



# Glycogen Synthase 1 (phospho Ser645) Polyclonal Antibody

Catalog No	YP-Ab-02408
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	GYS1
Protein Name	Glycogen [starch] synthase muscle
Immunogen	The antiserum was produced against synthesized peptide derived from human Glycogen Synthase around the phosphorylation site of Ser645. AA range:611-660
Specificity	Phospho-Glycogen Synthase 1 (S645) Polyclonal Antibody detects endogenous levels of Glycogen Synthase 1 protein only when phosphorylated at S645.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/5000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	GYS1; GYS; Glycogen [starch] synthase; muscle
Observed Band	83kD
Cell Pathway	cytosol,membrane,inclusion body,
Tissue Specificity	Endometrium,Heart,Kidney,Lymph,Muscle,Skin,
Function	catalytic activity:UDP-glucose ((1->4)-alpha-D-glucosyl)(n) = UDP + ((1->4)-alpha-D-glucosyl)(n+1)..,disease:Defects in GYS1 are the cause of muscle glycogen storage disease type 0 (GSD0b) [MIM:611556]; also called muscle glycogen synthase deficiency. GSD0 is a metabolic disorder characterized by fasting hypoglycemia presenting in infancy or early childhood. The role of muscle glycogen is to provide critical energy during bursts of activity and sustained muscle work..enzyme regulation:Allosteric activation by glucose-6-phosphate. Phosphorylation reduces the activity towards UDP-glucose. When in the non-phosphorylated state, glycogen synthase does not require glucose-6-phosphate as an allosteric activator; when phosphorylated it does..function:Transfers the glycosyl residue from UDP-Glc to the non-reducing end of alpha-1,4-glucan..pathway:Glycan biosynthesis; glycogen biosynthesis..similar



## Background

The protein encoded by this gene catalyzes the addition of glucose monomers to the growing glycogen molecule through the formation of alpha-1,4-glycoside linkages. Mutations in this gene are associated with muscle glycogen storage disease. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Sep 2009],

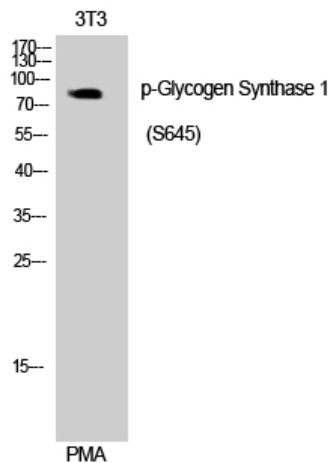
## matters needing attention

Avoid repeated freezing and thawing!

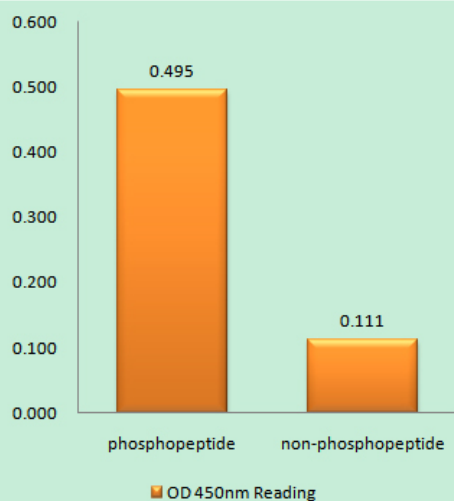
## Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

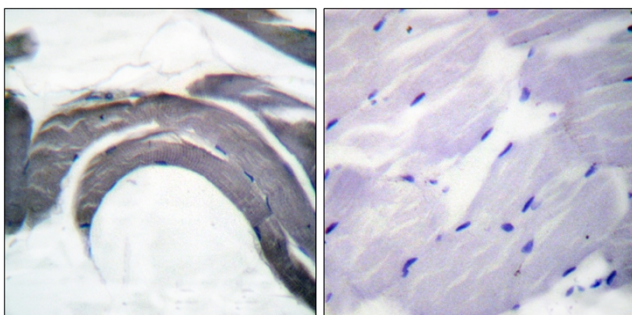
## Products Images



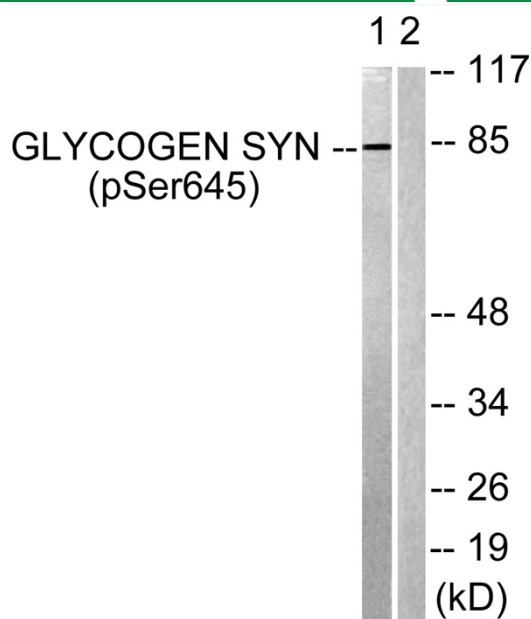
Western Blot analysis of 293 cells using Phospho-Glycogen Synthase 1 (S645) Polyclonal Antibody



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Glycogen Synthase (Phospho-Ser645) Antibody



Immunohistochemistry analysis of paraffin-embedded human skeletal muscle, using Glycogen Synthase (Phospho-Ser645) Antibody. The picture on the right is blocked with the phosphopeptide.



Western blot analysis of lysates from NIH/3T3 cells treated with PMA 125ng/ml 30', using Glycogen Synthase (Phospho-Ser645) Antibody. The lane on the right is blocked with the phospho peptide.