

**Product Name: Glycogen Synthase 1 Rabbit Polyclonal Antibody**  
**Catalog #: APRab11513**

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## Summary

<b>Production Name</b>	Glycogen Synthase 1 Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ELISA
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	GYS1
<b>Alternative Names</b>	GYS1; GYS; Glycogen [starch] synthase; muscle
<b>Gene ID</b>	2997.0
<b>SwissProt ID</b>	P13807.The antiserum was produced against synthesized peptide derived from human Glycogen Synthase. AA range:621-670

## Application

<b>Dilution Ratio</b>	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000..
<b>Molecular Weight</b>	85kD

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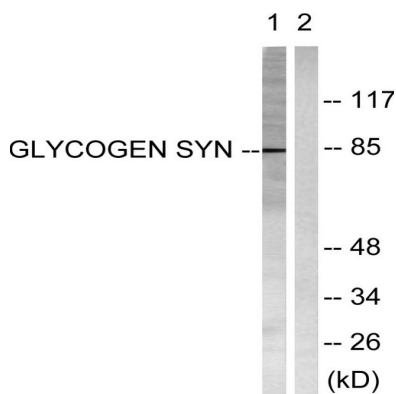
## Background

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],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.,similarity:Belongs to the glycosyltransferase 3 family.,

## Research Area

Starch and sucrose metabolism;Insulin\_Receptor;

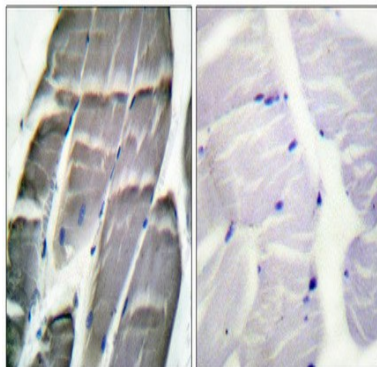
## Image Data



Western blot analysis of lysates from HeLa cells, treated with Serum 20% 30', using Glycogen Synthase Antibody. The lane on the right is blocked with the synthesized peptide.

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Immunohistochemical analysis of paraffin-embedded Human skeletal muscle. Antibody was diluted at 1:100 (4°,overnight) .  
High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative contrl (right) obtaned from  
antibody was pre-absorbed by immunogen peptide.

### **Note**

For research use only.