

#### **GPI Antibody (C-term)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP9786b

#### **Specification**

### **GPI Antibody (C-term) - Product Information**

Application WB, FC,E
Primary Accession P06744
Other Accession O4R591

Reactivity Human, Mouse

Predicted Monkey
Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Antigen Region 445-473

#### **GPI Antibody (C-term) - 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**

WB~~1:1000 FC~~1:10~50

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**

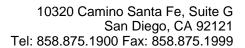
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

GPI Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

#### **GPI Antibody (C-term) - Protein Information**

Name GPI {ECO:0000303|PubMed:2387591, ECO:0000312|HGNC:HGNC:4458}





**Function** In the cytoplasm, catalyzes the conversion of glucose-6- phosphate to fructose-6-phosphate, the second step in glycolysis, and the reverse reaction during gluconeogenesis (PubMed:28803808). Besides it's role as a glycolytic enzyme, also acts as a secreted cytokine: acts as an angiogenic factor (AMF) that stimulates endothelial cell motility (PubMed:11437381). Acts as a neurotrophic factor, neuroleukin, for spinal and sensory neurons (PubMed:11004567, PubMed:3352745). It is secreted by lectin-stimulated T-cells and induces immunoglobulin secretion (PubMed:11004567, PubMed:3352745).

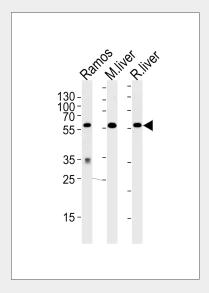
**Cellular Location** Cytoplasm. Secreted

## **GPI Antibody (C-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

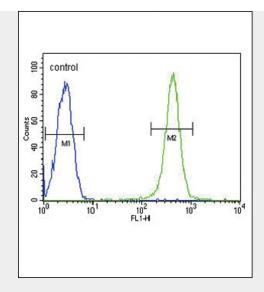
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## GPI Antibody (C-term) - 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.

### GPI Antibody (C-term) - 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.

### **GPI Antibody (C-term) - 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)

# **GPI Antibody (C-term) - 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.