

# Recombinant Human DNA topoisomerase II beta Protein, His tagged

Cat. No. TOP2B-001H Lot. No. (See product label)

## SPECIFICATION

### Product Overview

Recombinant Human DNA topoisomerase II beta protein (1187-1621 aa) with His tag was expressed in E. coli.

### Species

Human

### Source

E.coli

### ProteinLength

1187-1621 aa

### Description

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, beta, is localized to chromosome 3 and the alpha form is localized to chromosome 17. 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. Alternative splicing results in multiple transcript variants.

### Molecular Mass

49 kDa

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

**AA Sequence**

MEDLAAFVEELDKVESQEREDVLAGMSGKAIKGVGKPKVKKLQLEETMPSPYGRR  
 IPEITAMKADASKLLKKKKGDLDTAAVKVEFDEEFSGAPVEGAGEEALTPSVPINK  
 GPKPKREKKEPGTRVRKTPTSSGKPSAKKVKKRNPWSDDESKSESDLEETEPVVIP  
 RDSLLRRAAAERPKYTFDFSEEEEDDDADDDDDNNDLEELKVKASPITNDGEDEFV  
 PSDGLDKDEYTFSPGKSKATPEKSLHDKKSQDFGNLFSFPSYSQKSEDDSAKFDSN  
 EEDSASVFSFGLKQTDKVPSTVAAKKGKPSSDTVPKPKRAPKQKKVVEAVNSD  
 SDSEFGIPKKTTPKGGKGRGAKKRKASGSENEGDPGRKTSKTTSKKPKKTSFDQ  
 DSDVDIFPSDFPTEPPSLPRTGRARKEVKYFAESDEEEDDVDHHHHHHHHH

**Endotoxin** < 1 EU/μg by LAL.

**Purity** > 90 % by SDS-PAGE

**Storage** Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

**Storage Buffer** Sterile PBS, pH7.4, 10 % Glycerol, 8 % Trehalose

**Concentration** 0.92 mg/mL by BCA

## GENE INFORMATION

**Gene Name** TOP2B DNA topoisomerase II beta [ Homo sapiens (human) ]

**Official Symbol** TOP2B

**Synonyms** TOP2B; topoisomerase (DNA) II beta 180kDa; topoisomerase (DNA) II beta (180kD); DNA topoisomerase 2-beta; topo II beta; antigen MLAA-44; topoisomerase IIb; topoisomerase II beta; U937 associated antigen; DNA topoisomerase II beta; DNA topoisomerase II, 180 kD; DNA topoisomerase II, beta isozyme; TOPIIB; top2beta

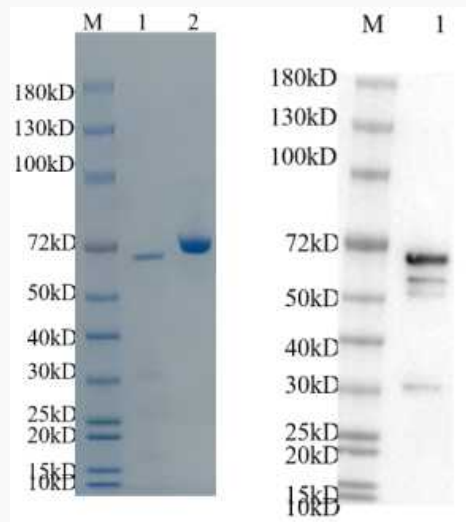
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<b>Gene ID</b>	7155
<b>mRNA Refseq</b>	NM_001068
<b>Protein Refseq</b>	NP_001059
<b>MIM</b>	126431
<b>UniProt ID</b>	Q02880

Reducing 4 %-20 %  
 SDS-PAGE (CBB  
 stained) and WB  
 (Anti-His Mouse  
 Monoclonal  
 antibody) analysis  
 profiles of purified  
 TOP2B.



1. TOP2B: 1  $\mu$ g
2. BSA: 1  $\mu$ g

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