGVLENEKKDSCGSDALDDEGLVARSIREIKKNFPDLFIISDLCFCEYTDHGHCGIIDPKIKSVD

NDATLEISAKQALVHARAGVDMIAPSGMMDGVITTLRKALDKEGFENLPIMAYSTKFASSYYGPFRDVAE

SAPSYGDRKSYQMDFANGKEALEESLEDEAQGADILMVKPALAYLDVVKEISLHSNLPLCIYNVSGEYAM

LKAAKNAGVIDYEKVLYETIIAFKRAGAKLIITYHAKELAKMLKGEK

>AHK52170.1 ornithine carbamoyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKHFLTLRDFSKEEILSLVNHASELKKEPKKLLQDKTLAMIFEKNSTRTRMAFELAITELGGKALFLSSN

DLQLSRGEPVKDTARVIGAMVDFVMMRVNKHETLLEFARYSKAPVINALSELYHPTQVLGDLFTIKEWNK

MQNGIAKVAFIGDSNNMCNSWLITAAILGFEISIAMPKNYKISPEIWEFAMKQALISGAKISLGYDKFEA

LKDKDVVITDTWVSMGEENEKERKIKEFEGFMIDEKAMSVANKDAILLHCLPAYRGYEVSEEIFEKHADV

IFEEARNRLYVVKALLCFLDNQRGRE

>AHK52169.1 hypothetical protein N916\_04955 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKELEKYSTCLKRIDEFSQNLGIKKKDRTIFKMKQSENENEKCLVLENGSFDSPEPWFVIDENDEIHTLL

SLQSLKNILESLKQSQKENFELRLEKAIYQQIPVDFNDVWTVAMDEIKQKAQNGTMEVSIDLEKLISKIK

QEHPNLFVDMQAMIERVNQNERL

>AHK52168.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRDYKAFVKYSKAGPRYTSYPTAVEFNANFKYEEYIEILKKQDRSLSLYFHLPFCRSACYFCGCNVIYTA

KEESKERYLTYIFKELDILSTILDTKREVVQMHFGGGTPTFFSAKQLQSLILKIRSVFGNFSKDAEISCE

IDPRFLNEEQAIVLTQNGFNRISFGVQDFDEKVQKEIHRIQSFELTQNALNLVRNKGIKSVNMDLIYGLP

YQNLQSFTQTLEKVMLLNPDRLAIFNYAHVPWLKKNMRKFDENTLPSPDVKLEILEFCEKFLSKNGYKMI

GMDHFAKENDELFKALENGTLHRNFQGYTTKGGADLVGVGLTSIGEGQRHYAQNFKDMSSYEAALDRGVL

PFERGVILSDDDELRKAVIMELMANFKLDIKSIEKEFSIDFKEYFKEDLKALEEYKDFVNFDENFIKVNE

TGVLLIRNIAMCFDAYMKNISEDKKVFSKTV

>AHK52167.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFSQISDACVKCGKCIPVCTIHEENRDEITSPRGFLDLLTAYKEGSLELDKEAKKVFESCFLCTNCVEV

CPSKLRVDNAIEEVRYDIAKKFGIAWYKKLIFFFLRRRKILDLVAKLGYVFQSCAFKIQNENENTGMKAR

FSMPFVKKGRLLTSFNKKSFLNSNPKFINNDGEKTIGFFVGCLANYFYIDTANAVLKITKELKINVDLMK

EQVCCGAPQFFTGDFKSVEVLAKKNIEYFEKKLEKLDAIIVPEATCSAMLKIDYEHFFIMQNDLDWAKRA

KCVSSKIYMASEYFYKFTSLEEILKTKNKFNYSITYHDPCHARKMQGVFKEPRELLKTNYHFVEMSNSNT

CCGFGGVSMQTDYYDRALSVGLKKAQMIDESKASVVSAECSACRMQISNALEQNSSKVVFASPLELIAKA

L

>AHK52166.1 hypothetical protein N916\_04940 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMKIVFKGKSSEYEIQRSCFCVDAFVIKDKIEERDGVDFITSNVDLLEFSDDSFTFEEIVKHFNICDTED

MIIVEDFDMKSNKDNQNQEDDIEHNILKSEKIIHENTKQTSMQFKNLKFFSRIFKNENFLSDFKESKQEV

VTIKKHEKLEIFKNLSQEDQEISFVKIEILNYDSNEDSLSFNLDIFPSGMSYKYGILKGSMHIILQGKTS

STMLFPFLKSMIYKNKSENSSEKIFTLMINQKKHYKLIANLS

>AHK52165.1 hypothetical protein N916\_04935 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEFLAFIFLIIIFLFVVFIIVTRYEKKIKLLNQNIQNMKEDIADLKETTQKNRSLIEKNRSNIENIIK

>AHK52164.1 peptidase M20 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLIPEILDLQGEFEKIRHQIHENPELGFDELCTAKLVAQKLKEFGYEVYEEIGKTGVVGVLKKGNSDKK

IGLRADMDALPLQECTNLPYKSKKENVMHACGHDGHTTSLLLAAKYLASQNFNGALNLYFQPAEEGLGGA

KAMIEDGLFEKFDSDYVFGWHNMPFGSDKKFYLKKGAMMASSDSYSIEVIGRGGHGSAPEKAKDPIYAAS

LLIVALQSIVSRNVDPQNSAVVSIGAFNAGHAFNIIPDIATIKMSVRALDNETRKLTEEKIYKICKGIAQ

ANDIEIKINKNVVAPVTMNNDEAVDFASEVAKELFGEKNCEFNHRPLMASEDFGFFCEMKKCAYAFLENE

NDIYLHNSSYVFNDKLLARAASYYAKLALKYLK

>AHK52163.1 hypothetical protein N916\_04910 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKILFSPSESKNENCVKNPINENSFIFKELFPYRMEALKHYEEFIKNASLQNLQELFGIKNENEIDKFKH

DLKQAPTQEAILLYTGVSYEYLNFKALDKKSQAYILENTLIFSNLFGIVRANDTLPFYKFKQGAKIGNFA

IEKFYKEHFSKALDEYLENEEILDLRAGFYDKFYTPKKKFYTYKFVKNGKVISHFAKAYRGILLSISAKN

QVKNNKELLANLPSNLKLKEIQIKGLKEEIVLEILD

>AHK52162.1 hypothetical protein N916\_04905 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKGIFLSIGIAVLFSACGNSIDEKTVKKYENQLNQTVKQEIASLSQDSGIKIEFSDFKCNADGDFIACL

SPNFKTLTKDNNDEYQELFQAKNIKIRSNEIYKGKANASISIKEYYNDLFKNQKSIQSNLVFEDFKLGEK

VVSDINASLFQQDPKISSFINKLSSDSYTLSFDNSINKQENNYLDNLDIKFYNAKLNFNTNLNINLKEDL

LNYLDSKGIKFNTQTLVMDKQAINELLNIANYEQASDFSNTIQKYIILNNFKIDSTLKTEGVFSSYIATA

KENLQTLKAQSQNEEQALIFDKALAILNNITQNDDYKLNLDLKFKNIPVSDYSTQGIDSIEKLSINNQDA

TEALKIILPFIMFSMLMGGASF

>AHK52161.1 glutamine ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILLSVLTAFVAVVLAACGGNSDSKTLNSLDKIKQNGVVRIGVFGDKPPFGYVDEKGNNQGYDIALAK

RIAKELFGDENKVQFVLVEAANRVEFLKSNKVDIILANFTQTPQRAEQVDFCSPYMKVALGVAVPKDSNI

TSVEDLKDKTLLLNKGTTADAYFTQNYPNIKTLKYDQNTETFAALMDKRGDALSHDNTLLFAWVKDHPDF

KMGIKELGNKDVIAPAVKKGDKELKEFIDNLIIKLGQEQFFHKAYDETLKAHFGDDVKADDVVIEGGKI

>AHK52160.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKKYKNIIYASLGGILEFYDFVLFAFFLDIFAKVFFPQNDAFWMQINAYIAFGAAYLARPFGSIVMAHF

ADRYGRKNIFYISMLLMVLPSFALAFLPSYESIGIFATLILFTIRILQGLAVGTEVSGAWIYVSEFVKGR

QIPLALGFISATLTIGLLLGNIATLGIRSYFTPEEVQSYAWRIPFIIGGFFGILALFLRNKLSETPEFIK

VQNEKKILSFPLFEALKTHKMSMLVCFLMTMVLTSGVATLMILPKYFESLLAMSKTSALWVQNFAILAVI

FGALFQGFLASKWGSYKICSIFSIAFIIFGMLFGFYDENFLFYFLLACFAQGIITFAPVFMTQIFKSELK

FSGLSFAYNISYAILGFLTPFIVNAFYKEYLGIYLAIVGSCSLLCVFLLKRVFARSKIKELSIVF

>AHK52159.1 aminoacyl-histidine dipeptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNVIENFKQLCKIPHCSYETEQMKEFLSSYAKDKGFKVSVDKAGNIHAIKGKPKICLQSHYDMVCMGDA

PNLEVYEENGFLRAKNSSLGADNGIGIAIMMSAMAEFENLECLFTNDEEVGLMGVNLLEHTLESKMLLNL

DHESDDEIMIGCAGGVDIEASLSFNTLRKKGKIYELCAQNFKGGHSGINIIRNEKSSIKEMAKFIQENEG

EIISFEGGERINSIPKHAKALVHFKDEVKSNNWIKCEFKEENEFEICDQSKKLLSLINSFTHGVRAYDEN

LDIVQTSINLATLRMQDNQIKFALFARSNILDGLKQVEFETLEFFKAFDFKIRSFNFYPPWEGKPNALSD

MVFKALKKVSPNAKVSAIHAGLECGIIEKKQELLCASIGPNIHNPHSTDEHCEIASVEKISKVVFEVLKD

NA

>AHK52158.1 nuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRINYKKIFNLRKLLSDPKKLFSVLIFTLVVVFIQNYIAQNSSFEGKVVRIIDGDTIEVNHENKLARIRF

FGIDAPELKQSFGKQSKEALSRILSGKQVEIIYKNKDTYGRIVAIVKLNDVDINRFLVSKGYAWADTYYS

NAYTKEQENAKKNHLGLWKESNPIEPYKWRKHNKF

>AHK52157.1 hypothetical protein N916\_04880 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKYTLMVLLVLGISGCFVNERGISNRFYDDCKEYYDGSGTYHKDCPKNWVDIKMTP

>AHK52156.1 Hot dog fold protein HP0420 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKKDNFEEYAQLEEYASAEDISRVRAELLTCPELNTSLAGTIIEIDKNYAKSILITTSEMVADDQGLIF

DAFIFAAANYVAQASINKEFSVIIGSKCFFYAPLKLGDVLELEAHALFDETSKKRDVKVVGHVKEVKMFE

GTIQVVSTDEHIFKLKRPPLNTVKPTENQEQGAKINNPEAVAAALMASVGGK

>AHK52155.1 tRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQENLLEKQFLNHPLYAKIQELKALNLACNFSLGDSVNLSTNSQAKDEILAIAKELKPWRKGPFKIDDLF

IDTEWQSFIKFNILKPFMNEISQKCVADIGCNNGYYMFKMLEFNPAKLIGFDPSIKYRLQFELINALAKT

PIKYELLGVEDLPSYSLKFDVIFCLGVIYHRSDPIKMLKDLKAGLNKNGVVFLDTMYIEDEREIALVPNK

TYSKIPNIYFVPSISALKNWCERAGFKEFEVLATKKTDENEQRKTEWIDSFSLENFLDPKDKNLTIEGYE

APKRVYIRIKI

>AHK52154.1 acyl-CoA thioester hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKMRVYYEDTDAGGVVYHSNYLKFCERARSEIFFNKKVDIFDASKGHFLLAKANCNFLKPAKLGDMIEIK

TKILEVKNASVEILQEIYKDEILLFKMELTLAFIKNEKPARMDMQLKKLFEELF

>AHK52153.1 hypothetical protein N916\_04820 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIFLIFFLSCFLLNAKEQKLVDVKPVENFYPKLSVQECNTNCLFDLLESRLYLSFLSEFADQNDQFLS

NVYAKLLNSITDFEKNVQKITSVKLAIIIPEKTIKSYSNTIINSSIAYLLRQRAEIKVKVFLTGTEDNDK

IRAALDAAQAQGYQYAIAGFTLKGANELKNYSGNMKIFIPTIHKNNIQISNQNIIFGSIDYDAQIATLLS

KSNANIAIFSDGSALSSNLNSRILAQNNNARIYTIEGEKLDFSRLLRSQGGVNNASIFFNTPLIKTALAS

SQLRIYNIHPYVLLSTQINYNPTFLSLTQQGDRENFIIANSINNHDDNLVYLNEIFNQSIDYNWIAYATS

IGVDYFYTEFLNKKSESLFDEKIKNSQVDYKVRLMQGKQASFEELK

>AHK52152.1 family 4 uracil-DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIRSLYYLKAMGFNFVDTHTNHFEQVQNFQELKQLVSSCTLCQFSKTRKFSLMEPKIKNAKLLILDVFGQ

KSENESGILLNSKKGEKLKHYIYQILGLCDEDFYFSYLFKCFCNGKFDDFSLQSCLPFFWNELKLIQPAF

LLCLGEYTFKSLGFKDYHILKGEVFAYKNFFIMPSYDLDFIEKNPSYEKNFIQDLKKIKGFL

>AHK52151.1 diadenosine tetraphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSEFKIIDLRQEDLDILQEMIIEFAKYEDMLDFLQCTKEKLEHSLLKNKFARAFLLKENEKTIGYMIYFY

TFSSFWGSGGIYLEDIYIREDFRKKGYGKAVFKFLGEICKKENLKRLDWVCLNDNILGINFYESLNAKHL

KQWRNYRLSGENLEKLCDL

>AHK52150.1 50S ribosomal protein L34 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKRTYQPHGTPRKRTHGFRVRMKTKNGRKVINARRAKGRKRLAV

>AHK52149.1 ribonuclease P [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNFDKFSTNEEFSSVYKVGKKWHCEGVIIFYLNSYEKKIAVVASKKVGKAVVRNRSKRILRALFAKFER

YLQDGKYIFVAKNEITELSFSRLEKNLKWGLKKLECFK

>AHK52148.1 membrane protein insertion efficiency factor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGIEKTRMFQMICLKILRFYQKFLSPLKPAACRYYPSCSEYALWQFQKKNFFLAFFSTFFRILRCNPFFK

GGFDYPRVSKNFYPINLCFKPIFLAEKQLCFLYIPYKNKSFYLIKIIFKRTNQ

>AHK52147.1 insertase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNNSNNIFQQKRILLAVVISFLFFVIYDYFFIPKQPLKIEQNITQKNQQNTSINNTPNIQNATTNTPSAA

LVSQDSVISKVQSKHFEAQIDSFGRISAFYLKDRKYQNEKGEFINLVSKENSPYPLEMRFSDPSINSEAF

KIPYVANASNLFVDENGSQVLKLTQNLSGLKIEKDITFYPKGNYEIEVKLSKNANYFISPGYRPNIAVDS

YTVHGALVMDNKETIETYKDGDVEKDESANNVVMTSAFDRYYATFFYNFDKPLNVAISKDANQNPIVFAY

SDNEFKAGGYIGSKEHVILRSIDPRLEAVVEYGWFTFIAKPMFEFLNFLHQYIGNWGWAIVVMTLIVRII

LFPLTYKSMISMNKLKDLAPKMKDIRERYKGDPQKMNMHMMELYKKHGANPMSGCLPILLQIPIFFAIYR

VLLNAIELKAAPWAFWIHDLSVMDPYFILPILMGATMFLQQLITPMTIQDPMQAKIMKFLPVIFTFFFIT

FPAGLTLYWFVNNLCSLVQQWVINKIFAKEHHKKTSGA

>AHK52146.1 hypothetical protein N916\_04785 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIEAIDLQSALTEASRSLECSVMDLEYEIIQHPRKGFFGFGRKKAIIEAKAKKRILKKNPKKEFTSSKN

HKPETHEPKQENKIEIKNEKNKSQKEKYTVKSDEIFDSFHRESKGVRNTQDILDEIRIQLVKLLESSQFK

IELSELRMYDEDCVLIRLDGEDAALMIGKEAHRYKAISYLLHNWINLKYNLLVRLEIAQFLENQIQGMQL

YLQSVIEKIKIHGRGQTKPLDGVLIKIALEQLRAEFPDKYVGIKQNNDQRFVVINDFFKKDE

>AHK52145.1 tRNA modification GTPase TrmE [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSDTIAAIATAHGVGSISIVRLSGERALEFALKLSHKTKLTPRHATFTKLFNQNNEIIDEAIMIYFKAPY

SFTGEDIVEFQTHGGFSVSEVLLEELVSLGARLALAGEFSKRACLNGKMTPLKALNIQDLILSKSALAAK

IIARNMQGNLGELLEKIRTDLVKTLAFVETSIDYADDDLPSDLLEQISTMCEENSKILKEIYTLSQSKKG

LIEGFKIAIVGKPNVGKSSLLNALLSYERAIVSDIAGTTRDTIEENFKLGTHLLRIIDTAGIRESKDVIE

QIGVALSKKSLEDADIILAVFDASRVQDKEDEKIFDLLANTDKKIFWILNKSDLENVFKNTQNKNFIKLS

AQKDITLLKEELQNYLNSFDSEGIMVSSLDLINACKISSEAIFRAKGLLEESSLEFFAFELNLAINELAR

FTKDFQRDEILDEMFGNFCLGK

>AHK52144.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDKETIKAHKISDEEYAQILEILGREPNLLELGVISAMWSEHCSYKSSKKYLNGFPTKAPWVIQGPGENA

GVIDIGQGMAAVFKVESHNHPSFIEPFAGAATGVGGILRDVFTMGARVVAGLNSLKFGDIHDEKCGKHQK

YLVKGVVNGISHYGNCMGVPTIGGECAFDECFNGNILVNAFALGVCKSEDIFYAKAEGVGNPVIYVGSKT

GRDGLGGAVMASDSFNEESKSLRPTVQIGDPFSEKLLMEACLELFKTDYIVGIQDMGAAGLTSSSFEMAG

RSGSGMKLYLDKTPMRESGMTPYELMLSESQERMLICAKKGYEDKVIEIFKKWDLDAVVMGEVTNTGKME

LFWHDELVGLIPIEPLSEKAPILSRPTSEPKYLSEIKNYKFELKSSVQELFIQMLQNENINNKAFIYDQF

DSSVQTNTIKADGRLGASVIRIKENGASVAMAIECNSRLNYVNSKIGAALAVASAGRKVACTGAKPLAIS

DCLNYGNPQNPEVMWQFAQGCEGIKEACKELNTPVVSGNVSLYNETEGVSIYPSPTIVSVGVLEDANKTL

KASFEKENLSVYLLGESLGEFSGSMVMKIQDKKVSGSLKELDYKAELALWDLLYKANQNSLLECANSVGI

GGIAMTLAKMFAISSVGANLTSDFDDEKMIFDESASRAIIGLSKENEEAFLNLAKEFGVKAYKLGVSTSQ

KHFKLDSIELSKAELDKLYFESFKEQIQ

>AHK52143.1 molecular chaperone DnaJ [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTLVLIILVVLVFYWYYKTWGKQDFLNSATRGAKGFAKGFARGVMEERMDEFKRRMNYYVIALLAKIAKS

DGRVSENEAEMIKDLLDANAKDEKERAFLKASFNEHKENLSDAFYVAKDFLKEVPLPKNERFNVLRVLVF

MALIDADFNAKKREILEQIAKAFDIAKSELDAFIASLSNLKSTKKELSLDEAFAILELPNNADLNAVKKQ

YRNLAKKYHPDILNANNVSEEELKIGVEKFQKINEAYEKVKKHLER

>AHK52142.1 phosphoribosylaminoimidazolecarboxamide formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRALLSVSDKEGIVEFGKELENLGFEILSTGGTFKLLKENGIKVIEVSDFTKSPELFEGRVKTLHPKIHG

GILHKRSDENHIKQAKENEILGIDLVCVNLYPFKKTTIMSDDFDEIIENIDIGGPAMIRSAAKNYKDVMV

LCDPLDYEKVIETLKKGQNDENFRLNLMIKAYEHTANYDAYIANYMNERFNGGFGASKFIVGQKVFDTKY

GENPHQKGALYEFDAFFSANFKALKGEASFNNLTDINAALNLASSFDKAPAIAIVKHGNPCGFAIKENLV

QSYIHALKCDSVSAYGGVVAINGTLDEALANKINEIYVEVIIAANVDEKALAVFEGKKRIKIFTQESPFL

IRSFDKYDFKHIDGGFVYQNSDEVGEDELKNAKLMSQREASKEELKDLEIAMKIAAFTKSNNVVYVKNGA

MVAIGMGMTSRIDAAKAAIAKAKEMGLDLQGCVLASEAFFPFRDSIDEASKVGVKAIVEPGGSIRDDEVV

KAADEYGMALYFTGVRHFLH

>AHK52141.1 hypothetical protein N916\_04750 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKMLQIALAATFFAGCASTSLTSSTSKGNNELVQNQLFKIEKIIVNGKTFDPKNAEESPNISFENNKFY

GYSGCNRFFGSYQTKADTLQIEGDRVASTQMLCHPMDVMDFENSFLSNFKGTFKISNENGKLVLSNDEMK

IFFK

>AHK52140.1 agmatine deiminase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKSIPEWSEQEYLMLSLPHEKSDWNPYLEEILQSYKEFVKVVSEFQKVLLIAPKQSDFENFKDIKNVEF

FKCDTNDTWIRDFGAIDIVENGRLKALDFTFNAWGNKFQSELDNAVNSKLFKEKFKEELKKVDFILEGGS

IDFNGEGVMLTSSHCLLNENRNSHLNKTQIDTKLKEIFGLKQIIWLENGFIKGDDTDHHIDTLARFIDKN

TIAHCICEDEEDEHYLPLQKMKEELKKTGFDLLELPIPKPLYYEERRLGATYANFVFINNALIVPFYKDK

NDEIIAKRLSKALPNHKIIGVDARVFLRQNGSLHCSCQNRFKGLR

>AHK52139.1 cation transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSLQKKATLVASLCAIVLALVKFIVGLTSGSVAVLSSAIDSLMDFAISAFNFLALKKSSQKANENYNFGF

SKIEALMGLLEGVFIVGVGIFIFYESILKIYYKEEIKDLNSSIYVMIFALIMTFFLVLFLNYVAKKTKSL

IIESDALHYKTDCLTNACTLGALVLIYFTNLHIIDAIFGIVISLYTAFSAFKIIKKALAFLMDEALPKEQ

VDKICTLISNNPEIISYHELKTRKTPSCNYLSVHLVFCPIISLLNAHKISDEIEEGVRKMFENEKWDIQI

HLDPYDDAEQERQRQ

>AHK52138.1 apolipoprotein acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIALIQQKFHLNKEQTIKKTCEFIEEASKQGAELVCLGELHQSEYFCQSENVDFFDYANDYEKDVKFWA

NIARKNQIVLIASLFEKRSAGLYHNTAVVFEKDGSIAGKYRKMHIPDDPCFYEKFYFTPGDLGFEPINTS

LGKLGVLICWDQWYPEAARIMALKGAEILIYPTAIGWFDKDKDEEKQRQLNAWLGVQKGHAIANGLYVVA

INRVGFEKDVSGVEEGIRFWGNSFVFGPQGEELCLLDSQNECVKIIEIDKKRSENVRRWWPFLRDRRIEY

FTDLTKRFID

>AHK52137.1 hypothetical protein N916\_04730 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKSCLYFTFIVLFLTACSTKNLTSLHRENLEQKNENQHYVKLEYEQNVNILPQFAYDINFDAKRYKKYFF

NPWHDSFKNYKGQNIFWSFPLYLNSKNTYYFFNKQIIPLSWFKNAINNANIQEFGKLNQKALIIQNTIIK

NLPTQRAILKNPFFENEGIPFDYASDGILNTGAPVLISHFSKDKRYAFVLGEAGFGFVESKNLEFFSNDR

AKIYENLNFITPLKEKFAIYSEDGKFLFESRIGAIYPYYKEDKNYFYGKIGSKKYKISKKDVSKFPLQFN

DKNLKNQLSQVLNLPYGWGGYNFERDCSLLTRDIFSAFGLYLPRNSAAQKNSFNHFDISTLSNSQKKDFL

NRFGKAYLSLLYLPGHIMLYAGQITDNNIAIHNIWGLRKDATQRLLISSSVITSLEIGKNEILEDNLLLS

RLKEISFINLNEQEKEQIKSYLENIQNK

>AHK52136.1 helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFDKLEKILAYDNVFLSGGAGVGKSFLTNELIKSYRKQKKLAIALGSSALSAFNIGGVTLHSFFCLGYCD

DMMKLSVLDRNQKQKEKLTKLKELLKTIELIIIDEISMVSANVFEMIGFRLKNSQFNGKILVVGDFFQLP

PVIKEKKETLFNHSYYAFSSFFWQDLNFKNIKLSQPKRTQNMEFYNHLSLIRQGFLDEKILSFFESLRID

YKELENLEDDYTLLCGINKKVNNINQEKLSKLETPLVCFKAQVKKEDKRIKDEELDSWIRSLNILEELNI

KIGARIIFCVNNWDKNYYNGEQGIIEDILYEEEKIYISIIKNNGMKILLEPYTFFMEELEQSGKDFVVNI

LASVTQFPIKLAYAITIHKSQGMSIEKLVCDIDHIFENGQLYVALSRATNPNTLKIYSTKKINFGFYFAN

ILKIDSNVIEFYKKHNFLDLEIQEQII

>AHK52135.1 hypothetical protein N916\_04720 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIFLSVFLVLSLNAQNLEIDKIRTDLYSKSGANVLKKVEISLEFDGNNLKENENKLIDAVNTVISGFF

YEDIFTEIGKNNFKKTLEKFLDKKYKIKLDDIYIISLSGVEKFDLEEFKRFLESTEAKEKGMGSEVKKAL

ENLEVPKTQVPSVEKIPTPSVPNLEVKQVEQLFKDPDEENKNDNGEINIDNLNTPKMTPDIEEKIKRDLI

ANPPQIFKENNASKPYHLPQTGYDIKLDENSTQN

>AHK52134.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKTFLIFFIFIGQLFALDLNFNTFSSNFTQIVKSKNSTLSYSGHFILSKDQAYWSYDTPSKKEIYINKN

QVTIVEHDLEQVIFSHLDNIPNLNEIFKKASLIDKDKLVAKYDNINYTIKLNQEQIQSISYKDEFENDVI

INLNNQIKNPKINSDVFKAKIPQNYDIVR

>AHK52133.1 preprotein translocase subunit SecA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFLNALKAVFGTKNDREVKKYFKRVAQINALEGNYQNLSDDELKAEFAKFKEQILSGEKNENDVLNDVFA

IVRETGKRTLNMRHFDVQLIGGMVLHDGKIAEMKTGEGKTLVATLPVVLNAMSGKGVHVVTVNDYLAKRD

AEQMSAIYNFLGFSVGVVLSSQNSDIEHKQAYDCDITYGTNNEFGFDYLRDNMKFSKAEKVQREHNFVIV

DEVDSILIDEARTPLIISGPTNRTLDGYIKANEVAKQMQKGEAVLPPAKPEGDFVVDEKNRNILITEAGI

AKAEKLFGVENLYSLDNAILAHQLDQALKAHNLFEKDVHYVLRNNEVIIVDEFTGRLSEGRRFSEGLHQA

LEAKENVKIQEESQTLADITFQNYFRMYNKLAGMTGTAQTEATEFSQIYSLDVISIPTNIPIKRQDKDDL

IYKTQNEKFKAVIEEIKKANAKGQPVLVGTASIERSEVFHNMLVKEKIPHHVLNAKNHEQEALIIQDAGK

KGAVTIATNMAGRGVDIKIDDEIRALGGLYIIGTERHESRRIDNQLRGRAGRQGDPGISRFYLSLEDNLL

RIFGGDRIKSIMDRLGIEEGESIESRIVTRAVENAQKKVESLHFESRKHLLEYDDVANEQRKTIYRYRNE

LLDENYDIRAKISQNIAEYSANVMNDYMLDESGSNVNFENLKAKILYECSTQISEKDFENLSVIEMQDKL

SQILENSYNEKMLRLEIKELRNIERILYLQVLDNAWREHLYQMDILKTGIGLRGYNQKDPLVEYKKESYN

LFLELVNRIKFDSIKLLFSVQFNQEEAQNLENKANEENEKLLQSSVEMGASEDNLGEAEFKKVPRNAPCP

CGSGKKFKECHGKSGPKQGILA

>AHK52132.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKSVLKYLLFKYLRFDKEQPFINLSMLLAFLGVCVGLCVLLVAMAIMNGFDKEFEKRFFVMNYPITILP

KFYAPVNDEFIDELRKTFPNLLFSPYLSTQVVVKGDNRFEGGVLFGVNFNDEKKINEVVAKALKDENLSG

FDILVGSALTDEFGLHKNDKLSLIFSNLNPSGFSLVPQTKRFDVKARFTSGLAFYDKAYMYTDVDALKKV

LGIPKNPNYDGIHVYSDNAFKDVEKIKSYLKDDYAVVGWWEQNKNFFSALELEKRALFIVLMLIILVASL

NIVSSLLMIVMNRRSEIALLLALGASKNEVKKSFFALGMLIGGGGMIVGVVLAFFALWLLGNFDIVTLPV

DVYGTSKLPLDLSLMDFSLTIVGALIIIALSSFYPAKKATQINILDTLRNE

>AHK52131.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSLFTQKNKNFKPLKPLSKSKIITNLILLILFLILFCYCSFSISAYHFDFSAIATYKEKFLQGFLNTLII

SFFSLLLSIILGGVFCAFSLSSIVFLRFLSTFYIELVRGTPLLVQVLLIYYIIANNLGLDNRYVAGVIIL

SCFSAAYLAEIFRAGILSISISQLESARALGLKEMQVFAYVIFPQALKNILAPLSGQFANLIKDSSLLSV

IAVNELTQSAQEINSYTFATLEAYVILAITYLVLTLPISIFSRYLERKCQK

>AHK52130.1 hypothetical protein N916\_04660 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLIIGHKLLKNLDFSFIESVEEVKDNKVYCIVYDEKLISYLSQNDFEFAILVQNKDEIFLANALGAKFLL

CNDKKLAKFASKVAEFYVFDSRVLMIVDKLENFKKFYKLKIDGIILKDNIDNFPKN

>AHK52129.1 2-acyl-glycerophospho-ethanolamine acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKKSFLKIYGLIPFLLIAFINAFVDLGHKIIIQNTIYKAYEGSEQLFLNAIVNALILLPFILMLSPSGF

LADKYPKNIVMKISAIFNVILTLIICICYYSGAFWMAFIFTFIMGAQAAIYSPSKYGFIKELVGKDFLAM

GNGVINAVSIVAILAGMALFSLSFESLYSSMYNQTDEILKEVAPLGIVLILFSCIEVFFAWRLPKLKQTN

KDLVFNKKDYIRGKLLINNLKLVFKNKTIWLCIIGISFFWAISQLYLVSFPVFAKNELFIENTFYVQISL

AFSGIGVILGSLVAGKFSKNYIELGFIPLGALGMFLMAFLMPYFISLLSYSFLFFFFGFCGALFIIPLNT

LIQFHAKENELGQILAGNNFFQNIAMLGFLLLATLFVKFEINVIYLFYFIALVTFIGSFYILLKLPFSLV

RILLSIAFLQRYRLLVEGFENIPEKGGALLLGNHISFIDWAVVQMAIPRKIYFVMERSIYSKWYIKIFLD

KFGIIPVSSTGSKTSLELIAKHIKEGNLVCLFPEGTLSRHGQLNEFKAGFELACECLSEDDGKIIPFYIR

GLWGSAFSRSDEEFSARNRTLNKRKIAIAFGKAMPLHSKKDEVKAKVFELSFMAWKSQCEAMHTIARAWI

DTAKKNLNQIAIIDTLAGDISYRKMLTLSLFLNFFIKRKSKELNINLQRGSYAPKEEAIGILLPASFASS

LTNLSVLIAEKIAVNLNFTAGEKALKAAIKNAQISQIYTSKTFLEKLANKGINLNFDTNIHLIYFEDIVE

DFKMQKTKIFSMMLAVSIIPSFILKSIFTPSKNNLAIAAILFSSGSEGSPKGVMLNNRNILSNIAQISDV

LCTRNNDVILSSLPPFHAFGLTVTTFLPLLEGIKSITFSDPTDALGVAKAVAKNNVTIMCGTSTFLGIYA

RNKKLDALMFESLRIVVSGAEKLKNEVRTTFEMKFKKSIFEGYGATETTPVASVNLPNHFDVDYWLIHRA

NKEGSVGMPLPGTAVRIVDPNNYENLKTNEDGLILIGGHQVMVGYLNDKEKTDEVVKEIDGIRWYNTGDK

GHLDEDGFLYIVDRYSRFAKIGGEMISLGAIEEEIAKFIDTEVVKFCATSLEDEKKEEQIVLLIECNNEI

FEGVCEAIKNSNIPTLFKPRYYFQIEKIPLLGSGKVDLKKVKELAKNLAI

>AHK52128.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFVFIPLFTIFILLAGGYFAKRIGVLKQKQARTFLDFAIIFALPCLIFDKAYHLNFDFSLIIFIFIGLFS

CILAAFFAILIGKVFHFSKVTLVSMFLLSCFGNTIFVGMPIVAGIFNDPQFSAEVIFYDALATTLPISLF

GPFILSLGNGEKVSLLANVKKILSFPPFLALLFGFLCKLITLPEFIFSPIRLFGASATPVALFAIGLGLG

FMAIKTSYKPTIVVIFAKMILAPLFFVFCLKIFNLELKDSTIVAIIESAAPTMTLAGAMVMKAKLDSNLA

VSAVAFGVLFAFVSMPILIWTLL

>AHK52127.1 F0F1 ATP synthase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKVLFLLLACTAVAFAAETNAPVEQEAINVWIKAFSVLAAGLGLGVAALGGAIGMGNTAAATIAGTARN

PGLGPKLMTTMFIALAMIEAQVIYALVIALIALYANPFIVLQ

>AHK52126.1 biotin attachment protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKKFIDVMDTSFRDGFQSVYGARVLMDDFFPAVEAAKEAGITHFEFGGGARFQSLYFYLNEDAFTMMDR

FRAIVGKDANLQTLARGVNTVTLDTGSSELIDLHAKLFAKHGTTTIRNFDALNDINNLKFSGECIAKHGL

KHEIAITLMDLPPNCKGAHDVPFYEKILKEILAAEIPFHSICFKDASGTSNPNKIYETIKMARKILPQDM

HIRLHTHETAGVSIACYLAALEAGVDGIDLAAAPVSGGTSQPDILTMMHALKGKDYDLGGLEEEKILKYE

EVLKDCLKEYFLPPEATMVNPLIPFSPMPGGALTANTQMMRDNNILDKFPQVIHAMREVVEKGGFGTSVT

PVSQFYFQQAFNNVMFGSWKKIAEGYGKMVLGYFGKTPVAPDANIIELASKQLNLEPTTELAINIADKDE

SKSIAYTKTLLEKEGIETSEENIFVAAACKEKGIAFLKGEAKVNIRKLASMPKPMSADENKFTVAVNGNK

YHVEVSYGFDKDVNVKSVKKVEENKNIISSNSTSSVDAENEVLAGISGNVFKIYVNEGEEVKSGQAIMVL

EAMKMEIEVNAPKDGIILELCIKIGDTVNEGEVLAIYKN

>AHK52125.1 phosphoenolpyruvate carboxykinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKFDKLGLDNIKEIFHNLSYDELNAHEKANNEGLSTDNDTFCVDTGIFTGRSPKDKYFVKQDPSSKYIA

WGKVNQPITKELFDKLLTKAKQELSGKKIYVQDVFCGASLQSRKAVRFVTEIAWQAHFVKNMFIRPSQEE

LENFKADFIVYNACKCINEDYKQDGLNSEVFVIFNVEENIAVIGGTWYGGEMKKGIFSMMNYWLPLENKL

SMHCSANVGEKDDVALFFGLSGTGKTTLSTDPKRRLIGDDEHGWDDEGVFNFEGGCYAKTINLDPEHEPE

IYGAIKRNALLENVVLRADKSVDYADASKTENTRVSYPIEHIENHEPSLKAGHPKNIIFLSADAFGILPP

VSKLSKEQAMYYFLSGYTAKVAGTERGITEPQATFSACFGEPFMPLHPTVYARLLGEKIEKHEVNVYLVN

TGWSGGSYGVGKRMSIKATRACINAILDGSITKCEFENFEVFDLAIPKALEGVESVLLNPINTWLDKNAY

IATRDKLAHMFIQNFKRYEDVKEGIEFSKFGPKI

>AHK52124.1 argininosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNEMWSGRFSGASDELLKEFNASLNVDKTLFNEDIQGSIAHATMLESCGILKKEELDAIIKGLEQVRSE

IEQGKFIFDIKDEDIHMAVEKRLSEIIGSEIGGRLHTARSRNDQVATDFKLFVKKSHIELIKLLKELIQT

MLEHAKVHKKTIMPSFTHLQHAQPVSFSFYILAYAFMLMRDIKRLQNSLELADFSPLGSCACAGTSYAIN

RELSAKILGFKDIMPNAMDGVSDRDFALDLLYDIAVIFTHTSRLCEEMILFSSSEFSFITISDSFSTGSS

IMPQKKNPDVCELIRGKTGRVYGNLISLLTIMKALPLAYNKDMQEDKEGIFDSVKTAKDSLIILNAMLKE

IQINKENMLNACKKGHLLATDLADYLVREKNIPFRKAHFIVGNVVAQAEAQGIDISEIKDLSKIDPVFDE

KAMELLNFEFSLNSKQSEGSSSIASVEKQIQILEGFIQNL

>AHK52123.1 GTP-binding protein YchF [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSLSVGIVGLPNVGKSTTFNALTKAQNAQSANYPFCTIEPNKAMVEVPDLRLNELAKIVKPERIMHSLIE

FVDIAGLVKGASKGEGLGNKFLSNIRETEVILHIVRCFDEENITHVEGGVDPLRDVEIINTELILADIEQ

LSKKIEKLTKEAKANQKGAKESLELANSLLDHLNKGLAASSYPEKESEIYQALIKELRLLSAKEVIYGAN

VDENGISEDNDYVKALKEYAKKNDHEVIKLCAKIEEELVGLSDEESHEFLSSLGVNESGLDQIIRTAFAK

LGLISYFTAGVVEVRSWTIKKGWKAPKAASVIHNDFEKGFIKAEVISYEDYIQYKGENGAKEAGKLRLEG

KDYIVLDGDVMHFKFNV

>AHK52122.1 aminopeptidase A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFELNDKKLDAIKADFELVFIQDKNLKIFNKEKDFFKLNNYKGEGALLDLNNKKLYLELKSLAYEDIRL

SLCTAYKTLEKLNIKSVKLPSIIGDCVVRSFASLVEGVLFGAYKFDKYKSEKKTSTLEKFIISNEELNGK

KFNKDEAKIGLERGEILANATNFTKNIVNEIPEIYTPLKMAEDAQNLAKENKNIICKIYDEKFLAKEKMN

AFLAVNHASVHPPRLIHLSYKAKNAKKRVVFVGKGLTYDSGGLSLKPADFMLTMKADKSGAAAAMGIIKA

VAELALDLEVHCILGATENMIGGNAYKPDDVLISREGVSIEVRNTDAEGRLVLADCLSFAQDLKPDLLID

MATLTGACVVGLGEFTSAIMGNNEELQNDFYLSSKKSGEYTTILHFNPHLRELIKSNIADVSNTASSRYG

GAITAGLFLDKFIRKEYKDKWLHLDIAGPAYTEKSWGYSSFGAGGAGVRMCVNYLIQILRKAK

>AHK52121.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEEFLKNLLYQYKDLAYIIIFLWCILEGELALILAGIFAHQGHVNLGFVIFIAGLGGFVGDQIYFYIGRY

NKCYIQKKLKTQRRKFAVAHLLLQRFGWPIIFIQRYMYGFRTIIPMSIGITRYSAKKFAIINLFSAWVWA

SITILLAWYFGEQIWKMVTWAEEHWYYAAIIIIAFLSLLLFGFKQMEKAILKDKRKKS

>AHK52120.1 adenine phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKLTQEEQKYLLDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFI

FASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKVELHKDAFKNIQNARVLLVDDLIATGGTAIA

SYELIQKAGAKCVEACFLINLKDLNGANKLEKLTSVYSVLEI

>AHK52119.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFTNWLVLTILICATIYLIVMLFYYKTLLNKEKTSKDFIKNNLDDTEIVIRKLQIQLQRSLGNIDILTEE

LNKIKADLTSLRTRNSQYRLENDKLRQRIKELEAKIEALL

>AHK52118.1 ribose 5-phosphate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLREKIYIASDHAGFELKEKICVFLKEKNIIFNDLGTNTCASCDYPDYAHLLAEKINKRSFGILICGSGI

GISIAANRHKNIRCALCHESLSAELARRHNDANVLALGGRLIGVELAIDIIEKFIQTPFEEGRHMQRIQK

IEVKI

>AHK52117.1 chemotaxis protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLILIGSSTGGPNQLKFLLKDIDVKNTCVVIAQHMSASFIPSFVGQFNKEAFSEVCLLNDKEILSNKIY

ICPKNTILSGNLNIVAAWQDVASSFKPSVDLLFHSAVSLAKTNKILAIILTGMGDDGAKGLFELYKTGVR

CLCENEADSVVYGMPKRAKDMNPHLKPMSLKEIKKEIVNFIDQD

>AHK52116.1 chemotaxis protein CheR [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKKITPSELELNEFIKIINEMSGIDLTDKKNILALKLNKFLEGTNTKNFSEFLGKLKSNRQLKQETLDF

VTIGETYFLRELAQLKEIIYYAKSLEKRVNILSAPCSSGEEVYSLALLAAQNFIKDMYILGVDINSSVIE

KAKLGKYQGRTLQRLSESEKRRFFLESEDKFYTINKNELCTCKFELCNVFEEKFSRLGKFDIIASRNMII

YFDHESKLKLMERFHRILNDKGRLYVGNADLIPETIYFKKIFSPRGVYYEKV

>AHK52115.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIELKNVNKYYGTHHVLKNINLSVKEGEKLVIIGPSGSGKSTTIRCMNGLEEVSSGEVVVNNLVLNHKNK

IEICRKYCAMVFQHFNLYPHMTVLQNLTLAPMKLQKKSKKEAEETAFKYLKVVGLLDKANVYPATLSGGQ

QQRVAIARSLCTKKPYILFDEPTSALDPETIQEVLDVMKEISHQSNTTMVVVTHEMGFAKEVADRIIFME

DGAIVEENIPSEFFSNPKTERARLFLGKILKN

>AHK52114.1 amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVFRKSLLKLAVFALGACVAFSNANAAEGKLESIKSKGQLIVGVKNDVPHYALLDQATGEIKGFEVDVAK

LLAKSILGDDKKIKLVAVNAKTRGPLLDNGSVDAVIATFTITPERKRIYNFSEPYYQDAIGLLVLKEKKY

KSLADMKGANIGVAQAATTKKAIGEAAKKIGIDVKFSEFPDYPSIKAALDAKRVDAFSVDKSILLGYVDD

KSEILPDSFEPQSYGIVTKKDDPAFAKYVDDFVKEHKNEIDALAKKWGL

>AHK52113.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNESVGFVEHLRQILTSWGLYDENSISPFAVWKFLDALDNKDAFINGFIYTLEVSILALLIATIFGTIGG

VMATSRFKIIRAYTRIYVELFQNVPLVIQIFFLFYALPVLGIRLDIFTIGVLGVGAYHGAYVSEVVRSGI

LAVPRGQFEASASQGFTYIQQMRYIIVPQTIRIILPPMTNQMVNLIKNTSVLLIVGGAELMHSADSYAAD

YGNYAPAYIFAAVLYFIICYPLAYFAKAYENKLKKAHLTR

>AHK52112.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENVFNAQNIEFLMQGLFLTLKIALATCIISIVFGTFLAITKNYGDRLSKFLAACYIDIFRNTPLLLWML

AACFVLPVFFGQFPQAFWGTIGFSLYTSSVMAEIIRGGLNSIPKGQFEAAYSQGFGKFFTLFYIILPQTF

RKIIPALLSQIVTTVKDTAYLAGLGIAELTYNSKTILAKLTSFEEILAMIGVVAGIYFIICFSLSMLVRY

YAKKTAYIS

>AHK52111.1 ribose-phosphate pyrophosphokinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRGYKIFSGSANVEFARQVSKYLSLPLSDAGVKRFSDGEISVQIDESVRGKDVFIIQSTCAPTNDNLMEL

LILTDALRRSSANSITAIIPYFGYARQDRKANPRVPITAKLVANLIQAAGIDRVATIDLHAGQIQGFFDI

PVDNLYGSIVFNDYIKAKHFKNAIIGSPDIGGVARARSVAKHLGLDIVIVDKRREKANESEVMNIIGDVK

DKEVILVDDIIDTAGTIVKAAEALKEKGAKSVMACCTHAVLSGKAYERIASGVLDELVVTDTIPLKEQLP

NIKVLSVTPVFAEVIRRVYHNESVNSLFI

>AHK52110.1 carbon starvation protein CstA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTQLSTKILWLFVAALGAICFGYLALQNGESVSAIYLVVAAVCIYMIGYRFYGSFVAYKVLELDKNRATP

ALVENDGRDFVPTNKAVLFGHHFAAIAGAGPLVGPILAAQMGYLPSMLWILVGGVLAGAVHDFVVLFIST

RRKGRSLGEMIKDEMGKFTGGVAMVAIFGIMLIIIAILAMVVVKALAESPWGLFTIAMTIPIAIFMGIYM

RFIRPGRVGEASIIGFVLLILAIHYGSVIAADPYWAKIFTLEAPTLAIVMMAYGFIASVLPVWFLLAPRD

YLSTFLKIGVIVVMAVAIVLVAPDLQMPKANTQYFDGTGPVFAGGVFPFLFITIACGAISGFHALISSGT

TPKMLENETHTLAVGYGSMLAESAVAIMALICACILHPGLYFAINSSSALIGTDVVNVAQTISSWGFSIT

PEEITTLTTNIGEYTILSRTGGAPTFAIGVALILHELFGGVDLMAFWYHFAILFEALFILTAVDAGTRAC

RFMVQDILGNVYKPLGDIHNYPAGLLATALSVAGWGYFLYQGAIDPKGGIYTLWPLFGVSNQMLAGMALL

LATTILVKMGKARYTWVTLVPAVFVLVATLYGGIQKIMPYEEGNKIANAVSHVAAVSIQSQKIKDLEFKL

NNTKDEKEISTIRKEISIATQNKVGNLLNAILCVFFMIATLLVIISCIGICLGKIKIPLKETKYIKIDEF

QKI

>AHK52109.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRDMGEPKLKIVAMPSDTNPAGNIFGGWILSQIDLAGAIAARELSPERVVTISMDKVVFKEPVFIGDIIS

CYSKVVNVGNTSISVEVEVTAQRVDSQGCTSCINVTSALVTYVSVTRDGKKNPISEELKRIHGFLNA

>AHK52108.1 CiaB protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNNFKEIAKLVRKYKERNNALYEFLDKEDVGEYFRSLISLSELKQDKTTMLAILRRLIDLKEENLVQEWK

KNNFKEDKIIELKHKFYEEVRKFYEKEHQNLINEIKEKKLLNNFYQSLIQGVHNIGLIMNIFEISWTKEI

IEKNNKILSTQFPNLDDAMEFLRKNHLYQKTPEGEICERSYGVLVRIGNLWKFVPYARFFENEILKLEFA

FENMIDQLKIFASSEEEKAYIEYFEKLKLAFCEKDEDRVIKAWQEAEFAWMKVKSPLQVGHPLEYYEDNY

THAVALEWDIRIEDENDFDVLKFGNEIKESFEHVYKNIGLEDCELEKEVLSNIEKTQLYICTPMIFYGAE

LKGLFSAQVVPNDEFVSSKAGKKIFAFINFVYENAKTKPFMKISSEVFDKEFLDFGRNILFYQEKIWKRV

YEVSTIGHEFGHIFFIANDTEKTMNQSGFFKNIEEYKATTGGLINFFYHEQDDLIMPVFHELIKRAIGLI

SWQRVDEVRPYYTEGLIHLSLLFESEVLIFENNNLKINFDLGYYEKFKELTLKNYHELAKHYALRLDAKE

FLSRFCEIEDNIFLPIMPKCKEFVKFYYDLYEKIGNEIDNSGEFERYKKK

>AHK52107.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKADFISLVAQTAGLTKKDATTATDAVISTITDVLAKGDSISFIGFGTFSTQERAAREARVPSTGKTIK

VPATRVAKFKVGKNLKEAVAKASGKKKK

>AHK52106.1 cysteine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVHEKVSELIGNTPIIHLKKFGINVFAKCEFLNPSHSIKDRAAFEMIKDALDSKKINQDTTIVEATSGN

TGISLAMICADLGLKFIAVMPESMSLERRKMITLFGARLELTPANLGMKGAVDKANEILLNTPNSFMVSQ

FENISNKNAHRKNTALEILRDLDNELDIFVAGFGTGGTISGVGEILKEKLEKVHIVGVEPLNSPLLSKGE

AGSHKIQGIGANFIPAILNKEVIDEVITVSNEDAINTAKELAKSGLMVGISSGANVFAASMLAKKFPDKR

ILTMLNDTAERYLSTDLFA

>AHK52105.1 hypothetical protein N916\_04515 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKNIILFIVIVAIILGVIFFIKNHQNSYDFILKSDLKEETTLKDFKGDKLIIYFGYTYCPDVCPATLSL

VGKALKQINNPKAHLLFISLDPNRDNNLSNTNEWLRYFYPKADALIAKDEKTLQKITKQYNVQYQKIDLN

DSFMGYSIAHSNMLYLIDEKGHFYKEINDLNPQEILRELRIFLNSQ

>AHK52104.1 hypothetical protein N916\_04510 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRKIIFILAFAFVIAILYIIFDFYVIKDSQKITKTDFSTPLTCDLNVKDCTYSFNNKKVLISLNPKPLQS

LDVTNLKIVNLGNYNNLGIKIYGLNMYMGEIKPKIHRLNSTDYESKIVLAACVLDTMRFRVEFMDNNKPI

GFYFDFELKK

>AHK52103.1 hypothetical protein N916\_04500 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIRNFFIGMSFLGILFLAFYTLYDKKKESIFSLNTCQPLTCDLNLQDCVFSFNKKNIEVSAYPKPIKIFN

KTTIKIKNFPHYSNLKIKIYSLNSYIGDIIPKFNIVNGDILINFIGRSITDDSRFRVEFLNNNAPTGFFF

DFDVTMQKNFQTGNTH

>AHK52102.1 hypothetical protein N916\_04495 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKRLALLIALSSLMLHASDLVKIYLNQGLDAVGVAIEKELTQKDFWLSEIGDKNISLGYYDDNVAIVLT

NKTDKILRVYSYEDGKIRKDFEQKEIITGLMGDKKIEGDLKTPVGFYELGRKFNPGDPYYGPFAFATTYP

NLLDKVQGKTGGGIWIHGYPLDGSRLDEFKTRGCIALFNNNLEKFAKVVQDKKVFVMTEEKEKIRAKKDQ

IASLLADLFTWKLAWTNSDTNAYLSFYDEQEFKRFDKMKFEQFASMKKSIFSRKEDKKIKFSDINISPYP

NLENETMYRISFYEDYYTKNYRFRGDKILYVKIDSKGKMKILAEQ

>AHK52101.1 alanine racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSLIKIDQKAYEYNLRHIAKKIGSFQRLICVFKDNAYGHGAKLLAPLAKNLGVSFVAVKSEEEAREIEEF

FENILILSHRPHGNENSRFIYALNDISQVKNYKQDIKIHLKIDTGMHRNGICVENLEHAINLIQGSDLKL

TGMFTHFASADEMDGSFFVQKENFQKAKKIVKKYFSNLLFHSYNSAALFRGKIPEDEYCRVGLVQFGYGD

SNLKRVLSLYAHRLSQRILQKGQSIGYGGIFTAAKDMEVATYDLGYADGLFRYNGRGELVLGNGKAMLGK

MSMDSFSCENSGEEICVFKDADIWADFFHTINYEILVKLNPNIQRVLV

>AHK52100.1 RNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFNIVLVHPRIPQNTGSIGRMCFNAGFKLHIVKPIVFDISQKAVRRAGLDYWDKLEPIIWENLEEFLNEN

MIYKNRFFFATTKSQKAYFDAEFQKNDFLFFGSESYGLPMELMQLNWENAITIPMKSYGRSLNLATSVGI

ISYEALRQNFRNFAS

>AHK52099.1 amino acid carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLDIMLDFANKASDIIANKIVPNTDIIMVVLLIVCGLYYSFLTRFVQFRMLSSVFKILTEKNEGHAKEH

ISPFQALMISTASRVGIGNIAGISLALATGGAGALFWMWVMAFFGGASAFAESTLAQVYKSKDDTGGFKG

GPAYYIKKALGSHFFGAFFAFILIITYAYGFNGLQSQTMTSSFKVYYDMFNPNAAVDFASSSWPMIIGIV

LTIFGAWMFFSHHTKIGKISSLIVPFMALAYVLLAVIAVLMNFDKIPSVIHMILQSAFDFKAIFGGFAGS

ALVIGIKRGLFSNEAGMGSAPNAAAAALTSHPAKQGVIQAFSVLIDVVVCTSSGFLVLFSMAYLGLGENK

IDGGMPLVQEAMREYYGSFGIHFITIAIVLFAITSLIGNYYYAQANVKYLTNSKFVMNLFRITAVAMIFI

GSQMNLKLAWNLADLTMAFMATTNIISLLLLGGIVNKVLKDFNTQQKSGIDPKFNASKLGIKNAECWD

>AHK52098.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIEVKNLQKKYGELEVLKNINTTISKGDVIAIIGPSGGGKSTFLRCINRLELADSGEILINKQNILDKEI

DINKIRQKVSMVFQHFNLFANKNVMENLCLTPIKTGILSQEEAIKKAKLLLAKVGLADKENIMPHKLSGG

QKQRIAIARSLMMNPDVILFDEPTSALDPEMIGEVLSIMKDVAKEGLTMLVVTHEMGFARNVANRIFFMD

KGKIAVDASPKEVFENPSNERLREFLNKVLNH

>AHK52097.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNQKNIRIFVFFVIIILWGYFSFPIEILKIQDPSGVASYGYTENAKAYLKSYLITLLLTACAVIIGVIIG

FSLAILRFSKFKTLNFIIDEYIDIIRGTPVILQLMIFAFVIFTFIDNLYAAILALGLNSSAYIAEIVRSG

INSVDKGQMEAARAMGLDYKTSMKEIILPQATKNILPALANEFISLFKETSVVGFISVIDITMQSQSLQA

VLYNPKPIIFTGLVYYVSVKIFSYFAKKLELRMNKND

>AHK52096.1 4-methyl-5(B-hydroxyethyl)-thiazole monophosphate biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKKVLIPLAQGFEEAEFIGIADVLKRAKELNPDLEVVIASLNSELLVKGANSISIKADCSIEDVDIENL

DAIALAGGFEGMMNLKNSNVILNIIKQLHSKNKIVAAICASPIVLNEAGVLEGEFACYPSCEVGLNGNRV

NKAVVVNKNVITSAGPATAILFGLELAKKLCGDEIYQKLYEGMLLPLTK

>AHK52095.1 hypothetical protein N916\_04455 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQEKTIFELIVEGKLPCNKVLESDDFLAFHDIAPKAPIHILIIPKKYFKDFQEFDPELMAKMTSFIQELA

VLLGVDKSGYRLVTNCGKNSGQEVFHLHFHMLGGFELPKEKTKKENPQALF

>AHK52094.1 phenylalanyl-tRNA synthetase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNFIEQIQKCENLNDLEAIRISVLGKKGILTEGFTKLKELEDEAKKEFAAKLNAQKEIFNEAYLAKFKD

LENLALEERMKQDALNFNYFDESITTGALHPVMSTMDKIIEYFIALNFSIEKGPLIEDDFHNFEALNLPK

SHPARDMQDTFYFDDKRLLRTQTSPVQIRTMLAQKPPIRMIAPGAVFRRDFDITHTPMFHQVEGLVVEEG

QKVSFANLKSVLEDFLRYMFGDVKVRFRPSFFPFTEPSAEVDISCVFCKGKGCRVCKHTGWLEVLGCGIV

DPNVYNFVGYENVSGYAFGLGVERFAMLLHQIPDLRSLFEGDLRLLEQFR

>AHK52093.1 phenylalanyl-tRNA synthetase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIITKSWLNDWLELEEISSDKIAKTLNSIGIEVDRVGALKAPDKVVVGYVKEKIKHENSDKLSICQVDIG

SETLQIVCGAANVDAGQFVAVATKGAIMSNGMEIKEAKLRGVDSCGMLCSSLELGFEKINEGIMLLDESI

GKLELGRPLNTYEIFNDELIEVELTPNRGDCLSIYGIARDLAAALNLNLKEPKPFKESENVLGIGRILRL

AAEKELNGLYNYRAIGLKEEIQTNLLLSLRLAQIEGLGKNSIENLLNYATHSTGVLFNAYDLSSFSEKDE

EFTINLSKQVHGETKVSYKDKLLSFSGIFQNNESRCKDDSKIIIIEANYTDPLVIADAKIYHKDQDEKML

YRSFRGSEPKLNLGMDFLLGIFEQIPNLVIYSSSQQILTDKELPIIPISIEGISDIIGQNVDKDEVLKIL

KKLGFELILSGEGLINVKAPLHRPDIKNLSDICEEVVRIIGIDNIASKGLEFIEKNRLNSAYKNYIEFLN

LRKRAVASGYFESLHYVLDNGEELKRLGFDSVKLKLINPITAELNTLRTTLLNHLLNAASLNAKNSKKII

KLFELGAVFNVNNQELNRIAFIHSGLKEEAKISNKAKPESVQFYDFLLDIKNIIGDFKLKSSKYNILSPY

EQADIYLSDIKVGFIGRLHLKIENERDLPKTYICELDLDLIRQDFKIAKPYSKFPAITRDLSVLIPKGFE

YNQIKNCIEELNLEILENFRLVDIYSDENLKEFYSITISFSFRDINKTLEDNQVNECMDKILNTLKNLGL

DLR

>AHK52092.1 3-phosphoshikimate 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIYKLQTPVNAILENIAADKSISHRFAIFSLLTQEENKAQNYLLAQDTLNTLEIIKNLGAKIEQKDSCV

KIIPPKEILSPNCILDCGNSGTAMRLMIGFLAGISGFFVLSGDKYLNNRPMRRISKPLTQIGARIYGRNE

ANLAPLCIEGQKLKAFNFKSEISSAQVKTAMILSAFRADNVCTFSEISLSRNHSENMLKAMKAPIRVSND

GLSLEINPLKKPLKAQNIIIPNDPSSAFYFVLAAIILPKSQIILKNILLNPTRIEAYKILQKMGAKLEMT

ITQNDFETIGEIRVESSKLNGIEVKDNIAWLIDEAPALAIAFALAKGKSSLINAKELRVKESDRIAVMVE

NLKLCGVEARELDDGFEIEGGCELKSSKIKSYGDHRIAMSFAILGLLCGIEIDDSDCIKTSFPNFIEILS

NLGARIDY

>AHK52091.1 4-hydroxy-3-methylbut-2-enyl diphosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIIELAKNYGFCFGVKRAIKKAEQIKDAATIGPLIHNNEEISRLQKNFNVKTLENIQALSNEKKAIIRTH

GITKQDLEELRKKDIEIFDATCPFVTKPQQICEQMSKEGYEVVIFGDENHPEVKGVKSYVSTKAYVVLDK

KELQNIKLPNKIAVVSQTTKKPEHFMEIVNFLILKTKEVRVFNTICDATFKNQDAIKELSLKSDVMVVVG

GKNSANTKQLFLIAKTNCEDSYLIETEEELKKEWFLDKKHCGISAGASTPDWIIQKVIAKIENFRIN

>AHK52090.1 30S ribosomal protein S1 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSEVNKKVQDGVDDYLEEEDFGQLLEAFDKSREEATTEGVIVEIKNDEVYVDIGKKSEGILALSEIQGDN

SKLLFNVGDSIKVAVMGSRGGRSLLSHKKALRKEKVIEFIKNYQENQDDIFTVKVVGKNKGGLIVVDEND

VEFFLPKSQYGFKETNNIIGKTFKVKIIKIDKDEQSIIVSRKKTLDDERRKRKELINNVAQQEDLIEGIV

KKITTYGMFVDVGGVDGLVHYSEISYKGPVNPGTLYKEGDKVPVKVIKYDKERKHLSLSIKAALPDPWSE

IKDTLDIGDTIKVIVSNIEPYGAFVDLGNDIEGFLHISEISWDKNIKNPKDYINKGQEIDVEVIEINPNE

RRLRVSLRNLLSRPFDEFMKSYKIADVVEGEITSVTSFGAFVKLGGIEGLLHNEDASWDRNDKCKDKFSQ

GDKIKVKIIKIDEENQKISLSTKELSSSPVQEYAKIHKVGDIVKGAIRDIKDFGVFVELSKNVDALIHKE

DISTSMLENLKIGDDIEAAIVFIDEKKNRIRLSVKNLVRIKEREVLNEINNDDKVTLGDIIKDQLA

>AHK52089.1 hypothetical protein N916\_04425 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKYITISILSILLLILLAVVFTLLWQFKANVNFIPQFAKDTNTQPSIQTQNQDLSWQEELAKWPTRDFT

PAAEKFTLYFDADTSELKEKNKYYQLIVGKYDIYSMFCLRQTLNSFNVKYFLLKSGHSPEIFLDTGNEKL

IDDIIKELKKYKINTEVKEIWL

>AHK52088.1 3-phosphoglycerate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKKIIVCDAILDKGVDILRKAEDIELIEAAKFPKDELMQMLSDIEVAITRSSTDVDVNFLNHAKKLKAL

VRAGVGVDNVDIPECSKRGVIVMNVPTANTIAAVELTMAHLLTSARSFVNAHNFLKIERKWEREKWYGIE

LMNKTLGVIGFGNIGSRVAIRAKAFGMKILAYDPYISASKITDLDMEQAKNLDEILEKSDFITIHTPKTK

ETNGMIGKQEIAKMKDGIRLINCARGGLYTEEALYEGLKSGKIAWLGIDVFDKEPATNHPLLDFENISVT

SHLGANTLESQDNIAREACEQALSAARGVAYPNALNLPIKTEDLPPFVAPYIELVSKMAFLAVQIDKNPI

KSIKLEAEGIIGEYANSMLTFAAVGALGGILGEKINYVNAEFVAKEKGVELSCETLPNSGYNNKLSVKII

TENSNISVSGTVFNENEQRIVGLNGFKTDFKPKGKMIIFKNKDIPGVIAKISSVLAAKNINIADFRLGRD

GFGYALAVVLIDEKVQKEVLDELKQLEACVFVQYVEI

>AHK52087.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKFKILIIEDDIDLNELLVLKLKSSGYEVISLADFFGVEDLLDNEQIDLLIVDRNLPSGDSLEKIQDLR

EQGYKEAVIFLTAKALHQDLLEGFESGCDDYVCKPFDFNELLLRIKAILKRHKKEEEKLSFGDFILDLVS

YEFFYKNQKLEISNLDYELLKCFFENPNTLLTRQFLSESVWKDDTTSDKTINIALTRLRNKFPKLKDHII

SVRGIGYKLC

>AHK52086.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKTKNIFIVFFVVLALIFGFIFYTFTNSYLNFLLIKQYEQKIKSLDDVLKFSLLEHLNDANIKDFAKDT

RADFIILNNDMKISSVKNPDFFSNLKEGEILNFNSKKILTKSFIYKGYKYIIIVYPRFLDLELFWTKMAI

GFGVCLLFVFILMLLLGRRIEKNFNKILDFLDSIGDHKVVILEKGIFKEFNLLNEKLLKTKDKILKNTQK

NKKQSDKITLKNTQLASVISAISHELKNPLSVIDLSLEMLKDEKLEDKKLKKELLEKISRQSVKLNALTH

KLNFVFNLNSEALQMQEFDLFSLCEKITKNPGFERVALQGKSTKVKADEFLIEQVIINLLSNALKYSQKK

VILTARDQKIIVQDFGKGIEEDKIKLITKKFYKIDVKSDNSFGLGLFLVKKILNIHKSYLEISSTLGYGS

SFSFKLSQG

>AHK52085.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MALIDLIEASKKFGDKIVLNEVNFSANEGEKIAIIGKNGEGKSTFLKTLLGALPLDSGRIIRQNGKSIAM

LSQTVDFNANLSVKEAIKQELVEIYNTLEEYEILHKKLEEDPSNKDYLQKIDTLMTLIDSKDAWSIESKI

IRVLKEFSLLEYENRIISTLSGGEIRRVGLCILLLKNPDILLLDEPTNHLDVYMTSFLEELLKNSKMCVI

FISHDRYFIDAIAHKCVEVEQGKLSIFKGGYANYLEKKTQILQSLAKSHETLLKQLKSEEEWLRRGVKAR

LKRNEGRKERIFKMREEAKKNPGAIKRLKLEISRAALNFNGEKTINRKKMLFELKNISKNINNKNLFKDF

STRILQGERIAIVGRNGCGKSTLLKILLGQIKQDSGEIKRGELKIGYFDQARSLVNSDKSLLEIFCPNGG

DRVEVRGKNMHVYGYLKNFLFPKEFLDKSVALLSGGEKNRVALALLFAKEYDVLILDEPTNDLDIATINI

LEEYLLSFEGAILLVSHDRYFVDKIATKLYAFEGNGYINILHTLYTEYLENEKEIEELDNFALELQTQEQ

NNNQKEKSSKKLSYKENEILKNHPEKIDFLEQKIAKLNQDLSDPNVYQEIGINKLYQELEVMQKELEILE

NEYFLVLEKSENL

>AHK52084.1 lagellar hook-associated protein FlgL [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRITNKLNFTNSVNNSMGGQSALYQISQQLASGLKIQNSYEDASTYIDNTRLEYEIKTLEQVKESTSRAQ

EMTQNSMKALQDMVKLLEDFKVKVTQAASDSNSQTSREAIAKELERIKESIVQLANTSVNGQYLFAGSQV

ANKPFDSNGNYYGDKNNINVVTGAGTESPYNIPGWDLFFKADGDYKKQISTNVSFTDNRWDLNKDPDKTK

YLTGDSKWQQLIGQSYVKDNSLDADKDFEYDDSKLDFPPTTLYVQGTRPDGTSFKSAVLVKPEDTLEDVM

ENIGALYGNTPNNKVVEVSMNDSGQIQITDLKQGNNKLDFHAVAFTPQADDKTELNNIIQAAQDEGITME

DVTNRVMTAALGNPNNGDITNLNNPVTIQINGQNFEIDLKQTDFIKSKMTDTDGNAANGADYDNVYFEKN

GNTVYGNVSQVIKGSNAYATDSTKLSEVMAGDSLNGTTLNLKVNSKGGNSYDVTINLQTSTVSYPDPNNP

GQTISFPIMHTNPATGNSGVVTGSNDITYGQINDIIGMFAADKIPTTTIQANNGQINNADYTQIQQLMKD

SQATVDVSMDYKGRISVTDKLSSGTNIEISLSDSQSGQFPAPPFTTTSTVQNGPNFSFSANNSLTIDEPN

VDIIKDLDSMIDAVLKGNMRADSESENPRNTGMQGALERLDHLADHVSKLNTTMGAYHNTIEGVNTRTSF

LSVNVQSIKSNVIDVDYGEAMMNLMQVQLAYQASLKASTTISQLSLLNYM

>AHK52083.1 cell division protein FtsK [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGEWVYKANLFLFGEFAYYYPFFLFILNYVYYKRNYKLANFTRRELFGIGFAFFSSLLLFAVFYPNSGYI

LELAYAIFSTILGHTGSGIFALLLLLFSLVLLFPKFAKEILKIELDFTYLLKVEQAFKSLLMRVFGGENE

KEDVGKSEPIVPKLNILQDSIYGNLQINKKGETNNLEQIIKDSNINASKNSITTAKENFEKLKNQILDET

IEIDKQSLKESRSFVHEHSQQVRNFAQKASKMSISLDEDFNFISEEEVDMIPERFLKPKKLEDIKQIDTN

KNLDEPSYKRKNIEIPVSNQEVKPKIFTKELELRENLIKKEKLEQEYKAYQNEILENKVKQEIKKLEEYD

AINSSDIIEGNKYSFNSPKTIKTETEESDKINENKNLDKADNIFEFAPIVEELNHPYIEPTPIKNINEIV

IEEKNTLDFIQNTETKIDNEKTNDQEIKLQKAVLAKEIAINQALLREIEQGEIEKPKDFTLPPLDFLANP

KEHKQEINESEIDKKIYNLLEKLRRFKIGGDVISTYVGPVVTTFEFRPSADVKVSRILNLQDDLTMALMA

KSIRIQAPIPGKDVVGIEVPNDEIQTIYLREILQSEVFKNAKSPLTIALGKDIVGNAFVTDLKKLPHLLI

AGTTGSGKSVGINSMLLSLLYRNSPKTLRLMMIDPKMLEFSIYNDIPHLLTPVITDPKKAVNALSNMVAE

MERRYRLMADAKTKNIENYNEKMKELGGEKLPFIVVIIDELADLMMTAGKDVEFYIGRLAQMARASGIHL

IVATQRPSVDVVTGLIKANLPSRISYKVGQKIDSKVILDAMGAESLLGRGDCLFTPPGTSSIVRLHAPFA

SEFEIEKIVDFLKDQQSVEYDESFLKDQQSVGVTTNESFDGEADELYEEAKRVILEDGKTSISYLQRRLK

IGYNRSANIIEQLTQNGILSEPDAKGQREIL

>AHK52082.1 30S ribosomal protein S15 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MALDSAKKAEIVAKFAKKPGDTGSTEVQVALLTARIAELTEHLKIYKKDFSSRLGLLKLVGQRKRLLSYL

KRKDYNSYSKLITELNLRDK

>AHK52081.1 Rrf2 family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLFTKASEYALLSLIYISQKETPQDVDSLALELDIPKSFLAKILQTLAKDGLLKSFKGAKGGFVLIKEPS

QYTIKEIVNSAEKKDISVFECSGGTCPNNKEENCTLMPMLVNLQNKVDEFLDSITLEDIMKNNGKK

>AHK52080.1 flagellar biosynthesis protein FlhA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKNKIVDLVFPFLGPLIAPVLKAKSLTIVGFLVCILAIIIVPLPSPILDFFLALSIALSVLIILISIYI

PKPTDLTTFPTLILIITLFRLSLNIATTRMILSEGQNGPEAVSEIIAAFGEFVVGGNMVIGVIVFCILVL

INFMVVTKGSTRVSEVQARFTLDAMPGKQMAIDADLNAGLIDEQTARARRQEVIAEANFYGAMDGSSKFI

KGDAVAGIIITIINIIGGFLIGSFQHDMALSDAASTYTILTIGDGLVSQIPGLITSTATAIIITRASKDE

ENFAEGTLTQLLSEYRTLLIVGFVLFIFALVPGLPTLSLGFMALVFLSLGYLTKQVKEGKIDITTVKKSK

PSAAAASQSGAGGTTAAPAKKSEEEILKEEEHKINDILKVEILELELGYGLIKLAENELTERIRSMRRSI

AESLGFLMPKIRIRDNLRLKPNEYSFKLKGVSIASAEIYPDKYLAMDSGFITEEIEGIATKEPAFNSDAL

WIDANLKDEATLNGYIVIDPASVISTHMSELIKAHASELLTRQEVQNLLDKVKNDYPIIVEGALGVAPVS

LIQKILKDLLKHHIPIKDMLTILESVSDIAEVSKSFDMIIEHVRASLARMITNMYLDDKGNLDIFILDSA

SSAVLMENVQFRDGSYHLPLSVAQTGTLVDTLRAEVAAVANGRIKPFILCVEPQLRKFIADICYNFSINI

VVLSFAEIAENTNFNTEGIIRIEL

>AHK52079.1 hypothetical protein N916\_04365 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIYHLSHTDLDGYACQFIVNFYFKSVKFYNSNYGKEINENFNSIIGDIEKDENFGKAIILITDLNLNLN

QCEEFEKICKEKNTKIFLLDHHQSGEECAQKYSWYLLDSKRCATKIVYDFFSKICTPVLELSKFVDVVNA

VDIWLSEDENFELGKVFLGLIANAKEINRVMFKESQIDYMFFLLDKAWKFIGKENANILLDNATHFIKKD

YFARKNDDTLSNLISYFVVEKLSELKENFSIEYEGHKGILTSNIGNTSVIGNDFLVKNPDYDFFIDVSSR

KTLSFRANGKIDVSLMAKNLVGGGGHKNASGGLFATFKDGANYNYIKAQIIDLIKSKELKKENNESKQ

>AHK52078.1 cell division protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNQNNNKTLKNELEDLQYELSIVLEAMLLYAGVKREKLENAIEAYIDNIDNVLENSNKEGVDEILEVVEF

LKNKYKDFFQ

>AHK52077.1 hypothetical protein N916\_04355 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKCILIFFSLYSLSFANIYEKLNDFAYEKKPNKDFKIQEVKLVQFSQENKDCLELLIEASQVRILNSYN

SCQKLSKDESFQKFLNEDFLKLYKNNGYLINENLQNLKNTMQDIMIYYKLRYSFSKDVKDMSKNKNLDIL

NIDEKDGGTLLYKINNQACVGIELTRHDSRMAMKIYGIENLDKECKLFIQSPSFKDLSYTKKDFKWYYLE

>AHK52076.1 hypothetical protein N916\_04350 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNLSIQEKKDLDNCVFQNLGRQDTFTLSVVFKNFYLKIKAFILNNTT

>AHK52075.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSCIKMKDKCRNFSLSKWQDTRKPWLILIIVTIGLTCIAHFLFQEYLFMKPCEQCVYIRFDMLVMAIGGM

IALINPANNIIKIFSYSLAFYGIWLGLEHCLTLNHIHEVVHSENPFAGVDGCREIPIYPFNLPLYKWASS

WFLPTGECGMDTPVVPENAYNHLNAFQKFFIGTPPDFENGLYSNGWYLIPSLKFMNMAICCLIAFLCCFV

VLFAMFIAYVLDKNKPNAKIFALVIVALVLVLKFIGESKNPNQNIASLNQVVLRYS

>AHK52074.1 integrase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKYPLDCEENFEKSFLFWLAKYVKFKLNSLSNKELKNPQALAEVNFALTKGVKNIDELDALAKKARNAGL

SGVNTYFNPLKKVFEYLNFYKLYSLKQIDEELIVEVLASITGALSDASKKNYRIAVINFFDFLDKQNEED

EKAHIFDINLKNWAGIAGSKGVKLPEFMSKEELKKFLDAIENADFKNNTIRNKLIIKIIIFTGIRVSEAI

NIKMGDISEENDLYIIRIRAKGNKYRVVMIKKELIYDLLKNVSINYISKDALLFVNKKGTPLTQSYVSRI

VEQLLFRAGIRKQKNGAHMLRHTFATLLYKKQKDLVLVQEALGHASLNTSRIYTHFDNDKLKLAAQVAKE

LSDS

>AHK52073.1 para-aminobenzoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTLENYAVFGKYFYHDLKHTLKAFNHKESKKCFKFIEKYKNDFYILMLTDYELYRYFQDKNFTSKKAYLS

VFAFKKRKKFQKEDIDEEKFIPEFINFLDQDNYKENFIKVKEAISKGRVYQINLTQNFKFHSKMDSFELF

KLLLSRQDTEFKAFIKDETREILSFSPELFFKTKKRKIFTKPMKGTIKRDKDPIKDEENKIFLQNDTKNL

SENVMICDLLRNDLSKIITKKSLKTKLFEIQSHPTLHQMTSRAQGKLKKNISLHQIFKALFPCGSITGAP

KLESIKFIEELEQRDRGIYCGTIGLIHKNKNKFSVAIRTLEKQDEIYTYSTGSGLVWDSKFKDEFEELKL

KSAILNPCDFHLFETMYFKNSQILFLKEHLLRLINSALKFNFNTHKLFKDFYNILNQKSSYKKYQNFTLF

KLDEKIFHKKHSLFYNFPLPFKNPHKEGILKLILYKDGRYEFQQSALKQNSNDILLLSDDKINSKSDNLY

HKSSLRTFYNQHSYKWQQNLCYDIAFFNEKDELCEGSRTNLILEKNSQFYTPQIQSGMLNGVYRNFLINL

GLIKEKALFKQDLFEAENIYCINSVRGLKKVKLQ

>AHK52072.1 para-aminobenzoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILFIDNYDSFSYTIIYYLKELSFECKVIKNDGFKKAKELEKFDFTHLIISPGPHSPKESKLSLKAIK

YFKKNKKILGICLGHQCIAEIFGGRVSKMQNPMHGKISKLYFKKDPIFKGIKKEIEICLYHSLHISSMPE

KCKILAHNSENIIMAIKHKKYPIYGLQFHPEAVLTQKGKKILKNFMKL

>AHK52071.1 UDP-N-acetylglucosamine 1-carboxyvinyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTYLEIEGTNHLSGNVTISGAKNAALPLIVSSILAKNEVKINNVPNVADIKTLISLLENLGAKVNFQNNS

ALLNTNTLNQTIAKYDIVRKMRASILTLGPLLARFGHCEVSLPGGCAIGQRPIDLHLLALEKMGANIQIK

QGYVVASGNLKGNEILFDKITVTGSENIIMAAALAKGKTKLLNVAKEPEVVQLCEVLKDAGLEIKGIGTD

ELEIYGSDGELLEFKEFSVIPDRIEAGTYLCAGAITNSKITLDKVNATHLSAVLAKLHQMGFETLITEDS

ITLLPAKEIKPVEIMTSEYPGFPTDMQAQFMALALKANGTSIIDERLFENRFMHVSELLRMGADIKLNGH

IATIVGGKELNAADVMATDLRASSALILAALAAKGTSKVHRIYHLDRGYENLEEKFKDLGAKITRLEE

>AHK52070.1 molybdopterin biosynthesis protein MoeA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNIFETLKDLENQISCLDESELISLEKAKDRILAKDLYARKNLPSFDNAALDGYAFNYTDINEALEIKG

TIFAGDKNFYTVAKNECYKIMTGAKMPKNADTILMLEDECIEENKLIIKKVPKQYNAYRYKGEELKKGEI

LLQKGTKLNDKHIALLASQGLYKIEVIRKIRIGIFSSGNELKEPWQECDEESIYNANALPLLTMLQNASY

LGIIKDDFKSTKEALENTNFDLLITSGGASVGEADFMEKALDELGFTPLFKGLKARPARPTKLYRKGENF

VLILPGNPMAAYLSCFIFAKKIINLLSGNLDNPLTFYGKMGMDLKLKSGRNNLILGNLEKGIFTPFNENK

FGSGMILPLIKSEFLLISEENTGELKKGDEITLLKI

>AHK52069.1 signal peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEILKKLYKFSQSWTGTVVIVLLVIFFFIQAFVIPSGSMKNTLLVGDFLFVKKFSYGIPTPHIPWLEIPV

LPDFNKDGHLIKAQGPQRGDIVVFRNPRNEKEHFVKRCVGTGGDRIVYANKTLYVRMHEGDEFMKEHYPN

DLVTLGGQIYVKEPYKQKGIHYDPKKDIESDILRFLSIGDFAMSPAYIKELGNHIGFSGGNAYVFDVPEN

EYFMMGDNRDYSYDSRFWGSVPYRLIVGKPWFVYFSWDKDKNVRWERIGRFVDTLENDEQYIHDHDDEDK

LS

>AHK52068.1 bifunctional 5,10-methylene-tetrahydrofolate dehydrogenase/ 5,10-methylene-tetrahydrofolate cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTLLDGKALSAKIKEELKEKNQFLKSKGIESCLAVILVGDNPASQTYVKSKAKACEECGIKSLVYHLNEN

ITQNELLALINTLNHDDSVHGILVQLPLPDHICKDLILESIISSKDVDGFHPINVGYLNLGLESGFLPCT

PLGVMKLLKAYEIDLEGKDAVIIGASNIVGRPMATMLLNAGATVSVCHIKTKDLSLYTRQADLIIVAAGC

VNLLRSDMVKEGVIVVDVGINRLESGKIVGDVDFEEVSKKSSYITPVPGGVGPMTIAMLLENTVKSAKNR

LN

>AHK52067.1 hypothetical protein N916\_04245 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIVLMFFLFSISLFGADFITLKEYSKMLYENPRGISCKECHGADGSEQILGYYMKNGIKTAYKVPSIQN

LSFENFKNSLNQSKDAKSIMPNYSLTNDEIVTLYNYIKQFSKEEK

>AHK52066.1 glutamate-1-semialdehyde aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTNKKAFKETCKFIAGGVNSPVRAFANVQSEPKFISHGKGAYIFDIDGNSYIDYVQSWGPLLFGHCDKDI

QKACQKALHKGSSFGAPTLLETELAKLVLSDFPHLEKIRFVSSGTEATMSAIRLARGFTKKDKILKFEGC

YHGHSDSLLVSAGSGAATFNSPSSLGVLEDVAKHTLVAKYNDINSVKELFEKNKDIACVIIEPIAGNMGL

VPAKQDFLEELAKICKNNQTLLIFDEVMSGYRASYLGSYGINHIQADIITFGKVIGGGLPAAAFASRAEI

MDILSPLGGVYQAGTLSGNPLAMAAGIASLTKAKKKTKLYDKLGKLAKKLTQGMKKLADEKGLPLQACHV

GSMFGYFFTKDPVSNYQDALKSDLALFSKFHKNMLENGIYLAPSQFETGFICSKMDDKIIDTTLEAVRES

FKRI

>AHK52065.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSNILKEEKNHLENSNSKRQKIIRKTLEAADGLSLGISMVVAVFIGVGIGYLLKKFTPYPWLFWLGVFWG

ISAAILNVYKAYKVQVKSYEEFKERDELIKEKIQKEKNK

>AHK52064.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEHKKALFCIFAIIHLFFWIIFSSLNHFKLDTFLSYEIAFFSVLLIIFASYLNYKKVIIKKSKNYEKDFN

FISSLFIKKKQNLSKIIHFKVLKDDLKPNVKEKIHFFAMFFTLFKLMAYVILVAGFLFLHRQDKLDIFAY

ICGISSLLVCVFIFILYIKKYESKKNY

>AHK52063.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSPKKIIKSMTALFAGMAFLFAGNALIVSSIGVILKENGESSLAVGVVSSCFFVGALIGTISTHKIISRI

GHIRSFGLFGAIFGISAMLHTVSENLIFWAVLRFFIGICYYGLLMVIESWLNEKSKNAIRSRILGFYEIV

FYLAFGIGVLIIALNLSKHSVFILSATLILLSSLPLNLIKIKEPVLPASSPISIPKIFDIAPLAIVTSFI

AGMLINGFFSMASLFILLQGFDTKAVSYFIFCGVLGGFIAQTIIGTISDKLGRKFAIITCASIGFITMLI

FIFFKLHLYMQYFLGITLGIGIFCLYALALARANDVLVSKNKGVELGRGVLFCYSLGSLFGPLILGFLMQ

YFEIKGFIWFYIVSLAFLILFAINKPNILNKKFKKKPGNMVIFDD

>AHK52062.1 hypothetical protein N916\_04220 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINTQLASQIANTQKNDLKVDNSASKDKTNLKDNPKEALAQALKQNLGLSKDASSEEILAKFVQNETGTK

LKELVNKLLDQINAQKNPDSPVLKQGKNLNLAPNFANELKILSTELAKSDTFTQVLDRLNQILKPASEIK

NNNLAPLFKNSGVFLEAKLKDALNEELLPKSFHSLLSTIKGLSSEKLSVQIAQLANTNLSPKDTLKELKN

IINSSKNENKQILNQSSFKALLNLSSKLENFKNYISKNPSHAQEKITPIANKILKELNSIKNDFFKALNK

PENLMIKDPNILKQTATAFEKLENTLKNILGNQASKIQDKENILENLLSNKENMKEEKLNHNTKNQDEEK

HIKASKEDENLDSGIKTHEEDTQDTKNDIQNNETENKPDNDIKNSTPNQEKIKDEKQEKSKENIKENPKF

YETKTENKTSINTNTNTSNPNTNNTQNLNNTQNIQSNNNQTMQNIFKNQEFIKQNIVKNLAFNVENLDLE

QVQDLSKNLSNLSRRLNESLKELEPYTQNAKLNQAELKNLEHKLNLSIKDLAQIKPKTEQDIAESLHHDV

KSTLLQISNLAKNEGNEAVYNQANRLLAQIEINQLMSLANDSINTYLPFSWDDLNDSKIMFRRGKKDKFF

AQIKLEFAKLGDLEILISLNNEKYIDINIMAENIEFRKTIYENAHELKRNINKAGLLSANFFVGDIIRSK

FDTRNMKNLDLEMGMDKKV

>AHK52061.1 hypothetical protein N916\_04215 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKIKRSIKKAVALGYQKEKNSAPKVLASGKGESAAKIISLAKEHGVPIKEDEDLIEILSKLDLGDEIPP

NMYKAVAEVFAFIYQMANKTPKN

>AHK52060.1 phosphatidylserine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSFSKESSRLFGFVAGIKFPKMIQKVINENYVKYFNINMSEFKAPCEYESLNALFTRTLQIPRKFEEGFI

SPSDGKILECGSTFLANEEHFAFSIKGHAYSVEELLKDSFEKDELKNGLDYVNIYLSPKDYHRYHSPCDM

QILSATYTSGVLYSVNEKHLERISNLYVKNERVSLKCQNEKGIFWLVFVGAQNVGKMRFNFDASIQTNAK

ISHNFTRKYENLNFKKGEELGNFELGSTIVLISQKGLLTFNLKVGQGIKFGEKIAD

>AHK52059.1 metallophosphoesterase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIFLIFSFIVLLIFGLANVYIYKRLIKKITLFKYFYKIFSFIFIVLFLAQAVFLIFRRDEYLSDTWYEIL

AMFYAPTYCLFFMTLAWDFVKLILALMGKRDKTYNLILRLIFELSLIVLSVFLIYASINNALKTPEVKSV

DVEIPNLKKDLKIVMLTDIHLGKNLHENFLDKLITKVNLQSPDMVVIVGDLIDTNPKDLKNYISKLNDFN

STYGTFYALGNHEYYHGINEVLDLLRKHTNMKILVNQNLDLGFIDIAGLGDLAGLDRGLYAPDLARIKVD

LNTSKASILLTHQPKTALLYDLSDFDLVLSGHTHGGQIFPFMFLVKLQQGFVHGLYDLGEKTKLYVSSGA

GFWGPSLRVFAPSEIVILNLKGKK

>AHK52058.1 glutamyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYRFAPSPTGDMHIGNLRAAIFNYICARQKNMDFILRIEDTDKARNIAGKEEEIKEILNLFSISWQHYYI

QSENLKFHRQMALKLVSEKKAFACFCTEEELEAKKELAKKQGKAYRYDGTCEKLADIDVLECEKPFVIRL

KKPTHTMKFTDFIKGELSFEPENIDSFVIMRTDKTPTYNFACAVDDMLENVTCIIRGEDHVSNTPKQEHI

RASLGYNKAMTYAHLPIILNEEGVKMSKREAHSSVKWLLESGILPSAIANYLIMLGNKTPCEIFTLEEAI

KWFDISKVSKAPARFDLKKLLQINREHIKMIKDDELNKILDLNKDLAQLAKFYTQETSTIKELKEKMQAI

FNAKDFGEFETEYKILKELLKDIELFENYEDFKNELLNKSNLKGKKFFMPLRIILTGNIHGPELSDLYPY

IKNFIHELARI

>AHK52057.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVIDSFIISIFQVLQIVINIYTWIIIITALLSWVNPDPYNPIVQILYKLSYPAYALVRKIPTRIGNIDLA

PLIIVLALQFLGIFLGNILRSIL

>AHK52056.1 lytic transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKKILVFLFIFSSLNATQYSIEKLKKEENSLAKDYYIYRLLEKNKISKKDAQDLNSHIFRYIGKIKSEL

EKIIPLKPYINPKYAKCYTYTANTILDANLTCQSVRLNSLVFIASLNSKDRTTLAQTFKNQRPDLTNLLL

AFNTSDPMSYIVQKEDINGFFKLYNYSKKYDLDLNTGLVNKLPNHIGFKDFAQNIIIKKENPKFRYSMLE

INPENVSEDSAFYLGVNALTYDKTELAYDFFKKAAQSFKSQSNKDNAIFWMWLIKNNEEDLKTLSQSSSL

NIYSLYAKELTNTPFPKIESLNPSKKKNNFNMQDPFAWQKINKQIRDANASQLDVLAKEFDTQETLPIYA

YILERKNNFKKHYFIMPYYDNIKDYNKTRQALILAIARQESRFIPTAISVSYALGMMQFMPFLANHIGEK

ELKIPNFDQDFMFKPEIAYYFGNYHLNYLESRLKSPLFVAYAYNGGIGFTNRMLARNDMFKTGKFEPFLS

MELVPYQESRIYGKKVLANYIVYRHLLNDSIKISDIFENLIQNKANDLNKS

>AHK52055.1 molybdopterin-guanine dinucleotide biosynthesis protein B [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKQLIIAFSGPSNSGKTTLITKIADNFLQQNLKVLIIKHDPADKAQFDFNGKDSFKFFQSGAEVMVLSPT

RTTFFSHENRDILKALKLSPDFDICLVEGLKTLDLPRISVFCKEIDESYFIFSNAIASYEKISHPYLTWL

DLNDIQAICQYILKNAKNLQGEL

>AHK52054.1 fructose-1 6-bisphosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQEVISYIQKAVLEISNALKFPDTSYSQNQNFTGDTQLKFDVLSDEIITKTLSQCSSIKAIISEEKDEIL

TLNERANFIVAYDPLDGSSLMDVNFAIGSIFAIYEEKASAKNLRAALYSMYGARLELVICKDQPKLYRLN

ANNEFIFIKDLRMNEKGKINATGGTQKFWEEKHAKFIKSLFDEGYRLRYSGAMVSDINQILLKGGGIFSY

PATQDAPNGKLRAFFEVFPLAFIIEKAGGKTTNGKNRSLLELEFDKIHATTPCFFGSEYEISKLLKAYNE

>AHK52053.1 hypothetical protein N916\_04170 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNEVRDEFEQDMDKKKEILLSCQNSKNLNSCYNCDEIFNCQTRKNYVDAVYNSMSKGKTEGGFDF

>AHK52052.1 methionyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRYITTPIYYVNDVPHLGHAYTTIIADTLARFYRLQGHETRFLTGTDEHGQKIEEAAKLRNSTPQEYADK

ISFEFKKLWDEFEITYDIYARTTDTRHIEFIKAMFLKMWQKGDIYKDEYEGHYCISCESFFTQSQLINDC

SCPDCGKQTRILKEESYFFKLSKYQDKILQWYEEKDPILPKNKKNELINFVQNGLKDLSITRTSFDWGIK

LPQEINDDKHIIYVWLDALFIYVSSLDFQNKGENAKFWPAHVHLVGKDILRFHAIYWPAFLMSVDLPLPK

FIGAHGWWTKEGEKMSKSKGNVVKPKEVVDAYGSEAFRYFLLREVPFGNDGDFSENMLINRINAELSNEF

GNLLNRIIGMSTKYSQGNISKEGVLKFYNAELNQAKEHLNLAVEFLENLQCNRYLEELFKALSVANLAIS

KYEPWSLIKENKHEQANALVALCANILAKTSLLLSPTLPKSSQKVALALNFEISSANYTKMILDNELLDF

KANPCEALFPKVEKALLKQEIKEEPKKEESPKIKIDDFAKIEIKVAKVLDCQNIEGSEKLLKFQLELDDK

EIRQVLSGIAKYYKASDLIGKQVCVISNLKKAKIFGHESDGMILSAKSGDKLVLIAPEQLVQNGSLVG

>AHK52051.1 hypothetical protein N916\_04160 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQISNLGELLNATLIHEGSVLSVEGFAINLNELKTGFAFFNNDKKEIAQAVKKGAYAIITENDITIEDKE

IFYFRVENLERALVRFLRFFCEDKECEFLLFKSYELSLCKAFYFNILKGNIFADFEKLIKAKKGEIFCYC

EENYLNKLCTYSHSLKDANFTLLSRSSFFFTTLICENLYFKNLNLPFFYANSFAKIISFLKEKSQKIIFD

FNKIDDFKIYFIDDKFEITPFGSSSQAFIVSNNQNTFEFWKEKFKNIKDFKIASKNSLFCDFSYNQLSDL

RKLKNFKYCLILENYDIFEQEFENKENQTPSLF

>AHK52050.1 methylated-DNA--protein-cysteine methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFKVYYKMPLCYLSLHSDGKFLTRVDFCDNKRSEKNCSLLDLAKYELDLYFTHKLRKFSIPVLIQGTDFE

SKVYKALMEIPYGKIATYKDIAEKINHPKAFRAVGNANSKNQIPIFIPCHRVIASNGIGGYNGGLEIKRF

LLENEGVNLK

>AHK52049.1 bifunctional aconitate hydratase 2/2-methylisocitrate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSFMQEYNKLVEERAALGIPPLPLNANQTRELCKLLENENNEELANLLENRVNPGVDDAALVKCEFLDSI

LKGKISAPNIDKKRALRMLGTMLGGYNVKVLIDALKDENIAKDAAEVLKNIIFVHDNFHTIAELSKNNPH

AKEVLQSWANADWFNKKEKLPQVIKCIVFKVAGETNTDDLSPAGDAFTRSDIPLHANAMLKVRQTGSLEK

IKELKKSGREVVYVGDVVGTGSSRKSAINSIQWHLGKEIEGVPNKHSGGIIMGSTIAPIFFNTAQDSGAL

PIICDVTNLEMGDEFEIHPYEGKIIKNGSTIAEFTLSPNTLLDEVRAGGRIPLIIGRGLCTKAREFLGME

SENIFTKPEQPKSSSGGYTLAQKMLGRACGVEGVRPGMYIEPITLTVGSQDTTGPMTRDEIKELASLGFN

ADFVMQSFCHTAAYPKVSDSNLHKTLPNFMTSRGGVSLKPGDGVIHSWLNRFVLPDTVGTGGDSHTRFPI

GISFPAGSGLVAFAAVTGSMPLNVPESVLVRFSGELQAGVTLRDLVNAIPYYAIKQGQLTVEKKNKKNIF

AGKILEIEGLPNLKVEQAFELSDASAERSAAACSVDLSIESVSEYIKSNISLIEAMIEVGYENKATLARR

AEKMREWLKNPTLLRADKDAKYAYIIDINLNNIKEPILACPNDPDDVATLSEILADDKRPKNIDEVFVGS

CMTNIGHYRALGEILKDKGILKTRLWVVPPTKMDKAQLINEGYYSIFGAAGARIEVPGCSLCMGNQARVN

DGAVVFSTSTRNFDNRMGMGAKVYLGSAELAAVCAILGKIPSKEEYLQIVSEKLSNEHKANIYRYLNFNE

IENFKLEN

>AHK52048.1 ankyrin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRLKISNLKINSNLILNNKIKIFKGKILKLLFTSFCCFASLMASDAINCDNIKNNKTLLNESSNLDYLNI

ASSCKESLKNQDFTKKLYAISNEIRGSNSSCNGVAYLPKLQQFDFLLLKIAIDPIAYQKTLDTPENLEKK

YDILKSYFRYWAYQSIGNFRLYKAFWQEYNNAIEPLEKYFESNFNFDKGSNIYYTSNALNEFLNWAVGET

KIYKDISPLAKIMSNKNYSVSYIQDFIFSNNPSQDDLTIALQAALLNQREKEILELLIRFGARIDEGYES

AIFYALESYENTNFLIQNGANVNQANAFGKTPLFYAIEFNRLDIIKLLLDNGANVNQKYINNNEKLALSA

NIGSNTPYFITFCALEHTSKNVLMHAAAYGNVEILKLLISKGANFNAVDDLGFNALDFALSAGKKENADY

LKSLGLKANENLFYGGSLE

>AHK52047.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTAFITGASSGFGRACVEAFIQEGYKAIALARRKERLEELKNAYKDKIYTLCIDVRNQKEIFEAIENLP

KEFQEIDVLFNNAGLALGVDEFDKLNLEDINTMVDTNIKGFLYVAKAIIPILRKQKNAYIFNLGSVAGRN

PYFGGNVYCGTKAFVGQFSLALRNDLRGSNIKVTNIAPGLCKTEFSEVRFKGDIQKADAVYENTQFISAN

DIAKVVMSIINLPSHINVNEIELMPVTQTWNGFYIERDE

>AHK52046.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKFLVSLFLPLVAFANSSEAAANANLFGAFTLIPPLVAIALAFITKDVILSLFTGVLSGTFLLSLSTNI

FKAQHLTFVNYYNTTVESFSKIISYILGSTSDPVNAGIILQILCIGGLVALITKMGGAKAVALKFAKRAK

SAVSAQVNTWFLGLLIFFDDYANLLIVGPIMRPLADKFKISREKFAFIIDSTAAPVAGIAVISTWIGLEV

SLIKTAYEHIGISNISAFGIFVETIPYRFYNIFMLFFVVMTAIMGREFGSMYKAEVRARTTGQIAPLPKS

GTLDTTELEDQFLAPKEGIKIRAFDAIVPIFTLIILAILGFYFNGLSTLEGEELAKASTNPLSFETFRAA

FGNADSSVVLFQAALFAAIVAIFIGVRRKIFNLKEAVETWIYGWKTMIFTIVLLLFAWSLSSIVKDLGTS

LFITSLLADKLPEFILPATIFAFASAISFAIGTSYGTMGILMPLAVPLAHEIAKINGMDANAMHHYMVIN

ISCVLTGAIFGNHCSPISDNVILSSMSAKCDHMEHVRTQIPYALFICGISLIAGYIPVSLGLSVWFVLPL

NFILIALLLRLIGKKVP

>AHK52045.1 tRNA (uracil-5-)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSLENFGNFLTLDEKHSFIKKYFKEFYTKDFKLFASKDKHYRTRAELSFYHENDTLFYAMFDPKSKKKYI

IEYLDFADEKICAFMPRLLEYLRQDNKLKEKLFGVEFLTTKQELSITLLYHKNIEDIKSNLENLSNILHI

NLIARSKGKKLIFKTENLRQTLNIQDRKIFYEFNNDCFIQPNTAINEKMITWVCEILNTQKRMDLLELYC

GYGNFTLALAPFFFKILATEISKSNINFALKNCELNNTTNIHFARLSSEELSLAIKKEREFFRLKDIRLD

DFNFSHVLVDPPRAGLDKSVIDLIKKYGNIIYISCNPMTLKENLKELSLTHRVEEFALFDQFVNTPHLEC

GVFLSKV

>AHK52044.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEEFYPYTLTIHLLCAILFIGYLFVDVFVLGVVKKKNPNFDKSLFSATGVKIMPFVVLLLFLSGGALAGF

HFKPLNLLFAVKIILAFGILSLVVFSLFCHFILKKKNPLGVFIHPFVFVLCIAIVILAKLMNYFFIPC

>AHK52043.1 CoA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNEKETISYIINTSKNIVIFALSPDKTKASYRVAEFLQRKNYKIFPIYPKEEFILNEKVYRNLDQIEEKI

DTLILFRKGEVALEILPKLVEKNIKNLWLQLDISNETAKEECKKLDINFIQNRCIMLEYPHFKTKEK

>AHK52042.1 threonine dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLELNKIYKAKQQISGFVNKTPFIYSSFLSDICQSEIYLKNENLQITGAYKIRGAYNKIANLSTEQKQHG

VIAASAGNHAQGVAISAKKFSIKAVIVMPESTPLLKVSATKALGAEVILRGDNFDEAYAFATSYAKENNL

SFIHPFEDEFVMAGQGTLMLEMLDEISDLDMIIAPVGGGGLISGISSTAKQINPNIKIIGVGAKGAPAMY

ESFHAKKIKNAKSVRTIADGIAVRDANPINFNIILECVDDFIQVDDEEIANAVLFLLEKHKIIVEGAGAA

SVAALLHQKINTQNHKKIGVVLSGGNIDAQMLNIIIEKGLFKSYRKMQIYVTLVDKPGALLHLTDSLKIA

NANIVKIDYDRFSTKLDYGDAMISITLETKGKEHQEEIRKILTQKAFNFYESF

>AHK52041.1 tRNA pseudouridine synthase A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIKIIFSYDGSAFLGSATQPHKKGVQDALSGALSHLGIFSPLLMASRTDKGVHASYAVASVECGDYFTN

LEYLQKQLNKFSHPFIHIKKIEKVKDDFEVRFDVKSREYRYIFSHASYSPFMASYVHFYPKFDLGKANEL

LGFFVGKKDLKFFCKSGGDNKTTLREIFIARAYAYKDFSIFHFKANGFLRGQIRLSVASVLKVLEGKMSE

KELKEQIEAKKQYNHFLAPPNGLYLSRICY

>AHK52040.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLSLRYVLNQFLSTNLSIFFVLFAIVSMVFFIQLAKLTSSIEISFLDLLKLYGFMLPRILIFTLPISFF

ISLTLALFRLSKENESIVLFTLGFSPMILAKFFLKIASLISAFMLVVALVMIPIVFELQDNFVNYKSTQV

KFNYKTGEFGQKFLDWMIFIEKQDSDKYENIIMYRPKHKADDKEQLIIAKEAHVQRKDDSFAFSLNQGKM

YNFEQGQSIFSGEFDTLVVNTQFNTDNLQTKKFYEYWNDLNENLQRAREFVIYTTIALFPLASTLFALCF

GLVTYRYEKGYVYLGMFGVIAIYFGLLSSFSQPPILACLGIFSLSLFVSAYCFKKMILSRY

>AHK52039.1 multidrug transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIFFIIILGACLGSFCTSLASRIIEKKLFFISRSFCFSCDTKLKYYEIIPIFSYIFLKAKCQTCKCHLSI

SLLINEILGAILLILVYSLSQNFYDFLFLSLFLFNLFLLSLIDIKLKAVPQILLWSAFLFAFFYAFRESE

ILHFLIFKEFSGGFLLNAFSFGGFVFLLKSLVFFLMNFQKKDEILENLGDADIIIMSCIGGILGFEYGFL

VLFIASILTLPFFIFFRIKAIKEQELAMIPFLNIAFVAVLFYKNLGLF

>AHK52038.1 UDP pyrophosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNELKHLAVVMDGNRRWARAKGFLAKLGYSQGVKTMQKLMEVCMEENISNLSLFAFSTENWKRPKDEIDF

IFELLDRCLDEALEKFEKNNVRLRAIGDLSRLEDKVREKITLVEEKTKHCDALCVNLAISYGARDEIIRA

AKRVIEKKLELNEENLTQNLDLPLDVDLMLRVGNAKRLSNFLLWQCSYAEIYFSETLFPSLTKREFKRII

KEFRNRERTFGK

>AHK52037.1 hypothetical protein N916\_04090 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSMINSTLPIQMKVLAKSGYGHYTLLLNHKKIQTKSMIELEIGAEYLAELYMQNGGVIQFKHLSKRPNFK

PFEEGLALIIAILEDKISYKKFIIQNLLDCKDIERYQILKEMLFASFENIYHIPFNFENKSCLFQMRKRA

KYLEIYLYFSVFGALKILIDSQGISVFTPFAKVQKFLNEHLDFNVSQENKIEPLFVFKRLFDFKG

>AHK52036.1 phosphopantothenate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTILLAISGSIAFYKSYELISLFKKEGFRVKVLLSNGLLKFASKMSFEALVDEVLCEENESWQNSNNHI

AFSKDVDLVLFTPASVNSINKLAFGIADNLFIQTLIAANKPLIIAPAANTNMFHHFSTQNSLKILKENKA

LIIEPICKVLACKDEGVGALAEVKDIFNITKRELLKEKFWCNKSVVITGGGTRERIDDVRCVSNFSSGKM

AKAIADAFYFLGARVKLLSSVEFDTPYELCKFESSKDLKELLDKNLSHDFLIMTAAVSDFIPQSVKGKIK

KNEHLQGLNLHLSLNEDLLKTCKFQGKKIGFKMEFDSQNALENAKKSLKDKQLDMVCLNIIDQKNYFGSD

QNELYFITLNNENKSTLQSKEKLAFELVKWCEKL

>AHK52035.1 N-acetylglucosamine-1-phosphate uridyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTSILILAAGLGTRIKSQKPKVLQELCQKSMILHILKKAFALSDDVSVVLSHQKERVEKEILEYFPKTQ

ILEQDLQNYPGTAGALSGFEPKNERVLILCGDMPLVEQTSLEALLGNNAKLNLAVFKARDPKSYGRVVIK

NDSVEKIVEFKDANTQEKEINTCNAGVYVIDSRLLKELLPLIDNNNAAKEYYLTDIVKLAKEKDVMIKAV

FVDEDEFMGINDKFELSIAENFMQKKIKKYWMQQGVIFHLPQSTFIGADVEFVGECEVYENVRIEGKSKI

INSIIKSSSVIENSIVENSDVGPLAHLRPNCELKNTHIGNFVECKNAKLNTVKAGHLSYLGDCEIDSGTN

IGCGTITCNYDGVKKHKTIIGKNVFVGSDTQFIAPVKIEDEVIIAAGSTVSINVEKGALFINRAGHKMIK

DYYYKKFQK

>AHK52034.1 flagellar biosynthesis protein FliP [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILLFLLLSMSLFAAEATIPTVNLSLSAPNTPNQLVTTLNIVIVLTILALAPSIVFVMTSFLRLIVVF

SFLRQAMGTQSMPPNTILVTLALILTFFIMEPVATKSYNEGIKPYLAEKIGYEEAFIKGAKPFKDFMLKN

TREKDLALFYRIRNLPNPKTIDDVPLTVLVPAFMISELKTAFEIGFLIYLPFLVIDMVVSSVLMAMGMMM

LPPTMISLPFKLLIFVLVDGWNLLVQRLVESFVT

>AHK52033.1 amino acid ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIILIFISFFALNLSAKDLVVGMELGYPPFEMSDKTGKASGISVDFLEAFAKKNGYKLVVKNIAWDGL

IPALKTAKIDLIMSSMTITDKRKKVVDFSIPYAKANLAILTPLNSDITNIKDLDKKGKVLALKRGSTGHL

YAVKNLKNATINLFDKENAAILEVIQGKADGFFYDQLTIYRTWQKHQDTTRAILAPFQENPEFWGIAVRK

GDEALKDKLDNFIDESRKNGFLDFLGNKYLKDIKEVFKQNNITFFL

>AHK52032.1 3-deoxy-manno-octulosonate cytidylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDAKMIIIPARLKSSRFHEKILCDIGGVPMFVATARRVSSVDEVCIALDDEKVLSIAKEYGLNAVLTSKD

HESGTDRINEACKKLALKDDEIIINVQADEPFIECENLLKFKEFASFCLDKKAFMASCYKKITQEEAMDP

NLVKVLCDKEGYALYFSRAKIPYERENYEESFKGHLGIYAYSVKALREFCSLSSSALERAEKLEQLRAIE

NGKKIKMLEISTTSMGIDTKEDYERALKIYLEK

>AHK52031.1 threonine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLVESRNVNNVSSFKEALINPNAPEGGLYSPLNLPIFEGEKYANLSYKDFALKLIESFGFGEEELFKKA

LKSYESFDDKNTPISLQKISEKTYINELWHGPTRAFKDMALQPFGVLLSEFSKDKNILIICATSGDTGPA

TLKSFENAKNVKVACMYPKGGTSGVQELQMRALDKDNLKVFAIDEDFDAAQRTLKELLFSKDFQNEIKAL

NYELCAANSVNFGRILFQIIYHYYASLKLFNEFLEEVQIIVPSGNFGNALGAFYAKKMGAKISKIKIASN

ANNILSEFFNQGVYDLREKSLKKTISPAMDILISSNIERLLFAKFKDKRTKELMNLLKNERYFKLEKEEL

QSLQEDFEADFCTDEECMQFIKQSKILIDPHTATCFKMLDPLKPSIITSTAEWTKFTPSMIKALYDRDSK

NEKEDLKFIAKEFNVQVKDEILALFDLKNSDEKVFEARNIKKEILDWMQK

>AHK52030.1 tetraacyldisaccharide 4'-kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNEEKNYELWLDNYFFKPNFWQKCLAFILLPLSVLYAFFAILNTFFRKKIVFKKPVISVGNLSFGGNGKT

PLCKAIAREFDGVFIVLRGYKRKSKGLFVVKNQNEILCTLTQSGDEAMEYAFEENIKGVIVSEDRVKGIE

KAFELGAKIVVLDDAFSKFHIKKFDILLESKIKPYFNFTLPSGAYRLPKFYEKRADFIALEGRDFVRYSF

VKENPKAVLVTAIAKPFRLYEHFIKARACYFFKDHYEFKKEELENLLKKHNCDTLMLTFKDFVKVKDFGF

KCQIIELNIELKDSLREKIKTYIKEFEQ

>AHK52029.1 NAD synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDWQKITEKMCDFIQEKVKNSQSQGVVLGLSGGIDSALVATLCKRALKENVFALLMPTQISNKANLEDAL

RLCADLNLEYKIIEIQSILDAFIKQSENTTLVSLGNFAARIRMSLLYDYSALKNSLVIGTSNKSELLLGY

GTIYGDLACAFNPIGSLYKSEIYALAKYLNLHENFIKKAPSADLWENQSDEADLGFSYTKIDEGLKALET

NDEKLLRTLDPSLIAMLKNRMQKNAFKGKMPEILEI

>AHK52028.1 beta-lactamase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIIKQACGVYETNCYILFTPKGEFIIDPGTDALLFIKKHVKNPLAILNTHGHYDHIWDNAKVKKEYNIP

IYIHKNDAFMLHDDFNQGYDSSDADFLVDNEDILNICGVDFKFHFLPGHTPGCTMIEIVGKNIMFSGDFL

FYRSIGRWDFPYSDANLMKQSLEKVMTYKEDFKLLPGHGQETTLKEEQVHLPSWLRYF

>AHK52027.1 hypothetical protein N916\_04025 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MELDQILLYAFIFLNLFALFGLFLGNKKKNQFNDKKFYKICPCKKMAENGSLSTICIYSAVGGFFYSVLS

IGFVGFGNWTLNFIFLLALLSVFLGWKLKLD

>AHK52026.1 7-alpha-hydroxysteroid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNTEFQGKTLVISGGTRGIGKAIVYEFAKVGANIAFTYNSNAQIADEMVQDLEKNYKIKARAYEFNILEP

ETYKELFEKIDVDFDRVDYFISNAIISGRAVVGGYTKFMKLKPKGINNIFTATVNAFVVGAQEAAKRMEK

VGGGSIISISSTGNLVYIENYSGHGTAKAAVEAMARYAATELGEKNIRVNVVSGGPIETDALRAFTNYEE

VKQATINLSPLNRMGQPEDLAGACLFLCSSKASWVTGHTFIVDGGTTFK

>AHK52025.1 dihydrodipicolinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDKNIIIGAMTALITPFKNGKVDEQSYARLIKRQIENGIDAVVPVGTTGESATLTHEEHRTCIEIAVETC

KGTKVKVLAGAGSNATHEAVGLAKFAKEHGADGILSVAPYYNKPTQQGLYEHYKAIAQSVDIPVLLYNVP

GRTGCEISTDTIIKLFRDCENIYGVKEASGNIDKCVDLLAHEPRMMLISGEDAINYPILSNGGKGVISVT

SNLLPDMISALTHFALDENYKEAKKINDELYNINKILFCESNPIPIKTAMYLAGLIESLEFRLPLCSPSK

ENFAKIEEVMKKYKIKGF

>AHK52024.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIAYEKIQLKNKLEVYALPVNKNSDVISVDIFYKVGSRNEIMGKSGIAHMLEHLNFKSTKNLKAGEFDEI

VKGFGGVDNASTGFDYTHYYIKCAKKNLDKALELFAELMANLNLKDEEFQPERAVVLEERRWRTDNNPLG

YLYFRLFNHAFMYHPYHWTPIGFFKDIENWSIEDIKEFHSIYYQPKNAILLVSGDIESKEVFELSKKHFE

KIKNTKTIPKIHTKEPKQDGVKRIYLHKNSDTELLALAYKIPNFKHKDIPALNALSELLGSGKSSLMSEI

LIDKLNLINDYYAYVNDCIDENLFIFICNCNPNVNAEKVEKELLKIIDKLKMGKISQKDLQRVKNNVKSD

FIFSLNNASAVANIYGSYLARGDINPLLNYEKDIQNLELKDLISCAKKYFIQENSTTVILRKDSNG

>AHK52023.1 diguanylate cyclase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAYEMIKLLLFKLNPEHAHALVEYSLRALSASFPGALSFLAHKYIVDDESLRQNLLGLDFNNPVGLAGGF

DKNATMIRPLSALGFGFLEVGTFTPKPQEGNEKPRLFRLVKQESIQNAMGFNNEGAEKIALRLAKTYPFV

LPLGVNIGKNKITPNDKALEDYFTLFRDFKDLCDYFIVNISSPNTKNLRELQNDDFLNTLLEEAKKITSK

PILIKIAPDMKIDDALNLCENAIKKGADGFILANTSVDYSLLDNNRTFGGISGRLITEKSGIFFKEVTKI

LFGKTLLIASGGIDSADIAYERIKNGANLVQVYTALIFKGPSLVKNINQNLIELLRKDGFLHISEAVGVN

LK

>AHK52022.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHNEMNLKEVLIRFKPFYKRYWKQFAIAIFGMILASGGTAGSFYALEPILNYIFVEKNEALLYTVPFLLV

LMYFFKNLGTYLQSFYVSFIGTDMLRVLRARVLKNVLRLDMDFFKRYRSGELVSRCTNDINALQSIVSNI

IPDFFRELLTAIGLLAVVLYQSPTLAFFALVILPLAIFPLVWFAKKLKKYARNIQETNSDLLSYLGEIFS

NIELIKANDNEKKESDKFAKHNDTLCKLNLKSARIDALTSPLMDMMGSVGVAVVIIVGGREVINGSMSVG

SFISFVSALFAIYTPLKRLSSLYGKLQGAVAASERTFYLLDLEPQIKGGSKELKNIEKISFENVEFAYEN

PHKSVLKGVNFDFVKGQMLALVGTSGGGKSSIINLLMYFYEKQKGKILLNQEDISTFTIESLHAKIGLVT

QNIYLFNDSFAANIAYSEELEEEKVIQALKLANAYEFVKEMGGIWAEVKEHGKNLSGGQKQRIAIARALY

KNPDVLIFDEATSALDNESEKAIVKTIENLKQDRLILVVAHRLSTIENADKIVVLDKGKVLAIGKDEELL

QTCSLYQKFKSKEKTKPSFS

>AHK52021.1 cysteinyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRLLDSVTKEKIKLDKKDISIYLCGPTVYDDAHLGHARSSVCFDLLRRVLLAQGNRVKFARNYTDIDDKI

LKKMAQSGQTLEEITEFYIKSYEEDMRVLNVLDPDFKPRATHYITAMLDLIKKLAKDGFVYTLEDGIYFD

TSKDEKYLSLSNRNLEENISRLSNEVQKRNESDFVLWKFDENFYESEFGKGRPGWHTECVAMIDSIFENT

LDIHAGGIDLLFPHHENEAAQCRCGCKRKLANIWLHNGFVKIDGEKMSKSLNNSFFIKDALKEFMGEALR

FYLLSSHYRSHFNYSLSDLENAKKRLDKFYRLKKRLDLGEISDFDVLNDIGIKSEIAKQILEILNDDLNV

SKALALLDDFISSANLELDKESKNKILKQNIKEALSELAKIFGFGFMDATLYFQWGVSKEEREEIEKLIL

ERTEAKKNKDFNTADAIREQLNSKKITLLDTPNGTIWEKINA

>AHK52020.1 ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MALDEKIIAYTENPARELLSVASRTNLSLNELDFSLLAFSTQYRFGDLEWEKISEKELTLFDKDEIFLKN

DLQIKQEYKIEIFHGINQSKASQAVKLVANKNLTKIVAQIDFTNLDFHEKLALELLQNIYKKMLKLKFLI

GIRIFDFKKKLMSFCNQYKNTPLNKTIQITVAQGIDPIESQDESLILTYKEKTKNYTIDEKRSGIIVVDE

NEVVLKHVKFKQGKEGKDLNLHTLKVLAANENKVKFSCSSAFKQVEQDGYTEYIALKKGYVVQDGEKFDI

ANELDFNGVDFKNIGIIRAGLDKNVKINIKFLSEVKDAVNSGVGIECEELNVVGSVGSNTQLNATKMKIE

GTTHSKAKIQAKQAYIKTHRGFAEAEILNIDLLEGGTIKAKEVRIKKSLGGNIQADKIYIENLESNNSCV

FFENTTIERINGDNNKFHAKIKTLDKNYDEEFAILGEQISKLNHKINKIRQYILSSKNGILSVEKKITEL

KNQGQNVPVQYEKALKDFSLQNLELNKLQNEEKELLERKKSLQLELINLQKMLFEATFINKSGKWTDMNE

IKFSLLEPKEDIFCSSFVNESAKFIGIKKVIQNNQESIEIHKKLDYEEKDIAWLSASKE

>AHK52019.1 Holliday junction DNA helicase RuvA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVVGIEGIITKKEPTFIIVKCASGLSYGIFISLFCSAKIQTQEKHEFFITQIIKEDSNKFYGFLDKDEQK

MFEMLLKVNGVGANTAMAVCSSLDVNSFYKALSLGDESVLKKVPGIGPKSAKRIIVELSDTKTKLENVSD

DKSEALAALLTLGFKQEKIISVLVSAQATGTSELIKEALKKLG

>AHK52018.1 D-alanine--D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFAILFGGNSYEHEISIVSAVVLKKVINQNLEFIFCDEERRFYHIPSEKMNSKTFSTKAYKKEKELFIK

QGGFFSKGFLKENKLECECVINLIHGRDGEDGKIAALFEFYSIKFIGPRLEASVLSFNKELTKLYAKSVG

VKTLDYTILRKNQNSKEKLSFPCIIKPARLGSSIGISIVKDEKDLEYAKDVGFEFDNDLVVEEFKNNIKE

YNLAGCMINDEFVFSIIEEPKKKEFLDFEQKYLSFSGHNELIEADLSEELKEKLKDSFKKIYNPLFKGAL

IRCDFFILDNEIYLNEINPNPGSLANYLFKDFNTTLNALADQISLEKMIKINYNFLHSINGQKGKL

>AHK52017.1 prevent-host-death protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLSFKQDEIYTATEVVRNFSPIMEKLKKSESGKIVILKNNKFEAVMLSMKEFERLQNAMQLLENIYKNQK

A

>AHK52016.1 2-hydroxy-6-oxohepta-2,4-dienoate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAQTQLSYKNKTYQISYEILGDLSLPQILILHGWGADKKLMKQSFCPFLKDFCQIYMDLAGFGNSSVEEI

LNTQDYANITELFLKQKKLNVCFFMGHSFGGKVSTLLAKEKDTLILLSSAGILAKKSLKVRFKIRIFKIL

KLFGLGKFYRYFASKDGANLSPIMYETFKKVVDEDFSEIFAKQKAKSLIFWGKSDEATPLYCGEKMHQFL

KNSTFYPLEGDHFFFLKHSAFIAQKIKEI

>AHK52015.1 UDP-N-acetylmuramoyl-tripeptide--D-alanyl-D-alanine ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLINTLYFINSLFFNFCIAFYLMSALQWYSYKFKRVFFHYHKPLWHLYFLFIPYFLFLAFPLYSLVYFAL

IHTPILYFWNKGIDKKLVFTSKVKWFFVFVFVYNAIFTILALRFSFLFNLFSLPFALLSLKIYEFFTNLY

YKKQAKAKLRANENLKIILITASFGKTSIKNFLYELLKDDFKSYKTPRSVNTLLGIVADINANLSQDTQI

YIAEAGARLKGDIDEITHFLQPQISIVGEIGNAHLEYFKSVENIRSTKLEALNSERLEKAFLHSSTQKEE

DKLISLYDDKLSLIHSSLEGLEFKVDIENKSYDFKSQILGDFNAQNLCVCILCAHYLGIKLEKIQKQVLN

INSVEHRLQVLSREPKFIIDDGFNGNFKGMSTSYKLCKSYKGRKVLVSPGIVEVSEEENIKLAKIINECF

DLAIISAQINAEIFKKELKIKTIILKEKSQLVQTLAKETKHGDLILFSNDAPSFM

>AHK52014.1 signal transduction histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNESILKSLDSNEKETLQKGLESLIEQTYVIENEYKTLNENYNSLRAMVDEIIEVLPSALWILDKEKNII

LQNQEALKNPKLLSIISLDKIRDELEFEGRFYAVKIIAHNEKTIVSATDISDEKRNERLASMGSVAAHLA

HEIRNPIGSISLLASTLFARSELKNKHIVLEIQKAIARVERIVNSTLLFTKGVHINALNFNLLELKEECE

SAINSYNFTSQIDFEISFLDKQICADKALLGLVLQNLIYNAIDAIEESECEKPMIKILASYDNEKICIRV

YDNGCEIKDEKLVFEAFKTTKLKGNGLGLSLSKEIINAHKGELSFQSDPKNFYFTLPLV

>AHK52013.1 hypothetical protein N916\_03950 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHKNLSLSKLFDFYSVFEGFEKLNILNFEDDVFTNIERILLDDYLKIKSYFALDETSSYALTLLAKNNRK

RFSINRKIQHFKALSTLKYLLETGIIKLEYSKEAKKIKDKRQKIKKELRSYVVQDKIIFSNHFTRFFFYF

LKPNEKLILQNRYKEVLECIKEKFELYQSFCFEQLSRELLEKKFNINGVQSYWDKNLELDLYYQDENLCF

VGEVKFKNKKICKNILNLLKSKAKSLNLAPNYYIIISKNGFSKEIDKICEQNLLLLDLNDFKILLEE

>AHK52012.1 aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQISDLKKELILKKGILHFDFTASALALKCVEKEILKILPTYANTHSDSSLNSFKTQQTYEQARKDIKKS

LSLDENFALIACGTGSSSAIKKFQELIGIYIPPLVKERYFTQIDKNTLPLVIVGPYEHHSNELSFREGLC

ECIRIPLDKNGEIDFDFLEKTLQKNKKRKIIASFSLASNVTGILSDYKRISEMVRKFKGIVAFDASSFIP

YKNISCQYYDALFISSHKLIGGIGGSGLLAIKKDLCGNKPSFAAGGTVGYVSRTSQCYLCNEEALEEGGT

PGILQLIRASLAFKIKDSIGVKNIEKKEEILKDYFFEKLKTIPNLILYAKNLKTRLPIFAFNIKGISPFD

IAYELSKKYHIETRAGCACAGPYGHDLLGLKDNQKLKTKPGWLRISLHYTHEKEDIDYFFNALNKTIVKL

SH

>AHK52011.1 formyltetrahydrofolate deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MISVLKICTKDQKGLIYRISDVIFKYHINIVKNDEFVGEGMFFFRALLEGEFDKEAFIGTLEAMLGQEAL

IELCEKRKKDIVVFATKESHCLGDLLIKHYSNELEANIKAVISNHNSLKDLVEKFEIPYHFISAENLDRK

EQENQILKCLEQYKFDYLVLAKYMRILSPDFVRHFEGKIINIHHSFLPAFIGANPYKQAFERGVKIIGAT

AHFVNNNLDEGPIITQAVSPVNHEFTWQDMQQAGRNIEKDVLSKALDLAFEDRIFIHNNKTIIF

>AHK52010.1 multifunctional Cca protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVGGSVRDLFLGLKICDYDIELYDIKPKDFEKIMQKLGAQGFGKSFFVYKFKNYDLALARTENKISYGHK

GFEVQICNDEKLGAKRRDFTINSMMINLFNDEFLDFYGGLKDLGVGFLRHIDKQSFQEDSLRVLRAVVFA

SRFNFKITSESLKLMQSMDITDLSKDRINAELCKFFKSPRLDVGYRYLQELGLEKQVFGFESVFKSSEFQ

NLLRQSREFVKSDALFLYLYLNFFNLEKDIFFKRTKLKKEYLKYANQAFYLDDISDFELAKIAFEMPLKE

WLGLWSKKRIEQAKRLGLYENKFESKILAKDFINAGFCGKILGLKLQEARENELKEYIKGLAK

>AHK52009.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLEDLAKKTISEVSSIMEEQRRQNEILKEQELNRKTEIKDELPPMEFVCEELDTPQDLEDKISMAKFEE

EQKIQNNIEISTQENKEFKKEEPFLQNEILNPSVMTEVQTLNEDIFLKHLRERILVLFEGLNSIKKDDLE

NRLNLTINFLEFLLANIEDKLKK

>AHK52008.1 hypothetical protein N916\_03925 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNTVTEASIYEAQGLKDEALEIYKNILKEDPNNQNAIDAVRRLSGFRSKHKDLNTQMLDFFINMKSDEE

INEFKRWLIKI

>AHK52007.1 hypothetical protein N916\_03920 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVFLIPLLIIIGVIFGIDYVYFKNQDLKVQVKKEQKELNSSLEKEKKEYIEKLFKTK

>AHK52006.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNNLSSVLILAKEEYINDLKKAISEIPFCSVELCENEKIIVVIESENLEDELNSYKMLEKLPNIISINMV

FSYQDLNDDIQKAINSGAIETIEKNENAENVRYYGSVFNQFS

>AHK52005.1 hypothetical protein N916\_03910 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKFLFILSLFCVLSYAYELKLNANITALKLDKQNLYIGTDKGEILQYNIKDKSLKELLSLPKIKNYYGD

DFAKIYNIDIFKHTLLILSEGDFGAKNLSFYKENLQIKKLEENSIIKAFFINENTYLLISIGSEIELIDK

SLKNIKKFNFSHSSLNDAVLNEDKSRLIAGFESGEVELFDLKNWKMLKNYDKMHKDNIYQVDFKNNVILS

CGTDRRIGVVKNEEQNFLQKDFLIYTCALSPSGEFAVYSDNEAGVSEVFSTSDFKPVKTFNNENLMSEFI

IFLNNKDFIVSGFGDSIMFRSIDE

>AHK52004.1 nitrate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKKLVLLGSAAVVFFAACAMNSGVSSEQIGLRKASLENENKVNLVEANFTTLQPGESTRFERSYENAPP

LIPHAIEDLLPITKDNNMCLSCHDKAIAADAGATPLPASHYYDFRHNKTTGDMISDSRFNCTQCHVPQSD

AKPLVGNSFKPEFKNEQLKSRSNLIDVINEGVK

>AHK52003.1 quinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKYLIARRIVQLGILALFSFKATDFILQGNLSSSRLFNTIPLSDPFAVLQIILASWSIDLMALIGALIIF

FIYGLLLGRVFCSWVCPVNLITDFAAFVRNKLTLNNKFLILPKNLRYFVLVLVLVLSFVFSLPVFESFSY

IGMIHRGIIFATSSWIFVAFILFCIDTFLSPRAICSHFCPLGAFYAFISRFALLKIKHDSDKCTKCYECI

RICPEKQVLWMVGKESTSVKSGECIRCARCIEVCNDDALNFNIFDLRNK

>AHK52002.1 quinol dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKGRREFFVSAFKAACLCTGGGFLANLALKADDNYALRPPGAENEARFLSKCIRCGLCVKACPYDTLKLA

SLLDSPKNGTPFFKAREIPCYLCKDIPCIRECPTDALDKKHLEQGIESLKMGIAIVDSASCVAHWGIQCD

ACYRACPLIDRALKLELKRNERTAKHAFLLPSVDHEVCVGCGLCELACITEKPAIRVLPREYVLGKAGSH

YVKGWDEKDEGRIKNADTSKHFNVKKATNYLNDGEL

>AHK52001.1 nitrate reductase catalytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNRRDFIKNTAIASAASVAGLSVPSSMLGAQEEDWKWDKAVCRFCGTGCGIMIARKDGKIVATKGDPAAP

VNRGLNCIKGYFNAKIMYGEDRLVMPLLRMNEKGEFDKKGKFQQVSWQRAFDEMEKQFKKAYNELGVTGI

GIFGSGQYTIQEGYAALKLAKAGFRTNNIDPNARHCMASAVVGFMQTFGVDEPSGCYDDIELTDTIITWG

ANMAEMHPILWSRVSDRKLSNLDKVKVVNLSTFSNRTSNIADIEIIFKPNTDLAIWNYIAREIVYNHPEA

MDMKFIKDHCVFATGYADIGYGMRNNPNHPKFKESEKDTVEKENVITLDDEEATSLSYLGVKAGDKFEMK

HQGVADKNWEISFDEFKKGLAPYTLEYTARVAKGDDNESLEDFKKKLQELANLYIEKNRKVVSFWTMGFN

QHTRGSWVNEQAYMVHFLLGKQAKPGSGAFSLTGQPSACGTAREVGTFSHRLPADMVVANPKHREISEKI

WKVPAKTINPKPGSPYLNIMRDLEDGKIKFAWVQVNNPWQNTANANHWIAAAREMDNFIVVSDCYPGISA

KVADLILPSAMIYEKWGAYGNAERRTQHWKQQVLPVGAAMSDTWQILEFAKRFKLKEVWKEQKVDNKLTL

PSVLEEAKAMGYSEDDTLFDVLFANKEAKSFNPNDAIAKGFDNTDVKGDERKIQGSDGKEFTGYGFFVQK

YLWEEYRKFGLGHGHDLADFDTYHKVRGLRWPVVNGKETQWRFNTKFDYYAKKAAPNSDFAFYGDFNKML

TNGDLIAPKDEKEHSIKNKAKIFFRPFMKAPERPSKEYPFWLATGRVLEHWHSGTMTMRVPELYRAVPEA

LCYMSEKDGEKLGLNQGDLVWVESRRGKVKARVDMRGRNKPPVGLVYVPWFDENVYINKVTLDATCPLSK

QTDFKKCAVKIYKA

>AHK52000.1 thiol peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSIVNFKGNPVKLKGNSVEVGADAPKVNLKAKDLSVIEIGAAGKTQIILSVPSLDTPVCATEAREFNKKV

ASYNGAEVIVVSMDLPFAMGRFCSTEGIENLSVASDFVAKEFGEKYGVLINEGALEGLLARAVFVIKEGK

VAYKELVNEITEMPDIAKLDAFFGGSSCCGGCGCH

>AHK51999.1 hypothetical protein N916\_03880 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILILSLAASFLNAEILVYGPGGPAPVLKELALKFEEKTKEKVIVTAGPTPAWVDKAKENADLIFSGN

TSMMDDFAKKIPSLSLENLSVLNVRPSGIIVRPNNPKNIKNFEDILKDGINVMVVDGAGQVGLYEDMALK

SAKRENLVKLRKNIKIYAKNSKAAVDEWNNNPNIDALIIWSHWAKALGDDKALFIKDKNAVIYRAAEIAP

TKKGLENKKALEFVDFIKSQEAQKVWKKYTWKEVK

>AHK51998.1 ATP-dependent DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPLSKLNNEQYLAATADFGHNLVIASAGTGKTSTIVARISYLLSKGVAPQKIMLLTFTNKASKEMIGRLG

KFFDKNITSKILAGTFHSTAYTLLRNADKNIALKQASELKTLLKSVYEKRTFRHLSDIKPYQSSYLYDLY

SLFQNKAHNQDFYTWFCQNYEDQSIYAEIYEDILKEYDNEKKRFNYVDFNDLLINLKDLLKEEKYEFDEI

LVDEYQDTNTLQSSLIEAFHSKSLFCVGDYDQSIYAFNGADINIIGGFKDRFKDAKIFSLNKNYRSSRSI

LALANKVILNNERLYPKELIVTRNDEFKAPSLLTFEELFDQYQNIAKMILTSGVSLEEIAVIFRNNSSAD

GVEVALREQGIASVRKGSGSFFESLEVKAFSSMLALVVNPKDIMAFIHLVQYTKGVGGVLAKEIFDALLK

LGHGNLIKGFLDPDKNVNLQNHQKRNYQLGLFADLEELASETRFKFESEFDAHPILRLSKINDLCARNLE

KIYLFLKKAMEIKHSLTLVNLICENSFYREICEELATKRATNKAGQVDLLRKSENLEKIETKFNVLKELT

KNYSDIYKYYNFLTLGASEMSSGKGVNLLSVHASKGLEFDLVFVIDLAQGRFPNQKLMGMGGSLEEERRL

FYVAVTRAKNILYLSYAKYDKNKKTSFAPSRFLIEAGLCKGELTID

>AHK51997.1 hypothetical protein N916\_03870 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLKIFSIIVGILIAVIVILGGTYYYLFEYSKPKNYTLNTNTYTEQKSYTNNYDNPYSPSIQTNNSSSNV

NTNNNTIQKQETNPLLDENQSLNNDTFNISISENNQSLNNDTNTSNNINTNENKQILDTDKEKLKQENKQ

AKIEALKKEISKQQKILERERAIKKELQSNKSNKNKYLNTAREYLSIGKNSRLEPELSTENMKVYILDGK

FLSQYRINLLKDMLSIIQDNAKDYYLSIFVKMLPKGEMKLTIYNKEIIFSDMKKAYKYISLDRLSPYLNN

PKELNEHVAREEILERLKLQIKKDGKGSDFSKHIKSLKTGLNTAQYFFPFCEIIEISSIK

>AHK51996.1 valyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYDKNLEKEYYQICEERGYFEIDGNKTIQEKDKNFCIMMPPPNVTGVLHIGHALTFTLQDIMTRYKRMDG

YKVLYQPGLDHAGIATQNVVEKQLLTQGIKKEELGREEFIEKVWEWKEQSGGKILDQMRTLGITPAWSRL

RFTMDEGLVNAVKKAFVELYDKRLIVRGNYMINWCTHDGALSDIEVEYKENKGKLYHIKYFLKDSDEFLV

VATTRPETFFGDTAVMVHPDDERYAKFVDKEVILPISKKAIKIIADKHVEKEFGTGVVKVTPAHDMNDYE

VGLRHNLDFISVFDEKGILNEHCLEFQGLERLEAREKIVAKLESLGFIEKIEEYNNQIGYCYRCNNIVEP

YISKQWFVKKEIAQESIEKVALGESKFYPNHWINSFNAWMKDLRDWCISRQLWWGHQIPVYYCECSHEWA

SQHTPKTCPKCQSQNFKQDEDVLDTWFSSGLWAMSTLGWGNENWGKDKIWSEKDLKDFYPNSLLITGFDI

LFFWVARMMFQSTNVLHQLPFKDIYLHALVKDEQGRKMSKSLGNVIDPNESIKEYSADILRFTLALLAIQ

GRDIKLSNDKLLQVRNFTNKIYNAKNYLLLNESKFEDLENITLHSELAKYIYAKFQTCVKDVRENLDNYR

FNDAANTLYKFFWDDFCDWGIELSKAEKSSVKELGSIFKEALKLLNPFMPFISEYLYHKLSDTELKTSPS

IMISKYPKFKEQDKNIEKIFSLLIESIVSIRRAKSLIDLGNSKIEKAYIKFNDKKIKDEIKAYMNFIIML

AKCEQIEFSEEKLPKAICDVSENLEIFITLENVDLSGILTRLENQKNKLEKESFKLNSMLSNEKFIANAP

KEVVEQNKEALENLKIQLEKISVELQNLRG

>AHK51995.1 methionine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKIKNLKKYYGKELVINDVSLEIKKGEIYAIVGHSGAGKSTLLRCINGLENYQEGSLKVFDQEIKDLSQ

KKSKELRMLRKDIGMIFQNFALMERKNVFENVAMPLRTHYTQCKFHAKLFNKEYMSEKEIAQKVNSLLEI

VGLDHKNKSYPRELSGGQKQRVAIARALALNPKILLSDEATSALDPNTTKNILELISKINAEFGITVVLV

THEMDVVKDIAQKALLLEHGQIIGSGAIDELFLRPNAKMKEFLGESDFLPEHGLNIKLYFPKEVAQNSVI

THMARTLNIDFNIVWGKIEKLNGKALGNLVININEKDKDKVLDYIEKSGVLWEVAS

>AHK51994.1 methionine ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNEENISIVSAFFSRISQFFNEFSWQDIKEVSLSSITSFNENYENILKPALNETIYMSLMAVLFGFLLAI

IPGILLAIWDKNGIKENKIAYSILDFITNILRAFPFLILIVVLLPLSKIIVGTSIGTNAAIVPLAIGIAP

YLAKMLESAFKEIDKGIIEAAKSYGASNIQIIFKVIFSEALPAIISGITLTLIFTIGFSALAGTVGGGGL

GDVAIRYGYERFNKEVMIQTVVILLILVQLVQILGNLFYTWAKNSKTTYIIATLLILLGVSIVININNDE

NFFWQVIVFILFLGSLLYKGFKK

>AHK51993.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIKSLFIASILTLSLNANALETITVAATPVPHAEILEQVKPDLEKQGYKLEIKEFTDYVLPNLAVDNGE

ADANFFQHTPYLEEFNKNKGTKLIKVAAIHIEPMAVYSKKYKSLDDIKEGVKIAIPNDPTNESRALDIIA

KKGLVKFKDKALKTPLDIIDNPKKIKFVELKPAQLPRALNDVDFAVINSNYALSANLNPAKDSVFIEDKE

SPYANILVVRVGHENDPKIKALIQALQSDKIKQFIIEKYNGSVLPAF

>AHK51992.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLFKIIILACILNLSSLFAQNITIGATPNPFGSLLELMKDDFKNKGYELKIVEFSDYILPNRALEEKEL

DANLYQHKPFLEEYNLKKGSNLIATTPVLIAPVGVYSKKIKNLENLKEGARVAIPNDATNESRALELLEK

AKLIELNKNTLKTPLDINKNPKKLKFIELKAAQLPRALDDVDIAIINSNFALGAGLNPSKDTIFREDKNS

PYVNYVVVRSEGKNSEKTKVIDEILRSDKFKAIINEHYKDILIPAF

>AHK51991.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNIKKIFLSVLFTISLSFGADKTIIIGATPTPYAEILNFSKPLFQEKGWKLIVKEFNDYNIPNIALNEKD

LDANLYQHKPFLDDFNTHKGTKLSSLGAIVLVPMAIYSNSIKDIKDIPNGAKIAIPNDATNESRALDLLA

KANLIEFKSQSTLKTPIDISKNPKKLKFIELKAAQLPRALNDTDLAIITTNYALGAGLNPLKDGIFMEDK

DSLYAIVLATRKGEETSQKSLVIKEILTSDKIKNFIIEKYKGSVIPTF

>AHK51990.1 flagellar basal body P-ring biosynthesis protein FlgA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIIFLTFFIVINYIQAASLEEIKTALAKEFRNNFPKIIISQIDLKITSLPKDFDQYEFLRIANGRFNQA

QGFLRAEFKTPQNIQKNVFFRYFIQANLEVLKSERAIKRGDKLGAFDYKSVLIDFDKVPLNALTLDDVDN

LVAKSNINKNAILRANMFKTTALIRRNDPIIGVLSEANVDVLIELVALQSANMGERIRAKNKEGKVMQGI

VVGKNRMIIQ

>AHK51989.1 3-octaprenyl-4-hydroxybenzoate carboxy-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVLLGISGSSSVNLGLKLLKNLENQCELYCILTQGAKLNFKTENQANLEEICQENFKYTHFLDDKNLSL

SVASGSFGIEKTIIAPCSISSLAKIHAGFADTLLMRAAAVALKERKKLILGVREMPFSTLNLEHMLKLSQ

MGVIIAPPIIASYSKANNLEQMENFIAGKWLDLLEIKHNLYEKWQNF

>AHK51988.1 phosphopantetheine adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTCLYPGTFDPITNGHLDVIKRALKIFDEVIVAIAKSEHKKPCYDLEKRKELALLATQNLKNVKIIAFDN

LLVDLAKELKVNTIIRGLRAVSDFEYELQIGYANHALWEDMETIYLMPSLKHAFISSSIVRSIVAHGGDV

SSLVPKEILPFLKDQSCM

>AHK51987.1 thymidylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYVVFEGIDCVGKSTQISLLKEIYKDAIFTLEPGGTELGKHLREILLNKTHPINKRAELLLFLADRAQHF

EEILKTNQNKLIISDRSFISGMAYAKDFENDLLFALNSFALENFFPQKIIFLKGDANLIQERLSQKELDS

IEKRGIEYFLSVQDKLEKVLHFLKEKISVEILTLDAKESKEKLHQQIKEFLQ

>AHK51986.1 histidyl-tRNA synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINALKGMKDLLDKDAYYYEKVIKICEEVAKNYGFTFINTPHLELCTLFKRSVGESSDIVGKEMYEFIDK

GENHVCMRPEGTAGVVRAYIEKKLDKNTSVKRWFYYGSMFRYERPQKGRLREFHQFGVESLGIPNVYEDA

SIILMLVEIFSRLGIDFKLQLNSLGCSQCLPKYRDRLVEFLDSKEGFCEDCLRRKNLNPIRVLDCKNEHC

QNLLENAPLLINNLCTSCQKDFETLQQILKDNGVKFELDSKLVRGLDYYSKTAFEFISDEIGAKAAIAGG

GRYDRLIEYLGGKSGYGIGFAMGIERIITILEQKEEKIQREGIYLCAMDEIYIQKLLHIATNLRKEYKVL

LSYEARKLAKHLENADKNNTEIFLCMGENEAQNESLFYKNLAKKEEKMIKISDLKKVL

>AHK51985.1 arginine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDYGIDIWGNENFIIKNGKVCINYEKKPAIIDIVKELRDDGYKGPLLLRFPHLIQKQIENIYGNFNKARK

EFGYKGGFNAVYPLKVNQYPGFVKNLVKLGKDYNYGLEAGSKAELLLAMAYNNEGAPITVNGFKDRELIN

IGFIAAEMGHNITLTIEGLNELEAIIDIAKERFKPKPNIGLRVRLHSAGVGIWAKSGGINSKFGLTSTEL

IEAVNLLKENKLLEQFTMIHFHLGSQITEIHPLKKALNEAGNIYTELRKMGAKNLKAINLGGGLAVEYSQ

FKNEKSRNYTLREYANDVVFILKNIAEQKKDLEPDIFIESGRFVAANHAVLIAPVLELFSQEYAENKLIL

KKQNPKLIDELYDLYKSIKPSNALEYLHDSIDHLESILTLFDLGYVDLQDRSNAEILTHLITKKAILLLG

DKQNPADLLAIQDEVQERYLVNFSLFQSMPDFWGLEQNFPIMPLDRLDEEPTRSASIWDITCDSDGEISY

SKDKPLFLHDVDVEKENYFLGFFLVGAYQEVLGMKHNLFTHPTEAIISINEKGYEVEGIIEAQSILDTLE

DLDYDIHAIMDILNERISNSKLVNDKQKKHILGELYLFLNDNGYLKSIGV

>AHK51984.1 serine acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFWGIIKEDFSQPKAQDPAFNSCIELFFNYPGVWAVVNYRFAHFFYIRNFKRIARMISGISQFLTGVDL

HPGAELGRRIFIDHANGVVIGQTAIIEDDVLIYQGVTLGGTSLEKGTKRHPTIKKGVIIGSGAKVLGNIT

IGENAKIGSNAVVVKDIGANLTAVGIPAYIIEERKNKNIRAIDANCDDKLEKLEKKILELENLILKQPES

QK

>AHK51983.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLTKRSQVLEESITLAITALANELKAKGEDIISFSAGEPDFDTPQTIKNAAISAIEKGCGKYTAVAGIPE

VLKAIQTKFKKDNNLDYETNEIITNVGAKHSLFECIECLVEKDDEVIIPSPYWVSYPEMVKFAGGKPVFI

EGLEENGFKITAEQLKKAITAKTKVLMLNSPSNPVGSIYSKEELTQIAKVLEGTQITVLSDEMYEKLRYD

GFDFVAFASVSKDALKRTVTINGLSKCGAMPGWRFGYMASKNKALISAVKRLQGQSTSNICSITQHAAIP

ALNGECDKDIEKMRQAFEKRRNLALDILKQIPNISVYKPEGAFYLFVNIQKIEKDSMKFCQKLLEQEKVA

VVPGVGFGMDGYFRLSYATSDELIKKGLERIANFIKNYK

>AHK51982.1 cupin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIIQWNGAEFSPKEVKINVLIDNEKGKEIQILLAKDSVMKEHKAPFAIHVQVLSGKIWFEVEKEKFELN

ALDMISLEANVAHSLGGLENSIIRLSLNKSDSVQRVNAVLKKP

>AHK51981.1 zn-dependent hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLSFKIFDISNTQRSKAKKVQGKKYEIFLNENEHSLITPKVSFKEILRYYYLYPKNAIPSFKLPFFKPD

LSGFSTPHITWLGHSSLFISFKEYKILIDPIFNTHASPISFINKAFKNAPVYNINDFNEIFAVIITHSHF

DHLDAKSVKALKDKAKFFITPLKVGNYLKSYGVSEKKIIELDWWSGIEFGDLKIMATPAQHSSSRGDGKN

KTLWASFVMEFLSVDKRVFFSADGGYFTHFKKIGEYFGSFDLACLESGQFNIAWPYSHSFPEQILKEAKD

LNAKAVMPIHWGRFLAGTHAWNEVVKFLYENLDLPLITPKMGEAYEVGAKFKQDFWWKEE

>AHK51980.1 molecular chaperone DnaK [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKVIGIDLGTTNSCVAVYERGESKVIPNKEGKNTTPSVVAFTDKGEVLVGDSAKRQAVTNPEKTIYSIK

RIMGLMINEDAAKEAKNRLPYHITERNGACAIEIAGKIYTPQEISAKVLMKLKEDAEAFLGESVTDAVIT

VPAYFNDAQRKATKEAGTIAGLNVLRIINEPTSAALAYGLDKKDSEKIVVYDLGGGTFDVTVLETGDNVV

EVLATGGNAFLGGDDFDNKLIDFLANEFKDETGIDLKNDVMALQRLKEAAENAKKELSSANETEINLPFI

TADASGPKHLVKKLTRAKFEGMIDSLVAETITKINEVVSDAGLKKDEIKEIVMVGGSTRVPLVQEEVKKA

FNKDLNKSVNPDEVVAIGAAIQGAVIKGDVKDVLLLDVTPLSLGIETLGGVMTKIIEKGTTIPTKKEQVF

STAEDNQSAVTINVLQGEREFSRDNKSLGNFNLEGIPPAPRGMPQIEVTFDIDANGILTVSAKDKATGKA

QEIKITGSSGLSEEEINNMVKDAELHKEEDKKRKEAVDARNAADSLAHQVEKSLSELGEKVAAADKENIQ

KALDDLRETLKNQNASKEEIESKMKALSEVSHKLAENMYKKDEPNTANDKKKKDDDVIDAEVE

>AHK51979.1 heat shock protein GrpE [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSEQKQEFENENAENSEHLQDENLQNIEDVEQNKLQKDYDELKDKYMRANAEFENIKKRMEKEKLSAMAY

ANESFAKDLLDVLDALEAAVNVECQDEISLKIKEGVQNTLDLFLKKLEKHGVALIKDEKEFDPNLHEAMF

HVDSENHQSGEVVQVLQKGYKIADRVIRPTKVSVAK

>AHK51978.1 HrcA family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKSRDKKDLILESIIQTYLLDNAPIGSNELNSNLCIPASTIRVYLKRLSDEGLITQLHISSGRIPTILTM

QNYWQNFWEKEQDKNIHIKNESFLKELSKEFEIYCLVYGGRSLVLKEVLDLNTKFIVLDFEDEELVLKYE

KEAWNFLQSLIGLDLSSIEKIALRVHFIDLVEKIASLRQNLICYRSNEERAYQIYQNDEFVKLLDCQIHR

HFKESLEFEPLFKEGFMGLKVDAQFLGEDVNIILAGSVYTDYKKILQYIKEAA

>AHK51977.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILSIALVALVGLFLGACSDSKNKESNASVELKVGTAPNYKPFNYKENSKLTGFDTDLVEEIAKKNGI

KIVWVETNFDGLIPALKAGKIDMIASAMSATDERRQSVDFTKPYYMSKNLYLKLKNNDSLQTKNDLEGKK

IGVQLGTLQENTAKAIKNAQVQSNKDLNIAVLALKNNKIDAIVADQDTAKGFLAENPELVSFYQETDGGE

GFSFAFDKNKQKNIIEIFNKGIDEAKTDGFYDTLIKKYELE

>AHK51976.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLVLFDLDDTLIQGDSAKLWLKFCVEKGFLPQEYLEKIVFYQKQYQEKKFDMDEFMTFFLQSVKGKNED

RISSLVDEFIKIYIKPYEKAKELIIKYQDQRCIIISATAEFLVRKIASFLGVRESIAIKCERVGDKFSGK

AYGIYSFKEGKVLRLKEYLGKDYEKWMKDSYFFSDSINDLPLLESVSKAFVCNGDEKILKIAKERKYEIL

TF

>AHK51975.1 spermidine/putrescine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAYLKIKNFKKAYGDKIIFEDINFSAKKGEFITLLGPSGCGKSTLLRCIAGLSQINGGKISLNDKDLTKL

SPQKRNIGMVFQNYALFPNLNVFENVAFGLKIKKMDKKDIEKRVKKMLKLVELEEYAKTYPHKLSGGQMQ

RVALARSLVIKPDLLLLDEPLSALDAKIRKYLRVQIKEIQKELELTTIFVTHDQEEALELSDTIILMNEG

KIIQNSNANNLYLLPESHFVASFIGNYNILSPKELDSLGLKHDFKKDIALRPETIEISNEGLEAKIKEKS

LLGNIIRYRVRVQEIEFKVDTLNFSTHSTYEAGDKIALKFNLSLAKELK

>AHK51974.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNENLSLKAKIYHYAVLFLVFLFLALPLMATFLYSISTSWGVSVLPDDLTLKWYQELFHDERFLLALWHS

LLVCVGSILLSVILVFPLVFVLNYYFLKLKAFVNILIIMPFAVPPIVSCVGLLQLYADNIGGTAWILIFT

YFTIALPFIYRALDNAISNVNLNELITSNAMLGGSLMGAIFKLILPNLRNGILVAVFLSFSFLIGEFLYA

NILVGSAYETLQVYLYNIKNQSGHYSSALVIVYFVLIFITTFIASLIKE

>AHK51973.1 ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEKFLAFLSILPFFIVFTFFMIAPLIWIVFNAFYVEEDEIYSLANFIHIFESKFYLQSIINSLQISFIS

SIFGLLIGLLASYSLFVLAPSKICKFLFSLNTMISNFSGVPLAFAFIIVLGSNGVVNVFLKNLGIEPFVS

VYANFGVNIVYVYFQIPLAILLLLPAFKSLENSHLNACKMLGGGNFLYWLKIALPLLAPALFGVFVILFA

NAFGAYATIYALSSGNFNVAPVRIAALIAGDINLDPYMASALSIIITIIMLVVTFIANFLSKKYNFKVL

>AHK51972.1 hypothetical protein N916\_03640 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKAILVVLDGLNCKSASINMGYLNALCKENLGKFYSLECELPSMSRPLYECLLTGVKPVLSGIINNKLS

FSKQTSIFDLCKEQGLKAGGAAYHWVFELYNKKEFIPSLHRHIEDENLTLPYGHFYYEDDYLDSHLFADG

EHLRNKYNLDFTLIHSMNIDDAGHKFGSHSIEYANKTKKVDILISEYLPTWLEQGINVIITSDHGMTEGK

SHGGLSEDEILVPFFTFGSAFSYENAKIKQDEICGSICEILGLKHDKRYNDEILKAKK

>AHK51971.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKKFFLSLGLVALLFSNSQAIDENLIKAAQAEGRVNSLAMPDTWANWKDTWADLKNLYDIEHSDTDMSS

AQEIAKFKTEKKNASGDIGDVGASFGEIAVKQGVAQPFKTSYWDQIPTWAKDKDGNWLLAYTGTIAFIVN

KDVVKDIPKTWQDLLKGNYKITVGDVSVAAQAVSAVLAANYALGGDEKDLSPALAFFNTLAKQGRLVNND

VSIANLEKGEVEVGLVWDFNGLGYRDKVGKDRYEVLIPADGSVISGYTTIINKYAKHPNAAKLAREFILS

DKGQINLAKGYARPIRIDHITLPDDIKAKLLPSEQYKNARAIKDQKAWEKSAKELPQLWQEKVIVDMK

>AHK51970.1 magnesium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLYIYIKTQNALVQRINFNLDSQELPQNILWIDLLHPSAAEIAFISSEFNLEFPTKEEREEIELSAKYWE

DNATITINAHFLVRDLKSDEEDRNLIKLRTEIVTFATAKNILFTIRYNEFSTFEEIQARILASPKNFEDG

FDIIDKMFEVRVEKDADLLEWIDKEARRLRTSVLEKKDEYSYDEMLKDISSLQELNMRVRDSLFDKRRAM

TSLLKSDKIDKDIKQNLTIVLKDLNSLVEFSVSQLNILDNIQTILASQINIEQNKVIKIFTVATVAMMPP

TLIGTVYGMNFKFMPELELHYAYPIVLGVMVISIILPLVVFKKKGWL

>AHK51969.1 molybdopterin adenylyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDTINIGILTLSDRASSGIYEDKATAEIERVLNSYIKNDIIYHKELIPDDYDLIIKKLLYLADEKKCDLI

VTSGGTGPALRDVTPEATEAVCDKMMPGFGELMRLESLKYVPTAILSRQSAGIRNKSFIINLPGNPKAIK

ECLEPVFPAIPYCIDLIEGAYIEANDEVIKVFRPKKKCQN

>AHK51968.1 molybdenum cofactor biosynthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFFKKKISQKQKEKPKIPINDVILDDRLCKFKNKVQKISKDEASASLLARQLSRLIRANKF

>AHK51967.1 peptidase M48 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTLIAILCLYTALLSWISYAQIRFLEREKDKQAQILSEKDYQNAADIAIENEKFKLFSNFYNLIISIAWI

GFGFLYLKELLILNNTRFENTLFLLSFLIITSILNLPLSIYESFIKDKAHGFSNMTVKLFIKDTMKSLIL

TLIFGFLILYTLLFCYDFFGTFWWIAAFIFAFCIIVIINLIYPTLIAPIFNKMKKLDDENLLKKISSLMK

QCGFSANGVYVIDASKRDKRLNAYFGGLFKSKRVVLFDTLLKALNERELLAVLGHELGHFVHKDIIKALF

NGAITMFLLFFVFANLPEFVYLESHLEGVNGGVFALLFILANIFSFLISPMLNALSRKNEFAADQHGAKV

TSKEDMKNALIALARENKAFIKTSKIYTFFYLSHPSISDRIKALS

>AHK51966.1 N5-glutamine S-adenosyl-L-methionine-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTIKNALMEAKSSLKGYENEAVFILCEYLKKDKAWLFLNQDIKIDHEPYFELIKRFKSGEPFEYIFEKVD

FWGLEFKIKKGILIPRYDSEILLFQILNLCKKNTFNGILEIGFGSGILSIVLAKELGLKITACDINPKAL

ELALENAQLHKVDHLIDFKLCNFKQIKENYDFIFSNPPYIKNSYPIDIWVQKEPKEALFGGEKGYEILEE

IIHFSLDKKVKFLACEFGYDQKEILEKILYQNNFIVDFFKDEQGYNRAFIAKFTNMRYDKK

>AHK51965.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKAVNLFLLASIIGVELILGIVVAPTIFFPQNLIGEGVLSHFQSGLMMTQIFIKMGYLLIFVSVVNFLYE

IYSLIKDEMKFQIKFSKFMLSLLILILSLIFVFYFTNTIIELQNLGENATKTQEFISIHNASEVVIKIIL

IMQVFLYFLSFKIAKK

>AHK51964.1 flagellin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMISDATMMQQNYYLNNAQKASDKALENIAAVRAISGVDSANLAIADSLRSQSSTIDQGVANAYDAIGVL

QIADASLTNISQSADRLNELSVKMNNAALNDSQKGMLRTEATRIQESINDSFNNATYNGKNVFQTMNFVV

GSGTETTNLNPLATDGLSIDSQDSITNFMDQLGSLRSEIGSGINAITSNINASVQNSINSKAAENNLLNN

DMAKNVNDFNANYLKENAAAFVAAQSNMQLQSKIANLLQ

>AHK51963.1 YggS family pyridoxal phosphate enzyme [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTLEQILEKTKNVRLVAASKYVDASIIEKLFDQGIVEFGENQVQALAQKKENLDEKKLDIKWHFIGTLQS

NKINLLIKQKPILWHSCNGIKIAKAMDKRLDYKLNTLLEINSANENSKSGLDPNQAVEEYLQIQEECSNL

NLCGVMSIGSHSQDKENIIKSFETTFKIYEILQKHGAKICSMGMSNDFEIAIKCGSNLVRLGSILFKNLK

>AHK51962.1 DNA polymerase III subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSQFTHLHLHTEYSLLDGANKLKELALTLKEQGATSVAMTDHGNMFGAIDFYQTMKAQGLKPIIGIEAYL

HNHDELDDKSSRQRFHLCLYAKNEIGYQNLMYLSSQSYIKGLYYYPRINKKLLEDYSEGLICSSACLQGE

VNWHLNTYSERNVRFGAKGYEAAKEAALWYKKVFKDDFYFEIMRHGIGDQRMIDDDIIRLSKELNIKIIA

TNDTHYTFKERAAAHEVFMCIAMGKKLNDPDRMRHSVHEFYVKSPEQMSELFADIPEAIENTQEIAQKCN

LELNLGNPTPPNFKFTREYAKDHNIILPEETKEFSFDNDDMVFEELCKKGLEERLKFIDESKHEEYKQRL

EVEINIIKNMKFSGYMLIVHDFIKVAKDKGIPVGPGRGSAAGSLVSYCLRITDLDPIPYSLLFERFLNPE

RVSMPDIDVDFCQDRRAEVIDYVIDKYGADKVAQVITFGKLLAKGVIRDVARVCDMSIQDADELAKLVPE

ELKITLDAAYEKEPKIKEFIDRHPKGLEVWEYARALEGLNRNAGMHAAGVVISNESLWKKTPLFRQSKND

ERHLVTQYSKDHLEDVDLIKFDFLGLKTLTVINNAIKLIKKRYNKDIIWETIDVNDSKVYKTIQSGNTLG

IFQIESGGMQSLNARLKPERFEDIIAVLALYRPGPMESGMLDDFIDRKHGLKSIEYPFDSLEKVLEPTYG

VIVYQEQVMQIVQIIGGFSLGGADVVRRAMGKKDPEKMKKLKTDFADGAEKQGYDRAKAEDLWELIVKFA

GYGFNKSHSAAYALITFQTAYLKTYYPSEFMAALLTSEENNVDKIAVYIDEMKKMNIKLLPPSINKAIRE

FSALEQDGKDAIIYGLGAIKSVGIPAVENLLEARQDGEFKDINDFLGKIDPTKINRRTLESLIKAGAFDE

FGFTRKALFDNMENLSEASRKMAEVRKNAASSLFGEEELTSGVQVNFTPKNEEFEVMEKLGYEKEILGIY

VSGHPLDRFYEQINAIDYVKSLDFESLKNNGEILSIGKIEDFKSMMSKNNKRYGRIEILDYYSSFDATVF

ESNVEEIENIIKDENLKNNAYGFVLGFKAEGGEKPSFFLKAIKDLQSLEDGEIKAIKKFGAKKDFKNKEE

NHFTAEPKEFEKNIIELDLTRLNRELIYEIHEIARNAHNPNEKNNKKLVLKVISAGSCLLYHTDFIISDS

IVEEISNKYA

>AHK51961.1 ArsC family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLYGIKNCNSVKKAMDALTQKGIVFDFMDIKKINQDILYTWLKQKSFEELINTAGLTSKKLGLNKEKVK

NLNEKELEKIVLENPSCIKRPIIEYEQNIYIGKEYEKML

>AHK51960.1 phospho-2-dehydro-3-deoxyheptonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MWAKNSWKNYPIKQQPIYPDQEEMNRVLARLEKLPPLVFAGEVRNLQKSLARVCKKEAFLLQGGDCAESF

ENFGAVNIRDMFKILLQMAIVLTFAGGCPVIKIGRIAGQFAKPRSSDFEELDGISLPSYRGDIINGFEFS

EQARIPDPHRMLEAYYQSAITLNLLRGFAKGGLADLHEVHRWNLGFLKKSELHKQYTDISEKISQALAFM

EACGINTSNTPSLREVSVYTSHEALLLPYEEALTRVDSLSGEIYDCSAHMLWIGERTRALDEAHVHFLSG

VKNPLGVKIGPSASADDIIALANVLNPNNEEGRLNIIIRMGADKIINNLPKIFSKLKSEGLNLVYSIDPM

HGNTVKAGNFKTREFDKIMQEVRSFFEIAISEGVYPGGVHLEMTGKDVTECTGGASNVTAQSLEDRYETQ

CDPRLNADQALELAFLIADLVKKTRK

>AHK51959.1 hydroxyisourate hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFSIKKTLLILASVPMFLSATEYQLSTHVLDITSGQPAPKVKVELYKLEANQQWKKVSEEFTEENGRIGD

LLPYEKAENRAFGIYKLKFFTKDYYTSHKINTFYPFVEVSFELSKDQKHYHVPITLSPFGYSTYRGS

>AHK51958.1 50S ribosomal protein L19 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNKYIEQFEAKQIEGKNVPDFRAGDTLKLAIRIKEGDKTRIQNFEGICIARRGNGVSETFIVRKIGANN

VGVERIFPIYSESLESITVLRRGRVRRARLFYLRDRRGKAARIKELKK

>AHK51957.1 tRNA (guanine-N1)-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFSFVSLFPNLMEFYFQDSILARAKEKKLFKLNFYNPRDFSKNSYHKVDDYKIGGGAGLLMQAEPMYEV

LRSIQEKKENPYFIFLNPSGKTFNQKDAKRLSKKEHIVFVCGRYEGIDERVLEIFANEVFSIGDFILTGG

ELPALVMCDAILRNVNGVLGNMESLEEESFENNLLEAPAFSKPFIFEKKNKKFYTPSEFLKGNHARIASL

KTTLASCKTKFFRPDLFLEHERKK

>AHK51956.1 ribosome maturation protein RimM [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSEKDFVQVAKLGKTVGLKGYVKLHNLSDFSSQFKKDATFFIKNTKEMLKIKHYNANNSTVLFENYEDIE

KAKELTNLILFQSIEKSRQTCKLKKDEFFYFDILECEVFEEDKRLGKVVDILETGASYLFEIQSDEKWVE

KKYPKIFFIPYLDKFVKNIDIEKRQIFCTQDAFLILENS

>AHK51955.1 RNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVENFLREYAKLIADYPEQIDTQKIELSENFFEIVLFAHKVDTGKLIGKNGKMINAIKTVISAYKSKDAS

SYRVTVKALE

>AHK51954.1 30S ribosomal protein S16 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTVIRLTRMGRTKRPFYRIVVTDSRKRRDGGWIESIGYYNPMVEPEVIKVDAERLAYWKSVGAKLSDKVA

SITSK

>AHK51953.1 signal recognition particle [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFELVSESFKSAINKLRFVDDEKALKNALETLKKALLKADVHHKVTKELLTLIEEDAKQNGIGQKQFLNA

IKINLENILSVNGKNQGFVFASKPPTVVLMAGLQGGGKTTSTIKLANYLKLRNKKVLVAACDLQRLAAVE

QLRQLCEANEIELFFIENEKDPIRVAKEALKKAESSMVDVLLVDTAGRLAIDEALMDELRAVKDVLNPDE

IFYVADAMSGQDGVKTAASFNEVLGISGVILSKFDADTKGGVALGIAKQIGIPLRFIGVGEKVADLEVFI

PDRIVSRIMGEGDLATLAEKTAAIIDEKEAKKLNQKIKKGEFNFNDFLNQMESIKKLGSMKSLIGMIPGL

GGMANAVKDIDLDNSKEIIRIKAMISSMTPKERENPDLLNNARKRRIAEGAGLSQVEVNRFLKQFSNAAK

LAKRFSGKKGMESLTQMMSQARRQF

>AHK51952.1 ribosomal large subunit pseudouridine synthase C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQEKAYKLLALQEKISNREAKDLIDKGCVFSYGKKVVVARALMSDKARFNVIKAKNPQIIFEDDKIIAIN

KPYAYVSEDLEKKFNAKLLNRLDKETSGVILLCKDEDFRKLCIEEFKKHRVYKSYIAVLDGVLAEEVEVN

EPIFTIKVKGGALSKVSKDGLSALSIITPIMMQSKKTLAKIVIQTGRTHQIRVHAKFIKHGVVGDEKYAK

ISSDRMYLHSYEIKIFNYHFRANLDSGFAKFGFDIKNLDF

>AHK51951.1 3-deoxy-D-manno-octulosonic acid transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIFFYYFLTWTAFLFCAVFILLLSFLKSKYKISLKSRFFLYKNLHQEKADVHFHACSYGEVRSIKALVLK

FDSRITTITQTGFECAKEFCKKVNYLAFENFLPFWLKPCKVLVIFEAEYWLMLVFMARIYKAKIILLNAR

ISDKSYHSYQRFSFFYKKIFSYIDEVFAQSDLDKARLESLGAKNVKIFKNIKANLEIKNNKIYTKPKEKL

IIFASTHKDEEELLLDHFKLEENEKLIIAPRHPERFKEVENLLLNKGLEFEKFSSLKDENKKFSKKILLL

DALGELVNFYAISDVVVLGGSFIEGIGGHNPIEAAYFDNVLISGKFIHNQKVLFEEVENVYFCEKLKDLN

DKVHYLNLKAKISKKENLDLIIQTIQKGIDARKSL

>AHK51950.1 zinc ribbon domain-containing protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKYLEQLVLLSKIDQEIDSYEPKIDSINKTLKDAELKIEKINADLEKIDEEIKDIENQKIQNNAHISEF

SAKIKDLSKKSGVVKTEKEANALKIEEDIAKEQLDAANDEIVRLDKILENKETYKKELEEEKIKQEQNIN

EIRVSIKSEMEVLEKDRMSVYDKKTKLVSEMNQKVLSFYEKIRKWAKNTAVVPVKKQACYGCFMKIYDKT

YLSVVKGEEIVTCPHCGRILYKEQEEQN

>AHK51949.1 hypothetical protein N916\_03520 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLSEIYNFLDQLSPFNIQESWDNSGILLGDRDSEISTVYLSLDIDENIIKEASENSLIITHHPLIFKGL

KDLYDKTYPRAFIKEMIYKNISLISMHTNYDLSHLNTYFTEEILGFKISFKDKFLIYVENSMSFEALCDW

VKKKLNLQILRVSDCGKKDIKRIAICTGSGGDLISKVDADCFLSGDFKYHQALEALSNQISLIDLGHFES

ERYFSQCLAKDLKNLPLQVIITVSKNPFQYF

>AHK51948.1 glycyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTFSQMILNLQNYWQEQGCAIMQPYDMPAGAGTFHPATFLRSLGKKPWAAAYVAPSRRPTDGRYGENPNR

LGAYYQFQVLIKPSPDNIQELYLKSLENLGFDLKSHDIRFVEDNWESPSLGAWGLGWEVWLDGMEVTQFT

YFQQVGGIAVDLVSAEITYGLERIAMYLQNVDNVYDIVWSEFNGEKIKYADVHKQSEYEFSKYNFEVSDV

KILNEQFENSYKECKNILEQGLALPAYDYCMLAAHTFNLLDARGAISVAQRQDYMLKIRELSKNCAEIYK

KNLNEAE

>AHK51947.1 hypothetical protein N916\_03510 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQTYLELEEFCKLVHLNEDVVKGMMANGALNFKEEEGKIYIEAHQGTFSVVPSSAKSQTAMVNSMTLAGE

SFVEKTIGTILNLHEKVLDAKDETLEALKNENKFLKDALYSMQELYDEDRKTIETLNNELKHAREEIEFL

KRKYKLMWSKTAEIFGAKTEPDLEMNKNLEKPIENMEQ

>AHK51946.1 N5-carboxyaminoimidazole ribonucleotide mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFVSILMGSKSDYETMKEAAKTLESFGVKYELIISSAHRSPKRTKEYIANAEEKGVKVFIAAAGMAAHL

AGAVAAYTTKPVLGVPMSGSNLASMDSLFSTVQMPSGIPVGTLAIGKAGAINAAYLAMQILAIYDVDLAQ

KLKEDRLEKEKKLVSDSKEVEVLL

>AHK51945.1 protease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIIPEIVAPAGNFTKLKIALAYGADAVYAGVNNFSLRSRTAREFNYESFEEAIKYTHERGKKIYVTLNGF

HLSSQIEGLKRHILKLREMKPDAFIVASVGAMRLVKELAPEISLHVSTQANILNYLDAQVYKDMGAKRVV

IARELGLKDAKALKENCDIELEAFVHGSMCFAYSGRCLISSVQSGRMSNRGSCANDCRFNYELYAKNPEN

GTLFRLEEDENGTHIFNSKDLNLCSYIEKIMQENCISAFKIEGRTKSEYYVALTTRTYKMAIQDALEGKF

ESSKYEKEIATLKNRGFTDGYLVSRPLEKTDTQNHNTSIEEGSHQVHAISEDGRFFKCKGKIVLNTPYEI

LTPLGDVIQTCDNELGKIYQKEGKYFIEFKKLIAKNNKEFSEIHSGNEHEIQLPNKISALSFLRKEI

>AHK51944.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTQEELDALMNGDVDLDSETEAEVKTEESNTEEDALMLEDVKIADYKPNPSVVWPPPPPNQEHKVVHQLD

DVTKDSELKATEMMDKLESINNFFADSESLLKEINKAIEKNIDIFSKLNEKFPNVESFSEALELNNQAKK

SSKEIVGNLQSGQDEVMMAMDAMQYQDIHRQKIERVINVMRALSRYMSSLFEGKIDDKKRVSSAVHIEGD

STADVVSNDDIEALIASLGQK

>AHK51943.1 glutamine synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGKFVNNIDDFFKFCKQNEVLFVDFRFTDMIGTWHHITYNLHAINEETFQTGIPFDGSSIHGWQPIEKSD

MILKPDAQSAFLDPFTADPTIIVFCDVYDIYKGQMYEKCPRSIAKKAIEHLKNSGIADTAYFGPENEFFV

FDSVKIVDTTHCSKYEVDTEEGEWNDDREFTDSYNTGHRPRNKGGYFPVQPIDSLVDIRSEMVQTLEKVG

LKTFVHHHEVAQGQAEIGVNFGTLVEAADNVQIYKYVVKMVAHLNGKTATFMPKPLYGDNGNGMHVHMSL

WKNGVNLFYDKDGYSGLSQTAINYIGGILKNARSVAAFTNPSSNSYKRIVPGFEAPCILTYSCQNRSASC

RVPYGIGKNSARIEIRFPDSTANPYLAFVSLLMAGLDGIKNKTIPVGPMDENLFDLTLDEIREKGIEQLP

HTLRGSLEALIRHNSYLKPVMSDIFIDDYQHLKFETQVWPVEARPTAYEFKTCYSC

>AHK51942.1 flagellar basal body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMRSLHTAATGMVAQQTQIDVTSNNIANVNTAGFKKSRAEFADLMYQVMKYAGTSTSATTLSPSGIEVGV

GVRPTAVTKVFTEGNLKSTSTDGLDMAIAGNGFFQIQLPDGTIGYTRNGQFTKDNEGNIVNSDGYRLLPE

MTIPEGATAINVATDGTVSVMLPGEQQETQIGQVELVQFINPAGLHSMGDNLYLETGASGAPVAGIAGQD

GLGTIRHGFIELSNVQLVEEMTDLITGQRAYEAGSKAITTSDDMLGIVNQLKR

>AHK51941.1 flagellar basal body rod protein FlgG [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNGYYQATGGMVTQFNKLDVITNNLANINTSGYKRDDVVIADFKRIFKETQDELPIENHTRDASRFVNT

TIDGIPQVSQEYTDFSLGSLKATNNPLDLAMTREDAFYLVQTKDGEVRLTKDGNFQLDDEGYLVNKQGYK

VLSSDYFNNPQNAGIRIPNGAVQISVDKNGSIEVDGAQNARLFVAQVDDIRALQKDGDNVYKIDDLTRIR

DLKNSNAIRQGFSQGSNVNPVTEMVGLIEANRMVEMYQKVMTAHMDDLNQEAINKLAAVK

>AHK51940.1 cell division protein FtsZ [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSEFLVEEMQHNKGAKIKVIGCGGGGGNMINHMVKMGLNDLDLIAANTDAQAISISLAKTKIQLGEKKTK

GLGAGMLPEVGAESARESFEEIKASLSQSDIVFIASGFGGGTGTGATPVIAQAAKEIGALTVSVVTMPFA

FEGKQRKKLAESGLLELKKESDSILVIQNEKLLSIIDKKAGIKDAFRLVDDILARAVKGMVSILLDNGDI

NVDFADVRTIMSHRGLALMGVGSASGENAIEEALSNAIESPLLDGMDIKGAKGVILHFKTSSNCSLFEIS

AAANSIQEIVDENAKIIFGSTTDDSMEDRVEVTIIATGFEDKDTVAKKSTEEAQASKKNPYLSLKKVSGG

YDEEIMAQIETPTFLRRQMD

>AHK51939.1 cell division protein FtsA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNILGIDLGSTQTCAIIAQKDEDGLKIIGFSKSKTNGVKKGAITNIELASKSIEEAVRSAEMMSGVHYDR

VVVSISGAYTKSVDSIGVVNIPNHEIGIKEIHRAVSTAKHTANLPSGYEIIHVLPYNFKVNDLEHVDDPL

GMSGNRLEVSTHIVISQESHIKNLKKAVELADLRVDNIVLSGYASAIACLDDSEKELGAVLIDMGGAICD

MVVHTGNSIRYNDCLQIGSINITQDLSMALHTPLKEAEKIKLNYAALSQQPNTLIQIPSMGDERKVNEVS

LDIISNVIYARAEETLMILAKILSDNRYANAIGGGVVLTGGMTKLAGIDELAPATFDNRSVRLATARKDL

ITGFSEIFNDPENTCAIGLCLYGAGYFTPYELDSNEKLRYKGEIENFNRQIKQDIVLQKDAESEIKSDFF

DENLQENDTIAIQEQLDFKEPKEKKPSVFSNIWHKIMNQF

>AHK51938.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLTWMQHHKKYLVVTIWVSTIAFVGAGFLGWGAYDFNLNRSSSVATVGNEKIGFSEFDTRYRQILSYYNQ

ISNGALTPENAEQLGIKNIALSSLVEDKLLLNFAKDLGIGVNENQILQKLANTREFQDPTGDFNKTIYYE

LLNANNLAPKDYETQLANEVITDKLNQIFNIPSKDEELKMLASSYFMQDALSIAKIDYDKKNIKINEEDL

KKLWNEHKEDYKTKKIYEISTYFLPVSNEKIDDKELEKFYNQDENKLKYKDFAGKVMDFQSAKNEVAKDY

ALMQLKNVANAKFLDLKNGKDNFQKDQNISESDVYYPIDLLNKAKNGDVLRPAPYNNGYIIVKLNKVDPI

RNKTFEEAREEVLPMYLSEQARKNLEEKAKNSLVNFKGDDIGFVSRDSSRESVKVSDKILNDSEFAYFLM

NVFNTDQNSSYVVINDNKAILYKINKQKLDMNSDKFEQYKTMLEQNLQNLKANELKQELVDELKKIYPIK

IYYKGN

>AHK51937.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEIPHIPVLLNEVQEIFKNLKTGYFLDCTLGFGGHSEALLKNHPDLKFIACDQDQQALKFSKKRLKDFRN

RITFMQSNFSEVLEKISHKEELRGILADIGVSSFQLDNNERGFSVNSDFLDMRMNQNSKISAYEIINTYT

KEQLTSIFKDYGELHDAHFIAEKICLERSKNLIKSAKELYQIIGKGKQNHRKISKATLAFQAIRIEVNQE

LKVLKDFLEHLENLKPKNCILAIISFHSLEDRIVKQFFKKWSKNCICNEKIMRCECGNNHSLGQIITKKA

ISASKEELLKNSRSSCAKMRAFYFNNLDNK

>AHK51936.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLEDDFIKERQNIRQKMLKFSRAINQGKPLDDDLRDEISSDDILRRRFKKKTPNKFLEELDEEYESKHTK

KSNIYLKEDLINVKLEEKQSLAKKIFSKMKERRKEENKKTKKNFLFSRKKANEIKNIQTKTQIQTKSNQA

TTQTKQEKKELTNSIEKIQKTETKIQKPLIIEKKLDVKNQPNIKKSLENLQKKITPQENKQELPKPSNQA

QEKQQNDEDAQKAKNILLEGFSNATKEDRNLNFNHLLFAALLVSFALFLFAPQIYIRNQIYYLSREIATL

RTEESVLNEENKDLKRRLENMRFQNQILDYLE

>AHK51935.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKFKEFSLRFLFKVSEQPVLIRDLLEANALFNDGMLVDPSKLNFNFKILNSYIYFGVFCAVILLPLLLI

THYFLTKLDFHISIVSAVMVTACVFIGYDIFKVYTRKIISKKIIQKAWALHFPYFAYEKYSTMAGEFYKE

ALKEEIPKANLEQYVLDKIIHSK

>AHK51934.1 acetate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKILVLNSGSSSIKFKFFDNKVVKASGLVEKIGEQNSKVVLKNTLNNESFERELTINNHEEGLSIVNELF

KESGILADLNALDGCGHRIVHGGRNLSEHCLVDDYVLKEIDRVSIFAPLHNPAHLAGIKTMIKAAPSVAN

AAIFDTAFHRTMPDFAYMYALPYDFYDKHNIRRYGFHGTSHAYVSSRAAKFLQKDQNELNVISAHLGNGA

SVCAIEKGKSVDTSMGFTPLEGLVMGTRCGDLDPAILPFISHLKGLTIEEIDTLMNKKSGVYGICGYNDF

RDIEREIEQGNDKARLALDMFCYRLVKYIGSYFAVLPKTDAIIFTGGIGENDSLVRQKVCERLAHLGIEL

DFELNKQRISGERMINHANSKVKVLVIPTDEELEIARITEELIGKN

>AHK51933.1 phosphate acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MANLYLMRSRSDELNTIISTNLLKNYSKIYKNIAIYCPVIYIHRVPVLQGWLEEFNINQTVKSAYGFTFR

EAMEEFSKDPHNFFNVILEEYEELKRKYDFVLVNSFCEFGILDGFDLSIKLAKNLNTPIAAIINDEDKLI

AQKYFDHALDGRNYVLINENFNFEEVQKLKEYDFITPHRFKYELIKQSIKNKKTVVLPESNDERILKAAE

ILLKSKVVDLILLGDEEKIKQDATRLSLDLSAMQIMNPLNSEYNQKFTSILYEARKSKGMSLEEAKMLVQ

DKTYFGTLLIHTGKADAMVSGASTTTAETIRPALQLIKTKEGISSVSGIFFMGLEDQVLAFADCAVNPSP

TAEQLATSAYVSAMTAKSFGLEPRIALLSYSSGDSGKGESVDLVKEALKIAKEKYPELNIDGPMQFDCAY

DPKTAAKKMPNSKIAGHANVYIFPDLNAANICYKAVQRTANALAIGPILQGLKKPVNDLSRGCLVDDIVD

TVILSAIQAQ

>AHK51932.1 flagellar L-ring protein FlgH [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKVLFYVLPFAFFGCSATVDPQISMKPPAYVEELAPKQSNNVESAPGSLFGKGDNPLFSDKKAMNVNDL

VTVVIQESTTQSTQANKATSRTNTSNLGGGALTGSSGVVANALNKVNAYSNIGFQTNSSNNYTGTGSQSR

NESFNTTISTRVIKILSNGNYFIEGSRELLINGEKQIIQLSGVIRPYDIGQDNTIDSKYIADAKILYKTE

GEVDRSTRKPWGSKVIEAIWPF

>AHK51931.1 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEYKRFKTRQIKVGNVLIGGDAPISVQSMLFTKTRDIEGSLEQINRLYFAGANIVRLACLDMADARALKE

IKAKSPLPLIVDIHFNHNLAVYCAEFIDGVRINPGNIGSKENIKEVVKACKERGIPIRIGVNHGSIEKQF

SDKFGYGVDAMLESAMYNIKLLEDLDFFDIKISMKTSDAQKTIEAYERLRPLCDYPFHLGVTEAGTKFHS

TVKSSIALGNLLLKGIGDTMRVSMTGELEEEIRVARAILQDSGVQKSGVNIISCPTCGRIQSDLLSAIKI

VEEKTKHIKEPLNISVMGCVVNALGEAKGADVAIAFGKNQGLVIRHGEVVAKLKESELVDRFLAEVEDEV

KSRVVKE

>AHK51930.1 primosome assembly protein PriA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQRSDIRYYELAICGLYLDNLTFHSFDEIKPLTQVLVDLKTKKNLKAIVLKECQKPDFKTVEIKEITEYF

LTPLQFELANFIVYYYASKLGFVLGFFETSPKYECHKMFFKDTPKLSNQQQNALSFLQKENNSLLFADTG

SGKTEIYISLIKECLEQGKQALLLMPEIALTPQMQKRLEVYFKDNFFLWHSKISKKKKQEYLERFCKGEV

LLVAGARSALFLPFRNLGLIVVDEEHDNSYKASNQPFINARDLALFLGQKNNIQVILGSATPSLTSFYKQ

KSFRLKGTFFESKKHFLYDENELGITPMLLSELEKSLKHQKQAIVFLPTRANFRQIICKDCGETIKCPFC

SIAMSMHKKKNILKCHYCNYTSLIEQNCPSCKGEMLEARKIGTAELLELLQNALPLAKIAKFDSDEITSV

KKLNTILKNFNENKIDILIGTSMLAKGHDYHSVDLSVILGLDEYLLRPSFRASEETLALAMQVAGRAGRK

GEARVLLQTKNRAFFERYIENYDAFLKDELENRKDLYPPFKRLLRVLIEDKDQKSAQKLCEKFASQFRNI

KQVELVGYGICGVEMLYGKYRFYLLLRSENHKALVAIENYILQFKNASADIDPIDFV

>AHK51929.1 hypothetical protein N916\_03410 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKAFTLLELVFVILILGILSSLSLSFINTTKDEVKILKLKMDYEMLSSALALMRSQMRLKNLNFPEILD

NAQNNQAKEKLFYCLNDCDYSLLDTPIYSDFKSWIKIGKNHYRFALNAKEMVEFIYDSKEGLLKCIGSSR

CKDLI

>AHK51928.1 hypothetical protein N916\_03405 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MADNLKQVIVNVNAKDFIVKCSEEFANFLEDDIALISGGTKKIELKRFVDAFVKKSYENYILERELKKLI

KAINEELPTK

>AHK51927.1 ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFDEKIINTMTDKVNELIEKYNEVCEANEALRNELVSVKAQNEAKSNQIMRLEEELKSRNIESEDIYKKI

EAVLGR

>AHK51926.1 excinuclease ABC subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLELTSEFKPSPDQQEAIKGIVKSIKKGNKYQTLLGVTGSGKTFTMANVIKELNIPTLIMSHNKSLCAQL

YSEFKGFFSKNHVEYFISYYDYYQPEAYIPRTDVFIEKDSSTNEDLERLRLSATASLLSYEDVVCIASVS

ANYGLGNPNEYIGMVLIFELGMQISQKELLKKLVDMGYKRNDNFFDRADFRVQGDIIDIYPAYYEDEVVR

LEFFGDELDAMYHYNVLENKKGKDLKRFILYPTSQFSVGETRLKQAIKDIKAELNERLAYFEHENKLVEY

QRLKQRVEFDLEMLTSTGMCKGVENYARHLTGLKEGDTPYTLFDYFAIKDRKFLVIVDESHVSLPQFRGM

FAGDRSRKQTLVDYGFRLPSALDNRPLMFDEFIHKNCQFLFVSATPAPLELELSKENIFHQIMRPTGLLD

PLIELKDSDNQVEILFDEAKKVIQRNERVLVTVLTKKLAEELTRYYLELGIKVKYMHSDIDAIERNEIIR

GLRSGAFDMLIGINLLREGLDLPEVSLIAIMDADKEGFLRSTTSLIQTMGRAARNVNGKVLLFCKKITKS

MQEAMDTTNERRKLQMAYNKKYNITPTSVKRHIEESLKNEEDLGEIYRKGKKLEKMPASERAKLVKELRK

QMLEAAKALEFEKAAAIRDEINKLRDL

>AHK51925.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDFLTSLSEAGQFAIQIIIVLICLFYGAKKGGIALGLLGGIGILMLVFAFHIKPGKPAIDVMLTILAVVV

ASATLQASGGLDVMLQIAERILRRNPKFLTILAPFVTCFLTILCGTGHVVYTIMPIIYDIAIKNGIRPER

PMVAASISSQMGIIASPVSVAVVSLTALLLNANHKLAGFDGYINLLQITIPSTLFGVLCIGIFSWFRGKD

LDKDEVFQEKLKDPEFKKYVYGDSKTLLGVKLPKSNWVAMWIFLGAIALVALLGVFDFLRPNWGQVVKNG

IPQVDALGNPKMDVLSMVSVIQMFMLLAGSLIIIFTKTDAKKIGSNEIFKSGMIALVAVFGISWMADTMF

AVHTPMMKAALGDIVKEHPWTYAVMLLLISKFVNSQAAAISAFVPLALGIGVEPGVIVAFAAACYGYYIL

PTYPSDLATIQFDRSGTTHIGKFVINHSFILPGLIGVITSCIAGYFIAMAAGYL

>AHK51924.1 RNA polymerase sigma54 factor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKQKITQAPKTKISQTLRSWLPILQANIEDLKENLDKFAEDNPFLNVQDSIQTHDKGKNYFDSFYKHNV

NSAFVDSKGLAKKSVYELLNEQILPPLFPTSKSQELAKKIIECLNEEGYFEHDEEFLKEYSLEEIERVRA

RFKFLDPVGVGAKDYKEAFLFALENMELDEDIDEFCRMLIMDFENIQNYTKEPLYKEALAVLKRFSTPPF

LEYFEDSRIIVPDIFVYKENGEIKVKINDDYYPEISIQTDGLEHDFLSHYIKEAKNLVDALAMRKATLYK

IGLMIVEYQYDFFMGKEIKPMTFKDLALDLERNASTISRAVANKYLSCERGLIPLRDFFAFALDEEGETS

NVGVKEFVANLVKNEDRNKPLSDSKILELIKEEFKVDIGRRTITKYRKHLNIASSTDRKKLYELEG

>AHK51923.1 lipopolysaccharide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFMSKLEIVNLEKIIKKTKIIHGISLEVNSGEVVGLLGPNGAGKTTTFYMICGLISPSSGKVLLDGLDV

TKDPLNKRARSGIGYLPQESSIFKDLSVEDNLLLAAQIFYKDKKILHDKVEQMLELLSIEPIRLRKGLSL

SGGERRRCEIARSLMCEPKFLLLDEPFAGVDPIAVAEIQTLIKELKRLGIGVLITDHNVRETLAICDRAY

VIRSGSLLASGNADEIATNKDVKKYYLGAEFKLLD

>AHK51922.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEFILAKNEIKTMLQIMPKEGVVLLQGDLASGKTSLVQAWVKFLGLDVRVDSPTFSTMQKYENHDICIY

HYDIYQEGLEGLLANGLFENFFEKGLHLVEWGGENLKKTLMKFGISTIQIKISIKDDKRKYEIYE

>AHK51921.1 argininosuccinate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNEVKKVVLAYSGGLDTSIILKWLQDEYNCEVVTFTADIGQGEELEPARKKALSLGIKEENIFIKDLRD

EFVKDYVFPMFRANAIYEGEYLLGTSIARPLIAKTQAQIALQTGADAVSHGATGKGNDQVRFELGYLAFS

PDLKIIAPWREWDLNSREKLLAYAQKHGIDISKKKGKSPYSMDANLLHISYEGLVLEDPAHAPEEDMWRW

SKSPKDAPNESEIIELDFQKGDLVAINGEKLSPAGLLTKLNELGCKHGIGRLDIVENRYVGMKSRGCYET

PGGTILLKAHRALESITLDREAAHLKDELMPKYASLIYNGYWFSPERMMLQALIDESQIHANGRVKLELY

KGNVMVIGRESANDSLFNAAYCTFEEDEVYNQKDAAGFIKLNALRFIIAGKNGRKF

>AHK51920.1 50S ribosomal protein L9 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVLLIKDVKALGKAGEIKEVKDGYGQNFLIAKGFAKAATNEVLRKYESDKKKEAENLRFEIANLEKLKE

ELSKITLEISKPVGANGSLFGGVTKDEIAHALKEQSHIEIDKKSLECDTLKSLGIHEVSVKLGHAIHAKF

NINIKAE

>AHK51919.1 peptidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFHATTILAYKGKNKSVIGGDGQVSFGNTVLKGNAVKIRKLNNGKVLAGFAGSTADAFNLFDMFENLLQS

SKGDLLKAAIDFSKEWRKDKYLRKLEAMMLVLDRNHIFLLSGTGDVVEPEDGQIAAIGSGGNYALSAARA

LAKHTDLDEEELVKSSLQIAGEICIYTNTNIKTYVIEDEK

>AHK51918.1 ATP-dependent protease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLTPKEIVKFLDDYVIGQKKAKKIIAIALRNRYRRMQLSPELQDDIVPKNILMIGSTGVGKTEIARRLA

KMMGFPFIKIEASKYTEVGFVGRDVESMVRDLANAALNLVKNEQREKNKDKIDEFIENKILEKLLPPLPK

GISDEKQEEYKNSLEKMRTKLRNGDLDESTIEIEISQNMFDTNPNLPPEMGAMQDIVKVIGVGSKKVKKE

MKIKDAKNALKNEAGEKILDQESIKSEALKRAENEGIIFIDEIDKIAVSSGNSNRQDPSKEGVQRDLLPI

VEGSNVQTKIGTLKTDHILFIAAGAFHLSKPSDLIPELQGRFPLRVELDSLDDKALYEILTRPKNSLLKQ

YSQLLKTENLELEFDDEAIKEIAKIASRANEEMQDIGARRLHTVIEKLLEDLSFEADEYAGKKFVVDKKM

VEEKLGDIIENKDLARYIL

>AHK51917.1 GTPase Era [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKSGFVSIIGRTNAGKSTLINSLLEEKIALVSHKQNATRRKIKAIVMHEKNQIIFIDTPGLHESGATLNQ

LLVQSAIKSMGDCDVILFVASVFDSTKDYENFLSLNPQVPHIITLNKVDLTDNATLLKKLSEYAKFSQHF

KAIIPYSSKKKSYKKGLLDEIVKYLDEHEYFYDPEFLSASSEKEIYRDFILESIYENLSDELPYSSEVLI

HRTKDTPNLLILEANIITDTNSHKGMLIGKEGATLKRIGKDARFKISKLAQKKVLLKLFVTVKKNWQKDE

EFLKKLLNDEN

>AHK51916.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKINSLNKINFIKSTDLLYAQRTGISKEDELFNNLTADFKLSKPFDYQIAFFKHNEIYHCFLAPVYKLKK

SRFCFPEPLIFQALFDERFIEESDYCVLNLYDQTLYLYFYQEGKFINLKKIENFNPGNMDLFFKQNRFTE

LLKHYESKLLLYQDLNTIKHYFSSQIKCLNLNDILDKNSLLKLSSYSIKNLDQNCNFIKHNKIKISISFK

IILIFIFSFSLSMMILLFKDFIEYKQNKEIQNKNFIIQEEISKLKQDKQKLLTNIQDLNFTLSNKISSTQ

QQFHILSTITKEINLDKNKAIILNQIISWLNSNDLKITNLEFEQTKIILSFIDENHFKRALENLNSAFKI

LDKNEETFNIILEVIHE

>AHK51915.1 hypothetical protein N916\_03285 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKIEVFLQNLNPREKFLFISFICLCALFLAFKIHDHFLEDIFQKTLVEHNYLALNEAKIENSHLKEIET

KLTKQIKIEEEKLKYYKEKLHLFSYDKDFFNKKINNLSKNLIINEIKFSQENKNFIHYNYVSLSLNGNFK

DLLNFIQNLENLPIALKIDKIKLYNTQGLKLKLDLMFKFVNL

>AHK51914.1 peptidase M24 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSIYKQRVLELRRLMKENNIDAYLILSADPHLSEYLPEYYKNRVFISGFKGSVGTVLITQEEGFLWVDGR

YWLQAQKELEGSGILLQKQDAKNTFTKWLEKNLSEDQILGIDFALLPLSLQKDLKINCKANLKHIDLISP

LWKDRPTLPQEKIYEHELEYCSYSRKEKLALVRQKMKNLNATSHLISSLDDIAWLTNLRGNDVNYNPVFL

SHLLILEDKALLFVDQKKVNSELEKKLNLDGFWLKNYDEIIMELEELANTNLLIEPSKMTALLINSLDKS

VKIIQEINPSTHLKAAKNTKEIAHIQDAMIEDGVALCKFFAWLEEAIKNKELISELDIDVKASEFRAQSK

YYISDSFATIAGFNENAAYPHYKATKESFAYLKKDGLLLIDSGGQYKNGTTDITRVVPIGKANAEQIHDY

TLVLKAHIAISSAIFPKDITMPLLDAITRAPLWKEQIDYIHGTGHGVGYFLNVHEGPQVLSYLSPVLEKT

KAKEGMLTSIEPGIYKVGKWGIRLENLVIHTKVENPKNKDFGEFLYFKPVTLCPFEISCIDTKMLDEKEK

EWLNNYHKEVFEKLSPKLGDYPKALVWLEKRTKAIF

>AHK51913.1 penicillin-binding protein 2 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRMRLVVGFILLFFIFLLSRVYYLSIKSNVYYEELAKQNAIKTEFLPPVRGQITDRNGTLLAINDLGFSI

SIKPYLSIKKSNKGILDKELSELTNLFPDLNASKLAEIYKRNDSYYNQDFIKVVDFIPYDEIISHYSELN

LNKTIKIDPVVKRKYPFGKLASHIIGYVGKANLQDVQENEIAKLSNYTGKSGIERYYNDILQGEKGTRVY

KVNALNQEVEQLSYTPAMSNDIELTIDIELQSYLTSLFEGNAGAAIIMNVNDGSILAAGSFPEYDLNPFV

TGISFKDWDELSNSLDHPFTNKLINGYYPPGSVVKMGVGLSFLNSKNISPSTHYVCNGSIELGGRFFRCW

NRSGHGPVDLKHAIKYSCDVYFYNGSLQVGIDQISETLSRIGFGVKTGVDLPSEFVGTLPSKEWKMQRYR

QSWFQGDTLNTAIGQGNFLATPMQIARYTAQIAKSGEVIPHFLKSIENNNTTIENQMDENKKEIFTLFEK

SQLPYIRDAMYAVANEQGGTSYRYLHNLDVKVAAKTGTAQVVGFSQTDKNRVDEKQFEYYTRSHAWLTSY

APYSKPKYVVTVLLEHGGRNITSGATVAKIYQKMIELGYFK

>AHK51912.1 GTP-binding protein YsxC [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIISAKFITSLVKFDENLSSNFSEVAFLGRSNVGKSSLINSLCKQKNLAKSSATPGKTQLINFFEVICRR

NEEKFNINFIDLPGFGYAKVSKNLKEIWNQNLDEFLKLRTSIKLFIHLIDSRHTHLEIDVNLNDYLKRFL

RPDQKILKVFTKCDKLNQSEKAKLKNEFKDSILVSNLNKFGLDSLEDIIINQTLGLDK

>AHK51911.1 organic solvent tolerance protein OstA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVARQIILLLVCVSVTWATQIEVKALNFYSDENKGESILSGNVEVIRGDDILNSEKLIIYTDKNRKPIRY

EAMQNARFKIVLKGKTYKGSGDKFIYNVIKDTYEINGHAYINELGSNQKLFGDKIIVDRKANIYRVESKD

QKPARFVFDLKDK

>AHK51910.1 hypothetical protein N916\_03230 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAIKIFGILIALFTITFTILSLQDPYSLNLQTNALNFKNIEAKNLKAYESNTSIIKAYYKANSWVRYADR

DEFNDFITLNLDFNLSANRLEFFNKDMSKVLFEGNVTYIGSNNVKIISQEVEYQPKDKILHTNTNFKALI

NGSIINGNTLNYDVKNKILNIQGVNAWLQDK

>AHK51909.1 3-deoxy-D-manno-octulosonate 8-phosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTELIFLDVDGCLTDGKIIYTSNGEFIKEFNVKDGAAIEAWLKLGKKIAIITGRNCPCVEKRAKDLKIKI

LYQGIKDKLACAKEILQKLNLDFSQCAAIGDYFNDKALLESVGLSFKPKDGHKDLNVDIVLSKKGGKAAV

AQMIEILVEKNHLEEEWNKLWL

>AHK51908.1 RlpA-like lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIKTITLKLSAVSLGALFFSGCLGTSFFSSLDNAQVYYPSNDFKSSPSSSGTKGTMKPYTINGKTYYPT

VVAVGETADGIASWYGPGFHGKKTSNGETYNQNALTAAHKTLPMNTILKVTNLNNNRQVTVRVNDRGPFV

NNRIIDLSKGAASQIDMIASGTAPVRLEVIGFGSSNSGNNIVHSNVNYGNSGEIANNGQIYEGGNFMVQI

GAFKNPAGAQTIAARYKTYRTYSSTIRTSSVDGLNRVFLTGFRSEDEARDFAASGAFAGAFVVRE

>AHK51907.1 lytic transglycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILLCFLICFNFLFAQINTPEFYERQMNVLRNLDINPSFISDLIFVQTQQDIKSKHAQTLIDSMQNFS

KVTPMIRKILAQQEVPDEILYLAMVESGLKTHSVSNAKAVGVWQFMQPTARNLGLRIDAYVDERRDPVKS

TYAATNYLKELKEEFGKWYLALLAYNCGNGKLRQAIKQAGSDDLSVLLNPDKKYLSLETRNFIRKILTLA

FLANDRDFLLDKDASLMNYALSNEFAKVDVPSSASLKEIAKNLNMDLATFKKYNPQFKHNFTPPGKGYYM

YIPLNKVAFFDKNFKAEKLAKVDTTIPMTRTYTVKSGDSLYKIAKNYNISVDEIREFNKIAKNHLSINQK

LIIPIKENKNANKNNYTKVVSR

>AHK51906.1 TatD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFLNLDFQDGLRIVDTHCHLDSEAFKDDLDETLNRAFKNGIEKIIIPGADIKDLPYAATIAHKYKNIFFA

AGVHPYEIDNYDEKILRQYLCDEKCVAVGECGLDYFRFKSDLAEEIQKEKENQKKIFIAQLELAIEFKKP

VIIHSREANHDTYEILHGYSKDLVGGVLHCFNASEHLLTLFEEGFYFGIGGVLTFKNAKKLVEILPKIPK

DKLLLETDAPYLTPEPYRGKRNEPLLTQFVVNKMCEVLNLSRKELLEICFNNSEKLFFKGY

>AHK51905.1 diguanylate cyclase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKKILIIDDNKMLGKLLAKKIQMTLDYEVDIAFGFAEAKELMNNDYFLAFVDLCLPDAPNGEVVDYVIE

KKIPAIVLTASGDKATKEKFMDKDILDYIFKESETCIDEIISSIVKLNQYAKTKVIVAMSKLPERNEIKK

ILTQRQFNVLAAAHGEEAMSYLNDNNDVKLIIADVNMPVISGFELLTQVRERFSDDELGVILLGDHNDSF

EANSFKNGVNEYLFKPLSKESFNCRLDRCLSYMDDKKFLSTYNVLDPVSGVKNYNALIDGIDDYFNEIAT

KDEEFAFAFLDIDNLQMINDEYGREVGDEVIKICANEIVNETKGRDLVGRYSAEKICILLKNISQERAIK

IFSRIRVNIKKAGVLVNLDEVFFTASIGVVFGKSGDKIDSLADKASKILSQAKDNGKDRVEVCS

>AHK51904.1 DNA repair protein RecN [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINRIFMKENLGFKKAELEISKGLTVFTGLSGAGKSVLFKGILSAFSLSESEAKIVEIEVDDKLDLESFG

IESEEENVFKLLKEKNTKYFINNQSIAKKSLQNLSKTFIKYLSAKENNEFGNEKFLNLLDALEMQENTNF

VSFLEDFKKDFNAYSQISNELNAILEEEKKVEELKELARAQIEKISSINPKIGEYEELLILKKKLSKKDK

LEEAWSKAERIFELEKVVIEALNLSEVDASFFSECLNELRVICENQKMEDLDFDVEALLDRIENLSYLIK

RYESIENALEVLKQKKYELEHYENLSFEKKELEKKFQELKQKLEEKAQILTQTRKKNLKKLEKCLNNYLK

DLYMKDASLTLKENEKISILGKDEIMLDINLAHLKNLSSGELNRLRLAFIATECNILNAGKGILFLDEID

ANLSGKEAMSIAKVLEELSKFYQIFAISHLPQLSSKAHNHFLVEKNGEESKVKKLDQEERIKELARMVSG

ELVSDEAIEFAKTLFKN

>AHK51903.1 inorganic polyphosphate/ATP-NAD kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNKIDYKNIKKIGLVTRPNVSLDKEILKLQSILSIYKVELVLLKESSEILDLPKYGLDDLFKISDFVIS

LGGDGTLISLCRKACEYDKAVLGIHAGHLGFLTDFKVDEAENFFQAFFQGEFRIEKPYLLSIFLEDRQGK

ILEKLAFNDVVISKNNQASMAHIEVFRKEKKFNEYFGDGLIVATPAGSTAYNLSANGPIVYTLAQAFILT

PVCSHSLTQRPIVLPKGFEIEIMAKDCMLCIDGQENYKMNDFKSIKVGLSDKNVALIHPKNRDYFQILKE

KLHWGN

>AHK51902.1 aspartyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRSHYNTDLGISHVGQSVKLCGWVNSYRDHGGVIFIDLRDRSGIIQLVCDPNDSKEAHEIASNARNEFVL

ITEGTIRPRGEGLVNPKLKTGEIEVVVSKLTIENESAVPPFAIADESVNEELRLKYRFLDLRNPKLYENF

ALRSKACIAARNSLANMGFLEVETPILTKATPEGARDYLVPSRVHQGEFYALPQSPQLFKQLLMCSGFDR

YFQIAKCFRDEDLRADRQPEFTQIDVEMSFCEQKDVIKVAETFLKDIFKACGKEIQTPFRQMQYKDAMEN

YGSDKPDLRFDLKFIDVIDIFTKSNNEIFANIAKDTKKNRIKAIRVPKGDTIFSKRQMQRFEEFVRKFGA

QGLAFIQVKKDGLKGPLCKFFSEEDLNELSKRCELEVGDVVFFGAGAKKTVLDYMGRFRIFLANELKLID

PNALEFLWVVDFPMFEQNDDGSYSAMHHPFTMPKNIDETDLEEISSIAYDVVLNGVELGGGSIRIHKNDI

QQKVFKLLNIDEEQQKEKFGFLLDALSFGAPPHGGIAIGLDRLIMLVTGANSIREVIAFPKTQRAQCLMT

DAPSPASNEAMRELGIKLRENIK

>AHK51901.1 adenylate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKELFLIIGAPGSGKTTDASLIAQADATNITHYSTGDLLRAEVASGSELGKTIDSFISKGNLVPLDVVIN

TIVYALKAAPTKTIIIDGYPRSVEQMMEFDKVLSEQNEICLKGVIEVRVSEEVAKERVLGRNRGADDNEE

VFYNRMKVYTEPLNEILDFYQKKKLHFIIDGERTIEPIVADMKELIKKIQSI

>AHK51900.1 inorganic pyrophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLSKIKIGDIPNKINAVIEIPYGSNIKYEIDKDSGAIMVDRVMASAIFYPANYGFIANTLADDGDPVDI

LVLNEYPIQAGAVIPCRLIGVLIMEDESGMDEKLLAVPNSKIDARYDNIKTYTDLPQATLNKIKNFFETY

KILEPNKWVKVQDFKDEKAAIEILEKAIKNYK

>AHK51899.1 methionine sulfoxide reductase A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNIVLGGGCFWCVEAVFERLKGVINTEVGYSGGKPNPSYESVCNGDGNIEVVKINYDEKQISLLEILTL

FFKIHDPTSIDKQGGDIGIQYRSIIFYENEEDKILAQNFIEEQQKIFSKKIVTKISRLQTYYKAENYHQH

YFINNPDQGYCQAVIAPKLQKIQSD

>AHK51898.1 hypothetical protein N916\_03170 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLSRIEKLYTKDEMQNILSSFAQEKNVCVFANTLKTSIEELEKEFLKQNLKFKKINVYCYLFDAKDKAIL

SSMKAFNEAHFYIQNYSSYLCALNLEVKAGQSVLDMCAAPGGKSINLANFMQNTGYLACNEMSRDRFFIL

QKNLKNYGVNAKVFMKDGKNIGNLCPLKFDKILLDAPCSTFAKIGFDLEKSYKEIKNIAKTQKKLLHSAL

KALKIGGELVYSTCTFTKEENEEVIENALKSEFKLELLDIDLENVEAKAGQSEEFAEISKCRRILPSLDY

DGFFIAKLRKLC

>AHK51897.1 Holliday junction resolvase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRALALDVGLKRIGVALCIDKKIALPLDAVLRKNRNQAANEIKNLLKIHEISLLIVGIPKGGSSEEEMTR

RIKHFVSLLEFDKEICFVDESGTSKEALGYGVANTRKKDGKLDSLSAFIMIKDYFAL

>AHK51896.1 DNA processing protein DprA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MASEILPDEFLELFKDLKKPPKKLHYKGNLSLLKQDKIAIIGSRRMSVYTKNCVFSLASMLKNAHLCVVS

GGALGVDITASMAAMPNTIGIFANGLDQIYPRTNEKIIKQIYENALALSEYEDDYLPKNYDFLLRNRLVI

ALSKAVVVAQADIKSGSMQSAKLALELNKPLYVLPQRLGESTATNLLLKENKAKLICDFKEFVSEFASID

MNQDEFLEFCKKGVSVDEALKIYGQKVYEYELEGKISIEGLFIRVLA

>AHK51895.1 hypothetical protein N916\_03155 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKKKLVQIQRYLIIAILFLLCIALALGILVKYQNSQDVSSVKPDYFIDKQEDLISLNKDHYEIGIFQEN

EFDNNKSVSILEQKIQEIDDLNTSLNEQNLSSVEQNLSLEQNQSLEQNFILKDTNLTQDQNLTFNEDIHL

NKISKKPKLAIIIDDMANASQVRGLKALNLKLNPSFFPPDKNHSETPKLALKFDFYMVHLPLAAINYNKP

ELDTLNPNDSKERIFKKIKQIKKDFKDLRYINNHTGSLFTSNEEAMKKLYEALKNQNIFFVDSKTIGNSK

ANKIAKELSIPYIQRDVFLDNEDDVNYVKKQLENAVKLAQKKGFVIAIGHPRKNTFKALEQSKDLLKGVD

LVYLSEIYGK

>AHK51894.1 ketol-acid reductoisomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAITVYYDKDCDLNLIKSKKVAIIGFGSQGHAHAMNLRDNGVNVTIGLREGSVSAVKAKNAGFEVVSVSE

ASKIADVIMILAPDEIQADIFNVEIKPNLSEGKAIAFAHGFNIHYGQIVVPKGVDVIMIAPKAPGHTVRN

EFTLGGGTPCLIAIHQDESKNAKNLALSYASAIGGGRTGIIETTFKAETETDLFGEQAVLCGGLSALIQA

GFETLVEAGYEPEMAYFECLHEMKLIVDLIYQGGIADMRYSISNTAEYGDYITGPKIITEETKKAMKGVL

KDIQNGVFAKDFILERRAGFARMHAERKNMNDSLIEKTGRNLRAMMPWISAKKLVDKDKN

>AHK51893.1 ribonuclease R [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEFLNSLSYGISSHEVNNEFKQIFRELLTNHIIKEHKNKYYLNNGFAFGVLDISSKGTGFLQCFDESFK

KDLLIENKNLKGANYKDIVAVKLLPLKKKRPSAKVILVLKRANETSLMITKRYGEAVLGMNIKTGLSTAL

KASQKSLKALPLGTILKIENENNNIIEVLGHIDDESVDEKISLALFNKNNEFSDACIKEALANGDSVDAS

MYENRMDLRALPFCTIDPIHAKDFDDAIYFDTQKREIYVAIADVSEYVYAYSAIDKEARNRGFSIYFPHI

AIPMLPRPLSENICSLKPHLDRLAYCFKITLNHENKVIKEELFEGIINSKRRFNYDEVDEILIQKPDLKE

LSWLYELFEITKNLRKMRLKNAFEFRTEELRMNLDENLSLKSTVFEKDTPSHNLIEDCMLLANKAAAKLI

DIGVFRNHLSADVRKIDKLLNELRELGIDVNFKPNLPELIRDIQALADELNLRAEVDKLIIKAQKKAEYS

SVNAGHFGLGFDKYSHFTSPIRRYSDLILHRLLKAKQKNDEKLFNYLLLNIESTCENLSTLEREADKVAF

DFMDRKFARWAAKNIGKKFKALVVQNDGVCIAKLDDEIKGADIILYDTRVNLLENVEVQIMEADIVMAKI

YAKITQRLIKEENV

>AHK51892.1 DNA polymerase III subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYRKELQILLSKDSIPNFFFLYGADNFQSELYAEFIKEKYKPDETLKLFFEEYNFTRASDFLSAGSLFSE

KKLLEIKTSKKIPTKDLKVLVELCKNNTDNFFLLELYDESSKQSDIEKIFSPHFVRFFKANGAKEGVELL

SIKAKQLGVEITQNALFTLFTSFDENLYLAASELNKFSGLRVDEKTIEQYCYSLNTGSFESFFDKILKKQ

DFKSELEKILDNFNEIALINSLYNSFYRLFKIALYAKINGKIDFKELLGYTPPPQVGQNLSSQAFSLKIE

QYKEIFTLLLKSEYELKTNPKLVKKEFLISNLLKLARILKN

>AHK51891.1 hydrogenase nickel incorporation protein HypA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHELSIVESLIELCEENALNNKAYNVQEIYVKIGRLSGIEVDLFKRCFETFKENSNICKNAKLFIELAPL

EILCLKCDQTSILEENVFKCPKCQSIEYKIIQGEDLHLMRLVMK

>AHK51890.1 hydrogenase assembly protein HupF [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNISLAHGGGGEEMNELLTKLFKIFDNEILNANNDAAILGNLALSTDSFVLSPIFLDEEVNIGKLCVCG

SINDVLMVGAKPKYLSLGLILEEGFELEKLERILKSIKEECEKCGVMLVCGDTKVVPKGKADEIYINTTA

LGEIISKKESKNIKAGLSILLSGDIGRHGASVLIKRNELEADIKSDCKALNKEVLELLEKDIKVVAMRDA

TRGGLSAVLNEWAKQSGNDLLIFEEKIIVQDEVLGLCELFGYEAYELANEGTFILCVEKEDELKALEILK

KYNVNASIIGEVLEEKKARVILQNAYGAKRFLESPKGELLPRIC

>AHK51889.1 hydrogenase formation protein HypD [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFIDEFRDKESILALKKLIEQELKNPINIMEICGGHTHSIMKYALPSILPKEINFIHGPGCPVCVMPRV

RIDTAIKLASMKDTIFCTLGDLLRVPGSEISLLDLRAKGADVRALYSPLEVLEIAKQNLNKNIIFFAIGF

ETTTPMSALLLQKVIEEKINNVFFHINHITVPAPVEAIMNDENVKINAFLGPSHVSVITGYGIYEPLAAK

FKTPIAVSGFEPVDILESVLNIIKQSNEGTFKVYNQYKRAVSKEGNVKAQNLVKKYFRVCDFEFRGLGLI

KDGGLELKEEFSAYDASKKFDCTVQSKNESKACICGQILRGLAKPYDCKVFGKACTPRSPIGSCMVSGEG

ACAAYYKYSKVNA

>AHK51888.1 hydrogenase formation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MCLSIPSEILEIDELNNALVQTLGVKRKVNLDLIDEPLKQGDYVLIHVGVAMEKIDKEAALESIKTYQEI

VEKMNSGEIKSDEGDLGLNEFHR

>AHK51887.1 hydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MCKDCGCSINSSHTHGHHHDHHHENPSLKEGKTIEVISKILSKNDEEAKHNRAHFNEANTLCINLMSSPG

SGKTTLLESTIKALKNELKIAVIEGDLETNNDALRVKNAGALAYQITTGQSCHLDAFMVHEALHHLAIDD

VDLLFIENVGNLVCPASYDLGEHLNVVLLSITEGSDKPQKYPVMFKKADIVLITKADLAHHFDFDIKEAT

RLIKELNPRADIITLDAKNGTNMELWYKVLKLKKELF

>AHK51886.1 3-hydroxydecanoyl-ACP:CoA transacylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MCHLGYKIKISGLVQGVGFRPLVYELALKSKLFGEVRNDGFGVEIILACTQKECENFIENLKNHLPPLAR

IDQLIITQISISNYENFSITPSLENTKSTPMLSDFAFCKECKKEFFDEKNPRFLYPFITCTHCGPRFSII

KSLPYDRAHTSMQELLMCEFCKSEYEDPKNRRFHAQPISCPKCKINVFLKNPKGEILAKDQEAFMQSAKF

LKEGKILAIKGIGGFHLMCDAFNEEALKTLRLRKNRPKKPFALMCKDLQSAKELAFIDEKEEALLGGVLA

PIVILKAKKAFSLIAPDVDKIGIMLAYTPLHLLLFEYFKGSLVATSANLSGESIIKDEFNLCKKLDKVFD

FYLDYDREIINASDDSIAQVVNGETMFLRTSRGLNPFYLERNFNKKGTFLALGAELKNEFVIFYENKLLI

SPYIGDLKSLDVHERFFKLLEFFKQNYDLKFDAILCDKHPHFSYAKEFEERIKISHHYAHFCAAYFEYEE

NFAKDEKALAFICDGTGYGEDGKIWGGEVFVGNLKEYERIAHFENFTLINSDIKNIQNLALSLIFHYDLE

DKAKDFLAKIPKIKLKNLKKIYSHSNLQTSSLGRIIDAFGSIVFNLEKSSYEAQVGLMCEAFYDKNLDFS

YKLFVEKGQVNFKNLILGALQDEKTKAITGMFNALANFIIDFSKDYDLKVLLSGGVFQNKTLLEILKAKN

FDFFIPLKYPCNDSSIALGQMVHFLNLEK

>AHK51885.1 hypothetical protein N916\_03105 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTLDFDFIYNADNDIFEYLLRFYAKNYNYILSKEENTYHFSIDADEENLKTFCDSLNFMSHSVFLKKFDV

KAGQGFNPCIPEDKEFSRFSYITHLNSNAYQEKKLLNKNEWGVFCECEFSSNLSEFEKINEENFNTFLNL

AFDLLSQEKKIYLKDKNGIYEFSLFKNEFIGDFLLPCDIKAINSVFVCSNENLKLLASLEKPLMKLRLNA

MFRKNHNLDFSDFKIRLARDLFCFALGLKLFENEYKFLSVKKIEEYQKDFYISALDEQVVVLEGFEFINA

KARELIFSKEDKNMARISYLVSRYKEKAFILELSKDYEDILLINKELNLLKLCLPKHSKELYEEIKKDEI

GARLLENFNKEFPLLDENFELQNNFYSLLGLLGRVLNLGRNLQESASELLKIADESKMPRGVKIDYRLKE

DKSFDYTRTLRSAMSFMLAGVDSANIAYGAVESLAYFLRDTYDELREKKQSDLALISGSLFEHKSLLKNT

LKHLKNCQLSDVPLRI

>AHK51884.1 hypothetical protein N916\_03100 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MARQSSSLKSFIYKDECYFYSKKCIKTLRLRLNEKGEFVLSIPYFCTFKSVYEFLDKSSSWMNEAKKRFE

KKVLKDDELIFLAKKYKIIFDENTKKTYFDKDKIICQNKAKLDLFLRQNAKKIFTFYLKKWSQKTGLFYT

HLSIKNMKTRWGSCNHNKAYVNLNLKLIQKSLRAIEYVILHEISHLKFPNHSKEFYTFIEHFMSDFRQRE

KEFLS

>AHK51883.1 multidrug transporter MatE [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKKQLSLTRLSFPIFWDLLSKYLTVIINTAMVSHYSNFLVGAMGAGNQILDLFITIFSFLSVGCSVLIA

QAIGAKDHVLARKVIHQSLFLNALLGFVCGVLILWHGEYLLYLLKIPQELLKDSEIYLHMLAICLFFDAI

GIVLAAIVRVYNMAYWVMFIGFLMDIVVICGNYYVLHYTKSELFGVGLSNIFARIVAIVALFAILFYKLK

IHLKIKEMIKLEKEVLKKVLNIGGFSAGENLLWIVQYTIAFAFVASLGEASLSVQTIYFQISMLIMLIGQ

AISIANEIIVGKLIGARYENIAYKHAWRALYFSVIASALVAFLNYLCQDFTMQILGLKEELKNLMIPLFA

LSIFLEISRTFNIVMVNSLRASGDAKFPFFSGLVFMMGVSLPVGYVLCFHFNLGILGVWIGFCADEFLRG

MVNSYRWKSKKWQGKALV

>AHK51882.1 phosphate ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIAKTTNLNLFYGKKQALFDINMQIEQNKITALIGASGCGKSTFLRCFNRMNDKIAKIDGLVEIKGKDVK

NQDVVALRKNVGMVFQQPNVFVKSIYENISYAPKLHGMIKNKDEEEALVVDCLQKVGLFEEVKDKLKQNA

LALSGGQQQRLCIARALAIKPKLLLLDEPTSALDPISSGVIEELLKELSHNLSMIMVTHNMQQGKRVADY

TAFFHLGELIEFGESKEFFENPKQEKTKAYLSGAFG

>AHK51881.1 phosphate ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKLFKKRQKASKSFKRLCKMGLYINLIFLCIFLGSVAYLGFPAFKQTYIFVEANRNSPAYDLLSRAEQR

KIRTGQITEKSWLLANSEVDQYMKQKYNRLSEKQRTLVDDLMQKGEIELKFNSNFFLNGDSKSPENSGIL

SSVVGTLLVMLVCMVVSVPIGVAAAIYLEEFAPQNILTHFIEVCINNLASIPSILFGLLGLGVFINLFGM

PRSSALVGGLTLAIMSLPIIIVSTKAALKSVDINMKNAAYALGMTKVQMVKGIMLPLAMPMILTGSILTL

AGAIGETAPLMIIGMIAFIPDVASSIFDSTSVLPAQIYSWSAMPERAFLERTAAGIIVLLGLLVVLNLSA

ILLRKYFQGKLK

>AHK51880.1 phosphate ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKEKIIKFALFLCAFVSVIVSFAIMLTILIEALKFFQKESVVTFLFSSQWAADAAFMNADGTSKQGVFG

ALSLFWGTFYISLIAMLTALPLGVMCAIYLGVFAGKKSKNYLKPILEIIAGIPTVVFGFFAAIVVAPFIV

WFFSLFGIQASFQSALGAGFIMGIMIVPIVASLSQDCIEAVSEKRINGAYALGMTKKEVVFAVILPEAIP

GIVAACLLGLSRALGETMIVVMAASLRPNLTLNFLEDMTTVTVKIVEALSGDQAFDSSLALSAFSLGLVL

FVITLIINMFSVYLINRFHKRKNL

>AHK51879.1 phosphate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILSLSVTSLALCGALNAVDLKIAGSSTVYPFTSFVAEEYASIKNTKTPIVESLGTGGGFKVFCEGTT

DISNASRPMKLSEFETCKKAGVTDIVGMMIGYDGIVLAQNKTNAPLNITKKELFLALAKEIPQNGKLIPN

PYTNWNQINKNLPNRKISVYGPPSSSGTRDTIEELVMSDVSKKIPEYKGEYKTIRQDGAYIPSGENDNLI

VSKLTIDKDAFGIFGYSFLVSNSDKINAANIDGVTPSEESIADEKYELARSLFIYINAKKNPKEAFDFAK

IYMSDDLAKSGGELEKIGLVPLSDDKLKASQKHVEDRKILNDELVKAGKVF

>AHK51878.1 ferritin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLSKEVVKLLNEQINKEMYAANLYLSMSSWCYENSLDGAGAFLFAHASEESDHAKKLITYLNETDSHVEL

QEVKQPEQNFKSLLDVFEKTYEHEQFITKSINTLVEHMLTHKDYSTFNFLQWYVSEQHEEEALFRGIVDK

IKLIGEHGNGLYLADQYIKNIALSRKK

>AHK51877.1 acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTYFSLEFSILMIAFFAIYWTFKNDYKIQNILILIFSYIIYILINPYFALVLFIYTFFIHYFALLIFVRR

KRYIFATCMAFIILNLCFFKYFPSIKGSVDEILNFFGLEFLNIDLVLPIGISFYTFTSITYLVEVYQKRR

LESFLNLATFLSFFPTLLSGPIMRSSFFFEQAYQKREFKHANLIIILLVFGIVKKVLIANYLGIYAKSIL

DFPQSYNFIQLLSAIYAYAIQIYCDFSGYVDLVCAFALMLGFTLPPNFNMPYLAKNLKDFWARWHISLST

FIRDYIYIPLGGNRKGIPRTVANILIAFILSGMWHGNTLAFIVWGLLHGIGIVFIHLLTLSKFSLQKIPA

LGRFLTFQFVCFTWIFFYYSKNLEDAIEYFKACYYNFFQIPSYNDIYMLVAFGVLFMIYPLFINFKEYCI

KILNLTPFLLKPFIIAFILLLVFAFMPDGIPDFIYSSF

>AHK51876.1 hypothetical protein N916\_03055 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSVVRFFFILIIVLGLVVVVMNQSISSYIEQKYHFAFYPHNDLLKEANGFKIKLEQIRAILSNEPLPQTN

EETTNQENKSIDENLSKIDKVLNTLENDENTSHKETNPTLIQDANISFIDNTKLELQNGDEFLFIGDSLM

QGVAIALNRDLRNLNLKVTDLSKQNTGLSYKSYFDWSKATNEAFIKNSNIKYLVVLLGANDPWDIKKGGN

YHRFGSLSWIDIYTSRVDEIIKIAKKHKAKVFWFEIPPVKKEDLNKKIQVLNKIYSDEILKNKEIFINTK

LFFSVNDEYSAYIKDENNRSIKVRTDDGVHFTPSGAREMSKLLLEHIKLKEENASK

>AHK51875.1 hypothetical protein N916\_03050 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLVNKFKVILLFFIIFTSSYAQNLNTNDTIDSILNQNKNHSALTSYVSKKDLKNLEKKLEKNQNIGIRIY

GDSHMAADFFPRVIRGYLIRSNSIGFAYPLQPKYQQNLNLVYSYKNFEILNSRNPANAGHNFPLGGIIAK

AKTKGAKINLDTTLDKKNFKIGFLFKAKQNTNAFSIKDAKNQSYELRTTQINKWSYKELELDLPLQISAL

QKDAELGGYFITNKDNNVFLDTIAINGAKSDLWLSWNQEVVKKELELLHNDLIILAYGSNDALFKGFEKQ

KFKNNLKKWISILKTYNKNAVIMLISPPTVVQKQGKNYKLAPDFFTIRKALYEVAKEEKTLIFDMHQFMQ

DSGGKNKWIEQKLSLNDVHLTIKGYELMAKKLLEDLKNIIDY

>AHK51874.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIILSIFLAFFLSACGVKLSLPKEVDLTQEQMKDLNLTYDWYRSYDNAKLNEFLNFVLLNNSDINIARK

TLLSALARADLIDYDLYPTLSGNLGFGADKDLNSGKQSKNFNNSLNLSYELDIYGKLRDSASASEFSAKA

SAYDLENLKISMINTALNDVFELAYFNDVDKLLRAYLSNLEQMKELYNYKYKLGKIEELDLLNIEQSLLR

AKQNLLSNDQNRNLLIKNLQDLLARQEGFAYIEYFKTLSLNDFKTLSPDFNIPLKALAYRADVRSKLNSL

KSAFKDYSSMQKSILPSISLGGALSGSDKKIDDSFKFEILSGNVKISLPFLDYGRVKQNIKISQFAYEQL

LISYEQVLQSAMNEFALNYKDYQSDTLLLQNLQNINIKQELITKAYYEKYILGKSELKDYLDANNTLNST

QQEFLRARFNLLKTINSYYQITALSFNNENLEFPKY

>AHK51873.1 macrolide ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIFLKNICKNIGENAILKNVSLSIEKGEFVAIIGQSGSGKTSLLNIIGTLDTPSSGTYVFDEYEVTKLNN

DEKARLRREKIGFIFQRYNLLSLLSAKENVSLPAVYAGKNLQERSQNAKKLLNDLELAHKLDSKPNELSG

GQQQRVSIARALINGGELILADEPTGALDSKSGIMVLEILQKLNEQGHTIVLVTHDPKIAAQAKRVIEIK

DGEILSDTKKEKAQEKLILKTMPKEKKTLTLLKNQAFECFKIAYSSILAHKLRSILTMLGIIIGIASVVC

VVALGLGSQAKVLESIARLGTNTIEIRPGKGFGDLRSGKTRLNFSDLETLRSLEYLEAVDAHSNTSGVAT

YTNISLSARAEGVGVNNFAIEGLRIDAGRILNNDDVKNSTNVAVLDFNAKKNLFPDEKSENILGRVVLFN

SQPFKIIGVLQKDTDKPIEDNVVRFYIPYTTLMNKLTGDRNLREIIVKVKDDVSSTLAENAIIRILEIKR

GQKDFFTFNSDTFKQAITANKRTTTILTACVAVIALIVGGIGVMNIMLVSVSERTREIGIRMAIGARRED

IMMQFLIEAVMICTIGAILGVILSIFVIFAFNTLSTDFPMILNAYSVLLGLLSSMFIGVVFGFFPARNAA

NLNPISALSKE

>AHK51872.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKKIVLIILIAILGSVGAYFIFFNNDEKISYLTQKIQKKDISQTIEAVGKVYAKDQVDVGAQVSGQIIK

LYVDVGTHVKQGDLIAQIDKDKQQNDLDITKAQLESAKANLESKKVALEIANKQYQREQKLYAAKASSLE

NLETQKNNYYTLKANVAELNAQVVQLEITLKNAQKDLGYTTITAPMDGVVINVAVDEGQTVNANQNTPTI

VRIANLDEMEVRMEIAEADVSKIKVGTELDFSLLNDPQKTYHAKIASIDPADTEVSDSSTSSSSSSSSSS

SSSSSNAIYYYAKFYVANKDDFLRIGMSIQNEIVVASAKAVLAVPTYAIKSDPKGYYVEILENQKAVKKY

VKLGIKDSINTQILEGVNEDEELIVSSSADGLAPKMKLRF

>AHK51871.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKLVENLALKYYDKVVDLRHQIHMHPELEFEEENTAHLVCKILDEFGIKYQKNIAKTGILAIIEGKKKS

QKKPKCVLLRADMDALPVQEKTNLSYASKIDGKMHACGHDGHTAGLLGAALILNELKDEFCGTIKFMFQP

AEEGSGGAKPMIESGVLENPYVDAVFGCHLWGPLLENTAQIVSGEMMAGTDIFDLEFIGRGGHGAHPHTC

IDPIIMTTQFVNNIQSVISRRLAPYEAGVITVGQICAGTTYNVIPTNAYLKGTVRFLNDKTQDILKSSLE

EVAAATAKSNGGDYKLKYTKEFPPLINDEKAVLIARKAFAKVLGEENIIVSSKPDMGAEDFAFLTRERMG

AYVFVGISKDLNHPALHHSSTFCWDDENLKVLMQGDVMMALEFLNL

>AHK51870.1 thiol:disulfide interchange protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRIFGIILLSFCLCFASILSLNEAFNVKSNSYNNSISIDIELGKDIYLYSNKLKLYINEKDISSLINLPQ

SSTRGNENVYYQKLNLALPNLLLERFAKNTTNLIKLEFQGCSEQGLCYNPQTWYFDLISKKDAFEISKPY

KAQKTDKKTKIESEESSIANFLATDNFFWILLSFFGYGLLLSLTPCILPMIPILSSLIVAKSNAKFSKKY

SFFLSFIYVFFMSLAYAIAGVIASFLGASIQGILQKPIILILFALIFIAFAFAMFGAFRFELPLRFQTFI

HKKSEKGKGVVGIAIMGFLSALIVGPCVAAPLAGALIYIANTGNALLGGSALFIMSFGMGIPLLFIGLGL

GFIKPGFWMEKVKIFFGFVMLAMAIWILSRIIEENYILIAYGILGVFFSVFMGIFEKSFTIISKIKKSIL

ILILAYSLSIFLGGLFGAKNFLNPLNFNTISASKHALSYDYINNFEQLKQEIQTNTKPIMLDFTASWCEN

CKLLDELTFSDERIIQKMQNYKLIKVDVSENNNEQIKTMKEFNVFGPPVLIFFENGKEKLKITGFISADD

LLKKIEP

>AHK51869.1 sulfurase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIQSLQIGKIKNYKNFQSAFIKDTYLEETQIDFLGVLDDQIADKIHHGGYHKAIFTNSCQNYPIWERFL

NKKLNFGSMGENLSIDGLCEQNVCIGDIHQFSNAILQVSEPRKPCVKISKIHNNPNFTHEIFKTGLSGWY

YKVLQVGQIRKHENIKILEKNSTSLSVFELNQLFYSPHQILKQNPNLLDKLEKLNSLISQNWHETIHKRL

KNTYDISYMDSL

>AHK51868.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQRQTWSSTLTYILTVAGATIGFGATWRFPYLVGENGGGAYVLVFCIAMIIIGIPVILVENVIGRKAMTN

SVDAFKQKWQSIGYMGLLGSFGIMAYYMVLGGWVLVYIWELTLGNFSLANVVSKEFTHQFFNDKIAFNPL

GVGIFTTVFVIINYIILKRGIIDGIEKSVKFLMPLLFICLIIVVGRNLTLDGAMAGVKFYLEPDFSKILS

PKLLIDVLGQVFFALSLGFGVMITLSSHLNKNENMAKTAIYTGVLNTIIAVLAGFMIFPALFSAGLAPDS

GPSLVFETLPIAFSHIHFGTIVCILFFVLLLIAALTTSLPIYQVIISVLEEKFKYSKNLSINLTLGFIFI

LGNLPCILTYGPWRDIVIIKGKNIFDSFDFISGNILFVLTAFFCCIYVGWILGKQESLKELSNNNTLKSS

WFGIWFYYVKYIVPLIILIIFIYGILN

>AHK51867.1 1-aminocyclopropane-1-carboxylate deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFIKTISPIQKINFNGFEFYIKRDDLLGEINGNKARKLAFYIHQRYPKNQSFVSYGGSQSNALAALSIF

AKQRSYKLVFACEKISTFLKNNPCGNYALALENGVDFVENIHSLSLKQFALSLCKKDDVFIEQGIANLEA

QYGYMELAQEIQMQSQSLKLDFDIFLPSGTGTSAAFLAKYSKFKVFTCACVGDIKYLKKQILTLDPSYDF

SNLEFLTSDKKYHFAKPYKEFYELYMDLKLKCNIEFDLLYDILGLSIALKQEWKKPLLYIHQGGILGNST

MLERYKFKKSV

>AHK51866.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNESKEDSNFWIAYADLMAGLLFVFILLIGAIVVKYVLTQSDLKEIKDNLNKQEARLEESKEELRNKEA

IVFKLSSDLNNASSALNLANSQKAELEANITNYKQLSKDLNSTLDNKDKQILILLGQLEKKDEELKNLQE

DFQKAKEKVQNLGLIRENLSKELQSKLDNNITIDEKIGSISLPAEVLFDKDSYVLKNEAKASLRKILSEY

FDAILEDPKIFSNIENIIIEGHTDSDGSYIYNLDLSQKRAYEVMNFIYTFYKSDKLQKLLMASGRSFSDP

VFVNGVEDKDKSRRIEIKFSIKNDNALKDVEKFFEFH

>AHK51865.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDIKSDEISELVLPEGKDARGSLVYFKIIFIPAFLYILILLGYFNVIDFKVELHTVIMTGVIFFTALIFA

RHSAEYAYSIFEQQKDEFKQALKRHIMRHFLAIGKDTKSNANFDDFAYTYIKGARNENFASIGSAIFPMM

GILGTFISIAFSMPNFSSSDTAALEQEIADLLSGVGTAFYVSIYGIFLALWWMFFEKYGKSKIDRLLNRQ

KNATSGFFWTKEELDQRYLTESLQHFEKIGAIFKQVSNDDFFAELDHAIDRKFGIFQDMLNVEEKAIRLS

SEHIKQTMGELSKAQRDQRDLGKLYSEMLNGIGLLNQNLKEINTRMSEQYNRLLDISSDKIHHLDKTLSA

FDEKIERFGKNFELYEKAMLESQEKVFEGFKASLFEGMHKFKEVYEEEKSIDAKIKMMDELKKEMKALDE

ETSQMMSKLSGDENQNKENETKQIEDFSESKTEENQDEIQAEISKQESNDELKNEDKENK

>AHK51864.1 fructose-bisphosphate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGVLDIVKAGVISGDELNKIYDYAKAEGFAIPAVNVVGTDSINAVLEAAKKVNSPVIIQFSNGGAKFYAG

KNCPNGEVLGAISGAKHVHLLAKAYGVPVILHTDHAARKLLPWIDGLIEANAQYKKTHGQALFSSHMLDL

SEESLEENLSTCEVYLQKLDALGVALEIELGCTGGEEDGVDNTGIDNSKLYTQPEDVALAYERLGKISDK

FSIAASFGNVHGVYKPGNVSLQPEILKNSQKFVKDKFALNSDKPINFVFHGGSGSELKDIKNAVSYGVIK

MNIDTDTQWAFWDGVREYELKNRAYLQGQIGNPEGDDKPNKKYYDPRVWLRSGEESMIKRLEIAFEDLNC

INKN

>AHK51863.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKFSLVAATLIAGVVLNVNAATVATVNGKSISDTEVSEFFAPMLRGQDFKTLPDNQKKALIQQYIMQDL

ILQDAKKQNLEKDPLYTKELDRAKDAILVNVYQEKILNTIKIDAAKVKAFYDQNKDKYVKPARVQAKHIL

VATEKEAKDIINELKGLKGKELDAKFSELAKEKSIDPGSKNQGGELGWFDQSTMVKPFTDAAFALKNGTI

TTTPVKTNFGYHVILKENSQAKGQIKFDEVKQGIENGLKFEEFKKVINQKGQDLLNSAKVEYK

>AHK51862.1 endonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKRNLEIKELFLKHFDKPVTELKFSNLYELLVCVMLSAQCTDKRVNLITPDLFKAYPDIKSLANANLSSL

KTYIQTCSFFNNKAQNLIKMAKAVCENFDGEIPLDEQNLKSLAGVGQKTAHVVLIEWCGANFMAVDTHVF

RVSHRLGLSKAKTPEATEEDLTRTFKDNLNYLHQAMVLFGRYTCKAKKPLCKECFLNHLCKSKDKELK

>AHK51861.1 endonuclease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIFIFLLTISLNIFALEPYKPSADFSSYFNNINCSQILDKFFYLNCYDYKLKGTKAVAYKVEASNLKDR

QIKKRPRFEDDTNIPKKYRTTWSNYKNSGYTRGHTAPNASFSFSKAAQNSVFLMSNITPQNAQINNKIWN

EIEQRERNLALEFQSIEVLNLVLYDKEPQYIKNRIAIPSFYVKIIKTPKFKECYQAPNHEVNDENIKQYQ

INCDKF

>AHK51860.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEINALTITTLYIIGISAEGMTGALAAGRHKMDLFGVIFIALVTAIGGGSIRDVLLGHYPLTWVKHPEYI

ILICFCALVATKIPRVVTKLETLFLTLDAIGLVVFSILGAQIAIDQNHGFIIAVAAAVITGVFGGILRDI

LCMRIPLVFQKEIYAGIAIIAGAIYYSLIIWLELNALVCTLLTLFIGVFARLLAIKYQWSLPIFSYNEEK

>AHK51859.1 hypothetical protein N916\_02965 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRRLSILLAILIVINITACDSKTENYYKNLPSEAKEKAKECKESGTLSEDCINALKVGVKPTNEEGKYSP

NTPKKSDNQILEALKQNDLKKEKTTKDINQSSENNESIIIPPIAETPSEIYPSKTTENNQSSIFSDDVNM

TQEK

>AHK51858.1 hypothetical protein N916\_02960 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKITLFLSLIGIFFAACEQTKSVEYYQNHPEEAKKRSLECRHKAIISQDCVNAYKIGFPKDEWEDENISN

P

>AHK51857.1 tRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKDELFKQSPKKQFEFDKSVASVFDDMINRSVPFYRENLELCGNLLAKILPTNASVCDLGCSSANFLIFL

ANLRKDFKLFGVDNSASMLEVAKSKAKAYGLDISFFEANLCEFDFFTCDVFVANYTMQFIRPPKRQELLD

QIYKNLNSKGILIMSEKILYEDAFLSKNIIELYADYKEKQGYSKFEIAAKREALENVLIPYSQKENLNML

EKAGFKKIESIFKWANFETFIAFKD

>AHK51856.1 riboflavin kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNIFTTISKINITSLAIGCFDGMHLGHLKLVKCLDENGALLVINKFKGQFLCSNRQKEEISGKKVIEVD

FESIKSLDGRDFLSFLKKEFVNLKFIVVGYDFSFGKNRAYNAKDIESLSGIKTIIVDEFSIDGIGVHASL

IKDFLSKANLQKAKEFLGRDYSIKGKMIKGQGLGSKELFATINLDCEGYFLPQNGVYVTLLKSQRKTYKS

VSFLGVRSSDENFAIESHILEELGENFTQGEFFELEFISFLRENQKFQDLKKLKNQIAKDIEQARELLRK

NDER

>AHK51855.1 hemolysin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRFDFFVSKRLNISRNKALELIENEEILLNGKSFKASFDVKNFLENLKKTQDLNPEDILLANELKLDLLS

EIYVSRAALKLKKFLEENDIEIKHKNCLDIGSSTGGFVQILLENQALKITALDVGSNQLHPSLRVNEKII

LHENTDLRAFKSEEKFELVTCDVSFISLINLLYYIDNLALKEIILLFKPQFEVGKNIKRDKKGVLKDDKA

ILKARMDFEKACAKLGWLLKNTQKSSIKGKEGNVEYFYYYIKN

>AHK51854.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVLLMSLLKNSSYILTLLSLFGFLLTWQRSAFSLFFLISIFLTLFWEFFLFLKLRKNIIKEATLIKGSL

FYRVSMGDFYLYIFSFFLAIFGLVSLFLNFLNLEKIDFVFIFIILPLLMIFLKKELHLQFVDNAYNDFRI

VVIASFFTALFYAFYGLFFTYNELLNLELFSRKIIAYKSASFVYFDFLSEFLHFVSNLKFFIFSYFGYLG

FRALNFIFDFFNFFMFCSLLAFVFNFVLKIKIKIIVLFLCFIMVLGNYFLKEQRNNALKSEQEQILLWMN

NFNFLKDNNLSLIQKEKDLFEKDLKDLREIFKKNAFEIGIWWFSKEKEDLEKRINESLK

>AHK51853.1 NAD-dependent DNA ligase LigA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKEEYLEKVALANLWMRAYYEKDEPLASDEEYDALIRELRVFEEQNKDEISKDSPTQKIAPTIQSEFKK

IAHLKRMWSMEDVFDESELRAWAKRAKCEKNFFIEPKFDGASLNLLYENGKLVSGATRGDGEVGEDITLN

VFEIENIPKNIAYKERIEIRGEVVILKDDFEKINEKRALLNQSLFANPRNAASGSLRQLDTSITKERNLK

FYPWGVGENTLNFTKHSEVMQFIRELGFLKDDFVRLCANLDEVLKAYDELLALREKKPMMMDGMVVRVDD

LALCEELGYTVKFPKFMAAFKFPALEKTTRLIGVNLQVGRSGVITPVAVLEPVNLDGVVVKSATLHNFDE

IARLDVKINDFVSVIRSGDVIPKITKVFKERREGLEMEISRPKLCPTCQSELLDEGTLIKCQNIDCEDRL

VNSIIHFVSKKCLNIDGLGENIVELLYKHKKITTLESIFHLKFNDFEGLEGFKEKKINNLLNAIEQAREC

ELFRFITALGIEHIGEVAAKKLSLSFGKEWYKQSFEAYANLEGFGEQMALSLCEFTRVNRTRIDEFYKLL

NLKIEKLEIKSDGVIFGKTFVITGTLSRPRDEFKALIEKLGGKVSGSVSKKTDYVLFGEEAGSKLSKAKE

LEVKCIDESAFNELVKE

>AHK51852.1 dihydropteroate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFFKINPNTDFNLLCSFINPHKMGQKIMSEKTKIHFIFIKDISTPAANILKQDALRVGAELITHKEVIT

AKITHSNALLMASKEQIQKLVVKEKLQDFGLKNLALFLQKDFLKPKKAELMAVINVNEDSFNAKSRVSEE

DFEKRLNDFLALKPEYIDIGAVSSRPGSEYCGKEEEFKRLKKVLDLIYEKNYYEQAIFSLDSFDEYCLEY

ALNKGFKLINDITSLRNLNLAKLASKYGAKYCLMHMQNNPNNMQDNPFYEDLLDEMTLFFKEKLELLESF

GVKESILDVGIGFGKSAGHNMILIKHLEHFLQFNKPLLIGASRKSVINAYFQSEIKDRLAGTLYLHLKAF

ENGASIIRVHDLYEHKQLFALAQAMDNIGV

>AHK51851.1 DNA polymerase III subunit delta' [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFISKIIISEDFLGIKEEMINNFGIKKLRFFIPQNEFLLDDARAVEKESYIAETEEKIIVLMADSYRIEA

QNFLLKLLEEPPKNIKFLIVIPSKNLLLPTIKSRLICEKRKVEKEVKKLDLDLKRMDLRMLFDFLQKNEN

LDKNELMDQIALLAKECVKYKDFNAEELEFFYESYELAKLNSKSGVLLATLLLNYYTKK

>AHK51850.1 hypothetical protein N916\_02920 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSDFLSFTLENIRNGGAFMAWLESRRLEWAPLMAARLKYLLEGRTFVLMCDEQRSWYEEYFLKNINSKAT

RPMLPFVSLNSLCKKKVQSSEDIALLNDLLDISFPNGYVYFYIGSASDNKSLIAKSRDDSLLWLFDEQLQ

DSFYLNSKDKDLDIKLISLYQLFDVSLDAILFSKVQLG

>AHK51849.1 aspartate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLIVQKYGGTSVGTLERIEAVANRVIQSAQQGNQLVVVVSAMSGVTNTLIEQAEYFSKTPNGKDMDMLLS

SGERVTSALLSIALNEKGCPAISFSGRKAGIITDSVFTKARIHHIDTKAIKSELQNGKIVVIAGFQGVDE

EGNVTTLGRGGSDLSAVAVAGALNADLCEIYTDVDGVYTTDPRIEPKAKKLDKISYEEMLELASLGAKVL

QNRSVELAKKLNVNLVTRSSFNNNEGTMITKEDGMEQALVSGIALDKNQARVTLRNIEDKPGIAAEIFSV

LANENINVDMIIQNVGVDGATNLGFTVPQNELELAKNAMQKILSSKTTIESDSAVLKVSIVGVGMKSHSG

VASKAFKALADEGINIGMISTSEIKISMIVHEKYGELAVRALHECYGLDK

>AHK51848.1 preprotein translocase subunit TatB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSFGEIIVILVVAILVLGPDKLPEAIVQIAKILKAVKRNIDDAKSSIEKEIRINDLKEEAKKYKDEFSST

NENIRKKLSFEEFDDLKRDILDKTKVDLTFDSRDDKVKNNLSGQNLNTEEKPNLSKLETQDKNGKINV

>AHK51847.1 preprotein translocase subunit TatC [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFEELRPHLIELRKRLFISVACIVVMFIVCFALRSYILDILKAPLIAVLPEVAKHVNVIEVQEALFTAMK

VSFFAAFIFSLPVIFWQFWKFVAPGLYDNEKRLVVPFVSFASIMFAFGACFCYFVVVPLAFKFLINFGLN

EDFNPVITIGTYVDFFTKVVVAFGLAFEMPVIAFFFAKIGLIDDSFLKRHFRIAVLVIFVFSAFMTPPDV

LSQFLMAGPLCGLYGLSILIVQKVNPAPKDKESDE

>AHK51846.1 S-adenosylmethionine tRNA ribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKDLLLSSYDYTLANELIANYPTNPKEDARLLVFDRKNKEIFHTTFKNLQDFLPNCAIFFNDTKVIKAR

IYGNKASGGKIELFLHQPFLNSHNPLFLAQIKGRIKKDEILYFKEDLKVRVVELLNDGLRKVQFFQNDKT

LDTSNLYNLLDKIGHIPLPPYIKREDEKSDLKDYQSIFAKNLGAVAAPTASLHFSETMLENLRKKHEIYH

LTLHVGAGTFKSVECENIQEHKMHSEFFNIPQQACEIIDSKQAILGVGTTVTRTIEYYTRTKTKNGFCDL

FLHPQNPPIRQNHLLTNFHLPKSTLIMLVSAFIGREQCLKLYELAIKEKYRFYSYGDAMLIL

>AHK51845.1 UDP-3-O-(3-hydroxymyristoyl) glucosamine N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLSEIAEFLSLEYKGEDIEISALNSLLKANFTELTYCDGEKNTKDIPHTGAAAILVSKEYENLVPKDTK

ALITQSPHLSFAFLSKLFAKPLISTAKEKVQNIAKSARIMPNVYIGDNVNIGENVIIMAGAYIGDNVSIG

DESIIHPNVVIYNDTKIGKKCHLLANCVIGSDGFGYAHNKNGEHYKIYHNGNVVLEDFVEVGACTTIDRA

VFDSTIIKAGTKVDNLVQIGHNCNIGQNCIIVAQTGISGSSELGRNVIMGGQSATSGHLKIGDFSTIAAR

GGVSKNLEGGRVYGGFPIMLQKDWLKLQAKIAINFKEKSQD

>AHK51844.1 acetolactate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRRVLSVIVLNEHGVLSRIVGLFSGRGYNIDSLTVAPLENKEFSRINIVTSGNERTFEQIVKQLHKLIPT

YKVIESEEFIDKEMALVKIPLNENLGGLDAVLKAYNGTIANSNENFLFLMVADDANRIDNFLKTIKKYNP

SDIVRSGSVLMEIK

>AHK51843.1 acetolactate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKELSGSAMICEALKEENVKIVFGYPGGAALNIYDEIYNQKYFKHILVRHEQAALHAADAYARMSGEVGV

AIVTSGPGFTNTITGLATAYSDSIPLVLISGQVANSLIGTDAFQEIDAVGISRPCVKHNYLVTCIEEFPR

ILKEAFYIARSGRPGPVHIDVPKDVSATLGLWEYSKEISMKTYKPVYKGNSKQIKKFAELLKEAKRPLFY

LGGGCISSNASEQIRELIKFTKIPAVETLMALGTLRSDDVFNLKMAGMHGSYAANMALSECDLLVSVGAR

FDDRITGKTSEFAKHATIVHVDIDPSSISKIINAHYPIVGDIKEVLKELLEELKKENFNTTFKEWHETLK

RYNELYPLSYEDSNEILKPQWVIEECAKMAPDARIITDVGQHQMWVAQFYPFNYPRQLATSGGQGTMGYS

LPAALGAKLAVGEEVVINFVGDGSVLMNIQELMTAYEYGIKAINIILNNAFLGMVRQWQSMFYKEHFSQT

DLSTQPDFIKIAQGFGCEGYEISNKEEFIQAFSQALKSDKTSLLNVKIDRFEDVLPMVPAGGAIYNMILP

KAKDRQ

>AHK51842.1 aspartyl-tRNA amidotransferase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTLKEQILNDIKEAMKQKDDFKRDSLRTLNAAFKQIEVDERIELDNERIYKIIASEIKKRKDVIELYLKA

NREDLAQKEQNEISLFEIYLPKQLSDEELTLALKQLIEELGVSSLKEQGLVMKEAKIKLGASVDGKRLNL

ALKELLQ

>AHK51841.1 3,4-dihydroxy-2-butanone 4-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFVSVEQAIKDLQAGKMLVMVDAEDRENEGDLIFPAQFSTQEKVNFMIKEARGVVCVALDETLAKKFEL

PLMVPKNTSNHETAFTITVDAKDATTGVSAYERNMTIQIFADDNAKASDFVRPGHINPLIAKKGGVLERT

GHTEGTVDLCKLAGLKGACVICEIVKDNGDMARREDLEIFCQKHDLNMIAVSDLIEYRLKHESLIKLEEK

SQSVLAGFKAEKFIFSDHNQTQHIAFCFKDIKKCENVKFHISGSDFELLTSDKFSKLLEQIKFLSENGGV

IVFMQGEKSSTTQYKNYGIGAQILRYFGIEEIKLLSQSCDKDYIGLEGFGLNLKACNFN

>AHK51840.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEYDKLSIRLVQILSKFNNGESLSAQELAQEFNVDTRTIQRDLNERLTFMPIKKENGRYVLESFALGKL

SFKDIQNFATLSGIAELYPKLDQGFIVDLLSHRVNKVLMVKNEGFQKVDYELFKDLSVAILKHNVLNFFY

KEKERQIKPYKLVNYKGIWYLLGDENDKLKHFNLDKISKLRTKNENFIPNEKLEEQIQNDPNIWLGESKE

VILKLDKNAKEYFFRKEILSNYQIIDKDETSYTLSTQVSYEDEILHLVKQWIPYIKILAPIELKIRLEDI

LKSYLNNLSK

>AHK51839.1 hypothetical protein N916\_02810 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKQIAFGSIALTATGYGIKKLYEKLSKPERKFDTHAIVPSCKDVINTEEYKLKRELEIEQKKNQIQEFL

CECMECYSGFSKYFNSKEFLEFEQNFTSKNNHKTEFLLSSYKDQMIKVIDYAKKFKCLSAFLETQSEKND

LAVVKMISESMERKTQRFYLQTKFQTFPQYIFPSVWSSPMWDKQWE

>AHK51838.1 replicative DNA helicase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQQEYYDLDLERAILSSCIMSEEAYASIAGDISPKDFSLKAHQDIFKAVIACSNNKEPISVSFLRKHKKI

DEQILAEILATPSMIDLPAYVNELHEKSVKRQLLSFAHLLPTRINEDRAVSEIADEIGKEIFSITNRVNS

RDIKDVDMVISELFEEFKKQKTLENKGIIGLDTGFEGLNKMTKGFKGGELIIIAARPGMGKTTLCLNFID

KVLRQKKGVALFSLEMPATQIMQRMLSSKTSIPLQKILTADLNDDEWERLGDACNDYSQKKLYIYDSGYA

TIADVRAILRRLKSQDESIGLCVIDYIGLMMSNSNFNDRHLQVSEISRGLKLLARELDMPIIALSQLNRG

LEQRANKRPLMSDLRESGAIEQDADAILFVYRDEVYREQEEKERENKAKAEGKAYQRLFIPNPMQENAEI

IVGKNRNGPVGTIEVVFLKEKSCFVDKPIGYETTEFTG

>AHK51837.1 hypothetical protein N916\_02800 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKYLFSCVLASILTQSATAVEFQEGFSGNLSIGVGARDIKSNISTLANSDYLSSHNADNSDSSFIPFIG

AELYYGNLIDNDRIFIKNYNGRDISGIALGYERAYLERFSTSFSVISSLREKAYANPYAIGNREETDVDR

YGFKISQLYESDFGKFTTSYLFSKNKYDKDTIAQSSLKREGYYHEIELNYNYSLLNLGLNYDYNDADGKA

QSYSRYGFSIGTNLAFANDYIFTPNLNLSKYEAVGTDPIFHKKQDGNIVKLNLKVVKNQFLGYNGLYGFA

NYGIEKRNSDIGFYDETYQIVLTGIGYKF

>AHK51836.1 pyridine nucleotide-disulfide oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIDLIVVGAGPTGIGCAVEAKLKNKEVLILEKSNNICQTLMQFYKDGKRVDKAYKGCEGTNHGHVPFE

DGTKESTIETFQNALKEHNIEVEFGSEVESVKNENGVFLVSTAKGVYECKNIIVAIGRMGKPNKPDYKLP

MTLTKIINFNANSVLGNEKILVVGGGNSAAEYAVDLANSNQVSLCYRKKEFTRLNDINLKDIHEAGNSGK

VELKLGIDINEVEDDNGKAKVNFTDGTSDIYDRIIYAIGGSTPLDFLQKCGINVDDKGVPLMDENKQSNV

KGIFVAGDIATKNGASIVTGLNDAVKILSVL

>AHK51835.1 gamma-glutamyl phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRNLLENIKKNSQKLLNLTPKDKEKIILKLAQILRENFKIILEANKKDMANFTKSGAMKDRLLLDEKRIL

ALCEGLEKIAYIEDPIGKISKGWKNYAGLSIQKMSIPLGLICVIYEARPSLSAEIAALMIKSSNACVFKG

GSEAKFTNEAIFTLVNKVLKEFDLQDCFAMFTQRDEILQILAFDDLIDVIIPRGSSNMIQEIANNTKIPL

IKQNKGLCHAFVDQSANLDMALKIILNAKCQRVSVCNALETLLIHEKIAKNFISLLIPEFEKFKVKIHAH

ENALAYFNNSNLKIFKANENTFDTEWLDFALSVKLVKDCDEAIEHINKHSSLHSETIISNDASNIAKFQR

LINSSCIYANASTRFSDGGEFGFGGEVGISTSKLHARGPMGIEDICTYKYIINGEGQIRE

>AHK51834.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKIEILKQHFKEIAKLNSSEQVWQMPFFAALGVGIVLGLSVFFGKLNYGLIAMIGALSFLYVPSTPLYH

RMAVVMCCSFGIVSSFFLGILTHFLPAIFAFIPIGIMAMGSSILIRYYNIGAPGYFFFVFSCVLGAYSPF

EAKDFIFLVGLVFLGAMVANLMALLYSIVVIYGFKNALPSEIPPREYIGFDAVFVDSLIMGSFVAFSIFI

GTFLELERSYWIAISCTAIMQGVTLNSIWIKQIQRIIGTALGVCFAWWLLSKQFHDIELILLMMSLFFIG

QFLVNRNYALAMIFFTPYATYLSEAANFMSENADKLILARLIDVVIGSILGLLGGFVIYKPYLRVHFERI

AKYIFRIKQKA

>AHK51833.1 amidohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIDTHAHIFLKKLNTVANARYKPDYDASFKDYKANLDHYDFNKGVLVQPSFLGIDNEFLLQSIEKDENI

KAIVVVDENIKFDELKKLKERKACGVRLNLIGKELPNFKSMVWTQFFENLSKLKMQIEIQRDLDNNLVDI

VENLIPYGCNIVIDHLARANANLTNLEDLICLKNSRIFFKISGFYRAKIDYANNEQAVKFAKKIYEILKE

HFPLSNFVFGSDWPHTNFEANINFSSALVAFNEVVVSKKEQEQILGDNACALFGF

>AHK51832.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVFLIISSIIVAIILGYITRHNVGIFAMIFAYIIGAFFMDLAPKKIIAFWPISIFFVIFAVSLFYNFATV

NGTLEKLAGHLMYRFANHPYLLPFVIFVVSAIIAALGAGFYTVLAFMAPLTFLLCDKIGLSKIAGAMAIN

YGALGGANFITSQSGIIFRGLMENSGIEANEAFANSSIIFAFTIILPIVVLSFFVFNAFKNNIKISVISK

PDPFDYKQKTTLILMFMMIVVVLIFPVLNIIFPHNETISYFNKKIDIAMIAMIFVAIALFLKLADEKQVV

ALIPWGTLIMICGVGMLISIAVEAGAIKLFSDLVENEINVIFIPLIMCAIAAFMSLFSSTLGVVTPALFP

IVPSIAASSGLSEALLFSCIVVGAQASAISPFSSGGSLILGSCPDKYKEKLFKDLLIKAVPIGFIAAILA

TIIMSFIL

>AHK51831.1 hypothetical protein N916\_02765 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKFIKQFSFIALENIFRELPNKITHSFNDINDIKPPKLMYPIFYGSYDWHSSVHSHWLLVKILKDFSHF

APKDEIIKALDSQFSKEKAEGELKYLQNPAHKGFERPYGWGWFLKLTLEINLLAKENDKAEIWAKNLEGI

ADFFVKEFKEFLPKMDYPIRVGTHFNSSFALYFALEYARFKKDQELEYCIIQSAKKWFLNDKNMQALEPC

GDEFLSPVLMEAVLLSAVLHKNDFVKFFKAYLPNLEAKEPATLFTPVSVSDRSDGKIAHLDGLNLSRAWC

FKILSNFCDENLKILLRNNATEHFDKAIAHIEDDYLGSHWLGSFALLALDVDIL

>AHK51830.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MISLDLLYYIVGILFLVFGILSFSNQAKDIKSRISGGVFWISYSFTFLLAGVLPHFVMGCIVILLALIAG

FNLLKPAKIEVSKEEKEYEIKHANIYKNKLFIPALMVPLITLIGTFLFPYLSFFENKNATLMALIIGIII

SSVVACFMFKASPKRAVKDAAHTMDHISWAALLPQILATLGVVFVSTGMGDQVSKLLSSYISLDNAFIAV

AVYCIAMALFTIVMGNAFAAFPVITAAIALPILIIQMHANPAIIGAIGMLSGFCGTLMTPMAANFNIVPA

ALLNLDDKNGVIKAQFMSGLVLLVANIFLMYFLAFRF

>AHK51829.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEWLLLASIPLIVLGFALKINPFLVVTSVGIYAGLVSGFDFVKVVSDIGKSFVDNRYVAIIWLILPLLAV

LERKGLREQAKNLISKIKVASTGRILMCYFVFRQVTAALGLLSLGGHAQMIRPLIAPMAEAAAKLKFKNL

THKDSQKIKAFSAGTDNVAVFFGEDIFIAVHSILFIKAFYESNGIIVEPLHLSVWAIPTGILALIIHCSR

LYLFDKRLEKTYKGLSDDKS

>AHK51828.1 elongation factor P [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MASYSMGDLKKGLKIEIDGIPFKIVEYQHVKPGKGPAFVRIKIKSFIDGKVLEKTFHAGDKCEAPNLEDK

TMQYLYDDGENCQFMDTQTYEQVAISDDDVGEAKKWMLDGMMVDVLFHNGKAIGVEVPQVVELKIIETAP

NFKGDTQGSNKKPATLETGAVVQIPFHVLEGEVIRVDTVRGEYIERANK

>AHK51827.1 hypothetical protein N916\_02745 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKQWLSDFKLALIQEDVNKLENLLDELDMKAFIKNLAKESPSEDFLKENANDVFYQVQALLQEAVILIEQ

KKKTKAVEIQKFQKALTYFKS

>AHK51826.1 flagellar biosynthesis protein FliS [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNNLAYNAYSQNQVGIESPQKLIEMLYEGILRFCARAKVAIRNEDIEQRVYFVKRTTAIFIELINTLNY

EKGGEVAHYLSGLYTREIQLLSLANLENNEDRINEVINVTKGLLEAWREVHNNETVAQ

>AHK51825.1 flagellar cap protein FliD [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAFGSLSSLGFGSGVLTQDTIDKLKEAEQKARIDPYTKKIEENTTKQKDLTEIKTKLLSFQTAVSSLADA

TVFAKRKVVGSISDNPPASLTVNSGVALQSMNINVTQLAQKDVYQSKGLANDGGFVNAQLNGTADLTFFS

NGKEYTVTVDKNTTYRDLADKINEASGGEIVAKIVNTGEKGTPYRLTLTSKETGEDSAISFYAGKKDSNG

KYQKDINAEKIFDDLGWGLDVSASIDPDKDKKGYGIKDASLHIQTAQNAEFTLDGIKMFRSSNTVTDLGV

GMTLTLNKTGEINFDVQQDFEGVTKAMQDLVDAYNDLVTNLNAATDYNSETGTKGTLQGISEVNSIRSSI

LADLFDSQVVDGTTEDANGNKVNTKVMLSMQDFGLSLNDAGTLSFDSSKFEQKVKEDPDSTESFFSNITK

YEDINHTGEVIKTGSLSKYLNSNGGNTNGLEFKPGDFTIVFNNQTYDLSKNSDGTNFKLTGKTEEELLQN

LANHINSKGIEGLKVKVESYNQNNVTGFRLNFSGDGSSDFSIKGDANILKELGLSDVNITSKPIEGKGIF

SKLKATLQEMTGKDGSITKYDESLTNDIKSLNTSKDSTQAMIDTRYDTMANQWLQYESILNKLNQQLNTV

TNMINAANNSNN

>AHK51824.1 flagellar protein FlaG [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEISKANGQMDTALANISQRTSETQASLNIQTDRSQGQEGDDGQQRGVSEKLADITKKLNEQMDSLDTNV

RFGYSDKIGSMYISVTEKSTGREIRQIPSEEAMRLAEYFRDVIGMIFDKES

>AHK51823.1 3-octaprenyl-4-hydroxybenzoate carboxy-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEFIQILKENDLLRVIEEPVDVDLEIAHLAYIEAKKGEKGKALLFKNPIDKKLNKQYKFPVLMNTFCNK

KALNLAFGRDYKEVAEEISKLIKLHIPTSFKAKMDFFMNLLSFKNIPPKRLKKNKALYDYEILNSLEELP

ILKTWEDDAGKFITMGQVYTQNLDKTQNNLGMYRLQMSDKNELLIHWQIHKDGANFYHEYKNAGFKKMPV

SIAIGGDPLYIWCSQAPLPKGIFELLLYGFIKKTPAKITPCENGIFVPYDSDVVIEGYVDLEEFKIEGPF

GDHTGFYTPAELFPVMKVEKIYAKKDAIYQATVVGKPPLEDKIMGLGTERIFLPLLQTSVPDLIDYNMPE

NGVFHNLILAKIDAKYPAHAQQIMHAFWGVGQMSFVKHAIFVDKNAPSLKDYDALIPYMLDRFNTKKILI

SEGICDQLDHASPNSCFGGKAGLDACEEIQVEELEILEDEKLLELFKTKVELLNLKQFYKESKSPIVCIL

LDKKEKIEQSFDKLLEFKKYFRILVFLDAENKLENSYMLVWRVVNNIDAKRDIFIKEERLGVDASAKGEA

EGYLRAWPKQTDCTKSVIEDLILRNILENNPDLFNKFEIF

>AHK51822.1 porphobilinogen deaminase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLIIATRKSQLALWQSEHVAQILKNTHQIEVLLEGFKTKGDVLLDSPLAKIGGKGLFTKELEESMLRKE

AHLAVHSLKDVPSFFPQGLVLAAVSKREQSNDAMLSQNYKDFLSLPKGAKIGTTSLRRKMQLLLLRPDLE

IISLRGNVNSRIEKLKNNDFDAIILAMAGIKRLNLDKQVNFVYEFSKDELIPAASQGALGIESINDEKIL

ELLKCLNDENALIETSIEREFIATLEGGCQVPIGINAELLGDEICVRAVLGLPDGSEILKDKRMIKKNDF

KGFGESLAKEFIAKGAKELLKKAESMI

>AHK51821.1 integral memnbrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNYKLSLSPLFVLEIIASVLFIVFFGFGNFLFFILLSMIFGAVLLGIFWKNMLEFQMGGLKDMLTQFSFV

IAGFLLIFPGIITSVFGIFVFFFGIALKLITKSKYQYTKQEYQNSNEEIIDVEIIEDRK

>AHK51820.1 prolyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMRFTKFYAPSLKEAPKDASLPSHIFLTRAGFVEQIGSGLYNFLPLGKRVLDKIKNIVKEEMDKAGAQEV

NLSFITPASLWQESGRYNVFGKELLRFKDRKENEFVLGPTHEEAMLSLVKNKITSYKQLPLHLYQIGLKF

RDEARPRFGLLRCREFLMKDGYSFHANEEDLGREFELMYKTYSQILQRMGLDFRAVEADSGAIGGSGSKE

FMVLAKNGEDDILICENCDYAANVEAAKRAKKTCQDERPEANYASKFHTPNIKTIDSLAQFFKINAFYTI

KAVVKKAIYENESKLVVFFIRGSDDLQEVKAQNTCSALELVDASEEELKKAGLVAGFIGFVGLKDIDFYI

DFELENEKQMIMGANEKDYHLIGIDVVNLNKDRFKDLIEVKEGDCCVKCGAKLKQSKGIEVGHIFKLGQK

YSKAMNANFLDENGKSQPFYMGCYGIGVSRLLAVAIEANHDEKGCIWNKTLAPFVLEIIVSNLKDEKALE

FANKLYRDLTNLGLEVLLDDRNERFGVKMNDFELMGFPYALVIGKGLENNEIELIQREGLVKELIKTDEL

MEILKKKVL

>AHK51819.1 glutamyl-tRNA reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYYCISFTHKNTDIALREKLSFSNEAKKGEFLKIISTHENIEECLVISTCNRVEIVAFVKMACAEFIVKS

LALLCDVDKDILLEKADIFEDSGAIHHLFSVASSLDSLVVGETQIAGQLKDAFAFAVKNNFCGVHLSRAV

HSAFKCAAKVRNETQISKNSISVASVAVAKAKELADLTQKKAVVIGAGEMGELAAKHLIAAGAKVIILNR

DLQKAKDLCERLGVLSEYDSLENLKKYLNQYEFFFSATNAPNAIITNSLIEELSYKRYFFDIAVPRDIDI

NENENISVFAVDDLEIVVQKNLALREQEARMAYGIIGRETSEFFRYLNDLALMPIIKAIRLQAKEYADKQ

LEIALKKGYLKKSDKEEARKLIHQVFKAFLHTPTVNLKHLQGKMQSDTVINAMRYVFDLQNNLEGLNQYK

CEFDMENNDEIY

>AHK51818.1 octaprenyl-diphosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKIDELIKQFLQELGYEPILNMLSNVKSGKKLRSKLLLAIADESEIAFKICAAIELIHLASLLHDDIID

ESELRRGARSVNAEFGTKNALMLGDILYSKAFYELSKMDARFASIISDAVVKLAIGELMDVDLGEKFNIN

KEAYLKMIYNKTAVLIEASARCGAILAGLYEKDFAEYGKNLGLAFQMIDDILDIKSDEKILGKPAMNDFK

EGKTTLPYIYLYENLQEQDRIYLQTLFKKDLNENEKEWLKTKFEEQKALEKAILEAKTYAKKARKAIEKY

DNNKLNDIIKAMIDREF

>AHK51817.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFKISPYLICIFFIFSNVLASEPTFDYTYKFILKKDERASVQIKEIGYEDKVQNFDFYWTLFDNTNIIVH

SKFRKYPRQFVMSLRRNLDWVTQTLIPDYTNPHIDRARLILEFSGYNKGLATFTVYIEDKESRLMVEFLD

PRKKALQNPPQNNQVVPMINFNEPQVKPLTSKENNNSN

>AHK51816.1 hypothetical protein N916\_02690 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDFFDEMFNKTPKEKFIEIIQNGNLGALEKVFEEFFADHIAMVELLEKQGLTEMDVKNFILENGDFIEER

QNDIYIELGAKILGHEG

>AHK51815.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKYQLRFGGEGGQGVITAGEILAEAAIKEGRQAFKASTYTSQVRGGPTKVDIIIDDKEILFPYAVEGEVD

FMLSTADKGYKGFRGGVKEGGIIVVEPNLVHPESEDYKKWQIFEIPIITIAKDEVGNVATQSVVALAIAA

YMSKCIDLDVLKETMLHMVPAKTRDANAKAFDLGVKYATQAKPHS

>AHK51814.1 2-oxoglutarate ferredoxin oxidoreductase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAFNYDEYLRVDKMPTQWCWGCGDGVVLKCIIRAIEKLGWNMDDVCLVSGIGCSGRMSSYVNCNTVHTTH

GRAIAYATGIKLANPSKHVIVVSGDGDTLAIGGNHTIHGCRRNIDLTHIVINNFIYGLTNSQTSPTTPKG

FYTVTAQFGNIDPNFDACELTKAAGASFVARGNVIEANKLENLIYKALAHKGYSFVDVFSNCHINLGRKN

KMGEAVAMLDWIKNRVVDKAKFESMDFEERKDKFPTGILHEDNSQPEYCHAYEEVRRAAKEKRMVDLGAL

K

>AHK51813.1 2-oxoglutarate ferredoxin oxidoreductase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MREVIATGNVLIAKAAIDCGCKFFGGYPITPSSEIAHELSHMLPANDGTFIQMEDEISGISVAIGAAMSG

VKSMTASSGPGISLKAEQIGLAFIAEIPLVIVNVMRGGPSTGLPTRVAQGDLFQAKAPTHGDFASIAIAP

ASLEEAYTETIRAFNLAEKYMTPVFLLMDETVGHMNGKAVLPDLKDIKVYNRKKFEGDKKDYKPYAAGEN

EPATLNPFFTGYRYHVTGLHHGDIGFPTEDGVIVKKNMERLIGKIKNNQEDICTYEEYMLDDAEFLIIAY

GSVSRSAKEAIQRLREQGIKVGLFRPITLYPVAEKKIAEVVSKFKKVMVSELNMGQYLEEIERVTSRRDF

ISLHRANGRPITPSEIIAKVKENI

>AHK51812.1 2-oxoglutarate:acceptor oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSMTAPKDTPVWVDEHRCKACNICVSYCPAGVLAMRDDVHAVLGQMIEVVHPESCIGCTECEIHCPDFAI

MVAKRDEFKFAKLTAEAKDRAVAVKNNKYKKLA

>AHK51811.1 succinyl-CoA synthetase subsunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSILVNKNTKVIVQGFTGKEATFHAEQCMAYGTNIVGGITPHKGGQTHLGKPVFDTVADAVKATKADVSL

IFVPAFAVGDSVIEAADAGIKLAVVITEHTPVKDMMFAKQYANKKGMKIIGPNCPGIITSEECKLGIMPG

FIFKKGCVGLISKSGTLTYEAANQVVQGGYGISTAVGIGGDPIIGLAYKELLSEFQKDDETKAIVMIGEI

GGSLEVEAAKFIKENISKPVVAFIAGATAPKGKRMGHAGAIVGSADESAAAKKEALKSYGIHVVDSPALI

GEEIQKILG

>AHK51810.1 malate--CoA ligase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNIHEYQAKAIFVDNGIPTLKGKVAFSVDEAVANAKELGGSVWAVKAQIHAGGRGLGGGVKIAKNLDEVK

DYASKILGMNLVTHQTGPEGKLVQKLYIESGANIVKEYYLAILFNRMAEQITIIASSEGGMDIEKVAKES

PEKIAKVGIDPQIGFKMFHGLEVARVLGLDKDEGKKLISMIAKLYKLYMDKDMNMLEINPLIKTAEGDFY

ALDAKCSFDDSALYRHPEIAELRDTTEENPAEREAAEFGLSYVKLDGDVACMVNGAGLAMATMDIINYSG

AKPANFLDVGGGASPETVAKAFEIILRDKNVKVIFINIFGGIVRCDRIANGILEATKNVEVNIPIVVRLD

GTNAAEAKTILDNSNLKNIKAATNLKNGAELVKSLVG

>AHK51809.1 malate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKITVIGAGNVGSSVAYALILREIANEIVLVDINEDLLYAKELELTQSIAALNLNIDLLCTKDYTHTKNS

DIVLFSAGFARKDGQSREELLQLNTSIMLDCAKKIKDFTEDPLFIILTNPVDFLLNTLYESGIFSSKKII

AMAGVLDNARFKYELAKKLNVKMSRVDTRLIGFHNDDMVLVKSYASVKNKNISEFLNEEEFEDLENEVKT

GGAKVIKHLKTSAYLAPASACIRMLESIRSGEFLPMSVILHGEFGVQNKALGVMARLGLEGVIEIMKMDL

SLQEKDKLEKSLIKYQYKGE

>AHK51808.1 isocitrate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTKTNFKLTLAFFFICNILKNENKNKYFKGLKMQITYTLTDESPALATYSFLPIVKAFLSRAHIGVKTS

DISLSGRILATFSEYLKEEQRCEDALELLGELVKRSDANLIKTPNISASIPQLKAAIKELQDKGYMLPNY

PDEPKNDEELQIKTKYQKVLGSAVNPVLRQGNSDRRSTKAVKDYAKNNPYRVVEFNPNSKTRVSYMKEGD

FFSNEKAVLIDQDCVANIEFTSVDGKKEILKEGLKLEKNEILDATFMDVQKLQEFYAKEIKASKDDDVLF

SLHLKATMMKVSDPILFGYAVKVFFKELFIEFQDEFEKLGINPNNGLSELLSKIENSSKKDEILKKYSEI

LAKSADISMVNSDKGITNLHVPSDVIVDASMPAMLKNGARLWDKEGKEKDTNAVIPDQTYATIYEAVIED

LHKNGTLNPSKLGSVSNVGLMAKKAQEYGSHDKTFVAKEEGTFKIVSNGKVLLEHKVRKGDIYRANQAKF

DAVLNWIDLGIERSELSGAEAIFWLDSKRASNKIMITLVQNRLKEKGKNVAILTPKEACLRSLELIREGK

DVISITGNVLRDYLTDLFPILELGTSAKMLSVVPMLNGGAMFETGAGGSAPKQVEQLVEENHLRWDSLGE

FLALQASLEFYANKCGNHKAKVLAECLDEAIGEWLENNKAPSRKVKEDDNRTSHFYLAMYFANHLARQAS

DMELQSFFKDIALELSSNEEKIRAEFNDAQGVKVDLGGYYKFDDEKANKIMRPSATFNAILEKIGQR

>AHK51807.1 hypothetical protein N916\_02645 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKKILYIVVFFVVLILALFIVLKNGIVISSIQFDFLKLEQLYIKLDKKLIVRAKNITINETQNSEISSQ

THSSDNASTEILKITKNLKYLYTFVKEIDIQNLNIKDNHVRILFKDNEFFIDNDLLFLKLTLQRQNKELI

ADIKKLLLKDYDLSIDGNLSINTKSEFYYFQGRASGELLDFNASISYKDKNLAYKIEDLNIRNITEIFKR

VNKRIELPQSLNLWVAYRAKGEFYHLDYLQGFIDFTKDNYYLDNISASGYVNNVKVRLDDKMNAIEIPKL

DLNLNKQKLDFVFNKAFYNGADLSSSKVYLYDLFDEKKVGIYLRIKSDNLKFDEKLAKALEDYHFSLPFY

QKSGKIKSDLELKIDFHDKGEISYSGILALENASISLADFNITKAFVKLNQNDLNIENASVKNGFLEADF

NAKFDLQKQQGNFNTQISRLYFDNAELLDLKNQNVEVKLDYSQNVNISIPQWNLILNFKDGLEANLNNPK

ILFSFSPLLKKLGFINAKNVYYKTLNFEDFNASVNDAYFKNNLLINGQTPYENDSFDIVKNKGIMEIHTQ

SDTASAKISSDNKEIHLKNLSYIYRKHSNSSNSTFDIATNTQNISFGGANVALILADSNKTLAFDRVEAD

LKGNALDLKGSRGNAKFDLYYSSNDLNLNVSNIDDNYLNEFLQKQAVQDGVFNLSIKGSGLEYFDGQIDF

KNTYVKDLKGINQLISFIDTVPSLLMFKSPTFNQKGLSLHDGKIIFNRKKDLLSVSAINLNGDSVDIYGL

GSANLRLNTVDFSLELKTLKSASEAISKVPILNYVILGKNQEISTNLKIDGSIDDPKFHTEILTDTLKTP

FNLIKNIIQLPANLLN

>AHK51806.1 flagellar basal body rod protein FlgB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINPFKSKELVTGALAGRNLRNQLINANLANVDTPFYKARDIEFETALVNRANEIFKKNDNKELQLAVTE

EEHQKPWKFPDPSKSTIYLRDGHLARNDANTVDLDVETTEMSKNTVMITALDGVLRRQSNIFSSILDASS

KLS

>AHK51805.1 flagellar basal body rod protein FlgC [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAYLSDFDISGYGLSAQRFRMNVISSNIANANTTRTAEGGPYRRREVIFKATDFDKLLNEQINKDNNFLK

YENPLNDPSSPEEAKPAIQSVVVDKVVRDDKDFRMKYDPSHPDANAEGYVAYPNVNPVIEMADLIEATRA

YQANVSAFTSAKTISQSAIDLLRG

>AHK51804.1 flagellar hook-basal body protein FliE [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNNINDLRLNNNISNTNKSQNSTGIGDEFAKMLKNEINDLNKAQESGEAAMTDIATGQVKDLHQAAIAIT

KAESSMKFMLEVRNKAISAYKEITRTQI

>AHK51803.1 penicillin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQEYKKNRVSKVAFAYCMALLFMIIFISSTFFLTSKRHIPNTEKDQYALALRGSIITKDNFTITSSKQIY

RAEIDLRSINKDKFDLFLKLFQIYSGISNDQVADIKKRMQNQKKRSYNFVLLQNLDSKQASYLKDLAKKL

YIQGFFKAFTNNSGRVETRGLNIIEHEEDRIYMSKDSFTPIIGYTKMILDPESGILKNIGVKGLEKYYDA

CLSPVQNEKIQGLKDIGGNIILNLNSLQQKKINGCDLYLNLSLKLQKSIEKAIDQRNEDLKANEIIVGVM

ESKTGRILALASSRRYDPQNRGKDLSVLNASAIEYGYEAGSVIKPFIFTTALRLGKIKMDEVINTYGGSY

KLGRFTIKDDHKMDKMTMEEVIRYSSNIGMIQIAKRLNNIEIVSGLKIFKFGEKSGIDLPYEQKGEIPNP

KRLRDIEKSVLSYGYGLKTTFIQLLAAYNVFNNDGFYITPRLAEKFYQNGRFTNLDDDVKKEKILSSEAA

KTMQNVLINVIEKGTGKKAITQGIIAGGKTGTARIAERQGYTSNRYNASFFGFANDLNHAYTIGVLVRHP

TKPYSYYAAQSALPMFKDVVDILINEEFLTPIQDNNQTSTNN

>AHK51802.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLGIYLLIAALSFLALYFAVKKLTLNIDERTLLEPIKMDIYPKFCDLIDEKIREFKENIQNANLTLKNSN

QKDEFLEKLGDLSRELTFIQTMNLSNKNDSIWQNELFSFLKELENLLLEYLEKGEEEAENLREFLMDEFE

KLKG

>AHK51801.1 rhodanese [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIENISASLWTKQDLNAYQIFDVRTPLEWEEGILPNAQCVALYDNQGLLNAKFLDEFQSKRDESKKLAFI

CRSGHRSMVAAEFIAEKLGLESINLDGGMLALKGC

>AHK51800.1 heat shock protein Hsp90 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQFQTEVNQLLQLMIHSLYSNKEIFLRELISNASDALDKLNFLSVSDDKYKSLKFEPKIEIKIDKDKKTL

SISDNGIGMDKDDLINNLGTIAKSGTKSFLENLSGDAKKDSQLIGQFGVGFYSAFMVASKIEVLSKKALD

DKAYLWSSDANGYEIDDANKEEQGTSITLYLKDDEFANAYKIESIIEKYSNHIQFPIFMEKEEFTPAKEG

EEEGKTELKISQINKANALWRMQKSSLKAEDYERFYEQNFHDSNKPLLYLHTKSEGKLEYNSLFFIPQNA

PFDLFRVDYQSGLKLYVKRVFISDDDKELLPTYLRFVRGIIDVEDLPLNVSREILQENQILKGIKEASVK

KILGELEKLKNNDKEKYLSFFKTFGKVLKEGLYGFGGEKDSLLKLMLYKSTKGENLRSLEEYKNDLQGEQ

KEIFYIAGNNESLLRTSPLLEEYKQKNIEVLLMDDEIDSLVTPMLEFEGLKFVSINQVEDKNELSDEEKN

TFAPLVAKFKELLKDQVEDVRLTSRLKDSPSCIVYDKNKPDFAMQQLLKQMGQEQNFKPILEINPKHAIF

TGLKNNESFSADIATLVLNMAKLSEGMGVDNPAEFNASLTKIINKAFS

>AHK51799.1 chromosome condensation protein CrcB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNTLLVVGFGGFIGAILRMLSINLVNKFFPYSISFGTLFVNVLGSFIIGLLFSYAQNKGLSPLLKSFIS

TGFLGAFTTFSTFSYQNLLLLQSGNYLHFALNIILNVFLCLFAAWLGFLIFK

>AHK51798.1 1-acyl-sn-glycerol-3-phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIYKKIKALYFWIFFVLSVALVIFCFCFTKSQNTLWKIRKIWAKFQRYTISYKQEIIGTFNPQAQMILMN

HQSALDIIALEELYPKNLCWIAKKELGEIPIFKVAMKKPKLLCIDRKNPRDLVRVLKEAKERISEDRVLA

IFPEGTRSKNEKMLKFQSGAKILSEKLNLKVQPILIVDSAKILDTKSFSASSGVLKIICMDLVDTNDEKW

LENTRKKMQELLDQERAKLC

>AHK51797.1 hypothetical protein N916\_02575 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKILLTLIFSIVVLFGRGEISVFSGQDENMQKELQKLPQEEQKIYQNIPPSDENNDFESNVDDPFVAKGS

LVLTNDEYPSRVYVGEVFPITIYARTTENIKFDFNISVEKTNLSFLNPDAKWEFINNEYKTTLWFEAKNS

NASLSKISIKLLRNNEAFQEADINLNPIKFENTLFNKDFSHLVASSLEIKKVKASYFDDANIIMMIELNA

TNTNLKSFFIEGIQKQGIENLKGDFNASSAFYYAILPLSKTNFEFSYFNKDSKKLENINLKLKISDDEIS

TQSDLNPVNKDLNIYKQYALWFLAVLFGVLFVWRKNYIILALAVVCFALSFLVDTNTQNAIIKAGSRAKI

LPTEPSTYFYTANADEKVEVLGKRQNYIKVLFSDGKIGWVNKDDLQKN

>AHK51796.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVAIIRFPGTNCEFDTTYAFEKLGVKTQIVWHEEKEFDADLVVLPGGFSYGDYLRCAAIAKLAPAMQGV

FNHAKKGGYILGICNGFQILLESGLLKGAMKHNNNLSFISKNQSLRVVSNDNAFLKNFKKDEIINLPIAH

GEGNYYADETTLKELQDKDLIILKYEPNPNGSVFDIAGICDENKKIFGLMPHPERACEKVLGNDVGLKML

KGFLLENFINFNF

>AHK51795.1 phosphoribosylformylglycinamidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEVIVNISLKNGVLDPQGKAVEKALHSLNFNSVKEVKIAKQIKISLDEKDEKLAKEQVKKMCEELLVNSV

IEDYELIIEKE

>AHK51794.1 phosphoribosylaminoimidazole-succinocarboxamide synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKKEMLYEGKGKKLFKTDDENLLISEFKDDLTAFNAEKRGNESGKGALNCKISTEIFHLLEKNGIKTHL

VEIISDTEQVVKKCKIVPIEVIVRNVATGSLTKRLGIKDGTVLPFALVEFCLKDDALGDPFINDEHCLIL

NLVQNEAQISEIKNMARKINSILTPFFDNKNLRLIDFKIELGLTKDNELVLADEISPDSCRFWDKFSNEK

LDKDRFRQDLGNVKMAYEEVLKRILN

>AHK51793.1 peptidase S41 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMELILKTKRFFAGLAGFATTFILCLFLTSHLQAKVDQKEEQVQKRLEALDKLTKTLAIVEQYYVDDQNI

SDLVDKSLSGLLSNLDAHSSFLNEKDFNDMKIQTNGEFGGLGITVGMKDGALTVVSPIEGTPADKAGIKS

GDIILKINDEATLGINLNDAVDKMRGKPKTQITLTIFRKGATKPFDVTLTREIIKIESVYAKMIENENIL

YLRVTNFDKNVVDVASKELKKYPNVKGVILDLRNNPGGLLNQAIGLVNLFVDKGVIVSQKGRIASENQEY

KADPKNKISNASLVVLVNGGSASASEIVSGALQDLKRGVIVGENTFGKGSVQQIIPINKTEALRLTIARY

YLPSGRTIQAVGVKPDIEVFPGKVNTQEDGFSIKESDLKQHLESELEKIDKNKKEDKQENKDNKNLISQK

QINDDAQLKSAIDTIKILNIKQGQ

>AHK51792.1 hypothetical protein N916\_02550 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MCQEKHTHTHSQKHLKAVCNRLSRTIGHLSAIKRMVENDKDCSEILIQLAAVKAEVNNTAKVVLKEHLAH

CMVHAVEENDIQSIEELNKAIDMFMK

>AHK51791.1 septum formation protein Maf [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLILASSSISRANLLKTAKIDFRQVSFDYDENLNKNISPFLYVQKIVLEKERQFLSTLGKDFQNQNLLFA

DSIVCIDEKILTKAKDKKEAYEMLALQNGKYASILSAFLLVKPEKRVFSLSKTTLYFKNFDENALRDYVE

NDLYKGKAGCIMCEGFHQNFITQQVGNLSTALGLDIQTLKAYL

>AHK51790.1 alanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDIRKAYLDFFASKGHEITPSSPLVPDDATLLFTNAGMVPFKSIFTGEIPRPNPPRKTSCQTCIRAGGKH

NDLDNVGYTARHHTFFEMLGNFSFGDYFKEQAIAYAWEFVTEVLKLPKDRLYVTVHENDDEAFNLWQKHI

QKERIYKFGDKDNFWQMGDTGPCGPCSEIFYDQGQEHFNSSEDYMGGDGDRFLEIWNLVFMQYERSADGV

LSPLPKPSIDTGMGLERVTAIKEGKFSNFDSSLFMPIINEISKLCNKTYVYESGASFRVIADHIRSSVFL

LAQGVSFDKEGRGYVLRRILRRALRHGYLLGFKQAFMYKLVDVVCDLMGGHYTYLNEKKDFIKEQIRLEE

ERFLSTIENGIEIFNEELKNTKEIFSGEVAFKLYDTYGFPLDLTADMLREKNLKVDEEKFELFMNEQKAR

AKASWKGSGDKTASGDFKNLLEKFGENHFVGYEKAECESKILALLDEDFKEVSTLKDAGWVMLENTPFYA

TSGGQSADSGFIAKREVLDTQKFFNLNLSFIKAGEELKVNDIVHARIDTEKREQIARHHSATHLLHHALR

EILGSHVSQAGSLVESNKLRFDFTHHKALNKEELESIEKRVNKMIINSSEAILENMPLEEAKKSGAIALF

NEKYQGNVRVLTLGESKELCGGTHVKNTAQIGSFYIVKESGVSAGVRRIEAVVSKAALEFVKNQLEELSK

VKDELKNNDILSGIKKLKNEILSLKNELKNSSKTELDSKNIQGVEICVKRIDNGDIKAMIDDFKNKFAKA

VILLIQVKDEKITLAAGVKDVPLKAGALVKEAAQILGGNGGGRDDFATAGGKDLSKINEALKQSLETIEK

AL

>AHK51789.1 aminotransferase DegT [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFINLQAQYLAYKDEINAEIESVLSSSSFIGGAKLNEFEQNLAHFLGVKHAIGCSSGTSALYLALRVLD

IGKDDEVIVPSFTFIATAEVVALVGAKPVFADINLSNYNLDFKAVQKAITSKTKAVIAVSMFGQMSDLRA

LEEILKDKNITLIEDGAQSFGASFKGEKSCSIAKISCTSFFPSKPLGAYGDGGAIFCHDDEIAKKIRILL

NHGQTQRYKHEFIGINGRLDTLQAAILNVKLKYLEKELDKRQKLAQIYNANLKNCQIPQINPNAFSAYAQ

YSVLVEDRASVLRKFEKANIPYAIHYPTPLHKQPCFSEFSNLELKNSEYASEHILSLPFSPFLSEEEQEQ

VICIFKD

>AHK51788.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIGIIGLGKMGQNHLNELSKNSHFKLNALFDLCKNPNLNIFDDIFYDDLDKFLNQNNDIIIIATPTNSH

LTIAKKVFKQCKCVLIEKPLALNLKEIDEISNLAKEYSIKVGVGFCERFNPAVLALKKELENEEIISINI

QRFSPYPQRISDVGILQDLAVHDLDLLCFLSKQEITKTNLLKKYTQDQTRESESIILCGLEKCIASIHQS

WNSTQKLRKIHLITKNHFYEANLNDFSLLKDGNFIELTQQSPLFSEHEALLKLIDNQPNHLASTSDAYKV

QEILERFA

>AHK51787.1 ferrochelatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLVLFLNMGGATNLQDCEVFLKNMFNDPYILGIKNRFLRKFVAWIITKARVKAMQENYKKMGGKSPLNE

LTQSLCDKLNLKQDEFKFDFVNLYVPPFATEILQKYTLNASDEIILFPLYPHHSCTTVTSSLEVLQNEIS

KQKIQAKVKTIDIFYKNELYNEMIVSHILAKKSKFDAKILIFSAHSLPQSIIDKGDLYEKHVNDHVEILK

EKLKDHFDEFILAYQSKLGPVKWLEPNTSDVLANLNDKALIYPISFCIDCSETIFELGMEYKHLSKYNYD

LISCPNDSDEFMEFILKYLSDLN

>AHK51786.1 tRNA 2-selenouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFWLLKMLSEVEFVEFQKENFSLLIDARSPREFLHSHLIGALNFYALNDEEYQEIGTIYKKNQALAKAMG

ASYICQNTTKHILEITQNFRIGEKVGIYCSRGGLRSKSIAVILSELGFRVVRLKGGFKAYRTFVTHYFEN

EINFDFFALCGNTGCGKTELLEQLPQAINLEKMANHLGSSFGDILGKQPTQKAFEAELFHNIQNLENFAF

IESESRKIGDIILPLKFYEKMQKAFKIYCFCSLENRVRRIQKIYQEKMTPLKFQQCVQKISPYISLNLRQ

DLLQSYERKEWQKLIVMLLEYYDKTYKKPDKIDLELNTDDILKAKEELLDHFKVQLLF

>AHK51785.1 HIT family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQYLYAPWRSEYFEKVKSICPFCDCANKIKSDEELGVIFRAKHCFGVMNRYPYSAGHFMVIPYIHEEHIE

NLSDEIWQEMSYFVRLGVKILKEQIHANGVNIGMNLSKDAGAGIAFHCHYHLVPRWSGDTNFITTIGETR

VCGTNIEQVYQKLVLAFKNAQ

>AHK51784.1 indole-3-glycerol-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MILDKIFEKTKEDLKERKLKLPYDMLGRSLASNPFFPKDVIKALKRVEKEVKIIAEVKKASPSKGVIRED

FDPLSIALNYEKNKAAAISVLTEPHFFKGSLEYLSLIRRYTQIPLLRKDFIFDEYQILEALVYGADFVLL

IAKMLSMKELKKLLEFARHLGLEALVEIHDKEDLSKAIFAGADIIGINHRNLEDFTMDMSLCEKLIPQIP

NSKIIIAESGLENKEFLEHLQNLGVDAFLIGEYFMREKDEGKALKALL

>AHK51783.1 hypothetical protein N916\_02485 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYRYLLFVLAAFFLAACGSSKINVVYPDYTKYKSNDFDLRVMKAYNYEYYKQYKEARDEFLSLYQDYNNT

NFLENAFLLTLANNLDKQAELDNLAKPYLNQNDNLKRLSALYALNSNDINNAQKLMKELLTKKDSDPRNL

ELYGDILVKKNDLKNATKYYRSAYNQVQNEEILFKLIGIYAILNDTLNIKNVLEFSRKTNGCTLKTCVLL

AKIYFDEKNIEALKSIYKELYQLTKNKSFVLALVELLNSQGKTEEALKISLQYDLDDDIKLALYQNLKRF

DDAKKMSLALYHKTKNKEYLLRAAVFEFEAANEAKKITPKVIDSVKEKFEQAIDKDSNALYLNYYGYLLI

DYDLDVKKGIELVKLALEKDPQNLYYLDSLAWGYYKLGDCKQAWEILKQTLDDKEFANSDESKAHIKAIK

ACIKP

>AHK51782.1 hypothetical protein N916\_02480 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIFDKNFSYAFDENACEKCGGKCCTGESGNIFASKEELEVLRKHLNLESKEFAEKYLRKVGFKMSFKEVE

CEDGFACIFFDTQKRNCSIYDFRPKQCRTFPFWEYFKTHQKELEKECIGICYLS

>AHK51781.1 methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSDLITLAQLSQGYRYNSDSLILADFILKQGIKGAVFDVGAGCGIIGILLKKNIANLSLSLIDIQKENIE

LIEKNLKSNKIQGDIFHDDFNQFQIIKKFDFIVCNPPFYRQGAYKSEDQHKAISKFQEFLPLHSFLAKTN

SMLKPNGTLYFCYEALALDEICFILKDMKMKITKLCFVHTHQSKKARLVLIQVKKGSKSPCEILPPFFVY

ENEILSKQMQEIHLRFRLKSYDI

>AHK51780.1 exporting protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKIAFFITFVISFLAAQSPVNFKEDNNITKERNIFKEQLPKRIKIPTH

>AHK51779.1 elongation factor P [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSRSTPLKKVRNIGIAAHIDAGKTTTSERILFFTGMSHKIGEVHDGAATMDWMEQEKERGITITSAATTC

FWKDHQINLIDTPGHVDFTIEVERSMRVLDGAVAVFCSVGGVQPQSETVWRQANKYGVPRIVFVNKMDRI

GANFYNVEDQIRNRLKANPVPLQIPIGAEDNFKGVIDLVTMKALVWEDDTKPTDYVEKEIPAELKEKAEE

YRTKMIEAVSETSDELMEKYLGGEELSLEEIKTGIKAGCLSLSIVPMLCGTAFKNKGVQPLLDAVVAYLP

APDEVANIKGEYEDGTEVSVKSTDDGEFAGLAFKIMTDPFVGQLTFVRVYRGCLESGSYAYNSTKDKKER

IGRLLKMHSNKREEIKVLYAGEIGAVVGLKDTLTGDTLASEKDKVILERMDFPDPVISVAVEPKTKADQE

KMSIALNKLAQEDPSFRVSTDEESGQTIISGMGELHLEIIVDRMLREFKVEAEVGQPQVAYRETIRKTVE

QEYKYAKQSGGRGQYGHVFLRLEPLEPGSGYEFVNDIKGGVIPKEYIPAVDKGVQEALQNGVLAGYPVED

VKVTVYDGSYHEVDSSEMAFKLAASMGFKEGARKAGAVILEPMMKVEVETPEDYMGDVIGDLNKRRGQVN

SMDERGGNKIITAFCPLAEMFGYSTDLRSQTQGRATYSMEFDHYDEVPKNVADEIIKKRNG

>AHK51778.1 30S ribosomal protein S7 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRRRKAPVREVLPDPIYGNKVITKFINSLMYDGKKSTATTIMYGALEAIDKKGGEKKGIDIFNDAIENIK

PLLEVKSRRVGGATYQVPVEVRPARQQALAIRWIISFARKRSERTMIDKLAAELLDAANSKGASFKKKED

TYKMAEANKAFAHYRW

>AHK51777.1 30S ribosomal protein S12 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPTINQLVRKERKKVLEKSKSPALKNCPQRRGVCTRVYTTTPKKPNSALRKVAKVRLTSGFEVISYIGGE

GHNLQEHSIVLVRGGRVKDLPGVKYHIVRGALDTAGVAKRTVSRSKYGAKRPKAGAAK

>AHK51776.1 DNA-directed RNA polymerase subunit beta' [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKFKVIEIKEDARPRDFEAFQLRLASPEKIKSWSYGEVKKPETINYRTLKPERDGLFCAKIFGPIRDYE

CLCGKYKKMRFKGVKCEKCGVEVANSKVRRSRMGHIELVTPVAHIWYVNSLPSRIGTLLGVKMKDLERVL

YYEAYIVENPGDAFYDNESTKKVEYCDVLNEEQYQNLMQRYENSGFKARMGGEVVRDLLANLDLVALLNQ

LKEEMGATNSEAKKKTIIKRLKVVENFLNSNLNANTDSDEAVPNRPEWMMITNLPVLPPDLRPLVALDGG

KFAVSDVNDLYRRVINRNTRLKKLMELDAPEIIIRNEKRMLQEAVDALFDNGRRANAVKGANKRPLKSLS

EIIKGKQGRFRQNLLGKRVDFSGRSVIVVGPKLRMDQCGLPKKMALELFKPHLLAKLEEKGYATTVKQAK

KMIENKTNEVWECLEEVVKGHPVMLNRAPTLHKLSIQAFHPVLVEGKAIQLHPLVCAAFNADFDGDQMAV

HVPLSQEAIAECKVLMLSSMNILLPASGKSVTVPSQDMVLGIYYLSLEKAGAKGSHKICTGIDEVMMALE

SKCLDIHASIQTMVDGRKITTTAGRLIVKSILPDFVPENSWNKVLKKKDIAALVDYVYKQGGLEITASFL

DRLKNLGFEYATKAGISISIADIIVPNDKQKAIDEAKKQVREIQNSYNLGLITSGERYNKIIDIWKSTNN

VLSKEMMKLVEKDKEGFNSIYMMADSGARGSAAQISQLAAMRGLMTKPDGSIIETPIISNFREGLNVLEY

FISTHGARKGLADTALKTANAGYLTRKLIDVAQNVKITIEDCGTHEGVEINEITADSSIIETLEERILGR

VLAEDVIDPITNSVLFAEGTLMDEEKAKILGESGIKSVNIRTPITCKAKKGICAKCYGINLGEGKLVKPG

EAVGIISAQSIGEPGTQLTLRTFHSGGTASTDLQDRQVSAQKEGFIRFYNLKTYKNKEGKNIVANRRNAA

VLLVEPKIKTPFKGVINIENIHEDVIVSIKDKKQEVKYILRKYDLAKPNELAGVSGSIDGKLYLPYQSGM

QVEENESIVEVIKEGWNVPNRIPFASEILVEDGEPVVQNIKAGEKGTLKFYILKGDGLDRVKNVKKGDIV

KEKGFFVVIADENDREAKRHYIPRESKIEFNDSEKIDDANTIIASAPKKERKVIAEWDAYNNTIIAEIDG

VVSFEDIEAGYSADEQIDEATGKRSLVINEYLPSGVRPTLVIAGKGDKAVRYHLEPKTVIFVHDGDKIAQ

ADILAKTPKAAAKSKDITGGLPRVSELFEARKPKNAAVIAEIDGVVRFDKPLRSKERIIIQAEDGTSAEY

LIDKSKHIQVRDGEFIHAGEKLTDGVVSSHDVLKILGEKALHYYLISEIQQVYRGQGVVISDKHIEVIVS

QMLRQVKVVDSGHTKFIEGDLVSRRKFREENERIIRMGGEPAIAEPVLLGVTRAAIGSDSVISAASFQET

TKVLTEASIAGKFDYLEDLKENVILGRMIPVGTGLYGEQNLKLKEQE

>AHK51775.1 DNA-directed RNA polymerase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLDNKLGNRLRVDFSNISKQIEIPNLLQLQKKSFDYFLNLDNGESGIEKVFKSIFPIHDPQNRLSLEYVS

SEIGKPKYTIRECMERGLTYSVNLKMKIRLTLHEKDEKTGEKVGVKDIKEQEIYIREIPLMTDRVSFIIN

GVERVVVNQLHRSPGVIFKEEESSTVANKLVYTAQIIPDRGSWLYFEYDAKDVLYVRINKRRKVPVTMLF

RALGYKKQDIIKLFYPIQTIHVKKDKFLTEFNPNDFMDRIEYDIKDEKGKIVHQAGKRLTKKKAEQLIKD

GLKWIEYPVEILLNRYLANPIIDKESGEVLFDSLTLLDESKLAKIKEQKSFDIANDLANGVDAAIINSFA

QDGETLKLLKQSENIDDENDLAAIRIYKVMRPGEPVVKDAAKAFVNDLFFNPERYDLTKVGRMKMNHKLG

LEVPEYVTVLTNEDIIKTAKYLIKVKNGKGHIDDRDHLGNRRIRSIGELLANELHLGLAKMQKAIRDKFT

SLNADLDKVMPYDLINPKMITTTIIEFFTGGQLSQFMDQTNPLSEVTHKRRLSALGEGGLVKERAGFEVR

DVHATHYGRICPVETPEGQNIGLINTLSTYAKVNELGFVEAPYRKVVNGKVTNEVVYLTATQEEGLFIAP

ASTKVDAKGNIVEEFVEARQDGETILARREEVQLIDLCSGMVVGVAASLIPFLEHDDANRALMGSNMQRQ

AVPLLTASAPIVGTGMEQIIARDAWEAVKAKRGGVVEKVDNKSIFILGEDDKGPFIDHYTMEKNLRTNQN

TNYIQHPIVKKGDIVKAGQIIADGPSMDQGELAIGKNALIAFMPWNGYNYEDAIVVSERIIREDTFTSVH

IYEKEIEARELKDGIEEITKDIPNVKEEDVAHLDESGIAKIGTHIKPGMILVGKVSPKGEVKPTPEERLL

RAIFGEKAGHVVNKSLYATASLEGVVVDVKIFTKKGYEKDDRAIKSYDKEKMALEKEHHDRLLMMDREEM

LRVCALLSKASLNSDQKIGDKNYKKGQTADISELEKINRFTLTTLIKAYSKEIQKEYDDLKNHFQNEKKK

LKAEHDEKLEILEKDDILPSGVIKLVKVYIATKRKLKVGDKMAGRHGNKGIVSTIVPEVDMPYLPNGKSV

DIALNPLGVPSRMNIGQILESHLGLVGLRLGDQIQEIFDRKQKDFLKELRAKILEICSIPRLANEKEFIK

SLSDEELLNYARDWSKGVKFSTPVFEGVNIEEFSKLFKMAKIDMDGKTELYDGRTGEKIAERVHVGCMYM

LKLHHLVDEKVHARSTGPYSLVTQQPVGGKALFGGQRFGEMEVWALEAYGAAHTLREMLTIKSDDVEGRF

SAYKALTKGENVPATGIPETFFVLTNELKSLALDVEIFDKDEDNE

>AHK51774.1 50S ribosomal protein L7/L12 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAISKEDVLEYISNLSVLELSELVKEFEEKFGVSAAPVMVAGGAVAGGAVAAAEEKTEFDIVLTDGGAKK

IEVIKIVRALTGLGLKEAKDAVEQTPSTLKEGVAKAEAEEAKKQLEEAGAKVELK

>AHK51773.1 50S ribosomal protein L10 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTRSEKVEIIAKLEEGFKASEAIVVCNYRGLSTKKLEELRNNARENNVKVQIVKNTLANIALNNSGKTGL

VLKDTNIYLWGEDQLSVSKVAAKFEENNDKFEIKTAHIEGEVADVAKVKALAKMPSRNELLAMLLQVWNA

PITNFTIGLNALKNKKESE

>AHK51772.1 50S ribosomal protein L1 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKIAKRLKELSQKIDSNKEYALSDAIDTIKTLKSAKFDETVEIALKLNVDPRHADQMVRGSVVLPAGTG

KKVRVAVIAKDAKADEAKNAGADIVGSDDLVEEIQKGNMNFDVLIATPNLMGLVGKVGRILGPKGLMPNP

KTGTVTMDVAQAVNNAKSGQVNFRVDKQGNIHAGLGKVSFSKEQLWDNVSTFVKAINKHKPAAAKGRYIK

NAALSLTMSPSVKLETQELLDMK

>AHK51771.1 50S ribosomal protein L11 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKKVVGEIKLQIAATKANPSPPVGPALGQQGVNIMEFCKAFNERTKDMAGFNIPVVITVYADKSFTFIT

KQPPATDLIKKAAGISKGTDNPLKNKVGKLTRAQVLEIVDKKIADLNTKDRDQAAKIIAGSARSMGVEIV

D

>AHK51770.1 transcription antitermination protein NusG [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSTHKWYAIQTYAGSEMAVKRAIENLVKDNGIEEQLKEIVVPTEDVIEFKNGKEKISERSLYSGYVFALL

DLNTELWHRIQSLPKVGRFIGESKKPTPLTEKDINLILEKVHNRAAPKPKISFEEGENVRITEGPFANFT

AIVEEYDMVRGLLKLNVSIFGRSTPVEILYSQVEKII

>AHK51769.1 preprotein translocase subunit SecE [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKLITYFKLSKAELRKVIFPLKEQVRNAYITVFVVVAVISLFLALVDWLMSSIVSAIV

>AHK51768.1 50S ribosomal protein L33 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRIKVGLKCEECGDINYSTYKNSKNTTEKLELKKYCPRLKKHTLHKEVKLKS

>AHK51767.1 elongation factor Tu [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKEKFSRNKPHVNIGTIGHVDHGKTTLTAAISAVLSRRGLAELKDYDNIDNAPEEKERGITIATSHIEY

ETDNRHYAHVDCPGHADYVKNMITGAAQMDGAILVVSAADGPMPQTREHILLSRQVGVPYIVVFMNKADM

VDDAELLELVEMEIRELLSSYDFPGDDTPIISGSALKALEEAKAGQDGEWSAKIMDLMAAVDSYIPTPTR

DTEKDFLMPIEDVFSISGRGTVVTGRIEKGVVKVGDTIEIVGIKDTQTTTVTGVEMFRKEMDQGEAGDNV

GVLLRGTKKEEVIRGMVLAKPKSITPHTDFEAEVYILNKDEGGRHTPFFNNYRPQFYVRTTDVTGSIKLA

DGVEMVMPGENVRITVSLIAPVALEEGTRFAIREGGKTVGSGVVSKIIK

>AHK51766.1 glutamine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSILKIENLQKYYGSHHALKDINLEVKAKEVVVILGPSGCGKSTLLRCINGLEEIASGNIYIDNEKIDKD

FKEWPRMRQKVGMVFQSYELFEHLSVEENILLGPMKVQKRKKDEVLKEAKIWLEKVGLLHKIHAYPRELS

GGQKQRIAIVRSLCMNPELMLFDEVTAALDPEIVREVLEVMLNLAKEGMTMLIVTHEMGFAKAVADKIIF

MDEGKIIEENDPKSFFKNPKSERAKKFLNLFDYHNIDKNNIGL

>AHK51765.1 amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLELLNTDTLLRLWQGLFVTLEISFISIIITSIGGLFLGILMSFKNTYIYAFCRLGLEFVRVMPLLVWLF

VVYFGFPRWFGWDLSSVSAAIIVFSIWGCFEMMDLVRVSLQSIPKHQYESASSLGLNTVQSFAYVIIPQA

MRRLTPMSMNLLTRMIKSTTFAYLIGAVELVKVGQQIIEFHNRNDFAPFIIYGLIFFIFFILCYPITLYS

RKLEKKWS

>AHK51764.1 polar amino acid ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDFDFILAQAPAFLTAAWLTIKLSFFGIIFSLIIGLFCILMSYFKIKILENICKLYIEFSRNTPLLIQLF

FLYYALPKFNIHLEQIPPLDLICLSVEETLRPSFACAIVGLSFLGGSYMAESLRAGFEAIRKQQFEAGLS

LGFSKFGNLRYVILPQALAISMPSISANIIFLIKETSVVSIIALPDLVNLMKSLNSLTYKTDELLFLLFM

GYLCIILPLSFILLKFEKRLLHA

>AHK51763.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKDYLELLSSVGKLKKFQKNSILFYEGEEAKNFFILLKGKIRIYKSTASDKEITLHYFNPPNFIAEMPAF

KKLNYPANAVFEEDGEILEIDFINFQNLCSENKEFNFLLISSLFDKIKILEKKLSQNALDLRTRLLKYLL

ENEKNLDTISQKQIAIDLNVRAQSLSRVLKELKISELIDTKKGRIEILNKDMIMKELW

>AHK51762.1 ATP-dependent DNA helicase RecG [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIKESDFEFFKKLKIRSAIDLALLLPKKIENLNPSKNPKENEICTQKITIKSVSSRKNQLFGLGFCEEW

QENISFVFFHPRAWHFGICKVGKELIFNAKLSHFNHTWQFNNPKILTSFEGFSPKYQILGLKDTKIAAFI

HKYLNYENLKESGIEDKYIHFLLNLHAYDEKSFFMFENLQNFSKDLKYIEIYNFLKRLKAKKTHFKAHQI

NVFNIANWLKDLPFSLTKDQLNALKDIEKDLHSKEAKRRVIMGDVGCGKTLVLLGAALMVYPKQAILMAP

TSILAYQLYEEAKKFLPDFMNILFIKGGKKEKDLEQNIQKANLVIGTHALIHLESHNAVLVMIDEQHRFG

SAQREKIHSLNKQEFAPHFIQFSATPIPRTLSMIQSELLNFSFIKQMPFKKDITTYCIQNEGFSKLSEKI

KEEIAKNHQIIIIYPLLSASDKIPYLSLEQAKEYWQSHYEKVFVTHGKDKQKDEILERFRDEGNILLSTT

VVEVGISLPRLSMIVIVGAERLGLATLHQLRGRVGRVGLKSACYLYTKLKEIPSRLKEFASTLDGFKIAE

LDLKNRLSGDLLDGFMQHGNEFKFFDFSKDEEILEKVKKDLAKKLPN

>AHK51761.1 peptidase M16 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQYLESRGIKIPFIFEKNSDFPIVVLKLVFRNCARSYDEIAGLAKMFSRILNEGVDDKFFKDLEFRAINL

EASSGFESLEINLSCLKENFDFALKSLEKLLLKPRIEEKTLQKLKINALGELASKNSDFDYLAKNLLNAQ

IFKCKEFQSPNDGDEKSIETLSLKDLQNFYKNFIHLSDLVVILGGDLEEKQAKEDLLKLLSKLQIGKKNT

PKKYELGKNIKDEILVRPESEQAYIYFATPFFADFKDKDLYLAKIALFVLGQGGFGSRIMEEIRVKRGLA

YSAYAMLDMNMSFSRVFGYLQTKNESAKEAKKIVKELFEDFIKNGMTQNELDQAKNFLIGSTPLRYESLS

KRLSMSFNEFYQGLNLGYYKEELKLMEKVKLETINAYIKKHQELLNISFASIQNEN

>AHK51760.1 hypothetical protein N916\_02280 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKRLDKKEALDLLHHASLTELGEMAYKRKLELHPEKITTFVVDRNINYTNVCCIDCSFCAFYRHHKEDDA

YILSFEEIGKKIEELEAIGGTQILFQGGVHPKLKIEWYEELVSWIKEHYPNITVHGFSAVEIAYIAKASK

ISITEVLKRLQAKGLFSIPGAGAEVLSDRVRDIIAPNKCDTATWLEVHRQAHKIGMKSTATMMFGTVEND

EEIIDHFEHLRKLQDETGGFRAFILWSFQSDNTALIQKHPEIMKQSSNKYLRLLALVRLYLDNFKNLQSS

WVTQGSLIGQLALKFGANDLGSTMMEENVVSAAGASYRMNQDEMIRLIRSLGENPAKRNTAYEILERF

>AHK51759.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNYIELLKNNKNIRILASVQFIVYFGAWFSQTGVFTLLVELNAPTWATATSAMLAFLPGVLLAPINGVIV

EKNKPKKLLLSMISIELISIFCLIFVTSLSMLWLLFILIFIRLCVASIYFQAEMSLLAKILTPQELKLAN

EMHSVIWAISYTAGMASAGIFIYFLGVKTAFLFDCILILIGISFLVRLSIPDFHQKTQSRFFTMIKEGFF

YVLNNKIIFHLILLHAFIGLTAYETLVTLLAQHQYKEVLSAALVIGFLNAVRACSLAIGPMVLSKFINDK

NLFYMYLGQGLGIILWALTQFNFYISFLGLIGAGFFTSALWAYTYTMIQKNADKEYHGRVIAYTDMIYLS

FSAIISMLMGFLFEIGLSLELITGLLGMIFIFAAFYWKWFYKKYL

>AHK51758.1 transcription elongation factor NusA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKIADIIESIANEKNLNLENVREKVATALINTAKRIYGQEYEFFVDPKNLNLYQKITIVADNDERLQNK

SESFIALSKAKSEAPDVEIGDELTYECSLENLGRTAVNTLHKELEYHIQKLLEQTIFEKYKNKVGQMVFG

TVVRVDNEENTFIEIDELRAFLPRKNRIKGEKFKIGDVVKAVIRRVYTDKGIKIELSRTSPKFLECLLEA

EVPEIKDGYVNIIGCARIPGERAKIILQANGTNIDPVGATVGVKGVRINAVSKELHNENIDCIEFTNESE

ILISRALAPAIVNSVKIEDKKAIVSLNSEQKSKAIGKNGINIRLASMLSGYEIELNELSSSQLNNAISNE

EAMKNLQDLFKI

>AHK51757.1 hypothetical protein N916\_02265 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MELKLARTLINEKPKNISLEKIEEAIEKEGQKFFYFDKDNTHKQLIALVNHFEKKGVSIYHRTVKYGLDD

NDFMYEVHIL

>AHK51756.1 (dimethylallyl)adenosine tRNA methylthiotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSAKKLFIQTLGCAMNVRDSEHMIAELTQKENYALTEDIKEADLILINTCSVREKPVHKLFSEVGGFEKV

KKEGAKIGVCGCTASHLGNEIFKRAPYVDFVLGARNISKITQAIKTPKFMGVDIDYDESEFAFADFRNSI

YKSYINISIGCDKHCTYCIVPHTRGDEISIPFNIIYKEAQKAIEKGAKEIFLLGQNVNNYGKRFRNEHKK

MDFSDLLEELSTIEGLERIRFTSPHPLHMDDKFLEVFANNPKVCKSMHMPLQSGSSEILKAMKRGYTKEW

YLNRALKLRELCPNVSISTDIIVAFPGESEKDFEETVDVLEKVRFEQIFSFKYSKRPLTKAATMPNQIDE

EIASRRLSTLQNRHSEILDKIVKKQENKTFKVLFEELRAGNSIAGRTDNNFLVQVEGSEELLGQFKEVKI

TNAKRMVLYGEIV

>AHK51755.1 hypothetical protein N916\_02255 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGKSFKIHCLTYIIFILQWLIFLSCKKHYKGEKVDRKAGVILFWHGKLALMPFAFRHYRQKNKKAYVMIS

HHKDGEQIAKIIKLFGLDTVRGSTSRGASSALRAAFKVLEQNDDIVITPDGPRGPYHSISDGSIILAQKK

ELKIRILNYEANRFWKFKSWDKMILPKPFSKITYSLSEPLDILSLDKEKAKEFLMKQFDKISLADQFKE

>AHK51754.1 clan AA aspartic protease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLFLLKKIFPQLFISIILEDKKNIVKASIYRGNKLISSNEKTFDKSENLLEYIKNLSKHFLFYHTALFLD

AKEQGLIPSTNIQDCEHFNIGKISLQHILLNNALVYTATEHVEYYSELFEEYRGLDFLYSPFALLYYNMQ

KEKQPDDQILLYGFKQGYLLAIIVAKGNTILYGDFKIFEQELGLELELPSEDNQEIENNNDDTEVTLDNF

NEALNNKFDLLDQENNLETLDNNDNFNLDELNQFSNDMELCRYIITSIEKFYNDDKYAGVFINGILLYSE

SDININAIDFLESETFLEIKTKQINTLDLMIELMRKEVK

>AHK51753.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTYSFIQPRKKPIFTLFDKIWLGLFGFSILFILLVYFTYTIKIALINSSIDDEKQQVIVLQNQTKQNEML

YEILFDQSQIAKNFNTQNQIVKESLRNLFDIIVKTDNITLESVEQDEYSLKLIGVTPTREMFTLLLETPL

KSIFDQSYTTYYRLDNGWYRFVSISKQIPGVADER

>AHK51752.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKDKSLEEIDLLKLIICALSFISVCTALILFLLLPTLKNYKQANLRENSQLAILKAAKSKFDFSEDKIST

LRSENNKSLEQFEQNFNIGNFNIFLQKYFQNVKIQETKPEKQEKYLKNRLAIKATMNNPRRLYDFIDALK

NYNNLIKLDYPLNLKAGEQGISIDLTLKVYSS

>AHK51751.1 phosphomethylpyrimidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTQMNYAKEGIFTKEMQIVAQKENLSKDFLLENIACGKIIIPANINHKSLDPNGIGFGLRTKVNVNLGV

SNDCVDYSEEMKKVELAHKFGIEAIMDLSNYGKTSRFRDELVNVSKAMIGTVPVYDAVGFLEKDLKQINA

KDFLDVVYHHAKSGVDFMTIHAGINSRAAHIFKQSKRLTNIVSRGGSVLYAWMMMKDAENPFFEYYDDLL

DICLKYDVTLSLGDALRPGSTHDASDGAQISELIELSLLTQRAWDVGIQVMIEGPGHMAINEIEANMQLE

KRLCKGAPFYVLGPLVTDIGAGYDHISGAIGGAVAAASGADMLCYVTPAEHLRLPNLEDVREGIVATKIA

AHAGDIAKLPKERARDDEMSKARQEIDWEKMFKLAIDGEKAKKMFNERRPDDLNSCSMCGKMCAMNTMNQ

ILKGEDVSLA

>AHK51750.1 DNA polymerase III subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSLQQIDQIISILNKQSKPYDWVMQEFAKVEELKNFDLDLETFELLGLGLTLNKDNIFTLKTRTTKIKDE

IFCIVDIESTGGVSKGEILEIGAVKIQNSKEIGRFQSFVKVKEIPKNITELTGITYEMVENASSLAKVLS

DFRLFLKDSIFVAHNVRFDYSFISKALNECGFGILLNRRICTIEFAQCCIESPKYKLEVLKEFLGVENMH

HRALDDALAAAEIFKYCLGKLPYHIKTTEELINFTKTARIKQK

>AHK51749.1 ribulose-phosphate 3-epimerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYVAPSLLSANFLKLEEEVKAIEAAGADLLHIDVMDGHFVPNLTFGPCVIEKISTISKLPLDVHLMVKDV

SKFVDLFISLKPKFISFHMESEVHPIRLCEYIRSQGIHPAIVLNPHTPIDSIKHMLEFVDMVLLMSVNPG

FGGQKFLPLIHEKIKELRQMIDKKNAKVFIEVDGGVNGLNASDLEESGADILVAGSYIFSSNDYKTAISS

LKLEF

>AHK51748.1 50S ribosomal protein L28 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MARVCQITGKGPMVGNNVSHANNKTKRRFLPNLRTVRVTLEDGTTRKMRIAASTLRTLKKQNSK

>AHK51747.1 hypothetical protein N916\_02215 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLHEYRELMSELKGKDAHFDKLFDRHNELDDMIKDAEEGRTSLSSMEISTLKKEKLHVKDELSQYLANYK

K

>AHK51746.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFGSKINHSDLQKLEEENKNLTHKIEKFQSENLELKNKITSLEQAALESKLKTDLLNVLLTGVLKNITII

QGDMLENVNKAEVISSYSKTSLAEMDELNHIANSINASLGNITESANKTRDVAGTLHRSVDEITNVINLI

KDVSDQTNLLALNAAIEAARAGEHGRGFAVVADEVRKLAEKTQKATTEVEMNINLLKQNANEMYTQSEQV

EKISIDSNAHIMSFSEKFTHLVNEAHSTNSNAVGIASEAFVSLAKLDHIAFKLNGYKEIFSKSGKQLADH

TSCRLGKWLASTGKERFGQNKSFLKINEPHEKVHENMNNAITIANTEDISKDITQHSIINKCEVAENASL

DLFNVFKEMLDESDH

>AHK51745.1 NUDIX hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAFKNLKELSFEKSNYIKPKRFAYESNGRLCTWDFIESKDSVSVLLYHKELESFIFVRQFRIPLWYHQMH

DKDYVKDDDMGYTIELCSGLVDKKLSLEEIAKEECIEELGYAPKNLEKIGDFYTGFGSGVSKQSFYFVEV

DEKDKISSGGGVDDEEIEAVYVKVQDFEKKCKNMIRTPLLDFAYMWFLKEKWGKLKII

>AHK51744.1 acetyl-CoA carboxylase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MASYLDFEKNIQQIDEDIINAQIKGDTEAVSILKKNLEKEISKTYKNLSDFQRLQLARHPDRPYALDYIE

LILNDAHEIHGDRAFRDDPAIVCFMGYLGEKKIIVIGEQKGRGTKDKIARNFGMPHPEGYRKALRVAGLA

EKFQIPILFLIDTPGAYPGIGAEERGQSEAIARNLYELSDLKIPTIAIVIGEGGSGGALAIGVADKLAMM

KNSVFSVISPEGCAAILWNDPAKSEAATKAMKVTADDLKSQGLIDDVIDEPTNGAHRNKEAAAVAIADYV

KKSLNELENIDVRELSANRMQKILKLGAYQEA

>AHK51743.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKRVVVTGIGMINALGLDKESSFKAICNGESGVNKITLFDATDFPVQIAAEVKNFDPLEVVDGKEVKKID

RFIQLGIKAAREAMQDAGFSEELDKEEFGIVSASGIGGLPNIEKNSIICSERGPRKISPFFIPSALVNML

GGLISIEHGLKGPNISCVTACAAGTHAIGEAYKSIALGNAKKMLVIGAEAAICPVGIGGFASMKALSTRN

EDPQHASRPFDKERDGFVMGEGAGALVFEEYEEAKKRGATIYAELIGFGESADAHHITSPTLDGPLRAMK

KALNMAGNPKVDYINAHGTSTPVNDKNETAAIKELFGNNIPLISSTKGQTGHCLGAAGAIEAVVSVMVLR

DGVVPPTINQLVKDDECDLDYIPNISRKVDLKVVMSNSFGFGGTNGCVVFKKVD

>AHK51742.1 acyl carrier protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MATFDDVKAVVVEQLSIDADAVKMESKIIEDLGADSLDVVELIMALEEKFEVEIPDSDAEKLIKIEDVVN

YIDNLKK

>AHK51741.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLFSNLIKENQKIWNAYLHHDFVKKLEDKSLKQENFLFYLKQDYIYLLNYAKCYARLALNSNTAKELRFA

MKFQNYIVEGEMELHRAILSLGINADELDIKDESLVNIAYSRYMLSVGENGDFLDMLVALSACAIGYAKI

GAEIINRLKNENLKDHPYKEWILTYGSENFQNEAKEFEDFVNSYTSSVGAQKFQKLSEIFHTVTRLEVAF

WEHSLRMELNL

>AHK51740.1 heterodisulfide reductase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKEYAFFPGCVLSQAAKESKISLEAIAPILGWKLNEIKGWSCCGASQAQCVDPIATLVANARNIALAEE

MKMPMLTTCSTCMLTLTKAKNTLDKGAKERINIFLAQGGMKYQGSTPITSLLWELYEDLDNLKSKVKKPL

SNLKVALFYGCHSLRPEDAFGKKESSTNPKSFESVVEVLGAKIVPFEKRLDCCGFHASYPAEKSVKKMSS

QIVNNASENQADCVVTPCPLCQMQLDIYQERFQDYTNSKARLPIIHLSQLVGLALGLSKEMVGLDYNIID

ASKIA

>AHK51739.1 (2Fe-2S)-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIIIDRFNGKEKYEQSYDIDDKDIQGKTLLSLLLFIKKTKDITLNFTASCQSAICGACAVRVNGHSYLA

CDTKMQDLLKEYDNPSSIRISPLGNFRVISDLIVDWEPSIENLRKIRPAMVAKNEFSAEKGCKQSQEEFD

RISKQWDCILCGSCASECNKLEADSSDYMQPFVFTHVWRAAADSRGKDPMLHVKPSVMNGLWLCVHCQEC

ADRCPKGISSVSDIANLRVMAIKKGLNEGLGPDHAEAFYKDLVEGSGRLNEIYLALRSEGVIGSMGKTDI

AFKLMRAGKMNPMHVFGEGEIEGYKDLVKMIKAAQEAAVKE

>AHK51738.1 succinate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGEFSRRDFIKTACISVGALAASSSGVYALDDSSKMDKDINLPSCDVLVIGSGGAGLCAAAAVRKENPKL

SVVVATKMMPSRNATCMAEGGINGVTDFSNGDSYKLHAYDTIKGGAYLVDQDAALKFCELAGKAIFNMDF

IGTLFSRNEQGGVAQRLMGGASKKRCNYSADKTGHILMHSCLDDAISSGVKFLMNHELLDIGVVDGKCEG

VVLRDIQSGGIYPVLCKALVIATGGYTRIFYNRTSTPFIATGDGVAAALRAGLGFEDPEMIQFHPTGVAN

GGTLITEAARGEGGYLLNNRGERFMKNYHEKMELAPRDVVARAIETEIREGRGYGEGLGAYVLCDVRHLG

KEKILKDLPKIRHTAMLFENIDLVDTPVPIRPTAHYSMGGIEVAKFEDMGTKIAGIYVGGEASCISIHGA

NRLGGNSLADAVVTGHLAGIGATNYAKDASFGKGAKTHELAQKWQVRFKEITNNGGNGQEMYELREELGS

QNWDNMGIFRTQEKLDLLAKKLEDIQARYEKIRIPNPNEVMNTAFTDYVELGNLILLSRCACLAARNRLE

SRGAHTREDYPKRDDKNFLKHSIVNLENDELKLSYKDVVVTEFSLDGRRVQ

>AHK51737.1 pyridoxamine 5'-phosphate oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDLKEIAQFLDDNAPAFLATLGTCGNPRVRPIQSPLLVGDKIYFCTANTKGLFKHIKNYNDIEFCSCAKD

GTFLRLRANAVFEPNLEVKKMMFKKYPYLVNLYETPQNPKFEVFYLDHLSARMQFMNGEFKLFKA

>AHK51736.1 3-ketoacyl-ACP reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFSGKNVLITGASKGIGASIAKTLAGFGLKVWINYRSKPELADALKDEIIASGGVAAVIKFDASKEDEF

ENGVKTIVESDGELSYLVNNAGVTNDKLALRMKLEDFSGVVDTNLSSAFLGCREALKTMSKKRFGAVVNI

ASIVGEMGNAGQVNYSASKGGMIAMTKSFAKEGASRNLRFNCVTPGFIKSDMTEVLSNEIKQTYQDNIPL

KRFAEPEEVANCVAFLLSDYASYVTGDVLKINGGLYM

>AHK51735.1 phosphoglyceromutase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKQKCVLIITDGIGYNKNSKFNAFEAAKKPSYEKLFKEVPNSLLKTSGLAVGLPEGQMGNSEVGHMCIGS

GRIIYQNLVRINKAIENKELEKNENLKKLLAKCKRVHIIGLYSDGGVHSMDTHFKAMLEICAKNGNEVFA

HAITDGRDVSPKSGLNFIKDLKEFCENLGVHFATLCGRFYAMDRDKRWDRVKEYYECLLGKAYKVPNLLE

YLQKSYDENVTDEFIKAAQNENYKGMREEDGIIFINFRNDRMKQLVEVLNSKDFKEFEREKIFENLLTMS

VYDDKFKLPVLFEKEKIENTLAQVISKAGLSQLHTAETEKYAHVTFFFNGGKEELLENETRVLIPSPKVK

TYDEKPQMSAFEVCDAVKKGIEKGEDFIVVNFANGDMVGHTGDFNATIKAVEAVDTCLGEILECAKKHDY

AFIITSDHGNCEAMQDEKGNLLTNHTTFDVFVFVQARGVSKIKDNMGLSNIAASVLKILDLEIPKEMNEA

LF

>AHK51734.1 phospho-N-acetylmuramoyl-pentapeptide-transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYYLSDLSHYAFFTYISVRAGFAFFIALCLSLFLMPKFITWAKAKNASQPIYEYAPETHKTKCHTPTMGG

LIFISSAVIASLFCIKFDNIFAISALLCLILFCLIGLIDDLGKVLKKDNHSGLSPRMKLLAQIIAGLICI

LPLYFSSELSTELFIPFYKHPLFDMEIFAIAFWILVLISSSNAVNLTDGLDGLATVPGIFSLSTLGIFLY

LSGNLNYSEYLLLPKIQGLGEVVIICAALIGALMGFLWYNCYPAQVFMGDSGSLALGGFIGFLAVISKNE

ILLLLIGFVFVLETVSVILQVGSFKIFNKRVFKMAPIHHHFEKVGWVENKIIVRFWMIALLSNLLALASI

KLR

>AHK51733.1 UDP-N-acetylmuramoyl-L-alanyl-D-glutamate synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKISLFGYGKTTRAIAENLVDKFGPFDIYDDHFTETKKDTLGNLLLNPNDFDDNLSDIEIPSPGFPPKHK

LIQKAKNLQSEYDFFYDIMPKSVWISGTNGKTTTTQMATHLLSHIGAVMGGNVGTPLAELNPYAKLWILE

TSSFTLHYTHKAKPEIYALLPISPDHLSWHGSFDNYVQDKLSVLKRMNECDVVILPKIYANTPTKAHKIS

YEDEKDLAVKFGIDTEKISFKSPFLLDAIMALAIEKILLDTLSYKLLNSFVMEKNKLEELKDSQNRLWVN

DTKATNESAVMAALSRYKDKKIHLIIGGDDKGVDLSNLFDFMKGFDIELYAIGISTEKMLDYAKKANLKA

YKCEVLSKAVNEISNHLRVNEVALLSPACASLDQFNSYAERGKVFKECVNKI

>AHK51732.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKAFSLLEFVFIILILGIVFNLGSLYLKKDNLLEGAIQILNDIQYTQSLAMMQEGIRVDELTIAKREWF

KSKWQIYFIKSAATGYDQTYTIFLDKNGDGNANLGKTEINIDREIAVDVINHNKLMNSGQSGVISKDDEK

TTQRFNLTKRFGIEKVEFKGSCSGFTRLVFDEMGRVYSPLKNANYAYEKTLAKNNSDCIIRLLSKKHALC

IVIDTLSGYVYIPDFKTLKSQFVNIKNKNYECSKI

>AHK51731.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKIKNYKLIIILLSLDLLALLYGTSTLSISADEADIYFGEQGKSLIFSHSLLYYISHFGTFIFGQNDFG

LRLPFLFFHFLSCLLLYLLALKYTKTKIDAFFSLLLFVLLPGTVASALLVNAASLVIFLTLAILCAYEYE

KKWLFYILLIIVLFVDKSFNILFLTFFFFGIYKRNAILFTLSLVLFGASISFYGFDTGGRPRGYFLDTLG

IFAACFSPLVFVYFFYTIYRLTFQKYKNLLWFLMSVTFVFCLLLSLRQKLFLDDFLPFCVICTPLLIKTL

MQSYRVRLLVFRLRYKIFIECSIIFLIFCYFLIVANQLLYYFINNPNRHFANNYHFAKELALELKKQDVL

ELATAPSLQKRLRFYGIKNSNKFYLKALKQADKHDMDKKIVKVKLGKYEKVYQILNYD

>AHK51730.1 phosphoenolpyruvate carboxykinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQTIDQIFQTQIDIKKSTFLSFLCPFKDFKFLIETLKKEHPKAVHFVYAYRVLNDFNQIVEDKSDDGEPK

GTSGMPTLNVLRGYDLINAALITVRYFGGIKLGTGGLVRAYSDAANAVINNSSLLSFELKKNTTIAIDLK

NLNRFEHFLKTYSFNFTKDFKDCKAILHIKLNEKEEQEFEIFCKNFAPFEIEKL

>AHK51729.1 hypothetical protein N916\_02095 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQVNYRTISSYEYDAISGQYKQVDKQIEDYSSSGDSDFMDMLNKADEKSSGDALNSSSSFQSNAQNSNSN

LSNYAQMSNVYAYRFRQNEGELSMRAQSASVHNDLTQQGANEQSKNNTLLNDLLNAI

>AHK51728.1 hypothetical protein N916\_02090 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKFRIQYSAGFGHYTQNHKGFGPTIYIEEVVEFDNGKDYFDYIDFYKTYSKSDDTYFHISFLEDRPLSD

KEITIRNEYRKMRDENCKKAKEEFIANNELDVEHLPTHHD

>AHK51727.1 ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVEVKNLTMRFANQLLFENVNLKLVRGQRYGLIGANGAGKSTFLKILSGEIESSSGEIVFDEGLKIAVLG

QDQFAFENYTIKDAVMCANKRLYEALKEKEKLYMSEEFTDEINERLGELEIITAEEDPNYDCETRCEKIL

SSLKIKDFDALMSTLQSADKFKVLLAQVLFLGADALFLDEPTNNLDLEAISWLENELLRHEGTLVVISHD

RHFLNKICTRILDVDFKQIRDFAGNYDDWYMASTLLAKQAELKRDKTLKEREELENFIRRFSANASKAKQ

ATSRAKALEKLELEEIKISSRRDPSIVFRTNREIGNEVLEIKGIGKAYDKQLFSNLELKIEKNDKIALIG

ANGVGKSTLAKIIAHAISPDSGSIHLGATIELGYFPQDTSNLICENLKLYEWLMSEKFKDLDEIRKCLGR

MLFSGSDQEKMAASLSGGEKHRLMLSRLMLERPNFLLLDEPDNHLDLESIIALGEALYNFKGVVLCISHD

RELVSAFANRIWHLENGKLTDFRGTYQEFLGENDG

>AHK51726.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEGASGGSIFVTILLFILYMLPAIIGLSRKHSNWLIISLLNLFFGWTIIVWLVCLIWSFTGSFKQTIIIK

EKNEK

>AHK51725.1 transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTKKSKRDMAYELDIDVSTLYNWRKYKPNLYRIVMLGFKFDELLDNSKKTHEELLHIEQTIQDEIAKFK

>AHK51724.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFLLDFLISLSFIFEISALVLSFYFKNSKIFFLTLVLLGAKLPYFYTSFFQANLFVALFLPMIFTLFCVG

KHHVLILNKKNIASITTLIFIGILSIILPRNTTFNSAGLEFHFIALDFFKPVSELGFLFFLVGLILIFIK

TFKTKEYYLLIAFFTAYFQFLFQEGAGIRYFEFASLVFCFYLLNHAYRLAFFDTLTKLPNEKSLTRFTKG

KNNYIIALLHFNELKDTKESYTKLILKQIAKILKRFRAKIFIVENDFILIFNDKNQALNHLAFLESTLKN

TEFNLENENFKPDFKLIWQESEENLDKNLQSLRARLLD

>AHK51723.1 hypothetical protein N916\_02055 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKVLLSSLVAVSLLSTGLFAKEYTLDKAHTDVGFKIKHLQISNVKGNFKDYSAVIDFDPASAEFKKLDV

TIKIASVNTENQTRDNHLQQDDFFKAKKYPDMTFTMKKYEKIDNEKGKMTGTLTIAGVSKDIVLDAEIGG

VAKGKDGKEKIGFSLNGKIKRSDFKFATSTSTITLSDDINLNIEVEANEK

>AHK51722.1 histidine triad (HIT) protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIYENDLIYIEKEEAQVPWLKIFTKEIYKEFSDCPLELQKELFEKILFCEKAMIEFYKPEKINIASFANY

VPRVHFHVMARFKEDAFFPECMWGKQQRETIKLDLPKFEEFVKFLNSKIF

>AHK51721.1 hypothetical protein N916\_02045 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQISSSYNSYDYYSSKPSFDKTNQSDSTQKDEKNLSENKDDKEKNGEQTQMVNGVELSQKEVAQVRELQS

IDRNVKAHEAAHQAAGGGLAGAASFTYTRGPDNQMYATAGEVPISMQKGNTPEETIANARQIAAAAMAPA

DPSPQDYKVAANATKMEFEARAEAMKLKAEEAKEKEEENKEKDDKNSENSLEKTDKDSKNNDKNSNFDKD

FKNLVTRTYQQNSQNNDIKFSIAS

>AHK51720.1 GMC family oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAEVLKKVDVVTVGAGWTGGIVAAELTKAGLNVLSLERGHMQSTENFNYIHDEWRYGINYGLMQDCSKDT

VTFRHDPSGLALPYRKMGSFLLGNNVGGAGVHWNGWTFRFMPYDFEIQTLSKQRYGNKLGNDYTLQDWGV

TYKDMEPYYDRFEKTCGVSGEPNPLAEKMGAFRSSPYPQEPLENTKMLKRFESAAKSSNLHTYRLPASNS

KGGYTNPDGQDLAPCQYCAYCERFGCEYGAKASPLNTVIPKAMSTGKYTIRTYSNVTQILKKDGKVTGVK

FVDTRTMKEYIQPADIVVLTSYMFNNAKLLMVSNIGEQYDPKTGKGTLGRNYCYQMNMGTTAFFDEQFNT

FMGSGALGTTSDDFNGDNFDHSKEKFLHGAMIYSVQLGTRPIQSAPLPAGAPTWGAEFKKALNYNFTRAI

TVGGQGASLPHKNNYLSLDPTYKDAFGMPLLRLTYNFTDQDRALHKFITDKTAEVAKRMQGVKSIKKGAY

LKDYSVVPYQSTHNTGGTTMGADRETSVVNTYLQHWDADNLFVVGAGNFQHNSGYNPTDTVGALAYRCAE

GILKYHKSGKSLA

>AHK51719.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQDNIIDRRSFFKLGLLGGSVVAASTIGGGAVLKAAELTHSHQASQGKSNKIRGRMFFQTQTEFDTLSAA

CERIYPKDEQGEGAIGLGVPYFIDNQLASAYGYNDREYMQGPFMEGKAEQGYQTPMQRKDIFLEGVHALE

ENAQKRYKKSFSLLKGGDQDKILSDFEKGKIQTTGFKSSYFFTLLRDMTVAGVLADPIYGGNDNKNGWRM

MQYPGAQMSYVDKIASDEFFNIEPMGLADMES

>AHK51718.1 hypothetical protein N916\_02020 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRIFLTLFLFFNSLFALSELEEGLKLYEANKFDKAYEIFKSLCEKDISKACFSLAFMHESARGVSKDLNQ

AYKFYDKACKLGLANACSNMALLLQNQGYENEALLAFNKACTLGESLSCNNIALFYEKEKDGQMASSFYK

RSCDLKNARACYQLGSLYDKGELVKASVKSALAFYSKSCTLGFGEACYLLGRYNQLEKQDLTKAKRYFGM

ACDQKHQEACAAYKELNSKDIELY

>AHK51717.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQINLLNDFIKAYENTYSVSFDDSFKGRIQELCKELNEPFMHASYALENELKELVFSLDKNVNIAIIGQF

SSGKSSLLNLILGRDCLPTGVVPVTFKPTFLRYAKEYFLRVEFEDGSDIITNIEKLAFYTDQRNEVKQAK

SLHIFAPIPLLEKITLVDTPGLNANENDTLTTLDELKNIHGAIWLSLIDNAGKKSEEDAIKANLELLGEN

SICVLNQKDKLSAEELDNVLNYAKSVFLKYFNELIAISCKEAKDEQSYEKSNFQSLLDFLTQLDTTVLKE

KFVKRKILNLCEILEDENQLFVGIFDRLLNQFQSYEKHLLLAYENFLKEIEILNHQILEQLKSISERISS

EIFASVKEKDAYFYKESKGFLKKDLYTRYDYKAPYISSDDAFLAMFYNSDVMSKEFKKIKNELYKSFEEI

KMKLKDFINILEREILLFKAEFSNIQKDHIFQSDKNFSELRAFCNASDEYFLKDFKELLFKSILELDLFF

EKLNLKAFTNYENATKLSLAFFSRKINESRVLYELDSSEFVLFYPKKSEIYERVLNELNVYEFETLLINK

PILTKIAKNFLEQSQNLIQEKNKFLDLKKAELQKRRAQILNVRESIKED

>AHK51716.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKELFQKIWQNELQFLNFDAKFQDKSKLDTAECAIILSVNKDNYERYFLLKEFQELCKKIDLRVDIFSMQ

NAQICILNLFKSGFISKQDLLKALKILEKISKNTEIFDFILQEKVQSIDQKALFQNDFKELNTINLELQK

LSFDENLKSRLQKTLEKFQNLEFNIAITGVMNAGKSSLLNALLKEDFLGVSNIPETANLTVLSYGKSEEA

KIYFWDKKEWQNILESSHFNADLKEFIDKLDKSVNIEDFIKDKPLIQNIALCELKNFSSAKNKISALIKK

IEIKSHLEFLKNNISIVDTPGLDDVVVQREIVTNEYLRESDFLIHLMNASQSLTQKDADFLVHCLLNSRL

SKFLIVLTKADLLSKKDLEEVIVYTKESLKSRLVDLDENLVEKIDFLCVSAKMASDFYKGLASKESLQKS

GMQEFENYLFNELYAGEKSKIALRAYKKELHLELKNILSEYEMQNRLIKENKQGVSEENQKLLLELQKQN

TLLKEAQDEISNSIAKLKNIDSGIDNLVLLLAKKLKERLIDEFKYLKNNAQKLNLSRILNIVDITTKDGI

NDILREIKFENIKKIEELKTNLSLKYDFLKDDFDNGFEGFKDGISKNIDSIFQSEKFALLRLKIEKLSNL

KSDLYELETNLDTVIFDTFKEFKMSEILNSLNINGAFFEFLNDKLKHYEKNQKSKLESLEKVLQSLKNQD

ANILNSFEENLEKIEKLKQLEMGLLNAD

>AHK51715.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSRKLTIKAFKYNPLSKISKPHFVTYELEETPFMTVFVCLTLIREKMDADLSFDFVCRAGICGSCAMMIN

GVPKLACKTLTKDYPDGVIELMPMPAFRHIKDLSVNTGEWFEDMCKRVESWVHNEKETDISKLEERIEPE

VADETFELDRCIECGICVASCATKLMRPNFIAATGLLRTARYLQDPHDHRSVEDFYELVGDDDGVFGCMS

LLACEDNCPKELPLQSKIAYMRRQLVAQRNK

>AHK51714.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNIQYSDALVIGGGLAGLRAAIEVAKSGQSVTLLSICPVKRSHSAAVQGGMQASLANGAKGEGDNEDLHF

ADTVKGSDWGCDQEVARMFAQTAPKAVRELAAWGVPWTRVTKGPRTVVINAQKTVIEEKEEAHGLINARD

FGGTKKWRTCYIADATGHCMLYGVANEAIKHQVKIIDRMEAVRIIHDGKKCLGVIARDLTNGQLIAYIAR

GTMIATGGYGRIYKQTTNAVICEGTGAAIALETGLCRLSNMEAVQFHPTPIVPSGILLTEGCRGDGGILR

DVDGYRFMPDYEPEKKELASRDVVSRRMMEHIRKGKGVKSPYGDHLWLDISILGRAHVEKNLRDVQDICK

TFNGIDPADEGPKGWAPVLPMQHYSMGGIRTKPTGESQWLNGLFACGEAACWDMHGFNRLGGNSCAETVV

AGMIVGDYFADYCKNNGEVIDTNVVKDFLTKEYQYLKSLVDKEGKHNVFEIKNRMKEIMWDKVAIFRTGE

GLKEAVDELEKLYKDSQDVKVHCKELDCANPELEEAYRVPRMLKIALCVAYGALLRTESRGAHYREDYPK

RDDLNWMKRTNTFWVEGETLPRIEYEELDIMKMEIPPAFRGYGAKGNIIENPLSEKRQAEVDAIREKMEA

EGKGRYEIQNALMPYELQAKYKAPNQRIGVDYE

>AHK51713.1 fumarate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRELIEGYLGKSIEGKKSKMPAKLDFIQSASGLFLGLFMWVHMLFVSTILVSEDFFNSVVHFLELKFVYD

NPVMSYLTSFLAACVLVVFFVHALLAMRKFPINYRQYQILRTHSKKMNHSDTSLWWVQAFTGFIMFFLGS

AHLIFIVTNADKISGDMSGDRVVSHFMWLFYAVLLVCVELHGSIGLYRLCVKWGWFEGKNVKESRKKLKT

AKWIISIFFLVLGVLSLAAFIKIGYENYQNQTQTTAMIKNYNGANYEYTI

>AHK51712.1 prolipoprotein diacylglyceryl transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEFWQHIYSNFNVIAFSIFGLKVHWYGIMYVIALLLALLLAKFFVRKFQLDINEKHLDSYFIWVEIGVIL

GARLGYILIYDANTMYYITHPWQIFNPYINGEFVGIRGMSYHGAIIGFLIATLLFCKKYKTNPWIFLDLV

ALSVPLAYVFGRIGNFLNQELFGRITNVPWGIYVDGVLRHPSQLYEAFLEGIVVFIIVYLARFKQSFQGE

LILVYAGAYSLARFICEFYREPDFGIGFVLWGMSMGQILSFIMFITALLVYICIKFKKVNI

>AHK51711.1 hypothetical protein N916\_01985 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKYILLASSMLILAACGGTSSNFVNVSMPNFKPQVPTKVEPIDSGVSIALVPINIEQNNNYSDYFENSV

LKIRIEKEIDLLKQNLEEQIKTIAQLKGYKIVTTNPDYTLKSSISIYTEEKNVQKTSNFMSGDYVKSNLG

INFKGKIDFIDAHNPQNSTNLSSSTKLDSLVALNYPIKNDDGVNMFKTTISTVPTQLNKGLEQPAFEIDK

SFLAFYKNTLNTLYNNLPKATDIGKTIPNTNSGFNSFDGDATFEESLPQTNSNQNNTIENAPTQNIPTNP

SSTNQNNQSKNQDGVEIFE

>AHK51710.1 shikimate 5-dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFLAVIGDPISHSKSPRMHNNAIKALGLDSIYTRYHLRNANCLREDFFKLGLSGANITLPFKEKALDIA

DVKDDFARNIGSANTLCLKEDKIYAYNTDALGFLEAIKDFDNIKKALILGAGGTALALAYVLKQKGVEVY

IANRSKERFKDFLAYPTYLYKNLQDFDFDLVINSTSAGLKDENLPCDRELLDRILPKAKFAFEVIYGRET

PFYRLCKEYHLKIKDGLDMLLWQGVFAFELFFEIQDKREMIKNAMQQALILK

>AHK51709.1 ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MISPMDMSLIKIIGDHYYIRRDKIVNKITHRGRLFFDKFERVDAPLNLNVMREHAAKKIVVAHDLITKDN

KVENIVFDYNGFNAERFYHRAQLILREEGFINFTAYKTKTPGHLHLYIHKGHTALNEGYSLASKLSMMFA

SKMPVEWKVFPSMDVPREFNILILPYEVYQKERGSSWSKHM

>AHK51708.1 serine hydroxymethyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSLEMFDKEIFDLTNKELERQCEGLEMIASENFTLPEVMEVMGSILTNKYAEGYPGKRYYGGCEFVDEIE

TLAIERCKKLFNCKFANVQPNSGSQANQGVYAALINPGDKILGMDLSHGGHLTHGAKVSSSGKMYESCFY

GVELDGRIDYEKVREIAKKEKPKLIVCGASAYARVIDFAKFREIADEIGAYLFADIAHIAGLVVAGEHPS

PFPYAHVVSSTTHKTLRGPRGGIIMTNDEELAKKINSAIFPGIQGGPLMHVIAAKAVGFKFNLSDEWKVY

AKQVRTNAQVLANVLMDRKFKLVSDGTDNHLVLMSFLDREFSGKDADLALGNAGITANKNTVPGEIRSPF

ITSGLRLGTPALTARGFKEKEMEIVSNYIADILDDVNNEKLQENIKQELKKLASNFIIYERAMF

>AHK51707.1 lysyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFDNILEQQRIEKAKELKNLGINPYPHFLEKEMSLKTFKDKFSYILEQVEKRDESVNAVVAGRLKLLRIA

GKSIFANIEDEDTNLQIYFSKDSVGEELYTILKKNLEVGDIVLVKGFPFVTKTGEFSLHASEVKLATKAI

VPLPEKYHGLTDIEQRYRKRYVDMIMNVEVRKDFLVRSKVVSLIRHFFENKGFLEVETPMMHPIAGGANA

KPFVTFHNSLGVERFLRIAPELYLKRLIVGGFEAVFEINRCFRNEGMDLTHNPEFTTIEFYWAYHNYKDL

MDLTEELFALLLDKLNLGKTIEFDGKMINFSKPFERITYKDALCKYGGLDRDLIEDKEKILTKLKADGFE

ANEKLELGHLQAELFDNYVEEKLINPTFVIDFPISISPLSRRSDEDSQIAERFELFICGRELANGFNELN

DPLDQYERFLKQIEAKNAGDEEACEMDEDFVNALGYGMPPTAGQGIGIDRLVMLLTNKKSIRDVILFPAM

RPLKSELKEKE

>AHK51706.1 Fur family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLIENVEYDVLLERFKKILRQGGLKYTKQREVLLKTLYHSDTHYTPESLYMEIKQAEPDLNVGIATVYRT

LNLLEEAEMVTSISFGSAGKKYELANKPHHDHMICKNCGKIIEFENPIIERQQALIAKEHGFKLTGHLMQ

LYGVCGDCNNQKAKVKI

>AHK51705.1 colicin V synthesis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFYWFDAFILGFTLLLGLKGIINGLIKEIFGLLGIIGGVFIASKYATQAAEFIQSTFYKIENQSLAGFA

GFLAILIIFWIACLLAGNFLSKLIKLSGLGFLDRIGGFIFGGAKIFLIFAILVFCVARIDFLNDKLDNFA

KNSYTLNLLKETGSFIMNQPLTENSLDHASEKLQDIVSDLNNTQKGE

>AHK51704.1 glutamyl-tRNA amidotransferase subunit C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIDEKLLSKLEKLSALQITKNRNETIAQLSEIVNFVEKLNELDLDSQEITVSTIKGGAPLRIDEIRNSN

VIDEVLDCAPKKQEHFFVVPKIIE

>AHK51703.1 hypothetical protein N916\_01940 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGLKDNLKAVKNELNTEEQFIENFIKGERFIRKYKFYISAVVIILVAWFAGNFIISKINDYKTKEANEIY

ANLIQDPSNKNLLEQLKNKNTNLYAIFLLKENINDFNNTTLQNELKQIYNNAQTNTLLKNIIALSLGDKS

IFLKNYDKLLEAYKLLEQNKIEEANVLLSQIKENSSLNQIAKNLKHYQGITQ

>AHK51702.1 hypothetical protein N916\_01935 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIFLTLFCLIFLCACGTKRQYFEPKQTDGDLSHNSNLKSKIVDWNLVSAKLSNNTTILKNNISIDKFK

LPKNYMLLAYQDGEYFTADNNGNLKIFDNSYNEIYNFQFDASVVGVASNGDDLALVLANNTIVLANRSLG

IKFSQTLTSAPAQDSRTANPIFLDNIIVYPTLDGKILILSRNNLQIIKDVVISAENFFNNVIHLSVIGDK

LIAATAKKIIVVSPARTLYLDADIKDVALSDDGIFILEKDGTIIKTDYNLRKIAEKKFEFAIFVKSNIYN

NYLYIFEKTGYLIKMNLNLDNAQVFKLSEAVDKISFMGNGKFYYGDKILDLL

>AHK51701.1 tram-like protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKILEQTIKALKLNLKPYDLSMLTRKKSYICAKDQNNILFMYTGKTKFLMKDALFLENLAQQININNKY

FFSMASLCSKAKNHLEMKGFNIYVAL

>AHK51700.1 pantothenate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLLCDIGNSNANFLDDNKYFTLNIDQFLEFKNEQKIFYINVNEHLKEHLKNQKNFINLEPYFLFDTIYQG

LGIDRIAACYTIEDGVVVDAGSAITIDIISNSIHLGGFILPGIANYKKIYSHISPRLKSEFNTQVSLDAF

PQKTMDALSYGVFKGIYLLIKDAAQNKKLYFTGGDGQFLANYFDHAIYDKLLIFRGMKKIIKENPNLLY

>AHK51699.1 malate:quinone oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSQQEFDVLVIGAGISGAALFYELARYTNIKNIALIEKYNTAATLNSKGTSNSQTIHCGDIETNYTLEKA

RKVKRTADMIVKYGLMQNAQNNFMFSHQKMALAVGDIECDYMKKRYEEFKELYPYIKFFDKAKIKQIEPK

VVLGEDCNQDRPENICAMGVESGEVFTTVDFGKMSINLIEQAQKQNKNTFVAFNQEIIHIEKKDDIFILK

TSNHQEYHAKSVVVNAGAHSLYLAHKMNLGMDKSCWPVAGSFYLTKQKLLNGKVYMVQNPKLPFAALHGD

PDLLADMNTRFGPTALVIPKLERYHGLKSVPEFFEALKLDKTVLKVTFNMFKDATIRNYIFYNYLFELPF

VDKSLFVKDAKKIVPSLKASDIYYAKGFGGVRPQVIDKTKGELMLGEASITETPGIIFNMTPSPGATSCL

GNAERDAKLVCNYLGMEFNEDKFSSELL

>AHK51698.1 pyruvate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKKTKIVATVGPASEKEEILRQMIINGVNVFRLNFSHGTHEYHKKNLDTIRRVAKELHTRIGILQDISG

PKIRTGELKEPFELKKGDRLDFYRETILGEKIAQNHYKISINQKSILDMLKIDEYIYLYDGSIRAKVVNI

DNQKIETIIENDGFLNSNKGINFPNTKINIDVITQKDKNDLLWGIKNEVDFLAISFVQNAHDIDEVREIL

AQNNAKISIFAKIEKFDAVENIDEIIKSSDGIMVARGDLGIEVPYYKVPNIQKEIIQKANNASKPVITAT

QMLFSLAKSKTATRAEISDVANAVLDGTDAVMLSEESAVGIDPANAVDIMCQTIIETEKRYPYNKFNDFN

DLDNTDKIMRSSAHLATDLNADAIFSLTSSGKSAIKIARYRPNIEIIAVGHSEKTLNSLSIVWGVNPAIL

VNKSNELTELLKDSVRSSVEKGFMDEDKCYLLTAGFPTGVEGTSNLIRILNKEQIAYYLQ

>AHK51697.1 hydrogenase-4 component G [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQVNTFSNIASMARTQVSNKKADDAKENTKDKNVQSANSSKDVDKNTLEKLNALGGKGITQIYLVQFQQQ

TMNAVIGSSNAQTGLDSLLNGANLDTAKSILTNIDFASLGYSSKNPLDMNTDELQQLVSEDGFFGVENTA

NRIADFVIKGGGDDVEKLKKGLEGMKKGFEQAEKMWGGELPQISQNTIDAALKKVSDRIDELGGKTLDLQ

A

>AHK51696.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAEQEDIILEKPEDGLNQPRLDESLEGFKGQEGQAPEDEEFASLPEELPQENSESGFKFTRESAPEDVST

FEEVESQEPTPWYKDRKFMSLVGLSLGIICILVFTLFYLTFSEGKIKPDIIASKPLEQPVIMPDESYKYN

DMQRIDGMIQKANALYLKGEVEQALKVYEQVAVYNESLSNYNLGVSQMNENKFQEAFESFKKAIANGENQ

SVAAINAAVCALKLNDKEKFRYYIDLAQVYLPKEGKSKLYDYYLSLINYYKGYYPEALQMLQRTDVEPYS

DVAKYLSAKIYAKMDFDSKAIQQLNSQGNFESSLSLGLLYARIGEYAKAKVALSTAMKIERDFNQSLAAL

TLVDIKTGNYQDMLARLQNSYDNDKDRYKILDTYKIQVRLNKDLFNIAVAQNSFSKDLLKKQKDQFDLLF

YFAPYQVFDSKQAALYIKKANVTDFVDDSTDAGIYLNISKALSSTNVKIANIINYALNQKLRLANQEFQK

LIKDYPEHSILHYNLALTYAQMQNYELAYKHFSSSYHLNPKNYLAGAFAMFCAKLIDIDTTKLYNEILDN

IAADSNFKANMQKSMLFLVNNNYISMLPYLDETKKDTPLSLIFEAIVAKNNNLNNQVDVKIAKLRSELPE

DILANILYFNSLNSNLNIKEYAQNAQIHFKNLKLDYRSVFGGPNIAREFYVNLMHIAGLLNLERQKFKEL

INVSGAKDEGILQTLAYLDIFAQQYEEAYALYNSLIDDYGAKDTKTLFLAAVAAVGANNPNSAIALLQLS

KLTDKNNKESKAALGMLYQEVKNYEAAISQYKTLPNNFKSEFFTFDINNN

>AHK51695.1 seryl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLDLKNLQNNFDEVAKKLKNKKVDENILKKLAELFASLKKEKIALEEFQAFQNKFSKELATAEDKESLKA

KLSENKSKINEQSAKVNALENELEEIAHAIPNIPDECVPVGEDENENVELKKVLNPPSFDFTPKEHFELG

ESLNWLDFMRGVKISQSRFCVLKNEGALLSRALVNYMIDFNRSRGFEFVNVPFLVNGATMFGTGQLPKFK

EDMYKVDDEDLYLISTSEIPVTNLYSGEILASETLPIKMTCYSACFRKEAGSAGRDTRGIIRQHQFEKVE

LVSITKPEQSDSVFNEMLECASDLLSSLGLAHRHLMLCTGDLGFSAAKTVDLEVWLPGQNKYREISSVSN

CRDFQARRAKIRYKNEQGKNELVHTLNGSSLAVGRTLVAIMENYQDKEGKIHIPDVLKKYF

>AHK51694.1 tryptophanyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRVLTGLQPSGDLHIGNYFGAIKQMVDAQEKSQMFMFIANYHAMTSSQDGEKLKQNSLKAAAAFLSLGID

PQKSVFWLQSDVKEVMELYWILSQFTPMGLLERAHSYKDKVAKGLSASHGLFSYPVLMAADILLFDTRIV

PVGKDQIQHVEIARDIALKVNNEWGEIFTLPEARVNEEVAVVVGTDGAKMSKSYQNTIDIFSSEKTLKKQ

ISSIVTDSTALEDPKDHENCNIFKIAKLFLDESGQKELQIRYEKGGEGYGHFKIYLNELVNAYFKEAREK

YNELLEKPSHLKEILDFGATKARKIAQEKMQKIYEKIGL

>AHK51693.1 shikimate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKAKNIVFIGFMGSGKSTLARALAKDLDLVFLDSDFLIEQKFNQKVSEIFEQKRENFFREQEQKMADFFS

SCEKACIATGGGFVNVSNLEKAGFCIYLKADFEYLKKRLDKDEISKRPLFYDEIKAKKLYNERLSKYEQK

ANFILNIENKNIDELLSEIKKVIK

>AHK51692.1 GTP-binding protein Der [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQSIILIGKPNVGKSSLFNRMARQRIAITSDISGTTRDTNKTQIHIHSKKAMLIDSGGLDESDELFKNVK

KNTLKVAKESDIILYLVDGKLAPDDEDRQFFYSLKKLGKPIALVINKVDNKKDEERAWEFANFGVKEIFN

LSVTHNVGLDELYEWLEKFLHEEFLIPDEEENLEDFLEYYEEGKEFQFKEVDQNHIRVGIVGRVNVGKSS

LLNALVKQERSVVSSIAGTTIDPVNESVVHKDKVIEFVDTAGIRKRGKIQGLERFALNRTEKILSHSQIA

LLVLDAHEGFNELDERIAGLVAKHYLGVIIVLNKWDKSEMDFDKTVKELRLDRFKFLAYAPVISVSALSG

KRVHVLLDKILQIFENFTQKIQTSKLNTLIENATRAHPLPHDYGKLVKIYYAVQYDLAPPKIALIMNRPK

ALHFSYKRYLQNQIRKEFNFEGVPLVIASRKKGSKENDES

>AHK51691.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKVIKHNLGIYFMILACLDFALMGACAKILSKEMSSIEIMFFRNIIGIFFIVYLLKRSKAHKEGGYFWL

LVFRGVVGTLSLYMFFYNVSNITLGGAFAFQKTAPIFITLIAFVVFKENIGIKGWIGILIAFGGVLLIAQ

PWVHNLNHSGFDLKNSVIGITSGFLAALALTSVRELRKSYTTEQIAFSFILLGTLMPLISMISAEFFEPQ

HLDSLHLDFILAPFVMPSLTAWLIIAIMGTLGTIYQIHVTKAYGIAKQAGVVAGVSYLDVVFSMIVGIIL

GDNLPSTMVFLGIIGIIFGGLILVKNKGKK

>AHK51690.1 2-dehydro-3-deoxyphosphooctonate aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKMILIAGPCVIESKDLIFKVAEQLKNFNENPNIEFYFKSSFDKANRTSINSFRGPGLEEGLKILQSVK

DEFGMKILTDIHESNQANPVSEVADVLQIPAFLCRQTDLLVAAAKTKAKINIKKGQFLNPSDIKYSVKKV

LQTRGIEDEGYEAAQRNGVFVAERGASFGYGNLVVDMRSLVIMREFAPVIFDATHSVQMPGAAGGSSGGK

SEFVEPLARAAAAVGIDGFFFETHINPCEALCDGPNMLNLTRLKNCVNTLLEIQNIIKENK

>AHK51689.1 6,7-dimethyl-8-ribityllumazine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNIIEGKLNLDSNTKIAIINARFNHIITDRLVEGAKDAFLRHGGKEENLSLILVPGAFELPYALKKAIES

KKFDAICCVGAVIRGSTPHFDYVSAETTKGIANVSLNHNIPVSFGVLTTDTIEQAIERAGSKAGNKGFEA

MTTVIEMLNLSKEL

>AHK51688.1 transcription antitermination protein NusB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MATRHQVRQSVISLLYAFELNSQNNVFVDEILDEKKIRNEQKNFTLNLYNGILDNLNNIDETLNSFLNDN

QITALGHVERAILRLGAYELLFTDTPSAIVINEAIELAKELANDNSPKFINGVLDALIKAKK

>AHK51687.1 orotidine 5'-phosphate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLCVALDLSTKEECLQLAKELKNLDIWLKVGLRAYLRDGFKFIEELKKVDDFKIFLDLKFHDIPNTMAD

ACEEVSKLGVDMINIHASAGKIAIQEVMTRLSKFSKRPLVLAVSALTSFDEENFFSIYRQKIEEAVINFS

KISYENGLDGMVCSVFESKKIKEHTSSNFLTLTPGIRPFGETNDDQKRVANLAMARENLSDYIVVGRPIY

KNENPRAVCEKILNKIHRKNISENDIEQNYEVIQQKEWDMCNHFEEWIKTRPDKEHALKEFYAKCGIKY

>AHK51686.1 sulfoxide reductase catalytic subunit YedY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLITPEKLYKQRRNFLKLGAGALISSSVLASKLSALNFTSDTNPNKLEISDEELATNYVNFYEFSTDKRK

AVSLAQNFNTQNWKIDISGEIEKPLTLSMEDILKFPLEERIYRFRCVETWSMVVPWVGFELRRLIEMAKP

TSEAKFVKFTTLLDKSQFPDQDALFPTIDYPYVEGLRMDEAMHPLTLLAVGMYKKALKPQNGAPIRLVVP

WKYGFKSIKSIVKIEFTKEQPKSTWESYAPSEYGFYANVNPNVSHPRWSQANERALGDFFTKPTLMFNGY

EKEVASLYKNMDLKVNF

>AHK51685.1 ferric reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQTKYFKFLAYFSFIISLIYGFYHIIKAFDFVKEAYIYTGIFALIFLNLSLLFSLLKFKKTKNYPKILGI

FAAFWAILHFLNYFIFDRNAQILRLFDDISHRLLEAIGFIAFLIIFLMLLSSFKIFKKLSKIRKLGYLCL

ILASYHYFLTPKIPMFWEWSALIIALFYFIVRYTKTLKS

>AHK51684.1 hypothetical protein N916\_01835 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFFLLVFCFVNLALAKVYKGELHFYHLQDKEIFAIVYDNAPMTPLFDRDKNQTSSSFLIVDDINGNLEI

PLVKINDFWQDERKKYKINSSKMLTYDNKNFQGENLGTTTLELVETQDGIRIKRSLDFIGFNDDFKEFHP

VHKGVFSFEQIRQKPIFLQDGKISFEEWYYFYEDGMSRAILELNNFVYDINAHAFVKLNDLYNTENQKFQ

NLLHEKLKNTCDECFEDLQNLQFNNNFLLNNGKLKICYLPFEGHFLDENICVEFNEDELKEFKK

>AHK51683.1 hypothetical protein N916\_01830 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKHCLALCFVFFLCACSVKNQNFSSQSLMVLIASPMIKINDTAFLKKENNALNLEVYKLGQAFFELKIKD

KICINAVCYDKQVFNQKFFKNVYYDDILSDILKANPLWQGKNLEKTDCGFEQNLKAKNYEIFYQVCDNKV

SFFDKISHTKIILTHIQN

>AHK51682.1 hypothetical protein N916\_01825 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MASEHSFDISAALDKQELKNAFEQAKKELDSRYDLKGIKCEIDLSEKESIFKLSSSSEGKLDVLKDIVIS

KLIKRGINPKAIKELSRESGAMFRLNLKANDAIDSENAKKINKVIKDSKLKVNSSIRGEEIRVAAKQIDD

LQAVMKLVKELDLELNISFKNLK

>AHK51681.1 2-hydroxyacid dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIVCLDAATLGDYDLSVFEKFGSLQIYTTTNKEQTIERLKDANVAMTNKVVIDKDVIDACKNLKLILET

ATGVNNIDIEYAKEKGIIVKNAAGYSTMSVVQHTFAFMFAFLNQVLYYDKWSKEGKWCESPIFTDYSRIL

NTLSGKKHGIIGLGTIGKEVAKISKAFGAEIYYYSTSGANKNADFVHLELKDLLKTCDIISIHAPLNEKT

KNLLAFEELKLLKDNAILINVGRGGIVNENDLAKIIDEKNIRVGLDVLEIEPMMKNHPLLSIKNKENLII

TPHVAWASKEALNALMDIVYNNLKEWIENGK

>AHK51680.1 glutathionylspermidine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQLLQVDKLQKDYLENIGFSWHTDEDGSDYISNKLVCVKESEANAYYEAVNELYDMFIAAAQEVINNDRF

DELGIPFNLIDAIKMSWENEVHWHLYGRFDLAGGLDGKPIKLIEFNADTPTALFESAILQWALLKQNGMD

ESAQFNSIYESLMDNFKRLITLDESVEGFEEHYQGWKILFSSVAGSKEEEITTKLLAHIANEAGFQTNFS

FVDEVEFSEEGIFKEGENYEYWFKLIPWEDIAIEEGELAMLLTQIMRNQRAIILNPAYTLLFQSKGILKI

LWELYPNHPLLLETKDTPLEGKNYVKKPVFGREGANISIIKDGKTLHENVGPYGNNKAIYQEYVEFNSCE

NEYYQAGVFFAYEGCGLGFRKGGLVLDNYSKFVGHIIKD

>AHK51679.1 hypothetical protein N916\_01810 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIKKIIQIGMIGGLAAVAGGALAGCGSNNDNADTLNQAANAQGAFVIIEETAPGQYKIKDQYPSDETR

VVLKDLNGTERILSKEEMDALIKEEAAKIDNGTSNLTKDNGQISSGGLSLGETLLASAAGAILGSWIGSK

LFNNQNFANQQRGAFSNQSAYQRSVNSFNKAGTTSSASSAKKSGFFGGGSKATSSSSSFGS

>AHK51678.1 30S ribosomal protein S21 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPGIKVHPNESFDEAYRKFKKQVDRNLVVTEVRARRFFEPMTEIRKKQKISARKKMLKRLYMLRRYESRL

>AHK51677.1 4Fe-4S ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQGHITNYTKKRYFVYLIASIIIFSLPFIRINENHFFLLSFDHSKLNLFFISFSTQEFYLMPFVLIFLFL

FIFFITTLGGRIWCAWSCPQTIFRVIYRDIIQTKFLKIRKNINNKQKEYERQYFKKFLGVIIFYFISLVA

VSNLLWYFIPPEDFFNYIQNPGEHLLLLGILFCASLLFTLDITYLQEKFCVYVCPYARIQSVMFDHDTMQ

VIYDEKRGGLIYDGHTKLHKKPPEGECIGCEACVSICPTHIDIRKGMQLECINCLECADACSKVQSKFNR

PSLINWTSAKAIETRSKVHYLRFRTIAYFIVLLIALLALIIMGSKKESMLLNINRSSELYNISNVKGELV

ISNAYTFLFQNTDSKPHEYYFTANLEGINDGIEIIRPNKPFKLKAGEQVKKIVVIRATKNLANNDKKDVI

FPLHIKAYAKDNEKISVFRKSIFVYPKSTLIKDKNELK

>AHK51676.1 TetR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNSNRTPSQKVLARQEKIKAVALELFLTKGYQETSLSDIIKLSGGSYSNIYDGFKSKEGLFFEILDDICK

KHFHLIYSKTQEIENGTLKEILTSFGLAFIEIFNQPEAVAFGKIIYSQVYDKDRHLANWIENNQQNFSYN

ILMGFFKQQNNSYMKKNAEKLAVLFCTMLKEPYHHLNVLINAPLKNKKEQKEHVEFVVNVFLNGINSSKA

>AHK51675.1 hemolysin D [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLFQKNTILALGVVLLLTACSKEEAPKIQMPPQPVTTMSAKSEDLPLSFTYPAKLVSDYDVIIKPQVSG

VIENKLFKAGDKVKKGQTLFIIEQDKFKASVDSAYGQALMAKATFENASKDFNRSKALFSKSAISQKEYD

SSLATFNNSKASLASARAQLANARIDLDHTEIKAPFDGTIGDALVNIGDYVSASTTELVRVTNLNPIYAD

FFISDTDKLNLVRNTQNGKWDLDSIHANLNLNGETVQGKLYFIDSVIDANSGTVKAKAIFDNNNSTLLPG

AFATITSEGFIQKNGFKVPQIAVKQNQNDVYVLLVKNGKVEKSSVHISYQNNEYAIIDKGLQNGDKIILD

NFKKIQVGSEVKEIGAQ

>AHK51674.1 RND transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFSKFFIERPVFASVVAIIISLAGAIGLTNLPIEQYPSLTPPTVKVSATYTGADAQTIASTVASPIEDAI

NGADNMIYMDSTSSSSGTMSLTVYFDIGTDPDQATIDVNNRISAATAKMPDAVKKLGVTVRKTSSTTLAA

ISMYSSDGSMSAVDVYNYITLNVLDELKRVPGVGDANAIGNRNYSLRIWLKPDLLNKFGITATDVISAVN

DQNAQYATGKIGEEPVTQKSPYVYSITMQGRLQNPSEFENIILRTNNDGSFLRLKDVADVEIGSQQYSSQ

GRLNGNDAVPIMINLQSGANALHTAELVQAKMQELSKNFPKGLTYKIPYDTTKFVIESIKEVVKTFVEAL

ILVIIVMYMFLKNFRATLIPMIAVPVSLLGTFAGLYVLGFSINLLTLFALILAIGIVVDDAIIVVENIDR

ILHENEQISVKDAAIQAMQEVSSPVISIVLVLCAVFVPVSFISGFVGEIQRQFALTLAISVTISGFVALT

LTPSLCALFLRRNEGEPFKFVKKFNDFFDWSTSVFSAGVAYILKRTIRFVLIFCIMLGAIFYLYKAVPSS

LVPEEDQGLMIGIINLPSASALHRTISEVDHISQEVLKTNGVKDAMAMIGFDLFTSSLKENAAAMFIGLK

DWKDRNVSADEIAMELNKKFAFDRNASSIFIGLPPIPGLSITGGFEMYVQNKSGKSYDEIQKDVNKLVAV

ANQRKELSRVRTTLDTTFPQYKLIIDRDKLKHYNLNMQDVFNTMNATIGTYYVNDFSMLGKNFQVNIRAK

GDFRNTQDALKNIFVRSNDGKMIPLDSFLTLQRSSGPDDVKRFNLFPAAQVQGQPAPGYTSGQAIEAIAQ

VAKETLGDDYSIAWSGSAYQEVSSKGTASYAFALGMIFVFLILAAQYERWLIPLAVVTAVPFAVFGSFLL

VYLRGFSNDIYFQTGLLLLIGLSAKNAILIVEFAMEERFKKGKGVFEAAVAAAKLRFRPIIMTSLAFTFG

VLPMIFATGAGSASRHSLGTGLIGGMIAASTLAIFFVPLFFYLLENFNEWLDKKRGKVHE

>AHK51673.1 outer membrane channel protein CmeC [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNKIISISAIASFTLLISACSLSPNLNIPEANYSIDNKLGALSWEKENNSSITKNWWKDFDDENLNKVVD

LALKNNNDLKLAFIHMEQAAAQLGIDFSSLLPKFDGSASGSRAKTAINAPSNRTGEVSYGNDFKMGLNLS

YEIDLWGKYRDTYRASKSGFKASEYDYEAARLSVISNTVQTYFNLVNAYENENALKEAYKSAKEIYRIND

EKFQVGAVGEYELAQARANLESMALQYNEAKLNKENYLKALKILTSNDLNDILYKNQSYQVFNLKEFDIP

TGISSTILLQRPDIGSSLEKLTQQNYLVGVARTAFLPSLSLTGLLGFESGDLDTLVKGGSKTWNIGGNFT

LPIFHWGEIYQNVNLAKLNKDEAFVNYQNTLITAFGEIRYALVARKTIRLQYDNAQASEQSYKRIYEIAK

ERYDIGEMSLQDYLEARQNWLNAAVAFNNIKYSYANSIVDVIKAFGGGFEQSEDTSKNIKEESKNLDMSF

RE

>AHK51672.1 chain-length determining protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDKAKIVQNLNALFKQRAEFYSYFDENIAKINNTEVFDFKNAKNLNPEEVYKQFYHFDYAIRKLLPAIYK

AYEITDADLDKDF

>AHK51671.1 coproporphyrinogen III oxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLFQNLALKYSHTMMEKSLQKGFNVELLKQPEEKIPKQDKSYMLYAHVPFCHTFCPYCSFHKYYYDENL

AKVYFQNLREEIKIMKNKGFDFTSMYVGGGTTLIDEEELLKTLELCKKLFNIKEISCESDPNHIDPNKLS

MFKGIIDRLSCGIQSFDDETLKKVARYNKFGSSKELQEKISKALGILPIFSIDLIFNLPGQNEKQLLNDL

EIAKNLAPQQITTYPLMKSNLTKDNIAKSLGVSIKDNEFTYYQIIREFFKDYTQNNGWSFSLEKNKLNDE

YVSSHHEYLGVGSGAFSFLDGELLINAFNLNDYAKFIQEKQNANIAKACFDKKEIIKYVFLTGIFSGKIE

IDKFNKTLNCNLEKELFIELLGLKTSGAIIKDQNALIATEFGQYLFVVLMKDFYTGMDLVRAVFRDDKRL

KNKDYIDIMKENIDPLNSASMEFKAETN

>AHK51670.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTEWINDYYFWIKWVHYLAFVSWMAGLFYLPRLFVYHAEHKDNKGFVEVVKIQERKLYYYIQTPAMIVTL

ITGSLMLHAHKEVLMVGAGFMHVKLTCVTLLIIFHIHNYYCLKALANDTSTKSGKYFRIYNEFPTIMFII

IALMMVVRPF

>AHK51669.1 peptidase A8 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKTFKFIFYFWGAFVLVFALDQWVKSLTLAGFRWQSEYLDLTYALNTGVAFSMLSFLEHNLKYLHLALI

GVLFIYLFWQRTLLKTHSIAFGMMLGAGVSNLLDRFIHGGVVDMFFWHKWFNFAIFNVADVMINISVALI

LIQEIFKKRKKDDRMD

>AHK51668.1 phosphoglucosamine mutase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLFGTDGVRGKAGEFLDSFLAMRLAMAAGIYFKDKSITNNILVGKDTRRSGYMIENAIVSGLTSIGYNV

IQIGPMPTPAIAFLTEDMRCDAGIMISASHNPYYDNGIKFFDAHGNKLSEDIEKKIEEIYFDDKLIQASK

VDMEKIGQAKRIDDVIGRYIVSIKNSFPKDLTLKSLRVVLDVAHGAAYKVAPTVFKELGAEVIVMSDKPN

GLNINENCGALHPANLAAEVKRLRADVGFAFDGDADRLVVVDEKGEVANGDSLLGVLALYLKEQGKLQSS

VVATIMSNGALKEFLNKHGIELDTCNVGDKYVLEKLKANGGNFGGEQSGHIIFSDYAKTGDGLIAALQFS

ALMLSKKKSASSILGQVKPYPQLLTNLKIAEKKDLDKIKGLKELKKDLENKNINTLFRYSGTENLIRLLL

EARDIKLLEKEMKNVVEFFKKALNG

>AHK51667.1 cytochrome C biogenesis protein CcsA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVKSLLIASLVAFSSLNAASLIDEAKNSGLVALPKDQKGVDEILKQNGVKASEFTLEKAELGKKLYFEP

RLSKSGIISCNTCHNVGLGGTDGISTAIGHKWTANPHHLNSPTVYNAVLNNTQFWDGRAGTLADQAKGPI

QADPEMATPAKLAVEKISSLPEYVSEFKKIYGKSGVNFDNIADAIANFERTLITPSRFDKFLEGDEKALT

KEEQKGLKLFIDKGCVACHNGVNLGGNMQAFEVAGKYKFANLGDFKGDANGMVKTPTLRNVAETAPYFHN

GAIWNLKDAIKEMGSVQLGIKISDKEAKSIETFLKSLTGTKPAIVYPQLPISTEKTPKPEL

>AHK51666.1 glycerol-3-phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENLIIYAFIYLLGSIPFGLILAKFFAKTDIKKEGSKSIGATNVLRVVKEKNPKLAKKLAIATIILDFAK

AAIPLLTLKFLHYDQALLWSVAVLAILGHCFSIYLLFEGGKGIATGAGAMIVLLPLEVLTAFIVWVVIGK

IFKISSLASLAALLAFVVSSFIFNYDLEIHTHAPVFIIAFIIVYKHLPNIKRLIFKEECKVI

>AHK51665.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRILVIEDEISLNKTIIDNLNEFGYQTDSSENFKDGEYFIGIRHYDLVLANWTLPDGDGAELVNTIKHKS

PRTSVMIMSSKTDKETEIKALKAGADDFVKKPLDFDILLARIEARLRLGGTNVIKIEDLVIDPDEEKITY

KGQDIELKGKPFEVLTHLARHSDQIVSKEQLLDAIWEEPELVTPNVIEVAINQIRQKMDKPLNISTIETV

RRRGYRFCFPKKS

>AHK51664.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSLLITKDCVCCDACREECPDEAIYENSPIYVIDPDLCSECVNDFSEPACIVACPYECIIPDPDNVETIE

ELKLKHRDREF

>AHK51663.1 guanosine polyphosphate pyrophosphohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKKTAVVDLGSNSIRMVIFEKTSRYGFYTTCEYKRKVRLGENAYNNGKILQEEAMQRAEDALAFFKQCA

LKHKCKKIFIVGTSALRDAPNSKNFIKRIKDNLSLNIRCIDGKSESYLGGLAALNLLSPFKDGTTLDIGG

GSSELCLIKNNRIISCISLDIGTVRLKELFYDTGKMDSLEEFIKPILEQIPKEFCNQNLIAIGGSLRAIS

NSIMQKNSYPLKNLHDFRYMLDEEKGHILKIFNSNLDSLINFGIKKDRFDTIKEGIFIFLKIAEKIKAKQ

VITSGVGIREGVYLQDLLRPKITFPPNFNPSLKCLQDKFLQSKQKNKTPHFALQIFTTLKNLHKLNDNYK

HTLLNAAKLCHIGEYLNFYFANEHSAHFVLGGLNYGFSHKEKALIASIIKLNGKKVNPYNLEPYKQLLPN

IHTISWLNFILCLAKTLSANEDKIDFAFANNTLYIYQENKILNLPKDELKKIAKPATIALAINQKI

>AHK51662.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRLLVLFFLILPLYSVELISYNIYDRNDRVDLMLSFDNAYNGKISQKKEKNLTLLTFSDLTYSKDELKEL

NSQLVDKISISSKNNNTYIMLQNKQNINLELSSINDKFGVRIRAIEQGKANIESAPTTTANNSQELMPKP

KSTSLEGYDYTNYILVMLILVILLIVLWWFKKTMVYKNNNVSRDFTMIFQRFLDKNNQLVVFDHANKRYT

MIIGNSNVLLESIEIPEEQTIKHTEKTEKNFDSFFEENKKRIQNLIEQRQKGKKS

>AHK51661.1 flagellar motor switch protein FliN [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSDDIEFNIHHGLLQSYEDILDITVDFVSELGTTNMSVAELLKLEVGSVIDLEKPAGESVELYINKRIFG

KGEVMVYEKNLAIRINEILDSKTVLQYFKKEI

>AHK51660.1 hypothetical protein N916\_01705 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKILEYSITHFCEHILRLRIEAAQDISGELYGASIPIMGKSEGECNFYLFFPKEFLKKIAEILINDEKF

KEDDWCDLTKECANQIIGYAKNLLNDAKGDDEYKLGIPEYLGKVDFSEIVLDEALTYKFENCYFRIGYCK

>AHK51659.1 tryptophan synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVDFRKFYKENANVAYTVLGYPNLQTSEAFLQRLDQSPIDILELGVAYSDPIADGEIIADAAKIALDQGV

DIHSVFELLARIKTKKALVFMVYYNLIFSYGLEKFVKKAKSLGICALIVPELSFEESDDLIKECERYNIA

LITLVSVTTPKERVKKLVKHAKGFIYLLASIGITGTKSVEEAILQDKVKEIRSFTNLPIFVGFGIQNNQD

VKRMRKVADGVIVGTSIVKCFKQGNLDIIMKDIEEIFKK

>AHK51658.1 tryptophan synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKAYYGDFGGQFLPESAMFALNELEGAFLKFSKDKLFKKELNELLKTYVGRPTPLYFARNLSKKYQHEI

YLKREDLNHTGAHKINNAIAQALLAKKMGKKKIIAETGAGQHGLATATAAALLGLECEIYMGATDVQRQA

LNVYKMELLGAKIHAVQSGLKTLKEATTAAIQAWVGDIKNIFYVVGSAVGPYPYPKMVMHFQSIIGKECK

MQLQKLNKKVDYIIAAVGGGSNAAGIFYDFIKDENVKLIGIEAGGLGIDTPYHAATLNKGKTGIIHGMKT

KVLQDDLGNILPVHSVSAGLDYPGIGPLHAFLFESKRAQYHAISDEECMQALKLLCKEEGIIAAIESSHA

LAFLEKLCPTLKKKSVIVVNLSGRGDKDMQMIRDYKKGVIYG

>AHK51657.1 N-(5'-phosphoribosyl)anthranilate isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKLKICGIKDEKNAKDLAFLNIDFFGLIFAKSPRRVSLEQARNLSAIFHEKDKKVVGVFVDENLEQILR

CIKEAKLDGIQIYRTITKEEFEILKVQNVFVWQVISVENSLDLKSEIFANLVLFDAKGILKGGNGISFDW

TLLGSYTKDFILAGGIGLDNVHKAVKTGAKILDLNSKLEDEKGLKDINKIKQILKELKK

>AHK51656.1 anthranilate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MILLIDNYDSFVFNVKSMLEQLSNDEILVRRNDAISLSEIKNLNPTHIILSPGPKHPSQSGICLEIFKAR

LNIPVLGICLGHQALALAFDSLVVKMQEPMHAKNSLIKQCRENELFSNLPSNFSVMRYHSLEVKQLSDEL

EILALDEKGVIMALGHKNLPYYGVQFHPESYFSEYGLQLFSNFLKQDIKKPQKQENPLSFYLQKMSENHF

LQSDDFEQICKIIMSKDYEILQVVALLILITEKSLNEKSLSAFVRQILRYSQTFSDESEMIDICGTGGDG

FKSINVSTTSAFILAALGVKVAKHGNRAISSSSGSTDVLEALNITTPNTLESVLKQLNNQGLSFLHAPFF

HPLVGELKEIRSRLGVRTVFNVLGPLLHPNLKLKYQLMGNYHAPVHRLLIEVLKNLGRKKALVVRGNDGM

DELSICDESKIYELCEGEILEYSICPEQFGFKRAFHSEIIGSSAYDNAKDLKDILSGRMQGAKFDLVVLN

AMFALYTANKASSPLVAKDMILEAIYSGKVIEYFKEYQAYAKA

>AHK51655.1 anthranilate synthase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFVKNVNFYYRQILEKFENSYFAEDLTKVIIGIDCDYLDANELSFSEFKAKYYEALSKNKICDFAGFFGV

FSANFVSLFEKIPLSSKKNYDFPLFLFANAKAYLIYEKNSKMFFKFGASKYFEYLKDDIEPMKKKQKNDF

EILNSLEDEKNDFLKMCEKAKEYLLSGDIFQVVLSKQLCIKHQVNAFDYYESLSALNPSAYMFYFPSKYG

VVLGSSPEFLLKIKKREIYLAPIAGTRNLENNCDLLALEKDLLSDEKELSEHKMLVDLARNDASKFGTQT

RVENLFSIIKNKFVMHIVSEVYANMKEDASIFDVIEAVFPAGTLSGAPKIRALEITSELEDCDRGIYGGA

VGFLNFNEDITLAILIRCAFFTQDKAYLASGAGIVLQSESQKEYAEICAKRKALLVAFENLKKENQ

>AHK51654.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEITDLPYLIIGIISGIASGLFGIGGGMIIVPSMFALGASAHHAIGISVLQMIFAAVFGSYINYKKKNLN

LKDGIMIGFGGLIGASFSGMLLKALSDVALTSVFLAVSCIFFIKYAFGIKENIVQNQRSVWVKNVILFIA

GAFTGIFAISLGIGGGLLIAPILAYFLGYDSKKVVSLSLFFVIFASVSGIISFSNSGVIDSEVIHKGILV

GIASMVGVFIGIKIIEKMHISAHRKILLCVYALSILGTTHSLLNKLNFINF

>AHK51653.1 UvrABC system subunit A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNDTIKIIGARENNLKNIHLEIPKNKLIVFTGLSGSGKSTLAFGTLYAEGQRRYIESLSAYARQFLDKVG

KPDVDKIEGLTPAIAIDQKTTSKNPRSTVGTITEIYDYLRLLYARVGIQHCHRCGQKISSMSVSDIVSEI

LKFPKGAKIIIYSPLIREKKGTYADLLENLRNKGYVRAQIDGVLVRLDEEIELAKTKKHTIKLVIDRLEI

QEDLLSRLASDIEKGLQESFGEIEIEVLNHEEINLNKHYHFSEHSACFDCKISFVPLEPLSFSFNSPKGA

CEACDGLGIRYTLDMKKIIDENLSLENGAVKIMYGFNKSYYYKFLIAFCEQNEIPIKIPFMQLNEVQKRL

VLYGNAKTIEFLWKRNRLKRTFEGVVKMAYEMLKDEKDLAEYMSEKICKDCGGHRLKPESLAVKVAKKSL

GEILDMSIEDSTAFFADEKNFSYLSEQQKLISKPILKEINERLFFLYDVGLGYLSLGRDARTISGGEAQR

IRIASQIGSGLSGVMYVLDEPSIGLHERDTAKLIKTLRNLQQKGNTLIVVEHDKMTIEEADFIVDIGPKA

GKFGGEVVFSGTYKELLKSKSETALYMNGKKQISQLQNRTQKEWLELKNVNINNIQDLSVKFPLQNLVAI

TGVSGSGKSSLILQTLLPFAQEELNRAKKVKKLGGVQIEGLEKLDKVIYLDQSPIGRTPRSNPATYTGAM

DEIRNLFAATKEAKMRGYKAGRFSFNVKGGRCEKCSGDGEIKIEMHFLPDVMVVCDTCGGKRYNDATLEI

KYKGKNISEILNMSVLEASEFFTAVPKIKQKLDTLVKVGLDYLTLGQNATTLSGGEAQRIKLAKELSRSD

TGKTLYILDEPTTGLHFEDVNKLILVLQHLVDLKNSVFVIEHNLDVIKNADYIIDMGPEGGVKGGKVIST

GSVEKVAKEHKKTRSYTGYYLDLELKNTQKS

>AHK51652.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFDFLYNDISYLGLFMVCFLSSTLLPLASEAFVLGFIKLDFNPNLVLIVATLGNTLGSLSTYALAYFGKE

KILEKYFSKSLKKLENFNANFAKFGSIFAFFTFLPLVGDLFALGLGFAKYSFLKTIFFILLGKLSRYTFI

IFIANSF

>AHK51651.1 nucleoside hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRLILDTDIGNAIAGANTDDGLALALILSSKEIKLEMLSTVCGNVPSLVAYSVAKDLFQRLNLNIPVYLG

ANEALKEPSKAWRQRLDESVKNFKLEYLWENIKSPEILENINPDAIFKMGELVSKNPKEISICAIGPLTN

IAMTMKIFKDFDINLKELFIMGGSFDMPYYTKDTNFGFDPEAASIVLNSRAKITLIPYNATMQTLLTHED

LKELQGKNILCDFIVETLGVWIDYASKTRGTKGTWIHDALTIACALDSSIADFDECYADVICDSSLARGM

SWRCFREPKMSMGVDLSTKNCVKILKNVDNARLLKLIKERLLKGVCYENYESITT

>AHK51650.1 DNA polymerase I [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTLTIVDTFGFFFRLYYALKGFKNSQGQASGMISGFANFIYSLKNEYKSDYIVFALDSKGKTFRSEIDP

NYKQNRTPPPPELLEQIPICIKMIEKMGFISVSQEGYEADDIIASFVKTCENRDIFVRIITQDKDLYQLI

KDGKTSIYSPISKNDYDEAACLEKYGVKPNQIRDFLALCGDSSDNIPGVKGIGAKGAKTLLDEFGSIEGI

YENLTLVRNERSRNLLLEGKENAFLSKKLASLYDNLEVQNLIEKATYPDEEPLLKILEILEHYELNTLLK

KLRQNPDNKDKNLGFKATLVQDENKLFEILNTLDKESIIAFDTETTGLDTKEAKIVGFSFCMNENEAFYV

PLTHNYLGVGEQISLQSAKKAIEVIFNHFVIGHNLKYDFKIIQNNFDLNLPQKYADTMILAWLKNPSLRV

NMDDLALRLFNYETLHFESLVKKGENFASVELEKACKYAAEDAYITLRFYLYFLKNLETPLLELAKNCEF

DFIKIIMMMEENGIKLDTNALEILMKKFENEIKNLSEEIYTLCEDRFNLNSPKQMGDILFEKLKLPSGKK

GKTGYSTDEKVLNILLDKHPVIAKILDYRELAKLYSTYCEPLLKLALKDKNSRIYSSFLQTGTATGRLSS

KDPNLQNIPAHGQYAKDYKSCFVAKDGFSFISLDYSQIELRILAHFSEDEKLLNAFANDEDIHARTAIMI

FGESNYETRSVAKSINFGLIYGMGYKTLSQNLKIEANLAKSYIEKYFENFTSIKKYFEKVKNEAKQNGFI

VTLSGRKRYFDFENAKPMQIAMYERESINSILQGSAADVIKLAMLEINKELNEDKKLILQIHDELIFEVK

DDLCENFVKKTRDIMENIVKLKVKLKTSSSIAKNWGDLK

>AHK51649.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDLSTILGMVLAVTSISVGDILEGGNPLHVVHLSSFLIVMPTAAFCAMTSTHKKIVKAAYKELKVVFKGS

GVNLPERIAQLIEFAIIARRDGLLALESRTSEIENEFLKNAMMMLVDGKSFEEIHESMEIQTEQLEEHYK

ECAEYWIVFGETCPTMGLVGAVFGLILALKLLDNPQAMAAGISGAFTATVTGIFGAYALFAPWGKKLKAN

GMDLVKEQIVITEAIKGIAEGANPRDLEAKLFNFLSHDDPRISQFDKG

>AHK51648.1 flagellar motor protein MotB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKKHKCPECPAGEKWAVPYADFLSLLLALFIALWAISKTNPAKVEALKTEFVKIFDYTSTQTVKEESKT

QEKYKGAAKEESDELKSLKQMTMTQQETIKRLQAALDQSDNQVALNLPSKVEFERGSAQIVSADIQDYLK

RMAELTTYLPPQAKIEIRGYTDNSDSIIRSYELAYQRAENVLKYFIEGGANLKNISIKSYGLNNPINGNP

QTLENNRVEIYFKVDTADTSTQKSVLELINKIGTKAP

>AHK51647.1 flagellar biosynthesis protein FlhB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAGEDQEKTEEPTSKKIEDARKEGNVPKSQDAAAIVTLIIGVTITLFMMSFMGERIVNLYRYYQSFIGVE

FDLRIIQAIMIKSIFEVLIILAPIVLSIMIAGVLGNIMQFGFIFTTKPIMPNLGKINPLKGLKNLFSLKK

IVESIKIILKVGIVFTIAFIVLLKFMQELPRVELYTMVAQLTWLRDRAIVLAAIVIVAFLIIAVLDVFLV

RFQYFKGLRMSKQEIKDEYKQMEGDPQVKGRIRRLQMEAARRRMVQDVAGADVVITNPTHYAVAIRYDTG

KEQAPRVVAKGVDFLALRIKQVAYENNVVVYENPPLARELYKACDVNDLIPREMFKAVAEVLGFVYNTNN

KSRLAGQVKKGN

>AHK51646.1 peroxidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIVTKKALDFTAPAVLGNNEIVQDFNLYKNIGPKGAVVFFYPKDFTFVCPSEIIAFDKRYQEFKNRGIEV

IGISGDNEFSHFAWKNTPVNQGGIGQVKFPLVADLTKQIARNFDVLYAEAVALRGSFLLDADGTVRHAVV

NDLPLGRNIDEMLRMVDTMLFTNEHGEVCPAGWNKGDEGMKANPKGVAEYLGKNEAKL

>AHK51645.1 ferredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAVKITDICIACGSCIDECPVNAIVDDTNNPEGEDRYYVYANKCVECVGHNDQPACASACPTDGCIVWSA

VESGQPSRDNIGADMRSGDTPVFA

>AHK51644.1 nucleoside diphosphate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKTLSIIKPDAVKKGVIGKILDRFESNGLRIAAMKKVQLSKEQAENFYAVHKERPFFKDLVEFMISGPV

VVSILEGEGAVLKNRDLMGATNPKEAKAGTIRADFAESIDANAVHGSDSLENAKIEIEFFFKPNEIC

>AHK51643.1 hypothetical protein N916\_01610 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIPFSKINTKEYPFKLNLENIIFEGNLVKINPKLVKINAIMQGFIYRPCDSCGTELELEIKENLELFAS

DGIFKDEANELSNTIEFFDGHIDLIEVAISELEAYLSDYFYCINCNN

>AHK51642.1 50S ribosomal protein L32 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAVPKRRVSKTRAAKRRTHYKVSLPMPIKDKDGSYKMPHRANPTTKEY

>AHK51641.1 phosphate acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINIAIDAMGGDFGEKPIIEGVLKALETKPFNAILVGNSKILKPLIPKKLEQYIQYEEASEIFSMNGNAT

DALKNKETTIYKAINLLKEKKVDAVVSAGHSGASMSLATLKLGRLKGISRPAIATLMPNIVNKTLLLDVG

ANTDCKAENLFQFAIMGEVYAREIMQIQKPRLALLSNGEEECKGNELTKESHQLMKKIPNFIGNAEGRDI

FNGEIDVLVCDGFDGNVILKACEGVATAIFQLLKNEVKQSFISKIGALLMKPSFKKLKKHTDWQEYGGAP

LLGVNGCVIISHGKSDSRAIKNAIFQAINFSQSHINKFIENELGKYNA

>AHK51640.1 3-oxoacyl-ACP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKASLKSIASYIPEKILSNADLEKMVDTTDEWITRRTGIKERRIASENENTSDLGTKAALKAIERANLK

PEDIDAILVATLSPDYFTMPSTACKIASNLGLVNISAFDISAACSGFIYLLEQAKALVESGLKKNVLIIG

AEKTSSIMDYNDRSICILFGDGAGAGVVSLDNENHILDVHTASNGNYGDLLMTQRSQKSSLCQTLSMQMK

GNEVFKIAVNTLSNDVVEILAKNNILAQEIDLFIPHQANLRIIKAVQEKLNLSDEKCVITVQKYGNTSAA

SIPMAMNDAYEEGRLKKGNLILLDAFGGGFTWGSALLKFGGENF

>AHK51639.1 endoribonuclease L-PSP [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKRFDECDRMSQIIVFDKYFKTAGQVAFEPSGDIKKQTKEALAELDALFEKIGANKGDLIQIQIWLANM

QDFDAMNEIYDAWIKNYPKPVRACVGSALAEGYLVEIQAFGKLREN

>AHK51638.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRKINFSAGPSTLPLEILEQAQKELCDYQGRGYSIMEISHRTKVFEEVHFGAQEKAKKLYELNDDYEVLF

LQGGASLQFAMIPMNLALNGVCEYANTGVWTKKAIKEAQILGVNVKTVASSEESNFDHIPRVEFSDNADY

AYICSNNTIYGTQYQNYPKTKTPLIVDASSDFFSRKVDFSNIALFYGGVQKNAGISGLSCIFIRKDMLER

SKNKQIPSMLNYLTHAENQSLFNTPPTFAIYMFNLEMDWLLNQGGLDKVHEKNSQKATMLYECIDLSNGF

YKGHADKKDRSLMNVSFNIAKNKDLEPLFVKEAEEAGMIGLKGHRILGGIRASIYNALNLDQVKTLCEFM

KEFQGKYA

>AHK51637.1 exodeoxyribonuclease VII large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTPTELNLKAKALLETHFDDIVLSGEISKITLHGSGHWYFDLKDERSSIACAMFKGANLKVGFKPAVGDF

LELCGSVSLYPESGRYQFIATSMKKAGFGDLEAQFLALKERLQKEGLFDPRFKKSLPKFPKKVGIITSKT

SAALQDMLKLIHQKEYFLAKIYIFDALTQGNNAPFSLIQALKKADDMDLDVLIIARGGGSREDLFCFNDE

NLAREIFKAKTPIISAIGHEIDYVISDFVADFRAPTPSAAIDTLFYSKLDIEQSLDLMEEKLMQLWNYKI

QNYENLLLNLSKFFKFNSLPKIIDEKIKQSHNIEKQLNHLLANQMRYNELKLDKLQNAYLQHENFFNKSK

KFICIRKNGKIANLEDLKSDDIVILSSQTSQKEAKIL

>AHK51636.1 ubiquinone/menaquinone biosynthesis methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKQEKIIEMFNQIAPTYDKANRILSFGADVAWRKKACQRVMSLYLKKDLKIADIACGTGDMIEIWQESA

LKMEKNILNIKGIDPSSGMLNVAKEKFPNVEFIKAGAQNLPLESQSLDILSISYGIRNVVERQKALSEFA

RVLQKDGILVVLEFTKREKGGFIAACRDFYLKNILPSIGGIISKNKSAYEYLPNSIEGFLSKKEFILELK

NAGFEMLDYKSFSFGVSSMFIAKKL

>AHK51635.1 hypothetical protein N916\_01570 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVYEIQKNFLLSDCTLLENLKKDNIPFRNSKFETFYTQITSNHSVKFQSFCNEFYKITKFNNSILEQNQE

EKISKKKFEKARKKIIGKSIKKERFEFKFCSLKSYIDIYEEPKICILKIFFPTLDSSNEFKIPKDFKIQK

ELHHDLNSKHIVLYGFEYQNFDIEKYFKIIEKNQNFSLDFPNYINAYDGFRIFLFYLFKKLKFYWTLSLE

RKDKQSLCEFLFYSRSLYIVLSSMNTILDKNLSNILALKFKDITKKTQDILASENSNQDLLLFLSDEKIQ

DLFNDFDFFIKENSFYEGDCKDRFFKQLVALELRKKIILFRKNILKNFDLELFENSFFELAIFLEYFYHF

LEIKNLNKLYEKYSKDRDKNIFSKIINNKNKFCKLLKKSSKNLKIYKG

>AHK51634.1 peroxide stress regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MELLQMLKKHELKATPQRLCVLKILKRHEHPNIDELYIEIKKEYPSISLATVYKNLNTLQEQGLVVEINV

LNQKTCYDIYEEEHIHVVCTKCGGIEDLSFKDAKLYEYQEHLEKKIGNLVNHLSVCAYVDNCKKCH

>AHK51633.1 1-deoxy-D-xylulose-5-phosphate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKKFAHTQEELEKLSLKELENLAASMREKIIQVVSKNGGHLSSNLGAVELSIAMHLVFDAKKDPFIFDV

SHQSYTHKLLSGKEEIFDTLRQINGLSGYTKPSEGDYFVAGHSSTSISLAVGACKAIALKGEKRIPVALI

GDGALSAGMAYEALNELGDSKFPCVILLNDNEMSISKPIGAISKYLSQAMATQFYQSFKKRIAKMLDILP

DSATYMAKRFEESFKLITPGLLFEELGLEYIGPIDGHNLGEIISALKQAKAMQKPCVIHAQTIKGKGYAL

AEGKHAKWHGVGAFDIDSGESVKKSDTKKSATEIFSKNLLDLASKYENIVGVTAAMPSGTGLDKLIEKYP

NRFWDVAIAEQHAVTSMAAMAKEGFKPFIAIYSTFLQRAYDQVIHDCAIMNLNVVFAMDRAGIVGEDGET

HQGVFDLSFLAPLPNFTLLAPRDEQMMQNIMEYAYLHQGPIALRYPRGSFILDKEFNPCEIKLGKAQWLV

KNNSEIAFLGYGQGVAKAWQVLRALQEMNNNANLIDLIFAKPLDEELLCELAKKSKIWFIFSENVKIGGI

ESLINNFLQKYDLHVKVVSFEYEDKFIEHGKTSEVEKNLEKDVNSLLTKVLKFYH

>AHK51632.1 flagellar assembly protein FliH [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVNRSNVISGGASDQHVVEGYRFKVISEFDNHTGEKKHTQTPDEENTNISLNDEKPVEENQVIASTQAVM

ETQIPTFQPSFVEDLLKKTDEMSSNIIKLQMQIESQENEFNNRLNSELENAKEKFTKEGYEKAKEEFQKE

LSDFKDKYLKSIAKLDNACENLENFIEKNEKELADTAIDIAKEVILKELELNSSKIAYALAKDLIGELKG

ASAIELKVNAEDYEYLKEQFDQNAHIKISLDDAISKGSVVIISDAGNIESNLNSRLTKIKKMVNNE

>AHK51631.1 flagellar motor switch protein FliG [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKLSEEQKMVYDDLSMPEKVAIFLIQLGEDATTSVFSHMEIDVITEISRYIAMAKNVDRSVATAVLEEF

YTLLQSNQYIKSGGLEYAKEILFRTFGPEIANKILEKLTKSMENNQNFAYLAQIKPQQLADFITKEHPQT

IALILAHMDSIHAAETLEYFSDELRAEVVIRMANLGDISPSIIKRVSAVLESKLESLTSYKVEVGGPRAV

AEVLNRLGQKASKSTITYIEQSDERLAETIKELMFTFDDIQKLSTQAIREILKVADKRDLMIGLKGASEE

LKQKFLANMSTRASEAFLEEMGFLGAVRVKDVEDAQRKVVEVVQKLAEQGLVQTGDADEMIE

>AHK51630.1 flagellar M-ring protein FliF [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDFKNMLHQIGQLYQNLTRKQRIVIAASIIVVVGFLVFLALFRGSGSNANNGYAVLVENVSPSSSAAIVA

KLEQNNIPYKLESENKILVPQDQVYRQRMFIASEGLIKDSRVGFEAFDTQAFGATNEEQKVKYQRAIEGE

LARTIETLEPIRSAVVHIAFPKDSVFTERQIPPTASVVVNVREGLKLTRKQIDGIKNIVSAAVPKLTKEN

VKISDQSGVPLDEQEAYEDDLVRAQIKFKSDQEKALEDKIIENLAPFAGGMDKVKVSVNIDFDFSKQESQ

SEIYDPNPIVRSEQTLNEERTGRKDPEIQGVPGAVSNIGPVEGLDNKGQIDTYKKNQVTTNNELSKTITN

TKKQFATVLRTSAAVTIDGKYQDVVDENGDVKSEYVPLTKEELASVESIVKNTINFSATRGDSVVVQNLP

FHRESIRVESKVKTFYNRFVEPFIPPVKYFIAAILLFIFYKKVIAPFTQKMLEDVAAQEEMQQGPNAVLD

DAEDALEKFNAARKKVEEQLGFGDNFNEDSIQYEVLLEKLRGLVSDKGEEIAALLQNLIQNDSEFGEKDM

>AHK51629.1 histidinol-phosphate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFNEFLNNLSNYEPGKDIEVIAKEYGVKEVIKLASNENPFGTPPKAIECLRQNANKAHLYPDDSMIELK

STLAQKYKVQNENIIIGAGSDQVIEFAIHSKLNSKNAFLQAGVTFAMYEIYAKQCGAKCYKTQSITHNLD

EFKKLYETHKDEIKLIFLCLPNNPLGECLDASEATEFIKGVNEDCLVVIDAAYNEFASFKDSKKHLEPCE

LIKEFDNVLYLGTFSKLYGLGGLRIGYGIANANIISAFYKLRAPFNVSNLALKAAVAAMDDDEFTEKTLE

NNFSQMELYKEFAKKHNIKIIDSYTNFITYFFDEKNSTDLSEKLLKKGIIIRNLKSYGLNAIRITIGTSY

ENEKFFTEFDKILR

>AHK51628.1 chloride transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPNLEEFRNKIDAVDDKILDLLNERMTYVKSIGELKQSSGGSIYRPERERAIINRLKNANLGLLDQNAIE

AIYQEIFAVSRNLEMPQTIAYLGPEGTYTHQAARSRFGAMSRYIALANIEDVFKELSNKEAKYGVVPIEN

NTEGAVGITLDCLGKYNELKIFGEIYMDIHHSFVGINENLKEIKRIYSHPQGYNQCRKFLESHELSAIEF

VPSKSTANAAYLASQDKYAAAICSRIAAKLYNVPVLFDKIEDNAANKTRFLILSDIKNPKMPNCKTSILA

HTAHKPGGLSFLLEQFKKENINLTKLESRPVKSKEFLHSFYIDFEGHIDDENVKKALKDIQEIVWLGSYL

SGEKDEI

>AHK51627.1 HAD family hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFFLDVQGTLISDHDKSLIHGAKELIDFLNAKNLPYLIITNNTKKLDFLEKLQQKGLVIKENAYIDPFSV

LKHLLRPCKVAAFGADEFVKSLENLGFELDFVNPSAVLVASYDDFKFKDFATMIELARREVRFIAMHETS

IYKKDGRPYPGVGSIMAMLKNAIDFEYEVVGKPSIAFYKEALNLIRRQNSKIDFEDIKIISDDFRGDLLK

AKELGMKTLLVLSGKISDTKGLDTDLLDGVYPSVFEFLKDLKCQI

>AHK51626.1 diaminopimelate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDYKQLKQEFNTPFYIYNFDFIKERFLNLKEAFKARKSQIFYAVKANSNLSLLQMLANLDSGFDCVSIGE

VKRALKAGAKAYKIIFSGVGKTKEELRQALEYDILYINLESEAEMMLLESVAKELNLKARISIRVNPNVD

AKTHPYISTGLNENKFGVEIDIARKMYLYAKNSSFLEPVGVHFHIGSQLLDISPIHEAAAIVAKLVRELK

ALQIDLKFFDIGGGLGVAYEKNECEPDLYDYAQGILAQLHGLDLTIGMEPGRYLVAKSGEFVCSVLYEKQ

NKTKRFVVVDGAMNDLIRPSLYEAYHEIILPYNQGEESLCDVVGGICESGDFFAKARSLPSTQSDDIMVI

KNTGAYGFSMSSNYNTRNKVCELALEEGQVRLIRQRENFEDQIALEEKFLKA

>AHK51625.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MWIFFRFISGIYLKNFFIIFFSLLGFYCGIDLLLNFKDLPKAANLDLLYVMFLSFSAVPYVLPISLIFAL

VVSLISMIRANEFVSLYALGLSRNYVILFPFLWALFFCCIYIGLNFTSFAYANDYKRNILKNGTIMNQSG

EVFLKFNNNFVYISKINNGQNSAQNIKIFNINDLNLSSFASAKNAHFEGESWILRDGNITLLPKNYELAN

DGLKIQDFSELKSLEGFKPKIIEGVASNSDYSISDALESFELFKAQNVNTDTLKINLYKFVFTPFFAPFL

MLIMYYFFPVIARFFNLAFVTFIAFVVTLMIWGVLFLLTRLSENSVIASEIGIVVPIIILGCLSAYMYYK

HR

>AHK51624.1 peptidyl-tRNA hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MILVVGLGNIGVEYENTRHNVGFMLIDLLLKESNFTNLTNSKFKGELFKIGSSLLLLKPSTYMNNSGLSV

KAVNDFYKCERMIVIHDDIDINLGALRFKKGGSSGGHNGLKSIDTLCGNDYERVRIGVGKGENVISHVLG

KFKSEEEITLSKVLEHAKKALLELIENDDLSAISSKYSLKA

>AHK51623.1 50S ribosomal protein L25 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLEGIVRESIGRKAAKALKRDGYLIANIYGKGLENINAAFKVNEFIKEVRKKTTLIFDVKVGSQTLSVVV

VDYQKDPVTAELKHVDLKVAQKGVISKYMVPVKITGTAIGLKNKGVLIQSKRRLKVKCAAENLPNFFELD

VSKLDVGDALLVRDIVVPAGVTMIDADRVAVVGVEKAR

>AHK51622.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNEKFNINIAWFLIILGGIIECFWVSGLKYSTEIWQYILTAIGVCISFTCFLKACERLEVSITYSVFVGI

GTIGVVLNEMFIFNEAVSIIKLVLIAILLLSIIALKWVSKEA

>AHK51621.1 quaternary ammonium transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEWFYLFLATACEIFGVVIMKELVSTKNKLYLLALIVCFGFSFTFLSLSMQNIAMSVAYAIWTGAGTAGG

VMIGVLFYKESKSFLKLFLIAVIITCTAGLKFLS

>AHK51620.1 ATP-dependent dethiobiotin synthetase BioD [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQIYVSGIHTDVGKTHFSAAFCANFNYDYFKLIQAGTPTDSEFIAKFSPKTKIFKEGIFLQTPASPHLGK

IKEKLDYKALDIILPKSKNLLIELAGGLFSPMDENYTMIDFVNIFKHPTILVAKYYLGSINHILLSIEAL

KQRNINLLALVMMGKKDILQDDFIKNYAKIPIINLDFFDENSILNKDFKEQMQEILQLKIP

>AHK51619.1 adenosylmethionine-8-amino-7-oxononanoate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNQILKNLDLKHIWHPCTQMKDHETLPLIPIKKAKGVWLYDFDDKAYMDCVSSWWVNLFGHCNEKIANA

IKKQVDELEHVILAGFTHEPIIKLSARLCEKVGRNFNKCFYADNGSSAIEVALKMSFHYHLNKGVKKSKF

LSLSNSYHGETLGALSVGDVALYKDTYKALLLECLSTPVPQGKDYTKELEILKDILEKNASEICAFILEP

LVQCAGNMHMYEARFIDEAIKLCHKFGVQVIFDEIAVGFGRTGTLFALHQCKQSPDFICLSKGITGGFMP

LSVVLTRDEIYNAFYDTYESQKAFLHSHSYTGNTLACAAANAVLDIFEDENILVKNQILSEFIKKEFSRL

EKFDFLGNFRTCGMISAFDILSTKYKRVGLFVFQKALEKGLLLRPLANTIYFMPPYIITKEQIVYVLESL

EQIFKEF

>AHK51618.1 8-amino-7-oxononanoate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLEKILQDLEQNHNLRTLTPLKHENKFVYKQDHKLLNLVGNDYLYLASSKELKAEFLNTLKEQDLFFSS

SSSRSLSGNFEIYEKLESFLKTKFKDKEILHFNSGYHLNISCIAALSSVSKTLFLTDKFIHASMIDGLRL

GRADFFRFHHKDMNHLESLIQKHYENYENIIVLSEALFSMDGDFSDFKTLCELKRRYDKIKLYIDEAHSV

GCFDEEGLGLVKKLALENEVDFLVFTFGKALASMGACIICDEKYKKFFINKARAFIYSTALPPINVAWTQ

FIFKKMPYFKKEREKLELLSTFFKSKLQEKNHIVLGDAYIICLLLGENKKALEISQKLQKAGFFAPAIKE

PTVPKNTARIRFSLHAGLNTEELERIIELL

>AHK51617.1 hypothetical protein N916\_01480 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKYEFLCKNPDSKKLIVVFGGFASHSSHFSHLKSDKNVILFYDYENFDLNFDFKAFDELFLIAFSMGVCV

ANRLLKELNFKQKIAINGTNLGIDKSKGIHPAIFRKTLQNFKLENFKEALFKERKNLTKDFIFKDEKALK

IELEKLFDFALVKQEENLLWDKVYSSKKDEIFPPNALKNAFSKLIFLNEPHFAFFHFKTWDEL

>AHK51616.1 biotin biosynthesis protein BioC [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFLKAKDYEKHAKVQDFMGLKLCEILKNLRISHFEKVFEFGCGRGELSKKLQNFITFDEYLKNDILDFK

ENSSILIFDMNEIAKQDLSKEKFDLIVSNATLQWLDLKRIIPSLRDMLNQNGILLLSTFAEQNLKEIKQS

TGFGLNYFSLNELEQIFKVYFNEVKITQELIKLSFDNALDVFRHLKLSGVNSLGFYPLNKGFLKEFEEKF

QNKLTYHPVFILCKNDIK

>AHK51615.1 molybdate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKFVVFFGILLFVSCLNAQNLSIFVASSASKAMSEVKDEFLKTHPEDKIELVFGASGKYYELLKQGREF

DLFFSADTKYAKAIYDDKNALIKPKVYVLGVLALYSLDENLLQGGVENLKEKANKITHLSIANPKVAPYG

VAAKEVLENLGLNELLKDKIVLGENISVPVLHVDSKNSDIAIVAYSLVSSINHPKGKAVIIDAKYFSPLE

QSYVITKYAKDKKLAFEFNEFIGSSKAKEIFKKYGFSTP

>AHK51614.1 molybdenum-pterin-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLIKGQICELLNQEDIVIVKILSKEVIFSVLMLELKSLENLKIGVSVELLFKEHELCFSASKTLLSVEN

SFLAKITKIKKGKLLYQVFFDFKGNELSSIITKEKALELEICENQEWLCFVKANDIVLRSHSA

>AHK51613.1 molybdenum ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLDPAFLQTLYLTFKLAFITTFILFFIGVFLAYLLSFVRFPFKTILQSFISLPLILPPSVLGFYLLVTFS

ANSFLGQVLKEYFNLSLVFSFEGLVFASLIFSLPFMVNPLQSAFSSINPNLLDASYSLGKSKIYTLFRVI

LPNSKAGIFSACAMSFAHTVGEFGVVMMIGGHKQGETLVASIAIYDELEILNYSLAHQYAFILFIFSFLV

LFSLYFINKKMSFQ

>AHK51612.1 GTPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIRIDINHPMNTAKGRLDLNFKKDIESGKITALFGESGAGKTTLLKIIAGLIKPKLGRIEVDNELWFDSS

KNFSLALQKRKIGFVFQDYALFPNMNIKENIAYAASSKAKVSELLALMKLENLAKIYPKHLSGGQAQRVA

LARALAREPKILLLDEPLSALDFKMRANLQDELTKILEYFKISTLLVSHDLAEIYKLSHRILELKNGKII

KDFPKNEFFTHSNISAKLRLSATLLEIKKSDILVVLTLLLNQDIIKITLSEEEFLKAYQDVKIGDTLLLS

IKAFNPIIVGKLDK

>AHK51611.1 aspartate decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNITLLKSKIHRASVTEARLDYIGSISIDEKLLQASGILEYEKVQVVNVNNGARFETYTIATQEEGVVCL

NGAAARLAEVGDKVIIMSYADFNEEEAKTFKPKVVFVDENNTATKITNYEKHGAIF

>AHK51610.1 MoeB/ThiF family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNDRFTRIKWLVGEEKFQKISQTKVLVCGLGGVGGICVDALYRSGFKNLTLIDADKFEITNQNRQIHSEN

IGEEKAKVFERIYKVKGIVSKIDENFLKNFDLSEFDLIIDAIDDIPAKVALAHLIDFKKQIFISSTGGAR

KLDPTRIKTTSIFKTHGDALAKKFRYELRKSGFKGNFDVVFSDEEAHCKDLGSFMGVTASFGLALASLAL

RKVLAKKS

>AHK51609.1 stationary phase survival protein SurE [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEILITNDDGYESEGLKKLIKMLTKEFKAKITIVAPASEKSACSHSITLTKPLRFVKVGKRFYKLDDGT

PADCVYLALHALYKKRLPDLVISGINKGANVGEDITYSGTCAGAMEAVLQGIPAIALSQFYKKSEKELDY

KNALQITKKIIQNIFDKGFPLEKKEFLNINFPAKSKIKGIKICKAGKRVYNFEAHSNVNPRGVEYYWLAA

ANLDFEDEKNSDIALLKKGYATITPIMLDLTAYERMKKVKKWLKANDE

>AHK51608.1 ABC transporter ATPase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIITLFGACALAFSMANADVNLYGPGGPHTALKDIANKYSEKTGVKVNVNFGPQATWFEKAKKDADIL

FGASDQSALAIASDFGKDFNVSKIKPLYFREAIILTQKGNPLKIKGLKDLANKKVRIVVPEGAGKSNTSG

TGVWEDMIGRTQDIKTIQNFRNNIVAFVPNSGSARKLFAQDQADAWITWIDWSKSNPDIGTAVAIEKDLV

VYRTFNVIAKEGASKETQDFIAYLSSKEAKEIFKKYGWRE

>AHK51607.1 transcription elongation factor GreA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKEPMSQFGYDKLAAELKDLKDNQRPAVVIEIDTARSHGDLKENAEYHAAREKQALIESRIAELSDLLA

RAQVIDPSSYEHDSVKFGSSVVIMDLDTEKESKYTLVGICEGNLDKGYISIASPIAKAMLGKKEGDDFKV

RLPKGESEFEILSINYEPLKF

>AHK51606.1 UDP-2,3-diacylglucosamine hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLIGEISATHEFAKPYIELLEELALKIEIIYLEGNHDFNLSCFFKRVKIFNLQEQPIKLNLHTSKGNNLV

LNSAFIKLAHGDIFLPPLLQFTLKTLRNHYLLVFLNFLNIITRNFISNKILQNQNKKNLFYQIKDFENLA

KKRYEKYENLGFWVCEGHYHQNHQINKENIKYLNLASFAYERSFFVVEYQQEIKFREQKLRGQNV

>AHK51605.1 chemotaxis protein CheY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFDENIVKTGSNEMELVDFRIFKQGHDKVYEGIYGVNVSKVREIIKIPSLTELPGVPDYIEGIFDLRGVV

IPVVNLAKWMQITEPESTMLKPRVIITEFSNILIGFIVHEAKRIRRINWKDIEPATFSTGSGALDKGKIT

GVTRIENDEVLLILDLESVVEDLGIYAPKTDIDFGKIEKFTGTALILDDSMTARKRVKEMMQQMGFQVVE

AKDGVEGINKLEELSQIYGESLNDTLKIIVSDVEMPQMDGFHFAARIKEDPRFKDIPIVFNSSLSNEFMN

EKGVQEAGGEGYLVKFNASDFFNEIAKVIKKHQSQEQG

>AHK51604.1 chemotaxis protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEDMQEILEDFLVEAFELVEQIDHDLVELESNPEDLELLNRIFRVAHTVKGSSSFLNFDVLTKLTHHMED

VLNKARHGELKITPDIMDVVLESIDRMKTLLNSIRDNGNDTAIGMDIEPICARLTAISEGESPVVATDSN

EKSIPQAELEAPKQEIATPEPEVDVNQLSDSEVEAEIERLLKVRKAEDQARRAQKKQTTNAAPKPTNNTA

NKPTESGEKKVPASGSNASSMDQTIRVEVKRLDHLMNLIGELVLGKNRLLKIYDDVEERYEGEKFLEELN

QVVSQLSIITTDVQLAVMKTRMQPIAKVFNKFPRVVRDLSRELGKQIELEITGEETELDKSIVEEIGDPI

MHMIRNSCDHGVEDPATRAANGKPEKGIVQLKAYNEGNHIVVEITDDGKGLDPNGLKAKAIEKNLITERE

ADQMTDKEAFALIFKPGFSTAAKVTNVSGRGVGMDVVKTNIEKLNGVIEIDSELGKGSSFKLKIPLTLAI

IQSLLVGTQEEFYAIPLASVLETVRVPIDDIYTIEGKNVLRLRDEVLSLVRLSDVFGVKQVLESGDQTYV

VVIGVAESKLGIIVDTLVGQEEIVIKSMGDYLQNIQGIAGATIRGDGRVTLIIDVGAMMDMAKEIKVDIK

AQLESSAKKPKEQPSDYKVLIVDDSKMDRTLMQKALEPLGVSLIEATNGVEALNIIKSGEHDIDAMLIDI

EMPRMDGYTLAGEIRKYSKYRNLPLIAVTSRTSKTDRLRGVEVGMTEYITKPYSPEYLENVVRKNLKLG

>AHK51603.1 chemotaxis protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSNEKLEQILQKQQTQMAGPDVDQREDDIIQLVGFVVGDEEYAIPILNIQEIIKPIEYTRVPSVPDYVLG

VFNMRGNVMPLIDLAQRFHLGSSKMTPQTRYIVLRGETNGTGVGGNAGFVIDRLTEAIKIHRNRIDPPPE

TLVKDKGMIYGIGKRDENILTILKVEALLKREF

>AHK51602.1 phosphoserine phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKLCVFDFDATLMDGETIDILATAHGKGNQTSEITRHAMTGELDFFESLQKRVSFLKGMSYKKVLELSS

TLPLMRGAHELIQYLKSKNIQIVIFSGGFHEGINPAMQKLGINLGFANYLHHKNDILTGLVGGEMMFSNS

KGLMLQRLKSFLNLKTDEVMCVGDGANDLAMFNESGLKIAFCAKEILRSQADICIDIKDLKEIIKVI

>AHK51601.1 transaldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNFSLWCDFIENSFLDNEFLNLLSHGINGATSNPAIFKNAILNSPIYKDKILKLKEKKTKDIYEELAIS

DIQKAADKLAPLFYQKNDGFISIEIDPRLHDNTTLSLGEAKRLYSAIGKENIMIKIPATKASYEVMYELM

KNGISVNATLIFSLEQSQKCFEALNAGLVEFRKNNIALKEQNTRTPQAVISIFVSRFDRLLNPKAKEQNR

IGILNANLAYNNIYSKNEPNIRALFASTGVKGDDLPKDYYIKELLFENSVNTAPLDAIEAFKGKMHFKKP

LMNFEIYTELNQIISQSEREKACNDLLSDGLEQFCIAFEDILKAL

>AHK51600.1 Sua5 YciO YrdC YwlC family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIYLAQTDTTVGFLSKNLEEINALKGRDKNQPCLITSAKFCELKSLARIPKSFKNLVRRSKKTTFIYPNN

QAIRIVKECKHANFLSKNGYFYSSSANKHGKEFDEEWARSVADIILDEKFFENIPSKILKLSKNKMIKIR

>AHK51599.1 carbamoyl phosphate synthase large subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPKRTDIKSILLIGSGPIVIGQACEFDYSGTQAAKTLKELGYRVVLINSNPATIMTDPEFADATYIEPIT

KESILSIIKKEKIDAILPTMGGQVALNVAMEVYESGLLGDVKFLGANPEAIKKGEDRQVFKECMKKIGMD

LPKSMYAYNYDEALKAVDEIDFPLMIRASYTLGGAGSGVVYNMDEFKELTNTALALSPIHEILIEESLLG

WKEYEMEVIRDRADNCIIVCSIENIDPMGVHTGDSITIAPALTLTDKEYQVMRNASFAILREIGVDTGGS

NVQFAINPKNGRMIVIEMNPRVSRSSALASKATGYPIAKVATLLAVGFSLDEIKNDITGTPASFEPVIDY

IVTKIPRFTFEKFPGANTTLGTAMKSVGEVMAIGRTFKESIQKALCSLERSLSGFDRVKFEDRNDLVFKI

RNANEKRLLYVAQAFREGFSVEELYELCKIDPWFLTQIKEIVDFEEQIDMDILNNKALLRKAKTMGFSDK

MIALLVNLKDNLELSQNDIYYVRMKQKIIAEFSEVDTCAGEFEALTPYLYSSINVSELTQSKNDAKDKKE

KKVMIIGGGPNRIGQGIEFDYACVHASFALKDMGIKTIMYNCNPETVSTDYDTSDILYFEPIDFEHLRAV

IEREKPDGVIVHFGGQTPLKFAKRLSAFGAKIIGTSARVIDMAEDRKKFAEFITKLGINQPKNSTATSVE

EAVLKASDIGYPVLVRPSYVLGGRAMRVVNDEAELRLYMQEAVDVSDKSPVLIDQFLDNATEIDVDAICD

GKDVYVAGIMEHIEEAGIHSGDSACSLPPCNIDEKMQEFIAQKTADIALNLGVVGLLNIQFALHNNELYM

IEVNPRASRTIPFVSKATGIPLAKVATRVMWQGNLKEALKFYDTFKVVNFDTKILRPKTPKYMSVKEAVF

PFAKLSGSDLELGPEMRSTGEVMGISKDFANSYAKSQIASFNHLPEQGVVFISLKDKDKKYTKKIAAEYV

KLGFKLMATGGTCKEILESGFECELVHKISEGRPNVEDKLKNGEIHLVINTSDSHSFKGDTKKIRENIIR

FKIPYFTNLRSALAGAKSIKAIQSKSCLDVKSLQEWLKS

>AHK51598.1 rod shape-determining protein MreC [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNKIFYVLVLAFLVFISFYYGGLIKQNVLRVNDFVIGNFYNIKDYLGEKISEHFNQANQIQQLKARNKE

LEDIAVKVTSFANQLNRILEDQNSTKYLPQVSLTRVISYVQLNDYKKLWLDWSKIPVGKNRGLIYQGYTA

GIAINKNGRAMALLQGDDQCVFSVYIGKSKAPGLIQGEDGRIVVKFIPKWAKINTGDEILTSGLDNIFFS

DIPVGIVNRVNDEDMYQSVEVKPYVKISIPAYLYVVDNL

>AHK51597.1 rod shape-determining protein Mbl [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MILDQLIGFFSSDMGIDLGTANTLVLVKDKGIVINEPSVVAVERERYGSKAKILAVGKEAKDMVGKTPGN

IEAIRPMKDGVIADFDMTEKMIRYFIEKTHRRKSFLRPRIIISVPYGLTQVERKAVRESALSAGAREVFL

IEEPMAAAIGASLPIQEPKGNLVVDIGGGTTEIGVISLGGLVISKSIRTAGDKLDMSIVNYVKEKYNLII

GERTGEEIKITIGSAIQLPKELSMVVKGRDQVSGLLSRIELTSEDVREAMREYLKEIADALKMVLEMMPP

DLASDIVENGVVLTGGGALIRGLDKYLSEIVRLPVYIADEPLLAVAKGTGKALEEISLLQQLTNEE

>AHK51596.1 ATP-dependent protease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPRKCSFCNEVENPQRRILANENDDAFICEYCVEGAYSIIYGEEKEFKEPKQSHNTEFKDITPKELKAYL

DRYVIGQDRAKKVFSVGVYNHYKRLFKAELQDDDTELFKSNILLVGPTGSGKTLLAQTLAKFLDVPIAIC

DATSLTEAGYVGEDVENILTRLLQAADGDVQRAQKGIVFIDEIDKIARMSENRSITRDVSGEGVQQALLK

IIEGSLVNIPPRGGRKHPNQEFIQIDTSNILFVCGGAFDGLETILKRKLGDKVVGFFDDAKEENKALLEK

IEPDDLVHFGLIPELIGRLHVIASLNELNEEDMVRILTEPKNAIIKQYQKLFAIDGVNLKFEEDALRAIA

QLALERKTGARGLRSIIEEMMVDLMFELPEYKDYDIVITKEVVKDNAKALLIKRKIS

>AHK51595.1 UDP-N-acetylglucosamine acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIHPSAVIEEGAQLGDDVVIEAYAYVSKDAKIGNNVVIKQGARILSDTTIGDHSRVFSYAIVGDIPQD

ISYKEEQKSGVVIGKNATIREFATINSGTAKGDGFTRIGDNAFIMAYCHIAHDCLLGNNIILANNATLAG

HVELGDFTVVGGLTPIHQFVKVGEGCMIAGASALSQDIVPFCLAEGNRASIRSLNLVGIRRRFDKDEVDR

LSRAFKTLFRQGDLKENAKNLLENQESENVKKMCHFILETKRGIPVYRGKNNA

>AHK51594.1 3-hydroxyacyl-ACP dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIDVMQIQEILPHRYPFLLVDKITELKVKEVVLGYKNISISDHVFMGHFPGHPIYPGVLILEGMAQTGGV

LAFESMEDKVDPKSKVVYFTGIDGAKFRNPVRPGDRLDYEMSVVKNRGNMWIFKGQAFVDGNLVAEAELK

AMIVDK

>AHK51593.1 hypothetical protein N916\_01320 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLVHICCSVDSHYFIEELRKTYPDEKIIGYFYDPNIHPLSEYELRFLDVKRSCDKLGIKLYKGEYEYEKW

LNAVRGYEDEPEKGARCEICFDVRMGSSVKFAAKIGEKKLTTTLLTSPKKDLEQLKNALQKECEPYGVEF

LAPDFRKNGGTQRQFALAKKEMLYHQNYCGCIYGLKKQKQDKNFIDELMSSVNKQILPVSIEARIALYKK

VVLWEKKGIKFEILREKFLNYRLLSALIKLDKKPVKSHILFYSHFKNAYTRFSLDEENLKQNLKEGFYRS

TKDEIVLVEFWRFNAFFKNKWKNFEDFLKKPLSVQAEIKWRNKLFGTYNLSPIIILENILPSRYEVIAKS

EIYHDNQEVLVKI

>AHK51592.1 bacterioferritin comigratory protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSLNIGDKAPQFELLNQDGVKIALKDFIGKKVILYFYPKDNTPGCTTEACDFSANYDKFGGKNAVIIGIS

PDSVASHEKFISKFDLKHILLSDSEKEVAKAYGALGLKKNYGKEYEGLIRSTFVIDETGKIAQIYSNVRV

KDHALKVLESL

>AHK51591.1 tautomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPLVNIKLAKPSLSKEQKAELIADITELLSTKYNKSKERVVVVLEDVENYDIGFGGESVEAIKAKASK

>AHK51590.1 branched-chain amino acid aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MISADKIWMDGKLVDFKDATLHFLTHSLHYGNAVFEGTRAYKTDKGLAIFRLEDHTKRLLESAKITLLNC

PFSQKELENAQIELLKANNFKSNVYIRPLIFLGDGVMGLYHIKAPVRVGIAAWEWGAYLGEEGLEKGIKV

KISSFARNSVKSCMGKAKASANYLNSQIAKFEAIEAGYEEALMLDEEGFIAEGTGECFFIVKDGVLITPP

NDFSLKSITQDTVLKIAHDLGITVLRQRISRDEVYTADEAFFTGTAAEITPINNIDARIIGNGLRGSVTK

KLQDAYFDVVYGRNEKYASMLTYI

>AHK51589.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPADLNDYFNKKNGNSNNNGNNNRQNFNFKAPEFNFKGFGKFSPFVYGVIIIILFLIVAKPFMVINSGEM

GIKSTTGKYDPNPLEPGLHFFLPFVQKITIIDTRVRQINYASIEGSNENLSSGSGVINKNSISVLDSRGL

PVSIDVTVQYRLNPLQVPQTIATWSLNWENKIIDPVVRDVVRSVVGKYTAEELPTNRNTIATQIEEGIRK

TIEAQPNEPVELRAVQLREIILPSKVKEQIERVQIAKQEAERTKYEVERANQEALKKAALAEGEANATII

SAKGKAMAVKIEADAQAYSNKEIANSLNTPLLNLKQIETQKEFNEALKVNQDAKIFLTPGGAVPNIWVDT

KDAKKQSAANMN

>AHK51588.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKLREIVLFYTTHLYLVDYMLILLVFFLFTCVLLLCVFLRHRPIAALFIIAFDIIICFLVYIYGYKLID

NEVRTRKIAITDQKMIQSSNDLIVDFNITNNSKNNFKECKITAKIFADKIPNDNIIEEYKKKFIPFRQKS

REIKDLKKNATQVQRIAFENFNYENNYTIRLVSECF

>AHK51587.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MHFTIFHIIAFIILLICFALICILIFLKVKQKEMALISYTIATIFTALLIYSIFLTINQFTTQADLSKLT

YTRDLRHESVIVSGKVQNLTKFEIKKCYLILSILNQQQVGGEIFNDKNIRNAKMQNTSVSYTIEIIDTLP

GNTYKEFRASVPFPPTFNNPEFYHTLKCI

>AHK51586.1 hypothetical protein N916\_01275 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQFTFEQIFIAMLLTLFAGFSTAIGSIIAFFSRKDDLRVLSLGLGFSAGVMIYISFMEILPTALKDFKNH

YDSHWAELLGLACFFGGILISLLIDKLIPEDVNPHEPKEDLSELKICPLPQKGQNPPKFHPGEKLHQINT

KALKRTGIFTALAIAIHNFPEGFATFISSLDNLTLGIAIAIAVAIHNIPEGLAVSLPIYHATGDKKKAFI

YSALSGFAEPLGAFVGALILLPFIGDLTLAISFAVIAGIMVFISLDELLPAAKTYDKAHDSLYGLIAGMA

IMALSLNLLGQ

>AHK51585.1 MCP-type signal transduction protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQSINSGKSVGISAKLTLWVGILVVLILAITSAISYFDSRNNTYELLKDTQLKTMQDVDAFFKSYAMSKR

NGIQILANELTNRPDMSDEELINLIKVIKKVNDYDLVYVGFDNTGKNYQSDDQILDLSKGYDTKNRPWYK

AAKEAKKLIVTEPYKSAASGEVGLTYAAPFYDRNGNFRGVVGGDYDLANFSTNVLTVGKSDNTFTEVLDS

EGTILFNDEVAKILTKTELSINIANAIKANPALIDPRNQDTLFTAKDHQGVDYAIMCNSAFNPLFRICTI

TENKVYTEAVNSILMKQVIVGIIAIIIALILIRFLISRSLSPLAAIQTGLTSFFDFINYKTKNVSTIEVK

SNDEFGQISNAINENILATKRGLEQDNQAVKESVQTVSVVEGGNLTARITANPRNPQLIELKNVLNKLLD

VLQARVGSDMNAIHKIFEEYKSLDFRNKLENASGSVELTTNALGDEIVKMLKQSSDFANALANESGKLQT

AVQSLTTSSNSQAQSLEETAAALEKITSSMQNVSVKTSDVITQSEEIKNVTGIIGDIADQINLLALNAAI

EAARAGEHGRGFAVVADEVRKLAERTQKSLSEIEANTNLLVQSINDMAESIKEQTAGITQINDSVAQIDQ

TTKDNVEIANESAIISSTVSDIANNILEDVKKKRF

>AHK51584.1 SAM-dependent methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLWDKKAKTYARYQNTLNTIQKQTFEYLQNLKISFQDKSIIDIGCGTGVWTLHLAKEAKEILALDSANA

MLEILQEDAKKLNLNNIKCKNLSFETWMQNNPNVKFDLAFLSMSPALQNEKDYTNFLNLAKIKIYLGWAD

YRKSDFLDPIFKYFNTEFKGFYKKDLENYLLEKNIFFHKIVFDETRKVQRTKEEAIENALWHLSMNKITA

SKETVSSFVENNITETIESKIKLLIINNL

>AHK51583.1 dihydroorotase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLKNPLDMHLHLRDNQMLELIAPLSARDFCAAVIMPNLIPPLCNLEDLKAYKMRILKACKDENFTPLMT

LFFKNYDEKFLYSAKDEIFGIKLYPAGITTNSNGGVSSFDIEYLKPTLEAMSDLNIPLLVHGETNDFVMD

RESNFAKIYEKLAKHFPRLKIVMEHITTKTLCELLKDYENLYATITLHHLIITLDDVIGGKMNPHLFCKP

IAKRYEDKEALCELAFSGYEKVMFGSDSAPHPKDTKECCGCAAGVFSAPVILPVLAELFKQNSSEENLQK

FLSDNTCKIYDLKFKEDKILTLEEKEWQVPNVYEDKYNQVVPYMAGEILKFQLKH

>AHK51582.1 ArsR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFENLIREILGKKRFELLKFLCENADENGFIMIKISDLEEKLHQSKPTIIATFKFLEEKKLFKRLKNGF

YQLNIGDKNET

>AHK51581.1 DeoR family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKPKYHFLNNARYALEGLFALFKNEMAFRIELCIIIPAIVFSFFLKISFLEHLLLISVLILILIVEALNS

AIEACVDLITNEWHEKAKIAKDCASAAVFFSVLLALFVWGFILYNIYL

>AHK51580.1 sulfatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLRLTWFQFTFFNSLMIVLLNFNLFYFVYEKNTQNWLITFVFIVAYFALVHVICSLLFIKFFTKFFSILF

IISSFLSVYFISFYGVLIDSDMMQNVVQTDIKEVKDLLNLKLILFVVLALLLVFYVVKVKIDYYGSFKSH

IKIKIINIISGLIVVCAVLIPLSKTFLPFFRNYNEIRMYNTPFYQIYAVYRYYVRFVKAKPEFKTIANDA

YRENNHTKKLLVLVVGETARAANYSLGGYTKNDTNFYTKKDNVVFFDNFSSCGTATAVSLPCMFSISKRE

NYSSSEFQENAMDVLYKTGVDAVWFDNNSGGCKGVCDRLAYKQKLSSDLDENLLAPFKEKLNHLSDQNII

VLHLQGSHGPTYYKRYPSEFKKFTPTCDTNELSKCDSEALINTYDNTLLYTDYLLSEIIKLLKEQKSYES

SLFYLSDHGESLGENGIYLHGMPYAIAPSYQTHIPAIFWSNDKNLMNLAKEYKGLKLSQDNLFSTLLGYF

DVKTSVYEPEYDLLNPKLKANP

>AHK51579.1 exodeoxyribonuclease III [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLLSWNVNGLRAICDKNALDWIAQEQIDFIGFQEIKAHEDKFPKKIYEYPFKHMYFNSAKRAGYSGVMS

LCNFNSEVKKCEFFDDEEGRVLEHRFKNIALFNIYFPNGQKDEERLNFKMQFYADFLVYLDKLLKDGFEI

IICGDVNTAHKEIDLTHPKANANTSGFLPIERAWIDDLLKLGFIDTFREINGEIKEKYSWWSYRMKARER

NVGWRIDYFFISKGLKDKLKNAFIRDDIFGSDHAPVGIEIDI

>AHK51578.1 hypothetical protein N916\_01230 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNTLIIFENSLSNLGKDEASDLLEDLSFNLAYKQISHNPHETKKVLNSLLVEFLTILKKLDFFDDENVT

KVIKALVKASIVDAQNSLYEYISEAELLNKQIENQKNLIKNQISDNFFEFENILQECSFCDEFSGGLNDA

ILFDIEMLGILKETAESAFLTTLEKAEDIELTSSEIAKNLVYNAICEAHFEKERILKISSIILNTAFEIA

NESMAYAKDLCLGVIKGTRDGIVLAMEKFKASLTYANFEEDVSLKSKELIGIEDDFIALLKKEIQLQNDP

CKSIVENLLEHELDNLFAKFRRLAGESREQLILVLNDIKKNPKINDFNKLTQRKLNRFKQEIFELEKIAS

EKYKDLNSKKAKKLGVRLWEKAKKFVKK

>AHK51577.1 hypothetical protein N916\_01225 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVNLCDLKKEPQINYPTFWDYKVIFEVHVKASEIFEEILGQREYKFKHSNSSASGKYQSYLLNVYVDSKK

DRLDIFDKLKAKAKFVL

>AHK51576.1 molybdenum cofactor biosynthesis protein C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLSHLDEKNHPKMVDVSDKNITLRIATASGIIYMSQEAFDVIKNNTAKKGPVLQTAIVAAIMGVKKTSE

IIPMCHPLMLSKVETNIVEFVKECAFKLIVTVKCEGKTGVEMEALSGVSIGLLTIYDMIKAIDKSMRITD

IVLESKEGGKSGKFVRS

>AHK51575.1 MFS transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKTLNQKDIKVLGLSSLGGTLEFYDFIIFVFFANYISTNFFPKDLSSFWQMFNTYGIFAAGYLARPLGG

VILAHFGDKFGRKRMFMISILLMVIPTFTLAFIPNYESIGFLCIVLLVFIRICQGIAIGGELPGAWVFVY

EHAPQGQKRTYLGILTASVVGGILLGSLVFLIMNKIYTQEELHEWAWRIPFFLGGIFGIISAYLRKFLRE

TPVFEQMKKDKALEKFPLKEVFKKAKMGIVLSMMITWVLTGCIVVMILLMPSYMAKILQINTSIQTYLQI

GGILLICLGCIISGILADKIGVIKSCVFFSVFFGIASLLYFNTLYRQNADFNLVACLYLLVCFFSGVMNF

CPLIMSEVFDAKIKFSGLSFSYNIAYAIAGGLTPQLAFFLHSFALNNLSNFWRFSLGLYVFFLAIIALLC

AFIFSYLNNTQRTYSQ

>AHK51574.1 cysteine permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKSLILPPNEFLDHYILNAEFHRFAGISKNAYKFWKNAEIGRYQGTRIIFLHRNCILEKHQQALRQCSGL

NGFVLASAFCSFTGLAPSHLVEKNNSSIYKLLELKEICGIKFVNLKKFYDFLGLNYHQHIYIEKCHFFSP

APFEKRIKITESMCVGYY

>AHK51573.1 hypothetical protein N916\_01200 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIGDMNELLLKSVEVLPPLPDTVSKLRKYVSEANSNIETMKVAEIISSDPLMTAKLLQLANSPYYGFTRE

ITTINQVITLLGVGNIINIVMADSIRDNFKIDVSPYGLNTQNFLKTCNEEATFIANWLNDEDKKLSHLLV

PCAMLLRLGIVIFSNFLIQNHKDKDFLAFLNKNENLALAENEFLGVDHISFLGFLLHRWNFDDVLIESIC

FVRTPHAAREKVKKSAYALAITDHLFAPHDGSSPFNAKAAVALLKEAKTQGINFDLNNLLSKLPNKAKEN

LNKED

>AHK51572.1 50S ribosomal protein L20 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MARVKTGVVRRRRHKKVLKLARGFYSGRRKHFRKAKEQLERSLVYAYRDRRRKKRDFRRLWIVRINAACR

LNDLSYSRFINGLKKAGIELDRKILADLAMNDAAAFAKIAEAAKKAL

>AHK51571.1 50S ribosomal protein L35 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPKMKSVKSAVKRFKVGKNKIKRGSAFRSHILTKKPAKRMRGLRTAKYVHSTNVKAVEKMLGI

>AHK51570.1 hypothetical protein N916\_01175 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTINSANPYQNLTLSNPLQNSSALNLIKDSKALDQEGNENSLEQLSYIFNNTTYASEFGFRINEEGFFDK

DLNKIANIPESYDINIKSVRSIAKELAKQDENLNYNKIDLPYLLNSYHSSLKSINSEFLQDDNAYLSRDL

ISKLSSGFSTDNGEFLGQISRIYNNQEEIDLALSNITNLNTLMLDNKITNFHFDKAIENTSSNEILKPYL

TKNAEVSKSGLLMNFIYHDIKTQNEKEFNFFMKPATLELSSHQNLQKILKGETDIEDYIKKENEKKMSFD

LYLYINGVDKKTSTQDKLSVFFQQYINYQKDMDLREFANSSSIFQIYIDQNRNDFDALKKQYQNQSQDTQ

RLEEANQLRSSSIENFLDRRQKQANINKILNSYMSVMV

>AHK51569.1 bacteriohemerythrin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTYNEKIISMNNDLLDHQHKELFEISKKLSLMNQRHVGTKELKIVLRELLIMINRHFSDEEAFMREIEYP

YINHHTRIHRKIILEIEEIIISEAKFVNIMTEKLNLVVQDFIFKHTAKEDSKIVKYYEEKFKK

>AHK51568.1 cysteine desulfarase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVYLDNNATTMLDPNAYELMLPFLKDMYGNPNSLHQYGSATHPALREALDKLYAGLGANDLDDIVVTSC

ATESINWVLKGVYFDHILDKERNEVIISSVEHPAVTAAAYFLKSLGVKVIELPVNEEGVSTVEDLRKVIS

DKTALVSVMWANNETGMIFDIKAMAELAHEFGALFHTDATQAVGKIKVNLTQVGVDFASFSAHKFHGPKG

VGGLFIKKGLKLTPLLHGGEHMGGRRSGTLNVPYIVAMGEALRIANTMLDFEDSHIRRLRDKLEDQILAL

PDTTVVGKREHRVPNTILASIKGVEGEAMLWDLNKNGIAASTGSACASEALESNPIMEAIGAEHDLAHTA

LRLSLSRFNTEEEIDYAAKQIKNATQRLRAISCTYAYNPNNYK

>AHK51567.1 nitrogen-fixing protein NifU [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGKNSLIGGSIWDEYSQKVQDRMNNPQHMGEFSEEDAKARNAKLIVADFGAESCGDAVRLFWLVDEKTDK

IIDAKFKSFGCGTAIASSDTMVDLCIGKTVDEAVKITNLDVEFAMRDNPETPAVPPQKMHCSVMAYDVIK

QAAAHYKGISPEDFEDQIIVCECARVSLGTIKEVIKLNDLHSVEEITQYTKAGAFCKSCIKPGGHEKRDY

YLVDILAETRAEIDREKLKNTMKSDVAFDEMTVVGQLKAVESVLDAEIRPMLHNDGGDLEVIDIQKAEGA

AIDVYIRYLGACSGCSSGSGATLYAIETILQEELSPNIRVMPV

>AHK51566.1 mechanosensitive ion channel protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIIFSLCFFILHLGAQEFKFIDANISKEDEGIYALVEKYVDLNNQIKEFKKNNDENSSTFNGILSEFE

KDKKTILAKIPDMIVGQKINEEAVARFLKAKEKLLDVQKKNINKPYIYTDATLNLVYFNIVESFYSSLFE

VEKLFKNTASSEDLIATVDKAMENLQNSSNVNLDSFKSKITNPEELEKITLKERYISNAVDSYSEILKYL

RSNADLLESNYIFSLLELQVWIDRINEAIGVSFVNIGKIVISALVLVFFISLRRFFANIVYFFLVQLFYR

NKNDVDDIKVIFIENIKKPVGFLLIVYAISLCLTIATYPAPLSVNLSNFFHIVYAVLIAWLILRMLDGYG

VVLVSKLAQKSGKKEVVNLIIKILYFVIIIIALLYILAQLGFNISAIIASLGIGGLAVALAAKDIIANFF

ASILLLFDNSFNQGDWVEVSGIEGTVVETGLRKTTIRTFDNCLVFLPNSTIMGANIKNWSKRRMGRHVRM

YLGVGYDATPEKLEQCVKDLREFLHTSDLVAHDEDSALKYGDHTTKYRQNLVSINDLEGYKNACYVALSE

FADSSINIELYFYIKEIGGKDFREARQSLMLEFMRIIEKNGLTFAFPSRSIYIENLPPLDLQAKAIK

>AHK51565.1 carbonic anhydrase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENLISGAIKFMQEDFKEHEELFESLKNKQNPHTLFIGCSDSRVIPNLITNTGPGELFVIRNIANIVPPY

RVGEDYLATTSAIEYALNSLHIKNIVVCGHSNCGGCNALYYSDEELNKIPNVKKWLTMLDPIKKDVMIFA

RDDLAMRSWLTEKLNLVNSLQNILTYPGVQEALDEGKIEVHAWYYIIETGEIYEYDFKAKIFTLIQDRKV

Q

>AHK51564.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSLYDRDYSRSKEFENTRSSELSIFIKQTYQLFAASLLAATVGAYVGIFALASFFIQSQVTFWILFAVEI

GLLFALQWKKREAPLNLVLLFGFTFCSGLTLTPLLISVLALPAGGIIIAQAFALTTVAFAGLSVFAMNTK

KDFTVMGKALFIVLIVIVAASLLNLFFQSSIVNLAISAVAAILFSFYILYDTQNIIRGNYETPIEGAVAL

YLDFVNLFVSLLNILRSFNSR

>AHK51563.1 preprotein translocase subunit SecG [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MITLLIILQFIIVVVICIAVLLQKSSSIGLGAYSGSNESLFGAKGPAGFLAKFTFVMGILLIANTIGLGY

LYNKASKDSLAEKIKVENNNTTIPSAPIVPTTPNTNSIAPSAPQLPSDVNSSK

>AHK51562.1 ribosome-recycling factor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNEIFNKQKTQSEKSLEALKKDFTTLRTGKVNIHILDHITVDYYGTQTPLNQVATVLASDASTISITPW

EKPLLKTIESAIAAANIGVNPNNDGESVKLFFPPMTREQREENVKQAKAMGEKAKVSIRNIRKDANDAVK

KLEKDKAISEDEAKKAYDEVQKLTDTYTTKIDEGVKSKESELLKV

>AHK51561.1 orotate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLEQIYKDCGAYLEGHFLLSSGKHSQFYLQSAKVLEDPKLAAKLCDELAKIIASYKIEFDSICSPALGG

ILAGYELARACSKRFIFTERVNKEMTLRRGFEVKKGEKFIICEDIITTGGSALESAKIIESLGGIVVGFA

ALANRGFCAVENLKSPRKDNAKLPENLPLFTLGNFEFEIYDETNCPLCKKGNKAIKPGSRGN

>AHK51560.1 ribonucleotide-diphosphate reductase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQRKRIYNPSSNETLGDRKVFDGNPHGILNFTKAKYTWALKLWDLMEANTWFPKEVDTTKDALDYRCNLT

AGEKRMYDLVWSQLISMDSFQTNNLADNINPYITAPEINAVLARQAYEEANHSKSYAVMVEAICDNTDLI

YEMEKHDETLREKNDFISSIYEELAGDVDDNKLLLAMVANQILEGVYFYSGFTAIYALARAGKMLGSAQM

IRFIQRDEITHLLLFQNMINSVRKERPDLFHDENINKIYDMFKKAGDLEIKWGKYITQNQIMGFTDDIIE

EYIHYLVDQRLSAINLDKLYNAKHPIKWVDDFSKFNDQKSNFFESKVTNYSKGSISFDDF

>AHK51559.1 nicotinate phosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTSKTSLALLCDFYEFTMSQGYFKNNKKDQICYFDIFFRKIPDSGSFAIFAGLEDILDFVENLSFDAEDI

EFLRKQGIFDTEFLDFLANFKFKGEIYAMREGEVIFPNEPLLCIKATTIEAQLLETFLLLSLNHQSLIAT

KTNRIVRAAKDSKILEFGSRRAQGSEAALKGARAAFIGGCIGSACTLAGKIYNIPINGTMAHSWVQMFEN

ELEAFKAYVKIYPKNPVFLIDTYDCLNSGLKNAIKVFKEFGIQEGGVRIDSGNLLELSLKIRQELDQAGL

QKCKIIVSNALDEWSIKKLKEQNAPIDIFGVGERLITASSDPIFSCVYKLAALEDQGIKPKIKISENNEK

STLPHFKKLFRVYDKNTQKILFDELYVFDENPNQDENLERKELLELVYKEKRLLKKSSLNTIQDYTKEQI

SKLDESFLDLDRFVKFEVKLSPKLQNITEDLLKTRF

>AHK51558.1 acetyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLIKFKNHSPKLGQNVFVAEGAKIIGEIEIGDESSIWFNCVLRADVNFIKIGKRTNIQDLSTVHVWHREF

DEKGKLKDAGFPTIIGDDVTIGHNCVIHACVIKNRVLIGMNAVIMDNALIEEDSIVGAGSVVTKGKKFPP

RSLILGNPAKFVRELNDEEVSFLKQSALNYVDFKNEFLKDLQ

>AHK51557.1 protein-L-isoaspartate O-methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNAFEQKRCQNMAEEIAQKVFINEELFNAFCQIPREIFSPLKAHAYRLDALPLANSQWISSPLTVAKMTM

ALDFKNADSILEIGCGSGYQAAILSKVIRRVFTIERIENLAKKAAQTFRELELFNINVKFDDGQNGWKNY

APYDRILFSAYATQIPEILLDQLSDDGILVAPILHNGKQFITRLRKNGTNLQKEILEECLFVPIVDGKE

>AHK51556.1 acetylornithine aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDYKEQSHIIPTYKRFDIVLEKGQGVYLFDDKAKKYLDFSSGIGVCALGYNHAKFNAKIKAQVDKLLHTS

NLYYNENIAAAAKNLAKASALERVFFTNSGTESIEGAMKTARKYAFNKGVKGGQFIAFKHSFHGRTLGAL

SLTANEKYQKPFKPLISGVKFAKYNDISSVEKLVNEKTCAIILESVQGEGGINPANKDFYKALRKLCDEK

DILLIADEIQCGMGRSGKFFAYEHAQILPDIMTSAKALGCGLSVGAFVINQKVASNSLEAGDHGSTYGGN

PLVCAGVNAVFEIFKEEKILENVNKLTPYLEQSLDELINEFDFCKKRKGLGFMQGLSLDKSVKVAKVIQK

CQENALLLISCGENDLRFLPPLILQKEHIDEMSEKLRKALKSF

>AHK51555.1 acetylglutamate kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKYLEKANVLIEALPYIRKFNSKIILIKYGGSAMENEELKHCVMQDIALLKLVGLKPIIVHGGGKDISA

MCEKLGVKSEFKNGLRVSDKATIEVASMVLNHINKNLVHSLQNLGVKAIGLCGKDGALLECVKKDENLAF

VGTIQKVNSKILEELLEKDFLPIIAPIGMDENFNTYNINADDAACAIAKALRAEKLAFLTDTAGLYEDFN

DKNSLISKISLEQAKILAPKIEGGMHVKLKSCIDACENGVKKVHILDGRVKHSLLLEFFTDEGIGTLVG

>AHK51554.1 N-acetyltransferase GCN5 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLIRAMQKSDYEAVYKLWCEIKGFGIRSIDDSKENIENFLDRNPNLSVVAVIDEEIVGSILCGHDGRTGG

FYHVCVHKDHRKKGIAHEMAKFCLEALKAQKINKIALIAFKNNDLGNEFWKHYGFTLREDANYYDLSLNE

YNQTSFNA

>AHK51553.1 N-acetyl-gamma-glutamyl-phosphate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIKVGILGASGYAGNELVRILLNHPKVEISYLGSSSSVGQNYQDLYPNTPLNLCFENKNLDELELDLLF

LATPHKFSAKLLNENLLKKMKIIDLSADFRLKNPKDYELWYKFTHPNQELLQNAVYGLCELYKEEIKKAS

LVANPGCYTTCSILSLYPLFKEKIIDFSSVIIDAKSGVSGAGRSAKVENLFCEVNENIKAYNLALHRHTP

EIEEHLSYAAKEKITLQFTPHLVPMQRGILISAYANLKEDLQEQDIRDIYTKYYQNNKFIRLLPPQSLPQ

TRWVKSSNFADINFSVDQRTKRVIVLGAIDNLIKGAAGQAVQNMNLMFDFDEDEGLKFFANL

>AHK51552.1 DNA modification methylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKENPSFLKEQIITYLGNKRALLSFLNNGFKVAKKELGKDKFSFCDIFSGSGVVSRFAKAHSNYILANDL

EDYSKLINECYLANKDKDLLQNIKKYYKNLIQNLDFQKGFISELYAPKDDDDIKKNERVFYTFKNALYLD

TIRQKIENEIPKELRHFFIAPLIYEASVHSNTSGVFKGFYKGKDGIGKFGGEGQNALKRIKGEIELKMPI

FSNFSCEFEVMQKDANMLAKELDFFDVVYLDPPYNQHPYSSNYFMLNLIANYKKPEEISKISGIPKDWNR

STFNKSKFAQDALFELINDLKARVILLSYNCEGFVKKEIFLKRLSTLGKCRILEQKYNTFRASRNLKNRN

IHLHEQLYILVKN

>AHK51551.1 translation initiation factor IF-3 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKEKEVLLNEEIRADEIRCVGDDGKVYGIISSDEALEIANRLGLDLVMIAADAKPPVCKIMDYGKFRYQ

QEKKQKEAKKKQKVIDIKEIKLSVKIAQNDINYKVKHALEFLEQGKHVRFRVFLKGREMATPEAGVALLE

KIWTMIENEANRDKEPNFEGRYVNMLVTPKKA

>AHK51550.1 threonyl-tRNA synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKEVIAYLDNETIIDSQSVKNTNLKEIYFDNSKESLEVIRHSCAHLMAQAIKSLYPEAKFFVGPVIEDG

FYYDFRVESKIGEEDLVKIEKKMKELAEAKIEISKYEITKSEALAKFQNDDLKQEVLLRIPDRAVSIYKQ

GEFEDLCRGPHVPNTKFLRFFKLTRVAGAYLGGDEKREMLTRIYGTAFADKESLKEYLTIIEEAKKRDHR

KLGTELKLFTFDDEIGGGLPIWLSNGARLRSKLEHMLYKIHRLRGYEPVRGPELLKADAWKISGHYANYK

ENMYFTQIDEQEYGIKPMNCVGHIKIYQSDVRSYRDLPLKFFEYGVVHRHEKSGVLHGLFRVREFTQDDA

HIFCMPSQIKEQVLEILAFVDNLMKLFDFSYEMEISTKPEKAIGDDEIWEIATKALKEALDEQGLKYGID

EGGGAFYGPKIDIKITDALKRKWQCGTIQVDFNLPSRFKLEYTDSDNEKKQPVMLHRAILGSFERFIGIL

TEHCAGEFPFFIAPTAVGIVPIGEAHIAYAKEIQKELLELNIDSEVYEKNESLSKKIRIAEKQKLPMILV

LGDDEVAKRSVALRDRRAKEQKNLSLDEFIKLVKEKMSEVHF

>AHK51549.1 UDP pyrophosphate phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENLYALILGIIEGLTEFLPISSTGHMILGTTILGIDIDEFWKSFLIIIQLGSILAVIFVFWRKLFQGLD

IWLKLAVGFFPTGVIGLFVAKYLNALFNGWVVVGMLIFGGVVFILIELAHKNKQYRINSLEEISFKQAFC

IGIFQSLAMIPGTSRSGASIIGGLLLEFNRKVAAEFSFLLAIPTMIIATAYSIYKEPELLGNANSLIPLG

IGFITAFIVAVLVIKFFLKFISKFDFIPFGIYRIILGFVFFYLYYSGILNAGSEFKL

>AHK51548.1 peptide transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYKKQNLPELTLRGLILGSILTIIFTASNVYLGLKVGLTFSSSIPAVVISMAVLSLFKTSNILENNMVQT

QASAAGTLSSVIFVIPGLFMCGYWSEFPLWQTFMICLCGGGLGVLFTIPLRRTMVVESKLAYPEGRAAAE

ILKVANKDQSSKKGKQGIKEIALGSFIAAIFSLLSNGFKLAASESNFAFIWNKMAFGFSMGYSLALLGAG

YLVGLAGAIALFVGMFLAWGIFTPYLSNFEFDSTKNAVDLASSVWSSKVRLIGTGAIAIAALWTLIELLK

PVIEGIKEIVKNVKITNQEKNERTNIDLSLKSIFILFVLMVVGLFITFYSFVEDANLSIYYQMLFSFVGT

LVSVLIGFFVAAACGYMAGLVGSSSSPISGIGLIGVIISSIVFLVLGVELFQDPMLSKFAVALAIFTTSV

ILATAAISNDNLQDLKTGHLVGATPWKQQVALLVGCVFGALAIVPVLNLLYQAYGFVGAMPREGMDASSA

LAAPQANLMSTIAQGIFHHNIEWGYMAFGVFVGILMIIIDKILKGTQKMSLPPLAVGIGIYLPPAVNIPL

VIGGILKYIVMQHLTKKYAKNSHKEEKLASCEQRGTLFASGLIVGESIFGVIIAGITVFSVSMGGSENPL

ALNLANFHDSELFALIFFVGVVLYFIKRIVKKDA

>AHK51547.1 hypothetical protein N916\_00995 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKSILFASALLASSMLFADSLKLEGTIAQIYDNNKTLLIDSIYGGQMAIKVLPNTEIEMDDCGIFGTDK

DGTFKDLQVGNFLESKISYGTPATPNTQAIPVARKIEIQCYKKAY

>AHK51546.1 hypothetical protein N916\_00990 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKWIFIVFCFILGFIIHIFYIGYTNELLFNKFIKNSNPDYTITDIYFKKGFLTSKGSFTLNHSHTQLST

KINLKFNNYFFLNKIIKGNFTNPFDFLDEVLKNNKLGTFTLKLHDNNSKIFLNIKDINLSNEGGDTIING

GYIEVLMNKNLEIKNMKIHFDMINFSQFYTKFVLQNLNYEQFFNNPVQFYELNLFSDSQQEINFDYLVLD

NNKINSFYSKNQVNFNEENSAVNLNIQGKSNEIDLKSLLGQNLNFDKTKFNITINKFFNSNFNISHFIQK

NLDLKIQNLILEKNKQNISLQGNLNINNSYQAKLQVISSDEPDEIFPWTKDYGGLNQYFLKENNNFFLNL

SYDSLANPQLKINGSEFSNMDLN

>AHK51545.1 ATPase AAA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSLALTFRPENFDDILGQYELIEIFKKFTALQKLPHSIFFGTAGSGKTTFARVVAKEFGLDFYEFDGGNF

KLEELRKILDNYKNSLYKPLIFIDEIHRLSKTQQEMLLIPMENYRLILIGASTENPYFVLSSGIRSRSML

FEFKSLGAKELETLLLRVQEKMKFSIDKEAKDFLLKSADARAMLNLLEFVLVLDEKHISLENLKKLRNTI

NSEGVSSKDTHYILASAMIKSLRGSDVDAAIYYLARLIDAGESADFIARRLVIFSSEDVGNADPNALNLA

VSTLDAVKNIGYPEARIILAQCVVYLASTIKSNASYKAINEALNYVKNNEALEIPNYLNNNHQEKQNYLY

PHDFGGWVEQKYLGKNLKFYHSKGLGEEAKLLDNLYKLKNHKA

>AHK51544.1 dihydrodipicolinate reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIKIGIYGAKGRMGKQIEECLKSETQARISILYDKGGNLGELFEKSDVIIDFSSPSGTHELLNYARTMPK

PLVIGTTGLDEKILHLMQSASEVMPIFYATNMSLGVAVLNYLASKASQMLRNFDIEILEMHHRHKKDAPS

GTAMTLAQSVAKARNLELEKVRVSGRDGIIGERSKDEIAVMSLRGGDIVGRHTVGFYEDGEFLELNHTAT

SRATFAKGAIKIAIWLSKQEAKMYSINDFLGI

>AHK51543.1 amidophosphoribosyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MCAVVGVINSKNASTYAYYALFAMQHRGQEASGISVSNGKNIKTIKAKGEVSQIFNPDNLKTLEGEIAIG

HNRYSTAGNSSLNDAQPIAATSVLGDIALAHNGNLVNKEEVRSRLIQDGAIFQTNMDTENVVHLIARSKQ

ESLKDRFIESLKECIGAYCFVLASKDKLYVVRDPHGVRPLSLGRLKDGGYIVASETCAFDLIEAEFIRDV

KPGEMLIFTQGNDKFESIELFSQTPRICAFEYIYFARPDSIVEGKSVYEVRKKMGEALAKKFAYKADFVV

PVPDSGVSAAIGFAQYLQIPLEMAIVRNHYVGRTFIEPTQELRNLKVKLKLNPMRKVLEGKEIVVIDDSL

VRGTTSKKIISLLRAAGASKIHLAIACPEIKFPDTYGIDTPTFEELISANKNAEEVREYVEADTLSFLSI

EELTQSIGDERKYSLISFDGDYFIK

>AHK51542.1 ATP synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLEKLRSKLGKENLSAIFGEITKISATSIEIRGLKTGVGDIVKLVSNENENLNTLAMVVEIKEQFSYLS

PFSFIEGFKIGDRAFISDAGMQIGVSDELLGRVVDPFMRPKDGKGAIEATKYMPIMRAPIDAMKRGLIEE

VFPVGVKTIDALLTCGVGQKLGIFAGSGVGKSTLMGMIVKNSKAPIKVVALIGERGREIPEFIQKNLGGK

LDDTVIIVATSDDSALMRKYGAFCAMSVAEYFKEQGKDVLFIMDSVTRFAMAQREIGLALGEPPTTKGYP

PSVLSLLPQLMERTGKEEGKGTITAFFTVLVDGDDMSDPIADQSRSILDGHIVLSRELTDFGIYPPINIQ

NSASRVMSDIISPEHKLWARKFKRLNSLLKENEVLLRIGAYQKGSDKELDEAISKKEFMQKFLGQNPEES

FEFNQTLELLSQIDTPNTPLPPTQNINVGSASATLPNPNLK

>AHK51541.1 GTP cyclohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKKFEDCVKTMLEIIGENPNREGLIKTPNRVFKAYEFLTSGYTQNVKEILNDALFESSNNEMVLVRDIE

FYSLCEHHLLPFFGRAHVAYIPNKKVVGLSKIPRLVEVFARRLQIQEQLTEQIAQALMENVDAKGVGVVI

EARHMCVEMRGVQKANSTTTTSALRGIFLKNEKTREEFFSLINSAKQVRF

>AHK51540.1 trigger factor [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEVKAKQLDSVNATASVKIPSGMIKSEVENLAKKASKSVKMDGFRPGKVPVSAVLKRYERELTQDAEQNL

FKSAVNSALQELKKENKELVGEPYFEKFDRKDGEIIAELILSFKPEIKLEGYEKLIPEYQTPKVSKKEID

EKKDELLKRFATPEAIKTKRALKEGDFAKFDFEGFVDDKAFEGGKAENYVLEIGSKQFIPGFEDGMVGMK

IGEEKDIKVTFPKEYGAAHLAGKDAVFKVKLHEIQELKIPELDDEMLKKLLPGEEKASVEVLDEKLKEQI

KNEKLFKLVNDELKGKFADALIEKYNFDLPKGIVEQETDMQMRAAFNTFSEKEIEELKASKEKYQEKRDS

FKEEAQKSVKLTFIIDELAKLRKIEVNDQELIQAIYFEAYRYGMNPKEHLENYKKQGALPAVKMALIEEK

LFNDIFIPKTEKSEKVSKKEKEDK

>AHK51539.1 ATP-dependent Clp protease proteolytic subunit [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFIPYVIEKSSRGERSYDIYSRLLKDRIIMLSGEIHDELAASIVAQLLFLEAEDPTKDIYLYINSPGGVI

TSGFSIYDTMNYIKPDVCTICIGQAASMGAFLLSCGAEGKRFALPNSRIMIHQPLGGARGQATDIEIQAK

EILRLKTILNDILAKNTKQKVAKIAKDTERDFFMSAQEAKEYGLIDKVLEKSFK

>AHK51538.1 peptide deformylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVRKIITYPNPRLFLNSEIVNKFDTELHTLLDDMYETMIASNGVGLAAIQVDIPLRVLLVNIFDENDEQK

KEDLLEIINPEIIPLDEEMITCTEGCLSVPDFFEEVKRYNHILLKYQDRFGEFKELEAKGFLAVAIQHEN

DHLNGHLFIEKISFAKRQKFDKEFKKKKKNHKKEK

>AHK51537.1 Fis family transcriptional regulator [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKLKCISFHEGLDIIEVESTFTRGLPNLSIVGLASTAIKESVERIKATLLSCDFAFPAKKITINLSPSG

IPKKGSHFDLAIALLILLQNEELDDFFVVGELGLDGSIKSTNELFSLLLFLSAKIKKAKIVVPKSIAQKA

SMIPNLEVYGLENLNEAIEFFKEKNYENFRFSHNHPLFANPLQIENEIFLQNMDFKLDFKDIKGQEKAKR

ACMIAALGMHNILFEGSPGSGKSMCAKRLVYIMPPQSLSEILMQNAYMSLDSKDCEFTKIRAFRHPHHTS

TRASIFGGGTKNARIGEVALANGGVLFFDEFPHFNKQIIESLREPLEDHKIHISRVNSKITYETKFSFIA

AQNPCPCGNLFSKNLSCVCSENEIKKYKNHISAPIMDRIDLYVAMDEISKDDKTSISSKEMSEKILQAFI

FSKKRGQKEFNGKLKDEDLSRFCVLEKDAKDTLDLAISRYNLSLRSLNKILKVSRSIADLEQSLNISKTH

ILEALSFRARN

>AHK51536.1 hypothetical protein N916\_00940 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENKSIAIFIDAENIPAKYAKSIFDIASDYGEVIIKRIYGDWTQKNIQGWREQIAEYSLIAMQQFNFAAN

KNSSDMYLITEIMSIFYEKNIDIFVIVSSDSDYTSLIQKLRENKKQVIGMGLEKSIKSYVNAFSEFFYLD

KDESKKEDILSKDYLRALINITEQLIDEKGRAEYAQIRTNMNRKYSDFHPQNYGFKNFRALIQKFLPKMK

KFEEEREKNIYFLVKKDYESYY

>AHK51535.1 kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKAIIDNIKILEQNAINKGLDELILMENAGLNLAKLIKKEAKKIRIQRKIRKVKILFLLGGGNNASDGLV

ALRNLKHAKAYKIGFKENTLFKKQEQILQNYAFKFCKKEPNFKKFHIIIDCILGTGSNRCLDEKTSLIIQ

KVNQSKALKIACDIPTNLGFYPCFKADITFCMGALKEILLEDFAKEFVGRIKIANLGIRSKKFYPNSQAF

LLEKKDLKTIDRKINANKGNFGHIYIVANASAGTLAGLGALNFGAGLVSLVAQKSFSPLLMLKEKIENNA

SAIALGMGLENLDFLKDEILQNTPLILDANCFLSEALLWYLNRKDVVITPHPKEFIKLYKMCFDENLDIE

TLQKNRFFYARKFSQNYDCVLVLKGANPIIVQKEKLFVVNLGNQALAKGGSGDVLSGMIAAHLGFGFSAL

EAAKNATLAHGLVAKKYKFNKNSFDALKLIKGLKCL

>AHK51534.1 phosphoribosylglycinamide formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLVKLAVLFSGNGSNLENILEKLHKKTIGENTYEIVLCLCNKKDAFGIQRAKKFGLNTVIIDHKAYNTRE

EFDTILVQKIKESGANLTVLAGFMRILSPVFTKNIKAINLHPSLLPLFKGAHAIKESYESDMKVAGVSVH

WVSEELDGGMIIAQKAFEKRNLSFEEFEEKIHSLEHEILPLSVIEIFS

>AHK51533.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFEWIFSIDAWITLATLSALEIVLGIDNIIFLAILVSKLPPEHRDKGRILGLAFAMITRILLLLSLFWVM

KLVTPLFSVLGNEISGRDLVLLLGGLFLIVKSIKEIKEQISHQEESQSHFKASNKLWIVVAEIAVIDIVF

SLDSVITAVGIAQDVTIMIIAVIIAVAVMLFASKPIADFVEKYPSIKILALAFLVLIGVVLVAESFDIHI

DKAYIYTAMAFALVVQILNILDQKKEKNG

>AHK51532.1 serine/threonine protein phosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRILLVLRGNYYAGQEEFIKNNKLQNYTLDLNALRLLSGSVKNIVSEYKILNVKNDEDLSKILLKLLEMR

MQKGEFSIINAYNETLKIYKDLAKQYRYKIYVIVFDSSLKQCQEKNLLEAKKNGYIIPYALLEKTQDLLK

KNPKKYPILDSRDWKKCLYQMPNLSKYKKIHHIGDLQGCYSVLKEYIKTIKEDEFYIFLGDYINRGIENG

KVIKFLLKICEKENVCLLEGNHERHLIKWANGELSNSKEFNENTLKDFRKEKLTPRDARKLYPHLKECLY

YKFQNKFIFCSHGGVNFIPSKPEKISFIPSHDFIYGVGGYEDSQKVANQFCNFTSDNLYQIFGHRNKEKL

PMKIAKRVFLCEGKIDDGGYLRVVTLDEKGFECIEIKNQIYKKK

>AHK51531.1 transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFSSFFKSKKWALWAYLGLFLLLFFLYIQTSLNVAINSWYSDFYNVLQKPKIELLDSNSTQKIEENLENN

ATLIQEANQRAEQNFQKANFINKGALYYYQNLLEYFFNSRAMIEKPNYSASDFYALILVFLAIAIPYVLI

ATINIYFASVYAFKWREAMTFSYLKFWKNKDDNIEGSSQRIQEDTYNFSKIVESLGLSFIKALMTLVAFI

PILWSLSDVVSKALFANLSENSFFYFLKNIDGLLVYIALLISLGGLVVSWFVGIKLPGLEYNNQKAEAAF

RKELVYAEDNRKEYAKNETMIELFTGLKFNYKRLFLHYGYFNIWLILFEQMIVIVPFLIMAPGLFAGAIG

LGIVMQINNAFDQVRSSFSIFITNWTTITQLRSIYKRLKEFEKNISYKS

>AHK51530.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKKCFYFVFLLLNLNAEANATDTNLSFDSSKIETEAPKIELSLSSLYQNADEVVKGVIYILVLFSILAW

AVFISKLMQFYFMKKNLDLSIQKIKELKNLNELDQTKDFAGVLSLEIQDELEKSEYKNDHIKERIELRLQ

NTISKQITASKNGLSLLASIGASAPFIGLFGTVWGIMNAFIGIANLGNASLAVVAPGIAEALFATAFGLI

AAIPAVLFYNYLTRKNLKLMHHLDELANFVYILFHRSYFNDKN

>AHK51529.1 hypothetical protein N916\_00875 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSMKKIILFLLCVGFAFACSEHSHTDFKDLNKTEYNSQLKDKI

>AHK51528.1 iron deficiency-induced protein A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIFFMFLTAVSFLGASELNIYSARHYNADFEIIKKFEEKTGIKVNHTQAKASELIKRLSLEGSNSPAD

IFITADISNLTEAKNLGLLSPVSSKYLEEFIPAHLRDKDKEWFAITKRARIIAYNKNTNIDISKMKNYED

LAKAEFKGEIVMRSATAPYSKTLLASIIANDGNKEAKAWAKGVLENLATNPKGGDRDQARQVFAGEAKFA

VMNTYYIGLLKNSKNPKDVEVGNSLGIIFPNQDNRGTHINISGIAMTKSSKNQDAAKKFMEFMLSPEIQK

ILTDSNYEFPIRNDVELSQTVKDFGTFKEDQIPVSKIAENIKEAVKIYDEVGFR

>AHK51527.1 iron ABC transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYKTLKYYKLGAILLALFLALPIFGIFAELFYILFQNFNTSDLTQFSSIKENLSHFFDYLFLKFIKDTFI

ISMGVLCLSLILGVSSAYLIANYDFYFCKILEKLLILPLAIPAYILAFVYVGIMDFQGFFHENFGFRIDF

FNHYGVIFVLAISLYPYIYLFAKTAFKSEAKEAYEVAKIMKYSEFRIFTRVALLSARPAIFSGALLVLME

TLSDYGASAYLGVDTFSAGIFKLWYDLNDSYSSSVLSGILMLFVFLIMYVDYYYKNKHHYSFNQNLALFI

KKRKLNPIKQILSCIYCFMIAFVGFILPFIWLVYWGLKDHKLFESQFYIISFQTIILALITALITTFLAY

FLMFSSRIVKNHFFNLFILKISSLGYSIPAAALGISIIVLFVFLDKFFHMSLLGNSLLVLVFAYIIRFLA

SAIYSLEGGYNKIHLNIDEASLNLRTSYFILFFKIHTPLMKHFLFLAFIIVFIDTIKELPLSRILAPFGF

ETLSVKAFWFASDERIYDAALPSLFIVFLSLMVVVWMDKITRKDDVRN

>AHK51526.1 spermidine/putrescine ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLEIKNLSKNFGKIQALENINLHVKEGEFLSILGGSGSGKSTLLRIIAKLEQASSYDLFSCKGEVALMFQ

NYALFPHLNVEKNILFALYDKKDKNQILNHLLKTFEIEDLRYKKIDEISGGQAQRVAFARAMARGCKLLL

LDEPFSNLDQNLKQDLRRELKKMIENQGITAIMVTHDIEDAYCMSDQIAFLEKGKILAHANPKELYFKPD

FKSAQILPDLNIIEEKLDLEDEFFAWIASKNYIFGYAELKIGNRFEAKILQKEFLGAFCRLKLLYKNIIF

FILVSSSYDLEEKISFDIINF

>AHK51525.1 saccharopine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNLLIIGAGGVSRVATVKCAMNSDTFSKITLASRTKSKCDEIAAFIKERLGVQIETAQIDADDSNAVVE

LIKKTEAQILLNVALPYQDLSLMDACIKAGIDYIDTANYEHPDLAKFEYKEQWARNDEFKQAGILGLLGS

GFDPGVTNVFCAYAQQNLFDEISYIDILDCNAGDHGYAFATNFNPEINLREVSAKGRYWENGKWIETQPM

EIKMEWDYPEVGVKDSYLLYHEELESLVKNIKGLKRIRFFMTFGQSYLTHMKCLENVGMLGIKPVIHQGK

EIIPIEFLKTLLPDPASLGPRTKGYTNIGCVIRGKKDGKDKQVYIYNVCNHEECYKETGAQAVSYTTGVP

AMIGTKLIAKGIWQGKGVFNMEEFDAKPFMEELNSQGLPWKIIEMTPSLGE

>AHK51524.1 superoxide dismutase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFELRKLPYDTNAFGDFLSAETFSYHHGKHHNTYVTNLNNLIKDTEFAGKDLVSIIKTSNGGVFNNAAQV

YNHDFYFDCIKPSTGCGCGGSCQSIDANLQAALEKEFGSLENFKAEFIKGATGVFGSGWFWLVYNTKNQK

LEFVGTSNAATPITEDKVPLLVVDVWEHAYYVDHRNARPAYLEKFYAHINWEFVAKAYEWALKEGMGSVS

FYANELHPVK

>AHK51523.1 hypothetical protein N916\_00840 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKVVLISALLGAFAANVFAANTPSDVNQTHTKAKADKKHEAKTHKKTKEQTPAQ

>AHK51522.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDFYSLIFLSCALGMDAFAVSLCKGFSVKKLHLKHYLIVGIYFGGFQALMPTIGYFIGITFASFIASIDH

WIAFILLSLIGLKMIKESLENENCDSNANQFGFKTMLALAIATSIDALAVGVSFAFLNVNLLLAIFLIGI

ITFILCIIALKIGNKFGIYLKNKAELLGGLVLIILGVKILIEHLFFD

>AHK51521.1 tRNA delta(2)-isopentenylpyrophosphate transferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFFEIALIGTTASGKTYIANTLAREFNAVVLSLDSLCVYKEINIASAKPSQDDLASIKYFGVNLLSVNEH

FNVELFIREYQKAKEFALARNLPLIIVGGTGFYLKTMIDGLSEKTLESKSSLNNDEIYALLLNIDPNYKI

EKNDTYRLKKWLGIYEQTREIPSEFLKRTQKTGVLKDIEIYELAWDKEILKKRIKTRTKEMLDNGLLDEA

KILFSKFDHKLKALNSIGLKECKEYLDGEISFKELENLITIHTTQLAKRQRTFNKKFQSKALEFDKALAT

LRMKFSIEK

>AHK51520.1 prenyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNTFWIKFKDILELVVFKHSIFALPFLFSSMIVASKLANDTAWFGFKALILGIICAVSARNFAMATNRLM

DEDIDKDNPRCANRPNVSGKIGRKSVWIFIIINALIFISCSYFINTLAFYLSFPVLLVLAIYSAFKRFSS

LAHLVLGFCLGLAPIAGSVIIMGEIHIYSVILCLGVTFWTAGFDLLYSLQDMEYDKKIGLHSIPAKFGSK

ATLFISSFCHILAVLFWLLFVWEVWGVALGKIALIGVIISGIILALEHKIVHKNFAHIDRAFFTLNGYLS

IIFFIFIWIDLLWN

>AHK51519.1 hypothetical protein N916\_00815 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MELALFKAGFEAHLECCEIENNRFLGEYLKLGAISQILKWKKLALRIDFDEGEKIIFDLLLSLKEDILRL

ENSLDKNKELIPLKQKGVIESLNFEYLNFLDTILEEDKEYYLRFDLNNQKIAIFIKAQSQTLAKIIKIKP

EDKMAFDAFVVEIQRNMIRNKKGQE

>AHK51518.1 hypothetical protein N916\_00810 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSDDVLYLVFIIVLLIAMLAYMNIKERENNAKIAKLQNVIEDITKELHYFRKELGVKDDSEEDEDYKTSL

LKEEIMIELDKQISSKITPVLRTLKTMEHIIEDFQNEQQNRLLNLEQKAQSMAKLTPNYDTEEQKIENLF

KEGKSIEQIAKDLRIGTGNVELVLKFKKLIK

>AHK51517.1 molybdenum cofactor biosynthesis protein MoeA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLIDQFGRKINYLRISVTQRCNFRCLYCMPKIPFDYQPKENLLSFEELFLFVKAAIDEGIEKIRITGGEP

LLRKDLSIFIKMISDYKSDIDLAITTNGFLLKDFAKDLKNAGLKRLNISLDTLDHKKAKTLAQKDVLDSV

LSGIDEALNLDLKVKLNTVALKNLNDDELISLLEFAKSKKAQIRFIEFMENTHAYGKLQGLKRDEIIQIL

SQKYQIQLIKKDEKAPVSIYKADDYEFGIIDPHSHEFCDSCNRIRLSAEGLLIPCLYFDEALSIKEAVRK

GDIKAAVEILQEVLRNKPEKNKWSVVDNETSSRAFYQTGG

>AHK51516.1 radical SAM protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQLVESFLSIQGEGKYNGKLAIFMRFAGCNFNCLGFNVKISKNDKTLIGCDTIRAVFTKDFKESYETLNA

NELLKRVIKLKKDFDPIVVITGGEPLIHYENPEFIEFIQMLLKNKFEIHFESNGSIEIDFDRYPFYKECI

FALSVKLQNSGIKKDKRLNFKALKAFKNYAKDSFYKFVLDANTLDNSFLEINEILKEAPNQIFCMPMGEN

EQNLKKNAQKIAEFCIKNGYNYSDRIHIRLWNDKEGV

>AHK51515.1 6-carboxy-5,6,7,8-tetrahydropterin synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIIRKLFEFENAHIVRFCSSKRCKSSIHGHSYKVEVLLESKYLDNAGMVYDFGLLKTYIRQIIDSFDHAI

TLFKYDDAKYLEEMKKYSSRWICLPVNVSAENFCRVFFILIDALLKQTKMVNGEQGVTLQSIIVHETRTG

YAQGFREDAYSELMPKISLQDIEFSNGIKAEWNDIDFYNKLKNEEIFINPKEI

>AHK51514.1 cytochrome CBB3 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKAKILIALSFFLLVLSACSNDEKNISKTQNTDQEVVQIEQNDEKTELSDSNLPLPVDDEAQSSNDEHE

VNPSIINSLYKQKCATCHGEKGELKPKNSTAIKTLSNKIFIQKIKTIKDKNHSFLSDEQIQNLADFINKG

K

>AHK51513.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDQSYEFFLALHLYSLYASGFLMLFYLILTQGNFKTEFIFIRRIRLFLPIYYLFLALIIFTGCLLSAMKQ

FQMNVNIWVMIFSWILIFALAIFHFVCFKKARRFRKYATFRWISCLILPFEIFLLFLPFLIERYL

>AHK51512.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQFLYNKQAGEEFIQLQGENFNHLKVRRVKENSELNLRNLQDNFLYNYTITNLTRNSCTLKFLNKKSQNI

KQSELNLALAIIDIKILEKTLPFLNELGVKKLHLVFTNFSQRNFKIDLERFEKIIISSCEQCGRNTKMDL

IIHQSTQEFVQKFPNAIMVDFQGEQQSHFDEKELYFIGPEGGFNNDERLLFNRKISLKSSNILKSQTAII

AIASKILL

>AHK51511.1 50S ribosomal protein L31 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKEIHPEYVECKVSCACGNTFTTKSNKAELRVDICSNCHPFFTGSEKIVDAAGRVEKFKKKYAMQ

>AHK51510.1 16S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLYFIPTPIGNLSDISFRALELLKTCDLVFCEDTRVSKSLISLLNTKFHTDIHISKFIALHSHNEKEVLA

SIDLKIFEKNVAYLSDAGMPGISDPGKALVEFAQENNITYEILPGANAALVALVSSAFCQKEFIFIGFLA

NKGKERQKDIEKILNFPYPSIIYESPKRILSLVEQIMILDNQREIFLIKEISKKFEKKFKGNAKELSEIL

KKSNLNGEWVVVLQSKEQNFLQNTLCEKDIMDLELSLKAKAKLLSKINGKNAKEIYQKLLLSQD

>AHK51509.1 RNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIVYGKQIFFYILEYHKDCINELYLAKECDKITFSKIAKSGFKIKKLDFKTAQAYAKGGNHQGFLLDIKE

SSFANLNEIKKNDFIVMLYGISDVGNIGAITRTAYALGVGALIFIGEKLAMEGVIRTSSGAALDLPIVIS

NDALSVINELKQVGFYFYASDGSGKEIHSVKISNGKKVLVLGSEGFGLSSKIVKKCDECVGIAMKNNFDS

LNVSAAFAILCDRMLNA

>AHK51508.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLNWKKIQELNLKEVAAKTQIELDFLEALVEKNFAVLSRFNVKGFVKILSREYELDFSDFNEEYEAYLNE

NNPTPQTKSKMITPKLDAYSQKSFNTWPFLIVLIVLVIIGSGIYYFDTLKTFFKDEQNNTSATVIDIIGQ

AQENLKSLGGNNVVVIDNNKAQETNRTESVLPSQNISLQENDKNISIENNISENNTTLLDEEKNTQIQED

TNTPKTDSLKEAHFKTSTKIWIGLIDLKSLKKTSFVKEKDFNISLDKDQLILTGAAALTMFDQENKEQKF

PAGISKRFLIKDGKITSISAAEFVKLNKGKEW

>AHK51507.1 hypothetical protein N916\_00755 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVKKIIILTFWVNISFAISSLELAKNLVNNPSKNSQLELLFSNNSYIDNNGNCDIAKISQILKTNSLIAL

TLSNPQSLRLNFKAKADEVMFFKILSDVLTDAGYIYFIPTDLILREGNIDYTIQVESQYVLDPGTLYNLL

KENSVYINNIKRIGVYDYEYDLNFSNAVLKTNTNVNLNTPKSLEKPLKDYVLDLKNATNLIIDANDLDNW

FPKIFFLDKNLNLIKAVKSENKNNHFSELIPNGAIYAIVSDMYSLDNIRRGLKITLKK

>AHK51506.1 aspartate aminotransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFDEIRFNTIERLPNYVFAEVNAIKMAARRAGEDIIDFSMGNPNGKTPQHIIDKLCESANKDKTSGYSTS

MGIYKLRLAICNWYKRKYNVNLDPENEVVATMGSKEGFVNLARAIINPGDVAIVPTPAYPIHTQAFIIAG

GNVAKMPLAYNEKFELDENQFFENLHKTLNESIPCPKYVVVNFPHNPTTVTCEKSFYERLIATAKKERFY

IISDIAYADLTYDDYKTPSILEIEGAKDVAVETYTLSKSYNMAGWRVGFVVGNKRLVSALKKIKSWFDYG

MYTPIQVAATIALDGDQTCVDEIRATYDKRMHILLEAFENAGWKLQKPRASMFVWAKLPESKRHLKSLEF

SKQLLQRASVAVSPGVGFGEAGDEYVRIALIENENRIRQAARNIKKYLKE

>AHK51505.1 homoserine dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVAILGYGTVGSAVVKFLLENDKLIRARCGQSITPVIALARSPKKNALIPITHSVAEILNADVDVFVEL

MGGVDEAFKIVSEILKKKKAVVTANKAMLAYHRYELENLAKNLAFGYEASVAGGIPIIKVLKEGLSANNI

LAIKGILNGTSNYILSSMSQKNMSFKQALQIAQNLGYAEADPTFDIEGQDAAHKLLVLSSIAYNLKAKPE

DILIEGISEIAPEDMYFANEFEFTIKLLGIAKVRENKVELRVHPTMIDKEKMLAKVDGVMNAISINGDLL

GESLYYGAGAGGEATASAVISDLMDIARDQVKAPMLGFVNTLEYKLLSKDEIYTKYYLRVKVEDKIGILS

KITQLMSENNISIDSFLQKPKKNDENYSTLFFTTHLTYEKSIQNLLEILRKQDFIKTKPFMMRIE

>AHK51504.1 hypothetical protein N916\_00740 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGVKAYLDGILGEDKACKFLKKQGFEILKRNFHSKFGEIDIIAKKDEILHFIEVKFTQNDYEVSERLDRK

KLEKILKTIEFYHLKNGISSDFQIDLICIKNDVIQFCENISF

>AHK51503.1 thioredoxin [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGKYIELTSDNFAQAKEGVALVDFWAPWCGPCRMLAPVIDELSNDFDGKAKICKVNTDEQGDLAAEFGVR

SIPTLIFFKNGEVVDQLVGAQSKQAISDKLNSLL

>AHK51502.1 thioredoxin reductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLDVAIIGGGPAGLSAGLYATRGGLKNVVMFEKGMPGGQITSSSEIENYPGVAQVMDGISFMAPWSEQCM

RFGLKHEMVGVEQILKNSDGSFTIKLEGGKTELAKAVIVCTGSAPKKAGFKGEDEFFGKGVSTCATCDGF

FYKNKEVAVLGGGDTALEEALYLANICSKIYLIHRRDEFRAAPSTVEKVKKNEKIELITSASVDEVYGDK

MGVAGVKVKLKDGSIRDLNVPGIFTFVGLNVRNEILKQDDSKFLCNMEEGGQVSVDLKMQTSVAGLFAAG

DLRKDAPKQVICAAGDGAVAALSAMAYIESLH

>AHK51501.1 transcriptional initiation protein Tat [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MERRLFLKGSALGSMVAFFASSNLSAAMLKDKDLLGFKAVSASTQDKVIVPQGYEAKVLISWGDPLFSKA

KPYDENKIIDMNAVKNAHLVFGDDNDGMSFFPLSKNRGILAVNNEYINPEIMFNHHGKNLSKEDILYEQA

SVGVSILEIEKKGDDWTVVLDSKYNRRIDANTKMQVSGAAKKEVLKNEKFVHGTFANCANGQTPWGTYIT

CEENFDDFFGSLDENLEFNDSLKRYGFNKTSLYGWEKFDERFDLAKNMDEANRFGWIVEINPFDAQSTPV

KRTSLGRFKHENAEIIVEKDGSVIVYMGDDEMNEFIYKFVSKHKYKKGADTSKILDEGILYVGQFNGNVG

DFKGQGKWIALEYGKNSLNEKNGFKSQAQVLINTRLAASIVGATPMDRCEWIASHKQSGSKEVFATLTNN

KNRQEPNAANPRTKNVYGQILKWMPKNSHKDDDFTWEIFALAGNPDNQQGLYKGSNNITSENKFNSPDGL

KFDRDGRLWIQTDGSYSNKDEYESMGNNCMLAANPKTGEIRRFLTGPIACELTGIAFSEDYTTMFVGIQH

PGEGLKGSTFPYGKTPRSSVMMIRKLDGGVIGS

>AHK51500.1 ABC transporter substrate-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIILFILSLGIFYTFTQAKNLEQEQNTSSNLVSVSIAPQAFFVKKIAANTLDVNVILPPNSNEHNFEF

KPSTMKKLEKSDIYFTIGLEFEKVFTDKFKQNFPKLQVINMQKNIALIQTHDTHEHSHEHEHHEHGHFDP

HTWLDPILVQTMALNIYDTLIQKYPQNENLYKENLDKFLAELDSLNLQIASKLEKLKNREFVVYHPSWTY

FAKRYNLTQIPVEILGKEPKSKDLQKLITLMKDKNLKVIFVQNGFPENAAKTLAKECDAKIYKIDHLSYD

WENELLKTADAFSHNL

>AHK51499.1 cation ABC transporter ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLFFEISNLNYAYDNEIILKNINLSYDNKDFLSIIGPNGAGKSTLVKLILGLLKSKNEIHFKALQRKEIG

YVPQHTLANPNFCPRVLEIVLMGLVSKKIFGFYGKKDKEKAMQALKSVGMEKFWNKTIDSLSGGQRQRVF

IARALASECKMLILDEPTASVDNKSAIQIFELLISLHQKGMGILLICHDINLVLAYSDKIAHLNKELFLH

TNTKEKEKSSFLKHLYENHSHFCDVEMSLNTCFCNEENCDSKKLCEQEFTRRNLKKTEFKKENFCLKFSK

ENNA

>AHK51498.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLEILNFTFFQNALLGAILVSIACGIIGTLVMINRLFSMAGGITHGAFGGIGIAFYFSLPILLSTGIFTL

FLAFLVAFLAKRYEHRSDSIIAVIWAFGMAVGIILIDLSPSYNTDLMAYLFGSILAVGTQDLWLMALVDS

VMVLLIFLFYRQFEALSFDVEFTKVRGINTSFFHYLLIALMAFCIVISIRLVGLILVMALLSIPSFIAEN

FTKRLGFIMILASFLSMIFCILGLILSYYLNLSSGACIIAIACFGFLVHLIGKFLKR

>AHK51497.1 ribosome maturation protein RimP [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNLEALCKEAGLSFYDDELVSENGRKIYRIYVQKEGGVNLDDCARLSEILSPIFDVESPVNGEYFLEVSS

PGLERKLSKIEHFAKSIGELVKITTNEKEKFEAKIIAVDDENITLENLENKEKTTINFNDIKKARTFVEW

>AHK51496.1 ribosome-binding factor A [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNPSEIKKLRTESILKELIPEALANLDDENLKNLCVVDVECKKGRYDAFVYLDKMFFNVHEQEKILSSLK

KASRALQNYCMSEQGWYRCPNFHFKFDDRLEYQNHMDALFEKIKKDKNES

>AHK51495.1 translation initiation factor IF-2 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKIRIHEIAKELGYDSKEIIEKANELGLGIKTASNAVEPEIAAAIYEYIQTREIPEAFKKNIKTPTAKK

PKKENIKEQEKLNESEKKEPKKEEKLKQEVKKEELKIEKENAKEEEKQEIIDAHKPQSLASATLAKRRGL

VIVKKKKDEEEIQVKKEEVKNSNDISINNEERLSLKTMFSNADESLKKKKKEKKSFVASKKESTEKMNFL

DEHDFGDISLDDEDEVVLPDFSVKEQEKPQNINKKQPNFIRQAVGNSAGFGFEGGIQRRSRKKPSKKIEK

KEVEEVGSVAISKEIRVYEFADKIGKSTSEVISKLFMLGMMTTKNDFLDEDAIEILAAEFGIEINIINEA

DEFDYVKDYEEETDEKDLVTRAPVITIMGHVDHGKTSLLDYIRKSRVASGEAGGITQHVGAYMVEKNGRK

ITFIDTPGHEAFTAMRARGASITDIVIIVVAADDGVKPQTKEAINHAKAAGVPIIIAINKMDKEAANPDM

VKTQLAEMEIMPVEWGGSYEFVGVSAKTGMGIEDLLEIVLLQADILELKANPKSFAKASIIESSVQKGRG

AVATVIVQNGTLTVGSTVVAGEAYGKVRAMSDDQGKALKEIKPGECGVIVGLSEVADAGEILIAVKTDKE

AREYANKRHEYNRQKELSKSTKVSIDELGAKIKEGNLKALPVILKADVQGSLEALKASLEKLRNDEIKVN

IIHSGVGGITQSDIELASASENSIVLGFNIRPTGEVKERAKDKGVEIKTYNVIYNLLDDVKALLGGMMSP

IISEEQLGQAEIRQVINVPKIGQIAGCMVTEGVINRGAKIRLIRDGVVVYEGNVSSLKRFKDDAKEVAKG

YECGVGIEGCDDMRVGDYIESYKEVEEQASL

>AHK51494.1 hypothetical protein N916\_00675 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKHIPIRMCIVCKNRFEQNMLFRFKVVLGDIVPKAEHGRSGYLCQNCIEREDKVLQKAFSKICKNLNTK

ITQQGLKEIFLNGKD

>AHK51493.1 homoserine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKILVPATSANLGPGFDCLGLSLKLFNETQIQKSGVFSISIGGEGSDNIFLKKNNIFVNIFYEIYEKLSG

KKDNFRFIFQNNIPLSRGLGSSSAVIVGAIASAYYMSGFKVEKECILDEALIYENHPDNIAPATLGGFVC

SLVEKNKVYSIKKEIDKDLAAVVVIPNLAMSTEQSRQALAKNLSFNDAVFNLSHASFLTACFLEKKYEFL

KFASQDKLHEINRMKNLPELFEVQKFALENKALMSTLSGSGSSFFSLAFKDDALALAKKIQTKFKDFRVQ

YLEFDDNGFEIC

>AHK51492.1 glycoprotease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIGIYQDDKLIKTYKSEEKASEFLPKILDELLKEYDFTSLIYANGPGSYMGIKISYVSLSTLSIVKNIPL

FAVSAFELNGYKPISANKNFCFVYKEGEICLEQNIPAEFFLPKNLQELKLNNDNLPFYFLDAI

>AHK51491.1 UDP-3-O-(3-hydroxymyristoyl) glucosamine N-acyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKQLTLAKTVKGVGIGLHKGEPIEITLEPLEANSGIVFFRSDLNASYKASPENVINTQMATVLGDDRGFI

STIEHLMSAINAYGIDNVRIVLNANEAPVMDGSSISFCMMLDEAGVKELDAPKKIMVIKKPIEVRDGNKF

VRLTPTKEPRINYTIKFDNAVIGEQSYNFEFSKKNYIENIARARTFGFLKDVQALRSMNLALGGSLENTI

VVDENRILNPEGLRFKDEFVRHKILDAIGDLTLLGYRVFGDYTSYAGSHHLNHLLTKEVLKDKDAYEIVS

LEKTTQKAYEKVFA

>AHK51490.1 peptidase M23 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAKRKGKTYLSVLILVLIAILIFFISRLSIFEKNPPQILMPDVVYTDLKKPILVHIKDDESSIKNVQIIL

HKDDNTSAMVIADEKISNLKDITLQVALPKFGYKENVKSFVLEVIAKDSSFWNFFSGNEARKQIAVLVDN

TAPKINIISNSYQIEQGGAGAVVFKADDANLDKVYIETNKGKIFKATPYVKEGYYAALIAWDARDEEFRA

FVIATDKAGNISKERIRYYFVNRKYRVSNINLTDKFLDGKIENLANQYAPKDNNLNRYEKFKFVNETLRN

SNEKLIHEITSKVPEEKIDNFDLNLFLPLKNGMKVADFADHRYYSYNGQFVSDSYHMGLDLASVAQAPII

SNNAGKVVFAAENGIYGLNLIVYHGFGVYSLYGHCSSKNVDLDEMINKQSIIGKTGTSGLALGDHLHFGV

LVQGVETRPEQWQDKKWIENNIYNVLNDGKKIILGKN

>AHK51489.1 prephenate dehydrogenase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIAIIGLGLMGGSLGLCLKENKLISCVYGMDLSKENEKDALQLGLIHELIEFKDLALCDMIFVATPVNA

IIEILQKLVDLPSNVTIIELGSTKRKIIESLPKNLIKQTLFAHPMTGTENSGPKAAFKELYKDAVCVLCD

SEIADDLHQKRAVEIFSHLGMKIVFMDSKAHDHHAAIISHLPHVISFSLANFVMKEEDKRNIVHLAGGSF

KGMSRIAKSSPQMWESIFLQNKDNLLSSIDFFQQELERCKQMIQLDKNDELREWMKQANTLREIL

>AHK51488.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKHLISICALVAMANAATIKDIKFIGLNHLSNTSAINIAGLKIGEEINPAKINTAILNLYKQNYFENIA

VENNNGILEIIVTEKPTIAKVTITGIASNDRKQVESILGIKRGTLLDEGNIKEAIERIKAYYEAKSYFDT

IVEYKKKTLENTDGLELEFIVNRGENIIIDNVHLSGAKKFSYSDIEPAVVNKEKEFMGWMWGRNDGKLKV

FELSNDSSRIADEYMKKGYLDVQVSSPYLKTYTDTYQANLTYFIKEGKPYKIKSISIENPLFDDKQNAQT

VKDLRSSAGKTINIEDIRKDVKTIETQSADLGYAFVEVYPDIQKNDQTQEATVVFKVIPHDKVYIRNVII

SGNSRTVDRVIRRELYITEGNLYNRTDLSESKNALKRTSYFDDVNIKEEKVDDTHIDLIVDVKEASTGAI

SGGIGYGSSDGILLNASLSDTNIFGSGIKSSVSVDKSDDTLSGRISLVNPRVLDSQYSLGGTLYSNDYEW

DNYSEKNYGFDITIGRQFARYYNVSLTYNLEQSDIYHLSPTLLRTGYELGKSIKSSITPAITFNDTDDYY

LPRSGIIASTSLEYAGLGGDQEFISSSSKFNFYQGLQDYIGYDLIYRYKASFYKVWDEGYLPINQRIYLG

GIRSIRGFESRTVSPKNQWGDEIGGTIAFANSVELSFPLIDRIKLRGSVFFDYGMIGRKNLDEIKRMSTG

IGIEWITPIGPLQLVFAKPLNDKKGDDTNSFEFNLGTRF

>AHK51487.1 inositol monophosphatase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKEFLDACLNANLQIRKYLNNIPQNDLKLCSKLGYDKNQGYELDLKCEQIFIKYLSCFGQIFSEESGLIG

KASPKQMILDPLDGSSNFVSKIPFYGTSIALMEKDQAKSAFVCNLVSQEIFAFNNKQAFKSNLSDPKYSP

LTPNLFSKIGIVEKISLYPELLDFLTKNQLKFRSLGATALSLAYASYFSFVLILGKTRIFDTAAALAIHQ

NLYIEKNENFLLLSQDKKIFDIILEFLKNN

>AHK51486.1 acetyl-CoA carboxylase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFADIFSKIRRQQPSVKEAPNHWVKCQSCHALMYYKEIESCFNVCPKCNYHMRISADERIKLLSDEGSF

IEYDANLEAIDPLKFVDSKSYKKRLSEGESKTGRKSSVISGECEINGLKTQLVVFDFSFMGGSLGSVEGE

KIVRAIQRAITSKTSLVIVSASGGARMQESTYSLMQMSKTSAALKLLSKEKLPYISILTDPTMGGVSASF

AWLGDLIIAEPEALVGFAGARVIKQTIGADLPEGFQKAEFLLEHGLIDAIVERGEQKQYLSDVLKFFSGK

>AHK51485.1 50S rRNA methyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQVNIFCIQKSDEFKTCSEKYSKLISKYATLKEINVFNKKIALAQNLNAIEAKKSYEEAFMPYKKGYCIA

LDEKGKDLTSIEFAKLIQDKNELSFFIGGAYGLREEFNQSLDFRLSLSKLTLAHQFVKTLLLEQIYRAFC

INNNHPYHK

>AHK51484.1 molecular chaperone DnaK [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKNEIQNFKNILEERKKAILENLQSNSNEIEALHNSVPSDSVDFSVIETGSQIDFAISTNLKEELIEIE

DSLDKIKNGTYGICESCDDEIDSQRLKVKPHARYCITCRQIAEQGKKHEN

>AHK51483.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIKLFLLASFIYIALIFAFAWHLELGSYTLNISTYTFELPIMIWLVIPLFIYMILAVLHIAFYGFLRYL

KFKHFFKDAAKFEAYTQDLLLEKDLKTTFQTKEFRSVAQLFKTIKTHEKIPHSNKINEILDLIDGLNKNE

FFNLSKFKLENNNVLYLQNEKNHLKNDANYAYNKLKNLNEIKDEFEEIAFNTLIEKASYEQIKNVKIPKK

PSEVLTLIKRFKEGNLELSVAEYEVLLSHNILSEKDYLNAAKLSTKLLNPDAILGIFNKIKNEKSEALRA

YLYLLAEFGLLDELREQIHNDDKKFNDFKAFLALREKNIKIDLNQLIQ

>AHK51482.1 tRNA-dihydrouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MIDFSKKPLFLAPMAGFSDLPFRNVVKKFGADITISEMISSNALVYESSKTLHMLERAELENPYIVQIAG

GDKEVLKKAVQMLNEMDFVDGIDFNCGCPVNKVVKQCAGSALLENLELFKNLVGVIKENNKKSLTSVKFR

LGFNEKYPEKMAKICESLGVDFISIHGRTRKQLYSGKADYGSIASAKASVKIPVIANGDINAQNAKEVYK

ITKCDGLMIGRASVGNPWIFYEIKSGKSVDEKLKKEIILTHFDEMIKHYKDQGVSIFRKHLHEYSKGHKD

ASTFRDTVNRIDNVEEMRKKIEEFFSLT

>AHK51481.1 heat-shock protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MILSDEKCDFLESIASFLSPKDVELVFVDSKEMQEINLEQRKQDKTTDVLSFPLENIDESLPLGSVVINV

DLAKEKAKELGHSYEEEISLLFIHAMLHLLGFDHENDNGEMREKEKELIEHFNLPKSLIVRTLED

>AHK51480.1 recombinase RecO [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQGFILHTQKVKDEDLIVYILSPKMLIKAYRFYGLRHSSILSGYKIDFALEENPSFLPRLKDVLHLGFLW

IMQRDKMLIWQEFIRLLYRHLKDVEELDSFYFDLLDECVKRFEKQNPKRVIVDAYLKILEFEGRLHKDFF

CFACDEKIQNSITLLRAFLPSHSQCALGFEFEEKKLKQFYSSKNCAIFDDEEIENLYHLIKEGL

>AHK51479.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKAFVLVDYQNDFIDGSLGFDKALKIKENILKALNQIDFNNTHLLLTYDTHDEHYLQSKEGLNLPVKHC

IKESLGWQMPKEFEPFLQKAHKIFYKNTFGSLELANFIQKSDYEELHFAGLVSHICVFCNIILAFGAKPN

ARIILHQNLSASFDENLEKSAFDILRAYGIEIV

>AHK51478.1 PP-loop family protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINLSKKLIRQVAQANAKFGLIKDGDRVLLGLSGGKDSLALAHLLNRMQAHAPFKFELEAVTLSYGMGED

YSHLHAHCEEHGIKHSVLDSNIYEVSGDTIRENSSFCSYFSRMRRGALYTYALEKGFNKLAIAHHLDDAA

ESFFMNFIHNGALRTLAPIYQSKRGITVIRPLIFVRERQLRDNATQNELSVIGNEFCPGMKLSEKNVKFP

HAREEAKQLLANLEKDHPKLFTSLKTAFANLHTESFWLQKA

>AHK51477.1 S-adenosylhomocysteine nucleosidase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIAILGAMSEEITPLLETLKDYTKIEHANNTYYFAKYKNHELVLAYSKIGKVNSTLSASVMIEKFGAQA

LLFTGVAGAFNPELEIGDLLYATKLAQYDLDITAFGHPLGFVPGNEIFIKTDEKLNNLALEVAKELNIKL

RAGIIATGDEFICDEAKKAKIREIFNADACEMEGASVALVCDALKVPCFILRAMSDKAGEKAEFDFDEFV

INSAKISANFVLKMCEKL

>AHK51476.1 malonyl CoA-ACP transacylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNAAFIFPGQGSQSLGMGKDFYENSIKAKELLQNASDFCKIDFKHLLFEENEKLNQSEFTQPAIVLNSLM

AYSVLLEKKPDLSSKFALGHSLGEFSALAVNGAFDFLEALSLVNKRGLFMQEDCAKVEAGMMVVLGLDDE

KVEELCQKAQKENKQIFAANYNCDGQIVVAGLKPDLASYESVFKEAGAKRAMLLNMSVASHCPLLENASA

KLCVELEKVLKPNFKAVISNANAKIYTSKEEALELLKAQLISPVLYKQSIKACENEVDYFIEFGASVLKG

LNKKITSKETYALTNMNDIDEFLKVV

>AHK51475.1 peptidyl-prolyl cis-trans isomerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAIEKNSVVSMFYELKDANTNEVLESNLYSQPISFILGKGQILESLEEEVMKLDCPSNADVVIKKEKGLG

EYDENAVQTLPKEQFAGIDLKVGMELFGEGENGETVRVTVKEIGENDVTIDYNHPYAGRDLLFSLNIVDA

RAASEDEILTGIIAGSHSCGCGSGHGHDHHHGHGHGGGGCCGGGGCGCH

>AHK51474.1 hypothetical protein N916\_00570 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIFTVALLGATLLYAESSAFGAGDITSNSSYGLTSNEKLFKEKLDNLNNENIQTNARINEINERIEGL

QSTLEGINSQYAKSNSRLSQVEENNQNIENNFTSEIQKLKAYVEESRKIQEANNKQVKKVLAELSSLVDA

INANYVSKNELNDANLSVKTITPSVVVSTTDSNSTIENNNTQNTQDDKAKQIDESWKKKKNNEILELAIK

DVDKNAFEDSKAKLNFLITKQYKPARANFWLGEIEYKQKNYNNAIVYYKKSSSLSTKGDYFPKLLYHTAI

SLDKTGDTKTANGFYKALKTNYPNSPEAKASPNRK

>AHK51473.1 peptidoglycan associated lipoprotein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKILFTSIAALAVVISGCSTKSTSVSGDSSVDSNRGSGGSDGWDIDSKISQLNDTLNKVYFDFDKFNIR

PDMQNVVSTNANIFNTEVSGVSITVEGNCDEWGTDEYNQALGLKRAKAVKEALIAKGVNADRIAVKSYGE

TNPVCTEKTKACDAQNRRAEFKLSR

>AHK51472.1 translocation protein TolB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIVAIFLVFLGSLWAEDPVIDVVNSGVVLPKIIVKDNSNLSDENLKKSFYNIIVNDLKVSSNFEVVAN

ATETSNYIFEYTLNKNGNTLSLNVKIKAGGSDKSEQTYTLNGLEQYPFLAHKSVKASVNALGLAPVDWMD

HKILIARNSSSKKSQIIMADYTLTYQKVIVDGGLNLFPKWGNKEQTLFYYTAYDHDKPTLYRYDLNTNKA

SKILSSGGMVVASDVNVDGSKLLVTMAPKDQPDVYLYDLNTKNLTQLTNYSGIDVNGNFIGSDDSKVVFV

SDRLGYPNIFMQDLNSNSAEQVVFHGRNNSAVSTYKDFLVYSSREPNQAGVFNIYLMSINSDYIRQLTAN

GKNLFPRFSSDGGSIVFIKYLGAQSALGVIRVNANKTFYFPLRVGKIQSIDW

>AHK51471.1 energry transducer TonB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKNYGLSNLNSFLLALAIYISIVILVFFRLVSEVEPAIQYTDIKDSFVDIELAEPSKQVITQSNTPKEIQ

KPTEQIDIEKLFAQTTNKTVKTEDIDQKASNFNELFGNIKEIQEEKTTKIQSSAKSGISSAPKPQASELV

KQLNDSLLQEESSTQGESTKAQKIGIYDEFLGKVVRIITQRWTQYYPNSEKISVKVKIFIDENGKFGYTS

VEKSGNPLYDAKVAEFLESQKGKFITYPPQNKNISITMNLRDEVKVKND

>AHK51470.1 biopolymer transporter ExbD [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MPFDDEKPELNITPLVDIMLVLLAILMVTAPSITYEEKINLPQGSQKNTSTPTVKSLIISINAKKEIFLN

QEKYDFISFADNLAQRKAQFNTEDPVFIRADKSLKYDDVISVLRSVKNLGFNKVALQTE

>AHK51469.1 flagellar motor protein MotA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFEAIFHFFNSSSIITYIVLLWLSLYFILAFSILFARLTYLATWRNKEKESLETLLLGEKDLSRTDSIL

RKCNDTTSNHLEIYKNLASRRASAGLTWLSIIASTSPFIGLFGTVISILETFGGLGTQNSLSIIAPKISE

ALVATGCGILVAIPAYTFHLIIKRKAFELLSIIDSEIKVISSSK

>AHK51468.1 F0F1 ATP synthase subunit epsilon [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNDLINFEIVTPLGVIYQGEVKSVTLPGSEGEFGVLKGHAALVSSLKSGVIDIEKADLNHELIAIDAGHA

KVDEDKICVLAKGAVWVCGSDESEIEKNLAQAKDLIKSMSSDNAALAATFSKLDNARMH

>AHK51467.1 F0F1 ATP synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQGFISQVLGPVVDVDFNDYLPQINEAIVVNFESEGKKHKLVLEVAAHLGDNRVRTIAMDMTDGLVRGLK

AEALGAPISVPVGEKVLGRIFNVTGDLIDEGEEISFDKKWAIHRDPPAFEDQSTKSEIFETGIKVVDLLA

PYAKGGKVGLFGGAGVGKTVIIMELIHNVAFKHSGYSVFAGVGERTREGNDLYNEMKESNVLDKVALCYG

QMNEPPGARNRIALTGLTMAEYFRDEMGLDVLMFIDNIFRFSQSGSEMSALLGRIPSAVGYQPTLASEMG

KFQERITSTKKGSITSVQAVYVPADDLTDPAPATVFAHLDATTVLNRAIAEKGIYPAVDPLDSTSRMLDP

NIIGEEHYKVARGVQSVLQKYKDLQDIIAILGMDELSEEDKLVVERARKIEKFLSQPFFVAEVFTGSPGK

YISLEDTIAGFKGILEGKYDHLPENAFYMVGNIDEAIAKADKLKG

>AHK51466.1 F0F1 ATP synthase subunit gamma [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSNLKEIKRKIKSVHNTQKTTNAMKLVSTAKLKKAEEAAKRSKIYAQKIDEILSEISFQINKIVHNEDDV

RLSLFHKKEQIKTVDLIFITADKGLCGGFNIKTLKTVSEMLKEYEAKNINIRLRAIGKTGIEYFNFQKIE

LLEKYFHLSSSPDYEKACEVIHAAVDDFLNGNTDEVILVHNGYKNMITQELKINHLIPVEPKSIEQTHNS

LLELEPEGTELLKDLMKTYFEYNMYYALIDSLAAEHSARMQAMDNATNNAKARVKQLNLAYNKARQESIT

TELIEIISGVESMK

>AHK51465.1 F0F1 ATP synthase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFKADEISSIIKERIENFDLNLEIEETGKIISVADGVAKVYGLKNIMAGEMVEFENGDKGMALNLEESS

VGIVILGKGEGLKEGASVKRLKKLLKVPVGEALIGRVVNALGEPIDAKGVINANEYRFVEEKAKGIMARK

SVHEPLHTGIKAIDALVPIGRGQRELIIGDRQTGKTTVAVDTIISQRGQGVICIYVAIGQKQSTVAQVVK

RLEEHGAMEYTIVVNAGASDPAALQYLAPYTGVTMGEFFRDNAKHALIVYDDLSKHAVAYREMSLILRRP

PGREAYPGDVFYLHSRLLERASKLNDELGAGSLTALPIIETQAGDVSAYIPTNVISITDGQIFLETDLFN

SGIRPAINVGLSVSRVGGAAQIKATKQVSGTLRLDLAQYRELQAFAQFASDLDEASRKQLERGQRMVELL

KQPPYSPLSVEKQVVLIFAGTKGFLDDIAVSRIKEFEDGIYPFIEAKHPDIFEQIRSKKALDSDLEEKLA

KAINEFKANHL

>AHK51464.1 F0F1 ATP synthase subunit delta [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENIIARRYAKAIASRADINDFYQNLCILNSAFVLPKFKNIIESNEIKKERKMEFLDSFFDIKNSSFQNF

LRLLIENSRLECIPQIVKELERQKAFKENIFVGIVYSKEKLSQENLKDLEVKLNKKFDANIKLNNKISQD

DSVKIELEELGYELSFSMKALQNKLNEYILKII

>AHK51463.1 F0F1 ATP synthase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKLFFIIFLLPLYAFGASNGSGEYDIIPRTINFLIFVAILYYFVATPFKNFYKNRIVKISSKLDEIQKK

LLESKAKKLDTMKKLEEAKASAAAALITAKKEAEILVQNIKKETQDELDLLQKHFEEQKDYEFRKMEKEL

VSNTLNEIFSDPNMTLKQSEIIELMMKKVS

>AHK51462.1 F0F1 ATP synthase subunit B' [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFEDMHPSIMLATMAIFLAMIVILNSMLYKPLLKFMDERNDSIKNDENKVKENSQEVLGVNDELEAIHIN

TREEIQKIKQSAIAAAKEEAEQILRSKKEELERKMASFYADLAVQKKELQEHLNIHLSELKQALQNNIKK

I

>AHK51461.1 chromosome partitioning protein ParB [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGLNKDRGLSSLISDMDTVYSKELGFDKNQSTMIEIDQISPNPFQPRKNFDQEALDELANSIKEFGLIQP

IIVFKKNNKFILIAGERRLRAVKALGKKEILAFIADIDENKLRELALIENIQRENLNPIELANSYKDLMQ

VHKITQENLAELIHKSRTQITNTLRLLNLDIRTQELIASGKISQGHAKVLVGLDQKDEKMLVDSIIGQKL

NVRDTEKIVKKIKNNESLPNQEFEDEIKKLKQILNRFGFDCKNKNNDFVIHLENIDKIKKLIKMLEKL

>AHK51460.1 sporulation initiation inhibitor Soj [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSEIITIANQKGGVGKTTTAVNLAASLAVAEKKVLLIDVDPQANATTGLGFNRNNYEYNIYHVFIGRKKL

SDIILKTELPQLHLAPSNIGLVGIEQELAKGENNEKKMLLKNQIQEVIDEYDFIIIDSPPALGSITINAF

AASDSVIIPIQCEFYALEGVAMVLNTIKIIKKTINSKLRVRGFLPTMYSSQNNLSKDVVDDLKQNFKKQL

FTINGNEDDFIVIPRNVKLAESPSFGKPIILYDIKSPGSVAYQNLAYSILG

>AHK51459.1 biotin--protein ligase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEKGLKVKIVCVESIDSTHLFLCKQIRNGKIDENFAIYALEQINGVGSRENSWQSSKGNLHLSFCIKEED

LPKDLPLASVSIYFAYLLKEVLQEKGSKIWLKWPNDLYLDDKKAGGVISAKISNFIIGGMGLNLKFAPQN

TALCDIEISLKDLVSEFLQKVEKKILWKNIFSKYMLEFEKSRKFSVHHEGKVFSLENSFLYEDGSILLGD

KRVYSLR

>AHK51458.1 methionyl-tRNA formyltransferase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIIFMGTPSYATCILKALVENENFKLVALFTQPDKAVGRKQILTPSDTKAFLSQNYPSIPIFTPSSLK

DKNIIREIKDLNPDFIVVAAYGKILPKAILDLAPCVNLHASLLPKYRGASPIQSAILNKDEKSGVCTMLM

EEGLDTGAILESLECDIKDKNSSEVFELLANLAAKIILSTLLNFDKITPKKQEESLATLCRKIKKEDGLI

NLQNARELYQKYLAFTPWPGVFLENGLKFLELELVDELKQNAKMGEILELEKESFLLACKQGVLRIKKLQ

ESGKKALDGRTYLNGKRLKSEDSLC

>AHK51457.1 gamma-glutamyl kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKRIVVKVGSHVISEENTLSFERLKNLVAFLAKLMEKYEVILVTSAAISAGHTKLDIDRKNLINKQVLAA

IGQPFLISVYNELLAKFNKLGGQILLTGKDFDSRKATKHAKNAIDMMINLGILPIINENDATAIEEIVFG

DNDSLSAYATHFFDADLLVILSDIDGFYDKNPSEFSDAKRLEKITHIKEEWLQATIKTGSEHGTGGIVTK

LKAAKFLLEHNKKMFLASGFDLSVAKTFLLEDKQIGGTLFE

>AHK51456.1 GTPase CgtA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFIDSVKITLASGDGGKGAVSFRREKHVPLGGPDGGDGGNGGDIIFVCDNNTHTLVNFKGKRELRAQNGA

GGMGRNKNGKKGENLELIVPEGTQVIDAQTNEILLDLTKEGQRELFLKGGKGGLGNTHFKHATNQRPDYA

QPGIKGESRLVRLELKLIADVGLVGFPNVGKSTLISVVSNAKPEIANYEFTTLTPKLGLVDVNEYNSFVM

ADIPGIIEGASGGKGLGLAFLKHIERTSFLLFVLDPMRQMPLKEQFIVLRKELEKFSNELFGRKFGIMIS

KSDSVRLGEEFAEQIALNINELDNYLKEINNPQSFLIKVSSLEKTGLKELKFMLLEEIKTLRNNKKNLTI

>AHK51455.1 50S ribosomal protein L27 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAHKKGQGSTQNNRDSIGRRLGVKKFGGEFVRAGNIIIRQRGTATHAGNNVGMGKDHTIFALIDGFVKFE

RKDKDRKKVSVYPA

>AHK51454.1 50S ribosomal protein L21 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYAIIKHSGKQYKVSVGDELKLDHFEAESKASIEVSEVLAINDKELKVGAPFVAGAKVVLEVINHGKDKK

VVIYKKRRRKDSKLKRGFRRQFTRVVVKDIKA

>AHK51453.1 hypothetical protein N916\_00465 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIIKILFLGLFLSLSLNAKVITTTSTKSSTGEGTGLTREDAINNAIIEAIGKMSGVSINSLKKSNTSVS

TDNSGSNIQDNYSEQISKATKGRADTYEINSVEQDANGKYTANVTIFKTTTTKKYQAPGLSADNRRSITV

FDSTPDAAKRGIGSALQQKIISDLLQSRKFNVLDRDSSGYYEMEKALIKSGDAASDEVYKLKNMLATDYI

LLFSISGLEGKQKTSNLTGKSKTEIEVIVDYRVLLFATRQIKFSNTLSMKVNLKDNSLSANETALKQIAN

RIAGDILNAIYPLKVASVENNEVIFSQSLNQGDVYECFALGKVIKDTYTKENTGRVESKTGSIEITRTSP

KFSYAKITEGSVKVGDICRPLSNTGSGNGYTIGRDANYQTQEGGGVNLGF

>AHK51452.1 hypothetical protein N916\_00455 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKTKILGTALIGALLFSGCAQTAYTDGKASQVKKGDALTLGLDRQDFESAAETMINSMLSDPAFANIKP

GTRKVIAIGRVVNDTPQRIDTEKLTAKITSALRKSGKFVLTSAVAAGGALDSMSEDVRELRDNDEFNQKT

IAKKGTLVSPDFSLAGKIRQDNVKLSNGKTQVEYFFLLRLTDLTSGLVYWEDEQTIDKTGSSKSVTW

>AHK51451.1 hypothetical protein N916\_00450 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKNILFILMFLLSACAPSYQINSNQNTVILGSNLPKSLVKQFQKRINSNGYLEFEVILRSTFAKDVIYK

VDWLDKDGFVLRDVLNEDYQALRIPAGQEVILRKLASDTRANDFRLEIKAKN

>AHK51450.1 hypothetical protein N916\_00445 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIKVGLIFSGIACLFLTACVNQVKQNTTFENTLTQKYCGDDFFNQNLEKIKKNDDVIYTGLNAGLIARN

CGDFNKSNVFFDAVEESYKYDVDLENVSPKAAKFIGTTLLNDNIVDYDGSLYERIMVNIYKALNYMEEDD

YENARVEFNRVLMRQDKAKEYFAKEIEKNRADLDKAKEDKNYDKNMNENSKVIEAQYDNLFKEFDTTKNF

INPYATYLASIFFFMDKDYRKAADLFREVAIIYPKNKTIKKEAKIFKEYATKIKVKKAKKYVFVVYENGF

GVVKDEFALTLPFIVDKKIISTNIALQTLKKREASFANLNINGQNTNDFVDLDNIVATEFKINMPAMIAK

ALAQTIIKTTLNVAVANNDSTGGWLSLATAVATAATNKADVRSWRGLPKSIAIATIENDGNLEIKDPQGN

ILFQKSLDKNKNALVIVRSFAPYLPASVAIMEK

>AHK51449.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDIMIILQVIVLLGAIFIGIRLGGIAIGYAGGLGVVILGLVLGMKPGNIPWDVILIIAAAIAAISAMQQA

GGLDYMVRVTEKILRSSPKFINYLAPACGWLLTILAGTGNAVFSLMPVVVDVAKSQNIKPSVPLSLMVVS

SQIGITASPVSAAVVYMSGVLEPLGWNYPTLIGIWISTTFVACMLAAFIVSLITPMDLSKDSVYQERLKA

GLVKDAGAVLHGEDKPGAKLSVVIFLITVLAVVLYATAISSNIKWIDPVVVSRDAAIMSFLLTAATLITW

LCKVEPGKILDTSVFKSGMTACVCVFGVAWLGNTFVAGHEASIKEVAGDWVKQTPAMLAVAFFFASMLLY

SQAATAKAIVPVIITALGISAANPHDSYMLVACFAAVSALFVLPTYPTLLGAVQMDDTGTTRIGKFIFNH

SFFIPGVLAIAIAVALGFVLAPMLI

>AHK51448.1 aspartate ammonia-lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGTRKEHDFIGELEISDEVYYGVQTFRAVENFDISHDRLKDFPRFVRALARVKKAAAMANHELGLLDKNI

QDAIIKACDKILEGGYYDQFVVDMIQGGAGTSTNMNANEVIANIGLELMGHKKGEYQYLHPNDHVNLSQS

TNDAYPTALHLALHDYLSDLAKAMEHLKKAYERKAEEFKDVLKMGRTQLQDAVPMTLGREFKTFAVMIGE

DIQRVLEARKLILEINLGGTAIGTGINSHPDYPKVVERKIREVTGFEYTVAEDLIEATQDTGAYVQISGV

LKRVATKLSKVCNDLRLLSSGPKCGLNEINLPKMQPGSSIMPGKVNPVIPEVVNQVCYFVIGADVTVTFA

CEGGQLQLNVFEPVVAYSLFNSVVMLEKAMYTLADKCIDGITANEKICSDFVYNSVGIVTALNPYIGYEN

SASIAKEAMNTGKRVADIALERGLLSKEQIDEILTPSNMLNPHMEAKK

>AHK51447.1 uracil-DNA glycosylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEEITINIDKIKINDDWKEFLRDEFQKKYFLEIKKQYLNAINQNIIIYPPANLIFNAFNLCPLKEIKIII

LGQDPYHQPNQAMGLSFSVPKNVKIPPSLNNIFKELQNDLNITPAKSGDLSSWAKQGVLLLNSILSVEAN

KAASHSSWGWQEFSDAIIHKLSNEKSGLVFMLWGNYAKNKEILIDNTKHLILKAAHPSPLARTGFLGCKH

FSKANEFLKKVGKIPIDWKIV

>AHK51446.1 aspartate racemase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTIGIIGGMSFESTITYYKTINQAINDKLKSLNSAKILLYSVNFEEIENLQSQDKWQEAAQILTQCAKK

LELAGANFIIIATNTMHKVFDEIQQNINIPILHIAKSSAKALKQENIQKIGLLGTKYTMTQDFYKKMLIE

ENISVITPSDEDIKIVNDIIFNELCKGEIKQDSKEKYLNIIKKLQEKGAKGVLLACTEIGLLISKNDTNI

KIFDTSLIHALDAANEALKDL

>AHK51445.1 cytochrome C oxidase assembly protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFFGLELEGLQIYWWLILSLLGGLLVFMFFVQGGQTLIDELSKDELEKTMLVNSLGRKWELGFTTLVLFG

GAAFAAFPLFYSTSFGGAYWAWLCILFCFILQAVAYEYRKKENNVYGSKTYEIFLKINGYLGVFLIGVAV

SSFFSGSEFILNEHNFVSWQNPLHGLELLLNPFNYLLGLALVFLARLLGAAYFMNNINDENIKIRAMKKL

MINSILFLPFFLGFLAWIFLKDGFSVDTNGVVSMSANLYLYNFLNQMIFAVLLVIGVILVLLGMVQGTKG

CSKAIFTLGLGTVLTVFALLSSIGLGQSAFYPSLSDLQSSLTLKNASSSYYTLSVMAYVSLLVPFVLAYI

IYVWNAMDKVKITREEIANDDHAY

>AHK51444.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNELSSVDWSRAQFALTALYHFLFVPLTLGLSFMIAIMETIYVKTKNERWKKITKFWLSLFAINFAIGVA

TGIIMEFEFGTNWANYSWFVGDIFGAPLAVEGIMAFFLEATFFAVMFFGWDKVSKGFHLLSTWCVAIGSN

LSAFWILVANGWMQYPVGMSFNPDTARNEMQSFFEVALSPVAISKFLHTIGSGYVISALFVMGISAWFML

KGRHIIEAKKSLVVGASFGLVCSIFLFFSGDESAYRVTQTQPMKLAAMEGVYQGEHRAGLVPFGILNPKK

TIDNNESVFLFDITIPYALSILGNRDPNSFVPGIEDLIYGNESKGIEPMQNRIDRGKIAIQTLKDYKLAK

ENNDTIAMANHKSILETHFKDFGYGYLEKPSDTIPPVALTFYSFHIMVALGSFFFLLFIVTLYLTMANDI

EKFRKVLWVCLLSIPLGYIAAEAGWIVAEVGRQPWAIQDLLPVHIAATQLGKVNVQISFWIFAVLFTALL

IAEVKIMLTQIKKGFDAHAGHTPLMGKGEK

>AHK51443.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MYLKHLYFSISQIFNFYKEGFKNLTLGKTLWKIIFIKLFVMFVILKLFVFDVNFNSIFKSDKEKSTFVLK

NLTLEGK

>AHK51442.1 cytochrome C oxidase subunit I [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKIIVFILCCFMTFFLYACSSKFENVNPLGRSFGEFEDTDPLKLGLEPTFPTNQEIPSLISGADLVPIT

PITPPLTRTSNSANNNAANGINPRFKDEAFNDVLIFENRPAVSDFLTILGPSGAALTVWALAQGNWIWGY

TLIDSKGFGDARVWQLLLYPNDFAMIKNAKTNTCLNAYGNGIVHYPCDASNHAQMWKLIPMSNTAVQIKN

LGNGKCIQAPITNLYGDFHKVFKIFTVECAKKDNFDQQWFLTTPPFTAKPLYRQGEVR

>AHK51441.1 cytochrome C oxidase subunit II [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIICLFLSFNLAFANLENFNVGTWNLQGSSAATESKWSVSVRQLVSGANPLDILMIQEAGTLPRTATP

TGRHVQQGGTPIDEYEWNLGTLSRPDRVFIYYSRVDVGANRVNLAIVSRMQAEEVIVLPPPTTVSRPIIG

IRNGNDAFFNIHALANGGTDVGAIITAVDAHFANMPQVNWMIAGDFNRDPSTITSTVDRELANRIRVVFP

TSATQASGGTLDYAITGNSNRQQTYTPPLLAAILMLASLRSHIVSDHFPVNFRKF

>AHK51440.1 cytochrome C oxidase subunit IV [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIITLFFMFITLAFATPTGDLKDFTEMVSIRSLETGIFLSAFRDTSKDPIDQNWNIKEIVLSDELKQK

DKLADELPFGYVQFTNPKESDLCLAILEDGTFGAKSCQDDLKDGKLETVFSIMPTTTSAVQIRSLVLESD

ECIVTFFNPNIPIQKRFGIAPCTLDPIFFAEVNELMIITPPLTAATPLE

>AHK51439.1 lactate permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEQILTWQQIYDPFSNIWLSALVAFLPILCFLVCLVVLKLKGYQAGFLTVILATLVALFAYKMPWNLVGA

SFIQGFTNGMWPIAWIIIAAIFLYKLSIKSGSFEIIKKSVMSITPDHRIQVILIGFCFGSFLEGAIGFGG

PVAITAALLVGLGLRPLQAAGLCLIANTAPVAFGAVGIPIIAMANLVGIEQHSVSAMVGRMLVPLSLTIP

FFIVFLMDGFKGIKETFPAILVAALSFTTTQFLSSNHLGAELPDIISAVVSLAVTTVFLKFWKPKNIFRF

DNESNFTQDNTLSFNQILKAWSPFILLIVCIIIWTQPWFKALFDKDGILSYTSITLQFSNITTGILSPSI

TGIGEAKPLSLALGVDLINGKTVAQAGTAILLAAFLTIAILKIKAEDAAECFWVTLKEMAIPCITIGLVV

AFAFISKNSGMSTTLGLAFAHTGDAFSFFSPIIGWIGVFLTGSDTSANLLFGTLQQVSAQKLGISEALFL

AANSVGGVVGKMISPQSIAIACAAVGLVGKESDLFKFTLKYSVAFIILIGIWTCIIAFFLQGIIPEVIVK

>AHK51438.1 oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMKKVYFYATCLGSTAMQQSVLNAIKLLRREGIEVIFKKNQTCCAQPSFNSGYFDESREIALYNVDLFDK

DYPIVVPSGSCAGMMSHDYKELFKNRPEFSKIKTFSSRVIELSQYLDEVLKVDYEDKGVPIKVTWHSNCH

ALRVQKSIQASKNLIKKLKNVELVELQYEEECCGFGGTFSVKEPEISNAMVRSKIKDIQNSGAKYLISGD

GGCLLNIDGTMKRMGLDIKGIHLYDFLLKRLEGGRL

>AHK51437.1 iron-sulfur protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSQKIPHEQIVQIKLNDKQMQENLMTAMHTLQKNRLNVIDARFKDWQGLRAKAKQAKNNALMSLEERLLE

FEKNATKNGIKVHWASSDEDACEIVYEIMKEKNITKLLKGKSMASEEIGLNHYLEKKGLKAIETDLGELI

LQLNEEPPLHIVVPAIHRNRHEIGEIFKEKLGANLENDEPESLNAVAREHLRKDFEGLKLGLSGVNFAMS

REGAFWLIENEGNGRMCTTAPDIHIALCGIEKIMESFEDAATMVSLLTPSATGQFIPTYNNIITGPRKNG

DLDGPKEVHVILFDHNRSKMLAHEDYYEALRCIRCGACMNFCPVYDQIGGHAYQTTYPGPIGEVISPNIF

GIDHTGDILNFCSLCGRCSEVCPVQIPLADLIRKLRCDKIGQGKNPPLGANNVHHNALEAFAFKQFKNIA

TNGDKWRFSLSKAHYFNWTVQNFASILPVIKKWYAFKELPQIKMDLYKEVQKLEGVSYE

>AHK51436.1 hypothetical protein N916\_00370 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKIDEISSKSKANILEHLKKAYKETTFTRIESIDPVEHIQTTQDMLTEMKQKMSDNKYIVENATKDTLE

EKINEIVAKYSFKSMIYGADLNLNLEQIKAEKKICFDKEIENLRSEVFHSDFSIIHARAGVSSHGVALIP

SSKTQPRMLSLAPKLCIVLLKKENVVKSLSEALNLVKKENEILPTNILFIAGPSRTADIELITVFGVHGP

QIAHIIIY

>AHK51435.1 hypothetical protein N916\_00360 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKNIVFFEVKGGSDKGEDGYRKDTMPMVNALKAKGWNAEVIFFEVGKKDEIYKYVKENFDGYVSRINPG

NLKEENEYFDMLRKLCADKLVGMPHPDAMIGYGAKDALTKLADTDLVPSDTYAYYDIKTFKENFPKSLAK

GERVLKQNRGSTGEGIWRVSVEGNVSGDSLPLNTKIKCTEAKDNHVEHRELGEFMDFCEQYIIGDNGMLV

DMTFLPRIKEGEIRLLMLYNTPVNVVHKKPAEDADAFSATLFSGAKYRYDKPEDWKTLVDMFLGELPKVR

EKLGNYDLPLIWTADFILDTDEKGNDKYVLGEINCSCVGFTSHLELADEVASNIINIVSKTKA

>AHK51434.1 endopeptidase IV [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQILKSFFKALGCGIKFINTYFKTFVLLLIVIWILIPSANSSSNLANLERIDLKGEIFDSSAVLEKIINA

KNDSNIKGVLFVIDSPGGAFAPSMELALAIKDLKIKKPVLVYASGTMASGSYLAGVGANKILANPASFIG

SIGVIMQGADLSGLANKLGIKEQTIQAGEFKSAGTFARAWNENERNFLQGLIDQSYDLFTGFVAKERALD

LNKKDQWANARVFLAAKAKELGLIDELSNYENAKKELEKLANVSNPVWKEEDKIDKFLNRLEGQTSSLIS

KSLIEIAYKTNSSFINAR

>AHK51433.1 chlorohydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MFIVAARYLFLCDEDFTILENQAFVFEDKILELGELDNLKKKYPKAKIIKTPKNSVILPAFINPHTHLEF

SANSTTLHFGEFLIWLKSVINSRSILNAQAKEELILQSIKKMQKSGIGTIGEISSFGSDLDPCLKASHKG

MRIVFFNEILGTNENQVEDKKQEFLKRFENSLKFKNDFFIPAISIHSPYSTHPSLAHFALDLAKKQNLLA

STHFLESKAENIWLRESKGGFKKWLENFTLHPKPLYTPKDFVKLFKGVRTLFTHCVYLKEYEWLDKNLHS

ITHCAFSNRLLSQKSLDLKTALKSGLNIHLGTDGLSSNISLSLLDEMRANLLIHKNFDLLELASKLLQMV

TLYPARALNLNLGELKKGKIADFNVFELGECDKKQAPLQFILNAKEVDKLFIKGKECKF

>AHK51432.1 3-dehydroquinate dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIMIIQGPNVNMLGVREVGIYGAMKMEEIHEQMKLAASQNNVELDFFQSNFEGEIVDKIQECLGTVDGI

IINAAGYTHTSVAIRDAIAAVALPTIEVHISNVYRREEFRQKSLIAPVCSGTIVGFGPFGYHLALMGIIQ

ICEQIKNLRAMQQAQQTNK

>AHK51431.1 flagellar biosynthesis regulator FlhF [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGQLIHTFTVEDTEQIIPKVKEDYGDKALIITNKQIRPKTLNRSALYEVMVAIEESDYEEHLKKQGKSLP

AKKSSPKPSSTSLAEEKIRSQIPQEDEDVVLDFSNTRLNTNLNTVKNNDLAKKTYQDFPQNKINPHQNKT

LGFDDFKEKLSEVSNEISKVTNTPLENYTPNPNYNKKIENFEKQFEKQINKLNDKIDLLADMMWDDKAEA

RKNLMIPPEFASIYKQAKESGMLENHLEAIMKATIENMPAAMKTNKDAVQRYFHSLLRNILPCRVESDIK

KQKIMMLVGPTGVGKTTTLAKLAFRYAYGDKRYKTGIITLDTYRIGAVEQLFQYAKMMKLPIIDSIEPKD

LDEAIKSLNNCEVILVDTIGNSQYDQSKLAKTKEFLMHSNAEIDVNLVVSANTKHEDLMEIYKNFSFLNI

DTLIITKFDETKVFGNIFSLVYETNIPLSFFSIGQEVPDDLEVANSDFLVHCILEGFNKGKNNE

>AHK51430.1 ATP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNNQANKLRNLMSQNGTKKSQNTHFIAITSGKGGVGKSTISANLANVLANNGYKVGLFDADIGLANLDVI

LNVRIQKNLLHVLRGECSLEDILIEVKPNLWLIPGESGDEILKYNDKNIYERFLNQASILDELDFLIIDT

GAGIGGNILNFLEMADEVIVVTVPDPAAITDAYATIKTTSKTKENLLMLFNVVKNENEALKVFENIKKVA

DANIKNPLNLEFLGHLSASKDVSGSIKKRTLFSDENTASSDEIKALASKLLYRLERKVLDNVSNRSFSSF

FRKIIERF

>AHK51429.1 membrane protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRPENYVAFFTVCGFFIGLAFSIISIDEAFDILIFTCFITFMFYVFVHIAIMNFIDVKKISGRIFNKHDY

EKTSNNIINDLVIREKKMDIILEKLNEEREELKKNEFKERRRNAKRAA

>AHK51428.1 RNA polymerase sigma 70 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MLKEPPKAYAQMLKKEQDELVLSYMPALRAMAFRLKERLPSSIDVNDLISIGVEEMIKLSRRYDKEQNDN

FWGFARKRVNGSMLDYLRSLDVMSRNNRKIIKDIDAIMDEYFLEHECEPDDEYLAKKLDLDVEKIKEVRT

AHAISYTLPIDEQIELYNEDNTLEKIEKEELLEKIHEVLDDLKERDQLIIQLYYYEELSLKEISEILQIS

ESRISQIHKKLLKKLRERLV

>AHK51427.1 flagellar motor switch protein FliM [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAEILSQEEIDALLEVVDDNTDTPIASNSKDEKDERNIVVYDFKRPNRVSKEQLRTIKGIHDKLARNLAS

QISSMMRSIVETKLHSVDQMTYGEFLMSLPSPTSFNVFSIKPLDGNCVLEINPSIAFPMIDRLLGGQGDS

YEASRELTDIELNLLDSILRIIMQRLKESWATVTEIYPSIEAKESSPNVVQIVSQNEIVIMVVMEIIIGN

SSGMVNICYPVVHLESILSRLANRDIMMGETSAKKSRNKELKTLIGRAEVVYEAILGKTLINVHEFLELK

QGDILRLDREADDKAIVSIDKKDVFLAQIGLHRFRKSIKILELIRTDKDEIKEILEKYEEERKAKASVYD

EPEEEDEEI

>AHK51426.1 flagellar motor switch protein FliY [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINDFLKMFTNECISTIEGLTGKSAEFSEYKEFDVNTSDTLKAPLVYAIFNIANGGKIGILAGAILMSAI

GEWMMGEEEITKNDKLGPDEMDAAKEAIQNIISAFSTTLGAQKDIPKMDFSIESCEFVPESVDFKDFKKL

FLYDVKIGDLEEQVSLAMDQTLHNILSGKPAETGNTSTDSNHNTEEKAIMLSEELKNINLIMDVRLPVRV

RIGNKKMLLKDVLTMDIGSVVELNQLANDPLEILIGDKRIAYGEVVIVDGNFGVQITEIGSKKERLEQLR

>AHK51425.1 lysine decarboxylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNEKISQDLEKFANIPNLKNAVTFFGSARLKEDNFYYQQAKILAQKCVQNGFCVISGGGGGIMRAANEGA

FSQNNNTNSMSSVGFNIFLPHEQKLNDFVEYNITFESLAIRKMALIEKSLAFVIFPGGFGTLDELCEILT

LKQLEFKKDVPIILFGSEFWRGFDEFVRNSLLKLEVISKGDELKYKITDDLDFIINTLKEI

>AHK51424.1 thiouridylase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKILVAMSGGVDSTVTAYKLKNLGHEVIGCYMKLHGKPNYHEENIKKVEKVANFLQIPYHILDLQEDFKN

KVYMPFVDTYKEGKTPNPCALCNRFIKLGKLLEFAKSLGCEKLATGHYARLENNLIKTAVDESKDQSYFL

ASADKEALKYLIFPLGEMKKEDVKKFASTIEVLKSFATQKESSEICFVEDTYVQVLDQFMDTKIPGEVLD

SSGKVVGKHEGYMHYTIGKRRGFEVRGAHEPHFVLKINPKQNQIIVGTKEELKISEFNLKNINLFIDAKE

LDCEVKIRYRSKSTPCKVEIYEDKSAKIILKDPVYGLASGQMAVFYDHDKVIASGFIE

>AHK51423.1 hypothetical protein N916\_00240 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNFQVKTLETFNPFESLNHEQANTEQILDFRVIDFKLLCSSVKPAKTKTYERKDFDLFYADDFFVKNYNT

IVQKFLIEIYPKTQSFPFTVKLRSNSNLTHLKASINLTENFKYYPNLKFDILQNIYKIMIKQKFLILRLD

KNLFDKIDDFILSIQKSPSIKEIELEIAKGVDKIEHKSDEIIYHRDVNEECFDENINYDEGNYCKPIEKN

ELLFEYIYRILGKEGRNLRGEILHLNPIAFLDNPFIIKDESIYTEELEDRIKYFSANYGFLNKDHTGYCI

ANNLKLSQIGLKTTGSIKTNTDENINLEITNFDISDDAIKSGIVNVQASNIKVNGNVGATKLYGKNISIK

GLTHAKSEIFAQDIFITTHKGTLQADTVYIKNLENGTIIAKNVFVENCMGGKIEAENIYICNLLTDNTLY

PRKNLIITNNIKFKNNIVVSPLVSIENNSDTECENLKNLSLKIKSKLDDTISKMQNYYDYLIKNQIKIIK

LQKTKNPSAIEMKFSNLYHDIIKKYNHLSISYKKLVKLKYQIDAKLNFLNEMVYNVKIYIKAENIGEDNF

LKFYPNTNTNLELKHHINLKDYEKVLYLEKGQQVSYIKSSHNYSESDIEEIKIIFKKLEKDNS

>AHK51422.1 flagellar hook protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MMNSFYNGISGVKSNSFGIDITANNIANVNTTGFKYSDAQFKDIFYTTITTQSTNPAQGGYGSGAASSQV

VFEQGSPVASDGEFDVALQGKGFFGVLGADGNAYYTRNGSFRRDANGYLVDSYGNFVLGTMNPAFTGINY

SDRVAGLMGDYLNTGTPVNNGFTVNSNNSFSIGTTASQGAIKVPVNMYLPPQVTQNVKWSGSLNTNTTTE

VVKVDLDPSKFNITKTEDGKYVVSGSVSKEDVFSAKAGDRIILNFTDDNGVKTSFEATLDENLNFKSNEL

DLKGLDENSIKLDTAQISTEQQKANKDILESPIYNADGSKSTLRVTLERVLPQEGDNIQYKAIAQIYDSN

GNAVGNPTEGNMVFDKNGALLQNNITSIANPNGGTINIDLGSPYDANKPGSGYSGIYIKQGVEKNVVTQQ

DGVAEGFFEQYNISDDGSIVAQFSNGKNAIVGKLALYNFINEQGLVAMGDNIFAATANSGDASFIMKDGQ

VVNTAKFKGGFLEQSNVDLSAELSNLIVTQKAFDASSKSITTSDQMIQKAINMKR

>AHK51421.1 flagellar basal body rod modification protein FlgD [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MISSSDWNLNTTATTSGTTSSGSTSGTTRTDSSSSSGIVSNPNATLDKDAFLKLLLIELQHQDPTDPMDS

DKMLTQTSQLSALEMQQNTNTTMQKMVETMQKLSDSFSTSMSTSALGAIGKMATVSDNKIKLTGADELIA

LKMYLPEDSDENGVTLEIYDSNNKLVFSEKSDAKSISQGLFTMEWPGRNNDGVYAGDGEYTVKMVYNNKN

GEKITANYGTYPIEGVVFKDGVAYAKMAGQEVPFDAIQEITDYKLGSSSSTGGSGSSGDSSGGSSDGDSS

GSGSTEDGDKEEKA

>AHK51420.1 flagellar hook-length control protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSNLAPQNDVLNLTPSKTSTTSSSFSKTSKNKEHESSDSKNSTQDDTESFLNSLLNSINETNEFLPDHMK

ISQKEVVNEAMSRLQKGAFDESDKISIFESASFMQILSLLDKLKTDTADVKLANLSTQLSSLIKTEANFN

ALKGASNLSELLDIAKDLGLNVKNIKVDRLLDLKATFPNLDKADFFKGAVDNVFKEIINNKISNVSKNLN

HNLENTTHTTSTHSMQKTNSKDSGSLLSQTLKNLDSILSSKESKHEKNDKVKSKIEEDTTDAKNTLKNIK

NDEFAKNLTEELNIKDKKNQDNLNKESKDLNKDFNKELNKNQEKNNLNQENIQDQNKNLKNNDQNLNLDK

NLNKEIVKDTQKLVSNLTQKDFNLNKEPKNNNKENKDIKQNFFDQKLNFENLNKTQVVQNKENNANFNNN

NTNNKETFTQEQTKTHSENVDKNSLDELNSLVKDLNKVTQNNARNITPKETLQYFSQDLKEAVDQYKAPI

TKLSITLNPNNLGEVEVTLIQRGNNLHINFNSNANAMNLFIQNQAEFKNSLVNMGFTGLEMNFSDQGKRE

QNQNQGKNRSGYGFKDALDGKNESEKVNLELVLAKYF

>AHK51419.1 hypothetical protein N916\_00220 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKPLNEEIFVEFKSDLAERKNEVLLQVLELLETFRSDENEKMARISSELTEILENEENLEKILNAKNLE

ELLNILTALNEDKMIKVYEDSYLKEKFPNVMVDKFLK

>AHK51418.1 GTP-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MENIRNIAVIAHVDHGKTTMVDELLKQSGTFSEREQISERVMDSNDIEKERGITILSKNTAINYKGTKIN

IIDTPGHADFGGEVERVLKMIDGVLLLVDAQEGVMPQTKFVVKKALSLGLKPIVVINKIDKPAADPERVI

NEIFDLFVALDANDEQLDFAIVYAAAKNGYAKLDLNDESDNMEPLFKTILERVPAPSGSDENPLQLQVFT

LGYDNFVGKIGIARIFNGVVKKNQSVMLAKADGTKVNGRISKLIGFMGLEKMDIEEAGSGDIVAIAGFEA

LDVGDSVVDPNNPMPLDPLHIEEPTLSIVFSVNDGPLAGTEGKHVTSNKIAERLEAEMKTNIAMKYESTG

EGKFKVSGRGELQITILAENMRREGFEFCMGRPEVIVKVEDGVKTEPFEHLVIDVPEEFSGAVIEKLGKR

KAEMKTMAPTGDGQTRLEFEIPARGLIGFRSQFLTDTKGEGVMNHSFLEFRPFSGAVEKRNNGALISMEN

GVALGYSLFNLQERGVLFIEPQTKVYTGMIIGEHSRPNDLDVNPIKGKNLTNVRASGSDDAIKLVPPRKL

SLERALEWIEEDELVEVTPVNVRVRKRYLDPTQRKRMEKAKS

>AHK51417.1 poly(A) polymerase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDLKSLENNRLYILKRLGILKFLSIIEALLVGFLAFVFIRDALIAVILAVFVGVFFFRFTAKKLKLAQKE

LQINALNLFLRRFGAKFKKQSLSQKDFLKLGLTKDLKEFKSQNCFEFKDFKIYDIQFLDENKRFFCGILL

EISKANKNPSFENEEQIYIKLTDKNFTLNHIFSKENHYLITTLSNPFFIDIKKDLESNFKDLEENLNSIK

NKLFK

>AHK51416.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKHILLLGLCLSLSLSAKSVSDYKVGEELSDKEGVEYFKELSKRPVQEWPNKNLSINDVPKGKQGDLIR

YGIELLSKTESTLGPYSKLKKTSNEVNCISCHMDNDGNGLPGTKKYVIPFLNILNNYPRLDIETMKIISV

EDRIRGMGGTDSHRFPNDSKEMKAILAYFKWLKEAYGIKDGVKLEGDFFAKMNFPNRPADPVRGKKLFEE

NCVACHGERGLGVKNDNYEQGSGHLYPSLLIYPDGGHMAMIPFLARFLKSAMPFGASADNPILSDEDALD

IAAYVNTGFVRMPITTTENRAGLDTAYSKSPSLKPEYFASPQQNLDPKEYIKVKYGPWKNPNHFPGE

>AHK51415.1 hypothetical protein N916\_00200 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQNLNQNEQIKCPSCGSFIDISTALYAQILDKAKQEMLKQKKEFDDEVNAKRAEYTKALNDLKTQKIEQE

KLINEQVSQKLLLEKQKFEQELLIQKQNFQKEFSEKFNKEHENEMKIMQEELEKKSKELSEFLSIKAENE

RLKREQKENEERLKFQAKEEAFKEFKEQESKNLEFEREKMRLEFQKSTQEQDLKYKELETNFKSVAQKLE

DAQRRIEQGSQQLQGEAAELLIEEYIQSEYLSDEVKEVPKGVNGADCLHIVKDNFGNICGSILYESKRTK

EFNKEWLDKLKLDSIAAKSDIAVLITKTMPKDKEKTHFKEGILICTFNEFKGVLAVLRESIINAYKLKNA

LQNKDEKNHILYEYLNSKEFNTQITFILKTYQNMKEELEVEKRALQNIWKKRERAIENLSFNSTAIVSSL

NAIFSDLQGGNLIGEEGIKSLENLAKDED

>AHK51414.1 multidrug DMT transporter permease [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQKHTKIHGFAKFKLIVILALMSSIAPLSTDMYLPALSHVEQSFQTNSFLTQLSIASFFIAFALGQLIYG

PLSDIFGRKIPALVGIFFFIVSSLFCVIIDDIYAFIALRFFEALGGCAGVVIARAIVNDLFEIKEAAGIF

ALMMVFSSLAPMLSPTFGGILLEYFSWHSIFATLFALGILLFLMILFGLKESAPHLKNKKFSHHEAMKSY

KFVLSDKRFLVYILCASFALAAMFAYITGSSFVFTQFFSLSEQKFALLFGANALGFVICANINARLVLKY

ESEKILAKALMIMFISTVILLVNAFFHPNFLLFELSIFTSIAMLGFIAPNTTTLAMARFKEHSGTASAVL

GTVQFGFAGLISFVVGAINANTPIILAFVMCACVLVANMIYFLIKIKEKK

>AHK51413.1 hypothetical protein N916\_00190 [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTNNIFMALAIVLASLILAFGFNKALSDFKTLERSVSVKGLSQKEVEADTLILPIKFTRSNNNLTNLYE

ELEQDKENIIKFLEKQGIKEDEISYNSPNIIDRLSDPYSNDTQAAYRYIGTANLLIYTQNVKLGKSILEN

ISSLAKFGIVTKIDDYDIEYLYTKLNDIKPQMIEEATLNARNAAIKFAQDSNSHLGKIKKASQGQFSISN

RDKNTPYIKTIRVVSTIEYYLKD

>AHK51412.1 L-asparaginase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKAKSRIAILGTGGTIAGFIDSTIATTGYAAGAIDIDVLIKAVPQIRDLADISWEQIANIDSSNMCDEI

WLRLAKKIAKLFAEGIDGVVITHGTDTMEETAYFLNLTIKSDKPVVLVGAMRPSTAISADGPKNLYNAVA

LVVNKEAKNKGVMVAINDKILSARGVVKTHSLNVDAFSSPDFGDLGYIVDGKVFFYNNVIKAHTKNAPFD

VSKLTSLPKVDILYSYSNDGSGVAAKALFEHGTKGIVVAGSGAGSIHKNQKDVLKELLKKGLKVVVSSRV

VAGCVAVSDSDEKLGFISAEDLNPQKARVLLMLALTKTSDPKKIQEYFLKY

>AHK51411.1 recombination protein RecJ [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKIINKNEIKKILASRFEKDLHTKLCDLPLPCCLKDAYKAANRIKEAVEKNEKVAIVGDYDVDGIISCVI

MAEFFDDIGFDYIIRIPNRFKDGYGLNAEIINELDVNLIITVDNGIAALEAAKLCKEKNIDLIITDHHMP

QDILPDAFAIINPKQKDCDFPEIEICGAQVAWYLIAALKEVCKLKYDMCKFLELLAIAIVADMMELRDLN

RALVRRGIDHINKSKRAAFRAIKHYYQKDKFALDNIGFLIAPLINSAGRMDDASISYEFLHTKDFNKALE

YLEQIVSFNESRKDEEKQLFEDSLNQIDENDSCIVVSGLNWHEGVLGIVASRLAKHFNKPAFVFSQNEEH

LKGSARSVGKIDILALISKTNSILSNYGGHKGAAGISLNSENFEQFKNKIKKECSQISESEFLDTDEILG

ILEPSEIDFEMLEILESFEPFGHKNPRPFFVLENLCVKNKKLLGKDEKHLKLVLTKENKTIEALFFNFDK

EPELNQNISLLGSISKNEFRGMVTPQFVVKEIL

>AHK51410.1 CTP synthetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKQTKYIFVTGGVLSSLGKGIAAASIATLLKNSGLKVSILKADPYINVDPGTMSPFEHGEVFVTDDGAET

DLDLGHYERFLDESLSQDNNFTTGRVYQSVIEKERRGEYLGKTIQVIPHIVGEIKDRIKKAGEGKDILIV

EIGGTVGDIEGLPFLEAIRALRLEVGKNNAMNIHLTLVPFIKAAGELKTKPTQHSVGELRRIGISPDMII

CRSEKALDRDLKDKIAISCGVEKNCVIESVDAASIYQIPLNFLKQDILSPIAEILDLKNLKPNMENWDSL

VKRVIAPSNEVKIAFVGKYVDLKESYKSLTEAIIHAGAALDTKVELKWVDSEKLENMESSEVFKDVSGIL

VAGGFGYRGVEGKIKAIQYARENKIPFLGICLGMQLALVEFARNVLKLKDVNSSEFNEKCQNPVVYLIDE

FMDTNGEKQIRTAKTPLGGTMRLGAYKCDIKEKSLLAKVYNEVKSVKERHRHRYEANPKYRADFEKYGLI

VSGESKGLIEAVELNCHPFFLAVQFHPEFTSRLEHVNPVICSFIKAAINYEDN

>AHK51409.1 FAD-dependent thymidylate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQITLLFHTPLSVCSHATRTCWQSFEKGDCGGEKDKELIDRVGNKFKHASTLEHLNYTFYIQGISRACLQ

EVARHRHTSPSVKSTRYTLKELRNEAEFKIGDFENASRYLVLCGNEEVDNASIKALENLRTILQKSISLD

IAKYCLPESYKTELTLTINARSLQNFISLRSSKSALWEIRNLANALFEALPQEHKFIFEHCLHKDIE

>AHK51408.1 sodium:dicarboxylate symporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDKQFFQDFLMLSQAHTIATLAILCVVFYALKKMRDIKINFSLRMLFALLMGLGFGFALQYLANFPDAEE

ASNILWYSETKHWFAFVSSVFVAFIKMLVVPLVSICIIKVIIEIDKNIKISSLLGISLFWILFSTAIAAT

LGIFLGYSFDLGSNFAIYEGDKQIREIQTFSNIILGLIPSNIITAINKENIIAIVIFSFFIGISAKKISK

KEEYEQAFKSFHNFILTFYNIMMNMTATVIRFMPYAVVCMMANVLLSNGFEAIKTAGLFIMLIYIAMFIM

FGVHFLLLASQGLNPIKYAKKAFPVWLFAFSSRSSLGTLPMTTSTLQNKFGVNSAIANFVASIGTTTGLN

GCAGYFPALAAVFVAFATHTHIDFTFALMIVLVAVIGSLGIAGVPGSATMAASIMLAGIGFGNNFVMLSL

ILAIDPIIDMARTASNVSGAMTSALCTAKNLKALDKEIYNS

>AHK51407.1 ribonucleotide-diphosphate reductase subunit alpha [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKVIKRNGRTEELDVSKIKKCTSDAVKDLEGVNLSELELDAKIQFRDGISTEEIQKTLIKTAVDKIDIDC

PNWTFVAARLFLFDLYKKVNGMNRYNHLREYFQKGEKEGRILLGLKEKYDLDDLNAYIKPERDMQFTYLG

IKTLYDRYLIKDSKGMPIELPQQMFMAIAMFLAQNEFNPQEWAKKFYDLISKFELMLATPTLSNARTTRH

QLSSCYIGSTPDNIEGIFDSYQEMALLSKFGGGIGWDWSKVRAMGGSIDGHKNAAGGIIPFLKITNDIAV

AVDQLGTRKGAIAVYIEPWHMDISDFIDLRKNSGEERRRAHELFPALWINDLFMKRVRANDKWTLFDPAD

TADLCDLYGEAFEKRYEEYEKDESITKEIVEAKELWKKILLNYFETGLPFLCFKDSANRANPNAHVGIIR

SSNLCTEIFQNTEPNYYQIKVVFENGDELHFDEEQKVVIDGGYEKPAKKISTLDSIEGNKVYIVEKYKND

GKTAVCNLASINLSKVYTKEDIERVVPTAIRMLDNVIDLNFYPHRKVKDTNLKSRAIGLGVMGEAQMLAE

AKIHWGSDEHLNKIDEIMEQISFEAINASSNLALEKGSYEDFEGSNWSKGIFPIDVASPKAKALTLREGL

FDQSECDWVKLREKVKKDGMRNGYLMAIAPTSSISILVGTTQTIEPVYKRKWFEQNLSGMIPVVVPNLSL

DTWQYYTPAYELDQKILVKAAAVRGKWIDQGQSLNIFLSLDKASGGYLNEIYQLAWELGVKSTYYLRSES

PDSEKVNVADRSIECEGCQ

>AHK51406.1 adenylosuccinate lyase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MVERYSREIMAKKWDMQAKYDAWLKVELAAVKAWNKLGLIDDTDCEKILKNAKFDIARIDEIEKTTKHDV

IAFLTSVSESLGEESRFVHYAMTSSDCIDTAVALQIKESLELILEDVSLLLEAIKKRALEHKNTLMVGRS

HGIHGEPITFGLVLAIWYDEISHAKELLEHAKEVISYGKISGAMGNFAHAPLEFEEEVCKNLGLKAAPVS

NQVIQRDRYAQVISAIAILASSCEQIAVAIRHFQRTEVYEAEEYFSVGQKGSSAMPHKRNPVLSENITGL

CRVLRSFVTPALENVALWHERDISHSSVERFILPDAFITADFMLMRLTNLIDKLLVYPENMMKNLNLTGG

LVFSGRVLLELPFKGISREEAYKIVQRNAMKVWADLQNGKAAINEKNESLFLLALLSDEDLRKSLSEEDV

RKCFDYNYYTKNVDAIFKRTFK

>AHK51405.1 ribosomal pseudouridine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MAYIKIKLSNNGKKAFQVLMENLKISINEAQKLIDKKRLFCDGILVEEKNKILNGLVELIVYENNPKGVE

IVFENEDFAILEKESGILSHPNGRHCKYSLSDEIWHLWGKEACVAHRLDKETSGLILIAKNKKAQIDLKS

LFEKKLVQKEYLALAHGKIEENFIVDKAINLTKNYDDVKTRMQICKEGKQAITEFEILEYFPKINATLLL

CKPLTGRQHQIRVHLHYKNHTILGDPLYGLSKQQIESILDEKLNPKERLKLTGALRLCLHSYRLKFQYKN

QNFDINSKINIKEIFNNSIK

>AHK51404.1 fumarylacetoacetase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKFVNFIQGQKPNLGVLNSSGKIVSFDDLGIETNDMNEFIIHFDKFKHKLTDLDSKIAYEIPQENYLAPI

IEPRQDIICLGINFLDHAKESAKFKGEKFEEREYPVYFGKRCNQATAPFGDIPLHADVTSQLDYECELAF

ILSKDAYKIKAKDAKDYIFGYTIINEISARELQKRHKQFYRAKSLEGSTIMGPYITSVDEISYPPKLQLQ

SYVNDELRQNSNTQLFIFDIAYVLEELSAGMLLKAGSIISMGTPSGVGMGLNPPTFLKSGDKVRCVIENL

GELCNKIKNINY

>AHK51403.1 cytochrome C biogenesis protein CcsA [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIIMILCLSYANIVFAVDMITPIPNSISYDKEKAKLGKSLYMDKSLSKDGKVSCNTCHRLDQHGVDGL

EFSIGVDNQLDKPFNTPTTFNSVFNFVQFWNGRAKDLAEQATVPFFNPKEMGLSPELLLQKVNSNENYVK

TFKKLYGEVTVENIALAVAEFEKTLITPNSPFDRYLSGDQNAISTQAKKGYEDFKANGCISCHQGQNIGG

NMFQKIGIFEEYPNQEDLGRYEITKREADKMVFKVPSLRNIAKTAPYFHDGSIPTLDACVQFMAYYQLGK

FLDQETVDNIVAFLESLTGEYHDK

>AHK51402.1 histidine kinase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTNKKSSFLIKFIILSTLVLAFILVLLGIIFNNYSSSKDNKELINIVQQLEISDEKINSVFQNSFNFINY

DPSVQAIKKMQENFTKLKTFGIDINKAEEIFNAKLIQLNYFKSANSIAVNSKLYLFELAKNYFEELEQNH

ETNKNNYKTMSSMLSVLSTENILQKTTLNQLNNLMKEIKNDTKSENLQLFLKHYNMIVKQISIMQDNSSI

YENNSLMKELKQLNTFTQNTIEQSNLFKFYIALAVFGITLVLFVFFILLTLKKVIMPIHTLEKLSANLAS

KEANLHSRLNIDPKSELGQSAQYINSFISTVQNSIIEAIENAKSSHQNSQKLKNNSMMLENSSNSQHEQI

QGVKEITHVLDDHINLAGNLAQESIENMQDMHILMDKVELTLSELVNLINENNEKEQNIVANMDNLTQSA

DNIIEITNSIKDIADQTNLLALNAAIEAARAGEHGRGFAVVADEVGQLADKTSKSLLNINATVNTIVQQI

NDNKALMDLIHDSMKETSSKTNDLQQELVNSMHKLESSIESTQTMKDKSMEVKDKMLILGTNIDKVNELA

NSVKDLSCEINNISQNVLNGASKLSEKLSSFQ

>AHK51401.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MEFLELLLVLIALILIIKKPEKENLAFGLVMVAWLLMVFFYVGHKTGALLTIMNL

>AHK51400.1 dihydroneopterin aldolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNEINKTKNFYTLMCLAGFLIILLPVGIANLIFGYMLGDSPCTLCWGQREAMIFIGVMALFIVRYGMKGK

YLAALLIMTAVGLYQSFAHYGNHAHRDLDQGFGLAVFGIHTYFWAEVVFWAVVLLLGVIFAFAPKFNAFE

AELNGEKFRKYTKFSFAAVLISAIIVASNVFQAFVSTGIPPYVGQGDPVRFSLNPKYIIWSKEGWNGLWQ

NISFLGKRDVKAPDYAFAPASEKLGIKFDNDINNAPFAKINDELKITNEQTINFDKAINTLDYINNEFVA

SSKWDVAFLDNNFSVKEGFELDPYFSASIDPIIGIIPYMNDKFILMGSNKSFLRFAKNPNASEEDIAKQY

ADFVKGNDKFKGQGESLGRGRLDTVRAKFNHVASMTTDGNYLYLATVPNNKDAKTFVISKVSLKDRVLSG

EFTPKANLKEGKTLGDLYVTSMTFKDGEIYALSKNHNVIAVIDPVKEEVVKTIAFPSSITNARSIFFKDG

KINILSYQDGANKLYTLN

>AHK51399.1 7-cyano-7-deazaguanine synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MSKKALCIISGGMDSTLCAYLAKKEGYEIIALHFDYEQRTQEKEKECFKQICKALKVEKSYILDVSFIKD

IGGNALTDKSIDIPKNELCTSDTPPITYVPFRNGIFLSIAGSLAEKENCESIFIGVVEEDGSGYPDCTDE

FIQKAQEFINEGTSKNFKVCIKTPLVRLNKAKIVELALKENVPLELTWSCYESEDEACGECDSCLLRLRG

FEKAGFKDKIKYKS

>AHK51398.1 hydrolase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MINIKLIEHIFKAASISRWNDYPRMANLVELDKQAHKFIIAYFIAKMEKDVDMRVIIEGGIFEFLSRVVV

TDIRPDVYHEIVRQKKAEVNAWVLSKIEPMIEDIEDGEFLKRFEAYLNGNAYAKERLILKAASYFATRWE

FNIVYQTSAFLNDIDEIKNKVEEELEDYYELIGARKIALNQKIAKIIDLSGRLRFQKRWAQTPRIPETAV

LGHMLVVAILGYFYSLKIKACDKRLENNFYCALFHDLPESLTRDIISPVKYGIDGLHDIINDYEMKLINE

RILPFVPEGLRAEFSYILGIREGRNGESNFVKNEFENRTYKNAKIELCSGSLSSFNENEFGAIDGKALKY

CDKIAAYIEAGLSISYGVKSKELESGFLGMHEFFKENPTIDGVNFFEICESLREYFKI

>AHK51397.1 dihydroxy-acid dehydratase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRSDAIKKGHLRAPNRSLLRACGLKDEDFDKPFIGVANSYIDIIPGHYFLNDYAKIIKDEIRKNGCVPFE

FNTIGVDDGIAMGHEGMLYSLPSRELIANSIETVMNAHQLDALICIPNCDKITPGMLMGALRVNVPTIFV

SGGPMASGVTKKGEKISLSSVFEAVGAYESKKISEEEFKDIECSACPSGGSCSGMFTANSMNTLCEAMGI

ALEGNGTILALSKEREELLRKAARRICEIALDERFKIRNIITQKAVRNAMVVDMAMGGSSNTVLHMLAIS

REAGVALDIKDLNFISSKVAHIAKIAPSLNSVYMDDIHKAGGVSAVMAEISSRQGHILELDALTITGESL

KERLKNAKIKDENIIRKVDNAYSKVGGLAILFGNLAKQGCVIKTAGIIGERKFKGKAVCFNSQDEAIKGI

IKGKVQKGNVCVIRYEGPKGGPGMQEMLSPTSLLMGMGLGADVALITDGRFSGATRGLSVGHISPEAAEG

GLIGLLKDGDEIEIDVDAYTIHANVSEEEIAKRKKEFALPQKEVSSRWLRMYQKLVSNASKGAVLDME

>AHK51396.1 non-heme iron protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MRQYETYKCQKCGNEVEVQNVGGGKLSCCGEEMKCITTDLTAVNLMKAFAGESMARNKYDLFADVAEEEG

WHAVARHFREAAENEKWHARAEFKAYHEIVDGKPLEVTTKNLVTAAEGENYEHTTMYPNFAKIAEDEGKK

AIARLFTAIGKVEIEHEREYLALKKMLEEEEFFNSEVEELWVCEVCGHIHRGKKAPAACPLCKAPKEYFK

REFLG

>AHK51395.1 DNA-binding protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKLLFLFFALTAFLFGAVNINTATLKELKSLNGIGEAKAKAILEYRKEANFTSIDDLKKVKGIGDKLFE

KIKNDITIE

>AHK51394.1 ribonuclease HII [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKTLFDTKELLNEFDINLIGIDEAGRGALAGPMMMAACKLNKQLDGLCDSKKLSEKKREELYEIIIKNSN

YLILAFSSEQIDALGLSTCLKKGLKLIKKHFKTENNFLYDGNTNLGINGIKTQIKADTSILQVSAASILA

KVSKDRVMNFLAKDFPCYEFEKNKAYGTKAHKEFIAKFGICKLHRKSFKLL

>AHK51393.1 glutamate synthase subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MGNARGFLDFKRMDFKKIAPKERILNYKEFTIPLDKKEQEVQGGRCMDCGVAFCHTGVMSEGKDVGCPLN

NLIPEWNDLVYRSLWKEAYERLDLTNPFPEFTGRVCPAPCEDSCVCAINGVSVSIKNNELSIIENAFKEN

LVRVNKPKQYNGKKIAVIGSGPAGLACANTLNSLGYKVSVFERSDKIGGLLMYGIPDMKLDKSIVQRRVD

LLKKSGIEFKVNENIDSKDKVSKLLKEFDALVLCTGASKPIDLDIEGRKLKGVEFALDFLTQNTKTLLKT

GKGADMAKGKNVLVIGSGDTSVDCIAVATRQGAKSIVRFERSPKRPLQRSQNNPWPLKADIFTTDYGLEE

AIAVYGKDPREYQKMTKKFLGKTHVEGVEANDLKREFKEGKAINVEISNSKKTYKADLVLLAMGFSGCEE

AISKNFGVKLDEKNNISTENFQTTHKKIFACGDARKGQSLVVWAIKDGIECALSLHQNLAK

>AHK51392.1 glutamate synthase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MDLENILENNQSIGLYHPKNEHDACGIAAVANIRGIASYKVICDALEILMNLEHRGGTGAEENSGDGAGI

LIQIPHDFFKTQELGFELPKKGDYAVAQMFLSPNTDAKEEAKEIFLQGLKDKKLEFLGFREVPFNPSDIG

ASALKAMPYFLQAFVKKPSKISAGLEFERVLYSTRRLIEKRAINVPKFYFSSFSSRTIVYKGMLLSTQLS

DFYLDFKDVNMKSAIALVHSRFSTNTFPSWERAHPNRYMVHNGEINTIRGNVDSIRAREGLMQSEYFENL

DEIFPIIAKLSSDSAMFDNTLEFLALNGRTLEEAFMMMVPEPWHKNENMESKKRAFYEYHSLLMEPWDGP

AAIVFTDGVIMGASLDRNGFRPSRYYLTKDDMLILSSETGALKLDEKNIKAKKRLEPGKLLLVDTARGRV

IADNEIKEHYANAKPYKKWLKNLVELEKQKSGVYKHQFLKEDEVLKLQKAFGWSYDELKMSVAAMAQNGK

EAIAAMGVDTPLAILSKTYQPLYNYFKQLFAQVTNPPLDAIREEIVTSTRIYLGSEGNLLKPDENNAKRV

KIALPVISNEELFEVKALNKFQVKEFSILYDYSKKTLEKALDELCVKIEDEVKKGVSIIILSDKGVDEKN

AYIPALLAVSGVHNHLVRKNLRTHTSLIIESGEPREIHHFACLLGYGATVINPYLVYESIQKLIANKDLN

LSYEKAVENFIKASSSGIVKIASKMGVSTLQSYNGSALFECLGLSSKVIDKYFTSTTSRIEGMDLEDFEK

ELIALHKHAFNDTHKALDSKGIHGFRSAKEEHLIDPLVIFNLQQACRNKDYKSFKKYSALVDEKQVNLRS

LMEFDFSEAISIDKVESVESIVKRFRTGAMSYGSISKEAHECLAQAMNKIGAKSNSGEGGEDEERYEIKE

GVDKNSAIKQVASGRFGVDLNYLSHAKEIQIKVAQGAKPGEGGQLMGFKVYPWIAKARHSTAGVTLISPP

PHHDIYSIEDLAQLIYDLKHANKDAKISVKLVSENGIGTVAAGVAKAGANLILVSGYDGGTGASPRTSIP

HAGIPWELGLAETHQTLILNKLRDRVRLETDGKLMNGRDLAIAALLGAEEFGFATAPLIVLGCTMMRVCH

LNTCPFGIATQDTELRDRFKGKVDDVINFMYFIAEELREYMARLGFERLDDMIGRVDKLRQKSVQGKAGK

LNLDKILKSLPTYNRTAVHFKDYKDNKLEKTIDYRILLPLCKNAVEKKEPIKLSLEVGNQSRTFATMLSS

EILKTYGKDALDEDSIHIKAIGNAGNSFGAFLLKGIKLEIIGDSNDYLGKGLSGGKIIAKISNEATFSPE

ENIIAGNACLYGATKGEVYLDGIAGERFCVRNSGALAVVLGTGVHGCEYMTGGQVVVLGDVGANFAAGMS

GGVVYIFGRHNEAHVNTELVDIKDLNAKDEKELKAVIEKHITYTDSKKAKDILEKFDKKDFFKVMPRDYE

KMLKMLDLCKNEKDPNLAAFLKITQK

>AHK51391.1 sodium:proton antiporter [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MTLLTNPIIISVVLMTLLCLFRFNVLLSLLISALVAGVFSHLELVDTMNILISGMKENLKTALSYILLGA

IAAAISKTNLTAYLIKIVSHFISHKKYLLLLSIALISCFSQNLIPIHVAFIPLLIPPLLSLFNKLKIDRR

AVACALTFGLTTPYMVLPVGFGLTFQDLLKDNLNANNVSASLNDVTNTMYFAAICMIAGLFLALFVFYRK

PREYQEVEIAKVDLENLEMTRKEWGVLAGLVLTLILQILTMNLPLSGLLGFVLMVILGGVEFSKVNEVFD

DGLKMMGFIAFVILVAAGYGEVLKESGSVVDLVNSVVPWMEQSKFLAVFFMLLIGLIITMGIGTSFGTIP

IIATLFCPICLELGFSTALIIFILGVAGALGDAGSPASETTMGTTVGLNADKQHDHIKDTCIPTFIFYNG

PLLILGSIIAMFL

>AHK51390.1 molybdopterin containing oxidoreductase [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKQNDQKENRRDFLKNIGLGLFGISVLSNFSFENFLGSKALAKELPDFKIEGKKDLIYHGEKPLTAETEI

YALDSDFTKPENFFVRNNGLPPSLETIKERLHKGWTLEIDGESIINKKSYTIEDLKKKFKTYTYALTVEC

GGNGRSEVIPSTKGTQWGYGAVACGRWTGVRLKDILKDCGIKNDAVYIGYYGIDTKLNGEETSPISRGVP

ISKALQDETLIAWAYEGKDIPLVNGYPLRLVCGGYPASTSGKWLYKISVRNKIHDGEKMEGSYKVPVNPV

KPGDFNYKGEMKIIESMPIRSVITNIKNGSEIKANKKFEVRGKAWAGELEVSEVYVSNDYGVTWTKAKVE

KPLNRLAWQKWSAQISIPTKGYYEIWARAIDSQGNSQPMVLAQWNPGGYINNACHRVNVYGV

>AHK51389.1 cytochrome C [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKKIILILALFLSASWAQNLEINPDTGLIIDPDSPLVEANCLACHGSNLITNMHASRKAWLAAIRWMQDS

EGLWEIEPEDEEKILNYLEKYYGEKYDTRRRIPLAILLQNKTH

>AHK51388.1 DNA gyrase subunit B [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MQENYGASNIKVLKGLEAVRKRPGMYIGDTNIGGLHHMIYEVVDNSIDEAMAGHCDTIDVEITTEGSCIV

SDNGRGIPVDMHPTENMPTLTVVLTVLHAGGKFDKDTYKVSGGLHGVGVSVVNALSKKLVATVERNGEIY

RQEFSEGKVISEFGVIGKSKKTGTTIEFWPDDQIFEVTEFDYEILAKRFRELAYLNPKITINFKDNRVGK

HESFHFEGGISQFVTDLNKKEALTKAIFFSVDEEDVNVEVALLYNDTYSENLLSFVNNIKTPDGGTHEAG

FRMGLTRVISNYIEANASAREKDNKITGDDVREGLIAIVSVKVPEPQFEGQTKGKLGSTYVRPIVSKASF

EYLTKYFEENPIEAKAIMNKALMAARGREAAKKARELTRKKESLSVGTLPGKLADCQSKDPSESEIYLVE

GDSAGGSAKQGRERSFQAILPLRGKILNVEKARLDKILKSEQIQNMITAFGCGIGEDFDLSKLRYHKIII

MTDADVDGSHIQTLLLTFFFRFMNELVANGHIYLAQPPLYLYKKAKKQIYLKDEKALSEYLIETGIEGLN

YEGIGMNDLKDYLKIVAAYRAILKDLEKRFNVISVIRYMIENSNLVKGNNEELFSVIKQFLETQGHNILN

HYINENEIRAFVQTQNGLEELVINEELFTHPLYEEASYIFDKIKDRSLEFDKDILEVLEDVETNAKKGAT

IQRYKGLGEMNPEQLWETTMDPSVRRLLKITIEDAQSANDTFNLFMGDEVEPRRDYIQAHAKDVKHLDV

>AHK51387.1 DNA polymerase III subunit beta [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MKLSINKNTLESAVILCNAYVEKKDSSTITSHLFFHADEDKLLIKASDYEIGINYKIKKIRVESSGFATA

NAKSIADVIKSLNNEEVVLETIDNFLFVRQKSTKYKLPMFNHEDFPNFPNTEGKNQFDIDSSDLSRSLKK

ILPSIDTNNPKYSLNGAFLDIKTDKINFVGTDTKRLAIYTLEKANNQEFSFSIPKKAIMEMQKLFYEKIE

IFYDQNMLIAKNENFEFFTKLINDKFPDYEKVIPKTFKQELSFSTEDFIDSLKKISVVTEKMRLHFNKDK

IIFEGISLDNMEAKTELEIQTGVSEEFNLTIKIKHLLDFLTSIEEEKFTLSVNEPNSAFIVKSQGLSMII

MPMIL

>AHK51386.1 chromosomal replication initiation protein [Campylobacter jejuni subsp. jejuni NCTC 11168-K12E5]

MNPSQILENLKKELSENEYENYLSNLKFNEKQSKADLLVFNAPNELMAKFIQTKYGKKIAHFYEVQSGNK

AIINIQAQSAKQSNKSTKIDIAHIKAQSTILNPSFTFESFVVGDSNKYAYGACKAIAHKDKLGKLYNPIF

VYGPTGLGKTHLLQAVGNASLEMGKKVIYATSENFINDFTSNLKNGSLDKFHEKYRNCDVLLIDDVQFLG

KTDKIQEEFFFIFNEIKNNDGQIIMTSDNPPNMLKGITERLKSRFAHGIIADITPPQLDTKIAIIRKKCE

FNDINLSNDIINYIATSLGDNIREIEGIIISLNAYATILGQEITLELAKSVMKDHIKEKKENITIDDILS

LVCKEFNIKPSDVKSNKKTQNIVTARRIVIYLARALTALTMPQLANYFEMKDHTAISHNVKKITEMIEND

ASLKAKIEELKNKILVKSQS

>WP\_002864165.1 aldehyde dehydrogenase, partial [Campylobacter jejuni]

MTTYLNYIDGKFIPHNGEFIEVLNPATKEVISRVASASLEDTKRAIEAAKKAQKVWEAKPAIERANHLKE

IAS

>WP\_002864164.1 aldehyde dehydrogenase, partial [Campylobacter jejuni]

MQEQGKTRVLASIEINFTADYMDYTAEWARRYEGEIIQSDRANEHIYLYKSAIGVIGGILPWNFPFFLIA

RKMAPALLTGNTIVIKPSSETPNNAFEFAKLVSQSSLPKGVFNLVAGKGSVVGYELSSNENIGMVSLTGS

VEAGTRVMEAAAKNIIKVSLELGGKAPAIVCKDADIDLAVEAIKASRICNNGQVCNCAERAYVHTSVYDE

FVDKFVKAMSKVSVGNTLKGDFDMGPLVNQAGVDNALAMLQRATAKGAIVECGGKITDTSGYYFPASVLT

NVKHEDEIMQKEIFAPILPIAKFDTLDEVIDMANDCEYGLTSSIYTQNLDIAMRASREIKFGETYINREN

FEAMQGFHAGFRKSGIGGADGKHGLEEYLATHVVYLQYNTNKQ

>WP\_002815677.1 MULTISPECIES: transferase [Campylobacter]

MKNVIIIGAGGFTRELYSYLKDANYEIIGYIDIQENNFFDLKYLGNEDNFDKKLIQKASFALGVGQINLR

KKILVKLSKKSCNFITFIHPQSFVSKEAKIGQGVIVCPFVTINANSNIGDFVLCNIYSSIAHDCKVGEGS

ILSPYATLNGNSSIGKNCFLATRVSLLPCVNLEDNCIVSR

>WP\_002779462.1 MULTISPECIES: altronate hydrolase [Campylobacter]

MKGYIIVNEKDNVATALRDFKKGEKVANIELLNDIASGHKFALKDIKKDEIIIKYAEAIASASCDISTGE

WVHIHNTAGIRGRGDKE

>WP\_002864169.1 MFS transporter [Campylobacter jejuni]

MKHANSIKLELVCKKISWRILPLIVLMFCLSMLDRTNISFVKSHIEIDAGIGEAAYALGAGIFFIGYAIF

EVPSNLFLHKLGAKIWLSRIMITWGLVTMAMIFIQGEISFYVLRFLLGLTEAGFSPGIILYLSYFFPAIY

RSKAYGIYQMGVPIAFVFGSLISGFILDYTPNIYFKNWQWMFLIEGGITVLVGIFCLFYLDSHPKDAKWL

DIKEKDILLKHIEISNTKAKDYSIKDIFKSILVWKFVFVYFCIQLSVYGVLFYLPSKIAQILQINVGFEV

GLLNAIPWIFVFIALPIFTSLADKKHSWNLHAILFLLLASLSMIASTFVTNLAAFLFFISLAAIGFIVIQ

PIFWNLPTQVLKGKGAAAAIALIGSLGNLGGFVAPTLKTYIENHFGVEFGLIVLALIAIL

>WP\_002853269.1 histidine kinase [Campylobacter jejuni]

MSNKANSANEKSFLLLEQMLKSLFNVANKVSTVSQNENELAKKVENMVNQAGNIQKATQMMDEIADKTNL

LSLNAGIEAARAGAFGRGFSVIAEDVRQLAQNSEEFLGNVAQITKELLQSINEVSAELKKNAQSVQALND

DTALLVDDANEVKLCNEDARALVTQCTEKIKISQENIQNLLSRMQENVEVSEKNEEISKILLQVADELKI

VCHNLESELNQFQI

>WP\_019109091.1 hypothetical protein [Campylobacter jejuni]

MTKQEIQKLDTNFLGHRKPLFSLSMVELWERFAFMVFLQELVFSSTLPGGWITDNYSGQKRLYF

>WP\_019108583.1 di-/tripeptide transporter [Campylobacter jejuni]

MDIFREKNIYFSSIGKFTLGILFAGIGFMMMTFASQNLINNNGLPISMAWIIISIFFLTLGELCVSPIGL

SIMTKVAPDLIKNQVMGLWFVASALGNALAGFIGGKASEENIAYLPNLFYQCMWILLGAVIILLILKKPI

NKILKINIKEKI

>WP\_002858425.1 C4-dicarboxylate ABC transporter [Campylobacter jejuni]

MLGIVFSLFSVFLLVFMLYKKINAHMALLLSGLLLLSLAALFGLSPHIVAKGSLNLGFFDIFQVFNQTMS

STLVGLGLTLMTIAGFSAYMDHVGASYTLFKVFEKPLKMVKSPYILLLVAYFIVQFLVLFIPSHAGLALL

LMVTMYPILVLLVFQNFLP

>WP\_002858042.1 2-methylcitrate dehydratase [Campylobacter jejuni]

MQVSIKPYPSCHFAHGLIDCAIALKNDGLKADEIKSIRCFVDEVPISFICDPLEAKYTPNSAYEAKFSMP

FLMALGFFDGKITLESYENLKREEVLEFAKKISYKKRKSQGFPKYFPGHLEASLQDGRIIQKDVFINKGN

FDNPLSFEELKAKFLANAQIYLDNTKANKILDQIINLENLNHFSF

>WP\_002857944.1 2-methylcitrate dehydratase [Campylobacter jejuni]

MFYSEILADFIFNLQYENIPNTVVQRAKELMLDSLGTAIAASKEECVLNAFKAFENLSTEKNTPVWVHDK

KLDPIYAAMLNGIASHALDFDDTHTEAILHASAILTPLCLSYGFHVSKDAKKIIKAFIIGWEIAARVGIA

SKGTFHKRGFHTTAIAGIFGSVSASAILLDLNKEQIINALGLAGSFASGINEFLSNGSNSKVLHIANAIK

NGILIANFAKNNMSEPLSIFKGRDNIFKCFGIEQECDKTELDKGLGEI

>WP\_002854233.1 2-oxoglutarate translocator [Campylobacter jejuni]

MFFIVQLALGAPPLFYAFIMIASGNVMMALTHYAIGTAPVIFGTGCVTLKKWWSTGFVISIVDIVVMIAV

GLFWWKILGFY

>WP\_010891835.1 hypothetical protein [Campylobacter jejuni]

MKEVKGGYITYLKRLSDNEVIAFAKPDWNLELTLFQDSNGDQYYWNREGLVRFGGMCGIETTNCLVNSKH

SYINQKRLWETMSIVGDDPYRNFLGYTVKRNIGISNLGKRFVYFSYGVAVINEQSGSWYRVKSSPVFE

>AIJ27548.1 superoxide dismutase [Campylobacter jejuni]

MFELRKLPYDTNAFGDFLSAETFSYHHGKHHNTYVTNLNNLIKDTEFAGKDLVSIIKTSNGGVFNNAAQV

YNHDFYFDCIKPSTGCGCGGSCQSIDANLQAALEKEFGSLENFKAEFIKGATGVFGSGWFWLVYNTKNQK

LEFVGTSNAATPITEDKVPLLVVDVWEHAYYVDHRNARPAYLEKFYAHINWEFVAKAYEWALKEGMGSVS

FYANELHPVK

>AIJ27534.1 hypothetical protein [Campylobacter jejuni]

MKKVVLISALLGAFAANVFAADTPSDVNQTHTKAHHSKAKADKKHEAKTHKKTKEQTPAQ