Product Name: **Topo IIα Rabbit Polyclonal Antibody**
Catalog #: **APRab19129**
For research use only.

Summary

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

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:10000-1:20000
Molecular Weight	174kDa

Antigen Information

Gene Name	TOP2A
Alternative Names	TOP2A; TOP2; DNA topoisomerase 2-alpha; DNA topoisomerase II; alpha isozyme
Gene ID	7153.0
SwissProt ID	P11388
Immunogen	The antiserum was produced against synthesized peptide derived from human TOP2A. AA range:1-50

Background

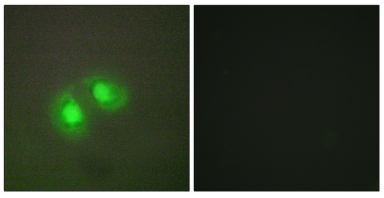
This gene encodes a DNA topoisomerase, an enzyme that controls and alters the topologic states of DNA during transcription.

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, alpha, is localized to chromosome 17 and the beta gene is localized to chromosome 3. 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.,enzyme regulation:Specifically inhibited by the intercalating agent amsacrine.,function:Control of topological states of DNA by transient breakage and subsequent rejoining of DNA strands. Topoisomerase II makes double-strand breaks.,miscellaneous:Eukaryotic topoisomerase I and II can relax both negative and positive supercoils, whereas prokaryotic enzymes relax only negative supercoils.,PTM:Phosphorylation has no effect on catalytic activity.,similarity:Belongs to the type II topoisomerase family.,subcellular location:Generally located in the nucleoplasm.,subunit:Homodimer. Interacts with COPS5.,

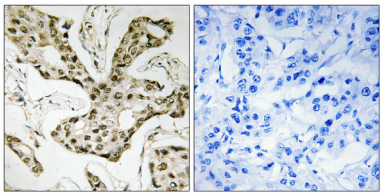
Research Area

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

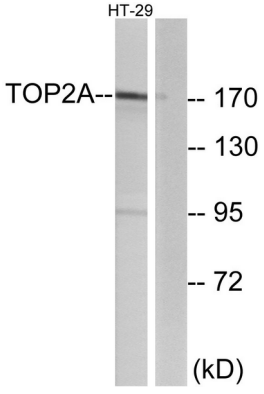
Image Data



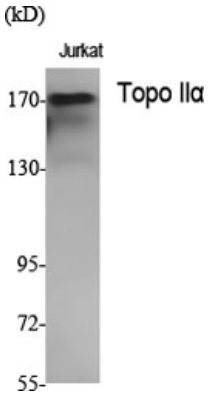
Immunofluorescence analysis of A549 cells, using TOP2A Antibody. The picture on the right is blocked with the synthesized peptide.



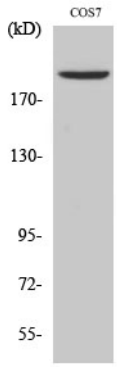
Immunohistochemistry analysis of paraffin-embedded human liver carcinoma tissue, using TOP2A Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from HT-29 cells, using TOP2A Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using Topo IIα Polyclonal Antibody diluted at 1：1000. Secondary antibody was diluted at 1:20000



Western Blot analysis of 293 cells using Topo IIα Polyclonal Antibody diluted at 1：1000. Secondary antibody was diluted at 1:20000