## bs-4044R

# [ Primary Antibody ]

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# **G6PC Rabbit pAb**

DATASHEET -

Host: Rabbit Isotype: IgG

Clonality: Polyclonal

**GenelD: 2538 SWISS:** P35575

Target: G6PC

Immunogen: KLH conjugated synthetic peptide derived from human Glucose 6

phosphatase alpha: 81-180/357.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50%

Glycerol.

Shipped at 4°C. Store at -20°C for one year. Avoid repeated

freeze/thaw cycles.

Background: Glucose-6-phosphatase (G6Pase) is a multi-subunit integral membrane protein of the endoplasmic reticulum that is composed of a catalytic subunit and transporters for G6P, inorganic phosphate, and glucose. This gene (G6PC) is one of the three glucose-6-phosphatase catalytic-subunit-encoding genes in human: G6PC, G6PC2 and G6PC3. Glucose-6-phosphatase catalyzes the hydrolysis of D-glucose 6-phosphate to D-glucose and orthophosphate and is a key enzyme in glucose homeostasis, functioning in gluconeogenesis and glycogenolysis. Mutations in this gene cause glycogen storage disease type I (GSD1). This disease, also known as von Gierke disease, is a metabolic disorder characterized by severe hypoglycemia associated with the accumulation of glycogen and fat in the liver and kidneys.[provided by RefSeq, Feb 2011]

Applications: WB (1:500-2000)

**IHC-P** (1:100-500) **IHC-F** (1:100-500) **IF** (1:100-500) Flow-Cyt (0.2ug/test)

Reactivity: Human, Rat

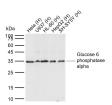
(predicted: Mouse, Rabbit, Pig, Sheep, Cow, Dog)

Predicted 39 kDa MW.:

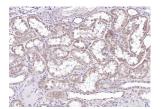
Subcellular

Location: Cell membrane ,Cytoplasm

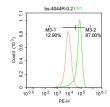
### VALIDATION IMAGES



Sample: Lane 1: Human Hela cell lysates Lane 2: Human U937cell lysates Lane 3: Human HL-60 cell lysates Lane 4: Human HepG2 cell lysates Lane 5: Human SH-SY5Y cell lysates Primary: Anti-Glucose 6 phosphatase alpha (bs-4044R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 39 kDa Observed band size: 35 kDa



Paraformaldehyde-fixed, paraffin embedded (Human kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes: Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Glucose 6 phosphatase alpha) Polyclonal Antibody, Unconjugated (bs-4044R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



U-937 cells were incubated in 5% BSA blocking buffer for 30 min at room temperature. Cells were then stained with bs-4044R Antibody at 1:500 dilution in blocking buffer and incubated for 30 min at room temperature, washed twice with 2%BSA in PBS, followed by secondary antibody incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells stained with primary antibody (green), and isotype control (orange).

## — SELECTED CITATIONS —

- [IF=7.7] Bing Yang. et al. Hovenia dulcis (Guaizao) polysaccharide ameliorates hyperglycemia through multiple signaling pathways in rats with type 2 diabetes mellitus. INT J BIOL MACROMOL. 2024 Dec::138338 WB: Rat. 39638196
- [IF=7.25] Yao, Chun, et al. "Role of FADD Phosphorylation in Regulating Glucose Homeostasis: from Proteomic

- Discovery to Physiological Validation." Molecular & Cellular Proteomics (2013). WB;="Mouse". 23828893
- [IF=4.011] Yuan Qi. et al. Sirt1 Mediates Vitamin D Deficiency-Driven Gluconeogenesis in the Liver via mTorc2/Akt Signaling. J Diabetes Res. 2022;2022:1755563 WB; Human, Mouse. 35132380
- [IF=2.955] Shino Oikawa. et al. Non-neuronal cardiac acetylcholine system playing indispensable roles in cardiac homeostasis confers resiliency to the heart. J Physiol Sci. 2021 Dec;71(1):1-20 WB; Mouse. 33461483
- [IF=3] He Zhang. et al. Inhibition of ghrelin activity by the receptor antagonist [D-Lys3]-GHRP-6 enhances hepatic fatty acid oxidation and gluconeogenesis in a growing pig model. PEPTIDES. 2023 Aug;166:171041 WB; Pig. 37301480