

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TopBP1 in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human TopBP1 Met88-Asp194 Accession # Q92547
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Immunohistochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

TopBP1 (DNA topoisomerase 2-binding protein 1) is a 175-180 kDa member of a critical DNA replication repair complex. It is widely expressed, and appears to serve as an intermediary in DNA replication. When a replication fork is stalled during S phase, DNA continues to unwind ahead of the stall. This becomes associated with RPA, which is essential for ATR and subsequent Chk1 activation. TopBP1 is key to ATR activation, and appears to first bind to DNA:pol-α, followed by a 9-1-1 complex and Rad17 interaction that leads to ATR stimulation. Human TopBP1 is 1522 amino acids (aa) in length. It contains eight BRCT domains (aa 101-1486) that interact with distinct binding partners. BRCT1 and 2 binds to Rad9 (aa 101-294), while BRCT 6 and 7 are involved in ATR activation. There are 12 utilized phosphorylation sites and two nuclear localization signals. Three isoform variants have been described. One contains an alternative start site at Met88, a second shows an 18 aa substitution for aa 1198-1522, and a third possesses a six aa substitution for aa 1292-1522. Over aa 88-194, human TopBP1 shares 88% aa identity with mouse TopBP1.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.