

Rabbit Anti-phospho-p53BP1 (Ser25 + Ser29)/AF350 Conjugated antibody

SL3020R-AF350

Product Name	Anti-phospho-p53BP1 (Ser25 + Ser29)/AF350
Chinese Name	AF350 标记的磷酸化 p53Binding protein1 抗体
Alias	53BP1 (phospho S25); p-53BP1 (phospho S25) ;53BP1 (Phospho-Ser25/29); 53BP1 (Phospho-S25/S29); phospho-p53BP1(Ser25/Ser29); P-53BP1 (Ser25/29); 53 BP1; FLJ41424; MGC138366; p202; p53 binding protein 1; p53 BP1; p53BP1; TP53 BP1; TP53BP1; Tumor protein 53 binding protein 1; Tumor protein p53 binding protein 1; Tumor suppressor p53 binding protein 1; TP53B_HUMAN; tumor protein 53-binding protein, 1.
Product Type	Phosphorylated anti
Research Area	Tumour Cell biology Chromatin and nuclear signals Signal transduction Kinases and Phosphatases Binding protein Epigenetics
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse,Rat(predicted:Human,Dog,Pig,Cow,Horse,Rabbit) IF=1:100-500
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	213kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated Synthesised phosphopeptide derived from human p53BP1 around the phosphorylation site of Ser25/29
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks

at 2-4 °C.

background:

p53 binding protein 1 (53BP1) plays a critical role in tumor suppression and is a putative substrate of ATM kinase. Upon DNA damage, it is phosphorylated and relocalizes to the presumptive sites of damage, specifically, double strand breaks. This also suggests a role in DNA repair, maintaining genomic stability.

Function:

May have a role in checkpoint signaling during mitosis. Enhances TP53-mediated transcriptional activation. Plays a role in the response to DNA damage.

Subunit:

Interacts with IFI202A. Binds to the central domain of p53/TP53. May form homooligomers. 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' (H4K20me2). Has low affinity for histone H4 containing monomethylated 'Lys-20' (H4K20me1). Does not bind histone H4 containing unmethylated or trimethylated 'Lys-20' (H4K20me3). 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. Interacts with MUM1/EXPAND1. Interacts with CHEK2; modulates CHEK2 phosphorylation at 'Thr-68' in response to infrared. Interacts with MSL1; this interaction may be required for MSL1 DNA repair activity, but not for histone acetyltransferase activity.

Product Detail

Subcellular Location:

Nucleus. Chromosome; centromere; kinetochore. 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.

Post-translational modifications:

Asymmetrically dimethylated on Arg residues by PRMT1. Methylation is required for DNA binding.

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.

DISEASE:

Note=A chromosomal aberration involving TP53BP1 is found in a form of

myeloproliferative disorder chronic with eosinophilia. Translocation t(5;15)(q33;q22) with PDGFRB creating a TP53BP1-PDGFRB fusion protein.

Similarity:

Contains 2 BRCT domains.

Database links:

[Entrez Gene: 7158](#) Human

[Entrez Gene: 27223](#) Mouse

[Omim: 605230](#) Human

[SwissProt: Q12888](#) Human

[SwissProt: P70399](#) Mouse

[Unigene: 440968](#) Human

[Unigene: 383499](#) Mouse

[Unigene: 481841](#) Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

p53Binding protein1(53BP1)是细胞周期检查点激酶蛋白，是新近发现的DNA 损伤修复通路中两个非常重要的蛋白激酶 MDC1 和 53BP1 蛋白之一,目前多用于 Tumour 方面的研究。