

## Anti-Phospho-GYS1 (Ser641) Antibody (6Y642)

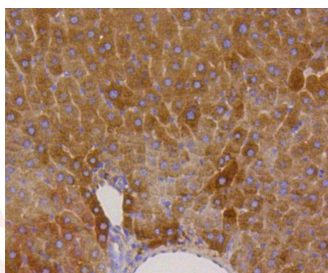
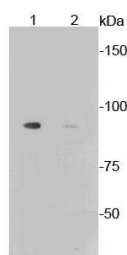
### Product Details

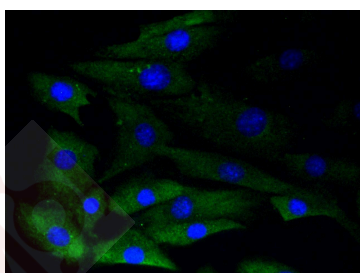
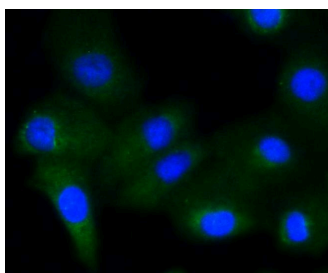
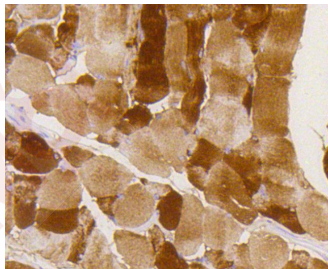
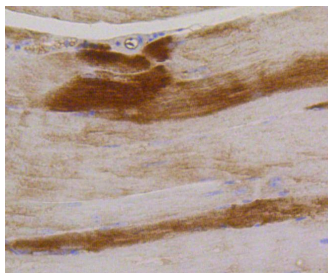
Ig Type:	IgG
Reactivity:	Human,Mouse
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 85 kDa.
Clone:	6Y642
Purification:	ProA affinity purified

### Applications

#### Verified Activity:

1. Western blot analysis of Phospho-Glycogen synthase 1 (S641) on different lysates using anti-Phospho-Glycogen synthase 1 (S641) antibody at 1/1,000 dilution. Positive control: Lane 1: Mouse liver lysate, untreated, Lane 2: Mouse liver lysate, treated with AP.
2. Immunohistochemical analysis of paraffin-embedded mouse liver tissue using anti-Phospho-Glycogen synthase 1 (S641) antibody. Counter stained with hematoxylin.
3. Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue using anti-Phospho-Glycogen synthase 1 (S641) antibody. Counter stained with hematoxylin.
4. Immunohistochemical analysis of paraffin-embedded mouse smooth muscle tissue using anti-Phospho-Glycogen synthase 1 (S641) antibody. Counter stained with hematoxylin.
5. ICC staining Phospho-Glycogen synthase 1 (S641) in A549 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
6. ICC staining Phospho-Glycogen synthase 1 (S641) in NIH/3T3 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.





Application: ICC,IHC,IP,WB

Recommended WB: 1:1000-2000; IHC: 1:50-200; ICC: 1:50-200

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: A synthesized phosphopeptide: human Glycogen synthase 1 around the phosphorylation site of Ser641

Antigen Species: human

Uniprot ID: P13807

Synonyms: Phospho-GYS1 (S641);p-GYS1 (Ser641);GYS1 (p-S641);GYS1 (p-Ser641);Glycogen synthase 1; GYS;Glycogen [starch] synthase;Gys 1;p-GYS1 (S641);muscle;GSY

### Research Background

Glycogen [starch] synthase belongs to the mammalian/fungal glycogen synthase family of proteins. Two forms of this protein exist, a liver form and a muscle form, both of which have the same function in the glycogen biosynthesis

pathway. Glycogen synthase transfers the glycosyl residue from UDP-Glucose to the nonreducing end of  $\alpha$ -1,4-glucan. The liver glycogen synthase protein is truncated by 34 amino acids compared to the muscle form. However, these enzymes differ significantly in their amino- and carboxyl-terminal regions. Muscle glycogen synthase serves to fuel muscular activity only and is regulated by muscle contraction and by catecholamines. Liver glycogen synthase mediates blood glucose homeostasis in response to nutritional cues. Defects in the gene encoding liver glycogen synthase results in glycogen storage disease type 0 (GSD0), a rare form of fasting ketotic hypoglycemia.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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