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TOP2A Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant TOP2A.
Catalog # AT4305a

Product Information

Application	WB, IHC, IF, E
Primary Accession	P11388
Other Accession	NM_001067
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	1E3
Calculated MW	174385

Additional Information

Gene ID	7153
Other Names	DNA topoisomerase 2-alpha, DNA topoisomerase II, alpha isozyme, TOP2A, TOP2
Target/Specificity	TOP2A (NP_001058, 1435 a.a. ~ 1531 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 IF~~1:50~200 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	TOP2A Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

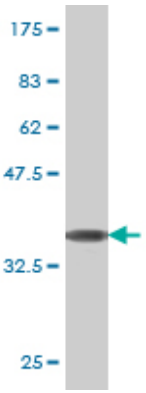
Background

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.

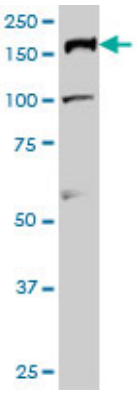
References

Immunohistochemical patterns of ProEx C in vulvar squamous lesions: detection of overexpression of MCM2 and TOP2A. Chen H, et al. Am J Surg Pathol, 2010 Sep. PMID 20697251.TRF2 and apollo cooperate with topoisomerase 2alpha to protect human telomeres from replicative damage. Ye J, et al. Cell, 2010 Jul 23. PMID 20655466.Mitotic chromosomes are constrained by topoisomerase II-sensitive DNA entanglements. Kawamura R, et al. J Cell Biol, 2010 Mar 8. PMID 20194637.A new class of naphthalimide-based antitumor agents that inhibit topoisomerase II and induce lysosomal membrane permeabilization and apoptosis. Chen Z, et al. J Med Chem, 2010 Mar 25. PMID 20170164.Association between HER2, TOP2A, and response to anthracycline-based preoperative chemotherapy in high-risk primary breast cancer. Konecny GE, et al. Breast Cancer Res Treat, 2010 Apr. PMID 20130985.

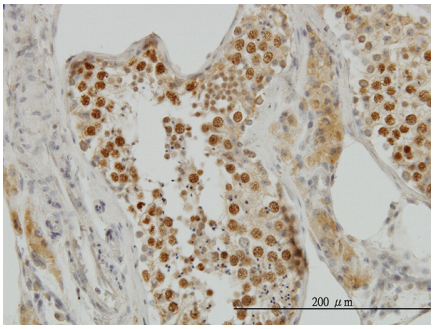
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.41 KDa) .

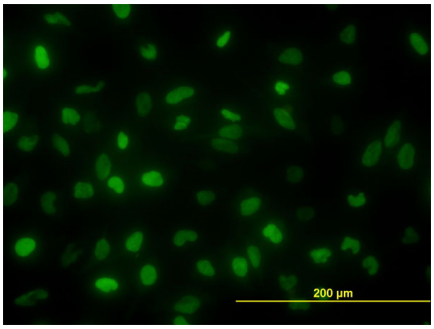


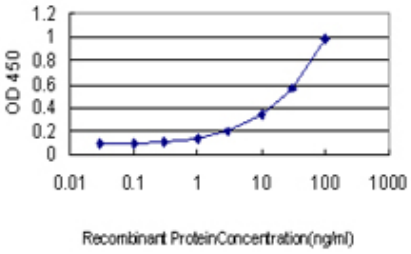
TOP2A monoclonal antibody (M01), clone 1E2 Western Blot analysis of TOP2A expression in Hela S3 NE ((Cat # AT4305a)



Immunoperoxidase of monoclonal antibody to TOP2A on formalin-fixed paraffin-embedded human testis. [antibody concentration 3 ug/ml]

Immunofluorescence of monoclonal antibody to TOP2A on HeLa cell. [antibody concentration 10 ug/ml]





Detection limit for recombinant GST tagged TOP2A is approximately 0.3ng/ml as a capture antibody.

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