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TOP1MT Antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI15353

Product Information

Application	WB
Primary Accession	Q969P6
Other Accession	NM_052963, NP_443195
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Dog, Guinea Pig, Horse, Bovine, Yeast
Predicted	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Dog, Guinea Pig, Horse, Bovine, Yeast
Host	Rabbit
Clonality	Polyclonal
Calculated MW	69872

Additional Information

Gene ID	116447
Other Names	DNA topoisomerase I, mitochondrial, TOP1mt, 5.99.1.2, TOP1MT
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-TOP1MT antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	TOP1MT Antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TOP1MT
Function	Releases the supercoiling and torsional tension of DNA introduced during duplication of mitochondrial DNA by transiently cleaving and rejoining one strand of the DNA duplex. Introduces a single-strand break via transesterification at a target site in duplex DNA. The scissile phosphodiester is attacked by the catalytic tyrosine of the enzyme, resulting in the formation of a DNA-(3'-phosphotyrosyl)- enzyme intermediate and the expulsion of a 5'-OH DNA strand. The free DNA strand then rotates around the intact phosphodiester bond on the opposing strand, thus removing DNA supercoils. Finally, in the religation step, the DNA 5'-OH attacks the covalent intermediate to expel the active-site tyrosine and restore the DNA phosphodiester backbone (By similarity).

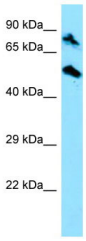
Cellular Location Mitochondrion.

Tissue Location Ubiquitous; highest in skeletal muscle, heart, brain and fetal liver.

References

Zhang H.,et al.Proc. Natl. Acad. Sci. U.S.A. 98:10608-10613(2001).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Nusbaum C.,et al.Nature 439:331-335(2006).

Images



WB Suggested Anti-TOP1MT Antibody Titration: 1.0 µg/ml
Positive Control: HepG2 Whole Cell

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