[KD Validated] Anti-GPI Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R021145

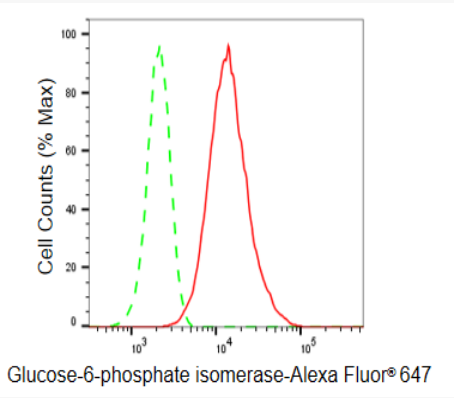
Product Information

Application	WB, FC, IF (Cell)/ICC
Reactivity	Human
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000
Host	Rabbit
Clonality	Monoclonal
Clone No.	53A92F42
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human Glucose 6 phosphate isomerase
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-GPI Rabbit mAb [53A92F42] is for research use only and not for use in diagnostic or therapeutic procedures.

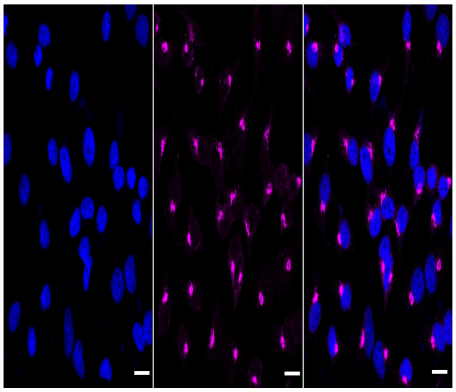
Protein Information

Synonyms	GPI; Glucose-6-Phosphate Isomerase; AMF; NLK; Autocrine Motility Factor; Phosphoglucose Isomerase; Phosphohexose Isomerase; Neuroleukin; EC 5.3.1.9; SA-36; PGI; PHI; Hexose Monophosphate Isomerase; Glucose Phosphate Isomerase; Hexosephosphate Isomerase; Phosphosaccharomutase; Phosphohexomutase; Sperm Antigen-36; Sperm Antigen 36; Oxoisomerase; GNPI; SA36.
Calculated MW	Calculated MW: 63 kDa, Observed MW: 63 kDa
Uniprot ID	P06744
Gene ID	2821
Background	This gene encodes a member of the glucose phosphate isomerase protein family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. In the cytoplasm, the gene product functions as a glycolytic enzyme (glucose-6-phosphate isomerase) that interconverts glucose-6-phosphate and fructose-6-phosphate. Extracellularly, the encoded protein (also referred to as neuroleukin) functions as a neurotrophic factor that promotes survival of skeletal motor neurons and sensory neurons, and as a lymphokine that induces immunoglobulin secretion. The encoded protein is also referred to as autocrine motility factor based on an additional function as a tumor-secreted cytokine and angiogenic factor. 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. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2016].
Cellular Location	Cytoplasm, Secreted.

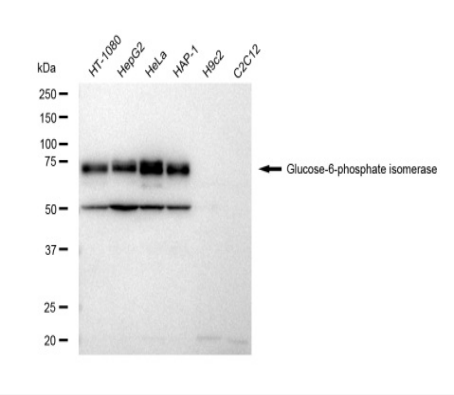
Validation Images



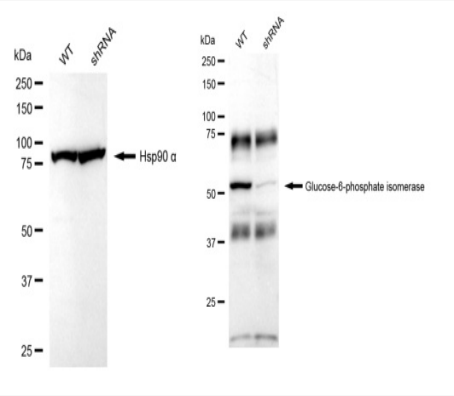
Flow cytometric analysis of Glucose-6-phosphate isomerase expression in HeLa cells using Glucose-6-phosphate isomerase antibody (R021145, 1:2,000). Green, isotype control; red, Glucose-6-phosphate isomerase.



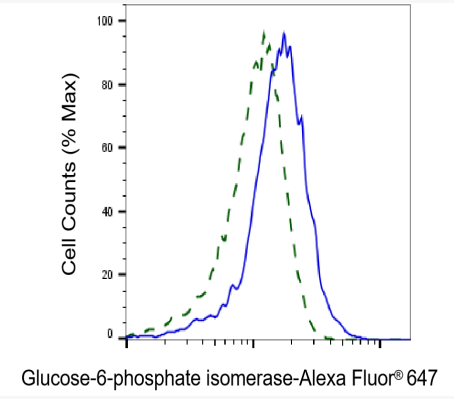
Immunocytochemical staining of Hela cells with Glucose-6-phosphate isomerase antibody (R021145, 1:1,000) . Nuclei were stained blue with DAPI; Glucose-6-phosphate isomerase was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar, 20 µm.



Western blotting analysis using Glucose-6-phosphate isomerase antibody (R021145). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Glucose-6-phosphate isomerase antibody (R021145, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using Glucose 6 phosphate isomerase antibody (R021145). Glucose 6 phosphate isomerase expression in wild type (WT) and Glucose 6 phosphate isomerase shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with Glucose 6 phosphate isomerase antibody (R021145, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Validation of Glucose-6-phosphate isomerase knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Glucose-6-phosphate isomerase antibody (R021145, 1:2,000) and analyzed using BD flow cytometer.