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# Topoisomerase II alpha/TOP2A Rabbit mAb

Catalog No.: A26497 Recombinant

#### **Basic Information**

#### **Observed MW**

174kDa

#### **Calculated MW**

174kDa

#### Category

SMab Recombinant Monoclonal Antibody

#### **Applications**

WB,IHC-P,IF/ICC,ELISA,IF-P

#### **Cross-Reactivity**

Human, Mouse, Rat

# **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, 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 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.

#### **Recommended Dilutions**

WB	1:1000 - 1:4000
IF/ICC	1:1000-4000
IF-P	1:1000-4000
IHC-P	1:1000-4000

**ELISA** Recommended starting concentration is 1

µg/mL. Please optimize the concentration based on your specific

assay requirements.

#### Contact

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## **Immunogen Information**

Gene ID	Swiss Prot
7153	P11388

#### **Immunogen**

Synthetic peptide. This information is considered to be commercially sensitive.

#### **Synonyms**

TOP2; TP2A; TOPIIA; TOP2alpha

#### **Product Information**

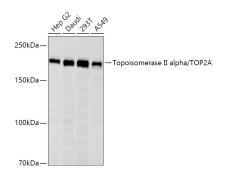
Source	Isotype	Purification
Rabbit	IgG	Affinity purification

#### Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.09% Sodium azide, 0.05% BSA, 50% glycerol, pH7.3.

### **Validation Data**



Western blot analysis of various lysates using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497) at 1:1000 dilution incubated overnight at 4°C.

Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000

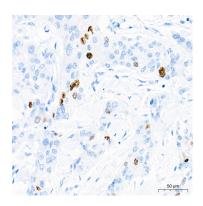
dilution.

Lysates/proteins: 25 µg per lane.

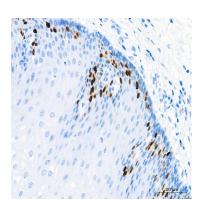
Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

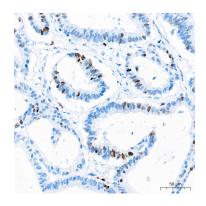
Exposure time: 30s.



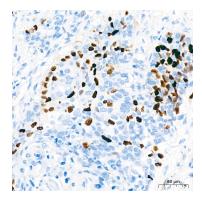
Immunohistochemistry analysis of paraffin-embedded Human breast cancer tissue using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer(pH 9.0) prior to IHC staining.



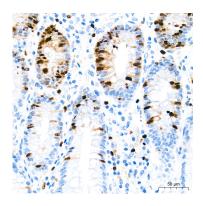
Immunohistochemistry analysis of paraffin-embedded Human esophagus tissue using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer(pH 9.0) prior to IHC staining.



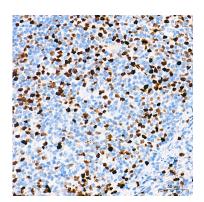
Immunohistochemistry analysis of paraffin-embedded Human colon carcinoma tissue using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer(pH 9.0) prior to IHC staining.



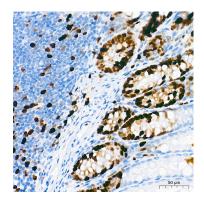
Immunohistochemistry analysis of paraffin-embedded Human lung squamous carcinoma tissue using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer(pH 9.0) prior to IHC staining.



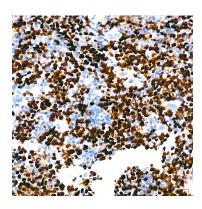
Immunohistochemistry analysis of paraffin-embedded Human colon tissue using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer(pH 9.0) prior to IHC staining.



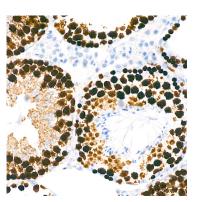
Immunohistochemistry analysis of paraffin-embedded Human tonsil tissue using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer(pH 9.0) prior to IHC staining.



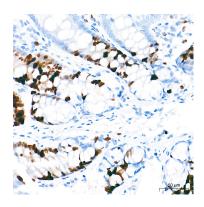
Immunohistochemistry analysis of paraffin-embedded Mouse intestin tissue using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer(pH 9.0) prior to IHC staining.



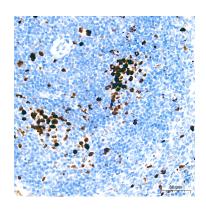
Immunohistochemistry analysis of paraffin-embedded Mouse spleen tissue using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer(pH 9.0) prior to IHC staining.



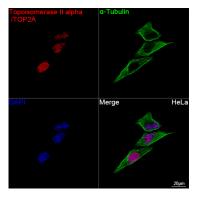
Immunohistochemistry analysis of paraffin-embedded Mouse testis tissue using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer(pH 9.0) prior to IHC staining.



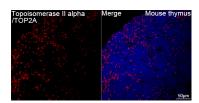
Immunohistochemistry analysis of paraffin-embedded Rat colon tissue using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer(pH 9.0) prior to IHC staining.

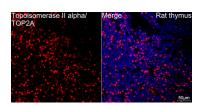


Immunohistochemistry analysis of paraffin-embedded Rat spleen tissue using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer(pH 9.0) prior to IHC staining.



Confocal imaging of HeLa cells using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497, dilution 1:2000) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with  $\alpha\text{-}$  Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.





#### **Validation Data**

Confocal imaging of paraffinembedded Mouse thymus tissue using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497, dilution 1:2000) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.

Confocal imaging of paraffinembedded Rat thymus tissue using Topoisomerase II alpha/TOP2A Rabbit mAb (A26497, dilution 1:2000) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.