

For Research Use Only

# TOP3A Polyclonal antibody

Catalog Number: 14525-1-AP

Featured Product

27 Publications



## Basic Information

**Catalog Number:**

14525-1-AP

**Size:**

1000 µg/ml

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG6010

**GenBank Accession Number:**

BC051748

**GeneID (NCBI):**

7156

**UNIPROT ID:**

Q13472

**Full Name:**

topoisomerase (DNA) III alpha

**Calculated MW:**

1001 aa, 112 kDa

**Observed MW:**

100-110 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:500-1:2400

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

## Applications

**Tested Applications:**

IP, WB, ELISA

**Cited Applications:**

WB, IP, IHC

**Species Specificity:**

human

**Cited Species:**

human, mouse, Xenopus

**Positive Controls:**

WB : K-562 cells, HL-60 cells

IP : K-562 cells,

## Background Information

DNA topoisomerase 3-alpha (TOP3A) is an essential component of the RMI complex, a complex involves in the processing of homologous recombination intermediates to limit DNA crossover formation in cells. It releases the supercoiling and torsional tension of DNA introduced during the DNA replication and transcription 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-(5'-phosphotyrosyl)-enzyme intermediate and the expulsion of a 3'-OH DNA strand. The free DNA strand then undergoes passage around the unbroken strand thus removing DNA supercoils. Finally, in the religation step, the DNA 3'-OH attacks the covalent intermediate to expel the active-site tyrosine and restore the DNA phosphodiester backbone. This antibody is specific to react with the 110kd human TOP3A.

## Notable Publications

Author	Pubmed ID	Journal	Application
Dharm S Patel	28912125	J Cell Biol	WB
Emily Yun-Chia Chang	29042409	J Cell Biol	WB
Wenwen Wu	30279242	Cancer Res	IP

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

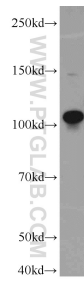
T: 4006900926

E: Proteintech-CN@ptglab.com

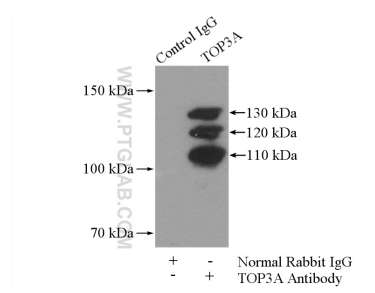
W: ptgcn.com

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## Selected Validation Data



K-562 cells were subjected to SDS PAGE followed by western blot with 14525-1-AP (TOP3A antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



IP result of anti-TOP3A (IP:14525-1-AP, 4ug; Detection:14525-1-AP 1:500) with K-562 cells lysate 3600ug.