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**Product Name: Topo II $\alpha$  (phospho Thr1343) Rabbit Polyclonal Antibody****Catalog #: APRab05569**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,ELISA
<b>Reactivity</b>	Human,Rat,Mouse
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Phosphorylated
<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,ELISA 1:5000-1:10000
<b>Molecular Weight</b>	190kDa

**Antigen Information**

<b>Gene Name</b>	TOP2A
<b>Alternative Names</b>	TOP2A; TOP2; DNA topoisomerase 2-alpha; DNA topoisomerase II; alpha isozyme
<b>Gene ID</b>	7153.0
<b>SwissProt ID</b>	P11388
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human TOP2A around the phosphorylation site of Thr1343. AA range:1311-1360

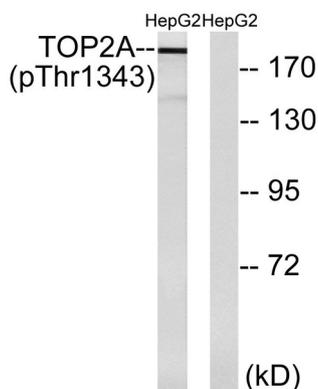
**Background**

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

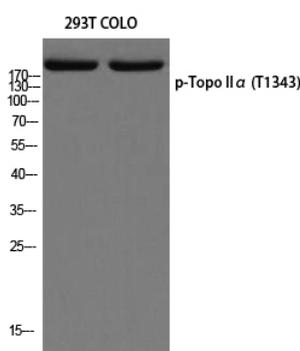
This nuclear enzyme is involved in processes such as chromosome condensation, chromatid separation, and the relief of torsional stress that occurs during DNA transcription and replication. It catalyzes the transient breaking and rejoining of two strands of duplex DNA which allows the strands to pass 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

## Image Data



Western blot analysis of lysates from HepG2 cells treated with Ca<sup>2+</sup> 40nM 30', using TOP2A (Phospho-Thr1343) Antibody. The lane on the right is blocked with the phospho peptide.



Western blot analysis of 293T COLO using p-Topo II $\alpha$  (T1343) antibody. Antibody was diluted at 1:2000