

Recombinant Mouse Trp53bp1 Protein, Myc/DDK-tagged

Cat. No. Trp53bp1-6672M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length transformation related protein 53 binding protein 1 (cDNA clone MGC:30704 IMAGE:3979746), complete cds, with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Double-strand break (DSB) repair protein involved in response to DNA damage, telomere dynamics and class-switch recombination (CSR) during antibody genesis. Plays a key role in the repair of double-strand DNA breaks (DSBs) in response to DNA damage by promoting non-homologous end joining (NHEJ)-mediated repair of DSBs and specifically counteracting the function of the homologous recombination (HR) repair protein BRCA1. In response to DSBs, phosphorylation by ATM promotes interaction with RIF1 and dissociation from NUDT16L1/TIRR, leading to recruitment to DSBs sites. Recruited to DSBs sites by recognizing and binding histone H2A monoubiquitinated at 'Lys-15' (H2AK15Ub) and histone H4 dimethylated at 'Lys-20' (H4K20me2), two histone marks that are present at DSBs sites. Required for immunoglobulin class-switch recombination (CSR) during antibody genesis, a process that involves the generation of DNA DSBs. Participates in the repair and the orientation of the broken DNA ends during CSR. In contrast, it is not required for classic NHEJ and V(D)J recombination. Promotes NHEJ of dysfunctional telomeres.
Molecular Mass	109.7 kDa

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Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Trp53bp1 transformation related protein 53 binding protein 1 [Mus musculus (house mouse)]
Official Symbol	Trp53bp1
Synonyms	Trp53bp1; transformation related protein 53 binding protein 1; 53BP; p53B; 53BP1; m53BP1; p53BP1; Tp53bp1; TP53-binding protein 1; murine p53-binding protein; p53-binding protein 1; tumor suppressor p53-binding protein 1
Gene ID	27223
mRNA Refseq	NM_013735
Protein Refseq	NP_038763
UniProt ID	P70399

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