Predicted Toxin (Red Pentagon) Domain ID: D10

-- RefSeg Protein Description: type II toxin-antitoxin system PemK/MazF family toxin

Saccharopolyspora erythraea NRRL 2338 (TA-Like pair: WP_009947932.1 & WP_009947934.1)

- -- TADB Annotation: Toxin MazF9; PubMed: 19016878
- -- NCBI-CDD Annotation: PemK toxin superfamily
- -- HHpred(Pfam) Annotation: CcdB; CcdB protein (94.11%)
- -- HHpred(PDB) Annotation: beta-glucosidase 1317 (96.28%)

Gloeothece verrucosa PCC 7822 (TA-Like pair: WP 013322884.1 & WP 013322885.1) Arthrospira maxima CS 328 (TA-Like pair: WP 006620406.1 & WP 006620407.1) Saccharomonospora xinjiangensis XJ 54 (TA-Like pair: WP 006238712.1 & WP 198284373.1) Oscillatoria nigro viridis PCC 7112 (TA-Like pair: WP 015176443.1 & WP 015176442.1) Kamptonema formosum PCC 6407 (TA-Like pair: WP 007356571.1 & WP 007356572.1) Scytonema hofmannii PCC 7110 (TA-Like pair: WP_017746505.1 & WP_017746504.1) Fangia hongkongensis FSC776 DSM 21703 (TA-Like pair: WP_018300270.1 & WP_018300269.1) Lamprocystis purpurea DSM 4197 (TA-Like pair: WP 020506091.1 & WP 020506090.1) Aliterella atlantica CENA595 (TA-Like pair: WP_045056704.1 & WP_045056703.1) Limnospira indica PCC 8005 (TA-Like pair: WP 006620406.1 & WP 006620407.1) Streptomyces odonnellii (TA-Like pair: WP 046496803.1 & WP 046496801.1) Crocosphaera watsonii WH 0005 (TA-Like pair: WP 021832397.1 & WP 007313287.1) Sphaerospermopsis aphanizomenoides BCCUSP55 (TA-Like pair: WP 200323155.1 & WP 200323153.1) Hydrococcus rivularis NIES 593 (TA-Like pair: WP 073598386.1 & WP 073598387.1) Nostoc calcicola FACHB 389 (TA-Like pair: WP 073641211.1 & WP 073641212.1) Candidatus Thiodictyon syntrophicum (TA-Like pair: WP 100922894.1 & WP 100922893.1) Nostoc commune NIES 4072 (TA-Like pair: WP 109010868.1 & WP 109010869.1) Streptomyces corynorhini (TA-Like pair: WP 114621925.1 & WP 114621926.1) Amycolatopsis panacis (TA-Like pair: WP 120022203.1 & WP 120022204.1) Thiobaca trueperi (TA-Like pair: WP_132977882.1 & WP_132977883.1) Prauserella endophytica (TA-Like pair: WP 137094588.1 & WP 170200535.1) Calothrix desertica PCC 7102 (TA-Like pair: WP 096691085.1 & WP 127080173.1) Calothrix desertica PCC 7102 (TA-Like pair: WP 096691088.1 & WP 127080174.1) Limnospira fusiformis SAG 85 79 (TA-Like pair: WP 006620406.1 & WP 006620407.1) Dolichospermum flos aguae CCAP 1403 13F (TA-Like pair: WP 096666814.1 & WP 168697587.1) Rothia nasimurium (TA-Like pair: WP_185174620.1 & WP_185174621.1) Saccharopolyspora spinosa (TA-Like pair: WP 010696019.1 & WP 010696020.1) Streptomyces griseorubens (TA-Like pair: WP_191881472.1 & WP_191881473.1) Anabaena lutea FACHB 196 (TA-Like pair: WP 190713104.1 & WP 190713106.1) Arthrospira platensis FACHB 439 (TA-Like pair: WP 006615903.1 & WP 006615904.1) Anabaena catenula FACHB 362 (TA-Like pair: WP_071188206.1 & WP_071188205.1) Desmonostoc muscorum LEGE 12446 (TA-Like pair: WP 193913741.1 & WP 193913739.1) Lamprobacter modestohalophilus (TA-Like pair: WP_200242760.1 & WP_200242758.1) Streptomyces radiopugnans (TA-Like pair: WP_093654619.1 & WP_093654617.1)

Legionella maceachernii (TA-Like pair: WP 058452759.1 & WP 058452760.1)

** For the description of flanking genes, please check this link: http://130.235.240.53/NetFlax/T8 pdfs/D24.txt

Predicted Antitoxin (Blue Pentagon) Domain ID: D24

- -- RefSeq Protein Description: CopG family transcriptional regulator
- -- TADB Annotation: Possible antitoxin MazE9; PubMed: 19016878
- -- NCBI-CDD Annotation: RHH CopG NikR-like superfamily
- -- HHpred(Pfam) Annotation: ParD antitoxin; Bacterial antitoxin of ParD toxin-antitoxin type II system and RHH (94.82%)
- -- HHpred(PDB) Annotation: beta-glucosidase 1317 (97.56%)

