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## **Human GPI antibody**

Catalog Number: ATGA0390

## **PRODUCT INFORMATION**

## Catalog number

ATGA0390

#### Clone No.

AT22G2

## **Product type**

Monoclonal Antibody

#### UnitProt No.

P06744

#### **NCBI Accession No.**

NP 000166

#### **Alternative Names**

Glucose-6-phosphate isomerase, GPI, AMF, GNPI, NLK, PGI, PHI, SA36, EC 5.3.1.9, Neuroleukin, Phosphoglucose isomerase, Phosphohexose isomerase, SA 36, Sperm antigen 36, G6PI, Glucose-6-phosphate isomerase

## **PRODUCT SPECIFICATION**

## **Antibody Host**

Mouse

#### **Reacts With**

Human

#### **Concentration**

1mg/ml (determined by BCA assay)

## **Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

## **Immunogen**

Recombinant human GPI (1-558aa) purified from E. coli

## Isotype

IgG2a kappa

## **Purification Note**

By protein-A affinity chromatography

## **Application**

ELISA, WB, FACS, ICC/IF

### **Usage**

The antibody has been tested by ELISA, Western blot analysis, Flow cytometry and ICC/IF to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.



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## **Storage**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## **BACKGROUND**

### **Description**

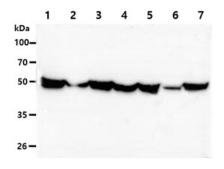
Glucose-6-phosphate isomerase (GPI), also known as phosphoglucose isomerase (PGI) or phosphohexose isomerase (PHI), is an enzyme. In the cytoplasm, it functions as a glycolytic enzyme (glucose-6-phosphate isomerase) that interconverts glucose-6-phosphate (G6P) and fructose-6-phosphate (F6P). Extracellularly, it functions as a neurotrophic factor that promotes survival of skeletal motor neurons and sensory neurons, and as a lymphokine that induces immunoglobulin secretion. GPI is also referred to as autocrine motility factor (AMF) based on an additional function as a tumor-secreted cytokine and angiogenic factor. Defects in GPI 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.

## **General References**

Cordeiro AT., et al. (2003) Biochimica et biophysica acta. 1645(2): 117-122. Kugler W., et al. (2000) Baillieres Best Pract Res Clin Haematol. 13(1): 89-101.

## **DATA**

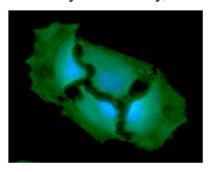
## Western blot analysis (WB)



The Cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human GPI antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: HeLa cell lysate
Lane 2.: HepG2 cell lysate
Lane 3.: A549 cell lysate
Lane 4.: Jurkat cell lysate
Lane 5.: U87MG cell lysate
Lane 6.: Raji cell lysate
Lane 7.: MCF7 cell lysate

### Immunocytochemistry/Immunofluorescence (ICC/IF)



Flow cytometry (FACS)

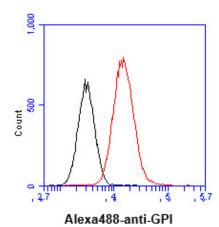
ICC/IF analysis of GPI in HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human GPI antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



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Flow cytometry analysis of GPI in HeLa cell line, staining at 2-5ug for  $1 \times 106$ cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).

