

53BP1 (phospho Ser25) Polyclonal Antibody

Catalog No :	YP1140
Reactivity :	Human;Mouse;Rat
Applications :	IHC;IF;ELISA
Target :	53BP1
Fields :	>>NOD-like receptor signaling pathway
Gene Name :	TP53BP1
Protein Name :	Tumor suppressor p53-binding protein 1
Human Gene Id :	7158
Human Swiss Prot No :	Q12888
Mouse Gene Id :	27223
Mouse Swiss Prot No :	P70399
Immunogen :	The antiserum was produced against synthesized peptide derived from human 53BP1 around the phosphorylation site of Ser25. AA range:10-59
Specificity :	Phospho-53BP1 (S25) Polyclonal Antibody detects endogenous levels of 53BP1 protein only when phosphorylated at S25.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight : 214kD

Background :

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.,

Function :

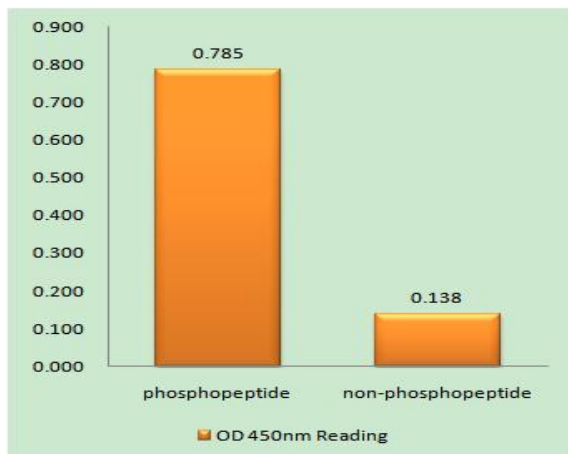
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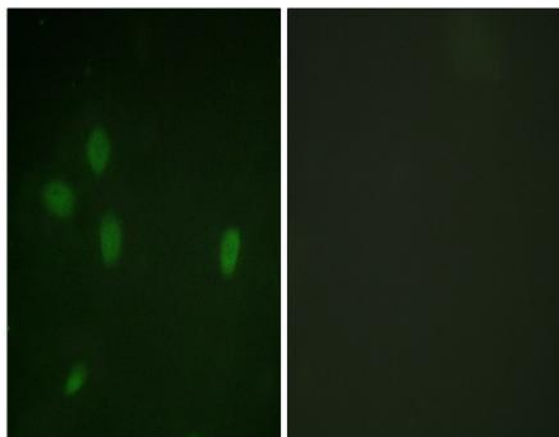
Nucleus . Chromosome . Chromosome, centromere, kinetochore . Localizes to the nucleus in absence of DNA damage (PubMed:28241136). Following DNA damage, recruited to sites of DNA damage, such as double strand breaks (DSBs): recognizes and binds histone H2A monoubiquitinated at 'Lys-15' (H2AK15Ub) and histone H4 dimethylated at 'Lys-20' (H4K20me2), two histone marks that are present at DSBs sites (PubMed:23333306, PubMed:23760478, PubMed:24703952, PubMed:28241136, PubMed:17190600). Associated with kinetochores during mitosis (By similarity). .

Expression : Cerebellum,Cervix,Epithelium,Myeloid leukemia cell,Skeletal muscle,

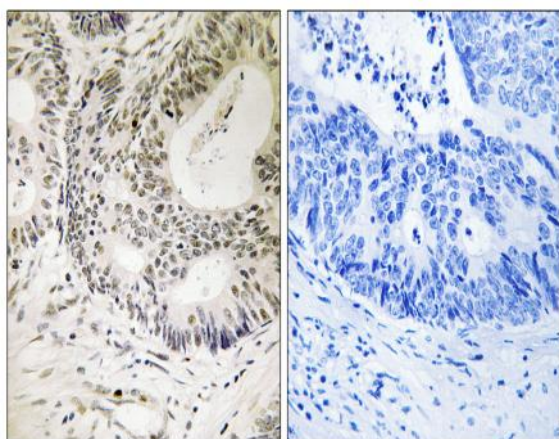
Products Images



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using 53BP1 (Phospho-Ser25) Antibody



Immunofluorescence analysis of NIH/3T3 cells, using 53BP1 (Phospho-Ser25) Antibody. The picture on the right is blocked with the phosphopeptide.



Immunohistochemistry analysis of paraffin-embedded human colon carcinoma, using 53BP1 (Phospho-Ser25) Antibody. The picture on the right is blocked with the phosphopeptide.