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Topoisomerase II beta Rabbit pAb

Catalog # AP100223

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q02880
Other Accession	Q02880
Reactivity	Rat, Human
Predicted	Pig, Chimpanzee, Mouse, Rabbit, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	183267
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Topoisomerase II beta
Epitope Specificity	1-100/1626
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the type II topoisomerase family.
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.
Post-translational modifications	Phosphorylated upon DNA damage, probably by ATM or ATR.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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]

Additional Information

Gene ID	7155

Other Names	BILU; TOPIIB; top2beta; D230016L12Rik; Top-2; TOP2B_CHICK; TOP2B; DNA topoisomerase II, beta isozyme; 5.6.2.2; TOP2B_HUMAN; TOP2B_MOUSE; DNA topoisomerase II beta; topoisomerase (DNA) II beta 180kDa
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	TOP2B
Function	Key decatenating enzyme that alters DNA topology by binding to two double-stranded DNA molecules, generating a double-stranded break in one of the strands, passing the intact strand through the broken strand, and religating the broken strand. Plays a role in B-cell differentiation.
Cellular Location	Nucleus, nucleolus. Nucleus, nucleoplasm. Nucleus
Tissue Location	Expressed in the tonsil, spleen, lymph node, thymus, skin, pancreas, testis, colon, kidney, liver, brain and lung (PubMed:9155056). Also found in breast, colon and lung carcinomas, Hodgkin's disease, large-cell non-Hodgkin's lymphoma, lymphocytic lymphomas and seminomas (PubMed:9155056).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.