

**Goat Anti-GPI / Neuroleukin Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF2221b

**Specification**

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**Goat Anti-GPI / Neuroleukin Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">P06744</a>
Other Accession	<a href="#">NP_000166</a> , <a href="#">2821</a>
Reactivity	Human
Predicted	Pig
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	63147

**Goat Anti-GPI / Neuroleukin Antibody - Additional Information**

**Gene ID** 2821

**Other Names**

Glucose-6-phosphate isomerase, GPI, 5.3.1.9, Autocrine motility factor, AMF, Neuroleukin, NLK, Phosphoglucose isomerase, PGI, Phosphohexose isomerase, PHI, Sperm antigen 36, SA-36, GPI

**Dilution**

WB~~1:1000

E~~N/A

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-GPI / Neuroleukin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-GPI / Neuroleukin Antibody - 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:<a href="http://www.uniprot.org/citations/28803808" target="\_blank">28803808</a>). 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:<a href="http://www.uniprot.org/citations/11437381" target="\_blank">11437381</a>). Functions as neuroleukin, a neurotrophic factor supporting the survival of spinal and sensory neurons (PubMed:<a href="http://www.uniprot.org/citations/11004567" target="\_blank">11004567</a>, PubMed:<a href="http://www.uniprot.org/citations/3352745" target="\_blank">3352745</a>). Released by lectin-stimulated T-cells to induce immunoglobulin secretion (PubMed:<a href="http://www.uniprot.org/citations/11004567" target="\_blank">11004567</a>, PubMed:<a href="http://www.uniprot.org/citations/3352745" target="\_blank">3352745</a>).

### Cellular Location

Cytoplasm. Secreted

### Goat Anti-GPI / Neuroleukin Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Goat Anti-GPI / Neuroleukin Antibody - Images



AF2221b (0.01 µg/ml) staining of Human Heart lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

### Goat Anti-GPI / Neuroleukin Antibody - Background

This gene 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.

#### **Goat Anti-GPI / Neuroleukin Antibody - References**

New genetic associations detected in a host response study to hepatitis B vaccine. Davila S, et al. Genes Immun, 2010 Apr. PMID 20237496.

PI 3-kinase/Akt and STAT3 are required for the prevention of TGF-beta-induced Hep3B cell apoptosis by autocrine motility factor/phosphoglucose isomerase. Shih WL, et al. Cancer Lett, 2010 Apr 28. PMID 19819066.

Phosphoglucose isomerase/autocrine motility factor promotes melanoma cell migration through ERK activation dependent on autocrine production of interleukin-8. Araki K, et al. J Biol Chem, 2009 Nov 20. PMID 19801670.

Phosphoglucose isomerase enhances colorectal cancer metastasis. Tsutsumi S, et al. Int J Oncol, 2009 Nov. PMID 19787266.

Phosphoglucose isomerase/autocrine motility factor mediates epithelial and mesenchymal phenotype conversions in breast cancer. Funasaka T, et al. Cancer Res, 2009 Jul 1. PMID 19531650.