TOP1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	TOP1, Polyclonal Antibody
Full Product Name	TOP1 Antibody, Biotin conjugated
Product Gene Name	anti-TOP1 antibody
Product Synonym Names	DNA topoisomerase 1; DNA topoisomerase I; TOP1
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid
Purity/Purification	>95%, Protein G purified
Preparation and Storage	Upon receipt, store at -20 degree C or -80 degree C. Avoid repeated freeze.
Matching Pairs	Unconjugated Antibody: TOP1 (MBS7105921) Biotin Conjugated Antibody: TOP1 (MBS7105924)
Molecular Weight	90,726 Da
OMIM	J03250 mRNA
3D Structure	ModBase 3D Structure for P11387
Immunogen	Recombinant Human DNA topoisomerase 1 protein (358-501AA)
Conjugation	Biotin
Buffer	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, pH 7.4
Product Categories/Family for anti-TOP1 antibody	Epigenetics and Nuclear Signaling; Cancer
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-TOP1 antibody	ELISA (EIA)
Related Product Information for anti-TOP1 antibody	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 (By similarity). 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.
Other Notes	Small volumes of anti-TOP1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for TOP1 purchase	MBS7105924 is an antibody targeting TOP1. Also known as TOP1 Antibody, Biotin conjugated. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TOP1. It may not necessarily be applicable to this product.

NCBI GI #	11225260
NCBI GeneID	7150
NCBI Accession #	NP_003277.1
UniProt Primary Accession #	P11387
UniProt Secondary Accession #	O43256; Q12855; Q12856; Q15610; Q5TFY3; Q9UJN0; A8KA78; E1P5W3
UniProt Related Accession #	P11387
GenBank Nucleotide #	NM_003286.3
NCBI Official Full Name	DNA topoisomerase 1
NCBI Official Synonym Full Names	DNA topoisomerase I
NCBI Official Symbol	TOP1
NCBI Official Synonym Symbols	TOPI
UniProt Protein Name	DNA topoisomerase 1
UniProt Synonym Protein Names	DNA topoisomerase I
Protein Family	DNA topoisomerase
UniProt Gene Name	TOP1
NCBI Protein Information	DNA topoisomerase 1
NCBI Summary for TOP1	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]
UniProt Comments for TOP1	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.
Research Articles on TOP1	**1.** High TOP1 expression is associated with aggressive tumor phenotype in breast cancer.
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