

TOPBP1 Rabbit pAb

CatalogNo: YT8022

Key Features

Host Species • Rabbit MW Reactivity

Human,Mouse,Rat

Applications
• WB

• 167kD (Calculated)

Isotype • IgG

Recommended Dilution Ratios

WB 1:500-2000

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen	Synthesized peptide derived from human TOPBP1
Specificity	This antibody detects endogenous levels of TOPBP1 at Human, Mouse,Rat

Target Information

Gene name TOPBP1 KIAA0259

Organism	Gene ID	UniProt ID
Human	<u>11073;</u>	<u>Q92547;</u>
Mouse	<u>235559;</u>	<u>Q6ZQF0;</u>

- CellularNucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm,
cytoskeleton, spindle pole. Chromosome. Detected on unpaired autosomes in meiotic
prophase cells. Detected on X and Y chromosomes during later stages of prophase.
Colocalizes with ATR and H2AX at unsynapsed chromosome cores during prophase (By
similarity). Has a uniform nuclear distribution during G phase. Colocalizes with BRCA1 at
stalled replication forks during S phase. In mitotic cells it colocalizes with BRCA1 at spindle
poles and centrosomes during metaphase and anaphase. Detected in discrete foci together
with PML and numerous DNA repair enzymes after DNA damage by alkylating agents, UV or
gamma irradiation. Localizes to sites of DNA damage in a H2AX- independent manner.
- **Tissue specificity** Highly expressed in heart, brain, placenta, lung and kidney.
- **Function** Function:Required for DNA replication. Plays a role in the rescue of stalled replication forks and checkpoint control. Binds double-stranded DNA breaks and nicks as well as singlestranded DNA. Recruits the SWI/SNF chromatin remodeling complex to E2F1-responsive promoters. Down-regulates E2F1 activity and inhibits E2F1-dependent apoptosis during G1/S transition and after DNA damage. Induces a large increase in the kinase activity of ATR., induction: Up-regulated during the S phase of the cell cycle. Up-regulated by E2F1 and interferon., PTM: Phosphorylated on serine and threonine residues in response to X-ray irradiation.,PTM:Ubiguitinated and degraded by the proteasome. X-ray irradiation reduces ubiguitination., similarity: Contains 8 BRCT domains., subcellular location: Detected on unpaired autosomes in meiotic prophase cells. Detected on X and Y chromosomes during later stages of prophase. Colocalizes with ATR and H2AFX at unsynapsed chromosome cores during prophase (By similarity). Has a uniform nuclear distribution during G phase. Colocalizes with BRCA1 at stalled replication forks during S phase. In mitotic cells it colocalizes with BRCA1 at spindle poles and centrosomes during metaphase and anaphase. Detected in discrete foci together with PML and numerous DNA repair enzymes after DNA damage by alkylating agents, UV or gamma irradiation., subunit: Binds E2F1, PML, RAD9A, SMARCA2, SMARCA4, POLE and UBR5. May interact with TOP2B., tissue specificity: Highly expressed in heart, brain, placenta, lung and kidney.,

Validation Data

Contact information

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Please scan the QR code to access additional product information: **TOPBP1 Rabbit pAb** For Research Use Only. Not for Use in Diagnostic Procedures.

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