

## Product datasheet for **TA397430**

### Glycogen synthase 1 (GYS1) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	<b>WB:</b> 1:500 - 1:3,000 <b>IHC:</b> 1:1,000 - 1:5,000 <b>ELISA:</b> 1:5,000 - 1:25,000
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Human Muscle Glycogen Synthase phospho peptide corresponding to pS641 region of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).
Specificity:	Phospho Glycogen Synthase pS641 antibody is directed against human muscle glycogen synthase. The product was affinity purified from monospecific antiserum by immunoaffinity purification. Antiserum was first purified against the phosphorylated form of the immunizing peptide. The resultant affinity purified antibody was then cross-adsorbed against the non-phosphorylated form of the immunizing peptide. This phospho specific polyclonal antibody is specific for phosphorylated pS641 of human muscle glycogen synthase. Reactivity with non-phosphorylated human muscle glycogen synthase is less than 1% by ELISA. Cross reactivity with muscle glycogen synthase occurs in mouse tissue. Reactivity with muscle glycogen synthase from other sources has not been determined.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	0.95 mg/mL - lot specific
Conjugation:	Unconjugated
Storage:	Store Phospho GYS1 antibody at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Stability:	Expiration date is one (1) year from date of receipt.
Gene Name:	glycogen synthase 1



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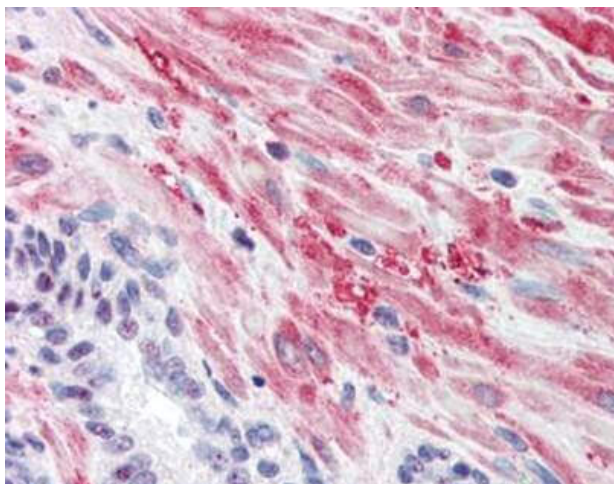
**Database Link:** [Entrez Gene 2997 Human P13807](#)

**Background:** Anti-Glycogen Synthase 1 pS641 antibody is validated by IHC, Western Blot and ELISA. Human muscle glycogen synthase (GS) is responsible for the biosynthesis of glycogen from phosphorylated glucose units. Mammalian liver and muscle contain GS consisting of four subunits with a total molecular weight of 360,000. GS is subject to regulation through both allosteric and covalent modification and occurs in two forms: the phosphorylated inactive form, and the dephosphorylated active form. GS is inactivated by the serine/threonine kinase called glycogen synthase kinase-3 $\beta$  that mainly functions to phosphorylate muscle glycogen synthase. This antibody is specific for the phosphorylated form of GS at S641. Phosphorylation of GS at S641 has been associated with Antiphospholipid Antibody Syndrome.

**Synonyms:** rabbit anti-muscle glycogen synthase pS641 antibody, rabbit anti-glycogen synthase pS641 antibody, Glycogen antibody, Glycogen synthase 1 (muscle) antibody, Glycogen synthase 1 antibody, Glycogen synthase1 antibody, GYS 1 antibody, GYS-1 antibody, GYS1 antibody, Starch synthase muscle antibody

**Note:** This phospho specific polyclonal antibody was tested by immunohistochemistry, immunoblotting, and ELISA. By ELISA the antibody was found to be reactive with the phosphorylated form of the immunizing peptide and minimally reactive with the non-phosphorylated form of the immunizing peptide. Immunoblotting will detect human and mouse muscle glycogen synthase. Although not tested, this antibody is likely functional in immunoprecipitation.

### Product images:



Immunohistochemistry with Anti-Glycogen Synthase antibody. Tissue: Human Prostate. Fixation: formalin-fixed, paraffin-embedded tissue. Antigen retrieval: heat-induced. Primary antibody: 5  $\mu$ g/ml. Staining: antibody as precipitated red signal with a hematoxylin purple nuclear counterstain.