

Antitoxin (Blue Pentagon) Domain Name: PanA

Oceanivirga salmonicida (TA-Like pair: WP\_156286012.1 & WP\_156286013.1)  
Pontibacter ummariensis (TA-Like pair: WP\_089320878.1 & WP\_089320877.1)  
Lactobacillus chiyaiensis (TA-Like pair: WP\_129302311.1 & WP\_129302312.1)  
Lachnoanaerobaculum saburreum (TA-Like pair: WP\_060930932.1 & WP\_060930933.1)  
Caldicellulosiruptor naganensis NA10 (TA-Like pair: WP\_083943572.1 & WP\_045166403.1)  
Desulfofarciimen acetoxidans DSM 771 (TA-Like pair: WP\_015758352.1 & WP\_015758351.1)  
Hungateiclostridium mesophilum (TA-Like pair: WP\_069194582.1 & WP\_069194581.1)  
Eggerthella lenta DSM 2243 (TA-Like pair: WP\_081434217.1 & WP\_035585634.1)  
Marinoscillum furvescens DSM 4134 (TA-Like pair: WP\_115870421.1 & WP\_115870420.1)  
Holdemania filiformis (TA-Like pair: WP\_117895944.1 & WP\_117895910.1)  
Bacillus bombysepticus str Wang (TA-Like pair: WP\_048549445.1 & WP\_044585138.1)  
Joostella marina DSM 19592 (TA-Like pair: WP\_050989665.1 & WP\_008612108.1)  
Paenibacillus contaminans (TA-Like pair: WP\_113033925.1 & WP\_113033926.1)  
Lactobacillus mindensis DSM 14500 (TA-Like pair: WP\_057888059.1 & WP\_057888058.1)  
Bacteroides ovatus (TA-Like pair: WP\_115484493.1 & WP\_115484494.1)  
Flavobacterium araucanum (TA-Like pair: WP\_089478782.1 & WP\_089478781.1)  
Alkaliphilus metalliredigens QYMF (TA-Like pair: WP\_012062134.1 & WP\_012062135.1)  
Bacillus fungorum (TA-Like pair: WP\_099686063.1 & WP\_099686064.1)  
Lactobacillus rossiae (TA-Like pair: WP\_017263062.1 & WP\_017263061.1)  
Lactococcus lactis subsp lactis II1403 (TA-Like pair: WP\_010906205.1 & WP\_010906204.1)  
Fervidicola ferrireducens (TA-Like pair: WP\_066350948.1 & WP\_066350943.1)  
Bacillus massiliogeriensis (TA-Like pair: WP\_084780436.1 & WP\_075982586.1)  
Bacteroides luti (TA-Like pair: WP\_073400063.1 & WP\_175550481.1)  
Companilactobacillus mishanensis (TA-Like pair: WP\_164504952.1 & WP\_125706244.1)  
Desulfosporosinus fructosivorans (TA-Like pair: WP\_135546696.1 & WP\_135546698.1)  
Paramuribaculum intestinale (TA-Like pair: WP\_107037044.1 & WP\_161553880.1)  
Enteroscipio rubneri (TA-Like pair: WP\_129588450.1 & WP\_103263858.1)  
Thermosipho globiformans (TA-Like pair: WP\_126992241.1 & WP\_164723670.1)  
Lactobacillus diolivorans DSM 14421 (TA-Like pair: WP\_057864036.1 & WP\_083484896.1)  
Pedobacter antarcticus (TA-Like pair: WP\_051760089.1 & WP\_037442899.1)  
Proteocatella sphenisci DSM 23131 (TA-Like pair: WP\_084502844.1 & WP\_051188533.1)  
Selenomonas ruminantium subsp lactilytica TAM6421 (TA-Like pair: WP\_158645813.1 & WP\_014425462.1)  
Aequorivita antarctica (TA-Like pair: WP\_111844384.1 & WP\_111844383.1)  
Numidum massiliense (TA-Like pair: WP\_054950683.1 & WP\_054950682.1)  
Methylomusa anaerophila (TA-Like pair: WP\_158618786.1 & WP\_126309227.1)  
Hymenobacter lapidarius (TA-Like pair: WP\_158011057.1 & WP\_070729762.1)  
Lactobacillus fabifermentans DSM 21115 (TA-Like pair: WP\_024623756.1 & WP\_081754384.1)  
Aliifodinibius roseus (TA-Like pair: WP\_073068562.1 & WP\_073068560.1)  
Pedobacter hartoni (TA-Like pair: WP\_139298333.1 & WP\_175470596.1)  
Filibacter limicola (TA-Like pair: WP\_192597039.1 & WP\_192597038.1)  
Desulfofundulus thermobenzoicus (TA-Like pair: WP\_152947184.1 & WP\_194174910.1)  
Anoxybacillus calidus (TA-Like pair: WP\_181538893.1 & WP\_181538892.1)  
Inordinaticella fortuita (TA-Like pair: WP\_162895788.1 & WP\_162895787.1)  
Adlercreutzia muris (TA-Like pair: WP\_160324693.1 & WP\_160324694.1)  
Syntrophomonas wolfei subsp wolfei str Goettingen G311 (TA-Like pair: WP\_011641800.1 & WP\_011641799.1)  
Flexilinea flocculi (TA-Like pair: WP\_062279110.1 & WP\_062279112.1)  
Hippea alviniae EP5 r (TA-Like pair: WP\_051129544.1 & WP\_022669785.1)  
Salinicoccus qingdaonensis (TA-Like pair: WP\_143003971.1 & WP\_176754144.1)  
Desulforegula conservatrix Mb1Pa (TA-Like pair: WP\_027360416.1 & WP\_198013933.1)  
Colwellia piezophila ATCC BAA 637 (TA-Like pair: WP\_019025706.1 & WP\_019025707.1)  
Sedimentisphaera salicampi (TA-Like pair: WP\_085755732.1 & WP\_085755731.1)  
Ezakiella massiliensis (TA-Like pair: WP\_075574378.1 & WP\_075574379.1)  
Olsenella mediterranea (TA-Like pair: WP\_072375281.1 & WP\_159431295.1)  
Salinicoccus cyprini (TA-Like pair: WP\_186365437.1 & WP\_145284685.1)  
Hymenobacter coccineus (TA-Like pair: WP\_125917172.1 & WP\_070747132.1)  
Gracilimonas amyolytica (TA-Like pair: WP\_103665890.1 & WP\_103665891.1)  
Chitinophaga oryziterrae (TA-Like pair: WP\_157299460.1 & WP\_157299461.1)

Predicted Toxin (Red Pentagon) Domain ID: D2  
-- RefSeq Protein Description: type II toxin-antitoxin system MqsR family toxin  
-- TADB Annotation: No Hit  
-- NCBI-CDD Annotation: No Hit  
-- HHpred(Pfam) Annotation: MqsR\_toxin ; Motility quorum-sensing regulator, toxin of MqsA (97.33%)  
-- HHpred(PDB) Annotation: HTH-type transcriptional regulator ygiT, Motility (98.23%)

