10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# TOP2A Antibody (monoclonal) (M01)

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

## Specification

### TOP2A Antibody (monoclonal) (M01) - Product Information

| | |
|---|---|
| Application | **IF, WB, IHC, E** |
| Primary Accession | P11388 |
| Other Accession | NM_001067 |
| Reactivity | **Human** |
| Host | **mouse** |
| Clonality | **Monoclonal** |
| Isotype | **IgG1 Kappa** |
| Calculated MW | **174385** |

### TOP2A Antibody (monoclonal) (M01) - 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

**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.

### TOP2A Antibody (monoclonal) (M01) - Protocols

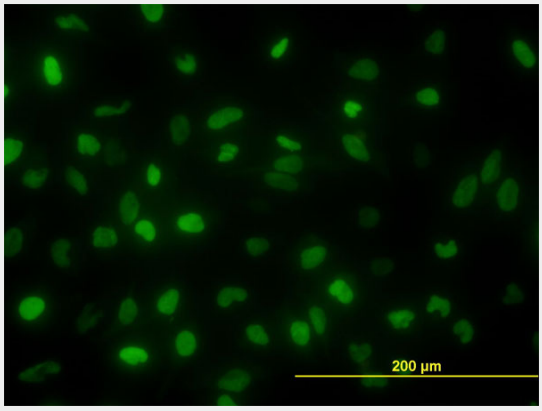
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry

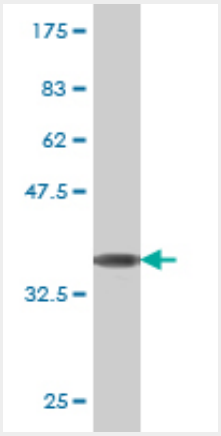
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- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

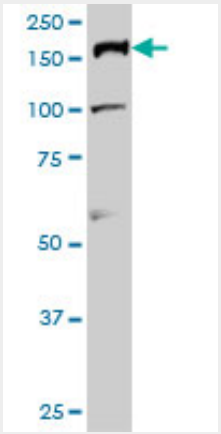
**TOP2A Antibody (monoclonal) (M01) - Images**




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

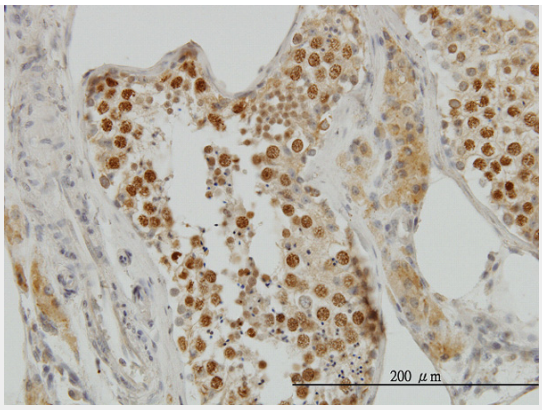



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.41 KDa) .

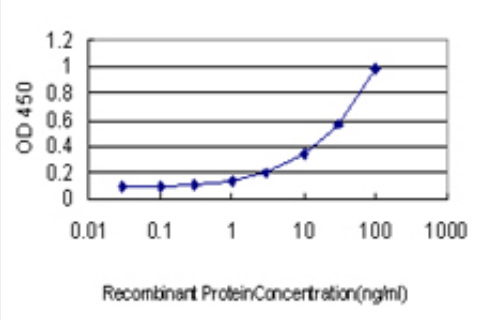



TOP2A monoclonal antibody (M01), clone 1E2 Western Blot analysis of TOP2A expression in Hela S3 NE ( (Cat # AT4305a )

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




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

## TOP2A Antibody (monoclonal) (M01) - 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 (monoclonal) (M01) - 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.