

Product datasheet for **TA501137BM**

Glucose 6 phosphate isomerase (GPI) Mouse Monoclonal Antibody (HRP conjugated) [Clone ID: OTI5A11]

Product data:

| | |
|-------------------------|---|
| Product Type: | Primary Antibodies |
| Clone Name: | OTI5A11 |
| Applications: | FC, IF, IHC, WB |
| Recommended Dilution: | WB 1:1000~2000, IHC 1:50, IF 1:100, FLOW 1:100 |
| Reactivity: | Human, Dog, Monkey, Mouse, Rat |
| Host: | Mouse |
| Isotype: | IgG2b |
| Clonality: | Monoclonal |
| Immunogen: | Full length human recombinant protein of human GPI(NP_000166) produced in HEK293T cell. |
| Formulation: | PBS (pH 7.3) containing 1% BSA, 50% glycerol. |
| Concentration: | 0.5 mg/ml |
| Purification: | Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G) |
| Conjugation: | HRP |
| Storage: | Store at -20°C as received. |
| Stability: | Stable for 12 months from date of receipt. |
| Predicted Protein Size: | 63.0 kDa |
| Gene Name: | glucose-6-phosphate isomerase |
| Database Link: | NP_000166 Entrez Gene 292804 Rat Entrez Gene 611942 Dog Entrez Gene 717933 Monkey Entrez Gene 2821 Human P06744 |



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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.

Synonyms:

AMF; GNPI; NLK; PGI; PHI; SA-36; SA36

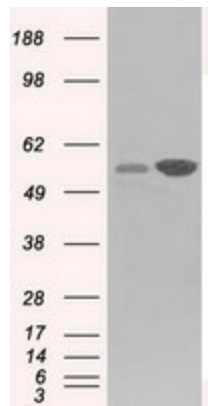
Protein Families:

Druggable Genome

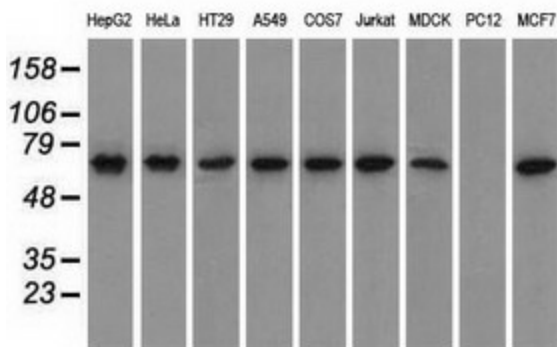
Protein Pathways:

Amino sugar and nucleotide sugar metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Pentose phosphate pathway, Starch and sucrose metabolism

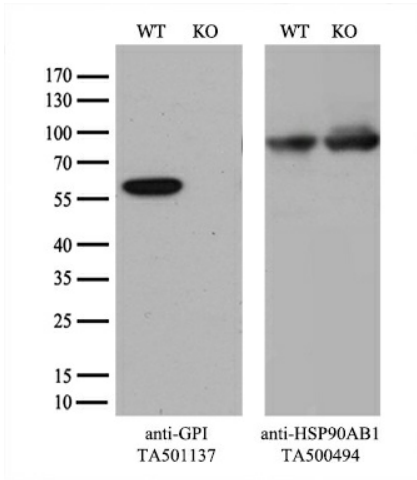
Product images:



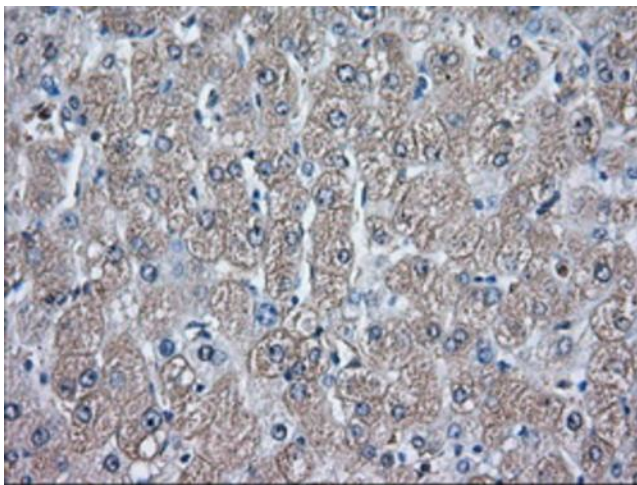
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY GPI ([RC201232], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GPI. Positive lysates [LY400066] (100ug) and [LC400066] (20ug) can be purchased separately from OriGene.



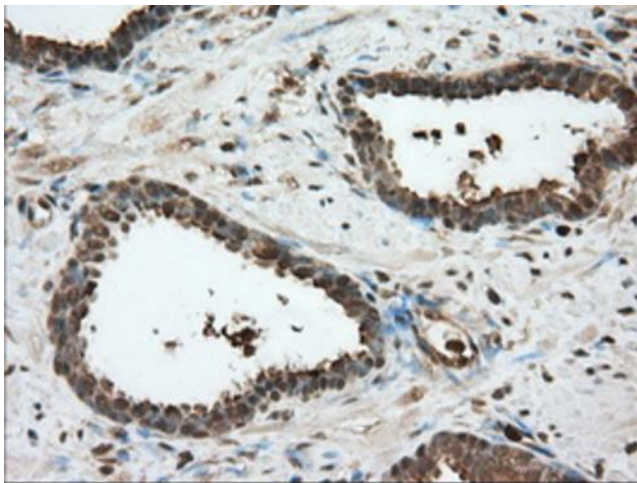
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-GPI monoclonal antibody.



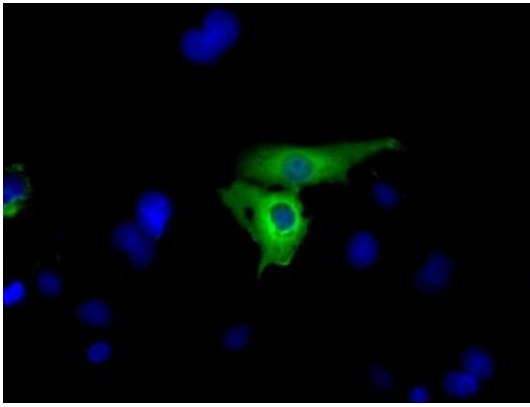
Equivalent amounts of cell lysates (10 ug per lane) of wild-type 293T cells (WT, Cat# LC810293T) and GPI-Knockout 293T cells (KO, Cat# [LC840273]) were separated by SDS-PAGE and immunoblotted with anti-GPI monoclonal antibody [TA501137] (1:500^{*}). Then the blotted membrane was stripped and reprobed with anti-HSP90 antibody as a loading control.



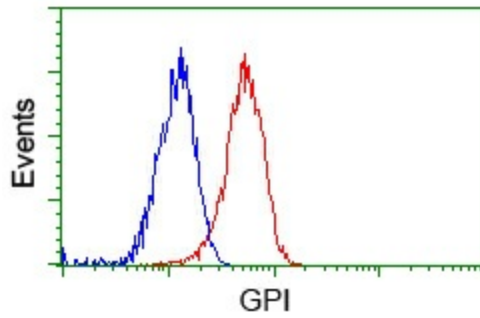
Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-GPI mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501137], Dilution 1:50)



Immunohistochemical staining of paraffin-embedded Carcinoma of Human prostate tissue using anti-GPI mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501137], Dilution 1:50)



Anti-GPI mouse monoclonal antibody ([TA501137]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY GPI ([RC201232]).



Flow cytometric Analysis of Jurkat cells, using anti-GPI antibody ([TA501137]), (Red), compared to a nonspecific negative control antibody (TA50011), (Blue).