

Product datasheet for **RR204378L3V**

Top1mt (NM_001002798) Rat Tagged ORF Clone Lentiviral Particle

Product data:

| | |
|---------------------------|--|
| Product Type: | Lentiviral Particles |
| Product Name: | Top1mt (NM_001002798) Rat Tagged ORF Clone Lentiviral Particle |
| Symbol: | Top1mt |
| Mammalian Cell Selection: | Puromycin |
| Vector: | pLenti-C-Myc-DDK-P2A-Puro (PS100092) |
| Tag: | Myc-DDK |
| ACCN: | NM_001002798 |
| ORF Size: | 1779 bp |
| ORF Nucleotide Sequence: | The ORF insert of this clone is exactly the same as(RR204378). |
| OTI Disclaimer: | The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info |
| OTI Annotation: | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene. |
| RefSeq: | NM_001002798.1 , NP_001002798.1 |
| RefSeq Size: | 1887 bp |
| RefSeq ORF: | 1782 bp |
| Locus ID: | 300029 |
| UniProt ID: | Q6IM78 |
| Cytogenetics: | 7q34 |



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Gene Summary:

Releases the supercoiling and torsional tension of DNA introduced during duplication of mitochondrial DNA by transiently cleaving and rejoining one strand of the DNA duplex. Introduces a single-strand break via transesterification at a target site in duplex DNA. The scissile phosphodiester is attacked by the catalytic tyrosine of the enzyme, resulting in the formation of a DNA-(3'-phosphotyrosyl)-enzyme intermediate and the expulsion of a 5'-OH DNA strand. The free DNA strand then rotates around the intact phosphodiester bond on the opposing strand, thus removing DNA supercoils. Finally, in the religation step, the DNA 5'-OH attacks the covalent intermediate to expel the active-site tyrosine and restore the DNA phosphodiester backbone (By similarity).[UniProtKB/Swiss-Prot Function]