

Product datasheet for **AP01227PU-M**

Topoisomerase II alpha (TOP2A) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Western blot: 1/500-1/1000. Immunohistochemistry on paraffin sections 1/50-1/200.
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 1071-1220 of Human Topo II α .
Specificity:	This antibody detects endogenous levels of Topo IIalpha protein (region surrounding Glu1102).
Formulation:	Phosphate buffered saline (PBS), pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE). Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen.
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Predicted Protein Size:	~174 kDa
Gene Name:	topoisomerase (DNA) II alpha
Database Link:	<u>Entrez Gene 7153 Human P11388</u>



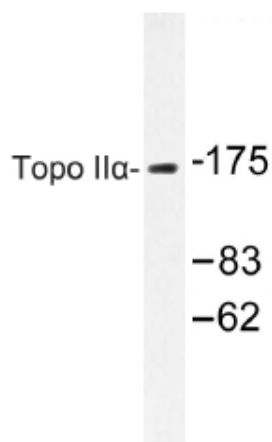
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Background:

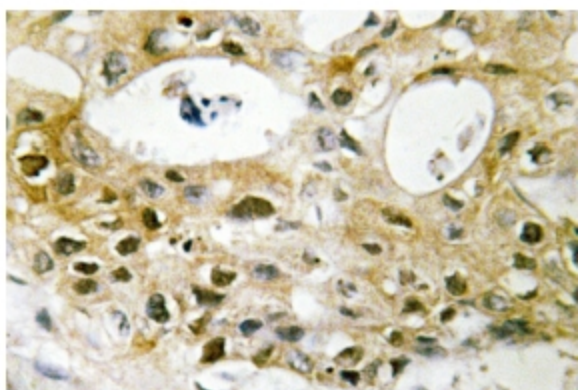
DNA topoisomerase I and II (Topo I and Topo II) are nuclear enzymes that regulate the topological structure of DNA in eukaryotic cells by transiently breaking and rejoining DNA strands. Eukaryotic topoisomerases are capable of relaxing both positive and negative supercoils, whereas prokaryotic topoisomerases relax only negative supercoils. DNA topoisomerases play a role in DNA replication, recombination, and transcription and have been identified as targets of numerous anticancer drugs. Topo I, a ubiquitously expressed, soluble enzyme, acts by introducing a transient break in one strand of DNA, while Topo II acts by making a transient double-strand break. Topo II is encoded by two different genes to generate two distinct isoforms that are designated Topo IIalpha and Topo IIbeta. The 180 kDa isoform, Topo IIbeta, and the 170 kDa isoform, Topo IIalpha, are largely homologous at their N-terminal three quarters, however, the C-terminal segments are considerably divergent, suggesting that these regions may mediate different cellular functions and account for the observed differential tissue expression patterns of the two isoforms.

Synonyms:

TOP2, Top-2, DNA topoisomerase 2-alpha, DNA topoisomerase II alpha isozyme

Product images:


Western blot (WB) analysis of Topo IIalpha antibody in extracts from LOVO cells.



Immunohistochemistry (IHC) analyzes of Topo IIalpha antibody in paraffin-embedded human breast carcinoma tissue.