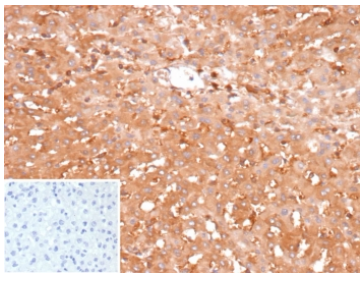
Glucose-6-phosphate isomerase Antibody / GPI [clone GPI/2439] (V5718)

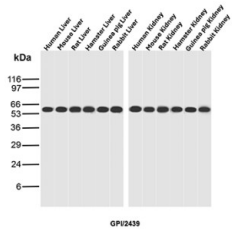
Catalog No.	Formulation	Size
V5718-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5718-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5718SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

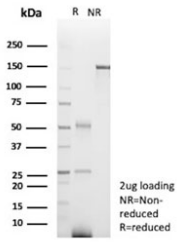
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Hamster, Guinea pig, Rabbit
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	GPI/2439
Purity	Protein G affinity
UniProt	P06744
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml Western Blot : 2-4ug/ml (Human/Mouse/Rat/Hamster Guinea Pig/Rabbit) :
Limitations	This Glucose-6-phosphate isomerase antibody is available for research use only.



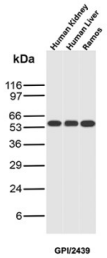
Glucose-6-phosphate Isomerase Antibody Human Hepatocellular Carcinoma IHC. Immunohistochemistry was performed on FFPE human hepatocellular carcinoma tissue using Glucose-6-phosphate Isomerase Antibody (clone GPI/2439). Heat-induced epitope retrieval was carried out in pH 9 Tris-EDTA buffer prior to antibody incubation. Bound antibody was visualized using an HRP-based detection system with DAB chromogen. Strong diffuse cytoplasmic staining is observed throughout the neoplastic hepatocytes, while the PBS negative control inset shows no specific staining, confirming assay specificity. These results demonstrate that this mouse monoclonal clone GPI/2439 is suitable for immunohistochemical detection of Glucose-6-phosphate Isomerase in formalin-fixed, paraffin-embedded human hepatocellular carcinoma tissue.



GPI Antibody Multi-Species Liver and Kidney WB. Western blot analysis of liver and kidney tissue lysates from human, mouse, rat, hamster, guinea pig, and rabbit using Glucose 6-phosphate isomerase Antibody clone GPI/2439. Distinct bands are detected at approximately 55-60 kDa across multiple mammalian liver and kidney samples, consistent with the predicted molecular weight of Glucose-6-phosphate isomerase / GPI, a highly conserved glycolytic enzyme involved in glucose metabolism and energy production. The broad cross-species reactivity pattern is consistent with the ubiquitous metabolic expression of GPI in energetically active tissues.



SDS-PAGE analysis of purified, BSA-free Glucose-6-phosphate isomerase antibody (clone GPI/2439) as confirmation of integrity and purity.



GPI Antibody Multi-Sample WB. Western blot analysis of human kidney, human liver, and Ramos lysates using Glucose 6-phosphate isomerase mouse monoclonal Antibody clone GPI/2439. Distinct bands are detected at approximately 55-60 kDa across kidney, liver, and Ramos samples, consistent with the predicted molecular weight of Glucose-6-phosphate isomerase / GPI, a glycolytic enzyme involved in glucose metabolism and cellular energy production. The observed expression pattern is consistent with the widespread metabolic role of GPI in both tissue-derived and hematopoietic cell populations.

Description

Glucose-6-phosphate Isomerase Antibody recognizes glucose-6-phosphate isomerase (GPI), a highly conserved cytosolic enzyme that catalyzes the reversible interconversion of glucose 6-phosphate and fructose 6-phosphate during glycolysis and gluconeogenesis. This reaction is essential for efficient carbohydrate metabolism and energy production in virtually all cell types. Beyond its classical metabolic role, GPI also functions extracellularly as autocrine motility factor (AMF) and neuroleukin, demonstrating diverse biological activities that extend well beyond glucose metabolism. NSJ Bioreagents supplies Glucose-6-phosphate Isomerase Antibody, clone GPI/2439, a mouse monoclonal antibody developed for dependable detection of this multifunctional protein in research applications.

Intracellularly, GPI supports ATP generation by maintaining glycolytic flux and coordinating intermediary metabolism. Following secretion, however, the same protein acts as a cytokine-like signaling molecule capable of stimulating cell migration, proliferation, survival, and tissue remodeling. As neuroleukin, GPI additionally promotes neuronal maintenance and axonal growth, illustrating how one protein can perform distinct intracellular and extracellular functions. Because of these diverse activities, Glucose-6-phosphate Isomerase Antibody is widely used to investigate metabolism, cancer biology, neuronal signaling, and protein secretion.

Altered GPI expression has been associated with numerous human diseases, including breast, colorectal, gastric, pancreatic, and lung cancers, where increased autocrine motility factor activity contributes to invasion, metastasis, and angiogenesis. GPI is also implicated in autoimmune arthritis, inherited GPI deficiency causing chronic nonspherocytic hemolytic anemia, and neurological disorders involving impaired neuronal survival. These broad biological roles continue to make GPI an important biomarker and therapeutic target across multiple research disciplines, particularly those focused on cellular metabolism and disease progression.

A Glucose-6-phosphate Isomerase Antibody is a valuable reagent for investigating glycolytic metabolism, extracellular signaling, tumor biology, and neuronal function. By enabling reliable detection of GPI, a Glucose-6-phosphate Isomerase

Antibody supports research into energy metabolism, cancer progression, neurobiology, and the molecular mechanisms linking metabolism with cell signaling.

For a broader overview of this multifunctional metabolic enzyme and additional validated reagents, visit our GPI Antibody / Glucose 6-Phosphate Isomerase Antibody page.

Application Notes

Optimal dilution of the Glucose-6-phosphate isomerase antibody should be determined by the researcher.

Immunogen

A recombinant human full-length GPI protein was used as the immunogen for the Glucose-6-phosphate isomerase antibody.

Storage

Aliquot the Glucose-6-phosphate isomerase antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

GPI antibody, Phosphoglucose Isomerase antibody, Autocrine Motility Factor antibody, Neuroleukin antibody, Phosphohexose Isomerase antibody, AMF antibody

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