

Product datasheet for **TA385442S**

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 |



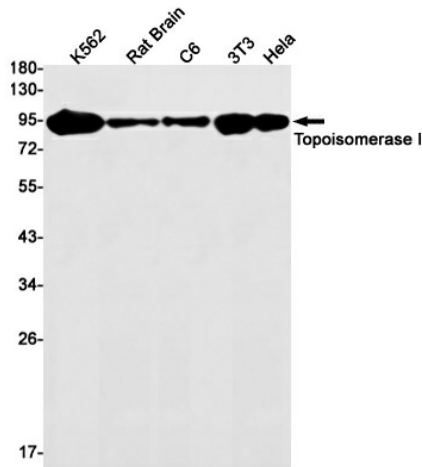
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Background:

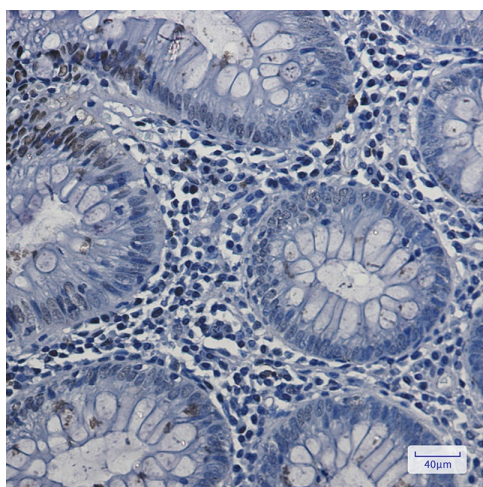
Swiss-Prot Acc.P11387. Releases the supercoiling and torsional tension of DNA introduced during the DNA replication and transcription by transiently cleaving and rejoining one strand of the DNA duplex. Introduces a single-strand break via transesterification at a target site in duplex DNA. The scissile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

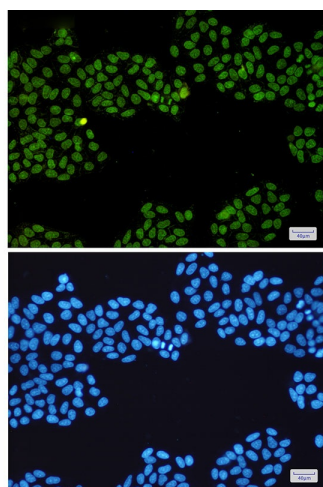
TOPI

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)