AB-PN685

RPS6-pS235+pS236 Antibody

Phosphosite-specific rabbit polyclonal antibody for RPS6. This phosphoserine-site antibody also cross-reacts with a phosphothreonine substitution and weakly with serine and glutamic acid substitutions in the phosphosite.

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Target Protein

Protein Name Long:	40S Ribosomal S6
Protein Alias:	Phosphoprotein NP33; Ribosomal protein S6; RS6; S6 Ribosomal Protein
UniProt ID:	P62753
Protein Molecular Mass:	28,681 Da (249 AA; P62753-1)

Immunogen

Antibody Immunogen Source:	Synthetic phosphopeptide patterned after human RPS6
Antibody Immunogen Sequence:	RRL(pS)(pS)LRA(βA)C
Antibody Immunogen Description:	Corresponds to amino acid residues R232 to A239. S235+S236 phosphorylation is believed to increase the translation of mRNA important for protein synthesis by facilitating the assembly of the preinitiation complex. These are the major sites of *in vivo* phosphorylation of S6 based on ≥1030 and ≥1194 high throughput mass spectrometry reports, respectively, recorded in PhosphoSitePlus. RPS6 is known to be phosphorylated *in vitro* at S235 by Akt1 (PKBa), Akt2 (PKBb), AurB (STK12), DAPK1, p70S6K (RPS6KB1), PASK, PKACa (PRKACA), PKCd (PRKCD), RSK1 (RPS6KA1), and RSK2 (RPS6KA3), and at S236 by Akt1 (PKBa), Akt2 (PKBb), AurB (STK12), DAPK1, p70S6K (RPS6KB1), PASK, PKACa (PRKACA), PKCa (PRKCA), PKCd (PRKCD), RSK1 (RPS6KA1), and RSK2 (RPS6KA3).
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:	1 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 | Dog | Rat | Mouse | Platypus | Chicken | Frog | Zebra fish