

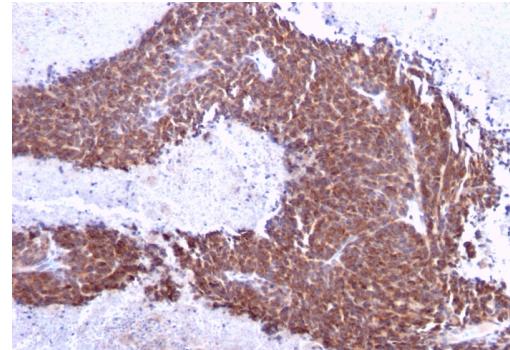
### Topoisomerase (DNA) I, Mitochondrial (TOP1MT)

Mouse Monoclonal Antibody [Clone TOP1MT/613]

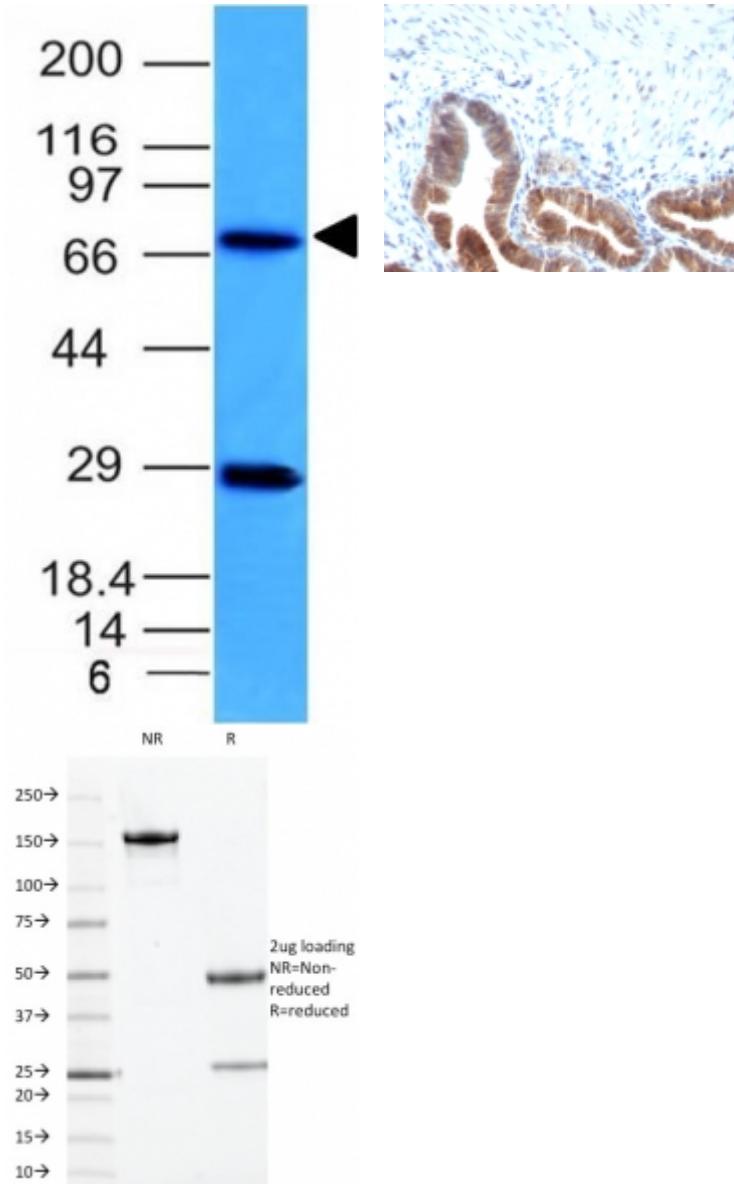
Catalog No	Format	Size	Price (USD)
116447-MSM3-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug	219.00
116447-MSM3-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug	499.00
116447-MSM3-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug	499.00

Human Entrez Gene ID	116447
Human SwissProt	Q969P6
Human Unigene	528574
Human Gene Symbol	TOP1MT
Human Chromosome Location	8q24.3
Synonyms	DNA topoisomerase I; TOP1MT; Topoisomerase I mitochondrial; Type IB Topoisomerase

Immunogen	Recombinant full-length human TOP1MT protein
Host / Ig Isotype	Mouse / IgG2b, kappa
Mol. Weight of Antigen	70kDa
Cellular Localization	Cytoplasmic (Mitochondria)
Species Reactivity	Human.
Positive Control	A431 cells. Heart, Skeletal muscle, brain or fetal liver.



Formalin-fixed, paraffin-embedded human Melanoma stained with Topo I, MT Mouse Monoclonal Antibody (TOP1MT/613).



## Specificity & Comments

DNA topoisomerases are nuclear enzymes that regulate the topological structure of DNA in eukaryotic cells by transiently breaking and rejoining DNA strands. Due to their roles in DNA replication, recombination, and transcription, DNA topoisomerases have been identified as targets of numerous anticancer drugs. Mitochondrial Topo I (DNA topoisomerase I, mitochondrial) is a 601 amino acid protein that primarily acts to relieve DNA strain that may occur during duplication of mitochondrial DNA. As a type IB topoisomerase, mitochondrial Topo I requires a divalent metal, either, calcium or magnesium, as well as an alkaline pH for optimal activity.

## Known Applications & Suggested Dilutions

### Western Blot (1-2ug/ml)

Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 30 minutes at RT)(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95&degC followed by cooling at RT for 20 minutes)

Optimal dilution for a specific application should be determined.

## Supplied As

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.

## Storage and Stability

Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

## Limitations

This antibody is available for research use only and is not approved for use in diagnosis.

## Warranty

There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

## Key References

1. Zhang, H., et al. 2001. Proc. Natl. Acad. Sci. USA 98: 10608-10613.
2. Zhang, H., et al. 2007. Biochimie 89: 474-481.

NBT00490