

Goat Anti-GPI / Neuroleukin Antibody

Peptide-affinity purified goat antibody Catalog # AF2221b

Specification

Goat Anti-GPI / Neuroleukin Antibody - Product Information

Application WB, E
Primary Accession P06744

Other Accession <u>NP_000166</u>, <u>2821</u>

Reactivity
Predicted
Pig
Host
Clonality
Concentration
Human
Pig
Goat
Toolug/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 lgG/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

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).

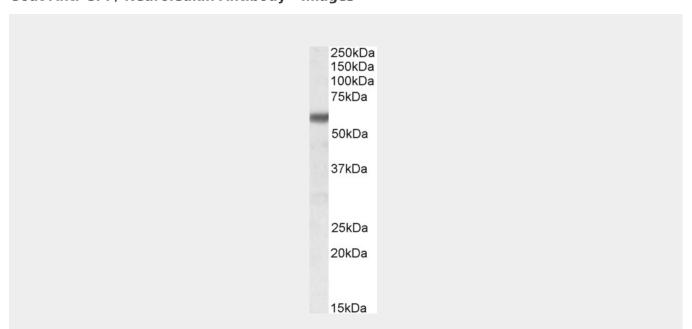
Cellular Location Cytoplasm. Secreted

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 Cytomety
- Cell Culture

Goat Anti-GPI / Neuroleukin Antibody - Images



AF2221b (0.01 μ g/ml) staining of Human Heart lysate (35 μ g 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.