

For Research Use Only

TOPBP1 Polyclonal antibody

Catalog Number: 23340-1-AP **1 Publications**



Basic Information

| | | |
|--|---|--|
| Catalog Number: 23340-1-AP | GenBank Accession Number: BC126209 | Purification Method: Antigen Affinity purified |
| Size: 150ul, Concentration: 1000 µg/ml by Nanodrop and 460 µg/ml by Bradford method using BSA as the standard; | GeneID (NCBI): 11073 | Recommended Dilutions: WB 1:500-1:1000 |
| Source: Rabbit | Full Name: topoisomerase (DNA) II binding protein 1 | |
| Isotype: IgG | Calculated MW: 1522 aa, 171 kDa | |
| Immunogen Catalog Number: AG18961 | Observed MW: 171 kDa | |

Applications

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|--|--|
| Tested Applications: WB, ELISA | Positive Controls: WB: HeLa cells, |
| Cited Applications: IF | |
| Species Specificity: human | |
| Cited Species: mouse | |

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 |

Storage

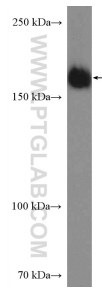
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
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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.