AB-PN833

Kv4.2-pT602+pT607 Antibody

Phosphosite-specific rabbit polyclonal antibody for Kv4.2. This phospho-threonine-site antibody is highly specific for phosphothreonine.

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Target Protein

Protein Name Long:	Potassium voltage-gated channel subfamily D member 2
Protein Alias:	KIAA1044; Kv4.2; Potassium channel Kv4.2; Potassium voltage-gated channel, Shal-related subfamily, member 2; RK5
UniProt ID:	Q9NZV8
Protein Molecular Mass:	126,184 Da (1139 AA; Q9H2X9-1); 123,511 Da (1116 AA; Q9H2X9-2)

Immunogen

Antibody Immunogen Source:	Synthetic phosphopeptide patterned after human Kv4.2
Antibody Immunogen Sequence:	SIP(pT)PPVT(pT)PEGC
Antibody Immunogen Description:	Corresponds to amino acid residues S599 to G610. The effect of KCND2 Thr-602 phosphorylation is unclear. Thr-607 phosphorylation stimulates the activity of this potassium channel. These are minor *in vivo* phosphorylation sites in Kv4.2 based on ≥1 and ≥0 high throughput mass spectrometry reports, respectively, recorded in PhosphoSitePlus. Kv4.2 is known to be phosphorylated at this site *in vitro* by T602 and T607 by ERK1 (MAPK3), ERK2 (MAPK1). T607: ERK1 (MAPK3), ERK2 (MAPK1).
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:	0.7 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 | Dog | Rat | Mouse | Platypus | Zebra fish