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G6PC Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5224c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P35575
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB30027
Calculated MW	40484
Antigen Region	123-149

Additional Information

Gene ID	2538
Other Names	Glucose-6-phosphatase, G-6-Pase, G6Pase, Glucose-6-phosphatase alpha, G6Pase-alpha, G6PC, G6PT
Target/Specificity	This G6PC antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 123-149 amino acids from the Central region of human G6PC.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	G6PC Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	G6PC1 (HGNC:4056)
Synonyms	G6PC, G6PT

Function	Hydrolyzes glucose-6-phosphate to glucose in the endoplasmic reticulum. Forms with the glucose-6-phosphate transporter (SLC37A4/G6PT) the complex responsible for glucose production in the terminal step of glycogenolysis and gluconeogenesis. Hence, it is the key enzyme in homeostatic regulation of blood glucose levels.
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein

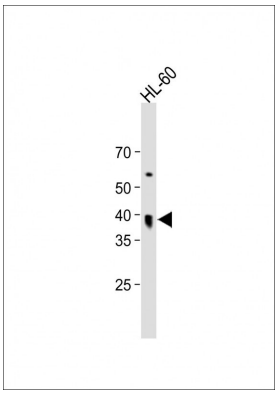
Background

Glucose-6-phosphatase is an integral membrane protein of the endoplasmic reticulum that catalyzes the hydrolysis of D-glucose 6-phosphate to D-glucose and orthophosphate. It is a key enzyme in glucose homeostasis, functioning in gluconeogenesis and glycogenolysis. Defects in the enzyme cause glycogen storage disease type I.

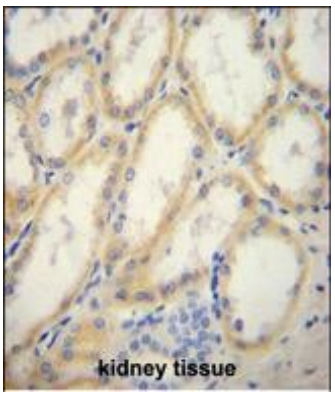
References

Tu, E., et al. Hum. Pathol. 41(3):392-400(2010)
Samuel, V.T., et al. Proc. Natl. Acad. Sci. U.S.A. 106(29):12121-12126(2009)
Hu, C., et al. Diabetologia 52(3):451-456(2009)

Images

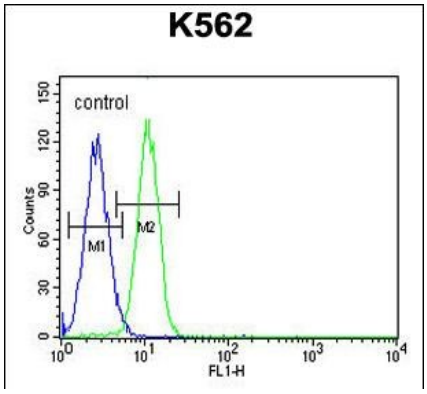


All lanes : Anti-G6PC Antibody (Center) at 1:2000 dilution+HL-60whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 40kDa Blocking/Dilution buffer: 5% NFDM/TBST.



G6PC Antibody (Center) (Cat. #AP5224c) immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the G6PC Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

G6PC Antibody (Center) (Cat. #AP5224c) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Citations

- LONP1 ameliorates liver injury and improves gluconeogenesis dysfunction in acute-on-chronic liver failure
- Propionate suppresses hepatic gluconeogenesis via GPR43/AMPK signaling pathway.
- Effects of polysaccharide from the fruiting bodies of Auricularia auricular on glucose metabolism in Co-γ-radiated mice.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.