

DNA replication terminus site-binding protein (AGJIPHCE\_00003)

Chromosome partition protein Smc (AGJIPHCE\_00009)

Tyrosine recombinase XerC (AGJIPHCE\_00005)

DEDDh\_I\_II\_III\_IV\_V\_VI\_1 (AGJIPHCE\_00006)

Tn3 family transposase Tn3 (AGJIPHCE\_00001)



DNA replication terminus site-binding protein (BAJMOGJA\_00078)

Chromosome partition protein Smc (BAJMOGJA\_00077)

Tyrosine recombinase XerD (BAJMOGJA\_00081)

DEDDh\_I\_II\_III\_IV\_V\_VI\_1 (BAJMOGJA\_00080)



TIGRFAMs: mercury resistance system periplasmic binding protein MerP (TIGR02052.1) (ANDFAGAO\_00098)

PRK|PRK13747.1: broad-spectrum mercury transporter MerE (NF010310.2) (ANDFAGAO\_00102)

mercury resistance co-regulator MerD (NF033783.1) (ANDFAGAO\_00101)

organomercurial transporter MerC (NF033784.1) (ANDFAGAO\_00099)

mercuric transport protein MerT (NF033560.1) (ANDFAGAO\_00097)

TIGRFAMs: mercury(II) reductase (TIGR02053.1) (ANDFAGAO\_00100)

DNA replication terminus site-binding protein (ANDFAGAO\_00081)

ISL3 family transposase ISStma11 (ANDFAGAO\_00096)

Chromosome partition protein Smc (ANDFAGAO\_00080)

IS110 family transposase IS4321R (ANDFAGAO\_00095)

IS1 family transposase IS1D (ANDFAGAO\_00093)

Tyrosine recombinase XerC (ANDFAGAO\_00084)

DEDDh\_I\_II\_III\_IV\_V\_VI\_1 (ANDFAGAO\_00083)

IS1 family transposase IS1R (ANDFAGAO\_00094)

putative signaling protein (ANDFAGAO\_00103)

104, 92, 91, 89, 88, 85, 82, 79, 87, 86, Gabija\_GajB\_2 (ANDFAGAO\_00078)



UTP--glucose-1-phosphate uridylyltransferase (DPAAHADN\_00002)

DNA replication terminus site-binding protein (DPAAHADN\_00019)

UDP-N-acetyl-D-mannosamine dehydrogenase (DPAAHADN\_00008)

D-inositol-3-phosphate glycosyltransferase (DPAAHADN\_00003)

Chromosome partition protein Smc (DPAAHADN\_00020)

IS6 family transposase IS26 (DPAAHADN\_00010)

Tyrosine recombinase XerC (DPAAHADN\_00016)

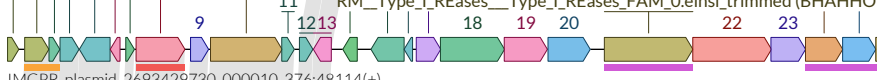
3'-5' exonuclease DinG (DPAAHADN\_00017)

LPS (VF0085) (DPAAHADN\_00009)

UDP-glucose 4-epimerase (DPAAHADN\_00001)

Lipid II flippase Amj (DPAAHADN\_00007)

4, 5, 6, 11, 12, 15, 18, 21, Gabija\_GajB\_2 (DPAAHADN\_00022)



NDM family subclass B1 metallo-beta-lactamase (NF000259.2) (BHAHHOLD\_00002)

bleomycin binding protein Ble-MBL (NF012202.0) (BHAHHOLD\_00003)

N-(5'-phosphoribosyl)anthranilate isomerase (BHAHHOLD\_00004)

Transposon Tn7 transposition protein TnsA (BHAHHOLD\_00017)

Divalent-cation tolerance protein CutA (BHAHHOLD\_00006)

Thiol:disulfide interchange protein DsbD (BHAHHOLD\_00005)

IS1 family transposase ISKpn14 (BHAHHOLD\_00001)

IS5 family transposase ISEc35 (BHAHHOLD\_00016)

IS110 family transposase ISAs16 (BHAHHOLD\_00015)

IS5 family transposase ISEc35 (BHAHHOLD\_00014)

tRNA(Glu)-specific nuclease WapA (BHAHHOLD\_00010)

10 kDa chaperonin (BHAHHOLD\_00007)

GroEL (VF0594) (BHAHHOLD\_00008)

9, 11, 12, 13, 18, 19, 20, 22, 23, 27, 28, 29, 30, 31, 34, 37, Gabija\_GajB\_2 (BHAHHOLD\_00038)



NDM family subclass B1 metallo-beta-lactamase (NF000259.2) (EMCPAENL\_00118)

bleomycin binding protein Ble-MBL (NF012202.0) (EMCPAENL\_00117)

N-(5'-phosphoribosyl)anthranilate isomerase (EMCPAENL\_00116)

DNA replication terminus site-binding protein (EMCPAENL\_00100)

Divalent-cation tolerance protein CutA (EMCPAENL\_00114)

Thiol:disulfide interchange protein DsbD (EMCPAENL\_00115)

Chromosome partition protein Smc (EMCPAENL\_00099)

tRNA(Glu)-specific nuclease WapA (EMCPAENL\_00110)

Tyrosine recombinase XerC (EMCPAENL\_00103)

DEDDh\_I\_II\_III\_IV\_V\_VI\_1 (EMCPAENL\_00102)

10 kDa chaperonin (EMCPAENL\_00113)

GroEL (VF0594) (EMCPAENL\_00112)

111, 108, 105, 106, 109, 107, 104, 101, 98, Gabija\_GajB\_2 (EMCPAENL\_00097)



Gabija\_GajB\_2 (OIMNMJBK\_00117)

OIMNMJBK\_00118

OIMNMJBK\_00119



KGCCGKJN\_00097



10000 nt

Virulence AMR

Legend: Virulence (pink), AMR (grey)