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Anti-GPI Picoband Antibody

Catalog # ABO11686

Specification

Anti-GPI Picoband Antibody - Product Information

Application	**WB**
Primary Accession	P06744
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Glucose-6-phosphate isomerase(GPI) detection. Tested with WB in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-GPI Picoband 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

Calculated MW
63147 MW KDa

Application Details
Western blot, 0.1-0.5 μg/ml, Human

Subcellular Localization
Cytoplasm . Secreted .

Protein Name
Glucose-6-phosphate isomerase

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the N-terminus of human GPI (5-39aa TRDPQFQKLQQWYREHRSELNLRRLFDANKDRFNH), different from the related mouse and rat sequences by sixteen amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-GPI Picoband 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

Anti-GPI Picoband 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

Anti-GPI Picoband Antibody - Images

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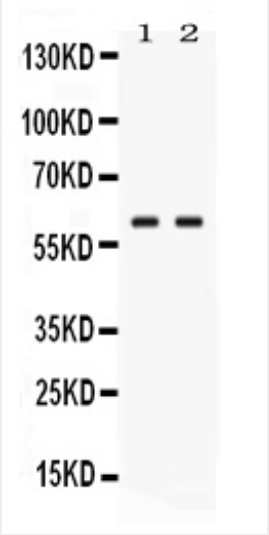

Western blot analysis of GPI expression in human placenta extract (lane 1) and JURKAT whole cell lysates (lane 2). GPI at 63KD was detected using rabbit anti- GPI Antigen Affinity purified polyclonal antibody (Catalog # ABO11686) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .

Anti-GPI Picoband Antibody - Background

Glucose-6-phosphate isomerase (GPI), alternatively known as phosphoglucose isomerase (PGI) or phosphohexose isomerase(PHI), is an enzyme that in humans is encoded by the GPI gene on chromosome 19. This gene encodes a member of the glucose phosphate isomerase protein family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. In the cytoplasm, the gene product functions as a glycolytic enzyme (glucose-6-phosphate isomerase) that interconverts glucose-6-phophsate and fructose-6-phosphate. Extracellularly, the encoded protein (also referred to as neuroleukin) functions as a neurotrophic factor that promotes survival of skeletal motor neurons and sensory neurons, and as a lymphokine that induces immunoglobulin secretion. The encoded protein is also referred to as autocrine motility factor based on an additional function as a tumor-secreted cytokine and angiogenic factor. 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. Alternative splicing results in multiple transcript variants.