AB-PN713

PAH-pS16 Antibody

Phosphosite-specific rabbit polyclonal antibody for PAH. This phosphoserine-site antibody also cross-reacts with phosphothreonine and glutamic acid substitutions in the phosphosite.

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Target Protein

Protein Name Long:	Phenylalanine-4-hydroxylase
Protein Alias:	Phe-4-monooxygenase
UniProt ID:	P00439
Protein Molecular Mass:	51,862 Da (452 AA; 452 AA)

Immunogen

Antibody Immunogen Source:	Synthetic phosphopeptide patterned after human PAH
Antibody Immunogen Sequence:	RKL(pS)DFG(βA)C
Antibody Immunogen Description:	Corresponds to amino acid residues R13 to G19. S16 phosphorylation stimulates enzyme activity and inhibits interaction with PAH. This is the major *in vivo* phosphorylation sites in phenylalanine-4-hydroxylase (≥41 reports from high throughput mass spectrometry studies recorded in PhosphoSitePlus). This human phosphosite is not highly conserved in vertebrates, but is found in the rat. PAH is known to be phosphorylated at this site *in vitro* by PKACa (PRKACA).
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:	0.8 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 | Rat | Mouse

This product is for *in vitro* research use only and is not intended for use in humans or animals.