Human TopBP1 Alexa Fluor® 488-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7120G
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TopBP1 in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human TopBP1 Met88-Asp194 Accession # Q92547
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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

Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475