## **PRODUCT DATA SHEET**

## 53BP1 Polyclonal Antibody

Baijia <sup>@ filo</sup>

Catalog No.	IPB0312
Reactivity	Human; Mouse; Rat
Applications	IHC-p; ELISA
Dilution	IHC: 1:50-1:200 ELISA: 1:5000
Gene Name	TP53BP1
Protein Name	Tumor suppressor p53-binding protein 1
Human Gene Id	7158
Swiss-Prot	Q12888
Formulation	Liquid in PBS containing 50% glycerol, 05% BSA and 002% sodium azide
Source	Rabbit
Purification	The antibody was affinity-purified from rabbit antiserum by affinity- chromatography using epitope-specific immunogen
Concentration	1 mg/ml
Storage&Stability	-20°C/1 year
Subcellular Location	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 stand 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)
MW	213574
Background	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 stand 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



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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

## **Products Images:**



Immunohistochemical analysis of paraffin-embedded human Breast cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).