

# **TOP1** Antibody

Rabbit mAb Catalog # AP90728

# **Specification**

# **TOP1 Antibody - Product Information**

Application WB, IHC, FC, ICC

Primary Accession P11387
Clonality Monoclonal

**Other Names** 

DNA topoisomerase 1; DNA topoisomerase I; TOP1; TOPI; topoisomerase I; type I DNA

Isotype Rabbit IgG
Host Rabbit
Calculated MW 90726 Da

### **TOP1** Antibody - Additional Information

Dilution WB~~1:1000

IHC~~1:100~500 FC~~1:10~50 ICC~~N/A

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human

TOP1

Description 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.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline,

pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid

freeze / thaw cycle.

### **TOP1 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

#### **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

the chromatin structure around the ROR response elements (ROREs) on the BMAL1 promoter.

**Tissue Location** 

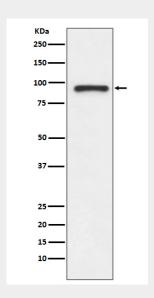
Endothelial cells..

# **TOP1 Antibody - Protocols**

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# **TOP1 Antibody - Images**



Western blot analysis of TOP1 expression in Jurkat cell lysate.