AB-PN859

p53-pS15 Antibody

Phosphosite-specific rabbit polyclonal antibody for TP53 (p53). This phosphoserine-site antibody also cross-reacts with phosphothreonine and weakly with a phosphotyrosine substitution in the phosphosite.

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Target Protein

Protein Name Long:	Tumour suppressor protein p53 (antigenNY-CO-13)
Protein Alias:	P53; LFS1; TRP53; FLJ92943; TP53; p53 Tumour Suppressor; Phosphoprotein p53; TP53; Transformation related protein 53; TRP53; Tumour protein p53
UniProt ID:	P04637
Protein Molecular Mass:	43,653 Da (393 AA; P04637-1); 39,320 Da (354 AA; P04637-4); 37,826 Da (341 AA; P04637-2); 34,168 Da (307 AA; P04637-6); 29,553 Da (261 AA; P04637-7); 23,726 Da (209 AA; P04637-8)

Immunogen

Antibody Immunogen Source:	Synthetic phosphopeptide patterned after human p53
Antibody Immunogen Sequence:	C(βA)PPL(pS)QET
Antibody Immunogen Description:	Corresponds to amino acid residues P12 to T18. TP53 S15 phosphorylation stimulates functional activity, induces binding to CBP/p300, DNA, NFkB-p65, PKHF1, PPP2R5C, PPP2CA and PPP2R1A, and inhibits binding to negative regulatory partner MDM2, BLM, MDC1, and WRN. It also induces acetylation of p53, delays the generation of mitotic phosphoproteins, and inhibits premature damage. This is a major site of *in vivo* phosphorylation of TP53 (≥12 reports from high throughput mass spectrometry studies recorded in PhosphoSitePlus). TP53 is known to be phosphorylated at this site *in vitro* by AMPKa2 (PRKAA2), ATM, ATR, Btk, CDK5, Chk1 (CHEK1), Chk2 (CHEK2), DNAPK (PRKDC), DYRK1A, ERK1 (MAPK3), ERK2 (MAPK1), LKB1 (STK11), MELK, NuaK1 (ARK5), p38a MAPK (MAPK14), PKCd (PRKCD), PRPK (TP53RK), SMG1, and VRK2 iso2.
Antibody Target Type:	Phosphosite-specific

Production

Antibody Host Species:	Rabbit
Antibody Type:	Polyclonal
Antibody Isotype:	IgG
Production Method:	The immunizing peptide was produced by solid phase synthesis on a multipep peptide synthesizer and purified by reverse-phase hplc chromatography. Purity was assessed by analytical hplc and the amino acid sequence confirmed by mass spectrometry analysis. This peptide was coupled to KLH prior to immunization into rabbits. New Zealand White rabbits were subcutaneously injected with KLH-coupled immunizing peptide every 4 weeks for 4 months. The sera from these animals was applied onto an agarose column to which the immunogen peptide was thio-linked. Antibody was eluted from the column with 0.1 M glycine, pH 2.5. Subsequently, the antibody solution was neutralized to pH 7.0 with saturated Tris.
Amount:	25 µg
Antibody Concentration:	0.85 mg/ml

Storage Buffer:	Phosphate buffered saline pH 7.4, 0.05% Thimerasol
Storage Conditions:	For long term storage, keep frozen at -40°C or lower. Stock solution can be kept at +4°C for more than 3 months. Avoid repeated freeze-thaw cycles.
Storage Stability:	>2 years

Applications

Product Use:	Western blotting | Antibody microarray
Antibody Dilution Recommended:	2 µg/ml for immunoblotting
Antibody Species Reactivity:	Human | Chimpanzee | Rhesus macaque | Rat | Mouse | Frog