

Product datasheet for **CF501137**

Glucose 6 phosphate isomerase (GPI) Mouse Monoclonal Antibody [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:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
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 RatEntrez Gene 611942 DogEntrez Gene 717933 MonkeyEntrez 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

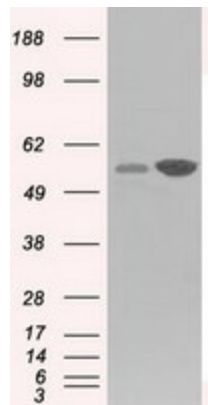
Protein Families:

Druggable Genome

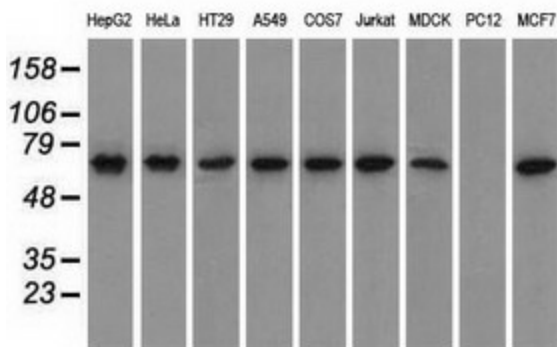
Protein Pathways:

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

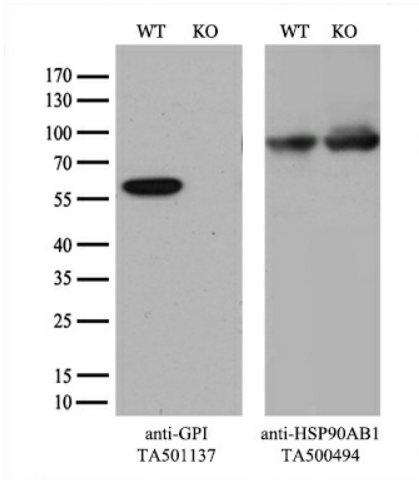
Product images:



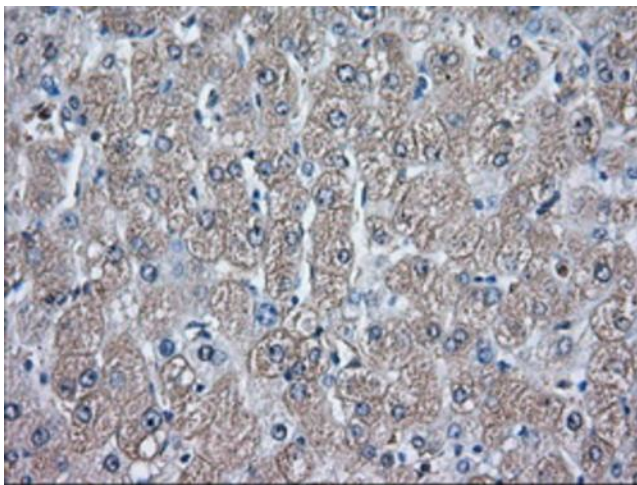
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY GPI ([RC201232], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GPI. Positive lysates [LY400066] (100ug) and [LC400066]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



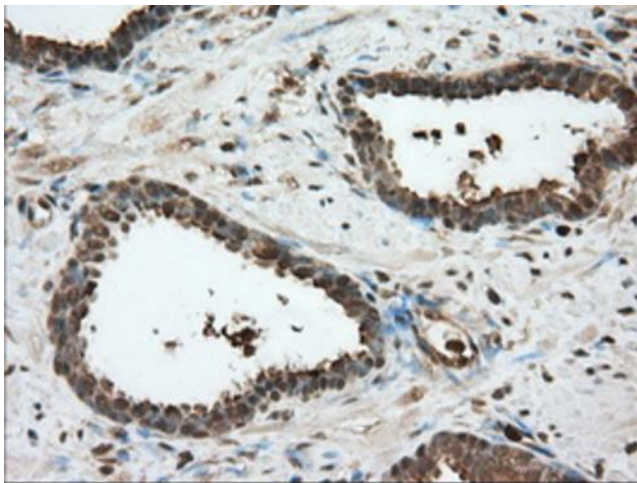
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-GPI monoclonal antibody.



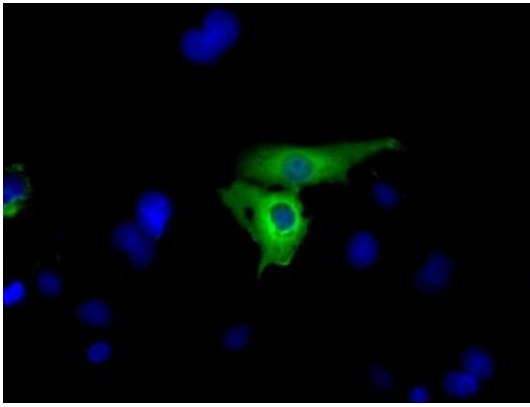
Equivalent amounts of cell lysates (10 ug per lane) of wild-type 293T cells (WT, Cat# LC810293T) and GPI-Knockout 293T cells (KO, Cat# [LC840273]) were separated by SDS-PAGE and immunoblotted with anti-GPI monoclonal antibody [TA501137] (1:500^{*}). Then the blotted membrane was stripped and reprobed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



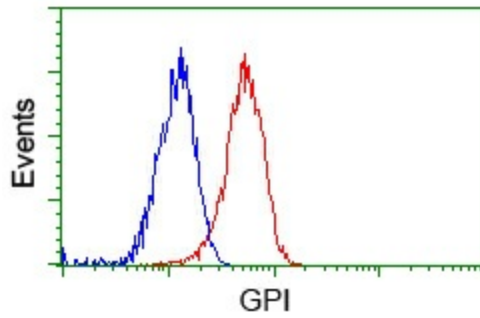
Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-GPI mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Carcinoma of Human prostate tissue using anti-GPI mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



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).