

TOPBP1 Polyclonal antibody

Catalog Number: 23340-1-AP

2 Publications

Basic Information

Catalog Number:

23340-1-AP

Size:

1000 µg/ml

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG18961

GenBank Accession Number:

BC126209

GeneID (NCBI):

11073

UNIPROT ID:

Q92547

Full Name:

topoisomerase (DNA) II binding protein 1

Calculated MW:

1522 aa, 171 kDa

Observed MW:

171 kDa

Purification Method:

Antigen Affinity purified

Recommended Dilutions:

WB 1:500-1:1000

Applications

Tested Applications:

WB, ELISA

Cited Applications:

WB, IF

Species Specificity:

human

Cited Species:

human, mouse

Positive Controls:

WB : HeLa cells,

Background Information

Human DNA topoisomerase II binding protein 1 (TopBP1) contains eight BRCT motifs that are found in proteins regulating the DNA damage response, transcription, and replication (1). In addition, TopBP1 shares sequence similarity with the fission yeast Rad4/Cut5 protein and the budding yeast DPB11 protein, both of which are required for DNA damage control and/or replication checkpoint control (2,3). Phosphorylation of TopBP1 occurs in response to DNA double-strand breaks and replication blocks (2). TopBP1 forms nuclear foci and localizes to the sites of DNA damage or the arrested replication forks (2,3). Downregulation of TopBP1 leads to reduced cell survival, probably due to increased apoptosis (2). TopBP1 functions as a transcriptional coactivator by enhancing the human papillomavirus (HPV) transcription/replication factor E2 (1). In addition, the HECT-domain ubiquitin ligase, hHYD, cooperates with TopBP1 in DNA damage response (4). TopBP1 specifically interacts with the C-terminal region of topoisomerase II beta, which suggests a supportive role for TopBP1 in the catalytic reactions of topoisomerase II beta through transient breakages of DNA strands (5). The gene encoding TopBP1 maps to chromosome 3q22.2 (5).

Notable Publications

Author	Pubmed ID	Journal	Application
Mengneng Xiong	35284939	Biol Reprod	IF
Yunshang Chen	38296976	Cell Death Dis	WB

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:

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Selected Validation Data



HeLa cells were subjected to SDS PAGE followed by western blot with 23340-1-AP (TOPBP1 Antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.