



53BP1 Rabbit mAb

Catalog No	YP-rAb-17870
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF,ELISA,CHIP,Cut&Tag
Gene Name	TP53BP1
Protein Name	Tumor suppressor p53-binding protein 1
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	WB 1:2000-1:10000; IHC 1:200-1:1000; IF 1:200-1:1000; ELISA 1:5000-1:20000; CHIP 1:50-1:100; Cut&Tag 1:50-1:100; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15 ° C to -25 ° C/1 year(Do not lower than -25 ° C)
Synonyms	53BP1;Tumor suppressor p53-binding protein 1;TP53BP1 ; Tumor suppressor p53-binding protein 1 ; 53BP1 ; p53-binding protein 1 ; p53BP1;TP53BP1
Observed Band	450kD
Calculated Molecular Weight	214kD
Cell Pathway	Nucleus
Tissue Specificity	Cerebellum,Cervix,Epithelium,Myeloid leukemia cell,Skeletal muscle,
Function	May have a role in checkpoint signaling during mitosis (By similarity). Enhances TP53-mediated transcriptional activation. Plays a role in the response to DNA damage.,PTM:Asymmetrically dimethylated on Arg residues by PRMT1 . Methylation is required for DNA binding. PTM:Phosphorylated at basal level in the absence of DNA damage. Hyper-phosphorylated in an ATM-dependent manner in response to DNA damage induced by ionizing radiation. Hyper-phosphorylated in an ATR-dependent manner in response to DNA damage induced by UV irradiation.,similarity:Contains 2 BRCT domains.,subcellular location:Associated with kinetochores. Both nuclear and cytoplasmic in some cells. Recruited to sites of DNA damage, such as double strand breaks. Methylation of histone H4 at 'Lys-20' is required for efficient localization to double strand





breaks.,subunit:Interacts with IFI202A (By similarity). Binds to the central domain of TP53/p53. May form homo-oligomers. Interacts with DCLRE1C. Interacts with histone H2AFX and this requires phosphorylation of H2AFX on 'Ser-139'. Interacts with histone H4 that has been dimethylated at 'Lys-20'. Has low affinity for histone H4 containing monomethylated 'Lys-20'. Does not bind histone H4 containing unmethylated or trimethylated 'Lys-20'. Has low affinity for histone H3 that has been dimethylated on 'Lys-79'. Has very low affinity for histone H3 that has been monomethylated on 'Lys-79' (in vitro). Does not bind unmethylated histone H3.,

Background

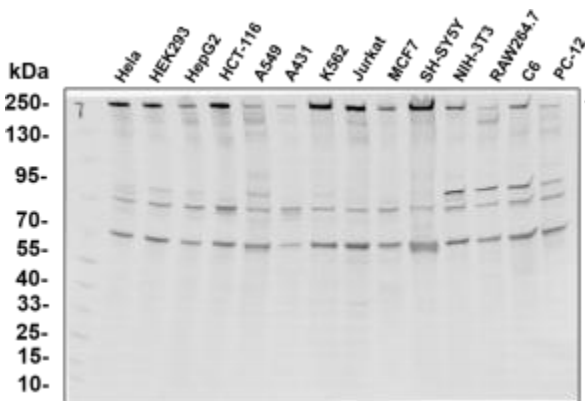
This gene encodes a protein that functions in the DNA double-strand break repair pathway choice, promoting non-homologous end joining (NHEJ) pathways, and limiting homologous recombination. This protein plays multiple roles in the DNA damage response, including promoting checkpoint signaling following DNA damage, acting as a scaffold for recruitment of DNA damage response proteins to damaged chromatin, and promoting NHEJ pathways by limiting end resection following a double-strand break. These roles are also important during V(D)J recombination, class switch recombination and at unprotected telomeres. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Aug 2017]

matters needing attention

Avoid repeated freezing and thawing!

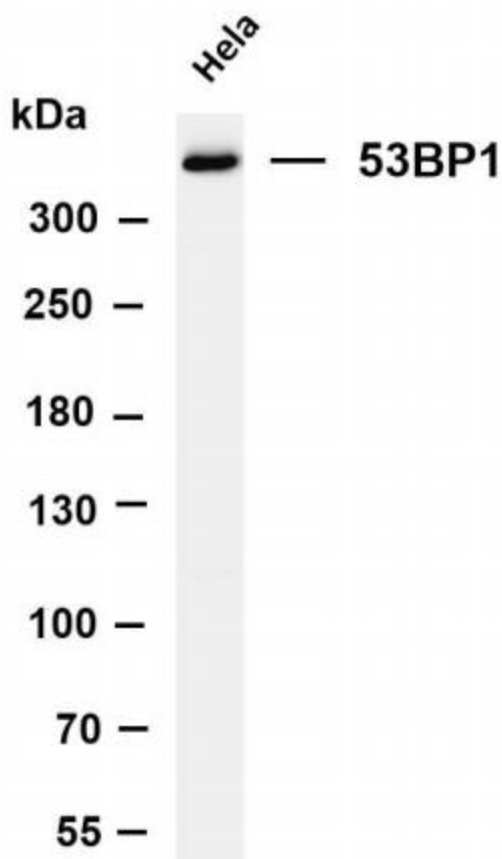
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

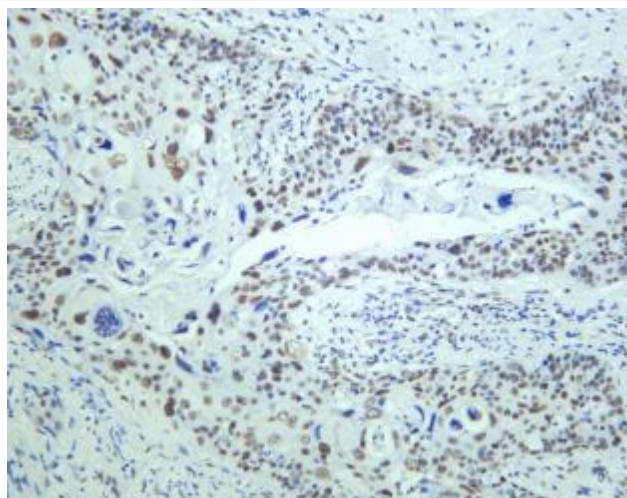


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C, over night with a 1:5000 dilution. The Dylight 800-conjugated Goat anti-Rabbit antibody



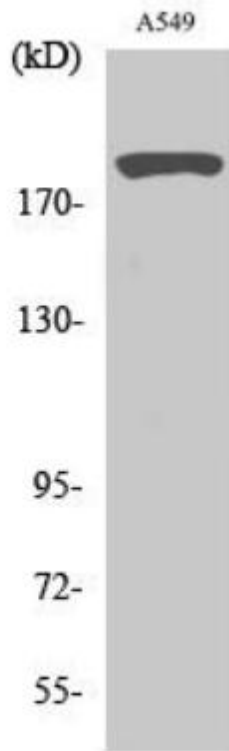


Various whole cell lysates were separated by 4-8% SDS-PAGE, and the membrane was blotted with anti-53BP1 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HeLa Predicted band size: 214kDa Observed band size: 450kDa

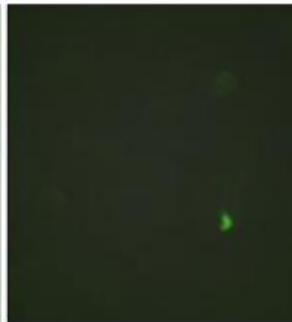
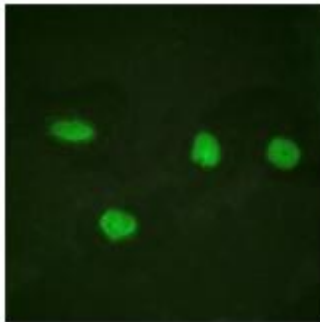


Human colon carcinoma was stained with anti-53BP1 Rabbit antibody





Western Blot analysis of various cells using 53BP1 Antibody diluted at 1:2000



Immunofluorescence analysis of HeLa cells, using 53BP1 Antibody. The picture on the right is blocked with the synthesized peptide.

