

Anti-Topoisomerase II alpha Antibody [A3F12]

HA601028



Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IHC-P
Molecular Wt:	174/178/182 kDa
Clone number:	A3F12

Description: DNA topoisomerase II α is a human enzyme encoded by the TOP2A gene. Topoisomerase II α relieves topological DNA stress during transcription, condenses chromosomes, and separates chromatids. It catalyzes the transient breaking and rejoining of two strands of duplex DNA which allows the strands to pass through one another. 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 chemotherapy agents and a variety of mutations in this gene have been associated with the development of drug resistance.[citation needed] Reduced activity of this enzyme may also play a role in ataxia-telangiectasia. TOP2A has been shown to interact with SMURF2, HDAC1, CDC5L, Small ubiquitin-related modifier 1 and P53.

Immunogen: Synthetic peptide within human Topoisomerase II alpha aa1480-1531.

Positive control: A549 cell lysate, Jurkat cell lysate, NIH/3T3 cell lysate, human breast carcinoma tissue.

Subcellular location: Cytoplasm, Nucleus.

Database links: SwissProt P11388 Human | Q01320 Mouse | P41516 Rat

Recommended Dilutions:

WB	1:500-1:2,000
IHC-P	1:200

Storage Buffer: PBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% SodiumAzide.

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

Purity: Protein G affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

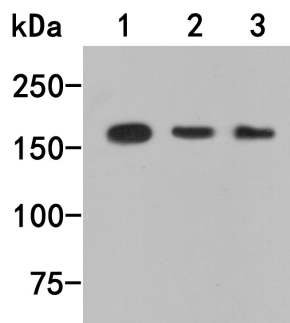
Service mail:support@huabio.cn

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Images

Fig1: Western blot analysis of Topoisomerase II alpha on different cell lysates with Mouse anti-Topoisomerase II alpha antibody (HA601028) at 1/500 dilution.

Lane 1: A549 cell lysate
Lane 2: Jurkat cell lysate
Lane 3: NIH/3T3 cell lysate



Lysates/proteins at 10 µg/Lane.

Predicted band size: 174 kDa
Observed band size: 174 kDa

Exposure time: 2 minutes;

6% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDm/TBST for 1 hour at room temperature. The primary antibody (HA601028) at 1/500 dilution was used in 5% NFDm/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:20,000 dilution was used for 1 hour at room temperature.

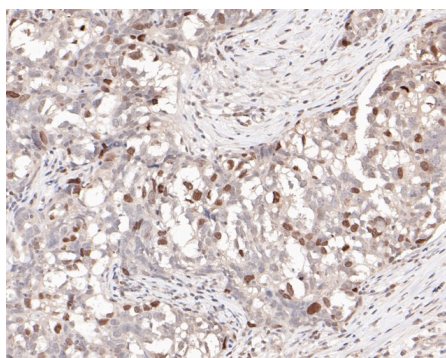


Fig2: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue with Mouse anti-Topoisomerase II alpha antibody (HA601028) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA601028) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Wyles J.P. et al. Nuclear interactions of topoisomerase II alpha and beta with phospholipid scramblase 1. *Nucleic Acids Res.* 35:4076-4085(2007).

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