AB-PN831

IRS1-pS636+pS639 Antibody

Phosphosite-specific rabbit polyclonal antibody for IRS1. This phosphoserine-site antibody also cross-reacts with a phosphothreonine substitution in the phosphosite.

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Target Protein

Protein Name Long:	Insulin receptor substrate 1
Protein Alias:	HIRS-1; Insulin receptor substrate-1; IRS-1
UniProt ID:	P35568
Protein Molecular Mass:	131,591 Da (1,242 AA)

Immunogen

Antibody Immunogen Source:	Synthetic phosphopeptide patterned after human IRS1
Antibody Immunogen Sequence:	MPM(pS)PK(pS)VSAC
Antibody Immunogen Description:	Corresponds to amino acid residues M633 to A642. S636 and S639 phosphorylation regulates intracellular location and Inhibition of tyrosine phosphorylation. It may also facilitate degradation by the Cul7-RING(FBXW8) complex. These are minor *in vivo* phosphorylation sites in IRS1 (≥27 and ≥4 reports, respectively, from high throughput mass spectrometry studies recorded in PhosphoSitePlus). IRS1 is known to be phosphorylated *in vitro* at S636 by ERK2 (MAPK1), mTOR (FRAP1), p70S6K (RPS6KB1), ROCK1 (ROK-beta), ROCK2 (ROK-alpha), and at S639 by BARK1 (GRK2, ADRBK1), ERK2 (MAPK1), mTOR (FRAP1), p70S6K (RPS6KB1), ROCK1 (ROK-beta), and ROCK2 (ROK-alpha).
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 | Rhesus macaque | Dog | Rat | Mouse | Chicken | Zebra fish