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Product datasheet for TA501128

Glucose 6 phosphate isomerase (GPI) Mouse Monoclonal Antibody [Clone ID: OTI4B11]

Product data:

Product Type: Primary Antibodies

Clone Name: OTI4B11
Applications: IF, IHC, WB

Recommend Dilution: WB 1:2000, IHC 1:50, IF 1:100

Reactivity: Human
Host: Mouse
Isotype: IgG1

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 and 0.02% sodium azide.

Concentration: 0.81 mg/ml

Purification: Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography

(protein A/G)

Predicted Protein Size: 63 kDa

Gene Name: glucose-6-phosphate isomerase

Database Link: NP 000166 Entrez Gene 2821 Human

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

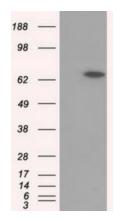




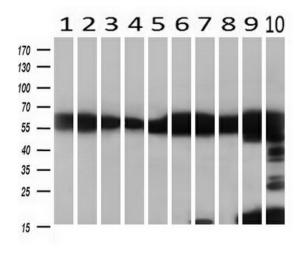
Protein Pathways:

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

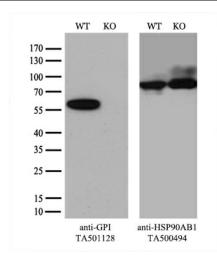
Product images:



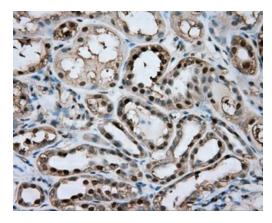
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY GPI ([RC201232], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GPI. Positive lysates [LY400066] (100ug) and [LC400066]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



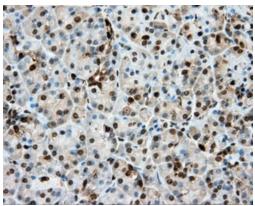
Western blot analysis of extracts (10ug) from 10 Human tissue by using anti-GPI monoclonal antibody at 1:500 (1: Testis; 2: Omentum; 3: Uterus; 4: Breast; 5: Brain; 6: Liver; 7: Ovary; 8: Thyroid gland; 9: colon;10: spleen).



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 TA501128 (1:2000`). Then the blotted membrane was stripped and reprobed with anti-HSP90 antibody as a loading control.

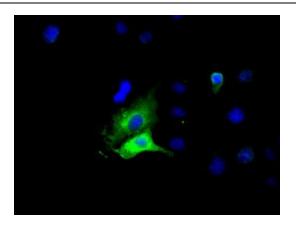


Immunohistochemical staining of paraffinembedded Kidney tissue within the normal limits using anti-GPI mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, TA501128, Dilution 1:50)



Immunohistochemical staining of paraffinembedded pancreas 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, TA501128, Dilution 1:50)





Anti-GPI mouse monoclonal antibody (TA501128) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY GPI ([RC201232]).