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Rabbit Anti-TOP2A/Cy5 Conjugated antibody

SL1920R-Cy5

Product Name	Anti-TOP2A/Cy5
Chinese Name	Cy5 标记的 DNA 拓普西异构酶IIA 抗体
Alias	Topoisomerase IIalpha; DNA topoisomerase II, alpha isozyme; DNA topoisomerase 2 alpha; DNA topoisomerase II 170 kD; DNA Topoisomerase2; TOP2; TOP2A; TopII alpha; Topo II alpha; Topoisomerase DNA II alpha 170kDa; Topoisomerase II alpha 170 kDa; TP2A; TPIIA; TOP2A_HUMAN; Topo IIα; Topo-IIα.
Research Area	Tumour Chromatin and nuclear signals Signal transduction transcriptional regulatory factor
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Rat(predicted:Human,Mouse,Chicken,Dog,Pig,Cow,Horse,Rabbit)
Applications	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	174kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human TOP2 alpha
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**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 play a role in ataxia-telangiectasia. [provided by RefSeq, Jul 2010].

Function:
Control of topological states of DNA by transient breakage and subsequent rejoining of DNA strands. Topoisomerase II makes double-strand breaks.

Subunit:
Homodimer. Interacts with COPS5.

Subcellular Location:
Cytoplasm. Nucleus, nucleoplasm. Note=Generally located in the nucleoplasm.

Post-translational modifications:
Phosphorylation has no effect on catalytic activity. However, phosphorylation at Ser-1106 by CSNK1D/CK1 promotes DNA cleavable complex formation.

Similarity:
Belongs to the type II topoisomerase family.

Database links:

Entrez Gene: 7153 Human

Entrez Gene: 21973 Mouse

Entrez Gene: 360243 Rat

Omim: 126430 Human

SwissProt: P11388 Human

SwissProt: Q01320 Mouse

SwissProt: P41516 Rat

Unigene: 156346 Human

Unigene: 4237 Mouse

Unigene: 90996 Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.