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TOP2A Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9248B

Product Information

Application	WB, IHC-P, IF, E
Primary Accession	P11388
Other Accession	P41516, Q01320, P41515
Reactivity	Human, Rat, Mouse
Predicted	Hamster, Mouse, Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24346
Calculated MW	174385
Antigen Region	1167-1196

Additional Information

Gene ID	7153
Other Names	DNA topoisomerase 2-alpha, DNA topoisomerase II, alpha isozyme, TOP2A, TOP2
Target/Specificity	This TOP2A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1167-1196 amino acids from the C-terminal region of human TOP2A.
Dilution	WB~~1:1000 IHC-P~~1:100~500 IF~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TOP2A Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TOP2A
Synonyms	TOP2

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 (PubMed:17567603, PubMed:18790802, PubMed:22013166, PubMed:22323612, PubMed:27754753). May play a role in regulating the period length of BMAL1 transcriptional oscillation (By similarity).
Cellular Location	Cytoplasm. Nucleus, nucleoplasm. Nucleus. Nucleus, nucleolus
Tissue Location	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)

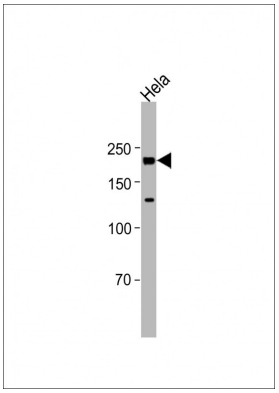
Background

TOP2A 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.

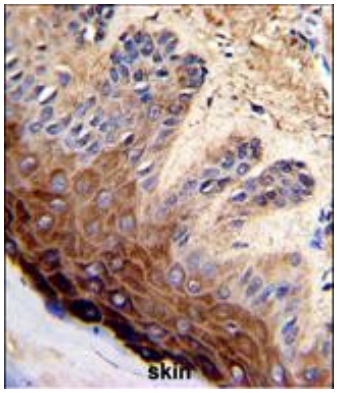
References

Kawamura,R., et.al, J. Cell Biol. 188 (5), 653-663 (2010)
Alchanati,I., et.al, PLoS ONE 4 (12), E8104 (2009)

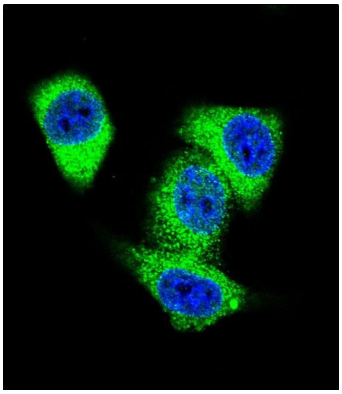
Images



All lanes : Anti-TOP2A Antibody (C-term) at 1:2000 dilution+ Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 180kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human skin with TOP2A Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Confocal immunofluorescent analysis of TOP2A Antibody (C-term) (Cat#AP9248b) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

Citations

- Ciprofloxacin impairs mitochondrial DNA replication initiation through inhibition of Topoisomerase 2.

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