

**Glycogen synthase 2 Polyclonal Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP58115****Specification****Glycogen synthase 2 Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	<a href="#">P54840</a>
Reactivity	Rat, Pig, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	81 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Glycogen synthase 2
Epitope Specificity	621-703/703
Isotype	IgG
<b>Purity</b>	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the glycosyltransferase 3 family.
Post-translational modifications	Primed phosphorylation at Ser-657 (site 5) by CSNK2A1 and CSNK2A2 is required for inhibitory phosphorylation at Ser-641 (site 3a), Ser-645 (site 3b), Ser-649 (site 3c) and Ser-653 (site 4) by GSK3A and GSK3B. Dephosphorylation at Ser-641 and Ser-645 by PP1 activates the enzyme (By similarity).
DISEASE	Defects in GYS2 are the cause of glycogen storage disease type 0 (GSD0) [MIM:240600]; A metabolic disorder characterized by fasting hypoglycemia presenting in infancy or early childhood, high blood ketones and low alanine and lactate concentrations. Although feeding relieves symptoms, it often results in postprandial hyperglycemia and hyperlactatemia.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**Background Descriptions**

Glycogen synthase catalyzes the rate-limiting step in glycogen synthesis. Its activity is regulated by a complex phosphorylation-dephosphorylation mechanism and by allosteric stimulators and inhibitors. Two isozymes of synthase, a skeletal muscle type (Glycogen synthase 1 - GYS1) and a liver type (Glycogen synthase 2 - GYS2), have been identified.

## Glycogen synthase 2 Polyclonal Antibody - Additional Information

**Gene ID** 2998

### Other Names

Glycogen [starch] synthase, liver, 2.4.1.11, GYS2

### Dilution

<span class = "dilution\_WB">WB~~1:1000</span><br \><span class = "dilution\_IHC-P">IHC-P~~N/A</span><br \><span class = "dilution\_IHC-F">IHC-F~~N/A</span><br \><span class = "dilution\_IF">IF~~1:50~200</span><br \><span class = "dilution\_E">E~~N/A</span>

### Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

## Glycogen synthase 2 Polyclonal Antibody - Protein Information

**Name** GYS2 {ECO:0000303|PubMed:9691087, ECO:0000312|HGNC:HGNC:4707}

### Function

Glycogen synthase participates in the glycogen biosynthetic process along with glycogenin and glycogen branching enzyme. Extends the primer composed of a few glucose units formed by glycogenin by adding new glucose units to it. In this context, glycogen synthase transfers the glycosyl residue from UDP-Glc to the non-reducing end of alpha-1,4-glucan.

### Tissue Location

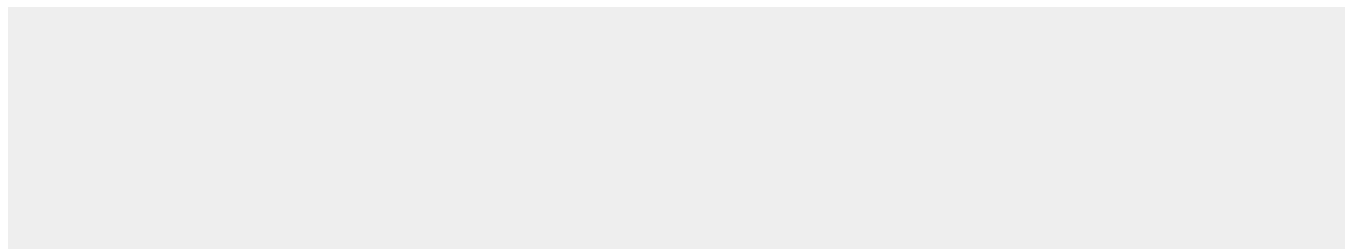
Specifically expressed in liver (at protein level).

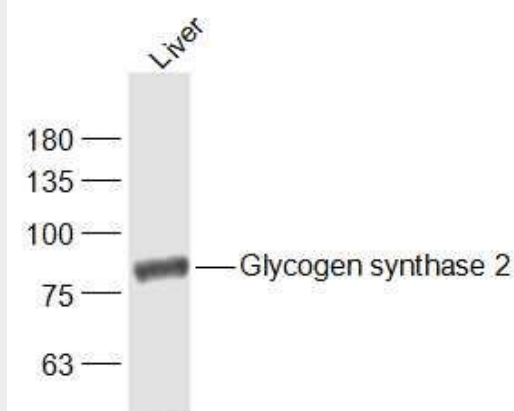
## Glycogen synthase 2 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Glycogen synthase 2 Polyclonal Antibody - Images



**Sample:**

Liver (Mouse) Lysate at 40 ug

Primary: Anti-Glycogen synthase 2 (bs-3989R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 81 kD

Observed band size: 81 kD