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Product datasheet for RC208637

TOP1MT (NM_052963) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TOP1MT (NM_052963) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TOP1MT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>RC208637 representing NM_052963
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCGCGTGGTGCGGCTGCTGCGGCTCCGGGCGGCTCTGACGCTGCTCGGGGAGGTCCCCCGCCGCCCGG
CCTCCCGGGGTGTCCCGGGCTCGCGCAGGACGCAGAAGGGCAGTGGAGCCAGGTGGGAGAAGGAGAAGCA
CGAAGACGGGGTGAAGTGGAGACAGCTGGAGCACAAGGGCCCGTACTTCGCACCCCCATACGAGCCCCTT
CCCGACGGAGTGCGTTTCTTCTATGAAGGAAGGCCTGTGAGATTGAGCGTGGCAGCGGAGGAGGTCGCCA
CTTTTTATGGGAGGATGTTAGATCATGAATACACAACAAAGGAGGTTTTCCGGAAGAACTTCTTCAATGA
CTGGCGAAAGGAAATGGCGGTGGAAGAGAGGGAAGTCATCAAGAGCCTGGACAAGTGTGACTTCACGGAG
ATCCACAGATACTTTGTGGACAAGGCCGCAGCCCGGAAAGTCCTGAGCAGGGAGGAGAAGCAGAAGCTAA
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CAACTTCAAGATTGAGCCGCCTGGCTTGTTCCGTGGCCGTGGCGACCATCCCAAGATGGGGATGCTGAAG
AGAAGGATCACGCCAGAGGATGTGGTTATCAACTGCAGCAGGGACTCGAAGATCCCCGAGCCGCCGGCGG
GGCACCAGTGGAAGGAGGTGCGCTCCGATAACACCGTCACGTGGCTGGCAGCTTGGACCGAGAGCGTTCA
GAACTCCATCAAGTACATCATGCTGAACCCTTGCTCGAAGCTGAAGGGGGAGACAGCTTGGCAGAAGTTT
GAAACAGCTCGACGCCTGCGGGGATTTGTGGACGAGATCCGCTCCCAGTACCGGGCTGACTGGAAGTCTC
GGGAAATGAAGACGAGACAGCGGGCGGTGGCCCTGTATTTCATCGATAAGCTGGCACTGAGAGCAGGAAA
TGAGAAGGAGGACGGTGAGGCGGCCGACACCGTGGGCTGCTGTTCCCTCCGCGTGGAGCACGTCCAGCTG
CACCCGGAGGCCGATGGCTGCCAACACGTGGTGGAATTTGACTTCCTGGGGAAGGACTGCATCCGCTACT
ACAACAGAGTGCCGGTGGAGAAGCCGGTGTACAAGAACTTACAGCTCTTTATGGAGAACAAGGACCCCCG
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AAGGAGCAGGTGGCTGAGGCCAGGGCAGAGCTGAGGAGGGCGAGGGCTGAGCACAAAGCCCAAGGGGATG
GCAAGTCCAGGAGTGTCCTGGAGAAGAAGAGGCGGCTCCTGGAGAAGCTGCAGGAGCAGCTGGCGCAGCT
GAGTGTGCAGGCCACGGACAAGGAGGAGAACAAGCAGGTGGCCCTGGGCACGTCCAAGCTCAACTACCTG
GACCCCAGGATCAGCATTGCCTGGTGCAAGCGGTTCAGGGTGCCAGTGGAGAAGATCTACAGCAAAACAC
AGCGGGAGAGGTTCGCCTGGGCTCTCGCCATGGCAGGAGAAGACTTTGAATTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208637 representing NM_052963
Red=Cloning site Green=Tags(s)

MRVVRLLRLRAALTLLGEVPRRPASRGVPGSRRTQKGSGARWEKEKHEDGVKWRQLEHKGPYFAPPYEPL
PDGVRFFYEGRPVRLSVAAEEVATFYGRMLDHEYTTKEVFRKNFFNDWRKEMAVEEREVIKSLDKCDFTE
IHRYFVDKAAARKVLSREEKQKLKEEAEKLQQEFGYCILDGHQEKIGNFKIEPPGLFRGRGDHPKMGMLK
RRITPEDVVINCSRDSKIPEPPAGHQWKEVRSDNTVTWLAAWTESVQNSIKYIMLNPCSKLKGETAWQKF
ETARRLRGFVDEIRSQYRADWKSREMKTRQRAVALYFIDKLALRAGNEKEDGEAADTVGCCSLRVEHVQL
HPEADGCQHVVEFDFLGKDCIRYYNRVPVEKPVYKNLQLFMENKDPRDDLFDRLTTTSLNKHLQELMDGL
TAKVFRTYNASITLQEQLRALTRAEDSIAAKILSYNRANRVVAILCNHQRATPSTFEKSMQNLQTKIQAK
KEQVAEARAELRRARAEHKAQGDGKSRSVLEKKRRLLEKLQEQLAQLSVQATDKEENKQVALGTSKLNYL
DPRISIAWCKRFRVPVEKIYSKTQRERFAWALAMAGEDFEF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8113_h04.zip

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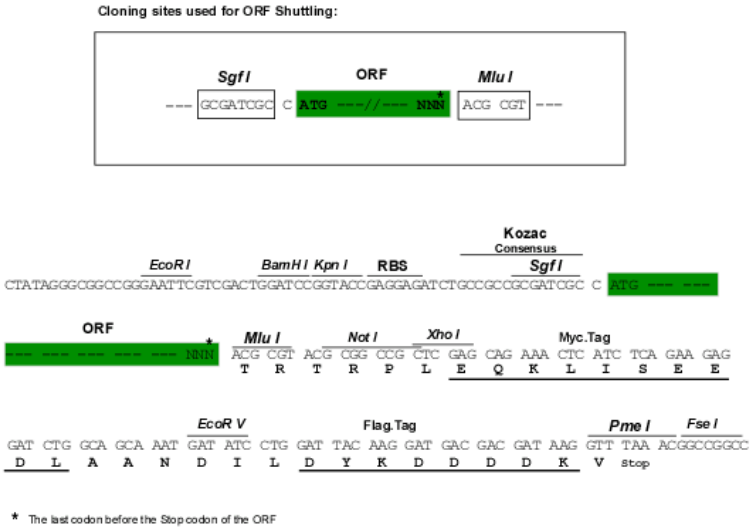
Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_052963

ORF Size: 1803 bp

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.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_052963.3

RefSeq Size: 1953 bp

RefSeq ORF: 1806 bp

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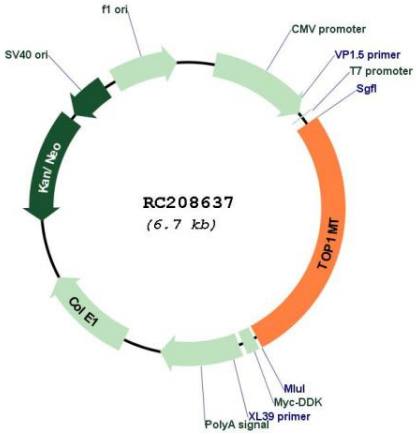
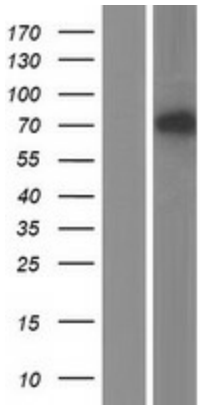
Locus ID:	116447
UniProt ID:	Q969P6
Cytogenetics:	8q24.3
Protein Families:	Druggable Genome
MW:	69.9 kDa
Gene Summary:	This gene encodes a mitochondrial DNA topoisomerase that plays a role in the modification of DNA topology. The encoded protein is a type IB topoisomerase and catalyzes the transient breaking and rejoining of DNA to relieve tension and DNA supercoiling generated in the mitochondrial genome during replication and transcription. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, May 2012]

Product images:



Circular map for RC208637



Western blot validation of overexpression lysate (Cat# [LY409364]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208637 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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