

Topoisomerase 3 beta1 Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP51579

Specification

Topoisomerase 3 beta1 Antibody - Product Information

Application WB, IP, IHC-P, E

Primary Accession <u>095985</u>

Reactivity Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Calculated MW 100 KDa

Topoisomerase 3 beta1 Antibody - Additional Information

Gene ID 8940

Other Names

DNA topoisomerase 3-beta-1, DNA topoisomerase III beta-1, TOP3B, TOP3B1

Target/Specificity

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human Topoisomerase 3 beta1. The exact sequence is proprietary.

Dilution

WB~~1:1000 IP~~N/A IHC-P~~N/A E~~N/A

Format

0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage

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

Topoisomerase 3 beta1 Antibody - Protein Information

Name TOP3B

Synonyms TOP3B1

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-(5'-phosphotyrosyl)- enzyme intermediate and the expulsion of a 3'-OH DNA strand. The free



DNA strand than undergoes passage around the unbroken strand thus removing DNA supercoils. Finally, in the religation step, the DNA 3'-OH attacks the covalent intermediate to expel the active-site tyrosine and restore the DNA phosphodiester backbone (By similarity). Possesses negatively supercoiled DNA relaxing activity.

Tissue Location

Isoform 1 is found in testis, heart and skeletal muscle. A 4 kb transcript which probably represents isoform 2 is found in thymus, kidney and pancreas.

Topoisomerase 3 beta1 Antibody - Protocols

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

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

Topoisomerase 3 beta1 Antibody - Images

Topoisomerase 3 beta1 Antibody - Background

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-(5'-phosphotyrosyl)-enzyme intermediate and the expulsion of a 3'-OH DNA strand. The free DNA strand than undergoes passage around the unbroken strand thus removing DNA supercoils. Finally, in the religation step, the DNA 3'-OH attacks the covalent intermediate to expel the active-site tyrosine and restore the DNA phosphodiester backbone (By similarity). Possesses negatively supercoiled DNA relaxing activity.

Topoisomerase 3 beta1 Antibody - References

Ng S.-W.,et al.Nucleic Acids Res. 27:993-1000(1999). Kawasaki K.,et al.Genome Res. 7:250-261(1997). Hanai R.,et al.Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases. Riou J.F.,et al.Submitted (FEB-1999) to the EMBL/GenBank/DDBJ databases. Collins J.E.,et al.Genome Biol. 5:R84.1-R84.11(2004).