

## Product datasheet for **RC234306**

### TOP1MT (NM\_001258447) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TOP1MT (NM_001258447) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TOP1MT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC234306 representing NM\_001258447  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTTAGATCATGAATACACAACAAAGGAGTTTTCCGGAAGAACTTCTCAATGACTGGCGAAAGGAAA  
 TGGCGGTGGAAGAGAGGGAAGTCATCAAGAGCCTGGACAAGTGTGACTTCACGGAGATCCACAGATACTT  
 TGTGGACAAGGCCGAGCCCGGAAAGTCTGAGCAGGGAGGAGAAGCAGAAGCTAAAAGAAGAGGCAGAA  
 AAACCTCAGCAAGAGTTCGGCTACTGTATTTAGATGGTCACCAAGAAAAATAGGCAACTTCAAGATTG  
 AGCCGCTGGCTTGTTCGTGGCCGTGGCGACCATCCAAGATGGGGATGCTGAAGAGAAGGATCACGCC  
 AGAGGATGTGGTTATCAACTGCAGCAGGGACTCGAAGATCCCCGAGCCGCGGGGGCCACCAGTGGAA  
 GAGGTGCGCTCCGATAACACCGTCACGTGGCTGGCAGCTTGGACCGAGAGCGTTCAGAACTCCATCAAGT  
 ACATCATGCTGAACCCTTGCTCGAAGCTGAAGGGGAGACAGCTTGGCAGAAGTTTGAACAGCTCGACG  
 CCTGCGGGGATTTGTGGACGAGATCCGCTCCCAGTACCGGGCTGACTGGAAGTCTCGGGAATGAAGACG  
 AGACAGCGGGCGGTGGCCCTGTATTTATCGATAAGCTGGCACTGAGAGCAGGAAATGAGAAGGAGGACG  
 GTGAGGCGGCCGACACCGTGGGCTGCTGTTCCCTCCGCGTGGAGCACGTCCAGCTGCACCCGGAGGCCGA  
 TGGCTGCCAACACGTGGTGAATTTGACTTCTGGGGAAGGACTGCATCCGCTACTACAACAGAGTGCCG  
 GTGGAGAAGCCGGTGTACAAGAATTACAGCTCTTTATGGAGAACAAGGACCCCGGGACGACCTCTTCG  
 ACAGGCTGACCACGACCAGCCTGAACAAGCACCTCCAGGAGCTGATGGACGGGCTGACGGCCAAGGTGTT  
 CCGGACCTACAACGCCTCCATCACTCTGCAGGAGCAGCTGCGGGCCCTGACGCGCGCCGAGGACAGCATA  
 GCAGTAAAGTCTTATCTACAACCGAGCAACCGAGTCTGCCATTCTCTGCAACCATCAGCGAGCAA  
 CCCCCAGTACGTTGAGAAGTCGATGCAGAATCTCCAGACGAAGATCCAGGCAAGAAGGAGCAGGTGGC  
 TGAGGCCAGGGCAGAGCTGAGGAGGGCGAGGGCTGAGCACAAAGCCCAAGGGGATGGCAAGTCCAGGAT  
 GTCTGGAGAAGAAGAGGCGGCTCCTGGAGAAGCTGCAGGAGCAGCTGGCGCAGCTGAGTGTGCAGGCCA  
 CGGACAAGGAGGAGAACAAGCAGGTGGCCCTGGGCACGTCCAAGCTCAACTACCTGGACCCAGGATCAG  
 CATTGCCTGGTGAAGCGGTTCCAGGTGCCAGTGGAGAAGATCTACAGCAAAACACAGCGGGAGAGGTTCC  
 GCCTGGGCTCTCGCCATGGCAGGAGAAGACTTTGAATTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC234306 representing NM\_001258447  
 Red=Cloning site Green=Tags(s)

MLDHEYTTKEVFRKNFFNDWRKEMAVEEREVIKSLDKCDFTEIHRVYVDKAAARKVL SREEKQKLKEEAE  
 KLQQEFGYCI LDGHQEKIGNFKIEPPGLFRGRGDHPKMGMLKRRITPEDVVINCSRDSKIPEPPAGHQWK  
 EVRSNTVTWLAAWTESVQNSIKYIMLNPCSKLKGETAWQKFETARRLRGFVDEIRSQYRADWKSREMKT  
 RQRAVALYFIDKLALRAGNEKEDGEAADTVGCCSLRVEHVQLHPEADGCQHVVDFDLGKDCIRYVNRVP  
 VEKPVYKNLQLFMENKDPDDLDFRLTTTSLNKHLLQELMDGLTAKVFRTYNASITLQELRALTRAEDSI  
 AAKILSYNRANRVVAILCNHQRATPSTFEKSMQNLQTKIQAKKEQVAEARAELRRARAETHKAQGDGKRSR  
 VLEKRRLLLEKLQQLAQLSVQATDKEENKQVALGTSKLNLYLDPRI SI AWCKRFRVPEKIYSKTQRERF  
 AWALAMAGEDFEF

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001258447

**ORF Size:** 1509 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.

**RefSeq:** [NM\\_001258447.1](#), [NP\\_001245376.1](#)
**RefSeq Size:** 1904 bp

**RefSeq ORF:** 1512 bp

**Locus ID:** 116447

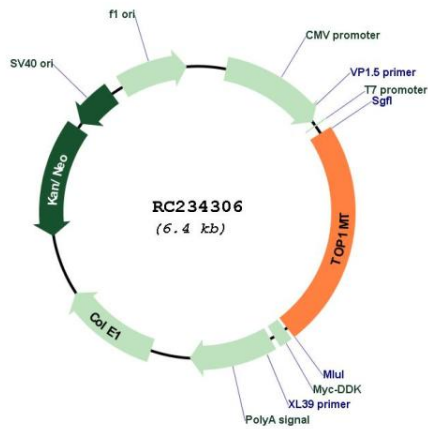
**UniProt ID:** [Q969P6](#)
**Cytogenetics:** 8q24.3

**Protein Families:** Druggable Genome

**MW:** 59.1 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 RC234306