

**Product Name:** KD-Validated Phospho-Glycogen Synthase 1 (S641) Recombinant Rabbit Monoclonal Antibody

**Catalog #:** KVA01316

For research use only.

## Summary

|                     |                                                                             |
|---------------------|-----------------------------------------------------------------------------|
| <b>Description</b>  | KO&KD-Validated antibody                                                    |
| <b>Host</b>         | Rabbit                                                                      |
| <b>Application</b>  | WB,FCM,ICC                                                                  |
| <b>Reactivity</b>   | Human,Mouse,Rat                                                             |
| <b>Conjugation</b>  | Unconjugated                                                                |
| <b>Modification</b> | Unmodified                                                                  |
| <b>Isotype</b>      | Rabbit IgG                                                                  |
| <b>Clonality</b>    | Rabbit mAb                                                                  |
| <b>Form</b>         | Liquid                                                                      |
| <b>Storage</b>      | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| <b>Shipping</b>     | Ice bags                                                                    |
| <b>Buffer</b>       | Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.   |
| <b>Purification</b> | Affinity purification                                                       |

## Application

|                         |                                                         |
|-------------------------|---------------------------------------------------------|
| <b>Dilution Ratio</b>   | WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000 |
| <b>Molecular Weight</b> | Calculated MW: 83.8kDa                                  |

## Antigen Information

|                          |                                                                                                                    |
|--------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | GYS1                                                                                                               |
| <b>Alternative Names</b> | GYS1; Glycogen Synthase 1; GSY; GYS; Glycogen [Starch] Synthase, Muscle; Glycogen Synthase 1 (Muscle); EC 2.4.1.11 |
| <b>Gene ID</b>           | 2997.0                                                                                                             |
| <b>SwissProt ID</b>      | P13807                                                                                                             |
| <b>Immunogen</b>         | A synthesized peptide derived from human Phospho-Glycogen synthase 1 (S641)                                        |

## Background

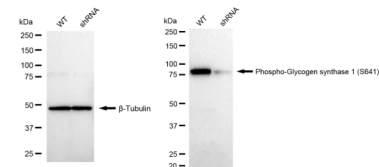
The protein encoded by this gene catalyzes the addition of glucose monomers to the growing glycogen molecule through the formation of alpha-1,4-glycoside linkages. Mutations in this gene are associated with muscle glycogen storage disease.

Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Sep 2009]

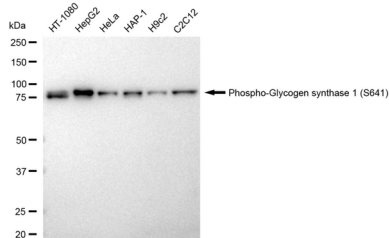
## Research Area

Signal Transduction,Cardiovascular,Metabolism

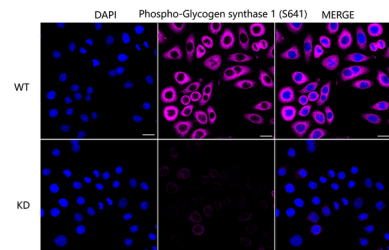
## Image Data



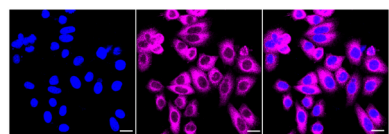
Western blotting analysis using Phospho-Glycogen synthase 1 (S641) antibody (KVA01316). Phospho-Glycogen synthase 1 (S641) expression in wild type (WT) and Phospho-Glycogen synthase 1 (S641) shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with Phospho-Glycogen synthase 1 (S641) antibody (KVA01316, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



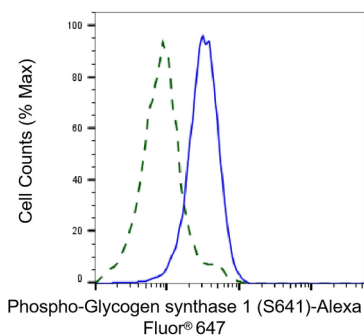
Western blotting analysis using Phospho-Glycogen synthase 1 (S641) antibody (KVA01316). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Phospho-Glycogen synthase 1 (S641) antibody (KVA01316, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



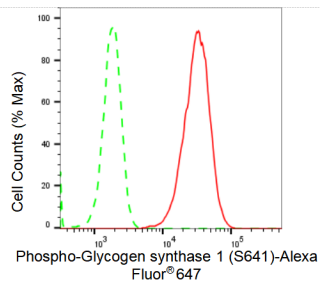
Immunocytochemical staining of HeLa cells using Phospho-Glycogen synthase 1 (S641) antibody (KVA01316, 1:1,000). Top panel: wild-type (WT); Bottom panel: Phospho-Glycogen synthase 1 (S641) shRNA knockdown (KD). Nuclei were stained blue with DAPI; Phospho-Glycogen synthase 1 (S641) was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



Immunocytochemical staining of HepG2 cells with Phospho-Glycogen synthase 1 (S641) antibody (KVA01316, 1:1,000). Nuclei were stained blue with DAPI; Phospho-Glycogen synthase 1 (S641) was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Validation of Glycogen synthase 1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Phospho-Glycogen synthase 1 (S641) antibody (KVA01316, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Phospho-Glycogen synthase 1 (S641) expression in HepG2 cells using Phospho-Glycogen synthase 1 (S641) antibody (KVA01316, 1:2,000). Green, isotype control; red, Phospho-Glycogen synthase 1 (S641).