

TOP2A Antibody
Mouse Monoclonal Antibody (Mab)
Catalog # AM2097A**Specification**

TOP2A Antibody - Product Information

| | |
|-------------------|-----------------------------|
| Application | WB,E |
| Primary Accession | P11388 |
| Other Accession | NP_001058.2 |
| Reactivity | Human |
| Host | Mouse |
| Clonality | Monoclonal |
| Isotype | IgG1 |
| Calculated MW | 174385 |

TOP2A Antibody - Additional Information**Gene ID** 7153**Other Names**

DNA topoisomerase 2-alpha, DNA topoisomerase II, alpha isozyme, TOP2A, TOP2

Target/Specificity

Purified His-tagged TOP2A protein(Fragment) was used to produced this monoclonal antibody.

Dilution

WB~~1:500~8000

E~~Use at an assay dependent concentration.

Format

Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

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 is for research use only and not for use in diagnostic or therapeutic procedures.

TOP2A Antibody - 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](#)). 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

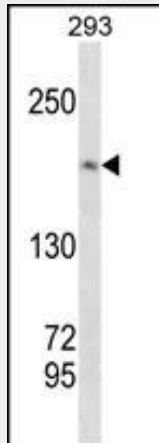
Expressed in the tonsil, spleen, lymph node, thymus, skin, pancreas, testis, colon, kidney, liver, brain and lung (PubMed:9155056). Also found in high-grade lymphomas, squamous cell lung tumors and seminomas (PubMed:9155056)

TOP2A Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TOP2A Antibody - Images



TOP2A Antibody (Cat. #AM2097a) western blot analysis in 293 cell line lysates (35µg/lane). This demonstrates the TOP2A antibody detected the TOP2A protein (arrow).

TOP2A Antibody - 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.

TOP2A Antibody - References

Vranic, S., et al. Hum. Pathol. 41(11):1617-1623(2010)
Chen, H., et al. Am. J. Surg. Pathol. 34(9):1250-1257(2010)
Ye, J., et al. Cell 142(2):230-242(2010)
Rossi, E., et al. Histopathology 57(1):81-89(2010)
Sugiyama, N., et al. Mol. Cell Proteomics 6(6):1103-1109(2007)