bs-13341R **[Primary Antibody]**

GFPT1 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 2673 **SWISS:** Q06210

Target: GFPT1

Immunogen: KLH conjugated synthetic peptide derived from human GFPT1: 601-699/699.

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: Glutamine:fructose-6-phosphate amidotransferase (GFAT1) is the first and rate-limiting enzyme for the entry of glucose into the hexosamine biosynthesis pathway (HBP) in mammals. GFAT1, a member of the N-terminal nucleophile class of amidotransferases, converts fructose-6-phosphate into N-acetylglucosamine-6-phosphate. Hyperglycemia-induced insulin resistance, a condition in which exposure to high concentrations of glucose and insulin results in insulin resistance, may result from increased glucose metabolism through the HBP. Hypergylcemia-induced insulin resistance is a characteristic feature of type 2 diabetes. Consequently, GFAT1 is a potential therapeutic target in the treatment of type 2 diabetes.

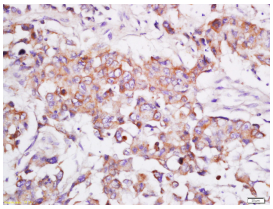
Applications: **IHC-P** (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

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

Predicted MW.: 79 kDa

Subcellular Location: Cytoplasm

VALIDATION IMAGES



Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-GFPT1 Polyclonal Antibody, Unconjugated(bs-13341R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

SELECTED CITATIONS

- **[IF=5.1]** Shuai Wang. et al. Swainsonine inhibits autophagic degradation and causes cytotoxicity by reducing CTSD O-GlcNAcylation. CHEM-BIOL INTERACT. 2023 Jul;:110629 WB ;Rat. 37442287
- **[IF=5]** Laura Vanden Brande. et al. Pathogenic DPAGT1 variants in limb-girdle congenital myasthenic syndrome (LG-CMS) associated with tubular aggregates and ORAI1 hypoglycosylation. NEUROPATH APPL NEURO. 2023 Dec;:e12952 IF

;Human. 38124360