

For Research Use Only

Phospho-GYS1 (Ser641) Polyclonal antibody



Catalog Number: 28855-1-AP

Basic Information

Catalog Number: 28855-1-AP	GenBank Accession Number: BC007688	Purification Method: Protein A purification
Size: 100ul , Concentration: 300 µg/ml by Nanodrop;	GeneID (NCBI): 2997	Recommended Dilutions: WB 1:2000-1:12000 IF 1:200-1:800
Source: Rabbit	UNIPROT ID: P13807	
Isotype: IgG	Full Name: glycogen synthase 1 (muscle)	
	Calculated MW: 84 kDa	
	Observed MW: 84 kDa	

Applications

Tested Applications: IF, WB, ELISA	Positive Controls: WB : λ phosphatase treated PC-3 cells, IF : λ phosphatase treated PC-3 cells,
Species Specificity: Human	

Background Information

Glycogen synthase 1 (GYS1, GS) catalyzes the key step of glycogen synthesis and plays an important role in glycogen metabolism in liver and muscle. In kidney tissues, glycogen synthase 1 (GYS1) is the most important rate-limiting enzyme functioning in the last step of glycogen synthesis. Pathologically, its deficiency has been shown to cause muscle glycogen storage disease type 0 and death. Studies of tumors showed that GYS1 was rapidly induced under hypoxic conditions and positively correlated with glycogen accumulation in glioblastoma, breast, and colon cancer cell lines. GYS1 is phosphorylated at nine sites and insulin stimulates dephosphorylation of glycogen synthase. Insulin stimulates dephosphorylation of glycogen synthase via PKB-mediated phosphorylation of GSK3. Phosphorylation of GSK3 decreases kinase activity which will decrease phosphorylation of GS and increase glycogen synthase fractional activity. (PMID: 32802186, PMID: 30443599, PMID: 22252606)

Storage

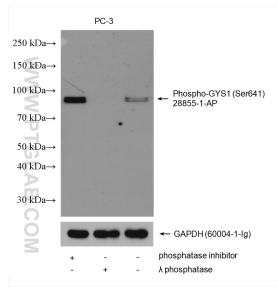
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

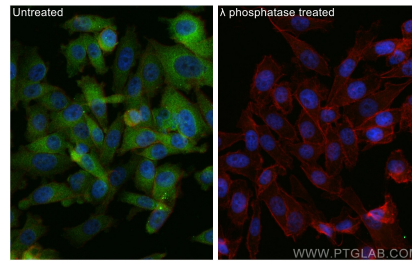
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



Non-treated PC-3 cells, phosphatase inhibitor treated and λ phosphatase PC-3 cells were subjected to SDS PAGE followed by western blot with 28855-1-AP (Phospho-GYS1 (Ser641) antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control.



Immunofluorescent analysis of (4% PFA) fixed λ phosphatase treated PC-3 cells using Phospho-GYS1 (Ser641) antibody (28855-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).