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Glycogen synthase 2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58115

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	P54840
Reactivity	Rat, Pig, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	80989
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Glycogen synthase 2
Epitope Specificity	621-703/703
Isotype	IgG
Purity	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 an 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.

Additional Information

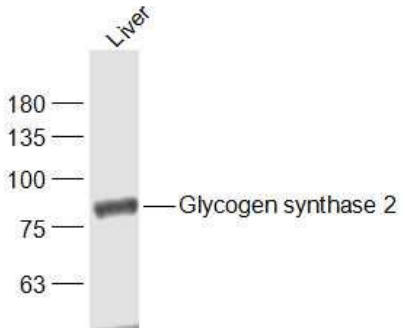
Gene ID	2998
Other Names	Glycogen [starch] synthase, liver, 2.4.1.11, GYS2
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce

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.

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).

Images



Sample:
Liver (Mouse) Lysate at 40 ug
Primary: Anti-Glycogen synthase 2 (AP58115) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 81 kD
Observed band size: 81 kD