

**Anti-GPI Picoband Antibody**  
**Catalog # ABO11687****Specification**

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**Anti-GPI Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P06745</a>
Host	Rabbit
Reactivity	Mouse
Clonality	Polyclonal
Format	Lyophilized

**Description**

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

**Reconstitution**

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

**Anti-GPI Picoband Antibody - Additional Information**

**Gene ID** 14751

**Other Names**

Glucose-6-phosphate isomerase, GPI, 5.3.1.9, Autocrine motility factor, AMF, Neuroleukin, NLK, Phosphoglucose isomerase, PGI, Phosphohexose isomerase, PHI, Gpi, Gpi1

**Calculated MW**

62767 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Mouse<br>

**Subcellular Localization**

Cytoplasm. Secreted.

**Protein Name**

Glucose-6-phosphate isomerase

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminus of mouse GPI (2-39aa AALTRNPQFQKLEWHRANSANLKLRELFEADPERFNN), different from the related human sequence by sixteen amino acids, and from the related rat sequence by two amino acids.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins.

**Storage**

**At -20°C for one year. After reconstitution, 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:7545951}

**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: [2344351](http://www.uniprot.org/citations/2344351), PubMed: [7277315](http://www.uniprot.org/citations/7277315), PubMed: [8417789](http://www.uniprot.org/citations/8417789)). Besides its role as a glycolytic enzyme, also acts as a secreted cytokine: acts as an angiogenic factor (AMF) that stimulates endothelial cell motility (By similarity). Acts as a neurotrophic factor, neuroleukin, for spinal and sensory neurons (PubMed: [3352745](http://www.uniprot.org/citations/3352745), PubMed: [3764429](http://www.uniprot.org/citations/3764429)). It is secreted by lectin-stimulated T-cells and induces immunoglobulin secretion (PubMed: [3352745](http://www.uniprot.org/citations/3352745)).

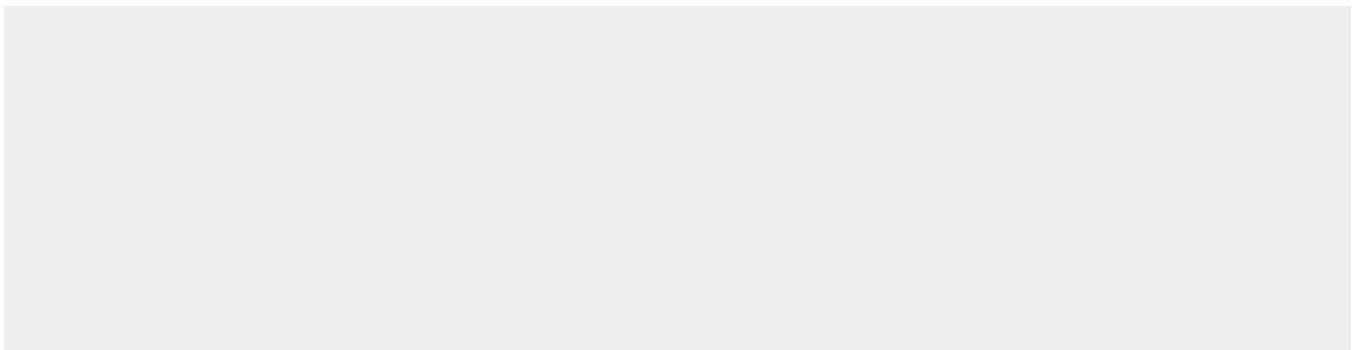
**Cellular Location**

Cytoplasm {ECO:0000250|UniProtKB:P06744}. Secreted {ECO:0000250|UniProtKB:P06744}

**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 Cytometry](#)
- [Cell Culture](#)

**Anti-GPI Picoband Antibody - Images**



Western blot analysis of GPI expression in mouse thymus extract (lane 1). GPI at 64KD was detected using rabbit anti- GPI Antigen Affinity purified polyclonal antibody (Catalog # ABO11687) at 0.5 µg/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-phosphate 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.