SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-Topoisomerase II beta/Cy5.5 Conjugated antibody

SL17324R-Cy5.5

Product Name	Anti-Topoisomerase II beta/Cy5.5
Chinese Name	Cy5.5 标记的 DNA 拓扑异构酶 2-β/TOP2B 抗体
Alias	Antigen MLAA 44; beta isozyme; DNA topoisomerase 2 beta; DNA topoisomerase 2-beta; DNA topoisomerase II 180 kD; DNA topoisomerase II; DNA topoisomerase II beta; DNA topoisomerase II beta isozyme; Top 2; TOP 2B; TOP IIB; Top2 beta; TOP2B; TOP2B_HUMAN; Top2beta; TOPIIB; Topo II beta; Topoisomerase (DNA) II beta 180kDa; Topoisomerase (DNA) II beta; Topoisomerase IIb; U937 associated antigen.
Research Area	Tumour Cell biology Epigenetics
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Rat(predicted:Mouse,Dog,Pig,Cow,Horse,Rabbit,Sheep,Chimpanzee)
Applications	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	183kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Topoisomerase II beta
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, beta, is localized to chromosome 3 and the alpha form is localized to chromosome 17. 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. Alternative splicing of this gene results in two transcript variants; however, the second variant has not yet been fully described. [provided by RefSeq, Jul 2008]

Function:
Control of topological states of DNA by transient breakage and subsequent rejoining of DNA strands. Topoisomerase II makes double-strand breaks. Indirectly ivolved in vitamin D-coupled transcription regulation via its association with the WINAC complex, a chromatin-remodeling complex recruited by vitamin D receptor (VDR), which is required for the ligand-bound VDR-mediated transrepression of the CYP27B1 gene.

Subunit:
Homodimer. Component of the WINAC complex, at least composed of SMARCA2, SMARCA4, SMARCB1, SMARCC1, SMARCC2, SMARCD1, SMARCE1, ACTL6A, BAZ1B/WSTF, ARID1A, SUPT16H, CHAF1A and TOP2B.

Subcellular Location:
Cytoplasm. Nucleus; nucleolus.

Post-translational modifications:
Phosphorylated upon DNA damage, probably by ATM or ATR.

Similarity:
Belongs to the type II topoisomerase family.

Database links:

Entrez Gene: 7155 Human

Entrez Gene: 21974 Mouse

Entrez Gene: 85339 Rat

Omim: 126431 Human

SwissProt: O42131 Chicken

SwissProt: Q02880 Human

SwissProt: Q64511 Mouse

Unigene: 475733 Human

Unigene: 130362 Mouse

Unigene: 122005 Rat

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