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**Product Name: Topo II $\beta$  Rabbit Polyclonal Antibody****Catalog #: APRab19130**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ICC/IF,ELISA
<b>Reactivity</b>	Human,Mouse
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
<b>Molecular Weight</b>	183kDa

**Antigen Information**

<b>Gene Name</b>	TOP2B
<b>Alternative Names</b>	TOP2B; DNA topoisomerase 2-beta; DNA topoisomerase II; beta isozyme
<b>Gene ID</b>	7155.0
<b>SwissProt ID</b>	Q02880
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human TOP2B. AA range:1-50

**Background**

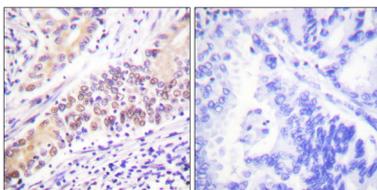
This gene encodes a DNA topoisomerase, an enzyme that controls and alters the topologic states of DNA during transcription.

This nuclear enzyme is involved in processes such as chromosome condensation, chromatid separation, and the relief of torsional stress that occurs during DNA transcription and replication. It catalyzes the transient breaking and rejoining of two strands of duplex DNA which allows the strands to pass through one another, thus altering the topology of DNA. Two forms of this enzyme exist as likely products of a gene duplication event. The gene encoding this form, beta, is localized to chromosome 3 and the alpha form is localized to chromosome 17. The gene encoding this enzyme functions as the target for several anticancer agents and a variety of mutations in this gene have been associated with the development of drug resistance. Reduced activity of this enzyme may also placatalytic activity:ATP-dependent breakage, passage and rejoining of double-stranded DNA.,function:Control of topological states of DNA by transient breakage and subsequent rejoining of DNA strands. Topoisomerase II makes double-strand breaks.,function:Control of topological states of DNA by transient breakage and subsequent rejoining of DNA strands. Topoisomerase II makes double-strand breaks. Indirectly involved in vitamin D-coupled transcription regulation via its association with the WINAC complex, a chromatin-remodeling complex recruited by vitamin D receptor (VDR), which is required for the ligand-bound VDR-mediated transrepression of the CYP27B1 gene.,miscellaneous:Eukaryotic topoisomerase I and II can relax both negative and positive supercoils, whereas prokaryotic enzymes relax only negative supercoils.,PTM:Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:Belongs to the type II topoisomerase family.,subunit:Homodimer.,subunit:Homodimer. Component of the WINAC complex, at least composed of SMARCA2, SMARCA4, SMARCB1, SMARCC1, SMARCC2, SMARCD1, SMARCE1, ACTL6A, BAZ1B/WSTF, ARID1A, SUPT16H, CHAF1A and TOP2B.,

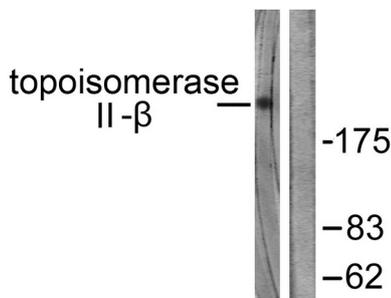
## Research Area

Epigenetics and Nuclear Signaling; Chromosome Structure; Scaffold Proteins; DNA / RNA; DNA Synthesis; Topoisomerases; Cancer; Drug resistance

## Image Data



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma tissue, using TOP2B Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from Jurkat cells, using TOP2B Antibody. The lane on the right is blocked with the synthesized peptide.