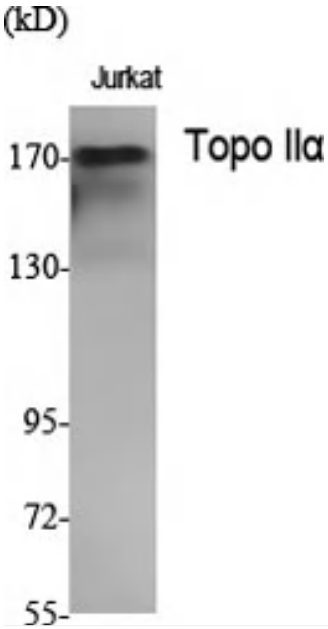
Topo IIα Polyclonal Antibody

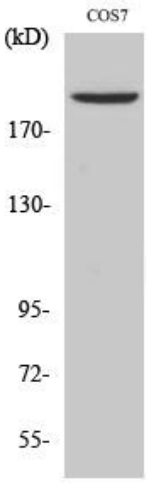
Catalog No	YP-Ab-02125
Isotype	IgG
Reactivity	Human;Monkey
Applications	WB;IHC;IF;ELISA
Gene Name	TOP2A
Protein Name	DNA topoisomerase 2-alpha
Immunogen	The antiserum was produced against synthesized peptide derived from human TOP2A. AA range:1-50
Specificity	Topo IIα Polyclonal Antibody detects endogenous levels of Topo IIα protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	TOP2A; TOP2; DNA topoisomerase 2-alpha; DNA topoisomerase II; alpha isozyme
Observed Band	174kD
Cell Pathway	Cytoplasm . Nucleus, nucleoplasm . Nucleus . Nucleus, nucleolus .
Tissue Specificity	Expressed in the tonsil, spleen, lymph node, thymus, skin, pancreas, testis, colon, kidney, liver, brain and lung (PubMed:9155056). Also found in high-grade lymphomas, squamous cell lung tumors and seminomas (PubMed:9155056).
Function	catalytic 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.,

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 pla
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

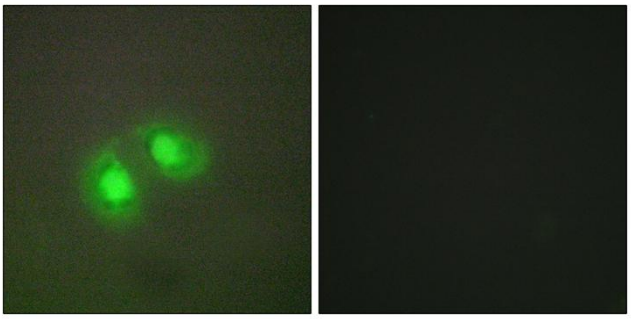
Products Images



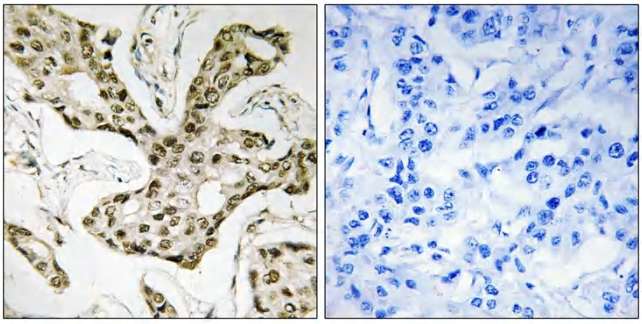
Western Blot analysis of various cells using Topo IIα Polyclonal Antibody diluted at 1:1000. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



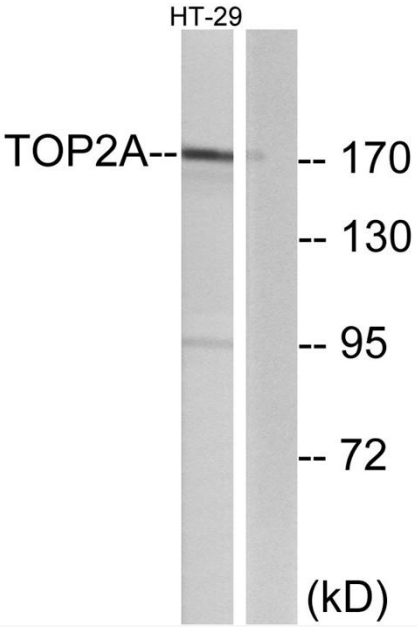
Western Blot analysis of 293 cells using Topo IIα Polyclonal Antibody diluted at 1:1000. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



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.