



# Topoisomerase (DNA) I, Mitochondrial (TOP1MT); Clone TOP1MT/488 (Concentrate)

<b>Availability/Contents:</b>	<u><b>Item #</b></u>	<u><b>Volume</b></u>
	RA0520-C.1	0.1 ml
	RA0520-C.5	0.5 ml
	RA0520-C1	1 ml

**Description:**

Species:	Mouse.
Immunogen:	Recombinant full-length human TOP1MT protein.
Clone:	TOP1MT/488
Isotype:	IgG2b, kappa.
Entrez Gene ID:	116447
Hu Chromosome Loc.:	8q24.3
Synonyms:	DNA topoisomerase I; TOP1MT; Topoisomerase I mitochondrial; Type IB Topoisomerase.
Mol. Weight of Antigen:	70kDa.
Format:	200ug/ml of antibody purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.
Specificity:	Recognizes Topoisomerase (DNA) I.
Background:	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.
Species Reactivity:	Reacts with human. Others not known.
Positive Control:	A431 cells. Heart, skeletal muscle, brain, or fetal liver.
Cellular Localization:	Cytoplasmic (Mitochondria)
Titer/ Working Dilution:	Immunohistochemistry (Frozen and Formalin-fixed): 0.5-1 µg/ml Flow Cytometry: 0.5-1 µg/million cells Immunofluorescence: 0.5-1 µg/ml
Microbiological State:	This product is not sterile.

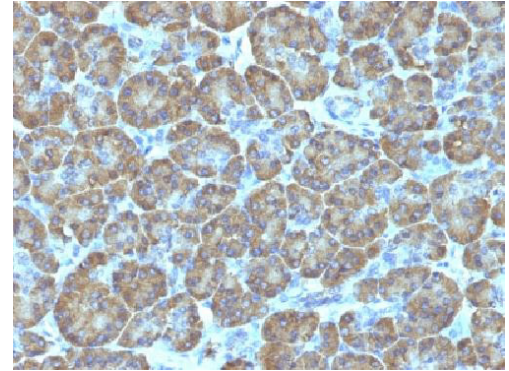
Storage: 2° C  8° C



ScyTek Laboratories, Inc.  
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**Uses/Limitations:** Not to be taken internally.  
 For Research Use Only.  
 This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.  
 Do not use if reagent becomes cloudy.  
 Do not use past expiration date.  
 Non-Sterile.



Formalin-fixed, paraffin-embedded human Pancreas stained with Topoisomerase (DNA) I; Clone TOP1MT/488.

**Ordering Information and Current Pricing at [www.scytek.com](http://www.scytek.com)**

**Procedure:**

1. **Tissue Section Pretreatment (Required):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with Citrate Plus (ScyTek catalog# CPL500).
2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.
3. **Visualization:** For maximum staining intensity we recommend the “CRF Anti-Polyvalent HRP Polymer (DAB) Lab Pack” (ScyTek catalog# CPP125, see IFU for instructions), combined with the “DAB Chromogen/Substrate Bulk Pack (High Contrast)” (ScyTek catalog# ACV500, see IFU for instructions).

**Precautions:**


Contains Sodium Azide as a preservative (0.09% w/v).  
 Do not pipette by mouth.  
 Avoid contact of reagents and specimens with skin and mucous membranes.  
 Avoid microbial contamination of reagents or increased nonspecific staining may occur.  
 This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.


**References:**

1. Zhang, H., Barceló, J.M., Lee, B., Kohlhagen, G., Zimonjic, D.B., Popescu, N.C. and Pommier, Y. 2001. Human mitochondrial topoisomerase I. Proc. Natl. Acad. Sci. USA 98: 10608-10613.
2. Zhang, H., Meng, L.H. and Pommier, Y. 2007. Mitochondrial topoisomerases and alternative splicing of the human TOP1mt gene. Biochimie 89: 474-481.

**Warranty:**

No products or “Instructions For Use (IFU)” are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products. Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used.

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