

Product datasheet for **TA385442**

Topoisomerase I (TOP1) Rabbit Monoclonal Antibody [Clone ID: R02-2H9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R02-2H9
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1/2000-1/10000 IHC: 1/20-1/100 ICC/IF: 1/20-1/50
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide of human Topoisomerase I
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 91 kDa; Observed MW: 91 kDa
Gene Name:	topoisomerase (DNA) I
Database Link:	Entrez Gene 7150 Human P11387



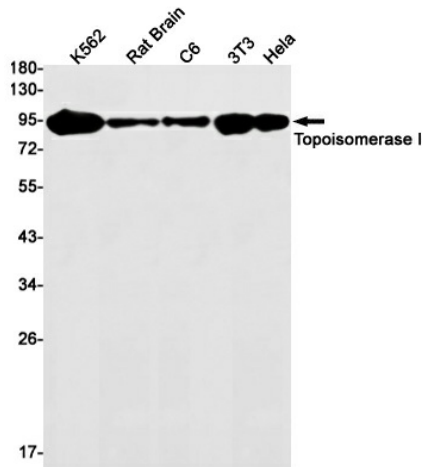
[View online »](#)

Background:

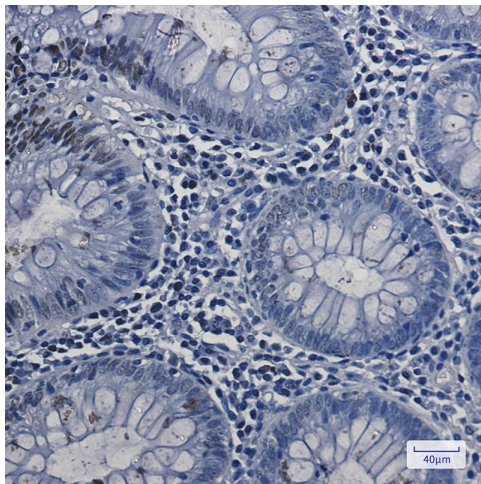
Swiss-Prot Acc.P11387. Releases the supercoiling and torsional tension of DNA introduced during the DNA replication and transcription by transiently cleaving and rejoining one strand of the DNA duplex. Introduces a single-strand break via transesterification at a target site in duplex DNA. The scissile 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.

Synonyms:

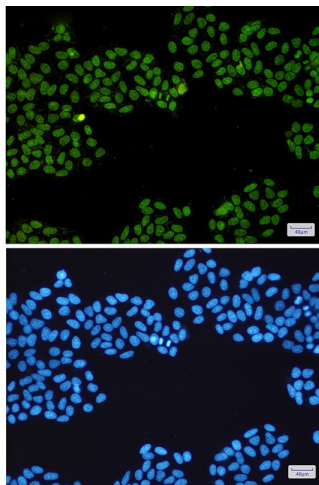
TOPI

Product images:

Western blot analysis of Topoisomerase I in K562, rat Brain, C6, 3T3, HeLa lysates using Topoisomerase I antibody.



Immunohistochemistry analysis of paraffin-embedded Human colon cancer using Topoisomerase I antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



Immunocytochemistry analysis of Topoisomerase I (green) in HeLa using Topoisomerase I antibody, and DAPI (blue)