

Rabbit Anti-p53BP1/Cy5 Conjugated antibody

SL2740R-Cy5

Product Name	Anti-p53BP1/Cy5
Chinese Name	Cy5 标记的 p53Binding protein1 抗体
Alias	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.
Research Area	Tumour immunology
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Rat(predicted:Mouse,Dog,Rabbit)
Applications	IF=1:100-500,ICC/IF=1:50-200 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 synthetic peptide derived from human p53BP1/53BP1
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.
Product Detail	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, 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 (By similarity). 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.

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。