

Rabbit Glycogen Synthase Polyclonal Antibody | anti-GYS1 antibody

Phospho-Glycogen Synthase (Ser645) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321520	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

Glycogen Synthase; Polyclonal Antibody; Phospho-Glycogen Synthase (Ser645) Antibody; Glycogen [starch] synthase; Glycogen synthase 1 (muscle); Glycogen synthase 1; GSY; GYS; Gys1; GYS1_HUMAN; muscle; anti-GYS1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-Glycogen Synthase (Ser645) antibody detects endogenous levels of Glycogen Synthase only when phosphorylated at Serine 645
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	673
Applicable Applications for anti-GYS1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Glycogen Synthase around the phosphorylation site of Serine 645
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog
Similarity	Pig (100%), Zebrafish (89%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%)
Conjugation	Unconjugated
Epitope	Phospho Ser645
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)

Western blot analysis of Glycogen Synthase phosphorylation expression in PMA treated NIH-3T3 whole cell lysates. The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)

AAA321520 at 1/200 staining human kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

Western blot analysis of Phospho-Glycogen Synthase (Ser645) Antibody expression in PMA treated NIH-3T3 cells lysates. The lane on the right is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA321520 staining NIH-3T3 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-GYS1 antibody

Description: GYS1 muscle glycogen synthase 1. Transfers glucosyl residue from UDP-glucose to glycogen. Regulated allosterically by glucose-6-phosphate, and by PKA-mediated phosphorylation.
Function: Transfers the glucosyl residue from UDP-Glc to the non-reducing end of alpha-1, 4-glucan.
Subunit Structure: Interacts with GYG1.
Post-translational Modifications: Phosphorylation at Ser-8 by AMPK inactivates the enzyme activity. Primed phosphorylation at Ser-657 (site 5) by CSNK2A1 and CSNK2A2 is required for inhibitory phosphorylation at Ser-641 (site 3a), Ser-645 (site 3b), Ser-649 (site 3c) and Ser-653 (site 4) by GSK3A and GSK3B (By similarity).
Phosphorylated at Ser-641 by DYRK2, leading to inactivation (By similarity). Phosphorylated at Ser-641 by PASK, leading to inactivation; phosphorylation by PASK is inhibited by glycogen. Dephosphorylation at Ser-641 and Ser-645 by PP1 activates the enzyme.
Similarity: Belongs to the glycosyltransferase 3 family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	239049591
NCBI GeneID	2997
NCBI Accession #	NP_001155059.1
NCBI GenBank Nucleotide #	NM_001161587.1
UniProt Accession #	P13807; Q9BTT9
Molecular Weight	Observed: 83; 89 kDa Predicted: 84 kDa
NCBI Official Full Name	glycogen
NCBI Official Synonym Full Names	glycogen synthase 1
NCBI Official Symbol	GYS1
NCBI Official Synonym Symbols	GSY; GYS
NCBI Protein Information	glycogen [starch] synthase, muscle
UniProt Protein Name	Glycogen [starch] synthase, muscle
UniProt Gene Name	GYS1
UniProt Synonym Gene Names	GYS

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/glycogen-synthase-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/321520>