bs-4044R **[Primary Antibody]**

G6PC Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 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]

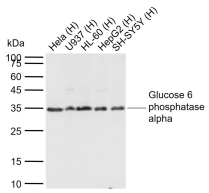
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (0.2ug/test)

Reactivity: Human (predicted: Mouse, Rat, Rabbit, Pig, Sheep, Cow, Dog)

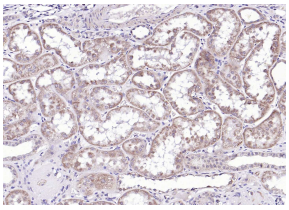
Predicted MW.: 39 kDa

Subcellular Location: Cell membrane ,Cytoplasm

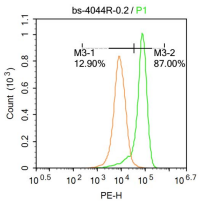
VALIDATION IMAGES



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) instructionsand 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=7.2]** Li Zhen. et al. Hypoglycemic effects of Goji tea in streptozotocin-induced diabetic mice via IRS1/PI3K/AKT/AMPK pathway. Journal of Future Foods. 2025 Jun;: WB ;Mouse. 10.1016/j.jfutfo.2025.01.005
- **[IF=5.1]** Lei Wu. et al. Flavonoids of Mao Jian Green Tea Ameliorate Glycemic Metabolism in Type-2-Diabetic Rats via AMPK Signaling Pathways and Gut Microbiota Regulation. FOODS. 2025 Jul;14(13):2402 WB ;Rat. 40647154
- **[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