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Anti-Topoisomerase 1 Antibody

Catalog # AP61397

Product Information

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

Additional Information

Gene ID	7150
Other Names	DNA topoisomerase 1; DNA topoisomerase I
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Topoisomerase 1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

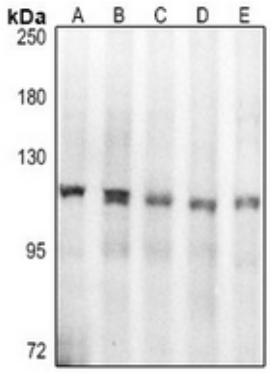
Protein Information

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 (ROREs) 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..

Images



Western blot analysis of Topoisomerase 1 expression in SHSY5Y (A), MCF7 (B), LO2 (C), HepG2 (D), CT26 (E) whole cell lysates. (Predicted band size: 90 kD; Observed band size: 115 kD)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.