

## Appendix

### Supplemental Figures

Table A.1 Accession numbers and organisms used to align HflX primary sequences. Accession numbers were obtained from the UniProt and EntrezGene databases.

#### Accession Number [Organism]

>WP\_008305155 [*Glaciecola agarilytica*]  
>WP\_023399905 [*Pseudoalteromonas luteoviolacea*]  
>WP\_017347412 [*Pantoea* sp. A4]  
>YP\_001436320 [*Cronobacter sakazakii* ATCC BAA-894]  
>YP\_001436320 [*Cronobacter sakazakii* ATCC BAA-894]  
>WP\_004875466 [*Yersinia mollaretii*]  
>WP\_001562527 [*Escherichia coli*]  
>YP\_868243 [*Shewanella* sp.]  
>WP\_000460349 [*Shigella boydii*]  
>YP\_005633015 [*Vibrio cholerae* LMA3984-4]  
>YP\_003284888 [*Vibrio* sp.]  
>WP\_001913126 [*Vibrio cholerae*]  
>CDL85739 [*Xenorhabdus szentirmaii* DSM 16338]  
>WP\_016959112 [*Enterovibrio norvegicus*]  
>YP\_267092 [*Colwellia psychrerythraea* 34H]  
>YP\_003042908 [*Photorhabdus asymbiotica*]  
>WP\_005696711 [*Haemophilus parainfluenzae*]  
>YP\_855468 [*Aeromonas hydrophila* subsp. *hydrophila* ATCC 7966]  
>WP\_017014610 [*Enterovibrio calviensis*]  
>YP\_001143094 [*Aeromonas salmonicida* subsp. *salmonicida* A449]  
>YP\_004826931 [*Enterobacter asburiae* LF7a]  
>WP\_006877396 [*Vibrio brasiliensis*]  
>WP\_007421016 [*Idiomarina* sp. A28L]  
>NP\_716237 50S [*Shewanella oneidensis* MR-1]  
>CBA71888 [*Arsenophonus nasoniae*]  
>WP\_012136349 [*Marinobacter lipolyticus*]  
>WP\_007702116 [*Cronobacter universalis*]  
>YP\_338814 [*Pseudoalteromonas haloplanktis* TAC125]  
>YP\_003212050 [*Cronobacter turicensis* z3032]  
>WP\_022941143 [*Psychromonas hadalis*]  
>WP\_022991412 [*Marinobacter*]  
>YP\_001784405 [*Haemophilus somnus* 2336]  
>WP\_017022674 [*Aliivibrio logei*]  
>NP\_458798 [*Salmonella enterica* subsp. *enterica* serovar Typhi str. CT18]  
>YP\_007404200 [*Serratia marcescens* WW4]  
>YP\_006978588 [*Alteromonas macleodii* AltDE1]  
>YP\_719316 [*Haemophilus somnus* 129PT]  
>WP\_019442379 [*Moritella marina*]

>YP\_001675833 [*Shewanella halifaxensis* HAW-EB4]  
 >WP\_008486587 [*Gallaecimonas xiamenensis*]  
 >WP\_005421158 [*Aliivibrio fischeri*]  
 >YP\_004873228 [*Glaciecola nitratireducens* FR1064]  
 >WP\_004170942 [*Erwinia amylovora*]  
 >WP\_008037111 [*Rhodobacteriales bacterium* HTCC2255]  
 >YP\_007342886 [*Serratia marcescens* FG194]  
 >WP\_001377745 [*Escherichia coli*]  
 >YP\_005193939 [*Pantoea ananatis* LMG 5342]  
 >YP\_003555235 [*Shewanella violacea* DSS12]  
 >WP\_007984443 [*Glaciecola chathamensis*]  
 >YP\_006576932 [*Enterobacter cloacae* subsp. *cloacae* ENHKU01]  
 >WP\_007586404 [*Pseudoalteromonas*]  
 >WP\_001732846 [*Salmonella enterica*]  
 >YP\_004950234 [*Enterobacter cloacae* EcWSU1]  
 >WP\_007243329 [*Haemophilus pittmaniae*]  
 >YP\_008109261 [*Enterobacter* sp. R4-368]  
 >NP\_230002 [*Vibrio cholerae* O1 biovar El Tor str. N16961]  
 >WP\_004871113 [*Klebsiella oxytoca*]  
 >WP\_017217034 [*Pseudoalteromonas* sp. NJ631]  
 >YP\_005091591 [*Oceanimonas* sp. GK1]  
 >YP\_001443380 [*Vibrio campbellii* ATCC BAA-1116]  
 >YP\_005017735 [*Klebsiella oxytoca* KCTC 1686]  
 >AHG78423 [*Mannheimia varigena* USDA-ARS-USMARC-1312]  
 >YP\_960030 [*Marinobacter aquaeolei* VT8]  
 >WP\_010427502 [*Enterobacter mori*]  
 >WP\_007852341 [*Cronobacter sakazakii*]  
 >WP\_001494631 [*Escherichia coli*]  
 >XP\_004153357 [*Cucumis sativus*]  
 >WP\_017443722 [*Gayadomonas joobiniege*]  
 >EHC97382 [*Salmonella enterica* subsp. *enterica* serovar Wandsworth str. A4-580]  
 >WP\_005641642 [*Haemophilus haemolyticus*]  
 >WP\_004743152 [*Vibrio tubiashii*]  
 >YP\_001344289 [*Actinobacillus succinogenes* 130Z]  
 >WP\_000460374 [*Vibrio cholerae*]  
 >YP\_005886190 [*Marinobacter adhaerens* HP15]  
 >WP\_017073485 [*Vibrio splendidus*]  
 >WP\_009636740 [*Serratia* sp. M24T3]  
 >YP\_001338189 [*Klebsiella pneumoniae* subsp. *pneumoniae* MGH78578]  
 >WP\_024248592 [*Escherichia coli*]  
 >YP\_001908881 [*Erwinia tasmaniensis* Et1/99]  
 >WP\_006714688 [*Vibrio ichthyenteri*]  
 >WP\_008986089 [*Photobacterium leiognathi*]  
 >WP\_005907086 [*Aeromonas molluscorum*]  
 >WP\_016787897 [*Vibrio cyclitrophicus*]  
 >YP\_088711 [*Mannheimia succiniciproducens* MBEL55E]

>YP\_003739844 [*Erwinia billingiae* Eb661]  
 >WP\_006816792 [*Yokenella regensburgei*]  
 >WP\_004399860 [*Vibrio nigripulchritudo*]  
 >WP\_024155423 GTPase HflX [*Salmonella enterica*]  
 >WP\_000460343 GTPase HflX, partial [*Salmonella enterica*]  
 >WP\_017067931 GTPase HflX [*Vibrio crassostreae*]  
 >CBX82051 [*Erwinia amylovora* ATCC BAA-2158]  
 >WP\_000460359 [*Escherichia coli*]  
 >YP\_002415945 [*Vibrio splendidus* LGP32]  
 >WP\_001497972 [*Escherichia coli*]  
 >WP\_000460370 [*Vibrio cholerae*]  
 >YP\_131449 [*Photobacterium profundum* SS9]  
 >YP\_003261256 [*Pectobacterium wasabiae* WPP163]  
 >WP\_019275006 [*Vibrio coralliilyticus*]  
 >WP\_001632071 [*Escherichia coli*]  
 >WP\_001900078 [*Vibrio cholerae*]  
 >WP\_006032512 [*Moritella* sp. PE36]  
 >WP\_006535759 [*Proteus penneri*]  
 >WP\_023656391 [*Erwinia piriflorinigrans*]  
 >EUL94943 [*Enterobacter aerogenes* UCI 15]  
 >WP\_006957052 [*Vibrio coralliilyticus*]  
 >WP\_017492188 [*gamma proteobacterium* WG36]  
 >WP\_001730320 [*Salmonella enterica*]  
 >YP\_003932399 [*Pantoea vagans* C9-1]  
 >WP\_000460367 [*Vibrio cholerae*]  
 >WP\_000460367 [*Vibrio cholerae*]  
 >WP\_000460337 [*Salmonella enterica*]  
 >WP\_005716978 [*Pasteurella multocida*]  
 >YP\_002240872 [*Klebsiella pneumoniae* 342]  
 >WP\_005476746 [*Vibrio* sp. 16]  
 >WP\_001575871 [*Escherichia coli*]  
 >YP\_006648363 [*Pectobacterium carotovorum* subsp. *carotovorum* PCC21]  
 >WP\_005761502 [*Pasteurella bettyae*]  
 >AHE50825 [*Aeromonas hydrophila* 4AK4]  
 >WP\_002539399 [*Grimontia* sp. AK16]  
 >WP\_023182684 [*Salmonella enterica*]  
 >WP\_007643972 [*Glaciecola psychrophila*]  
 >WP\_006317445 [*Serratia plymuthica*]  
 >EWS68622 [*Vibrio vulnificus* BAA87]  
 >WP\_005504252 [*Grimontia hollisae*]  
 >WP\_016505846 [*Salmonella enterica*]  
 >ETT04676 [*Providencia alcalifaciens* F90-2004]  
 >EHC77266 [*Salmonella enterica* subsp. *enterica* serovar *Rubislaw* str. A4-653]  
 >WP\_000460336 [*Salmonella enterica*]  
 >WP\_016709129 [*Pseudoalteromonas haloplanktis*]  
 >WP\_017827589 [*Proteus mirabilis*]

>WP\_019084260 [*Yersinia enterocolitica*]  
>WP\_000460364 [*Vibrio mimicus*]  
>YP\_003335178 [*Dickeya dadantii* Ech586]  
>WP\_008912238 [*Providencia burhodogranariae*]  
>WP\_007752653 [*Cronobacter dublinensis*]  
>WP\_017101855 [*Vibrio tasmaniensis*]  
>YP\_944523 [*Psychromonas ingrahamii* 37]  
>WP\_020332630 [*Vibrio fluvialis*]  
>CDL27053 [*Escherichia coli* ISC7]  
>WP\_008914022 [*Providencia sneebia*]  
>WP\_017373752 [*Enterobacteriaceae bacterium* LSJC7]  
>ETT02788 [*Providencia alcalifaciens* PAL-3]  
>YP\_564203 [*Shewanella denitrificans* OS217]  
>YP\_002640001 [*Salmonella enterica* subsp. *enterica* serovar Paratyphi C strain RKS4594]  
>WP\_010434098 [*Vibrio cyclitrophicus*]  
>WP\_016504361 [*Pasteurella multocida*]  
>NP\_760223 [*Vibrio vulnificus* CMCP6]  
>WP\_022592300 [*Vibrio nigripulchritudo*]  
>WP\_004721918 [*Yersinia ruckeri*]  
>WP\_018984197 [*Salinimonas chungwhensis*]  
>YP\_005198530 [*Rahnella aquatilis* CIP 78.65 = ATCC 33071]  
>WP\_016517615 [*Cedecea davisae*]  
>YP\_006239256 [*Pasteurella multocida* subsp. *multocida* str. 3480]  
>NP\_710038 [*Shigella flexneri* 2a str. 301]  
>WP\_000460350 [*Shigella flexneri*]  
>EXI62311 [*Mannheimia haemolytica* serotype A1/A6 str. PKL10]  
>WP\_019080715 [*Yersinia enterocolitica*]  
>EWH04684 [*Pseudoalteromonas lipolytica* SCSIO 04301]  
>EFL91263 [*Candidatus Regiella insecticola* LSR1]  
>WP\_004713658 [*Yersinia rohdei*]  
>WP\_001456852 [*Escherichia coli*]  
>WP\_007892011 [*Pantoea* sp. GM01]  
>WP\_022945615 [*Pseudoalteromonas ruthenica*]  
>WP\_024031472 [*Pseudoalteromonas* sp. NW 4327]  
>ETT13766 [*Vibrio parahaemolyticus* 50]  
>WP\_018014299 [*Teredinibacter turnerae*]  
>WP\_006657971 [*Providencia alcalifaciens*]  
>WP\_016768457 [*Vibrio cyclitrophicus*]  
>YP\_005024323 [*Vibrio* sp. EJY3]  
>NP\_931744 [*Photorhabdus luminescens* subsp. *laumondii* TTO1]  
>WP\_017801099 [*Erwinia toletana*]  
>WP\_010322516 [*Marinobacterium stanieri*]  
>WP\_000460334 [*Escherichia coli*]  
>WP\_008502918 [*Enterobacter*]  
>YP\_007276295 [*Vibrio parahaemolyticus* BB22OP]

>YP\_004732591 [*Salmonella bongori* NCTC 12419]  
 >WP\_021023480 [*Salinivibrio costicola*]  
 >WP\_007764451 [*Cronobacter turicensis*]  
 >YP\_003002854 [*Dickeya zeae* Ech1591]  
 >WP\_000460339 [*Salmonella enterica*]  
 >EXJ12153 [*Nitrincola* sp. AK23]  
 >WP\_021707389 [*Vibrio proteolyticus*]  
 >WP\_006953799 [*Idiomarina baltica*]  
 >WP\_005637382 [*Haemophilus haemolyticus*]  
 >YP\_004822766 [*Haemophilus parainfluenzae* T3T1]  
 >WP\_005973059 [*Pectobacterium wasabiae*]  
 >WP\_010295442 [*Pectobacterium carotovorum*]  
 >WP\_009087467 [*Pantoea* sp. Sc1]  
 >WP\_000460356 [*Escherichia coli*]  
 >YP\_005224717 [*Klebsiella pneumoniae* subsp. *pneumoniae* HS11286]  
 >WP\_023197788 [*Salmonella enterica*]  
 >YP\_859843 [*Escherichia coli* APEC O1]  
 >WP\_004397626 [*Vibrio metschnikovii*]  
 >WP\_006814561 [*Providencia rustigianii*]  
 >WP\_009766700 [*Haemophilus* sp. oral taxon 851]  
 >YP\_003943506 [*Enterobacter lignolyticus* SCF1]  
 >YP\_003466268 [*Xenorhabdus bovienii* SS-2004]  
 >NP\_799195 [*Vibrio parahaemolyticus* RIMD 2210633]  
 >YP\_003710764 [*Xenorhabdus nematophila* ATCC 19061]  
 >YP\_008622341 [*Vibrio nigripulchritudo*]  
 >EUL57841 [*Enterobacter cloacae* UCI 39]  
 >WP\_006791240 [*Alteromonadales bacterium* TW-7]  
 >YP\_004469264 [*Alteromonas* sp. SN2]  
 >EWS98894 [*Pseudoalteromonas* sp. SCSIO\_11900]  
 >WP\_006233810 [*Photobacterium profundum*]  
 >WP\_000460346 [*Salmonella enterica*]  
 >YP\_008228283 [*Serratia liquefaciens* ATCC 27592]  
 >WP\_024225900 [*Escherichia coli*]  
 >YP\_003074884 [*Teredinibacter turnerae* T7901]  
 >YP\_004432549 [*Glaciecola* sp. 4H-3-7+YE-5]  
 >WP\_006686307 [*Citrobacter youngae*]  
 >WP\_001608794 [*Escherichia coli*]  
 >WP\_016940704 [*Dickeya zeae*]  
 >WP\_022634976 [*Dickeya* sp. D s0432-1]  
 >WP\_004872758 [*Klebsiella pneumoniae*]  
 >WP\_020433626 [*Vibrio fluvialis*]  
 >YP\_008136524 [*Serratia plymuthica* 4Rx13]  
 >YP\_004069883 [*Pseudoalteromonas* sp. SM9913]  
 >YP\_001402606 [*Yersinia pseudotuberculosis* IP 31758]  
 >WP\_017027513 [*Vibrio breoganii*]  
 >YP\_005176862 [*Pasteurella multocida* 36950]

>WP\_017779130 [*Aeromonas hydrophila*]  
>WP\_008938997 [*Marinobacter santoriniensis*]  
>YP\_002264112 [*Aliivibrio salmonicida* LFI1238]  
>WP\_021807555 [*Serratia fonticola*]  
>WP\_001719324 [*Escherichia coli*]  
>WP\_017787682 [*Aeromonas hydrophila*]  
>WP\_016507475 [*Salmonella enterica*]  
>WP\_001765273 [*Escherichia coli*]  
>WP\_008075269 [*Vibrio sinaloensis*]  
>WP\_007372740 [*Kosakonia radicincitans*]  
>YP\_001175095 [*Enterobacter* sp. 638]  
>WP\_017051379 [*Vibrio genomosp.* F6]  
>WP\_004128082 [*Klebsiella oxytoca*]  
>YP\_001572247 [*Salmonella enterica* subsp. *arizonae*]  
>WP\_017107433 [*Vibrio tasmaniensis*]  
>YP\_001556312 [*Shewanella baltica* OS195]  
>WP\_017055705 [*Vibrio kanaloae*]  
>ETS32707 [*Photobacterium temperata* subsp. *khanii* NC19]  
>YP\_007342168 [Enterobacteriaceae bacterium strain FGI57]  
>YP\_751985 [*Shewanella frigidimarina* NCIMB 400]  
>WP\_023616164 [*Enterobacter* sp. MR1]  
>YP\_663533 [*Pseudoalteromonas atlantica* T6c]  
>WP\_000460373 [*Vibrio cholerae*]  
>YP\_005430543 [*Marinobacter hydrocarbonoclasticus* ATCC49840]  
>WP\_021312665 [*Klebsiella pneumoniae*]  
>YP\_732736 [*Shewanella* sp. MR-4]  
>WP\_004741289 [*Vibrio splendidus*]  
>YP\_001092698 [*Shewanella loihica* PV-4]  
>WP\_005761916 [*Pasteurella dagmatis*]  
>WP\_001653642 [*Escherichia coli*]  
>WP\_008138837 [*Pseudoalteromonas* sp. BSi20495]  
>YP\_003232217 [*Escherichia coli* O26:H11 str. 11368]  
>WP\_019935305 [*Oceanimonas smirnovii*]  
>WP\_006708863 [*Serratia symbiotica*]  
>WP\_005628558 [*Haemophilus haemolyticus*]  
>WP\_005628558 [*Haemophilus haemolyticus*]  
>YP\_003294411 [*Edwardsiella tarda* EIB202]  
>WP\_019628947 [*Moritella marina*]  
>YP\_003911805 [*Ferrimonas balearica* DSM 9799]  
>NP\_667968 [*Yersinia pestis* KIM10+]  
>XP\_004532794 [*Ceratitidis capitata*]

>WP\_023200839 [*Salmonella enterica*]  
 >WP\_020407581 [*Hahella ganghwensis*]  
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 >WP\_007470835 [*Photobacterium* sp. AK15]  
 >WP\_007470835 [*Photobacterium* sp. AK15]  
 >YP\_154726 [*Idiomarina loihiensis* L2TR]  
 >YP\_052020 [*Pectobacterium atrosepticum* SCRI1043]  
 >YP\_004211184 [*Rahnella* sp. Y9602]  
 >YP\_006011261 [*Shewanella putrefaciens* 200]  
 >WP\_004392475 [*Yersinia kristensenii*]  
 >WP\_023243296 [*Salmonella enterica*]  
 >WP\_016160150 [*Klebsiella* sp. KTE92]  
 >EHC28705 [*Salmonella enterica* subsp. *enterica* serovar Alachua str. R6-377]  
 >WP\_021509763 [*Pantoea dispersa*]  
 >CDL49915 [*Escherichia coli* ISC41]  
 >YP\_001476668 [*Serratia proteamaculans* 568]  
 >WP\_005021405 [*Shigella dysenteriae*]  
 >WP\_010383979 [*Pseudoalteromonas rubra*]  
 >EUL91114 [*Enterobacter cloacae* UCI 23]  
 >WP\_006178971 [*Enterobacter cancerogenus*]  
 >WP\_021322936 [*Photorhabdus temperata*]  
 >WP\_006647740 [*Photobacterium* sp. SKA34]  
 >WP\_001720877 [*Escherichia coli*]  
 >WP\_010864771 [*Plesiomonas shigelloides*]  
 >WP\_006005395 [*Glaciecola punicea*]  
 >YP\_001218617 [*Vibrio cholerae* O395]  
 >YP\_002931883 [*Edwardsiella ictaluri* 93-146]  
 >WP\_004906004 [*Providencia rettgeri*]  
 >WP\_001494631 [*Escherichia coli*]  
 >NP\_290803 [*Escherichia coli* O157:H7 str. EDL933]  
 >WP\_007375940 [*Pseudoalteromonas* sp. Bsw20308]  
 >WP\_002434123 [*Escherichia hermannii*]  
 >WP\_010561062 [*Pseudoalteromonas spongiae*]  
 >WP\_016190787 [*Erwinia tracheiphila*]  
 >WP\_023331851 [*Enterobacter* sp. MGH 25]  
 >WP\_008223942 [*Vibrionales bacterium* SWAT-3]  
 >WP\_006706898 [*Candidatus Regiella insecticola*]  
 >WP\_000460355 [*Escherichia coli*]  
 >WP\_002217221 [*Yersinia pestis*]  
 >WP\_016403747 [*Agarivorans albus*]  
 >YP\_004592061 [*Enterobacter aerogenes* KCTC 2190]  
 >WP\_000460353 [*Escherichia coli*]  
 >WP\_023148972 [*Escherichia coli*]  
 >YP\_003532509 [*Erwinia amylovora* CFBP1430]  
 >YP\_003532509 [*Erwinia amylovora* CFBP1430]  
 >WP\_005630051 [*Haemophilus haemolyticus*]

>YP\_454018 [*Sodalis glossinidius* str. 'morsitans']  
 >WP\_010845256 [*Xenorhabdus nematophila*]  
 >WP\_004581533 [*Marinobacter nanhaiticus*]  
 >WP\_017024876 [*Vibrio rumoiensis*]  
 >YP\_928896 [*Shewanella amazonensis* SB2B]  
 >WP\_005345796 [*Aeromonas diversa*]  
 >WP\_020584270 [*Endozoicomonas elysicola*]  
 >WP\_005645787 [*Haemophilus haemolyticus*]  
 >YP\_002218246 [*Salmonella enterica* subsp. *enterica* serovar Dublin str. CT\_02021853]  
 >NP\_757105 [*Escherichia coli* CFT073]  
 >WP\_006014766 [*Glaciecola pallidula* ]  
 >YP\_008312078 [*Vibrio parahaemolyticus* O1:Kuk str. FDA\_R31]  
 >YP\_589008 [*Baumannia cicadellinicola* str. Hc (*Homalodisca coagulata*)]  
 >WP\_017008740 [*Enterovibrio calviensis*]  
 >WP\_007154828 [*Marinobacter algicola*]  
 >WP\_001398279 [*Escherichia coli*]  
 >YP\_006826477 [*Alteromonas macleodii* str. 'Black Sea 11']  
 >WP\_020236019 [*Escherichia coli*]  
 >WP\_000460333 [*Escherichia coli*]  
 >WP\_002050955 [*Vibrio cholerae*]  
 >YP\_691611 [*Shigella flexneri* 5 str. 8401]  
 >WP\_000460365 [*Vibrio mimicus*]  
 >WP\_017035789 [*Vibrio genomosp.* F10]  
 >WP\_017035789 [*Vibrio genomosp.* F10]  
 >WP\_019843311 [*Dickeya zeae*]  
 >YP\_003521831 [*Pantoea ananatis* LMG 20103]  
 >WP\_010362795 [*Pseudoalteromonas citrea*]  
 >WP\_018355317 [*Pasteurella pneumotropica*]  
 >WP\_023263058 [*Salmonella enterica*]  
 >WP\_001997867 [*Vibrio cholerae*]  
 >YP\_004567409 [*Vibrio anguillarum* 775]  
 >WP\_001552254 [*Escherichia coli*]  
 >WP\_008843455 [*Glaciecola lipolytica*]  
 >YP\_002893567 [*Tolumonas auensis* DSM 9187]  
 >WP\_005327255 [*Aeromonas media*]  
 >YP\_007875576 [*Raoultella ornithinolytica* B6]  
 >YP\_006216919 [*Providencia stuartii* MRSN 2154]  
 >BAH83037 [*Candidatus Ishikawaella capsulata* Mpkobe]  
 >WP\_017190938 [*Vibrio harveyi*]  
 >WP\_009111322 [*Brenneria* sp. EniD312]  
 >YP\_006749604 [*Alteromonas macleodii* ATCC 27126]  
 >WP\_007619329 [*Glaciecola arctica*]  
 >WP\_009843400 [*Vibrio* sp. AND4]  
 >WP\_001926765 [*Vibrio cholerae*]  
 >WP\_000460347 [*Shigella flexneri*]

>WP\_007871193 [*Cronobacter sakazakii*]  
>WP\_023217719 [*Salmonella enterica*]  
>WP\_021017249 [*Serratia* sp. ATCC 39006]  
>WP\_000460375 [*Vibrio cholerae*]  
>WP\_004587664 [*Pseudoalteromonas agarivorans*]  
>YP\_004117403 [*Pantoea* sp. At-9b]  
>WP\_021715019 [*Vibrio ezurae*]  
>WP\_021710903 [*Vibrio azureus*]  
>WP\_016242686 [*Escherichia coli*]  
>WP\_008128385 [*Pseudoalteromonas* sp. BSi20480]  
>YP\_003611086 [*Enterobacter cloacae* subsp. *cloacae* ATCC 13047]  
>WP\_000460369 [*Vibrio* sp. RC341]  
>WP\_001591404 [*Escherichia coli*]  
>EXJ26134 [*Vibrio parahaemolyticus* VPTS-2009]  
>WP\_016233741 [*Escherichia coli*]  
>WP\_004907402 [*Providencia rettgeri*]  
>WP\_002957882 [*Pseudoalteromonas haloplanktis*]  
>WP\_004109143 [*Klebsiella oxytoca*]  
>WP\_023489454 [*Serratia* sp. DD3]  
>WP\_017221844 [*Moritella dasanensis*]  
>WP\_005275754 [*Yersinia bercovieri*]  
>AHF78496 [*Sodalis* sp. HS1]  
>WP\_005372817 [*Photobacterium angustum*]  
>EIQ51344 [*Shigella flexneri* 1235-66]  
>WP\_006120942 [*Pantoea stewartii*]  
>AHI30414 [*Marinobacter* sp. R9SW1]  
>WP\_004707012 [*Yersinia frederiksenii*]  
>WP\_007678845 [*Cronobacter condimenti*]  
>WP\_001558424 [*Escherichia coli*]  
>WP\_010605651 [*Pseudoalteromonas flavipulchra*]  
>EUL77080 [*Enterobacter cloacae* UCI 30]  
>WP\_005281179 [*Edwardsiella tarda*]  
>YP\_001455177 [*Citrobacter koseri* ATCC BAA-895]  
>YP\_002647535 [*Erwinia pyrifoliae* Ep1/96]  
>YP\_410533 [*Shigella boydii* Sb227]  
>WP\_005751663 [*Pasteurella multocida*]  
>YP\_006321140 [*Shimwellia blattae* DSM 4481 = NBRC 105725]  
>WP\_001455678 [*Escherichia coli*]  
>WP\_024219489 [*Escherichia coli*]  
>WP\_016151415 [*Citrobacter*]  
>WP\_024157628 [*Salmonella enterica*]  
>WP\_010444006 [*Vibrio rotiferianus*]  
>WP\_023478522 [*Enterobacter cloacae*]  
>XP\_003494560 [*Bombus impatiens*]  
>AHG20753 [*Serratia fonticola* RB-25]  
>WP\_006075247 [*Vibrio shilonii*]

>WP\_001742578 [*Escherichia coli*]  
 >WP\_005193207 [*Yersinia intermedia*]  
 >WP\_005493389 [*Pseudoalteromonas luteoviolacea*]  
 >AHJ00871 [*Vibrio parahaemolyticus* UCM-V493]  
 >WP\_000460366 [*Vibrio cholerae*]  
 >EWE00045 [*Klebsiella pneumoniae* BIDMC 51]  
 >WP\_008489485 [*Idiomarina xiamenensis*]  
 >YP\_001004753 [*Yersinia enterocolitica* subsp. *enterocolitica* 8081]  
 >WP\_010391685 [*Pseudoalteromonas undina*]  
 >YP\_001048957 [*Shewanella baltica* OS155]  
 >YP\_002986169 [*Dickeya dadantii* Ech703]  
 >WP\_017243452 [*Vibrio breoganii*]  
 >WP\_021183575 [*Pantoea* sp. AS-PWVM4]  
 >WP\_023310136 [*Enterobacter cloacae* complex]  
 >WP\_000460363 [*Escherichia coli*]  
 >ETX49258 [*Serratia marcescens* BIDMC 50]  
 >WP\_004415845 [*Vibrio orientalis*]  
 >WP\_007709252 [*Cronobacter dublinensis*]  
 >WP\_003855317 [*Pantoea*]  
 >WP\_024109225 [*Dickeya dianthicola*]  
 >WP\_000460368 [*Vibrio* sp. RC586]  
 >EGG99139 [gamma proteobacterium IMCC2047]  
 >WP\_021512586 [*Escherichia coli*]  
 >WP\_018692132 [*Algicola sagamiensis*]  
 >AAQ13917 [*Pasteurella multocida*]  
 >WP\_004955986 [*Serratia odorifera*]  
 >WP\_019029171 [*Colwellia piezophila*]  
 >WP\_021021729 [*Vibrio gazogenes*]  
 >WP\_004699822 [*Yersinia aldovae*]  
 >AHJ75539 [*Enterobacter sacchari* SP1]  
 >YP\_007639222 [*Psychromonas* sp. CNPT3]  
 >YP\_002310190 [*Shewanella piezotolerans* WP3]  
 >YP\_003019271 [*Pectobacterium carotovorum* subsp. *carotovorum* PC1]  
 >YP\_004393964 [*Aeromonas veronii* B565]  
 >WP\_007104186 [*Glaciecola polaris*]  
 >WP\_020882944 [*Enterobacter cloacae*]  
 >WP\_010556689 [*Pseudoalteromonas marina*]  
 >WP\_001666896 [*Escherichia coli*]  
 >YP\_006475870 [*Enterobacter cloacae* subsp. *dissolvens* SDM]  
 >YP\_962067 [*Shewanella* sp. W3-18-1]  
 >WP\_016798359 [*Vibrio cyclitrophicus*]  
 >YP\_004498836 [*Serratia* sp. AS12]  
 >WP\_024107384 [*Dickeya dianthicola*]  
 >WP\_001634933 [*Escherichia coli*]  
 >EWH08435 [*Catenovulum agarivorans* DS-2]  
 >WP\_016506540 [*Salmonella enterica*]

>WP\_021179002 [*Serratia fonticola*]  
>EXF51183 [*Alteromonas* sp. ALT199]  
>YP\_003366717 [*Citrobacter rodentium* ICC168]  
>WP\_001563717 [*Salmonella enterica*]  
>WP\_001399600 [*Escherichia coli*]  
>WP\_024008626 [*Escherichia coli*]  
>WP\_008453606 [*Enterobacter* sp. Ag1]  
>WP\_005634166 [*Haemophilus haemolyticus*]  
>EKM31786 [*Vibrio* sp. HENC-02]  
>CDL80249 [*Xenorhabdus cabanillasii* JM26]  
>WP\_016955278 [*Catenovulum agarivorans*]  
>WP\_021138373 [*Aeromonas salmonicida*]  
>WP\_005301649 [*Photobacterium damsela*]  
>YP\_004991269 [*Vibrio furnissii* NCTC 11218]  
>WP\_008165428 [*Pseudoalteromonas* sp. BSi20652]  
>YP\_008654616 [*Halyomorpha halys* symbiont]  
>WP\_009838206 [*Pseudoalteromonas tunicata*]  
>NP\_463223 [*Salmonella enterica* subsp. *enterica* serovar Typhimurium str. LT2]  
>WP\_009600918 [*Vibrio caribbenthicus*]  
>WP\_004253031 [*Proteus mirabilis*]  
>WP\_020079818 [*Enterobacter aerogenes*]  
>WP\_020079818 [*Enterobacter aerogenes*]  
>YP\_405794 [*Shigella dysenteriae* Sd197]  
>YP\_008895265 [*Cronobacter sakazakii* CMCC 45402]  
>WP\_000460352 [*Escherichia coli*]  
>YP\_007503633 [*Morganella morganii* subsp. *morganii* KT]  
>WP\_010673194 [*Aeromonas caviae*]  
>WP\_008103616 [*Pantoea* sp. YR343]