

Product datasheet for **RG215658**

Topoisomerase I (TOP1) (NM_003286) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Topoisomerase I (TOP1) (NM_003286) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Topoisomerase I
Synonyms:	TOPI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG215658 representing NM_003286
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGTGGGGACCACCTCCACAACGATTCCAGATCGAAGCGGATTTCCGATTGAATGATTCTCATAAAC
 ACAAGATAAACACAAAGATCGAGAACACCGGCACAAAGAACACAAAGAAGGAGAAGGACCGGAAAAGTC
 CAAGCATAGCAACAGTGAACATAAAGATTCTGAAAAGAAACACAAAGAGAAGGAGAAGACCAAACACAAA
 GATGGAAGCTCAGAAAAGCATAAAGACAAAATAAAGACAGAGACAAGGAAAAACGAAAAGAGGAAAAGG
 TTCGAGCCTCTGGGGATGCAAAAATAAAGAAGGAGAAGGAAAAATGGCTTCTCTAGTCCACCACAAATTA
 AGATGAACCTGAAGATGATGGCTATTTTGTTCCTCTAAAGAGGATATAAAGCCATTAAGAGACCTCGA
 GATGAGGATGATGCTGATTATAACCTAAGAAAATTAACACAGAAGATACCAAGAAGGAGAAGAAAAGAA
 AACTAGAAGAAGAAGAGGATGGTAAATTGAAAAACCAAGAATAAGATAAAGATAAAAAAGTTCTCTGA
 GCCAGATAACAAGAAAAAGAAGCCGAAGAAAGAAGAGGAACAGAAGTGGAAATGGTGGGAAGAAGAGCGC
 TATCCTGAAGGCATCAAGTGGAAATTCCTAGAACATAAAGGTCCAGTATTTGCCCCACCATATGAGCCTC
 TTCCAGAGAATGTCAAGTTTTATTATGATGGTAAAGTCATGAAGCTGAGCCCAAAGCAGAGGAAGTAGC
 TACGTTCTTTGCAAAAATGCTCGACCATGAATATACTACCAAGGAAATATTTAGGAAAAATTTCTTTAAA
 GACTGGAGAAAGGAAATGACTAATGAAGAGAAGAATATTATCACCAACCTAAGCAATGTGATTTTACCC
 AGATGAGCCAGTATTTCAAAGCCAGACGGAAGCTCGGAAACAGATGAGCAAGGAAGAGAAAAGTAAAAAT
 CAAAGAGGAGAATGAAAAATTAAGAAAGATATGGATTCTGTATTATGGATAACCAAAAGAGAGGATT
 GCTAACTCAAGATAGACCTCCTGGACTTTCCGTGGCCGCGCAACCACCCCAAGATGGGCATGCTGA
 AGAGACGAATCATGCCCGAGGATATAATCATCACTGTAGCAAAGATGCCAAGTTCTCTCTCCTCTC
 AGGACATAAGTGGAAAGAAGTCCGGCATATAACAAGTTACTTGGCTGGTTTCTGGACAGAGAACATC
 CAAGGTTCCATTAATACATCATGCTTAACCCTAGTTCACGAATCAAGGGTGAGAAGGACTGGCAGAAAT
 ACGAGACTGCTCGGCGGCTGAAAAATGTGTGGACAAGATCCGGAACCAGTATCGAGAAGACTGGAAGTC
 CAAAGAGATGAAAGTCCGGCAGAGAGCTGTAGCCCTGTACTTCATCGACAAGCTTGCTCTGAGAGCAGGC
 AATGAAAAGGAGGAAGGAGAAACAGCGGACACTGTGGCTGTGCTCACTTCGTGTGGAGCACATCAATC
 TACACCCAGAGTTGGATGGTCAGGAATATGTGGTAGAGTTTGACTTCTCGGGAAGGACTCCATCAGATA
 CTATAACAAGTCCCTGTTGAGAAACGAGTTTTTAAGAACCTACAACATTTATGGAGAACAAGCAGCCC
 GAGGATGATCTTTTTGATAGACTCAATACTGGTATTCTGAATAAGCATCTTCAGGATCTCATGGAGGGCT
 TGACAGCCAAGGTATTCCGTACATACAATGCCTCCATCACGCTACAGCAGCAGCTAAAAGAACTGACAGC
 CCCGGATGAGAACATCCCAGCGAAGATCCTTTCTATAACCGTGCCAATCGAGCTGTTGCAATCTTTGT
 AACCATCAGAGGGCACCACAAAACCTTTTGAAGTCTATGATGAACTGCAAACCTAAGATTGATGCCA
 AGAAGGAACAGCTAGCAGATGCCCGGAGAGACCTGAAAAGTGCTAAGGCTGATGCCAAGGTCATGAAGGA
 TGCAAAGACGAAGAAGGTAGTAGAGTCAAAGAAGAAGGCTGTTCCAGAGACTGGAGGAACAGTTGATGAAG
 CTGGAAGTTCAAGCCACAGACCGAGAGGAAAATAAACAGATTGCCCTGGGAACCTCCAACTCAATTATC
 TGGACCTAGGATCACAGTGGCTTGGTGAAGAAGTGGGGTGTCCAATTGAGAAGATTTACAACAAAAC
 CCAGCGGAGAAGTTTGCCTGGCCATTGACATGGCTGATGAAGACTATGAGTTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG215658 representing NM_003286
 Red=Cloning site Green=Tags(s)

MSGDHLHNSQIEADFRLNDSHKHKDKHKDREHRHKEHKKEKDREKSKHSNSEHKDSEKKHKEKEKTKHK
 DGSSEKHKDKHKDRDKEKRKEEKVRASGDAIKKEKENGFSPPQIKDEPEDDGYFVPPKEDIKPLKRPR
 DEDDADYKPKKIKTEDTKKEKRRKLEEEEDGKLKPKNKDKDKKVPEDNKKKKPKKEEQKWKWWEER
 YPEGIKWKFLHKGPFVAPPYEPLPENVKFYDYGKVMKLSPKAAEVATFFAKMLDHEYTTKEIFRKNFFI
 DWRKEMTNEEKNIITNLSKCDFTQMSQYFKAQTEARKQMSKEEKLKIKEENEKLLKEYGFCIMDNHKERI
 ANFKIEPPGLFRGRGNHPKMGLKRRIMPEDIIINCSKDAKVPSPPPGHKWEVRHDNKVTWLVSWTENI
 QGSIKYIMLNPSSRIKGEKDWQKYETARRLKCKVDKIRNQYREDWKSKEMKVRQRAVALYFIDKLALRAG
 NEKEEGEATDVGCCSLRVEHINLHPELDGQEYVVEFDLKGDSIRYYNKVPVEKRVFKNLQLFMENKQP
 EDDLFDRLNTGILNHLQDLMEGLTAKVFRTYNASITLQQQLKELTAPDENIPAKILSYNRRANRAVAILC
 NHQRAPPKTFEKSMMNLQTKIDAKKEQLADARRDLKSAKADAKVMKDAKTKKVVESKKAQVORLEEQMLK
 LEVQATDREENKQIALGTSKLNYLDPRITVAWCKKWGVP IEKIYNKTQREKFAWAIDMADEYEF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM_003286

ORF Size: 2295 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_003286.4](#)

RefSeq Size: 3734 bp

RefSeq ORF: 2298 bp

Locus ID: 7150

UniProt ID: [P11387](#)

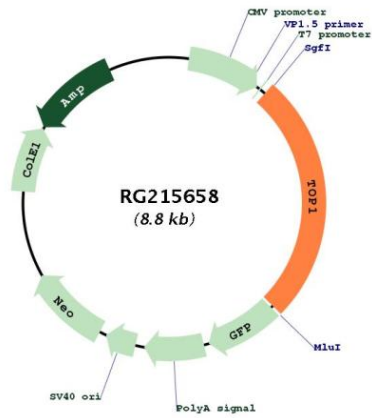
Cytogenetics: 20q12

Domains: TOPEUc

Protein Families: Druggable Genome

Gene Summary: This gene encodes a DNA topoisomerase, an enzyme that controls and alters the topologic states of DNA during transcription. This enzyme catalyzes the transient breaking and rejoining of a single strand of DNA which allows the strands to pass through one another, thus altering the topology of DNA. This gene is localized to chromosome 20 and has pseudogenes which reside on chromosomes 1 and 22. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG215658