Supplementary Table 1. The taxonomic classification of isolates from NAM.

|  |  |  |
| --- | --- | --- |
| Representative isolates | Nearest phylogenetic neighbor | Taxonomic classification |
| phylum | class | order | family |
| FXH-223 | *Alcanivorax marinus* | Proteobacteria | Gammaproteobacteria | Oceanospirillales | Alcanivoracaceae |
| FXH-114 | *Aurantimonas coralicida* | Proteobacteria | Alphaproteobacteria | Rhizobiales | Aurantimonadaceae |
| FXH-172 | *Brevundimonas aurantiaca* | Proteobacteria | Alphaproteobacteria | Caulobacterales | Caulobacteraceae |
| FXH-124 | *Halomonas axialensis* | Proteobacteria | Gammaproteobacteria | Oceanospirillales | Halomonadaceae |
| FXH-294 | *Halomonas meridiana* | Proteobacteria | Gammaproteobacteria | Oceanospirillales | Halomonadaceae |
| FXH-235 | *Marinobacter algicola* | Proteobacteria | Gammaproteobacteria | Alteromonadales | Alteromonadaceae |
| FXH-314 | *Marinobacter nauticus* | Proteobacteria | Gammaproteobacteria | Alteromonadales | Alteromonadaceae |
| FXH-73 | *Marinomonas communis* | Proteobacteria | Gammaproteobacteria | Oceanospirillales | Oceanospirillaceae |
| FXH-192 | *Microbacterium schleiferi* | Actinobacteria |  Actinomycetia | Micrococcales | Microbacteriaceae |
| FXH-28 | *Microbacterium testaceum* | Actinobacteria |  Actinomycetia | Micrococcales | Microbacteriaceae |
| FXH-315 | *Oceanimonas baumannii* | Proteobacteria | Gammaproteobacteria |  Aeromonadales | Aeromonadaceae |
| FXH-42 | *Pseudomonas aeruginosa* | Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadaceae |
| FXH-240 | *Pseudomonas aestusnigri* | Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadaceae |
| FXH-27 | *Sphingobium lactosutens* | Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae |
| FXH-122 | *Sphingobium naphthae* | Proteobacteria  | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae |
| FXH275-2 | *Sphingobium soli* | Proteobacteria  | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae |
| FXH-168 | *Staphylococcus edaphicus* | Firmicutes | Bacilli | Bacillales | Staphylococcaceae |
| FXH-213 | *Stappia indica* | Proteobacteria | Alphaproteobacteria | Hyphomicrobiales | Stappiaceae |
| FXH-147 | *Thalassospira povalilytica* | Proteobacteria | Alphaproteobacteria | Rhodospirillales | Rhodospirillaceae |
| FXH-305 | *Vibrio anguillarum* | Proteobacteria | Gammaproteobacteria | Vibrionales | Vibrionaceae |
| FXH-72 | *Vibrio azureus* | Proteobacteria | Gammaproteobacteria | Vibrionales | Vibrionaceae |
| FXH-286 | *Vibrio campbellii* | Proteobacteria | Gammaproteobacteria | Vibrionales | Vibrionaceae |
| FXH-250 | *Vibrio natriegens* | Proteobacteria | Gammaproteobacteria | Vibrionales | Vibrionaceae |
| FXH-99 | *Zunongwangia profunda* | Bacteroidetes | Flavobacteriia | Flavobacteriales | Flavobacteriaceae |