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

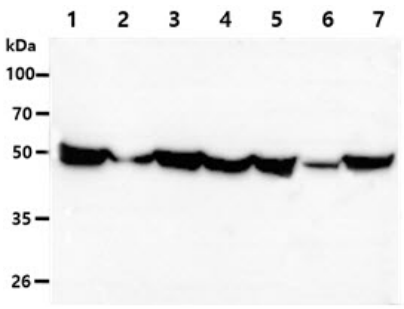
Glucose-6-phosphate isomerase (GPI), also known as phosphoglucose isomerase (PGI) or phosphohexose isomerase (PHI), is an enzyme. In the cytoplasm, it functions as a glycolytic enzyme (glucose-6-phosphate isomerase) that interconverts glucose-6-phosphate (G6P) and fructose-6-phosphate (F6P). Extracellularly, 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.

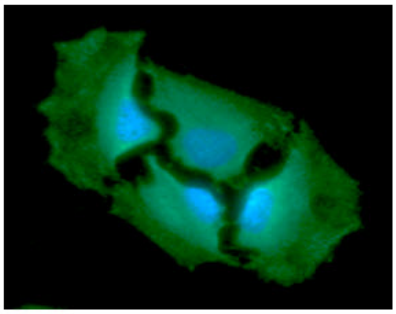
DATA

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)



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).

Flow cytometry (FACS)

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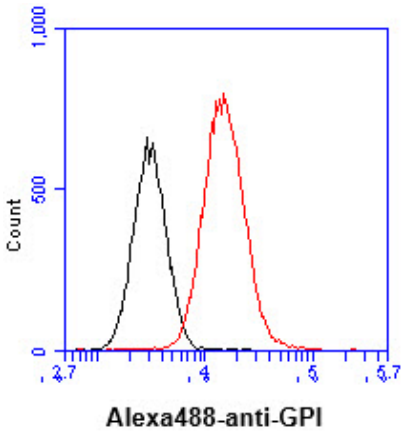

Flow cytometry analysis of GPI in HeLa cell line, staining at 2-5ug for 1x106cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).