

Fig. S6

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                                     120      130      140      150      160
                                     |        |        |        |        |
WP_083651730 [Photobacterium proteolyticum]  GIIYYGMEA-DAATINVAGRQRMLSQRVAKEVLLVQSGMEQ----QEGVNKTIKL
OLQ80001 [Photobacterium proteolyticum]     GIIYYGMEA-DAATINVAGRQRMLSQRVAKEVLLVQSGMEQ----QEGVNKTIKL
EDQ01086 [Shewanella benthica KT99]        AIIYNDMQA-DAATINIAGRQRMLSQLVAKEVLLLQFGVGR----DTGVKKAIEL
WP_040571760 [Shewanella benthica]         AIIYNDMQA-DAATINIAGRQRMLSQLVAKEVLLLQFGVGR----DTGVKKAIEL
WP_022940319 [Psychromonas hadalis]        SIIYSSMEA-DATTINVAGKQRMLSQRIAKEVLLVQFSSLE----KQQVQQTITQ
WP_104417027 [Marinobacter persicus]       SFLYFSTDPGEARSLNVAGAQRMLSSQRVAKEVQMVAAGVEE----PAQAQKTIEQ
KXS52579 [Marinobacter sp. T13-3]         SFLYFSTDPGEARSLNVAGAQRMLSSQRVAMEVQMVAAGVED----PAQAQKTIEQ
KXS51160 [Marinobacter sp. T13-3]         SFLYFSTDPGEARSLNVAGAQRMLSSQRVAKEVQMVAAGVEE----PAQAQKTIEQ
WP_104425587 [Marinobacter persicus]       SFLYFSTDPGEAKSLNVAGAQRMLSSQRVAKEVQMVAAGVEE----SSQAQQTIDQ
WP_104416353 [Marinobacter persicus]       SFLYFSTDPGEAKSLNVAGAQRMLSSQRVAKEVQMVAAGVEE----SSQAQQTIDQ
PKM00178 [Gammaproteobacteria bacterium HGW]  -----SSK--DASQIDMAGAQRMLSSQKMMKEALLAAQGIGS----PADVDRTIQR
PKM12203 [Gammaproteobacteria bacterium HGW]  AVLFMSAK--DASQIDMAGAQRMLSSQKMMKEALLAAQGVGD----KAAVDKTIQR
CJK46151 [Streptococcus pneumoniae]        GVLFMSSK--DASQIDMAGAQRMLSSQKMMKEALLAAQGIGS----PADVDKTIQR
McpN [P. aeruginosa PA01]                  VALYLSMSI-SPETINVAGAQRMLSSQKMAREALQLRLGAGD----PKALAATIAQ
OUC50533 [Eggerthia catenaformis]          VALYLSMSI-SPETINVAGAQRMLSSQKMAREALQLRLGAGD----PKALAATIAQ
SAJ26551 [Enterobacter cloacae]            VALYLSMSI-SPETINVAGAQRMLSSQKMAREALQLRLGAGD----PKALAATIAQ
PKM29122 [Gammaproteobacteria-12]          VALYLSMSV-SPETINIAGAQRMLSSQKMTKEALLQREGVLP----AATLEATMAQ
WP_027848104 [Marinospirillum minutulum]   VSLYMSLSV-SPETINVAGAQRMLSSQKMTKEALLITQGVVE----RKVLDSTINS
WP_027850591 [Marinospirillum insulare]    ISLYMSLSV-SPETINVAGAQRMLSSQKMTKEALLIIGKVEN----KTVLDKTVAS
WP_072325584 [Marinospirillum alkaliphilum] VSLYMSLSV-SPETINVAGAQRMLSSQKMTKEALLITQGASD----RGTLDATMRQ
WP_091963700 [Marinospirillum celere]      ASLFMSLSV-SPETINVAGAQRMLSSQKMTKEALLITQGVGD----QATLNATQRQ
WP_068999334 [Terasakiispira papahanaumokuakeensis] VSLFMSMSV-SPQTINVAGAQRMLSSQKMTKEVLLLEVGAVD----QQTLQTTMQR
SFX75036 [Marinospirillum alkaliphilum DSM 21637] ISLYLSMSV-SPETINVAGAQRMLSSQKITRDVLLVQVQAEQ----QQVLNRTIQR
WP_084662276 [Marinospirillum alkaliphilum] ISLYLSMSV-SPETINVAGAQRMLSSQKITRDVLLVQVQAEQ----QQVLNRTIQR
WP_086481606 [Oceanospirillum sanctuarii]  VSLYLSMAI-DPQTINIAGRQRMLSQKMAKEALLVAAQVEN----KSTLQKTMQL
WP_078320434 [Oceanospirillales]          IFLYLSMAI-DPQTINIAGRQRMLSQKMAKEALLVASQVEN----KSTLQKTMQL
WP_102043389 [Oceanospirillum maris]       VSLYLSMAI-DPQTINIAGRQRMLSQKMAKEALLVAAQVEN----KTTLQKTMQL
WP_028300494 [Oceanospirillum bejerinckii] VSLYLSMAI-NPQTINIAGRQRMLSQKIAKEALLVAAQVEN----QNTLQKTMQL
WP_078743715 [Oceanospirillum multiglobuliferum] VALYMSMAI-NPQTINVAGRQRMLSQKIAKEALLVAAKIEN----EAVLRKTMQL
EAR59890 [Oceanospirillum sp. MED92]      ISLYFSMAI-NPQTINMAGRQRMLSQKIAKEALLVAAQVEQ----QSTLKKTMEL
WP_083774892 [Neptuniibacter caesariensis] ISLYFSMAI-NPQTINMAGRQRMLSQKIAKEALLVAAQVEQ----QSTLKKTMEL
WP_093308400 [Pseudospirillum japonicum]  IALYLSMSI-NPQTINIAGRQRMLSQKMAKEALLVAVNIEN----TSNLQATMQM
WP_051252630 [Ferrimonas kyonanensis]     VMLYATSGN-SAEMINVAGAQRMLSSQRVAKEALLVQGGVD----HAALDKTVAR
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WP_075186461 [Alteromonadales bacterium BS08]	LSLYISMSV-SANTVDIAGRQRMLSQLAKEAFLVNGAEQ----MEAVRSTIGL
WP_045855660 [Alteromonadaceae bacterium Bs12]	GSMYLTLDI-TADTVDVAGRQRMLTQRLAKEAFLVANEAEF----QSVVQETITE
WP_018274184 [Teredinibacter turnerae]	FSLYMTMQA-SADTVNIAGRQRMLSQLAKEALLVGQQAMD----KSALEQTIEL
WP_019606173 [Teredinibacter turnerae]	FSLYMTMQA-SADTVNIAGRQRMLSQLAKEALLVGQQAMD----KSALEQTIEL
WP_045827023 [Teredinibacter sp. 991H.S.0a.06]	FSLYMTMQA-SADTVNIAGRQRMLSQLAKEALLVAQQAMD----KSALEQTIEL
WP_028885168 [Teredinibacter turnerae]	FSLYMTMQA-SADTVNIAGRQRMLSQLAKEALLVGQQAMD----KSALEQTIEL
WP_028881853 [Teredinibacter turnerae]	FSLYMTMQA-SADTVNIAGRQRMLSQLAKEALLVAQQAMD----KSALEQTIEL
WP_018415357 [Teredinibacter turnerae]	FSLYMTMQA-SADTVNIAGRQRMLSQLAKEALLVAQQAMD----KSALEQTIEL
WP_015819270 [Teredinibacter turnerae]	FSLYMTMQA-SADTVNIAGRQRMLSQLAKEALLVTQQAMD----KSALEQTIEL
WP_028876398 [Teredinibacter turnerae]	FSLYMTMQA-SADTVNIAGRQRMLSQLAKEALLVTQQAMD----KSALEQTIEL
WP_019602011 [Teredinibacter turnerae]	FSLYMTMQA-SADTVNIAGRQRMLSQLAKEALLVTQQAMD----KSALEQTIEL
WP_011467154 [Saccharophagus degradans]	ISLYLSMSS-SANTVDVAGRQRMLSQLAKEALLVGAGVES----RATMQSTIDL
WP_082067039 [Teredinibacter sp. 1162T.S.0a.05]	GSLYLTMSA-SAETVNIAGRQRMLSQLAKEALLIRTGAEN----EAIQQQTIAL
WP_027328238 [Marinimicrobium agarilyticum]	GVSYLSLSA-TAETVDVAGRQRMLIQRLAKEAMLTEQGALD----ASGLNATIEL
WP_076717438 [Motiliproteus sp.MSK22-1]	GSLYLTMSA-SAETINVAGRQRMLSQLAKEATLMVVQGVVEQ----KVAVEKTMQL
WP_076714176 [Motiliproteus sp.MSK22-1]	VSLYFSLSN-DAATINEAGRQRMLSQLAKEAMMVVQGVVEE----KAVLEKTIKL
WP_081475260 [Marinobacterium stanieri]	VSVWMTGSD-DATAINVAGKQRMLSQLAKEATLLIQQGAVD----TGLAQATIRS
WP_076462706 [Marinobacterium stanieri]	VSVWMTGSD-DATAINVAGKQRMLSQLAKEATLLIQQGAVD----TGLAQATIRS
WP_091825072 [Marinobacterium georgiense]	AAVYLSNDT-DASAINVAGAQRMLSQLKMAKEVLLLLSQDVGD----RSGVTKTMNA
PKM43282 [Gammaproteobacteria bacterium HGW]	ASLFYFGFT-DATSINVAGAQRMLSQLKAKEALLAGQGGES----RETVYATLAQ
PKM45884 [Gammaproteobacteria bacterium HGW]	ASLYFSIST-DATSINVAGAQRMLSQLKAKEALLAGQGVES----RDTVLATIRQ
OOZ41054 [Solemya velesiana gill symbiont]	ASLYFSLGS-DATSINVAGRQRMLSQLKAKEAMLAAQKVES----LQAVEKTIAL
WP_078483146 [Solemya velesiana gill symbiont]	ASLYFSLGS-DATSINVAGRQRMLSQLKAKEAMLAAQKVES----LQAVEKTIAL
WP_083220704 [Candidatus Thiodiazotropha endolucinida]	VSLF'TSLGS-DATAINVAGRQRMLSQLKAKEALLAAQSIES----RDTVNNTIAL
ODJ87354 [Candidatus Thiodiazotropha endolucinida]	VSLF'TSLGS-DATAINVAGRQRMLSQLKAKEALLAAQSIES----RDTVNNTIAL
WP_084594071 [Arhodomonas aquaeolei]	ASLYFSLGS-SATAVDIAGRQRMLSQLVAKEAVMAVQGVGS----REDVEKTIAL
WP_029132713 [Sedimenticola selenatireducens]	ITIYLSLGV-NSNSIDVAGRQRMLSQLAKEAMLVAQQAES----REVMKKTINL
PLX63594 [Sedimenticola selenatireducens]	ITIYLSLGV-NSNSIDVAGRQRMLSQLAKEAMLVAQQAES----REVMKKTINL
WP_057957096 [endosymbiont of Ridgeia piscesae]	ASIYWSLDS-DAAAINIAGRQRMLSQLVAKEALMVVQGVES----PAVVQKTIAL
WP_067616512 [Dissulfuribacter thermophilus]	LKTVYQQRG-DAVAINIAGRQRMLTQKMTKEALFFNSTQNDK--WKSSLDATIVL
WP_083779049 [Desulfarculus baarsii]	IVLLGLQET-DGQVNIAGRQRMLSQLRMTKEALILASGDRAAAKN---LAATLEL
ADK86400 [Desulfarculus baarsii DSM 2075]	IVLLGLQET-DGQVNIAGRQRMLSQLRMTKEALILASGDRAAAKN---LAATLEL
WP_053111464 [Desulfocarbo indianensis]	IILLGMQEA-DGVVVDIAGRQRMLSQLKMTKEALLLLSSGGNTEKDRKELKATADL
WP_072909408 [Malonomonas rubra]	VFVNLGQKD-DSTVNIAGRQRMLSQLKMSKEALSIAAGLEVSSNR-DSLKQTADL
ENN95934 [Methanocaldococcus villosus KIN24-T80]	TILLKDMEH-DANIINIAAGKQRMLIQKMSKEAFMIALGNL---EMKKELIKTAQE
WP_017981124 [Methanocaldococcus villosus]	TILLKDMEH-DANIINIAAGKQRMLIQKMSKEAFMIALGNL---EMKKELIKTAQE
WP_079710389 [Paraliobacillus ryukyensis]	NMFLTEQET-DATIINVAGKQRMLIQKMSKEALIVSDGN----GSADDLVETINL

ODS31255 [Candidatus Scalindua rubra] ---MLEKKASDPVKINLAGKQRMLTQKMSKEAIALSQG----IGSTESLEKTANL
 ODS31259 [Candidatus Scalindua rubra] TISFLNKQKADGVVINLAGKQRMLTQKMSKEALAVSQG----TGSKESLEKTADL
 ODS31256 [Candidatus Scalindua rubra] VIVLMNSQKDDGAVINLAGKQRMLTQKMSKEAIALSQG----IGSKQSLVKTINL
 DAB34330 [Sulfurospirillum sp. UBA12182] NVIMNDKSKKDSLIIINLAGKQRMLTQKMSKEIFYLKQKD---SIDFRELN SAVDE
 DAB32648 [Sulfurospirillum sp. UBA11407] NVIMNDKSKKDSLIIINLAGKQRMLTQKMSKEIFYLKQKD---SIDFRELN SAVDE
 OQY52690 [Beggiatoa sp. 4572_84] ACGGGVTKQEMGVIMDLAGKQRMLTQKMTKEILLIAKGINV-AENKKKLRQTAIL
 OAD20060 [Candidatus Thiomargarita nelsonii] -----MSIDLAKGQRMLTQKMSKEILLIAKNIDR-DDNKKNLCEAAL
 KHD07211 [Candidatus Thiomargarita nelsonii] AY--AATQQEMATTINLAGKQRMLTQKMSKEILLIAKGINV-AANKKNLQKTAAL
 WP_083760414 [Sulfurovum sp. NBC37-1] AV--AQTQQSGVVINLAGKQRMLTQKMSKEALYIAKGIDA-EANTENLKKTAAL
 BAF71977 [Sulfurovum sp. NBC37-1] AV--AQTQQSGVVINLAGKQRMLTQKMSKEALYIAKGIDA-EANTENLKKTAAL
 WP_103922382 [Thiotrichales bacterium HS_08] AQ--ASSKTEMGKVINLAGKQRMLTQKMSKEALYIAKGVDA-TGNQGNLKKTAAL
 WP_038034074 [Thermopetrobacter sp. TC1] NAIVEQSSAELAVQINLGRQRMLTQKMSKEAFLVALGVDP-EENRQNAARAAAL
 OQX74572 [Campylobacteraceae bacterium 4484_4] SF--ALTTKQLAVSINLAGKQRMLTQKMTKEALLIKAGVEK-EQNLLKLEATSTL
 OGX22015 [Omnitrophica WOR_2 bacterium GWF2_43_52] GFC-APTPEQWGIIMNISGRQRMLTQKMSKEALLIAGINP-DENLKKLAESMKL
 OGR47178 [Elusimicrobia bacterium GWA2_66_18] SS--AASEKEFAKVINVAGRQRMLTQKMAAEFLLMKLGIAA-EDNKKKMDADIST
 OGR71769 [Elusimicrobia bacterium GWC2_65_9] SS--AASEKEFAKVINVAGRQRMLTQKMAAEFLLMKLGIAA-EDNKKKMDADIST
 PIQ95337 [Nitrospinae bacterium CG11] TVFTLENQKLDGNVINLAGKQRMLTQKLSKSIMELQLG--D-LSKTGEIGQIKTE
 WP_037929253 [Sulfitobacter pseudonitzschiae] TAQVAASGS AVVVRVDISGRQRMLTQRMAMASC FVMGDVET EKN-IKNAHQAYDL

	175	185	195	205	215
WP_083651730	FESSMNL	LRNGD	KEQGI	SAPKTPEIEAQLSKVNEL	WLEYRAGIQKLLQIDESQLR
OLQ80001	FESSMNL	LRNGD	KEQGI	SAPKTPEIEAQLSKVNEL	WLEYRAGIQKLLQIDESQLR
EDQ01086	FESSMNL	LLNGD	TKRGI	SAPMTPEIKSRLGKVNKL	WISKYREGIQALLLLGDKDQH
WP_040571760	FESSMNL	LLNGD	TKRGI	SAPMTPEIKSRLGKVNKL	WISKYREGIQALLLLGDKDQH
WP_022940319	FESSMNL	LINGD	ESAGI	HAFSDVAIKTQLLKVKD	TWQEYRINIEQILQLSPFDLA
WP_104417027	WERAHGW	LLNGS	EEAGV	PAVKDPEIRAQLESVFAL	WQEYRPAALVDYMNAPDT---
KXS52579	WERAHGW	LLNGS	EEAGV	PAVKDPEIRAQLESVFAL	WQYRPAALVDYMNAPDT---
KXS51160	WERAHGW	LLNGS	EEAGV	PAVKDPEIRAQLEHVLT	TLWQYRPAALVDYMNAPDT---
WP_104425587	WERAHGW	LLNGS	EEAGV	PAVTDTAIRAQLEHVLT	TLWQDYRPAALVEYMEAPDT---
WP_104416353	WERAHGW	LLNGS	EEAGV	PAVTDTAIRAQLEHVLT	TLWQDYRPAALVEYMEAPDT---
PKM00178	FEQSHR	LLLN	GDRAQGI	APVELASAKPHLQRVDQ	IWQRYRPA-VQALAAGQS---
PKM12203	FEQSHR	LLLN	GDRAQGI	APVELTSAQPHLQRVDQ	IWQRYRPA-VQALAAGQS---
CJK46151	FEQSHR	LLLN	GDRAQGI	VRVELASAPYLQRVDQ	IWQRYRPA-VQALAAGQS---
McpN_LBD	YERSAAD	LDAG	NAERNV	SRMGAP EIAAQRQKVAQ	IWGRYRAMLDQVAQPAS----
OUC50533	YERSAAD	LDAG	NAERNV	SRMGAP EIAAQRQKVAQ	IWGRYRAMLDQVAQPAS----

SAJ26551 YERSAADLDAGNAERNVSRMGAPEIAAQRQKVAQIWGRYRAMLDQVAQPAS-----
PKM29122 FDAAHRDLLSGNAVRNISAIAEPGIAQMNKVGGLWQGFRTQLQRVVA-GD-----
WP_027848104 FERAHQDLLVGNRERNITAFDDEEIHQQMQQVDQLWQQMKARLEQAVNKQD-----
WP_027850591 FETAHKDLIAGNRDRDITAFDDSEIQQQMQQVDQLWQQMKVRLDQALVQQD-----
WP_072325584 FEQAHRDLLQGNRERNITAFDDPAIRQQMQRVDQLWQQMKTRLDATLTNP-----
WP_091963700 FEQAHRDLIQGNPERNISAIDDPVIRQQMQRVDQLWQQIQDSLQEVVNNPN-----
WP_068999334 FETAHRDLMAGNPAKNIIVFDDPVIQRQQMQTVDDQLWQQMASLINRQLQDPQ-----
SFX75036 FDAAHRDLVQGNPERSISRINDPVVQQQLQQVEVSWQEFQGVINYLKQPL-----
WP_084662276 FDAAHRDLVQGNPERSISRINDPVVQQQLQQVEVSWQEFQGVINYLKQPL-----
WP_086481606 FESSHKDIINGNKAQGMNPTDKEILGQMVKVESLWKDYSKTLLQYADNPT-----
WP_078320434 FERSHKDIINGNKAQGMNPTDPSILSQMIVENLWSGYSKILLQYTDSPS-----
WP_102043389 FEQSHDHLINGNKSLSMNPIDPEIVAQMQRVQDLWRSYSITLLEYAERP-----
WP_028300494 FERSHKDIIHGNTELGMNPINDKAILAQMQRVGLWQSYKGMINRYASTPT-----
WP_078743715 FEQSHRDIIVGNVEQGMNPTNPVLSQMQRVGLWRDYSALVERYIANPN-----
EAR59890 FESSHKKIMLGNNEELGMNAIKDSEILKQMQHVETLWATYKGVIESHITQPS-----
WP_083774892 FESSHKKIMLGNNEELGMNAIKDSEILKQMQHVETLWATYKGVIESHITQPS-----
WP_093308400 FDRSHQDI IQGNTQQGMNPTDEIDILQQMAVVGRLWQDYRELLLAYVQAPS-----
WP_051252630 FERAHRLLLEGDANRGLPPVSEPAIVQQLNRVGEFWSYRQQVDAYLMAPS-----
WP_075186461 FENSHRDLLAGNRNADIQPPATKAIESQLKKVEGVWNGYQQSVTRYINSQQ-----
WP_045855660 FERSHRDLMMGNKRAZIAIP-TSEVLAQLKEVERVWRQYKLTVAAYIRSKN-----
WP_018274184 FEQSHNRLLYGSPENGI LAPQTVKIFDKLKVVGGMWENYKIAIRTYATTQD-----
WP_019606173 FEQSHNRLLYGSPENGI LAPQTVKIFDKLKVVGGMWENYKIAIRTYASTQD-----
WP_045827023 FEQSHNRLLYGSPENGI LAPQTVKIFDKLKVVGGMWENYKIAIRTYAATQD-----
WP_028885168 FEQSHNRLLYGSPENGI LAPQTVKIFDKLKVVGGMWENYKIAIRTYATTQD-----
WP_028881853 FEQSHNRLLYGSPENGI LAPQTVKISDKLKAVGGMWENYKIAIRTYVATKD-----
WP_018415357 FEQSHNRLLYGSPENGI LAPQTVKISDKLKAVGGMWENYKIAIRTYVASKD-----
WP_015819270 FEQSHNRLLYGSPENGI LAPQTVKIFDQLKVVDGLWENYKIAIRTYVASKD-----
WP_028876398 FEQSHNRLLYGSPENGI LAPQTVKIFDQLKVVDGLWENYKIAIRTYVASKD-----
WP_019602011 FEQSHNRLLYGSPENGI LAPQTVKIFDQLKVVDGLWENYKIAIRTYVASKD-----
WP_011467154 FERSHRKLLISGDQSDDIHPPATQEI KQALVTVEKQWAEYKRLVNHYVSAKD-----
WP_082067039 FESSHQALMNGDKDKGIHAPESAEIKQQQLQKVEALWLEYKKGIASLIAGED-----
WP_027328238 FEQSHQNLINGNESAGIQPPQTAEINQSLLNLVLEWQWNYKAIIFDYIGADP-----
WP_076717438 FESSHQDLINGNPSTGIVAPATPQISQQLEHVGSLWTDYKQTINNYLVDAS-----
WP_076714176 FSDSHLHLINGNPESGISAPANAEIRKQLEHVGQLWQHYQSAISNYLENPN-----
WP_081475260 FEAAHKALLINGNADMGIKAASEVDIRKQLEHVGTLWRDYRATVEQLVSGTDGN--
WP_076462706 FETAHRALLINGNAGLGIKAASEVDIRKQLEHVGTLWRDYRATVEQLVSGSDGN--
WP_091825072 FESAHQALLNGSAEQGIKAAEDAEIRSRLEQVGTLWNSYRATLNQYLQQPD-----

PKM43282 FESVHQALLQGDAQRDI AVVTDTAVRAQLQKVGQVWKEYRQEIVAYVEQPA----
PKM45884 FEGAHRALLEGDAQRGMRAVKDAAVRTQLQKVEQLWQAYKQDILAYIEQPD----
OOZ41054 FESSHNALLQGDKKQKIDAVKAKPIIDQLKHVEQLWGKYKVHILSYSNNPT----
WP_078483146 FESSHNALLQGDKKQKIDAVKAKPIIDQLKHVEQLWGKYKVHILSYSNNPT----
WP_083220704 FESSHQNLNLDQNAGIQAVDDPVVRGQLNKVEGLWITYRESIDAYLENPS----
ODJ87354 FESSHQNLNLDQNAGIQAVDDPVVRGQLNKVEGLWITYRESIDAYLENPS----
WP_084594071 FESSHRKLLQGDPMGIEPVQDPAIRDQLREVQSLWQRYRGDIQAYLDEPT----
WP_029132713 FESSHKALFEGDEAQNILPVKDALILEQLKLVEQLWSGYKQVITQYAASPD----
PLX63594 FESSHKALFEGDEAQNILPVKDALILEQLKLVEQLWSGYKQVITQYAASPD----
WP_057957096 FEDSQHRLLLGDPEAGITPPMNEAIRQQLAKTSQLWSAYRRHLEAYLATPS----
WP_067616512 FEKSLNGLAVGDAELGLSGTTDKGVQEELNKLQQMWIPFKKALYIITDTSSSK--
WP_083779049 FDASLRGLIEGDAAMGLPPTDDSRIAAQMQKVAALWGPFRQSAEIVLRAGGSADP
ADK86400 FDASLRGLIEGDAAMGLPPTDDSRIAAQMQKVAALWGPFRQSAEIVLRAGGSADP
WP_053111464 FDRSLQGLIGGDAAMGLPPTTNPDILAQMKTVSELWKPFFHANLTGVTITTDINSP
WP_072909408 FASSLNSLINGDEKLNLPPTQNPQILSQMRQVEVLWDFNFSPHIDTFVNP-ASTEA
ENN95934 FDKNLNDLINGNEERGITPAPP-IVKAQLLKVKSMWSEFYKNILIIYEK-DPSDP
WP_017981124 FDKNLNDLINGNEERGITPAPP-IVKAQLLKVKSMWSEFYKNILIIYEK-DPSDP
WP_079710389 FDEAIEGLMGGSKSLGLPKMPSEEVANQLQSVELLWQPFFKENLQMIAN--DNGN-
ODS31255 FDKTLRGLISGDEELRLSPTKDPKIIISQLNHIQGLWQDFRANLNAVLANPTGA--
ODS31259 FDKTLKGLISGDKELGLPATKNIEILSQLNQVQKLWKDLHANLDVVLANSVDT--
ODS31256 FDKTLKGLVSGDSELNLPATSNPEILGQLNHVQKLWKDLHANLSIVLANSVDT--
DAB34330 FSENKDLLEGNSVKGIIYHPQDEKIEAKLQKVQKIWFPPFKEKIEALKKLIQEN--
DAB32648 FSENKDLLEGNSVKGIIYHPQDEKIEAKLQKVQKIWFPPFKEKIEALKKLIQEN--
OQY52690 FNKTLIGLFDGSELGLVKVENPHIVQQLNKVADLWREFRNNVDAVLRG-NTS--
OAD20060 FNQTLIGLIEGDSELGLVETEKPAIKQQLYKVVVELWKNFRINVDVAVLMG-NTS--
KHD07211 FERTLKGLLNLDARLGLVKTENAAIVKQLKKVGRILWGFQRQNVKAVLAG-NTS--
WP_083760414 FDKTLKGLIGGDSNLNPKTDNKEILAQLQKVTDLWVPPFKANIDKVIAG-KAD--
BAF71977 FDKTLKGLIGGDSNLNPKTDNKEILAQLQKVTDLWVPPFKANIDKVIAG-KAD--
WP_103922382 FDRTLKGLKGDADLGLPKTTDAGILAQLDVVAKLWITFKGNIDAVLAG-KTS--
WP_038034074 FERTLKGLMQGDEALKLAPAPNEKILAQLKKVEGLWRRFKPLIEKVAAG-DVS--
OQX74572 FDRTLKGLIKGDEGLKLPKPCQNAEVQKQLGVVQQLWKPFRQNMIRVIQG-KAD--
OGX22015 FETSHHALTEGDAAMNIPACEFPDISEQLEKVSILYAECLKIFDKMVEGEKAD--
OGR47178 FDKSLASLSNGDGEAGIPAPPNEQISRQFAQVKLLWGSYVRALQSAGTS-----
OGR71769 FDKSLASLSNGDGEAGIPAPPNEQISRQFAQVKLLWGSYVRALQSAGTS-----
PIQ95337 FEGVLSGLKRGDTEKGLVAAETPEIMAMLEATEKLLWLPFAERVDKVASLWPGI--
WP_037929253 FSQTQGVLRHGGTRDNLEPERDPQVLALLDQSDEIFDITYGRAVLQVTHQDLQ---