

- phylum p__Actinobacteriota
- p__Bacteroidota p__Desulfobacterota
- p__Firmicutes
- p__Firmicutes_A p__Firmicutes_C
- p__Proteobacteria p__Verrucomicrobiota

113 131 15 168 27 45 63 81 DDE-type integrase/transposase/recombinase serine-type multi-promoter DNA invertase Mpi

 114
 132
 150
 169
 28
 46
 64
 82
 gamma-mobile-trio recombinase GmtY

 115
 133
 151
 17
 29
 47
 65
 83
 integrase

integrase arm-type DNA-binding domain-containing protein integrase core domain-containing protein integrase DNA-binding domain-containing protein integrase domain-containing protein N-terminal phage integrase SAM-like domain-containing protein phage integrase N-terminal SAM-like domain-containing protein phage integrase SAM-like domain and Arm DNA-binding domain-containing protein phage integrase SAM-like domain-containing protein

putative resistance-associated DNA invertase recombinase recombinase family protein recombinase RecA recombinase RecT

recombinase XerD

recombinase zinc beta ribbon domain-containing protein RecT family recombinase site-specific integrase site-specific tyrosine recombinase

Tsr0667 family tyrosine-type DNA invertase Tsr15 family tyrosine-type DNA invertase Tsr19 family tyrosine-type DNA invertase Tsr26 family tyrosine-type DNA invertase tyrosine recombinase tyrosine recombinase XerC tyrosine recombinase XerS tyrosine-type DNA invertase cluster 3b tyrosine-type recombinase/integrase

site-specific tyrosine recombinase XerD

YqaJ viral recombinase family protein