

Product datasheet for **MC221438**

Top1 (NM_009408) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Top1 (NM_009408) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Top1
Synonyms:	A1467334; D130064I21Rik; Top-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC221438 representing NM_009408
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCGGGGACCATCTCCACAACGATTCCAGATCGAAGCGGATTTCCGATTGAATGATTCTCACAAAC
 ACAAGATAAACACAAAGATCGAGAACACCGGCATAAGGAGCACAGAAGGATAAGGATAAGGACCGGGA
 AAAGTCTAAGCATAGCAACAGTGAACATAAAGATTCTGAAAAGAAAACACAAAGAGAAAAGAAAAACAAA
 CACAAAGATGGCAGCTCAGAAAAACATAAAGACAAACATAAAGACAGAGACAAGGAAAGACGAAAGGAGG
 AAAAGATTAGAGCTGCTGGGGATGCAAAAATAAAGAAGGAAAAGGAAAATGGCTTCTCTAGTCCGCCACG
 AATTAAGATGAACCTGAGGATGATGGCTATTTTGCTCTCCAAAAGAGGATATTAAGCCATTGAAGAGG
 CTTGAGATGAAGATGATGCTGATTATAAACCTAAGAAAATTAAGACAGAAGATATCAAGAAGGAGAAGA
 AAAGAAAATCAGAAGAGGAAGAGGATGGTAAACTTAAAAAGCCCAAGAATAAAGATAAAGATAAAAAAGT
 TGCTGAGCCAGATAATAAGAAAAAGAAGCCGAAAAGGAAGGAAACAGAAGTGGAAATGGTGGGAAGAA
 GAACGTTATCCAGAAGGCATCAAATGAAAATTCCTAGAGCATAAAAGGGCCTGTCTTCGCTCCACCATATG
 AGCCTCTGCCAGAGAGTGTCAAGTTTTACTATGATGGTAAAGTTATGAAGCTGAGTCCTAAAGCAGAAGA
 AGTAGCTACATTTTGGCAAAAATGCTTGACCAGCAATATACTACTAAGGAAATATTCAGGAAAAATTTT
 TTTAAAGATTGGAGAAAGGAAATGACTAATGACGAAAAAATACGATTACCAACCTAAGCAATGCGACT
 TTACACAGATGAGCCAGTATTTCAAAGCGCAGTCAGAAGCTCGGAAACAGATGAGCAAGGAAGAAAAATT
 GAAAATCAAAGAAGAAAATGAAAAGTTATTGAAAGAATACGGCTTTTGTGAATGGATAATCATAGAGAG
 CGGATTGCCAACTTCAAGATAGAGCCTCCGGGGCTTTTCCGAGGCCGAGGGAACCAACCCCAAGATGGTA
 TGCTGAAGAGAAGGATCATGCCTGAGGACATCATCAACTGTAGCAAAGACGCAAAGGTTCTCTCTCC
 CCCTCCTGGACATAAATGGAAGGAAGTCCGACATGATAACAAGGTTACTTGGCTGGTCTCCTGGACAGAG
 AATATCCAAGGTTCTATCAAATATATCATGCTGAATCCCAGTTCACGAATCAAGGGTGAGAAAGACTGGC
 AGAAGTATGAGACTGCGCGCGTCTGAAGAAGTGTGTGGACAAGATCCGAAATCAGTATCGGGAAGACTG
 GAAGTCCAAGAGATGAAAGTTCGTCAGAGAGCTGTAGCACTGTACTTCATTGATAAGCTTGCTCTGAGA
 GCAGGCAATGAGAAGGAAGAAGGAGAGACGGCAGACACTGTGGGTGCTGTTCACTTAGAGTGGAAACACA
 TCAATTTACACCCAGAATTGGATGGTCAAGGATATGTGGTGAATTTGACTTTCTGGGAAGGACTCAAT
 CAGATACTATAACAAAGTCCCAGTTGAGAAACGAGTTTTTAAAAACTTACAAGTGTATGGAGAACAAG
 CAGCCTGAGGACGATCTTTTGTGATCGACTTAATACTGGTATTCTAAATAAACATCTTCAGGATCTCATGG
 AGGGCTTGACTGCCAAGGTGTTCCGTACCTACAATGCCTCCATCACACTACAGCAGCAGCTTAAAGAGCT
 CACAGCCCTGATGAGAATGTACCAGCGAAGATTCTATCTTATAACCGTGCCAATCGAGCTGTTGCAATT
 CTTTGTAAACCACCAGAGGGCGCCACAAAGACCTTTGAGAAGTCAATGATGAACCTGCAGTCAAGATTG
 ATGCCAAGAAAGATCAGTTAGCAGATGCTCGAAGGGACCTGAAAAGTGCTAAGGCTGATGCCAAAGTCAT
 GAAGGATGCAAAGACCAAGAAGGTAGTAGAGTCAAAAAGAAAGGCTGTACAGAGACTAGAAGAGCAGTTG
 ATGAAGCTGGAAGTTCAAGCCACAGATCGAGAGGAGAACAACAATGCCTTGGGGACCTCAAACCTCA
 ATATCTGGACCCTAGGATCACAGTGGCTTGGTGCAAAAAGTGGGGGTCCCAATTGAGAAGATTTACAA
 CAAAACCCAGAGGAGAAGTTTGGTGGCCATTGATATGACTGATGAGGACTACGAGTTT**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_009408
Insert Size: 2304 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:	<ol style="list-style-type: none">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_009408.2 , NP_033434.2
RefSeq Size:	3859 bp
RefSeq ORF:	2304 bp
Locus ID:	21969
UniProt ID:	Q04750
Cytogenetics:	2 80.96 cM
Gene Summary:	<p>Releases the supercoiling and torsional tension of DNA introduced during the DNA replication and transcription 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. Regulates the alternative splicing of tissue factor (F3) pre-mRNA in endothelial cells. Involved in the circadian transcription of the core circadian clock component ARNTL/BMAL1 by altering the chromatin structure around the ROR response elements (ROREs) on the ARNTL/BMAL1 promoter.[UniProtKB/Swiss-Prot Function]</p>