

Anti-Topoisomerase 1 Antibody
Rabbit polyclonal antibody to Topoisomerase 1
Catalog # AP61397**Specification**

Anti-Topoisomerase 1 Antibody - Product Information

Application	WB
Primary Accession	P11387
Other Accession	Q04750
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	90726

Anti-Topoisomerase 1 Antibody - Additional Information**Gene ID** 7150**Other Names**

DNA topoisomerase 1; DNA topoisomerase I

Target/Specificity

Recognizes endogenous levels of Topoisomerase 1 protein.

Dilution

WB~~WB (1/500 - 1/1000)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-Topoisomerase 1 Antibody - Protein Information**Name** TOP1**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 BMAL1 by altering the chromatin structure around the ROR response elements (RORs) on the BMAL1 promoter.

Cellular Location

Nucleus, nucleolus. Nucleus, nucleoplasm. Note=Diffuse nuclear localization with some enrichment in nucleoli. On CPT treatment, cleared from nucleoli into nucleoplasm. Sumoylated forms found in both nucleoplasm and nucleoli

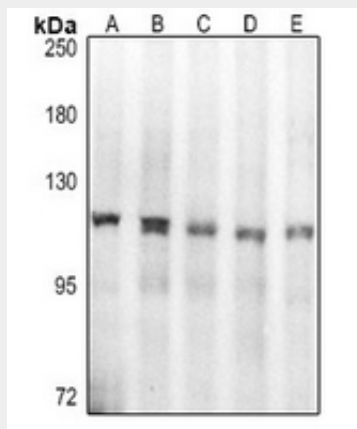
Tissue Location

Endothelial cells..

Anti-Topoisomerase 1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Topoisomerase 1 Antibody - Images

Western blot analysis of Topoisomerase 1 expression in SHSY5Y (A), MCF7 (B), LO2 (C), HepG2 (D), CT26 (E) whole cell lysates.

Anti-Topoisomerase 1 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Topoisomerase 1. The exact sequence is proprietary.