

Rabbit TOP1 Polyclonal Antibody | anti-TOP1 antibody

TOP1 Antibody

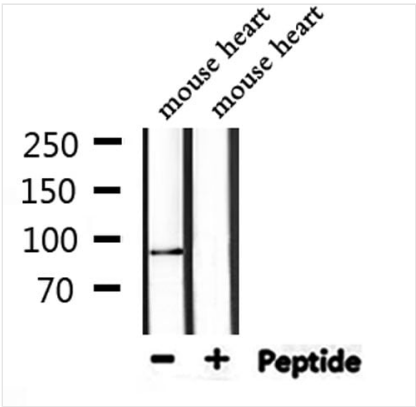
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA325375	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

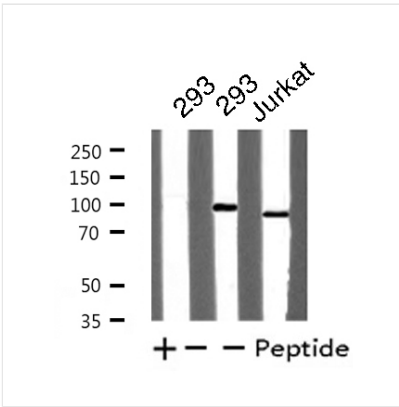
TOP1; Polyclonal Antibody; TOP1 Antibody; DNA topoisomerase 1; DNA topoisomerase I; NUP98 fusion gene; TOP 1; TOP I; TOP1_HUMAN; TOPI; Topoisomerase (DNA) I; Topoisomerase 1; Topoisomerase1; TopoisomeraseI; Type I DNA topoisomerase; anti-TOP1 antibody

PRODUCT SPECIFICATIONS

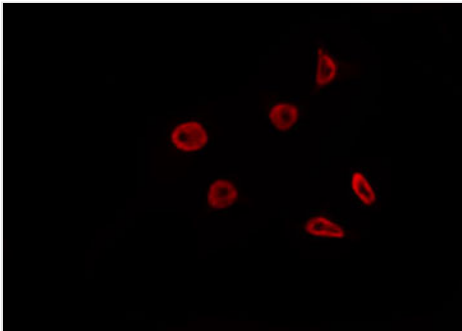
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	TOP1 antibody detects endogenous levels of total TOP1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	765
Applicable Applications for anti-TOP1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide
Subcellular Location	Nucleus > Nucleolus. Nucleus > Nucleoplasm. Diffuse nuclear localization with some enrichment in nucleoli. On CPT treatment, cleared from nucleoli into nucleoplasm. Sumolyated forms found in both nucleoplasm and nucleoli.
Tissue Specificity	Endothelial cells.
Predicted Cross Reactivity	Pig, Zebrafish, Horse, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (91%), Horse (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (91%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)
Western blot analysis of extracts from mouse heart, using TOP1 Antibody.



WB (Western Blot)
Western blot analysis of extracts from Jurkat/293 cells, using TOP1 antibody.



IF (Immunofluorescence)
AAA325375 staining HeLa by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-TOP1 antibody

Function: 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.

Subunit Structure: Monomer. Interacts with SV40 Large T antigen; this interactions allows viral DNA replication.

Post-translational Modifications: Sumoylated. Lys-117 is the main site of sumoylation. Sumoylation plays a role in partitioning TOP1 between nucleoli and nucleoplasm. Levels are dramatically increased on camptothecin (CPT) treatment. Phosphorylation at Ser-506 by CK2 increases binding to supercoiled DNA and sensitivity to camptothecin.

Similarity: Belongs to the type IB topoisomerase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	11225260
NCBI GeneID	7150
NCBI Accession #	NP_003277.1

NCBI GenBank Nucleotide #	NM_003286.3
UniProt Accession #	P11387 ; O43256 ; Q12855 ; Q12856 ; Q15610 ; Q5TFY3 ; Q9UJN0 ; A8KA78 ; E1P5W3
Molecular Weight	Observed: 90 kD Predicted: 91 kDa
NCBI Official Full Name	DNA topoisomerase 1
NCBI Official Synonym Full Names	DNA topoisomerase I
NCBI Official Symbol	TOP1
NCBI Official Synonym Symbols	TOPI
NCBI Protein Information	DNA topoisomerase 1
UniProt Protein Name	DNA topoisomerase 1
UniProt Gene Name	TOP1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/top1-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/325375>