

Product datasheet for **MC219428**

Top1mt (NM_028404) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Top1mt (NM_028404) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Top1mt
Synonyms:	2900052H09Rik
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC219428 representing NM_028404
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGCTGCTGTGGCTCAGAGCCCTGTGCCGGCTTTCCAGCATGTCCCCTGCCCGTCCCTTCCTGTC
 AGGTGTCCCGGGTCGCGAAGGCCAACAGAGCCGGGTGGGAAGAAACGAGCAAGAGCAGTGTGAAGTGGAG
 GCAGCTGGAGCACAAGGGCCCGTACTTACCCAGCCTACGAGCCCTTCTGACGGAGTCACTTCCTC
 TACGATGGCAAACCGCTGAAGCTGAGCTTGGCAGCGGAGGAGGTCGCTACCTTCTATGGGAAATGCTGC
 ATCTTGAGTGTACGAGCAAGGAAGTCTTTCGGAGGAAGTCTTTCAGTGACTGGCGGAAGGAGATGACACC
 TGAGGAGAGGAGGCTCATCACACACCTTGACAAATGTGACTTACGAGATCCATAAGCACTTCCTGGAA
 AGAGCTGAGGCCCGCAGGACCCTGCCAGGGAGCAGAAGCAGAAGCTAAAGGAAGAGGCCGAGAACTGC
 AGCAGGAGTTGGCTATTGCGTTTTAGATGGCCACAGAGAAAAATAGGCAATTTCAAGACGGAACCACC
 CGGCTTGTCCGTGGCCGAGGTACCATCCAAGATGGGGATGTTGAAGAGGAGGTCATGCCAGAGGAT
 GTGGTCATTAACGCAGCAGGGATTCCAAGATCCCTGAGCCCCAGCCGGTCAACAGTGGAAAGAGGTAC
 GCTCAGATAACACAGTCATGTGGCTGGCTGCTGGGTGGAGCACATCCAGAACTCCTTCAAGTATGTCAT
 ACTGAACCCAGCTCCAAGCCGAAGGGGAGATGGATTGGCAGAAGTATGAGGTAGCGCGACGCTTGAAG
 GGGGTTGTGGACAAGATCCGTGCCAGTATCAGGCTGACTGGAAGTACCAGAAATGAAGAAGAGACAGC
 TGGCTGTCCGCTTTATTTTATTGATAAGCTGGCACTGCGGACAGGCAATGAGAAGGAAGAGGGCGAGAC
 GGCCGACACCGTGGGCTGCTGCTCGCTCCGTGTGGAGCACATCCGACTGCACGCGCCCGCAGGTGGCCAG
 GAGCACGTTGTAGAGCTGACTTCTTGGGAAAGGATCCATCCGCTATAAGAACCACGTGACGGTGGAGA
 AGCTCGTGTCCAGAACCTTCAGCACTTCATGGAAGACAAGGACCCTAGGGATGACCTCTTGTATGCAT
 GACCACTTCCAGCCTGAACAAGCACTTGCAGGACTTGATGGAAGGGCTGACAGCCAAGGTGTTCCGACC
 TACAATGCCTCTGCACTCTGCAGGAGCAGCTGCGGGTGTGACCCGTGCGGAAGACAGCGTAACTGCA
 AAGTCTTAGCTTACAACCGGGCGAACCGGGCTGTGGCAGTCTCTGTAACCATCAGAGAGCAGTCCCAA
 GACCTTCGAGAAGTCGATGCAGACACTTCAAAAAAGATTGAGACAAAGAAGGCACAGGTGGCTGAGGCA
 CAGGTAGAGCTGCAGAAAGCAGAGACTGACCTGAGAATGAGAGGGGACAGCAAACCCAAAAGTTTCTTC
 AGAAGCAGCGACGATTGTTAAAGCTGGAAGAAGCTGGCCCGATTGTGCGCGAAGGCCACAGACAAGGA
 GGAGAATAAGCAGGTGGCCCTGGGCACCGCAAGCTCAACTATCTGGACCCAGGATCAGCATCGCTGG
 TGTAAGAGATTTGGAGTGCCTGTGGAGAAGATCTACAACAAGACCAGAGAGAGAGGTTTGCCTGGCCCT
 TCAACCAGGCAGGTGAAGACTTTGAATCTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_028404
- Insert Size:** 1782 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_028404.2](#), [NP_082680.1](#)

RefSeq Size: 2011 bp

RefSeq ORF: 1782 bp

Locus ID: 72960

UniProt ID: [Q8R4U6](#)

Cytogenetics: 15 D3

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]