

AB-PN703

GYS1-pS641+pS645 Antibody

Phosphosite-specific rabbit polyclonal antibody for GYS1



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Target Protein

Protein Name Long:	Glycogen [starch] synthase, muscle
Protein Alias:	EC 2.4.1.11; Glycogen synthase 1 (muscle); Glycogen synthase, muscle; GSY; GYS
UniProt ID:	P13807
Protein Molecular Mass:	83,786 Da (737 AA)

Immunogen

Antibody Immunogen Source:	Synthetic phosphopeptide patterned after human GYS1
Antibody Immunogen Sequence:	RPA(pS)VPP(pS)P(pS)L(βA)C
Antibody Immunogen Description:	Corresponds to amino acid residues R638 to L647. S641+S645 phosphorylation inhibits enzyme activity. These are two of the major <i>in vivo</i> phosphorylation sites in glycogen synthase isoform 1 (≥26 and >35 reports, respectively, by mass spectrometry). These phosphosites are highly conserved in mammals and found in the platypus. GYS1 is known to be phosphorylated <i>in vitro</i> at S641 by BARK2 (GRK3, ADRBK2), DYRK1A, DYRK1B, DYRK2, GSK3b, PASK (PASKIN). S645: BARK2 (GRK3, ADRBK2), GSK3b, and p38b MAPK (MAPK11).
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 multipепptide 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:	0.3 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 Rhesus macaque Rat Mouse Platypus

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

For more information on our products please visit <https://kinexus-ca.myshopify.com/> or contact us at 1-866-546-3987