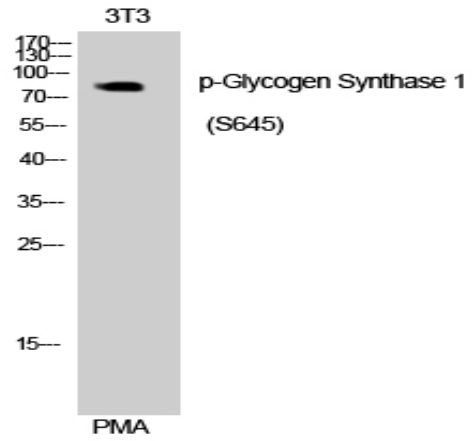
Best Tools for immunology Research

Glycogen Synthase 1 (phospho Ser645) Polyclonal Antibody

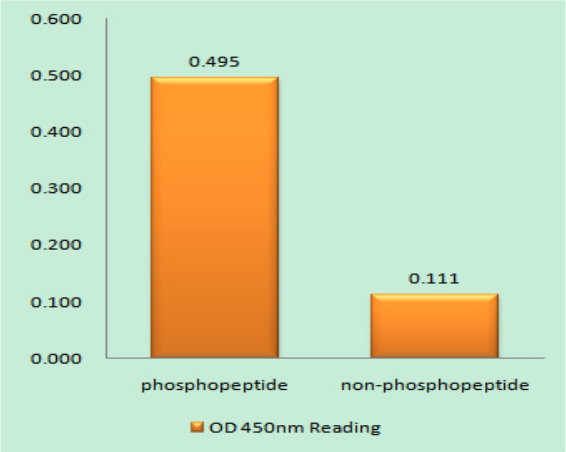
Catalog No :	YP0633
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	Glycogen Synthase 1
Fields :	>>Starch and sucrose metabolism;>>Metabolic pathways;>>PI3K-Akt signaling pathway;>>AMPK signaling pathway;>>Insulin signaling pathway;>>Glucagon signaling pathway;>>Insulin resistance;>>Diabetic cardiomyopathy
Gene Name :	GYS1
Protein Name :	Glycogen [starch] synthase muscle
Human Gene Id :	2997
Human Swiss Prot No :	P13807
Mouse Gene Id :	14936
Mouse Swiss Prot No :	Q9Z1E4
Rat Gene Id :	690987
Rat Swiss Prot No :	A2RRU1
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

Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:5000.. IF 1:50-200
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	83kD
Cell Pathway :	Starch and sucrose metabolism;Insulin_Receptor;
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],
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
Subcellular Location :	cytosol,membrane,inclusion body,
Expression :	Endometrium,Heart,Kidney,Lymph,Muscle,Skin,

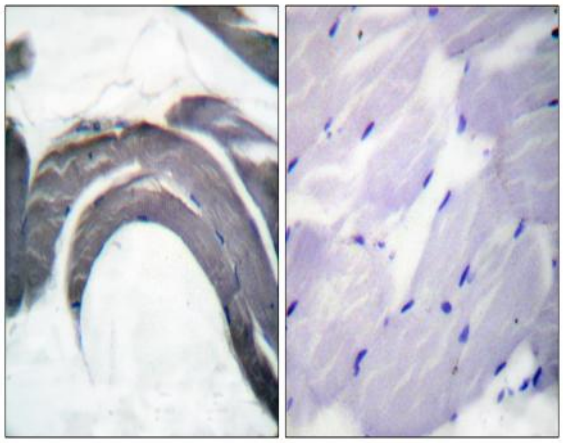
Products Images



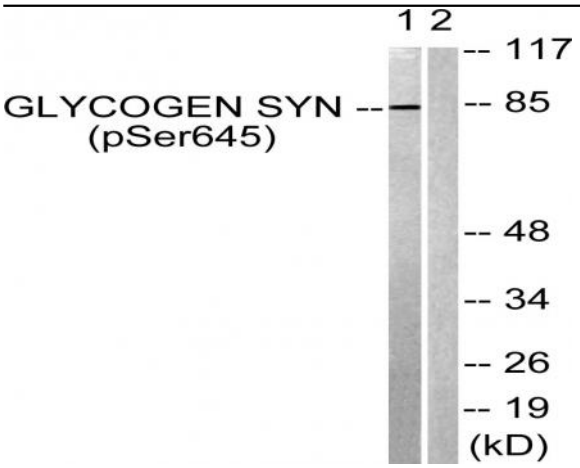
Western Blot analysis of 293 cells using Phospho-Glycogen Synthase 1 (S645) Polyclonal Antibody



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 phospho peptide.



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.