Anti-Topoisomerase II alpha Antibody

ER40124

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	Predicted band size: 174 kDa

Description: 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. It is essential during mitosis and meiosis for proper segregation of daughter chromosomes.

Immunogen: Synthetic peptide within C-terminal residues of Topoisomerase II alpha.

Positive control: Jurkat cell lysate, NIH/3T3 cell lysate, A431 cell lysate, L929 cell lysate, A549 cell lysate, Human liver tissue lysate, HUVEC cell lysate, A549, Hela, A431, NIH/3T3, human tonsil tissue, human colon cancer tissue, human colon cancer tissue, Hela.

Subcellular location: Cytoplasm, nucleus.

Database links: SwissProt: P11388 Human

Recommended Dilutions:

WB	1:500
IF-Cell	1:200
IHC-P	1:200
FC	1:100-1:200

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

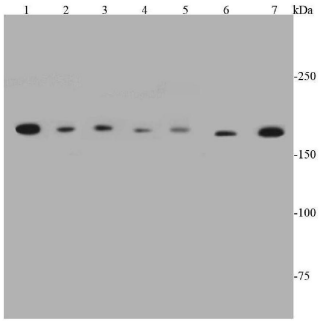

Fig1: Western blot analysis of TOP2A on different lysates using anti-TOP2A antibody at 1/500 dilution.
Positive control:
Lane 1: Jurkat cell lysate
Lane 2: NIH/3T3 cell lysate
Lane 3: A431 cell lysate
Lane 4: L929 cell lysate
Lane 5: A549 cell lysate
Lane 6: Human liver tissue lysate
Lane 7: HUVEC cell lysate

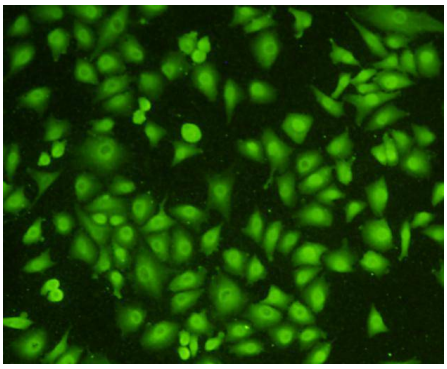

Fig2: ICC staining TOP2A in A549 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

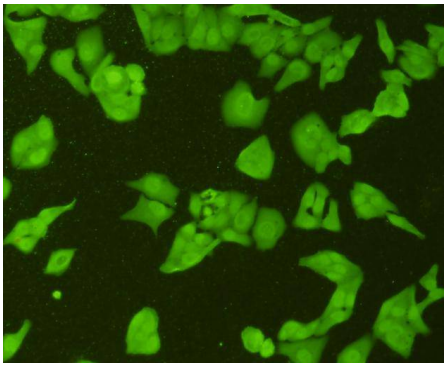

Fig3: ICC staining TOP2A in Hela cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

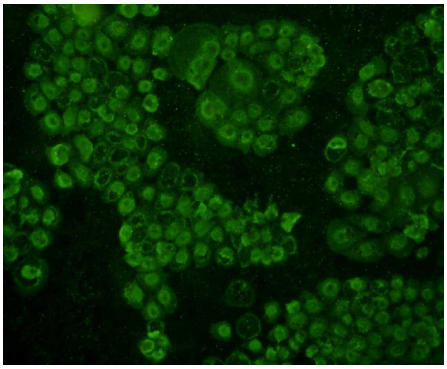

Fig4: ICC staining TOP2A in A431 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

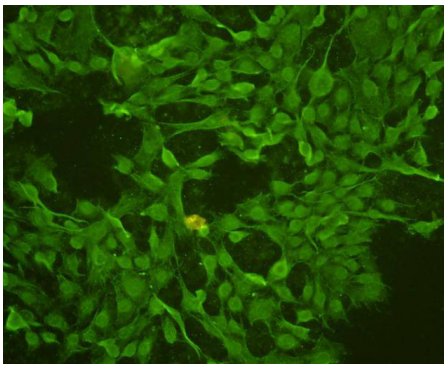

Fig5: ICC staining TOP2A in NIH/3T3 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

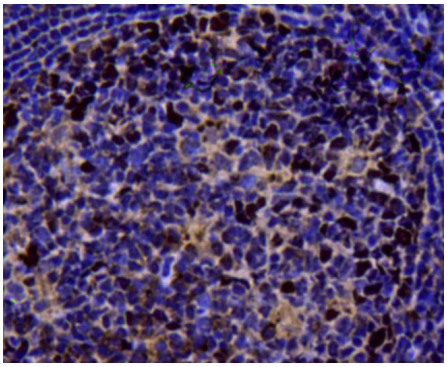

Fig6: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-TOP2A antibody. Counter stained with hematoxylin.

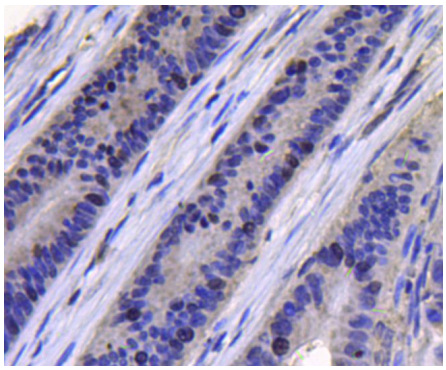

Fig7: Immunohistochemical analysis of paraffin-embedded human colon cancer tissue using anti-TOP2A antibody. Counter stained with hematoxylin.

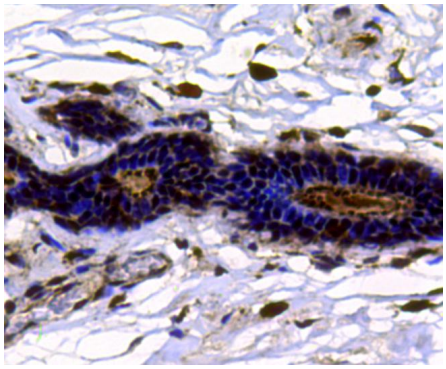

Fig8: Immunohistochemical analysis of paraffin-embedded human colon cancer tissue using anti-TOP2A antibody. Counter stained with hematoxylin.

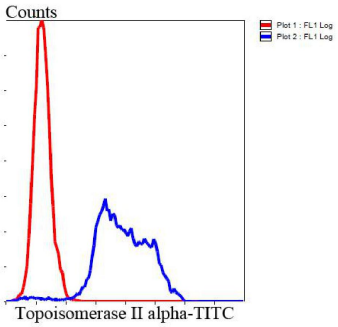

Fig9: Flow cytometric analysis of Hela cells with TOP2A antibody at 1/100 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Goat anti rabbit IgG (FITC) was used as the secondary antibody.

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

Background References

1. "Use of divalent metal ions in the DNA cleavage reaction of human type II topoisomerases." Deweese J.E., Burch A.M., Burgin A.B., Osheroff N. Biochemistry 48:1862-1869(2009)
2. "The structure of DNA-bound human topoisomerase II alpha: conformational mechanisms for coordinating inter-subunit interactions with DNA cleavage." Wendorff T.J., Schmidt B.H., Heslop P., Austin C.A., Berger J.M. J. Mol. Biol. 424:109-124(2012)