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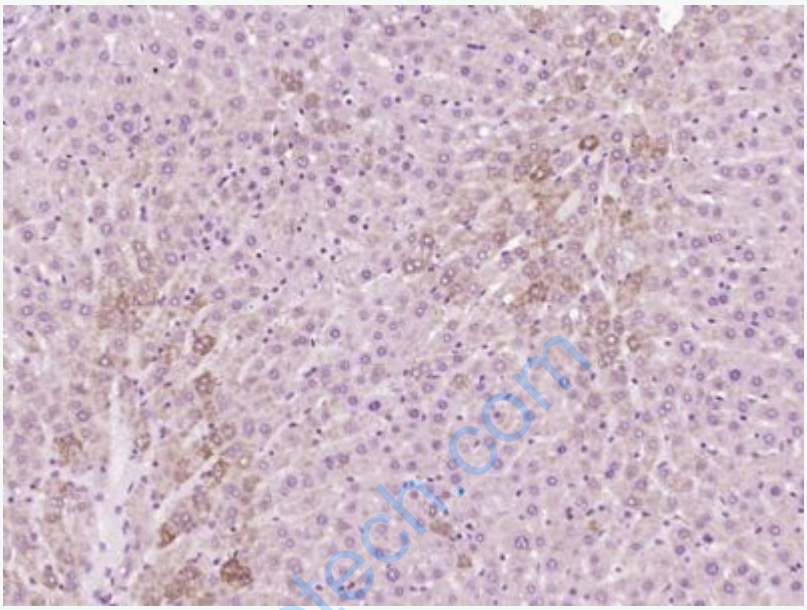
Rabbit Anti-Phospho-Glycogen synthase 1 (Ser645) antibody

SL13446R

Product Name:	Phospho-Glycogen synthase 1 (Ser645)
Chinese Name:	磷酸化葡萄糖合成酶1抗体
Alias:	Glycogen synthase 1 (phospho S645); Glycogen synthase 1 (phospho Ser645); p-Glycogen synthase 1 (S645); Glycogen synthase 1 (muscle); Glycogen synthase 1; GSY; GYS; GYS1; EC 2.4.1.11; Glycogen synthase1; GYS 1; Starchsynthase muscle; UDP glucose glycogen glucosyltransferase; GYS1_HUMAN; Glycogen [starch] synthase, muscl.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Horse,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	85kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human Glycogen synthase 1 around the phosphorylation site of Ser645:PP(p-S)PS
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

PubMed:	PubMed
Product Detail:	Glycogen Synthase (GS) is a key enzyme in the regulation of glycogen metabolism. GS catalyzes the incorporation of UDP-glucose incorporation into glycogen. The activity of glycogen synthase is regulated by hormonal stimuli (insulin, catecholamines and glucagons) and non-hormonal stimuli (blood glucose level and exercise). Two main isoforms of mammalian GS are designated as muscle (glycogen synthase 1) and liver (glycogen synthase 2). Most tissues express glycogen synthase 1, whereas glycogen synthase 2 appears to be tissue-specific. The two isoforms have 70% identical amino acid sequence. Glycogen synthase can be phosphorylated by multiple kinases including glycogen synthase kinase-3 (GSK-3), mitogen-activated protein kinase-related protein kinase (DYRK), and SAPK2b/p38b which leads to its inactivation. **Function:** Transfers the glycosyl residue from UDP-Glc to the non-reducing end of alpha-1,4-glucan. **Subunit:** Interacts with GYG1. **Post-translational modifications:** 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. **DISEASE:** Defects in GYS1 are the cause of muscle glycogen storage disease type 0 (GSD0b) [MIM:611556]; also known as muscle glycogen synthase deficiency. GSD0b 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. **Similarity:** Belongs to the glycosyltransferase 3 family. **SWISS:** P13807 **Gene ID:** 2997 **Database links:** **Important Note:**

	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Picture:	 Paraformaldehyde-fixed, paraffin embedded (Rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Phospho-Glycogen synthase 1(Ser645)) Polyclonal Antibody, Unconjugated (SL13446R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.