

Product Name: KD-Validated Glucose 6 Phosphate Isomerase Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA01071

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 63.1kDa

Antigen Information

Gene Name	GPI 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
Alternative Names	Monophosphate Isomerase; Glucose Phosphate Isomerase; Hexosephosphate Isomerase; Phosphosaccharomutase; Phosphohexomutase; Sperm Antigen-36; Sperm Antigen 36; Oxoisomerase; GNPI; SA36
Gene ID	2821.0
SwissProt ID	P06744
Immunogen	A synthesized peptide derived from human Glucose 6 phosphate isomerase

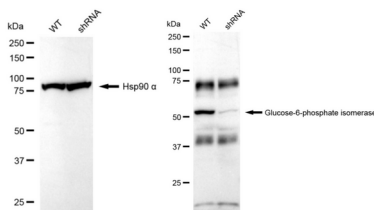
Background

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]

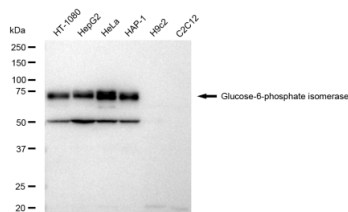
Research Area

Cancer,Neuroscience,Immunology,Signal Transduction,Metabolism

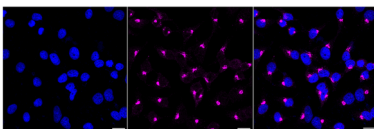
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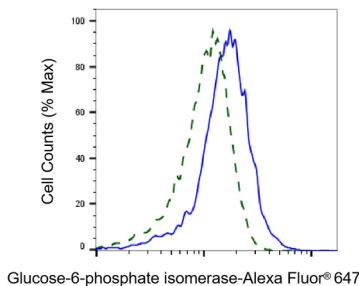
Western blotting analysis using glucose 6 phosphate isomerase antibody (KVA01071). Glucose 6 phosphate isomerase expression in wild type (WT) and glucose 6 phosphate isomerase (GPI) shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with glucose 6 phosphate isomerase antibody (KVA01071, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



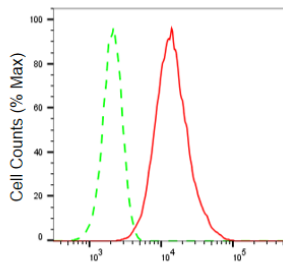
Western blotting analysis using Glucose-6-phosphate isomerase antibody (KVA01071). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Glucose-6-phosphate isomerase antibody (KVA01071, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HeLa cells with glucose-6-phosphate isomerase antibody (KVA01071, 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.



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 (KVA01071, 1:2,000) and analyzed using BD flow cytometer.



Glucose-6-phosphate isomerase-Alexa Fluor® 647

Flow cytometric analysis of Glucose-6-phosphate isomerase expression in HeLa cells using Glucose-6-phosphate isomerase antibody (KVA01071, 1:2,000). Green, isotype control; red, Glucose-6-phosphate isomerase.