

# Anti-Topoisomerase II alpha Antibody

Mouse Monoclonal Antibody

Catalog # AH13546

## Product Information

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|--------------------------|------------------------|
| <b>Application</b>       | WB, IHC-P, IF, FC      |
| <b>Primary Accession</b> | <a href="#">P11388</a> |
| <b>Other Accession</b>   | <a href="#">156346</a> |
| <b>Reactivity</b>        | Human, Mouse           |
| <b>Host</b>              | Mouse                  |
| <b>Clonality</b>         | Monoclonal             |
| <b>Isotype</b>           | Mouse / IgG2b, kappa   |
| <b>Clone Names</b>       | TOP2A/1361             |
| <b>Calculated MW</b>     | 174385                 |

## Additional Information

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|-------------------------|---|
| <b>Gene ID</b>          | 7153  |
| <b>Other Names</b>      | ATP hydrolyzing DNA topoisomerase II alfa; DNA gyrase; DNA topoisomerase (ATP hydrolyzing); DNA topoisomerase 2 alpha; DNA topoisomerase II 170kD; DNA topoisomerase II alpha; DNA Topoisomerase2; TOP2A; Topoisomerase DNA II alpha 170kDa; TP2A   |
| <b>Application Note</b> | Flow Cytometry (0.5-1ug/million cells); Immunofluorescence (1-2ug/ml); ,Western Blotting (0.5-1ug/ml); ,Immunohistology (Formalin-fixed) (0.5-1ug/ml for 30 min at RT),(Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Citrate Buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes),Optimal dilution for a specific application should be determined. |
| <b>Format</b>           | 200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.  |
| <b>Storage</b>          | Store at 2 to 8°C.Antibody is stable for 24 months.   |
| <b>Precautions</b>      | Anti-Topoisomerase II alpha Antibody is for research use only and not for use in diagnostic or therapeutic procedures.  |

## Protein Information

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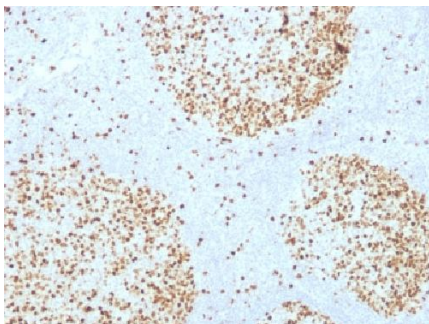
|                 |       |
|-----------------|-------|
| <b>Name</b>     | TOP2A |
| <b>Synonyms</b> | TOP2  |

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|--------------------------|---|
| <b>Function</b>          | 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: <a href="#">17567603</a> , PubMed: <a href="#">18790802</a> , PubMed: <a href="#">22013166</a> , PubMed: <a href="#">22323612</a> ). May play a role in regulating the period length of BMAL1 transcriptional oscillation (By similarity). |
| <b>Cellular Location</b> | Cytoplasm. Nucleus, nucleoplasm. Nucleus. Nucleus, nucleolus  |
| <b>Tissue Location</b>   | 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)  |

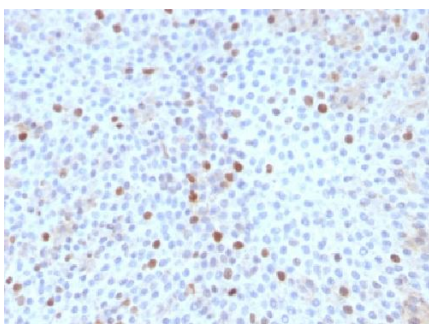
## Background

It recognizes a 170kDa protein, which is identified as topoisomerase II  $\alpha$ . It shows no cross-reaction with Topoisomerase II  $\beta$  or I. Topo II  $\alpha$  plays important roles in synthesis and transcription of DNA as well as chromosomal segregation during mitosis. It is reported to be a sensitive and specific marker of late S-, G2- & M-phases in transformed and developmentally regulated normal cells. Topo II  $\alpha$  is also implicated in drug resistance of tumor cells.

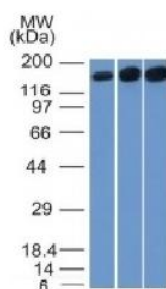
## Images



Formalin-fixed, paraffin-embedded Human Tonsil stained with Topoisomerase II alpha Monoclonal Antibody (TOP2A/1361).



Formalin-fixed, paraffin-embedded Human Bladder Carcinoma stained with Topoisomerase II alpha Monoclonal Antibody (TOP2A/1361).



Western Blot of HepG2, HeLa and 3T3 Cell Lysate using Topo II alpha, Monoclonal Antibody (TOP2A/1361).

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