

GPI Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9786b

Product Information

Application	FC, WB, E
Primary Accession	P06744
Other Accession	Q4R591
Reactivity	Human, Rat, Mouse
Predicted	Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24626
Calculated MW	63147
Antigen Region	445-473

Additional Information

Gene ID	2821
Other Names	Glucose-6-phosphate isomerase, GPI, Autocrine motility factor, AMF, Neuroleukin, NLK, Phosphoglucose isomerase, PGI, Phosphohexose isomerase, PHI, Sperm antigen 36, SA-36, GPI
Target/Specificity	This GPI antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 445-473 amino acids from the C-terminal region of human GPI.
Dilution	FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	GPI Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GPI {ECO:0000303 PubMed:2387591, ECO:0000312 HGNC:HGNC:4458}
Function	Isomerase that catalyzes the conversion of alpha-D-glucose-6- phosphate to

beta-D-fructose-6-phosphate, the second step in glycolysis, and the reverse reaction in gluconeogenesis, within the cytoplasm (PubMed:[28803808](#)). Also shows C2-epimerase activity, interconverting D-glucose-6-phosphate (G6P) and D-mannose-6-phosphate (M6P) (By similarity). Also displays anomerase activity, interconverting alpha and beta-anomeric forms of G6P, D-fructose-6-phosphate and M6P (By similarity). In addition to its metabolic role, this enzyme functions extracellularly as a cytokine: acts as autocrine motility factor (AMF), a secreted angiogenic factor that enhances endothelial cell motility (PubMed:[11437381](#)). Functions as neuroleukin, a neurotrophic factor supporting the survival of spinal and sensory neurons (PubMed:[11004567](#), PubMed:[3352745](#)). Released by lectin- stimulated T-cells to induce immunoglobulin secretion (PubMed:[11004567](#), PubMed:[3352745](#)).

Cellular Location

Cytoplasm. Secreted

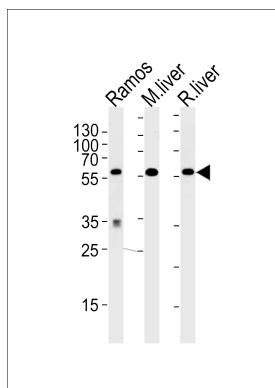
Background

GPI belongs to the GPI family whose members encode multifunctional phosphoglucose isomerase proteins involved in energy pathways. The protein encoded by this gene is a dimeric enzyme that catalyzes the reversible isomerization of glucose-6-phosphate and fructose-6-phosphate. The protein functions in different capacities inside and outside the cell. In the cytoplasm, the gene product is involved in glycolysis and gluconeogenesis, while outside the cell it functions as a neurotrophic factor for spinal and sensory neurons. Defects in this gene are the cause of nonspherocytic hemolytic anemia and a severe enzyme deficiency can be associated with hydrops fetalis, immediate neonatal death and neurological impairment.

References

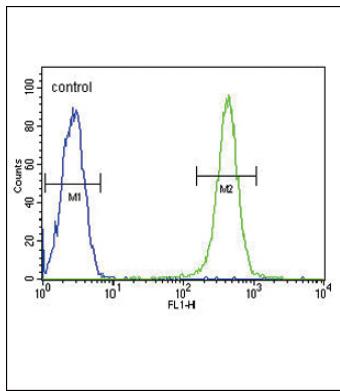
Shih, W.L., et al. *Cancer Lett.* 290(2):223-237(2010)
Davila, S., et al. *Genes Immun.* 11(3):232-238(2010)
Araki, K., et al. *J. Biol. Chem.* 284(47):32305-32311(2009)
Tsutsumi, S., et al. *Int. J. Oncol.* 35(5):1117-1121(2009)
Funasaka, T., et al. *Cancer Res.* 69(13):5349-5356(2009)
Yanagawa, T., et al. *J. Biol. Chem.* 280(11):10419-10426(2005)
Haga, A., et al. *Biochim. Biophys. Acta* 1480 (1-2), 235-244 (2000)

Images



Western blot analysis of lysates from Ramos cell line, mouse liver, rat liver tissue (from left to right), using GPI Antibody (C-term)(Cat. #AP9786b). AP9786b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

GPI Antibody (C-term) (Cat. #AP9786b) flow cytometric analysis of Ramos cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Citations

- [Evodiamine Induces Apoptosis and Inhibits Migration of HCT-116 Human Colorectal Cancer Cells.](#)
- [Enolase1 \(ENO1\) and glucose-6-phosphate isomerase \(GPI\) are good markers to predict human sperm freezability.](#)

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